

## CONTENTS

About this guide	01	Running your strategy	05
Creating your strategy	02	Managing your strategy	06
Testing your strategy	04		

## ABOUT THIS GUIDE

This quick guide provides a brief overview of ProOrder and shows you how to create an automated trading strategy. We strongly recommend that you also read the ProOrder programming guide (provided by IT Finance) before activating any automated strategies on your account.

### WHAT IS PROORDER?

ProOrder is an automated trading solution and a feature of the ProRealTime charting package.

With ProOrder you can:

- Create, test and modify your own trading strategies
- Activate those strategies to place real trades on your account
- Import and export strategies created by you and other users

Your strategies can include instructions to take positions based on specific technical indicators, programmed logic, risk management triggers and/or your latest orders and open positions.

### WHAT ARE THE BENEFITS?

- Build strategies with ease using the assisted creation tool, or program them from scratch
- Thoroughly test and review your strategies before implementing them
- Your strategies will continue to execute trades even when your computer is turned off

### HOW DO I GET IT?

ProOrder is a feature of ProRealTime, so you must first activate ProRealTime on your account:

1. Log in to your IG account
2. Go to **My Account > Settings > Preferences**
3. Scroll down and activate ProRealTime
4. Once ProRealTime is enabled, you can activate ProOrder from the same section
5. Close My Account, then click on the Tools tab
6. Select ProRealTime to launch the application

### HOW MUCH DOES IT COST?

ProOrder is free as part of ProRealTime.

We charge £30 per calendar month for using ProRealTime, but we will rebate this in full if you make four or more transactions with us during that month.

# CREATING YOUR STRATEGY

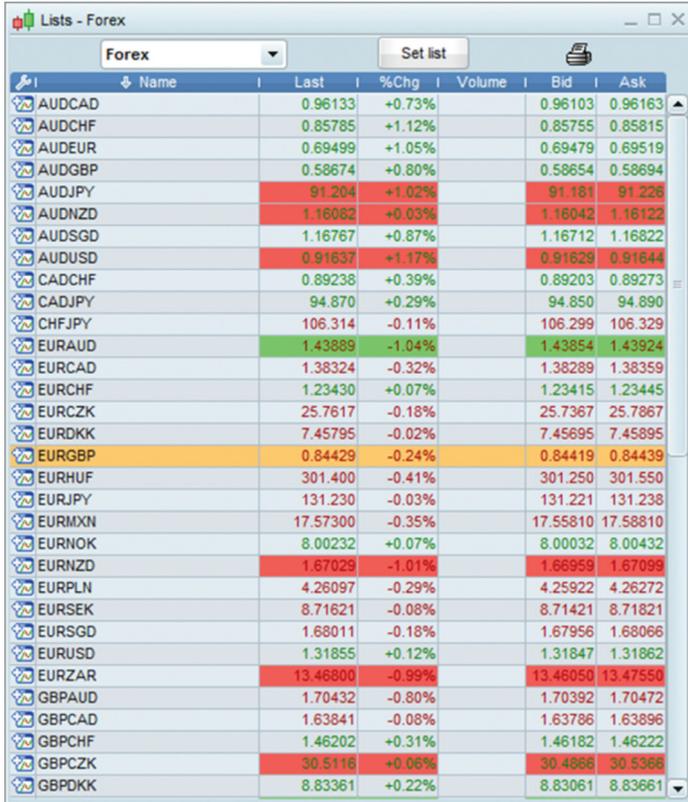
There are two ways to build an automated trading strategy with ProOrder:

- Using the assisted creation tool
- Coding your strategy from scratch

This guide will focus on the assisted creation tool which generates code automatically based on parameters you define. For information on coding your strategy from scratch, please refer to the ProOrder programming guide (provided by IT Finance).

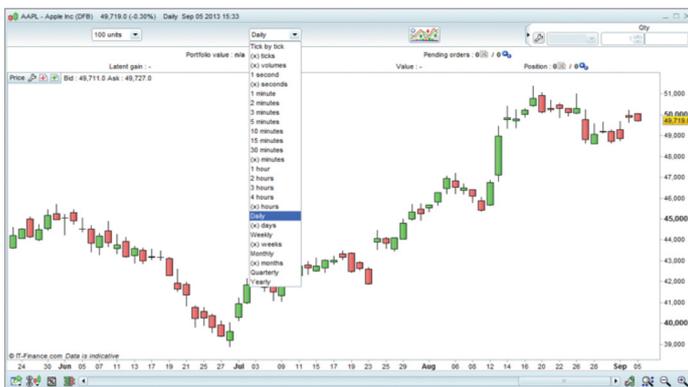
## HOW TO USE THE ASSISTED CREATION TOOL

1. In the ProRealTime platform, select your chosen market from the Lists window. Then click  to open a chart.

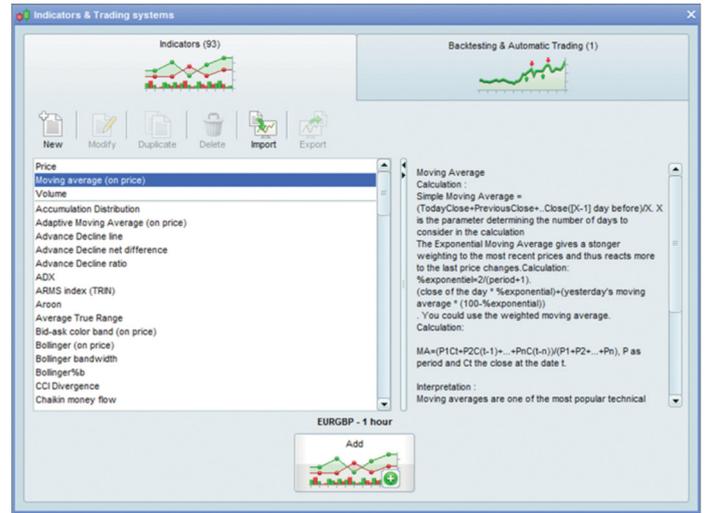


Name	Last	%Chg	Volume	Bid	Ask
AUDCAD	0.96133	+0.73%		0.96103	0.96163
AUDCHF	0.85785	+1.12%		0.85755	0.85815
AUDEUR	0.69499	+1.05%		0.69479	0.69519
AUDGBP	0.58674	+0.80%		0.58654	0.58694
AUDJPY	91.204	+1.02%		91.181	91.226
AUDNZD	1.16082	+0.03%		1.16042	1.16122
AUDSGD	1.16767	+0.87%		1.16712	1.16822
AUDUSD	0.91637	+1.17%		0.91629	0.91644
CADCHF	0.89238	+0.39%		0.89203	0.89273
CADJPY	94.870	+0.29%		94.850	94.890
CHFJPY	106.314	-0.11%		106.299	106.329
EURAUD	1.43889	-1.04%		1.43854	1.43924
EURCAD	1.38324	-0.32%		1.38289	1.38359
EURCHF	1.23430	+0.07%		1.23415	1.23445
EURCZK	25.7617	-0.18%		25.7367	25.7867
EURDKK	7.45795	-0.02%		7.45695	7.45895
EURGBP	0.84429	-0.24%		0.84419	0.84439
EURHUF	301.400	-0.41%		301.250	301.550
EURJPY	131.230	-0.03%		131.221	131.238
EURMXN	17.57300	-0.35%		17.55810	17.58810
EURNOK	8.00232	+0.07%		8.00032	8.00432
EURNZD	1.67029	-1.01%		1.66959	1.67099
EURPLN	4.26097	-0.29%		4.25922	4.26272
EURSEK	8.71621	-0.08%		8.71421	8.71821
EURSGD	1.68011	-0.18%		1.67956	1.68066
EURUSD	1.31855	+0.12%		1.31847	1.31862
EURZAR	13.46800	-0.99%		13.46050	13.47550
GBPAUD	1.70432	-0.80%		1.70392	1.70472
GBPCAD	1.63841	-0.08%		1.63786	1.63896
GBPCHF	1.46202	+0.31%		1.46182	1.46222
GBPCZK	30.5116	+0.06%		30.4886	30.5366
GBPDKK	8.83361	+0.22%		8.83061	8.83661

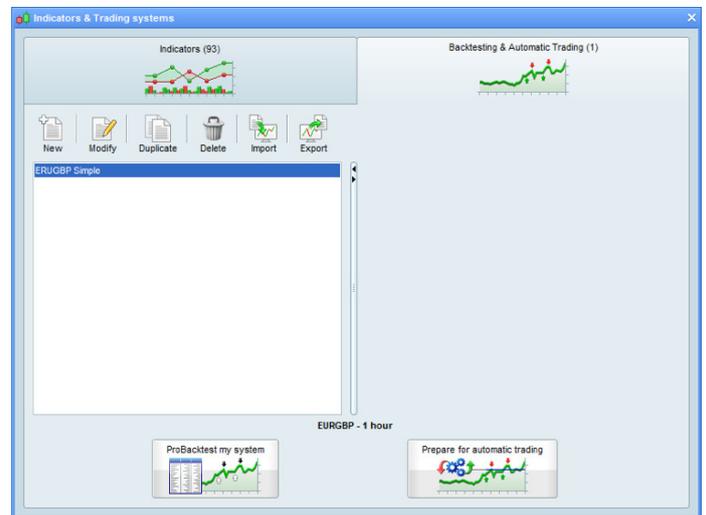
2. Choose the timeframe you want to work to:



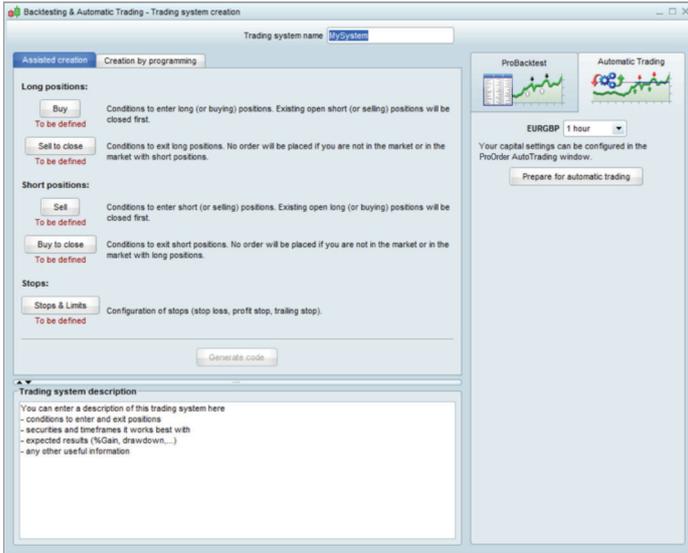
3. To add technical indicators to support your strategy, click the  button in the chart window and select your chosen indicator from the **Indicators** tab. You can edit specific variables for each indicator from the **Settings** window.



4. Once you've set up your chart, click the  button again. Then select the **Backtesting & Automated Trading** tab.



- To create a new strategy, select **New**. The Trading System Creation box will then open:



- Give your strategy a name, and ensure the Assisted Creation tab is selected.
- Under the Assisted Creation tab you can specify the parameters of your strategy, based on triggers for the following strategy 'legs':

**Long positions:**

- Buy
- Sell to close

**Short positions:**

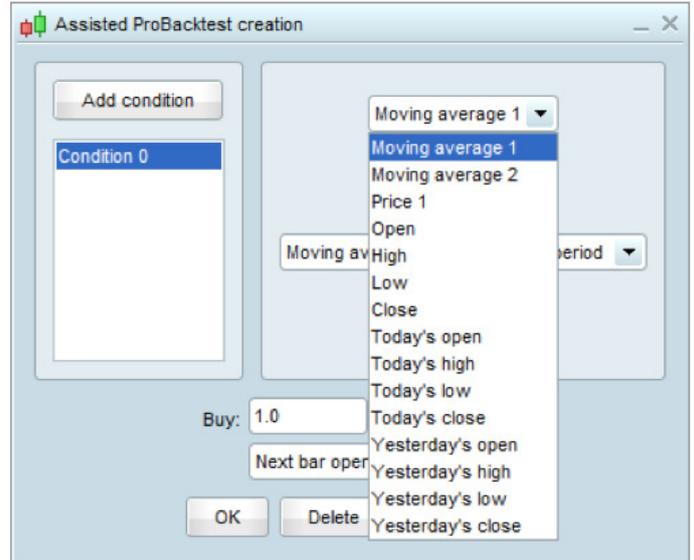
- Short
- Buy to close

**Stops & Limits**

- Choose which leg you want to create a trigger for, then click the relevant button. The Assisted ProBacktest Creation window will appear:

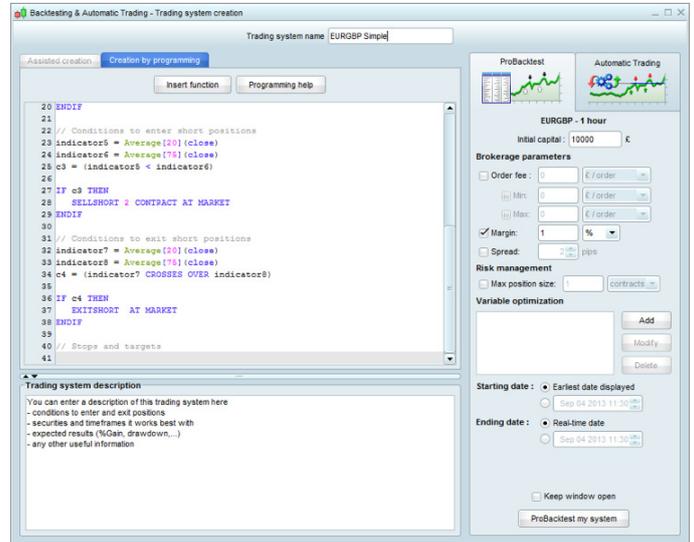


- Choose **Add Condition** in the Assisted ProBacktest Creation window. Then click the relevant indicator on your chart.
- Using the drop down menus on the Assisted ProBacktest Creation window, specify the trigger conditions for the selected leg. You can add multiple conditions for each leg.



You can also add more technical indicators at any point, by clicking the  button in the chart window.

- Once you have finished creating conditions for all relevant strategy legs, select Generate Code from the Trading System Creation window. You will then be able to view the code for your strategy.



After you've generated the code for your strategy, you can test it against historical data and theoretical values via the ProBacktest tab in the Trading System Creation window.

## YOU CAN DEFINE:

- The initial capital you wish to invest
- The spread or commission charged
- The margin rate
- Any risk management details (eg maximum position or transaction size)
- The start and end date for the test (this will be affected by the chart timeframe, eg tick charts will not extend as far back in time as one-hour charts)

There is also a Variable Optimization function, which enables the system to repeatedly run a backtest with a range of different settings on a particular indicator. You can then establish which settings perform best.

Once you've defined the test parameters, click **ProBacktest my system** to produce a detailed report on how the strategy performed over the specified time, complete with an Equity Curve, Orders List and Positions Histogram.

	All positions	Long positions	Short positions
Gain:	0 GBP	-0 GBP	0 GBP
% Gain:	0%	-0%	0%
Gross profit:	0.01	0.01	0
Gross loss:	-0.01	-0.01	-0
Profit/Loss ratio:	1.05	0.83	1.72
Nbr positions:	4	2	2
% of winning positions:	50%	50%	50%
Winning / Even / Losing:	2 / 0 / 2	1 / 0 / 1	0 / 0 / 1
Avg gain:	0	-0	0
Avg gain of winning positions:	0	0.01	0
Avg loss of losing positions:	-0	-0.01	-0
Profit best position:	0.01	0.01	0
Loss worst position:	-0.01	-0.01	-0
Standard deviation on P&L:	0	0.01	0
Max Drawdown:	0.02	0.01	0.02
% Max Drawdown:	0%	0%	0%
Max consecutive losses:	1	1	1
Max Runup:	0.04	0.02	0.03
% Max Runup:	0%	0%	0%
Max consecutive wins:	1	1	1
Avg orders exec/day:	0.44	0.44	0.44
Avg orders exec/month:	n/a	n/a	n/a
% Max risk exposure:	0.02%	0.02%	0.02%
% Avg risk exposure:	0.02%	0.02%	0.02%
Brokerage fees:	0	0	0
% of time in the market:	75.06%	34.44%	48.62%
Avg time in the market:	79 bars	72.5 bars	85.5 bars
Avg time between positions:	21 bars	32 bars	83.33 bars
Avg time in winning positions:	134.5 bars	111 bars	158 bars
Avg time in losing positions:	23.5 bars	34 bars	13 bars
Avg time on even trades:	n/a	n/a	n/a



If you want to modify your strategy, select the **Spanner** icon . This will take you back to the set-up screen.

Before you can run your strategy, you first need to prepare it for automated trading:

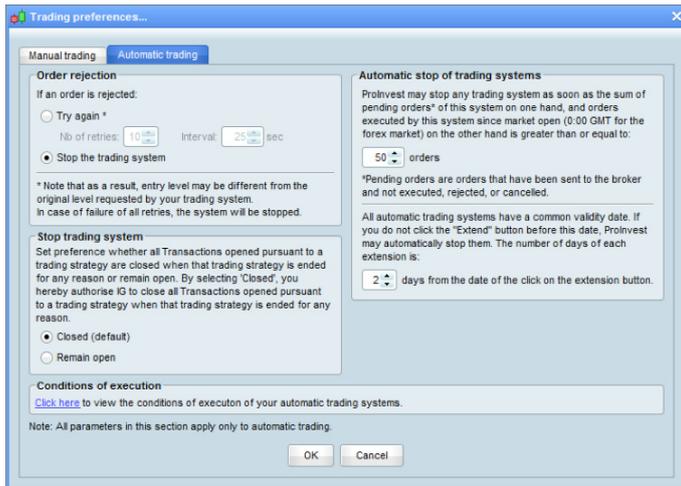
1. Click the  button on the chart of your choice and select the **Backtesting & Automatic Trading** tab.
2. Choose your strategy, then click the **Prepare for Automatic Trading** button to launch the ProOrder Autotrading window:



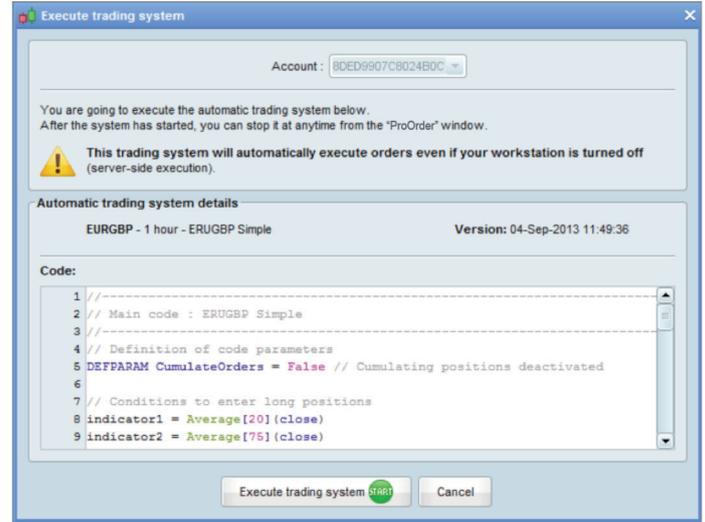
Here you can see a summary of all of the different strategies you have prepared for trading, including which ones are currently running and which are not.

3. Click the Spanner icon  to open the Trading Preferences window, where you can:

- Set the maximum number of trades that can be triggered in a 24 hour period
- Place a time limit (in days) for the strategy duration
- Determine the number of retries to perform if an order is rejected
- Choose to keep positions open or close them automatically once a strategy ends

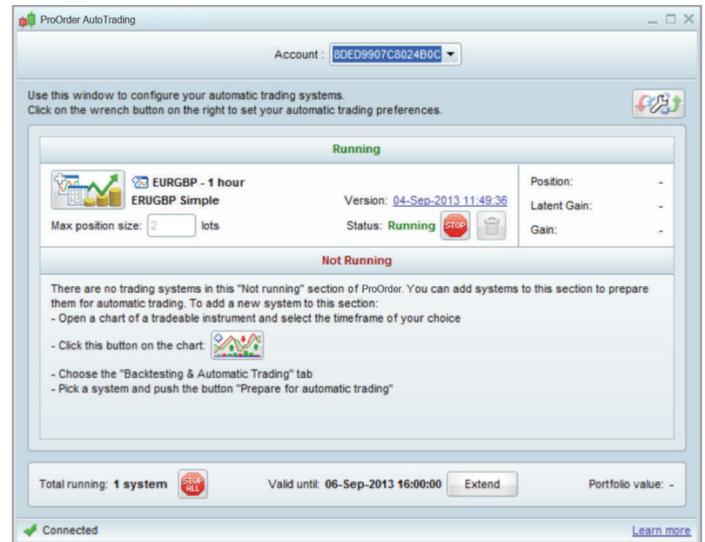


4. Find the version of the strategy you want to activate, and when you're ready, select **Run**. A confirmation window will appear where you can check your strategy's code one last time and review the risk warning.



5. If you're happy, click the **Execute trading system** button to run your strategy.

Please note that all running trading systems have a validity date. If you do not click **Extend** before this date, ProOrder will automatically stop the strategy.



## MANAGING YOUR STRATEGIES

To manage all the strategies you have prepared for trading, open the ProOrder AutoTrading window by going to **Trading > ProOrder AutoTrading** from the top menu bar.

Here you can:

- Stop individual strategies by using the relevant **Stop** button
- Stop all strategies with the **Stop All** button
- Activate a strategy by selecting the relevant **Start** button
- Check the code of a strategy by clicking the **Version** date

You can also click the  button next to an individual strategy to show its:

- Statistical history
- Orders list
- Closed positions list
- Positions histogram
- Equity curve

## WAYS YOUR STRATEGY CAN STOP

Stopping a strategy manually from the ProOrder AutoTrading screen isn't the only way it can stop. Your strategy can also be stopped automatically in certain circumstances:

- If you have a strategy running, and you close one of the positions opened by that strategy
- If we close out one of your strategy positions because of insufficient funds on your account to cover margin for existing positions

- If your strategy attempts to place a trade, but the trade is rejected due to insufficient funds for that trade
- If your strategy attempts to place a trade, and that trade is repeatedly rejected more than the number of times specified in the **Trading Preferences** window

When a strategy is stopped automatically, any positions that have been placed by that strategy will either stay open or be closed depending on the settings you've chosen in the **Trading Preferences** window. Once a strategy is stopped, it will no longer place any new trades.

## AUTOMATED TRADING CONSIDERATIONS

You should consider the following before running automated trading strategies on your account.

### CODE QUALITY

The time required to calculate trading indicators and execute orders depends on the complexity of the indicators used and the way they are called by the program. Excessive use of programming loops can severely decrease performance.

### MONEY MANAGEMENT

Backtest results will be heavily influenced by different money management strategies, particularly as calculation of profit/loss is based on the transaction costs involved in trading.

### COMBINING MANUAL AND AUTOMATED TRADING

You can place manual trades on markets where you have an automatic strategy running and vice versa. Manual trades made on the same market via IG's other platforms may inadvertently close positions or force open new positions.

### MULTIPLE TRADING SYSTEMS ON ONE MARKET

Multiple trading systems running on the same market may result in the creation of new force open positions.

For more information on the factors that can affect automated trading, please consult the ProOrder programming guide (provided by IT Finance).

**None of the ideas or examples expressed in this guide should be construed as investment advice. We have provided it solely to help you program automated trading systems and test your own ideas. IG provides an execution-only service and does not provide investment advice of any kind.**