

## MetaTrader 4 User Guide

### Overview



# MetaTrader 4



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## Introduction

**MetaTrader 4, or MT4**, is a software program or electronic trading platform widely used by online Forex, CFD and futures speculative traders. Its developer MetaQuotes Software had previously released Meta Trader 3 (now not used) and a significantly re-coded MetaTrader 5 which is currently in public beta testing and is only available as a demo.

MetaTrader 5 is designed as a platform for equity markets as well as Forex, CFD and Futures trading unlike MT4 which is used mainly for Forex and CFD.

The client terminal includes a built-in editor & compiler with access to a user contributed free library of software, articles and help (the internet is the main source for free software for MT4).

The software utilizes a proprietary scripting language (MQL4) which enables traders to develop **Expert Advisors**, custom indicators and scripts. MetaTrader's popularity largely stems from its support of algorithmic trading (automated trading).

Meta Trader 4 provides trading, charts and technical analysis in real time. The internal C-like programming language allows users to program trading strategies, indicators and signals. 50 basic indicators are included, each of which can be further customized. MT4 runs on Windows 7/Vista/XP/2000/98. Macintosh is unfortunately not supported.

The platform is focused on margin trading. Some brokerages use the platform to trade CFD but it is not designed for full-time work in the stock market or for conducting non margined trading. Both MetaTrader 4 and 5 can use custom indicators and trading programs (called Expert Advisors) for trading automation.

### **Key features of Meta Trader 4**

- Online trading on Forex and CFDs
- Instant execution technologies
- A complete technical analysis package: wide range of inbuilt indicators and charting tools, the ability to create various custom indicators, different time periods (from minutes to months)
- Inbuilt program language MetaQuotes Language 4 to write custom trading strategies (Expert Advisors) and the possibility to test them on historical data.
- Multilingual platform interface with over 30 languages (English, German, French, Russian, Arabic, Spanish, Farsi, Japanese, Chinese Simplified, Polish, Turkish, Korean, Indonesian, Bulgarian, etc.)
- Real time data export to Metastock and Omega Prosuite 2000
- Internal mail
- History database management and import/export facility
- MetaTrader 4 Mobile Application
- Inbuilt help guides for Meta Trader 4 and MetaQuotes Language 4
- MetaTrader 4 can be downloaded free of charge.

#### **Note:**

- MetaTrader 4 requires Windows operation system.
- MetaTrader 4 does not operate on Windows 95 and its minimum required screen resolution is 1024x768.
- MetaTrader 4 may experience compatibility issues with Windows Vista.

### **Expert Advisors in MetaTrader 4 (Automated Trading Robots)**

The Expert Advisors (EA) technology is a new method of trading which frees traders from daily manual routines. Expert Advisors written in MetaQuotes Language 4 (MQL 4) automatically analyze current market situations, open/close positions and place/modify/delete orders.

With the help of Expert Advisors traders can:

- Avoid everyday manual routines by automating the process of trading and monitoring orders;
- Have a more scientific and rational decision making process;
- Keep track of current market situations.
- Implement a trading strategy in an Expert Advisor by using MetaQuotes Language 4 and MetaTrader 4 will manage the trading account without the need for the trader to be present 24 hours a day, 5 days a week.

### **MetaQuotes Language 4 (is used to write)**

- Expert Advisors – mechanical trading systems which can be used either for trading alerts or for trading and monitoring orders (automatically without your presence);
- Custom Indicators – indicators created by the trader or other users of MetaTrader 4 client terminal in addition to the in-built technical indicators, integrated into MetaTrader 4
- Scripts – modules which execute repeated actions;
- Libraries - frequently used user's programs.

MetaQuotes Language 4 allows traders to call functions from the external dll-libraries and get access to the computer file system. This makes it possible to implement trading strategies of ANY complexity.

The new Expert Advisors testing technology uses historic data. Using this data you can test the effectiveness of your trading strategies, usually within a few minutes. (Backtesting)

MetaQuotes Language 4 is very easy to learn and understand even for those who have limited or no experience as computer programmers.


**Note:** EAs and Custom Indicators must be externally sourced. At BROKERYARD, we allow their use on our MT4 platform.



## The Interface

- Main menu (access to the program menu and settings);
- Toolbars (quick access to the program features and settings);
- "Market Watch" window (real-time quotes for the specified instruments);
- "Navigator" window (quick access to all your accounts, indicators, expert advisors);
- "Chart" window;
- "Terminal" window (quick access to the trading and account history, list of open positions and placed orders, client terminal log-file and internal mailbox)

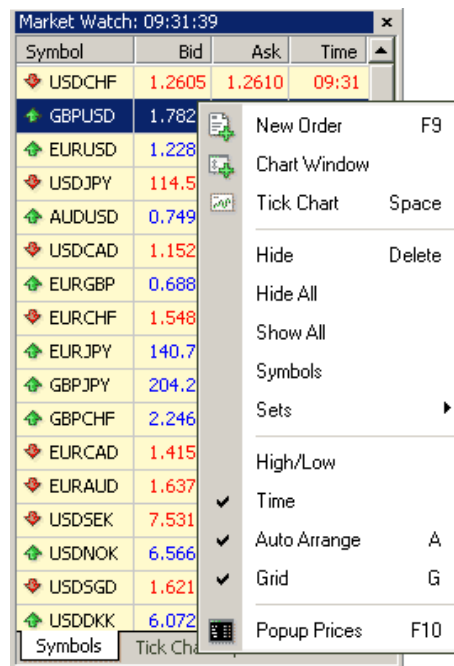
## "Market Watch" Window

The "Market Watch" window can be activated by pressing the Ctrl+M key combination, or by using the View -> Market Watch menu sequence, or by clicking the  button from the "Standard" toolbar:



Standard toolbar

Right click the mouse button on the "Market Watch" window to produce the context menu:



Market Watch window

- **New Order** – enables the window to open/close a position or to place a new pending order;
- **Chart Window** – enables the chart of a currency pair or CFD;
- **Tick Chart** – shows the tick chart for the selected instrument;
- **Hide** – deletes the specified symbol from the list in the "Market Watch" window;
- **Hide All** – deletes all symbols from the list in the "Market Watch" window which are not used (if you have open positions or charts, its symbols will not be deleted);
- **Show All** – displays all available symbols in the "Market Watch" window;

- **Symbols** – enables the window where you can hide/show the selected instruments;
- **Sets** – saves/adjusts/deletes the custom settings for the "Market Watch" window;
- **High/Low** – shows/hides columns with the highest and lowest prices for each instrument;
- **Time** – displays a column with the arrival time of the latest quote for each instrument;
- **Grid** - hides/un-hides gridlines in the "Market Watch" window;
- **Popup Prices** – opens the popup window which contains real time quotes for your selected instruments.

## Charts

In MetaTrader 4 you can see as many real time charts as you wish, all on one screen, for any currency pair, CFD, and for any time period. The following types of charts are available in MetaTrader 4:


### Line Chart

Chart x-axis is for the different time periods (minutes, hours, days, months etc.), and y-axis is for the price. The point on the chart shows the close price for the period, i.e. the bid of the last quote for this period. All the sequential points are joined by lines:



*Line chart in MetaTrader 4*



It is recommended that this chart type is used only for the short time periods (up to 5 minutes). In order to change the chart to a line chart, press the  button on the Charts toolbar:



*Charts toolbar*

Or press the Alt+3 key combination or use the Charts -> Line Chart menu sequence.

## Bar Chart


The chart is created with the use of bars. Each bar has a high (top), a low (bottom), an opening price (left horizontal little line) and a closing price (right horizontal little line) for the specified period of time (for example, an hour):



*Bar chart in MetaTrader 4*

HIGH RISK WARNING: Trading Foreign Exchange (Forex) and Contracts For Differences (CFD's) is highly speculative, carries a high level of risk and may not be suitable for all investors. You may sustain a loss of some or all of your invested capital, therefore, you should not speculate with capital that you cannot afford to lose. You should be aware of all the risks associated with trading on margin.

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It is recommended that you use this chart type for periods of 5 minutes or more. In order to change the chart to a bar chart press the  button on the "Charts" toolbar



*Charts toolbar*

Or press the Alt+1 key combination, or use the Charts -> Bar Chart menu sequence.

## Candlesticks


These charts are created in the same way as bar charts:



*Candlesticks chart in MetaTrader 4*

Candlesticks charts were very popular in the 80-90s because of their clear graphics. Candlesticks were originally created only for day charts which are why these days they are mostly used for a daily period. This method of technical analysis is based on the correlation between both closing and opening prices within the same trading day, and the closing price of the previous session and the opening price of the next session.

Candlesticks have different configurations compared to bar charts. The rectangular part of the candlestick line is called the real body. The thin vertical lines above and below the body are called shadows. They show lows and highs within a specified period of time. Depending on the closing and opening prices the real body can be white (empty) or black. When the body is white, the closing price is higher than the opening level. When the body is black, the closing price is lower than the opening level.

In order to change the chart to a bar chart press the  button on the "Charts" toolbar

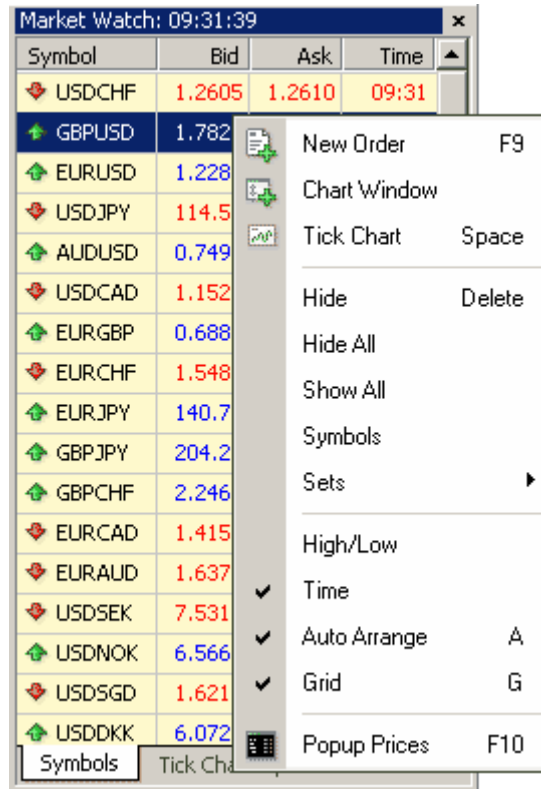


*Charts toolbar*

Or press the Alt+2 key combination, or use the Charts -> Candlesticks menu sequence.

In MetaTrader 4 both the bar and candle high is the highest **Bid price** for the defined period, the low is the lowest **Bid price**, the closing price is the last quoted Bid, the opening price is the first quoted Bid.

In order to create a new chart for any instrument right click on the "Market Watch" window, then select the Chart window item from the context menu:



*Market Watch context menu*

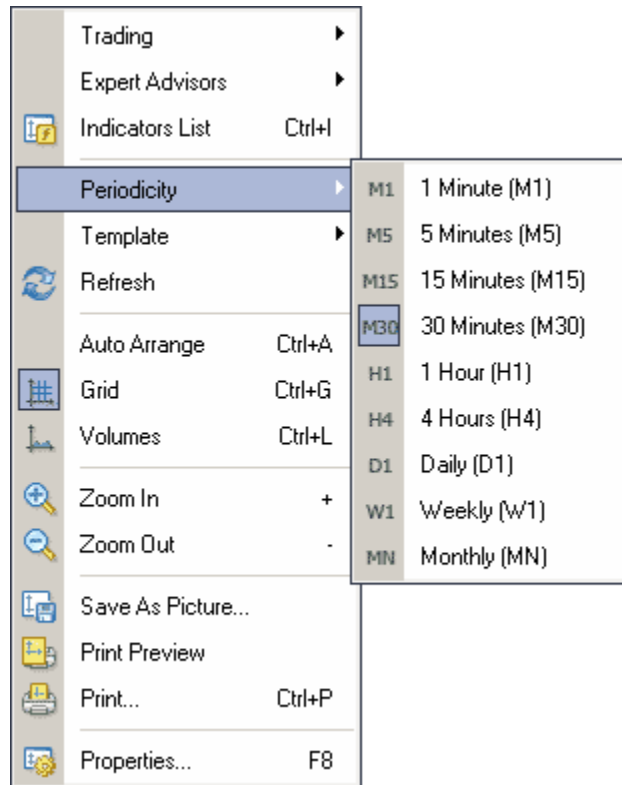
By left clicking the mouse you can drag and drop any selected currency pair or CFD into any open chart window.

**Chart period** – the period displayed in one bar or candle. For example, if you create a 15 minute bar chart, then each bar will have the price data for the relevant 15 minutes. In MetaTrader 4 the following time periods can be used: 1, 5, 15, 30 minutes (M1, M5, M15, M30 respectively), 1 hour (H1), 4 hours (H4), 1 day (D1), 1 week (W1) and 1 month (MN). In order to change a time period, use the "Periodicity" toolbar:



*"Periodicity" toolbar*

Right click anywhere on the chart to produce the context menu to get access to the chart settings:





*Chart window context menu*

Choose **Periodicity** and select a time period from the drop down menu or press the button on the "Charts" toolbar;

Select **Refresh** item if an error occurs or if there are so called "gaps" on the chart. All missing data will be uploaded from the server and will appear on the chart;

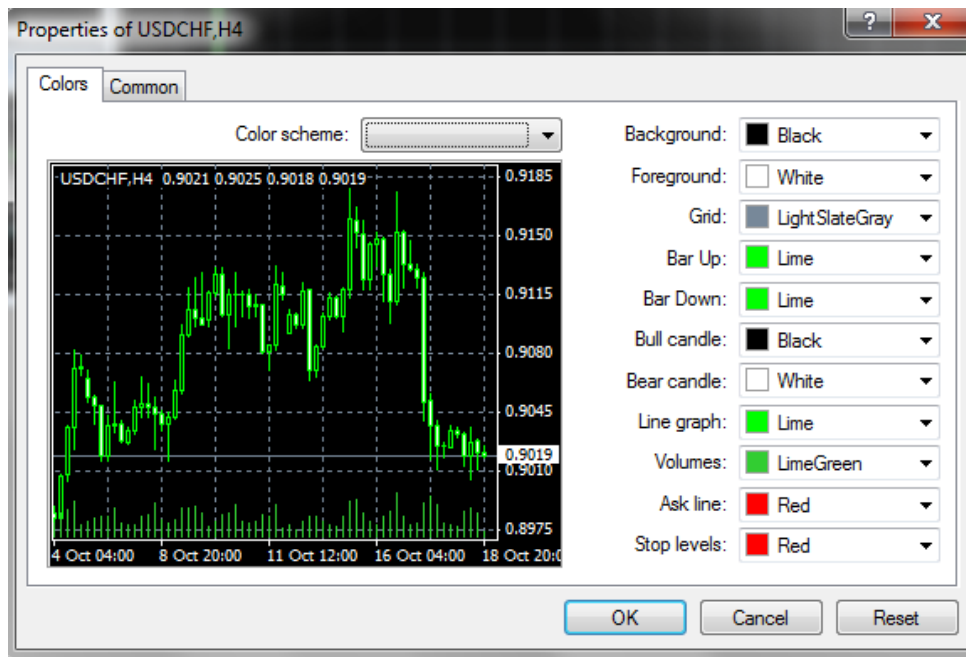
Select **Grid** if you wish to hide/unhide gridlines on the chart;

Select **Volumes** in order to show/hide tick volume (the number of quotes of any period time);

**Zoom in / Zoom out** will help you to modify chart measures. You can also use the   buttons on the "Charts" toolbar or press the "+" and "-" buttons;

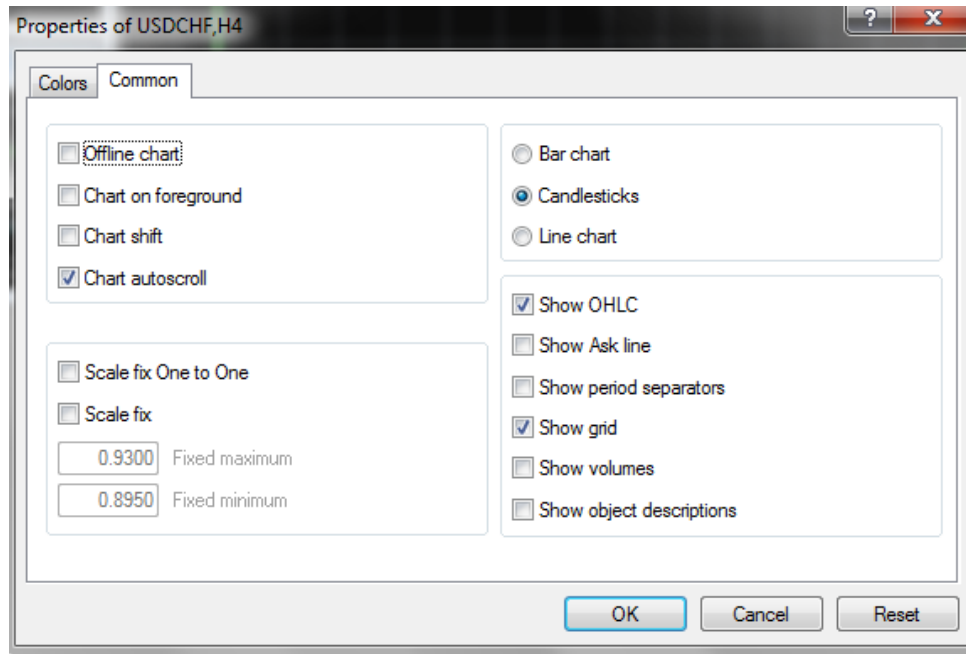
**Save as picture...** will save the chart as the \*.gif, or \*.bmp. file;

**Properties...** (or the F8 button) enables the window where you can change chart settings, by selecting the "Color" tab you can change the color of any element on the chart:



*Color tab of Chart Properties window*


Other settings can be changed in the Common tab:




*Common tab of Chart Properties window*

Please note the following options:

**Offline chart** - the chart is not being updated by new quotes. Once you open the chart offline (File -> Open offline) this option becomes automatic;

**Chart shift** - allows to shift the chart from the right edge of the window. You can also press the  button on the "Charts" toolbar;

**Chart autoscroll** - disables/enables chart autoscroll to the left once a new quote is received. You can also press the  button on the "Charts" toolbar;

### Opening/ Closing a Position

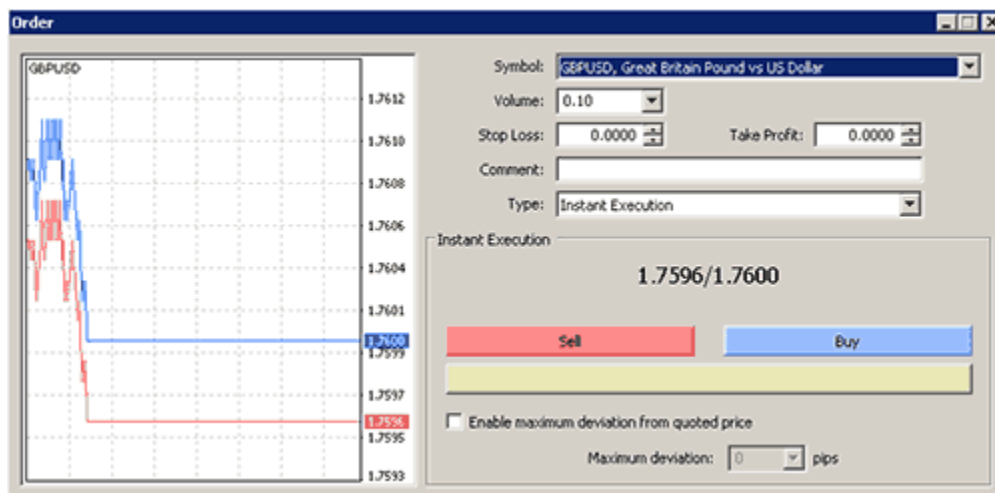
In order to enable the 'Order' window:

Trading Foreign Exchange (Forex) and Contracts For Differences (CFD's) is highly speculative, carries a high level of risk and may not be suitable for all investors. You may sustain a loss of some or all of your invested capital, therefore, you should not speculate with capital that you cannot afford to lose. You should be aware of all the risks associated with trading on margin.

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1. Right-click on the **'Market Watch'** window or on the 'Trade' tab of the 'Terminal' window and select New order from the context menu; or
2. Press the **F9** button; or
3. Use the **Tools -> New Order** menu sequence; or
4. Right click on the chart window and select **Trading -> New Order** from the context menu; or
5. Double click on the currency pair in the 'Market Watch' window.

The 'Order' window:



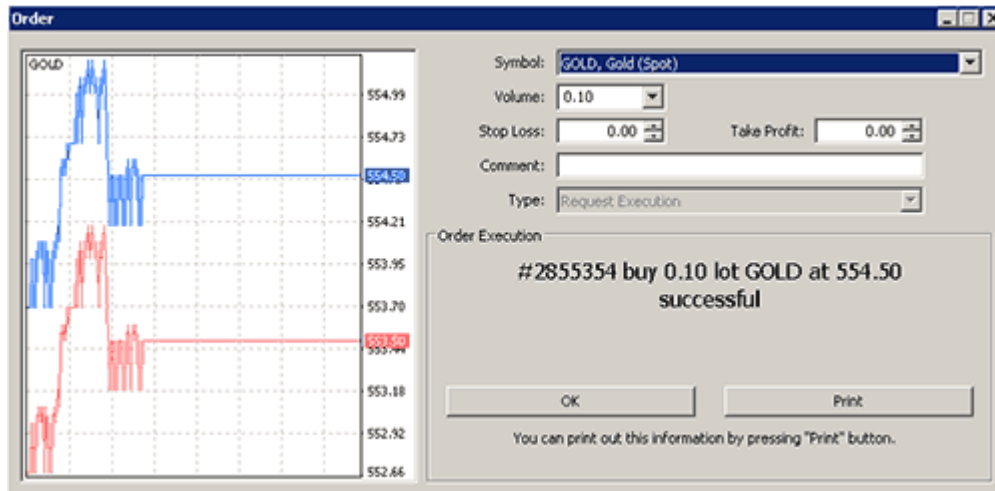
Order window (Instant Execution)

In BROKERYARD MetaTrader 4 there are two ways of making deals: 'Instant Execution' & 'Pending Order'

**Instant Execution means** that you do not have to request quotes, as you see real-time dealable prices in the 'Order' window and in the 'Market Watch' window. Once you have decided to buy or sell at the current price press the **"Buy"** or **"Sell"** buttons to open a long or short position. For the instruments which are traded in the 'Instant Execution' mode all quotes which are in the "Market Watch" window are executable, not indicative.

When you click the buy or sell button, your order will be executed at the best available price at the time. If the order is only partially executed at the first price, the next best price will be used, and so on until the whole order has been filled. Therefore, you will not know the final price when you place the order.





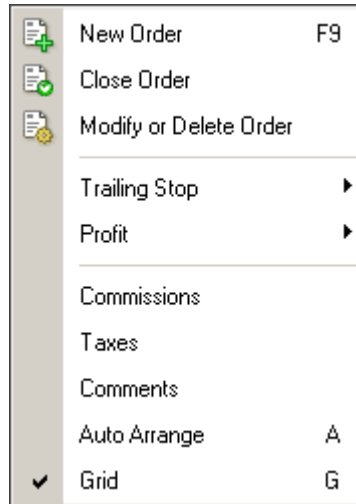
*Deal execution confirmation*

The position is now listed in the 'Trade' tab of the 'Terminal' window.

Before you make a deal you can change its details in the 'Order' window:

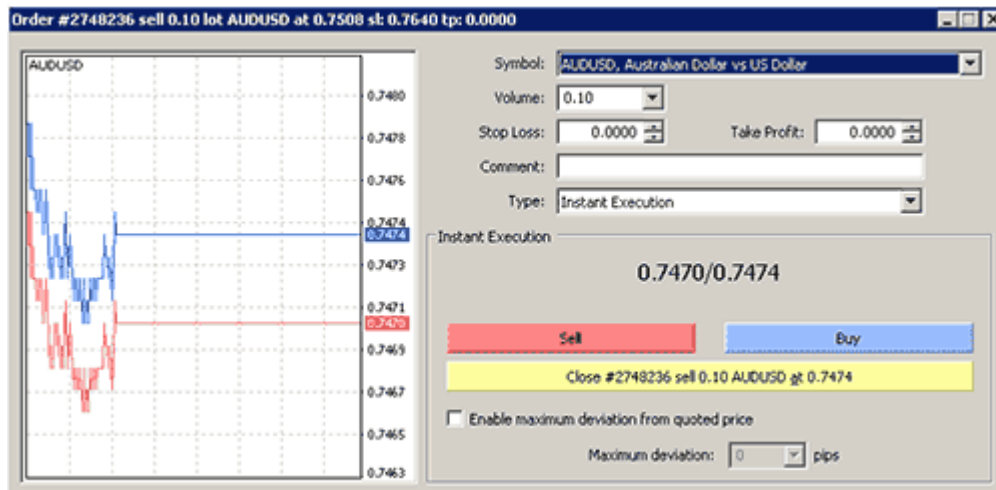
- **Symbol** - a currency pair or CFD you choose to make a deal.
- **Volume** - number of lots.
- **Stop Loss** - the level of Stop Loss order.
- **Take Profit** - the level of Take Profit order.
- **Comment** - any notes.

In order to close a position, highlight it in the 'Trade' tab of the 'Terminal' window and right-click to obtain the context menu:



The context menu of the Trade tab of the Terminal window

... then select **"Close Order"**. Left-double-clicking on the open position in the "Trade" tab of the "Terminal" window will generate the same result. Next, the 'Order #\_\_\_...' window appears:



Close the position (Instant Execution)

If the market is stable then execution is usually made at the quote shown by BROKERYARD. Sometimes, however, the market can be very volatile and the quote offered several seconds ago may become invalid (even

before those several seconds, which are given to you for the decision-making process, run out). In this case the quote is revoked and the **"Requote"** window with a new quote appears.

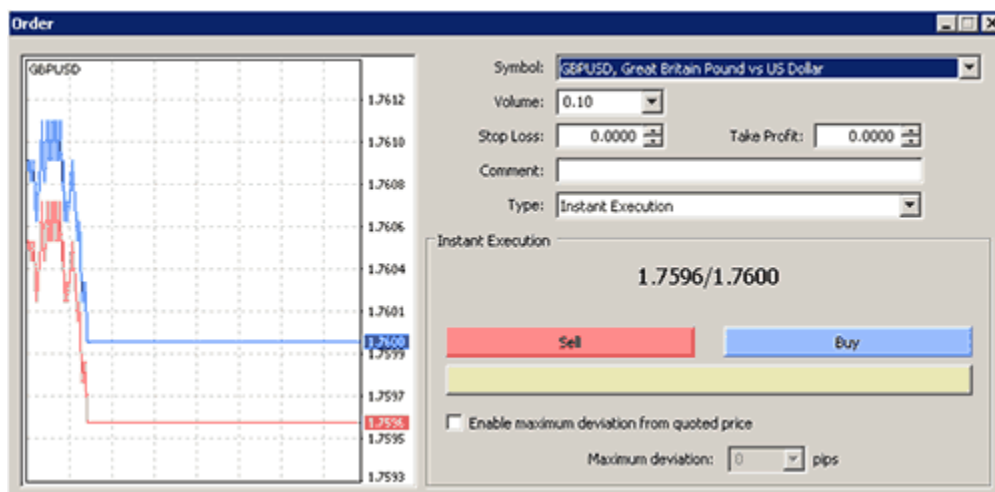
### **Stop Loss, Trailing Stop and Take Profit Orders**

- **Stop Loss Order:** This order is used for minimizing of losses if the security price has started to move in an unprofitable direction. If the security price reaches this level, the position will be closed automatically. Such orders are always connected to an open position or a pending order. The brokerage company can place them only together with a market or a pending order. The terminal checks long (BUY) positions with BID price for meeting of this order provisions, and it does with ASK price for short (SELL) positions.
- To automate Stop Loss order following the price, one can use **Trailing Stop**. Trailing Stop is always attached to an open position and works in client terminal, unlike Stop Loss which works at the server. To set the trailing stop, one has to execute the open position context menu command of the same name in the "Terminal" window. Then one has to select the desirable value of distance between the Stop Loss level and the current price in the list opened. Only one trailing stop can be set for each open position. After the above actions have been performed, at incoming of new quotes, the terminal checks whether the open position is profitable. As soon as profit in points becomes equal to or higher than the specified level, command to place the Stop Loss order will be given automatically. The order level is set at the specified distance from the current price. Further, if price changes in the more profitable direction, trailing stop will make the Stop Loss level follow the price automatically, **but if profitability of the position falls, the order will not be modified anymore**. Thus, the profit of the trade position is fixed automatically. After each automatic Stop Loss order modification, a record will be made in the terminal journal. Trailing stop can be disabled by setting "None" in managing menu. And trailing stops of all open positions and pending orders will be disabled if the "Delete All" command of the same menu has been executed.

**Attention:** Trailing Stop works in the client terminal, not in the server (like Stop Loss or Take Profit). This is why it will not work, unlike the above orders, if the terminal is off. In this case, only the Stop Loss level will trigger that has been set by trailing stop.

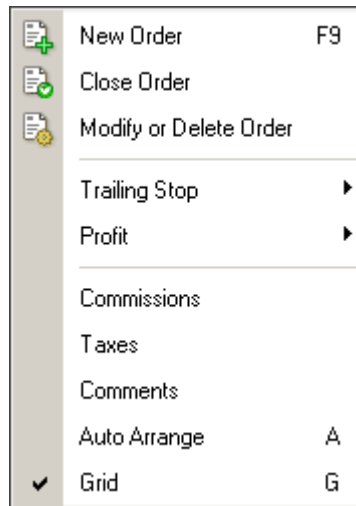
- **Take Profit Order:** is intended for gaining the profit when the security price has reached a certain level. Execution of this order results in closing of the position. It is always connected to an open position or a pending order. The order can only be requested with a market or a pending order. Terminal checks long positions with BID price for meeting of this order provisions, and it does with ASK price for short positions.

If you place these types of orders you do not have to sit in front of your computer to wait for the outcome. "Take Profit" and "Stop Loss" orders will be executed automatically as soon as the price reaches order level (see below). You can place Stop Loss and Take Profit at the time of making a deal filling in the "Stop Loss" and "Take Profit" fields in the "Order" window:



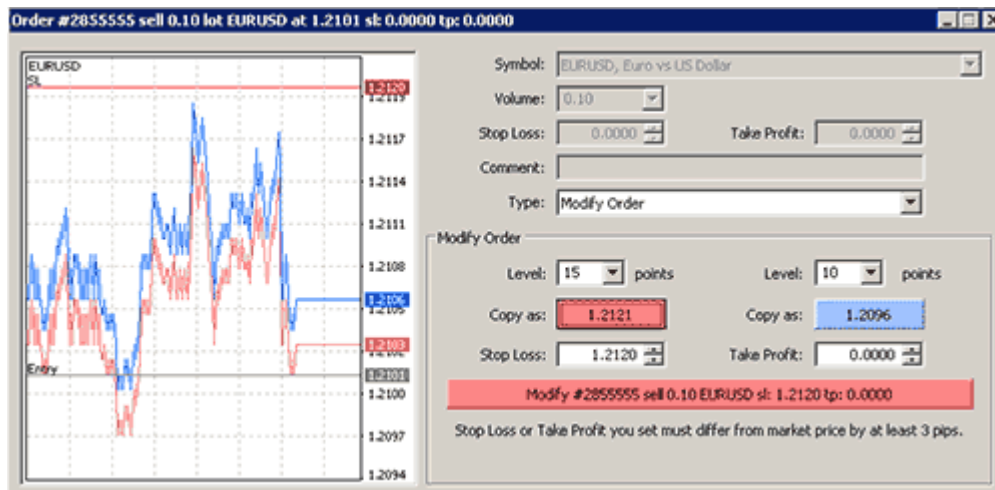
*How to place Stop Loss and Take Profit orders in the Order window*

Afterwards in order to modify Stop Loss and Take Profit levels use the context menu:



The context menu of the Trade tab of the Terminal window

Right-click on the open position or on the pending order in the **"Trade"** tab of the **"Terminal"** window then select **"Modify or delete order"**. The **"Modify order"** window enables:



The Modify Order window

Fill in the **"Stop Loss"** and **"Take Profit"** fields. By pressing the red button (in our example **"1.2121"**) you can copy this level into the **"Stop Loss"** field. By pressing the blue button (in our example **"1.2096"**) you can copy this level in the **"Take profit"** field. The value in the **"Level"** field defines the difference between the order level and the current price. Once you fill in the **"Stop Loss"** and/or **"Take profit"** fields press the

"Modify #position number" button.

The limits for the minimum range between the order and the current price are defined in the contract specifications.

In order to delete "Stop Loss" or "Take Profit" orders, specify its level as equal to zero.

'Stop Loss' and "Take Profit" orders are executed in the following cases:

- The "Take Profit" order on an open Buy position is executed if the Bid price in the quotes flow becomes equal or higher than the order level.
- The "Stop Loss" order on an open Buy position is executed if the Bid price in the quotes flow becomes equal or lower than the order level.
- The "Take Profit" order on an open Sell position is executed if the Ask price in the quotes flow becomes equal or lower than the order level.
- The "Stop Loss" order on an open Sell position is executed if the Ask price in the quotes flow becomes equal or higher than the order level.

The order will be executed if at least one quote in the quotes flow reaches the order level. Please note, that in MetaTrader 4, charts are created using Bid prices. So:

- Minimum Ask price is equal to the minimum bar price (Low) plus spread.
- Maximum Ask price is equal to the maximum bar price (High) plus spread.
- Minimum Bid price is equal to the minimum bar price (Low).
- Maximum Bid price is equal to the maximum bar price (High).

**Important:** If, under abnormal market conditions, the order level falls within the price gap, BROKERYARD has the right to execute the order at the Bid or Ask price (depending on order type) of the first obtainable after the gap quote.

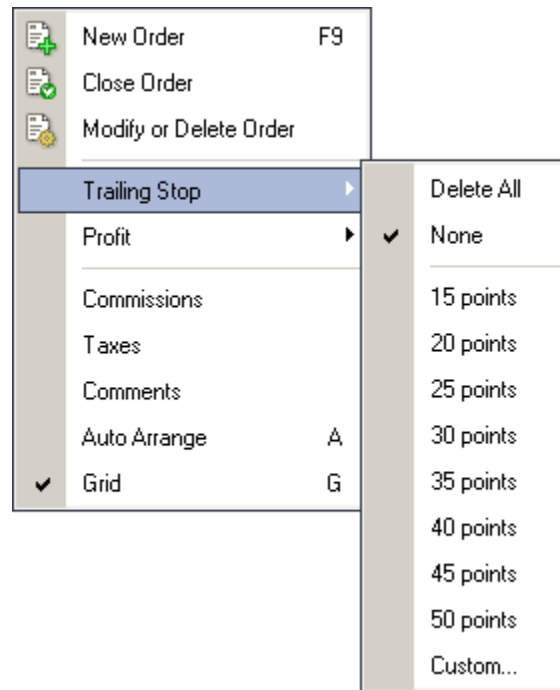
### Trailing Stop

Trailing Stop is an algorithm to manage Stop Loss orders.

Once a trailing stop has been placed (for example, if a trailing stop's value is 15 pips) the following occurs:

- No Stop Loss order will be placed until the open position is in a profit of at least 15 pips. MetaTrader 4 then sends an instruction to place the Stop Loss order 15 pips higher or lower than the current price.

- Subsequently, each time the difference between the current price and the order level exceeds 15 pips, MetaTrader 4 sends the instruction to modify the Stop Loss order to a level 15 pips higher or lower than the current price. As a result, the Stop Loss order becomes closer to the current price.



### *How to specify Trailing Stop level*

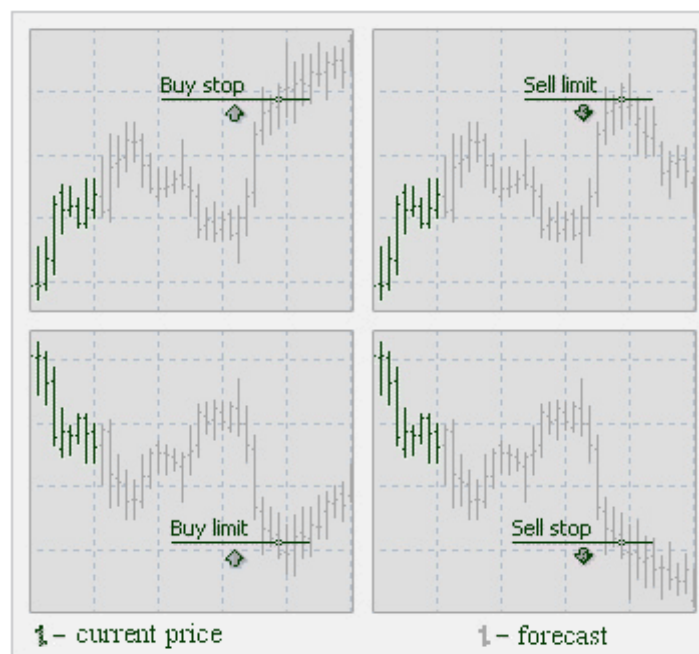
**Note:** It is very important to note that no Stop Loss order will be placed until the market moves in your favor, as mentioned above. Therefore to limit losses, a separate Stop Loss would need to be placed manually.

In order to place a trailing stop, highlight the open position in the 'Trade' tab of the Terminal window and right-click to open the context menu.

## Pending Orders

A Pending order is an instruction to open a position when the current price reaches the order level. There are four types of pending orders:

- **Buy Stop** - an order to open a Buy position at a price higher than the price at the moment of placing the order.
- **Sell Stop** - an order to open a Sell position at a price lower than the price at the moment of placing the order.
- **Buy Limit** - an order to open a Buy position at a lower price than the price at the moment of placing the order.
- **Sell Limit** - an order to open a Sell position at a price higher than the price at the moment of placing the order.



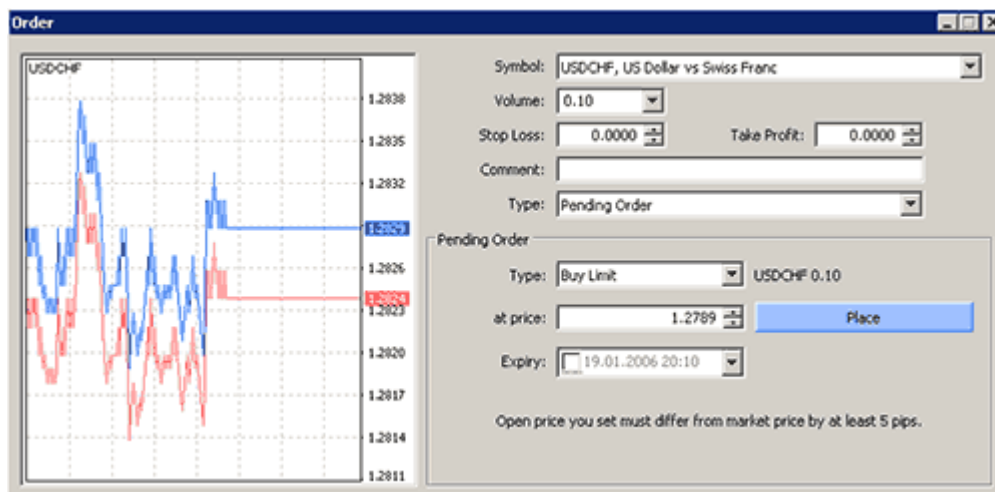
*Types of pending orders*



In order to place a Pending Order, open the "Order" window by any way described below:

1. right click on the "Market Watch" window or on the "Trade" tab of the "Terminal" window and select **New order** from the context menu; or
2. press the F9 button; or
3. use the **Tools -> New order** menu sequence; or
4. right-click on the chart window and select Trading -> New order from the context menu; or
5. double-click on the currency pair in the "**Market Watch**" window.

Then choose the **Pending order** item from the drop down list:

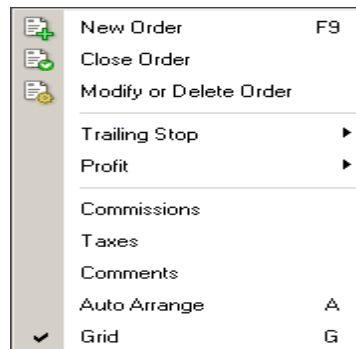


*How to place pending order*

The following options may also be changed in this window:

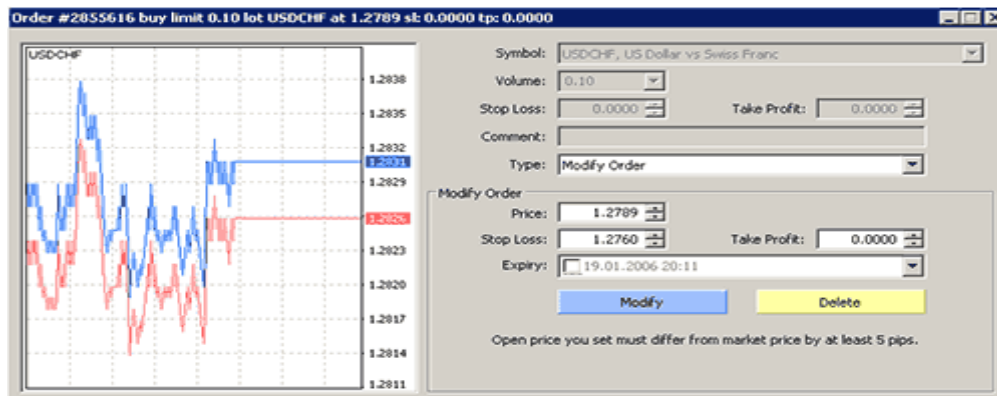
- **Symbol** - currency pair or CFD
- **Volume** - transaction size in lots
- **Stop Loss** - Stop Loss order level which will be activated once the pending order has been executed
- **Take Profit** - Take Profit order level that will be activated once the pending order has been executed
- **Comment** - your comments for the pending order
- **Type** - the type of pending order: Buy Stop, Buy Limit, Sell Stop, Sell Limit
- **At price** - pending order level
- **Expiry** - if the box has not been checked the order is valid up to the time when you cancel it or when it is executed. If the box is checked the order is valid up to the moment specified in the box

Once the Place order button is pressed, the instruction is sent directly to the BROKERYARD's server. Once BROKERYARD confirms the order, it appears in the 'Trade' tab of the 'Terminal' window. In order to modify or delete a pending order highlight it in the 'Terminal' window, then right click to produce the context menu:



*The context menu of the Trade tab of the Terminal window*

Select **Modify or Delete order**. Press the **Modify** button or the **Delete** button depending on your choice in the dialog window:



*How to modify or delete pending order*

### Execution of pending orders

A **Buy Limit order** is executed if the Ask price in the quotes flow becomes equal or lower than the order level. A **Sell Limit order** is executed if the Bid price in the quotes flow becomes equal or higher than the order level. A **Buy Stop order** is executed if the Ask price in the quotes flow becomes equal or higher than the order level. A **Sell Stop order** is executed if the Bid price in the quotes flow becomes equal or lower than the order level.

### Importing Expert Advisors, Custom Scripts and Custom Indicators:

To add your Expert Advisors, Custom Scripts or Custom Indicators simply copy and paste the files in the respected installation folder as follows:

- **Expert Advisors:** C:\Program Files\GEM MT4\experts\
- **Custom Scripts:** C:\Program Files\GEM MT4\experts\scripts\
- **Custom Indicators:** C:\Program Files\GEM MT4\experts\indicators\

Once you have copied the files in the folder, log out of the MT4 platform and log in again for the new changes to take effect. Be aware that certain Expert Advisors may require further setting modifications. Make sure that you have read your Expert Advisor Manual to ensure correct installation.

### Some Common Errors

- **Re-quote:** This message appears when the price has changed before your order was received, so the broker refused the order and offered a new price quote since the price requested is not valid.
- **Off Quotes:** Unlike a re-quote, this error message can occur if an order is rejected because the

requested trade was unconfirmed by our liquidity providers- banks.

- **Trade Context Busy:** This message appears if the cancel button is pressed while an order is in the process of execution. To resolve the error message “Trade Context Busy”, log out and then log in the MT4 platform.