MetaTrader 4 STS Finance: User Guide

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MetaTrader is a property of MetaQuotes Software Corp

User Interface

Interface of the terminal includes the following components:

- **Common Window Heading**
  The program heading includes the current account number, application name, as well as the active chart window name and its period (timeframe).

- **Main Menu**
  All commands and functions that can be executed in the client terminal are collected in its main menu. It contains: "File", "View", "Insert", "Charts", "Tools", "Window", "Help".
  More details can be found in the "Main Menu" section.

- **Toolbars**
  Four toolbars are built into the terminal: "Standard", "Charts", "Line Studies", and "Periodicity". The toolbars contain duplicated commands and functions of the main menu. However, these toolbars are customizable, so one can collect only mostly used widgets in them.
  More details can be found in the "Toolbars" section.

- **Market Watch**
  This window contains the symbol list. Commands of this window allow to control trade positions and charts.
  More details can be found in the "Market Watch" section.

- **Data Window**
  This window shows information about prices, as well as indicators and expert advisors imposed. This data window does not allow to perform any actions.
  More details can be found in the "Data Window" section.

- **Navigator**
  Open accounts, expert advisors, indicators, and scripts are grouped in the navigation window. The "Navigator" can help to control them promptly.
  More details can be found in the "Navigator" section.

- **Terminal**
  Terminal is a multifunctional window intended for working with trade positions, news, account history, alerts, internal mail, and logs of the program and of expert advisors, as well. Moreover, the "Terminal" window allows to open and modify orders of different kinds and manage trade positions.
  More details can be found in the "Terminal" section.

- **Tester**
  This window is intended for testing of expert advisors. Besides testing and viewing of various reports, the expert parameters can be optimized in this window, as well.
  More details can be found in the "Tester" section.

- **Tick Charts**
  A tick chart is the basis of data analysis. Besides price changes, various analytical objects can be located in the chart: line studies, technical and custom indicators, texts, and geometrical figures.
  More details can be found in the "Working with Charts" section.

- **Status Bar**
  For additional information to be visualized, the status bar is used in the terminal. The status bar contains indicator of the server connection, names of active template and profile, as well as command prompts and price data.

- **Fast Navigation Tools**
  Hot keys, acceleration keys, and fast navigation bar are intended for quick work with the terminal. Using of keys allows to execute various commands of the program promptly, and the fast navigation bar makes it possible to move the chart along its time base precisely, change its timeframe, and even the symbol itself.
 More details can be found in the "Fast Navigation Tools".

Main Menu

The main menu of the terminal is located under the program heading and represents a set of sub-menus. Commands and functions to be executed in the client terminal are collected in it. The main menu consists of:

- **File**
  Working with charts, storing of history data and profiles, and print.
- **View**
  Setting of toolbar, managing of command windows ("Market Watch", "Data Window", "Navigator", "Terminal", "Tester") and the program interface language.
- **Insert**
  Managing of technical indicators, line studies, and other objects.
- **Charts**
  Setting of bars displaying, scale, managing of the imposed objects, presence of grid, chart properties.
- **Tools**
  General settings of the client terminal, History Center, global variables, and MetaEditor (MetaQuotes Language 4 editor).
- **Window**
  The list of open charts and their locations.
- **Help**
  Userguide and information about the program.

File Menu

Commands for working with charts, managing of profiles, storing of history data and charts are collected in this menu, as well as charts printing properties. The following commands are available in the menu:

- **New Chart** — open a new chart window for the symbol. At the command execution, the list of available symbols will appear. Having selected a symbol from the list, one can open a new chart.

  The same actions can be performed by the button of the "Standard" toolbar.
- **Open Offline** — open a symbol chart offline. By this command, one will be able to select a necessary file with its history data being stored. At that, the new quotes for this symbol will not be shown in the chart. Offline chart opening can be useful at testing of expert advisors.
- **Open Deleted** — restore a deleted chart. The deleted charts will be restored if the "Save deleted charts to reopen" is enabled in the terminal settings. All deleted charts templates are stored in the /DELETED directory. At this command execution, these templates are called, and the corresponding chart will be opened.
- **Profiles** — open sub-menu for managing profiles. Profiles can be stored or deleted from this sub-menu, as well as previously stored ones can be downloaded.

  This profile managing sub-menu can also be called by the button of the "Standard" toolbar. More details can be found in the "Profiles and Templates" section.
- **Close** — close the current chart.
- **Save As** — save history data as a text file in "CSV", "PRN", or "HTM" format.
- **Save As Picture**... — save the chart in "BMP" or "GIF" format.
  The same actions can be performed by the chart context menu command of the same name.
- **Open an Account** — open a new demo account. Such accounts can be opened without placing of any money onto the deposit and allow to test the own trading system well.

To open an account, one can also execute the context menu command of the same name of the "Navigator — Accounts" window or press the Insert button.

- **Login** — authorize. At this command execution, the terminal tries to connect to the server using the account selected. After successful authorization, quotes and news will start to income, and one can start trading.
It is possible to authorize having executed the "Login" command of the context menu of the "Navigator — Accounts" window or double-click on the account name.

- **Print Setup**... — general setup of printing parameters — printing device, page size and orientation, etc.

- **Print Preview** — preview the chart before printing it. The settings of the selected printer are used at this. This command helps to preview before printing whether all desired data can be printed with the settings given.

The same actions can be performed having pressed the button of the "Standard" toolbar or having executed the chart context menu command of the same name.

- **Print**... — print a chart. If the "Color Print" option is enabled in the program settings, the chart can be printed in color, not as a black-and-white one.

The same actions can be performed by pressing of the button of the "Standard" toolbar, accelerating buttons of Ctrl+P or by execution of the "Print" chart context menu command.

- **Exit** — the terminal shutdown.

Attention: If the terminal is shut down, the expert advisors and Trailing Stops will not be executed.

View Menu

Commands managing signal windows, toolbars, and the program interface language, are grouped in this window. Some of these commands are duplicated in the "Standard" toolbar. The following commands are available in the menu:

- **Languages** — call the sub-menu managing languages of the Client Terminal. Having selected a desired language, one can switch the terminal interface to this language. For the changes to take effect, the program must be restarted.
Moreover, the terminal is delivered together with the MultiLanguage Pack program. It allows to translate interface into any language. For this purpose, the "Multilanguage Pack" command of the same sub-menu must be used.
More details about the work with MultiLanguage Pack can be found in its own help files.

- **Toolbars** — call the sub-menu managing toolbars. Active toolbars are checked. Selection of a toolbar allows to enable or disable it.
The "Customize..." command allows to assign any buttons for any toolbars. At that, a new window containing the list of toolbar elements available. The "Insert" and "Remove" buttons allow to add or remove an element from the toolbar. The "Up" and "Down" buttons are intended for defining the location of a button in the toolbar. To reset the toolbar to appear as initially, one has to press the "Reset" button.

- **Status Bar** — enable/disable status bar located in the lower part of the terminal window. This data bar contains (from left to right): menu managing profiles, time and prices of the bar selected, and indicator of server connection and amounts of incoming/outgoing traffic. Having pressed on the current profile name, one can open the menu managing profiles. One can store or remove profiles in this menu, as well as download those previously stored.
The sub-menu for managing of profiles can also be called by the "File — Profiles" menu command.

- **Charts Bar** — enable/disable the chart window names (tabs) bar located in the lower part of the workspace. Using this bar, one can switch among open charts fast.
- **Market Watch** — open/close the "Market Watch" signal window where the current quotes are published.

  The same action can be performed by accelerating buttons of Ctrl+M or by pressing the button of the "Standard" toolbar.

- **Data Window** — open/close the "Data Window". Prices of the bar selected and information about indicators imposed are published in this window.

  The same action can be performed with accelerating buttons of Ctrl+D or by the button of the "Standard" toolbar.

- **Navigator** — open/close the "Navigator" window. Lists of open accounts, technical indicators, experts, custom indicators and scripts are located in the form of tree in this window.

  The same action can be performed with accelerating buttons of Ctrl+N or by the button of the "Standard" toolbar.

- **Terminal** — open/close the "Terminal" window. One can manage orders and signals in this window, look through the account history, news, emails, journal of events and that of expert advisors.

  The same action can be performed with accelerating buttons of Ctrl+T or by the button of the "Standard" toolbar.

- **Strategy Tester** — open/close the "Tester" window. This window is intended for testing and optimization of expert advisors.

  The same action can be performed with acceleration keys of Ctrl+R or the button of the "Standard" toolbar.

- **Full Screen** — enable/disable the full screen mode. As soon as this option is enabled, toolbars and status bar will be disabled and all signal windows will be closed. The client terminal heading, main menu, workspace (charts) and the charts windows tabs remain in the screen. The repeated execution of the command returns the terminal to the initial appearance.

  The same action can be performed with F11 button or by the button of the "Standard" toolbar.

Insert Menu

Objects to be imposed on the chart are collected in the "Insert" menu. Among them are line studies and technical indicators, as well as geometrical figures, arrows, and texts. In the "Indicators" sub-menu, all built-in technical indicators are grouped. Having selected a name in the list, one can impose the indicator into the active chart. Line studies are grouped in the corresponding sub-menu: "Lines" — various lines, "Channels" — a set of channels, "Gann" — Gann's tools, "Fibonacci" — tools based on Fibonacci numbers. Besides, "Andrews' Pitchfork" and "Cycle Lines" that do not belong to any group are placed at the end of the list. More details on working with line studies can be found in the corresponding section.

Besides, the following can be imposed into the chart from this menu:

- **Shapes** — geometrical figures (rectangle, triangle, ellipse) that allow to select various areas in the chart;
- **Arrows** — symbols (arrows, check signs, stop signs, price signs) that allow to select the most important points in the chart;
- **Text** — texts intended for adding of comments to the chart. They are anchored to the chart and move together with the chart when it is scrolled;
- **Text Label** — texts intended for adding of comments and anchored to the window coordinates, not to the chart. At the chart scrolling, the text label will not move.

Attention: All commands of the "Insert" menu, except for the sub-menu managing indicators, are duplicated in the "Line Studies" toolbar.

Charts Menu

Commands managing the chart and technical indicators imposed in it are collected in the "Charts" menu. The following commands are available in this menu:

- **Indicators List** — call window managing indicators imposed in the active chart. The full list of indicators imposed (including Custom Indicators) is given in the window appeared. Having selected an indicator, one can change its settings or remove it from the chart.
  The same action can be performed by the chart context menu command of the same name or by accelerating keys of Ctrl+I;

- **Objects** — call sub-menu managing imposed objects. The following commands are available in the sub-menu:
  - o **Objects List** — call window managing the imposed objects. Objects include line studies, signs, shapes, and texts. The selected object can be modified (the "Edit" button) or deleted by pressing of the button of the same name in this window. Besides, the "Show" command moves the active chart to the imposed object location;
  - o **Delete Last** — delete the last imposed object from the chart.
    The same action can be performed by pressing the Backspace button;
  - o **Delete All Selected** — delete all selected objects from the chart window.
    The same action can be performed by pressing the Delete button;
  - o **Delete All Arrows** — delete all objects from the chart window;
  - o **Unselect All** — unselect all the objects imposed in the chart;
  - o **Undo Delete** — return the deleted object back into the chart.
    The same action can be performed by accelerating keys of Ctrl+Z;

- **Bar Chart** — display the chart as a sequence of bars.

  Execution of this command is the same as pressing of the ![] button of the "Charts" toolbar or accelerating keys of Alt+1;

- **Candlesticks** — display the chart as a sequence of "candlesticks".

  Execution of this command is the same as pressing of the ![] button of the "Charts" toolbar or accelerating keys of Alt+2;

- **Line Chart** — display the chart as a broken line connecting close prices of bars.

  Execution of this command is the same as pressing of the ![] button of the "Charts" toolbar or accelerating keys of Alt+3;

- **Foreground Chart** — put the chart as a "foreground". If this function is enabled, all analytical objects (technical indicators and graphical objects) will be placed "behind the chart", not over it;

- **Periodicity** — choose the chart timeframe. After this command has been executed, a sub-menu will appear where the active chart timeframe can be selected.
  The chart timeframe can also be changed with help of the "Periodicity" toolbar;

- **Template** — call the template managing sub-menu. From this sub-menu, one can impose any template into the active chart. Moreover, a new template can be stored based on the active chart, or an existing one can be deleted.

  Attention: The DEFAULT template cannot be deleted.

More details about working with templates can be found in the "Profiles and Templates" section.

The sub-menu managing templates can also be called by pressing of the [icon] button of the "Charts" toolbar or by the chart context menu command of the same name;

- **Refresh** — refresh history data. At that, all missing data within the existing history will be downloaded. The same action can be performed by the chart context menu command of the same name;

Attention: History outside the range of the existing data will not be added.

- **Grid** — show/hide grid in the chart window.
  The same actions can be performed by the chart context menu command of the same name and by pressing of the accelerating keys of Ctrl+G;
- **Volumes** — show/hide volumes in the chart.
  The same actions can be performed by the chart context menu command of the same name or by pressing of accelerating keys of Ctrl+L;
- **Auto Scroll** — enable/disable automatic shifting of the chart to the left after a new bar has started to form. If this option is enabled, the last bar will always be shown in the chart.

  Execution of this command is the same as pressing of the [icon] button of the "Charts" toolbar;
- **Chart Shift** — shift the chart from the left window border to the shift label of the chart. The shift label of the chart (a grey triangle in the upper part of the window) can be moved with the mouse horizontally within 10 to 50% of the window size.

  Execution of this command is the same as pressing of the [icon] button of the "Charts" toolbar;
- **Zoom In** — zoom in the chart.

  The same action can be performed by pressing of the "+" key or the [icon] button of the "Charts" toolbar, as well as by moving the cursor to the right, the left mouse button being pressed on the horizontal scale;
- **Zoom Out** — zoom out the chart.

  The same action can be performed by pressing of the "-" key or the [icon] button of the "Charts" toolbar, as well as by moving the cursor to the left, the left mouse button being pressed on the horizontal scale;
- **Step by Step** — shift the chart by one bar to the left.
  The same action can be performed by pressing of F12;
- **Properties**... — setting up the chart parameters. At this command execution, the chart setup window will appear.
  The same actions can be performed by the chart context menu command of the same name or by pressing of F8.

Attention: The most of the "Charts" menu commands are duplicated in the toolbar of the same name and in the chart context menu.

Tools Menu

Housekeeping instructions and terminal settings are collected in the "Tools" menu. In this menu, one can:

- **New Order** — call the window managing orders. One can place market or pending orders from this window. More details about working with orders can be found in the corresponding section. The "Order" window can also be called by context menu commands of the "Market Watch" and

"Terminal — Trading" windows, by mouse double-click on the symbol in the "Market Watch" window, by F9 button or by pressing of the button of the "Standard" toolbar;

- **History Center** — call the window managing history data. Quotes used for building of charts can be edited in History Center.
  This window can also be called by pressing of F2 button;

- **Global Variables** — call the window containing the list of the terminal global variables. Global are variables common for all expert advisors, custom indicators, and scripts. More details about global variables can be found in the corresponding section.
  The Global Variables window can also be called by F3 button;

- **MetaQuotes Language Editor** — open MetaEditor of expert advisors. Using the MetaEditor, one can create and edit experts, custom indicators, and scripts. More details on working with MetaEditor are given in the section of the same name.
  The MetaEditor can also be called by F4 button;

- **Options** — call the client terminal setting window. One can set up parameters for connection, trades, charts, experts, and others, in this window. More details can be found in the "Client Terminal Settings" section.
  The Options window can also be called by accelerating keys of Ctrl+O.

Window Menu

Commands managing the chart windows are collected in this menu. The way of charts arrangement in the workspace can be chosen or a new chart window can be opened from here:

- **New Window** — create a new symbol chart window. At this command execution, a sub-menu will open that contains a list of symbols available. Having selected a symbol name from this list, one can open the corresponding chart.

  A new window can also be opened by pressing the button of the "Standard" toolbar or by the command of the "File — New Chart" menu;

- **Cascade** — arrange the chart windows in stages;
- **Tile Horizontally** — arrange the chart windows horizontally;
- **Tile Vertically** — arrange the chart windows vertically;
- **Arrange Icons** — arrange minimized windows. At that, windows of all open charts are minimized and located in the lower part of the workspace. This is useful when one works with a number of charts at the same time.

A list of all open chart windows is located in the lower part of this menu. The current window is checked. To activate another chart, one has to select the corresponding symbol from this list.

Help Menu

The "Help" menu is auxiliary. Execution of this menu commands does not influence the terminal operation in any way. One can do the following from this menu:

- **Help Topics** — open the in-built help files containing this present "Userguide". All settings and functions of the Client Terminal are described in it.
  F1 button performs the same action;

- **About**... — open the "About..." window where one can find information about the company, its contact details, and the terminal version, as well.

Toolbars

There are four toolbars in-built into the terminal. The main commands used in the terminal are duplicated in the toolbars in form of buttons. Normally, the toolbars are placed under the main menu, but they can easily be moved in any program window area. Toolbars can be shown or hidden by the "View — Toolbars" menu command. All toolbars are customizable, what allows to place only necessary, often used commands in them. To set up a toolbar, one has to open its context menu (right mouse-button click) and execute the "Customize..." command.

All commands are grouped in toolbars according to their functions:

- **Standard** — general commands of terminal managing;
- **Charts** — commands for managing of charts;
- **Line Studies** — managing of objects to be imposed into charts;
- **Periodicity** — managing of the chart timeframes.

Standard Toolbar

General commands managing the terminal are collected in this toolbar:

- — create a new symbol chart window. The command opens the list of financial instruments (symbols). One can open a new chart having selected a necessary name in this list.
  The same actions are performed after the "File — New Chart" and "Window — New Window" menu commands have been executed , as well as the context menu commands of the "Market Watch — Chart Window" window;

- — menu used to manage profiles. One can activate a profile having selected it in this menu. A profile can be deleted in this menu, and a new profile can be stored based on the current chart windows configuration. More details can be found in the "Profiles and Templates" section.

  Attention: the DEFAULT profile cannot be deleted.

  To work with profiles, one can also execute the "File — Profiles" menu command;

- — open/close the "Market Watch" window. The current quotes for all available symbols are published in this window. This window allows to open symbol charts and place orders. More details about working with this window are given in the "Market Watch" section.
  The "View — Market Watch" menu command and accelerating keys of Ctrl+M allow to open or close this window, as well;

- — open/close data window named "Data Window". Information about prices and indicators imposed is published in this window. More details about working with this window can be found in the "Data Window" section.
  The "View — Data Window" menu command and accelerating keys of Ctrl+D allow to open or close this window, as well;

- — open/close the "Navigator" window. All open accounts, available experts, technical indicators, and scripts are placed in this window. More details about working with this window can be found in the "Navigator" section.
  The "View — Navigator" menu command and accelerating keys of Ctrl+N allow to open or close this window, as well;

- — open/close the "Terminal" window. This window allows to place trading orders, view the account history, get news, and many other things. More details about working with this window can be found in the "Terminal" section.
  The "View — Terminal" menu command and accelerating keys of Ctrl+T allow to open or close this window, as well;

- — open/close the "Tester" window. This window is intended for testing and optimization of expert advisors. More details about working with this window can be found in the "Strategy Testing" section.
  The "View — Strategy Tester" menu command and accelerating keys of Ctrl+R allow to open or close this window, as well;

- — place a new order. The command opens the window that allows to place a market or a pending order. More details can be found in the "Trading" section.
  This window can also be opened by the "Tools — New Order" menu command, the "Market Watch — New Order" window or "Terminal — Trading — New Order" window context menu commands, as well as by pressing of F9;

- — launch MetaEditor. This editing program allows to create and edit expert advisors, custom indicators, scripts, and MQL 4 libraries. More details about working with this editing program can be found in the "MetaEditor" section and in its own help files.
  This action can also be performed by the "Tools — MetaQuotes Language Editor" menu command or by pressing of F4;

- — enable experts. If this option is disabled, no expert attached to the charts will be executed. Detailed description of working with experts can be found in the "Auto Trading" section.
  The "Enable Experts" option in the terminal settings performs the same action;

- — call the window of terminal settings. All basic settings of the terminal are made in this window. More details can be found in the section of the same name.
  The window of terminal settings can also be opened by the "Tools — Options" menu command or by pressing accelerating keys of Ctrl+O;

- — enable/disable the full-screen mode. When this option is enabled, toolbars and status bar are hidden, and all service windows are closed. The client terminal name, main menu, workspace (charts), and chart windows tabs remain in the screen. The repeated execution of this command will result in return to the initial status.
  The same actions can be performed by pressing F11 or by the "View — Full Screen" menu command;

- — print the chart. If the "Color Printing" option is enabled in the program settings, the chart can be printed out in color, not as a black-and-white one.
  The same action can be performed by the "File — Print..." menu command or by the chart context menu command of the same name;

- — chart preview before it is printed out. The settings of the selected printer will be used at that. Thus, one can check before printing whether all desired data come onto the paper.
  The same action can be performed by the "File — Print Preview" menu command or by the chart context menu command of the same name;

- — call the help files. After this button has been pressed, one should click on the desired interface element to call the corresponding help section.
  The help can also be called by the "Help — Help Topics" menu command or by pressing of F1.

Charts Toolbar

Commands for managing of charts and technical indicators imposed in the charts are grouped in this toolbar. They include:

- — display the chart as a sequence of bars (transform into the bar chart).
  The same action can be performed by the "Charts — Bar Chart" menu command or by pressing accelerating keys of Alt+1;

- — display the chart as a sequence of candlesticks (transform into the candlestick chart).
  The same action can be performed by the "Charts — Candlesticks" menu command or by pressing accelerating keys of Alt+2;

- — display the chart as a broken line (transform into the line chart).
  The same action can be performed by the "Charts — Line Chart" menu command or by pressing accelerating keys of Alt+3;

- — zoom in the chart.
  The same action can be performed by the "Charts — Zoom In" menu command, the corresponding chart context menu command, or by pressing the "+" key;

- — zoom out the chart.
  The same action can be performed by the "Charts — Zoom Out" menu command, the corresponding chart context menu command, or by pressing the "-" key;;

- — automatic scrolling of the chart to the latest bars. If this option is enabled, the latest bars will always be displayed in the screen.
  The same action can be performed by the "Charts — Auto Scroll" menu command;

- — shift the chart from the window right border to the shift label of the chart. The chart shift label (a grey triangle in the upper part of the window) can be moved horizontally with the mouse within 10 to 50% of the window size.
  The same action can be performed by the "Charts — Chart Shift" menu command;

- — call the sub-menu to manage indicators. All built-in technical indicators are grouped in it. Having chosen a name in the list, one can impose the indicator into the active chart. More details can be found in the "Technical Indicators" section.
  The same actions can be performed by the "Insert — Indicators" menu command;

- — sub-menu to manage the chart periods. When a period is selected in this sub-menu, the corresponding changes will appear in the active chart.
  Switching among chart periods can be performed by the "Charts — Periodicity" menu command, the corresponding chart context menu command, or the corresponding buttons of the "Periodicity" toolbar;

- — call the sub-menu to manage templates. Any template can be imposed into the active chart from this sub-menu. Moreover, a new template can be stored based on the active chart or an existing template can be deleted. More details about working with templates can be found in the "Templates and Profiles" section.
  The same actions can be performed by the "Charts — Template" menu command or the corresponding chart context menu command.

Attention: The most commands of the "Charts" toolbar are published in the menu of the same name and in the chart context menu.

Line Studies Toolbar

Line Studies and graphical objects (geometrical shapes, signs, and texts) to be imposed into the chart are collected in the "Line Studies" toolbar. Commands of this toolbar (excluding the "Crosshair" and "Cursor") are duplicated in the "Insert" menu. Working with line studies is described in details in the corresponding section. Other icons in this toolbar are intended for working with graphical objects and for changing the cursor operation mode:

- — draw an ellipse. This shape helps to select various areas in the chart. More details about working with objects can be found in the section of the same name.
  The "Insert — Shapes — Ellipse" menu command allows to draw this figure, as well;

- — draw a triangle. This shape helps to select various areas in the chart. More details about working with objects can be found in the section of the same name.
  The "Insert — Shapes — Triangle" menu command allows to draw this figure, as well;

- — draw a rectangle. This shape helps to select various areas in the chart. More details about working with objects can be found in the section of the same name.
  The "Insert — Shapes — Rectangle" menu command allows to draw this figure, as well;

- — add a text label. After this button has been pressed, one should select a point in the chart where the label should be placed. Unlike the text (described below), the text label is attached not to the chart, but to the chart window. When the chart is scrolled, the text label does not move.
  The "Insert — Text Label" menu command will also add comment into the chart;

- — add a comment into the chart. It will be anchored directly to the chart. When the chart is scrolled, the text will move together with it.
  The "Insert — Text" menu command will also add comment into the chart;

- — menu to manage graphical symbols. One can add graphical signs into the chart or delete all the imposed signs from it using this menu.
  These objects can also be imposed into the chart by the "Insert — Arrows" menu command;

- — a crosshair. Cursor in this mode allows to highlight coordinates of the selected point in the chart or indicator window. This mode can only work within the active chart window. If, being in the "Crosshair" mode, one keeps the left mouse button pressed and moves the cursor, a line connecting these two points will be drawn. The distance between the points and the current price value will be highlighted to the right of the second point of the line. This will look as [amount of bars between two points] / [amount of points between two points] / [the current price value in the second point]. This tool is named electronic ruler.
  Cursor can also be switched to the crosshair mode by pressing accelerating keys of Ctrl+F or the third mouse button;

- — a standard cursor (selection mode). The cursor in this mode allows to select various objects in the chart.

Periodicity Toolbar

Switcher among the chart periods are grouped in this toolbar. The chart period will change in the active window after this toolbar buttons have been pressed. Just after that, the uploading of data for the selected symbol and period will start what can take some time.

Market Watch Window

The securities (symbols) for which the Client Terminal gets quotes from the server are listed in the "Market Watch" window. The data are represented in this windwow as a table having several fields. The "Symbol" field contains the security name, the fields of "Bid", "Ask", and "Time" show the corresponding prices and time of their income from the server. Values of the "Maximum" and "Minimum" fields are calculated on basis of price changes within a day. The "Market Watch" window can be opened/closed by pressing of accelerating keys of Ctrl+M, by the "View — Market Watch" menu command, or by pressing of the ⬆⬇ button of the "Standard" toolbar.

This window allows to place market and pending orders and open new charts. At the right mouse button click in the "Market Watch" window, the context menu will appear where the following commands are available:

- **New Order** — open the "New Order" window where one can prepare and place a market or a pending order for the symbol selected. At the order preparation, one can specify the Stop Loss and Take Profit levels. More details can be found in the "Positions Opening" section.
  The "New Order" window can also be opened by double clicking on the security name in the "Market Watch" window, by the "Tools — New Order" menu command, by the "Terminal — Trade — New Order" window context menu command, the 📋 button of the "Standard" toolbar, or by pressing of F9;

- **Chart Window** — open the chart of the symbol selected. More details about working with chart windows are given in the section of the same name.
  The symbol chart can also be opened by the "File — New Chart" and "Window — New Window" menu commands and by pressing of the ➕ button of the "Standard" toolbar;

- **Tick Chart** — open the tick chart of the symbol selected. Unlike normal charts, the tick chart is located directly in the "Market Watch" window. The tick chart of the selected symbol can also be viewed by switching to the tab of the same name in the same window;

- **Hide** — delete (hide) the symbol from the list. To minimize the traffic, it is recommended to hide unused securities from the quotes window by this command or by pressing of the Delete button.

  Attention: If there are open positions or pending orders for the symbol, or its chart is open, the symbol cannot be deleted.

- **Hide All** — delete all symbols from the list. This command does not apply to securities for which there are open positions or the charts of which were opened in the current working session;

- **Show All** — show the list of all available securities. After this command has been executed, quotes will income for all these symbols;

- **Symbols** — call the window of the same name where there is a list of all available symbols. Symbols are grouped in the window according to their types. The "Show Symbol" command allows to add necessary symbols to the quotes window, and that of "Hide Symbol" — to delete a symbol from it. The "Properties" window command allows to view the symbol parameters;

- **Sets** — open the sub-menu that manages the symbol sets. The current set of symbols can be stored in this sub-menu, as well as delete or select an already existing one. This is very comfortable when working with securities of different types;

- **High/Low** — add the highest and the lowest values of the daily price to the quotes displayed;

- **Time** — show time of incoming quotes;

- **Auto Arrange** — automatic arranging of columns when changing the window size.
  Auto Arrange can also be enabled by pressing A button;

- **Grid** — show/hide the grid separating columns.
  The grid can also be shown by pressing G button;

- **Popup Prices** — open an additional quotes window. The list of symbols in this window is the same as that in the "Market Watch" window at the moment of the command execution. This

means that changes in the symbol list in the "Market Watch" window does not influence that in the "Popup Prices". It is an information window, but trading operations can also be performed from it. To do so, one has to double-click with the left mouse button on the desired security. In the context menu of this window, there are commands allowing to set up data displaying parameters, enable the full screen mode, or locate the window over all others.

Data Window

This window is intended for displaying of price information (OHLC), date and time of the bar, and the indicators (including custom ones) used. "Data Window" is an information window and it does not allow to perform any actions. The desired information about a certain bar and the imposed indicators can be obtained here promptly. To do so, it is sufficient to place the cursor over the necessary bar.

Context menu commands of this window allow:

- **Copy** — copy data from this window into the clipboard for further use in other applications. The same action can be performed by pressing of accelerating keys of Ctrl+C;
- **Last Data** — show/hide the latest data column. At that, an additional column containing the last bar data will appear in the window;
- **Auto Arrange** — set up the column size automatically when the window size changes;
- **Grid** — show/hide grid to separate columns;
- **Show** — show/hide information fields. Any of the bar prices (OHLC), date or volume can be selected in the sub-menu that appears. If the element has not been checked, it will not be shown.

Attention: Any indicator can be set up (the "Visualization"tab in the indicator properties window) in such a way that its data will not be shown in this window.

Navigator Window

This window allows to get a quick access to various features of the terminal. This window can be opened/closed by pressing accelerating keys of Ctrl+N, by the "View — Navigator" menu command, or by pressing of the 🔲 button of the "Standard" toolbar.

The list of features is listed as a tree and contains five groups: "Accounts", "Indicators", "Expert Advisors", "Custom Indicators", and "Scripts". The "Accounts" group includes the list of open accounts. Using a context menu, one can open a new demo account or delete the old one. An unlimited amount of demo accounts can be opened from the terminal. To do so, one has to execute the "Open an Account" context menu command or press the Insert button. More details about opening of accounts can be found in the corresponding section. To authorize an existing account (whether a demo or a real one), one has to execute the "Login" command or double-click with the left mouse button on the desired account line.

Attention: Real accounts cannot be started from the terminal, they are opened only by a brokerage company.

The "Indicators" group includes the list of built-in technical indicators. They represent the main tools for analyzing the price dynamics. Double-clicking with the left mouse button or the "Attach to a chart" context menu command allows to impose the indicator selected into the active chart. Besides, one can impose an analytical tool in any chart or window of an indicator already imposed, using the "Drag'n'Drop" technique. More details can be found in the "Technical Indicators" section.

The "Expert Advisors" group contains the list of all available expert advisors. Expert Advisors in the terminal are programs allowing to automate analytical and trading activities. To create and modify them,

the built-in editor, MetaEditor, is used. More details about creation and working with experts can be found in the "Auto Trading" section.

The "Create" context menu command allows to create a new expert, "Modify" — to modify an existing one, and "Delete" — to delete an expert from the terminal. The "Attach to a Chart" command or double-click with the left mouse button allow to impose the expert into the active chart. After that, when a new tick incomes, the expert will start working. Experts can be imposed into any chart with the "Drag'n'Drop" technique. Experts' icons colored in grey mean that these experts cannot be used. Such expert must be compiled first.

The "Custom Indicators" group includes the list of all available custom indicators (counterparts of built-in technical indicators), and the "Scripts" group contains the list of available scripts (programs executed only once). Custom indicators and scripts are managed by using of the context menu similar to that of experts. More details can be found in the sections of "Custom Indicators" and "Scripts".

Hot keys can be assigned to call any elements of the "Navigator" window, except for those in the "Accounts" group. To set a hot key for an element, one has to execute the "Set hotkey" command of this element's context menu. The hot keys set have a higher priority being compared to those predefined. For example, Ctrl+O is predefined to call the terminal setting window. If this pair of keys is set to call the On Balance Volume indicator, the terminal setting window will not be called by pressing of Ctrl+O anymore.

Favorites Tab

The "Favorites" tab is intended for a quick access to objects mostly used. In this tab, for example, only necessary accounts, indicators, scripts, and experts can be placed. This allows to accelerate the trader's work, especially, if there is a need to act promptly. To move a necessary object into the "Favorites" tab, one has to execute the corresponding context menu command. If the object is not necessary anymore, it can be deleted from the tab using the "Delete from favorites" context menu command.

Attention: All objects included in the "Favorites" can function without any limitations. All managing commands placed in the context menu can also be called directly from this tab.

Terminal Window

"Terminal" is a multifunctional window allowing to access to various terminal features. This window allows to control over trading activities, view news and account history, set up alerts, and work with the internal mail and system journal. The window can be opened by the "View — Terminals" menu command, by pressing of accelerating keys of Ctrl+T, or the 🖳 button of the "Standard" toolbar. There are several tabs in the window:

- **Trade** — in this tab, one can view the status of open positions and pending orders, as well as manage all trading activities. Besides, the total financial result for all open positions is published in this tab;

- **Account History** — history for all performed trade operations and balance without taking open positions into consideration are published here. The efficiency of all trade activities can be estimated with the results given in this tab;

- **News** — all financial news incoming in the terminal can be viewed from this tab. This prompt information is indispensable for fundamental analysis;

- **Alerts** — various alerts can be viewed and set here. Any files executable in the operational environment (including wave files) and messages to be sent by email can be used as alerts;

- **Mailbox** — all message income in the terminal by internal email are stored here. Electronic messages are sent from here, as well;

- **Expert Advisors** — information about functioning of the attached expert, including opening/closing of positions, order modifying, the expert's own messages, etc., are published in this tab;

- **Journal** — information about terminal launching and about events during its operation, including all trade operations performed, is stored in the journal.

Attention: Some tabs of the "Terminal" window can be absent. This means that they are empty at the moment. For example, the "Expert Advisors" tab will be hidden until a message from MQL4 program incomes.

Trade Tab

The "Trade" tab contains information about the current status of the trading account, about open positions and pending orders placed. All open positions can be sorted by any field. Then there is a line of the account balance and financial result of open positions followed by the list of pending orders. When a pending order triggers, a new position will be opened and the pending order line will be replaced with that of the position opened.

All trade operations are displayed as a table having the following fields (from left to right):

- **Order** — the operation ticket number. It is a unique number of the trade operation;
- **Time** — time of position opening. The time is represented as YYYY.MM.DD HH:MM (year.month.day hour:minute). This is the time at which the position was opened;
- **Type** — type of the trade operation. There are several types of trading operations that can appear here: "Buy" — long position, "Sell" — short position, and pending orders named Sell Stop, Sell Limit, Buy Stop, and Buy Limit;
- **Lots** — the amount of lots participating in operation. The minimum amount of lots to participate in operations is defined by the brokerage company, and the maximum is limited by the deposit size;
- **Symbol** — this field displays the name of the security participating in the trade operation;
- **Price** — price of position opening (no to be mixed up with the current price described below). This is the price at which the position was opened;
- **S/L** — the placed Stop Loss order level. If the order has not been placed, a zero value will be written in this field.
  More details about working with orders can be found in the corresponding section;
- **T/P** — the placed Take Profit order level. If the order has not been placed, a zero value will be written in this field.
  More details about working with orders can be found in the corresponding section;
- **Price** — the current price of the security (not to be mixed up with that of position opening described above);
- **Commission** — commissions charged by the brokerage company at preforming trade operations are written in this field;
- **Swap** — charging of swaps is stored in this cell;
- **Profit** — the financial result of the transaction made will be written in this field taking the current price into consideration. Positive result means that the transaction was profitable, and negative one means that it was unprofitable;
- **Comments** — comments on trade operations are stored in this column. A comment can only be written at the position opening or at placing of an order. Comment cannot be changed at order or position modifying. Besides, the brokerage company can store a comment to a trade operation, as well.

This tab allows not only to view the open positions and placed orders, but to manage trading activities. One can do the following here: open a new position, place a pending order, modify or delete it, and close a position. To do all this, one has to use the following context menu commands:

- **New Order** — a new order. The orders managing window will appear at this command. A new position can be opened and a pending order can be placed in it. At that, the following must be specified: the security, amount of lots, order type (market order or a pending one), as well as Stop Loss and Take Profit order levels. More details about placing of orders can be found in the "Control over Trade Positions" section;

- **Close Order** — close a trade position. This command becomes active only if the context menu has been called at an open position. The order managing window appears at this command, as well. This window displays not only "Sell" and "Buy" buttons, but also the "Close#XXXXXXX ..." button (where XXXXXXX is the position ticket number). Besides, having executed this command, one can close the selected positions together with the hedged ones. More details about closing of positions can be found in the corresponding section;

- **Modify or Delete Order** — change the "Stop Loss" and "Take Profit" values of open positions or the pending order price. If the Stop Loss and Take Profit levels specified are too close to the current price, the error message will appear, and the levels will not be placed. Their values must be changed to be not so close to the current price, and then they can be placed again. More details about modifying of orders can be found in the section of the same name;

- **Trailing Stop** — place, modify, or delete the "Trailing Stop" level. Having selected the corresponding level in the menu, one can activate the trailing stop with the given parameter. The "None" value is used for disabling of the order. "Delete All" — disable all trailing stops. More details about trailing stops are given in the "Trailing Stop" section;

- **Profit** — show profit/loss as points, as term currency, or as deposit currency. Changes in this parameter are displayed in the "Profit" field. If the parameter of "show profit in the term currency" (quote currency) is selected had, there are, for example, open positions for USDJPY, the profit will be shown in Japanese Yens;

- **Commissions** — show/hide the "Commissions" column where the commission for each of the performed trade operations will be displayed;

- **Comments** — show/hide the "Comment" column. Comments to trade operations are written in this column. A comment can be written only if a position is being opened or an order is being placed. It cannot be changed at modifying of an order or of a position. Besides, the brokerage company can write a comment to a trade operation;

- **Auto Arrange** — automatic arrangement of columns at changing of the window size;

- **Grid** — show/hide grid to separate columns.

Accelerating keys of Ctrl+F9 switch the the focus in the "Terminal — Trade" window. After they have been pressed, one can trade with the keyboard.

Account History Tab

Information about all trade operations performed is stored in the "Account History" tab. The entire history is displayed as a table with the following fields (from left to right):

- **Order** — operation ticket number. It is the unique number of a trade operation;

- **Time** — time of position opening. It is given in YYYY.MM.DD HH:MM (year.month.day hour:minute) format. This is the time when the position was opened;

- **Type** — trade operation type. Only three types of trade operations can be found here: "Balance" — entering of funds in the account, "Buy" — a long position, and "Sell" — a short position;

- **Lots** — amount of lots participated in the operation;

- **Symbol** — this field shows the name of the security participated in the operation;

- **Price** — price of position opening. This is the price at which the position was opened;

- **S/L** — level of the Stop Loss order placed. If a trade position was closed by this order, its corresponding cell will be colored in red, and "[s/l]" will appear in the field of comments. If no

order was placed, zero value will appear in this field. On the other hand, if the an order was placed, but did not trigger, its value will still be shown in this field. At that, the cell will not be colored, and no "[s/l]" will be output in the field of comments. More details about working with orders are given in the corresponding section;

- **T/P** — level of the Take Profit order placed. If a trade position was closed by this order, its corresponding cell will be colored in green, and "[t/p]" will appear in the field of comments. If no order was placed, zero value will appear in this field. On the other hand, if the an order was placed, but did not trigger, its value will still be shown in this field. At that, the cell will not be colored, and no "[t/p]" will be output in the field of comments. More details about working with orders are given in the corresponding section;

- **Time** — time of position closing. It is given in YYYY.MM.DD HH:MM (year.month.day hour:minute) format. This is the time when the position was closed;

- **Price** — price of position closing. This is the price at which the position was closed;

- **Commission** — commissions charged by the brokerage company when trade operations are performed will be stored in this field;

- **Swap** — the swaps charged are stored in this field;

- **Profit** — the financial result of transaction will be written in this field. Positive number means that the transaction was profitable, and the negative one does vice versa. The profit is shown only in the deposit currency here, unlike it is in the field of the same name in the "Trade" tab.

- **Comments** — comments on trade operations are stored in this column. A comment can be input only at opening of a position or placing an order. The comment cannot be changed when an order or a position are being modified. Besides, a comment to the trade operation can be input by the brokerage company.

Context Menu

Commands allowing to manage the history range and data performance, as well as commands of history data export are grouped in the context menu:

- **All History** — show the entire account history. At this command execution, the whole financial history of the account will appear in the screen without any limitations by time;

- **Last 3 Months** — show only the last 3-months history;

- **Last Month** — show only the last month history;

- **Custom Period** — show history for the selected period. At this command execution, the window that manages the history range will appear where one can select one of the pre-defined ranges (the "Period" field) or specify them manually in the fields of "From" and "to";

- **Save as Report** — save the account history as a HTML file. At that, a window allowing to select a path for saving of the file will appear;

- **Save as Detailed Report** — save the account history as a HTML file. A detailed report differs from a normal one for an additional set of parameters. After this command has been executed, a window allowing to select a path for saving the file will appear;

- **Commissions** — show/hide the "Commissions" column;

- **Comments** — show/hide the "Comments" column. Comments to trade operations are stored in this column. A comment can only be input at opening of a position or at placing of an order. Besides, the brokerage company can write a comment to the trade operation, as well;

- **Auto Arrange** — automatic arrangement of column sizes at changing of the window size;

- **Grid** — show/hide grid for separating of columns.

News Tab

The list of income news is stored in the "News" tab. The news topics are represented as a table and arranged according to the incoming time. The news incoming time, its topic and category are published in the table. This list is updated automatically at incoming of the latest news.

The following commands are available in the context menu:

- **View** — view the selected news. One can also read news by double-click with the left mouse button on the topic;
- **Copy** — copy the news to the clipboard;
- **Category** — show/hide the "Category" column;
- **Auto Arrange** — automatic arrangement of columns when changing of the window size;
- **Grid** — show/hide grid to separate columns.

Attention:

- If there is no "News" tab in the "Terminal" window, it means that no news have income yet.
- If the "Enable news" option is disabled in terminal settings, news will not income.
- If the given account has no appropriate rights, this can be one of the reasons why news do not income or cannot be viewed.

Alerts Tab

This tab contains information about created alerts. The alerts are intended for signaling about events in the market. Having created alerts, one may leave the monitor as the client terminal will automatically inform about the server event.

All alerts in this tab are represented as a table with the following fields:

- **Symbol** — security the data on which are used to check for the condition specified. If the "Time=" parameter (alert triggering at the pre-defined time) was selected as a condition, the symbol does not matter;
- **Condition** — condition under which the alert will trigger. The following can be used as such a condition:
    1. **Bid>** — the Bid price is higher than the specified value. If the current Bid price exceeds the given value, the alert will trigger;
    2. **Bid<** — the Bid price is lower than the specified value. If the current Bid price goes under the given value, the alert will trigger;
    3. **Ask>** — the Ask price is higher than the specified value. If the current Ask price exceeds the given value, the alert will trigger;
    4. **Ask<** — the Ask price is lower than the specified value. If the current Ask price goes under the given value, the alert will trigger;
    5. **Time=** — time is equal to the given value. As soon as this time comes, the alert will trigger.
- **Counter** — the amount of alert triggerings;
- **Limit** — maximum permissible amount of the alert triggerings. Having triggered this given amount of times, the alert will stop triggering;
- **Timeout** — the period of time between alert triggerings;
- **Event** — the action to be performed. This can be an audio signal, a file executable in operational environment, or a message sent by email.

Alerts Management

The following context menu commands are intended for managing of alerts:

- **Create** — create a new alert. The same action can be performed by pressing of the Insert key;
- **Modify** — edit the alert. The same action can be performed by double-clicking on the alert name in the table or by pressing of the Enter key;
- **Delete** — delete the alert. This action can also be performed by pressing of the Delete key;
- **Enable On/Off** — enable/disable the alert. The alert will not be deleted when disabled, but it stops to trigger. It can be enabled later. The same action can be performed by pressing the Space key or enabling in the alert setup window (described below).

Attention: To manage alerts with the keyboard, one should activate this window first. To do so, it is necessary to click with the left mouse button in the window.

One can start modifying of the alert by double-clicking of the left mouse button in the alert information line. In this case, as well as at execution of the "Modify" and "Create" context menu commands, the alert editor window will appear:

- **Enable** — alert on/off. When the alert is off, it is not deleted, but it will stop functioning. This option is similar to the "Enable On/Off" context menu command and pressing of the Space key;
- **Action** — assign an action to be performed when an event happens: play a sound, run a file, or send an email.
  When playing a sound or running a file, one should specify the corresponding files. At sending of a message, one should specify the topic and text of the message;
- **Symbol** — security the values of which will be used to check the condition;
- **Condition** — condition ("Time=", "Bid<", "Bid>", "Ask<", "Ask>") under which the alert will trigger;
- **Value** — check value of the condition. If the symbol price is equal to this value, the alert will trigger;
- **Source** — the alert. When a sound is played or a file is run, one should specify the path to the corresponding file. When a message is sent by email, one should input the message. It must be noted that one should set up email parameters for sending message;
- **Timeout** — the time period between alert triggerings;
- **Maximum iterations** — maximum amount of times the alert repeats triggering.

The "Test" button allows to check the usability of the selected alert. For changes to come into effect, one must press the "OK" button.

Attention: To send messages about events happened, one has to set up mailbox parameters in the program settings.

Mailbox

The "Mailbox" is intended for working with the internal mailing system. It is in this window of the "Terminal" where all electronic messages that income to the terminal are stored. They are represented as a table with the following fields:

- **Time** — the time of the news incoming;
- **From** — the sender name;
- **Headline** — the headline of the message.

Using a double-click with the left mouse button on the necessary headline or the "View" context menu command, one can view the content of the selected message, and one can delete a message using the "Delete" command. Besides, if the brokerage company permits it, one can send messages to the systems

administrator or to technical support service from this tab. To do so, one has to execute the "Create" context menu command, then select a receiver in the appearing window, head the message, write its text, and press the "Send" button.

Attention: All messages are sent by internal mailing system and do not require any additional settings. If any problems occur when using the mailbox, it is recommended to refer to the technical support service.

Experts

The "Experts" contains the entire information about the attached expert, including opening/closing of positions, modifying of orders, the expert's own messages, etc. There are only latest messages in the window. To view the earlier messages, one has to execute the "Open" context menu command and select the desired file. Files of the experts logs are stored in the /EXPERTS/LOGS directory, filenames correspond with the log date — YYYYMMDD.LOG. To copy a message to the clipboard, one has to execute the context menu command of the same name.

Journal

The "Journal" tab contains information about the stated actions of the trader and the client terminal within the current session.

Information about terminal launching and about events during its working, including all trade operations, is stated in journal. There are only the latest messages in the window. To view the earlier messages, one has to execute the "Open" context menu command and select the desired file. The files of the client terminal journal are stored in the /LOGS directory, the filename corresponds with the journal date — YYYYMMDD.LOG. To copy the message to the clipboard, one has to execute the context menu command of the same name.

Tester Window

"Tester" is a multifunctional window that allows to test strategies and optimize parameters of expert advisors. When being tested, the expert is passed on the modeled data one time what allows to estimate its profitability and effectiveness. For optimization purposes, the mechanical trading system is passed many times in order to find out such parameters of the expert at which its profitability is the highest.

The window can be called by the "View — Strategy Tester" menu command, by pressing of accelerating keys of Ctrl+R, or the button of the "Standard" toolbar. There are several tabs in this window:

- **Settings** — settings of testing and optimization. The parameters of expert advisors, period to be tested, the method of bars modeling, and many other things, can be set up in this tab;
- **Results** — the results of trade operations performed by the expert, as well as the direction of balance changes;
- **Graph** — displaying of testing results in a graph;
- **Report** — the detailed testing report. Many indications of testing and effectiveness of experts can be found here: the amount of bars modeled, the total profit, the most profitable and unprofitable positions, the amount of profit and loss trades, etc.;
- **Journal** — a log where all actions and internal messages of the expert are recorded;
- **Optimization Results** — information about every pass, including inputs, profitability, drawdowns, and other data;
- **Optimization Graph** — the results of expert optimization as a graph. Besides each pass profitability, the amount of profit and loss trades is displayed in the graph.

As in the "Terminal" window, some tabs of the "Tester" window are hidden if they are empty. So, initially, only the tabs of "Settings" and "Journal" can be seen in this window. The tabs of "Results", "Graph", and "Report", will only appear after an expert has been tested. After it has also been optimized, the tabs of "Optimization Results" and "Optimization Graph" will appear. More detailed information about testing of experts can be found in the section of the same name.

Settings

Testing parameters and experts optimization parameters can be set up in this tab. At testing, the expert is passed on the modeled data one time what allows to determine the profitability and efficiency thereof. At optimization, the mechanical trading system is passed several times with the purpose of determining of such expert parameters at which its profitability is the highest.

The following commands and options are available in this tab:

- **Expert Advisor** — select the expert to be tested in the list. The expert must be compiled and placed in the /EXPERTS directory. All newly created experts will be automatically placed into this directory;
- **Symbol** — select one of the securities available;
- **Period** — select the symbol timeframe;
- **Model** — select the method of bars modeling:
  1. Every tick (based on all available least timeframes with fractal interpolation of every tick);
  2. Control points (based on the nearest less timeframe with fractal interpolation of 12 control points);
  3. Open prices only (fastest method to analyze the bar just completed);
- **Recalculate** — update the data file. If this box is checked, the remodeling of history data will be done at each testing and optimization;
- **Use date** — use range of dates when testing. If this option is enabled, the data from the given range will be used during testing. Otherwise, all available data for the given symbol and period are used;
- **Optimization** — enable the expert parameters optimization mode. More details about expert parameters optimization can be found in the section of the same name;
- **Expert properties** — open the "Expert Properties" window that allows to manage the expert parameters when testing and optimizing;
- **Symbol properties** — view the symbol parameters. These data are given in the *.FXT file heading and used to emulate the server operation;
- **Open chart** — create a new chart window for the symbol selected for testing. When being tested, the expert works with a virtual chart. Signs of opening and closing of positions, objects and indicators used by the expert, are imposed in this chart. This chart can be opened only after the expert has been tested. For opening of a virtual chart, the TESTER.TPL template is used, and, if it is not available, the default settings are used;
- **Modify expert** — open the "MetaEditor" and start to edit the selected expert. This is useful if there is a need to introduce small changes and recompile the expert fast;
- **Start** — start testing or optimization. After this button has been pressed, one can estimate the speed of testing or optimization in progress bar in the lower part of the window. After the testing has been started, the "Start" button will be replaced with the "Stop" button. Having pressed this button during testing/optimization, one can stop the process.

More details about testing of experts can be found in the section of the same name.

Expert Properties Window

Parameters of the virtual account and the expert advisor under test can be set up in this window. These data will later be used for testing or optimization of the expert parameters. There are three tabs in the window:

- **Testing** — Parameters common for both testing and optimizations are placed in this tab. These are volume and currency of initial deposit that are given in the fields of the corresponding

names. Types of positions to be opened at testing can be selected, as well: "Only Long" — open only long positions; "Only Short" — only short ones; "Long and Short" — open both types of positions. Whatever expert mechanisms are used, they will open positions only as set here;

- **Inputs** — the list of all inputs is given here as a table. Inputs are variables that influence the expert work and can be changed directly from the client terminal. The amount thereof can vary from expert to expert. The current data to be used at testing of an expert will be written in the "Value" field. Data to be written in the fields of "Start", "Step" and "Stop" do not influence the expert testing, and are only used for its optimization. Initial value of the variable, step of change, and final value are written in this field. At optimization, expert with parameters within the range between initial and final values will be passed consecutively. Checking from the right of the variable names allows to include the parameter into optimization process. If a variable has not been checked, it will not participate in optimization. Its value will not be changed in the optimization process, and the parameter written in the "Value" field will be used.

  There is an opportunity to download a set of inputs already saved before (including the values of "Start", "Step", and "Stop"). This can be done by pressing of the "Load" button and after the preliminarily saved set of inputs has been selected. The actual set of external variables can be saved by pressing of the button of the same name.

  Attention: It is recommended to include only necessary variables into optimization process. If too many variables are included into it, the amount of passes and total optimization time will rapidly increase.

- **Optimization** — this tab allows to manage optimization limits. If the real values meet those required in this tab, the current pass will be stopped and the next pass will start. Parameters limiting testing at optimization of the expert are:

  1. **Balance minimum** — minimum balance value in the deposit currency;
  2. **Profit maximum** — maximal profit in the deposit currency;
  3. **Minimal margin level**, **%** — minimal level of margin in per cents;
  4. **Maximal drawdown**, **%** — maximal drawdown in per cents;
  5. **Consecutive loss** — maximal total loss in one series of trades. A loss series is a certain amount of consecutive loss trades;
  6. **Consecutive loss trades** — maximal amount of loss trades in one series;
  7. **Consecutive win** — maximal total win in one series of trades. A win series is a certain amount of consecutive win trades;
  8. **Consecutive win trades** — maximal amount of win trades in one series.

More details are given in the sections of "Testing of Expert Advisors" and "Optimization".

Results Tab

The testing results are represented as a table in this tab. Information about all trade operations performed within the testing process can be found here:

- **#** — the sequence number of the trade operation;
- **Time** — time of the trade operation;
- **Type** — the type of operation performed (sell, buy, s/l, t/p, modify, close at stop, etc.);
- **Order** — the ticket number of a trading position or a pending order (not to be mixed up with the trade operation number described above);
- **Lots** — the amount of lots that participated in the operation;
- **Price** — the price of the security at the operation performing;
- **S/L** — the Stop Loss order value. No entries in this field mean that no order was placed;

- **T/P** — the Take Profit order value. No entries in this field mean that no order was placed;
- **Profit** — profit/loss. The value of profit/loss will be entered only after positions have been closed;
- **Balance** — the value of balance. This value will be entered only after positions have been closed.

Having clicked with the left mouse button on any column heading, one can sort all entries in the table in descending or ascending order. Using the "Copy" context menu command or accelerating keys of Ctrl+C, one can copy the selected lines of results to the clipboard for further use in other applications. If no line has been selected, the entire table will be copied to the clipboard. To copy the entire table to the clipboard, one can execute the "Copy all" command. The report about testing results can be stored in a HTML file on the hard disk. To do so, one has to execute the "Save as Report" context menu command. The "Set Date "From"" and "Set Date "To"" commands allow to specify the time range for testing. At that, the dates of the selected operations will be written in the fields of "Use date from:" and "Use date to:" in testing settings. This useful if there is a need to test an expert thoroughly or to optimize its parameters within this given range.

More details are given in the sections of "Tester" and "Optimization".

Graph

In the "Graph" tab, the graphs of the account balance (blue line — "Balance") and general account status considering open positions (green line — "Lots") are drawn automatically. If only balance line is shown in the graph, it means that "Balance" and "Lots" lines coincide during the whole testing process. The graph allows to watch the trade results more pictorially when testing. If the lot sizes have been changed during testing, the bar chart showing these changes will appear in the lower part of the graph.

Double click with the left mouse button on any point of the graph will switch to the "Results" tab and select the corresponding line. Using the "Copy" context menu command or accelerating keys of Ctrl+C, one can copy the graph to the clipboard for further use in other applications. The graph can also be stored as a GIF file on the hard disk. To do so, one has to execute the "Save as Picture" context menu command or press the accelerating keys of Ctrl+S. The "Set Date "From"" and "Set Date "To"" commands allow to set the time range of testing. At that, the dates of operations selected are written in the fields of "Use Date From:" and "Use Date To:" in the Settings tab. This is useful if there is a need to test an expert or to optimize its parameters for this given time range.

More details are given in the sections of "Testing of Expert Advisors" and "Optimization".

Report Tab

The summarized results of experts testing and some key indices are represented in the "Report" tab. Such reports allow to compare different experts to each other in a quick mode. The following data are published in reports:

- **Bars in test** — the amount of the modeled history data in bars;
- **Ticks modeled** — the amount of the modeled ticks;
- **Modeling quality** — the quality of ticks modeled during testing in per cents. Modeling is schematically displayed as a band in the next line of the report. This band can be of one of three colors:
  1. **Grey** — this part of the data available was not tested at all. Grey color can appear, if the range of dates was given in tester settings;
  2. **Red** — modeling was not performed within this subrange since no data of a smaller period were available. At that, only data from the period selected in the tester settings were used;
  3. **Green** — modeling was performed within this subrange. At that, the brighter the color is, the better in quality the modeling was. For example, when testing at the period of

H1, the dark-green band can mean that M30-period data were used for testing, and the brightest means that those of M1 period were used;

Attention: If the fastest method ("by open prices") has been used for modeling in testing settings, the entire band will be red. At that, "n/a" — modeling has not been performed at all — will be written in the "Modelling quality" field;

- **Initial deposit** — the volume of the initial deposit;
- **Total net profit** — financial result of all trades. This index represents a difference between the "Gross profit" and "Gross loss";
- **Gross profit** — the sum of all profitable trades in terms of money;
- **Gross loss** — the sum of all unprofitable trades in terms of money;
- **Profit factor** — the ratio between gross profit and gross loss in per cents. The one value means that profit equals to loss;
- **Expected payoff** — the expected payoff. This statistically calculated index represents the average profit/loss factor of a trade. It can also be considered for representing the expected profit/loss factor of the next trade;
- **Absolute drawdown** — the largest loss is lower than the initial deposit value;
- **Maximal drawdown (%)** — maximal loss of the local maximum in the deposit currency and in percents of the deposit;
- **Total trades** — the total amount of trade positions;
- **Short positions (won %)** — the amount of short positions and percentage of won thereof;
- **Long positions (won %)** — the amount of long positions and percentage of won thereof;
- **Profit trades (% of total)** — the amount of profitable trade positions and their percentage in the total trades;
- **Loss trades (% of total)** — the amount of profitable trade positions and their percentage in the total trades;
- **Largest profit trade** — the largest profit among all profitable positions;
- **Largest loss trade** — the largest loss among all unprofitable positions;
- **Average profit trade** — average profit value for a trade (the sum of profits divided by the amount of profitable trades);
- **Average loss trade** — average loss value for a trade (the sum of losses divided by the amount of unprofitable trades);
- **Maximum consecutive wins (profit in money)** — the longest series of profitable trade positions and the sum of their wins;
- **Maximum consecutive losses (loss in money)** — the longest series of unprofitable trade positions and the sum of their losses;
- **Maximal consecutive profit (count of wins)** — the maximum profit of a series of profitable trades and the amount of profitable trades corresponding with it;
- **Maximal consecutive loss (count of losses)** — the maximum loss of a series of unprofitable trades and the amount of unprofitable trades corresponding with it;
- **Average consecutive wins** — the average amount of profitable positions in consecutive profitable series;
- **Average consecutive losses** — the average amount of unprofitable positions in consecutive unprofitable series.

This report can be copied to the clipboard or saved in the hard disk as an HTML file. To do so, one has to execute the "Copy" context menu command or that of "Save as Report", respectively. The report can also be copied to the clipboard by pressing of accelerating keys of Ctrl+C.

More details are given in the sections of "Testing of Expert Advisors" and "Optimization".

Journal Tab

Messages about the expert testing process, including all trade operations, are published in the "Journal" tab automatically. This journal is rather similar to that of the "Terminal — Expert Advisors" window, except for that messages informing about expert testing, but not its working at the market , are published in this Tester Journal. After the expert has been tested, these data will be output in the separate /TESTER/LOGS directory. The tester journal files are stored in the /EXPERTS/LOGS directory, filenames being correspondent with the date of logs — YYYYMMDD.LOG. To view the stored logs, one has to execute the "Open" contest menu command and select a necessary file. To copy the message to the clipboard, one has to execute the context menu command of the same name. The "Delete All" command allows to delete all the logs from the directory and cleans this tab. This can be useful to clean the hard disk of too many files.

Optimization Results

Unlike testing, optimization is supposed to perform many passes for mechanical trading system (MTS) with different inputs. This is done to determine the expert parameters with which its profitability is the highest. To optimize, one has to flag the "Optimization" field in the tab of tester setup and press the "Start" button. After that, two new tabs will appear in the window: "Optimization Results" and "Optimization Graph".

The "Optimization Results" tab, unlike Tester Report, publishes not the entire list of trades, but final reports of each pass. All data are represented in the table with the following fields:

- **Pass** — the pass number;
- **Profit** — net profit (gross profit minus gross loss);
- **Total trades** — the total amount of open trade positions;
- **Profit factor** — the ratio between total profit and total loss in per cents. One means that total profit is equal to total loss;
- **Expected Payoff** — mathematical expectation of win. This statistically calculable figure shows average profitability/unprofitableness of one trade. It is considered to show the estimate profitability/unprofitableness of the next trade;
- **Drawdown $** — maximum drawdown relating to the initial deposit in the deposit currency;
- **Drawdown %** — maximum drawdown relating to the initial deposit in per cents;
- **Inputs** — dynamic values of inputs at each pass.

After having clicked with the left mouse button on the heading of any column, one can sort all entries of the table in decreasing or increasing order. Data of the selected pass will be entered as basic inputs of the expert (expert properties window, the "Inputs" tab) after the "Set Input Parameters" context menu command has been executed. At that, the program switches to the "Settings" tab, and optimization mode will be stopped. Having pressed the "Start" button, one can test the expert advisor having the pre-defined input parameters and variables. The same action can be done by a double click with the left mouse button on the pass line in the tab of optimization results. Using the "Copy" context menu command or accelerating keys of Ctrl+C, one can copy the selected results to the clipboard for further use in other applications. If no line has been selected, the entire table will be copied to the clipboard. The "Copy All" command can be used to copy the entire table to the clipboard, as well. The report of the optimization results can also be stored in HTML format on the hard disk. To do so, one has to execute the "Save as Report" context menu command. Other context menu commands allow to set up displaying of results:

- **Skip Useless Results** — show/hide the results of loss passes;
- **Show Input Parameters** — show/hide the "Inputs" column;
- **Auto Arrange** — automatic setting of column sizes when the window size changes.
  The same action can be done by pressing of A;
- **Grid** — show/hide grid to separate columns.
  The same action can be done by pressing of G.

More details are given in the sections of "Testing of Expert Advisors" and "Optimization".

Optimization Graph

Unlike testing, optimization is supposed to use many repeated passes of mechanical trading system (MTS) with different input parameters. This is performed to determine such expert parameters at which its profitability is the highest. To perform optimization, one has to flag the field of the same name in the Settings tab and press the "Start" button. After that, two new tabs, "Optimization Results" and "Optimization Graph", will appear in the window.

The profit graph of all passes will be drawn automatically in the "Optimization Graph" tab. The graph allows to estimate and visualize the profitability of us of different combinations of inputs. A chart representing the amount of profit (green) and loss (red) trades of each pass is given in the lower part of the graph, as well.

Double click with the left mouse button on any point of the graph switches to the "Results" tab and selects the corresponding pass. Using the "Copy" context menu command or accelerating keys of Ctrl+C, one can copy the graph to the clipboard for further use in other applications. The graph can also be stored as a GIF file on the hard disk. To do so, one has to execute the "Save as Picture" context menu command or press accelerating keys of Ctrl+S.

More details can be found in the sections of "Testing of Expert Advisors" and "Optimization".

Fast Navigation

There are various methods used in the Client Terminal to accelerate working. The following can be used for this purpose:

- **fast navigation box** — a small box that appears in the lower left corner of the chart and allows to manage it;
- **accelerating (hot) keys** — key combinations that are intended for acceleration of working with various functions of the program.

Fast Navigation Box

The fast navigation box is used for quick switching among charts and/or among chart periods, as well as for quick scrolling of the chart to the selected date. The fast navigation box of the active chart can be opened with the Enter key, then the fast navigation box will appear in the lower left part of the chart window. One can also move the cursor to the lower left part of the chart window and double-click the left mouse button after the CHF.S icon has appeared.

Format of commands in the fast navigation box:

1. [time (hours:minutes)] example: 08:30; 8:30; 2. [date] example: 2004.10.16; 16.10.2004; 16.10.04; 3. [date and time] example: 2004.10.16 8:30; 16.10.2004 8:30; 16.10.04 8:30; 4. [symbol] example: GBPUSD; EURUSD; 5. [chart period] example: M1; M5; M15; M30; H1; H4; D1; W1; MN; 6. [symbol], [chart period] example: GBPUSD, M30; EURUSD, D1;

Attention: It must be noted that only one of the STS above-listed commands can be executed in the fast navigation box.

To execute a command, one has to press the Enter key, and the Esc key - to close the box. To move the chart to a specific date and time, one has to input this date and time. For example, the command that allows to move to the bar received at 8:30 on October, 16 2004, will appear as "2004.10.16 08:30". Along with YYYY.MM.DD and DD.MM.YYYY formats, one can also use the DD.MM.YY format, but not the

YY.MM.DD. The first zero in the time inputting can be skipped. For example, one can write "8:30" instead of "08:30". When changing a symbol, one should specify its full name. When specifying the chart period, one may skip the "M". At the "GBPUSD 30" command, as well as at the "GBPUSD M30", the symbol and period will respectively change for a 30-minutes chart of Great Britain Pound vs US Dollar.

Hot Keys

Hot keys (accelerating keys) are keys and their combinations that allow to execute various commands fast and without using of menus or toolbars.

- "⇦" — chart scrolling to the left;
- "⇨" — chart scrolling to the right;
- "⇧" — fast chart scrolling to the left or, if the scale is defined, chart scrolling up;
- "⇩" — fast chart scrolling to the right or, if the scale is defined, chart scrolling down;
- **Numpad 5** — restoring of automatic chart vertical scale after its being changed. If the scale was defined, this hot key will return the chart into the visible range;
- **Page Up** — fast chart scrolling to the left;
- **Page Down** — fast chart scrolling to the right;
- **Home** — move the chart to the start point;
- **End** — move the chart to the end point;
- "-" — chart zoom out;
- "+" — chart zoom in;
- **Delete** — delete all selected graphical objects;
- **Backspace** — delete the latest objects imposed into the chart window;
- **Enter** — open/close fast navigation window;
- **Esc** — close the dialog window;
- **F1** — open this "Userguide";
- **F2** — open the "History Center" window;
- **F3** — open the "Global Variables" window;
- **F4** — download MetaEditor;
- **F5** — switch to the next profile;
- **F6** — call the "Tester" window for testing the expert attached to the chart window;
- **F7** — call the properties window of the expert attached to their chart window in order to change settings;
- **F8** — call the chart setup window;
- **F9** — call the "New Order" window;
- **F10** — open the "Popup prices" window;
- **F11** — enable/disable the full screen mode;
- **F12** — move the chart by one bar to the left;

- **Shift+F12** — move the chart by one bar to the right;
- **Shift+F5** — switch to the previous profile;

- **Alt+1** — display the chart as a sequence of bars (transform into bar chart);
- **Alt+2** — display the chart as a sequence of candlesticks (transform into candlesticks);
- **Alt+3** — display the chart as a broken line (transform into line chart);
- **Alt+A** — copy all test/optimization results into the clipboard;
- **Alt+W** — call the chart managing window;
- **Alt+F4** — close the client terminal;

- **Alt+Backspace** or **Ctrl+Z** — undo object deletion;

- **Ctrl+A** — arrange all indicator windows heights by default;
- **Ctrl+B** — call the "Objects List" window;
- **Ctrl+C** or **Ctrl+Insert** — copy to the clipboard;
- **Ctrl+E** — enable/disable expert advisor;
- **Ctrl+F** — enable "Crosshair";
- **Ctrl+G** — show/hide grid;
- **Ctrl+H** — show/hide OHLC line;
- **Ctrl+I** — call the "Indicators List" window;
- **Ctrl+L** — show/hide volumes;
- **Ctrl+P** — print the chart;
- **Ctrl+S** — save the chart in a file having extensions: "CSV", "PRN", "HTM";
- **Ctrl+W** or **Ctrl+F4** — close the chart window;
- **Ctrl+Y**— show/hide period separators;
- **Ctrl+Z** or **Alt+Backspace** — undo the object deletion;
- **Ctrl+D** — open/close the "Data Window";
- **Ctrl+M** — open/close the "Market Watch" window;
- **Ctrl+N** — open/close the "Navigator" window;
- **Ctrl+O** — open the "Setup" window;
- **Ctrl+R** — open/close the "Tester" window;
- **Ctrl+T** — open/close the "Terminal" window;
- **Ctrl+F6** — activate the next chart window;
- **Ctrl+F9** — open the "Terminal — Trade" window and switch the focus into it. After this, the trading activities can be managed with keyboard.

There is a feature allowing to defined hot keys for calling any element of the "Navigator" window, except for those of the "Accounts" group. To define a combination of keys to an element, one has to execute the "Define a hot key" command of its context menu. The defined hot keys are of higher priority being compared to those pre-defined. For example, Ctrl+O combination meant initially the calling of the Terminal setup window. If one defines calling of the On Balance Volume indicator for the same combination, it will not be possible to call the terminal setup window by pressing of Ctrl+O.