Chapter 9. Additional features

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This chapter describes requesting reports on operations performed on the broker's server and process of working with investment recommendations.

9.1 Reports

Reports are a presentation of a client's transaction outcomes for a given period of time in a format defined by the broker.

This section describes the standard report forms provided by the QUIK system developer. Reports of specific brokers can differ from the provided examples in form and content.

The service of requesting broker reports from the QUIK Workstation is an additional capability of the QUIK system. This feature is enabled on your server after installation of the Report generation module.

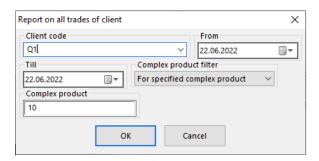
Prerequisites for using reports on a client's Workstation:

- a given user must be provided with access to reports on a QUIK server;
- the REPORTS.DLL file must be in the QUIK programs folder;
- the 'Reports' class must be included into the list of accepted classes.

If these conditions are fulfilled, the **Reports** item will appear in the program's menu.

9.1.1 Working principle

1. To get a report, select **Plugins/Reports** under the program menu and select there a required report type.



- 2. In the window that opens, select the following:
 - _ Client code.
 - From and Till start date and the end date of the report generation period. One date is specified for a client portfolio report.
 - Complex product filter allows to set the filter for displaying trades in the report by type of instrument complexity:
 - _ Disabled all trades are displayed in the report;
 - All with assigned complex product trades whose instruments have a complexity type are only displayed in the report;
 - For specified complex product trades whose instruments have a type selected in the Complex product box are only displayed in the report;
 - Complex product allows to set a type of complexity financial instrument (for example: 0, 4, 800 and etc.).

Then click the **OK** button. Your request will be sent to the server.

- **3.** Once a report is received, a window will open to display it. A notification on the time when the report was received will also appear in the **Messages window**. Every received report is opened in a new window.
- **4.** A received report can be copied to the Clipboard, printed out, saved as an HTML file or as a HTLM file with .xls extension. These actions are performed from the shortcut menu of the report view window.
- **5.** If the received report shows empty tables or "No data", this means that no operations were performed in the specified period.

9.1.2 Report on the client's portfolio

menu Plugins/Reports/Report on the client's portfolio

This report reflects the status of the client's assets on a specified day.

This report consists of three tables. The first table shows the quantity of instruments, the second table contains information on cash assets, and the third table contains the aggregate estimate of instruments as of the beginning and the end of the day. Currency in which final values are specified is set in the module BO.

This report contains the following parameters:

- Opening balance is the account status as of the beginning of the trading day;
- Closing balance is the account status as of the end of the trading day;
- Opening valuation is the value of instruments as of the beginning of the trading day;
- Closing valuation is the value of instruments following all trades as of the end of the trading day.

Report example:

Report N876

Report on client's intraday balances

Date: 04.07.2019

Client:

Client 1	D: E7
Inctm	mont I

Instrument ID	Abbreviated name of instrument	Settlement period	Opening balance	Opening valuation	Closing balance	Closing valuation
AGRO	AGRO-rgp	T0	0	0.00	0	0.00
MSNG	+МосЭнерго	T0	-1 000	-3 000.00	-1 000	-3 000.00
MSNG	+МосЭнерго	Tl	-1 000	-3 000.00	-1 000	-3 000.00
MSNG	+МосЭнерго	T2	-1 000	-3 000.00	-1 000	-3 000.00
X80114288789	RUS-30	T0	12	10.69	12	10.69
X80114288789	RUS-30	Tl	12	10.69	12	10.69
XS0114288789	RUS-30	T2	12	10.69	12	10.69
TOTAL, SUR:		T0		-2 989.31		-2 989.31
	TOTAL, SUR:			-2 989.31		-2 989.31
TOTAL, SUR:		T2		-2 989.31		-2 989.31

Report on client's intraday balances 04.07.2019

Currency code	Settlement period	Opening balance	Closing balance
SUR	T0	230 209.77	230 209.77
SUR	Tl	230 209.77	230 209.77
SUR	T2	230 209.77	230 209.77
USD	T0	-205.00	-205.00
USD	Tl	-205.00	-205.00
USD	T2	-205.00	-205.00
TOTAL, SUR:	T0	230 004.77	230 004.77
TOTAL, SUR:	T1	230 004.77	230 004.77
TOTAL, SUR:	T2	230 004.77	230 004.77

Total intraday valuation 04.07.2019

Settlement period	Opening valuation	Closing valuation
T0	227 015.46	227 015.46
Tl	227 015.46	227 015.46
T2	227 015.46	227 015.46

Broker confirms the correctness of the report

9.1.3 Report on all trades of a client

menu Plugins/Reports/Report on all trades of client

This report reflects all trades made by the client within a specified time period. The report also contains additional parameters:

Some parameters are displayed in the report if specific settings of Report generation module are configured in the Trades.ini file, see the comment to corresponding parameters.

Market is a market name if it is specified for an instrument class.

The Market parameter is shown if ShowMarket=1 in section [DialogParams].

- Currency is the instrument quotation currency.
- **Brokerage commission*** is the broker's commission amount.
- Currency* is the trade currency.

- (*) The Brokerage commission and Currency parameters are shown if ShowFaceUnit=1 in section [DialogParams] and [ShowBrokerComis] is filled.
- Total commission of trading system is the amount of the trading system commission.

The Total commission of trading system parameter is shown if ShowTSComis=1 and TotalComisTS=1 in section [DialogParams].

- **ITS charges**** is the MOEX commission under agreements for provision of the integrated technological service (ITS).
- **Trade organization fee**** is a commission charged by the market operator.
- **Clearing commission**** is the default clearing commission interest charged by the exchange for settlements under trades in all classes of instruments (trading modes) except for those that have this interest explicitly specified in the **Trading modes commission settings** section.
 - (**) The ITS charges, Trade organization fee and Clearing commission parameters are shown if ShowTSComis=1 and TotalComisTS=0 in section [DialogParams].
- **Currency** is the trade settlement currency.

The Currency parameter is shown if ShowTSComis=1 and ShowFaceUnit=1 in section [DialogParams]

- **Settlement date** is the date of settlements under the given trade;
- **Margin** is the margin ratio calculated at the time of trade execution.
- **Portfolio value***** is a portfolio value.
- **Min. margin***** is a minimum margin. If the value is more than 10²⁵, then the INF value is displayed.
- Init. Margin*** is an initial margin.
- Corr. Margin*** is a corrected margin.

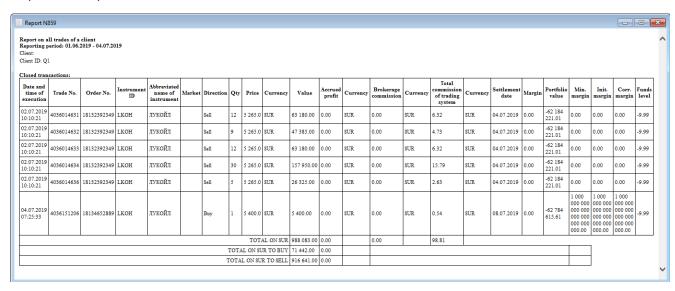
(***) The Portfolio value, Min margin, Init. margin, Corr. margin parameters are shown if ShowDiscountParams=1 in section [DialogParams].

• Funds level is the funds adequacy level.

The Funds level parameter is shown if ShowFundsLevel=1 in section [DialogParams].

- User ID UID of a user who sent an order.
- Complex product type of complex financial product. The header is displayed if the All
 with assigned complex product or For specified complex product is selected in the
 Complex product filter of report settings.

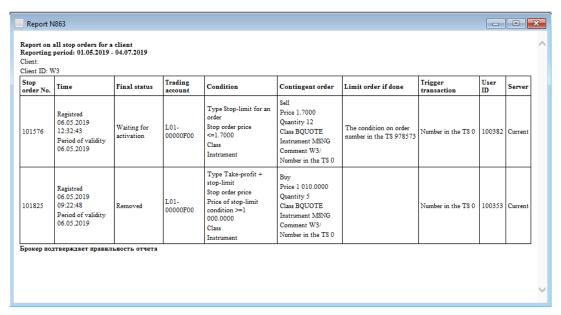
Report example:



9.1.4 Report on all client stop orders

menu Plugins/Reports/Report on all stop orders of client

This report displays all stop instructions placed by the client in a specified period.

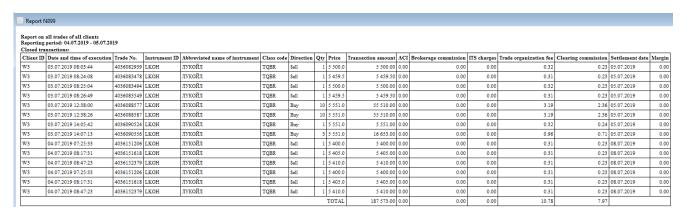


9.1.5 Report on all trades of all clients

menu Plugins/Reports/Report on all trades of all clients

This report displays all trades of a group of clients for the selected time period.

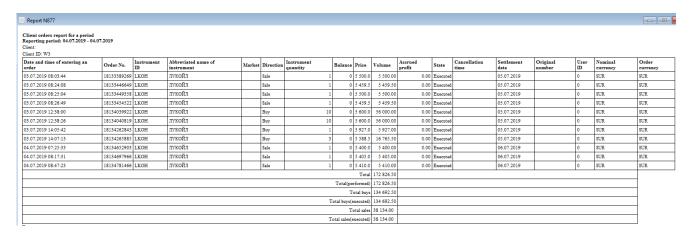
Report example:



9.1.6 Report on all orders of client

menu Plugins/Reports /Report on all orders of client

This report reflects the status of client instructions for a specified period and a summary estimate of cash assets that were required for registration or execution.

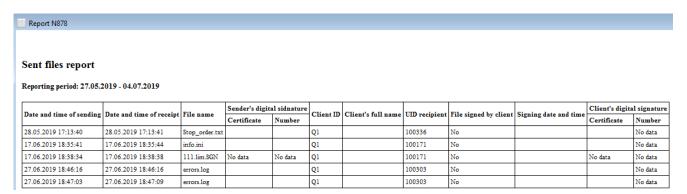


9.1.7 Report on sent files

menu Plugins/Reports / Report on sent files

This report displays information on files that were sent to client as well as files received / signed by client.

Report example:



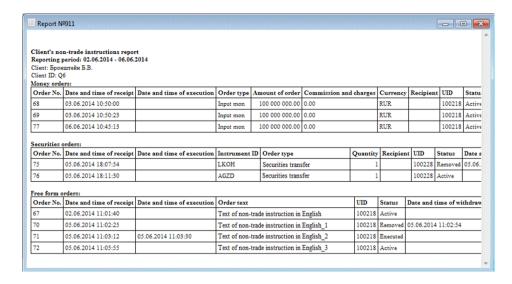
9.1.8 Report on client non-trade instructions

menu Plugins/Reports /Report on client's non-trade instructions

This report contains a list of all registered Non-trade instructions of the client for entering, withdrawal, or transferring assets between accounts within a specified period.

If the **Listing recipients** option is enabled at the time of the report generation, the report can contain instructions selected not only by the sending client's code, but also by the receiving client's code.

The first table contains the list of instructions for operations with cash assets, the second table contains the list of instructions for operations with securities, the third table contains a list of free form instructions.

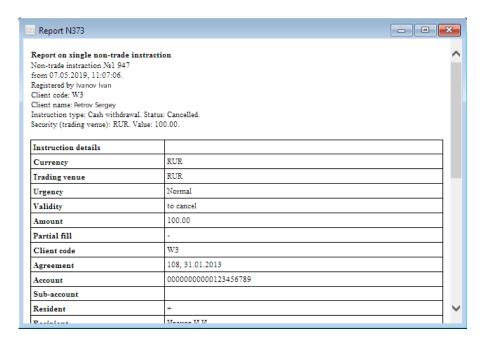


9.1.9 Report on single non-trade instruction

menu Plugins/Reports / Report on single non-trade instruction

This report is generated by a specified non-trade instruction number and contains a list of Non-trade instruction parameters specified in the template. A report on one non-trade instruction can be created by users with Client and Manager permissions. Users with Client permissions need to specify client code besides a non-trade instruction number.

Report example:

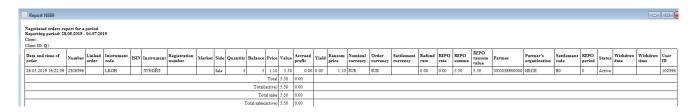


9.1.10 Report on negdeal orders

menu Plugins/Reports/Report on negdeal orders

The report reflects the statuses of the client's negotiated orders for a specified period and the total estimation of funds required for their registration and execution.

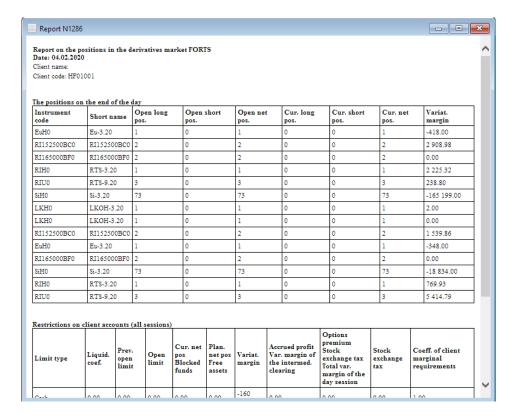
Report example:



9.1.11 Report on positions on the Moscow Exchange derivatives market

menu Plugins/Reports /Report on positions in the FORTS derivatives market

This report reflects positions and restrictions of the client on the Moscow Exchange derivatives market for the specified date.



The report consists of the following tables:

- positions on the end of the day;
- restrictions on client accounts (all sessions);
- Unified cash positions table.

Parameters of the report tables are similar to those of the Client account positions table, Client account limits table, and Cash positions table (for more details, see Chapter 3, "Viewing Information", sub-sections 3.19, 3.18, 3.16).

9.1.12 Receiving and signing files from broker

Purpose

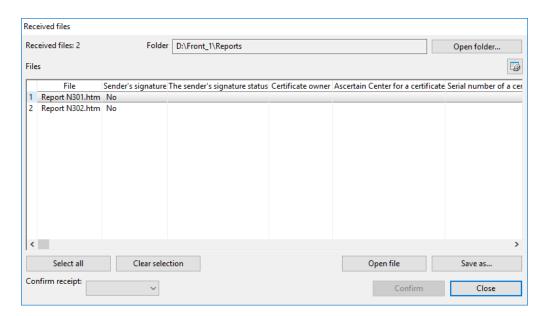
The broker can transfer certain files, for example, reports that he prepared, to the client. The files can contain the sender's digital signature. The digital signature is verified automatically when the files are received. The client can use the digital signature to confirm a file if the brokerage service regulations so require, or confirm a file without using the digital signature (if no crypto-provider configured) or use a one-time password. The QUIK server registers receiving and confirming of files.

Received files

menu Plugins/Reports/ Reports/Received files...

Files are received automatically when the QUIK Workstation connects to a server. When files are received, the form shown on the image appears in the QUIK Workstation. If the broker sends files under digital signatures and unsigned files to the client at the same time, all received files will be divided into two groups to be displayed in different windows. If necessary, the window

with the list of received files can be opened manually by selecting **Plugins/Reports/Received files** under the menu.



The **Received files** window contains the following information:

- 1. Received files specifies the number of received files.
- 2. Folder specifies the path to the default directory for archiving the received files. Files under digital signatures are saved to the ReportsSigned folder; unsigned files are saved to the Reports folder in the directory where the QUIK Workstation is installed.
- **3. Open folder...** opens the window with the directory to which files are saved when received from a sender.
- **4.** In the table with received files, each row corresponds to an individual file received. The columns display the following parameters:

Parameter	Purpose
File	File name
Sender's signature	Yes: the file is signed by sender;No: the file is not signed (in this case, do not fill in the following fields)
The sender's signature status	Yes: the signature is valid;No: the signature is invalid (in this case, do not fill in the following fields)
Certificate owner	Certificate owner name
Ascertain Centre for certificate	Name of the certification authority that issued the certificate
Serial number of certificate	The number of the issued certificate
Error	Error message
Signed	Yes: this file is signed by the user. Otherwise, do not fill this field

5. Select all – select all received files in table. Available if the table contains the files that require confirmation and for which <u>Digital signature</u> or <u>Without signature</u> confirmation method are selected.

Received files for which <u>Password</u> confirmation method is selected can be selected only one at time.

- **6.** Clear selection deselect the selected files.
- 7. Open file button Viewing files
- **8.** Available if only one file is selected.
- **9.** Save as... button save the file to a selected folder. Available if only one file is selected, and a selected file should be received within the running session.

If you click the button, the received files table editing window will open. In this window, you can configure displaying of the required columns.

Viewing files

Received files can be opened and viewed by clicking the **Open file...** button at the bottom of the window. Files are opened in external programs (for example, MS Excel) that must be installed on the user's computer beforehand.

The files are saved to a standard directory where only archive received files are stored. Therefore, a copy of the file is opened in a temporary directory without changing the file in a standard directory. If necessary, the file can be saved by user to another directory clicking **Save as...** button.

Signing files

When a client receives files a confirmation method corresponding to a received file can be selected. Depending on the settings of Report generation module, the following file confirmation methods can be selected in the **Confirm receipt** field:

- **Digital signature** confirm a selected file using the digital signature certificate.
- Without signature confirm a selected file
- Password confirm a selected file using a one-time password. To request a one-time password from the Report generation module, click the **Get password via SMS** button. The received password should be entered in the field on the left. The field becomes active only the password is received and the 'Enter password' message appears. The number of attempts to receive the password and the number of one-time password entries attempts are configured by the administrator of the Report generation module. When reaching the maximum number of attempts, the user will lose the possibility to confirm the file using one-time passwords. It is possible to enter any of the received one-time passwords (the first one or requested later for this file).

Click **Confirm** to confirm a selected file.

If a confirmed file is selected, then the **Confirm receipt** field is not available.

Digital signature is generated by an external program that must be installed on the user's computer. Consult your broker about getting and installing such program.

Generated Digital signature will be registered on the broker's server. The result of the operation is displayed in the **Confirmed** column of the Messages window.

Files received by the user can be cancelled by the broker if they are not confirmed by the client. To cancel the unsigned files, the client must contact his broker. This procedure removes the relevant file from the list of received files.

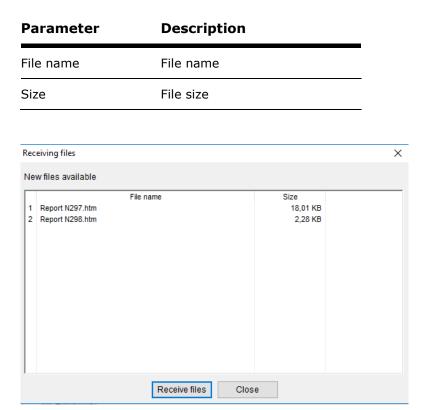
To confirm files (using any method), you must be connected to the server.

Receiving files

menu Plugins/Reports / Receiving files...

If the **Notify about new files** setting is enabled in the Report generation module, the files will be received in the moment of the QUIK program connection to the server and later as new files will arrive. The system notification appears and a menu item **Receiving files** becomes available under **Reports** when new files are received the current user session.

Each table in the table with received files corresponds to a separate file. The table columns display the following parameters:

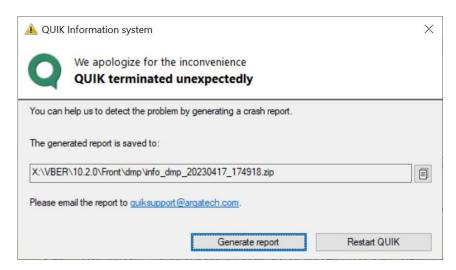


By clicking **Receive files** the window **Received files** opens. All newly received files from the list are displayed in this window. As new files are received the **Receiving files** menu item removes from the **Reports** menu.

9.1.13 Sending report in case of the application crash

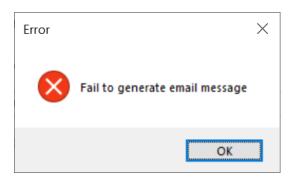
If QUIK Workstation crashes, a report can be generated to identify the problem that caused application crash.

The following message with the option to select an action is displayed at the moment of crashing:

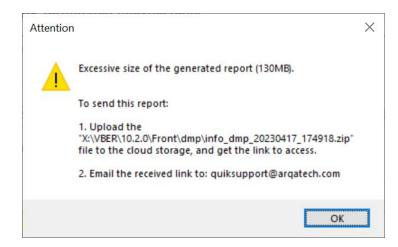


1. When you click the "Generate report" button, a zip archive containing the process dump is generated. If the program was launched with the -full-dump key, a full process dump will be obtained, otherwise a mini-dump will be obtained. After creating the archive, a file

- explorer window opens, where the path to the \dmp subdirectory in the current working directory of the program is indicated. Copy the path to the archive and send it along with the zip archive to QUIK Technical Support: quiksupport@arqatech.com.
- 2. When you click the "quiksupport@arqatech.com", a zip archive is also generated. If the size of the generated archive does not exceed 5MB, a letter form opens, in which the archive is automatically added as an attachment. If the mail client is not configured or the email cannot be opened, an error message is displayed:

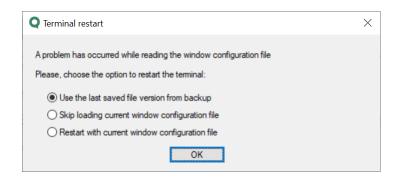


If the size of the received archive exceeds 5MB, the corresponding message is displayed:



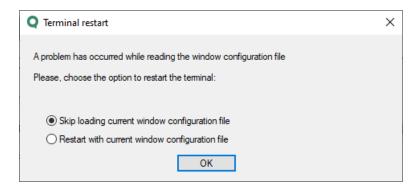
When you click the "OK" button, the letter form opens without attachments. Include the link to the external location of the archive in the email. If the mail client is not configured or the letter cannot be opened, the error message is displayed (see above).

3. When you click the "Restart QUIK" button, the restart is performed with the -clear key without generating the report. If the program crashed while loading a WND file, the file is automatically included in the archive with the report, and when you click the "Restart QUIK" button, a window opens with the following options:



After clocking the "OK" button, the program is restarted in accordance with the selected action.

If there is no *.WND file in the WNDSAV directory and there is no file in the working directory with the name of the settings file and with the extension SAV.WND, the first item is hidden and the "Skip loading current window configuration file" is selected by default.



9.2 Investment recommendations

Additional functionality allows a Broker to transmit analytical information to clients, and clients are allowed to conduct operations in the semiautomatic mode based on the received recommendations.

Features:

- A broker or an investment company aiming to sell a subscription to investment recommendations to clients, or for client loyalty improvement, may use the service of investment recommendations to regularly publish recommendations in the QUIK workstation with set investment settings.
- A trader who expects to hold long- or mid-term investments by subscribing to the broker's
 investment recommendations may view recommendations that include analytical and
 statistical information in the QUIK workstation, and then submit orders that are formed based
 on these recommendations.

9.2.1 Recommendations table

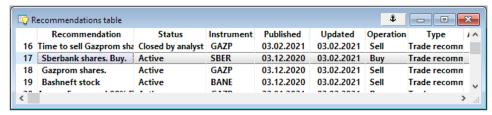
menu Plugins / Investment recommendations / Recommendations table or button

If all recommendations are read, the button \mathbb{R} is shown instead.

Purpose

Viewing available (active and closed) investment recommendations. The table is used to quickly view and sort recommendations by parameters.

Table format



The number of shown recommendations may be restricted by an administrator or user using the standard table filters.

By default, recommendations are sorted by the last change time of a recommendation.

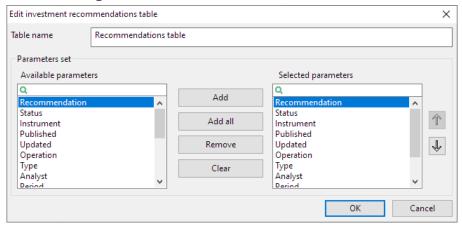
The table columns designate the following parameters:

Parameter	Value
*Recommendation	Investment recommendation name
*Status	Status of recommendation: _ Active - a recommendation with unfinished investment period. Active recommendations with assigned exit price offer conduct a reverse operation to buy/sell assets (exit a recommendation); _ Closed - a recommendation with expired investment period (the status is set the day following the day at which investment period ends); _ Closed by analyst - a recommendation is closed by a broker's employee
*Instrument	Instrument code of an investment recommendation. Multiple codes may be set (separated by commas) for a recommendation of the Analytical overview type
*Published	Date of recommendation publication
*Updated	Date of recommendation parameters change

Parameter	Value
*Operation	Operation side. Possible values: _ Sell;
	_ Buy.
	Not filled in for the Analytical overview type of a recommendation
*Type	Recommendation type. Possible values: _ Trade recommendation;
	_ Analytical overview
*Analyst	Name of a company
*Period	Investment period (weeks/months/years). If the period is not specified, the value "1 year" is displayed
*Recommended portfolio share,%	Trade volume recommended by broker, in percentage. Set by broker
*Target yield, %	Expected recommendation yield, in percentage. Set by broker
Last trade	Price of the last trade in an instrument, in monetary terms (for bonds in percentage). Not filled in for the Analytical overview type of a recommendation
Last change	Difference between the price of the last trade and the closing price, in monetary terms (for bonds in percentage). Not filled in for the Analytical overview type of a recommendation
Current yield, %	Current yield reduced to the investment period (interest for the period from the recommendation publication to the investment period end). Calculated as the ratio of the difference between the current price of the last trade and the entry price (if it is not specified, then the price at the time of publication) to the entry price (price at the time of publication), in percentage. Not filled in for the Analytical overview type of a recommendation
Entry price	Recommended price to enter a recommendation. If not specified, the Price on publish date parameter value is shown. Set by broker
Exit price	Recommended price to exit a recommendation. It is calculated by broker on the basis of the specified profitability and opening price, or the current price at the date of publication (Price at closing parameter)
Stop loss, %	Recommendation is to close at a loss if the price is> =, or <=. The parameter is displayed for information
Identifier	Investment recommendation identifier

* — fields are displayed by default. The entire set of available fields can be added in the table settings dialog box

Table settings



- **1. Table name** change the table name set by default.
- **2. Parameters set** select parameters to be displayed and their order.

To complete editing, click **OK**.

Available options

The Linked-windows mode may be applied to the table (see Chapter 2. "Basic operating principles" of the QUIK User's manual). The Recommendations table acts as a main table while windows with recommendation description and the following tables may be linked to it:

- Orders table;
- Trades table;
- Time and Sales table;
- Stop order table;
- Level II Quotes table;
- Charts.

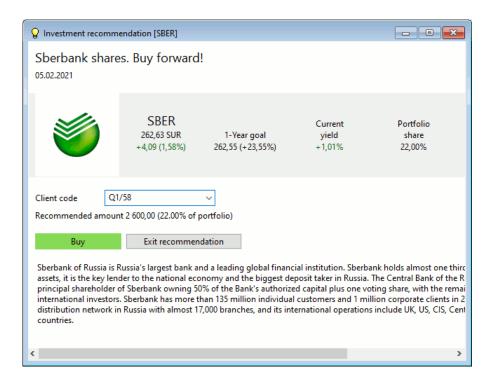
The following commands are available from the shortcut menu:

- **1. Recommendation description** (or double-click a table row) opens the window with recommendation description (see <u>9.2.2</u>). Multiple windows with recommendation description may be opened. Open recommendations are marked as read.
- 2. Mark all as read marks all investment recommendations as read.

For description of all table options, see Chapter 2. "Basic operating principles" of the QUIK User's manual.

9.2.2 Investment recommendation description

To open investment recommendation description, select **Recommendation description** from the Recommendations table shortcut menu.



At the top of the window, the recommendation change history (change of parameters, recommendation closing upon achieving a goal or closing a recommendation by analyst) is shown with change date specified.

The set of parameters in the recommendation window includes:

- Immutable parameters set by a broker;
- Dynamic information generated by the QUIK system (for parameters description, see <u>Table</u> format).

The following parameters are additionally displayed in the window:

- Logo company / instrument logo. If a logo is not loaded, the name of the asset is shown.
- **Yield,** % effective yield of an investment recommendation, in percentage. Displayed only for closed recommendations.
- **Client code** client code. It is not displayed for recommendations of the Analytical overview type. If a client code is selected, the portfolio share in currency and percentage is shown below the box. If a broker did not set this parameter in recommendation description, the portfolio share is not shown.
- Action buttons actions to be made with a recommendation. These buttons are not shown for recommendations of the Analytical overview type. Depending on the type and status of a recommendation, different buttons are shown:
 - _ Buy / Sell opens the order entry dialog box with a trade side set for a selected instrument. Unavailable for closed recommendations;
 - **Exit recommendation** opens the order entry dialog box with a reverse trade side for the whole current volume of assets in an instrument for a selected client code. The button activity does not depend on the recommendation status. The **Exit recommendation** button is unavailable for recommendations to buy if a client has

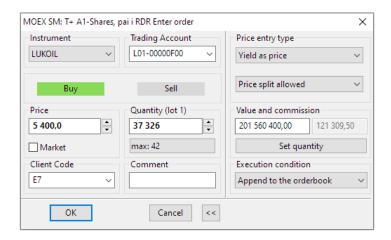
no positive position in a corresponding instrument as well as for recommendations to sell if a client has no negative position;

- New recommendation opens a recommendation linked to the current recommendation (if exists).
- Text description of a recommendation.
- **Complete review** link to view or download the complete description of a recommendation in the PDF format or the link to the site.

To open the Quotes table that shows information on the recommendation instrument, double-click the logo or instrument code. This functionality is not available for recommendations of the Analytical overview type.

9.2.3 Order entry

To open the order entry dialog box, click **Buy / Sell** (depending on the operation side) in the Investment recommendation window.



The parameters listed below are filled in automatically depending on specified parameters of a recommendation:

- 1. Instrument is an instrument of a selected recommendation.
- 2. Buy / Sell is an operation side.
- **3. Price** is the price per an instrument unit. The price reflects a recommended opening price of a recommendation; if it is not specified, the price of a counter offer is used.
- **4. Quantity** is the number of instruments in lots. Calculated based on the trade volume and price. The number of instruments in a lot is shown in brackets.
- **5. Client code** is a client identifier set in general settings of a QUIK workstation or selected in the recommendation description window.
- **6. Value and commission** show the trade volume set if a broker specified the recommended portfolio share in the recommendation parameters. Calculated based on a client code selected in an order depending on available account funds according to the order side. The brokerage commission amount is calculated automatically based on the configured algorithm and is shown in the box on the right.

For detailed description of the order entry dialog box, see Chapter 5. "Client Operations" of the QUIK User's manual.

9.2.4 Investment recommendations tab

menu Plugins / Investment recommendations / Create tab

The Create tab command is not available if the Recommendation table contains no records or contains only recommendations of the Analytical overview type.

Tab purpose

Viewing available windows and tables that may be used to manage an investment recommendation.

Tab format

The following windows and tables are randomly located on the tab:

- Investment recommendation table with the first idea listed;
- Description window of an investment recommendation;
- Positions in instruments table;
- Level II Quotes table by an instrument of a selected recommendation;
- Price and volume chart with an interval of 5 minutes;
- Orders table filtered by an instrument;
- Trade table filtered by an instrument.

A user may link any windows with the Recommendation table and view the selected investment idea data on a single tab. This window set may be changed if required. A user might want to add the Stop orders, Account state, Instrument information tables or several charts with different intervals.