Chapter 9. Additional features

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.

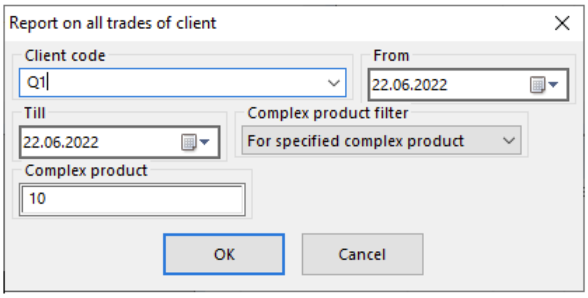
Prerequisites for using reports on a client's Workstation:

- 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 ID: E7

Instrument ID	Abbreviated name of instrument	Settlement period	Opening balance	Opening valuation	Closing balance	Closing valuation
AGRO	AGRO-гдр	T0	0	0.00	0	0.00
MSNG	+МосЭнерго	T0	-1 000	-3 000.00	-1 000	-3 000.00
MSNG	+МосЭнерго	T1	-1 000	-3 000.00	-1 000	-3 000.00
MSNG	+МосЭнерго	T2	-1 000	-3 000.00	-1 000	-3 000.00
XS0114288789	RUS-30	T0	12	10.69	12	10.69
XS0114288789	RUS-30	T1	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:		T1		-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	T1	230 209.77	230 209.77
SUR	T2	230 209.77	230 209.77
USD	T0	-205.00	-205.00
USD	T1	-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
T1	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 10^{25}, 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:

Report N859

Report on all trades of a client
Reporting period: 01.06.2019 - 04.07.2019
Client:
Client ID: Q1

Closed transactions:

Date and time of execution	Trade No.	Order No.	Instrument ID	Abbreviated name of instrument	Market	Direction	Qty	Price	Currency	Value	Accrued profit	Currency	Brokerage commission	Currency	Total commission of trading system	Currency	Settlement date	Margin	Portfolio value	Min. margin	Init. margin	Corr. margin	Funds level
02.07.2019 10:10:21	4036014631	18132392349	LKOH	ЛУКОЙЛ		Sell	12	5 265.0	SUR	63 180.00	0.00	SUR	0.00	SUR	6.32	SUR	04.07.2019	0.00	-62 184 221.01	0.00	0.00	0.00	-9.99
02.07.2019 10:10:21	4036014632	18132392349	LKOH	ЛУКОЙЛ		Sell	9	5 265.0	SUR	47 385.00	0.00	SUR	0.00	SUR	4.73	SUR	04.07.2019	0.00	-62 184 221.01	0.00	0.00	0.00	-9.99
02.07.2019 10:10:21	4036014633	18132392349	LKOH	ЛУКОЙЛ		Sell	12	5 265.0	SUR	63 180.00	0.00	SUR	0.00	SUR	6.32	SUR	04.07.2019	0.00	-62 184 221.01	0.00	0.00	0.00	-9.99
02.07.2019 10:10:21	4036014634	18132392349	LKOH	ЛУКОЙЛ		Sell	30	5 265.0	SUR	157 950.00	0.00	SUR	0.00	SUR	15.79	SUR	04.07.2019	0.00	-62 184 221.01	0.00	0.00	0.00	-9.99
02.07.2019 10:10:21	4036014636	18132392349	LKOH	ЛУКОЙЛ		Sell	5	5 265.0	SUR	26 325.00	0.00	SUR	0.00	SUR	2.63	SUR	04.07.2019	0.00	-62 184 221.01	0.00	0.00	0.00	-9.99
04.07.2019 07:25:33	4036151206	18134652889	LKOH	ЛУКОЙЛ		Buy	1	5 400.0	SUR	5 400.00	0.00	SUR	0.00	SUR	0.54	SUR	08.07.2019	0.00	-62 784 615.61	1 000 000 000 000 000 000 000 000 000 000.00	1 000 000 000 000 000 000 000 000 000 000.00	1 000 000 000 000 000 000 000 000 000 000.00	-9.99
TOTAL ON SUR										988 083.00	0.00		0.00		98.81								
TOTAL ON SUR TO BUY										71 442.00	0.00												
TOTAL ON SUR TO SELL										916 641.00	0.00												

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.

Report example:

Report N863

Report on all stop orders for a client
Reporting period: 01.05.2019 - 04.07.2019
Client:
Client ID: W3

Stop order No.	Time	Final status	Trading account	Condition	Contingent order	Limit order if done	Trigger transaction	User ID	Server
101576	Registred 06.05.2019 12:32:43 Period of validity 06.05.2019	Waiting for activation	L01-00000F00	Type Stop-limit for an order Stop order price <=1.7000 Class Instrument	Sell Price 1.7000 Quantity 12 Class BQUOTE Instrument MSNG Comment W3/ Number in the TS 0	The condition on order number in the TS 978573	Number in the TS 0	100382	Current
101825	Registred 06.05.2019 09:22:48 Period of validity 06.05.2019	Removed	L01-00000F00	Type Take-profit + stop-limit Stop order price Price of stop-limit condition >=1 000.0000 Class Instrument	Buy Price 1 010.0000 Quantity 5 Class BQUOTE Instrument MSNG Comment W3/ Number in the TS 0		Number in the TS 0	100353	Current

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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:

Report N899

Report on all trades of all clients
Reporting period: 04.07.2019 - 05.07.2019
Closed transactions:

Client ID	Date and time of execution	Trade No.	Instrument ID	Abbreviated name of instrument	Class code	Direction	Qty	Price	Transaction amount	ACI	Brokerage commission	ITS charges	Trade organization fee	Clearing commission	Settlement date	Margin
W3	03.07.2019 08:03:44	4036082939	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 500.0	5 500.00	0.00	0.00	0.00	0.32	0.23	05.07.2019	0.00
W3	03.07.2019 08:24:08	4036083478	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 459.5	5 459.50	0.00	0.00	0.00	0.31	0.23	05.07.2019	0.00
W3	03.07.2019 08:25:04	4036083494	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 500.0	5 500.00	0.00	0.00	0.00	0.32	0.23	05.07.2019	0.00
W3	03.07.2019 08:26:49	4036083549	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 459.5	5 459.50	0.00	0.00	0.00	0.31	0.23	05.07.2019	0.00
W3	03.07.2019 12:38:00	4036088577	LKOH	ЛУКОЙЛ	TQBR	Buy	10	5 551.0	55 510.00	0.00	0.00	0.00	3.19	2.36	05.07.2019	0.00
W3	03.07.2019 12:38:26	4036088587	LKOH	ЛУКОЙЛ	TQBR	Buy	10	5 551.0	55 510.00	0.00	0.00	0.00	3.19	2.36	05.07.2019	0.00
W3	03.07.2019 14:05:42	4036090524	LKOH	ЛУКОЙЛ	TQBR	Buy	1	5 551.0	5 551.00	0.00	0.00	0.00	0.32	0.24	05.07.2019	0.00
W3	03.07.2019 14:07:13	4036090556	LKOH	ЛУКОЙЛ	TQBR	Buy	3	5 551.0	16 653.00	0.00	0.00	0.00	0.96	0.71	05.07.2019	0.00
W3	04.07.2019 07:25:33	4036151206	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 400.0	5 400.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
W3	04.07.2019 08:17:31	4036151618	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 405.0	5 405.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
W3	04.07.2019 08:47:23	4036152379	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 410.0	5 410.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
W3	04.07.2019 07:25:33	4036151206	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 400.0	5 400.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
W3	04.07.2019 08:17:31	4036151618	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 405.0	5 405.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
W3	04.07.2019 08:47:23	4036152379	LKOH	ЛУКОЙЛ	TQBR	Sell	1	5 410.0	5 410.00	0.00	0.00	0.00	0.31	0.23	08.07.2019	0.00
								TOTAL	187 573.00	0.00	0.00	0.00	10.78	7.97		

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.

Report example:

Report N877

Client orders report for a period
Reporting period: 04.07.2019 - 04.07.2019
Client:
Client ID: W3

Date and time of entering an order	Order No.	Instrument ID	Abbreviated name of instrument	Market	Direction	Instrument quantity	Balance	Price	Volume	Accrued profit	State	Cancellation time	Settlement date	Original number	User ID	Nominal currency	Order currency
03.07.2019 08:03:44	18133389269	LKOH	ЛУКОЙЛ		Sale	1	0	5 500.0	5 500.00	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 08:24:08	18133446649	LKOH	ЛУКОЙЛ		Sale	1	0	5 459.5	5 459.50	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 08:25:04	18133449358	LKOH	ЛУКОЙЛ		Sale	1	0	5 500.0	5 500.00	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 08:26:49	18133454522	LKOH	ЛУКОЙЛ		Sale	1	0	5 459.5	5 459.50	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 12:38:00	18134039922	LKOH	ЛУКОЙЛ		Buy	10	0	5 600.0	56 000.00	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 12:38:26	18134040819	LKOH	ЛУКОЙЛ		Buy	10	0	5 600.0	56 000.00	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 14:05:42	18134262843	LKOH	ЛУКОЙЛ		Buy	1	0	5 927.0	5 927.00	0.00	Executed		05.07.2019		0	SUR	SUR
03.07.2019 14:07:13	18134265885	LKOH	ЛУКОЙЛ		Buy	3	0	5 588.5	16 765.50	0.00	Executed		05.07.2019		0	SUR	SUR
04.07.2019 07:25:33	18134652903	LKOH	ЛУКОЙЛ		Sale	1	0	5 400.0	5 400.00	0.00	Executed		06.07.2019		0	SUR	SUR
04.07.2019 08:17:31	18134697966	LKOH	ЛУКОЙЛ		Sale	1	0	5 405.0	5 405.00	0.00	Executed		06.07.2019		0	SUR	SUR
04.07.2019 08:47:23	18134781466	LKOH	ЛУКОЙЛ		Sale	1	0	5 410.0	5 410.00	0.00	Executed		06.07.2019		0	SUR	SUR
								Total	172 826.50								
								Total(performed)	172 826.50								
								Total buys	134 692.50								
								Total buys(executed)	134 692.50								
								Total sales	38 134.00								
								Total sales(executed)	38 134.00								

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:

Report N878

Sent files report

Reporting period: 27.05.2019 - 04.07.2019

Date and time of sending	Date and time of receipt	File name	Sender's digital sidnature		Client ID	Client's full name	UID recipient	File signed by client	Signing date and time	Client's digital signature	
			Certificate	Number						Certificate	Number
28.05.2019 17:13:40	28.05.2019 17:13:41	Stop_order.txt			Q1		100336	No			No data
17.06.2019 18:35:41	17.06.2019 18:35:44	info.ini			Q1		100171	No			No data
17.06.2019 18:38:34	17.06.2019 18:38:38	111.lim.SGN	No data	No data	Q1		100171	No		No data	No data
27.06.2019 18:46:16	27.06.2019 18:46:16	errors.log			Q1		100303	No			No data
27.06.2019 18:47:03	27.06.2019 18:47:09	errors.log			Q1		100303	No			No data

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.

Report example:

Report №911

Client's non-trade instructions report
Reporting period: 02.06.2014 - 06.06.2014
Client: Бронштейн Б.В.
Client ID: Q6
Money orders:

Order No.	Date and time of receipt	Date and time of execution	Order type	Amount of order	Commission and charges	Currency	Recipient	UID	Statu
68	03.06.2014 10:50:00		Input mon	100 000 000.00	0.00	RUR		100218	Active
69	03.06.2014 10:50:23		Input mon	100 000 000.00	0.00	RUR		100218	Active
77	06.06.2014 10:45:13		Input mon	100 000 000.00	0.00	RUR		100218	Active

Securities orders:

Order No.	Date and time of receipt	Date and time of execution	Instrument ID	Order type	Quantity	Recipient	UID	Status	Date a
75	05.06.2014 18:07:54		LKOH	Securities transfer	1		100228	Removed	05.06.
76	05.06.2014 18:11:30		AGZD	Securities transfer	1		100228	Active	

Free form orders:

Order No.	Date and time of receipt	Date and time of execution	Order text	UID	Status	Date and time of withdraw
67	02.06.2014 11:01:40		Text of non-trade instruction in English	100218	Active	
70	05.06.2014 11:02:25		Text of non-trade instruction in English_1	100218	Removed	05.06.2014 11:02:54
71	05.06.2014 11:03:12	05.06.2014 11:03:30	Text of non-trade instruction in English_2	100218	Executed	
72	05.06.2014 11:05:55		Text of non-trade instruction in English_3	100218	Active	

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:

Report N373

Report on single non-trade instraction
Non-trade instraction №1 947
from 07.05.2019, 11:07:06.
Registered by Ivanov Ivan
Client code: W3
Client name: Petrov Sergey
Instruction type: Cash withdrawal. Status: Cancelled.
Security (trading venue): RUR. Value: 100.00.

Instruction details	
Currency	RUR
Trading venue	RUR
Urgency	Normal
Validity	to cancel
Amount	100.00
Partial fill	-
Client code	W3
Agreement	108, 31.01.2013
Account	00000000000123456789
Sub-account	
Resident	+

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:

Report N889

Negotiated orders report for a period
Reporting period: 28.05.2019 - 04.07.2019
Client:
Client ID: Q1

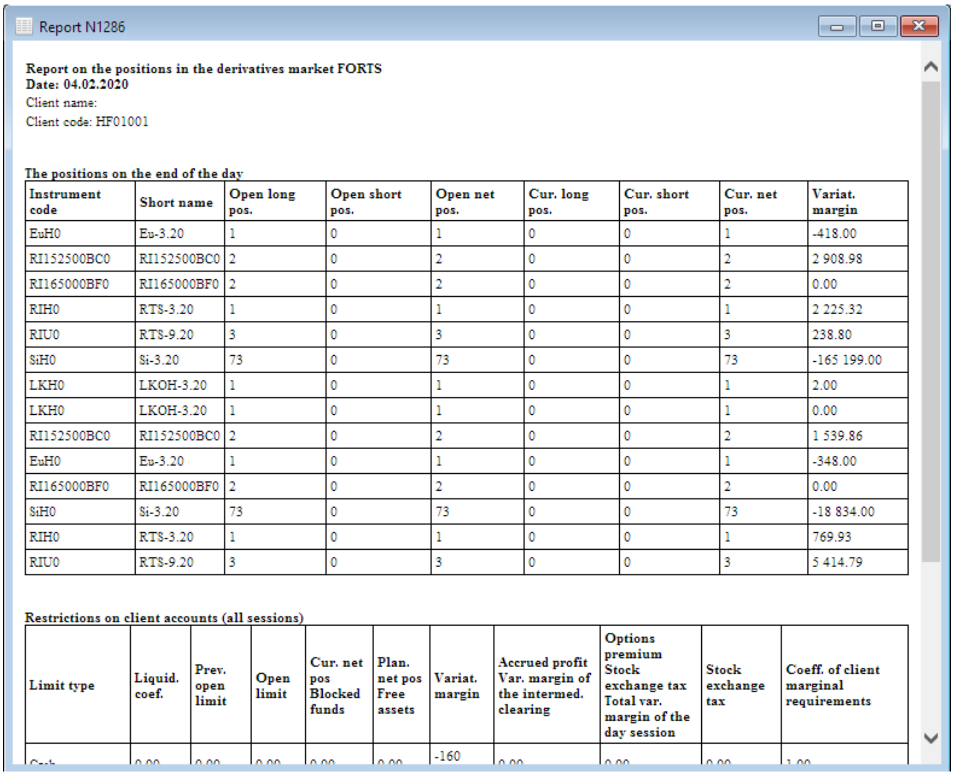
Date and time of order	Number	Linked order	Instrument code	ISIN	Instrument	Registration number	Market	Side	Quantity	Balance	Price	Value	Accrued profit	Yield	Ransom price	Nominal currency	Order currency	Settlement currency	Refund rate	REPO rate	REPO summa	REPO ransom value	Partner	Partner's organization	Settlement code	REPO period	Status	Withdraw date	Withdraw time	User ID
28.05.2019 16:22:39	2306396		LKOH		ЛУКОЙЛ			Sale	5	5	1.10	5.50	0.00	0.00	1.10	SUR	SUR		0.00	0.00	5.50	5.50	NC0038900000	ИКСИ	B0	0	Active			100396
											Total	5.50	0.00																	
											Total(active)	5.50	0.00																	
											Total sales	5.50	0.00																	
											Total sales(active)	5.50	0.00																	

9.1.11 Report on positions on the FORTS derivatives market

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

This report reflects positions and restrictions of the client on FORTS for the specified date.

Report example:



Report N1286

Report on the positions in the derivatives market FORTS
Date: 04.02.2020
Client name:
Client code: HF01001

The positions on the end of the day

Instrument code	Short name	Open long pos.	Open short pos.	Open net pos.	Cur. long pos.	Cur. short pos.	Cur. net pos.	Variat. margin
EuH0	Eu-3.20	1	0	1	0	0	1	-418.00
RI152500BC0	RI152500BC0	2	0	2	0	0	2	2 908.98
RI165000BF0	RI165000BF0	2	0	2	0	0	2	0.00
RIH0	RTS-3.20	1	0	1	0	0	1	2 225.32
RIU0	RTS-9.20	3	0	3	0	0	3	238.80
SiH0	Si-3.20	73	0	73	0	0	73	-165 199.00
LKH0	LKOH-3.20	1	0	1	0	0	1	2.00
LKH0	LKOH-3.20	1	0	1	0	0	1	0.00
RI152500BC0	RI152500BC0	2	0	2	0	0	2	1 539.86
EuH0	Eu-3.20	1	0	1	0	0	1	-348.00
RI165000BF0	RI165000BF0	2	0	2	0	0	2	0.00
SiH0	Si-3.20	73	0	73	0	0	73	-18 834.00
RIH0	RTS-3.20	1	0	1	0	0	1	769.93
RIU0	RTS-9.20	3	0	3	0	0	3	5 414.79

Restrictions on client accounts (all sessions)

Limit type	Liquid. coef.	Prev. open limit	Open limit	Cur. net pos Blocked funds	Plan. net pos Free assets	Variat. margin	Accrued profit Var. margin of the intermed. clearing	Options premium Stock exchange tax Total var. margin of the day session	Stock exchange tax	Coeff. of client marginal requirements

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 Report on portfolio risk

menu **Plugins/Reports/Report on portfolio risk**

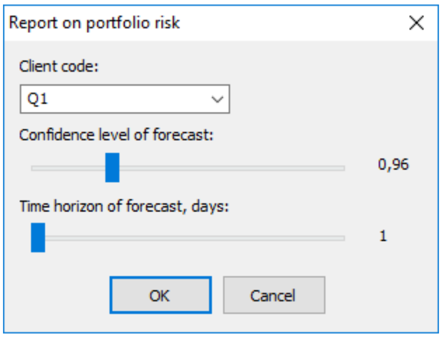
The report is intended to assess the risks using the VaR methodology. It allows estimating the most possible losses, which can arise as a result of market risk realization. The losses are calculated for a certain asset and portfolio in percent and money units.

The report reflects:

- for shares – an instrument contribution in the portfolio, risk measure in percent and money units, risk measure sensibility to the instrument contribution change, an instrument contribution in the portfolio risk measure;
- for bonds – risk measure;
- for derivative financial instruments – delta, gamma, vega coefficients.

Source data for report

In the dialog of request parameter entry, besides the code of client whose portfolio is calculated, it is necessary to specify the confidence level of forecast (from 0,90 to 0,99) and the time horizon of forecast in days (from 1 to 10).



The basic data for the calculation is price history for all assets and implied volatility for options.

The report is created based on the historical data of the Moscow Exchange instruments. The data is reported for:

- Shares, bonds – from 1 January 2016;
- Futures, options – from 7 July 2016.

Report parameters

The following parameters are shown in the report:

- **Price**:
    - For shares, futures, options – price in rubles;
    - For options – premium in rubles;
    - For index derivatives – price in points.
- **Portfolio structure**:
    - **Qty** – the asset quantity.
    - **Value** – the asset value is calculated by formula: <Price> * <Qty>.
    - **Weight** – the asset share in portfolio is calculated by formula:
      100 * <Asset value> / <Sum of values of all assets in portfolio>.
- **Historical return (HR)**:
    - **%** – the asset return for the historical period.
    - **Compared to market (HR)** – the comparison of the asset and market returns. Possible values:
    - **Higher** – if the asset return is higher than the market return for more than 5%. The market return is the MICEX index return.
    - **Lower** – if the asset return is lower than the market return for more than 5%.

    - **Same** – if the return is within the interval of these values.

- **Common risks** – risks common for assets of all types:

    - **VaR, %** – the amount of the loss, which will not be exceeded with the probability, set in the **Confidence level of forecast** parameter, at the end of the time interval specified in the **Time horizon of forecast** parameter.

    - **VaR, RUB** – risk measure in rubles.

    - **VaR Contribution (VaRC), %** – contribution to portfolio risk from this position.

    - **Compared to market VaR** – the result of the comparison between the asset risk measure and the market risk measure. The market risk measure is the MICEX index risk measure. Possible values:

        - **Higher** – if the asset risk measure is two times and higher than the market risk measure.
        - **Lower** – if the asset risk measure two times and lower than the market risk measure.
        - **Same** – otherwise.

    - **Extreme loss probability** – assessment of probability of significant deviation of price fluctuations from the normal distribution. Possible values:

        - High;
        - Low.

- **Risks of derivatives** – specific coefficients which are common for derivatives financial instruments only:

    - **Greeks** – characterize the derivatives price sensitivity to changes in the following values:

        - **Delta** – determines sensitivity of the derivatives price to change in the underlying asset price. Shows by how much would the derivatives price change if the underlying asset price were changed by one point.
        - **Gamma** – measure the delta sensitivity, i.e. the change of delta on the underlying asset price by one point.
        - **Vega** – characterize the option price (premium) sensitivity to change in volatility.

Report example:

Report N753

Portfolio Risks Report

Date: 06.02.2017
Client code Q1
Confidence level, % 95
Time horizon, days 1

Asset	Value at the reporting date													
	Price	Portfolio structure			Historical return (HR)		Common risks					Risks of derivatives		
		Qty	Value	Weight			VaR			Compared to market VaR	Extreme loss probability	Greeks		
	RUB/points	pcs.	RUB	%	%	Compared to market HR	%	RUB	VaR Contribution (VaRC), %			Delta	Gamma	Vega
Market (MICEX)	2217.39				23.54		1.22							
Portfolio, total				100	18.35	Lower	1.43	101910.96		Same	High			
GAZP	149.80	10000.00	1498000.00	21.05	11.30	Lower	1.84	27612.11	-1.02	Same	Low			
LKOH	3370.00	1000.00	3370000.00	47.36	29.98	Higher	2.46	82816.22	1.62	Higher	High			
Stocks, total				68.41	24.23	Same	1.96	95636.36	0.60	Same	High			
SU26218RMFS6	1050.48	1000.00	1050480.00	14.76	20.91	Same	0.81	8516.54	2.00	Same	Low			
RU000A0JSGV0	939.20	300.00	281760.00	3.96	1.76	Lower	0.36	1012.35	0.06	Lower	High			
Bonds, total				18.72	16.86	Lower	0.67	8946.96	2.06	Same	Low			
ALH7	10291.00	-34.00	-349894.00	-4.92	-11.09	Lower	1.57	5499.44	-0.52	Same	Low	-100.00	-0.00	-0.00
SiH7	60712.00	21.00	1274952.00	17.92	-6.87	Lower	1.08	13822.75	-1.07	Same	Low	100.00	0.00	0.00
RI127500BC7	15.94	-677.00	-10793.42	-0.15	266.51	Higher	37.43	4040.19	0.37	Higher	High	-0.00	-0.00	-0.00
RI110000BO7	48.03	1.00	48.03	0.00	-895.76	Lower	38.27	18.38	-0.00	Higher	High	0.00	0.00	0.00
Si59500BO7	905.00	1.00	905.00	0.01	-68.05	Lower	33.04	299.05	-0.00	Higher	Low	0.00	0.00	0.00
Derivatives, total				12.86	-10.78	Lower	2.21	20233.35	-1.23	Same	Low			

Assets not included in the report

Asset	Qty
DBH7	1
O2H7	708

9.1.13 Receiving and signing files from broker

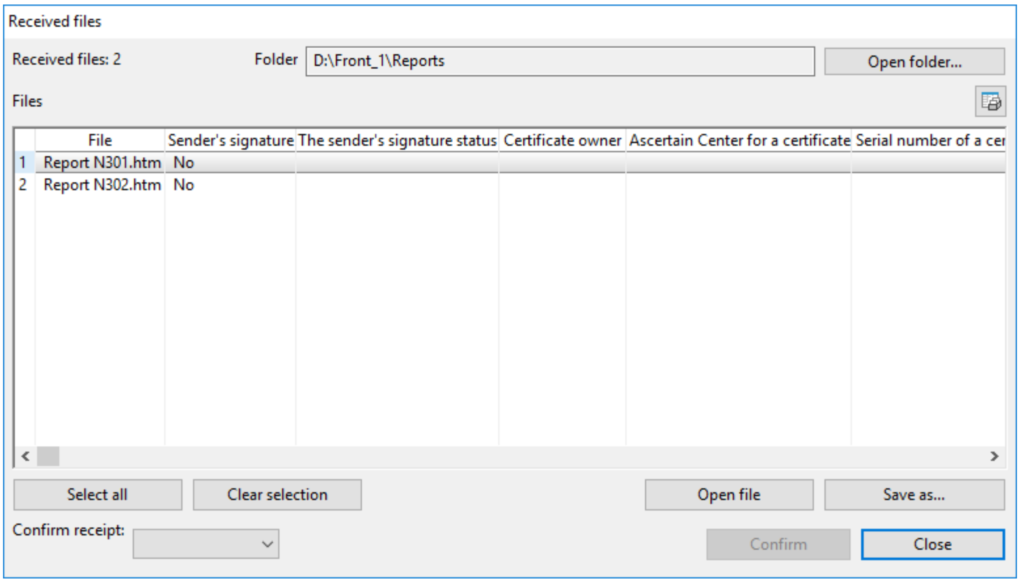
Purpose

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 program connects to a server. When files are received, the form shown on the image appears in the QUIK program. 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 **Digital signature** or **Without signature** confirmation method are selected (see 9.2.4).

> **Received files for which Password confirmation method is selected (see 9.2.4) can be selected only one at time.**

6. **Clear selection** – deselect the selected files.
7. **Open file** button – view the received file (see 9.2.3). Available if only one file is selected.
8. **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

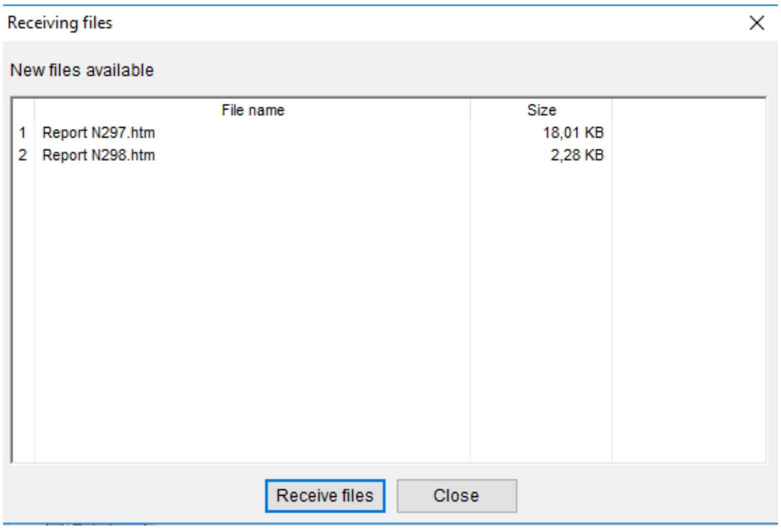
menu **Plugins/Reports /Receiving files…**

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:

Parameter	Description
File name	File name

Parameter	Description
Size	File size



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.

9.2 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

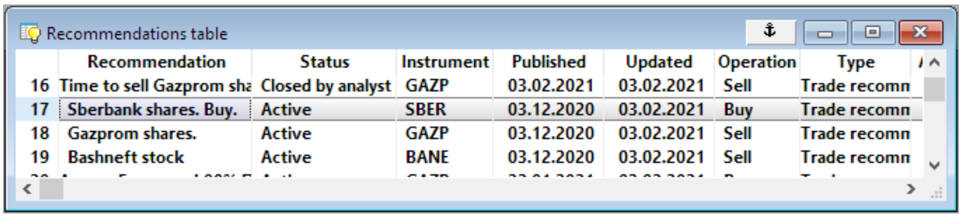
menu **Plugins / Investment recommendations / Recommendations table** or button

> **If all recommendations are read, the button 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



Recommendations table

	Recommendation	Status	Instrument	Published	Updated	Operation	Type
16	Time to sell Gazprom sha	Closed by analyst	GAZP	03.02.2021	03.02.2021	Sell	Trade recomn
17	Sberbank shares. Buy.	Active	SBER	03.12.2020	03.02.2021	Buy	Trade recomn
18	Gazprom shares.	Active	GAZP	03.12.2020	03.02.2021	Sell	Trade recomn
19	Bashneft stock	Active	BANE	03.12.2020	03.02.2021	Sell	Trade recomn

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.

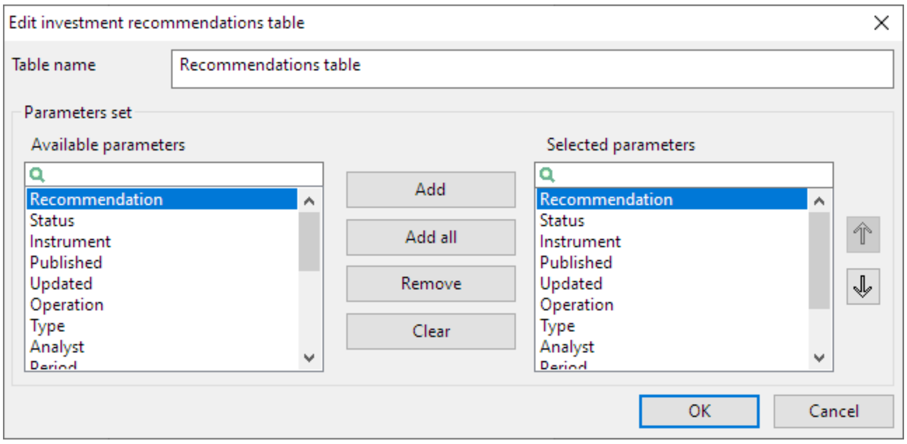
The table columns designate the following parameters:

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
*Operation	Operation side. Possible values: _ Sell; _ Buy. Not filled in for the Analytical overview type of a recommendation

Parameter	Value
*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.

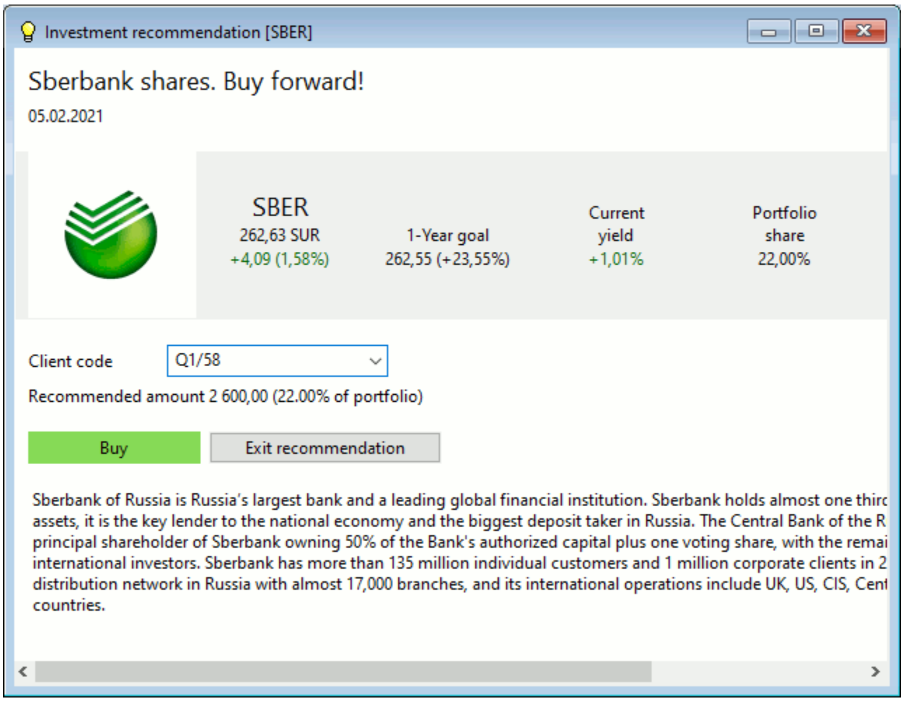
The following commands are available from the shortcut menu:

1. **Recommendation description** (or double-click a table row) opens the window with recommendation description (see 9.2.2). 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 Table 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;

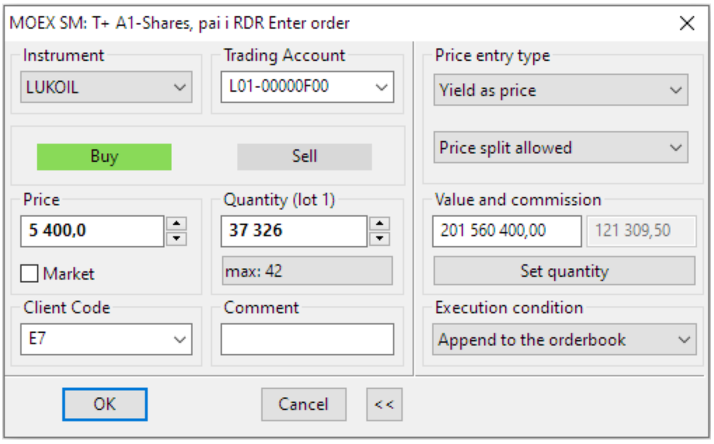
– **New recommendation** opens a recommendation linked to the current recommendation (if exists).

- 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.