



CoLibri risk manager terminal module

User's manual

Version 4.23



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1. General information

Risk manager terminal module CoLibri (hereinafter referred as Module) is the additional module of QUIK Workstation intended to solve a complex of issues related to margin lending for broker's clients.

Terms and abbreviations:

- **MarginCall2Quik** is a utility of the QUIK software complex.
- **Unified cash position** is a unified cash position between the stock and derivatives markets.
- **MD** is a margin lending scheme 'by discounts'.
- **MD+** is a margin lending scheme 'by discounts' with restriction for the purchase power using discounts for securities, currencies, and futures and possibility of risk netting for instrument sets.

IMPORTANT! Sets of instruments with dependent prices are not considered in the algorithm of position closing.

- **High risk level client** is a type of a client with high risk level who uses the **MD+** margin lending scheme.
- **Standard risk level client** is a type of a client with standard risk level who uses the **MD+** margin lending scheme.

1.1 Program functions

Module functions:

- monitor cash and depositary accounts, portfolio value, calculated parameters and client orders on QUIK Server;
- monitor parameters required for risk control at the derivatives market;
- monitor changes of the funds adequacy level to below the control level;
- generate automatic notifications (Margin Call) and send them to users as messages in the QUIK system, via email or SMS; These notifications can be sent according to the planned schedule or manually.
- roll over margin positions of the client by REPO and NDM trades of different types;
- form orders to rollover the client's FX positions to the following day;
- form and cancel orders for closing client positions;
- calculate potential values of margin parameters when client positions change.



1.2 Working principles

1.2.1 Control over margin indicators and derivatives market risk parameters

The Module provides automatic control under risk parameters changes at the stock and derivatives markets by using the Margin Call mode. If the mode is enabled, parameters are periodically checked and the notifications will be sent if the limit values are exceeded.

The Module takes into account the specifics of the indicator calculation when the broker uses the Unified cash position module.

Select the menu item **Plugins / Colibri / Margin Call mode** to activate/deactivate the Margin Call mode, or use  **Margin Call** button on the toolbar. For further details on Margin Call mode see [5.1](#).

A visual check of indicators is carried out by using the Client portfolio table of the QUIK workstation (menu item **Create window / Client Portfolio**).

1.2.2 Calculator of planned client position

If the amount of client's assets is not enough to meet liabilities on used margin credit, the Module offers calculating potential values of margin parameters for situations of depositing/withdrawing funds or buying/selling assets, and amount of funds that must be additionally deposited or withdrawn. For these purposes the program provides margin calculator. The function can be useful for estimating changes in lending parameters if the client makes the planned withdrawal of funds. See detailed description of work with the calculator in [4](#).

1.2.3 Margin positions rollover

Client positions opened with using margin funds of broker and not closed independently before the end of trading session, can be reformed (replaced to the next day) by concluding NDM and REPO trades. Function of rolling over positions can be applied to either a selected client or to all clients. Package of REPO or NDM trades displayed in Orders for positions rollover Table will be formed as the function is run. Then the user can send orders to the trading system according to criteria: 'all non-sent', 'all from the client'. For further details on positions rollover see [5.2](#). Information on working with REPO and NDM trades is given in QUIK User's manual, Section 7: Broker Operations.

1.2.4 Positions closing

The function is intended to bring client positions in correspondence with requirements set by regulator. Positions are closed for instruments of FX, stock and derivatives markets. For further information about closing positions see [5.3](#).



1.3 Principal windows and menu items

Functions of the Module are available from the main menu of QUIK Workstation. If required files and rights for working the Module are configured, the program's menu displays additional menu item **Plugins / Colibri** including the following sub-items:

- [Orders for positions rollover](#) – open Orders for positions rollover Table;
- [Status changes...](#) – open table of changing the client statuses;
- [Calculator](#) – open the margin calculator to solve direct and reverse task of changing margin parameters when changing the client position;
- [Margin Call mode](#) – open the form of configuring the Margin Call parameters;
- [Position rollover...](#) – open the form of rolling over client positions on the stock market;
- [FX positions rollover...](#) – open the form of rolling over client positions on the FX market;
- [Close positions...](#) – open the form of closing client positions;
- [Settings...](#) – open the window of editing the program settings.

An additional parameter is available in Client portfolio table edit/creation dialog box:

- **Data source for CoLibri calculations** – use table information to calculate parameters in CoLibri plugin. If the check box is enabled, the Position code filter checkbox should contain only one code. When creating or editing the table where the check box is enabled, another table exists in which the check box is enabled and different calculation parameters are set in the Position code filter and Currency settings, a corresponding message asking for applying the calculation parameters of the active table to all tables. Click **Yes** to apply the calculation parameters of the active table to all Client portfolio tables. Click **No** to apply the previously set calculation parameters to the active table.

Additional functions are available from the shortcut menu of Client portfolio table:

- **Switching off/on sending margin call for <client code>** – enable or disable permission to send notifications for a selected client. The function is available only upon active [Margin Call mode](#).
- **Send margin call for <client code>** – forced sending of notification of the selected type to the client based on current state of a selected client. If more than one notification type has been selected (see [6.1.1](#), [6.1.2](#)) the local menu to select the type of margin call to be sent will appear:

Notifications are not sent to MD and MD+ clients who do not have open positions in instruments on the stock market.

- **On portfolio valuation *** – can be applied only to MD and MD+ clients. The menu item is available if sending notifications is set up at least for one of [levels](#): restriction, demand or closing;
- **On unallowable short position *** – can be applied only to MD and MD+ clients;
- **On margin level *** – can be applied only to MD and MD+ clients, Notification is considered to be enabled if notifying at least for one of margin levels is enabled;



- **On unused global position quota *** – can be applied only to global positions;
- **On negative fund balance ****;
- **On funds adequacy level ****;
- **On funds adequacy level (for open positions) ****;
- **On collateral liquidity ratio ****;
- **On planned collateral liquidity ratio ****;
- **On composite criterion ****;
- **On arbitrary risk parameter ****.

Only margin call types allowed to be sent to this client are active in the list.

- **Send margin call for all clients** – send margin call forcibly to all clients from the Client portfolio table meeting the condition of notification of the selected type. If more than one notification type has been selected (see [6.1.1](#), [6.1.2](#)) the local menu to select the type of margin call to be sent will appear:
 - **On portfolio valuation *** – can be applied only to MD and MD+ clients. The menu item is available if sending notifications is set up at least for one of [levels](#): restriction, demand or closing;
 - **On unallowable short position *** – can be applied only to MD and MD+ clients;
 - **On margin level *** – can be applied to clients of all types except MD and MD+. The notification is considered to be enabled if notifying at least for one of margin levels is enabled;
 - **On unused global position quota *** – can be applied only to global positions;
 - **On negative fund balance ****;
 - **On funds adequacy level ****;
 - **On funds adequacy level (for open positions) ****;
 - **On collateral liquidity ratio ****;
 - **On planned collateral liquidity ratio ****;
 - **On composite criterion ****;
 - **On arbitrary risk parameter ****.

Only margin call types allowed to be sent and for which the notification condition is met at least for one client are active in the list.

- **Roll over positions by <client code> / On stock market** – open the dialog box for [rolling over](#) positions on the stock market for a selected client code.
- **Roll over positions by <client code> / On FX market** – open the dialog box for [rolling over](#) positions on the FX market for a selected client code.
- **Roll over positions by clients from table / On stock market** – open the dialog box for [rolling over](#) positions on the stock market for all clients in the Client portfolio table.



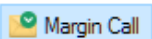
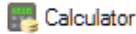
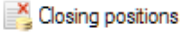
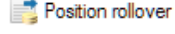
- **Roll over positions by clients from table / On FX market** – open the dialog box for [rolling over](#) positions on the FX market for all clients in the Client portfolio table.
- **Close positions by <client code>** – open the dialog box for [closing](#) positions for a selected client.
- **Close positions by clients from table** – open the dialog box for [closing](#) positions for all the clients from the current Client portfolio table.

(*) This type of notification is used by all clients for whom the unified cash position scheme is configured and by the clients of the stock / FX markets for whom the unified cash position scheme is not configured.

() This type of notification is used by all clients for whom the unified cash position scheme is configured and by the clients of the derivatives market for whom the unified cash position scheme is not configured.**

1.3.1 Toolbar

If required files and rights for working the Module are configured, the additional toolbar 'Colibri' appears including the following buttons:

Button	Description
 Margin Call	Activate/deactivate the mode of sending notifications (Margin Call)
 Calculator	Open margin calculator to calculate the planned client position
 Closing positions	Open the form of closing client positions
 Position rollover	Open the form of rolling over client positions

1.4 Before starting

1. Place **Colibri.dll**, **qmail.dll** and **ps.dll** files to the directory of QUIK Workstation. Close the QUIK Workstation before copying files to the directory.
2. Set the rights for working with the Module in **QUIK Administrator** program. The rights can be established either globally (menu item **Server QUIK / Client modules**) or individually in dialog of configuration of user settings (press button **Change** on Common rights tab and set rights for CoLibri PM Module in the opened window):
 - PM CoLibri (stock market) – access to the notifications, availability of the position's rollover and closing on the stock market;
 - PM CoLibri (FX market) – access to the notifications, availability of the position's rollover and closing on the FX market;



- PM CoLibri (derivatives market) – access to the notifications at the derivatives market.

The basic functionality of the Module is available if there is at least one license of any type. If closing FX positions (see 6.4.3) make a list of classes where the currency pairs are traded (see section 6 of Administrator's manual for Limits calculation library, option 'Maintain cash positions in respect of currencies').

If using the Module of the Unified cash position, configure parameters of the indicators calculation for the stock- and derivatives markets. The parameters are set in the Limits calculation library in the Accounting of Futures Market Operations dialog. For details, see the Administrator's manual of Limits calculation library, p. 17.

3. Restart QUIK Workstation to make the settings come in force.

4. To store log of sent notifications to the database, create an ODBC source as follows:

- Select **Plugins / Colibri / Settings** item in menu of QUIK Workstation;
- Select tabs **Colibri / Sending margin calls / Store margin calls in DB** in the opened window;
- Select the **Store sent margin calls in DB** checkbox, press button '...' and click on **ODBC Admin** button in the opened window. In the appeared Administrator of ODBC sources add the database created by SQL script as a new ODBC source.

SQL script creating a table of needed structure for server of MS SQL databases is attached to the supplied package.

- Press **Add** and select driver 'SQL Server'. Click **Done**;
- Enter the name of Colibri data source. Click **OK** to save settings. 'Colibri' record will appear in the list of data sources. Click **OK**;
- Select 'Colibri' in Change ODBC driver window. Close the window by clicking **OK**.

2. Orders for positions rollover table

menu **Plugins / Colibri / Orders on position rollover**

2.1.1 Purpose

Viewing and editing the list of formed negotiated REPO (NDM) orders for rolling over short and long client positions. Selecting orders to send to the trading system and viewing status of filling them.

2.1.2 Table format

	Create (time)	Client code	Firm	Instrument code	Instrument	Class code	Account	Qty	Price	Volume	Side	REPO rate	Settlement code	Donor code
1	10:00:18	E7/100	NC0038900000	AGRO	GDR ROS AGRO PLC	PSEQ	L01-00000F00	10	896,0	8 960,00	Buy	-12,1	T0	E7/102
2	10:00:18	E7/102	NC0038900000	AGRO	GDR ROS AGRO PLC	PSEQ	L01-00000F00	10	896,0	8 960,00	Sell	-12,1	T0	E7/100
3	10:00:18	E7/100	NC0038900000	AGRO	GDR ROS AGRO PLC	PSEQ	L01-00000F00	10	895,5	8 955,00	Sell	-12,1	B01	E7/102
4	10:00:18	E7/102	NC0038900000	AGRO	GDR ROS AGRO PLC	PSEQ	L01-00000F00	10	895,5	8 955,00	Buy	-12,1	B01	E7/100
5	10:00:18	E7/100	NC0038900000	LKOH	LUKOIL	PSEQ	L01-00000F00	100	5 526,0	552 600,00	Buy	-12,1	T0	E7/102
6	10:00:18	E7/102	NC0038900000	LKOH	LUKOIL	PSEQ	L01-00000F00	100	5 526,0	552 600,00	Sell	-12,1	T0	E7/100



Each table row corresponds to an individual order. Description of the table columns:

Parameter	Description
Create (time)	Time of order creation
Client code	Client identifier in QUIK system. For orders of donor – code of donor
Firm	Firm code
Instrument code	Instrument code in trading system
Instrument	Name of instrument
Class code	Code of the instruments class
Class	Name of class
Account	Depo account of the concluded trade
Qty	Number of instruments in order, in lots
Price	Price for a unit of instrument
Discount, %	Discount value. Parameter of REPO with CCP and REPO-M orders with using the start discount
Volume	Order volume. Parameter of REPO-M orders with using price
Side	Order direction. Valid values: – Buy; – Sell
REPO rate (%) / Rate (%)	Rate of REPO crediting, in percent per annum
Refund rate (%)	Rate of refund in case of non-filling of the second REPO part, in percent per annum
Settlement code	Settlement code of trade
Period	REPO term, in days
Donor code	Code of client who is a donor of instruments. For orders of donor – code of the initial client
Partner	Name of trading participant to which the order is addressed
Partner's org.	Partner's organization
Number	Order number in trading system. Populated for sent orders

Parameter	Description
Status	Order status. Valid values: – <blank> – order is firmed but not sent to the trading system; – Sent – order is sent to QUIK system but response about registration in the trading system is not still received; – Rejected – order is rejected by QUIK server; – Active – order is registered in the trading system but not filled by counter order; – Killed – order is revoked from the trading system; – Filled – order is filled
Identifier	Unique order identifier used for its identification when the order is not still sent to trading system and it is not assigned by number
Commission	Total commission of broker trading system and the additional commission for rolling over positions on NDM/REPO trades (see 6.2.1)
Sent (time)	Time the order has been sent. Populated for sent orders
Balance	Balance amount. Populated for sent orders

2.1.3 Table configuration

Configuration is about changing the table name, selecting a set of columns to be displayed in the table and sequence of displaying them.

2.1.4 Available functions

Data from the table can be copied to the Clipboard, output via DDE server, or exported via ODBC.

Full list of operating buttons for all types of tables is given in Appendix to Section 2: Basic Operating Principles of QUIK User's manual.

The following actions are available from the shortcut menu:

- **Send order** – send a selected order to the trading system;
- **Kill order** – cancel a selected order. Available only for active orders.
- **Send from table** – sent all orders from the table to the trading system;
- **Send by client** – sent all orders with the same client code as in the selected order to the trading system;
- **Remove all unsent orders** – delete all unsent orders from the table;
- **Remove all sent orders** – delete all sent orders from the table;
- **Remove all** – delete all orders;
- **Remove** – delete selected order;
- **Export to file** – load orders from table to a text file (see [2.1.5](#)).



2.1.5 Form of data output to a text file

Function of saving data to a text file can be called from shortcut menu of the table. The file is a sequence of rows where each row contains comma-delimited parameters of a particular order without spaces.

Parameter	Description
Class code	
Instrument code	
Account	
Side	B – buy, S – sell
Partner's firm code	For orders on behalf of donor – code of donor
Client code	Client code
Comment	
Qty	
Order type	Valid values: – M – REPO-M; – R – REPO; – CCP – REPO with CCP; – RPS – NDM; – RPS_CCP – NDM with CCP
Price	For REPO-M and REPO with CCP orders the field is not filled
Settlement code	
Refund rate (%)	For REPO with CCP, NDM, and NDM with CCP orders the field is not filled
REPO rate	For NDM, and NDM with CCP orders the field is not filled
REPO sum	For REPO, REPO with CCP, NDM, and NDM with CCP orders the field is not filled
REPO term	For REPO, NDM, and NDM with CCP orders the field is not filled
Start discount *	For REPO, NDM, and NDM with CCP orders the field is not filled
Donor code	For orders of donor – code of the initial client
Donor's trading account	
Sending status	0 – not sent, 1 –sent
Receiving status	0 – not received, 1 – received
Status	Order status expressed in a number in decimal form. Binary representation of number shows values of order parameters (number of bits from right to left: value TRUE; value FALSE):

Parameter	Description
	_ 0: TRUE – active, FALSE – cancelled or filled; _ 1: TRUE – cancelled, FALSE – filled; _ 2: TRUE – buy order, FALSE – sell order; _ 3: TRUE – limit order, FALSE – market; _ 4: TRUE – allow executing order at different prices, FALSE – no; _ 5: TRUE – attribute 'immediately or cancel', FALSE – no; _ 6: not used; _ 7: not used; _ 8: not used; _ 9: not used; _ 10: TRUE – attribute 'kill balance', FALSE – no. For example, value 25 means an active limit buy order with attribute 'allow executing at different prices', or in binary form – 11001

* – for REPO with CCP orders the field takes value 'Discount'

```
RPMA,MSNG,L01-00000F00,B,MC0075600000,E5,E5//tech1,1900,M,,Rb,1,9,10204.9,6,,E3,L01-00000F00,0,0,0,0
```

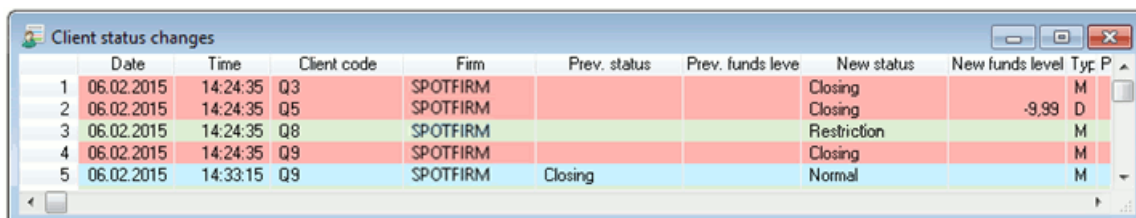
3. Changing client status

menu **Plugins / Colibri / Status changes...**

3.1.1 Purpose

View history of changing client statuses.

3.1.2 Table format



	Date	Time	Client code	Firm	Prev. status	Prev. funds leve	New status	New funds level	Typ. P
1	06.02.2015	14:24:35	Q3	SPOTFIRM			Closing		M
2	06.02.2015	14:24:35	Q5	SPOTFIRM			Closing	-9.99	D
3	06.02.2015	14:24:35	Q8	SPOTFIRM			Restriction		M
4	06.02.2015	14:24:35	Q9	SPOTFIRM			Closing		M
5	06.02.2015	14:33:15	Q9	SPOTFIRM	Closing		Normal		M

Each table row corresponds to changing of the client status. Description of the table columns:

Parameter	Description
Identifier	Unique identifier of the record



Parameter	Description
Date	Date of changing the client status
Time	Time of changing the client status
Client code	Client identifier in QUIK system
Firm	Firm code
Type	Client type: _ D – for scheme "By adequacy funds level" (MD and MD+ clients); _ M – for scheme "By margin level" (other than MD and MD+ clients)
Prev. status	For MD and MD+ clients state of the portfolio value relative to margin level before changing the client status. Client status is defined by the position on maximum date. For clients different from MD and MD+ types – current level of margin relative to the selected level before changing the client status. Client status is defined by position on date T0. For details see 7.8
New status	For MD and MD+ clients state of the portfolio value relative to margin level after changing the client status. Client status is defined by the position on maximum date. For clients different from MD and MD+ types – current level of margin relative to the selected level before changing the client status. Client status is defined by position on date T0. For details see 7.8
Prev. funds level	Level of funds adequacy before changing the client status. Valid values: from '-9.99' to '9.99' with accuracy of two decimal places. The field is filled for only clients other than of MD and MD+ types
Prev. margin level	Margin level of position on date T0 before changing the client status. The parameter is available only for scheme with margin levels. Expressed in percent. The field is filled for only clients other than of MD and MD+ types
New funds level	Level of funds adequacy after changing the client status. Valid values: from -9.99 to 9.99 with accuracy of two decimal places. The field is filled for only clients other than of MD and MD+ types
New margin level	Margin level of position on date T0 after changing the client status. The parameter is available only for scheme with margin levels. Expressed in percent. The field is filled for only clients other than of MD and MD+ types

History of changing statuses is stored only for clients from the allowed clients list formed on the basis of filtration by client code in Client portfolio table. If several Client portfolio tables are opened in the Workstation, unified list of allowed clients for all tables gets formed. If the client is excluded from the list of allowed clients then history of changing their statuses is displayed in Changing client statuses table till it's cleared.



Rows in the table are highlighted in color depending on client status. For further information on color settings see QUIK User's manual, Section 5: Client Operations (setting **Use color highlight for margin client's status**).

Table's data is cleared automatically under session change.

3.1.3 Table configuration

Change name of the table, select the set of columns to view in the table and sequence of displaying them.

3.1.4 Available functions

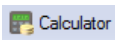
Data from the table can be copied to the Clipboard, output via DDE server, or exported via ODBC.

Full list of operating buttons for all types of tables is given in Appendix to Section 2: Basic Operating Principles of QUIK User's manual.

The following actions are available from the shortcut menu:

- **Clear** – clear history of changing client statuses;

4. Calculator

menu **Plugins / Colibri / Calculator** or button 

4.1.1 Purpose

Margin calculator is used for:

- calculation of the potential values of margin parameters when depositing/withdrawing assets or buying/selling assets;
- calculation of assets amount to deposit/withdraw or buy/sell assets to reach the set margin values.

For proper function of the margin calculator the main currency of the discount scheme and the base currency of the risk parameter settlements (settlement currency in the Client portfolio table of the QUIK workstation) must coincide.

4.1.2 Working principle

1. Calculation based on **Position change** value:
Planned margin parameters are calculated on the basis of desired value of changing position set by user (**Position change** field).
2. Calculation based on **Available (Plan)** value:



Amount of specified assets needed to be additionally deposited / withdrawn if calculated on the basis of desired **Available (Plan)** value set by user.

4.1.3 Usage

Description of the Marginal calculator window fields:

- **Client** – enter client code manually or select it from the dropdown list.
- **Instrument** – select an instrument from the dropdown list. The following values can be available:
 - **Money assets** (by default) – total position in cash (cross rate considered);
 - Currency codes – currency codes of the client’s cash positions are displayed in the list;
 - Instrument codes on the stock market – these codes are available if the rights for trading on the stock market are assigned (see [1.4](#)).
- **Instruments with open position** – the **Instrument** list contains only instruments for which a selected client has open positions. The checkbox is enabled by default. If the check box is cleared, then the list contains all instruments.
- **Position** – position on the maximum date for the selected client and instrument. If the client has several positions in instruments (several positions in instruments on different trade accounts or on position codes for cash), sum of these positions will be displayed. The field cannot be edited.
- **Position change** – value of changing the selected asset (depending on depositing/withdrawing cash). The field is used for recalculation of planned margin parameters (including values of **Available (Plan)** parameter).
- Way to change:
 - **Deposit / Withdraw** – operation to deposit/withdraw assets. Selected by default;
 - **Buy / Sell** – operation to buy/sell assets. If the mode is selected, the **Instrument** list provides 'Money position' value available to select.

Calculation of Buy / Sell operation is permitted only for currencies in which the instrument for closing FX positions is specified (see [6.4.3](#)).



The mode last selected is stored in settings.

- **Portfolio value (Real)** – estimate the own client funds on current positions and prices, in cash. Cannot be edited.
- **Portfolio value (Plan)** – planned estimate of client funds expressed in cash. Cannot be edited.
- **Initial margin (Real)** – actual value of the initial margin. Cannot be edited.
- **Initial margin (Plan)** – planned value of the initial margin. Cannot be edited.
- **Minimal margin (Real)** – actual value of the minimum margin. Cannot be edited.
- **Minimal margin (Plan)** – planned value of the minimum margin. Cannot be edited.
- **Available (Real)** – actual value of available client assets. The value is calculated as difference between **Portfolio value** and **Initial margin**. Cannot be edited.
- **Available (Plan)** – required value of available client assets. The value is calculated as difference between **Portfolio value (Plan)** and **Initial margin (Plan)**.

To calculate planned values of parameters as a result of changing position, select the client code, instrument, specify the amount of changing the position and click on **Calculate** button.

To calculate a planned amount of additionally depositing/withdrawing of the asset, select the client code, instrument, enter the desired value of **Available (Plan)** parameter and click on **Calculate** button.

To refresh current values of margin parameters in the calculator (without changing the selected client) just click on **Calculate** button.

If parameters Portfolio value (Real), Portfolio value (Plan), Initial margin (Real), Initial margin (Plan), Minimal margin (Real), Minimal margin (Plan), Available (Real) after calculation take values exceeding 10^{25} by module, value 'INF' will be displayed in the fields instead of numeric values.

If a selected instrument is allowed for this method of changing position, then the values are not calculated and a corresponding notification appears in the lower left corner of the dialog.

5. Basic program functions

5.1 Margin Call mode

menu **Plugins / Colibri / Margin Call mode** or button 

5.1.1 Purpose

Automatic sending notifications to clients and administrators in form of messages with the set content (to emails, QUIK Workstations or to mobile phones via SMS).

- Margin call notifications by the stock market risk parameters:

This type of notification is used by all clients for whom the unified cash position scheme is configured and by the clients of the stock / FX markets for whom the unified cash position scheme is not configured.

For clients of MD and MD+ types sending notifications occurs when the Portfolio value parameter drops below the values of the initial, minimal or corrected margin values, as well as notifying about a short position for non-margin instrument.

For clients other than of MD and MD+ types notifications are sent when margin level reaches different boundary values. Notifications may be sent by share of global position use.

- Margin call notifications by the derivatives market risk parameters:

This type of notification is used by all clients for whom the unified cash position scheme is configured and by the clients of the derivatives market for whom the unified cash position scheme is not configured.

The Module allows automatically forming the notification about:

- _ Decrease of the client's funds adequacy level below the set control values;
- _ Depletion of available cash on the client's account;
- _ Decrease in the collateral liquidity ration below the set level;
- _ Value of the arbitrary risk parameter.

A notification will be sent if the condition created it is currently met and was not met in previous check.

5.1.2 Working principle

The Module creates and sends automatically notifications of the following types:

- For spot market:



- Restriction on trade operations – portfolio value is less than the corrected margin value;
 - Warning about a low value of portfolio – portfolio value is less the initial margin value;
 - Forced closing positions – portfolio value is less than the minimum margin value;
 - Negative position found for non-margin instrument and D-type instruments;
 - Messages created when value of margin level overcomes the set up [levels](#) of restriction, demand and closing;
 - Exceeding the share of global position use.
- For derivatives market:
 - Negative funds balance.
 - Reaching dangerous or critical adequacy level of funds.
 - Reaching dangerous or critical adequacy level of funds that are reserved for open positions.
 - Decreasing in the collateral liquidity ratio below the set level.
 - Decreasing in the expected collateral liquidity ratio below the set level.
 - Negative value of the funds total amount or funds total amount at the beginning of the day (depends on the settings, see p. [6.1.2](#)).
 - Reaching the level of the composite criterion.
 - Decreasing in the arbitrary risk parameter level below the set level.

Notifications can be sent by the following ways:

- Email;
- Trader messages;
- SMS-messages;
- Messages via MarginCall2Quik utility.

There are settings provided to avoid too frequent sending of notifications. The settings may be used simultaneously and independently. For different client types and notifications there are the following features:

- For clients of MD and MD+ types:
 - Notifications about portfolio value compared with value of margin of different types. The notification provides setting up the minimum time between two notifications, minimum change in the controlled parameter, minimum value of changing Funds level (see [6.1.1](#));
 - Notifications about unacceptable negative position. Notification is sent once when finding such position. Resending is possible only when finding unacceptable position of the client for one more asset.
- For clients of MLev type:



- Notifications about margin level value. The notification provides setting up the minimum time between notifications, minimum change in the controlled parameter (see [6.1.1](#)).
- Notifications applied to global positions:
 - Notifications about the share of using global position. The notification provides setting up the minimum time between two notifications, minimum change in the controlled parameter (see [6.1.1](#)).

Notifications can be sent either to [one selected client](#) or to [all clients](#).

Notifications are sent to only clients from the list of allowed clients formed on the basis filtration by client code in Client portfolio table. If several Client portfolio tables are opened in Workstation, unified list of allowed clients for all tables gets formed.

Title of the notification is formed based on a template specified in the settings of the notification type (see [6.1](#)). Text of notification to send is created on the basis of templates, at that it is defined which type of template (see [5.1.6](#)) must be used. For notifications of 'Unallowable short position' and 'Unused global position quota' types the template is the same. For notifications of 'margin value' and 'margin level' types each client is controlled for condition to compare the portfolio value with different types of margin ('margin value' type for MD and MD+ clients) or to compare the margin level with different boundary values ('margin level' type for MLev and MLim clients).

5.1.3 Forced margin call notifications

The user can initiate the compulsory sending of margin call notifications to a single or all clients.

If more than one notification type is enabled in the settings, a short cut menu command appears in the Client portfolio table and allows selecting the type of margin call to be sent to a client or all clients in the table according to filters.

If the **Always allow manual sending** check box is enabled on the **Sending margin calls** tab in the notification settings (see p. [6.1](#)), then all types of notifications for which send options are set will be displayed in the Client portfolio table when selecting the **Send margin call for <client code>** and **Send margin call for all clients** short cut menu commands even if sending of these notifications is disabled on the **Spot market margin call types** and **Derivatives market margin call types** tabs in the settings (see [6.1.1](#) and [6.1.2](#)).

5.1.4 Scheduled margin call notifications

The schedule is represented as comma-separated time points in format <HH:MM>. A forced sending of margin calls occurs at a specified time point. For more details on the forced sending algorithm, see [5.1.3](#).

Automatic sending and scheduled sending of margin call notifications occur separately from one another.



5.1.5 Managing mode

To make the Margin Call mode available to be enabled, use any of the following ways:

1. Select a notification template for one or several conditions (section **Colibri / Sending margin calls** in settings of the QUIK workstation). For more information, see [6.1](#).
2. Select the method of sending notifications (sections **Colibri / Sending margin calls / Sending by e-mail** and **Colibri / Sending margin calls / Sending by UID** in settings of the QUIK workstation). For more information, see 6.1.3 and [6.1.4](#).

The mode can be activated only upon connection to QUIK Server and after getting all data required for work.

To manage the Margin Call mode, use any of the following ways:

- Select the menu item **Plugins / Colibri / Margin Call mode**;
- Press button  **Margin Call** on the toolbar;
- Select the shortcut menu item **Switching off/on sending margin call for <client code>** in Client portfolio table.

If the Margin Call mode is enabled, the button on toolbar has the view as pressed.

If the notification mode has been disabled within the session, control over margin parameters of the client gets interrupted but information on notifications sent before is saved. When rerunning the mode within the session, new notifications are sent with consideration of those sent before. If the connection is broken, notifications are resent regardless of whether they were sent before.

Parameters of sending notifications can be established in the settings dialog. For detailed information on notification settings see [6.1](#).

5.1.6 Notification file format

File is a document with text of notification sent to the client by email. Template of document may include the following parameters substituted to particular values by Module when sending.

Format of notification file for MD and MD+ clients:

Parameter	Description
%cc	Client code
* %lk	Position on date
%val	Portfolio value
%sm	Value of initial margin
%mm	Value of minimum margin
%cm	Value of corrected margin



Parameter	Description
* %nmsc	Code of non-margin instrument with a short position found
* %nmta	Trade account
* %nmsn	Name of non-margin instrument with a short position found
%im1	Amount of cash funds needed to be additionally deposited to make the portfolio value not less than value of the initial margin
%ct	Time of creating notification in <HH:MM:SS> format
%cd	Date of creating notification in <DD.MM.YYYY> format
%em	List of emails separated by commas used for the client
%UIDs	List of UserIDs separated by commas used for the client
%npr1	RCV1 value
%npr2	RCV2 value

* – parameters of notification about short positions found for non-margin instruments

Format of notification file about margin level for client types excluding MD and MD+:

Parameter	Description
%cc	Client code
%lk	Position on date
%m	Current margin level
%vd	Estimated instruments value in cash
%vm	Current cash balance
%eq	Portfolio value
%M1	Value of margin level of forced closing for the client
%M2	Value of margin level to direct the demand for the client
%M3, %cm	Value of the boundary margin level for the client
%ct	Time of creating notification in <HH:MM:SS> format
%cd	Date of creating notification in <DD.MM.YYYY> format
%em	List of e-mails separated by commas used for the client
%UIDs	List of UserIDs separated by commas used for the client



Format of notification file by share of using global position:

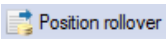
Parameter	Description
%lk	Position on date
%val	Current value of the unused share of the global position
%glsc	Instrument code (for global position in instruments) or currency code (for global cash position)
%glsn	Name of instrument (for global position in instruments) or currency code (for global cash position)
%glta	Trading account (for global position in instruments) or position code (for global cash position)
%ct	Time of creating notification in <HH:MM:SS> format
%cd	Date of creating notification in <DD.MM.YYYY> format
%em	List of e-mails separated by commas used for the client
%UIDs	List of UserIDs separated by commas used for the client

Format of notification file by risk parameters of the derivatives market:

Parameter	Description
%cc	Client code
%[.N][A]val	Value of the monitored parameter, where: _ N – an integer value determining the number of decimals for numeric parameters; _ A – attribute of returning the absolute value of a parameter Those parts of the parameter format that are in square brackets are optional. For example, %.4val is the format of the parameter to output the value within the accuracy of 4 decimals
%ct	Time of notification creation in format <HH:MM:SS>
%cd	Date of notification creation in format <DD.MM.YYYY>
%em	List of comma-separated email addresses that is used for this client
%UIDs	List of comma-separated UserID's that are used for this client

5.2 Rolling over positions

5.2.1 Stock market positions rollover

menu **Plugins / Colibri / Positions rollover** or button 

Purpose

Preparation of negotiated REPO or NDM orders for trades to roll over positions of client using margin funds of broker. Hereinafter 'trades' are referred as REPO or NDM trades depending on selected type.

Working principle

Short positions not closed by client before the end of the trading session can be reformed by broker by negotiated trades. One part of a trade is a client with debt; the second one is a client-donor crediting with instruments and cash.

When rolling over short positions, all negative client positions for instruments will be rolled over. As a result, a package of counter REPO (NDM) orders is created and then transferred to the trading system for execution. After executing the second part of a trade the instrument from client's account is returned to client-donor. Thus, short position is rolled over for the specified period.

Long positions of client are rolled over in the similar way. The difference from rolling over short positions is that you need to select instruments to be rolled over. When forming REPO (NDM) orders the Module analyses all positions of clients having negative cash balance upon positive balance in instruments and generates orders in volume needed to make the cash balance value positive.

Number of instruments in orders is formed with consideration of lots multiplicity set for the instrument. When rolling over short positions the calculated amount is rounded up to the nearest integer number multiple to value of **Lot multiplicity** parameter. When rolling over long positions only balance rounded down to the nearest integer number multiple to **Lot multiplicity** parameter but not whole positive balance is accounted for each instrument with positive balance.

Second part of REPO (NDM) can be executed either via workstation of the trading participant or via QUIK system. For details on REPO and NDM operations see 7.7 and 7.8 of QUIK User's manual, Section 7: Broker Operations.

- 1. When rolling over positions on classes 'NDM' and 'NDM with CCP' two negotiated trades with counter direction are formed for each position both for client and client-donor with using different settlement codes (for example, 'B0' for the first par and 'B1' for the second part). When rolling over positions on classes 'REPO', 'REPO-M' and 'REPO with CCP' only one negotiated REPO order is formed both for client and client-donor.**
- 2. If the client order was not sent to the trading system (or it was rejected to be sent), a counter order on behalf of client-donor will not be sent. At that status of the counter order remains blank.**



Long and short positions rollover

To open the dialog of rolling over positions, use any of the following ways:

- Select the menu item **Plugins / Colibri / Position rollover**;
- Press button  **Position rollover** on the toolbar;
- Select the shortcut menu item **Positions rollover by <client code> / On stock market** in Client portfolio table.

These menu items are displayed and available if the Rollover spot positions check box is enabled in the Module settings (see [6.2](#)).

To roll over positions set the list of classes available for rolling over and priority of using instruments in Module's settings (**Plugins / Colibri / Settings...** section Colibri / Positions rollover / Classes and instruments). For more information see [6.2.2](#).

To roll over simultaneously short and long positions, select the checkbox **Enable together closing long and short positions** in dialog of rollover positions settings.

Positions can be rolled over by REPO and NDM trades. If positions are rolled over by REPO trades, the user sets a REPO rate, when doing it by NDM trades, it is necessary to set a rate for calculating price for the second REPO trade. Hereinafter the term 'Rate' as referred as rate for REPO and NDM trades.

Algorithm of rolling over all positions:

1. Orders for rolling over short positions are formed. All settings affecting on correction of calculations (for example, accounting of commission) are accounted.
2. Orders for rolling over long positions are formed. All settings affecting on correction of calculations are accounted as well. As a result, the client must not have negative positions either on cash or instruments (with accounting commission). If instruments are not sufficient for full roll over of client positions, the positions are still rolled over, but the client received a warning on insufficiency of funds.

Orders for rolling over positions are sent to QUIK server in the following order: first all orders of the client, then counter orders of client-donor.

If rolling over positions is selected for all clients, the algorithm is applied in turn to each client displayed in table of client parameters.

If the setting **Ask for confirmation for group operations** is enabled in QUIK Workstation (menu item **Trading / Orders** section under **System / Settings / General settings...**) a request to confirm the operation is given when sending more than one prepared order for execution.



Position rollover parameters

Position rollover dialog box provides the following parameters:

Position rollover

Positions on date: T0

☒ All clients

☐ Long positions ☒ Short positions ☐ All positions

Use classes: RPS
PSAU, PSBB, PSDB, PSDE, PSEQ, PSOB, PSQI, PSQI_BND (8)

Set price: Last trade

Donors: E7 [NC0038900000]

☐ Trade account matches client code

Donor's trade account: L01+00000F00

☐ Clients for internal closing

Settle code: T0 Second part: B03

Rate, %: 11,0000

Start discount, %:

☐ For long positions determine discount rate automatically

Compensation, %:

Reference:

Partner: ARQA1 [MC0100000000]

OK Cancel

1. Positions on date – select a date positions on which are to be rolled over.

- For classes 'Modified REPO', 'NDM', 'NDM with CCP' and 'REPO with CCP' the list includes values 'T0' and 'T1';
- For REPO classes the list includes only 'T0' value.

2. All clients – if the checkbox is selected, positions are rolled over for all the clients from the open **Client portfolio** tables, which fit the conditions specified by the rollover options (see 6.2). If the checkbox is cleared, positions are rolled over for the client selected in dropdown list or for clients set in filter by clients using '...' button. The list excludes first clients absent in list of allowed clients formed on the basis of filtration by client code in Client portfolio table (if several Client portfolio tables have been opened, the unified list for all table will be formed), then those prohibited to roll over positions by settings.

3. Option button to select the type of rolled over position:

- Long positions;
- Short positions;
- All positions – available upon the enabled **Enable together closing long and short positions** program setting.



4. **Use classes** – select a class type used in rolling over positions (REPO, Modified REPO, REPO with CCP, NDM, NDM with CCP).
5. **Set price** – select a method of defining order price. Valid values:
 - **Last trade** – set order price based on the last trade price. Available for all classes, except for REPO with CCP;
 - **Previous close price** – set order price based on closing price of the previous day. Available for all classes, except for REPO with CCP;
 - **Manually** – set order price manually. Available for all classes, except for REPO with CCP;
 - **Via discount** – set order price based on value of the start discount. Available only for REPO with CCP classes;
 - **Via start discount** – set order price based on value of the start discount. Available only for Modified REPO classes.
6. **Donors** – specify code of client supplying instruments.
 Use button '...' to select several client codes (sequence considered). In this case positions are rolled over taking to account funds of specified clients-donors, that is funds of donor №1 are used first (till exhausting) when closing positions, then funds of donor №2 etc.
 The default value is that specified in settings of positions rollover.
7. **Trade account matches client code** – if the checkbox is selected, trade account coinciding with client code is used for each client-donor. At that the field **Donors trade account** becomes unavailable. The attribute is available if at least one code of client-donor is selected.
8. **Donors trade account** – select a trade account of client-donor from the list. The field is obligatory for filling.
9. **Clients for internal closing** – if the checkbox is selected, clients for internal closing may be selected. The attribute is available if at least one code of client-donor is selected and **Enable internal closing** checkbox is selected in the program settings.
10. **Lim.REPO (days) / Lim. (days)** – the execution term for the REPO second part in days / for NDM with CCP classes specify the number of calendar days between current date and the execution date for the NDM trades second parts (refund). Value must not exceed '90'.
11. **Settle code** – the settlement code for the trade's first part.

IMPORTANT! The user should specify a settlement code that is supported on the trading venue taking into account weekends and holidays.

Valid values:

- For NDM classes:
 - T0, B0 – for T0 positions;
 - From B01 to B30 – for T1 positions.
 An arbitrary settlement code can be specified.
- For NDM with CCP classes:
 - Y0 – for T0 positions;
 - Y1 – for T1 positions.



- _ For REPO classes:
 - _ R<REPO term>.
- _ For Modified REPO classes:
 - _ Rb – for T0 positions;
 - _ S01 – for T1 positions.
- _ For REPO with CCP classes:
 - _ T0, Y0 – for T0 positions;
 - _ Y1 – for T1 positions.

If the only value of settlement code is available for the position, this value is displayed by default without possibility to edit.

12.Second part – the settlement code for the trade’s second part. This parameter is available for classes of the NDM type.

IMPORTANT! The user should specify a settlement code that is supported on the trading venue taking into account weekends and holidays.

Valid values:

- _ From B01 to B30 – for T0 positions;
- _ From B02 to B30 – for T1 positions.

An arbitrary settlement code can be specified.

13.REPO rate, % / Rate, % – specify value of crediting rate, in percent. If the mode **Auto select REPO rate sign** is activated, the rate is entered in form of its absolute value, an appropriate sign ('plus' for rolling over long positions and 'minus' for short ones) is selected automatically when sending orders. The field is obligatory for filling.

If the **All positions** radio button is enabled, then:

- _ the rate value specified in this field is used to rollover short positions;
- _ the rate value specified in the default settings is used to rollover long positions (see [6.2.1](#)).

If the Rate value is changed (compared with the previous value) and the list of clients with individual rate for rolling over positions is not blank, a warning like 'Default REPO rate has been changed. Apply it to all clients?' will be given. Under positive response the selected value of Rate is applied to all clients including those with an individual Rate value assigned. Otherwise the selected value of Rate is applied to only clients without individually set Rate.

14.Start discount, %» / Discount, % – REPO trade condition explicitly set in order for concluding a REPO trade or directly defined from the order’s conditions. Available for Modified REPO classes if **Via start discount** is selected as method of defining the order price. Available also for REPO with CCP classes.



- For long positions determine discount rate automatically – enable auto calculation of discount rate for long positions roll over. The check box is available when the following conditions are simultaneously executed:
 - REPO with CCP class type is selected.
 - Roll over of long positions or all positions is selected.
 - The **Calculate discount automatically when rolling over long positions (REPO with CCP only)** mode is enabled in settings (see [6.2.2](#)).
- By default the checkbox is cleared.

15.Compensation, % – specify refund rate under non-filling the second REPO part, in percent.

Available only for REPO and Modified REPO classes. The field is obligatory for filling.

16.Reference – text link for REPO trades.

17.Partner – select code of trading participant who is a partner in REPO trade. The field is obligatory for filling.

Press button **Yes** to create orders. Use **Cancel** to close the window without sending orders. If selecting order price is set as manually, window for entering the price value will appear on the screen.

If Orders for closing short positions table includes at least one record for a selected client code, the program requires confirmation of re-creating orders. At that new orders will be added to the table with saving the previous ones. To avoid confusion, delete all unsent orders before re-creating a package of orders.

5.2.2 FX market positions rollover

menu **Plugins / Colibri / FX positions rollover**

Purpose

Rollover of FX positions to the next day for one or several clients in a selected currency.

To open the dialog of rolling over positions, use any of the following ways:

- Select the menu item **Plugins / Colibri / FX positions rollover**;
- Select the shortcut menu item **Positions rollover by <client code>/ On FX market** in Client portfolio table.

These menu items are displayed and available if the Roll over FX positions check box is enabled in the Module settings (see [6.3](#)).

All TOD positions in all currencies can be rolled over. A position in rubles is rolled over if two step rollover scheme is used. The rollover is carried out by TOD-TOM swap trades in negotiated mode with a certain donor client whose funds are used for the rollover. It is suggested that a donor client has sufficient funds to roll over all client positions.

Two modes are used for FX position rollover:



1. The standard mode assumes that a client always has a positive position in rubles sufficient to close his FX positions. The negative positions in other currencies are rolled over by a swap trade in a corresponding currency. The ruble position is not controlled and may vary.
2. A two-step scheme allows rolling over negative positions in currencies (including rubles) using the trades in two different swap instruments. Thus, USD_TODTOM and EURUSDTDTM swap instruments can be used for position rollover in dollars; EUR_TODTOM and EURUSDTDTM – for position rollover in euros; USD_TODTOM and EUR_TODTOM – for position rollover in rubles. The positions in all used currencies are controlled so that they do not become negative (for positions in rubles – considering commissions).

It is possible to enable/disable using each currency instrument when rolling over positions.

FX positions are displayed in the Cash positions table separately for each client code. Positions in each currency are calculated regardless of what currency pairs are used to purchase them.

If the setting **Ask for confirmation for group operations** is enabled in QUIK Workstation (menu item **Trading / Orders** section under **System / Settings / General settings...**) a request to confirm the operation is given when sending more than one prepared order for execution.

If a position being rolled over is not multiple of the lot size, small lots mode may be used (see [6.3.2](#)).

Position rollover parameters

Position rollover dialog provides the following parameters:

1. **Client** – positions are rolled over by a client selected in the drop-down list or by clients specified in clients filter using the “...” button. If the **Only from list** option of positions rolling over is selected (see [6.3](#)), then the list of available client codes consists only of those, which are in the file specified by the option. A firm identifier in brackets follows the client code

in the list of available clients. If more than one client is selected, then the field will contain the number of selected clients.

2. **Class** – name of the class an instrument belongs to. The class for position rollover specified in the settings is displayed by default (see p. [6.3](#)).
3. **Trade account** – a trading account the orders of FX positions rolling over are created for.
4. **Auto select** – indicates whether a trading account is selected automatically. If the check box is selected, then the trading account from a position in instrument of the **Currency** class type is used. If there is no position in instrument of the **Currency** class type, then a trading account from a position in instrument of other class type is used. By default, the check box is cleared.
5. **Currency** – currency in which the positions are to be rolled over.
6. **Donor:**
 - **Client** – code of a trading participant whose funds are to be used to roll over positions.
 - **Trade account** – trading account of a trading participant whose funds are to be used to roll over positions.

Donor's code and trading account compliances are stored to the configuration file, and the values are automatically substituted in the fields the next time this dialog is open.

7. **Instrument** – instrument of a swap trade for which the orders for position rollover will be formed.

If the two-step position rollover scheme is enabled, then the following information is displayed for each step:

- name of a swap instrument. It is possible to enable/disable using each instrument when rolling over positions using the check box on the left.
- direction of the trade's first part, currency code of a swap instrument and default rate value for the price of the currency swap trade's second part.

If the small lots mode is enabled, the box shows a standard instrument and a small lots instrument (if they are set in the settings, see [6.3.2](#)).

8. **Price** – swap trade price. If this parameter is specified, the **Rate, %** parameter is calculated automatically (for the calculation formula, see [7.9](#)).
9. **Rate, %** – rate to determine the price of the currency swap trade's second part, in percentage p. a. If this parameter is specified, the **Price** parameter is calculated automatically (for the calculation formula, see [7.9](#)).

The interest rate value is informational, the value of the Price field is transmitted to the exchange's trading system.

10. **Default values** – the check box indicates that rates specified by default (see [6.2.1](#), [6.3.1](#)) are used for rollover. The default values are specified on the left of the check box: if one



client, for whom individual parameters are set up, is selected, the rate value specified for this client is displayed, otherwise global settings are used.

Click the **Yes** button to create orders. Click **Cancel** to close the window without sending orders.

5.3 Closing positions

menu **Plugins / Colibri / Close positions** or button  Closing positions

5.3.1 Purpose

Procedure of closing positions can be used if the client reaches such condition when the broker or regulator may require closing of positions (or a part of them) to reach the acceptable state. Position closing procedure is started on a command of a broker's employee.

5.3.2 Operating principle

Setting rules to create orders in the Workstation settings (menu item **Plugins / Colibri / Settings / Colibri / Closing positions**) (see [6.4](#)).

Creating orders in Close positions dialog that can be opened in any of the following ways:

- Select the menu item **Plugins / Colibri / Close positions**;
- Use  Close positions button on the toolbar;
- Select the shortcut menu item **Close positions by <client code>** in Client portfolio table.

In the opened dialog set up the parameters of position closing, select the list of clients and markets to close positions for. Rule of closing set by default can be applied to a current position.

The template set as Main and selected for this type of position closing, or an individual setting configured for the client code (see [6.4.1](#)) are used by default. The template can be changed for a current operation. In this case, the individual settings are ignored, and a selected template is applied to all clients to be closed according to the type's settings.

The [main currency](#) of the discount scheme and the base currency of the risk parameter settlements (settlement currency in the Client portfolio table of the QUIK workstation) must coincide. Otherwise, a corresponding notification appears and the Close positions window cannot be opened.

On clicking on the **Calculate** button the orders for position closing are formed for the selected clients and markets:

1. Forming the list of instruments on which the positions must be closed for the selected clients and markets.

If a currency pair consists of two currencies with a zero discount, then this position will be ignored upon closing.



For more information about algorithms of position closing by the adequacy funds level and margin level, see [5.3.4](#).

2. Sorting the list of instruments in accordance with one of the following algorithms:

- Minimum volume – positions are closed for all instruments at once with the minimum turnover of trades which are created when closing client's positions.
- Proportionally to the position – all positions are reduced by the same proportion expressed in cash;
- Fixed instruments order – sequence of instruments is considered in the list of instruments for closing positions on. If processing all instruments from the list is not enough to reach the established margin values, instruments allowed for closing but not included to the list of instruments selected in the closing rule will be processed;

3. Calculating orders for closing positions.

Quantity of instruments in orders is defined taking to the account the lot's multiplicity set for the instrument. If the position size is not multiple to the lot size, the mode of using partial lots can be used.

Price of an order for closing position is defined as follows:

- Offer price is used when closing short positions;
- Bid price is used when closing long positions.

A position is skipped in absence of offer/bid price.

Orders in the list are available to be deleted or edited before they are sent to the trading system.

Clicking the **Execute** button initiates the check for the possibility to close positions in selected instruments:

- If there are positions in non-margin instruments or instruments of "D" type which are not multiple of the lot size, and closing with using the mode of partial lots is not allowed, then the corresponding notification with the list of client codes which cannot be closed appears.
- If there are positions in non-margin instruments or instruments of "D" type which are multiple of the lot size, or closing with using the mode of partial lots is allowed, then the corresponding notification with the list of client codes appears allowing the user to close positions or return to the closing parameters editing dialog box.

If the check is passed the orders will be sent to the trading system of exchange.

If the **Ask for confirmation for group operations** setting is enabled in QUIK Workstation (menu item **Trading / Orders** section under **System / Settings / General settings...**), a request to confirm the operation is given when sending more than one prepared order for execution.

If there are rejected orders and / or clients for whom closing positions is incomplete (instrument or currency pair are not found, an instrument is not allowed to be closed), then a corresponding notification for this client containing the following information appears:



- Quantity and list of client codes for which orders to close positions were sent;
- Quantity and list of the codes of clients whose orders were rejected;
- Quantity and list of the codes of clients having insufficient assets to close to the required state.

5.3.3 Close positions dialog box parameters

Dialog of closing positions contains the following parameters:

	Client code	Class cod	Class	Instrument code	Instrument s	Instrument	Account	Operat	Price	Qty	Volume	ACI	Commiss
1	E7/102	TQOD	MOEX SM	XS0620695204	ALFA BOND	ALFA BOND ISSUANCE	L01+00003F00	Sell	97,2932	6	5 837,59	109,79	0,66

1. Closing positions for clients:

- **with codes** (by default) – select a client code from the drop down list or several client codes using the "..." button.

If the Close positions form is called from the Client portfolio table under the **Close positions by <client code>** context menu item, then the field will contain a client code from a selected string.

If the **Close positions** form is called from the **Client portfolio** table under the **Close positions by clients from table** context menu item, then the field will contain the list of client codes from the current table and from the file with the client code list, if the **Only from list** option of positions rolling over is selected (see [6.3](#)).

- **with funds level greater than ... and less ...** – select clients with consideration of minimum and maximum funds levels. Values in fields are specified with accuracy to two decimal spots and must not exceed 1. The filter is available for only clients of MD type. The field is active if closing positions by discounts is allowed by settings (see [6.4](#));
- **with margin level greater than ... and less ...** – select clients with consideration of minimum and maximum margin levels. Values specified in fields of the setting are expressed in percent and must not exceed 100. The filter is available for all types



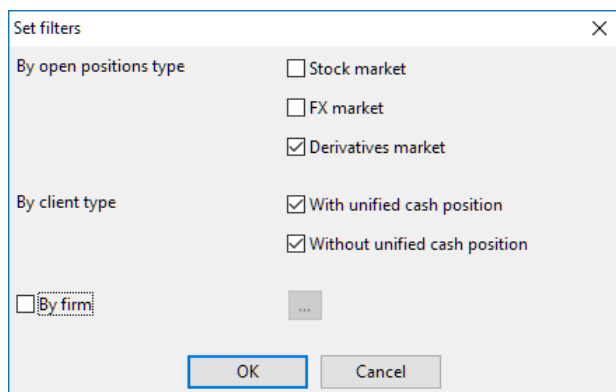
of clients except those of MD and MD+ types. The field is active in closing positions by margin level is allowed by settings (see [6.4](#));

- **on derivatives market with ... greater ... and less ...** – select clients of the derivatives market (including clients with the unified cash position) with consideration of minimum and maximum risk parameter values for closing positions (for details, see [6.4](#)).

2. Additional filters – additional conditions to select clients using the filters of client type and the type of positions that a client has. These filters are not available if **Closing positions for clients with codes** parameter is selected. The filters are set up using the **Set filters** button. The set of selected filters is displayed in the field on the right:

- Stock market / FX market / Derivatives market – if a corresponding position type is selected. If all position types are selected, then the value All positions is displayed;
- Unified cash position / Without unified cash position – if a corresponding position type is selected. If all position types are selected, then the value is not displayed;
- Firms: <list of firm codes> / Firms: exclude <list of firm codes> – if the including / excluding filter by firms is set up.

The **Set filters** dialog contains the following parameters:



- **By open positions type** – setup of the filter by client's open positions and appropriate licenses for the market types. The client codes for which all the following conditions are met are selected for closing:
 - Stock market – at least one position in instruments and the license for the stock market available. The check box is selected by default;
 - FX market – at least one cash position (of currencies selected for position closing in the settings) and the license for the FX market available. The check box is cleared by default;
 - Derivatives market – at least one position in client accounts (derivatives asset position) and the license for the derivatives market available. The check box is cleared by default,
- **By client type** – setup of the filter by client's unified cash position. The client codes for which all the following conditions are met are selected for closing:
 - With unified cash position;
 - Without unified cash position.
- By default, all check boxes are enabled.

- **By firm** – setup of the firm filter for position closing. Use the “...” button to open the filter configuration window. By default, the check box is cleared (positions are open for all firms).

Filtration can be applied only to clients displayed in Client portfolio table in accordance with filter by client code. If several Client portfolio tables with the Data source for CoLibri calculations check box checked are opened in the Workstation, a single list of available clients for all such tables will be formed.

3. Template for position closing– change rule of closing positions set by default, for the current operation of closing. For the description of the template settings, see [6.4.1](#). Click button ‘...’ to open dialog ‘Select closing template’ to select the template. For the description of parameters of the table, see [6.4.1](#). Editing settings does not change parameters of closing set in the program’s settings.

To return the default settings use the **Default** button. By default, the following templates are used:

- For MD and MD+ clients of the stock market (including clients with the Unified cash position) – main template set for the ‘with funds level’ closing type (see [6.4.1](#)).
- For clients of the stock market of all types except MD and MD+ – main template set for the ‘with margin level’ closing type (see [6.4.1](#)).
- For clients of the derivatives market of all types except MD and MD+ (without the Unified cash position) – main template set for the ‘on derivatives market’ (see [6.4.1](#)).

4. Positions for close – select markets for position closing:

- Stock market;
- FX market;
- Derivatives market.

By default, all check boxes are enabled.

5. Close positions only by non-margin instruments – enabled attribute allows closing positions (both positive and negative) only for non-margin instruments on the stock and FX markets. Available if the **Close long positions by non-margin instruments** mode is enabled in the Closing positions settings (see p [6.4](#)). The checkbox is cleared by default. If the check box is enabled, then **Close long positions only by non-margin instruments** attribute is enabled and not available.

6. Close long positions by non-margin instruments – enabled attribute allows using positive positions for non-margin instruments in the current operation of closing positions on the stock and FX markets. Editing settings does not change parameters of closing set in the program’s settings. If the **Close long positions by non-margin instruments** mode is enabled in the Closing positions settings (see p [6.4](#)), then this attribute is enabled, otherwise it is cleared.

If the **Close positions only by non-margin instruments** check box is enabled, then attribute is enabled and not available.



7. Close long positions with FX positions – enabled attribute allows forming the orders of the volume sufficient for closing the negative position in currency in which the instrument is traded when closing positive positions. If the **Enable closing long positions with FX positions** mode is enabled in the Closing positions settings (see p [6.4](#)), then this attribute is enabled, otherwise it is clear.

8. Table of orders for closing positions contains the following parameters:

- _ Client code;
- _ Class code;
- _ Class;
- _ Instrument code;
- _ Instrument short name;
- _ Instrument;
- _ Account;
- _ Operation;
- _ Price in settlement currency (in percent for bonds);
- _ Qty in lots;
- _ Commission;
- _ Volume in settlement currency;
- _ ACI in settlement currency.

Operations available from the shortcut menu of the table:

- _ **Change** – change parameters of the order. The item is available in the Price and Qty columns. The Qty column can contain only positive values. The Price column can contain positive (for all types of instruments) and negative or zero values (only for the derivatives market instruments).

Use Enter or Tab keys to save values. Editing mode can be enabled by double clicking on the order.

- _ **Remove** – delete order from the list.
- _ **Edit table** – edit the list of fields to be displayed in the table.

To calculate orders for closing press **Calculate** (at that changes in order parameters will not be saved). Press **Execute** to send orders to QUIK server. Press **Cancel** to close the window without sending orders.

5.3.4 Algorithm of position closing

Depending on the client type and closing parameters the positions on different markets can be closed separately or simultaneously.



IMPORTANT! Sets of instruments with dependent prices are not considered in the algorithm of position closing.

Stock market positions

- By adequacy funds level:

As a result of closing a part (or all) of client positions, margin status of the client changes so that their portfolio value would exceed value of the initial* margin by amount defined by broker (**Reserve** setting in the Edit closing position rule window, see [6.4.1](#)).

(*) When the position is being closed in the mode “until normal status”, the margin status of clients with high risk level in MD+ margin lending scheme changes so that their portfolio value would exceed value of the minimum margin.

Positions of clients with the standard and high risk levels are closed until the set funds level is reached if the mode “up to a given funds level” is selected.

Orders for position closing are formed as follows:

- Orders for closing short positions on non-margin instruments or D-type instruments are formed for clients. Orders for closing long and short positions on all margin instruments are formed for clients without short positions on non-margin instruments. Permission for closing long positions on non-margin instruments can be set by activating **Close long positions by non-margin instruments** attribute (see [6.4](#)).
- Permission for closing positions on non-margin instruments on the stock and FX markets is established by enabling **Close positions only by non-margin instruments** check box (see p. [5.3.3](#)). The positions on other instruments are ignored.

If the Close positions only by non-margin instruments attribute is enabled and there are negative positions on instruments of D type, then closing is not permitted.

- If the **Close long positions with FX positions** check box is enabled (see p. [5.3.3](#)), then closing of positive positions is limited by the sale volume not exceeding a negative position in a corresponding currency.
- Trading mode of closing is defined for each instrument. Positions on a date different from that corresponding to the trading mode are ignored.

To close positions on the stock market by margin level, enable the **Allow closing on stock market** and **Close by adequacy funds level** check boxes in the Module settings (**Colibri/Closing positions** section under **Plugins/Colibri/Settings...**).

- By margin level:

Current level of client’s margin is brought to that established by broker. If the current level of client’s margin is greater or equal to the set level, positions of this client are not closed. Orders for position closing are formed as follows:



- Orders for closing short and long positions are formed on instruments of 'M' and 'MA' types. Permission for closing long positions on non-margin instruments is set by activation of the attribute **Close long positions by non-margin instruments** (see [6.4](#)).
- Closing positions on non-margin instruments on the stock and FX markets is set by enabling the **Close positions only by non-margin instruments** check box (see p. [5.3.3](#)). The positions on other instruments are ignored.
- If the **Close long positions with FX positions** check box is enabled (see p. [5.3.3](#)), then closing of positive positions on the stock market is limited by the sale volume not exceeding a negative position in a corresponding currency.
- Trading mode for position closing is defined for each instrument with checking for position corresponding to this mode. Positions on date different from T0 are ignored.

Only positions on the stock market are allowed for closing for clients of all types except MD and MD+ having the Unified cash position configured. FX and derivatives positions are ignored.

To close positions on the stock market by margin level, enable the **Allow closing on stock market** and **Close by margin level** check boxes in the Module settings (**Colibri/Closing positions** section under **Plugins/Colibri/Settings...**).

FX market positions

FX positions can be closed for MD and MD+ clients (using "by adequacy funds level" scheme) of the stock market.

All positions for which the appropriate currency pairs are specified in the settings of position closing (see [6.4.3](#)) are to be closed when closing FX positions. The procedure of FX position closing is the same as for the stock market position closing.

For FX positions, the types of instruments (and discount amount) are taken based on currencies and not on corresponding instruments of the "currency pair" type.

To close FX positions, enable the **Allow closing on FX market** check box in the Module settings (**Colibri/Closing positions** section under **Plugins/Colibri/Settings...**).

The algorithm of closing position on the stock market by adequacy funds level is similar to the algorithm of [closing several types of positions](#).

If an FX position being closed is not multiple of the lot size, small lots mode may be used (see [6.4.3](#)).

Derivatives market positions

Position closing is carried out for clients of the derivatives market based on "On derivatives market" template.



Closing positions on the derivatives market is available for clients with unified cash position configured if the **Apply to derivatives positions when Unified Cash Position used** check box is disabled in the closing position rules dialog box (see [6.4.1](#)) (or if it is enabled but there are no non-zero positions on the stock and FX markets and the **Apply if there are no spot positions** check box is disabled).

For clients with the Unified Cash position configured, positions are closed first on the stock and FX markets and then on the derivatives market.

According to the closing template for the derivatives market, the Module determines a risk parameter of the derivatives market and its value to be achieved to close a position,

Then, the Module determines the list of instruments positions on which has to be closed based on the closing template for the derivatives market. Orders for position closing are formed only for futures contracts. Positions on options are considered, if the **Allow closing of options positions** setting is enabled (**Colibri/Closing positions** section under **Plugins/Colibri/Settings...**, for details see [6.4](#)).

For each position it has to be checked whether it is possible to achieve the target value of risk parameter by closing this position:

- If the target value is not achieved, the position is fully closed, Then, the next position is taken to processing.
- If full closure of the current position exceeds the required value of risk parameter, the minimum closing of the current position required to achieve the target value of risk parameter is calculated.

Several types of positions

For MD and MD+ clients it is possible to close positions simultaneously on the stock, FX and derivatives markets if the appropriate settings are set (see [6.4](#)). The template "by adequacy funds level" is applied for simultaneous position closing.

Closing positions on the derivatives market is available for clients with unified cash position configured if the **Apply to derivatives positions when Unified Cash Position used** check box is enabled in the closing position rules dialog box (see [6.4.1](#)) and either there are non-zero positions on the stock or FX markets or the **Apply if there are no spot positions** check box is enabled.

The list of instruments is sorted based on one of the following algorithms (for details, see [6.4.1](#)):

- Minimum volume – client positions are checked in descending order by the initial margin volume per one lot for the instruments of the stock/FX markets and the collateral value per one contract for the derivatives market instruments. The value of the [Close order](#) parameter is taken into account.
- Proportionally to position – client positions are checked in descending order by the initial margin volume per one lot for the instruments of the stock/FX markets and the collateral



value per one contract for the derivatives market instruments. All positions are adjusted down by the same percentage in monetary terms. The value of the [Close order](#) parameter is taken into account.

- Fixed instruments order.

For each position it has to be checked whether it is possible to achieve the target value of risk parameter by closing this position:

- If the target value is not achieved, the position is fully closed, then, the next position is taken to processing.
- If full closure of the current position exceeds the required value of risk parameter, the minimum closing of the current position required to achieve the target value of risk parameter is calculated.

6. Program settings

To open the dialog of the Module settings, select the menu item **Plugins / Colibri / Settings**. Parameters of the Module settings are available in section 'Colibri' and grouped into tabs.

6.1 Sending margin calls

The tab contains the following settings:

- **Switch margin call mode automatically** – enable sending notifications. The check box is selected by default.
 - **Switch at connected at server QUIK** – enable sending notifications when connected to QUIK server. The option button is selected by default;
 - **Switch in time interval ... From... to** – enable sending notifications for the set period of time.
- * **Min. time interval for sending (sec.)** – minimum time in seconds between two serial notifications of the same type for the same client. Value by default: "" (blank) (parameter is not set).
- * **Min. change threshold for sending ... Units / %** – minimum value of changing (lowering) the portfolio value between two serial notifications of the same type for the same client type in currency units or percent. Mode of setting the parameter in currency units is selected by default. Value by default: "" (blank) (parameter is not set).
- * **Min. change threshold for LLA** – minimum value of changing in Funds level between two serial notifications of the same type to MD and MD+ clients. Value by default: "" (blank) (parameter is not set).
- * **Disable sending margin call after temporary improvement of parameters of portfolio** – if the attribute is selected, sending notifications is available only if the current value of portfolio is worse than at the moment of sending the previous notification. The check box is cleared by default.



(*) The settings allow restricting frequency of sending notifications.

- **Always allow manual sending** – manual sending of notifications if sending of a corresponding notification type is disabled. The check box is cleared by default.
- **Notify about sending margin calls** – mode of notification alerts:
 - **System message** – message about sending a notification is added to System messages table of QUIK Workstation at the moment of sending each notification. If a notification is sent by several methods at the same time and/or to several addresses, message on its sending is once formed;
 - **Play sound** – assign a sound signal to notifications. Use the **From file** button to select a sound signal from a file. Selected sound signal can be listened by pressing the  button. Use the "..." button to select another file.
- **Don't send margin calls to** – disable sending notifications to client selected from the dropdown list. The "..." button calls dialog of viewing and changing the list of clients. If several clients have been selected, the dropdown list shows the total number of the selected clients.
 - **Clear at trade session change** – mode of clearing the list of selected clients at the beginning of trading session of QUIK Server. The mode is disabled by default. The modal dialog appears when editing client codes with the disabled of sending notifications.
- **Templates for sending margin calls (separated by `;')`** – list of templates (leverage values) separated by ";". Notifications are sent to clients with a leverage from the list. To set up the list of templates, click "..." and type leverage values separated by ";" in the dialog box that will open.

6.1.1 Types of spot market notifications

Discounts schema

The tab contains the notification settings for clients of MD and MD+ types:

- **Firm** – the list of firm codes for individual configuration of notifications:
 - **Default** – the default parameters of notifications for the firms, for which no individual settings are configured. The line cannot be deleted from the list, but is available for editing.
 - **Add** – add a firm code.
 - **Rename** – rename a firm code.
 - **Remove** – delete a selected firm code from the list.
 - **Clear** – delete all firm codes from the list.
- **Notify template** – select a file for loading the template of notification for each condition in the **Notify about status change** and **Notify about situation** frames. Click the **Choose** button to select a file. If the file is selected, then the button shows a selected file name. Format of loaded file is described in [5.1.6](#).



- **SMS notify template** – select a file to load template of SMS notifications for each condition in the **Notify about status change** and **Notify about situation** frames. Click the **Choose** button to select a file. If the file is selected, then the button shows a selected file name.
Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Notify about status change** – enable sending notifications when meeting the following conditions:
 - **Restriction (less than corrected margin)** – portfolio value is less than the corrected margin and greater or equal to the initial margin;
 - **Demand (less than initial margin)** – portfolio value is less than the initial margin and greater or equal to the minimum margin;
 - **Closing (less than minimal margin)** – portfolio value is less than the minimum margin.
- **Notify about situation** – enable sending notifications when the following situation occurs:
 - **Unallowable short position** – negative position for instruments unavailable to sell short (non-margin instruments and 'D' type instruments).
- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the box located below.
- **Template for e-mail subject** – message title when a notification is sent via email.
By default, the template specified on the **Sending by e-mail** tab.

Other schemas

The tab contains the notification settings for clients of all types other than MD and MD+:

- **Notify about status change** – enable sending notifications when meeting the following conditions:
 - * **Restriction margin level** – margin level is greater or equal to margin level of unsecured demand but less than the boundary level of margin;
 - * **Demand margin level** – margin level is greater or equal to margin level of forced closing but less than margin level for unsecured demand;
 - * **Force closing margin level** – margin level is less than margin level of forced closing.

(*) The dictionary displays the boundary values of margin levels as a percentage for common and qualified clients. Client qualification is accounted by the Module only at selected checkbox 'Consider qualified clients'. Boundary values and the attribute of client qualification are defined by QUIK Workstation settings (Trading / Client portfolio section under System / Settings / General settings...).



- **Notify template** – a file to load template of notifications for each condition. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications for each condition. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Notify about situation** – enable sending notifications when the following situation occurs:
 - **Unused global position quota less than ... %** – set up the limit share of unused global position. If the actual share is less than the critical share of unused global position defined by settings, the notification is created.
- **Notify template** – a file to load template of notifications about a share of unused global position. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications on a negative position. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

6.1.2 Types of derivatives market notifications

Neg. fund balance

- **Notify of the negative balance of available funds** – enable sending of notifications when reaching the following condition:
 - Planned net positions < 0.
 By default, the check box is cleared.
- **Notify template** – a file to load template. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. For rormat of the loaded file see [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.

- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

Adequacy funds level

- **Notify about status change** – enable sending of notifications when reaching dangerous or critical funds adequacy level:
 - Dangerous – funds adequacy level at which a notification is sent to a client. By default, the check box is cleared. If the check box is enabled, then the value is equal to 1.
 - Critical – funds adequacy level at which a client's position is closed. By default, the check box is cleared. If the check box is enabled, then the value is equal to 0.
- **Notify template** – a file to load template for each of the conditions. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications for each of the conditions. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Don't send if collateral liquidity ratio is more than** – disable sending of notifications if the collateral liquidity ratio is more than the specified value. By default, the check box is cleared. If the check box is enabled, then the value is equal to 1.
- **Notify about dangerous state by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications about the dangerous funds adequacy level according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Notify about critical state by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications about the critical funds adequacy level according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Dangerous state template for e-mail subject** – message title when a notification about the dangerous funds adequacy level is sent via email. By default, the template specified on the **Sending by e-mail** tab.
- **Critical state template for e-mail subject** – message title when a notification about the critical funds adequacy level is sent via email. By default, the template specified on the **Sending by e-mail** tab.

Adequacy funds level (open pos.)

The tab contains the parameters of sending messages when the adequacy level of funds that are reserved for open positions reaches a dangerous or critical point.

The parameters of these margin call type are the same as for the **Adequacy funds level** margin call type (see above).

Collateral liquidity ratio

- **Notify about collateral liquidity ratio** – enable sending of notifications when reaching one of the following conditions:
 - Decrease in the collateral liquidity ratio below the value specified in the field on the right;
 - Negative value of the total amount of cash balance selected in the **Control positive value** setting.
- By default, the check box is cleared. If the check box is enabled, then the value is equal to 0.
- **Notify template** – a file to load template s. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
 - **SMS notify template** – a file to load template of SMS notifications. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
 - **Control positive value** – the type of the total amount of cash balance to control a positive value:
 - **Total Cash Balance** (by default);
 - **Total Cash Balance on opening**.
 - **Add to the value variation margin and accrued int** –a selected value of the total amount of cash balance is added to the values of real variation margin and accrued interest. By default, the check box is cleared.
 - **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
 - **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

Planned collateral liquidity ratio

- **Notify about planned collateral liquidity ratio** – enable sending of notifications when there is a decrease in the planned collateral liquidity ratio below the value specified in the field on the right. By default, the check box is cleared. If the check box is enabled, then the value is equal to 0.



- **Notify template** – a file to load template s. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

Composite criterion

- **Notify when reaching composite criterion condition** – enable sending notifications when the selected conditions are met. The following check boxes enable sending notifications for the clients of different types separately:
 - **Notify discount schema clients with Unified cash position;**
 - **Notify other schemas clients with Unified cash position;**
 - **Notify derivatives market clients without Unified cash position.**

By default, the **Notify discount schema clients with Unified cash position** check box is enabled, and the others are cleared.

For each client type the conditions of sending notifications are set up:

- **Risk parameter** – a risk parameter, the value of which is used for controlling the notification condition. By default **Plan. netto position** parameter is selected with null in **Notify value** field;
- **Notify level** – the notification is sent, if the fact value of the risk parameter is less than the value of this field. The value is specified as a figure accurate to two decimals. The field is obligatory to be filled.

1. **If the Portfolio value risk parameter is selected, the field is uneditable; the notification is sent if the fact value of the parameter is less than the value of corrected margin.**
 2. **If the Curr. clear positions, Curr. clear pos., or Curr. clear ord risk parameter is selected, then the notification is sent, if the fact value of the risk parameter is more than the specified value.**
- **Additional condition, Critical value** – specify additional conditions for controlling execution of notification condition.
- The notification is sent if all the specified conditions, the main and the additional ones, are met.

- **Notify template** – a file to load template s. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

Arbitrary risk parameter

- **Notify about risk parameter** – enable sending of notifications when there is a decrease in the risk parameter indicator below the value specified in the settings. By default, the check box is cleared.
- **Risk parameter** – select a risk parameter from the drop-down list.
- **Risk parameter level at which notification is created** – value of the parameter selected in the **Risk parameter** field. Value by default: 0.

A notification is sent in case of an increase of the risk parameter indicator above the level specified in the settings for the following parameters: Curr. netto positions, Curr. clear pos., Curr. clear ord.

- **Only for clients with Unified cash position configured** – send messages only to clients with the Unified cash position configured. By default, the check box is cleared.
- **Notify template** – a file to load template s. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#).
- **SMS notify template** – a file to load template of SMS notifications. Use the **Select** button to select a file. If the file is selected, then the button shows a selected file name. Format of the loaded file is described in [5.1.6](#). If the  button is pressed, then a notification template is used as a template for SMS; the button for SMS template selection becomes unavailable.
- **Send by schedule (hh:mm comma separated)** – enabling forced sending of margin call notifications according to schedule. The schedule is set by listing the time points in <HH:MM> format in the field located below.
- **Template for e-mail subject** – message title when a notification is sent via email. By default, the template specified on the **Sending by e-mail** tab.

6.1.3 Sending by e-mail

- **Send e-mail** – enable sending notifications by email. The checkbox is selected by default. If the attribute is enabled, the following settings are available:
 - **SMTP-server address** – address and port of SMTP-server of sending notifications;
 - **Sender address** – return address of email sender for response messages;
- **SMTP-server authentication** – enable user authentication on SMTP-server.
 - **Login** – use name;
 - **Change password** – use the button to open the dialog of entering the user password. Fill the **New password** and **Confirm password** fields. Select the **Encode password** checkbox to save the password in encrypted form.

Password must not begin with \$ and # symbols. If transferring the Program to another computer, reinstalling the operational system or running under another Windows user, encrypted passwords become unavailable to be unencrypted. In this situation the appropriate must be reestablished.

- **Template for e-mail subject** – subject template for emails with notifications.
- **File pairs of code and e-mail** – name of file with correspondence between client codes and their emails. Specify it manually or select using '...' button. File format is given in [7.1](#).
- **Send copy of e-mail to (via ',')** – send copies of all messages to a certain set of addresses. Addresses in the list are separated by commas.
- **Send if individual address missed** – set up sending notification to clients by e-mail even if the client does not have an individual e-mail address. Notifications are sent only to addresses specified in setting **Send copy e-mails to (via ',')**, setting **As hidden copy** in this situation is ignored. The logic of notifying is not changed if the client specified an individual e-mail address.
- **As hidden copy** – if the attribute is enabled, notifications to addresses from setting **Send copy e-mails to (via ',')** are sent as a hidden copy. The checkbox is cleared by default.
- **Send individual e-mail** – under the selected attribute when sending a notification to several addresses, several messages having the only address each are formed. The check box is cleared by default.

6.1.4 Sending by UID

- **Send by traders messages** – enable sending notifications by trader messages. The checkbox is cleared by default.
- **Send by MC2Q** – enable sending notifications via MC2Q utility.
- **Send e-mail to addresses (via ',')** – list of e-mails separated by comma to send messages for MC2Q. The field is not filled by default. The setting is available upon the enabled **Send by MC2Q** attribute.
- **Send by SMS *** – enable sending notifications via SMS (SMS gateway required). The checkbox is cleared by default.



(*) To use this function, set the correspondence between client codes and UIDs, establish manager rights on 'SMS' class ('Set limits' checkbox must be selected) in accordance with SMS Module manual.

- **File pairs of code and UID** – file name and correspondence between client codes and UIDs. Specify it manually or select using '...' button. File format is given in [7.2](#). The setting is available under the selected **Send by traders messages** and / or **Send by MC2Q** and / or **Send by SMS** attributes. The field is obligatory for filling.
- **Folders for MC2Q (via ';')** – list of catalog names separated by ';' (semicolon) to be used for notification by **MC2Q**. The field is not filled by default. The setting is available upon the enabled **Send by MC2Q** checkbox.

6.1.5 Store margin calls in DB

- **Store sent margin calls in** – if the attribute is selected, information on the sent notifications is stored in database. The checkbox is cleared by default. The following parameters are available upon the enabled setting:

- **ODBC data source name** – select an ODBC source. For further details on creating an ODBC source see [1.4](#);
- **Login** – user name;
- **Password** – user password;
 - **New password** – value of password;
 - **Confirm password** – repeat the password entered in **New password** field;
 - **Encode password** – select the checkbox to save the password in encrypted form.

Password must not begin with \$ and # symbols. If transferring the Program to another computer, reinstalling the operational system or running under another Windows user, encrypted passwords become unavailable to be unencrypted. In this situation the appropriate must be reestablished.

- **Table name** – name of table for storing notifications. Value by default: MCalls. Numeric values must not be used in table name. Format of database table for storing the sent notifications is given in [7.7](#).



6.2 Position rollover

The tab contains the common parameters for the client's position rollover at the stock market:

Program settings

Position rollover

- ☒ Roll over spot positions
- Roll over clients:
 - ☒ Take list of clients from the file
 - D:\Front_1\1.txt
 - ☐ Prohibit long positions roll over
 - ☐ Only marginal clients
 - ☐ Only with positive cash position (for short positions)
 - ☒ Sub-clients
- Roll over positions:
 - ☐ Enable together closing long and short positions
 - ☐ Roll over long positions in marginal instruments only
 - ☐ Minimize number of trades
 - ☒ Separate accounting of the cash position
- Withdraw donor position by currency: on position code:
- ☒ Check assets for single donor
- Default donors:
 - ☒ From list
 - ☐ From file
- Modified REPO:

Buttons: Help, OK, Cancel

- **Roll over spot positions** – roll over positions on the stock market. If the check box is cleared, then the settings on this tab are not available.
- **Roll over clients:**
 - **Take list of clients from the file** – a file with list of clients to roll over positions. File format is given in [7.3](#);
 - **Prohibit long positions roll over** – exclude the clients that are listed in the [ExcludeRollOverForLong](#) setting in the position roll over file from the orders to roll over long positions. The check box is available, if the **Take list of clients from the file** check box is selected.
 - **Only marginal clients** – rolling over positions is available only for margin clients;
 - **Only with positive cash position (for short positions)** – rolling over positions is available only for clients having a positive cash position;
 - **Sub-clients** – allow rolling over sub-client positions. The attribute is selected by default.
- **Roll over positions:**
 - **Enable together closing long and short positions** – enable permission to roll over long and short positions simultaneously. The checkbox is cleared by default.
 - **Roll over long positions in marginal instruments only** – if the attribute is enabled, all non-margin instruments are ignored and do not participate in rolling over long positions. The check box is cleared by default;



- **Minimize number of trades** – if the attribute is enabled, positions for instruments with the highest estimated value are rolled over first. The check box is cleared by default;
- **Separate accounting of the cash position** – select the mode of cash positions accounting. If the attribute is enabled, all cash positions are accounted separately, each negative cash position available is rolled over (even though positive cash positions are available). If the attribute is disabled, all cash positions are summed up, the resulted value is rolled over. Furthermore, upon the enabled setting cash positions are rolled over only for instruments nominated in the same currency as the rolled over position. The checkbox is selected by default.
- **Withdraw donor position by currency ... on position code ...** – set parameters of withdrawing cash funds from client-donor's account when rolling over positions. The setting allows specifying a currency code and a position code. Currency value by default – SUR, position code value is EQTV.
- **Check assets for single donor** – enable checking for funds adequacy when selecting the only client-donor.
- **Default donors** – set a list of clients-donors:
 - **From list** (by default) – select a client (from the dropdown list) or several clients (using the '...' button);
 - **From file** – select a file with a list of clients-donors by pressing '...' button. File format is described in [7.5](#).
- **Modified REPO** is to account features of sending orders on this class of instruments when an order has the minimum size of 1 ruble:
 - **Always roll over long positions** – if the attribute is enabled, orders for rolling over long positions are formed in any case, even if a negative balance of instruments is less than 1 ruble; if the attribute is disabled, REPO orders are formed only if a negative client position in cash is higher than 1 ruble;
 - **Roll over short positions with valuation less than one rub.** – if the attribute is enabled, orders for rolling over short positions are formed for each instrument with a negative balance, even if its estimate is less than 1 ruble; if the attribute is disabled, REPO orders are formed only if a negative client position in cash is higher than 1 ruble.

6.2.1 Rollover parameters

The tab contains the calculation settings for the order parameters for the position rollover:

Program settings

Rollover parameters

Long Short

Compensation, % 1,00 2,00

REPO rate, % 3,0000 4,0000

Additional commission for trade 6,00 8,00

Max. trade volume 100000

☐ Load REPO rates from file

☐ Consider value long and short positions summary

Individual position rollover parameters

	Client code	Rate, % (long)	Term (long)	Rate, % (short)	Term (short)
1	E7/100	0,5000	5	0,1000	1
2	Q1	0,3000	6	0,2000	1

Add Edit Remove Clear ☒ Auto select REPO rate sign

Help OK Cancel

- **Rollover parameters** – set default values of parameters for sending orders to roll over long and short positions:

- **Compensation, %** – value of refund rate, in percent;
- **REPO rate, % / Rate, %** – rate value, in percent;
- **Additional commission for trade** – set the additional commission for rolling over positions on NDM/REPO trades.

Value of the additional commission is not written off by QUIK Server but reserved for this commission.

- **Max. trade volume** – set the maximum order volume for rolling over long position. Orders of exceeding volume are divided into several orders of volume each that does not exceed the maximum, the last order is formed for the resting volume. The setting is not configured for short positions.
- **Load REPO rates from file** – enable using templates of REPO rates from the selected file. If templates of REPO rates are selected, 'REPO rate' parameter (or 'Rate' for NDM and NDM with CCP) may depend on volume of orders for rolling over positions for the client when forming such orders. Use button '...' to select a file. File format is given in [7.6](#).
- **Consider value long and short positions summary** – summary volume of all orders for rolling over short and long positions is used to define 'REPO rate' (or 'Rate' for NDM and NDM with CCP) in mode of rolling over all positions. A REPO rate for the found total turnover is calculated based on the rates scale for long positions (if the rates scale is missing for long

positions, then the rates scale for short positions is used instead). For a description of the file with templates, see [7.6](#).

- **Individual position rollover parameters** – list of individual settings is given as a table. Each row of the table contains information on settings for a particular client code. Table's columns show the following parameters:

Parameter	Description
Client code	Client code
Rate, % (long)	REPO rate for long positions, in percent
Term (long)	REPO rate for short positions
Rate, % (short)	REPO rate for short positions, in percent
Term (short)	REPO term for short positions

- **Add** – add settings for a new client code;
- **Edit** – edit settings for the selected client code;
- **Remove** – delete the selected client code from the list;
- **Clear** – delete all client codes from the list.

- **Auto select REPO rate sign** – if the checkbox is selected, REPO rate is entered as its absolute value. Then, for rolling over short positions the rate is taken as negative, for long positions it is taken as positive (but displayed always as a positive value). The checkbox is clear by default.

6.2.2 Orders params

The tab contains the comment parameters and settings for saving orders for position rollover:

The screenshot shows the 'Program settings' window with the 'Orders parameters' tab selected. The left sidebar contains a tree view with the following items: Program, News, Trading, Messages, Windows, Colibri, Sending margin calls, Position rollover, Rollover parameters, **Orders params** (highlighted), Classes and instruments, Internal closing, FX positions rollover, and Closing positions. The main area of the dialog is divided into two columns for 'Long' and 'Short' positions. Under 'Long', there is a 'Comment' field with the value '123qwe'. Under 'Short', there is a 'Comment' field with the value 'a234567890b234567890c2'. Below these, there are two checkboxes: 'Calculate discount automatically when rolling over long positions (REPO with CCP only)' (unchecked) and 'Save donor's orders to file instead of sending' (unchecked). The 'Minimum discount rate, %' field is set to '0,00'. The 'File directory' field is empty. At the bottom, there are 'Help', 'OK', and 'Cancel' buttons.

- **Orders parameters:**

- **Comment** – text comment given to each REPO order. When exporting trades to back-office, they are exported with the comment so that it is possible to separate similar orders.

- **Calculate discount automatically when rolling over long positions (REPO with CCP only)** – auto selection of maximum possible discount to provide long position closing when using REPO with CCP mode. At this for short positions the discount that is specified by a user or received from exchange is used. By default the check box is cleared.

- **Minimum discount rate, %** – minimum allowed discount rate (can be positive or negative).

- **Save donor's orders to file instead of sending** – indicates that donor's orders are saved to the file instead of being sent to the trading system. By default, the check box is clear.

- **File directory** – select a directory for the files with donor's orders.

6.2.3 Classes and instruments

The tab contains the settings of classes and instruments for position rollover:

- **Position rollover classes (separated by ',')** – set a list of classes available for rolling over positions.
- **Roll over long positions using the following instrument order** – set for a client code a sequence of running over instruments to prepare orders with their positions.
- **Roll over short positions using the same list of instruments** – if the check box is selected, then all the instruments that are not included in the list of instruments to roll over

long positions (see above) are skipped when rolling over short positions even if they have negative positions. By default the check box is cleared.

- **Roll over long positions using other instruments** – if the check box is selected, then after using all the instruments from the list to roll over long positions other instruments are used. If the check box is cleared, only instruments from the list are used to roll over positions. By default the check box is selected.

If for a client the instrument list is not specified, as well as the default client list, then disregarding the check box status it means that there is no restriction for instruments.

6.2.4 Internal closing

The tab contains the settings of internal closing for position rollover:

- **Enable internal closing** – enable the mode of 'internal closing positions' when rolling over positions by REPO trades.
- **Setting of using part assets of donors** – list of settings is given as a table. Each row of the table contains information on setting for a particular client code. Table's columns display client code and their asset share in percent. The following functions are available for records of the table:
 - _ **Add** – add settings for a new client code;
 - _ **Edit** – edit settings for the selected client code;
 - _ **Remove** – delete the selected client code from the list;
 - _ **Clear** – delete all client codes from the list.

6.3 FX positions rollover

The tab contains the parameters of the client's position rollover on the FX market:

Program settings

Program
News
Trading
Messages
Windows
Reports
Colibri
 Sending margin calls
 Position rollover
 FX positions rollover
 Rollover parameters
 Classes and instruments
 Closing positions

☒ Roll over FX positions

Roll over clients:

☐ Take list of clients from the file

D:\list_of_clients.txt

Templates for rollover (separated by ';') 0,01; 1,00

FX positions for rollover

Currency codes (comma separated) EUR, SUR, USD

Position codes (comma separated) EQTV, UTSR

Help OK Cancel

- **Roll over FX positions** – enable rolling over positions on the FX market. If the check box is cleared, then the settings on this tab are not available and FX positions rollover menu item is not available under **Plugins / Colibri**. By default, the check box is cleared.
- **Roll over clients:**

- **Take list of clients from the file** – a file with a list of clients to rollover positions for. The file format is described in [7.3](#).
- **Templates for rollover (separated by ';')** – list of templates (leverage values) separated by ";". Positions of clients with a leverage from the list are rolled over. To set up the list of templates click "..." and type leverage values separated by ";" in the open dialog box.

When selecting clients for FX positions rollover intersection of the client set specified in file (if it is set up) and the client set with a template from the specified list of templates (if it is set up) is used.

- **FX positions for rollover:**
 - **Currency codes (comma separated)** – list of comma-separated currency codes for the positions are to be rolled over. Value by default: EUR, USD.
 - **Position codes (comma separated)** – list of comma-separated permitted position codes. Value by default: EQTV.



6.3.1 Rollover parameters

The tab contains the calculation settings for the order parameters for position rollover:

Program settings

Rollover parameters

☒ Use two-step schema

☐ First roll over at the expense of requirements that will be executed in clearing

Long Short

Rate, % 3,00 3,00

Comment long short

Partner MB0098000000

Individual position rollover parameters

	Client code	Rate, % (long)	Rate, % (short)
1	E7/100	4,00	5,00
2	Q1	4,00	5,00

Add Edit Remove Clear ☐ Auto select rate sign

Help OK Cancel

- **Use two-step schema** – indicates that the scheme of rolling over positions using two different instruments of a SWAP trade is used.
- **First roll over at the expense of requirements that will be executed in clearing** – at first roll over the currency position by means of other currencies claims. When other currencies claims are not enough, roll over by means of current balances at other currencies, the value of which is displayed in the **Current limit** field at position on date T0. The checkbox is cleared by default.
- Default values for order entry parameters used to roll over long and short FX positions:
 - **Rate, %** – interest rate in percentage per annum.
 - **Comment** – textual comment added to all orders for FX position rollover sent to the trading system.
 - **Partner** – identifier of the trading participant who is counterparty in a SWAP trade.

If the **Use two-step schema** check box is disabled, the settings for long positions are not available. If the check box is enabled, the settings for long and short positions are required.

(*)

To roll over a short position a swap instrument is sold (i. e. a swap instrument currency is bought in the trade's first part and sold in the second part).

To roll over a long position a swap instrument is bought (i. e. a swap instrument currency is sold in the trade's first part and bought in the second part).

- **Individual position rollover parameters** – individual settings are listed in the table. Each table row contains information on settings for a specific client code. Table's columns display the following parameters:

Field	Description
Client code	Client code
Rate,% (long)	Interest rate for long positions as a percentage. Not filled in if the Use two-step schema check box is disabled
Rate,% (short)	Interest rate for short positions as a percentage

- _ **Add** – add settings for a new client code;
 - _ **Edit** – edit settings of a selected client code;
 - _ **Remove** – delete a selected client code from the list;
 - _ **Clear** – delete all client codes from the list;
- **Auto select rate sign** – if the check box is enabled, the interest rate is entered as absolute value. Then, the rate is considered negative for short positions rollover and positive for long positions rollover (but it is displayed as positive value). By default, the check box is clear.

6.3.2 Classes and instruments

The tab contains the settings of classes and instruments for position rollover:

Program settings

Classes and instruments

List of currency pairs

	Currency	Rollover instruments
1	EUR	EUR000TODTOM; EURRUBTDTMS; EURUSD0TODTOM
2	SUR	USD000TODTOM; USDRUBTDTMS; EUR000TODTOM; EURR
3	USD	USD000TODTOM; EURUSD0TODTOM

Buttons: Add, Edit, Remove, Clear, Reset

Class for rollover: MOEX Curr: Neg (SWAP)

☒ Allow rollover in small lot mode

Small lot mode class: CNGDSWAP cents

Buttons: Help, Save, Cancel

- **List of currency pairs** – the table shows the order of using the currency pairs for the position rollover by each currency. The following instruments are used by default:

Currency	Rollover instruments
EUR	EUR_TODTOM, EURUSD_TODTOM
SUR	USD_TODTOM, EUR000_TODTOM
USD	USD_TODTOM, EURUSD_TODTOM

Available functions:

- **Add** – open the dialog box to specify the currency pairs:

- **Currency code** – a code of currency for which positions are roller over.
- **Rollover instruments codes** – codes of instruments (currency SWAP) for rollover:
 - **Main** *;
 - **Additional** — box is active if the **Use two-step schema** parameter is set in the rollover parameters tab.
 - **small lots** – instruments, which are traded in a small lot class, for rollover using the small lot mode. The box is active if the **Allow rollover in small lot mode** check box is selected.

(*) The small lots box cannot contain an instrument of the main class and conversely. It is also not allowed to indicate the instruments of the main class and the class of small lots with different settlement periods.

- **Edit** – change a selected row containing the set currency pairs;
- **Remove** – delete a selected row containing the set currency pairs;
- **Clear** – delete all rows in the table;
- **Reset** – return to the values set by default.
- **Class for rollover** – class used by default to roll over positions. By default, a class with the code CNGD is selected.
- **Allow rollover in small lot mode** – if the check box is selected, positions are first rolled over using instruments of the main class of position rollover, and then the rest of the



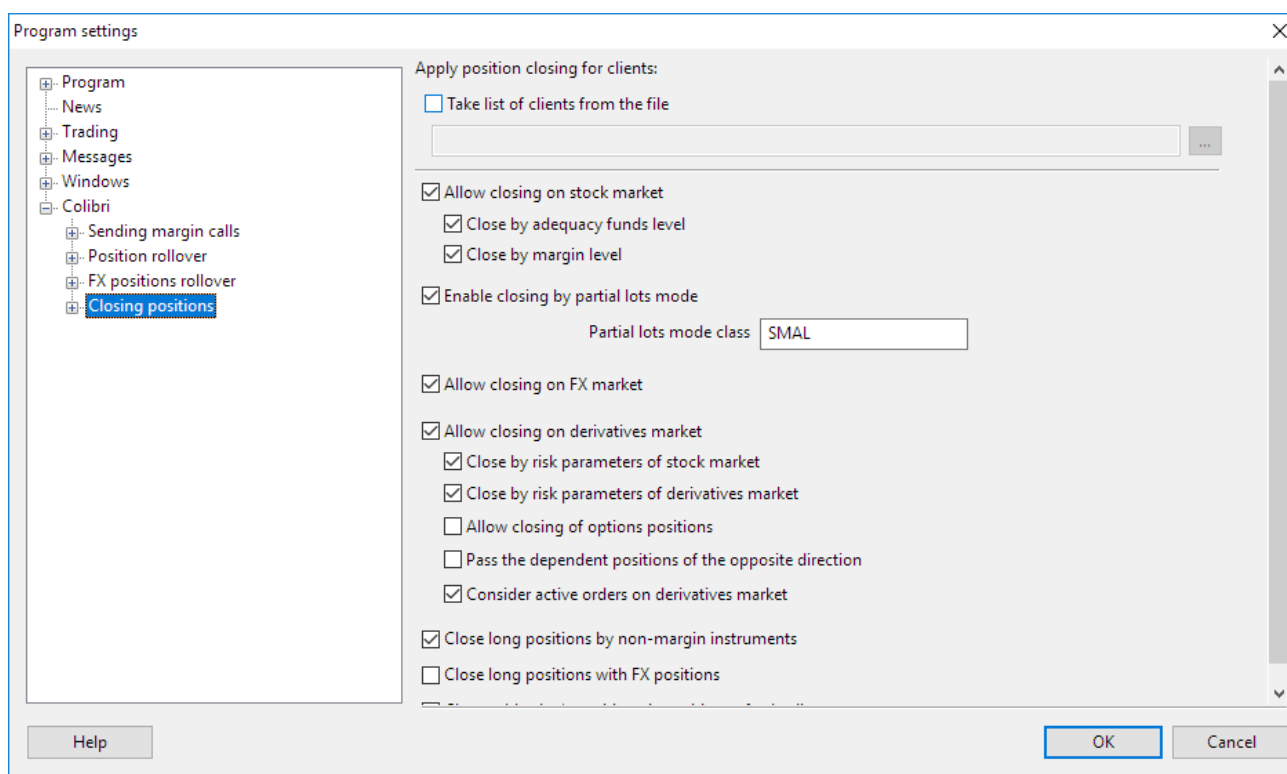
positions is rolled over using an instrument traded in the small lot class. By default, the check box is clear.

- **Small lot mode class** – class for position rollover in the small lot mode. The parameter is required and available if the **Allow rollover in small lot mode** check box is selected. By default, a class with the code CNGD_SU is selected

If the small lot mode is applied without using a two-step scheme, then for the currencies for which the transfer is planned, the instruments of the main class and the class of small lots should be indicated.

6.4 Closing position

The tab contains the common settings for the client's position closing:



- **Apply position closing for clients** – set up a list of clients to close positions for:
 - **Take list of clients from the file** – a file with a list of clients to close positions for. The file format is described in [7.3.](#)
- **Allow closing on stock market** – if the check box is selected, the setting of position closing on the stock market are available:
 - **Close by adequacy funds level *** – allow closing positions by adequacy funds level. Checkbox is selected by default.
 - **Close by margin level *** – allow closing positions by level of margin. Checkbox is cleared by default.

(*) At least one check box must be selected.

- **Enable closing by partial lots mode** – allow closing positions with using the mode of partial lots. Checkbox is cleared by default.
 - **Partial lots mode class** – class code for the mode of partial lots. The parameter is available upon enabled **Enable closing by partial lots mode** checkbox and obligatory for filling. Value by default: 'SMAL'.
-
- **Allow closing on FX market** – select the checkbox to allow closing FX positions. The setting is used when maintaining cash positions in the context of currencies for clients using 'by discounts' lending scheme (MD and MD+ clients). Checkbox is cleared by default.
- **Allow closing on derivatives market** – if the check box is checked, the settings for closing positions of the derivatives market are available:
 - **Close by risk parameters of stock market **** – if the check box is enabled, closing positions by the stock market risk parameters is permitted. Checkbox is cleared by default.
 - **Close by risk parameters of derivatives market **** – if the check box is enabled, closing positions by the derivatives market risk parameters is permitted. Checkbox is cleared by default.

() At least one check box must be selected.**

- **Allow closing of options positions** – if the check box is enabled, closing positions at the derivatives market by option positions is permitted. Checkbox is cleared by default.
- **Pass the dependent position of the opposite direction** – if the check box is enabled, positions at the derivatives market, which are linked with the base asset with positions of opposite risk, are not used. Checkbox is cleared by default.
- **Consider active orders on derivatives market** – if the check box is enabled, active orders for derivatives market instruments are accounted for position closing. Checkbox is selected by default.
- **Close long positions by non-margin instruments** – allow closing positive positions for non-margin instruments. Checkbox is cleared by default.
- **Close long positions with FX positions** – if the check box is selected, the orders are formed in a volume sufficient to close a negative position for a currency in which the instrument is traded. Checkbox is cleared by default.
- **Close subbroker's position via positions of subclients** – if the check box is selected, then subbrokers' positions are closed using the funds of their clients. At this the funds of only those subclients are used, codes of which are selected for position closing. If there are no enough funds on the subclients' positions, then the funds from the own subbrokers' positions are used.

The check box is editable, if at least one of the **Allow closing on stock market** and **Allow closing on FX market** check boxes is selected. By default the check box is cleared.



6.4.1 Templates

The tab contains the settings of the position closing rules:

- **Filter templates by** – filtering by a template name or client code used for quick searching information in the table. Rules of closing positions are established for each template or client code in a separate dialog. List of rules is given as a table. Table's columns display the following parameters:

Field	Description
Name	Template name or client code
Type	Template type (client code). Possible values: _ D – stock market (close by adequacy funds level); _ M – stock market (close by margin level); _ F – derivatives market (close on derivatives market).
Template	_ Yes – template; _ No – individual setting
Risk param.	For the stock market: _ Funds level – for the scheme "by adequacy funds level"; _ Margin level, % – for margin level scheme; For the derivatives market: _ <risk parameter selected in the settings>
Target value	For the By adequacy funds level closing type and the mode "Up to a given funds level": _ <adequacy funds level value>; For the On derivatives market closing type: _ <risk parameter of the derivatives market>
High risk level client	Adequacy funds level to be reached as a result of closing positions of clients with high level of risk. If this parameter is not set, the values set in the Target value parameter are used for that type of clients. Filled only for the By adequacy funds level closing type if the mode "Up to a given funds level" is selected
Reserve, %	Required reserve value (percent by which the initial margin must be exceeded). Filled only for the stock market (close positions by adequacy funds level)
Margin level, %	Required margin level. Filled only for the stock market (close positions by margin level)
Qual. clients, %	Required margin level for qualified clients. Filled only for the stock market (close positions by margin level)
Close prior.	Order of position closing
Sec. prior.	Instruments order

- **Add** – add a new settings template;
- **Delete** – delete the selected settings template from the list;
- **Edit** – edit settings for the selected template.
- **Make default** – set the selected template as **main** (used by default) for clients of a corresponding type. It is not available for individual settings for a client code. Only one template marked as Main is available for each type of the template. Once a template is selected as main, the other template of this type loses the Main attribute.

Rules of closing positions by default are displayed in the first rows of the list – with 'Main' attribute. The number of rules displayed by default depends on the Closing type selected in the settings (By adequacy funds level, By margin level, On derivatives market). Rows cannot be deleted from table but available for editing. When using the 'Filter templates by ...' filter (independent on its value) 'All clients' row is not displayed in table.

If the only method of closing positions (by discounts or by margin level) is selected by settings, the table displays a record only for that method, including 'All clients' record.

Editing rule of closing positions

The following parameters are displayed in the window:

- **Type** – select the settings setup mode:
 _ Template (by default);



- By client.

Cannot be edited if the form is opened in the edit mode.

- **Name** – unique name of a template. Value by default: All clients. The field is available in the Edit mode.
- **Client code** – unique client code for which the settings are configured. The field is available in the mode of setting individual parameters for a client code.
- **Closing type** – used type of closing positions:
 - **By adequacy funds level** – close by adequacy funds level. Available if the **Allow closing on stock market** and **Close by margin level** check boxes are enabled, or if the **Allow closing on FX market** check box is enabled or if the **Allow closing on derivatives market** check box is enabled on the Closing positions tab;
 - **By margin level** – close by margin level. Available if the **Allow closing on stock market** and **Close by margin level** check boxes are enabled on the Closing positions tab;
 - **On derivatives market** – close on the derivatives market. Available if the **Allow closing on derivatives market** and **Close by risk parameters of derivatives market** check boxes are enabled on the Closing positions tab.
- **Mode** – position closing mode. Possible values:
 - **Until normal status** (by default);
 - **Up to a given funds level** – positions are closed until the adequacy funds level reaches the value, specified in the **Target value** field.

This parameter is available if **By adequacy funds level** closing type is selected.

- **Risk parameter** – select a risk parameter of the derivatives market from the list. Possible values:
 - Plan. netto positions;
 - Curr. netto positions;
 - Curr. derivatives market debit;
 - Funds adequacy;
 - Collateral liq. ratio of client margin requirement;
 - Planned collateral liq. ratio of client margin requirement.

This parameter is available if **On derivatives market** closing type is selected.

- **Reserve, %** – percent of exceeding the initial margin. A positive number. The field is available if the **By adequacy funds level** closing type and the **Until normal status** mode are selected. Required field.
- **Margin level, %** – value of margin level expressed in percent. Positive value up to two digits after the decimal separator. The field is available only upon selected **By margin level** closing type.
- **Target value** – value of the selected risk parameter or adequacy funds level which should be achieved as a result of position closing. Positive value up to two digits after the decimal



separator. The field is available if the **By adequacy funds level** closing type and the **Up to a given funds level** mode are selected as well as for the **On derivatives market** closing type.

- **Qualified clients, %** – value of margin level for qualified clients. Positive value up to two digits after the decimal separator. If the field is not filled, value of margin level for the qualified clients coincides with value in **Margin level** fields. The field is available only upon the following conditions:
 - **By margin level** closing type selected;
 - **Consider qualified clients** check box is selected in QUIK Workstation settings (**Trading / Client portfolio** section under **System / Settings / General settings...**).
- **High level of risk** – adequacy funds level to be reached as a result of closing positions of clients with high level of risk. Available only for the **By adequacy funds level** closing type if the mode "Up to a given funds level" is selected.
- **Apply to derivatives positions when Unified Cash Position used** – if the Unified cash position is used, the "By adequacy funds level" closing type is used to close the derivatives market positions. If the setting is disabled, client positions on the stock and FX markets are closed separately from the derivatives market positions.

The check box is available when selecting "By adequacy funds level" closing type if the **Close by risk parameters of stock market** check box is enabled on the Closing positions tab in the workstation settings. If the check box is enabled, the following parameters are available:

 - **Apply if there are no spot positions** – if the check box is enabled, the template is applied when closing positions for all clients (without the Unified cash position with spot position, with the Unified cash position without spot position, with the Unified cash position with spot position).

If the check box is disabled, the template is applied if the client has non-zero spot position (without the Unified cash position with spot position, with the Unified cash position with spot position).
 - **Use rules of closing on derivatives market additionally** – when closing positions for clients with the Unified cash position, the template "by adequacy funds level" is applied to all positions (including the derivatives market positions), then the template "derivatives market" is applied with considering only a risk parameter and its target value (other closing parameters are used from the template "by adequacy funds level").
- **Close order** – rule of closing positions. Valid values:
 - Long first;
 - Short first;
 - All (by default).
- **Closing mode:**
 - **Minimum volume** – positions are closed for all instruments at once with the minimum turnover of trades which are created when closing client's positions. Available for closing type "By adequacy funds level".



- **Proportionally to position** – close positions for all instruments proportionally to value of positions to close (all positions are closed by the same percentage). Available only for closing types “by adequacy funds level” and “by margin level”. Not available if the **Use rules of closing on derivatives market additionally** check box is selected and for the **Up to a given funds level** mode as well.
- **Fixed instruments order**– sequence of creating orders for closing. If this mode is selected, use the ‘...’ button to set the order of parameters. The list of selected instruments and their number is displayed to the left of the button. Not available if the **Proportionally to position** check box is selected.

The **Closing instruments** window contains the following fields:

- **Selected / Available** – select the instruments for closing and set their order. The number of available / selected instruments is displayed in brackets. The list of available instruments is displayed in alphabetical order.

If any of selected instruments is missing among those received from the QUIK server (except currency codes), the message ‘Some selected instruments are not traded’ appears.

- **Show instrument names** – if the check box is enabled, the list will contain the short names of instruments, otherwise – instrument codes. The check box is cleared by default.
- **Show stock instruments** – enable displaying the stock market instruments in the list of available instruments. The check box is enabled by default.
 - **Show currency pairs** – enable displaying currency pairs in the list of available instruments. The check box is available, when the **Show stock instruments** check box is enabled. By default the check box is cleared.
- **Show currencies** – enable displaying the currency in the list of available instruments. The check box is enabled by default.
- **Show derivatives instruments** – enable displaying the derivatives market instruments in the list of available instruments. The check box is enabled by default.
 - **As underlying asset** – if the check box is checked, the underlying assets are displayed as available instruments (in square brackets). The check box is disabled by default.
- **Actualize derivatives instruments** – delete from the list the derivatives market instruments which were not received from the server, add the instruments for which at least one client has a position. This attribute is not applied to the derivatives market instruments which were specified as underlying assets.
- **Import from file...** – a file in *.txt format to load the list of instruments. The format of file is described in p. [7.4](#).
- **Export to file...** – save the list of current instruments to a file in *.txt format. The format of file is described in p. [7.4](#).



6.4.2 Order parameters

The tab contains the order parameter settings for position closing:

- **Spread, %** – additional (leading) deviation between closing price and the current market price. Closing price gets higher by value set in buy orders, in sell orders it gets lower. The value is specified in percentage with accuracy of two decimal places. Value by default: 0.
- **Spread for partial lots mode, %** – additional (leading) deviation between closing price and the current market price if the partial lots mode is used. Closing price gets higher by value set in buy orders, in sell orders it gets lower. The value is specified in percentage with accuracy of two decimal places. By default, the value of the **Spread, %** parameter is used.
- **Instruction comment** – text of comment in orders for closing positions. The setting can be used for authentication of orders for closing positions when integrating with broker's internal systems. Maximum size is 20 symbols.
- **Main position currency code** – main currency of the discount schema. It is used for settlements with MD and MD+ clients if there are several currencies with a zero discount. If the setting is not specified (or a currency with a non-zero discount is selected), then the first currency with a zero discount is used for settlements with MD and MD+ clients. If there is a single currency with a zero discount, then it will be used as a main currency of the discount scheme and this setting will be ignored. Value by default: SUR.

6.4.3 FX market parameters

The tab contains the closing parameters of the client's positions on the FX market:

- **Instruments for closing positions on FX market** – list of instruments for closing positions on FX market.

List of instruments is presented as a table. Table columns display the following parameters:

- **Currency** – currency code;
- **Instruments** – the list of instrument codes used for closing position (comma-separated).

1. **The order of using instruments for closing currency positions depends on the order the instruments are listed. If there are several instruments with different settlement periods for a currency pair, an instrument with earlier settlement period must be first in the list. For example, if you want to use instruments with TOD and TOM settlement periods for closing, specify an instrument with TOD settlement period before an instrument with TOM settlement period.**
2. **If no instrument available to close the position is specified for the instrument, the position is not closed.**
3. **Currency of calculations on clients' positions is not displayed in table.**

Table contains by default the following currency codes and instruments to buy the specified currencies for rubles in T1:



Currency	Instruments
EUR	EUR_RUB__TOM
GBP	GBPRUB_TOM
USD	USD000UTSTOM

Available functions:

- **Add** – add a new currency;
- **Edit** – edit the selected currency;
- **Remove** – delete the selected currency from list;
- **Clear** – delete all records from list.
- **Reset** – delete all records from list except values by default. If the default values were edited the changes get cancelled.
- **Class for closing positions** – a list to select an instrument class to close FX positions. By default, a class with the code CETS is selected.
- **Allow closing in small lot mode** – if the check box is selected, positions are first closed using instruments of the main class of position closing, and then the rest of the positions is closed using an instrument traded in the small lot class. By default, the check box is clear.
 - **Small lot mode class** – class for position closing in the small lot mode. The parameter is required and available if the **Allow closing in small lot mode** check box is selected. By default, a class with the code CETS_SU is selected.

7. APPENDIX

7.1 Format of file with correspondences between client codes and emails

The file is to define correspondences between client codes and their emails. Each row has the following view:

```
<Client code_1>=<e-mail_1>, <e-mail_2>
```

or,

```
<Client code_2>, <Firm>=<e-mail_1>, <e-mail_2>
```

For example:



```
E2=user1@arqa.ru, user2@arqa.ru  
E3, NC0038900000=user3@arqa.ru
```

That is, client with code E2 must receive messages to emails user1@arqa.ru and user2@arqa.ru. Client with code E3 in firm NC0038900000 receives messages to user3@arqa.ru. If a firm is not set, list of emails is taken set for all firms.

7.2 Format of file with correspondences between client codes and UIDs

The file is to define correspondences between client codes and their identifiers in QUIK system. Each row has the following view:

```
<Client code_2>=<UID_1>, <UID_2>, <UID_3>
```

or,

```
<Client code_1>, <Firm>=<UID_1>, <UID_2>, <UID_3>
```

For example:

```
E2=5, 7, 85  
E3, NC0038900000=34, 127
```

That is, client with code E2 must receive messages to terminals working under users with UID=5, UID=7 and UID=85. Client with code E3 in firm NC0038900000 receives messages to terminals working under users with UID=34 and UID=127. If a firm is not set, the list of UIDs is taken set for all firms.

7.3 Format of clients list for rolling over/closing positions

File is in the text format. Section [Filter] includes the following parameters:

- IncludeClients – list of client codes (separated by commas) to roll over / closing positions ('white list');
- ExcludeClients – list of client codes (separated by commas) to exclude from rolling over/closing positions ('black list').



Setting IncludeClients has higher priority relative to setting ExcludeClients.

- ExcludeRollOverForLong – list of client codes (separated by commas) to exclude from rolling over long positions.

Format:

```
[Filter]
IncludeClients=Client1, Client2, Client3
```

7.4 Format of file with list of instruments for position closing

The file contains the list of instrument codes and currency codes of the stock market, which can be used to close positions. The instruments are separated by commas or newlines. The spaces near a delimiter are ignored.

For example:

```
LKOH, SBER, AFLT
```

7.5 Format of file with list of client's donors

File is in the text format. In section [Donors] configure the parameter:

- IncludeClients – List of clients-donors used when rolling over positions ('white list').

Format:

```
[Donors]
IncludeClients=Client1, Client2, Client3
```

7.6 Format of file with templates of REPO rates

Each template is described in file in form of section named [RepoTemplate_<Template code>]. Section includes rows to define value of REPO rate:



- for short positions, row as follows: <Turnover as integer number>=<REPO rate in %>. This REPO rate is used when estimating value of short position (by absolute value) greater or equal to the specified one;
- for long positions, row as follows: Long_<Turnover as integer number>=<REPO rate in %>. This REPO rate is used when estimating value of long position greater or equal to the specified one. If a separate scale is not set for the long position, the same rates scale as for short positions will be applied to long positions.

For example:

```
[RepoTemplate_T1]
0=5
1000=4
10000=3
100000=2
Long_0=7
Long_2000=6
Long_20000=5
Long_200000=4

[RepoTemplate_T2]
0=5.1
1000=4.2
10000=3.3
100000=2
Long_0=7
Long_2000=6
Long_20000=5.1
Long_200000=4.2

[RepoTemplate_T3]
0=5.2
1000=4.3
10000=5.5
Long_0=6
Long_2000=6.4
```

Section [Clients] of templates file defines linkage between clients and templates used by them by a row as follows: <Client code>=<Template code>. Thus, client with specified code must use the set template of REPO rates.

For example:

```
[Clients]
E2=T1
```




```
E3=T2
__TEMPLATE__=T3
```

To set global scale of commission at REPO rates for clients without individually established commission, set a row as follows in [Clients] section:

```
__TEMPLATE__=<Template name>
```

At that a template for global scale of commission must be set in the same way as for individual commission scale.

When using commission scales at REPO rates, individual scale has higher priority. If individual scale is not set, global one will be used. If global commission scale is neither set, REPO rate established in Module settings will be used. Different scales of commission to roll over long and short positions can be set as well as in individual commission scale setting.

If necessary to set a REPO rate independent on volume, add a row as follows:

```
0=<REPO rate>
```

Changes in the file will take immediate effect.

7.7 Format of database table for storing sent notifications

Data on sent notifications is stored in MCalls* table. Table must include the following fields:

(*) Default name of the table. Table name can be changed by user (see [6.1.5](#)).

Field name	Data type	Description
ID	int, autoincrement	Number of a record in table. Field is filled automatically
MCType	int, NULL	Type of notification (Margin call). Valid values: – NULL or 0 – common notifications on stock market (old scheme of margin lending); – 1 – derivatives market notification 'Negative funds balance';



Field name	Data type	Description
		– 2 – derivatives market notification 'Funds adequacy level'; – 3 – derivatives market notification 'Collateral liquidity ratio'; – 4 – derivatives market notification 'Planned collateral liquidity ratio'; – 5 – derivatives market notification 'Composite criterion'; – 6 – derivatives market notification on an arbitrary risk parameter; – 7 – derivatives market notification on the margin level; – 8 – notifications (new scheme of margin lending 'by discounts') – 9 – derivatives market notification 'Funds adequacy level (for open pos.)'
MCSubType	int	Subtype of notification, only for margin calls of 'by discounts' (MCType=8) and 'by margin level' (MCType=0, MCType=7) types. Valid values: – 1 – level of restriction; – 2 – level of demand; – 3 – level of closing Selected level corresponds the type of notification to be sent
TDate	integer	Date of sending notification in <YYYYMMDD> format
MCTime	integer	Time of sending notification in <HHMMSS> format
MCLLevel	decimal(19,4)	Margin level that has been reduced. Valid values: – For notifications of 0 type: 0; – For notifications of 1 type: 0; – For notifications of 2 and 9 types: the values of Funds adequacy and Funds adequacy (open pos.) parameters, that were exceeded; – For notifications of 3 type: – 0 – if the Collateral liquidity ratio value is invalid; – 1 – in case of negative value of the total amount of cash balance; – For notifications of 4 type: the value specified as a border value for the Collateral liquidity ratio; – For notifications of 5 type: the value, specified in the settings as the notification condition for the main risk parameter. For the Portfolio value parameter the value is 0. – For notifications of 6 type: the value specified as a border value of a parameter; – For notifications of 7 type: a border value of the

Field name	Data type	Description
		margin level (considering the type of qualified client, if required); – For notifications of 8 type: 0.
Equity	decimal(19,4)	Portfolio value
Margin	decimal(19,4)	Level of controlled parameter in the moment of notification sending. The notifications of 3 type: parameter caused a problem (priority of the Collateral liquidity level). – For notifications of 5 type: the level of the main controlled risk parameter. For the Portfolio value parameter the value if initial margin is specified.
CorrMargin	decimal(19,4)	Corrected margin. Used only for margin calls of 'by discounts' type
MinMargin	decimal(19,4)	– For notifications about the portfolio value (MD and MD+ clients): minimum margin. – For notifications about the margin level (clients other than MD and MD+): level of forced closing of position for the client
LimitMargin	decimal(19,4)	Boundary level of margin for the client
TargetMargin	decimal(19,4)	Level of margin to direct the demand for the client
DepoValue	decimal(19,4)	Estimated instruments value in cash
MoneyValue	decimal(19,4)	Current cash balance
CCode	varchar(12)	Client code – for clients with the configured Unified cash position. Trading account at the derivatives market – for clients of the derivatives market for whom the Unified cash position is not configured
FirmID	varchar(12), NULL	Firm code
MsgText	varchar(255), NULL	Text of notification (fragments of 255 bytes; the rest is ignored). Some databases support fields of larger size. In this case, a message is split to fragments according to the size of these fields
MsgText2	varchar(255), NULL	
MsgText3	varchar(255), NULL	
MsgText4	varchar(255), NULL	
MsgText5	varchar(255), NULL	
SubjText	varchar(255), NULL	Text of message heading when sending email
EMails	varchar(255), NULL	First 250 characters of emails list to send notifications
RCV1	decimal(19,4)	The value of RCV1 at margin call sending
RCV2	decimal(19,4)	The value of RCV2 at margin call sending

Notifications about presence of a short position for non-margin instrument and those about a share of using the global position are not stored in Module's database.

7.8 Defining client statuses

The following statuses are defined for clients of MD and MD+ types:

- **Normal** – value of portfolio is greater or equal to the corrected margin;
- **Restriction** – value of portfolio is less than the corrected margin and greater or equal to the initial margin;
- **Demand** – value of portfolio is less than the initial margin and greater or equal to the minimum margin;
- **Closing** – value of portfolio is less than the minimum margin.

The following statuses are defined for clients other than of MD and MD+ types:

- **Normal** – level of margin is greater or equal to the boundary level of margin;
- **Restriction** – margin level is greater or equal to margin level of unsecured demand but less than the boundary level of margin;
- **Demand** – margin level is greater or equal to margin level of forced closing but less than margin level for unsecured demand;
- **Closing** – margin level is less than margin level of forced closing.

7.9 Calculation of FX position rollover parameters

The following formulas are used to recalculate the price as the rate for FX position rollover:

1. Calculate the price at the rate:

$$P = P_0 \frac{R}{100} \left(\frac{T_{365}(D_1, D_2)}{365} + \frac{T_{366}(D_1, D_2)}{366} \right)$$

The value is rounded to the instrument price accuracy.

2. Calculate the rate at the price:

$$R = \frac{P}{P_0} \frac{100}{\left(\frac{T_{365}(D_1, D_2)}{365} + \frac{T_{366}(D_1, D_2)}{366} \right)}$$

The value is rounded to 2 decimal points.

where:

- R – rate (in percent).
- P₀ – basic FX rate of an instrument (Basic rate parameter of the Quotes table).



- P – price relative to basic rate for position rollover (in currency).
- D_1 – date of the first part of a swap instrument (Settle date 1 parameter of the Quotes table).
- D_2 – date of the second part of a swap instrument (Settle date parameter of the Quotes table).
- $T_{365}(D_1, D_2)$ – number of days from the range $(D_1, D_2]$ for the 365-day year.
- $T_{366}(D_1, D_2)$ – number of days from the range $(D_1, D_2]$ for the 366-day year.