

MOEX Trade Currency User Manual

Version 3.25.50

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Chapter 1. About MOEX Trade Currency

MOEX Trade Currency is the trader terminal for the Moscow Exhange FX Market.

Key functional features of MOEX Trade Currency:

- Real-time display of all the market data.
- All types of orders (market and limit orders with different execution conditions).
- Order-driven and quote-driven markets: regular orders, negotiated deal orders, SWAP orders.
- Monitoring of own current and planned positions.

Main service features:

- Dynamic export to MS Excel and databases.
- Hot keys and mouse-oriented controls for quick order entry.
- Flexible filtration and sorting options, table templates.
- Many options for desktop layout customization, including the creation of several virtual desktops.
- Intraday and historical charts with elements of technical analysis.
- Access to archive with trading results.
- Instant messaging with other traders and market administrators.
- Alerts on message and negdeal receipt.
- Auto-update.
- Technical support by Moscow Exchange staff.

Chapter 2. What's New

("+" - new feature; "o" - modified feature of behavior; "-" - removed functionality; "!" - bug fix)

Version 3.25.50

- + Added "Microseconds" filed to the Trades table.
- + Added "Clearing Account", "Clearing firm", ""Clearing Firm Id" fields to the Trading Accounts table.
- + Added "Без расчётов в НКЦ" field to the "Assets table.

o The single currency and multiple currencies assets withdrawal query takes into account the planned rather than the current funds position.

+ Added possibility to connect the NCC plugin on weekends through its activation by the user.

Version 3.25.40

- + Added new columns to the Auctions table.
- + Added new columns to the Client Codes table.

+ Added flags to disable checks on the Single limit or all limits in the Enter Transfer orders/Transfer to Trading Member Entry dialogs.

! Interface errors and shortcomings have been corrected.

Version 3.24.36

! Corrections and improvements.

Version 3.24.30

o The 'Positions by Instrument' table is no longer displayed in the terminal due to the cancellation of the publication of data on positions by instrument on the FX market. Data on positions are published in the table 'Liabilities and claims for assets'.

o The methodology for calculating the Single Limit in the detalization window and in the single limit calculator has been updated.

o The 'Type' field in the drop-down list in the order entry forms and in the 'Client Codes' table is now filled not with the type number, but with its name in accordance with the directory of client code types.

o The field 'Compliance ID' in the table 'Orders' is now filled not with the alphabetic value of the type, but with its name in accordance with the directory of orders compliance IDs.

Version 3.24.20

+ Extra Effects field is added to the Single Limit Components form.

+ Liabilities and Claims for Pairs table is added.

+ Support for Validata cryptography tool of a new version.

Version 3.24.15

o Moscow Exchange production server (VPN) connection profile is added to the terminal.

o Description for position groups is broadcasted in Russian or English depends on interface language chosen by user.

! Improvements for Single limit calculation and detalization.

Version 3.24.10

+ A compliance field is added to the "Orders" table.

Version 3.24.05

+ The following windaws are added to the terminal: Unsettled Trades, Enter Confirmation Trade Settlement Report, Sent Reports, Trades of report.

Version 3.23.45

! Calculation of Effective market risk rate is fixed in the "Single Limit Components" dialog.

! Value of the Addressee alias can be changed while editing negdeal.

Version 3.23.40

+ "Single Limit Components" dialog is added. This dialog may be opened with the command from the Query menu of the main menu.

o Users of "User-TrdAcc" type are allowed to perform operations with negotiated deals.

o The Addressee alias fiield is added to "Enter SWAP negdeal" dialog.

Version 3.23.35

+ Terminal supports Request for Stream entering with new instruments. TOD, TOM, SPT instruments of the KZT/RUB currency pair, as well as TOD and TOM instruments of the TRY/RUB and BYN/RUB currency pairs are available.

+ "Face value" informational field is added to the Request for Stream form.

Version 3.23.31

! Fixed NCC module connection error.

! Error fixed: client code was not included into a packet of counterorders.

Version 3.23.30

+ The Hidden qty field is added to the Enter SWAP Order dialog. SWAP iceberg orders entering is available.

+ The "Signal events" area on the Signals tab of the program options window was supplemented with the **Received messages** checkbox to manage messages from the trading system signals.

+ The "Fully covered trading limit" field is added to Assets, Interproduct spreads, Interproduct Spread Assets. tables

+ The "Trading account" field is added to Received Negdeals table to display the trading account from which the received negdeal was entered.

o Users who are managing trading accounts and bank accounts included into them (User-TrdAcc) have access to commands of the "Administration" item in the "Action" menu.

Version 3.23.26

+ "Partial collateral" column for a percentage of free funds which is accepted as collateral today added to the "Individual risk parameters (new)" table.

o Single Limit calculation updated to take into account "Partial collateral" feature of an asset.

o Hot keys for column filter setting (Ctrl+G) and to cancel filter (Ctrl+H) are added to the default hot keys list.

! "List index out of bounds" error while calculated assets withdrawal was filed.

Version 3.23.25

o Single Limit calculation updated for the case when covered sales of an asset are ignoring in Single Limit.

Version 3.23.20

o Single Limit calculation updated to take into account instruments with special settle mode.

! Fixed error while exit terminal session after the shutdown of trading or clearing system.

Version 3.23.05

o Data Export supports the format adopted in CMA v2.16.10.

Version 3.22.30

+ Toggle between security ID and currency pair is added to all the order entry forms.

+ The "Trade Time History" table is added to the terminal.

+ New "Book or Cancel" remainder processing mode is displayed at the order entry form.

Interfax News:

o Fonts and colors setting available via the "Appearance" tab of the table properties dialog.

- o "Today" value for date filter is selected by default.
- o Time of the trading system is using while collectiong news.
- o News window reacts to global filtering.

! Fixed error while connecting ISS via faulty proxy server.

Version 3.22.25

+ Interfax news:

- + Filter by news publication time added.
- + Loading news for the specified date implemented.

+ Добавлены сообщения диагностики: "Loading", "There are no news at the moment.", "The Connection to ISS is disabled ".

+ Missing elements automatic downloading.

Version 3.22.21

o Single Limit calculation updated according to the Clearing Rules.

! Interfax news: fixed error while getting news feed not using the https protocol.

Version 3.22.20

+ A separate news feed "Interfax FX market news" and filter by news feeds are added to news main window.

o Interfax news may be activate independently from historical market data provided with ISS. Activation of the news feed does not require connection to passport.moex.com if **Anonimous** or **Automatic** mode was selected.

o ADO dynamic data export wizard is supplemented with the "Clear table before export" option.

o *.xlsm files are displayed at choosing file window for DDE dynamic data export.

! Chart properties: Source of "Volume" indicator may be changed to amount / value.

Version 3.22.15

+ Control of Algo-packet and iterations quantity; Confirmation request while entering algorithmic packet and SWAP algorithmic packet of quantity more than 1,000,000 lots .

Version 3.22.10

+ New form to accept asset as collateral is added to the terminal.

! Bug fixes in the news feed window.

Version 3.22.05

+ New window in trader terminal displays news feed. News is provided by Interfax agency and is broadcasted via The Information Server (ISS).

+ Feature to show password is added to password fields of change password form and login form.

! Fixed an error while transfer of profiles of positions on assets or transfer of collateral, that was occured while NCC connection set using Validata 6 profile.

Version 3.21.40

+ Terminal supports functions to participate in Opening auction.

+ System messages longer than 255 symbols will be displayed in full.

+ Header of terminal production version contains [test data]/[production data] mark.

! If there is not value of the last trade price during order validation parameters setup by price, validation parameter will be setup to previous day last price.

Version 3.21.35

+ "Highlight user's orderbooks instead of firm's ones" option is added to the "Advanced Options" tab of options window.

+ Additional Order control parameters for TWAP algo-packets.

+ New order control parameter "Amount" to be setup in lot currency.

Version 3.21.30

+ Negdeal entry form has option to enter negative price value for fixing orders with new USDRUB_WAPV instrument.

+ Terminal supports prices of increased size. New maximum value to enter and display is 17 symbols.

+ Bridged connection parameters tab has new Secure connection flag to enable OpenSSL encryption for connection channel. The flag might be set if Validata profile was not selected.

o The "Client codes" table is supplemented with the "DFI Access" column.

o The context menu of the "Users" table has commands "Change password" and "Force password change" allowed for Firm Administrators.

o The "Users" table was supplemented with the "Change password on next logon" column.

o Bridged connection confirmation is now required directly after logon, before checks for autoupdate.

o Data errors are ignored while loading administrative order validation file. User does not able to stop the loading.

! Orders that have equal price are displayed in descend order of their volumes on the OTC Full Amount orderbook.

! Hosted UAT environment connection parameters is added to connection profiles default list.

! Fixed terminal action with COD functionality. Terminal can be used for Sponsored market access Master actions.

Version 3.21.10

+ In the selection of markets and boards dialog the following boards are always chosen by default: RFS Negotiated deals, CCP OTC Clearing CPCL, Large Volume Trades, OTC market, OTC Full amount, System fixing.

+ The quick order entry panel[55] has changes: pointer appearance, option to choose color of the panel ("Fonts and colors" on the "Appearance" tab of the table properties form), tooltips for elements of the turbo panel.

+ Securities table has new "WAP from 10:00 to 11:30" field to display value of weighted average price from 10:00 to 11:30 for USDRUB_TOM.

+ A value of the "Amount" field in "Orderbook", "Orders", "Trades", "All trades", "Negdeals sent", "Negdeals received" is displayed as float number for securities with small lots.

+ Quick entry quantity buttons on the order entry form has special values for securities with small lots: 1, 10, 50, 100, 500, 1K;

Version 3.13.11

RFS Module:

+ "Quote RFS" and Request for Stream" forms support auctions with SWAP securities and securities on gold.

Algorithmic Module:

! Best quotes display is fixed for order entry forms.

Version 3.13.10

- + The SWAP TWAP Algo-packet entry form is added.
- o The FXDesk desktop is added as a default bookmark.
- o ALGO and RFS default desktops has changes.

! Firm administrator" user type is able to set SMA limits.

Version 3.13.9

- + Demo version of the Algorithmic Module.
- o Fonts properties was updated for turbo mode buttons in the Orderbook table.

! Now the RFS bookmark is more flexible.

Version 3.13.8

- + It is possible setting up pre-trade checks for SMA users.
- + The "Addressee alias" field was added to the negdeal entry form.
- + Now it is possible to minimize orderbook window without quick order entry [55] buttons.

+ Setting the Turbo flag, the orderbook window gets the red frame and the aim cursor, and auto lock mode is activated.

+ Auto lock of orderbook window and auto turn off turbo mode options was added on the "Adv. options" tab of "Parameters".

o MOEX VPN connection profile might be selected during the terminal installation.

o Negdeal entry form: volume buttons are displayed with 1M, 2M, 5M, 10M values for OTC full amount board.

! If the order was partially matched in "Over-the-counter market" board, the confirmation message displays with matched quantity of the order.

Version 3.13.7

+ OTCF trading board (OTC Full amount) is added to the Terminal.

o RFS Module: best quotes indication is excluded from Quote RFS form.

o RFS Module supports "Supervisor" user type now.

Version 3.13.6

+ In relation to Request for Stream service implementation RFS menu was added to the terminal.

Version 3.13.5

+ The "oz" dimension is added to order entry forms for XAU securities.

o "Positions by Securities", "Positions by Limits", "Positions by Assets", "Liabilities and claims for assets", "Trading Accounts", "Bank Accounts" items was moved from "Positions" submenu to the "Tables" menu.

o "Trading Accounts" and "Bank Accounts" icons was added to the "Firm tables" panel of the toolbar.

o Order entry forms: resulting order volume instead of quantity now displays on the quick entry quantity buttons.

! Editing rate error fixed for SWAP order entry form.

! Single limit calculating now enabled for bank accounts of Trading members level 2 and 3.

! DDEServer naming error was fixed for MOEX terminals.

! Now it is not possible to Double-click to button "Enter Order" at order entry form when "Show successful transaction execution results" option is disabled.

! Order entry forms: Reference entry error fixed for enabled Add client code to "Broker reference" field option.

Version 3.13.4

+ Buy/Sell quotes in the "Orderbook" table for the USDRUB_WAPO security of the system WAP deals board are represented with "+" sign.

! Second level bank accounts are now displayed in "Clearing bank account" column filter.

Version 3.13.3

+ The "gram" dimension is added to order entry forms for metals.

+ Commission fee warning for USDRUB_TDB orders that will be put into queue (trader=maker) is added to order entry form with "Put into queue" flag active.

o Connection settings for regional technical centers are deleted from the default configuration file of distribution kit. Current user settings stayed unchanged.

o "Show thousand separators in numeric fields" flag now is active by default.

! The "invalid floating point" error is fixed for charts.

Version 3.13.2

+ The "1-st Level" column (the flag of the first level bank account) is added to the following tables: "Positions by Limits", "Positions by Assets", "Positions by Securities", "Liabilities and Claims for Assets".

+ A new column "Level 1" for the "Trading accounts" table (the flag of the first level trading account).

+ Clearing member has the option of global filtering by all it's trading members for clearing.

+ The Global filtering option is supplemented by "Show lower level bank accounts" button.

+ NCC Module: The "Second market" field and the List of changes of the Second market are optional for the "Request for transfer of profiles of positions on assets" dialog.

Version 3.13.1

! A "Firm" (for trading account) field for accepting received negdeals by packet is filled with firm id automatically.

Version 3.13.0

+ In relation to Individual Risk-Parameters features implementation, "Market Individual Risk-parametes (new)", "Individual Risk-parameters (new)" tables with market individual risk parameters setting, interproduct spread discount rate setting forms and percent risk calculation (by bank account) flag added to the Users' Terminal.

+ The column "Don't check SL" added to the "Bank Accounts" table.

+ To quickly set up large negdeal volume for OTCT board on OTC negdeal entry form, buttons are displayed with 100k, 500k, 1M, 3M, 5M, 10M values.

+ Information string with lot size and total volume was added to quick order entry panel [55].

+ A "Firm" (for trading account) field on order entry, SWAP order, negdeal order entry and SWAP negdeal forms.

- + A "Firm" (for trading account) field added to packet entry form.
- + The "Stop List of Clients" table.
- + "Enter Transfer Order to Trading Member" form.
- + "Enter Complex Negdeal" and "Enter Complex Negdeal SWAP" forms was modified.
- + "Check Collateral Sufficiency" by bank account form.
- + "Request order confirmation by this security" option on setup quotes tab : Default / Always / Never .

o The new individual risk-parameters are taken into account in the Single Limit Calculator.

Version 3.12.8

+ The field containing spread value between volume weighted average buy price and volume weighted average sell price depending on entered volume was added to orderbook Quick entry (turbo) mode panel.

- + Order validation parameters feature was extended to orders which entered using turbo mode.
- + The "Partners" dialog to form the list of partners for Negdeal or Negdeal SWAP.

+ In relation to revision of user authentification system a password expiration warnings with suggestion to change password were implemented in Trading System connection.

! Prohibition of trading without full pre-funding for asset and firm will be considered in the maximum number of lots calculation.

Version 3.12.7

+ Feature to calculate comission and Single Limit was added to order enter, SWAP, negdeal enter and SWAP negdeal forms.

+ NCC module: English and Russian support was implemented.

+ NCC module: Shortcuts for "Transfer of profile of positions on assets" (Ctrl+F6) and μ "Transfer of collateral" (Alt+F6).

+ NCC module, "Operation Log" table: "Document" word was replased to "Request".

+ NCC module, "List of requests for profiles transfer" table and "Transfer of collateral" form: column "Request number" was renamed to "Request ID".

Version 3.12.6

o A "Firm" coulumn was added to Bankacc Filter of second and third levels.

o The negdeal entry form was renamed to "Enter Negdeal / OTC Negdeal".

! The FIXS board was hidden from the negdeal entry form.

! The «Configuration Access Error» during connection using RSA-cryptography.

! Bug of missing information about price move limits for firm manager was fixed.

Version 3.12.5

+ Table "Interproduct spread assets" and new version of "Interproduct spreads" was added.

o Due to exclusion of trading limits the "Collateral and trading limit for operations" form was renamed to "Calculation of Collateral for Operations". The "Required trade limit in RUB" field was removed from form.

- The "Product spreads" table was excluded.

Version 3.12.4

+ In relation to implementation of the new version of Trading and Clearing System with separate connections to trading and clearing modules the Clearing System connection feature was added to the terminal. Connection to CS must be established for getting clearing data and risk parameters.

+ The "Collateral sell limit" column has been added to "Liabilities and Claims for Assets".

o The "Planned T+" value of the "Liabilities and Claims for Assets" table is calculated without information of transfer profiles.

o The "Settle" value of the "Positions by Assets" table is calculated as current settlement having "today" settlement date.

! The Trading Accounts table will be automatically updated.

! If Trading System returns more than one message for transaction, it displays all of them.

Version 3.12.3

+ Quantity validation for the second part of SWAP order/negdeal.

+ Quantity validation for negdeals.

+ Negdeals validation parameter "Price" of type "To current Bid/Offer" use Bid and Offer values from "Best Negdeals" table.

+ MOEX Passport authentication is added to NCC integration module.

+ The "Single pool" column is added to "Positions by Assets", "Positions by Securities", "Positions by Limits", "Liabilities and Claims for Assets" tables.

+ The "Accounts in Settlement organizations" table has been added.

o The "Percent Risk Parameters" table load procedure is optimized by reducing the amount of data which was received from Trading System.

! Building trades concluded at fixing price chart is fixed.

Version 3.12.1

+ in relation to "Unified Collateral Pool" project implementation, the NCC integration module is added to the terminal installation package;

- + the "Trading without full pre-funding limits for Bank Account" table has been added;
- + the "Set internal Bank Account limit" form has been added;
- + feature to enter order by volume-weighted average price has been added;

+ the "Show Log" (in case of the logging is turned on) button and the information about current user's ID has been added to the "Connection Info" window.

Version 3.12.0

+ support for trading at the MOEX Fixing price: Order Entry dialog may be used to submit regular fixing orders, Negdeal Entry form - to submit orders for negotiated deals fixing with counterparty indicated;

! Dynamic Export fix: we resolved an issue that occured in case the target table contained special characters in column names;

Version 3.11.4

+ calculation of assets withdrawal in single or multiple currencies may be performed considering TO collateral;

o broadcast addresses will be automatically updated due to migration to the new data center;

! we have resolved an issue that led to unexpected program freezes;

! "Central Rate" field of the Securities table is applicable only for instruments settled in RUB ("Currency"/ RUB);

! several bug fixes in Charts module.

Version 3.11.3

- + Administrative Order Validation;
- + Collateral after Risk-parameters Change form added;
- + printing functionality extended with landscape orientation and scaling;

! several changes in the "Positions for settlement" table: former "Opening balance" field renamed to "Current balance", former "Current balance" renamed to "Unsettled liabilities", "Opening balance" field added that contains the value from the corresponding field of "Liabilities and Claims for assets" table.

Version 3.11.2

+ Positions by Currencies and TOM provision forms added;

+ Transfer Order and Transfer to Partner dialogs, Transfer orders and Transfers tables, "Transfer Info" in pop-up menu of these tables;

- + Complex negdeals and Complex SWAP negdeals;
- + Interproduct Spreads table;

o Global Filter by Bank Account functionality is extended with "show/hide linked bank accounts" button;

o "Opening balance" column is added to the Liabilities and Claims for Assets table;

o "Assume that all orders are matched and trades are concluded (close position mode)" option is added to the Collateral and trading limit for operations form;

- "Positions by Currencies" and "Postitions by Trades" tables removed;

- orders submission by WA price is currently prohibited on FX market.

! Dynamic Export to MS Excel (2007 and older versions) fix: the limitation of maximum 65535 rows overcome.

Version 3.11.1

+ Currency Rates table added;

o "Show thousands separators in numeric fields" option added to the Actions tab of the program options form;

o tables' filtering by column modified: multiple values in the drop-down list may be selected simultaneously; when filter is active all the selected values are shown on the top of the drop-down list;

o TSMR connection options now can handle host names, not only IP-addresses;

o when Administrative Data Sets Control is enabled transaction parameters (security, account, counterpatry) are checked before submitting, for example, when entering an Order Packet;

! Administrative Data Sets Management bug fixed: negdeals received from prohibited counterparty can no longer be accepted by trader;

Version 3.11

+ installation procedure may be performed for the current user without administrative privileges;

+ support for separation of member status on Trading Member and Clearing Member;

o assets in BYR, GBP and HKD are considered in Single Limit as currencies with partial collateral;

o tables can be filtered by several values of the "Client Code" field simultaneously;

o support for constant Heartbeat when "Cancel-On-Disconnect" mode is enabled;

! Administrative Data Sets Management bug fixed: securities that were not included into Data Set can no longer be found with Security Finder, and Data Set can no longer be modified at Negdeal Accept;

- "Position Provision" table removed;

- "Market Maker Stats" table removed. To obtain information on Market Maker's obligations use "Market Maker Stats (extended)" table.

Version 3.10.1

! order acceptance in the Negdealbook table fixed;

! single limit calculation error fixed in the Assets Withdrawal in Single/Multiple currencies dialog;

! data sorting issue in Risk-parameters tables resolved;

! ISS bug fix: terminal correctly handles html-reply (e.g. '404 Not Found');

! Dynamic export issues resolved.

Version 3.10

- + Changes related to the new Risk Management system on FX market:
- Setting Individual Risk Parameters;
- risk parameters from Derivatives Market are considered when calculating Unified Limit;
- Fully Covered Trading dialog for Firm Manager that can opened from Bank Accounts table;
- + new table Market Maker Stats (extended);

o Auto start export enable/disable option for Dynamic Export with configurable start delay.

Version 3.9.2

+ administrative Data Sets management;

o modification of order entry dialogs: if trading board is not selected all securities from all trading boards will be available in the list.

Version 3.9.1

+ client code can be used as condition for order withdrawal;

o batch order withdrawal can be processed even if for more than 99 orders selected. First 99 will be withdrawaled at once;

o "Settlement date 1" field added to the "Securities" table (Settlement date for the 1st part of SWAP trade);

! yield for SWAP orders is calculated on basis of exact information on settlement date of the 1st part;

! in case of errors during loading configuration files, corrupted data will not affect the correct configuration stored on the HDD.

Version 3.9

- + support for the new Risk Manamgement system on FX market (Precious metals trading);
- + following tables added to the "Query"->"Risk Parameters" menu:
- Assets;
- Individual Risk Parameters;
- Market Risk Parameters;
- Percent Risk Parameters;
- + Liabilities and Claims for Assets table added to the "Table"->"Positions" menu;
- following tables removed from the terminal:
- "Risk Estimation Ranges";
- "SWAP Indicative Rates";
- "Security Positions by Settledates";
- "Return Positions by Settledates";

! fixed error that occured in case of changing displays configuration during working with program.

Version 3.8.2

- + Yield for SWAP securities is presented:
- in order entry dialogs for:
 - SWAP orders
 - SWAP negdeals
- corresponding column in the "Negdealbook" table;
- + support for a new mechanism of Market-maker liabilities calculation;

o "Mark best quotes with large font" option added to the orderbooks table properties;

- "User Cash Positions" table removed and "Setting Limit in User Positions" command is no longer available;

! fixed error that occured when closing order entry dialog while loading "Securities" table;

! sorting, filtration and searching issues on columns containing Cyrillic characters fixed.

Version 3.8.1

+ "Settlement Organizations" table added.

Version 3.8

- + support for a new Risk Management System on FX market: partial collateral in CNY;
- + base rate for SWAP negdeals can be specified by user;
- o "Turn on logging" option is added to the Authentication in the Trading System dialog;
- o multiple selected orders withdrawal from "Sent/Received Negdeals" tables;

o local administrator privileges is no more required for auto-update, however user must have a permission to write to the corresponding directory.

Version 3.7

- + support for a new "Validata" certificate format and cryptography for non-residents;
- + "User-TrdAcc" table added;
- + "Prohibit breach of the limit" flag added to the "Order Validation Parameters Setup" form;
- + Direct2D support for charts;
- + distribution package and executables are signed with digital certificates;

! default printer configuration bug fixed.

Version 3.6.3

+ in the Users table User Type is formed according to his Role;

+ Quick Order Entry buttons in the Orderbook table (turbo mode);

o charts user interface modified: new scrollbar and navigator for quick scrolling and scaling;

! Order Validation Parameters: Hidden Lots are included in the calculation;

! ISS: bug fixes.

Version 3.6.2

o an ablity to copy the content of "Calculation of Provision and Trading Limit for Operations" dialog to the clipboard;

! dynamic export to Oracle fixed: "Cannot access field 'IS_NULLABLE' as type Boolean" problem solved.

Version 3.6.1

+ settlement code and date description added to the "Enter Order" dialog;

+ "settlement date" column added to the Securuties table;

o additional collateral calculation form modified;

o table content update interval can be specified up to 0,1 sec. The minimum update interval decreased to 0.2 sec;

o "Request" button added to the "Settlement code" list in order entry dialogs for manual code requesting;

o ability to use random settlement codes when forming order packet.

! dynamic export to .DBF fixed;

! maximum lots quantity calculation modified for Long-term SWAP orders.

Version 3.6

+ Version for 64-bit Windows;

- + "Negdealbook" and "Best Negdeals" tables;
- + "Security Positions by Settledates" and "Return Positions by Settledates" tables;
- + "SWAP Indicative Rates" table;
- + Long-term SWAPs support added to "Calculation of Provision and Trading Limit for Operations";

o "Request" button removed from "Settlement code" list in order entry dialogs;

o In the "Enter Negdeal" dialog list of Settlement Codes can be sorted both by Settlemen Code and Settlement Date (previously - only by Settlement Code);

! "keep stable depth" option fixed in orderbook tables;

! thousands separators removed, when copying tables' content to the clipboard;

! rows sorting fixed in orderbook tables for SWAP-securities;

- The "Positions by Settledates" table removed.

Chapter 3. Installation and update

System requirements

Minimum system requirements:

- CPU: Intel Core or compatible, 1,4 GHz or higher;
- RAM: 4 GB;
- HDD: 1 GB free drive space;
- screen resolution: 1280x1024 or higher, 32-bit color;
- keyboard, mouse;
- network bandwidth: 128 kbps per every terminal;
- OS: Microsoft Windows 10 or newer, Windows Server 2016 or newer, 32 or 64- bit;
- Microsoft Edge.

Recommended system requirements:

- CPU: Intel Core or compatible, dual-core, 2 GHz or higher;
- RAM: 16 GB;
- HDD: 10 GB free drive space;
- screen resolution: 1920x1080 or higher, 32-bit color;
- network bandwidth: 4 Mbps per every terminal;

Installation

MOEX Trade Currency installation procedure involves the following steps:

- 1. Save the moex-cur-version_number.exe file to the local drive.
- 2. Double-click the file in Explorer to launch the installation wizard. The first dialog offers the installation type: for all users (requires administrator rights) or for current user only.

| Select S | Setup Install Mode | × |
|----------|---|------|
| 18 | Select install mode MOEX Trade Currency (64-bit) can be installed for all users (requires administrative privileges), or for you or | ıly. |
| | Install for all users (recommended) | |
| | \rightarrow Install for me only | |
| | Cancel | |

3. The next dialog offers the selection of the program installation interface language (the language of the program interface can be selected in program options).

| Select Se | tup Language | | × |
|-----------|------------------------------------|---------------------|--------|
| 17 | Select the langua installation: | age to use during t | he |
| | English | | ~ |
| | | OK | Cancel |

Choose the language and click **OK**.

| 4. | 🔂 Setup - MOEX Trade Currency (64-bit) — 🗌 🗙 |
|----|--|
| | Select Destination Location |
| | Where should MOEX Trade Currency (64-bit) be installed? |
| | Setup will install MOEX Trade Currency (64-bit) into the following folder. |
| | To continue, dick Next. If you would like to select a different folder, dick Browse. |
| | C:\Program Files\MOEX\Trade Currency Browse |
| | |
| | |
| | |
| | |
| | At least 63,2 MB of free disk space is required. |
| | Next > Cancel |
| | |

Default installation folders for the program are:

- for all users Program Files\MOEX\Trade Currency
- for current user Users\User Name\AppData\Local\Programs\MICEX\Trade Currency

If older version of the terminal was previously installed, the existing folder will be suggested. Modify, if needed, the installation path or press **Browse...** to select a folder. Click **Next** to confirm.

| 5. | 😽 Setup - MOEX Trade Currency (64-bit) — 🗌 🗙 |
|----|--|
| | Select Start Menu Folder Where should Setup place the program's shortcuts? |
| | Setup will create the program's shortcuts in the following Start Menu folder. |
| | To continue, click Next. If you would like to select a different folder, click Browse. |
| | MOEX Browse |
| | Don't create a Start Menu folder |
| | < Back Next > Cancel |

Enter or select folder name for the Start menu, or mark the checkbox to skip the group creation. Click **Next** to proceed to the next step.

6. Select additional tasks during the terminl installation.

Set the "NCC integration module" flag to install this module as the part of Trade Currency terminal. If you need to uninstall the NCC module, disable the checkbox while reinstall the terminal.

| 🕞 Setup - MOEX Trade Currency (64-bit) | — | | × |
|---|--------------|-----------|------|
| Select Additional Tasks Which additional tasks should be performed? | | ¢ | |
| Select the additional tasks you would like Setup to perform while in Currency (64-bit), then click Next. | nstalling MC | OEX Trade | 2 |
| Additional shortcuts: | | | |
| Create a desktop shortcut | | | |
| Install additional modules: | | | |
| NCC integration module | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| < Back N | ext > | Car | ncel |

| 7. | 影 Setup - MOEX Trade Currency (64-bit) - | | × |
|----|--|-------|----|
| | Choose connection profile | Ē | |
| | Choose default connection profile | Č | |
| | Choose connection profile that will be used by default. You can change it later in application settings. | the | |
| | Moscow Exchange Production server (Leased line) | | |
| | Moscow Exchange Production server (Internet) | | |
| | O Moscow Exchange Production server (VPN) | | |
| | | | |
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| | | | |
| | | | |
| | < Back Next > | Cance | el |
| | | | |

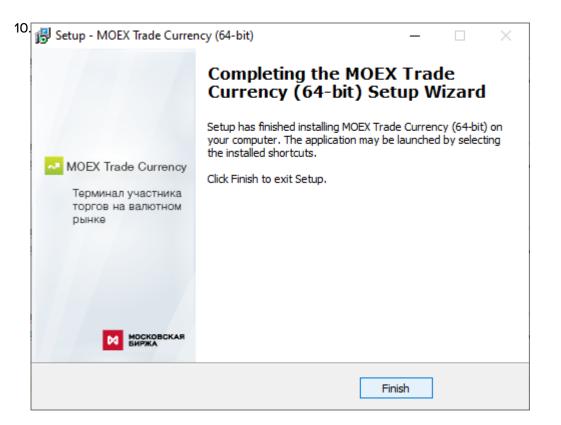
Select the connection method: through the leased line or over the Internet. Select the environment: production or test. These choices define the set of connection parameters which can be changed later in program options. Click **Next** to continue.

| 8. | 🕼 Setup - MOEX Trade Currency (64-bit) — 🗆 🗙 |
|----|---|
| | Ready to Install Setup is now ready to begin installing MOEX Trade Currency (64-bit) on your computer. |
| | Click Install to continue with the installation, or click Back if you want to review or change any settings. |
| | The application will be installed: For all users (requires administrator rights) |
| | Destination location: C:\Program Files\MOEX\Trade Currency |
| | Start Menu folder: MOEX |
| | Additional tasks: Additional shortcuts: Create a desktop shortcut Install additional modules: |
| | < > |
| | < Back Install Cancel |

Review the settings and click **Install** to start the actual program installation.

| | 🔂 Setup - MOEX Trade Currency (64-bit) — | × |
|------|--|--------|
| | Installing Please wait while Setup installs MOEX Trade Currency (64-bit) on your computer. | |
| | Extracting files C:\Program Files\MOEX\Trade Currency\vcl210.bpl | |
| | | |
| | | |
| | | |
| | | |
| | | Cancel |
| 9. (| | |
| | B Setup - MOEX Trade Currency | |
| | Not enought privileges to update system services Installation was unable to update C: \Windows\system32\drivers\etc\services | R |
| | Log in as Administrator and modify C:\Windows\system32\drivers\etc\services to contain the following entries: | |
| | test_gateway 8211/tcp test_gateway 8212/udp cur_gateway 8111/tcp cur_gateway 8112/udp cur_trdeng 8101/tcp cur_trdeng 8102/udp | |
| | | |
| | | |
| | Next > | |

In case of issues during the installation process for all users (for example lack of administrative permissions) then an additional window will pop-up listing the services which must be added to the **windows\system32\drivers\etc\services** file by the system administrator. It will not be possible to connect to the trading system unless these lines are added. Note: an empty line should be present at the end of the services file. Click **Next** to proceed to the next step.



Click Finish to close the installation wizard.

Update

Program checks for updates automatically every time it connects to the Trading System. For stability purposes and in order to have access to all the market features, it is highly recommended to install all the suggested updates.

Admission to connect

In order to be able to connect to the production environment it is essential to have an appropriate technical access to the Trading System (leased line or the Internet) and to be admitted as a trader to the Moscow Exhange FX Market.

Support and Sales

Technical support is available on working days from 9:00 to 19:00 Moscow time.

• In case of any issues with the software, please contact our Support team:

Phone: +7 (495) 733-95-07

• To purchase additional license for the trader terminal or any other Moscow Exchange software, please contact our Sales team:

Phone: +7 (495) 363-32-32, extention 3377

• Any questions related to Moscow Exchange software can be addressed to:

e-mail: help@moex.com [mailto:help@moex.com?subject=MOEX Trade Support]

Chapter 4. Connecting to the Trading System

Authentication in the Trading System

After the program starts select the **Login** item in the **Session** menu. Then enter (or select from the dropdown list) your User ID and password and click **OK**.

In order to change the connection settings, click **Show Options** button and then click the *i* icon to open the connection settings dialog (or close the Login dialog and select **Options** in the **Tools** menu).

| Login | | ? × |
|----------------------|-----------------------|----------------|
| 2 | <u>C</u> onnect to: | pihta |
| | <u>U</u> ser ID: | MU0000700003 - |
| | Password: | ***** |
| Show <u>O</u> ptions | | OK Cancel |
| 😂 Tech | nical <u>S</u> upport | |

Click Show Options button to display the following flags:

- Connect to selection of a connection profile.
- 🗳 open the connection settings and profile management dialog.
- X remove selected user profile from the list and delete all related user settings.
- **Do not load cached tables** reload all the table data from the Trading System.
- **Do not restore last used desktop settings** start the program with empty desktop and reset all the table customization settings.
- **Turn on logging** enabling this option is recommended in case of any issues when connecting to the Trading System

Program update

If the new version of the program is ready for installation from the Trading system server, the auto-update dialog window will appear after the successful user authentication.

If the user doesn't have enough rights on a local machine, updated components will be downloaded to the temporary directory, but won't be installed. After that, the installation should be performed by the user with the administrative rights, by executing the **Install MOEX Trade Currency updates** command, located in the **Start - Programs - MOEX - MOEX Trade Currency - Tools** menu of the operating system.

To rollback the last update and downgrade to the previous version, execute the **Rollback MOEX Currency Analytic updates** command, located in the **Start - Programs - MOEX - MOEX Currency Analytic - Tools** menu of the operating system.

Selection of markets and boards

After the successful authentication in the Trading System the Board Selection dialog will be shown. This dialog is used to select boards which will be available in the terminal during the working session. This set cannot be changed without reconnection to the Trading System.

First select market(s) in the left frame and the select boards in the right frame. Use **Ctrl** or **Shift** keys to select several items. Press **Ctrl+A** to select all markets and boards.

Click **OK** to confirm and to start working with the program.

The next time you connect the previously selected boards will be already highlighted.

To disconnect from the Trading System select the **Logout** or the **Exit** item in the **Session** menu, or just close the application.

When connecting over the Internet using an electronic signature key, the **Server certificate** button will be available on the top of the Board Selection dialog to allow users view the server and client certificate details.

Chapter 5. User Interface and its Customization

The program user interface consists of the following main areas:

| Test user MD0000600007 - Firm Manager - Mi Session View A 2 Table Query Tools 0 D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | sta Window Help 그 고 같 이 같은 등 등 등 등 등 등 () · 이 · 이 · 이 · 이 등 등 등 (Find 8) | а — х — р |
|--|--|--|
| Value | Enter Order Enter | 13 35 |
| [30 - Securities] Security Board Sta Tradii statu USD_TODTO Trading session UTS Trading session UTS EURUSD_TO Trading session UTS EURUSD_TO Trading session UTS Trading session UTS Trading session UTS | Quantity: 100 2 1 100 50 Lot size: 1,000, face value: 100 500 100 | 17 E 44 18 23 31 |
| Trading session UTS Trading session UTS USDRUB_TO Trading session UTS Trading session UTS USDRUB_TO Trading session UTS CM(RUB_TO Trading session UTS EURRUB_TO Trading session UTS EURRUB_TO Trading session UTS | Ind. account: M50000600123 Position code: M50000600123 9 1 2 Client: Image: | 19 24 11 38 33 8 33 8 |
| 114548 AM Connected 6 | Signals 🔹 🐷 🛞 🥌 Exchange 🛄 Securities 🗋 Orders Trades 🖋 Notifications 5 | |

| Area | Description | | | | |
|----------------|---|--|--|--|--|
| 1 Title | The window title includes trader's name or ID and his role (permissions). | | | | |
| 2 Main menu | The main menu contains all the commands to work with the program grouped by type of operations. | | | | |
| 3 Toolbar | The customizable toolbar contains icons for quick access to the most popular commands. | | | | |
| 4 Desktop | The desktop is the place to organize and keep open tables. | | | | |
| 5 Bookmarks | The bookmarks allow users to create several virtual desktops and quickly switch between them. | | | | |
| 6 Statusbar | The statusbar shows the time set on the Trading System server and the connection status. | | | | |
| 🕖 Signal panel | The signal panel displays notifications on important events such as receipt of a negdeal order or a message, breach of the market-maker's liabilities, etc. | | | | |
| 8 Find panel | The security finder panel can be used to search for securities by their name or ID. | | | | |

Main Menu

The main menu contains all the commands to work with the program. Menu items are organized by type of operations into the following groups:

- Session
- View

- Action
- Table
- Query
- Tools
- Data
- Window
- Help

The main menu can be detached and moved as a floating window into other areas of the program interface. To detach the menu drag the vertical dotted line on its left side.

| Main Men | u | | | | | | | |
|-----------------|--------------|----------------|---------------|---------------|----------------|--------------|----------------|--------------|
| <u>S</u> ession | <u>V</u> iew | <u>A</u> ction | <u>T</u> able | <u>Q</u> uery | Too <u>l</u> s | <u>D</u> ata | <u>W</u> indow | <u>H</u> elp |

Some items in the Table menu are placed into submenus. In the program options it is possible to switch this grouping off to display the menu contents as the one long list.

Toolbar

The customizable toolbar contains icons for quick access to actions and tables.

If some action cannot be performed then its icon is grayed-out. For example, in order to be able to open an orderbook it is required to open the Securities table and to select a security in it.

The main part of the toolbar consists of the three independent panels: Actions, Exchange tables and Firm tables. Actions that can be called from the first panel depend on the currently active table. For example the Orderbook/Negdealbook button will open the Orderbook/Negdealbook table that corresponds to the currently selected security.

Any toolbar can be detached and moved as a floating window into other areas of the program interface. To detach the toolbar drag the vertical dotted line on its left side.



To show or hide any toolbar select its name from the **Toolbars** submenu of the **View** menu. It is also possible to right-click any toolbar to show the list of available toolbars and change their visibility.

To customize toolbars select the **Customize** item in the toolbar popup menu or in the **Toolbars** submenu of the **View** menu;

| Element | Description |
|------------------|---|
| List of toolbars | The full list of toolbars with checkboxes to switch their visibility. |

| Element | Description | | | | |
|-------------------------|--|--|--|--|--|
| Create | Crate a new toolbar. | | | | |
| Rename | Rename the selected toolbar. Only toolbars that have been manually created can be renamed. | | | | |
| Delete | Delete the selected toolbar. Only toolbars that have been manually created can be deleted. | | | | |
| Reset | Revert changes made to the selected toolbar. | | | | |
| Large images | Display large icons on the toolbar. | | | | |
| Commands | The full list of commands from the program main menu. Any command can be added to the toolbar. If a command does not have an icon ther it will be displayed as text. | | | | |
| List in the right frame | List of items and separators on the selected toolbar. | | | | |
| Select | Add a selected command to the selected toolbar. | | | | |
| Remove | Remove a selected command (or commands) from the selected toolbar. | | | | |
| Insert separator | Add a group separator to the toolbar. | | | | |
| î | Move selected commands to the beginning of the toolbar. Items can be also dragged with the mouse. | | | | |
| 1 | Move selected commands one position up. | | | | |
| Ļ | Move selected commands one position down. | | | | |
| Ų | Move selected commands to the end of the toolbar. | | | | |

Bookmarks

In order to work conveniently with many tables it is possible to distribute them between several virtual desktops (sheets) and to switch between these sheets using bookmarks.

🐑 🔯 MarketData Securities Orders Trades 🚀 Signals

To switch between sheets click the bookmark or press Alt+left/right arrow key or Alt+digit key.

To move a table to another virtual desktop do one of the following:

- right-click the table window title and select Move to Sheet -> Sheet name;
- select the Move to Sheet -> Sheet name command in the Window menu;
- use the sheet setup dialog as described below.

It is possible to detach the bookmarks panel and move it as a floating window into other areas of the program interface. To detach the panel drag the vertical dotted line on its left side. The panel can be switched on or off through the **View** menu.

To customize sheets and move tables between them press the button on the bookmarks toolbar or select the **Setup Sheets** item in the **Tools** menu or use the **Ctrl+B** hotkey.

| tup Sheets | | | ? <mark>×</mark> |
|---------------------|--------|------------------------|---|
| Sheets: | | Windows of Exchange: | On top of a sheets (0 |
| Exchange | 2 | Law Indexes | \checkmark |
| Securities | ~ | 🔯 * Boards | \triangleleft |
| Orders | | 🙀 All Trades | |
| | | 🕜 Trade Time | |
| Trades | | 🧱 Firms | Sector 100 (100 (100 (100 (100 (100 (100 (100 |
| Notifications | | | |
| | | | |
| | | | |
| Add Delete | Modify | (Windows per sheet: 5) | Close Window |
| | | | |
| Show sheet captions | | ОК | Cancel Apply |

"Sheets" list on the left side of the dialog window contains names of configured virtual desktops. Drag and drop list items to set the needed bookmarks order. Tables attached to the selected sheet are displayed on the right side of the dialog window. One or several tables can be easily moved from one sheet to another by dragging the corresponding item from the tables list to the preferred sheet in the "Sheets list". Check the "On top of all sheets" box to add the particular table to all the virtual desktops.

Use Add, Delete or Modify buttons to manage sheets.

"Add/Edit Sheet" dialog provides an ability to set the sheet icon that will be displayed next to its name on the bookmarks panel. The drop-down list contains standard terminals icons.

To upload a custom image please use the "..." button on the right side of the dialog window. Suitable file formats are: gif, jpeg, jpg, png, bmp, tif, tiff, ico, emf, wmf. Selected image will be automatically scaled to 16 x 16 px.

Statusbar

Program statusbar displays the connection status time on the Trading and Crearing System server and the connection status.



It is possible to detach the status and move it as a floating window into other areas of the program interface. To detach the statusbar drag the vertical dotted line on its left side. The statusbar can be switched on or off through the **View** menu.

Table customization

All the tables have the standard Windows design, but in order to offer users more options to flexibly customize their desktop the windows behavior has been slightly altered as described in subchapters below.

Each table keeps its own settings. If several copies of one table have been opened then the settings of the last closed table will be saved. In order to save several sets of settings for any table, these settings can be saved as templates.

Several copies of one table

In order to open additional copies of a table do one of the following:

- click the table icon on the toolbar or its name in the Table menu while holding the Ctrl key;
- press Ctrl+N to create a copy of the active table;
- right-click the table window title and select New window;
- select the New Window command in the Window menu.

Symbols in column headers and table titles

Besides the table name the title may contain the following symbols:

- The first number shows the total number of rows. Not displayed for orderbooks, because the orderbook depth is fixed (and can be limited in table preferences).
- * means that the table filter has been applied.
- Orderbook title includes security and board names.
- Square brackets in Securities and Positions by Securities tables mean that the datasets are applied.
- Braces in Orderbook tables mean that the orderbook depth is specified.
- The number after the semicolon shows the number of the table when several copies are open.

Column headers my contain the following symbols:

- 🛓 column is sorted in ascending order;
- **T** column is sorted in descending order;
- **A** or **V** and a number sorting order when several columns are sorted;
- darker column header background and the funnel icon indicate that the filter on this column is switched on.

| [88 - Securities] | | | | | | | X |
|--|--------|-------------------|--|----------|----------|----------|---|
| [▲] ₁ Security [▲] ₂ Board | Status | Trading status | Date of the last trading session | WA | Bid | Offer | Î |
| BYRRUB_TO Negotiated deals BYRRUB_TO Trading session UTS CNY/RUB_TO Negotiated deals | | | 26.08.2011 | 57,1122 | 57,1163 | 57,1261 | |
| CNY/RUB_TO Trading session UTS EUR/USD_TO Negotiated deals | | | 26.08.2011 | 43,6241 | | | |
| EUR/USD_TO Trading session UTS | | | 20.00.2011 | 1,428800 | 1,428800 | 1,429000 | |

Table headers

Besides the standard placement on the top of the table it is also possible to rotate the title to place it on the left side in order to free up some additional vertical space for table rows. To move the title use the **Window Header -> Left/Top** commands in the title popup menu.

| | (B) Lots | Rate | (S) Lots |
|--------------------|----------|---------|----------|
| | 45 | 21,9298 | |
| 1 | 4 | 21,9414 | |
| Ě | 1 | 21,9461 | |
| Ø | 7 | 21,9544 | |
| KZTRUB_TOM - KZT/R | 49 | 21,9862 | |
| ē | | 22,0193 | 12 |
| | | 22,0294 | 28 |
| - P | | 22,0363 | 15 |
| 5 | | 22,0382 | 48 |
| 2 | | | |

In order to minimize the window title select the **Window Header -> Tiny** command in the title popup window.

| | | | | | | | 111 | - X. |
|-----------|---------------------|--------|-------------------|--|---------|---------|------------|------|
| Security | ▲ Board | Status | Trading status | Date of the last trading session | WA | Bid | Offer | ^ |
| BYRRUB TO | Trading session UTS | | | 26.08.2011 | 57,1245 | 57,0007 | 57,146 | |
| - | Trading session UTS | | | 26.08.2011 | 43,4064 | 43,5385 | | 'n |
| EUR_TODTO | Trading session UTS | | | 26.08.2011 | 0,0009 | | 0,000 |) |
| | Trading session UTS | | | 26.08.2011 | 1,0900 | 1,4279 | 1,430 |) |
| | Trading session UTS | | | | | | | |
| 4 III | T | | | | | | | |

To change all the table visualization settings it is also possible to use the table properties dialog.

Column setup

The following table lists the customization actions that can be performed using mouse or popup menu of the column headers:

| Action | Menu item | Mouse |
|---|---|--|
| Sorting rows | Sort Ascending Sort Descending | Click header continuously. Hold the Ctrl to sort by several columns. |
| | Do not Sort | |
| Hide column | Hide Column | Drag the column header outside the table and drop it there. |
| Change column width | - | Drag the right column border. |
| Adjust column width by the length of the longest value. | Adjust columns (will be applied to the whole table) | Double click the right column border (will be applied to one column). |
| Change column order | Setup Columns | Drag column header. |
| Fit all columns to the visible area of the table | Fit All Columns | - |

| Action | Menu item | Mouse |
|---------------------|-----------------|-------|
| Wrap column headers | Wrap Words | - |
| Hide column titles | Collapse Header | - |

To change various column settings it is also possible to use the table properties dialog.

Moving and Resizing Tables

Any table can be moved by dragging its title and resized by dragging any of its borders.

In order to help users utilize their desktop space most efficiently, table will automatically snap to other tables and borders when moved or resized. This behavior as well as the snap distance can be changed in the program options.

Automatic table arrangement

To automatically arrange tables on the desktop select one of the following commands in the **Arrange Windows** submenu of the **Window** menu:

- Tile
- Cascade
- Custom

Table Properties

To open the table properties select the **Properties** item in the **Window** menu or in the table's popup menu.

These properties are individual for every table, but the color settings can be applied to other tables through templates.

Appearance Tab

The Appearance tab of the table properties dialog allows users to set up options related to the table design, including colors.

| perties - Or | - | | | ? > |
|----------------------|--|---|------------|------------------|
| Appearance | Columns Orderbook | | | |
| Title | | | | |
| Show 1 | title | 5 - Demo Table | | |
| 🔘 Тор |) | Security ID | Security | Order's minimu 🔺 |
| CLeft | t | EUR_RUB_TOD | EURRUB_TOD | 0,000001 |
| 🗌 Tinj | y | EUR_RUB_TOM | EURRUB_TOM | 0,000001 |
| Column h | eaders | EUR000TODTOM | EUR_TODTOM | 0,000001 |
| Show | headers | EURRUB_SPT | EURRUB_SPT | 0,000001 |
| | lapse | FURRUB TOD1D | FUR TODSPT | 0 000001 🎽 |
| ☐ Word ✓ Fit colu | wrap umns to width | Fonts and colors Header cell | | or: |
| Table | tor column | Fixed cell Focused cell Current row | Fon | t: |
| 🗌 Highlig | ght focused row | Buy Orders Sell Orders | | Segoe Ul, 10 |
| 🗹 Horizo | ntal grid | Own Orders | | |
| ✓ Vertica | l grid | Matching | | Sample text |
| lcons a | and colors in cells ght every 2 row | Fixing Price Turbo mode pane | ~ | |
| 🗌 Highlig | | | | |

Table 5.2. Elements of the "Appearance" tab

| Element | Description | | | | |
|------------------------|--|--|--|--|--|
| "Title" frame | | | | | |
| Show title | Uncheck the box to hide the window title, including "Close", "Minimize" and "Maximize" buttons. | | | | |
| Тор | Title on the top of the window. This command can also been executed from the window title context menu (double click the window title). | | | | |
| Left | Title on the left of the window. This command can also been executed from the window title context menu (double click the window title). | | | | |
| Tiny | Minimize the window title. This command can also been executed from the window title context menu (double click the window title). | | | | |
| "Column headers" frame |)) | | | | |
| Show headers | Uncheck the box to hide column headers. Disabling this option will cause context menu, changing column width and sorting unavailability. | | | | |
| Collapse | Minimize the column header. This command can also been executed from the column header context menu (double click the column header). | | | | |
| Word wrap | Check the box to activate word wrap. This command can also been executed from the column header context menu (double click the column header). | | | | |

| Element | Description |
|---------------------------|--|
| Fit columns to width | Optimize columns width to window size. This command can also been executed from the column header context menu (double click the column header). |
| "Table" frame | |
| Indicator column | Activate this option to add an indicator column, pointing to the active row, to the left of the table. |
| Highlight focused row | Highlight the whole row, when selecting the cell. The selected cell will be highlighted with the alernative color. |
| Horizontal grid | Horizontal lines between table rows. |
| Vertical grid | Vertical lines between table columns. |
| lcons and colors in cells | Enable cells coloring and graphical elements (for example for Order Status). |
| Highlight every row | Check the box to activate highlighting and specify the needed interval. |
| "Fonts and colors" frame | |
| List of elements | Select the element to customize font and color for. |
| Color | Select standard or custom color for selected element. |
| Font | Select font, style and size for selected element. |

Click the **Ok** button to confirm changes and close the dialog window. Click the **Apply** button to confirm changes and leave the dialog window opened. Changes will be saved for all tabs of the dialog window. **Save Settings as Template** and **Load...** are used for saving and loading settings from the templates.

Columns Tab

The Columns tab of the table properties dialog allows users to configure the visible set and order of table fields.

| Properties - Orderboo | ok | | | | ? | × |
|-----------------------|---------------|------------|--------------|--------|----|--------------|
| Appearance Colur | nns Orderbook | | | | | |
| Available: | | | Selected: | | | |
| (B) Own orders | |] | (B) Lots | | | 1 |
| (B) Own value | | | Rate | | | |
| (B) Rate, % | | | (S) Lots | | | |
| (B) Sum of the be | st | | (B) Amount | | | |
| (S) Own orders | | | (B) Own lots | | | ₽ |
| (S) Own value | | | (S) Amount | | | |
| (S) Rate, % | | Select -> | (S) Own lots | | | |
| (S) Sum of the be | st | | | | | |
| | | <- Remove | | | | 1 |
| | | | | | | |
| | | | | | | \downarrow |
| | | Select All | | | | |
| | | | | | | |
| | | Remove All | | | | |
| | | | | | | U. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | Reset | | | | |
| | | | | | | |
| | | | | | | |
| Save Settings a | as Template | Load | ОК | Cancel | Ар | ply |
| | | | | | | |

Table 5.3. Buttons of the "Columns" tab

| Button | Description |
|--------------|--|
| Select | Add selected available columns to the table. This operation also can be performed by siply dragging selected columns from the left list to the right one. |
| Remove | Remove selected columns from the table. This operation also can be performed by siply dragging selected columns from the right list to the left one, or without calling the dialog window at all: by dragging the needed column header outside the table. |
| Select All | Add all available columns to the table. |
| Remove All | Remove all columns from the table. |
| Reset | Restore the default columns configuration. |
| î | Move selected fields to the top of the list. |
| 1 | Move selected fields up the list. This operation also can be performed by siply dragging selected fields to the needed position, or without calling the dialog window at all: by dragging the needed column header to the needed position. |
| \checkmark | Move selected fields down the list. This operation also can be performed by siply dragging selected fields to the needed position, |

| Button | Description |
|--------|---|
| | or without calling the dialog window at all: by dragging the needed column header to the needed position. |
| U | Move selected fields to the end of the list. |
| Fixed | Check the box to move the column to the top of the list and make it visible while horizontal scrolling the table. |

To select multiple separate fields, click them, holding the **Ctrl** key. To select the sequentially arranged fields, click the first field, and then the last one, holding the **Shift** key.

Click the **Ok** button to confirm changes and close the dialog window. Click the **Apply** button to confirm changes and leave the dialog window opened. Changes will be saved for all tabs of the dialog window. **Save Settings as Template** and **Load...** are used for saving and loading settings from the templates.

Context Menu Tab

The Context Menu tab of the table properties dialog allows users to define the default action for doubleclick from the list of commands available in the table popup menu.

| Properties - Securities | ? × |
|-----------------------------------|------------------------|
| Appearance Columns Context Menu | |
| Choose default context menu item: | |
| Enter Order | Set as Default |
| 📓 Enter Negdeal | |
| 🙀 Withdraw | |
| Srderbook | No Default Item |
| Settlement Codes | |
| Orders by Security | Reset to Initial State |
| Trades by Security | |
| 🖞 All Trades Chart | |
| History by Security | |
| Hide Security(s) | |
| Data Sets | |
| Apply Data Sets | |
| Order Validation | |
| 🔔 Setup Alert | |
| Alert Manager | |
| | |
| | |
| | |
| Save Settings as Template Load | OK Cancel Apply |

Table 5.4. Buttons of the "Context Menu" tab

| Button | Description |
|----------------|-----------------------------------|
| Set as Default | Use the selected item as default. |

| Button | Description |
|------------------------|--|
| No Default Item | Do not use the selected item as default. Disables the execution of the command by double click or pressing "Enter" button. |
| Reset to Initial State | Restore default setting of the context menu. |

Click the **Ok** button to confirm changes and close the dialog window. Click the **Apply** button to confirm changes and leave the dialog window opened. Changes will be saved for all tabs of the dialog window. **Save Settings as Template** and **Load...** are used for saving and loading settings from the templates.

Orderbook Tab

The Orderbook tab of the table properties dialog allows users to customize the layout of orderbooks as well as to add additional indicators to the table header and footer .

Orderbook tab is visible only when table properties dialog is evoked from orderbook/quotebook table. For quick access to this dialog use the **Setup Quotes** command of the orderbook popup menu.

| Properties - Orderbook | | ? × |
|--|---|--|
| Appearance Columns Ore | lerbook | |
| Display mode Classic Alternative Simple | (К) ЛотыЦена(П) Лоты4327,2181727,2785027,4882827,6131527,62829,3834629,558230,8394530,88530 | Additional settings Highlight buy/sell areas Show sell orders on top Keep best quotes always visible Keep stable depth Orderbook depth Orderbook depth Specified (1 - 20): 20 |
| * No confirmations are requeste | h large font on by this security * Always O Never d when turbo mode is ON | Show security information Top: WA Bottom: Total buy/sell value |
| Save Settings as Templa | te Load | OK Cancel Apply |

Table 5.5. Buttons of the "Orderbook" tab

| Button | Description | |
|----------------------|--|--|
| "Display mode" frame | | |
| Classic | Traditional orderbook. Buy and Sell rates are located in the central column, quantity is shown to the left and to the right of it. | |

| Button | Description | |
|--|---|--|
| Alternative | Quantity and rates are shown in separate columns, both Buy and Sell. | |
| Simple | Buy and Sell rates and quantity are grouped in columns. Direction for each order is shown in the separate column. | |
| Quick order entry buttons (turbo mode) | Enable "Turbo mode [55]" for quick order entry from 'Quotes' table. | |
| Mark best quotes with large font | Flag: Mark best quotes with large font | |
| "Request order confirmation by th | is security" frame | |
| Default | Use request confirmation before transaction execution global option from "Actions" tab of "Options" form in the "Tools" menu. | |
| Always | Request confirmation before execution every time with ignoring global setting | |
| Never | Newer request confirmation before execution with ignoring globa setting | |
| "Additional settings" frame | I. | |
| Highlight buy/sell areas | Check the box to color the orderbook background. By deafault: green for Buy orders, red for sell orders. | |
| Show sell orders on top | Sell orders will be shown on the top of the orderbook window. | |
| Keep best quotes always visible | Check the box to keep best Buy and Sell quotes visible when quotes are updated or window is resized. | |
| Keep stable depth | Check the box to constantly show a number of rows, equal to orderbook depth. | |
| "Orderbook depth" frame (not ava | ilable for RPS and REPO quotes and Derivatives market). | |
| Default | Default orderbook depth. | |
| Specified | Enter specific orderbook depth. If the depth is specified, the Orderbook table header will contain braces ({}). | |
| "Show security information" frame | e (not available for RPS and REPO quotes). | |
| Show security information | Check boxes and select fields to show on the top and bottom of the orderbook table. | |

Click the **Ok** button to confirm changes and close the dialog window. Click the **Apply** button to confirm changes and leave the dialog window opened. Changes will be saved for all tabs of the dialog window. **Save Settings as Template** and **Load...** are used for saving and loading settings from the templates.

Sorting

To sort table data by any column either click its header one or two times or select a corresponding item in the column header popup menu (Sort Ascending, Sort Descending, Do not Sort).

To sort by several columns at the same time, click their headers while holding the **Ctrl** key.

Symbols in column headers:

- A sort ascending;
- **T** sort descending;
- 🗘 sort order when sorting by several columns simultaneously.

Templates

The layout of every table can be saved as a template in order to apply it later to other tables of the same type.

| Templates - Securities | ? × |
|------------------------|-------|
| A1 brief | |
| | |
| | |
| | |
| | Save |
| Template name: A2 | Close |

To save the current layout select the **Templates - Save** item in the table popup menu.

To apply layout to the open table, select its name in the **Templates** submenu of the popup menu.

To edit templates select the **Templates - Setup** item in the table popup menu.

| Templates - Securities | ? × |
|------------------------|--------|
| A1 brief | Rename |
| | Delete |
| | Apply |
| | |
| | |
| | |
| | |
| | |
| | Close |

Filter

To set up the data filter right-click inside the table grid and select one of the following items:

| Popup menu entry | Action | |
|------------------|---|--|
| Filter | Open the complex filter dialog. | |
| Column Filter | Show the quick filter window. Not available for orderbooks. | |

| Popup menu entry | Action | |
|------------------|--|--|
| Filter Active | Apply or disable the last configured or loaded filter. | |
| Filters | Show the list of filters and commands to save or edit filters. | |

The first three items are also available from the Data menu.

Quick Filters

Besides the actions described above, in order to open the quick filter window it is also possible to move the

mouse pointer to the column header and click the $\boxed{1}$ icon that will appear.

The quick filter appearance and behavior depend on the data type in the column.

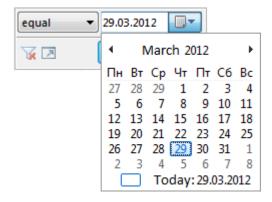
The quick filter for lists shows the full list of available values. Mark the checkboxes near the required values. Use the checkbox near the "Selected" item to mark/unmark all the values.

| Selected | :1 | | |
|-------------|---------------------------------------|--|--|
| 🔲 🔾 Act | Active | | |
| ■× -C | Cancelled by the Trading System | | |
| 🔲 🔍 + | Matched | | |
| 🔲 🛛 Time | Order activation time hasn't come yet | | |
| -CP | Rejected by counterparty | | |
| 🔲 🗙 -TS | Rejected by the Trading System | | |
| ▼ ×- | Withdrawn | | |
| 7 | OK Cancel | | |

Filter for numerical values contains comparison conditions and the field for a value to compare the cell data with.

| equal 🔻 1 | 52,15 | × |
|--|-------|--------|
| equal not equal greater greater or equal less | ок | Cancel |
| less or equal is null not null equal or null between | | |

One more type is the date filter which opens a standard date selection dialog:



All the quick filter windows contain the following buttons:

- 🗹 switch if applicable to another filter form (for example, between list selection or value selection);
- 👿 cancel filter;
- 🗷 open the complex filter dialog;

Global Filtering by Bank Account

Visible content of certain tables can be limited with Global Bank Account Filtering feature. When filtering is enabled tables will contain only records corresponding to selected BankAcc, instead of all available in the Trading System. Clearing member which has trading members for clearing can use the "Show lower level bank accounts" function to show only records corresponding to selected BankAcc and bank accounts for which the selected one is clearing bank account.

To apply the filter, select the needed BankAcc in the drop-down list in the bottom of the program window. Global BankAcc Filter will be applied automatically.

| BankAcc: | < not selected | > 🔻 | V V2 |
|----------|----------------|-----|------|
| | | | |
| BankAcc: | 00761 | - | T 7 |

Later on, to enable or disable the filter do one of the following:

- click the 🗹 button near the BankAcc drop-down list;
- select Apply BankAcc Filter in the Tools menu;
- press Ctrl + F8.

Click 1 to show/hide linked bank accounts.

When Global Filter is applied, content of the following tables will be limited:

- "Positions by Limits";
- "Positions by Assets";
- "Positions by Securities";
- "Positions for Settlement";
- "Liabilities and Claims for Assets";
- "Trading Accounts";
- "Bank Accounts";

Securities Drag-and-Drop

It is possible to drag securities from the Securities table into any of the following tables to open information about that particular security:

- chart;
- orderbook;
- orders by security;

• trades by security;

Full Screen Mode

To switch between the normal and the full screen mode select the **Full Screen Item** in the **View** menu or press the **F11** key.

Saving and Migrating Settings

To save all the user settings select the **Save Desktop** item in the **Tools** menu.

| Save Desktop | ? × |
|--------------------|--------------|
| Existing settings: | |
| normal small | Save to File |
| widescreen | |
| | Rename |
| | Delete |
| | |
| | |
| | |
| | |
| | |
| | Save |
| | Jave |
| Desktop name: | Close |
| basid | Close |

User settings can be saved to a file in order to migrate all the settings to another PC.

Table 5.6. Elements of the "Save Desktop" dialog

| Element | Description |
|-------------------|---|
| Existing settings | List of existing settings sets. Select one of the records to save it to file, rename, delete or overwrite the settings. |
| Save to File | Save the selected settings to file in order to migrate all the settings to another PC or share it with another user. |
| Rename | Rename the selected settings set. |
| Delete | Delete the selected settings set. |
| Save | Save current desktop settings. |
| Close | Close the dialog window. |
| Desktop name | Text field to enter the setting set name. |

To load the previously saved user settings select the Load Desktop item in the Tools menu.

| Load Desktop | ? × |
|----------------------------------|----------------|
| Existing settings: | |
| <previous session=""></previous> | Load from File |
| normal small | Samples |
| widescreen | Jumpicani |
| | Rename |
| | |
| | Delete |
| | |
| | |
| | |
| | |
| | Load |
| | |
| | Close |
| | |

Table 5.7. Elements of the "Load Desktop" dialog

| Element | Description |
|-------------------|---|
| Existing settings | List of existing settings sets. Select one of the records to rename, delete or load the settings. |
| Load from File | Import settings from the previously saved file. |
| Samples | Load one of the sample desktop layouts. |
| Rename | Rename the selected settings set. |
| Delete | Delete the selected settings set. |
| Load | Load the selected desktop layout. |
| Close | Close the dialog window. |

Chapter 6. Data Sets

Using Data Sets

Data Sets are designed to simplify work with order entry dialogs and allow users define limited sets of values for different lists. Default values for main fields of order entry forms may also be defined using data sets.

When Data Sets are activated then drop-down lists in the order entry dialogs will only contain values selected by the user. Also "Securities" table contents will be filtered accordingly.

Data Sets can be defined for the following lists:

- security;
- counterparty;
- settlement code;
- trading account;
- client;
- broker reference;
- matching reference;
- counterparty trading account.

To apply Data Sets do one of the following:

- select Apply Data Sets option in the Tools menu;
- select the Apply Data Sets item in the popup menu of the "Securities" table;
- press Ctrl+Shift+Space when any table is active.

When datasets are applied the contents of the "Securities" table will be filtered accordingly, and drop-down lists on the order entry dialog will contain only selected values.

Switching off datasets is performed similarly to switch on.

Active state of datasets is indicated by square brackets in titles of the filtered tables.

To edit Data Sets do one of the following:

- select **Data Sets** option in the **Tools** menu;
- select Data Sets item in the popup menu of the Securities or Boards tables ;
- if Data Sets are already active then double click the appropriate drop-down list in the order entry dialog: Board, Security, Trading Account, Client, Broker reference, Settlement code, Counterparty, Matching reference.

If user submits an order with security which is not currently included into the dataset (for example, from the Orderbook table), this security will automatically be added to the dataset.

When the Broker reference data is loaded to data set from file then the Client data set will be cleared and it could not be changed unless those broker references are unloaded.

Data Sets Dialog

The left frame of the Data Sets dialog lists the available trading boards. The right frame contains tabs to customize data sets for each parameter.

| Data Sets | | | | | ? × |
|----------------------|---------------|------------------------------|----------------------------------|-----------|--------------|
| Boards: | Has value set | Client | BrokerRef | MatchRef | Cp. Account |
| Additional session U | TS Yes | Security | Counterparty | SettleCoo | le O Account |
| Negotiated deals | | Selected: | | | |
| Trading session UTS | | EURRUB_TOD - | | | Edit |
| | | USD_TODTOM - USDRUB_TOD - | SWAP USD/RUB | | |
| | | 030000_100- | 030/100 | | Clear 👻 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | Default value: | | | |
| | | | | | ▼ Delete |
| | | | | 0 | K Cancel |

Boards in Data Sets

In the Data Sets dialog boards that do not have any sets defined are displayed in grey color. Boards that have sets defined are displayed in black. If any of the boards have got a set defined on the current tab then there will be the word Yes to its right.

To select multiple boards simultaneously hold **Ctrl** or **Shift** key.

When several boards are selected at the same time then the data set can only be difined for those parameters that are present on every board selected.

Working with data set tabs

Title of each tab has a dot which means one of the following depending on its color:

- grey no data set for selected board(s) is defined for the parameter, so all the values will be visible;
- green the selected board has a data set defined for this parameter; if several boards are selected then all of them have the same set of values for that parameter;
- half grey half green several boards are selected and they have different values in sets.

| Element | Description |
|-----------------|---|
| "Selected" list | Records inculded into the dataset for the current trading board (boards). If multiple boards are selected then this list will display only records which are included into dataset for each of these boards. Double-click any record to open the Edit Data Sets dialog. |

| Element | Description |
|---|---|
| "Edit" button | Open the Edit Data Set dialog. This button is not available on "BrokerRef", "MatchRef" and "Counterparty" tabs as its value may only be loaded from external files. |
| "Clear" button | Clear the current data set for all the selected boards. Down-arrow button located to the right provides "Clear for Board" and "Clear All" commands. |
| | Define the default value for order entry dialogs. Default value will be loaded in the order entry form after user selects the trading board in the form. |
| | Please note: if default value is specified it will be used even if data sets are switched off. |
| "Delete" button (except "BrokerRef" and "Cp. Account" tabs) | Delete previously defined default value. |
| | Path to file with data. Click Browse to select file with data suitable to the active tab. Please find file formats description in Appendix. |
| "Load automatically" flag (for "BrokerRef", "MatchRef" and "Cp. Account" tabs only) | Load the selected file automatically at each connection to the Trading System. |
| "Unload" button (for "BrokerRef", "MatchRef" and "Cp. Account" tabs only) | Unload the file. |
| ОК | Save changes and close the dialog. |
| Cancel | Discard all the changes and close the dialog. |

Edit Data Sets

To edit a particular data set follow these steps:

- 1. open the Data Sets dialog;
- 2. select board(s) in the left frame;
- 3. select the tab with needed parameter;
- 4. click "Edit" button.

| Edit Data Set - Security - Additiona | I session UTS | | | ? × |
|---|---|---|---|--------|
| Available: | | | Selected: | |
| EUR_TODTOM - SWAP EUR/R EURRUB_TOM - EUR/RUB | Security ID EUR000TODT EUR_RUBT USD000UTST | Select -> <- Remove Select All Remove All | EURRUB_TOD - EUR/RUB USD_TODTOM - SWAP USD/RUB USDRUB_TOD - USD/RUB | |
| Automatically add new records | to data cat | Clear | Default value: | |
| | | | ОК | Cancel |

When data sets are active it is also possible just double click the appropriate field in the order entry dialog in order to edit the data set.

The left frame of the window contains a list of values available in the Trading System. The right one - values selected by user.

"Default value" field in the bottom right corner of the dialog lets user define the default value for order entry dialogs.

Table 6.2. Elements of the "Edit Data Sets" dialog

| Element | Description |
|---|--|
| Select | Include selected values to the data set (move from "Available" list to "Selected"). |
| Remove | Remove selected values from the data set (move from "Selected" list to "Available"). |
| Select All | Include all the available recordis into the data set. |
| Remove All | Remove all the selected records from the data set. Data sets will remain active but won't contain any records so the corresponding drop-down list in the order entry form will be empty. |
| Clear | Clear the dialog and switch off the data sets for the correpsonding list. |
| Automatically add new records to data set | Set this flag to automatically add new records available in the Trading System to the data set. |
| Default value | Select the default value in the drop-down list. Default value will be loaded in the order entry form after user selects the trading board in the form. |
| | Please note: if default value is specified it will be used even if data sets are switched off. |
| X | Remove the default value. |
| ОК | Apply all the changes. |

| Element | Description |
|---------|--------------------------|
| Cancel | Descard all the changes. |

To select multiple records simultaneously hold Ctrl or Shift key.

Contents of the "Available" list may be sorted by one or several columns (if applicable). To do so click the the title of the column to select the sorting method: ascending, descending or switched off.

Save and Load Data Sets

Data Sets configuration may be saved to file to re-load it later.

To perform these operations use "Save" and "Load" buttons located in the bottom of the "Data Sets" dialog correspondingly.

Data sets configuration is stored in xml files which should be available to user for reading and modification.

Please find file format description in the Appendix.

Administrative Data Sets Management

Common description

Terminal provides an ability to manage data sets administratively for one or multiple users. This can be used to set different types of limitations for traders of the firm, for example a selection of allowed securities for particular trading boards, or list of counterparties to conclude trades with. Administrative order validation is also provided.

By default data sets settings are stored in the datasets.xml configuration file, that could be found on the following path:

\Users\USER-NAME\AppData\Roaming\MOEX\Trade Currency\Profiles\[MoexUserId]\datasets.xml.

* "AppData" folder is hidden by default. To quickly navigate to the folder, containing settings, perform " cd %appdata% " in the command line.

Typical scenario of datasets.xml usage:

- 1. at connection to the Trading System terminal loads settings from datasets.xml;
- 2. changes made using Edit Data Set dialog during work are stored in RAM of the computer and not being written to file until the end of the connection session;
- 3. at the end of the session program writes new configuration to datasets.xml.

Creating datasets xml file

Creating datasets.xml (for later use as administrative source of data sets settings) can be performed in two ways:

- using Edit Data Set dialog in terminal GUI then copy to the shared resource;
- manually: file format description is presented in the Appendix;

Data sets xml file format

Please find file format description in the Appendix.

Prohibition of data sets modification on traders' side

To prohibit modification and disabling data sets on traders' side, the configuration file datasets.xml should be read-only for traders. Also a full path to this resource must be specified in the Windows Registry on traders' computers (description is given further).

If corresponding changes are made to Windows Registry on trader's computer, in case terminal can not load validation.csv by any reason, the user session with the trading system will be aborted.

Sharing datasets.xml

Configuration file datasets.xml may be located:

- on local machine, in the folder that is read-only for trader terminal supports LFS-formatted paths, for example " C:\AnyFolder\datasets.xml ";
- on shared resource, that is read-only for trader shared folders and smb-resources should be named as:
 - " \\Server\SharedFolder ". Terminal supports UNC-formatted paths, and also Long UNC for 64-bit version.

Two scenarios of access to configuration file are provided:

- shared file for all users* single source of datasets settings for multiple users. In that case file can be located in arbitrary folder, for example " \\Server\SharedFolder\datasets.xml ".
- individual file for a particular user* separate subfolders with names corresponding to User IDs are required. In that case the full path to data sets configuration file would be as follows: " \\Server \SharedFolder\[MoexUserId]\datasets.xml ".
- * Note: the term "user" refers to User ID in the ASTS Trading System, but not Windows User ID.

Necessary changes in Windows Registry on trader's computer

Administrative data sets management requires some changes in Windows Registry on traders' computers that should be performed by user with administrative privileges. Specific values should be added to the following Registry branch:

HKEY_LOCAL_MACHINE\SOFTWARE\MICEX\Trade Currency\

Note: Trader should not have administrative rights on computer and ability to change this Registry branch.

The following keys and values should be added:

- DatasetsPathOverride REG_SZ path to the folder containing datasets.xml, for example " \\Server \SharedFolder ". If the value is specified user cannot longer modify datasets himself and terminal will not operate in case datasets.xml is missing on the specified location. If not specified datasets settings will be loaded from default local path and user will have an ability to change settings (see "Common description");
- DatasetsPathlsShared REG_DWORD "Shared Datasets" flag. Possible values are "1" (use shared datasets.xml in specified folder for all users) or "0" (use individual files from subfolders named as User IDs).

Example 1:

DatasetsPathOverride=\\Server\SharedFolder DatasetsPathIsShared=1

Settings will be loaded from " \\Server\SharedFolder\datasets.xml " for all users.

Example 2:

DatasetsPathOverride=H:\SharedFolder DatasetsPathIsShared=0

Settings will be loaded from individual files located in subfolders with names equal to User IDs in the Trading System, for example H:\SharedFolder\[MoexUserId1]\datasets.xml or H:\SharedFolder \[MoexUserId2]\datasets.xml.

Chapter 7. Market data and trade capture

Viewing Securities

Securities Table

The Securities table lists all the securities in the Trading System (on the boards selected during the logon process) with their static and current dynamic parameters.

To open the table perform one of the following actions:

- select the Securities item in the Table menu;
- click the button on the toolbar.

Color marks

Rows of the "Securities" table can be marked with different colors to organize several custom categories. To mark an instrument first select one or several rows in the "Securities" table, then select the needed color in "Mark With..." item of the context menu or "Data" menu.

In case at least one security is marked with color the "Check mark" column will appear in the "Securities", "Orders" and "Trades" tables, and Order Entry dialogs as well. This column also can be manually added to these tables with table properties dialog.

| Column | Description |
|----------------|--|
| Security | Security name |
| Board | Trading Board name for the security |
| Security ID | Security identifier in the Trading System |
| Status | Operations are allowed; S - Operations are suspended; |
| | B - Suspended for trading, settlement is allowed. |
| Trading status | TWT - Auction: After auction trade phase |
| | LO - Auction: Bookbuilding phase, orders are locked |
| | OE - Auction: Orders entry phase |
| | AM - Auction: Trade conclusion phase |
| | B - Break |
| | C - Closing period |
| | DA - Discrete auction |
| | N - Not traded right now |
| | OA - Opening auction |
| | O - Opening period |
| | "-" - Trading is closed |
| | Trading session |

Table 7.1. "Securities" table columns description

| Column | Description |
|---------------------------------|---|
| | UPA - Update price auction |
| Bid | Best bid price |
| Offer | Best offer price |
| First | First trade price |
| Maximum | Maximum trade price |
| Minimum | Minimum trade price |
| Last | Last trade price |
| Last change | Last change |
| Lots in the last | Volume of the last trade, in lots |
| Value of the last | Value, expressed in the currency of settlement |
| Last Close Price | Price of the last trade of the previous trading day |
| Last to Closing change | Difference between the Last Price and the Previous day Closing Price |
| Previous WA price | The weighted average price of the previous trading session |
| WA | Weighted-average price |
| WA price change | Weighted-average price change |
| Last price to previous WA price | Difference between the last price and the weighted average price of the previous trading session |
| Best bid | Best bid price during the trading session |
| Best offer | Best offer price during this trading session |
| Trades today | Number of trades concluded on current trading day |
| Today value | Value of trades concluded on current trading day, expressed in the currency of settlement |
| WAP from 10:00 to 11:30 | Weighted average price from 10:00 to 11:30 |
| WA Rate 11:30 | Closing period price, calculated at 11:30 |
| Session best bid | Best buy-order at the moment of the normal trading session end |
| Session best offer | Best sell-order at the moment of the normal trading session end |
| Lot size | Number of securities in one lot |
| Settlement code | Default settlement code for this security |
| Settlement date | Trade settlement date |
| Validate price | Validate price |
| FX fixing price | Average value of FX fixing ME and FX fixing EBS |
| To prev WA price, % | To previous weighted-average price, % |
| To prev. last, % | To previous last, % |
| Buy orders | Number of buy orders in the queue of the Trading System |
| Sell orders | Number of sell orders in the queue of the Trading System |
| Time of the last | Time when the last trade was concluded |
| Asset* | Asset |
| Base price* | Base price for SWAP instruments |
| Best bid depth* | Total unmatched volume of all active buy orders at the current best bid price (expressed in number of lots) |
| Best offer depth* | Volume of all sell orders at the best price, expressed in lots |

| Column | Description |
|-----------------------------------|--|
| Board Id* | Trading Board Identifier |
| Central rate* | Central rate. Applicable only for instruments settled in RUB ("Currency"/RUB). |
| Check mark* | Check mark field may be used to mark security with color |
| Currency of instrument* | Currency in which security is denominated |
| Date of the last trading session* | Date of the previous trading day |
| Date when the lot size changed* | Date when the lot size changed last time |
| Face value* | Face value of one Security, expressed in the currency, in which the Security is nominated |
| Fully covered trading* | Prohibition of short selling and buying without full pre-funding |
| FX fixing Curr* | FX fixing by orderbook liquidity and deals evaluation method for one second interval |
| FX fixing ME* | Average value of FX fixing Curr calculated from 12:25 till 12:30 |
| FX fixing Prev* | FX fixing ME (of the previous trading session) |
| Instrument Group ID* | Security Group ID |
| Market* | Market ID |
| Minimum price step* | The minimal step by which two prices might differ |
| Open change* | Open change |
| Previous lot size* | Previous number of securities in one lot |
| Remarks* | Remarks |
| Settlement currency* | Settlement currency |
| Settlement date 1* | Settlement date for the 1st part of SWAP trade |
| Total bid depth* | Total unmatched volume of all active buy orders, expressed in lots |
| Total offer depth* | Total unmatched volume of all active sell orders (expressed in lots) |
| Trading status* | Security trading status. During the break shows the actual status of the trading session (never changes to "Break"). |

Columns marked with * are hidden by default.

Description of Securities

The Description of Securities table shows the static information about all the securities traded on boards selected during the logon process.

To open the table perform one of the following actions:

- select the **Description of Securities** item in the **Table > Exchange Tables** menu;
- click the 🔄 button on the toolbar.

| Column | Description |
|-------------|---|
| Security | Security name |
| Security ID | Security identifier in the Trading System |
| Face value | Face value of one Security, expressed in the currency, in which the Security is nominated |

| Column | Description |
|------------------------|---|
| Currency of instrument | Currency in which security is denominated |
| Settlement currency | Settlement currency |

Columns marked with * are hidden by default.

Settlement Codes for the Instrument

"Settlement Codes" table lists all the settlement codes available for the particular instrument.

To open the table first select the needed instrument in the "Securities" table and do one of the following:

- select the Settlement Codes item in the Exchange Tables submenu of the Table menu;
- click the solution on the toolbar;
- select **Settlement Codes** command in the "Securities" table pop-up menu.

| Column | Description |
|------------------|---|
| Settlement code | Settlement code for the instrument. |
| Settlement date | Settlement date for trades. |
| Description | Settlement code description |
| Fixing date | Date of the MOEX fixing calculation |
| Type of clearing | Туре of the clearing for the instrument: "S" - simple (quick), "C" - central, "M" - multilateral, "E" - external, [пусто] - not identified. |

Columns marked with * are hidden by default.

Viewing Orderbooks

Orderbook

The Orderbook table lists the best quotes for a chosen security on the order-driven market. Each line represents the total volume of bids and asks (in lots) at one price.

To open this table first select a security in one of the following tables: "Securities", "Orders", "Orders by Security", "Trades", "Trades by Security" and then perform one of the following actions:

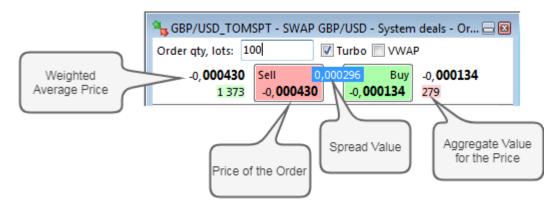
- select the Orderbook item in the Table menu;
- click the solution on the toolbar;
- select the Orderbook item in the table's popup menu;
- double click the row in the Securities table.

In table properties it is possible to select the layout of the Orderbook table and change some of the other display options.

Quick Order Entry (Turbo mode)

Quick Order Entry buttons let quickly submit an order with the best price automatically calculated depending on the specified order value.

Quick Order Entry mode can be disabled/enabled in the table properties on the "Orderbook" tab.



To enter an order from the Orderbook table fill the "Order value" field with the needed quantity of lots. **Sell** and **Buy** buttons captions will be filled with the maximum and minimum price accordingly, enough to satisfy specified order value. If current market demand depth/supply is not enough to completely satisfy order value, "Buy" and "Sell" buttons will be filled with the worst displayed in table Bid/Offer price for the current moment. In this case, the field containing spread value is highlighted in red.

There are two information fields on the form:

- Weighted Average Price;
- Aggregate Value for the Price;
- A field containing spread value between VWA (volume weighted avg.) buy price and VWA sell price for entered volume of order.

Click **Buy** or **Sell** to open the Enter Order dialog, filled with corresponding values.

If **Turbo** option is activated, order entry can be performed in a single click (without calling the Enter Order dialog). This option requires the default value for the Trading Account. Use the "Data Sets" dialog to specify the default Trading Account.

Pay attention: if Turbo mode was activated, Order Confirmation is disabled. Setting the **Turbo** option, window has the red frame and the aim cursor, the head icon changes to open lock.

To avoid errors, use the lock mode: press the si icon to lock orderbook window, then icon changes to closed. To setting up the auto lock time and auto turn off turbo mode use options on the "Adv. options" tab of the "Parameters" window.

Table 7.4. "Orderbook" table columns description

| Column | Description |
|------------------|---|
| Lots | Volume, expressed in lots |
| Rate | Currency exchange rate |
| Own lots* | Volume of own active orders at this price, expressed in lots |
| Own orders* | Number of active own orders at this price |
| Own value* | Value of own active orders at this price, expressed in the currency of settlement |
| Quantity* | Quantity, expressed in securities |
| Rate, %* | SWAP instrument rate, % per year |
| Sum of the best* | Sum of lots at the best price |
| Yield* | SWAP instrument yield, % per year |
| | Quick Order Entry (Turbo mode) controls |

| Column | Description |
|-------------------------------|---|
| Order value | Quantity of lots in the order. Use hotkeys to quickly enter digits: "00" - H, "000" - T or "000 000" - M |
| Turbo mode | If checked, order is submitted immediately after "Buy" or "Sell" button is pressed, without calling "Enter order" dialog. |
| | *Requires the default value for the Trading Account. |
| Sell | Enter Sell order for the specified value. The price is calculated automatically as the maximum price, enough to satisfy specified order value. If current market demand depth is not enough to completely satisfy order value, the Best Bid price for the current moment will be used. |
| Buy | Enter Buy order for the specified value. The price is calculated automatically as the minimum price, enough to satisfy specified order value. If current market supply depth is not enough to completely satisfy order value, the Best Offer price for the current moment will be used. |
| Weighted Average Price | Weighted Average price at which specified order value will be completely satisfied, when entering an order for this value at price shown in "Buy" or "Sell" button caption. |
| Aggregate Value for the Price | Total volume of lots in the visible part of orderbook at price shown in "Buy" or "Sell" buttons captions. |
| | If current market demand/supply depth is not enough to completely satisfy order value, the font will turn red. |

Columns marked with * are hidden by default.

Команды контекстного меню

Щелкните правой кнопкой мыши строку таблицы, чтобы открыть контекстное меню.

| Команда | Описание |
|--------------------------|--|
| Ввести заявку на покупку | Открыть диалоговое окно ввода обычной заявки, подставив параметры из выбранной котировки и установив направленность заявки - на покупку. |
| Ввести заявку на продажу | Открыть диалоговое окно ввода обычной заявки, подставив параметры из выбранной котировки и установив направленность заявки - на продажу. |
| Снять свои | Снять все собственные заявки по данной цене. |
| Снять по условию | Открыть диалоговое окно снятия заявок по условию. |
| Заявки по инструменту | Открыть таблицу с безадресными заявками фирмы по выбранному финансовому инструменту. |
| Сделки по инструменту | Открыть таблицу Сделки фирмы по выбранному финансовому инструменту. |
| График всех сделок | Открыть график всех сделок по выбранному финансовому инструменту. |
| Копировать ячейку | Копировать содержимое выбранной ячейки в буфер обмена. |
| Фильтр | Открыть диалоговое окно настройки фильтра. |
| Использовать фильтр | Включить фильтрацию таблицы. |
| Фильтры | Операции с фильтрами для данного типа таблиц. |
| Шаблоны | Операции с шаблонами для данного типа таблиц. |

| Команда | Описание |
|---------------------|---|
| Настроить котировки | Открыть вкладку "котировки" диалогового окна настройки таблицы. |
| Свойства | Открыть диалоговое окно настройки таблицы. |

Negdealbook

The Negdealbook table lists registered negdeal orders, in which all the trading Participants were marked as counterparty. Each line represents the total volume of bids and asks (in lots) at one price.

To open this table first select a security in one of the following tables: "Securities", "Sent Negdeals / OTC Negdeals", "Trades", "Trades by Security" and then perform one of the following actions:

- select the Negdealbook item in the Table menu;
- click the ^{\$\$} button on the toolbar;
- select the **Negdealbook** item in the table's popup menu;
- double click the row in the Securities table.

| Column | Description | | |
|------------------|---|--|--|
| Firm | Firm name | | |
| Settlement code | Settlement code for the trade | | |
| Lots | Volume, expressed in lots | | |
| Rate | Currency exchange rate | | |
| Firm ID* | Firm identifier in the Trading System | | |
| Order* | Identifier of the order, that led to the trade conclusion | | |
| Quantity* | Quantity, expressed in securities | | |
| Rate, %* | SWAP instrument rate, % per year | | |
| Settlement date* | Trade settlement date | | |
| Yield* | SWAP instrument yield, % per year | | |

Table 7.5. "Negdealbook" table columns description

Columns marked with * are hidden by default.

Best Negdeals

The Best Negdeals table lists best registered negdeal orders for each security, in which all the trading Participants were marked as counterparty.

To open the table perform one of the following actions:

- select the **Best Negdeals** item in the **Table** menu;
- click the ⁹ button on the toolbar;

| Column | Description |
|-----------------|-------------------------------|
| Security | Security ID |
| Board | Board ID for the security |
| Settlement code | Settlement code for the trade |

| Column | Description | | | |
|-------------------|--|--|--|--|
| Settlement date | Negdeal or SWAP first leg settlement date | | | |
| Bid | Best bid price | | | |
| Offer | Best offer price | | | |
| Best bid depth | Total unmatched volume of all active buy orders at the current best bid price, expressed in number of securities | | | |
| Best offer depth | Volume of all sell orders at the best price, expressed in lots | | | |
| Total bid depth | Total unmatched volume of all active buy orders, expressed in lots | | | |
| Total offer depth | Total unmatched volume of all active sell orders (expressed in lots) | | | |
| Buy orders | Number of buy orders in the queue of the Trading System | | | |
| Sell orders | Number of sell orders in the queue of the Trading System | | | |
| Board Id* | Trading Board Identifier | | | |
| Security Id* | Security Identifier | | | |

Columns marked with * are hidden by default.

Viewing Trades

Own Trades

The Trades table lists all the trades concluded by the user (and by other users of the same firm when there have enough permissions).

To open the table perform one of the following actions:

- select the Trades item in the Table menu;
- click the 의 button on the toolbar.

Table 7.7. "Trades" table columns description

| Column | Description | | |
|-----------------|--|--|--|
| Trade number | Trade number in the Trading System | | |
| Time | The time of the trade registration by the Trading System | | |
| Order number | Number of order from which the trade originates | | |
| Firm | ID of the trading firm in whose behalf the trade is registered | | |
| Period | Period of the trading session when the trade was concluded | | |
| Security | Security identifier in the Trading System | | |
| Board | Trading Board name for the security | | |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" | | |
| Rate | Currency exchange rate | | |
| Lots | Volume, expressed in lots | | |
| Amount | Amount of the trade (securities) considering lot size | | |
| Value | Value, expressed in the currency of settlement | | |
| Trading account | Trading account number | | |
| Position code | Account ID in the Settlement House | | |
| Client code | Client code specified by the trader when entering an order | | |
| Settlement code | Settlement code for the trade | | |

| Column | Description | | | |
|------------------------------|---|--|--|--|
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) | | | |
| User ID | ID of the user who concluded the trade | | | |
| Туре | Trade type | | | |
| Counterparty | Counterparty Firm name | | | |
| Total commission | Total amount of commission, RUB | | | |
| Clearing Firm | Firm ID of Clearing Member | | | |
| Clearing Position Code | Clearing Account ID in the Clearing Centre | | | |
| Swap rate, % | SWAP instrument rate, % per year | | | |
| Active/Passive | Active trade - the counter-order was accepted by the Trading System before the user's order. Passive trade - the counter-order was accepted by the Trading System after the user's order. | | | |
| Base price* | Base price could be specified for SWAP negdeals | | | |
| Board Id* | Trading Board Identifier | | | |
| Clearing commission* | Amount of commission fee for clearing, RUB | | | |
| Clearing firm Id* | Clearing firm identifier | | | |
| Counterparty order number | Counterparty order nuber for this trade. Only applicable for negotiated deals. | | | |
| Cpty. Id* | Counterparty Id | | | |
| Currency* | Currency of the instrument (asset) | | | |
| Exchange commission* | Amount of Exchange commission fee, RUB | | | |
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. | | | |
| Firm Id* | Firm identifier in the Trading System | | | |
| Fixing date* | Date of the ME fixing calculation | | | |
| Liability settlement trade | Trade was concluded as liability settlement trade between Clearing member and Trading member. | | | |
| Parent trade* | Parent trade number for SWAP trades | | | |
| Security Id | Security Identifier | | | |
| Settlement currency* | Settlement currency (quote currency) | | | |
| Settlement date* | Negdeal or SWAP first leg settlement date | | | |
| Settlement organization* | Settlement organization for the trade | | | |
| Technical access commission* | Amount of commission for Technical access, RUB | | | |
| Trade by iceberg-order* | Set to 'Y' if Trade originates from an iceberg-order | | | |
| Trade date* | Trade date | | | |
| User Id* | User identifier in the Trading System | | | |
| Microseconds | Trade registration time, microseconds | | | |

Columns marked with * are hidden by default.

Trades by Security

The Trades by Securities table lists all the trades with a particular security concluded by the user and other users of his firm.

To open the table first select a security in one of the following tables: "Securities", "Orderbook", "Orders", "Sent Negdeals / OTC Negdeals", "Received negdeals" and then select the **Trades by Security** item in the table's popup menu.

"Trades by security" table columns description

Table structure is similar to the "Trades" table.

All Trades

The All Trades table lists all the trades on the order-driven market concluded since the beginning of the trading session. Trade parties are not disclosed.

To open the table perform one of the following actions:

- select the All Trades item in the Table menu;
- click the 🗊 button on the toolbar.

| Column | Description | | | |
|------------------|--|--|--|--|
| Trade #. | Trade number in the Trading System | | | |
| Time | The time of the trade registration by the Trading System | | | |
| Security | Security identifier in the Trading System | | | |
| Board | Trading Board name for the security | | | |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" | | | |
| Rate | Currency exchange rate | | | |
| Lots | Trade value, expressed in lots | | | |
| Amount | Amount of the trade (securities) considering lot size | | | |
| Value | Value, expressed in the currency of settlement | | | |
| Settlement code | Settlement code for the trade | | | |
| Rate, % | Rate, % | | | |
| Board Id* | Trading Board Identifier | | | |
| Period* | Period of the trading session when the trade was concluded | | | |
| Security Id* | Security Identifier | | | |
| Settlement date* | Trade settlement date | | | |

Table 7.8. "All Trades" table columns description

Columns marked with * are hidden by default.

'Auctions' table

Table contains the information on ongoing and previously held auctions on FX market.

To open the table select the following command sequentially in the top menu: **Table > Exchange Tables** Auctions.

Table 7.9. "Auctions" table columns description

| Column | Description |
|----------------------|--|
| Planned Auction Time | Auction start time according to the trading schedule |
| Board | Board ID for the security |

| Column | Description | | | | |
|--|---|--|--|--|--|
| Security | Security ID | | | | |
| Auction start time | Actual auction start time | | | | |
| Auction end time | Auction auction end time | | | | |
| Period | Trading session period | | | | |
| Auction price | Auction price. Displays the expected price of the auction with all the currently registered orders during the auction. Displays the actual auction price after the auction. | | | | |
| Value | Auction trade value, expressed in the currency of settlement. Shows expected value during the auction and the final value once it finishes. | | | | |
| Trade volume | Total volume of all trades, expressed in number of securities. Shows expected volume during the auction and the final volume once it finishes. | | | | |
| Trades | Number of trades | | | | |
| Imbalance | Total volume of orders that will be left unmatched if the auction ends with currently expected price | | | | |
| Market Buy | Total volume of market buy orders based on currently expected price, expressed in number of securities | | | | |
| Market Sell | Total volume of market sell orders, expressed in number of securities | | | | |
| Orders flag (dark pools) | Flag that shows the availability of any orders on the dark pool auction. | | | | |
| Board Id* | Board Id | | | | |
| Security Id* | Security Id | | | | |
| Auction status | Active | | | | |
| | Canceled | | | | |
| | Hidden | | | | |
| | Hidden | | | | |
| | Not active | | | | |
| | Undefined | | | | |
| Trade direction | Buy (Sell/Buy) | | | | |
| | Sell (Buy/Sell) | | | | |
| Firm | Firm ld | | | | |
| Minimum buy price/swap- difference | Auction minimum price | | | | |
| Maximum sell price/swap- difference | Auction maximum price | | | | |
| WA | Weighted average price | | | | |
| Auction ID/negdeal session | Auction ID | | | | |

Columns marked with * are hidden by default.

Chapter 8. Working with Orders

Order-driven Market

Order Entry

To submit an order on the order-driven market do one of the following:

- press the F2 key on the keyboard;
- click the D button on the toolbar after selecting a security in the Securities table;
- select the Enter item in the Order submenu of the Action menu;
- double click a quote in the Orderbook table;
- use Quick Order Entry buttons (Turbo mode) in the "Orderbook" table;
- select the Enter Order item in the popup menu of the Securities table;
- select the Enter Buy Order or the Enter Sell Order in the popup menu of the Orderbook table;
- select one of the previous orders in the Orders table and then select the **Copy** item in the **Order** submenu of the **Action** menu or in the table's popup menu.

If the Enter Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table. If the action was invoked from the Orderbook table then "Price" and "Quantity" fields will be also filled-in and the order direction will be set to the opposite of the chosen quote's direction.

Window background is green for buy orders and red for sell orders.

The submitted order is displayed in the Orders and the Orders by Security tables. Once it's matched with a corresponding trade will appear in the Trades and the Trades by Security tables.

| er Order | Sell | | <u>Rep</u> | eat Last | Type Limit | ? | × |
|---|---|--------------------------|---------------------------------------|-----------------------|---|-------------------------|-----|
| CNYRUB_TOM, Price: Quantity: Lot size: 1 000 Value: 500 000 Hidden qty.: | settlement date: 10.10. | 8,5 8,5 1K 100K | S6000 ⊥ 73000 La 10K 500K | † ist 50K 1M | Market Volume weigh Remainder proce Put into queue Withdraw Immediately of Book or cance Price mode Split price One price By WA price Lifetime | e e r cancel I | ode |
| Firm: Trd. account: Client: Commission and Commission, rul | Кузнецова LOO+4190ACE0 d Single Limit for the Or c.: SL de | _ | Clearir accour Refere | | 12024 SL after order entry | | ~ |

"Order Entry" dialog features

- "Buy" and "Sell" tabs at the top of the window to change order direction. Press **Ctrl+Tab** to quickly switch to another tab.
- Best Bid and Offer rates as well as Last trade price are displayed to the right of the "Price" field. Click one of these rates to fill the "Price" field with the same value.
- Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security.
- Order volume can be quickly set up by clicking one of the numbers of securities multiple to 1, 10, 50, 100, 500, 1000 to the right of the **Quantity** field. **Ctrl**-click one of these buttons to increase the number of lots accordingly.
- "Value" field is located on the bottom of the order specification area. Its content changes accordingly to the content of "Price" and "Quantity" fields. Enter the desired order value and click " > quantity" button to calculate and fill the "Quantity" field with appropriate number of lots to reach the desired order value on the price specified.

| Table 8.1. Elements of the "Enter Order" dialo |
|--|
|--|

| Element | Description | | | |
|--------------------------|--|--|--|--|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. | | | |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. | | | |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. Use the from to toggle between security ID and currency pair | | | |
| | selection modes. | | | |
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. | | | |
| | Use the ⁽¹⁾ icon to toggle between security ID and currency pair selection modes. | | | |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: | | | |
| | • up and down arrow buttons to the right of the entry field; | | | |
| | • up and down arrow keys on the keyboard; | | | |
| | • mouse wheel; | | | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; | | | |
| | • Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. | | | |
| | Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security. | | | |
| | * When "System fixing" is selected in the "Board" drop-down list and FIX instrument as a security than Price field is cleared and becomes disabled, "Price mode" is obligatory set as "Split" . | | | |
| Quantity | Number of lots of the selected security. In addition to manual entry the following options are available: | | | |
| | • up and down arrow buttons to the right of the entry field; | | | |
| | • up and down arrow keys on the keyboard; | | | |
| | • mouse wheel; | | | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; | | | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly | | | |
| | • click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl | | | |

| Element | Description |
|---------------------------|--|
| | +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. |
| Lot size | Information field: number of securities in one lot. |
| Value | Order value considering price, quantity and lot size. |
| Hidden qty. | Number of hidden lots that will be added to the visible lots during the order gradual fulfillment (for "iceberg" orders). |
| Value | Enter the desired order value and click " > quantity" button to calculate and fill the "Quantity" field with appropriate number of lots to reach the desired order value on the price specified. |
| Currency | Information field: settlement currency for the selected security. |
| Туре | Order type: |
| | Limit – BUY/SELL order is fulfilled at the price not higher/lower than price that was specified. |
| | Market – order is fulfilled at the current best price. (Price field is disabled and remainder processing mode is "Put into queue"). |
| | VWAP - order will fulfilled so that the price specified will be not higher/ lower than volume-weighted average price by all the trades which was executed as the result of the order. |
| Remainder processing mode | Put into queue – (good till cancel) order to be filled to the maximum extent possible immediately after its registration, the unfilled quantity will be placed in queue as a Limit Order. |
| | Withdraw – order to be filled to the maximum extent possible immediately after its registration, any unfilled quantity will be withdrawn from the queue. |
| | Immediately or cancel – order to be completely filled after registration, otherwise cancelled |
| | Book or cancel – order to be withdrawn by trading system if it's putting into order queue will lead to a trade conclusion order to be completely filled after registration |
| Price mode | Split - order may be filled both at specified price and at the better price. |
| | Do not split – order may be filled at the specified price only. |
| By WA price | Submit the order at the current weighted-average price (Price field is disabled). |
| Lifetime | Lifetime for unfulfilled quantity. "0:00:00" = till the end of the trading session. |
| Firm | Firm for the trade. Order entry by clearing member. |
| Trd. account | Trading account for the trade. |
| Client | Client code if the order is submitted on behalf of the client. |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. |
| Reference | Additional notes (broker reference). |

| Element | Description |
|---|---|
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Commission and Single Limit for the Order | Click ? to calculate commission, SL delta and SL after entry for the order. |
| Close | Close the dialog. |
| Repeat Last | Repeat previous order specification. |

SWAP Order Entry

To submit a SWAP order on the order-driven market do one of the following:

- press the F4 key on the keyboard;
- ullet select a SWAP instrument in the Securities table and click the \square on the toolbar;
- select the Enter SWAP item in the Order submenu of the Action menu;
- double click a quote in the Orderbook table of a SWAP instrument;
- select the Enter SWAP Order item in the popup menu of the Securities table after selecting a SWAP instrument;
- select the Enter Buy Order or Enter Sell Order in the popup menu of the Orderbook table of a SWAP instrument;
- select one of the previous orders in the Orders table and then select the **Copy** item in the **Order** submenu of the **Action** menu or in the table's popup menu.

If the Enter SWAP Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table. If the action was invoked from the Orderbook table then "Price" and "Quantity" fields will be also filled-in and the order direction will be set to the opposite of the chosen quote's direction.

Window background is green for buy orders and red for sell orders.

The submitted order is displayed in the Orders and the Orders by Security tables. Once it's matched with a corresponding trade will appear in the Trades and the Trades by Security tables.

| ter SWAP Order | | | | | ? × |
|-------------------------------------|--------------------|--------------------------|--------------------------------------|---------------------|------------|
| Sell/Buy | Buy | /Sell | <u>Repeat La</u> | <u>st</u> | |
| Board: | System deal | s | \sim | Lifetime | 0:00:00 |
| Security: | | м | ~ | | |
| Settl. code: T1, | settl. date: 21.09 | .2023 / 22.09.2 | 023 | | |
| Price: | 0,002916 | ? 0 | ,002725 ,002916 † ,002725 Last | | |
| Rate, %: | 8,7602 | Rate (HKD): | 0% | | |
| Quantity: | 500 | ? 100K | 1M 5M |] | |
| Lot size: 100 00 Value: 50 000 0 | 0 00 HKD | | 50M 100M | | |
| Hidden qty.: | × | | | | |
| Total quantity: | 500, amount: 50 (| 000 000 HKD | | | |
| Firm: | Test identifier | \sim | | | |
| Trd. account: | L00+4190ACE0 | ~ | Clearing bar account: | ^{1k} 12024 | |
| Client: | 3473141532 | ~ | Reference: | | ~ |
| Position change | 5 | | | | |
| Origin | - | | | | |
| HKD: RUB: | | | 50 000 000,00 07 484 250,00 | Price: | 12,149685 |
| Effect | | | , | | |
| HKD: | | | 50 000 000,00 | Price: | 12,152601 |
| RUB: | | -0 | 07 630 050,00 | | |
| Commission and Commission, rub | d Single Limit for | the Order ? SL delta: | | SL after order | antor |
| commission, fut | 3 644,91 | SE GEILA: | 663 900,00 | | 332 455,09 |
| | | | | | |
| Enter C | Drder | | | | Close |

"SWAP Order Entry" dialog features

- "Buy" and "Sell" tabs at the top of the window to change order direction. Press **Ctrl+Tab** to quickly switch to another tab.
- Best Bid and Offer rates as well as Last trade price are displayed to the right of the "Price" field. Click one of these rates to fill the "Price" field with the same value.
- Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security.

• Order volume can be quickly set up by clicking one of the numbers of securities multiple to 1, 10, 50, 100, 500, 1000 to the right of the **Quantity** field. **Ctrl**-click one of these buttons to increase the number of lots accordingly.

| Element | Description |
|---------------------------------|--|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. Use the from icon to toggle between security ID and currency pair selection modes. |
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. Use the ficon to toggle between security ID and currency pair selection modes. |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: up and down arrow buttons to the right of the entry field; up and down arrow keys on the keyboard; mouse wheel; hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. Click the "?" button located near the "Price" field to show the upper and |
| | lower price limits for the selected security. |
| Rate, % * | Rate for the security expreseed in percent/year. |
| Rate(CURRENCY), % * Quantity | Information field: percent rate for the currency. Number of lots of the selected security. In addition to manual entry the following options are available: up and down arrow buttons to the right of the entry field; up and down arrow keys on the keyboard; mouse wheel; hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly |

Table 8.2. Elements of the "Enter SWAP Order" dialog

| Element | Description |
|---|--|
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. |
| Hidden qty. | Number of hidden lots that will be added to the visible lots during the order gradual fulfillment (for "iceberg" orders). |
| Lot size | Information field: number of securities in one lot. |
| Value | Order value considering price, quantity and lot size. |
| Lifetime | Lifetime for unfulfilled quantity. "0:00:00" = till the end of the trading session. |
| Firm | Firm for the trade. Order entry by clearing member. |
| Trd. account | Trading account for the trade. |
| Client | Client code if the order is submitted on behalf of the client. |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. |
| Reference | Additional notes (broker reference). |
| Position changes | A set of information fields describing positions changes by base and settlement currencies. |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Commission and Single Limit for the Order | Click 🕐 to calculate commission, SL delta and SL after entry for the order. |
| Close | Close the dialog. |
| Repeat Last | Repeat previous order specification. |

Editing Orders

To edit an order that hasn't been fully matched yet, select an order in the Orders or the Orders by Security table and do one of the following:

- press the Ctrl+A keys on the keyboard;
- select the Edit item in the Order submenu of the Action menu;
- click the *button* on the toolbar;
- select the Edit item in the popup menu of the Orders or Orders by Security table.

"Edit Order" is similar to the Order Entry form. Window title contains order number in the Trading System.

During editing the order is withdrawn from the Trading System queue. Click **Enter Order** to submit modified order. Click **Restore** button to submit the original order and close the dialog. It also can be done by pressing **Escape** key. Click **Close** to leave the order withdrawn.

Entering the modified order is similar to withdrawing original and submitting a new one - order loses its position in the Trading System orders queue and moves to the end of the queue.

Elements of the "Edit Order" dialog

"Edit Order" dialog is similar to the "Enter Order". The following fields are available for edits:

- Price
- Quantity
- Lifetime
- Client / Reference

Click "Restore" to discard all the changes and restore the original order.

Order Withdrawal

Withdraw Particular Orders

To withdraw one or several own orders follow these steps:

1. Select orders in the Orders or the Orders by Security table.

Hold Ctrl button to select several orders and Shift to select a range of rows.

- 2. Do one of the following:
 - select the Withdraw item in the Order submenu of the Action menu;
 - click the 🛃 button on the toolbar;
 - press the Del key on the keyboard;
 - select the Withdraw item in the table's popup menu.
- 3. Confirm the order(s) withdrawal. Confirmation can be disabled in the program options.

Withdraw Orders by Condition

To withdraw orders by some condition open one of the following tables: Orders, Orders by Security or Orderbook and then select the **Withdraw by Condition** item in the **Order** submenu of the **Action** menu or in the table's popup menu.

The dialog box contains fields which can be optionally filled-in to withdraw all the orders that match the given parameters.

| Buy | Sell | |
|------------------------------|--|--|
| | | |
| Board: | Trading session UTS 🔹 | |
| Security: | BKTRUB_TOM - BYR/RUB | |
| | | |
| Firm: | Firm name | |
| Trader: | MD0000600007 | |
| Price: | Image: A marked black state Image: A marked state < | |
| Trading account: | | |
| Client: | | |
| Withdraw buy and sell orders | | |
| Withdraw Orders Close | | |

Table 8.3. Elements of the "Withdraw Orders by Condition" dialog

| Field | Description |
|------------------------------|--|
| Buy/Sell | Select the direction of orders to be withdrawn. |
| Board | Name of the Trading Board to withdraw orders on. Double-click this field to open Datasets dialog. |
| Security | Name of the security, orders for which would be withdrawn. Double-click this field to open Datasets dialog for Securities. |
| Firm | Information field containing identifier of Participant's firm. |
| Trader | Identifier of the Participant who has submitted an order. By default this field contains ID of the user, who has opened the dialog. To withdraw orders of all traders, click this field and then press the Delete button to clear it. |
| Price | Price and its filtering conditions: -withdraw orders with exact specified price; -withdraw orders with price lower than specified; -withdraw orders with price higher than specified. |
| Trading account | Withdraw orders submitted from the selected trading account. |
| Client | Withdraw orders submitted with selected client code. |
| Withdraw buy and sell orders | Withdraw orders of both directions: buy and sell. |

If the Enter Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table. If the action was invoked from the Orderbook table then "Price" and "Quantity" fields will be also filled-in and the order direction will be set to the opposite of the chosen quote's direction.

Click **Withdraw Orders** button and confirm an operation. Confirmation can be disabled in the program options.

Withdraw Orders by Security

To withdraw all the own orders with one security, select it in the Securities table and then select the **Withdraw** item in the **Order** submenu of the **Action** menu or in the table's popup menu.

Withdraw All Own Orders

To withdraw all own orders open one of the following tables: Orders or Orders by Security and then select the **Withdraw All Own** item in the **Order** submenu of the **Action** menu or in the table's popup menu.

Confirm the orders withdrawal. Confirmation can be disabled in the program options.

Withdraw All Orders of the Firm

To withdraw all orders of the own firm open one of the following tables: Orders or Orders by Security and then select the **Withdraw All** item in the **Order** submenu of the **Action** menu.

Confirm the orders withdrawal. These way of withdrawal cannot be disabled.

Orders Table

The Orders table lists all the orders on the order-driven market entered by the users of the firm during the current trading session.

To open the table do one of the following:

- select the Orders item in the Table menu;
- click the 🗎 button on the toolbar.

Double click the row to open quotes table for a chosen security.

| Column | Description |
|--------------|---|
| Order number | Order ID in the Trading System |
| Order time | The time of the order registration at the Trading System |
| Status | Current order status: |
| | 'Act' - active; |
| | '+' - matched; |
| | '-CP' - rejected by counterparty; |
| | '-TS' - rejected by the Trading System; |
| | '-' - withdrawn |
| | '-C' - cancelled by the Trading System; |
| | '-D' - cancelled by the Trading System on user's disconnect (COD) |

 Table 8.4. "Orders" table columns description

| Column | Description |
|--------------------------|--|
| | 'Error' - Internal error occured |
| | 'Not activated. Lack of collateral' - order was not activated due to insufficiency of collateral. |
| Firm | ID of the trading firm on whose behalf the order is entered |
| Period | Trading session period at which the order was entered |
| Security | Security ID |
| Board | Trading Board name for the security |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" |
| Rate | Currency exchange rate |
| Lots | Volume, expressed in lots |
| Amount | Number of securities in the order |
| Hidden lots | Hidden lots |
| Lots left | Volume of unmatched part of an order, expressed in lots |
| Value | Value, expressed in the currency of settlement |
| Trading account | Trading and clearing account identifier |
| Position code | Account ID in the Settlement House |
| Client code | Client code assigned by the broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Order lifetime | Time when the order will be automatically withdrawn |
| Update time | Time when the order was updated last time (matched, cancelled) |
| User ID | ID of the user who has entered the order |
| Туре | Order type: "limit/market" |
| Order processing type | Append to orderbook, fill or kill, withdraw remainder |
| Price type | Order type option: "allow/not allow price split" |
| Entry type | Price entry type - "at exchange rate/at WA price" |
| Market-maker | Market-maker's order |
| Amended order number* | ID of the order that was replaced by the given order |
| Board Id* | Trading Board Identifier |
| Commission | Amount of commission for the trade, RUB |
| Currency | Currency of the instrument (asset) |
| External user ID* | User ID of the external system user who entered the original order into that external system. |
| Firm Id* | Firm Identifier |
| Fixing date* | Date of the ME fixing calculation |
| Security Id* | Security Identifier |
| Settlement code* | Settlement code for the trade |
| Settlement currency* | Settlement currency for the security |
| Settlement date* | Negdeal or SWAP first leg settlement date |
| Settlement organization* | Settlement organization for the trade |
| Signature* | Equivalent of a handwritten signature |

| Column | Description |
|-------------------|---|
| Updater user ID | Identifier of the User who edited or cancelled the order |
| User Id* | Identifier of user who submitted an order |
| Visible quantity* | Volume of unmatched part of an iceberg-order, displayed in orderbook, expressed in lots |
| Тип ввода заявки* | Order input method (Compliance Id). Possible values: |
| | [empty] – Not filled in / Not defined |
| | M – Manual input |
| | S – As a result of the conditional request (stop-loss order) |
| | R – As a result of the robot algorithm work |
| | A – As a result of the auto-following algorithm |
| | D – Covering a position as a result of an unexecuted Margin Call. |

Columns marked with * are hidden by default.

Orders by Security

The Orders by Security table lists all the orders for a particular security on the order-driven market entered by the users of the firm during the current trading session.

To open the table select a security in the Securities table or open the Orderbook and then select the Orders by Security in the table's popup menu.

"Orders by Security" table columns description

Table structure is similar to the "Orders" table.

Own Negdeal Orders

Negdeal / OTC Negdeal Entry

In order to send a negotiated deal order to the counterparty do one of the following:

- press the F3 key on the keyboard;
- select the Enter item in the Negdeal submenu of the Action menu;
- select a security in the Securities table and click the solution on the toolbar or select the Enter Negdeal item in the table's popup menu;
- select one of the previous orders in the Sent Negdeals / OTC Negdeals table and then select the Copy item in the Negdeal submenu of the Action menu or in the table's popup menu.

| inter Negdeal / OTC | Negdeal | ? | × |
|---|--|--------------------------|---------|
| Buy | Sell | Repea | t Last |
| Board: Security: | Negotiated deals V EURUSD_SPT V Settlement code: T2 Settlement date: 23.00 | | ~ |
| Counterparty: | FreedomFin 🗸 Addressee alias: | | |
| Max: 1,2173 Price: 1,1514 Min: 1,1514 | 80 🚔 ? Quantity: 55 000 000 🚔 ? | | DK M |
| | узнецова V OO+4190ACE1 V Clearing bank 12023 account: 12023 | | |
| Client: | ✓ Reference: | | \sim |
| | Match ref.: | | \sim |
| Commission, rub.: | ingle Limit for the Order (?) SL delta: SL after order 62 195,17 13 862 458,06 60 | r entry: 122 884 410, | ,01 |
| Enter Ord | ler | Clos | e |

If the Enter Negdeal action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table.

Window background is green for buy orders and red for sell orders.

The submitted order is displayed in the Sent Negdeals / OTC Negdeals table. Once it's matched with a corresponding trade will appear in the Trades and the Trades by Security tables.

Table 8.5. Elements of the "Enter Negdeal / OTC Negdeal" dialog

| Element | Description |
|--------------------------|---|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. Use the ficon to toggle between security ID and currency pair selection modes. |
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. |

| Element | Description |
|-----------------|--|
| | Use the 💮 icon to toggle between security ID and currency pair selection modes. |
| Settlement code | Settlement code for the trade. When selected the additional information field "Settlement date" is displayed. |
| Counterparty | Name of the firm the negdeal is addressed to. |
| Addressee alias | Alias of the counterparty firm. |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. |
| | Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security. |
| | * When "Negotiated fixing" is selected in the "Board" drop-down list and FIX instrument as a security than Price field is cleared and becomes disabled. |
| Quantity | Number of lots of the selected security. In addition to manual entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. |
| Lot size | Information field: number of securities in one lot. |
| Value | Order value considering price, quantity and lot size. |
| Firm | Firm for the trade. Order entry by clearing member. |
| Trd. account | Trading account for the trade. |

| Element | Description | |
|---|---|--|
| Client | Client code if the order is submitted on behalf of the client. | |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. | |
| Reference | Additional notes (broker reference). | |
| Match ref. | Matching reference for counter-orders. | |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options | |
| Comission and Single Limit for the Order | Click 🕐 to calculate commission, SL delta and SL after entry for the order. | |
| Close | Close the dialog. | |
| Repeat Last | Repeat previous order specification. | |

Complex Negdeal Entry

Complex Negdeal entry dialog provides the ability to send the Negotiated deal order to be concluded between clearing member and its trading member firm for clearing or to send the Negotiated deal order to be concluded between Trading Accounts of one firm.

To open the **Enter Complex Negdeal** dialog select the following commands sequentially in the top menu: **Action > Negdeal > Enter complex**.

| nter Complex Nego | leal | ? × |
|--------------------------------------|--|---|
| Buy | Sell | Repeat Last |
| Board: Security: | Negotiated deals EUR/USD_TOD - EUR/USD | ✓ Settlement code: T0 ✓ Settlement date: 07.08.2019 |
| Price: 1,229 | 380 🔹 ? Quantity: Lot size: 1 Value: 11 El | 11 (* ?) 1 10 50 100 500 1k |
| Clearing bank | MB9022702918 V 02918 V | Sell from account Firm: HOMOC_YK Trd. account: MB9022702917 Clearing bank account: 02917 Client: ✓ Reference: ✓ |
| Commission and S Commission, rub. | Single Limit for the Order ? SL delta: | SL after order entry: |
| Enter Or | der | Close |

Table 8.6. Elements of the "Enter Complex Negdeal" form

| Element | Description | |
|--------------------------|--|--|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. | |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. | |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. Use the final icon to toggle between security ID and currency pair selection modes. | |
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. Use the from icon to toggle between security ID and currency pair selection modes. | |
| Settlement code | Settlement code for the trade. When selected the additional information field "Settlement date" is displayed. | |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: | |

| Element | Description | |
|--|--|--|
| | up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard; | |
| | • mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. | |
| | Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security. | |
| Quantity | Number of lots of the selected security. In addition to manual entry the following options are available: | |
| | up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard; | |
| | • mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly | |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. | |
| Lot size | Information field: number of securities in one lot. | |
| Value | Order value considering price, quantity and lot size. | |
| "Buy to account" / "Sell from account" | Fields are arranged according order direction. | |
| Trd. account | Trading account for the trade. | |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. | |
| Client | Client code if the order is submitted on behalf of the client. | |
| Reference | Additional notes (broker reference). | |
| Firm | Name of the counterparty firm which the negdeal is addressed to. | |
| Match ref. | Matching reference for counter-orders. | |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options | |
| Close | Close the dialog. | |
| Repeat Last | Repeat previous order specification. | |
| | | |

Negdeal SWAP Order Entry

In order to send a negotiated deal SWAP order to the counterparty do one of the following:

- press the F6 key on the keyboard;
- select the Enter SWAP item in the Negdeal / OTC Negdeal submenu of the Action menu;
- select a SWAP instrument in the Securities table and click the solution on the toolbar or select the Enter SWAP Negdeal item in the table's popup menu;
- select one of the previous orders in the Sent Negdeals / OTC Negdeals table and then select the Copy item in the Negdeal / OTC Negdeal submenu of the Action menu or in the table's popup menu.

| Enter SWAP Negdeal | | | ? × |
|---|--|--------------------------------------|---|
| Sell/Buy | Buy/Sell | | Repeat Last |
| Board: | Negotiated deals | ~ | |
| Security: 🐠 | CNY_TODTOM | Settlement code: | |
| | | | .2023 / 04.12.2023 |
| Counterparty: | Help Desk1 | Addressee alias: | entry2 |
| Max: 0,0522 Price: 0,0522 Min: -0,022 Max: 50,903 Rate, %: 50,903 Min: -21,82 | Quantity 39 Lot size: 33 Value: 1 33 Rate (CNY): 0 | 1 000 000 CNY | 1K 10K 50K 100K 500K 1M |
| | анецова V+4190ACE0 V | account: | × |
| | | Match ref.: | ~ |
| Position changes | | | |
| Origin CNY: RUB: | | -1 000 000,00 12 483 780,00 | ce: 12,48378 |
| Effect CNY: | | 1 000 000,00 Pri | 13 52601 |
| RUB: | | -12 536 010,00 | ce: 12,53601 |
| Commission and Sin | gle Limit for the Order 🕜 |) | |
| Commission, rub.: | SL delta: 74,90 | | r order entry: 921 725,10 |
| Enter Orde | r | | Close |

If the Enter Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table.

Window background is green for buy orders and red for sell orders.

The submitted order is displayed in the Sent Negdeals / OTC Negdeals table. Once it's matched with a corresponding trade will appear in the Trades and the Trades by Security tables.

Table 8.7. Elements of the "Enter SWAP Negdeal" dialog

| Element | Description | |
|--------------------------|---|--|
| Buy/Sell tabs at the top | Order direction: Sell/Buy or Buy/Sell. | |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. | |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. Use the ficon to toggle between security ID and currency pair selection modes. | |
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. Use the from icon to toggle between security ID and currency pair selection modes. | |
| Settlement code | Settlement code for the trade. When selected the additional information field "Settlement date" is displayed. | |
| Counterparty | Name of the firm the negdeal is addressed to. | |
| Addressee alias | Alias of the counterparty firm. | |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available:up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard;mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. | |
| | Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security. | |
| Rate, % * | Rate for the security expreseed in percent/year. | |
| Rate(CURRENCY), % * | Information field: percent rate for the currency. | |
| | Please note: | |
| | "Price" and "Rate, %" fields are interrelated. When one of these fields are filled, the other one is filled with the automatically calculated value. | |

| Element | Description | |
|---|--|--|
| Quantity | Number of lots of the selected security. In addition to manual entry the following options are available: | |
| | • up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard; | |
| | • mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly | |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. | |
| Lot size | Information field: number of securities in one lot. | |
| Value | Order value considering price, quantity and lot size. | |
| Firm | Firm for the trade. Order entry by clearing member. | |
| Trd. account | Trading account for the trade. | |
| Client | Client code if the order is submitted on behalf of the client. | |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. | |
| Reference | Additional notes (broker reference). | |
| Match ref. | Matching reference for counter-orders. | |
| Position changes | A set of information fields describing positions changes by base and settlement currencies. | |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options | |
| Comission and Single Limit for the Order | Click ? to calculate commission, SL delta and SL after entry for the order. | |
| Close | Close the dialog. | |
| Repeat Last | Repeat previous order specification. | |

Complex Negdeal SWAP Entry

Negdeal SWAP entry dialog provides the ability to send the Negotiated SWAP deal order to be concluded between clearing member and its trading member for clearing or to send the Negotiated SWAP deal order to be concluded between Trading Accounts of one firm.

To open the **Enter Complex SWAP Negdeal** dialog select the following commands sequentially in the top menu: **Action > Negdeal > Enter Complex SWAP**.

| Sell/Buy | Buy/Sell | | | Repeat Las |
|---|---------------------------|---------------------------|-----------------|------------|
| Board: | Negotiated deals | ~ | | |
| Security: | TOM_6M SWAP EUR/RUB | Settlement | t code: F6M | ~ |
| Jeeding. | | | t date: 10.02.2 | |
| | | | | |
| Price: 1,2 | 2764 🍦 ? Quantity | c 1 | | 10 50 |
| | Lot size: | 100 | 100 | 500 1k |
| | Value: 10 | | | |
| Rate, %: 2,9 | 9999 Rate (EUR): | 0% | | |
| | | | | |
| Sell from account | | Buy to account | | |
| in an according | B9022702917 🗸 | Firm: | НОМОС_УК | \sim |
| Clearing bank 02 | 917 | | | |
| Client: | ~ | Trd. account: | MB90227029 | 917 🗸 🗸 |
| | | Clearing bank account: | 02917 | |
| Reference: | ~ | Client: | | \sim |
| | | Reference: | | ~ |
| Match ref.: | ~ | | | |
| Position changes — | | | | |
| Origin | | _ | _ | |
| EUR: | | -100,00 | Price: | 83,5451 |
| RUB: | | 8 354,51 | | |
| Effect | | | | |
| EUR: | | 100,00 | Price: | 84,8215 |
| RUB: | | -8 482,15 | | |
| Commission and Sir | gle Limit for the Order 🕐 | | | |
| Commission, rub.: SL delta: SL after order entry: | | ntrv: | | |
| | - | - | | - |
| | | | | |
| Enter Orde | | | | Close |

Table 8.8. Elements of the "Enter Complex Negdeal SWAP" dialog

| Element | Description | |
|--------------------------|--|--|
| Buy/Sell tabs at the top | Order direction: Sell/Buy or Buy/Sell. | |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. | |
| Security | Select the needed security in the drop-down list containing names, ID and Check marks. | |
| | Use the ¹ icon to toggle between security ID and currency pair selection modes. | |

| Element | Description | |
|---------------------|--|--|
| Pair | Select the needed currency pair in the drop-down list and then select trade term in the next drop-down list. | |
| | Use the filling icon to toggle between security ID and currency pair selection modes. | |
| Settlement code | Settlement code for the trade. When selected the additional information field "Settlement date" is displayed. | |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: | |
| | • up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard; | |
| | • mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. | |
| | Click the "?" button located near the "Price" field to show the upper and lower price limits for the selected security. | |
| Quantity | Number of lots of the selected security. In addition to manual entry the following options are available: | |
| | up and down arrow buttons to the right of the entry field; | |
| | up and down arrow keys on the keyboard; | |
| | • mouse wheel; | |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; | |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly | |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. | |
| Lot size | Information field: number of securities in one lot. | |
| Value | Order value considering price, quantity and lot size. | |
| Rate, % * | Rate for the security expreseed in percent/year. | |
| Rate(CURRENCY), % * | Information field: percent rate for the currency. | |
| | Please note: | |
| | "Price" and "Rate, %" fields are interrelated. When one of these fields are filled, the other one is filled with the automatically calculated value. | |

| Element | Description |
|--|---|
| "Buy to account" / "Sell from account" | Fields are arranged according order direction. |
| Trd. account | Trading account for the trade. |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. |
| Client | Client code if the order is submitted on behalf of the client. |
| Reference | Additional notes (broker reference). |
| Firm | Name of the counterparty firm the negdeal is addressed to. |
| Match ref. | Matching reference for counter-orders. |
| Position changes | A set of information fields describing positions changes by base and settlement currencies. |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Close | Close the dialog. |
| Repeat Last | Repeat previous order specification. |

Editing Sent Negdeal Orders

To change a negdeal order which hasn't been accepted by the counterparty yet, select it in the Sent Negdeals / OTC Negdeals table and do one of the following:

- select the **Edit** item in the **Negdeal / OTC Negdeal** submenu of the **Action** menu or in the table's popup menu;
- press the 📝 button on the toolbar;

"Edit Order" is similar to the Order Entry form. Window title contains order number in the Trading System.

During editing the order is withdrawn from the Trading System queue. Click **Enter Order** to submit modified order. Click **Restore** button to submit the original order and close the dialog. It also can be done by pressing **Escape** key. Click **Close** to leave the order withdrawn.

Entering the modified order is similar to withdrawing original and submitting a new one - order loses its position in the Trading System orders queue and moves to the end of the queue.

Negdeal Order Withdrawal

Withdraw Particular Orders

To withdraw a negdeal order which hasn't been accepted by the counterparty yet, first select an order in the Sent Negdeals / OTC Negdeals table and then do one of the following:

- select the Withdraw item in the Negdeal / OTC Negdeal submenu of the Action main menu;
- click the button on the toolbar;
- press the **Del** key on the keyboard;
- select the Withdraw item in the table's popup menu.

Withdraw all orders of the firm

To withdraw all the negdeal orders of the firm that haven't been accepted by counterparties, open the Sent Negdeals / OTC Negdeals table and then select the Withdraw All item in the Negdeal / OTC Negdeal submenu of the Action menu.

Withdraw all own orders

To withdraw all the own negdeal orders that haven't been accepted by counterparties, open the Sent Negdeals / OTC Negdeals table and then select the Withdraw All Own item in the Negdeal / OTC Negdeal submenu of the Action menu or in the table's popup menu.

Withdraw orders by condition

To withdraw orders by some condition open the <u>Sent Negdeals</u> / OTC <u>Negdeals</u> and then select the **Withdraw by Condition** item in the **Negdeal** / OTC **Negdeal** submenu of the **Action** menu or in the table's popup menu.

The dialog box contains fields which can be optionally filled-in to withdraw all the orders that match the given parameters.

Table 8.9. Elements of the "Withdraw Orders by Condition" dialog

| Element | Description |
|------------------------------|--|
| Buy/Sell | Direction of orders to be withdrawn. |
| Board | Trading board to withdraw orders on. Double-click this field to open the Datasets dialog. |
| Security | Select the security to withdraw orders for this particular instrument. Double-click this field to open the "Edit Datasets" dialog for securities. |
| Firm | Information field: Firm name. |
| Trader | ID of the user who has submitted the order. By default this field contains ID of user who opened the "Withdrar Orders" dialog. To withdraw orders of all users of the firm, clear the field using Delete or Backspace key. |
| Price | Exact price value and condition: = -withdraw orders with exact price specified; < -withdraw orders with price less than specified; > -withdraw orders with price greater than specified. |
| Trading account | Withdraw orders submitted with the particular Trading Account. |
| Client | Withdraw orders submitted with the particular Client Code. |
| Withdraw buy and sell orders | Withdraw both Buy and Sell orders. |

Click **Withdraw Orders** to proceed to withdrawal confirmation dialog. Order Confirmation can be disabled in the program Options.

Partners

To form a partners list that might be used while Negdeal or Negdeal SWAP enter, select the **Partners** item in the **Administration** submenu of the **Action** menu.

| ard: | Negotiated deals | - | | | |
|-------------------|------------------|----------|-----------|---------------|--------------|
| ilable: | | | | Selected: | |
| [▲] Firm | Firm code | | | ▲ Firm | Firm code |
| AimTech | MB9033700000 | | | TEsim 1 | MB9700100000 |
| ARQA YK | MB9015700000 | | Select -> | МеталлИнвест | MB0026700000 |
| ARQA YT | MB9015800000 | | | СМП | MB0138600000 |
| ARQA1 | MB0099800000 | | <- Remove | Транскапитал | MB0051000000 |
| ARQA2 | MB0099900000 | | | ЦБ РФ | MZ0000200000 |
| ARQA5 | MB0100200000 | | | | |
| ARQA6 | MB0100300000 | | | | |
| ARQA6 | MB0100400000 | | | | |
| BNP Paribas | MB9004500000 | | | | |
| CMA | MB0000300000 | | | | |
| CQG | MB9998900000 | | | | |
| Eafglobal | MB9054800000 | | | | |
| EgarTehno | MB9022500000 | | | | |
| EIF | MB9100100000 | | | | |
| Fluent | MB9027900000 | | | | |
| Help Desk1 | MB9002600000 | | | | |
| ICBCStandard | MB9016500000 | | | | |
| Itiviti | MB9033900000 | T | | | |

Table 8.10. Elements of the "Partners" dialog

| Element | Description |
|-----------|---|
| Board | Specify the board for which the list of partners is used. |
| Available | Firms available to be added as partners. |
| Select | Add selected available columns to the list of partners. |
| Remove | Remove selected columns from the list. |
| Selected | Current list. |
| Close | Save the list and close dialog. |

Sent Negdeals / OTC Negdeals Table

The Sent Negdeals / OTC Negdeals table lists all the negotiated deal orders that have been send by the firm users since the beginning of the trading session.

To open this table do one of the following:

- select the Sent Negdeals / OTC Negdeals item in the Table menu;
- click the 🕹 button on the toolbar.

Table 8.11. "Sent Negdeals" table columns description

| Column | Description |
|-----------|--|
| Order No. | Negotiated deal order number (ID) in the Trading System |
| Time | Time when the negdeal order was registered by the Trading System |

| Column | Description |
|--------------------|--|
| Status | Current negdeal order status: |
| | 'Act' - active; |
| | '+' - matched; |
| | '-CP' - rejected by counterparty; |
| | '-TS' - rejected by the Trading System; |
| | '-' - withdrawn |
| | '-C' - cancelled by the Trading System; |
| | '-D' - cancelled by the Trading System on user's disconnect (COD) |
| | 'Error' - Internal error occured |
| | 'Not activated. Lack of collateral' - order was not activated due to insufficiency of collateral. |
| Firm | Firm on which behalf the order was entered |
| Security | Security identifier |
| Board | Trading Board name for the security |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" |
| Rate | Currency exchange rate |
| Base price | Base price could be specified for SWAP negdeals |
| Lots | Volume, expressed in lots |
| Amount | Amount of the order (securities) considering lot size |
| Lots left | Volume of unmatched part of an order, expressed in lots |
| Value | Value, expressed in the currency of settlement |
| Trading account | Trading account from which the order was entered |
| Position code | Account ID in the Settlement House |
| Client code | Short client code which was indicated when entering the trade |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Update time | Time when the order was updated last time (matched, cancelled) |
| Counterparty | Firm the order is addressed to |
| Matching reference | Identical text value entered by both trade sides |
| User ID | Trader who entered the order |
| Settlement code | Settlement code for the trade |
| Settlement date | Negdeal or SWAP first leg settlement date |
| Swap rate, % | SWAP instrument rate, % per year |
| Board Id* | Trading Board Identifier |
| Commission* | Amount of commission for the trade, RUB |
| Cpty. Id* | Counterparty Id in the Trading System |
| Currency* | Currency of the instrument (asset) |
| | |

| Column | Description |
|--------------------------|---|
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Firm Id* | Firm identifier |
| Fixing date* | Date of the MOEX fixing calculation |
| Period* | Trading session period in which the order was entered |
| Security Id | Security Identifier* |
| Settlement currency* | Settlement currency for the instrument |
| Settlement organization* | Settlement organization for the trade |
| User Id* | ID of the user who submitted the order |

Columns marked with * are hidden by default.

Received Negdeal Orders

Accepting the Received Negdeal Orders

To accept a received negdeal order select it in the Received Negdeals table and then do one of the following:

- select the **Accept** item in the **Received Negdeals** submenu of the **Action** menu or in the table's popup menu;
- double click the row in the table;
- click the 🗋 button on the toolbar;

When the dialog box opens (similar to the Enter Negdeal / OTC Negdeal dialog) provide, if needed, client code and reference and press the Enter Order button.

Editing the Received Negdeal Orders

To edit a received negdeal order and to send it back to the counterparty, select an order in the Received Negdeals table and do one of the following:

- select the Edit item in the Received Negdeals submenu of the Action menu or in the table's popup menu;
- click the *button* on the toolbar;

"Edit Order" is similar to the Order Entry form. Window title contains order number in the Trading System.

During editing the order is withdrawn from the Trading System queue. Click **Enter Order** to submit modified order. Click **Restore** button to submit the original order and close the dialog. It also can be done by pressing **Escape** key. Click **Close** to leave the order withdrawn.

Entering the modified order is similar to withdrawing original and submitting a new one - order loses its position in the Trading System orders queue and moves to the end of the queue.

Rejecting the Received Negdeal Orders

Rejecting particular orders

To reject a received negdeal orders, select it in the Received Negdeals table and then do one of the following:

- press the **Del** key on the keyboard;
- select the **Reject** item in the **Received Negdeals** submenu of the **Action** menu or in the table's popup menu;
- click the 🗟 button on the toolbar.

Rejecting All the Received Negdeal Orders

To reject all the received negdeal orders, open the Received Negdeals table and then select the Reject All item in the Received Negdeals submenu of the Action menu or in the table's popup menu.

Rejecting Negdeal Orders by Condition

To reject the received negdeal orders by certain condition, open the Received Negdeals table and then select the **Reject All** item in the **Received Negdeals** submenu of the **Action** menu or in the table's popup menu.

The dialog box contains fields which can be optionally filled-in to withdraw all the orders that match the given parameters.

Table 8.12. Elements of the "Reject Negdeals by Condition" dialog

| Element | Description |
|----------------------------|---|
| Buy/Sell | Direction of received negdeals to be rejected. |
| Board | Trading board to reject received negdeals on. Double-click this field to open the Datasets dialog. |
| Security | Select the security to reject negdeals for this particular instrument. Double-click this field to open the "Edit Datasets" dialog for securities. |
| Trader | Reject negdeals addressed to selected Trader |
| Counterparty | Reject negdeals submitted by selected counterparty. |
| Reject buy and sell orders | Reject both Buy and Sell orders. |

Received Negdeals Table

The Received Negdeals table lists all the negotiated deal orders received by the firm from counterparties since the beginning of the trading session that haven't been accepted yet.

To open the table do one of the following:

- select the Received Negdeals item in the Table menu;
- click the 🚰 button on the toolbar.

| Table 8.13. "Received Negdeals" | table columns description |
|---------------------------------|---------------------------|
|---------------------------------|---------------------------|

| Column | Description |
|-----------|--|
| Order No. | Negotiated deal order number (ID) in the Trading System |
| Time | The time of the trade registration by the Trading System |
| Status | Status of the received negdeal order |
| Security | Security ID |

| Column | Description |
|----------------------|---|
| Board | Trading Board name for the security |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" |
| Rate | Currency exchange rate |
| Base price | Base price could be specified for SWAP negdeals |
| Lots | Volume, expressed in lots |
| Amount | Amount of the order (securities) considering lot size |
| Lots left | Volume of unmatched part of an order, expressed in lots |
| Value | Value, expressed in the currency of settlement |
| Counterparty | Firm from which the negdeal order was received |
| Matching reference | Identical text value entered by both trade sides |
| Settlement code | Settlement code for the trade |
| Settlement date | Negdeal or SWAP first leg settlement date |
| Swap rate, % | SWAP instrument rate, % per year |
| Board Id* | Trading Board Identifier |
| Commission | Amount of commission for the trade, RUB |
| Cpty. Id* | Counterparty Id in the Trading System |
| Currency* | Currency of the instrument (asset) |
| Firm* | Firm on which behalf the order was entered |
| Firm Id* | Firm Identifier |
| Fixing date* | Date of the MOEX fixing calculation |
| Period* | Trading session period in which the order was entered |
| Security Id | Security Identifier |
| Settlement currency* | Settlement currency for the security |
| Trading account* | Trading account from which the order was entered |
| User ID* | ID of the user who submitted the order |

Columns marked with * are hidden by default.

Transfer orders

Transfer Order Entry

Transfer Orders can be used to perform money transfers between own accounts during the trading session.

To open the Transfer Order Entry dialog perform one of the following actions:

- Select the following commands sequentially in the top menu: Action > Transfer Order > Enter.
- Open the context menu of Transfers table and then click Enter

"Order Packet" entry form can be used to submit multiple transfer orders simultaneously.

Transfer Order accepted by the Trading System will appear in the "Transfer Orders" table. Details on successfully executed transfer will appear in the "Transfers" table.

| nter Transfer Order | | | | ? | × |
|---------------------|---|--|-------|--------------|--------|
| Buy | Sell | | | <u>Repea</u> | t Last |
| Board: Security: | Transfers AED | × × | | | |
| Value: | 18,00 | A | | | |
| Transformer Hell | the second back of | a second the second second states | | | |
| Normal transfe | ble amount, but n r, do not check Si r, do not check ar | | d one | | |
| Normal transfe | r, do not check Si | mgle Limit | d one | | |
| Normal transfe | r, do not check Si | mgle Limit ny limits at all | | | ~ |
| Normal transfe | r, do not check Si | Assign to Trd. account Clearing bank | | | > |

Table 8.14. Elements of the "Enter Transfer Order" dialog

| Element | Description |
|---|---|
| Board | Name of the trading board or technical board to perform the transfer. |
| Security | Security (currency) name. |
| Value | Transfer value in units of currency. |
| Transfer available amount, but no more than the specified one | Set the flag to transfer all the available amount in case the available amount is less then value specified. Leave the checkbox empty to get the the error message in such case. |
| Normal transfer, do not check Single Limit | Set the flag to disable Single Limit verification. |
| Normal transfer, do not check any limits | Set the flag to disable any limits verification. |
| Withdraw from / Assign to | Trd. account - trading account identifier to withdraw from / assign to. Clearing position code - information field: clearing position code related to the selected Trading Account. Client - Client code if the order is submitted on behalf of the client. Reference - Additional notes (broker reference). |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Close | Close the dialog. |

| Element | Description |
|-------------|--------------------------------------|
| Repeat Last | Repeat previous order specification. |

Transfer to Trading Member Entry

Transfers to Partner let Clearing member to transfer collateral to/from the counterparty Trading Member's position code.

To open the "Transfer to Partner" dialog perform one of the following actions:

- Select the following commands sequentially in the top menu: Action > Transfer Order > Enter to trading member.
- Open the context menu of Transfers table and then click Enter to trading member

"Order Packet" entry form can be used to submit multiple transfer orders simultaneously.

Transfer Order accepted by the Trading System will appear in the "Transfer Orders" table. Details on successfully executed transfer will appear in the "Transfers" table.

| nter Transfer To I | Partner | | <u>ହ</u> × |
|---|----------------------------|---|--------------|
| Buy | Sell | | Repeat Last |
| Board: Security: Value: | Transfers USD 37,00 | | |
| Transfer av | ailable amount, but no mor | | |
| Trd. account: Clearing position code: | MB0000600046 | Counterparty: | FREE FIRM 3 |
| Client: Reference: | 0 | Trd. account: Clearing position code: | MB0000600046 |
| Reference. | | Client: Reference: | • |
| Enter | Order | | Close |

Table 8.15. Elements of the "Enter Transfer to trading member" dialog

| Element | Description |
|---|--|
| Buy/Sell tabs at the top | Transfer direction: Buy or Sell. |
| Board | Name of the trading board or technical board to perform the transfer. |
| Security | Security (currency) name. |
| Value | Transfer value in units of currency. |
| Transfer available amount, but no more than the specified one | Set the flag to transfer all the available amount in case the available amount is less then value specified. Leave the checkbox empty to get the the error message in such case. |

| Element | Description |
|---|--|
| Normal transfer, do not check Single Limit | Set the flag to disable Single Limit verification. |
| Normal transfer, do not check any limits | Set the flag to disable any limits verification. |
| Do not check Single Limit in clearing/trading member segregation scheme | Set the flag to cancel SL check. |
| Assign to / Withdraw from | Trading member - name of the trading member firm. Trd. account - trading account identifier to withdraw from / assign to. Clearing position code - information field: clearing position code related to the selected Trading Account. Client - Client code if the order is submitted on behalf of the client. Reference - Additional notes (broker reference). |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Close | Close the dialog. |

Transfer Orders table

"Transfer Orders" table lists all the orders for transfers between own accounts.

To open the table select the following commands sequentially in the top menu: Table > Firm Tables > Transfer Orders.

| Table 8.16. | "Transfer | Orders" | table | columns description |
|-------------|-----------|---------|-------|---------------------|
|-------------|-----------|---------|-------|---------------------|

| Column | Description |
|--------------|---|
| Order number | Order ID in the Trading System |
| Order time | Order registration time |
| Status | Current transfer order status: |
| | 'Act' - active; |
| | '+' - matched; |
| | '-CP' - rejected by counterparty; |
| | '-TS' - rejected by the Trading System; |
| | '-' - withdrawn |
| | '-C' - cancelled by the Trading System; |
| | '-D' - cancelled by the Trading System on user's disconnect (COD) |
| | 'Error' - Internal error occured |
| | 'Not activated. Lack of collateral' - order was not activated due to insufficiency of collateral. |
| Firm | Trading firm on whose behalf the order is submitted |

| Column | Description |
|--------------------------|---|
| Security | Security ID |
| Board | Board name |
| D/W | Order direction - "deposit to account / withdraw from account" |
| Lots | Volume, expressed in lots |
| Trading account | Trading account number |
| Position code | Bank Account identifier |
| Matching reference | Matching reference text |
| Client code | Client code assigned by the broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Counterparty | Counterparty firm ID |
| Withdrawal time | Withdrawal time |
| User ID | ID of the user who has entered the order |
| Transfer details | Additional information |
| Board Id* | Trading Board Identifier |
| Cpty. Id* | Counterparty Identifier |
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Firm Id* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Security Id* | Security Identifier |
| Settlement currency* | Settlement currency for the instrument |
| Settlement organization* | Settlement organization |
| User Id* | User Identifier |

Columns marked with * are hidden by default.

Transfers table

"Transfers" table lists all successfully executed transfers between own accounts and between firm and partners.

To open the table select the following commands sequentially in the top menu: Table > Firm Tables > Transfers.

| Column | Description |
|--------------|--|
| Transfer # | Number of the transfer |
| Time | The time of the trade registration by the Trading System |
| Order number | Number of order which led to the trade conclusion |
| Firm | Firm name |
| Security | Security ID |
| Board | Board name for the security |
| C/D | Credit/Debit |

| Column | Description |
|------------------------------|---|
| Lots | Volume, expressed in lots |
| Value | Transfer value, expressed in currency of settlement |
| Trading account | Trading and clearing account identifier |
| Position code | Position code |
| Client code | Client code assigned by Broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| User ID | ID of the user who concluded the trade |
| Counterparty | Counterparty Firm ID |
| Transfer details | Additional information on transfer |
| Type of Transfer | "Tran" type digit code |
| Amount* | Amount of asset in the transfer |
| Board Id* | Trading Board Identifier |
| Clearing commission* | Amount of commission fee for clearing, RUB |
| Clearing firm* | Firm Id of Clearing Member |
| Clearing position code* | Clearing Account ID in the Clearing Centre |
| Counterparty order number* | Number of the order submitted by counterparty |
| Cpty. Id* | Counterparty identifier |
| Currency* | Currency of the instrument (asset) |
| Exchange commission* | Amount of Exchange commission fee, RUB |
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Firm Id* | Firm identifier |
| Fixing date* | Date of the ME fixing calculation |
| Period* | Period of the trading session when the trade was concluded |
| Security Id | Security Identifier |
| Settlement code* | Settlement code for the trade |
| Settlement currency* | Settlement currency for the instrument |
| Settlement date* | Date of the settlement |
| Settlement organization* | Settlement organization for the trade (transfer) |
| Status* | Status of the transfer |
| | '+' - matched/confirmed (included into off-line settlement) |
| | 'Unsettled' - No settlement instruction has been sent yet |
| | 'Waiting' - included into settlement instruction; |
| | '-C' - cancelled by the Tradin |
| System reference* | Additional information |
| Technical access commission* | Amount of commission for Technical access, RUB |
| Total commission* | Total amount of commission, RUB |
| Trade date* | Trade date |

| Column | Description |
|----------|-----------------|
| User Id* | User Identifier |

Columns marked with * are hidden by default.

Batch Order Entry

Creating an Order Packet

To open the dialog to create, edit or submit the order packet, select the **Enter Packet** item in the **Action** menu or press the **Ctrl+F2** hotkeys.

| ders SV | VAP Orders Negdeal | s / OTC Negdeals SW | AP Negdeals Tran | sfers | | | | | |
|-----------|--------------------|---------------------|------------------|-----------|--------------|------|--------|-----------------|------------------|
| Status | To order no | Security | Board | Direction | Counterparty | Rate | Lots | Settlement code | Firm for trading |
| | | EUR/USD_TOD | Negotiated deals | В | TEsim 100 | 1,2 | 200000 | 500 TO | СОЮЗ |
| | | EURRUB_SPT - E | Negotiated deals | В | TEsim 101 | 8 | 4,9000 | 400 T2 | союз |
| • | | GLDRUB_TOM | Negotiated deals | S | TEsim 106 | 2 78 | 7,0000 | 1 000 T1 | СОЮЗ |
| | | | | | | | | | |
| • | | | | | | | | | |
| Add | Edit | Delete | Clear | | | | | Load | Save |

Tabs on the top of the dialog let user switch between different types of orders: Order, SWAP Order, Negdeal, SWAP Negdeal, Transfer to Trading Member. All buttons of the dialog window affect orders of the selected type only.

Table 8.18. Elements of the "Enter Packet" dialog:

| Button | Description | |
|--------|---|--|
| Add | Open an order entry dialog that corresponds to active window tab: Order, SWAP Order, Negdeal, SWAP Negdeal, Transfer to Partner. | |
| Edit | Open "Edit Order" dialog for corresponding order type. | |
| Delete | Delete selected orders from the list. | |
| Clear | Clear the order list. | |
| Load | Load packet from file. Supported file formats are CSV (separator symbol depends on OS settings and locale), TXT (tab-separated) and files compatible with CMA terminals. | |

| Button | Description | | |
|-----------------------|---|--|--|
| Save | Save order packet to file. Supported file formats are CSV (separator symbol depends on OS settings and locale) and TXT (tab-separated). | | |
| Enter Whole Packet | Submit all the orders on active window tab. | | |
| | This action requires an additional confirmation in the dialog. | | |
| | The confirmation dialog contains counters for total orders processed ("Done"), succesfully registered orders ("Registered") and Errors. | | |
| | The following orders execution options are available via confirmation dialog: | | |
| | Delete orders from the list after successfull execution; | | |
| | Execute sucessfully executed orders again; | | |
| | Validate orders parameters; | | |
| | Require orders entry confirmation; | | |
| | Show successful execution results; | | |
| | Click "Enter" to start the order entry process. | | |
| Enter Selected Orders | Submit orders selected on the active window tab. | | |
| | The confirmation dialog is similar to "Enter Whole Packet" confirmation. | | |
| Close | Close dialog window. The packet contents is stored until the end of the session. | | |

Double-click one of the table rows to edit the particular order.

"Shift" and "Ctrl" buttons can be used to select multiple orders. Use "Ctrl + A" combination to select all the orders in the table.

"Enter packet" confirmation form

To confirm packet enter, open the Enter packet form, then create a list of orders and press the Enter whole packet button or the Enter selected orders button.

| Element | Description | |
|---|---|--|
| Processed orders counter | Contains counters for total orders processed ("Done"), successfully registered orders ("Registered") and Errors. | |
| Delete from the list after successful execution | If this flag is set up, every order successfully registered by the trading system will be deleted from the list. | |
| Execute again successfully executed | If this flag is set up and order packet have orders with "Success" status, these orders will be sent to the trading system again during the packet enter. | |
| Validate parameters | To control parameters set up on the order validation form. | |

| Element | Description |
|-----------------------------------|---|
| | If this flag is set up, every order from the packet will be sent to the trading system after manual confirmation in the dialog. |
| Show successful execution results | Show successful execution results in the dialog. |

Click "Enter" to start the order entry process.

Adding Existing Orders to the Packet

To copy all the orders with a particular security to the packet do the following:

- 1. open the Orders or the Sent Negdeals / OTC Negdeals table and select any order with a security of interest;
- 2. press the **Shift+Ctrl+F2** hotkey or select the **Save to Order Packet** item in the **Action** menu or in the table's popup menu;
- 3. in the dialog box select whether to save order to the packet or to the file which can be later loaded into the packet.

Batch Order Acceptance

In order to create a packet of counterorders to the received negotiated deal orders, open the Recieved Negdeals table and the select the Accept Order Packet in the table's popup menu. A packet of counterorders can be created for one board only.

This packet can be either added to the active packet or saved to a file to be loaded later.

| Create Accept Order Packet | | | | |
|--|--------------------|--|--|--|
| 1 order for "BYNRUB_TOM - BYN/RUB" on "Negotiated deals" board in "Received Negdeals" table has been selected to create accept order packet. | | | | |
| Create accept orders using | | | | |
| Trading account: | MB0000600123 | | | |
| Client: | | | | |
| Reference: | • | | | |
| | | | | |
| Save to Packet | Save to File Close | | | |

Dual Order Entry Dialogs

On the Adv.Actions tab of the program options it is possible to set up the "Dual order dialogs" in order for all the order entry dialogs to have two frames to enter both buy and sell orders simultaneously. It would also become possible to set a corresponding flag at order entry time in order to withdraw active orders.

| Enter Order | | | ? × |
|---|--------------------------------------|---|---|
| Security: BYNRUB_TOM | | ype) Limit) Market) Volume weighted avg. pric Book or cancel | |
| Price: 24,7400 🚔 ? | 24,4050 24,7400 1 24,4050 Last | Sell Price: 24,2000 | 24,4050 24,7400 1 24,4050 Last |
| Quantity: 500 📮 ? 🦳 | IK 10K 50K 00K 500K 1M | Quantity: 100 Lot size: 1 000 Value: 100 000 BYN | 1K 10K 50K 100K 500K 1M |
| Hidden qty.:Total quantity:500, amount:500 000Value:12 370 000,00Currency:RUB | BYN -> price | | amount: 100 000 BYN 20 000,00 -> qty |
| Firm: Кузнецова Trading account: L00+4190ACE0 Clearing bank account: 12024 Client: | | Firm: Trading account: Clearing bank account: Client: Reference: | Кузнецова |
| Cancel Active Orders | Buy | Cancel Active Ord | ders Sell Close |

Chapter 9. Algorithmic trading

The Algorithmic Orders Module (algo-module) is implemented to form a packet of linked orders that are entered into the Trading System at the due time. Time intervals are calculated by the user's specified algorithm.

Activation and establishing the connection

To activate Algo-trading menu and establish the connection to the service of Algorithmic trading open the **Tools > Options** menu, then proceed to the **Connection** and then to the **Algo-trading service** tab, and set the **Connect enabled** flag.

Table 9.1. Elements of the "Algo-trading service" tab

| Element | Description |
|--|--|
| Connect enabled | Set the "Connect enabled" flag to activate Algo-trading menu and establish the connection to the service of Algorithmic trading. |
| Direct connection via TSMR: | |
| Broadcast | List of networks addresses (bridges) where searching for available access servers (gateways) will be performed. |
| Server | Algo-trading server identifier. Note: this field is case-sensitive. |
| Service | Algo-trading TCP and UDP services name. |
| Preferred gateway (network) address | Address of the Algo-trading service network (bridge) where search for available access servers (gateways) will be performed first. |
| Internet connection: | |
| Host list | List of access servers (gateways) for connecting to the Algo-trading service. |
| Server ID | Algo-trading server identifier. Note: this field is case-sensitive. |
| Request connection confirmation | Additional confirmation required for Internet connection. |

To reset all changes which was made on form use **Cancel** button.

| ions | | | | ? |
|--|---------------------|------------------|---------------|--------------|
| Tables | Signals | Hot Keys | ISS | NCC |
| Connection | Tools | View | Actions | Adv. Options |
| Active profile: | | | | |
| TEST INET_GW | / Internet 🗸 🗸 | Modify | Add | Delete |
| Trading System | n Clearing Syste | m Algo-trading | g service RFS | service |
| ✓ Connect e Broadcast: 172.20.194.12 | | | | |
| Server: | | ALGO_GATEW | /AY | |
| Service: | | 10218/10219 | | |
| Preferred gat address: | eway (network) | | | |
| Synchronize | e local PC time wit | h the trading sy | stem | |
| | | | ОК | Cancel |

TWAP Entry

To submit an algorithmic TWAP (Time Weighted Average Price) order packet to trading system, do one of the following:

- select the Enter TWAP item in the Algo-trading menu of the main menu;
- select the Enter TWAP item in the popup menu of the "Orderbook" table;
- select one of the previous orders in the "Order Algo-packets", then select the Enter TWAP item in the Algo-trading menu of the main menu or the table's popup menu.

If the Enter Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table.

Window background is green for buy orders and red for sell orders.

The submitted order is displayed in the "Order Algo-packets" table. Linked orders of the algo-packet are displayed in the "Order Algo-packet Iterations" table.

"Enter TWAP Order Algo-packet" dialog features

| nter TWAP Order A | lgo-packet | | | ? × |
|---|-------------------------------|---|---|--------------------|
| Buy | Sell | <u>Repeat Last</u> | Linked orders | |
| | | | Limit | ◯ Market |
| Board: | System deals | ~ | Price shift type: | Money value \sim |
| Security: | EURRUB_TOD | ~ | Price shift value: | 0,0050 |
| Settle code: T0, s Max: Limit price: Min: | 93,4425 93,4425 87,4800 | 89,5300 <u>J</u> 91,1550 T 89,5300 Last | Algorithm work time From: 16:16:00 🗭 To: 23:55:00 ਵ | From current time |
| Total quantity: Lot size: 1 000 Value: 500 000 El | 10 | | Interval parameters Time between orders | s ~ 0:02:00 💌 |
| Value: | | -> price | Randomization coeffi | cient |
| Currency: RUB | | | 1 1 1 1 1 1 0 | 0,5 1 |
| Firm: | Кузнецова | ~ | Clearing bank | |
| Trd. account: Client: | 5470415211 | ~ | account: 12024 | ~ |
| Enter Or | rder | | | Close |

- "Buy" and "Sell" tabs at the top of the window to change order direction. Press **Ctrl+Tab** to quickly switch to another tab.
- Best Bid and Offer rates as well as Last trade price are displayed to the right of the "Limit price" field. Click one of these rates to fill the "Limit price" field with the same value.
- Click the "?" button located near the "Limit price" field to show the upper and lower price limits for the selected security.
- Order volume can be quickly set up by clicking 1K, 10K, 50K, 100K, 500K or 1M to the right of the "Total quantity" field. **Ctrl**-click one of these buttons to increase the number of lots accordingly. **Shift**-click to increase the number of lots 1000 times.
- "Value" field is located on the bottom of the order specification area. Its content changes accordingly to the content of "Limit price" and "Total quantity" fields. Enter the desired order value and click " -> qty" button to calculate and fill the "Quantity" field with appropriate number of lots to reach the desired order value on the price specified.

Table 9.2. Elements of the "Enter TWAP Order Algo-packet"

| Element | Description |
|--------------------------|-------------------------------|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. |

| Element | Description |
|----------------|---|
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. |
| Price | Price for one lot of the selected security. In addition to manual price entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | • up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. |
| | Click the "?" button located near the "Limit price" field to show the upper and lower price limits for the selected security. |
| Total quantity | Total number of lots of the selected security to BUY/SELL during the algorithm work time. In addition to manual entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | • up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctr +Shift" multiplies each button by a thousand. "Ctrl" key modifies buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. |
| Lot size | Information field: number of securities in one lot. |
| Value | Information field: order value considering price, quantity and lot size. |
| Value | Enter the desired order value and click " -> qty" button to calculate and fill the "Quantity" field with appropriate number of lots to reach the desired order value on the price specified. |
| Currency | Information field: settlement currency for the selected security. |
| Linked orders | Limit – BUY/SELL linked orders are fulfilled at the price not higher/ lower than price that was specified. |
| | Market – linked orders are fulfilled at the current best prices. "Limit Price", "Price shift type", "Price shift value". |

| Element | Description |
|---------------------------|--|
| | Price shift type - select the desired shift from the current best bid/ask price type (percent or money value) in the drop-down list. |
| | Price shift value - enter the acceptable value of the linked orders price shift, as percent or as terms of currency. |
| Algorithm work time | Set the algorithm start and end time: |
| | From: algorithm start time; |
| | From current time - click on the checkbox to set algorithm start time from the current time; the "From:" field is disabled; |
| | To: algorithm end time. |
| Interval parameters | select one of the timing methods from the drop-down list. Set the desired parameter in the next field accordingly: |
| | Number of orders – select this parameter to set the number of iterations for which it is required to fulfill total quantity of algo-packet. |
| | Time between orders - select this parameter to split the algorithm work time into N iterations. Set the time interval to be keep for linked orders. |
| Randomization coefficient | Use the slider with step 0,1 and boundary values from 0 to 1 to set the random time and volume shift. Value of 1 on the slider corresponds to maximum allowable random shift = 50%, value of 0 corresponds to equal distribution of linked orders among time intervals and volume. |
| Firm | Firm for trades. Order entry by clearing member. |
| Trd. account | Trading account for trades. |
| Client | Client code if the algo-packet is submitted on behalf of the client. |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. |
| Reference | Additional notes (broker reference). |
| Enter Order | Submit the algo-packet of linked orders (requires confirmation). Order Confirmation can be disabled in the program Options |
| Close | Close the dialog. |
| Repeat Last | Repeat previous order specification. |

Contents of all drop-down lists on the form may be limited using "Data sets" mechanism.

SWAP TWAP entry

To submit a SWAP TWAP algorithmic order on the order-driven market do one of the following:

- select the Enter SWAP TWAP item in the Algo-trading menu of the main menu;
- select the Enter TWAP Order Algo-packet item in the "Orderbook" table's popup menu for the required SWAP security;
- select one of the previous algo-packets from "Order Algo-packets" table and then select the Enter SWAP TWAP item in the table's popup menu.

If the Enter SWAP Order action was invoked from Securities table then "Board" and "Security" fields will be already filled-in with the data from the table.

Window background is green for sell/buy orders and red for buy/sell orders.

The submitted order is displayed in the "Order Algo-packets" table. inked orders of the algo-packet are displayed in the "Order Algo-packet Iterations" table.

| "Enter SWAF | P TWAP Order | Algo-packet" | dialog features |
|-------------|--------------|--------------|-----------------|
|-------------|--------------|--------------|-----------------|

| inter SWAP TWAP O | rder Algo-packet | | | ? | \times |
|---|---|-----------------------|---|-------------------|----------|
| Sell/Buy | Buy/Sell | <u>Repeat Last</u> | Linked orders | | |
| | | | Limit | OMarket | |
| Board: | System deals | \sim | Price shift type: | Percent | \sim |
| Security: | EUR_TOM1M | ~ | Price shift value: | 0,00 | * |
| Settle code: F1M, Max: Limit price: Min: Max: Rate, %: Min: | settle date: 18.12.2020 0,7266 -0,0825 -0,0848 9,7944 -1,1121 Rate (-1,1431 | ⊥ Last EUR): 0% | To: 23:55:00 Interval parameters Number of orders | From current time | |
| Total quantity: 5 Lot size: 100 000 Value: 50 000 000 | 101 | | Randomization coe | 0,5 | 1 |
| Firm: | Кузнецова | \sim | | | |
| Trd. account: | L00+4190ACE0 | \sim | Clearing bank 120 account: | 24 | |
| Client: | 1332575664 | ~ | Reference: | × | ~ |
| Position changes Origin EUR: | | | 0 000,00 | Price: 90,5056 | |
| RUB: Effect | | 4 525 28 | 0 000,00 | | |
| EUR: RUB: | | 50 00 -4 521 15 | 0 000,00 5 000,00 | Price: 90,4231 | |
| Enter Or | der | | | Close | 2 |

- "Buy" and "Sell" tabs at the top of the window to change order direction. Press **Ctrl+Tab** to quickly switch to another tab.
- Best Bid and Offer rates as well as Last trade price are displayed to the right of the "Limit price" field. Click one of these rates to fill the "Limit price" field with the same value.
- Click the "?" button located near the "Limit price" field to show the upper and lower price limits for the selected security.

• Order volume can be quickly set up by clicking 100K, 1M, 5M, 10M, 50M or 1B to the right of the "Quantity" field. **Ctrl**-click one of these buttons to increase the number of lots accordingly. **Shift**-click to increase the number of lots 1000 times.

| Element | Description |
|--------------------------|---|
| Buy/Sell tabs at the top | Order direction: Buy or Sell. |
| Board | Trading board name. If trading board is not selected than "Security" list will contain all the available securities on all trading boards. |
| Security | Select the needed security in the drop-down list containing names, IDs and Check marks. |
| Limit price | Maximum price for one lot of the selected security. In addition to manual price entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | • up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the price for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly. |
| | Click the "?" button located near the "Limit price" field to show the upper and lower price limits for the selected security. |
| Rate, % * | Rate for the security expreseed in percent/year. |
| Rate(CURRENCY), % * | Information field: percent rate for the currency. |
| | * Remark: |
| | "Total price" and "Rate, %" fields are interconnected. If one of them is filled the another one will be filled automatically. |
| Total quantity | Number of lots of the selected security to fulfill during the algorithm work time. In addition to manual entry the following options are available: |
| | • up and down arrow buttons to the right of the entry field; |
| | • up and down arrow keys on the keyboard; |
| | • mouse wheel; |
| | hold "Ctrl" or "Ctrl+Shift" together with one of the above described methods to increase or decrease the quantity for 10 or 100 steps accordingly; |
| | Press "H", "T" or "M" keys on the keyboard to enter "00", "000" or "000 000" accordingly |
| | click one of the digit buttons to the right of the Quantity entry field to replace the Quantity field content with corresponding value. "Ctrl +Shift" multiplies each button by a thousand. "Ctrl" key modifies |

Table 9.3. Elements of the "Enter SWAP TWAP Order Algo-packet"

| Element | Description |
|---------------------------|--|
| | buttons' behavior: quantity will be increased for the corresponding value instead of being replaced with it. |
| Lot size | Information field: number of securities in one lot. |
| Value | Total algo-packet value considering price, quantity and lot size. |
| Linked orders | Limit is for BUY/SELL linked orders are fulfilled at the price not higher/ lower than price that was specified. |
| | Market is disabled for SWAP orders algo-packets. |
| | Price shift type - select the desired shift from the current best bid/ask price type (percent or money value) in the drop-down list. |
| | Price shift value - enter the acceptable value of the linked orders price shift, as percent or as terms of currency. |
| Algorithm work time | Set the algorithm start and end time: |
| | From: algorithm start time; |
| | From current time - click on the checkbox to set algorithm start time from the current time; the "From:" field is disabled; |
| | To: algorithm end time. |
| Interval parameters | select one of the timing methods from the drop-down list. Set the desired parameter in the next field accordingly: |
| | Number of orders – select this parameter to set the number of iterations for which it is required to fulfill total quantity of algo-packet. |
| | Time between orders - select this parameter to split the algorithm work time into N iterations. Set the time interval to be keep for linked orders. |
| Randomization coefficient | Use the slider with step 0,1 and boundary values from 0 to 1 to set the random time and volume shift. Value of 1 on the slider corresponds to maximum allowable random shift = 50%, value of 0 corresponds to equal distribution of linked orders among time intervals and volume. |
| Firm | Firm for trades. Order entry by clearing member. |
| Trd. account | Trading account for trades. |
| Client | Client code if the algo-packet is submitted on behalf of the client. |
| Clearing position code | Information field: clearing position code related to the selected Trading Account. |
| Reference | Additional notes (broker reference). |
| Position changes | A set of information fields describing positions changes by base and settlement currencies. |
| Enter Order | Submit the order (requires confirmation). Order Confirmation can be disabled in the program Options |
| Close | Close the dialog. |
| Repeat Last | Repeat previous algo-packet specification. |
| - | |

Contents of all drop-down lists on the form may be limited using "Data sets" mechanism.

Orders volume control at TWAP algorithmic module

Algorithmic packet entered the algorithmic trading module will be checked by an algo-packet total quantity and by quantity of every iteration order associated with an algo-packet. Control under operational errors is applied under both market and limit order types.

Restritions and warnings described below are applied for both "Enter TWAP Order Algo-packet" dialog and "Enter SWAP TWAP Order Algo-packet" dialog.

- If the full quantity of the algorithmic order packet is more than 1,000,000 lots, the terminal will display warning message and will prompt to confirm algo-packet entering.
- If quantity calculated for any of iteration orders of algorithmic packet is more than:
 - 1000 lots, the terminal will display informational message.

- 10,000 lots, the entire algo-packet will be withdrawn by the system and error message will be displayed. User will be prompted change parameters of the algo-packet and re-enter it.

Editing Algorithmic orders

To edit an algo-packet of linked orders that hasn't been fully matched yet, select an algo-packet in the "Order Algo-packets" table and then do one of tthe following:

- select the Edit item in the Algo-trading menu of the main menu;
- select the Edit item in the "Order Algo-packets" table's popup menu.

During editing all the unmatched linked orders are withdrawn from the Trading System queue. Click Enter Order to submit modified algo-packet of linked orders. Click **Restore** button to submit the original packet of linked orders and close the dialog. It also can be done by pressing **Escape** key. Click **Close** to leave the order withdrawn.

Entering the modified algo-packet is similar to withdrawing original and submitting a new one - linked orders lose them positions in the Trading System order queue and moves to the end of the queue.

Elements of the "Change TWAP Order Algo-packet"

"Change TWAP Order Algo-packet" dialog is similar to "Enter TWAP Order Algo-packet". The following fields are unavailable for edits:

- Board
- Security

Click "Restore" to discard all the changes and restore packet of linked orders.

Withdraw Particular Order Algo-packets

To withdraw one or several own algo-packets follow these steps:

1. Select algo-packets in the Order Algo-packets table.

Hold Ctrl button to select several algo-packets and Shift to select a range of rows.

- 2. Do one of the following:
 - select the Withdraw item in the Algo-trading menu;
 - press the Del key on the keyboard;

- select the **Withdraw** item in the table's popup menu.
- 3. Confirm the order(s) withdrawal. Confirmation can be disabled in the program options.

Withdraw All Own Order Algo-packets

To withdraw all own pack of linked orders open one of the following tables: Order Algo-packets and then select the **Withdraw All Own** item in the **Algo-trading** menu or in the table's popup menu.

Confirm the orders withdrawal. Confirmation can be disabled in the program options.

Withdraw All Order Algo-packets of the Firm

To withdraw all order algo-packets of the own firm open one of the following tables: Order Algo-packets and then select the **Withdraw All** item in the **Algo-trading** menu.

Confirm the orders withdrawal. These way of withdrawal cannot be disabled.

Order Algo-packets

The "Order Algo-packets" table lists all the algorithmic packets of linked orders entered by the users of the firm during the current trading session.

To open the "Order Algo-packets" table, select the **Order Algo-packets** item in the **Algo-trading** menu of the main menu.

Double click the row to open order algo-packet iterations table for a chosen order.

| Column | Description |
|------------------|--|
| Order # | Algo-order ID in the Algorithmic Module |
| Order time | Algo-order registration time in the Algorithmic Module |
| Status | Status of a linked order |
| Firm | Firm ID |
| Algorithm | Algorithmic order type |
| Security | Security ID |
| Board | Board ID for the security |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" |
| Limit price | Algorithmic order limit price |
| Total quantity | Algorithmic order total quantity, expressed in lots |
| Lots left | Volume of unmatched part of an order, expressed in lots |
| Matched, lots | Volume of matched part of an order, a difference between "Total quantity" and "Lots left" |
| WA price | Algorithmic order weighted-average execution price |
| Trading account | Trading account number |
| Client code | Client code assigned by the broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| User ID | User ID |
| Туре | Linked order type: "limit/market" |

Table 9.4. "Order Algo-Packets" table columns description

| Column | Description |
|---------------------|---|
| Price shift type | Limit algorithmic order price shift type |
| Price shift | Limit algorithmic order price shift value, according to "Price shift type" specified |
| Start time | Algorithmic order start time |
| Stop time | Algorithmic order stop time |
| Total iterations | Algorithmic order total expected number of iterations |
| Current iteration | Algorithmic order current iteration number |
| Interval | Interval between algorithmic order iterations |
| Randomization coef. | Linked order value/interval randomization coefficient. Valid value in range 01 with step 0,1. |
| Interval type | TWAP algorithmic order interval type |
| Algo-order start* | Algorithmic order start moment type |
| Board Id* | Board Id |
| Firm ID* | Firm ID |
| Order date* | Order Algo-packet registration date in the Algorithmic Module |
| Security Id* | Security Id |
| User ID* | User ID |
| Withdraw date* | Algorithmic order withdraw date |
| Withdraw time* | Algorithmic order withdraw time |

Columns marked with * are hidden by default.

Order Algo-packet Iterations

The "Order Algo-packet Iterations" table lists the information about parameters and status in the trading system of linked orders in the specified order algo-packet from the "Order Algo-packets" table.

To open the "Order Algo-packet Iterations" table, select the row in the "Order Algo-packets" table, and then do one of the following:

- select the Order Algo-packet Iterations item in the Algo-trading menu of the main menu;
- select the Order Algo-packet Iterations item in the "Order Algo-packets" table's popup menu;
- double click the row in the "Order Algo-packets" table;
- drag a row in the "Order Algo-packets" table and drop it to the open instance of the "Order Algo-packet Iterations".

| Column | Description |
|-------------------------|---|
| Iteration | Algorithmic order iteration number |
| Excepted time | Scheduled time when the iteration should fire (send linked order to the Trading System) |
| Iteration type | Algorithmic order iteration type |
| Iteration status | Algorithmic order iteration status |
| Expected quantity, lots | Scheduled volume of the iteration, expressed in lots |
| Execution time | Iteration actual execution time |

Table 9.5. "Order Algo-packet Iterations" table columns description

| Column | Description |
|-------------------------|---|
| Executed | Linked order execution status, success or not |
| Price | Currency pair price |
| Executed quantity, lots | Algorithmic order actually executed quantity, expressed in lots |
| Error/message code | Iteration execution return code |
| Message | Iteration execution result message |
| Linked order | Linked order ID in the Trading System |
| Amend time* | Amend time |
| Board* | Board ID for the security |
| Board Id* | Board Id |
| Direction* | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" |
| Execution price* | Actual execution price of the iteration |
| Order #* | Order Algo-packet ID in the Algorithmic Module |
| Security* | Security ID |
| Security Id* | Security ID |
| Туре* | Linked order type: "limit/market" |

Columns marked with * are hidden by default.

Chapter 10. Request for stream

Request for stream auction is a process of setting the transaction price for a security in the quantity declared at an auction. A Liquidity Consumer initiates RFS auction. Providers publish quotes to auction competitively. Consumer can get all the quotes at each moment and has an option to send order. As the result, counter-order is submitted on behalf of the liquidity provider. RFS board assumes the satisfaction of the demand for fulfill huge lots and no negative influence on main quotebooks in the Trading system.

Activation and establishing the connection

To activate RFS menu and establish the connection to the Request for Stream system open the **Tools** > **Options** menu, then proceed to the **Connection** and then to the **RFS Service** tab, and set the **Connect enabled** flag.

Table 10.1. Elements of the "RFS Service" tab

| Element | Description |
|--|---|
| Connect enabled | Set the "Connect enabled" flag to activate RFS menu and establish the connection to the Request for Stream system |
| Direct connection via TSMR: | |
| Broadcast | List of networks addresses (bridges) where searching for available access servers (gateways) will be performed. |
| Server | RFS server identifier. Note: this field is case-sensitive. |
| Service | RFS TCP and UDP services name. |
| Preferred gateway (network) address | Address of the RFS service network (bridge) where search for available access servers (gateways) will be performed first. |
| Internet connection: | |
| Host list | List of access servers (gateways) for connecting to the RFS service. |
| Server ID | RFS server identifier. Note: this field is case-sensitive. |
| Request connection confirmation | Additional confirmation required for Internet connection. |

To reset all changes which was made on form use **Cancel** button.

| ions | | | | | ? | > |
|----------------------------|--------------------|-----------------|---------|-------------|----------|----|
| Tables | Signals | Hot Keys | ISS | | NCC | |
| Connection | Tools | View | Action | s Adı | v. Optio | ns |
| Active profile: | | | | | | |
| TEST INET_GW | Internet 🗸 🗸 | Modify | Ad | d | Delete | |
| Trading System | Clearing System | Algo-trading | service | RFS service | | |
| Connect en | abled | | | | | |
| Broadcast: | | | | | | |
| 172.20.194.12 | 1 | | | | | ור |
| Server: | | RFS_TEST | | | | |
| Service: | | 10108/10109 | | | | |
| Preferred gate address: | way (network) | | | | | |
| | | | | | | |
| | | | | | | |
| Synchronize | local PC time with | the trading sys | tem | | | |
| | | | | | | |

RFS Auction start

Liquidity consumer initiates new RFS auction using "Request For Stream" form. Initiated auction is displayed in "RFS auctions" table and "Active RFS auctions" (active auction is displayed to all users except its initiator).

At the bottom of the form there is a timer (HH:MM:SS) and progress bar shows how much time left before auction end.

To open the form choose **Request for Stream** command in the **RFS** menu of the main menu.

| Request for Stream: 1 | | | | |
|-----------------------|---------|-----------|----------|------------|
| USDRUB_TOM | \sim | L00+4190 | ACE0 | \sim |
| Settlement date: 12. | 12.2019 | | | |
| Comments | | Client ID | | \sim |
| Amount: 10M | ~ | OBuy | ◯ Sell | ● Both |
| Duration, sec: 60 | ~ | 🗹 Anonyr | mous 🗌 F | ull amount |
| Sell USD | | | Buy | USD |
| | | , | | Get Price |

Table 10.2. Elements of the "Request for Stream" form

| Element | Description | | |
|------------------------|--|--|--|
| Deal type | Choose the deal type: SPOT or SWAP | | |
| Security | Choose the identifier of the Security in the Trading System | | |
| Settlement date | Information field: date of settlement by the security | | |
| Face value | Information field: face value for the security | | |
| Trading Account | Choose the trading account identifier that will be used for settlement | | |
| Client code | Choose the client code | | |
| Comments | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) | | |
| Amount | Choose the requested volume, expressed in millions of lots | | |
| Duration, sec. | Choose the duration (time value measured in seconds that will be allotted for auction process before its expiration) | | |
| Group: Buy, Sell, Both | Choose the direction of auction: Buy, Sell or 2 way | | |
| Anonymous | Anonymous checkbox is disabled and shows that auctions are held anonymously. | | |
| Full Amount | Sen the flag to specify that the initiator intends to take liquidity just once | | |
| Buy | Best bid price at the moment is displayed. Click the button to take the price and initiate the trade conclusion. | | |
| Sell | Best offer price at the moment is displayed. Click the button to take the price and initiate the trade conclusion. | | |
| Get Price | Click "Get price" to start the RFS auction | | |

| Request for Stre | am #622: 1 | | | | - 0 × |
|-------------------------|---------------|--------|---------|-----------|---------------------|
| USDRUB_TOM | | \sim | L00+419 | 0ACE0 | \sim |
| Settlemer | nt date: 12.1 | 2.2019 | | | |
| | | | 5257026 | 553 | \sim |
| Amount: | 10M | \sim | OBuy | 🔾 Sell | Both |
| Duration, sec: | 60 | \sim | 🗹 Anon | ymous 🗌 F | Full amount |
| Sell U 65, 80 | | 0,0 | 050 | - | USD 30 75 |
| | | | | 0:00:46 | Cancel |
| 65 | ,8000 | | | 65,810 | 00 |
| | | | | | |

Auction Quote Stream

Liquidity Providers send quotes to the active auction using the "Quote RFS" form.

At the bottom of the form there is a timer (HH:MM:SS) and progress bar shows how much time left before auction end. At the auction time expiration the "Quote RFS" form is closed automatically.

Values in "Buy", "Sell" and "Spread" fields are available for change using arrows around. When "Spread" field value is changed too (the opposite is also true). Changes in "Buy" and "Spread" fields do not affect each other. To switch between these three fields use Tab key. To change prices for buy and sell simultaneously use right and left arrows:

- LEFT arrow (both prices for buy and sell are decreased by one step), hot key Ctrl + -
- RIGHT arrow (both prices for buy and sell are increased by one step), hot key Ctrl + \rightarrow

To open the "Quote RFS" form do one of the following actions:

- Choose Quote RFS item in the RFS submenu of the main menu;
- Choose **Quote RFS** command in the Active RFS Auctions table's context menu.
- Choose **Quote RFS** command in the **RFS** Auctions table's context menu (command is enabled only for active auctions).
- Use the Enter hot key when RFS Auctions or Active RFS Auctions table is opened.

| | Table 10.3. | Elements | of the | "Quote | RFS" |
|--|-------------|----------|--------|--------|------|
|--|-------------|----------|--------|--------|------|

| Element | Description |
|-------------|---|
| Тад | Code name of the liquidity provider |
| Contract | Identifier of the Security to quote |
| Full Amount | A guarantee that consumer intends to take liquidity just once |

| Element | Description |
|-----------------|---|
| Amount | Information field: Volume, expressed in lots to quote |
| Trading Account | Choose the trading account identifier that will be used for settlement |
| Client code | Choose the client code |
| Comments | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Buy only | Set the "Buy only" flag to send only the bid price |
| Sell only | Set the "Sell only" flag to send only the offer price |
| Buy | Enter the bid price |
| Spread | Enter the spread between buy and sell prices |
| Sell | Enter the offer price |
| Best | "Best" line displays currently the best prices for buy (green color) and sell (red color). Own user's quotes are displayed in bold. |
| Stop | Click the "Stop" button to cancel the send quote |
| Send | Click the "Send" button, to place the quote to the selected RFS auction. |

| Quote RFS #1064 | | | ? × | |
|---------------------------|-------|----------------------|-------------------------|---|
| Tag: Full amount | IW956 | Contract: Amount: | EURRUB_TOM 5 650 000 | |
| MB9700100787 Client ID | ~ | Commen | ts |] |
| Buy only Buy | Sor | ead |] Sell only Sell | |
| ▲ | | 0,0100 | ▲ 71,0800 ► | |
| 71,0700 | | • | T 1,0800 | |
| Interrupt | | | Send 0:01:12 | |
| | | | | |

Active RFS Auctions

"Active RFS Auctions" table contains detailed information about currently active RFS auctions that are available for sending quotes. Auctions initiated by user are excluded. If the auction status changes value to any except "Active" (expired by time or cancelled), the record about auction is removed from the table automatically.

To open the table perform one of the following actions

- choose the Active RFS Auctions item of the item of the RFS menu of the main menu.
- click the 🖾 button on the toolbar.

| Field | Description | | |
|---------------------------|---|--|--|
| Auction ID | Auction identifier | | |
| Security | Security ID | | |
| Lots | Volume, expressed in lots | | |
| Start | Auction start time | | |
| Duration, sec. | Time value measured in seconds that will be allotted for auction process | | |
| Remaining time | Remaining time counter H:MM:SS shows how much time left before auction ends | | |
| Status | RFS status: "Active" | | |
| Тад | Code name of the liquidity provider | | |
| FA | Full Amount. A guarantee that consumer intends to take liquidity just once. | | |
| Direction | RFS auction direction: | | |
| | • "B" - Buy | | |
| | • "S" - Sell | | |
| | • S - Sell | | |
| | Space - both directions | | |
| Bid | Best bid price | | |
| Offer | Best offer price | | |
| Anonymous* | Do not discover RFS initiator's name | | |
| Firm* | Firm ID | | |
| Quote number* | Quote ID number in RFS trading system | | |
| Security Id* | Security Id | | |
| Settlement currency* | Settlement currency | | |
| Stop* | Auction stop time | | |
| Trade #* | Trade number in the Trading System | | |
| Trade direction* | Quote direction for the trade | | |
| Trade price* | Trade price | | |
| Best quote shift counter* | Counter of the best quote shifts since the auction start | | |
| Firm* | Firm ID | | |
| | | | |

| Table 10.4. "Active RFS Auctions | " table columns description |
|----------------------------------|-----------------------------|
|----------------------------------|-----------------------------|

RFS Auctions

The table contains detailed information about all initiated RFS auctions during the trading day.

To open the table choose the **RFS Auctions** item of the **RFS** menu of the main menu.

Table 10.5. "RFS Auctions" table columns description

| Field | Description |
|------------|--------------------|
| Auction ID | Auction identifier |
| Security | Security ID |

| Field | Description |
|----------------------|---|
| Lots | Volume, expressed in lots |
| Start | Auction start time |
| Duration, sec. | Time value measured in seconds that will be allotted for auction process |
| Remaining time | Remaining time counter H:MM:SS shows how much time left before auction ends. Field is empty if the auction has not "Active" status. |
| Status | RFS Auction status: |
| | "A" - Auction started |
| | • "M" - Matched / Deal done |
| | "C" - Auction cancelled |
| | • "V" - Auction validated |
| | "R" - Auction rejected |
| | "F" - Auction Finished |
| Тад | Code name of the liquidity provider |
| FA | Full Amount. A guarantee that consumer intends to take liquidity just once. |
| Direction | RFS auction direction: |
| | • "B" - Buy |
| | • "S" - Sell |
| | Space - both directions |
| Bid | Best bid price |
| Offer | Best offer price |
| Firm | Firm ID |
| Trading account | Trading account |
| Client code | Client code assigned by the broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| User ID | User ID of the auction owner |
| Anonymous* | Do not discover RFS initiator's name |
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Firm ID* | Firm ID |
| Quote number* | Quote ID number in RFS trading system |
| Security Id* | Security Id |
| Settlement currency* | Settlement currency |
| Stop* | Auction stop time |
| 1 | |
| Trade #* | Trade number in the Trading System |

| Field | Description |
|---------------------------|--|
| Trade price* | Trade price |
| Best quote shift counter* | Counter of the best quote shifts since the auction start |
| User ID* | User ID |

RFS Securities

The RFS Securities table lists all the securities in the RFS Trading System.

To open the table choose the RFS Securities item of the RFS menu of the main menu.

| Field | Description |
|----------------------------|---|
| Board | Board ID for the security |
| Security ID | Security ID |
| Name | Name of the security |
| Face value | Face value of one Security, expressed in the currency, in which the Security is nominated |
| Currency of instrument | Currency in which security is denominated |
| Remarks | Remarks |
| Security | Security short name |
| Lot size | Number of securities in one lot |
| Order's minimum price step | Minimum price increment for orders, not applicable to orders at WA price |
| Status | Flag: "Trading operations allowed/not allowed" |
| Number of decimals | Number of decimals in the Value field (is used to format PRICE-type fields) |
| Settlement currency | Settlement currency |
| Settlement date | Trade settlement date |
| Settlement code | Settlement code for the trade |
| Trading status | Security trading status: |
| | • N - Not traded right now |
| | • B - Break |
| | • T - Trading session |
| | • Q - Quotes |
| Minimum value | Minimum auction value, lots |
| Lower rate bound | Lowest possible price for the security |
| Upper rate bound | Highest possible price for the security |
| Base price | Base price could be specified for SWAP negdeals |

Sent RFS Quotes

Table contains detailed information about user's own quotes.

To open the table choose the Sent RFS Quotes item of the RFS menu of the main menu.

| Quote ID number in RFS trading system |
|--|
| Time when the order was registered at the Trading System |
| Time when the order was registered at the Trading System, microseconds |
| Current order status: |
| • "Act" - Active |
| • "-" - Withdrawn |
| "-TS" - Rejected by the Trading System |
| "-C" - Cancelled by the Trading System |
| • "-M" - Error |
| • "+K" - Buy |
| ● "+Π" - Sell |
| • "?" - Order validated |
| • "*" - Order handled |
| • "-F" - Finished by time |
| Auction identifier |
| Security Identifier |
| Security ID |
| Quote direction: Buy/Sell |
| Instrument buy price |
| Instrument sell price |
| Volume, expressed in lots |
| ID of the trading firm on whose behalf the order was entered |
| Trading account |
| ID of the user who has entered the order |
| Settlement currency |
| Trade settlement date |
| Client code assigned by the broker |
| Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Time when the order will be automatically withdrawn |
| A reference field which may be used as a back-feed by an external |
| |

Table 10.7. "Sent RFS Quotes" table columns description

Description

Field

| | The when the order will be detornationly withdrawn |
|------------------------|---|
| External user ID | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| RFSM trade information | RFSM trade information from ASTS |
| Update time | Time when the order was updated last time (matched, cancelled) |

| Field | Description |
|--------------------------|---|
| Update time microseconds | Time when the order was updated last time (matched, cancelled), microseconds |
| Active/Passive | User's role flag: active or passive |
| Security ID | Security ID |
| Firm ID | Firm ID |
| User ID | User ID |
| Update time microseconds | Time measured in microseconds when the order was updated last time (matched, cancelled) |

RFS Trades

Table contains detailed information about trades concluded by user after RFS auctions during the trading day.

To open the table choose the **RFS Trades** item of the **RFS** menu of the main menu.

| Field | Description |
|---------------------|---|
| Trade number | Trade number in the Trading System |
| Direction | Quote direction: Buy or Sell |
| Order number | Number of order from which the trade originates |
| Time | Time when the trade was registered at the Trading System |
| Microseconds | Time when the trade was registered at the Trading System, microseconds |
| Auction ID | Auction identifier |
| User ID | ID of the user who concluded the trade |
| Firm | ID of the trading firm on whose behalf the trade is registered |
| Trading account | Trading account |
| Security | Security ID |
| Settlement currency | Settlement currency |
| Price | Currency exchange rate |
| Lots | Trade volume, expressed in lots |
| Settlement date | Trade settlement date |
| External user ID | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Client code | Client code specified by the trader when entering an order |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Security ID | Security ID |

Initiated RFS Auctions

The table contains detailed information about all initiated by user RFS auctions during the trading day.

To open the table choose the **Initiated RFS Auctions** item of the **RFS** menu of the main menu.

| Field | Description |
|---------------------------|---|
| Auction ID | Auction identifier |
| Security | Security ID |
| Lots | Volume, expressed in lots |
| Start | Auction start time |
| Duration, sec. | Time value measured in seconds that will be allotted for auction process |
| Remaining time | Remaining time counter H:MM:SS shows how much time left before auction ends. Field is empty if the auction has not "Active" status. |
| Status | RFS Auction status: |
| | • "A" - Auction started |
| | "M" - Matched / Deal done |
| | • "C" - Auction cancelled |
| | "V" - Auction validated |
| | "R" - Auction rejected |
| | "F" - Auction Finished |
| Tag | Code name of the liquidity provider |
| FA | Full Amount. A guarantee that consumer intends to take liquidity just once. |
| Direction | RFS auction direction: |
| | • "B" - Buy |
| | • "S" - Sell |
| | Space - both directions |
| Bid | Best bid price |
| Offer | Best offer price |
| Trading account | Trading account |
| Client code | Client code assigned by the broker |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Security Id* | Security Id |
| Settlement currency* | Settlement currency |
| Stop* | Auction stop time |
| Best quote shift counter* | Counter of the best quote shifts since the auction start |
| External user ID | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. |
| Firm* | Firm ID |
| User ID* | User ID |

Table 10.9. "Initiated RFS Auctions" table columns description

Chapter 11. Clearing information

Positions by Limits

The Positions by Limits table lists firm positions by collateral and by the various types of limits.

To open the table select the **Positions by Limits** item in the **Table** menu or click the ⁵ icon on the toolbar.

| Column | Description | |
|-------------------------|--|--|
| Firm | Firm name | |
| Position | Position code | |
| Currency of settlements | Currency Code of the Settlements | |
| Position code | Account ID in the Settlement House | |
| Description | Group description | |
| Opening balance | Balance at the beginning of the day. The value is set in accordance with the data supplied by an electronic System of the settlement organization. | |
| Current balance | Current balance during the day. Equals to Opening balance plus debit value since the beginning of the Trading Session minus credit value since the beginning of the Trading Session. The exchange commission and accrued interest are included in the | |
| | totals calculation. | |
| Planned balance | Planned balance after the settlement including participant's liabilities and claims on trades which will be settled today. The exchange commission and accrued interest are included in the totals calculation. | |
| Net balance | Netto balance during the day. Equals to Current balance plus Total unmatched value of all active sell-orders minus Total unmatched value of all buy-orders (CURRENTPOS + ORDERSELL - ORDERBUY). | |
| Debit | Debit volume during the day | |
| Credit | Credit volume during the day | |
| Max. limit | The maximum of all limits set | |
| 1-st Level* | First level Bank Account flag (Yes / No) | |
| Control balance * | Control balance during the day. Equals to Opening balance minus Planned buy balance, included into quick (simple) settlement | |
| Ext. limit* | External limit, set by Settlement House | |
| Firm Id* | Firm identifier | |
| Int. limit* | Internal limit, set by user | |
| Sell limit* | Sell limit during the day | |
| Unmatched buy total* | currently not used | |
| Unmatched sell total* | currently not used | |
| User current* | Current user position | |
| User limit* | Limit for User set by Firm manager | |
| User planned* | Planned user position | |
| Single pool * | The flag is indicating whether a settlement code is related to the Single pool | |

Table 11.1. "Positions by Limits" table columns description

Columns marked with * are hidden by default.

Positions by Assets

The Positions by Assets table lists the aggregate firm positions for every currency being traded".

To open the table select the **Positions by Assets** item in the **Table** menu or click the ²⁹ icon on the toolbar.

| Column | Description | |
|-------------------------|---|--|
| Firm | Firm name | |
| Position | Position code | |
| Currency of settlements | Currency Code of the Settlements | |
| Position code | Account ID in the Settlement House | |
| Description | Group description | |
| Opening balance | Balance at the beginning of the day. The value is set in accordance with the data supplied by an electronic System of the settlement organization. | |
| Current balance | Current balance during the day. Equals to Opening balance plus debit value since the beginning of the Trading Session minus credit value since the beginning of the Trading Session. | |
| | The exchange commission and accrued interest are included in the totals calculation. | |
| Planned balance | Planned balance after the settlement including participant's liabilities and claims on trades which will be settled today. | |
| Debit | Debit volume during the day | |
| Credit | Credit volume during the day | |
| Max. limit | The maximum of all limits set | |
| 1-st Level* | First level Bank Account flag (Yes / No) | |
| Control balance* | Control balance during the day. Equals to Opening balance minus Planned buy balance, included into quick (simple) settlement | |
| Firm ld | Firm identifier | |
| Net balance | Netto balance during the day. Equals to Current balance plus Total unmatched value of all active sell-orders minus Total unmatched value of all buy-orders (CURRENTPOS + ORDERSELL - ORDERBUY). | |
| Unmatched buy total* | For TO orders only. Total unmatched value in all active buy-orders entered by the trading firm | |
| Unmatched sell total* | For TO orders only. Total unmatched value in all active sell-orders entered by the trading firm | |
| User current* | Current user position | |
| Settle* | Current settlement having "today" settlement date. Asset profile is excluded. | |
| User planned* | Planned user position | |
| Single pool * | The flag is indicating whether a settlement code is related to the Single pool | |

Table 11.2. "Positions by Assets" table columns description

Columns marked with * are hidden by default.

Liabilities and Claims for Assets

Table lists firm's liabilities and claims for assets for different trading accounts.

To open the table select the Liabilities and Claims for Assets item in the Table menu or click the vice icon on the toolbar.

Table 11.3. "Liabilities and Claims for Assets" table columns description

| Column | Description |
|------------------------|--|
| Firm | Firm name |
| Trading account | Trading account number |
| Position code | Account ID in the Settlement House |
| Asset | Asset code |
| Settlement date | Date of settlements |
| Opening balance | Calculated as "Opening claims" - "Opening liabilities" |
| Liabilities | Liabilities during the day: value in buy trades |
| Claims | Claims during the day: value in sell trades |
| Netto | Netto |
| Value in buy orders | Value in active buy orders |
| Value in sell orders | Value in active sell orders |
| Planned T+ | Planned position during the day, except information of profile transfer. |
| 1-st Level* | First level Bank Account flag (Yes / No) |
| Firm * | Firm identifier |
| Opening claims * | Claims at the beginning of the trading day |
| Opening liabilities * | Liabilities at the beginning of the trading day |
| Single pool * | The flag is indicating whether a settlement code is related to the Single pool |
| Collateral sell limit* | Planned position during the day. Information of profile transfer is included. |

Columns marked with * are hidden by default.

Liabilities and Claims for Pairs

Table lists firm's liabilities and claims for currency pairs for different trading accounts.

To open the table select the Liabilities and Claims for Pairs item in the Table menu.

| Column | Description |
|-------------------------|--|
| Firm | Firm ID |
| Trading account | Trading account number |
| Bank account | Settlement account/code ID in the settlement house |
| Asset1 (security) | Asset1 (security) |
| Asset2 (for settlement) | Asset2 (for settlement) |

| Column | Description |
|--------------------------------|--|
| Settlement date | Settlement date |
| Opening balance (asset1) | Opening balance (asset1) |
| Opening claim (asset1) | Opening claim (asset1) |
| Opening liability (asset1) | Opening liability (asset1) |
| Claim today (asset1) | Claim today (asset1) |
| Liability today (asset1) | Liability today (asset1) |
| Nett (asset1) | Value, expressed in the currency of settlement |
| Claim (asset1) | Claim (asset1) |
| Liability (asset1) | Value, expressed in the currency of settlement |
| Claims in orders (asset1) | Claims in orders (asset1) |
| Liabilities in orders (asset1) | Liabilities in orders (asset1) |
| Opening balance (asset2) | Opening balance (asset2) |
| Opening claim (asset2) | Opening claim (asset2) |
| Opening liability (asset2) | Opening liability (asset2) |
| Claim today (asset2) | Claim today (asset2) |
| Liability today (asset2) | Liability today (asset2) |
| Nett (asset2) | Value, expressed in the currency of settlement |
| Claim (asset2) | Claim (asset2) |
| Liability (asset2) | Value, expressed in the currency of settlement |
| Claims in orders (asset2) | Claims in orders (asset2) |
| Liabilities in orders (asset2) | Liabilities in orders (asset2) |
| Firm Id* | Firm Id |

Columns marked with * are hidden by default.

Setting Limit on Firm's Positions

To set a limit on the Firm's positions, first select a position in any table and then do one of the following:

- select the Change Firm Limit item in the Administration submenu of the Action menu;
- select the **Change Firm Limit** item in the table's popup menu.

| Set Internal Firm Limit | | |
|-------------------------|----------------------------|-------|
| Firm: | Test Firm | Yes |
| Position: | LRUB | Close |
| Currency: | RUB | close |
| Position code: | MB0000600046 | |
| External limit: | 0 | |
| Internal limit: | 0 | Check |
| The planned p | oositions can break limits | |

| Element | Description |
|--|---|
| Firm | Information field: name of the Firm |
| Position | Position name. |
| Currency | Currency ID. |
| Position code | Account Identifier. |
| External limit | External limit for money. |
| Internal limit | Internal limit for money. |
| Check | Enable limit verification. |
| The planned positions can break limits | Set the flag to allow internal limit that doesn't meet planned balance at the current moment. |

Table 11.5. Elements of the "Change Firm Limit" dialog

Trading Accounts

The Trading Accounts table lists all the firm's accounts that can be used in various transactions on the market.

To open the table select the **Trading Accounts** item in the **Table** menu or click the **B** icon on the toolbar.

| Column | Description |
|----------------------|--|
| Firm | Firm name |
| Trading account | Trading account number |
| Trading account type | Trading account type |
| Description | Description |
| Position code | Code of an additional money position |
| Status | Flag: "Trading operations allowed/not allowed" |
| Order types | Permitted order types |
| Level 1 | First level Trading Account flag (Yes / No) |
| Clearing Account | Clearing account's number |
| Clearing firm | Name of the clearing firm |
| Clearing Firm Id | Clearing firm Identifier |
| Firm Id* | Firm Identifier |

Table 11.6. "Trading Accounts" table columns description

Columns marked with * are hidden by default.

Bank Accounts

The Bank Accounts table lists all the firm's bank accounts with their permissions and statuses.

To open the table select the **Bank Accounts** item in the **Table** menu.

Table 11.7. "Bank Accounts" table columns description

| Column | Description |
|--------------|--|
| Firm | Firm name |
| Bank account | Settlement account/code ID in the settlement house |
| Description | Description |

| Column | Description | |
|------------------------------|--|--|
| Status | Flag: "Trading operations allowed/not allowed" | |
| Additional Session | Flag: "Additional Session" | |
| Early Settle | Flag: "Early Settle" | |
| Trading Closed | Flag: "Trading Closed" | |
| Don't check SL | Transactions without single limit check | |
| Fully covered trading for CM | Prohibition of trading without full pre-funding flag. Firm manager may change this setting through the Fully Covered Trading dialog. | |
| Client code | Client code assigned by the broker. | |
| Clearing Firm | Clearing Member Firm name. | |
| Clearing bank account | Clearing account ID in the settlement house | |
| Туре | Bank account type: | |
| | - Client's funds | |
| | - 2,3 lev. clients | |
| | - Collective collateral | |
| | - Funds transferred to TM | |
| | - Own funds | |
| | - Stress collateral | |
| | - Technologic | |
| 1-st level | First level Bank Account flag | |
| Single pool | Flag: "Single pool" | |
| Apply percent risk | Flag: "Apply percent risk". Might be changed with Percent risk calculation form | |
| Clearing firm Id* | Identifier of the Clearing firm | |
| Client information to CM* | Show client information to clearing member | |
| CM controls 3-rd lev.* | Clearing member controls third level | |
| Commission bank account* | Bank account ID in the settlement house to charge variable commission fee from | |
| Details* | Client taxpayer number or other document | |
| Early settlement time* | Early settlement time | |
| Firm Id* | Firm Identifier | |
| Legal clearing model* | Legal clearing model | |
| Protected client* | Protected client | |
| Subdetails* | Client taxpayer number or passport number or other document | |
| Trading closed time* | Trading closed time | |
| | | |

Columns marked with * are hidden by default.

Trading Without Full Pre-funding Limits for Bank Accounts

The Trading Without Full Pre-funding Limits for Bank Accounts lists all the active limits acts currently bound to the certain bank account.

To open the table select the **Trading Without Full Pre-funding Limits for Bank Accounts**item in the **Position** submenu of the **Table** menu.

Table 11.8. Trading Without Full Pre-funding Limits for Bank Accounts table columns description

| Column | Description |
|--------------|--|
| Firm ld | Firm Id |
| Bank Account | Settlement account/code ID in the settlement house |
| Asset code | Asset code |
| Ext. limit | External limit for bank account, that is set by Clearing Centre. |
| Int. limit | Internal limit for bank account, that is set by firm manager. |
| Max. limit | The maximum of internal and extrnal limits |
| Firm | Firm Name |
| Asset | Asset |

Set External Bank Account Limit

To set the limit for bank accounts first select the certain account in the Trading Without Full Pre-funding Limits for Bank Accounts table and then

select the Change External Bank Account Limit item in the Adminitsration submenu of the Action menu or

select **Change External Bank Account Limit** in the popup menu of the Trading Without Full Pre-funding Limits for Bank Accounts table.

| Column | Description |
|--|---|
| Bank Account | Settlement account/code ID in the settlement house. |
| Asset | The asset code |
| External limit | External limit for bank account, that is set by Clearing Centre. |
| Internal limit | Internal limit for bank account, that can be set by firm manager. |
| Check | Enable limit verification. |
| The planned positions can break limits | Set the flag to allow internal limit that doesn't meet planned balance at the current moment. |

Table 11.9. Elements of the "Set External Bank Account Limit" dialog

Check Collateral Sufficiency

To check collateral sufficiency for bank account first select the certain account in the Bank Accounts table and then

select the Check Collateral Sufficiency item in the Adminitsration submenu of the Action menu or

select Check Collateral Sufficiency in the popup menu of the Bank Accounts table.

Table 11.10. Elements of the "Confirmation" dialog

| Column | Description |
|--------------|---|
| Bank Account | Settlement account/code ID in the settlement house to check collateral. |

| Column | Description |
|--------|--|
| | Flag: user is aware of cancel of active orders in case of insufficient collateral. |

Fully Covered Trading

This dialog provides Firm Manager an ability to prohibit trading without full pre-funding for a particular Bank Account.

To open the dialog first select the needed Account in the Bank Accounts table and then choose **Fully Covered Trading** item in the table's context menu or in **Administration** submenu of the **Action** menu.

Check or uncheck the "Prohibition of trading without full pre-funding" checkbox for the selected Bank Account and click "Yes" to proceed to confirmation dialog.

Bank Accounts table contains the "Fully covered trading" field indicating whether trading without full prefunding is available for account or not.

Accounts in Settlement Organizations

"Accounts in Settlement Organizations" table displays the correspondence between Bank Accounts identifiers and real accounts numbers in Settlement House.

To open the table select **Accounts in Settlement Organizations** item in the **Positions** submenu of the **Table** menu.

| Column | Description |
|-----------------------------|---|
| Firm Id | Firm Identifier |
| Firm | Firm name |
| Position code | Settlement account/code ID in the Settlement house |
| Settlement Organization | Settlement Organization name |
| Currency of settlements | Currency code of the settlements |
| Account in settlement house | Number of the corresponding account in the settlement house |
| Collateral account | Collateral account |
| Description | Description of the account |

Table 11.11. "Accounts in Settlement Organizations" table columns description.

Calculate Assets Withdrawal in single or multiple currencies

These dialogs are designed for calculation of assets amount available for withdrawal from the Clearing System in single or multiple currencies for a particular Bank account.

To open the dialog select "Calculate Assets Withdrawal in Single Currency" or "Calculate Assets Withdrawal in Multiple Currencies" in the Query menu.

| Field | Description |
|-------------------------|---|
| Bank account | Bank account identifier. |
| Including TO collateral | Calculation will be performed considering TO collateral (obligations with settlement date already occured). |
| Currency | List of all currencies available for withdrawal. |
| Amount | The amount of money, that can be withdrawaled from the Clearing System in case of withdrawal in single currency. In case of withdrawal |

Table 11.12. Window fields descrition

| Field | Description |
|-------|--|
| | in one currency, the amount of money, available for withdrawal in other currencies, decreases accordingly. |

Table 11.13. "Calculate Assets Withdrawal in Multiple Currencies" window fields descrition"

| Field | Description |
|-------------------------|---|
| Bank account | Bank account identifier. |
| Including TO collateral | Calculation will be performed considering TO collateral (obligations with settlement date already occured). |
| Currency | List of currencies, available for multiple entry. |
| Maximal amount | Maximum amount available for withdrawal from trading system. |
| Required amount | Required amount of money for withdrawal (cells should be filled with values). |
| | The required amount must be specified for all currencies except one, that would be used as collateral. |
| Available amount | Amount available for withdrawal. Calculated after filling "Required amount" field for two of three currancies and pressing "Calculate" button. |
| Calculate (F9) | Calculate amount, available for withdrawal. Calculation can be processed after filling required amount for two of three currancies. Also calculation can be processed by pressing F9 hot key. |
| Clear | Clear cells in "Required amount" column. |

Calulation of Collateral for Operations

"Calculation of Collateral for Operations" form provides functionality to calculate amount of collateral that is required to perform planned trading operations.

To open the dialog select **Collateral for operations** in the **Query** menu.

Table 11.14. Window fields description

| Field | Description |
|---|--|
| Bank account | Bank account used for calculating collateral. |
| "Planned operations" checklist | Select the operations, to be used for calculating collateral. Press the Edit button to open the Enter order packet dialog window. |
| Required additional collateral in RUB | Absolute value of Single Limit negative value, calculated from "Planned operations" checklist contents. |
| | Set the flag to perform Collateral calculation assumping that all of the planned orders will lead to the trades conclusion |
| Choose additional collateral currencies, assets | Assets, specified in USD,EUR,RUB,CNY/GLD/SLV. Values are used for calculating Single Limit. |
| | Single Limit absolute value calculated considering "Planned operations" checklist contents and values of additional collateral in different currencies. The field name varies depending on the Single Limit value. If Single Limit value is negative, field will be named "Lack of additional collateral in RUB". In other cases, "Excess of collateral in trading system in RUB:". |

| Field | Description |
|-------------------------------|--|
| Considered in trading system, | Number of active orders and negdeals in Orders and Sent Negdeals / |
| orders, negdeals | OTC Negdeals tables. |

Clearing information

Positions by Currencies

"Positions by Currencies" dialog is

"Positions by Currencies" dialog is designed to calculate current currency positions by different Bank accounts.

To open the dialog select the following commands sequentially in the top menu **Query > Calculate Positions by Currencies**.

| Table 11.15. Elements of the "Positions b | y Currencies" dialog |
|---|----------------------|
|---|----------------------|

| Element | Description |
|------------------|---|
| Bank account | Bank account, positions by currencies are calculated for. |
| Currency | Currency Identifier |
| Current position | Equals to Opening balance plus Total value of Sell-trades, minus Total value of Buy-trades. |
| Calculate (F9) | Calculate current position values by currencies for selected Bank account, considering trades concluded since the previous calculation. |
| Close | Close the dialog window |

Calculate TOM collateral

"TOM collateral" refers to amount of requirement for FX market Clearing Member's collateral for trades with future settlement dates per each Bank account.

To open the "TOM collateral" dialog select the following commands sequentially in the top menu: **Query > Calculate TOM collateral**.

The dialog contains "Bank account" drop-down list, and "Calculate" and "Close" buttons.

Collateral after Risk-parameters Change

Collateral after Risk-parameters Change is an amount of requirement for Clearing Member's collateral for trades concluded on FX market in case of Risk-parameters change. This amount is calculated for the particular BankAcc considering Risk-parameters values loaded from a file.

To open the dialog select the following commands sequentially in the top menu: **Query > Collateral after Risk-parameters Change**.

The prospective risk-parameters values are loaded from plain text *.csv file with arbitrary name and location. First line of the file contains column headers devided by separator symbol (depends on OS settings, usually "," for American Windows versions and ";" for European Windows version), other lines refer to market risk-parameters values for particular asset devided by separator symbol.

Sample file structure

ASSET;DISCOUNT1;DISCOUNT2;DISCOUNT3 USD;20.373;25.0;29.0 BYN;8.5;20.344;21 EUR;8.021;14.120;20.007

| Column | Description |
|---------------|--|
| ASSET | Asset ID. Corresponds to "Asset ID" column of the Assets table. Other values are not supported. |
| | Maximum 12 symbols. |
| DISCOUNT1/2/3 | Market risk rate [Range 1/2/3]. |
| | Real numbers. Maximum 3 symbols in integer part, maximum 3 symbols in fractional part. The decimal mark symbol depends on operating system locale ("." or ",") Possible values range is from 0 to 100 percent (% symbol should not be used). |

Table 11.16. Columns description

In case the risk-parameters values is not specified for one or several assets, calculation will be performed using current values from the FX market trading system.

Collateral requirement is calculated considering current percent risk-parameters from the FX market trading system.

Table 11.17. Elements of the "Collateral after Risk-parameters Change" dialog

| Element | Description |
|----------------------|---|
| Risk-parameters file | Path to the risk-parameters file. Click "Browse" to select the file. |
| Bank account | BankAcc ID, the collateral requirement will be calculated for. |
| Collateral | The calculated requirement for collateral considering risk-parameters values specified in the file. |
| Calculate (F9) | Calculate requirement considering trades concluded after the previous calculation. |
| Close | Close the dialog. No data will be saved. |

Single Limit Components

The "Single Limit Components" dialog is implemented to assess the input of positions of Clearing member's portfolio in Single Limit. Single Limit components are described for Current Single Limit.

| 🋂 Single Limit (| Components | | | | | ? | × |
|------------------|----------------|---------|--------------|----------|----------------|---------|-------|
| Bank account: | 12024 🗸 | | | | | | |
| Components by a | asset: | | | | | | |
| Asset | Asset ID | Account | Balance | Profiles | Trades total | Transfe | ers |
| Российский руб | ль RUB | | 1 000 000,00 | 0,00 | 0,00 | 0, | 00 |
| <total></total> | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| < | | | | | | | > |
| Interproduct spr | ead discounts: | | | | Overall: | 1 000 0 | 00,00 |
| Group | Group ID | Account | Rate, % | Discount | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | Calculate (F9) | Clos | se |

To open the Single Limit Components dialog select the following commands sequentially in the top menu: **Query > Single Limit Components**.

| Element | Description | | |
|-------------------------------|--|--|--|
| Bank Account | Bank Account for which Single Limit components will be described. | | |
| Components by asset | Table columns are listed below. | | |
| | • Asset; | | |
| | • Asset ID; | | |
| | • Account; | | |
| | • Balance - filled in with Current balance value from "Positions by Assets" or "Positions by limits"; | | |
| | Profiles – filled in with value of asset profiles transferred to other markets; | | |
| | • Trades total – net sum based on trades by any date; | | |
| | • Transfers – the field is filled in for currency as Current balance from Positions by Assets" table; | | |
| | Collateral value; | | |
| | Portfolio value – aggregated net value by asset by any settlement date; | | |
| | • Market risk – market risk value calculated by asset and used for Single Limit; | | |
| | • Percent risk – market risk value calculated by asset by any settlement date and used for Single Limit; | | |
| | • Effective market risk rate – field with calculated value based on market risk, collateral on asset, trades with asset total, and calculated asset price; | | |
| | • UL effect – field with calculated value based on Collateral value, portfolio value, market and percent risks. | | |
| Interproduct spread discounts | Group – name of interproduct spread group; | | |
| | • Account - trading and clearing account; | | |
| | • Rate, % - Rate of discount expressed in percent; | | |
| | • Discount – Discount value calculated for interproduct spread group that are used for Current Single Limit calculation. | | |
| | | | |
| Extra Effects | Commission fee; | | |
| Extra Effects Overall | Commission fee; Single Limit value | | |
| | | | |

Table 11.18. Elements of the "Single Limit Components" dialog

Unsettled Trades

Table lists concluded but not yet settled trades on negotiated deals and orders.

To open the table:

- choose the **Unsettled Trades** command in the **Table** menu of the main menu;
- click the 🚺 button on the toolbar.

Trades that must be settled "today" or "tomorrow" are highlighted with red or orange.

| Table 11.19. "Unsettled trades" ta | able columns description |
|------------------------------------|--------------------------|
|------------------------------------|--------------------------|

| Column | Description | | |
|---|--|--|--|
| Trade ID | Trade number in the Trading System | | |
| Trade date | Trade date | | |
| Settlement date | Trade settlement date. | | |
| Firm | Firm ID | | |
| Security | Security ID | | |
| Board | Board ID for the security | | |
| Settlement code | Settlement code for the trade | | |
| Direction | Order direction - "Buy / Sell / Sell-Buy / Buy - Sell" | | |
| Rate | Currency exchange rate | | |
| Lots | Volume, expressed in lots | | |
| Precise quantity | Precise quantity | | |
| Trade balance | Volume of unmatched part of an order, expressed in lots | | |
| Value | Trade value, expressed in the currency of settlement | | |
| Bank account | Settlement account/code ID in the settlement house | | |
| Settlement organization | Settlement organization | | |
| Trading account | Trading account number | | |
| Client code | Code of a client on whose behalf the order was entered | | |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) | | |
| Unsettled trade type | Unsettled trade type | | |
| Counterparty | Counterparty firm | | |
| Counterparty trading account | Counterparty trading account ID | | |
| Settlement instruction ID | ID of a settlement instruction sent by the firm to settle this trade | | |
| Status | Unsettled trade status | | |
| Counterparty settlement instruction ID | ID of a settlement instruction sent by the counterparty firm to settle this trade | | |
| REPO trade ID | ID of the first REPO part for REPO without CCP. For REPO with CCP: ID of the second trade part in the record for the first trade part and vice versa. | | |
| REPO price 1 | Price of the first REPO leg | | |
| REPO price 2 | Buyback price for the second REPO leg | | |
| Term | REPO term expressed in calendar days. The term starts on the next da after the first REPO leg settlement and ends on the day of the secon REPO leg settlement inclusive. | | |
| Rate, % | REPO rate (fixed rate mode) or spread (floating rate mode), expressed in $\%$ | | |

| Column | Description | | | |
|----------------------------------|---|--|--|--|
| Value / REPO value | REPO value calculated in the currency of settlement for the current date | | | |
| Total amount | Total value of the trade expressed in rub. Can be positive or negative, depending on the trade type (sell or buy). For "ordinary" trades – the same as the trade value. | | | |
| REPO return value | Value due to be paid during settlement of the second (buy-back) REPC leg | | | |
| Discount | Initial discount for the first REPO leg and current discount for the second REPO leg | | | |
| Low limit of REPO discount, % | Low limit of REPO discount, % | | | |
| Upper limit of REPO discount, % | Discount, expressed in % | | | |
| Settlement time | Settlement time | | | |
| Settle today | The "Must be settled today" flag | | | |
| Settle next day | The "Settle next day" flag | | | |
| Order | Number of order, from which the trade originates | | | |
| Type of clearing | Clearing type: | | | |
| | C - Central | | | |
| | C - Central | | | |
| | E - External | | | |
| | M - Multilateral | | | |
| | Not identified | | | |
| | S - Simple | | | |
| Settlement status | Settlement status | | | |
| Report commission | Value of commission fee for sending a quick settlement instruction, in rub. | | | |
| Clearing time | Time when clearing was finished | | | |
| ID of confirmation instruction | ID of the confirmation instruction for an OTC trade | | | |
| Time of confirmation | Time of confirmation | | | |
| Counterparty confirmation status | Counterparty confirmation status | | | |
| Compensation value | Compensation value, expressed in the currency of the trade | | | |
| Type of settlement trade | Type of settlement trade: | | | |
| | N - Negotiated deal | | | |
| | T - Money/Securities transfer | | | |
| Balance of the REPO buy-back | | | | |
| value* | settlement date, expressed in the currency of settlement | | | |
| Block collaterals* | Block collaterals on a special account for REPO trades | | | |
| Board Id* | Board Id | | | |
| Clearing account* | Clearing account number | | | |
| Clearing bank account* | Clearing account ID in the settlement house | | | |
| Clearing firm* | Firm ID of clearing member | | | |
| Clearing firm Id* | Clearing firm Id | | | |

| Column | Description | | | |
|---|---|--|--|--|
| Commission* | Trade commission, rub. | | | |
| Counterparty settlement instruction ID for early settlement* | ID of a settlement instruction for a REPO with CCP trade sent by the counterparty firm | | | |
| Coupon payment* | Value of coupon payment since the last security trading day | | | |
| Coupon payment date* | Date of the last coupon payment | | | |
| Cpty. Id* | Cpty. Id | | | |
| Date of conslusion* | For margin calls only. Date of REPO trade conclusion. Empty in other cases. | | | |
| Date of principal debt payment* | Date of the last principal debt (amortization) payment | | | |
| Discount after deposit, %* | Discount after deposit, expressed in % | | | |
| Due date* | Trade due date | | | |
| Early settle* | Status of early settled REPO with CCP trade | | | |
| External user ID* | A reference field which may be used as a back-feed by an external system. May contain, for example, a user ID of the external system user who entered the original order into that external system. | | | |
| Firm Id* | Firm Id | | | |
| Operation* | Operation type: deposit/withdraw | | | |
| Parent trade* | Parent trade number in the Trading System for REPO trades | | | |
| Principal debt payment* | Value of the principal debt (amortization) payment since the las security trading day | | | |
| Quantity after deposit* | Quantity after deposit, expressed in lots | | | |
| Repurchase value after deposit* | Value of the 2nd (buy-back) REPO leg after deposit, expressed in t currency of settlement | | | |
| Return value after deposit* | REPO return value after deposit, expressed in the currency of settlement | | | |
| Security Id* | Security Id | | | |
| Settlement currency* | Settlement currency | | | |
| Settlement instruction ID for early settlement* | ID of a settlement instruction for a REPO with CCP trade sent by the firm | | | |
| Value after deposit* | REPO value after deposit calculated in the currency of settlement | | | |

Enter Confirmation Trade Settlement Report

To enter the settlement report for a conformation trade, choose the needed trade record in the "Unsettled Trades" table and then do one of the following:

- choose the Enter confirmation trade settlement report command in the Report item of the Action menu in the main menu;
- choose the Enter confirmation trade settlement report command in the context menu of the "Unsettled Trades" table.

The dialog contains confirmation trade parameters to be verified by user.

After the **Enter Report** button clicked there will be action confirmation dialog. Action confirmation can be disabled in the program Options.

Sent confirmation trade settlement reports are listed in the "Sent Reports" table.

| Element | Description |
|------------------|---|
| Trade ID | Trade number in the Trading System |
| Clearing Firm | Firm name of clearing member |
| Counterparty | Counterparty firm name |
| Board | Board name for the security |
| Security | Security name |
| Precise quantity | Precise quantity/ expressed in a number of securities |
| Total amount | Total value of the trade |

Table 11.20. Elements of the "Enter Confirmation Trade Settlement Report" dialog

Sent Reports

Table lists settlement reports sent to counterparties on negotiated trades.

To open the table:

- choose the Sent Reports command in the Table menu of the main menu;
- click the 退 button on the toolbar.

Table 11.21. "Sent Reports" table columns description

| Column | Description |
|------------------------------------|--|
| Instruction number | ID of a settlement instruction sent by the firm to settle this trade |
| Time | Time when the instruction was entered into the Trading System |
| Status | Settlement instruction status |
| Counterparty | Counterparty firm ID |
| Withdraw time | Time at which the settlement instruction was withdrawn |
| User ID | User ID |
| Settlement instruction type | Settlement instruction type |
| Type of the settlement instruction | Settlement instruction execution type |
| Compensation* | Compensation direction |
| Compensation value* | Compensation value, expressed in the currency of the trade |
| Cpty. Id* | Cpty. ld |
| Date* | Date |
| Firm* | ID of the trading firm on whose behalf the instruction was entered |
| Firm* | ID of the trading firm on whose behalf the instruction was entered |
| Number of trades* | Number of trades |
| User ID* | User ID |

Columns marked with * are hidden by default.

Trades of report

To see the list of trades included into the settlement report, choose the needed record in the "Sent Reports" table and do one of the following:

- choose the View report trades command in the Report menu of the Action menu in the main menu;
- choose the View report trades command in the context menu of the "Sent Reports" table.

| Element | Description |
|------------------------------|---|
| Trade ID | Trade number in the Trading System |
| Board | Board name for the security |
| Security | Security name |
| Type of settlement trade | Type of settlement trade: |
| | N - Negotiated deal |
| | T - Money/Securities transfer |
| Settle today | The "Must be settled today" flag |
| Settlement date | Trade settlement date. |
| Precise quantity | Precise quantity, expressed in number of securities |
| Total amount | Total value of the trade |
| Trading Account | Trading account ID for the trade |
| REPO trade ID | ID of the first REPO part for REPO without CCP. For REPO with CCP: ID of the second trade part in the record for the first trade part and vice versa. |
| Counterparty | Counterparty firm |
| Counterparty trading account | Counterparty trading account ID |
| Broker reference | Additional information entered by the trading firm (usually - [client code]/[client instruction number]) |
| Close | Close the dialog window. |

Table 11.22. Elements of "Trades of report" dialog

Chapter 12. General Market Information

Indexes

The Indices table shows the current values of all the indices available on the market.

To open the table select the **Indexes** item in the **Table > Exchange Tables** menu or click the $\frac{1}{22}$ button on the toolbar.

| Column | Description |
|------------------|---|
| Index | Index |
| Index ID | Exchange Index ID |
| Close | Last value of the previous trading session |
| Current | Current index value |
| Last change | Last change |
| To close | To close |
| To close, % | To close, % |
| Calculation time | Calculation time |
| Opening value | Value of the Index at the opening of the current trading day |
| To open | To open |
| To open, % | To open, % |
| Maximum* | Maximum index value |
| Minimum* | Minimum index value |
| Trade volume* | Value of all the trades included into an index, expressed in Rubles |

Table 12.1. "Indexes" table columns description

Columns marked with * are hidden by default.

Turnover by Exchange

The Exchange Turnover lists turnover values for trading boards.

To open the table select the **Exchange Turnover** item in the **Exchange Tables** submenu of the **Table** menu or click the \bigcirc button on the toolbar.

Table 12.2. "Exchange Turnover" table columns description

| Column | Description |
|----------|----------------------------------|
| Boards | Name of the trading board. |
| Exchange | Name of the Exchange. |
| Buy | Turnover on "buy" trades. |
| Sell | Turnover on "sell" trades. |
| Turnover | Total turnover ("buy" + "sell"). |

Currency Rates

"Currency Rates" table lists all the currencies available in the Trading/Clearing System and their exchange rates agains Russian ruble.

To open the table select **Currency Rates** item in the **Exchange Tables** submenu of the **Table** menu.

| Column | Description |
|------------------------|--|
| Currency of settlement | Code of the settlement currency |
| Name | Currency name |
| Exchange rate | Exchange rate against Russian ruble with 4-digits precision. |
| Asset* | Corresponding asset code. |

| Table 12.3. "Currency Rates | " table columns description |
|-----------------------------|-----------------------------|
|-----------------------------|-----------------------------|

Board Totals

The Board Totals dialog box lists the trading values per boards on the market.

To open this dialog select the **Board Totals** item in the **Query** menu.

| oard Totals | | ? × |
|------------------------|------------------------|-------------------|
| <u>B</u> oards: | | |
| Board | Trading board | Value, rubles |
| Additional session UTS | AETS | |
| Auction CBR | AUCB | |
| Negotiated deals | CNGD | 7 000 |
| Negotiated futures | FUTN | |
| Risk control | RSKC | |
| System futures | FUTS | 153 400 000 |
| Trading session UTS | CETS | 5 610 662 919 605 |
| Transfers | TRAN | |
| | | |
| | | |
| | Selected boards value: | 5 610 662 919 605 |

"Board Totals" table contains full names of the boards, identifiers and values of trades per each board in rubles. Value of selected boards and total value are displayed below the table.

Use Ctrl or Shift keys to select several boards. Press Ctrl+A to select all rows in the table.

Security by Board Totals

The Security by Board Totals dialog lists the trading values per security on a chosen board.

To open this dialog first select a line in any table that contains the board identification (orders, trades, etc.) and then select the **Security by Board Totals** item in the **Query** menu.

| Board: | Tradin | g session UTS | - | Board total value: | | 39,956,060,96 |
|------------|--------|---------------|---|----------------------|----------------------------|----------------|
| Securities | | | | Selected securities: | | |
| Security | / | Security ID | | Security | Value, expressed in the cu | Today value |
| BYRRUB_ | том | BYR_RUBTOM | | BYRRUB_TOM - B | 7,451,000,000 | 42,340,274 RUB |
| CNY/RUB | TOD | CNY000000TOD | | EUR/USD_TODT | | |
| EUR/USD | TOD | EURUSD000TOD | | USDRUB_TOD | 3,106,000 | 87,629,417 RUB |
| EUR/USD | TODT | EURUSDTODTOM | | | | |
| EUR/USD | _TOM | EURUSD000TOM | | | | |
| EUR_TOD | TOM | EUR000TODTOM | | | | |
| EURRUB_ | TOD | EUR_RUBTOD | | | | |
| EURRUB_ | TOM | EUR_RUBTOM | | | | |
| KZTRUB_1 | юм | KZT000000TOM | | | | |
| TOM_6M | SWAP | USDRUB_TOM6M | | | | |
| UAHRUB | TOM | UAH000000TOM | | | | |
| USD_TOD | TOM | USD000TODTOM | | | | |
| USDRUB | TOD | USD00000TOD | | | | |
| USDRUB | TOM | USD000UTSTOM | | | | |
| | | BKTRUB000TOM | | | | |
| | | USDRUB_FWD | | | | |
| | | USDRUB_TOM1D | | | | |
| | | USDRUB_TOM1M | | | | |
| | | USDRUB_TOM1W | | | | |
| | | USDRUB_TOM2M | | Total value: | | 129,969,69 |
| | | | | | | |
| | | USDRUB_TOM2W | | | | |

Table 12.4. Elements of the "Security by Board Totals" dialog

| Element | Description |
|---------------------|--|
| Board | Trading board name. |
| Board total value | Total value of trades per board, in rubles. |
| Securities | List of available securities for board totals. Use Ctrl and Shift buttons to select multiple securities. Press Ctrl+A to select all the securities of the trading board. |
| Selected securities | List of securities to obtain values on. |
| Total value | Total value of trades per selected securities in rubles. |

History by Market

To show market trade results for a particular date first open a table which identifies the market (such as Securities, Trades, Orders, Orderbook) and then select the **History by Market** item in the **Query** menu. When the History by Market dialog opens select the desired date and press OK.

This function requires connection to the informational and statistical server (ISS).

The default date in this dialog corresponds to the last date for which there are trade results available. The data can be selected in the drop-down menu at the top of the dialog.

History by Security

To show trade results for a particular security on a particular board first select the security in one of the following tables: Securities, Trades, Orders, Orderbook. Then select the **History by Security** item in the **Query** menu. When the History by Security dialog opens select the desired date range and press OK.

This function requires connection to the informational and statistical server (ISS).

The default range of dates in this dialog corresponds to the earliest and the latest dates of the trade results availability.

Delisted Securities

To show all the securities that are no longer traded first open a table which identifies the market (such as Securities, Trades, Orders, Orderbook) and then select the **Delisted Securities** item in the **Query** menu.

This function requires connection to the informational and statistical server (ISS).

News feed

Attention: If you want to view news from Interfax in trader's terminal you need to use ISS connection.

To activate Interfax News window, open the Tools > Options menu, then proceed to the ISS tab and set the "Display news" enabled flag. Configure Information server connection settings.

The new element **News** will appear in the top menu.

To open the "ISS: Interfax" window with news feed select the **Interfax** item in the **News** menu of the main menu.

Table 12.5. Elements of the "ISS: Interfax" window

| News feed | | Quick view |
|---|---|---|
| News feeds | Mark checkboxes near the required feed to display needed news below. | |
| 🛱 <u>С</u> егодня | Click the calendar icon to choose the date for which you need to display news. By default, today date is chosen. | |
| publication DD:MM:YYYY HH:MM:SS format. Use filtration feature to get | Headline News headline. Important news are highlited with a red font. Click a headline to display news in the quick view area (right of the feed). Double- click headline to open news text in the separate window | Selected news item from the list is displayed in the quick view area. |

Securities tickers in the news text are clickable. To display list of news related to the security, click the ticker.

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To search through news text, press the **Ctrl+F**.

Trading Boards

The Boards table lists all the boards that have been selected during the logon procedure.

To open the table select the **Boards** item in the **Table > Exchange Tables** menu or click the [®] button on the toolbar.

| Table 12.6. | . "Boards" | table columns | description |
|-------------|------------|---------------|-------------|
|-------------|------------|---------------|-------------|

| Column | Description |
|-------------------------|--|
| Board | Trading board name |
| Trading board ID | Trading board ID |
| Status | Flag: "Trading operations allowed/not allowed" |
| Currency of settlements | Currency Code of the Settlements |
| Market | Market ID this board belongs to |
| Value, rubles | Value, rubles |

Columns marked with * are hidden by default.

Trade Time

The Trade Time table lists all the events in the Trading System for the current trading session.

To open the table select the **Trade Time** item in the **Exchange Tables** submenu of the **Table** menu or click the ③ button on the toolbar.

Table 12.7. "Trade Time" table columns description

| Column | Description |
|-------------|--|
| Time | Time of the event. |
| Event group | Event group/category |
| Event | Event name |
| Status | [blank] – active; |
| | "-" – carried out; |
| | cancelled; |
| | confirmation required. |
| Market | Market ID |
| Board | ID of the trading board the event is concerned with. |
| Group | ID of a security group the event is concerned with. |
| Security | Security identifier. |

Trade Time History

The Trade Time History table lists all records about committed trading status changes by any security due to an event occurrence from the trading schedule in the Trading System for the current trading session.

To open the table select the Trade Time History item in the Exchange Tables submenu of the Table menu.

| Table 12.8. "Trade Time Hi | story" table columns description |
|----------------------------|----------------------------------|
|----------------------------|----------------------------------|

| Column | Description | |
|-----------------|---|--|
| Time | Event Time | |
| Security | Security name | |
| Board | Board ID for the security | |
| Trading status | Security trading status | |
| Event | Event type. For list of all types see the TRDTIMETYPES table. | |
| Trading session | Trading session number | |
| Board Id* | Board ID | |
| Security Id* | Security ID | |
| Trading Status | TWT - Auction: After auction trade phase LO - Auction: Bookbuilding phase, orders are locked OE - Auction: Orders entry phase AM - Auction: Trade conclusion phase B - Break C - Closing period DA - Discrete auction N - Not traded right now OA - Opening auction O - Opening period "-" - Trading is closed Trading session | |
| | UPA - Update price auction | |

Firms

The Firms table lists all the firms (dealers) that are present on the market.

To open the table select the **Firms** item in the **Exchange Tables** submenu of the **Table** menu or click the button on the toolbar.

| Table 12.9. " | 'Firms" | table | columns | description |
|---------------|---------|-------|---------|-------------|
|---------------|---------|-------|---------|-------------|

| Column | Description |
|-----------|--|
| Firm | Short Firm name. |
| Firm code | Firm Identifier. |
| Firm type | Firm type: Firm, Investor, Technical Center, Exchange, Central Bank. |
| Status | Status: |

| Column Description | |
|----------------------|---|
| | [blank] – trading operations allowed |
| | = – trading operations are suspended. |
| Clearing access* | The firm has an access to the Clearing organization's services. |
| | • "Yes" - the firm has access; |
| | "No " - the firm has no access; |
| | • Suspended; |
| | Unspecified. |
| Trading access* | The firm has an access to MOEX trading. |
| | • "Yes" - the firm has access; |
| | "No " - the firm has no access; |
| | • Suspended; |
| | Unspecified. |
| TIN* | Taxpayer identification number. |
| Liquidation netting* | Liquidation netting has been initiated in relation of the firm. |
| | • "Yes" - Yes; |
| | • " " - No. |
| Exchange* | Regional Exchange ID. |

Price Move Limits

The Price Move Limits window displays the current values of maximum and minimum allowed exchange rate for a currency pair.

To open this dialog select a currency pair in the Securities table and then select the **Price Move Limits** item in the **Query** menu.

It is also possible to see the exchange rate limits in any order entry dialog by clicking the "?" button located to the right of the Price field.

Chapter 13. Risk Parameters

Assets

"Assets" table lists basic information on assets available in the Trading System.

To open the table, select the Assets item in the Risk Parameters submenu of the Query menu.

| Column | Description |
|-------------------------------------|--|
| Asset ID | Asset code |
| Asset name | Asset name |
| Central rate | Central rate |
| Risk rate for price decrease, % | Percentage value of Risk rate for price decrease |
| Risk rate for price increase, % | Percentage value of Risk rate for price increase |
| Accepted as collateral | The Asset is accepted as collateral |
| Central bank rate, % | Percentage value of risk rate, defined by Central Bank |
| Fully covered trading | Flag displaying prohibition of trading without full pre-funding |
| Asset | Asset short name |
| Central rate, rub* | Central rate of the current trading day, used to determine risk range limits, RUB. |
| Covered Sell* | Covered Sell |
| English name* | English name |
| Fully covered trading limit* | Fully covered trading limit |
| Partial collateral* | The value as a percentage of free funds, which is accepted as collateral |
| Penalty rate for asset transfer, %* | Penalty rate for asset transfer, % |
| Penalty rate for rub. transfer, %* | Penalty rate for rub. transfer, % |
| Quoted for, unit* | Quantity for which the asset is quoted |
| Special mode of settlement* | Special mode of settlement |
| Без расчетов в НКЦ | Без расчетов в НКЦ |

Table 13.1. "Assets" table columns description

Columns marked with * are hidden by default.

Market Risk Parameters

Table contains values of market risk parameters defined for the currenct trading day by Clearing Center for particular assets. Market risk parameters are used for calculating Single limit for trading with partial prefunding.

To open the table select Market Risk Parameters item in the Risk Parameters submenu of the Query menu.

| Column | Description |
|-----------------|-----------------|
| Asset | Asset code |
| Range | Range number |
| Range beginning | Range beginning |

| Column | Description |
|---------------------------------|---|
| Range end | Range end |
| Risk rate for price decrease, % | Percentage value of risk rate for price decrease |
| Lower rate bound | Lower rate bound |
| Upper rate bound | Upper rate bound |
| Range beginning, rub | Range beginning, rub |
| Range end, rub | Range end, rub |
| Risk rates change time | Last time of Risk rates change. |
| Central rate* | Central rate of the current trading day used by Clearing Center to determine rate bounds. |
| Risk rate for price increase, % | Percentage value of risk rate for price increase |

Individual Risk Parameters

Table contains values of risk parameters for firm's trading accounts defined by Clearing Center.

To open the table select Individual Risk Parameters item in the Risk Parameters submenu of the Query menu.

| Column | Description |
|-------------------------------|---|
| Firm | Firm name |
| Position code | Account ID in the Settlement House |
| Trading account | Trading account number |
| Asset | Asset |
| NCC coefficient | National Clearing Centre coefficient |
| NCC coefficient for tomorrow | National Clearing Centre coefficient for tomorrow |
| User coefficient | User coefficient |
| User coefficient for tomorrow | User coefficient for tomorrow |
| Firm* | Firm Identifier |

Table 13.3. "Individual Risk Parameters" table columns description

Columns marked with * are hidden by default.

Percent Risk Parameters

Table contains values of percent risk parameters defined for the currenct trading day by Clearing Center for particular assets. Percent risk parameters are used for for calculating Single limit for trading with partial collateral.

To open the table, select the following commands sequentially in the top menu: **Query > Risk Parameters > Percent Risk Parameters**.

Table 13.4. "Percent Risk Parameters" table columns description

| Column | Description |
|-----------------|-----------------|
| Asset | Asset code |
| Settlement date | Settlement date |

| Column | Description | |
|-------------------------|--|--|
| Range | Range number | |
| Range start, units | Range beginning expressed in units of currency | |
| Range end, units | Range end expressed in units of currency | |
| Lower rate bound | Lower rate bound | |
| Central rate | Central rate | |
| Upper rate bound | Upper rate bound | |
| Range beginning, rub | Range beginning, rub | |
| Range end, rub | Range end, rub | |
| Risk rates change time* | Time of the last rate change | |

Interproduct spreads

The table contains discount values for currency pairs interproduct spreads. The discount is calculated for the planned position and added to the single limit.

To open the table, select the following commands sequentially in the top menu: **Query > Risk Parameters > Interproduct Spreads**.

| Column | Description |
|------------------------------|--|
| Spread name | Short spread name |
| Spread code | Spread identifier |
| Asset name | Name of asset that are contained in spread |
| Discount Rate, % | Rate of discount expressed in percent |
| Covered Sell* | Covered Sell |
| English name* | English name |
| Fully covered trading limit* | Fully covered trading limit |
| Partial collateral* | The value as a percentage of free funds, which is accepted as collateral |
| Quoted for, unit* | Quantity for which the asset is quoted |
| Special mode of settlement* | Special mode of settlement |

Table 13.5. "Interproduct Spreads" table columns description

Columns marked with * are hidden by default.

Interproduct spread assets

The table contains information about interproduct spreads which are composed of groups of assets.

To open the table, select the following commands sequentially in the top menu: **Query > Risk Parameters > Interproduct Spread Assets**.

Table 13.6. "Interpoduct spread assets" table culumns description

| Column | Description |
|-------------|-------------------|
| Spread name | Short spread name |
| Spread code | Spread identifier |

| Column | Description |
|------------------------------|--|
| Asset | Name of asset that are contained in spread |
| Asset ID | Asset identifier that are contained in spread |
| Covered Sell* | Covered Sell |
| Fully covered trading limit* | Fully covered trading limit |
| Partial collateral* | The value as a percentage of free funds, which is accepted as collateral |
| Quoted for, unit* | Quantity for which the asset is quoted |
| Special mode of settlement* | Special mode of settlement |

Individual Risk Parameters (new)

Table contains values of risk parameters for firm's trading accounts defined by User controls second or third level bank account.

Setting of individual risk parameters is available dynamically during the trading day with the corresponding recalculation of the Single Limit / T + planned positions.

To open the table select Individual Risk Parameters (new) item in the Risk Parameters submenu of the Query menu.

| Column | Description |
|---------------------------------|--|
| Firm | Firm ID |
| Bank account | Settlement account/code ID in the settlement house |
| Trading account | Trading account number |
| Asset | Asset |
| Discount rate, % | Discount rate, %; might be changed with "Set interproduct spread discount rate" form |
| Accepted as collateral | Flag: may be accepted as collateral. |
| Zero RtL | Flag of zeroing the lower limit |
| Accepted as collateral for TOM* | Asset can be included into collateral for tomorrow |
| Asset code* | Asset code |
| Firm Id* | Firm Id |
| Partial collateral* | The value as a percentage of free funds, which is accepted as collateral |

Table 13.7. "Individual Risk Parameters (new)" table columns description

Columns marked with * are hidden by default.

Market Individual Risk Parameters (new)

Table contains values of market risk parameters for firm's trading accounts defined by User controls second or third level bank account.

Setting of market individual risk parameters is available dynamically during the trading day with the corresponding recalculation of the Single Limit / T + planned positions.

To open the table select **Market Individual Risk Parameters (new)** item in the **Risk Parameters** submenu of the **Query** menu.

| Column | Description |
|---------------------------------|--|
| Firm | Firm ID |
| Bank account | Settlement account/code ID in the settlement house |
| Trading account | Trading account number |
| Asset | Asset |
| Range | Range number |
| Range, units | Value, expressed in the currency of settlement |
| Risk rate for price decrease, % | Risk rate for price decrease, % |
| Risk rate for price increase, % | Risk rate for price increase, % |
| Lower limit, rub. | Lower limit, rub. |
| Upper limit, rub. | Upper limit, rub. |
| Asset code* | Asset code |
| Firm Id* | Firm Id |
| Range end, units* | Value, expressed in the currency of settlement |
| Range start, units* | Value, expressed in the currency of settlement |

Table 13.8. "Market Individual Risk Parameters (new)" table columns description

Columns marked with * are hidden by default.

Setting Individual Risk-parameters

"Set Individual Risk-parameters" dialog provides an ability to specify individual risk-parameters for Trading accounts and Assets for the next day after the current date.

To open the dialog first open the Individual Risk-parameters table (Query > Risk Parameters > Individual Risk-parameters) and then select **Set Individual Risk-parameters** command in the table's context menu or in **Administration** submenu of the **Action** menu.

As a result new values appear in the Individual Risk Parameters table.

Set market individual Risk-parameters

Set market individual Risk-parameters dialog for Firm's User .

To open the dialog first open the Market Individual Risk-parameters (new) table (Query > Risk Parameters > Market Individual Risk-parameters (new)) and then select **Set market individual Risk-parameters** command in the table's context menu or in **Administration** submenu of the **Action** menu.

As a result new values appear in the Market Individual Risk-parameters (new) table.

| Set Market Individual Risk | c-parameters | 8 X |
|---|---------------|--------|
| Firm: | СбербанкРо | Þ |
| Trading account: | MB00025133 | \$52 |
| Asset: | EUR | • |
| Bank account: | 13352 | |
| Set market individual risk-parameters 1st Range | | |
| Concentration limit: | 100000,00 | ×. |
| Risk rate for price decre | ase, %: | 100,00 |
| Risk rate for price increa | ase, %: | 100,00 |
| 2nd Range | | |
| Concentration limit: | 10000000,0 | 0 |
| Risk rate for price decre | ase, %: | 120,00 |
| Risk rate for price increa | ase, %: | 120,00 |
| 3rd Range | | |
| Concentration limit: | < not limited | d > |
| Risk rate for price decre | ase, %: | 140,00 |
| Risk rate for price increa | ase, %: | 140,00 |
| | Yes | Close |

Table 13.9. Elements of the "Set market individual Risk-parameters" dialog

| Element | Description | |
|---------------------------------------|---|--|
| Firm | Firm name | |
| Trading account | Trading account identifier | |
| Asset | Select the asset to set risk-parameters | |
| Set market individual risk-parameters | Set the flag to enter values of parameters | |
| Concentration limit | Information field: coefficient value set for the current date. Not limited for the third level. | |
| Risk rate for price decrease, % | Information field: rate value set for the current date. | |
| Risk rate for price increase, % | Information field: rate value set for the current date. | |
| Yes | Accept changes of market individual risk- parameters from current date. | |
| Close | Cancel all changes and close the dialog. | |

Set Interproduct spread discount rate

Set Interproduct spread discount rate for Firm's User .

To open the dialog first open the Individual Risk-parameters (new) table (Query > Risk Parameters > Individual Risk-parameters (new)) and then select **Set Interproduct spread discount rate** command in the table's context menu or in **Administration** submenu of the **Action** menu.

As a result new values appear in the Individual Risk-parameters (new) table.

Table 13.10. Elements of the "Set Interproduct spread discount rate" dialog

| Element | Description | |
|------------------|--|--|
| Firm | Firm name | |
| Trading account | Trading account identifier | |
| Asset | Select the asset to set risk-parameter | |
| Bank Account | Information field: bank account for which parameter is setting | |
| Discount rate, % | Information field: rate value set for the current date. | |
| Yes | Accept changes of risk-parameters from current date. | |
| Close | Cancel all changes and close the dialog. | |

Accept Asset as Collateral

Set Accept Asset as Collateral flag for Firm's User .

To open the dialog first open the Individual Risk-parameters (new) table (Query > Risk Parameters > Individual Risk-parameters (new)) and then select **Accept Asset as Collateral** command in the table's context menu or in **Administration** submenu of the **Action** menu.

Please note, that status of asset as collateral will change starting from the next trading day.

As a result new values appear in the Individual Risk-parameters (new) table.

Table 13.11. Elements of the "Accept Asset as Collateral" dialog

| Element | Description |
|----------------------------|---|
| Firm | Firm name |
| Trading account | Trading account identifier |
| Asset | Select the asset to set risk-parameter |
| Bank Account | Information field: bank account for which parameter is setting |
| Accept Asset as Collateral | Set the flag to accept asset as collateral starting from next trading day |
| Yes | Accept changes from current date. |
| Close | Cancel all changes and close the dialog. |

Percent Risk Calculation

Percent risks calculation by bank account flag for Firm's User .

To open the dialog first open the Bank Accounts table (Table > Positions > Bank Accounts) and then select **Percent Risk Calculation** command in the table's context menu or in **Administration** submenu of the **Action** menu.

As a result new value appear in the Bank Account table.

Table 13.12. Elements of the "Accept Asset as Collateral" dialog

| Element | Description |
|-------------------------|---|
| Bank Account | Select the bank account to set the flag |
| Calculate percent risks | Set the flag to calculate percent risks from current date |
| Yes | Accept changes from current date. |
| Close | Cancel all changes and close the dialog. |

Chapter 14. Users and Clients of the Firm

Users

The Users table lists all the traders of own firm that have access to this market.

To open the table select the **Users** item in the **Table** menu or click the ²⁹ button on the toolbar.

| Column | Description | |
|--------------------------------|--|--|
| Firm | Firm short name | |
| User name | User name. | |
| User ID | User identifier in the Trading System. | |
| User type | Type of the user | |
| Status | User status: | |
| | [empty] – operations allowed; | |
| | = - not allowed. | |
| Trading operations | Flag: "Trading operations allowed/not allowed". | |
| Active | Flag indicating whether the user is currently logged-on. | |
| Workstation | Workstation IP-address. | |
| Gateway | Gateway IP-address. | |
| Client code* | Client code assigned by the broker and linked to this user ID | |
| CODCD mode* | Status of Cancel on Drop-Copy Disconnect mode. | |
| COD-Mode* | Status of Cancel on Disconnect mode. | |
| COD-Mode Subscr.* | Type of Cancel on Disconnect mode subscription (COD-mode). COD- mode - cancel active orders on disconnect or logoff from Trading System. Available types are "Not used", "Always" and "On Demand". | |
| External ip address* | User's external IP address | |
| Firm ID | Firm identifier in the Trading System. | |
| Group* | Group ID the user belongs to. | |
| Master | This user is Sponsored Master Access Master | |
| Master User ID 1 | First Master User ID for Sponsored Master Access | |
| Master User ID 2 | Second Master User ID for Sponsored Master Access | |
| Role* | User's role. | |
| Change password on next logon* | User is required to change they password on next logon to the trading system | |
| | • Yes - User is reqired, | |
| | • ''- No. | |

Table 14.1. "Users" table columns description

Users (clear.sys)

The Users (clear. sys.) table lists all the traders of own firm that have access to Clearing System.

To open the table select the Users (clear. sys.) item in the Table menu or click the 📲 button on the toolbar.

| Column | Description | |
|-----------------------------|---|--|
| Firm | Firm short name | |
| User name | User name. | |
| User ID | User identifier in the Trading System. | |
| User type | Type of the user | |
| Status | User status: | |
| | [empty] – operations allowed; | |
| | = – not allowed. | |
| Trading/clearing operations | Flag: "Trading/Clearing operations allowed or not allowed" by firm manager. | |
| Active | Flag indicating whether the user is currently logged-on. | |
| Workstation | Workstation IP-address. | |
| Gateway | Gateway IP-address. | |
| Client code* | Client code assigned by the broker and linked to this user ID | |
| External ip address* | User's external IP address | |
| Firm ID | Firm identifier in the Trading System. | |
| Group* | Group ID the user belongs to. | |
| Role* | User's role. | |

| Table 14.2. "Users | (clear.sys)" table colum | ns description |
|--------------------|--------------------------|----------------|
|--------------------|--------------------------|----------------|

Client Codes

The "Client Codes" table lists clients, registered as members of the firms.

To open the table perform one of the following actions:

- select the Client Codes item in the Firm Tables submenu of the Table menu;
- click the 🛍 button on the toolbar.

| Table 14.3. | "Client Codes' | ' table columns | description |
|-------------|----------------|-----------------|-------------|
|-------------|----------------|-----------------|-------------|

| Column | Description |
|--------------------|--|
| Firm | Firm name |
| Client code | Client code assigned by the broker |
| Туре | Form of client identification |
| Details | Client taxpayer number or other document |
| Firm Id* | Firm Identifier |
| Clearing firm | Clearing firm ID |
| Cross trading | Client has allowance to cross / passive trading (Yes/No/Passive) |
| DFI Access | Client has access to Derivatives financial instruments |
| Qualified Investor | Client is a qualified investor (yes/no) |
| Status | Status: client active or suspended |
| Subdetails | Details: client taxpayer number or passport number or other document |
| Trading blocked | Flag of block access to trading |

| Column | Description |
|----------------------|----------------------|
| Clientcodes category | Clientcodes category |

Stop List of CLients

The "Stop List of CLients" table lists clients, who is denied service by trading member.

To open the table select the Stop List of CLients item in the Firm Tables submenu of the Table menu;

| Table 14.4. | "Stop List of | Clients" table | columns description |
|-------------|---------------|----------------|---------------------|
|-------------|---------------|----------------|---------------------|

| Column | Description | |
|------------|---|--|
| Firm | Firm ID | |
| Details | Client taxpayer number or passport number or other document | |
| Subdetails | Client taxpayer number or passport number or other document | |
| Firm Id* | Firm Id | |

Columns marked with * are hidden by default.

User-TrdAcc

"User-TrdAcc" table provides an information on dependencies between users and trading accounts.

To open the table select User-TrdAcc item in the Firm Tables submenu of the Table menu;

Table 14.5. "User-TrdAcc" table columns description

| Column | Description |
|-----------------|------------------------|
| Firm | Firm name |
| User ID | User ID |
| User Id | User Id |
| Trading account | Trading account number |
| Firm Id* | Firm Identifier |

Columns marked with * are hidden by default.

Suspend and unsuspend trading for user

Firm Manager has privileges to suspend and unsuspend trading for users of the firm. To do that select one or several records in the Users table, and then execute the needed command: Unsuspend Trading or Suspend Trading from the table's pop-up menu or from Administration submenu of the Action menu.

Confirmation dialog provides an option to **withdraw orders** of the selected user.

Chapter 15. NCC integration module (Unified Collateral Pool project)

NCC integration module allows user to interact with the National Clearing Centre system directly from the MOEX Trade Currency terminal interface.

Installation, update, Uninstall

Installation

NCC integration module is included into MOEX Trade Currency installation package.

To install the module set the **NCC integration module** flag at the "Select Additional Tasks" step of the terminal installation.

Please note that NCC module installation is not available during the terminal auto update.

Update

Once installed the NCC integration module may be updated automatically similarly to core terminal functionality.

Program checks for updates automatically every time it connects to the Trading System. For stability purposes and in order to have access to all the market features, it is highly recommended to install all the suggested updates.

Uninstall

To uninstall the NCC integration module please run MOEX Trade Currency installation file again and uncheck the **NCC integration module** flag at the "Select Additional Tasks" step.

Activation and establishing the connection

To activate NCC integration module and establish the connection to the National Clearing Centre system open the **Tools > Options** menu, then proceed to the **NCC** tab and set the **NCC client enabled** flag.

Table 15.1. Elements of the NCC tab on Options form

| Element | Description |
|--|--|
| NCC Server name and port (optional) | NCC server system address and port number (if it is needed) which will de used to establish connection. |
| NCC authentication Server name and port (optional) | NCC server system address and port number (if it is needed) which will de used to authenticate user. |
| Use MOEX Passport authentication | Authorization for MOEX Internet services users. To this function process properly, make sure that there is network access to https://passport.moex.com (443 port). |
| Validata profile | Select created at Sertificate Store profile that provides cryptographic keys and sertificates that support authoirity to operation in NCC system. |
| Use specific login/password | Specify Login ID and password for passport.moex.com, if it is needed. |
| • User | |
| Password | |

Click **OK** to save changes. The new **NCC** item will apear in the top menu.

To reset all changes which was made on form use **Cancel** button.

Transfer of profile of positions on assets

"Request for transfer of profiles of positions on assets" dialog may be used to compose and submit the request for profiles of assets transfer.

Profile of assets is a part of member's collateral which is accounted on the Unified Collateral Settlement Account (BankAcc). This part of collateral is used to settle member's liabilities on markets ivolved into Unified Collateral Pool project. Transfer of assets profiles is performed within one Settlement Account between different markets.

The submitted request is displayed in the Operation log and then after being received by the NCC system - in the List of requests for profiles transfer.

Request may be successfully executed only in case its execution doesn't lead to negative Single Limit value and collateral insufficiency on Unified Collateral Settlement Account for the corresponding market.

To open the dialog do one of the following:

- Select following commands sequentially in the top menu: NCC > Request for transfer of profiles of positions on assets;
- Press Ctrl+F6.

Table 15.2. Elements of the "Request for transfer of profiles of positions on assets" dialog

| Element | Description | |
|------------------------------|--|--|
| Document date | Current date in the trading and clearing systems. | |
| Request ID | Request (document) number assigned by the terminal. This number is unique within one trading day. | |
| Trading account | Identifier of the trading/clearing account, Unified Collateral Settlement Account is bound to. | |
| Bank account | Information field: Unified Collateral Settlement Account (BankAcc) which is bound to selected trading/clearing account. | |
| Participant code | Clearing participant code (identifier) on whos behalf the request is submitted. | |
| First market / Second market | Specify first market (from which the assets profile will be withdrawn) and second market (assets profile will be transferred to). | |
| List of changes | A list of changes on clearing registers of the first and second markets. Click "Add change" to specify changes on a particular assets/positions: Clearing register - identifier of the clearing register. For Derivatives market - clearing register section code (7 characters). Obligatory parameter. For FX market - 2nd level bank account (settle code). Optional parameter. For Equities market list of changes must be explicitly specified. Asset - asset that will be transferred. Value - specify positive or negative value on which position on the selected asset will be changed. | |

| Element | Description |
|---------|---|
| | • X - delete the row. |
| ОК | Submit the request (requires confirmation). Transactions confirmation can be disabled in the program options. |
| Cancel | Discard all changes and close the dialog. |

Transfer of collateral

"Request for transfer of collateral" dialog may be used to compose and submit the request for collateral transfer between participant's settle codes.

Securities, commodities, cash (Russian rubles and foreign currencies) and precious metals may be accepted as a collateral for the "Unified Pool" project. Collateral may be transferred between different settle codes (Bank accounts).

The submitted request is displayed in the Operation log and then after being received by the NCC system - in the List of requests for transfer of collateral.

To open the dialog do one of the following:

- Select following commands sequentially in the top menu: NCC > Request for transfer of collateral;
- Press Alt+F6.

Table 15.3. Elements of the "Request for transfer of collateral" dialog

| Element | Description | |
|--|---|--|
| Document date | Current date in the trading and clearing systems. | |
| Request ID | Request (document) number assigned by the terminal. This number is unique within one trading day. | |
| First market | Specify the market from which collateral will be withdrawn. | |
| Second market | Specify the market, collateral will be transferred to. | |
| Asset | Asset (currency, precious metal) identifier. | |
| Sum / Amount | Sum or amount of cash/precious metals that should be transferred. | |
| First bank account (debit) | Unified Collateral Settlement Account from which the selected assets will be withdrawn. | |
| Second bank account (credit) | Unified Collateral Settlement Account, the selected assets will be transferred to. | |
| List of changes (for first/second settle code) | nd Optional parameter. Click " Add change " to specify changes on a particular clearing register: | |
| | Clearing register - identifier of the clearing register. | |
| | For Derivatives market - clearing register section code (7 characters). | |
| | For FX market - 2nd level bank account (settle code). | |
| | For Equties market - empty. | |
| | Value - specify a positive value on which position on the selected asset will be changed. | |
| | • X - delete the row. | |

| Element | Description |
|---------|---|
| ОК | Submit the request (requires confirmation). Transactions confirmation can be disabled in the program options. |
| Cancel | Discard all changes and close the dialog. |

Operation Log

Operation log displays a list of operations (requests) submitted by participant to the NCC system and their basic details: date, status, time etc.

The detailed information on requests received by the NCC system is presented in the Return and transfer of profiles of positions on assets and Return and transfer of collateral tables depending on the operation type.

To open the table select the following commands sequentially in the top menu: NCC > Operation Log .

Table 15.4. "Operation Log" table columns description

| Column | Description | |
|-----------------------------|---|--|
| Unique identifier | Unique identification number of the operation. | |
| Request date | Date of the request (trading day). | |
| Request number | Number of the request assigned by the terminal. This number is unique within one trading day. | |
| Request type ID | "AssetTransfer" - collateral transfer. "ProfileTransfer" - transfer of profiles of positions. | |
| Status | Operation (request) current state: | |
| | • RS_SGNW - Waiting for signature; | |
| | • RS_SGNC - Verification of signature; | |
| | • RS_RJCT - Rejected; | |
| | • RS_CNCL - Canceled; | |
| | • RS_RCVD - Received; | |
| | • RS_PROC - Processing; | |
| | • RS_EXEC - Executed; | |
| | • RS_FAIL - Failed. | |
| Time to received requerst | Time when request was received by the NCC system. | |
| Processing time | Time when request was processed by the NCC system. | |
| Reply code | Reply code | |
| Reply message | Additional information on operation | |
| Recieved in Clearing system | Flag: request recieved in Clearing system | |

List of requests for profiles transfer

This table displays the current state of requests for profiles transfer submitted by participant to the NCC system.

To open the table select the following commands sequentially in the top menu: NCC > Return and transfer of profiles of positions on assets .

| Column | Description |
|------------------------|---|
| Request number | Request number. |
| Ducument state | Current state of the request: registered / processing / executed / rejected. |
| Ducument date | Date of the document |
| Document number | Document number assigned by the terminal. This number is unique within one trading day. |
| Reply code | Reply code |
| Reply message | Additional information on operation |
| Bank account | Bank account (Unified Collateral Settlement Account) identifier |
| Trade clearing account | Identifier of the trading and clearing account (TrdAcc) |

Table 15.5. "Return and transfer of profiles of positions on assets" table columns description

List of requests for collateral transfer

This table displays the current state of requests for collateral transfer submitted by participant to the NCC system.

To open the table select the following commands sequentially in the top menu: NCC > Return and transfer of collateral .

| Column | Description | |
|-------------------------|---|--|
| Request number | Request number. | |
| Ducument state | Current state of the request: registered / processing / executed / rejected. | |
| Document date | Date of the document | |
| Document number | Document number assigned by the terminal. This number is unique within one trading day. | |
| Reply code | Reply code | |
| Reply message | Additional information on operation | |
| Write-off bank account | Bank account (Unified Collateral Settlement Account) from which collateral is withdrawn | |
| Write-off market | Market from which collateral is withdrawn: FU (derivatives), CU (FX), EQ (equties), CO (commodities). | |
| Enrollment bank account | Bank account (Unified Collateral Settlement Account) collateral is transferred to. | |
| Enrollment market | Market, collateral is transferred to: FU (derivatives), CU (FX), EQ (equties), CO (commodities). | |
| Asset code | Asset (currency, precious metal) identifier | |
| Sum/count of assets | Amount of asset in transfer | |

Table 15.6. "Return and transfer of collateral" table columns description

Chapter 16. Market-Maker Obligations

Market Maker Stats (extended)

Table contains detailed information on Market Maker's obligations on the market.

To open the table perform one of the following actions

- select the Market Maker Stats (extended) item in the Firm Tables group of the Table menu
- select Market Maker Stats (extended) item in the Signals list.

Table 16.1. "Market Maker Stats (extended)" table columns description

| Column | Description | |
|-----------------------|---|--|
| Firm Id | Firm Identifier | |
| Firm | Firm name | |
| Board | Board ID for the security | |
| Security | Security ID | |
| Scheme | Name of the market-making scheme | |
| Agreement number | Number (ID) of a market-making agreement | |
| Agreement date | Date of the market-making agreement conclusion | |
| MGF 1 | Minimal volume of market-maker's order in lots. | |
| MGF 2 | Additional minimal volume of market-maker's order in lots. | |
| Threshold value, lots | When the threshold value of trades is exceeded then the market- maker's obligations either change from two-sided to one-sided or he/ she is released from obligations. Expressed in lots. | |
| Threshold value, rub. | When the threshold value of trades is exceeded then the market- maker's obligations either change from two-sided to one-sided or he/ she is released from obligations. Expressed in Rubles. | |
| Max spread 1, % | Maximum spread allowed for the market-maker, % | |
| Max spread 2, % | Second maximum spread allowed for the market-maker, % | |
| Max spread 3, % | Third maximum spread allowed for the market-maker, % | |
| Max spread | Max spread, RUB | |
| Min % of fulfillment | Minimal percentage of fulfillment | |
| Spread, % | Current market-maker's spread expressed in percent | |
| Spread | Current market-maker's spread, Rubles | |
| Best bid price | Best bid price | |
| Best ask price | Best ask price | |
| Minimum allowed | Minimum allowed price of active limit buy order | |
| Maximum allowed | Maximum allowed price of active limit sell order | |
| Buy volume | Total volume of active limit buy-orders, expressed in lots | |
| Sell volume | Total volume of active limit sell-orders, expressed in lots | |
| Total breach time | Total time during the current Trading Session when the market-maker was not complying with his/her obligations | |
| Compliance time | Total time during the current Trading Session when the market-maker was complying with his/her obligations | |
| Volume | Current total volume of trades, in lots | |

| Column | Description | |
|--------------------------|---|--|
| Value, rub. | Current total value of trades, in Rubles | |
| % of fulfillment | Fulfillment percentage | |
| Left time to fulfillment | Time left to fulfill obligations | |
| Update time | Update time | |
| Obligations fulfilled | Flag showing if obligations are being fulfilled | |
| Spread Type | Type of the spread | |
| Board Id* | Trading Board Identifier | |
| Security Id* | Security Identifier | |

Chapter 17. Tools and Additional Functions

Bank Account Filter

The trader terminal has feature for bank account global filtration applies to all displayed information (orders, trades, positions etc.)

Select the required settlement ID from the drop-down list in BankAcc Filter panel on the Statusbar to apply Bank Account filter:

| BankAcc: | < not selected | > 7 |
|----------|----------------|-----|
| | | |
| BankAcc: | 00761 | - 7 |

BankAcc panel can be disabled by command in the **Toolbars** item of the **View** menu in the main menu.

To enable bank account filtration do one of the following:

- run Apply BankAcc Filter command in the Tools menu of the main menu;
- select row in "Bank Accounts" table and run Apply Bank Account command in the context menu;
- press the **Ctrl+F8** keyboard shortcut.

Do one of the above actions again to disable bank account filtration.

Charts

All Trades Chart

To open the chart for all trades first select a security in one of the following tables: "Securities" "Trades", "All Trades" (by board), "Trades by Security", "Orderbook" and then do one of the following:

- click the 1 button on the toolbar;
- select the "All Trades Chart" command in the "Table" menu;
- select the "All Trades Chart" item in the context menu of the table.



If connection to the information and statistical server is enabled in program options then the chart will include historical data.

To change the chart interval use the chart popup menu or + and - hotkeys. To change the scale also use the popup menu or **Ctrl +/Ctrl -** or **Ctrl+mouse wheel** hotkeys.

The chart can be scrolled either using the mouse wheel or with click-and-drag mouse action.

Scrolling and scaling also can be performed with a scrollbar and navigator at the bottom of the form. To scroll through the chart, move the navigator, dragging it on the middle. To scale the chart move the borders of the navigator.

| 08:00 08:00 08:00 08:00 | 08:00 08:00 08:00 08:00 08:00 08:00 08:00 | |
|---|---|---|
| | 24.04 27.04 03.05 08.05 12.05 17.05 22.05 28.05 | |
| Nov December January | February March April May June | |
| with the second s | | ~ |

All the chart customization options are available in the Properties dialog.

Using the View - Toolbar - Charts command it is possible to show the separate toolbar for charts.



Chart properties

Appearance

Table 17.1. "Appearance" tab elements

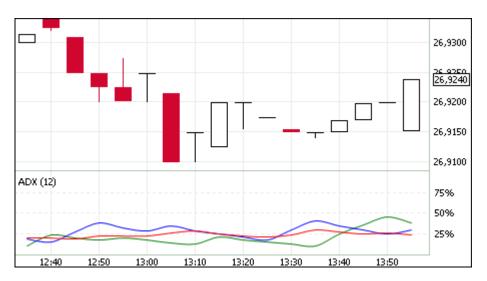
| Element | Description |
|---------------|---|
| "Title" frame | |
| Show title | Uncheck the box to hide the window title, including "Close", "Minimize" and "Maximize" buttons. |

| Element | Description |
|--|--|
| Тор | Title on the top of the window. This command can also been executed from the window title context menu (double click the window title). |
| Left | Title on the left of the window. This command can also been executed from the window title context menu (double click the window title). |
| Tiny | Minimize the window title. This command can also been executed from the window title context menu (double click the window title). |
| "Chart" frame | |
| Interval | Select the needed chart interval. |
| Zoom | Horizontal zoom. |
| Show axis | Show the value axis. If checked - select "Left" or "Right". |
| Show time | Show the time axis. |
| Show grid | Show grid on the chart |
| Show legend (except All Trades Chart) | Show legend of the chart |
| Style (only for All Trades Chart) | Select the needed chart style: Candles, Bars, Lines |
| "Fonts and colors" frame | |
| List of elements | Select the element to customize font and color for. |
| Color/para | Select standard or custom color for selected element. |
| Font | Select font, style and size for selected element. |

Technical Analysis Indicators

Average Directional Movement

The Average Directional Movement index (ADX) is an indicator of trend strength in a series of prices of a financial instrument.



Bollinger Bands

Bollinger Bands can be used to measure the highness or lowness of the price relative to previous trades.



Commodity Channel Index

Commodity Channel Index (CCI) is a versatile indicator that can be used to identify a new trend or warn of extreme conditions.



DeMarker

An indicator that compares the most recent price action to the previous period's price in an attempt to measure the demand of the underlying asset.



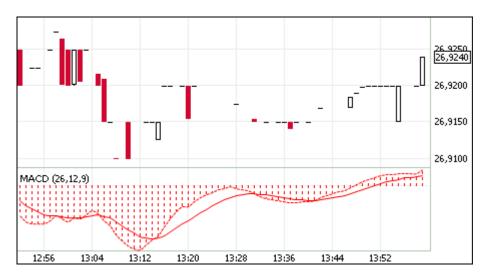
Envelope

Envelope Technical Indicator is formed with two Moving Averages one of which is shifted upward and another one is shifted downward. The selection of optimum relative number of band margins shifting is determined with the market volatility: the higher the latter is, the stronger the shift is..



MACD (Moving Average Convergence/Divergence)

Moving Average Convergence/Divergence indicator is used to spot changes in the strength, direction, momentum, \ and duration of a trend in a stock's price.



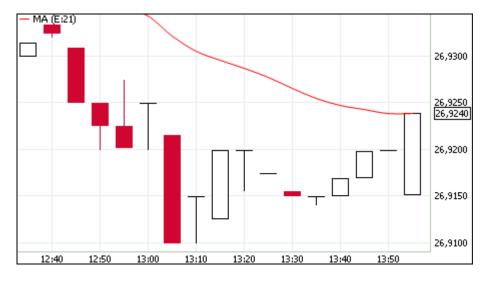
Momentum

The Momentum indicator is a rate of change indicator, that is designed to identify the strength of a price movement.



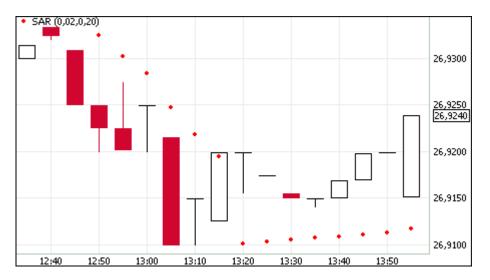
Moving Average

The Moving Average Technical Indicator shows the mean instrument price value for a certain period of time.



Parabolic SAR

The parabolic SAR is a technical indicator that is used to determine the direction of an asset's momentum and the point in time when this momentum has a higher-than-normal probability of switching directions.



Price Oscillator

The Price Oscillator displays the difference of two moving averages in percentages.



Rate of Change

The Rate of Change (ROC) is a simple technical indicator that shows the percentage difference between the current price and the price n periods ago.



Relative Strength Index

Relative Strength Index is a technical momentum indicator that compares the magnitude of recent gains to recent losses in an attempt to determine overbought and oversold conditions of an asset.



Standard Deviation

Standard Deviation measures volatility statistically. It shows the difference of the values from the average one.



Stochastic Oscillator

A technical momentum indicator that compares a security's closing price to its price range over a given time period.



William's Percent Range

Williams' Percent Range Technical Indicator (%R) is a dynamic technical indicator, which determines whether the market is overbought/oversold. Williams' %R is very similar to the Stochastic Oscillator. The only difference is that %R has an upside down scale and the Stochastic Oscillator has internal smoothing.



"SMA Limits" dialog

Sponsored Market Access (SMA) functionality includes pre-trade checks that firm administrator (Master_ID) sets for SMA-users (SMA_ID) of the firm.

SMA users and firm administrator have view access only to security codes restrictions, white and black lists of client codes for users.

To open the dialog perform one of the following actions:

• Select following actions sequentially in the main menu:

Action > Administration > SMA limits;

- Select "SMA limits" item in the context menu of the "Users" table;
- press **Shift+Ctrl+L** hotkeys.

| 🛂 SMA Limits | | | × |
|--|---|---|-------|
| Eirm: Кузнецова | Limit list of allowed boards (2/500) Black list Image: White list OTCT Over-the-counter market Add Delete | | |
| User: Test identifier 1 User group: | Board Board Id Id CETS System deals OTCT Over-the-counter market | | |
| ✓ Turn on restrictions Transaction rate limit: | | | |
| Limits: Order limits Max. security positions Max. money positions Client code limits List of boards List of security codes List of securities | | | |
| | Apply Changes Revert Changes | (| Close |

It is possible to manage SMA limits both for a user and for a User Group. Use the selector on the left frame to set limits managing method "User" or "User Group".

Also it is possible to restrict user or group of users by maximum transaction rate. Use the "Transaction rate limit" field on the left frame of the dialog. "Turn on restrictions" check box allows the firm administrator to manage all the active restrictions, including those set with client's Personal Cabinet. All of the current active restrictions are marked with the green a marker.

The right frame displays the limits list of the current type. Firm administrator only is able to edit these lists. Other users have view access only to these lists.

To edit lists of limits, check the "Turn on restrictions" flag. Turning down restrictions leads to deleting all the records in the specified list. Administrator will be informed with additional dialog. Restrictions that have not set yet are turned into **bold**.

| Limit type | Parameters | Note |
|-------------------------|---------------------------|--|
| Order limits | Security Id | This limit might be set with the dialog. |
| | • Security | "Current order value" field |
| | Price limit up | is filled automatically |
| | Price limit down | with Trading System data. |
| | • Max order quantity | |
| | Max order value | |
| | Max market order quantity | |
| | Max market order value | |
| | Max order values today | |
| | Current order value | |
| Max. security positions | Trading account | This limit might be set with the dialog. |
| | Security Id | "Planned Buy" and |
| | Security | "Planned Sell" fields are filled automatically with |
| | • Buy Limit | Taring System values. |
| | • Sell Limit | |
| | Planned Buy | |
| | Planned Sell | |
| | • Buy Limit (net) | |
| | • Sell Limit (net) | |
| | • Planned Buy (net) | |
| | • Planned Sell (net) | |
| Max. money positions | Trading account | This limit might be set with the dialog. |
| | Buy Limit | |

Table 17.2. SMA limits types and parameters

| Limit type | Parameters | Note |
|------------------------|--------------|--|
| | Sell Limit | "Planned Buy" and "Planned Sell" fields are |
| | Planned Buy | filled automatically with |
| | Planned Sell | Taring System values. |
| Client code limits | Client code | This limit might be set with client's Personal Cabinet |
| List of boards | Board Id | This limit might be set with the dialog. |
| | • Board | |
| List of security codes | Security Id | This limit might be set with client's Personal |
| | Security | Cabinet |
| List of securities | Board Id | This limit might be set |
| | • Board | with the dialog. |
| | Security Id | |
| | Security | |

Change password for firm admin

Firm administrator has option to manage firm users passwords.

To open the dialog, process the following:

Select **Change password** command in the "Users" table conext menu.

| Change Password | | ? | × |
|-----------------|--------------------|------|--------|
| Trader: | Test identifier 1 | | \sim |
| Password: | ••••• | | |
| | Show passwo | rd | |
| Force passwor | d change at next l | ogin | |
| | Yes | Clo | se |

Table 17.3. Elements of the "Change password" dialog

| Field | Description |
|---------------|---|
| Trader | Choose Name and Identifier of a trader who is requred to change password from the drop-down list. |
| Password | Enter the new password |
| Show password | Set the flag to show symbols of the password |
| | Set the flag to force user change password to their own at next login to the trading system. |
| Yes | Accept changes of user password and close the dialog. |

| Field | Description |
|-------|--|
| Close | Cancel all changes and close the dialog. |

Order Validation

Setting Up Order Validation Parameters

To define custom condition of pre-entry order validation do one of the following:

- select the following commands sequentially in the top menu: Tools > Order Validation Parameters > Setup;
- select the Add/Load item in the popup menu of the Order Validation Parameters table

| Order Validation P | Parameters Setup | ? × |
|--------------------------------------|--|-----------------|
| Board: Security: | Trading session UTS | |
| Specified: ▲ Parameter ◆ PRICE | Validation Type Value Deviation, % Minimum Maxi Order Types To Last 1,00 Every | Importance |
| Setup paramete Parameter: | er Validation type: | Delete All |
| PRICE Value: Order types: | To Last Modify existing parameters Deviation, %: Minimum: Maximum: 1,00 All order types High importance | Set |
| Load from file | | Browse Close |

Table 17.4. Elements of the "Order Validation Parameters Setup" dialog

| Element | Description |
|-------------------------------------|---|
| Board | Trading Board name. |
| Security | Security name. |
| Set for all securities on the board | Order validation parameters will be applied to all the securities available on selected trading board, except ones with individually configured validation parameters already specified. If option is enabled together and datasets mechanism is activated then order validation parameters will be applied for securities specified in the dataset only. |
| "Specified:" table | Table contains parameters specified for the selected security and trading board. To edit one of the parameters click the corresponding |

| Element | Description |
|-----------------------------------|---|
| | row in the table, then validation parameter specifications will be displayed in the "Setup parameter" group of fields. |
| Delete | Delete the selected row from the "Specified" table. |
| Delete All | Delete all parameters specified for security and trading board from the "Specified" table. |
| "Setup parameter" group of fields | Edit the specification of selected parameter |
| Parameter | Order parameter to control. |
| | Price - control price value for order entry and algo-packet entry |
| | Lots - control lots quantity in an order |
| | Amount - control order amount expressed in lot currency |
| | Value - control order value expressed in conjugated currency |
| | Parameters available for TWAP orders only: |
| | Lots TWAP - control lots quantity in an algo-packet |
| | Amount TWAP - control algo-packet amount expressed in lot currency |
| | Value TWAP - control algo-packet value expressed in conjugated currency |
| Validation type | Validation type available for the selected parameter. |
| Value | Value the deviation is calculated from. Not applicable for RANGE, MIN and MAX validation types. |
| Deviation, % | Deviation (percentage value). Not applicable for RANGE, MIN and MAX validation types. |
| Minimum | Minimum value for RANGE and MIN validation types. |
| Maximum | Maximum value for RANGE and MAX validation types. |
| Modify existing parameters | Apply settings to securities even for securities with individually configured validation parameters already specified. This option may be enabled only in case "Set for all securities on the board" flag is set. |
| Prohibit breach of the limit | If the option is activated then submitting an order that breaches the specified limit will be prohibited. If this option is disabled, such order will require additional confirmation but still may be submitted. |
| High importance | In case user attempts to breach the limit, "warning" window will be displayed. |
| Apply | Apply validation parameter and add the corresponding row to the "Specified" table. |
| Load from file | Load order validation parameters from the text file. To save order validation settings to file open the "Order Validation Parameters" table, and select the following commands sequentially in the top menu Data Save > File. |
| | Please note that this action requires "Column headers: Identifier " option in the terminal settings on the Tables tab, and "Use field ordering of current window" disabled. |
| Load automatically | Load order validation settings from the file specified automatically at terminal startup. |

| Element | Description |
|---------|--|
| Close | Close the dialog window. All the parameters displayed in the "Specified" table will be saved, but parameter specification displayed in the "Setup parameter" group of fields will be lost. |

Contents of "Board" and "Security" lists may be limited using "Datasets" mechanism.

After pressing the **Set** button the parameter will be added to the Order Validation Parameters table.

Order Validation Parameters Table

The Order Validation Parameters table lists all the custom conditions that will be checked on order preentry. These parameters are set up using the Order Validation Parameters Setup dialog.

To open the table select the following commands sequentially in the top menu **Tools > Order Validation Parameters > View**.

It is possible to export this table to file (**Data** > **Save** > **File**) in order to load all the parameters next time, because these settings are not saved. **Note:** this action requires "Column headers: **Identifier**" option in the terminal settings on the **Tables** tab.

| Column | Description |
|-----------------|---|
| Board | Trading board name. |
| Security | Security for which the order validation parameter is specified. |
| Parameter | Validated parameter. |
| Validation type | Validation type for the selected parameter. |
| Value | Value the deviation is calculated from. |
| Deviation, % | Deviation from Value specified (percentage value). |
| Minimum | Minimum parameter value. |
| Maximum | Maximum parameter value. |
| Board Id* | Trading board identifier |
| Importance* | In case user attempts to breach the limit, "warning" window will be displayed. |
| Prohibit breach | If the option is activated then submitting an order that breaches the specified limit will be prohibited. If this option is disabled, such order will require additional confirmation but still may be submitted. |
| Security | Identifier of the security for which the order validation parameter is specified. |

Table 17.5. "Order Validation Parameters" table columns description

Administrative Order Validation

Common description

Terminal provides an ability to manage order validation parameters administratively for one or multiple users. This can be used to set different types of validation for orders submitted by traders, for example maximim price deviation to market price, or maximum allowed number of lots in the order. Administrative datasets management is also provided.

Order validation settings are stored in the validation.csv file.

Typical scenario of validation.csv usage::

- 1. at connection to the Trading System terminal loads settings from validation.csv, after successful parameters loading an information pop-up window is shown;
- 2. changes made using Order Validation Parameters dialog, are stored in RAM of the computer and not being written to file until the end of the connection session;
- 3. at the end of the session program writes new configuration to validation.csv .

Creating validation.csv

Creating validation.csv (for later use as administrative source of order validation settings) can be performed in two ways:

- using terminal GUI: Order Validation Parameters Setup dialog (Tools > Order Validation Parameters > Setup), then export Order Validation Parameters (Tools > Order Validation Parameters > View) table content to validation.csv file (Data > Save > File), that should be copied to the shared resource;
- manually: format and description of the file are presented below;

validation.csv file format

SECBOARD;SECCODE;PARAMETER;VALIDATION;VALUE;PERCENT;MINIMUM;MAXIMUM; URGENT;PROHIBITBREACH CETS;EUR000TODTOM;PRICE;MKTPRICE;;10,00;;;N;N CETS;EUR000TODTOM;QTY;MAX;;;300;Y;Y CETS;GBPRUB_TOD;PRICE;RANGE;;;92,0000;94,0000;N;N

Elements of validation.csv

| Parameter | Description |
|------------|-------------------------------------|
| SECBOARD | Trading board identifier. |
| SECCODE | Security identifier. |
| PARAMETER | Order parameter to control: |
| | PRICE - Price |
| | QTY - Quantity (number of lots) |
| | VALUE - Value |
| VALIDATION | Validation type: |
| | [space] - no validation |
| | WAPRICE - to weighted-average price |
| | PREVWAPRICE - to previous price |
| | LAST - to last price |
| | MKTPRICE - to market price |
| | VALUE - to value |
| | EXCHANGEVAL - to exchange value |
| | RANGE - Range |
| | MIN - Minimum |

| Parameter | Description |
|----------------|---|
| | MAX - Maximum. |
| VALUE | Value the deviation is calculated from. Not applicable for RANGE, MIN and MAX validation types. |
| PERCENT | Deviation (percentage value). Not applicable for RANGE, MIN and MAX validation types. |
| MINIMUM | Minimum value for RANGE and MIN validation types. |
| MAXIMUM | Maximum value for RANGE and MAX validation types. |
| URGENT | High importance. "Y" - yes, "N" - no. In case user attempts to breach the limit, "warning" window will be displayed. |
| PROHIBITBREACH | Prohibit breach of the limit. "Y" - yes, "N" - no. If the option is activated then submitting an order that breaches the specified limit will be prohibited. If this option is disabled, such order will require additional confirmation but still may be submitted. |

Prohibition of validation.csv modification on traders' side

To prohibit modification and disabling order validation settings on traders' side, the validation.csv file should be read-only for traders. Also a full path to this resource must be specified in the Windows Registry on traders' computers (description is given further).

If corresponding changes are made to Windows Registry on trader's computer, in case terminal can not load validation.csv by any reason, the user session with the trading system will be aborted.

In case validation.csv is loaded successfully, user has read-only access to the Order Validation Parameters) contents.

Sharing validation.csv

validation.csv may be located:

- on local machine, in the folder that is read-only for trader terminal supports LFS-formatted paths, for example " C:\AnyFolder\validation.csv ";
- on shared resource, that is read-only for trader shared folders and smb-resources should be named as: " \\Server\SharedFolder ". Terminal supports UNC-formatted paths, and also Long UNC for 64-bit version.

Two scenarios of access to configuration file are provided:

- shared file for all users* single source of datasets settings for multiple users. In that case file can be located in arbitrary folder, for example " \\Server\SharedFolder\validation.csv ".
- individual file for a particular user* separate subfolders with names corresponding to User IDs are required. In that case the full path to data sets configuration file would be as follows: " \\Server \SharedFolder\[MoexUserId]\validation.csv ".

* Note: the term "user" refers to User ID in the ASTS Trading System, but not Windows User ID.

Necessary changes in Windows Registry on trader's computer

Administrative order validation management requires some changes in Windows Registry on traders' computers that should be performed by user with administrative privileges. Specific values should be added to the following Registry branch:

HKEY_LOCAL_MACHINE\SOFTWARE\MICEX\Trade Currency\

Note: Trader should not have administrative rights on computer and ability to change this Registry branch.

The following keys and values should be added:

• ValidationPathOverride - REG_SZ - path to the folder, for example " \\Server\SharedFolder ", containing either common validation.csv file for all users or individual subfolders for different users (name of the individual folder should not be specified in this value).

If the value is specified user cannot longer modify order validation parameters himself and terminal will not operate in case validation.csv is missing on the specified location. If not specified - user will have an ability to change order validation settings himself;

• ValidationPathIsShared - REG_DWORD - "Shared Validation Settings" flag. Possible values are "1" (use shared validation.csv in specified folder for all users) or "0" (use individual files from subfolders named as User IDs). .

Example 1:

```
ValidationPathOverride=\\Server\SharedFolder
ValidationPathIsShared=1
```

Settings will be loaded from " \\Server\SharedFolder\validation.csv " for all users.

Example 2:

ValidationPathOverride=H:\SharedFolder ValidationPathIsShared=0

Settings will be loaded from individual files located in subfolders with names equal to User IDs in the Trading System, for example H:\SharedFolder\[MoexUserId1]\validation.csv or H:\SharedFolder [MoexUserId2]validation.csv.

Signals

The notification system can display signals on the following events:

- incoming message;
- alerts;
- errors in dynamic export procedure;
- negotiated deal order received;
- breach of market-maker's liabilities;
- program update is available.

All signals appear on the "Signals" toolbar:



When any of the above listed events occurs then the toolbar begins to blink with red. The button on the toolbar displays the number of unread messages:



Click the toolbar to open the table realted to the particular event.

Click the arrow on the right side of the toolbar to show the full list of events and their counters. Click any event to open the related table.

| \bigotimes | Messages: | 1/3 |
|--------------|--------------------|-----|
| E | Alert <u>L</u> og: | 0/0 |
| 6 | Received Negdeals: | 0/0 |
| Δ | Liabilities: | 0/0 |
| | Signals: 1 🖣 | 6 C |

Alerts

Setting Up Alerts

To add an alert for some event concerning the Securities table select the **Alerts > Setup Alert** command in the **Tools** menu or the popup menu of the **Alert Manager** or **Securities** table.

When there is an alert for a security then the following symbol will be displayed near the security name: **a**.

Alert settings are active when the "Check condition" checkbox in its properties is set.

When certain parameter in the Security table matches some of the alerts then a corresponding alert record appears in the Alert Log and the signal toolbar starts to blink. If the "Interrupt me and show an information message" checkbox in alert settings is set then the message will pop up.

| Setup Alert | ? × |
|----------------|----------------------------------|
| Board: | Main market: A1 stocks, RDF |
| Security: | LUKOIL |
| Condition | |
| Parameter: | Last • 1 756,8 |
| Becomes: | equal (=) T757,0 |
| | and |
| Notification | |
| Fire event: | every time 🔻 |
| 🔲 Interrupt me | and show an information message |
| Check conditio | n from: 0:00:00 🔺 to: 23:59:59 💌 |
| Alert name: | <alert 1=""></alert> |
| | Yes Close |

Table 17.6. Elements of the "Setup Alert" dialog

| Element | Description |
|----------|---|
| Board | Trading board for the security. |
| Security | Name of the security, the alert is set for. |

| Element | Description |
|--|--|
| Parameter | Select the parameter of the security that will be monitored. Current value of the selected parameter is displayed to the right of the drop- down list. Click this value to use it as a condition. |
| Becomes | Condition type and value. |
| Fire event | The alert will be displayed every time the event occurs or only once. |
| Interrupt me and show an information message | By default (unchecked) alert message is added to the "Alert log" table and the toolbar blinks with red. If checked - user's workflow will be interrupted with the alert message. |
| Check condition | Set the flag to activate monitoring procedure and alert for the time interval specified ("from" and "to" fields). |
| Alert name | Custom name for the alert. |

Contents of the "Board" and "Security" drop-down lists may be limited using "Data sets" mechanism.

Alert Manager

The Alert Manager table lists all the alerts defined by the user.

To open this table select the **Alerts > Alert Manager** item in the **Tools** menu.

| Column | Description |
|------------|---|
| Security | Security, the alert is set for. |
| Board | Trading board for the security. |
| Parameter | Parameter that is monitored. |
| Relation | Parameter value comparison condition to the reference value. |
| Value 1 | Reference value. |
| Value 2 | Second reference value (for "between" checks only). |
| Fire mode | Alert is displayed every time the event occurs or only once. |
| Importance | Importance (interrupt) status of the alert. |
| Enabled | Alert enabled/disabled. |
| Start Time | Start of the time interval during which the parameter is monitored. |
| Stop Time | End of the time interval during which the parameter is monitored. |
| Is Active | Parameter is currently monitored (current time is between Start and Stop time). |
| Name | Alert's name. |

Table 17.7. "Alert Manager" table columns description

Alert Log

The Alert Log table lists all the events when alerts have been triggered.

To open this table select the **Alerts -> Alert Log** item in the **Tools** menu or in the popup menu of the Alert Manager table.

Table 17.8. "Alert Log" table columns description

| Column | Description |
|------------|---|
| Importance | Importance (interrupt) status of the alert. |

| Column | Description |
|----------|--|
| Time | Time of the alert. |
| Security | Security, the alert is set for. |
| Board | Trading board for the security. |
| Reason | Parameter the alert was displayed for. |
| Name | Alert's name |

Instant Messaging

Sending Messages

To send a message to another trader of own firm or to all the traders of other firm select the following commands sequentially in the top menu **Action > Send Message**.

Table 17.9. Elements of the "Send Message" dialog

| Element | Description |
|------------------|---|
| All | Send message to all the traders of all Exchanges. Option availability depends on user's permissions. |
| Exchange's Firms | Identifier of the Exchange. Message will be delivered to all traders of the particular Exchange. Option availability depends on user's permissions. |
| Group of Firms | Send message to several firms. Option availability depends on user's permissions. |
| Firm | Identifier of the firm. Message will be deliverd to all traders of the firm specified. |
| User | Message will be deliverd to particular user. |
| Auto word wrap | Automatic word wrapping in the message text area. |
| Message text | 256 symbols maximum allowed. |
| Urgent/Important | Urgent/Important message will be displayed as a pop-up window to the recipient. |

Viewing Messages

The Messages table lists all the incoming and outgoing user's messages.

To open the table select **Table > Messages** in the top menu.

Table 17.10. "Messages" table columns description

| Column | Description |
|------------|---|
| In/Out | Incoming or outgoing message. |
| Importance | Urgent/Important message indicator. |
| Time | Time when the message was dispatched. |
| From | User identifier of the message sender. |
| Text | Text of the message. |
| To all | Message is addressed to all traders of all Exchanges. |
| To user | User Id of the message recipient. |
| To firm | Firm Id of the message recipient. |

| Column | Description |
|----------------------|--|
| To firms of exchange | Id of the regional Exchange the message is addressed to. |
| Firm Id * | Identifier of the firm. |

Columns marked with * are hidden by default.

Viewing messages

Double click the corresponding line in the "Messages" table to view the message text. Such a window pops up automatically when the incoming message with the urgency flag is received.

Table 17.11. "Message" window elements

| Element | Description |
|-----------------------------|--|
| Window title: Message - X/Y | X - sequential number of the message (line in the "Messages" table). |
| | Y - total number of incoming and outgoing messages in the table. |
| From | Message sender ID. |
| То | Message recipient ID. |
| Sent / Received | Time when the message was sent/received. |
| Wrap wordss | Automatic word wrapping in the message text area. |
| Back | Open the previous message. |
| Next | Open the next message. |
| Reply | Send the reply to the message sender. |
| Forward | Send this message to the other recipient. |
| Close | Close the dialog. |

MOEX Chat Client

The interface of the MOEX chat client is available in Russian only.

Activation and connection

- 1. Select the **Connect** item in the **Chat** menu of the main menu.
- 2. When connecting for the first time or if the **Chat client enabled** box on the **Chat** tab of the **Options** window is not checked, the activation dialog will be displayed. Press the **Yes** button.

| MOEX Tra | de SE (тестовая версия) Х |
|----------|---|
| ? | Активировать подключение к чату Московской Биржи? |
| | В настоящий момент подключение к чату Московской Биржи в настройках терминала отключено. Необходимо активировать подключение. |
| | Да Нет |

3. The MOEX chat functions are available after registration or login to the MOEX web services. The authorization dialog will be displayed. Please enter your MOEX Passport authorization data in the **User** and **Password** fields.

| Учетные д | анные МОЕХ пасп | орт | ? | Х |
|-----------|-----------------|--------------------------------------|-----|-----|
| R | | данные MOEX Pas нату Московской Б | | я |
| | Пользователь: | login@domain.c | om | |
| | Пароль: | ••••• | | Ŷ |
| | | Да | Отм | ена |

The authorization data provided with the "Use specific login/password" option in the **ISS** tab of the **Options** window can be used by the terminal.

Data Export

Error Messages

To copy Error Messsage content to the clipboard press **Ctrl+C**. This function can be used when contacting the **Support Team**.

Save Table Data

Save to file

To save the contents of a table use **Save -> File** command in the **Data** menu or press **Ctrl+S**. The standard "Save File" dialog will appear.

Specify the location and file name, select one of the file formats and click "Save".

File formats for table data export:

- CSV (comma-separated) *.csv
- Text files (tab-separated) *.txt
- XML files *.xml
- DBF (dBASE III) *.dbf
- Microsoft Excel workbook *.xls

Copy to clipboard

To copy the whole open table to the clipboard select the **Save -> Clipboard** command in the **Data** menu or press **Shift+Ctrl+C**.

s

Dynamic Data Export

Export Setup

To create a procedure for dynamic data export to database or Excel select the **Data -> Dynamic Export -> New Export** command in the main menu or the **New Export** command in the popup menu of the Export Manager table. Export setup is designed as a step-by-step wizard. On the first step select a table to export and the export type. The following steps will differ depending on the chosen type of export procedure.

Two types of export are supported:

- ADO (Active Data Objects) should be used to export data to any database management system which has a driver installed on the local PC. Standard ODBC driver is also supported.
- DDE (Dynamic Data Exchange) should be used to export data to Microsoft Excel or to DDE servers.

Besides support of export to DDE server, the program itself can function as a DDE server to provide other applications with access to market data inside this trader terminal.

When selecting ADO export:

| Dynamic Export Wizard: #001 - Client Codes | ? × |
|---|--------|
| Source of connection © Use data <u>l</u> ink file Browse | |
| Use <u>connection string</u> Provider-COLOLEDR 1/Persist Security Infor-Extend last ID-user Provider-COLOLEDR 1/Persist Security Infor-Extend last ID-user | |
| Provider=SQLOLEDB.1;Persist Security Info=False;User ID=user_ Build | |
| | |
| | |
| | |
| | |
| | |
| Cancel < Back Next > | Finish |

First select connection source - either an existing data link file (.udl or .dsn) or specify a custom connection string.

| Destination: dbo | .mtti_alltrade 🔹 | | | |
|---------------------|------------------------|------------|-----------|---|
| Columns (set bindin | gs for source fields): | | | |
| ID | Caption | Туре | Binding | |
| TRADENO | Deal No. | int(4) | tradeno | |
| TRADETIME | Time | time | tradetime | |
| SECBOARD | Board (ID) | string(4) | secboard | |
| SECBOARD.TEXT | Board | string(30) | | = |
| SECCODE | Security (ID) २Д) | string(12) | seccode | |
| SECCODE.TEXT | Security | string(30) | | |
| PRICE | Rate | float | price | |
| QUANTITY | Lots | int(8) | quantity | |
| VALUE | Value | float | value | |
| PERIOD | Period (ID) | float | | |
| VIELD | | -1-1(1) | | • |

On the next step select the destination table in the database and specify the mapping between local table fields and fields in the database. Based on the type and names of fields in the database the program tries to guess some of the mapping. Key fields are displayed in bold font and they must have a mapping to the database. Mapping of other fields is optional.

Note: it is not recommended to use reserved words of the DBMS while exporting as column names in the destination table.

When selecting DDE export:

| wnamic Export Wizard: #002 - Assets Microsoft Excel | © Otł | ner DDE server | ₹ ? |
|--|---|----------------|--------|
| Auto start Microsoft Excel File name: Sheet: | Browse Servic | e: | |
| X offset: 0 Y offset: 0 Export captions: Captions | Add empty row | Timeout, sec: | 10 × |
| ASSET RC RC | Asset ID Central rate | | |
| RCRUB DISCOUNT_L DISCOUNT_H | Central rate, rub Risk rate for price decrease, % Risk rate for price increase, % | | |
| | • | | |
| | Cancel < Back | Next > | Finish |

First select the recipient application: Microsoft Excel or external DDE server. When exporting to Excel enter or select file name and/or sheet name. If no file name is given then every time the export starts a new file will be created. If no sheet name is given while the file name has been indicated then every time the export starts a new sheet will be added. For DDE server appropriate service and topic names should be specified. Select table fields that should be exported and reorder them if needed. This dialog also contains additional options such as server timeout, column caption settings (do not export, export IDs, export names) and the checkbox to add an empty row to the Excel sheet.

Notes on the export to Excel:

- each sheet can contain only one table;
- export cannot start when there is any dialog box open in Excel or if any cell is being edited;
- do not edit sheets that are used for export, link to data from other sheets instead;
- if group names are used in Excel and the range of these groups breaks when new data is exported then use the "Add empty row" option; also use this option in case cells that are referenced from other sheets keep shifting.

After clicking **Next** the confirmation dialog will be shown. It also provides several additional options:

- Auto start export automatically start dynamic export after connecting to the Trading System.
- Start delay, sec auto start delay. Default value: 60 sec.
- Start export now start dynamic export immediately after pressing Finish button.

All the configured export procedures can be accessed, reconfigured, disabled or deleted from the Export Manager table using the table's popup menu or commands from the Data -> Dynamic Export menu. All the

events concerning the dynamic export such as export start, stop or error are stored in the Export Log table. When an export error occurs, a notification appears on the signal toolbar.

Developing own DDE servers

Besides support of the standard connection and disconnection functions the DDE server must support the following transactions:

a) XTYP_POKE. The item name (hsz2) will contain a string with data range in MS Excel format: RaCb:RyCz, where a <= y and they are both inside the 1..n range where n - the total number of rows; b <= z and they are both inside the 1..m range where m - number of fields being exported. Data (hdata) is delivered in XITable format, see: http://digital.ni.com/public.nsf/ ad0f282819902a1986256f79005462b1/88cfa6094f6b5030862566fa002279e0/.

6) XTYP_EXECUTE. The server may also receive the following commands (hdata):DeleteAll - delete all the previously received data; DeleteRow(x) and InsertRow(x) - delete or insert row inside the (1..n) range.

Export Manager

The Export Manager table lists all the configured export procedures and allows users to reconfigure, pause, stop or delete them using the popup menu or commands from the **Data -> Dynamic Export** menu.

To open the table select the **Data -> Dynamic Export -> Export Manager** item in the main menu.

| Column | Description | |
|-----------|---|--|
| Number | Indentification number of the export procedure. | |
| Autostart | "Yes" - export procedure is sutomatically started after connecting to the Trading System. | |
| Delay | Export autostart delay. | |
| Status | Current export status | |
| Туре | Type of the export: ADO or DDE. | |
| Source | Source table. | |
| Target | Receiver application. | |
| Comments | Information on current export status or error message. | |
| Updated | Time of the last data transfer from Source to Target. | |

Table 17.12. "Export Manager" table columns description

Export Log

All the events concerning the dynamic export such as export start, stop or error are stored in the Export Log table. When an export error occurs, a notification appears on the signal toolbar.

To open the table select the **Data -> Dynamic Export -> Export Log** item in the main menu.

Access from other programs to market data

Besides the dynamic export from this program into other applications, in program options it is possible to enable the program to function as a DDE Server. That means that other applications such as technical analysis software of MS Excel will be able to access data in the Securities table.

To connect to this DDE server use the following parameters:

• service name: MXCurrency

- topic: field ID in the Securities table; to find this ID either use the dynamic export wizard or save the table data to file with IDs as captions;
- item: BoardID.SecurityID these values can be found in the Securities and Boards tables.

For example, the following formula will insert the last trade rate for EUR/RUB TOD into MS Excel =MXCurrency|Last!CETS.EUR_RUB_TOD.

Quick Search in Tables

The quick search function helps to find values in particular columns of long tables.

To start searching, open a table, go to any cell in the required column and start typing the symbols to look for. The table will scroll to the first matching value. Search in case insensitive.

The search dialog box can be also called from the main menu using the **Data -> Find** command.

| | 5 | Search "Firm" | | × |
|----------------|--------------|--------------------|------|------|
| | | η | | |
| 🎎 2279 - Firms | | 📝 Text starts with | Back | Next |
| ▲ Firm | Firm code | 21 | | |
| Transaq 1 | MC9000500000 | Firm | | |
| Transag 2 | MC9000600000 | Firm | | |
| WWW_SITE | MS0066600000 | Firm | | |
| АБ Финанс | MC0117400000 | Firm | | |
| АБАКУСИнвест | MC0063800000 | Firm | | |
| АББ | MC0069500000 | Firm | | |
| Абсолют | MC0059600000 | Firm | - | |
| A.C | MC0000000000 | F1 | | |

Security Finder

To find a security enter a part of its name, ID or registration number in the search field which default location is in the top-right or bottom-right corner of the program window.

To show or hide this search field use the **View -> Toolbars -> Security Finder** menu item.

After pressing the $\stackrel{P}{\sim}$ button or hitting Enter a list of matching securities will appear.

Click a security to open a table with listing of this security on different trading boards. When connection to the informational and statistical server is enabled in program settings then the search will be performed on all the available financial markets.

Print Table

To print any table select the **Print** item in the **Data** menu or press **Ctrl+P**. The print preview window will open first.

Tables are printed according to their current layout on the screen, including the column width and filters applied.

List of Open Windows

To view the full list of open tables and switch to any of them use the **Go to Window** command in the **Windows** menu or press **Alt+0**.

Use the drop-down list to display windows from a particular sheet or all the open windows. Type text in the search field to filter the list.

Double click any window to go to it.

| To Window | | ? |
|-------------------------------------|---------------------|-------|
| | [Show all sheets] | - |
| o to window: | | |
| Window | Sheet | |
| 發 * Boards | 🛷 Exchange | |
| 🔇 Trade Time | 🛷 Exchange | |
| 🎥 Firms | 🛷 Exchange | |
| 🙀 All Trades | 🛷 Exchange | |
| 👆 - Orderbook | Securities | |
| [D1] CNYRUB_TOD - All Trades Chart | Securities | |
| 🖐 KZTRUB_TOM - KZT/RUB - Orderbook | Securities | |
| 🖐 CNY/RUB_TOD - CNY/RUB - Orderbook | Securities | E |
| 🖐 EUR/USD_TOM - EUR/USD - Orderbook | Securities | |
| [Securities] | Securities | |
| 🖐 USDRUB_TOM - USD/RUB - Orderbook | Securities | |
| 退 Sent Negdeals | Orders | |
| Orders 📄 | Orders | |
| Transfer Orders | Orders | |
| 📦 Trades | Trades | |
| Preceived Negdeals | 📌 Notifications | - |
| | ОК | ancel |

Transaction Log

The Transaction Log table lists all the transactions that have been sent by the program to the Trading System since the beginning of the trading session.

To open this table select the Transaction Log item in the Session menu.

Transactions that have failed or returned an error are highlighted in red.

Table 17.13. "Transaction Log" table columns description

| Column | Description |
|----------------|---|
| # | Record number |
| Sent | Time when transsaction was submitted to the Trading System. |
| Action | Transaction description. |
| Parameters | Transaction parameters. |
| Execution time | Transaction execution time (microsecond). |
| Status | Execution status: |
| | + - success |

| Column | Description |
|----------------------|-------------------------------|
| | ! – failed. |
| Trading System Reply | Trading System Reply message. |

Double click a transaction to view its parameters. Title background of the Transaction Parameters dialog for orders corresponds to the order direction: green for buy orders and red - for sell orders.

Change Password

To change the user password in the Trading System select the **Change Password** command in the **Session** menu.

Table 17.14. Elements of "Change Password" form

| Element | Description |
|------------------|---|
| Current Password | Current User's Passport |
| New Password | Enter the new password. |
| Repeat Password | Repeat the password to avoid misprints. |
| Show password | Set the flag to see characters of the password. |

Attention! Check the current keyboard layout and the state of the Caps Lock key when entering the password.

Connection Information

To view details about the current connection to the Trading and Clearing System select the **Connection Info** item in the **Session** menu.

The Connection Information dialog box shows the connection method (through private network over the Internet, or over MOEX VPN), Gateway server name and security details. When connection uses an electronic digital signature then the **Server Certificate** button will be available to view the server and client certificates.

Press the **Show Options** button to view the server IP address, traffic details and mtesrl.dll version.

To open the folder with log files for current user press the **Show Log**.... The button is displayed in case of the "**Turn on logging**" flag was set during the connecting to the Trading System.

Options

To access the program options select the **Options** item in the **Tools** menu or press **Ctrl+O**.

The Options dialog window consists of several tabs.

Connection Tab

The Connection tab of the options window contains the network and connection settings.

If the terminal version implements independent connection to Trading and Clearind system, the tab contains two forms for Trading System and Clearing System network settings.

Separate tabs on the Connection tab contain connection settings to the following services: Algorithmic trading and Request for Stream auctions processing.

| ons | | | | ? |
|----------------------------|--------------------|-----------------------|---------------|--------------|
| Tables | Signals | Hot Keys | ISS | NCC |
| Connection | Tools | View | Actions | Adv. Options |
| Active profile: | | | | |
| TEST INET_GW | Internet 🗸 🗸 | Modify | Add | Delete |
| Trading System | Clearing Syste | m Algo-trading | g service RFS | service |
| Broadcast: | | | | |
| 172.20.194.12 | 1 | | | |
| Server: | | INETCUR_GAT | EWAY | |
| Service: | | 18111/18112 | | |
| Preferred gate address: | way (network) | | | |
| uuuress. | | | | |
| | | | | |
| | | | | |
| | | | | |
| Gundhaariaa | le cal DC time wit | the the tradie of the | -t | |
| | local PC time wit | th the trading sy | stem | |
| | | | | |

| ons | | | | ? |
|---------------------------|----------------------|-------------------|-------------|--------------|
| Tables | Signals | Hot Keys | ISS | NCC |
| Connection | Tools | View | Actions | Adv. Options |
| Active profile: | | | | |
| TEST INET_GW | /Internet 🗸 🗸 | Modify | Add | Delete |
| Trading Syster | m Clearing System | M Algo-trading | service RFS | service |
| Broadcast: | | | | |
| 172.20.194.1 | 21 | | | |
| Server: | | INETCUR_RISK | GATEWAY | |
| Service: | | 28111/28112 | | |
| Preferred gat address: | eway (network) | | | |
| | | | | |
| | | | | |
| Synchronize | e local PC time with | n the trading sys | tem | |
| | | , , | | |
| | | | | |

Table 17.15. Elements of the "Connection" tab

| Element | Description |
|---|--|
| Active profile | Select connection profile to view its settings below. Connection profiles allow user to store different sets of parameters and can be used, for example, to quickly switch between production and test environments. |
| Modify | Edit selected connection profile. |
| Add | Add new connection profile. |
| Delete | Delete selected connection profile. |
| Synchronize local PC time with trading system | Local PC time will be synchronized with Tradin System time at each successful connection. |

Table 17.16. Elements of the "Trading System" tab

| Element | Description |
|-----------------------------|---|
| Direct connection via TSMR: | |
| Broadcast | List of networks addresses (bridges) where searching for available access servers (gateways) will be performed. |
| Server | Trading System server identifier. Note: this field is case-sensitive. |
| Service | Trading System TCP and UDP services name. |

| Element | Description |
|--|---|
| Preferred gateway (network) address | Address of the Trading System network (bridge) where search for available access servers (gateways) will be performed first. |
| Internet connection: | |
| Host list | List of access servers (gateways) for connecting to the Trading System. |
| Server ID | >Trading System server identifier. Note: this field is case-sensitive. |
| Request connection confirmation | Additional confirmation required for Internet connection. |
| Secure connection, "Validata" profile | Use secure connection with digital signature for data transfer. Select "Validata" profile in the drop-down list. Two additional flags are available for secure connection: "Use LDAP certificate stores" and "Keep secret key in memory after program exits". Using Validata, your connection has "channel encryption" provided by Validate or TLS1 2 (OpenSSL) energytion enclosed by default |
| | Validata or TLS1.2 (OpenSSL) encryption enabled dy default. |
| Secure connection | If the flag is set, connection channel has TLS1.2 (OpenSSL) encryption enabled. |

Table 17.17. Elements of the "Clearing System" tab

| Element | Description | | | |
|--|--|--|--|--|
| Direct connection via TSMR: | | | | |
| Broadcast | List of networks addresses (bridges) where searching for available access servers (gateways) will be performed. | | | |
| Server | Trading System server identifier. Note: this field is case-sensitive. | | | |
| Service | Trading System TCP and UDP services name. | | | |
| Preferred gateway (network) address | Address of the Trading System network (bridge) where search for available access servers (gateways) will be performed first. | | | |
| Internet connection: | | | | |
| Host list | List of access servers (gateways) for connecting to the Trading System. | | | |
| Server ID | >Trading System server identifier. Note: this field is case-sensitive. | | | |

Tools Tab

The Tools tab of the options window contains the general program settings.

| Tables | Signals | Hot Keys | ISS | NCC |
|--|-------------------|------------|---------|--------------|
| Connection | Tools | View | Actions | Adv. Options |
| Application language: English (activates at next program start) | | | | |
| | | am startup | | |
| Request qu | uit confirmation | | | |
| Show in mai | n window caption | n | | |
| User Id | entifier | | | Up |
| User Na | ame | | | |
| 🔽 User Ty | pe | | | Down |
| Conne | ction Profile Nam | e | | |
| | | | | |
| | | | | |
| Monitor ga | ateway delays | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Table 17.18. Elements of the "Tools" tab

| Field | Description |
|--------------------------------------|---|
| Application language | Language of the user interface. Changing the language requires application restart. |
| Show Login dialog at program startup | Show "Authentication in the Trading System" dialog at application startup. |
| Request quit confirmation | Show confirmation dialog a attempt to close the application. |
| Show in main window caption | Select parameters to be displayed in the main window caption. "Up" and "Down" buttons can be used to customize their order. |
| Monitor gateway delays | In case of gateway delays from the trading system core, the appropriate information including gateway IP-address and value of time lag would be shown in main window statusbar. |

View Tab

The View tab of the options window contains the interface customization settings.

| Tables | Signals | Hot Keys | ISS | NCC |
|--|----------|-----------------|-----------------------------|--------------|
| Connection | Tools | View | Actions | Adv. Options |
| Desktop | | | | |
| Background color: | | | | |
| ✓ Keep windows inside ✓ Snap to borders | | | | |
| Snap to grid Snap to neighbors | | | | |
| Grid size: | | | Snap distance: | |
| X: 4 | 🚔 Y: 4 🗧 | | X: 12 🚔 | Y: 12 🚔 |
| Colors Scheme: Tab | les | | • | |
| Scheme: Tab | les | | • | |
| Scheme: Tab Items: Tables | les | Color: | • | • |
| Scheme: Tab Items: Tables Header cell | les | | ▼ Sagoa I | |
| Scheme: Tab Items: Tables | les | Color: Font: | ▼ Segoe U | |
| Scheme: Tab Items: Tables Header cell Fixed cell | les | | ▼ Segoe U Sample text | II, 8 |
| Scheme: Tab Items: Tables Header cell Fixed cell Focused cell | les | | | II, 8 |

Table 17.19. Elements of the "View" tab

| Element | Description |
|---------------------|--|
| Background color | Background color for the workspace. |
| Keep windows inside | Prohibit dragging windows outside main program window. |
| Snap to grid | Snap tables to workspace grid. |
| Grid size | Specify the preferable grid size. This option can be enabled only if "Snap to grid" mode is turned on. |
| Snap to borders | Tables will stick to main window borders when being resized or moved. |
| Snap to neighbors | Tables will stick to each other when being resized or moved |
| Snap distance | Specify horizontal and vertical distance from which tables will stick to borders. This option can be enabled only if "Snap to borders" mode is turned on |
| Colors | "Colors" panel can be used to select preferable fonts and colors for different interface elements. |

Actions Tab

The Actions tab of the options window contains settings for the order entry dialog.

| otions | | | | ? × | |
|---|---------------------|---------------------|--------------------|----------------|--|
| Tables | Signals | Hot Keys | ISS | NCC | |
| Connection | Tools | View | Actions | Adv. Options | |
| Request confirmation before transaction execution Show successful transaction execution results | | | | | |
| 🔽 Non-modal | transaction dialo | gs | | | |
| Allow n | nultiple transactio | n dialogs at one | e time (five copie | es maximum) | |
| 📃 Blend i | nactive transactio | n dialogs | | 56 % | |
| Transaction entry dialog | | | | | |
| | m name before id | entifier in firm li | sts | | |
| Short Fir | m ID | | | | |
| Take the | total quantity of t | the best quotes | when entering f | from orderbook | |
| Use "Nur | n pad +" and "Nu | m pad -" to chan | ge price | | |
| | - | - | | | |
| Use "Space" to toggle order direction (buy/sell) Show thousand separators in numeric fields | | | | | |
| | | | | | |
| Close dialog after successful order entry | | | | | |
| | | | | | |
| | | | | | |
| | | | ОК | Cancel | |

Table 17.20. Elements of the "Actions" tab

| Element | Description | | |
|---|---|--|--|
| Request confirmation before transaction execution | Show confirmation dialog with transaction parameters before actual submitting it to the Trading System. | | |
| Show successful transaction execution results | After the transaction is successfuly processed by the Trading System, the appropriate message will be shown. | | |
| Non-modal transaction dialogs | Non-modal order entry dialog windows let user work with tables, menus and other interface elements while dialog is opened. However the dialog window will still be located at the top of all other interface elements. | | |
| Allow multiple transaction dialogs at one time | If non-modal mode for transaction dialogs is activated, this option allows opening additional order entry forms (five copies maximum) without closing previous. | | |
| Blend inactive transaction dialogs | Select a transparency rate for inactive transaction dialog window This option can be enabled only when non-modal mode for transaction dialogs is active. | | |
| Show firm name before identifier in firm list | "Counterparty" field in the "Enter Negdeal" dialog will containt firm name (instead of identifier) and use it as sorting criterea in the selection list. | | |

| Element | Description |
|--|---|
| | If this option is enabled, "Lots" field of the order entry dialog (if it was envoked from orderbook) will contain total quantity of selected and best quotes. |
| Use "Num pad +" and "Num pad -" to change price | Use "Num pad +" and "Num pad -" to respectively increase and decrease price for one step in the order entry dialogs regardless of the cursor position. Hold "Ctrl" or "Shift" to change the price for 10 or 100 steps respectively. |
| Use "Space" to toggle order direction (buy/sell) | "Space" key can be used to change the order direction in active order entry dialog regardless of the cursor position. |
| Show thousand separators in numeric fields | Divide numbers into groups of digits. |
| Close dialog after successful order entry | Close order entry dialog right after the order has been successfuly accepted by the Trading System. Entering new order requires reopening the form. |

Tables Tab

The Tables tab of the options window contains the settings that influence the display and storage of data in all the tables.

| Options | | | | 8 23 | | |
|--|---|------------------------------------|---------|--------------|--|--|
| Connection | Tools | View | Actions | Adv. Options | | |
| Tables | Signals | Hot Keys | ISS | NCC | | |
| Table refresh ra Highlight chan securities and i | ges in | 1,0 🔹 sec. 2 🔹 sec. | | | | |
| Show "Table | menu without | subitems | | | | |
| Export | | | | | | |
| Column head | ers: | Caption | - | | | |
| Use field o | rdering of curre | nt window | | | | |
| | nce columns as: | Name | - | | | |
| | Export CMA compatible data according to | | | | | |
| Enable DD | E server (Securiti | es) | | | | |
| | ns in context mer s loaded from th | nus for tables e Trading System | | | | |
| | | | ОК | Cancel | | |

| Field | Description | | |
|--|--|--|--|
| Table refresh rate | Interval between requests to the server, sec. | | |
| Highlight changes in securities and indices for: | Specify the duration of rows color highlight in "Securities" and "Indexes" tables, that occurs when price of the last trade has been changed. | | |
| Show "Table" menu without subitems | Set the flag if you prefer all items of the "Table" menu to be presented in a single list. If unchecked, menu items will be grouped to the submenus according to their content: Exchange tables, Firm tables, Positions. | | |
| Column headers | Select the type of values to be used as column header in case of exporting table contents to file: full text caption or column identifier. This option doesn't affect copying to the clipboard: in that case full captions are always used. | | |
| Use field ordering of current window | If the flag is set, only visible columns in their exact order will be exported to file or copied to clipboard. If unchecked, all available columns will be included. | | |
| Display reference columns as | Select the type of values to be used for cells that refer to other tables (boards, securities, partners) in case of export: name, code or both. | | |
| Export CMA compatible data according to version | Select the appropriate version of CMA Terminal for correct data export to *.txt or *.dbf. | | |
| Enable DDE server | Enabling this option lets external applications, such as MS Excel and Technical Analysis Systems, request the data from "Securities" table in real-time | | |
| Show actions in context menus for tables | Include transactional commands (order entry and withdrawal) to the context menus of tables (right-click on table content). | | |
| Cache tables loaded from the Trading System | If this option is enabled, after exiting the program all the data will be saved to the special files on the hard drive to avoid re-download at next connection. Please note that sensitive information on own trades and positions will also be cached. | | |

Table 17.21. Elements of the "Tables" tab

Signals Tab

The Signals tab of the options window contains settings for notifications.

| ions | | | | ? × |
|---------------|-------------------|----------------------|----------------|--------------|
| Connection | Tools | View | Actions | Adv. Options |
| Tables | Signals | Hot Keys | ISS | Chat |
| Interrupt wh | ien urgent messa | age received | | |
| Enable soun | ds < Standa | ard > | | X > |
| Flash applica | ation button on | the taskbar when a | application is | inactive |
| | als when reconn | | | |
| | als when reconn | etteu | | |
| Signal events | | | | |
| Event | | | Repeat | t |
| | messages | | No | |
| | negdeals | | No | |
| | | liabilities (extende | - | |
| | on of market trac | | No | |
| | on of negotiated | | No | |
| Received | Requests from S | tream | No | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Table 17.22. Elements of the "Signals" tab

| Element | Description |
|--|---|
| Interrupt when urgent message received | If the flag is set in case of receiving an urgent message the dialog window with its content will be displayed on the top of all other windows. If the option is deactivated new messages will only be shown in statusbar. |
| Enable sounds | Turn on sound notifications. By default "exclamination" sound from the Operatin System settings will be used. Additional buttons to the right of the field can be used to choose own sound, reject own selection and return to default, and play the selected sound. |
| | If application is inactive the corresponding button on the Operating System taskbar will start flashing in case of receiving a notification. |
| Repeat signals when reconnected | All the received notification signals will be repeated at each reconnect to the Trading System. |
| "Signal events" panel | Select types of events for which notifications will be given. |

Hot Keys Tab

The Hot Keys tab of the options window allows users to define own hot keys for any action.

| Options | 1000 | | | ? × |
|---------------|---------|----------|----------|----------------|
| Connection | Tools | View | Actions | Adv. Options |
| Tables | Signals | Hot Keys | ISS | NCC |
| Commands: | | | | |
| Session | • | | | |
| Dession | • | | Hot key: | |
| Login | | | | |
| Change Passw | vord | | | |
| 📔 Transactio | n Log | | Assign | Clear |
| Connection In | ifo | | | |
| 🕘 Logout | | | | |
| Exit | | | | |
| | | | Rese | t All Hot Keys |
| | | | | |
| | | | ОК | Cancel |

Table 17.23. Element of the "Hot Keys" tab

| Element | Description |
|--------------------|---|
| Commands | Select the needed menu from drop-down list and then choose a command to assign a Hot key. |
| Hot key | Activate this field by setting a cursor and then press preferable Hot key ot key combination. If that hot key is already in use the corresponding alert will be shown. Is's not recommended to use standard combinations of Operating Systems such as "Ctrl+F4", "Alt +F4", "Ctrl+C" and so on. |
| Assign | Assign Hot key to the selected command. The assignment will be finally performed after clicking Ok and closing the Options form. |
| Clear | Delete key assignment for the selected command. The unassignment will be finally performed after clicking Ok and closing the Options form. |
| Reset All Hot Keys | Reject all changes and restore default Hot keys configuration. |

Information Server (ISS) Tab

The Information Server (ISS) tab of the options window contains settings for connection to the online Informational and Statistical Server that is used to load all the historical market data as well as current data from other markets.

To "News feed" and "Historical data" functions process properly, make sure that there is network access to http://iss.moex.com (80 port) and https://passport.moex.com (443 port).

| Options | | | | | ? | × |
|--|-------------|----------|--------|--------------|-------------|------|
| Connection | Tools | Viev | v | Actions | Adv. Opti | ons |
| Tables | Signal | s | | Hot Keys | ISS | |
| Download hist | orical data | | | | | |
| 🗹 Display News | | | | | | |
| Parameters | | | | | | |
| Anonymous v Automatic au Use specific le | thorization | l: | | Refres 15 | n interval: | |
| User: | | | | | | |
| Password: | | | | | | |
| Limit downlo | ad speed | | | | | |
| 1 | | | | | 32 k | b/s |
| | R | estart C | onnect | ion | | |
| Data caching | | | | | | |
| Use caching | | | | | | |
| | | | | | Version: | 1ur |
| | | | | ОК | Ca | ncel |

Table 17.24. Elements of the "Information Server" tab

| Element | Description |
|-----------------------------|---|
| Download historical data | Establish connection to the web-server for downloading historical data and performing search for securities on other markets. |
| Anonymous work with ISS | Terminal will connect to ISS without any authorization. INn that case historical data won't be available. |
| Automatic authorization | Authorization will be performed automatically based on the data from the Trading System. This method is recommended for most situations. |
| Use specific login/password | This option requires entering user identifier and password and provided just for possible abnormal cases. |
| Refresh interval | Interval between requests to the server, sec. |
| Limit download speed | Download speed will be limited to the specified value (kb/s). |
| Restart Connection | In case of permanent errors during operation with web-server, program will stop attempts to re-establish the connection. Use this button to try manually restart the connection to ISS. |
| Use caching | Enable caching of downloaded data to prevent its re-download at future requests. |

Adv.Options Tab

The Advanced Options tab of the options window contains additional settings that are more specific for particular versions of the program and are less frequently used then other settings.

| Options | | | | | | ? | × |
|---|---|--------------------------------|-----------------------|---------------|-----------|-----|------|
| Tables | Signals | ; | | Hot Keys | | ss | |
| Connection | Tools | View | | Actions | Adv | ns | |
| Dual order dialog Dual (both Bu) Show Lots bef Leave accepted Add client code | y and Sell) ord fore Price and rejected r | er dialo negdeals erence | gs in "Re field | ceived negdea | ls" table | | |
| - Orderbook turbo | mode | | | | | | _ |
| Lock window wh | en inactive: | | 1 mir | ı | ~ | | |
| Turn off turbo m | ode: | | 5 mir | ı | ~ | | |
| | | | | OK | | Car | ncel |

Table 17.25. Elements of the "Advanced Options" tab

| Field | Description |
|---|---|
| Dual (both Buy and Sell) order dialogs | Order entry dialogs will contain controls and for both Buy and Sell orders. Orders of both directions can be submitted simultaneously. |
| Show Lots before Price | "Lots" field will be located before "Price" in Dual order entry dialogs. |
| Leave accepted and rejected negdeals in "Received negdeals" table | Negdeals will remain in the "Received negdeals" table after their acceptance or rejection. |
| Add client code to "Broker reference" field | "Broker reference" field of the order will contain client code specified in the order entry dialog. |
| Lock window when inactive | If the turbo mode [55] is turned on, orderbook window will be locked after inactivity in specified amount of time. |
| Turn off turbo mode | The Turbo option will be automatically turned off after specified amount of time. |
| Highlight user's orderbooks instead of firm's ones | If option is active, records in an Orderbook table are highlited for orders from current user. If option is inactive (default) records about orders |

| Field | Description |
|-------|---|
| | from user's firm are highlighted. To activate highlight changes, logout and then login to the Trading system. |

NCC

Go to "NCC integration module" > "Activation and establishing the connection section.

Appendix A. Hot keys

Default keyboard shortcuts are listed in the table below. Custom shortcuts can be assigned in the Options Menu.

| Keyboard shortcut | Action | Conditions |
|--|---|--|
| Ctrl+A | Select all. | The Board Selection dialog or table with ability of selecting multiple rows is opened. |
| Ctrl or Shift + Mouse Wheel or UP/ DOWN arrow keys | Increase or decrease Price or Quantity of lots by 10 or 100 points. | Price or Quantity entry field in Order Entry window is active. |
| "+" and "-" keys on a numerical keyboard, Ctrl + "+"/"-", Shift + "+"/"-" | Increase or decrease Price or Quantity by 1, 10 or 100 points. | Order Entry window is opened and function is allowed in the application options. |
| "H" (hundred), "T" (thousand)and "M" (million) keys | Insert "00", "000" or "000 000". | Price or Quantity entry field in the Order Entry window is active. |
| Ctrl+Tab | Change order direction: buy or sell. | Alternative Order Entry window is opened. |
| Space | Change order direction: buy or sell. | Order Entry window is opened and function is allowed in the application options. |
| Ctrl+R | Repeat Last Order parameters. | Order Entry window is opened. |
| Shift + mouse click on table icon on the toolbar or item in "Table" menu | Open additional instance of table. | No dialogs are active. |
| Ctrl+N | Open a copy of the current table. | Any table is active. |
| Esc. | Close dialog and restore the order, withdrawn for editing. | Edit Order window is active. |
| Ctrl+Shift+Space | Switch Data Sets on or off. | No dialogs are active. |
| Ctrl+G | Show the quick filter window. | Any table is opened for which filters are applicable. |
| Ctrl+H | Cancel filter. | Any table is opened and filter is applied. |
| F1 | Display help information for the current table or dialog. | Always available. |
| F2 | Enter Order. | No dialogs are active. |
| F3 | Enter Negdeal/OTC Negdeal Order. | No dialogs are active. |
| F4 | Enter SWAP order. | No dialogs are active. |
| F5 | Refresh the contents of table. | "Trading Accounts" table is active. |
| F6 | Enter Negdeal SWAP Order. | No dialogs are active. |
| F11 | Switch between Fullscreen and Windowed mode. | No dialogs are active. |
| Ctrl+Space | Apply a filter to the table. | Table with at least one configured filter is active. |

| Keyboard shortcut | Action | Conditions |
|--------------------------|--|---|
| Ctrl+F | Open Quick Search dialog. | Table with at least one entry is active. |
| Ctrl+O | Options. | No dialogs are active. |
| Ctrl+B | Setup Bookmarks. | No dialogs are active. |
| Alt+Left/Right arrow key | Go to the previous or next tab. | No dialogs are active. |
| Alt+(1-9) digit key | Go to the tab with corresponding number. | No dialogs are active. |
| Alt+Home | Go to the first tab. | No dialogs are active. |
| Alt+End | Go to the last tab. | No dialogs are active. |
| Alt+Backspace | Go to the previously active tab. | No dialogs are active. |
| Ctrl+C | Copy the contents of the active cell to the clipboard. | Any table is active. |
| Ctrl+Shift+C | Copy the contents of the active table to the clipboard. | Any table is active. |
| Ctrl+S | Export the contents of the table to the file | Any table is active. |
| Ctrl+W | Fit the width of columns according to the longest value in the column. | Any table is active. |
| Ctrl+F2 | Order Packet Entry dialog | No dialogs are active. |
| Shift+Ctrl+F2 | Add Existing Orders to the Packet. | Table with Orders or Negdeal Orders is active. |
| Del | Withdraw a selected order or reject a received negdeal. | Active order is selected. |
| Alt+0 | List of Open Windows. | No dialogs are active. |
| Ctrl+P | Open Print Preview window. | Any table is active. |

Appendix B. Toolbar

| Icon | Action |
|----------|---|
| _ | Enter Order, |
| | Accept a received Negdeal Order |
| 2 | Enter Negdeal / OTC Negdeal |
| | Edit selected Order |
| | Withdraw selected order, |
| | reject a received negdeal |
| C. | Send a message |
| <u>₩</u> | Trading boards |
| <u> </u> | Description of securities |
| | Securities |
| ۹, | Best Negdeals |
| 9 | Orderbook/Negdealbook |
| ¢¢. | All Trades Chart |
| 3 | Trade Time |
| * | Firms |
| | All Trades |
| U | Exchange Turnover |
| | Orders |
| <u>_</u> | Sent Negdeals / OTC Negdeals |
| | Received Negdeals |
| | All Trades |
| , imi | Trading Without Full Pre-funding Limits for Bank Accounts |
| 9 | Positions by Limits |
| 8 | Positions by Assets |
| 8 | Positions by Securities |
| | Liabilities and Claims for Assets |
| 躍 | Trading Accounts |
| | Messages |
| <u>8</u> | Users |

Appendix C. File format for Order Packet

Order packet is stored as a plain text file of the following format:

- *.CSV parameters are devided by separator symbol (depends on OS settings, usually "," for American Windows versions and ";" for European Windows version);
- *.TXT parameters are devided by "tab".

Decimals separator symbol also depends on OS locale settings. Required file encoding is windows-1251.

First line of the file contains the set of parameters names (in any order), each other line refers to one order with parameters values specified correspondingly. It's recommended to specify all the parameters described below for each type of the order to ensure the file validity.

For example, to upload the packet with the following regular orders:

- EURRUB_TOM; buy; 10 lots; price 41,3013; Trading Account: MB0001700082; Client code: 33317; order type: limit order; Good till Cancel, Do not split price; Lifetime 10 minutes
- USDRUB_TOD; sell; 13 lots; order type: market order; trading account: MB0001788888

the file content should be as follows:

SECCODE;SECBOARD;BUYSELL;PRICE;QUANTITY;HIDDEN;MKTLIMIT;SPLITFLAG;IMMCANCEL; PRICEYIELDENTERTYPE;LIFETIME;TRDACCFIRMID;ACCOUNT;CLIENTCODE;BROKERREF EUR_RUB__TOM;CETS;B;41,3013;10;;L;S; ;P;;MB0001700000;MB0001700082;33317; USD000000TOD;CETS;S;;13;;M;;;;;MB0001780000;MB0001788888;;

If one of the parameters specified in the first line is insignificant for one of the orders, then the separator symbol of the next parameter should be inserted right after the separator of the insignificant one in the line corresponding to the particular order (see HIDDEN parameter in the example above).

Please note that empty value (no symbol) is not equal to [space] value (" "): see IMMCANCEL parameter in the example above.

If the last value in the line is an empty value it still requires a separator symbol before it (see BROKERREF parameter in the example above).

| Parameter | Length | Description |
|-----------|--------|---|
| SECCODE | 12 | Security identifier. Please refer to the "Securities" table. |
| SECBOARD | 4 | Trading board identifier. Please refer to the "Boards" table. |
| BUYSELL | 1 | Order direction: |
| | | • B - buy |
| | | • S - sell |
| PRICE | 9 | Exchange rate. |
| QUANTITY | 16 | Quantity of securities expressed in lots. |
| HIDDEN | 16 | Hidden lots volume. |
| MKTLIMIT | 1 | Order type: |

Parameters for regular orders

| Parameter | Length | Description |
|---------------|--------|---|
| | | • L - limit order |
| | | • M - market order |
| SPLITFLAG | 1 | Price split flag: |
| | | • O - Do not split |
| | | • S - Split |
| IMMCANCEL | 1 | Remainder processing mode: |
| | | • [space] - Put into queue (Good till cancel) |
| | | • N - Immediately or cancel |
| | | • W - Withdraw the remainder |
| PRICEYIELDENT | ERTYPE | Price calculation: |
| | | • P - entered price |
| | | • W - weighted-average price |
| LIFETIME | 6 | Order lifetime. |
| TRDACCFIRMID | 12 | Firm ID for trading account. |
| ACCOUNT | 12 | Trading account identifier. |
| CLIENTCODE | 12 | Client code. |
| BROKERREF | 20 | Broker reference: additional information entered by the trading firm (usually - [client code]/[client instruction number]). |

SWAP orders parameters

| Parameter | Length | Description |
|--------------|--------|---|
| SECCODE | 12 | Security identifier. Please refer to the "Securities" table. |
| SECBOARD | 4 | Trading board identifier. Please refer to the "Boards" table. |
| BUYSELL | 1 | Order direction: |
| | | • B - buy |
| | | • S - sell |
| PRICE | 9 | Exchange rate. |
| QUANTITY | 16 | Quantity of securities expressed in lots. |
| LIFETIME | 6 | Order lifetime. |
| TRDACCFIRMID | 12 | Firm ID for trading account. |
| ACCOUNT | 12 | Trading account identifier. |
| CLIENTCODE | 12 | Client code. |
| BROKERREF | 20 | Broker reference: additional information entered by the trading firm (usually - [client code]/[client instruction number]). |

| Parameter | Length | Description |
|--------------|--------------|--|
| ACCEPTEDORDI | T2 NO | Number of accepted order, in case the packet of counter-orders is entered. |
| SECCODE | 12 | Security identifier. Please refer to the "Securities" table. |
| SECBOARD | 4 | Trading board identifier. Please refer to the "Boards" table. |
| BUYSELL | 1 | Order direction: |
| | | • B - buy |
| | | • S - sell |
| CPFIRMID | 12 | Identifier of counterparty firm the negdeal is addressed to. |
| PRICE | 9 | Exchange rate. |
| QUANTITY | 16 | Quantity of securities expressed in lots. |
| SETTLECODE | 12 | Settlement code for this order. |
| TRDACCFIRMID | 12 | Firm ID for trading account. |
| ACCOUNT | 12 | Trading account identifier. |
| CLIENTCODE | 12 | Client code. |
| BROKERREF | 20 | Broker reference: additional information entered by the trading firm (usually - [client code]/[client |

Parameters for Negdeals / OTC negdeals

Parameters for SWAP Negdeals

10

MATCHREF

| Parameter | Length | Description |
|--------------|----------------|--|
| ACCEPTEDORD | 2 12 NO | Number of accepted order, in case the packet of counter-orders is entered. |
| SECCODE | 12 | Security identifier. Please refer to the "Securities" table. |
| SECBOARD | 4 | Trading board identifier. Please refer to the "Boards" table. |
| BUYSELL | 1 | Order direction: • B - buy • S - sell |
| CPFIRMID | 12 | Identifier of counterparty firm the negdeal is addressed to. |
| PRICE | 9 | Exchange rate. |
| BASEPRICE | 9 | Base exchange rate for the security. |
| QUANTITY | 16 | Quantity of securities expressed in lots. |
| TRDACCFIRMID | 12 | Firm ID for trading account. |
| ACCOUNT | 12 | Trading account identifier. |

instruction number]).

of two counter negdeal orders.

Matching reference is used for unique coincidence

| Parameter | Length | Description |
|------------|--------|---|
| SETTLECODE | 12 | Settlement code for this order. |
| CLIENTCODE | 12 | Client code. |
| BROKERREF | 20 | Broker reference: additional information entered by the trading firm (usually - [client code]/[client instruction number]). |
| MATCHREF | 10 | Matching reference is used for unique coincidence of two counter negdeal orders. |

Parameters for messages packet

Availability of this feature depends on user role.

| Parameter | Length | Description |
|-----------|--------|---|
| URGENCY | 1 | "U" for urgent messages that interrupt users' work or [empty] for regular messages. |
| TOALL | 1 | The message is addr to all users. |
| USERIDTO | 12 | User of the firm message is addressed to. |
| FIRMIDTO | 12 | Identifier of the firm message is addressed to. |
| EXCHANGE | 4 | Identifier of the Exchange in case message should be send to all its firms. |
| MESSAGE | 256 | Message content. Use double quotes for messages consisting of multiple lines. |

Only one of USERIDTO, FIRMIDTO or EXCHANGE fields should be filled. In case none of these fields is filled then message will be addressed to all firms on all exhanges.

Appendix D. Common datasets xml file format

Please note: in order to manage datasets administratively, file name datasets.xml is required. Saving and loading datasets configuration via terminal user interface may be performed with arbitrary file name and path.

Example of datasets xml file structure:

```
<?xml version="1.0" encoding="windows-1251"?>
<datasets>
  <Set Id="Secs">
    <Lists>
      <List Board="BRDA" Exclude="1.">
        <Id>SECA</Id>
        . . .
        <Id>SECM</Id>
      </List>
      <List Board="BRDN" Exclude="0">
        <Id>SECN</Id>
        <Id>SECZ</Id>
      </List>
    </Lists>
    <Defaults>
      <Default Board="BRDA">SECA</Default>
      <Default Board="BRDN">SECN</Default>
    </Defaults>
  </Set>
  <Set Id="Firms">
    <Lists>
      <List Board="BRDA" Exclude=0>
        <Id>MoexFirmId1</Id>
        . . .
        <Id>MoexFirmIdN</Id>
      </List>
    </Lists>
    <Defaults>
      <Default Board="BRDA">MoexFirmId1</Default>
    </Defaults>
  </Set>
  <Set Id="SettleCodes"/>
  <Set Id="TrdAccs"/>
  <Set Id="ClientCodes"/>
  <Set Id="BrokerRefs" FileName="C:\...\BrokerRef1.csv>
```

```
<Set Id="MatchRefs"/>
<Set Id="CpTrdAccs"/
```

</datasets>

Table D.1. Elements of datasets.xml

| Node/attribute | Description |
|--|--|
| xml version="1.0" encoding="windows-2</td <td>12ୁ ମାଧି ହିନ୍ନcoding.</td> | 12ୁ ମାଧି ହିନ୍ନcoding. |
| <datasets></datasets> | Head node of the data sets configuration file. |
| <set id="NNN"></set> | Node with information on data sets for one of the following IDs: |
| | • "Secs" - Securities; |
| | "Firms" - Counterparties; |
| | SettleCodes" - Settlement codes; |
| | "TrdAccs" - Trading accounts; |
| | "ClientCodes" - Clients*; |
| | BrokerRefs" - Broker reference*; |
| | "MatchRefs" - Match reference; |
| | • "CpTrdAccs" - Counterparty trading accounts. |
| | If any Set would not contain values use the followin format " <set id="NNN"></set> ". |
| | * ClientCodes and BrokerRefs are mutuall exclusive. Only one of them should be used at on time. |
| <lists></lists> | "Lists" node may contain multiple "List" subnode for different trading boards. There are tw possible methods of forming a list: "including" an "excluding" (see below). |
| <list board="" exclude=""></list> | List of included/excluded values for a specifie trading board. |
| | Board= "" - Identifier of the Trading Board, for which the list of included/excluded values is defined |
| <list board="" exclude=""> </list> | Exclude ="" - Method of list formation. Possibl values are "O" and "1". |
| <list board="" exclude=""> </list> | • Exclude="0" - "including" method. Only value specified in nested nodes " <ld></ld> " will b available to the user. Corresponds to unchecke flag "Automatically add new records to data set" i the Edit Data Set dialog |
| | Exclude="1" - "excluding" method. All values from the Trading System will be available to the use except ones specified in the nested nodes |

| Node/attribute | Description |
|--|---|
| | <id></id> ". All the new values (e.g. securities, firms) that appear in the Trading System will be also available to the user, if they are not specified in the nested ID nodes. , они будут доступны пользователю, если не были указаны. Corresponds to activated option "Automatically add new records to data set" in the Edit Data Set dialog. |
| | Values included into the list. |
| <id></id> <id></id> | Type of the value depends on data set type (<set id="NNN">).</set> |
| | for "Secs" - Security ID; |
| | • for "Firms" - Firm ID; |
| | for "SettleCodes" - Settlement code; |
| | • for "TrdAccs" - Trading account identifier; |
| | for "ClientCodes"* - Client code assigned by Broker; |
| | for "BrokerRefs"* - Path to file** with Broker Reference in the following format: <set filename="C:\ \BrokerRef1.txt" id="BrokerRefs"></set>; |
| | for "MatchRefs" - Path to file** with Match Reference in the following format: <set Id="MatchRefs" FileName="C:\\MatchRef1.txt"/ >;</set |
| | for "CpTrdAccs" - Path to file** with Counterparty trading accounts in the following format: <set filename="C:\ \CpTrdAcc1.txt" id="CpTrdAccs"></set>. |
| | * ClientCodes and BrokerRefs are mutually exclusive. Only one of them should be used at one time. |
| | ** Description of the file format is given in Appendix. |
| | Closing tags. |
| <defaults> <default board="BRDA"><default board="BRDN"></default></default></defaults> | Element with default values for the particular "Set Id". t> tApplicable for all "Set Id" except Counterparty Trading Account (CpTrdAccs) and Broker reference (BrokerRefs). |
| | Please note: if default value is specified it will be used even if data sets are switched off. |

| Node/attribute | Description | |
|---------------------------|---------------|--|
| <datasets></datasets> | Closing tags. | |

Appendix E. Dataset file format (BrokerRef, MatchRef)

Required file encoding is windows-1251. If trading board is not specified than dataset settings affect all the trading boards available for the user. MICEX Trade Currency native dataset file format is described below. CMA terminals dataset file format is also supported.

Broker reference (BrokerRef)

BrokerRef files are used for mapping trading accounts to clients and broker references for a specific trading board. If trading board is not specified than dataset settings affect all the trading boards available for the user. Broker reference may be specified by an arbitrary value text. Client may be specified by the actual Client Code or by an arbitrary value.

Each line refers to one broker reference containing parameters values separated with separator symbol (depends on OS settings, usually "," for American Windows versions and ";" for European Windows version) or tab: board_id,trading_account,client,BrokerRef.

```
Example:
EQBR;N01-00000N01;client1;brokerref0
EQOB;N01-00000N01;client1;brokerref0
;N01-00000N02;client2;brokerref2
RPMA;N01-00000N03;client3;brokerref1
EQBR;N01-00000N04;client4;brokerref3
RPMA;N01-00000N04;client4;brokerref3
```

When BrokerRef file is loaded and datasets mechanism is activated then order entry dialogs workflow is as follows:

First select Trading account in the "Trd. account" drop-down list. Client codes available for the selected trading account will be displayed in the "Client" drop-down list. When the particular client code is selected then available broker references will be displayed in the "BrokerRef" list.

Type the client code with a keyboard through the "Client" list. Trading account will be loaded accordingly to the client code specified. Then available broker references will be displayed in the "BrokerRef" list.

Matching reference (MatchRef)

Matching references may be used for unique coincidence of two counter-orders.

Each line refers to one MatchRef containing parameters values devided by the separator symbol (depends on OS settings, usually "," for American Windows versions and ";" for European Windows version) or tab: board_id;MatchRef

Example: CETS;MatchRef0 ;MatchRef1 TRAN;MatchRef2 CETS;MatchRef3

Appendix F. Exporting table content

Required file encoding is windows-1251. Decimals separator symbol depends on OS locale settings.

*.CSV (separator symbol depends on OS settings)

First line of the file contains columns' identifiers or names (may be configured in the program options on the Tables tab) devided by separator symbol. Each of the following lines refers to one row of the table containing values devided by separator symbol.

*.TXT (separated by "tab")

First line of the file contains columns' identifiers or names (may be configured in the program options on the Tables tab) separated by "tab". Each of the following lines refers to one of the table's rows with values separated by "tab".

*.XML table

XML-file with the following structure:

```
<?xml version="1.0" encoding="windows-1251"?>
<records>
    <record>
        <columnID_1>value</columnID_1>
        <columnID_2>value</columnID_2>
        ...
        <columnID_n>value</columnID_n>
        </record>
        <columnID_1>value</columnID_1>
        <columnID_2>value</columnID_1>
        <columnID_1>value</columnID_1>
        <columnID_1>value</columnID_1>
        <columnID_1>value</columnID_1>
        <columnID_n>value</columnID_1>
        <columnID_n>value</columnID_1>
        <columnID_n>value</columnID_1>
        <columnID_n>value</columnID_n>
        </record>
        </record
```

record node contains data on one table row, where columnID_1 ... columnID_n - columns identifiers, value - actual cell value.

dBASE III (*.dbf)

dBASE III database file format.

Microsoft Excel Book (*.xls)

Microsoft Excel Book format.

CMA-compatible *.TXT file

Each line refers to one row of the table containing values devided by separotor symbol (depends on OS settings). The actual order of values for each table is determined by CMA specifications. Version of CMA compatible data format may be configured in the program options on the Tables tab.

CMA-compatible *.DBF file

dBASE III database file format compatible with CMA terminals. Version of CMA compatible data format may be configured in the program options on the Tables tab.

Appendix G. Order validation control

Required file encoding is windows-1251. Decimals separator symbol depends on OS locale settings.

*.CSV (separator symbol depends on OS settings)

First line of the file contains columns' identifiers devided by separator symbol (depends on OS settings, usually "," for American Windows versions and ";" for European Windows version), each of the following lines refers to one row of the table containing values devided by corresponding separator symbol.

*.TXT (separated by "tab")

First line of the file contains columns' identifiers separated by "tab". Each of the following lines refers to one of the table's rows with values separated by "tab".

| Parameter | Description | |
|------------|--|--|
| SECBOARD | Trading board identifier. | |
| SECCODE | Security identifier. | |
| PARAMETER | Order parameter to control: | |
| | PRICE - Price | |
| | QTY - Quantity (number of lots) | |
| | AMOUNT - Amount, in lot currency | |
| | VALUE - Value, in conjugated currency | |
| | TWAP order parameter to control: | |
| | PRICE - Price | |
| | QTY_ALGO - TWAP Quantity (number of lots) | |
| | AMOUNT_ALGO - TWAP Amount, in lot currency | |
| | VALUE_ALGO - TWAP Value, in conjugated currency | |
| VALIDATION | Validation type: | |
| | [space] - no validation | |
| | WAPRICE - to weighted-average price | |
| | PREVWAPRICE - to previous price | |
| | LAST - to last price | |
| | MKTPRICE - to market price | |
| | VALUE - to value | |

| Parameter | Description | |
|-------------|---|--|
| | EXCHANGEVAL - to exchange value | |
| | RANGE - Range | |
| | MIN - Minimum | |
| | MAX - Maximum. | |
| VALUE | Value the deviation is calculated from. Not applicable for RANGE, MIN and MAX validation types. | |
| PERCENT | Deviation (percentage value). Not applicable for RANGE, MIN and MAX validation types. | |
| MINIMUM | Minimum value for RANGE and MIN validation types. | |
| MAXIMUM | Maximum value for RANGE and MAX validation types. | |
| URGENT | High importance. "Y" - yes, "N" - no. In case user attempts to breach the limit, "warning" window will be displayed. | |
| PROHIBITBRE | ACProhibit breach of the limit. "Y" - yes, "N" - no. If the option is activated then submitting an order that breaches the specified limit will be prohibited. If this option is disabled, such order will require additional confirmation but still may be submitted. | |