



TradeTools**Fx**

uBridge

User Manual

V 1.0.2

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TradeToolsFX



1 PRODUCT DESCRIPTION

TradeToolsFX uBridge plugin is universal MT4, MT5 server bridge software which provides automated dealer functionality and allows a broker to connect directly to a liquidity provider of their choice – “Integral”, “LMAX”, “Currenex”, “First Derivatives”, etc. The bridge can also be used to connect to another MT4 server.

The uBridge plugin uses a configuration file to determine how to process the incoming order request. Each entry in configuration file corresponds either to “A Book” or “B Book” processing.

TradeToolsFX

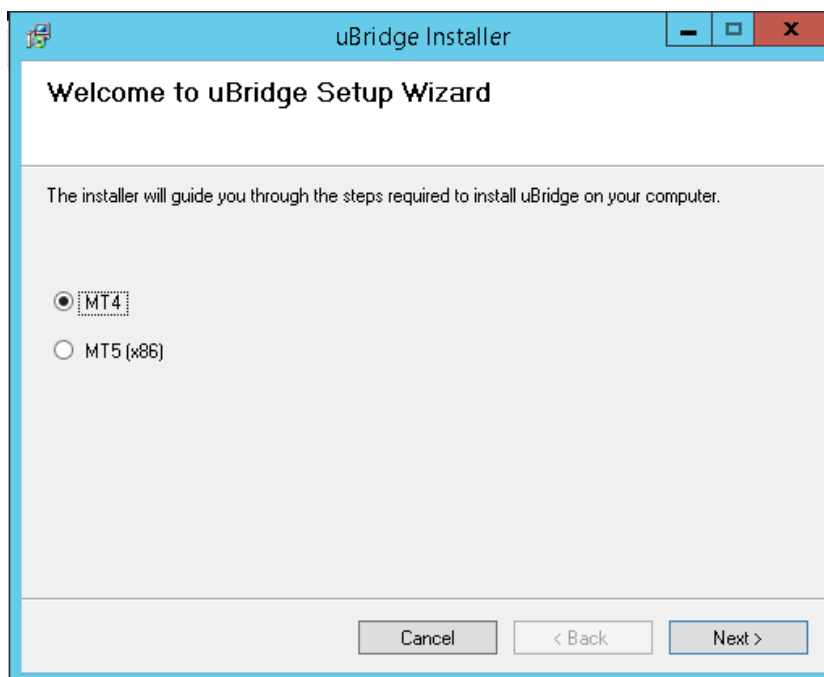
2 UBRIDGE ON MT4 PLATFORM

2.1 MT4 server uBridge plugin installation

Click on **TTFX.uBridge.Installer_v().exe** to launch installation of uBridge plugin for MT4 server

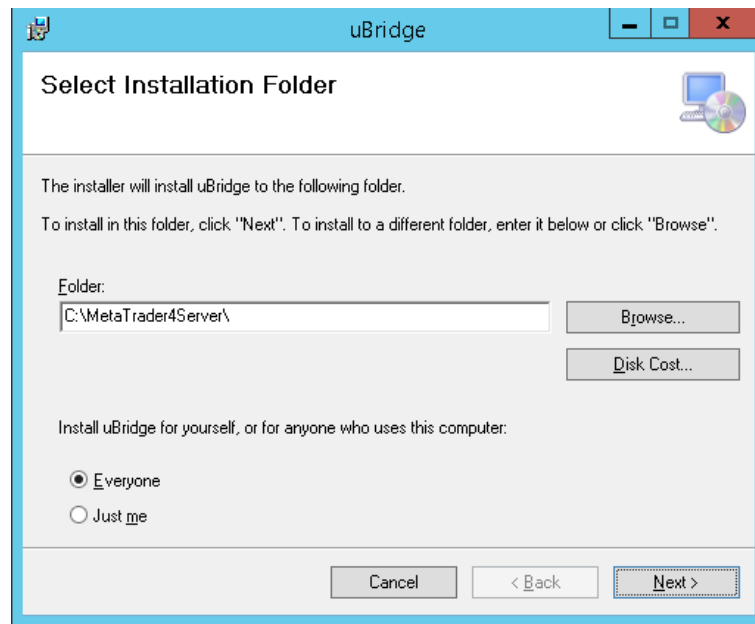


Choose MetaTrader 4 server platform

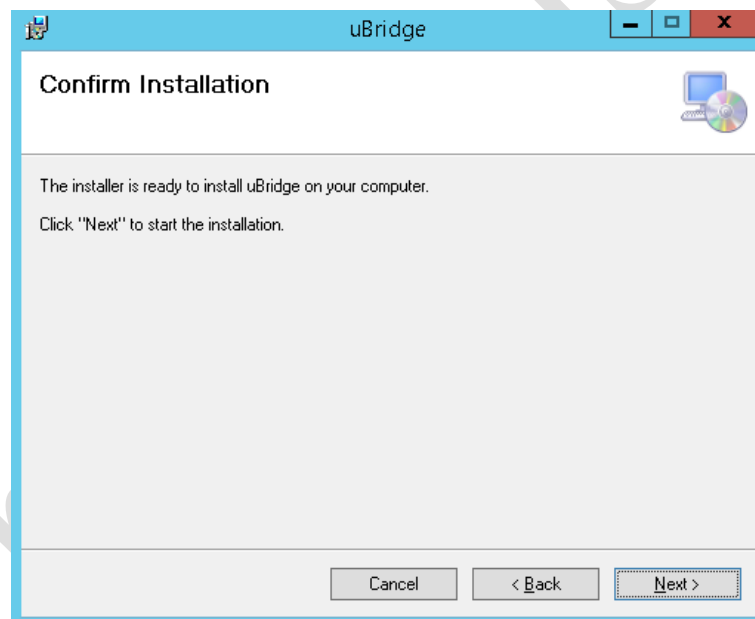


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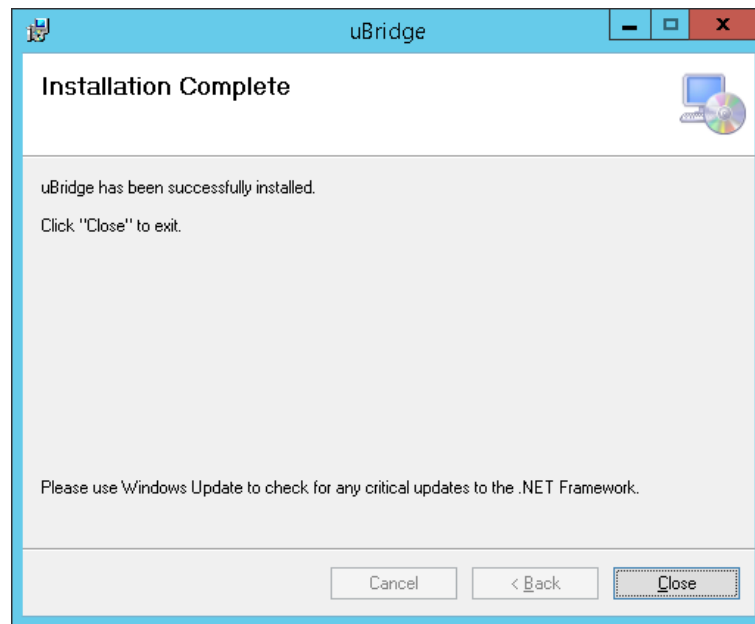
Select MetaTrader 4 server installation folder



Confirm installation start



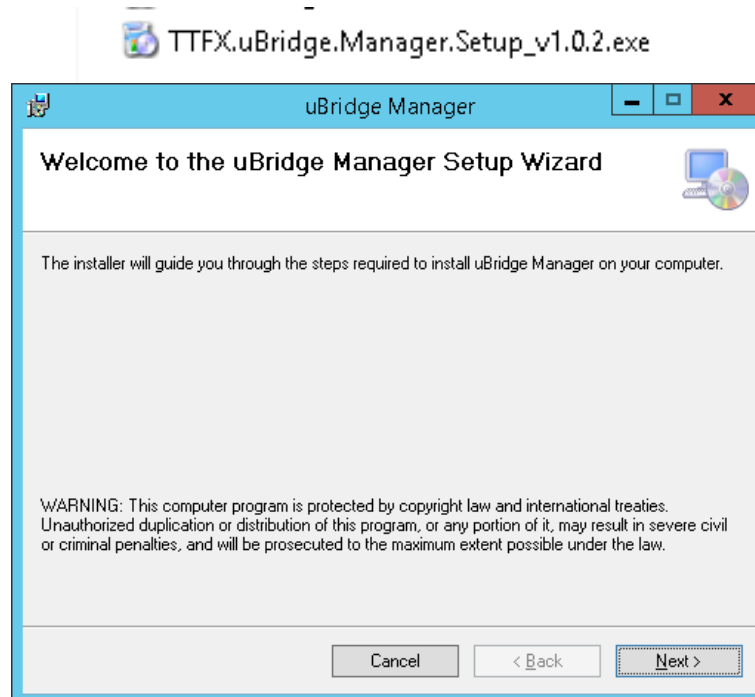
Installation completed



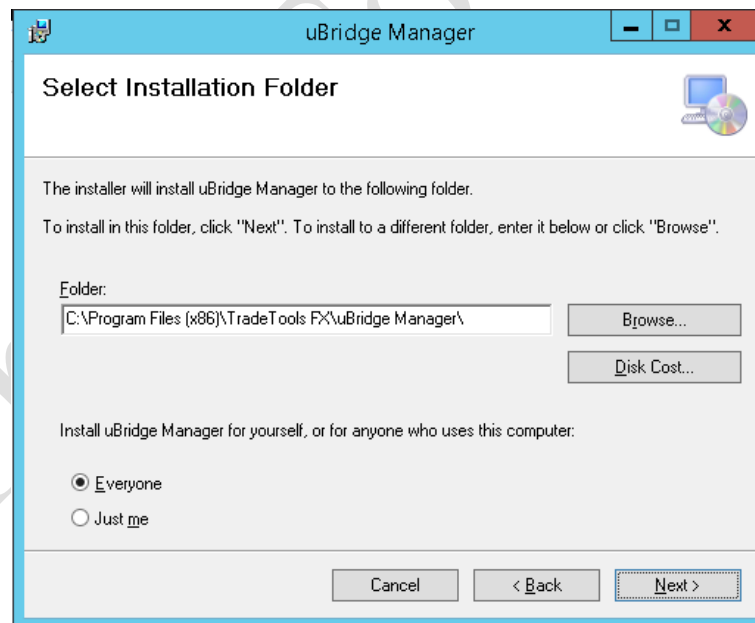
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2.2 uBridge Manager installation.

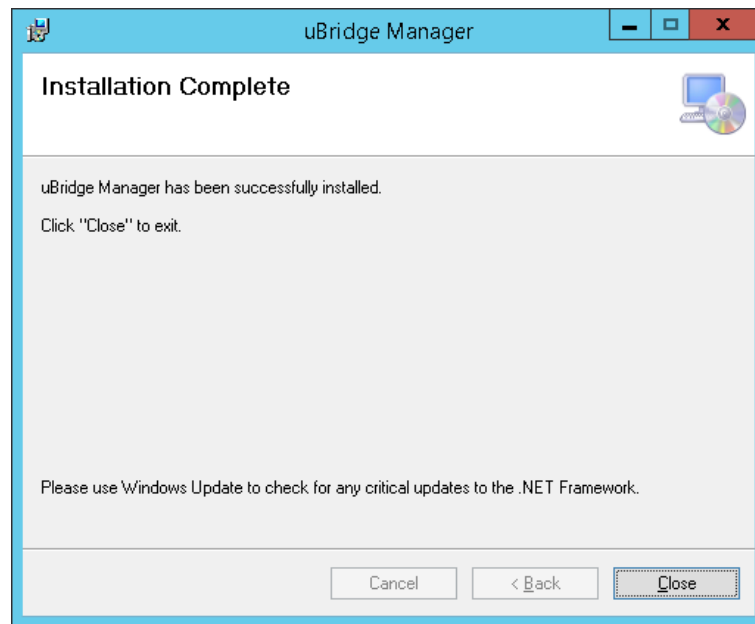
To install a uBridge Manager , launch TTFX.uBridge.Manager.Setup v<version>.exe,



Select the installation directory.



Complete installation

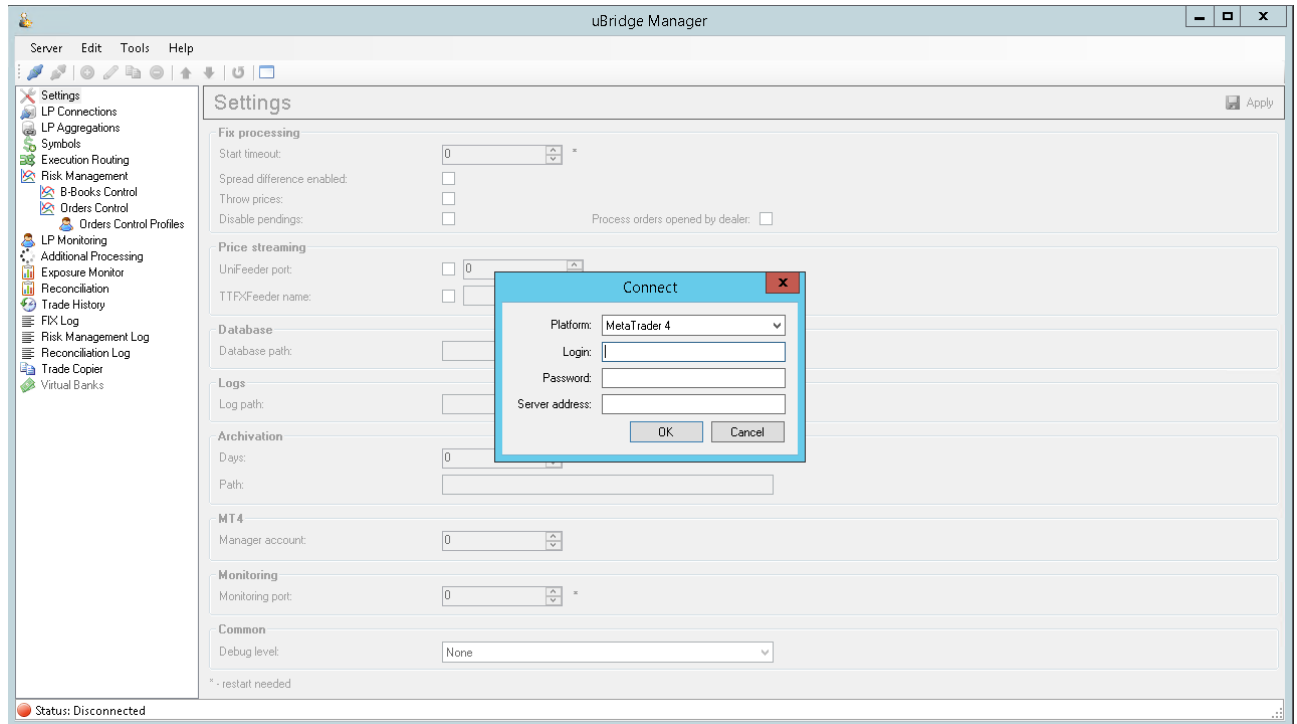


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2.3 Launch uBridge manager


To run UBridge Manager you must select the menu Start -> All programs -> TradeToolsFX UBridge Manager shortcut.

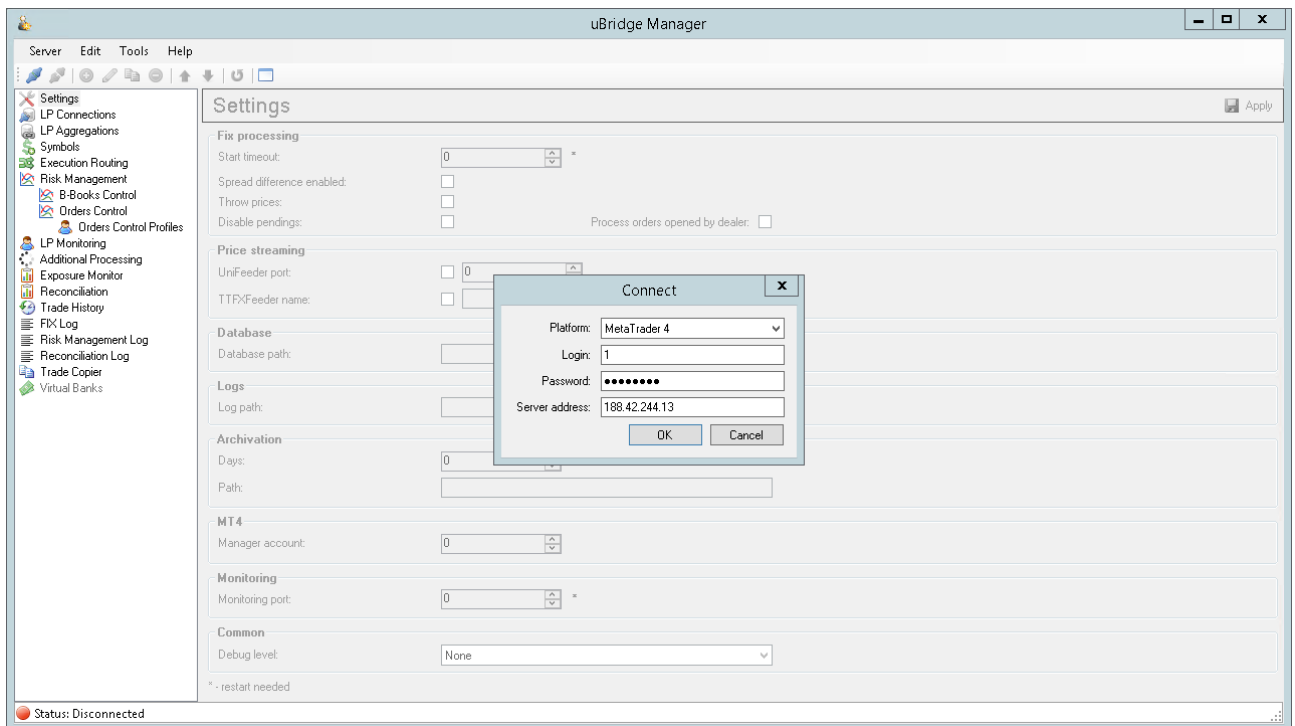
This opens the main window of the program and form a connection to the server:



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2.4 MT4 Server connection setup

To connect to the Server is necessary go to menu “Server” choose “Connect”, or use the button  in the toolbar:




The main window of the program and form a connection to the server to be open:

In this form, you must enter the connection parameters to the server:

Login - login Admin MT4

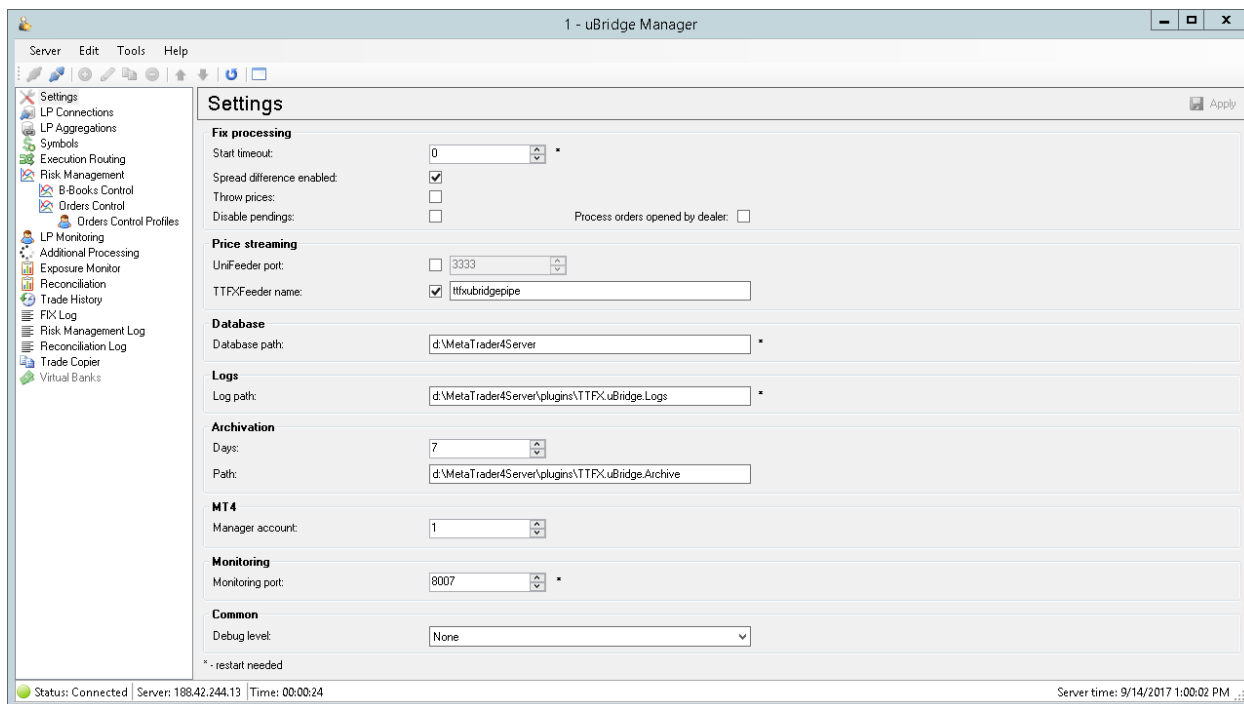
Password - password login Admin MT4

Server IP address - Server network address on which you have installed UBridge plugin.

To disconnect of the Server go to menu ”Server” choose Connect...or use the button  in the toolbar:

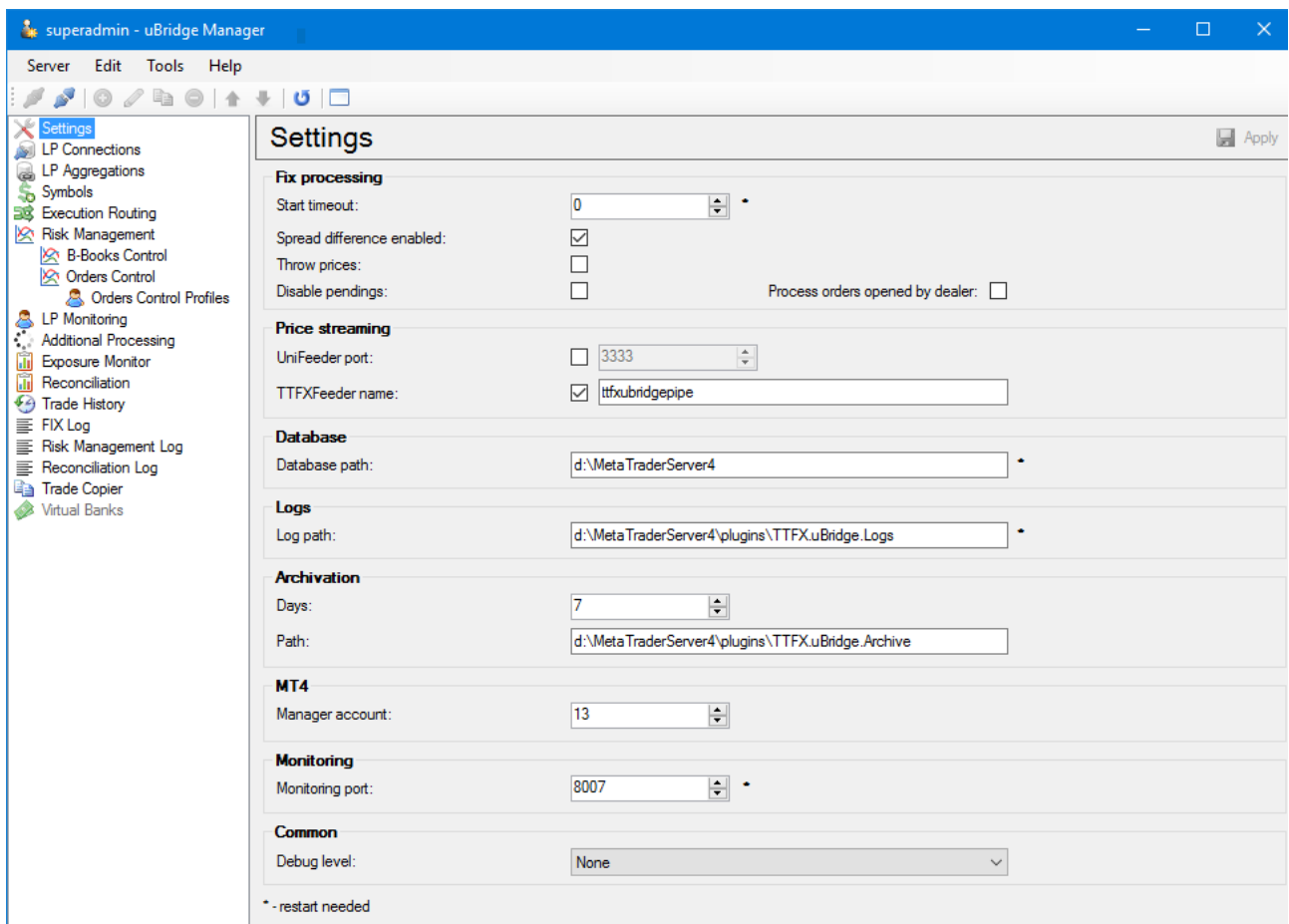
2.5 General Settings.

This section contains general settings of the plugin.



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2.5.1 Settings of the FIX requests processing.



Start timeout - delay sending FIX messages (in seconds) after starting the server. If you attempt to send a message before this FIX since the start of the server, the message not will be send, and the corresponding record will be appear in the log. To apply the changes this setting requires a restart of the server.

Spread difference enabled - specifies that the parameter spread difference setting groups of MT4.

Throw prices - is a sign of face off MT4 prices when opening/closing orders.

Disable pendings – if this option enabled, uBridge will ignore pending activations.

Process orders opened by dealer – if this option enabled, uBridge will process orders opened by MT4 dealer (only for Virtual Dealer processing).

Configure streaming prices in MT4.

UniFeeder port - quotes server port for delivery prices in MT4 UniFeeder format data feed.

TTFXFeeder name - name of pipe server for delivery quotes prices in MT4 datafeeda TTFXFeeder format.

Database settings

Database path - path to the directory containing the database file on the server. To apply the changes to this setting requires a restart of the server.

Configure logging to a file.

Log path - path to the directory with log files of the plugin on the server. To apply the changes to this setting requires a restart of the server.

Archive settings.

UBridge plugin archives the FIX message log trading history log risk management subsystem and Reconciliation log, in which data from the database are transferred to the archive on disk.

Backups are performing automatically on Sunday.

Days - this setting shows the figures for the number of days left in the database backup.

Path - the path to the backup directory on the server.

Configure The MT4.

Manager account - Login MT4 Manager (dealer), on behalf of which it performs the confirmation/cancellation requests plugin.

Monitoring settings.

Monitoring port - port of FIX service messages monitoring. To apply the changes to this setting requires a restart of the server.

The other settings.

Debug level - is debug level logging.

The following values are valid:

None - logging disabled.

Errors only - only errors are logged.



Errors and warnings - errors and warnings are logged.

Errors, warning and information - are logged errors, warnings, and informational messages in the same way.

Errors warmings, information and call trace – re-logged, errors, warnings, info messages, as well as call stacks in your application code.

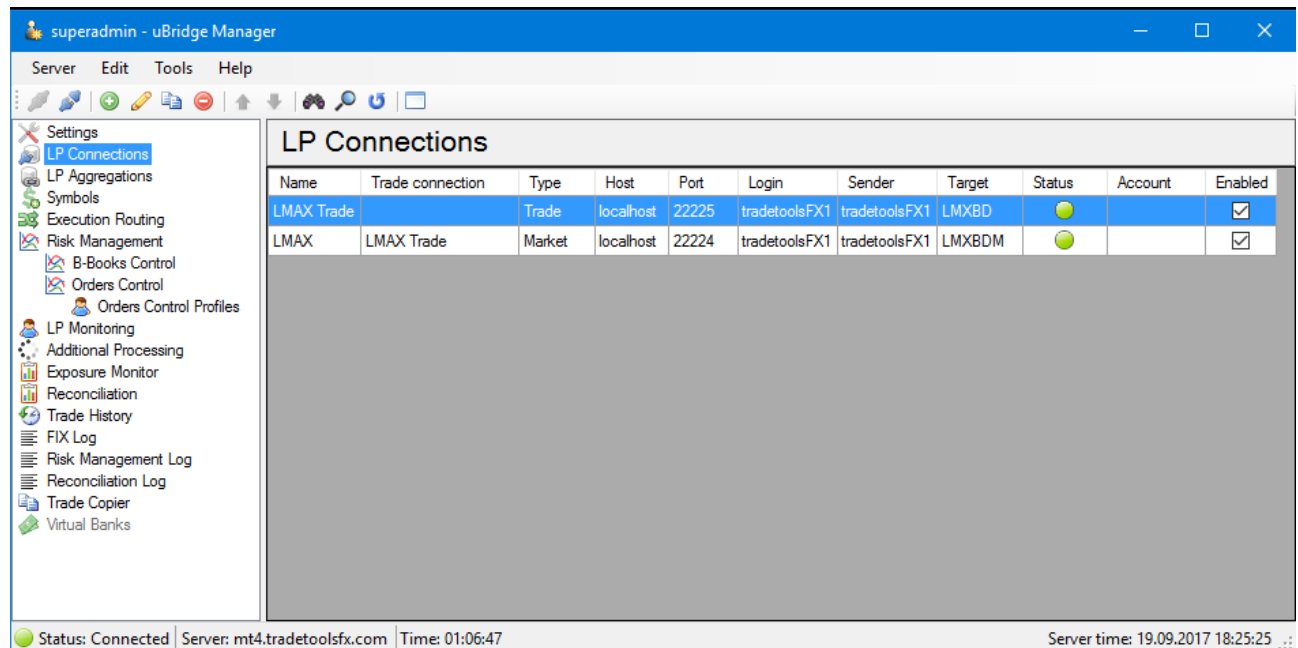
ATTENTION! ENABLING DEBUG LOGGING CAN SIGNIFICANTLY DECREASE THE PERFORMANCE OF THE SYSTEM.

2.5.2 Change of settings.

When values change general settings on the contrary an element  **Settings** * in the left part of the main window will show the symbol «*» to indicate that the settings have been changed. To apply the changes, you must use the button  **Apply** in the top right corner.

2.6 Configure connections to LP – “LP Connections” section.

This section is intended to manage connections to the LP servers.



The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit toolbar, or shortcut menu. Also for editing, you can use hot keys:

Ins - addition

Editing – Enter or double-clicking the left mouse button

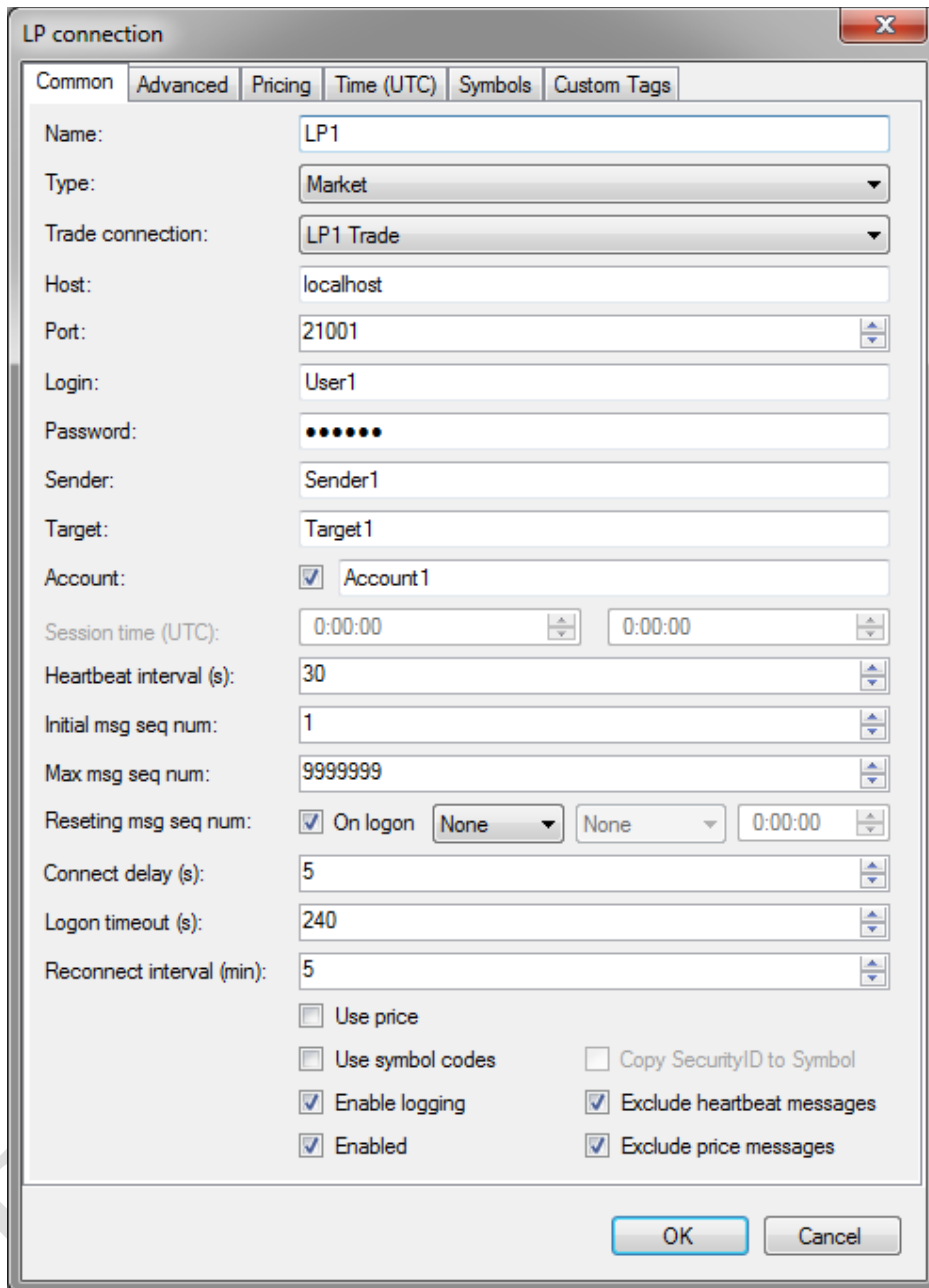
Del - delete (supported batch delete)

Update = F5

Search = Ctrl+F.

2.6.1 Creating/editing the connection.

When you create a new or edit an existing connection, use the edit window:



2.6.1.1 Basic connection settings (Common tab).

Name - is a unique name for the connection. The connection name is unique to the LP connections and aggregators. IE can not exist and connection aggregator with the same name (see. **“Connection Aggregators”**).

Type - type connection. There are three types of connections “Trade”, “Market” and “Trade Market”.

The connection type «Trade» used to trade (for opening/closing positions on LP).

The connection type «Market» was used to getting prices from LP.

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The connection type «Market» are used to determine the best connectivity in the aggregator (see. **“Connection Aggregators”**).

Price connection is given commercial connection that will be used for trade, if price is your best connection to the aggregator.

The connection type «Trade Market» is at the same time and price, and trade.

Trade connection - business connection is specified only for price («Market») connection.

Host - LP Server network address.

Port - port LP server.

Login - the user name to log on to the server (FIX tag 553 Logon messages).

Password - password to log on to the server (FIX tag 554 Logon messages).

Sender - the sender of the message (FIX tag 49).

Target - message recipient (FIX tag 56).

Account - account, on behalf of the account which operations are performed on the LP (FIX tag 1). If the value of this field is not set (not bearing the flag), as the value of the Account when sending message field value is used to FIX Login.

Heartbeat interval - interval for sending Heartbeat messages (FIX tag 108 Logon message), in seconds.

Init msg seq num – the number of first FIX messages (FIX tag 34).

Max msg seq num - maximum number of FIX messages, the message counter is reset (FIX tag 34).

Resetting msg seq num - FIX counter reset configuration messages. If you enable the configure On log, the message count is reset each time you connect and Logon message passed specifying the server just reset the counter messages (141 = Y). Using the remaining parameters, you can specify the message counter reset on schedule: the first parameter is the type (None – disabled Daily - daily «Weekly» -downloads); second parameter-day (set to «Weekly»); the third parameter is the UTC time, reset the counter.

Connect delay - delay connection to LP server in seconds.

Logon timeout – time to wait a response from LP to Log message (in seconds).

Reconnect interval - interval (in minutes) to wait for price communications from LP to reconnect it. If within a specified interval from the LP are not price messages to reconnect the LP. If set to 0, the reconnection is not possible. Used to «Market» or «Trade Market» connections.

Use price - points to the need to add to the message New Order prices request (FIX tag 44).

Use symbol codes - Specifies to use FIX tag 48 (SecurityID) tag instead of 55 (Symbol) in messages NewOrder, MarketDataRequest, QuoteRequest and MarketDataSnapshotFullRefresh.

Copy SecurityID to Symbol - this setting specifies the need to copy the value SecurityID (FIX tag 48) Symbol (tag 55) when sending messages MarketDataRequest, QuoteRequest and NewOrder (required for some LP Exante, for example).

Enable logging - enables logging of messages for this connection in the FIX message log.

Exclude heartbeat messages - when this setting is turned on Heartbeat, messages will not be added to the FIX message log.

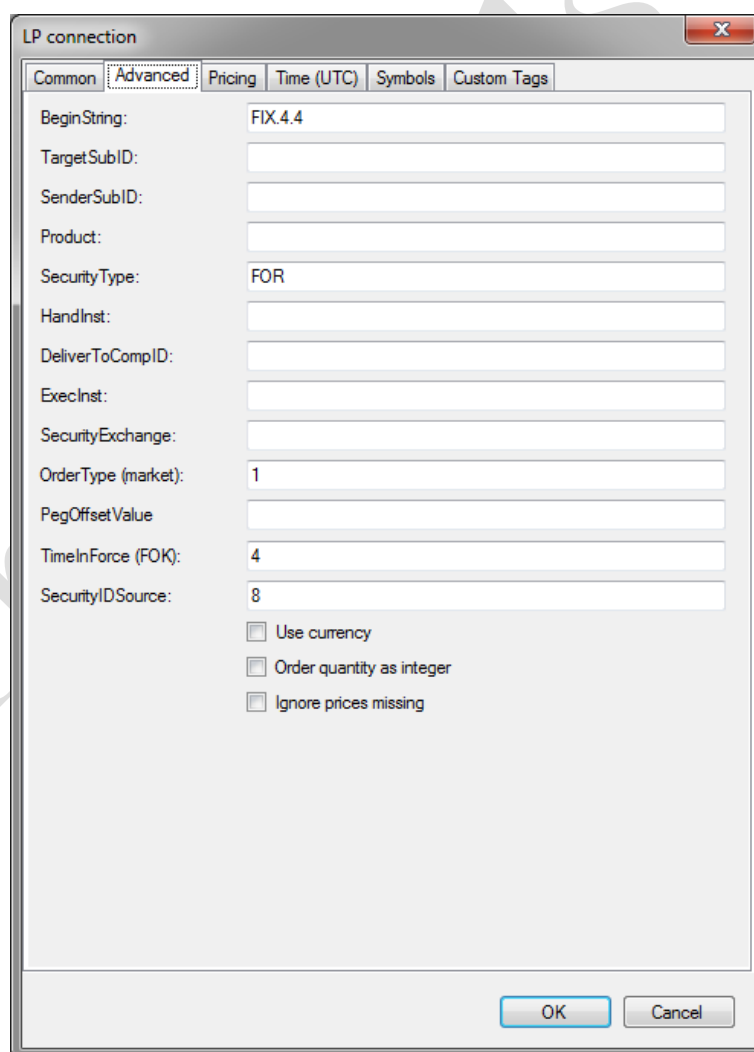
Exclude price messages - when this setting is enabled message price (Market Data and Quote) will not be added to the FIX message log. By default, this setting is enabled.

ATTENTION!

TURNING OFF OF THIS TUNING CAN LEAD TO STRONG REDUCTION IN THE PRODUCTIVITY, ALSO TO THE RAPID FILLING OF THE DATA BASE.

Enabled - On/Off connection.

2.6.1.2 Additional settings of connection. (Advanced tab)



BeginString – the value of FIX TAG «8» in all notifications.



TargetSubID - FIX 57 tag value in all communications.

BeginString – the value of FIX TAG «8» in all notifications.

Product - value FIX 460 tag for messages MarketDataRequest and NewOrder .

SecurityType - value FIX tag 167 for messages MarketDataRequest and NewOrder . If your character is not set to mapping SecurityType , when generating messages will use this value.

HandInst - value FIX tag 21 messages NewOrder .

DeliverToCompID - value FIX tag 128 message MarketDataRequest .

ExecInst - value FIX tag 18 messages NewOrder.

HandInst - value FIX tag 21 messages NewOrder .

OrderType (market) -value FIX tag 40 messages NewOrder , meaning the market order.

PegOffsetValue - the FIX value of the message tag 211 NewOrder.

TimeInForce - value FIX tag 59 messages NewOrder meaning FOK (Fill or Kill principle).

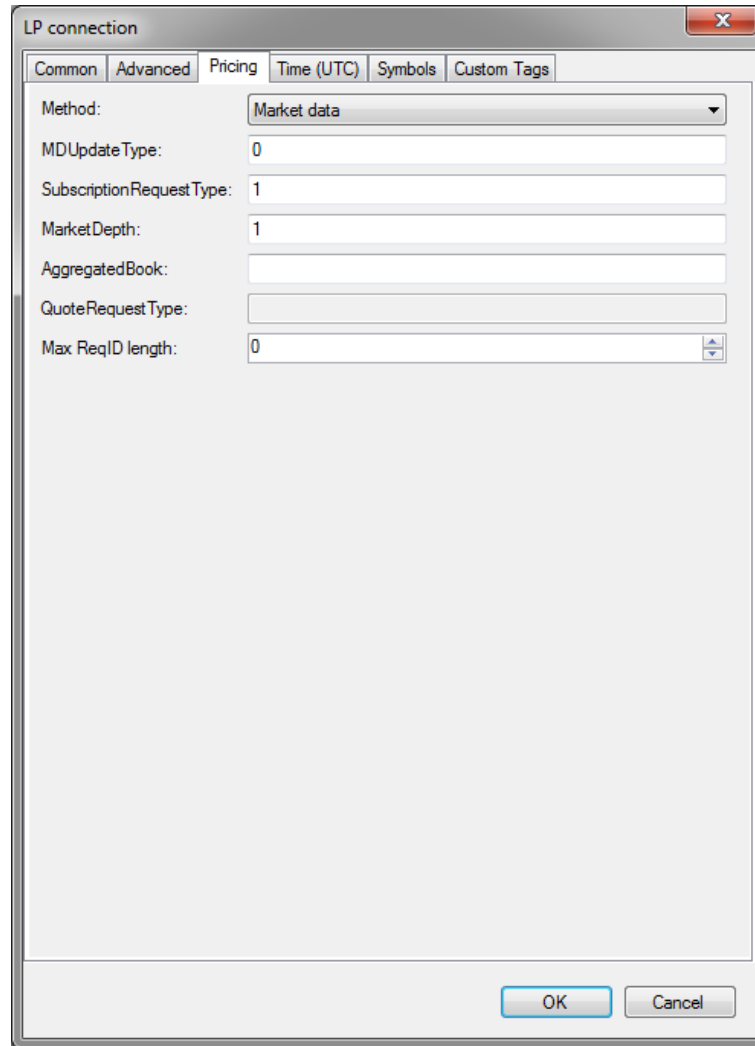
SecurityIDSource - value FIX tag 22 messages MarketDataRequest QuoteRequest , NewOrder . Used when installing settings Use symbol codes .

Use currency is a sign of fill - FIX tag value 15 Currency symbol setting is in communications NewOrder message.

Order quantity as integer -if you select this setting value OrderQty (tag 38) messages NewOrder will be passed as an integer, otherwise as a decimal fraction.

Ignore price missing -when you try to open a position in the «Trade» connection uBridge checks to see if the prices (which have come after a connection with this LP) on the relevant «Market» connection. In the absence of prices UBridge rejects the request MT4 . This setting disables this check.

2.6.1.3 Price setting (Pricing tab)



Method - way to obtain prices from the LP: «Market data» - MarketData messages «Quote» - Quote messages; «None» -the connection does not work with the prices.

DeliverToCompID - value FIX tag 128 message MarketDataRequest .

SubscriptionRequestType - value FIX tag 263 messages MarketDataRequest .

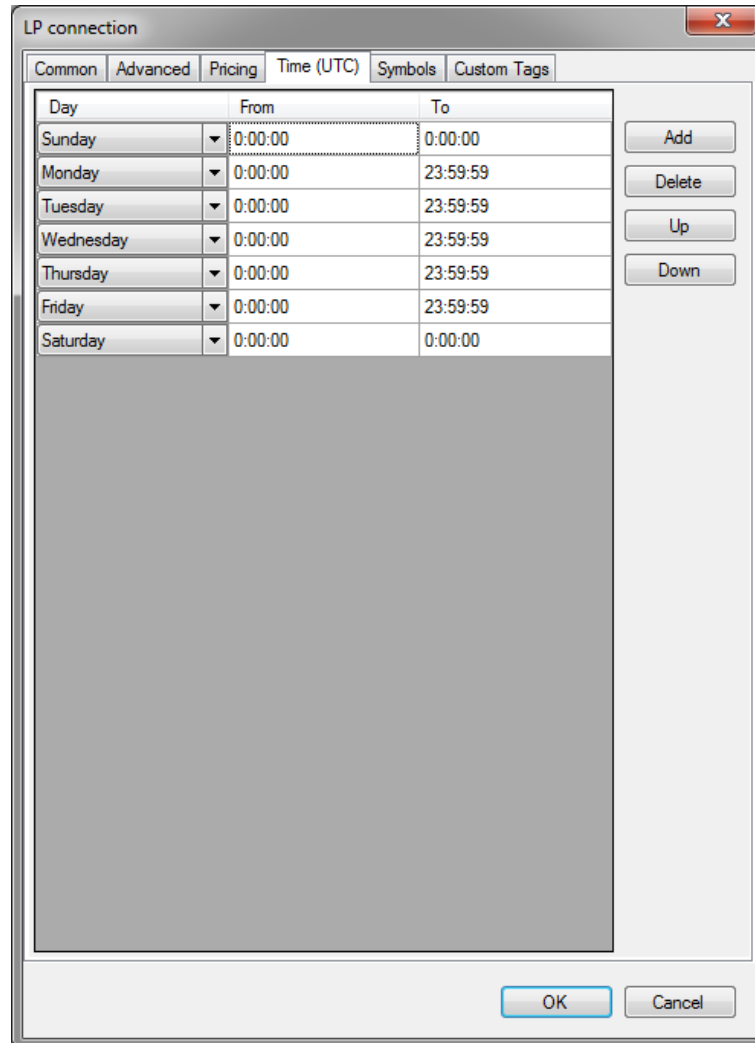
MarketDepth -, depth value FIX 264 tag message MarketDataRequest .

DeliverToCompID - value FIX tag 128 message MarketDataRequest .

QuoteRequestType - value FIX tag 303 messages QuoteRequest .

Max length ReqID -262 tag maximum length message MarketDataRequest and 131 tag messages QuoteRequest (this restriction is required for some LP). If you specify a 0-length is not limited.

2.6.1.4 Setting connection time (Time (UTC) tab)



Each row in the table describes the time period activity connection, i.e. uBridge will attempt to establish or retain a connection to the LP within that period and outside the period of the connection will fail. Can be an infinite number of time periods for each day. They can both overlap and have gaps. If, for any day of the week for any period not decree ELN, this day is nonworking and uBridge no tries to establish a connection (or tearing it up at the beginning of the day). The time is in UTC.

Day -the day of the week.

From - the start of the time period specified with a precision of seconds.

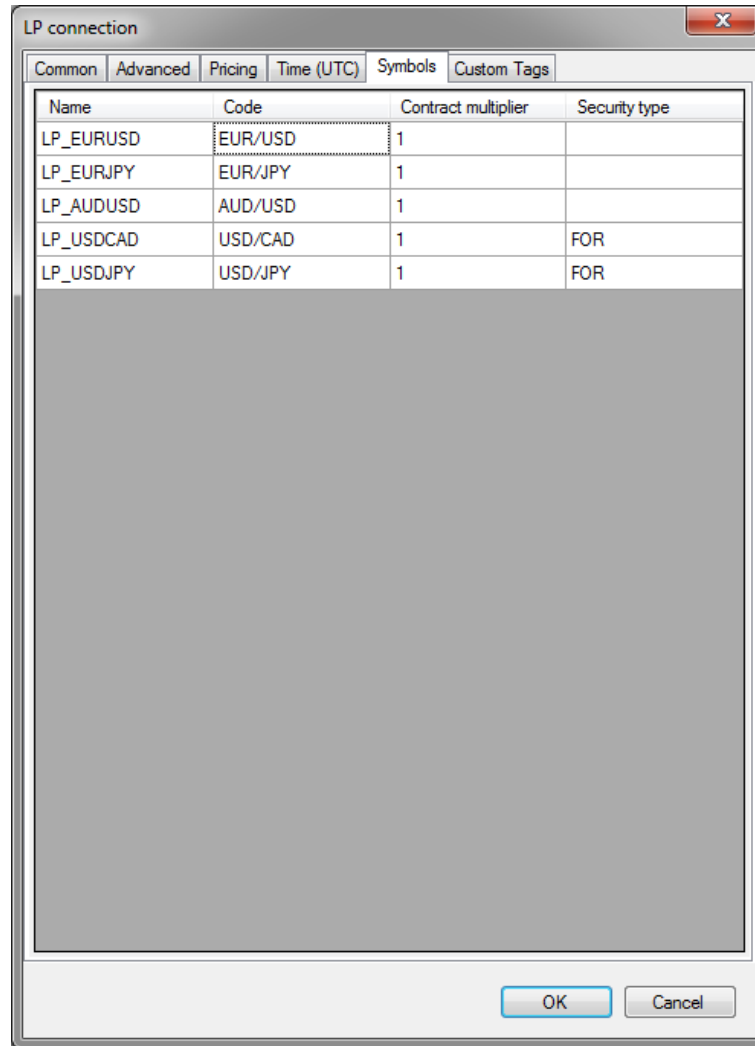
To -the end of the time period (the time of the last seconds of a connection. If other periods not covered by the next seconds after the specified in this field, the connection will be terminated with effect from the next seconds).

“Add” button -, adding a new period in the table.

“Remove” button - deletes the selected period.

“Up/Down” buttons - move the selected period up/down on the table.

2.6.1.5 Configure mapping characters (Symbols tab).



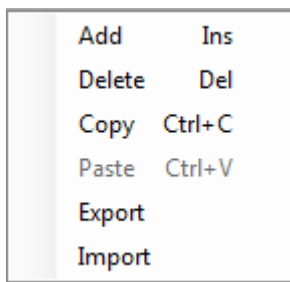
Name - this line is a reference to the value of the field LP symbol in character settings. In order to associate the symbol MT4 with the symbol on the LP field and the field LP symbol character settings must have the same value.

Code -character code from LP.

Contract multiplier -coefficient for the calculation of the volume of orders in MT4 volume position LP.

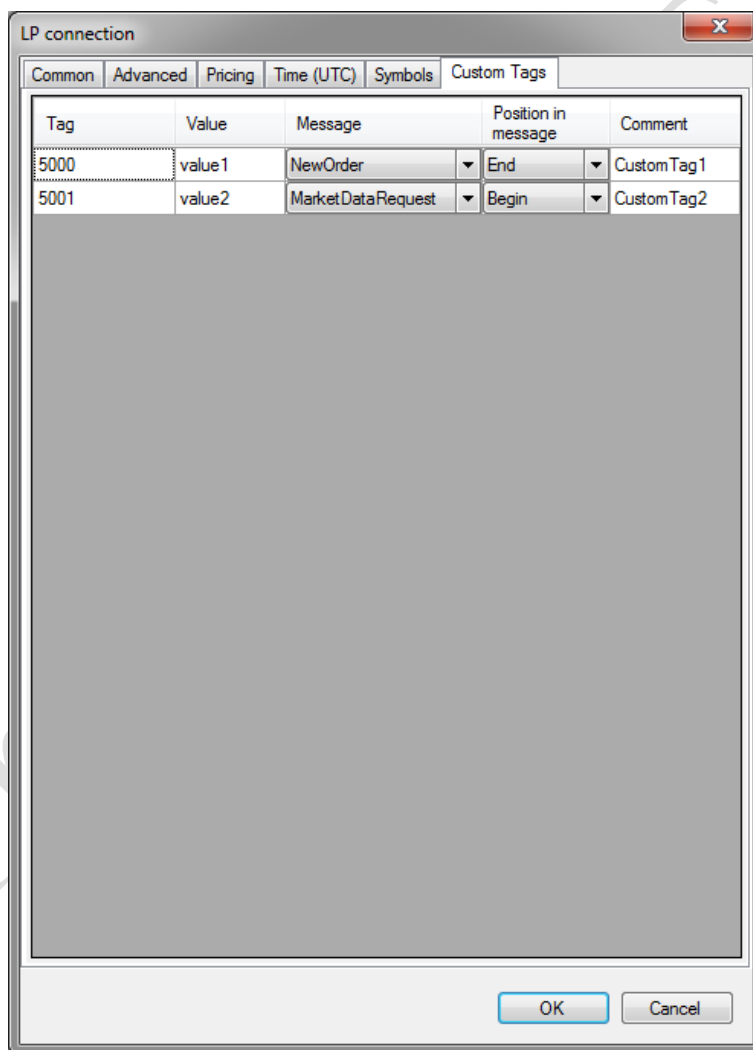
SecurityType - value FIX tag 167 for messages MarketDataRequest and NewOrder . If no value is specified, use the value SecurityType , specified on the tab Advanced

To edit the list you can use the context menu or shortcut keys:



For portability tweaks symbols mapping export/import, which saves the configuration loads mapping to/from an XML file.

2.6.1.6 Configure non-standard tags (Custom Tags tab).



This tab allows you to specify a non-standard (arbitrary) FIX tags, mismatched FIX Protocol specification.

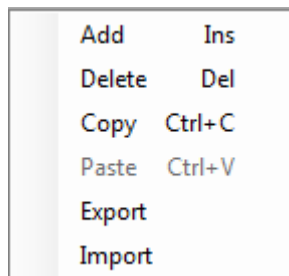
Tag -tag number.

Value - value.

Message - the message in which this tag will be used.

Position in message -location tag to FIX message. Available values: «Begin» -at the beginning of the message (after the required tags), End -at the end of the message (before the tag CheckSum).

To edit the list you can use the context menu or shortcut keys:



For portability tweaks symbols mapping export/import, which saves the configuration loads mapping to/from an XML file.

2.7 Deleting of connections.

Connections cannot be deleted if:

in to remove «Trade» connection “refers to Market” connection;

in to remove Market connection aggregators refer (see. Aggregators connections), symbols (see. “characters Setting”), B-control rule Books orders (see. B-control rules for Books orders) or if the connection is used in routing preferences or monitoring (see preferences. Monitoring LP);

on the Trade connecting has open positions.

In case of impossibility of deleting a connection, error message is displayed.

2.8 Connection aggregators - LP Aggregations.

This section contains a list of aggregators connections to LP.

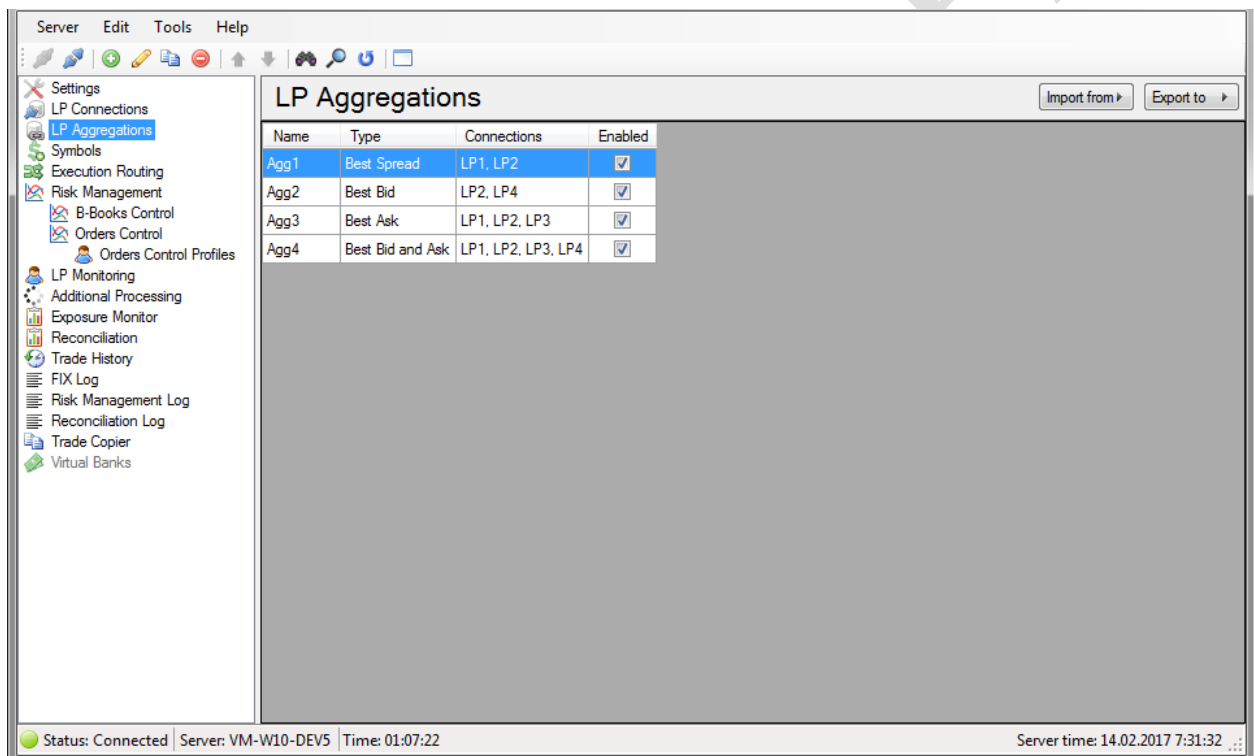
Aggregator of connections to the LP is an object that allows you to select the best connection from a given list of connections on some rule to get prices or to perform trading operations.

Aggregator contains several price connections. «Best» connection for each aggregator is determined according to the following algorithm:

having received the price from the price of the connection, the system looks at whether this connection is «the best» at the moment among all connections aggregator;

If it is not, the system compares the latest prices from all connections inbound to the aggregator, and if the coming price is «better» then the connection from which came the price becomes the «best» for the aggregator.

if a TCP/IP printer connection with which came price was or became «better» then came «forwarding» MT4 .



The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys:

Add - Ins ,

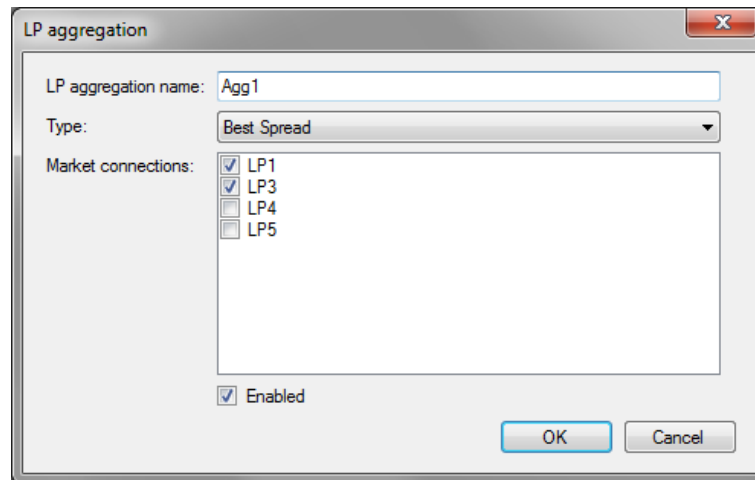
Editing - Enter or double-clicking the left mouse button;

Delete - Del (supported batch delete);

Update - F5 ; Search - Ctrl+F.

2.9 Creating/editing the aggregator.

The window of the editing is used with creation or editing of aggregator:



LP aggregation name – the unique name of aggregator. The connection name is unique to the LP connections and aggregators. Can not exist LP and connection aggregator with the same name!

Type – the type of the aggregation of prices. Available values: “Best Spread” – best is considered the connection, in which is less the spread of prices (spread); “Best Bid” – best is considered the connection, in which is more the value of the price Bid; “Best Ask” – best is considered the connection, in which is less the value of the price Ask; “Best Bid and Ask” – best it is considered 2 the connection: one with the best price Bid, is another with the best price Ask.

Market connections – the enumeration of the price connections of entering the aggregator.

Enabled – start/the disconnection of aggregator.

2.10 Removal of aggregators.

The aggregators of connections cannot be removed if:

the symbols refer (see to the moved away aggregator « characters Setting «), B-control rule Books orders (see. “**The rules of control B-Books of warrants**”) or if aggregator is used in tuning of routing demands;

on the aggregator has open positions.

In case of impossibility of deleting a connection error message is displayed.

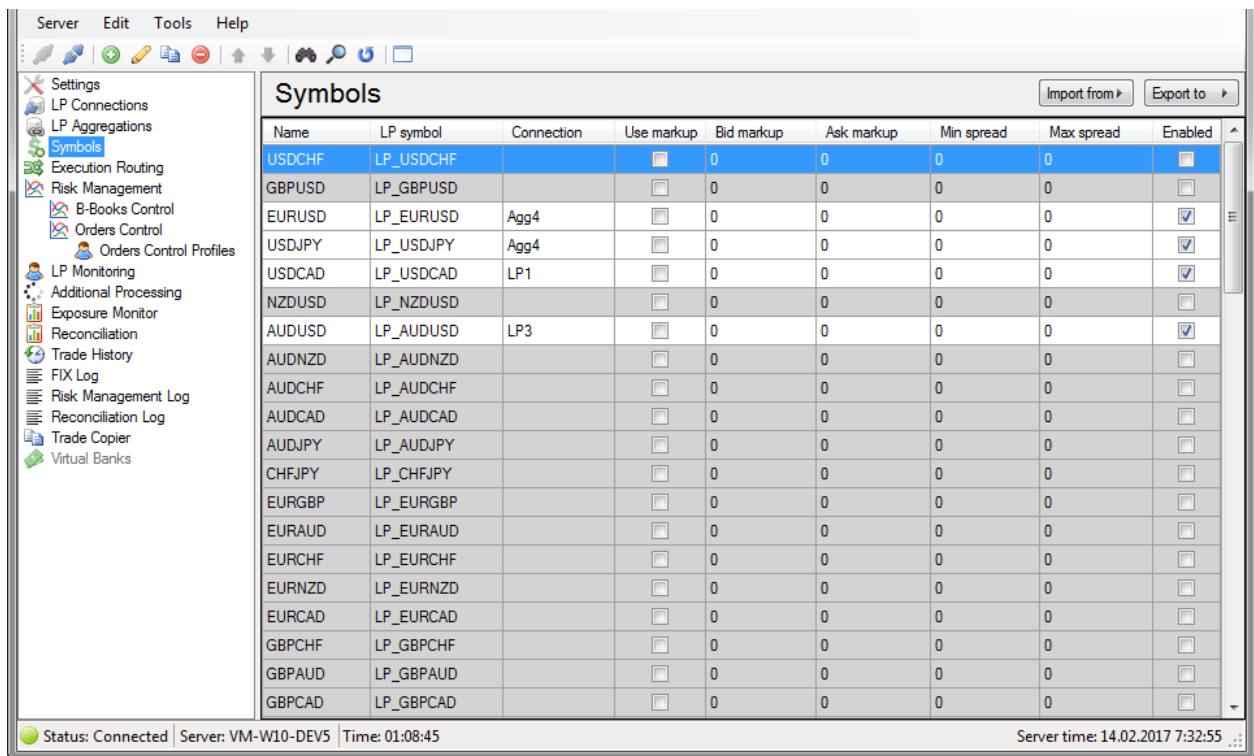
2.10.1 Export/import

For portability tweaks aggregators provided export/import to/from an XML file (button in the upper-right corner of the form list of aggregators).



2.11 Customizing symbols-Symbols.

Define character Customization which LP connection (or aggregator) to take prices to display in the MT4 . The same characters together with configuration settings specify the connections line characters mapping characters LP symbols MT4 .



Name	LP symbol	Connection	Use markup	Bid markup	Ask markup	Min spread	Max spread	Enabled
USDCHF	LP_USDCHF		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
GBPUSD	LP_GBPUSD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURUSD	LP_EURUSD	Agg4	<input type="checkbox"/>	0	0	0	0	<input checked="" type="checkbox"/>
USDJPY	LP_USDJPY	Agg4	<input type="checkbox"/>	0	0	0	0	<input checked="" type="checkbox"/>
USDCAD	LP_USDCAD	LP1	<input type="checkbox"/>	0	0	0	0	<input checked="" type="checkbox"/>
NZDUSD	LP_NZDUSD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
AUDUSD	LP_AUDUSD	LP3	<input type="checkbox"/>	0	0	0	0	<input checked="" type="checkbox"/>
AUDNZD	LP_AUDNZD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
AUDCHF	LP_AUDCHF		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
AUDCAD	LP_AUDCAD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
AUDJPY	LP_AUDJPY		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
CHFJPY	LP_CHFJPY		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURGBP	LP_EURGBP		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURAUD	LP_EURAUD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURCHF	LP_EURCHF		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURNZD	LP_EURNZD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
EURCAD	LP_EURCAD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
GBPCHF	LP_GBPCHF		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
GBPAUD	LP_GBPAUD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
GBPCAD	LP_GBPCAD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>

The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys:

Add - Ins ,

Editing - Enter or double-clicking the left mouse button;

Delete - Del (supported batch delete);

Update - F5 ; Search- Ctrl + F .

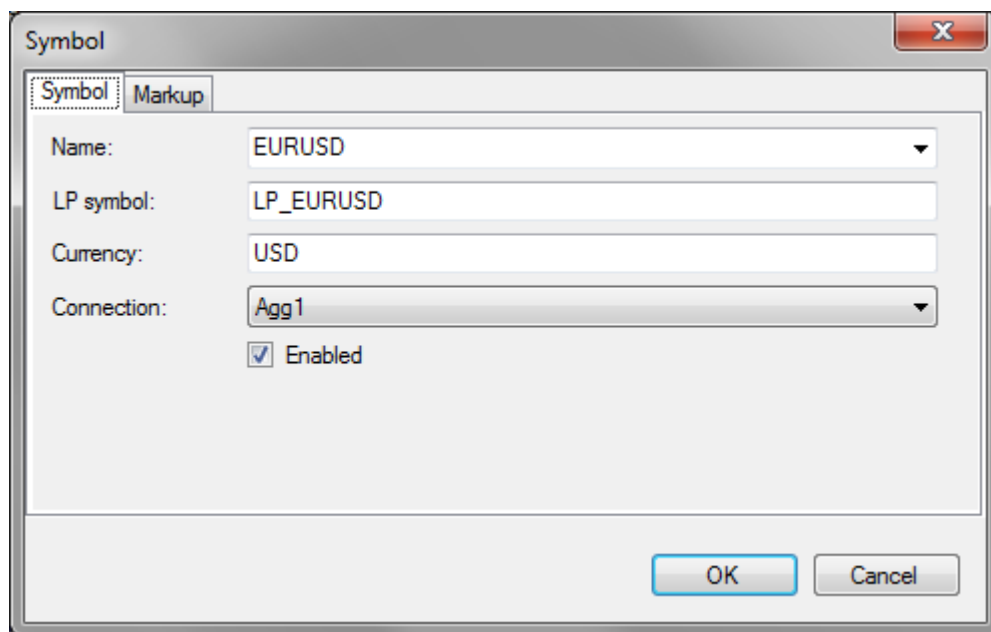
when you start the plugin creates (imported) Symbols for all the characters available in MT4 .

ATTENTION! If the symbol is configured to receive prices from one LP (LP1), and execution of orders on this character is configured on another LP (LP2), UBridge returns an error in MT4 at attempt of opening/closing orders, due to the fact that the plugin before the request is sent to the LP position opening at manufactures prices checking from this LP (the plugin will not be prices for this symbol of LP2). Check for prices from LP connection, you can disable it by setting the Ignore setting price missing on the Advanced tab in the connection settings to LP.

2.12 Create/edit character.

The window of the editing is used with creation or editing of aggregator:

2.12.1 Symbol configuration (tab Symbol).



Name -the name of the symbol in MT4.

LP symbol -arbitrary string connecting characters in MT4 with characters on the LP. The value of this field must match the value of the Name field in the settings of the connection symbols mapping LP. Only in this case the prices came from LP to a character with code specified in the Code Editor mapping characters connect, will be broadcast in MT4 for symbol whose name is specified in the Name field, as well as when sending messages to the LP symbol name MT4 will be correctly converted to character code for this LP (see. «configuring connections to LP »).

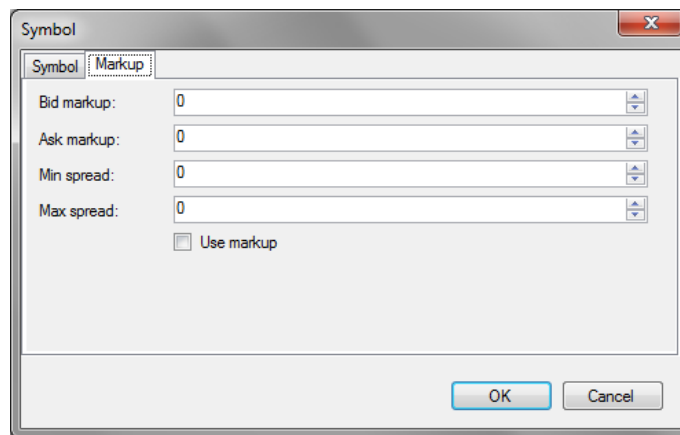
Currency -, the currency is used to FIX the tag 15 NewOrder messages.

ATTENTION! In case of wrong indication of the currency may be incorrectly interpreting request LP. After you import the symbols, you must make sure that the field has the correct value according to the FIX LP specification.

Connection - name «Market» connection or connection aggregator, which will be used for delivery prices MT4 for this symbol.

Enabled - on/off symbol.

2.12.2 Markup settings (Markup tab).



Bid markup - markup Bid price points, the value on which the Bid price will be changed.

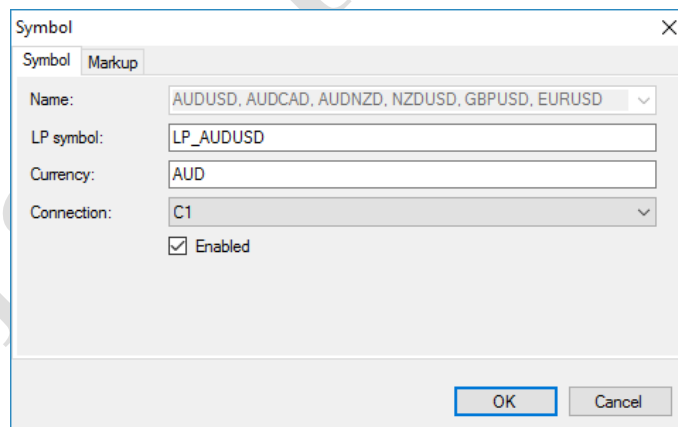
Ask markup - markup Ask price points, the value of which will be changed and the Ask price.

Min spread - the minimum value of the spread in the paragraphs to which will spread LP for use in MT4.

Max spread -, the maximum value of the spread in the paragraphs to which will spread LP for use in MT4. If this field value is set to 0, then Bid and Ask prices will be brought to the mean value, and should be equal.

Use markup - flag settings use the symbol markup when calculating the prices displayed for characters in MT4 and used for MT4 orders.

for group editing characters, you must select multiple symbols in the list and choose «Edit».



For group editing characters change character name is not available, and remain only those symbol settings that have been changed in the form.

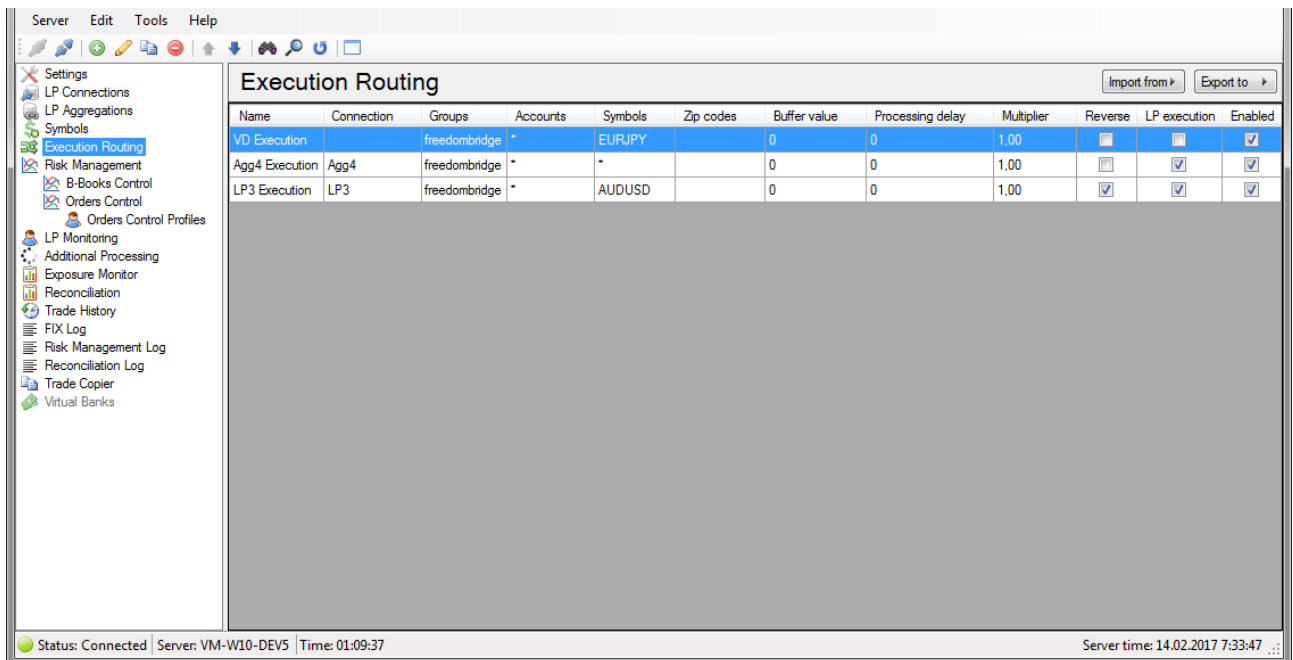
2.12.3 Export/import symbols.

For portability tweaks aggregators provided export/import to/from an XML file (button in the upper-right corner of the form list of aggregators).



2.13 Configure routing requests - «Execution Routings».

“**Execution routing**” configuration used by the system to determine a connection or connection aggregator which will query. Routing can be configured so that the query ran on MT4 without opening/closing position on LP. To do this, you use the routing element type Virtual Dealer .



List displays the items registered in the system routing (routing Execution). To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu.

As for editing, you can use hot keys:

Add-Ins ,

Editing- Enter or double-clicking the left mouse button;

Delete- Del (supported batch delete);

Update F5 ;

Search- Ctrl + F .

to change the sequence of elements in the list, there are special steps Move Up Move Down and . They are available via the context menu in the menu Edit and from the toolbar.

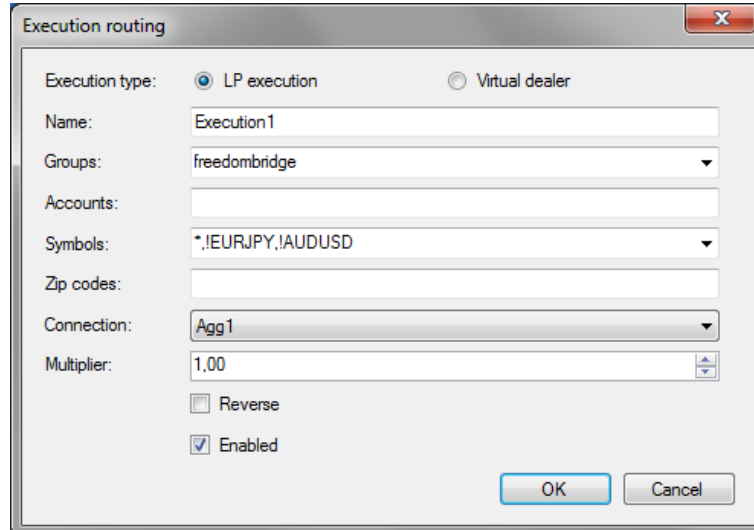
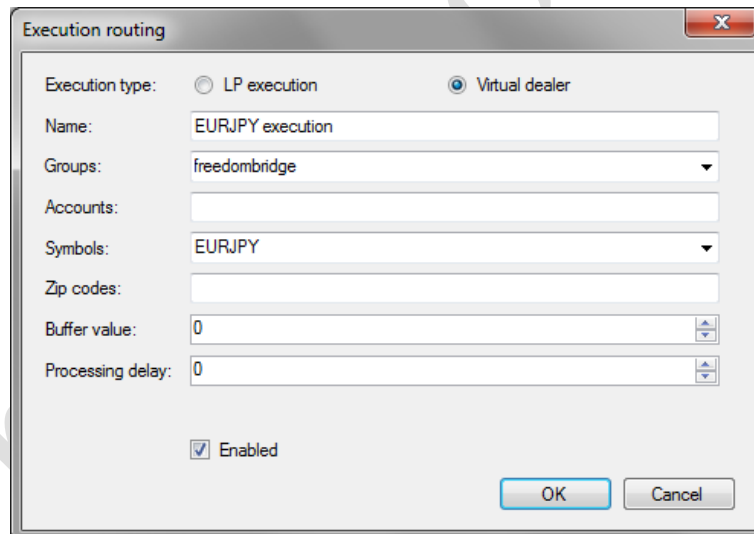


System, receiving a request for opening an order (or pending order activation) of MT4, is looking for first routing element in the list, the Group (Groups), account (Accounts), symbol (Symbols) and zip code (Zip codes) which corresponds to a group account, character and index MT4 query. Parameters of the found element used for execution of a query. If no such element is found, the plugin does not handle the request.

When system receives a request for closure order StopLoss , TakeProfit and Stopout , the system checks whether the order is opened via UBridge . If there was, then a closing position is sent to the LP (or aggregator), on which it was opened. If the warrant was opened via Virtual Dealer , closing occurs just through Virtual Dealer. Thus routing settings are used exclusively for opening or activation of orders.

2.14 Create/edit the routing.

When you create or edit a routing element uses the edit form:

Execution type -type query execution. Available for:

“LP execution” -query will be performed on the LP;

“Virtual Dealer” -query will be executed locally on the MT4.

Name -the unique name of the Member.

Groups -mask to specify groups MT4 , requests from which must be processed by the item routing.

Accounts -mask for MT4 accounts are set up, from which requests must be processed by the item routing.



Groups -mask to specify groups MT4, requests from which must be processed by the item routing.

Zip codes -mask to specify user index MT4, from which requests must be processed by the item routing.

Connection -the name of the connection to the LP or the aggregator of connections that should be used for the execution of a query. Sets the execution type only LP execution.

Multiplier -volume ratio. Is used to convert the amount of MT4 order volume LP position.

Reverse -whether to open positions on the LP the opposite order, MT4.

Buffer value -boundary value changes the current price in points relative to the prices at which the request for execution of the query uses the query cost. If this value is exceeded, the current price is used. This option is used when the type of execution "Virtual Dealer".

Processing delay -query processing latency in seconds. This option is used when the type of execution "Virtual Dealer".

Enabled -enable/disable the item routing.

2.14.1 Export/import

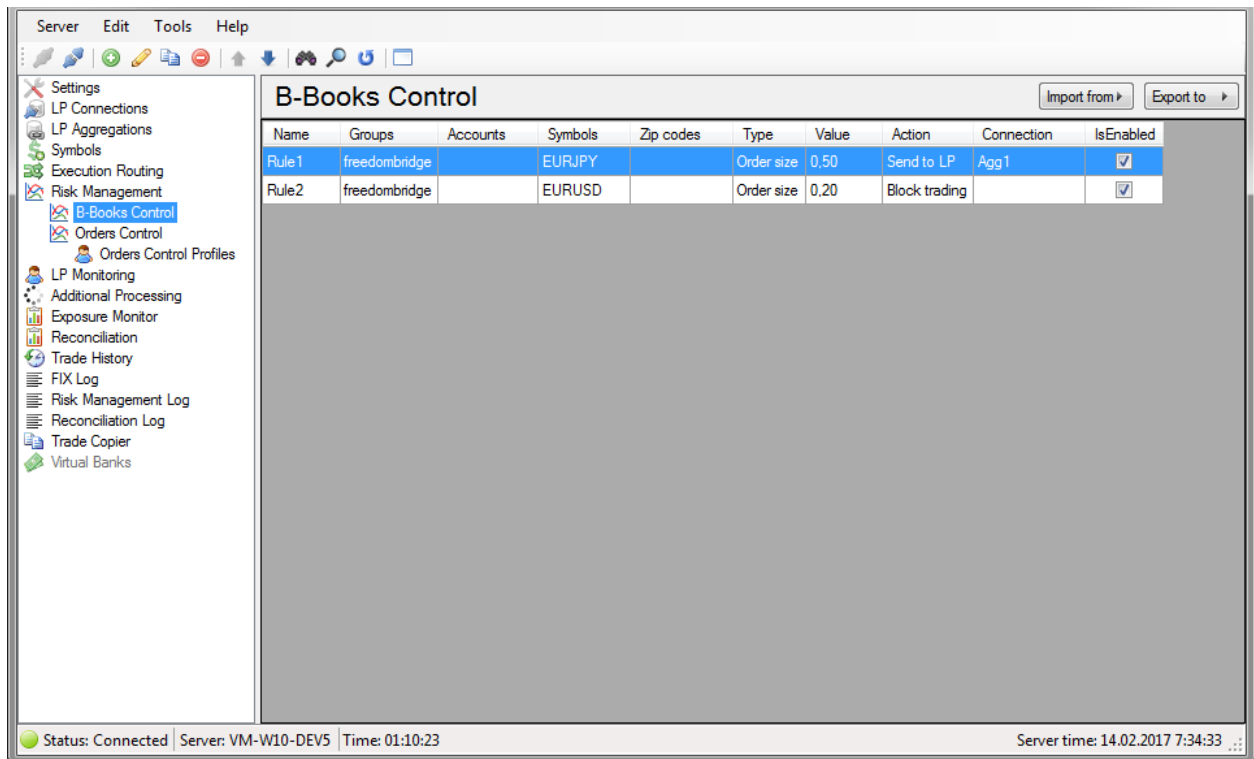
For portability tweaks aggregators provided export/import to/from an XML file (button in the upper-right corner of the form list of aggregators).



2.15 Risk management subsystem-Risk Management.

2.15.1 B-control rule Books orders-B-Books Control.

B-control rules for Books orders regulate local opening orders (on Virtual Dealer).



The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu.

As for editing, you can use hot keys:

Add-Ins ,

Editing- Enter or double-clicking the left mouse button;

Delete- Del (supported batch delete);

Update F5 ;

Search- Ctrl + F .

to change the sequence of elements in the list, there are special steps Move Up Move Down and . They are available via the context menu in the menu Edit and from the toolbar.

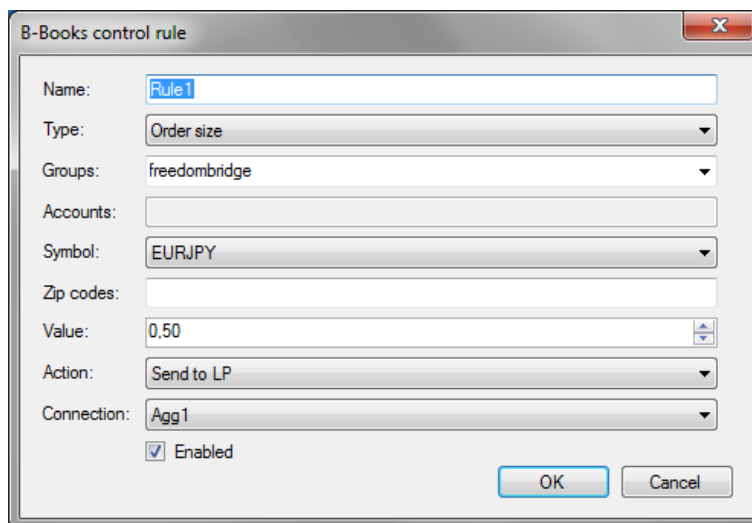


System, receiving a request to open a warrant from MT4 , specifies the type of query execution using a routing configuration (see. « request routing Configuration »), then if the type of the query has executed Virtual Dealer , the system looks for first rule in the list, the Group (Groups), symbol (Symbol), zip (Zip codes) and account

(Accounts) which corresponds to a group, the character index and account MT4 query. If the rule is found-plugin checks the conditions of applying the rule to the query and compares the parameter that is specified using the Type , with the value specified in the Value . If you exceed the value specified in Value the system performs the action specified by the parameter Action . Response actions accompanied by adding entries in Risk Management Log .

2.15.1.1 Create/edit rules.

When you create or edit rules form is used:



Name - is a unique name for the rule.

Type -type rules. Specifies the condition under which the rule is triggered. 3 types available: «Exposure», “Order size” and “Total positions room”.

Rule type “Exposure” apply to request if the total exposure on all the accounts specified by the parameters Groups Accounts and Symbols, exceeds the value specified in the Value .

Rule type “Order size” is triggered if the volume of opened order exceeds the specified in the parameter Value value.

Rule type “Total positions room” apply if at the time of opening the sum of all orders (meet specified Groups Accounts and Symbol) exceeds the value specified in the parameter Value .

Group -mask to specify groups of MT4, to requests from which this rule should apply.

Accounts -mask to specify MT4 accounts, to which this rule should apply.

Symbol -MT4 symbol to request from which this rule should apply.

Zip codes -mask to specify indexes for MT4 users requests from which this rule should apply.

Value -, parameter value specified using the type rules when the value which this rule is applied to the request.

Action - action performed on request if you meet these conditions exceeded Value. Available 2 values:

“Block trading” -request is not processed by the plugin;

“Send to LP” -request is sent to the LP or aggregator.

Connection -the name of the connection to the LP or aggregator, which must be executed query. Available at field value Action peer “Send To LP”.

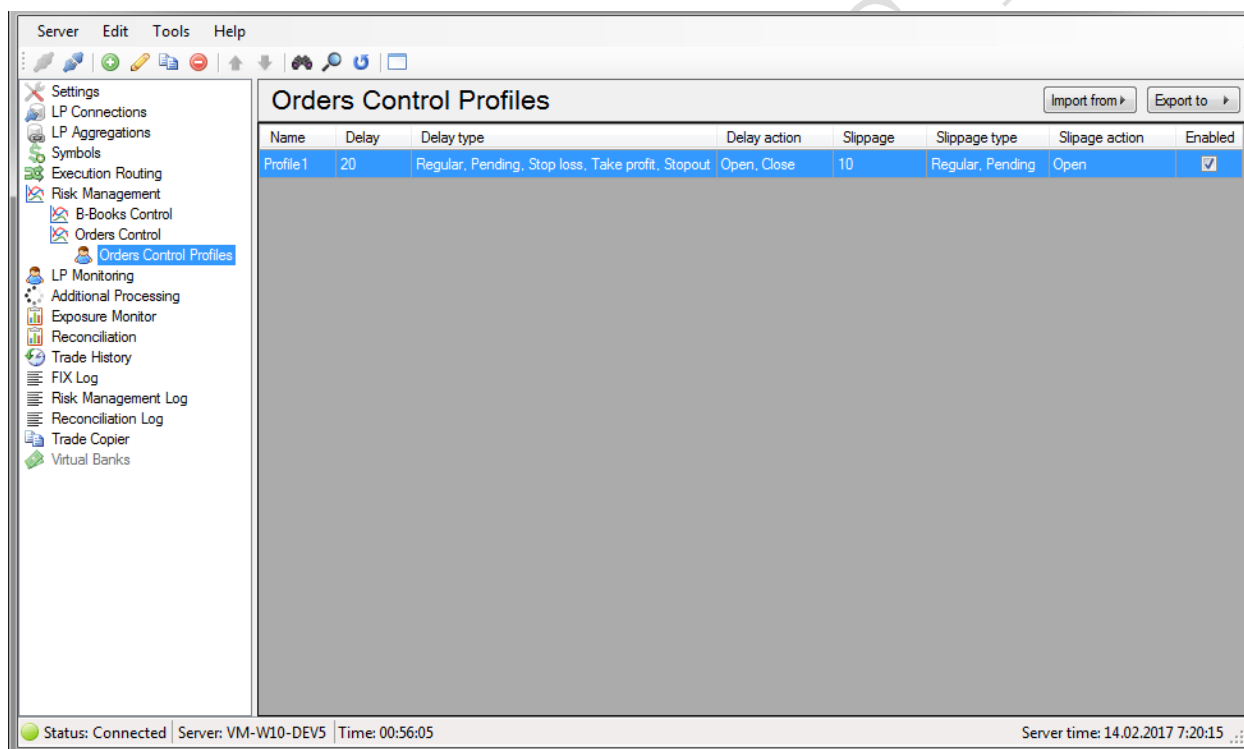
Enabled -enable/disable rules.

2.15.1.2 Export/import

For portability rules B-Books orders provided for export/import to/from an XML file (button in the upper-right corner of the form list of rules). 

2.15.2 Profiles management Orders-Orders Control Profiles.

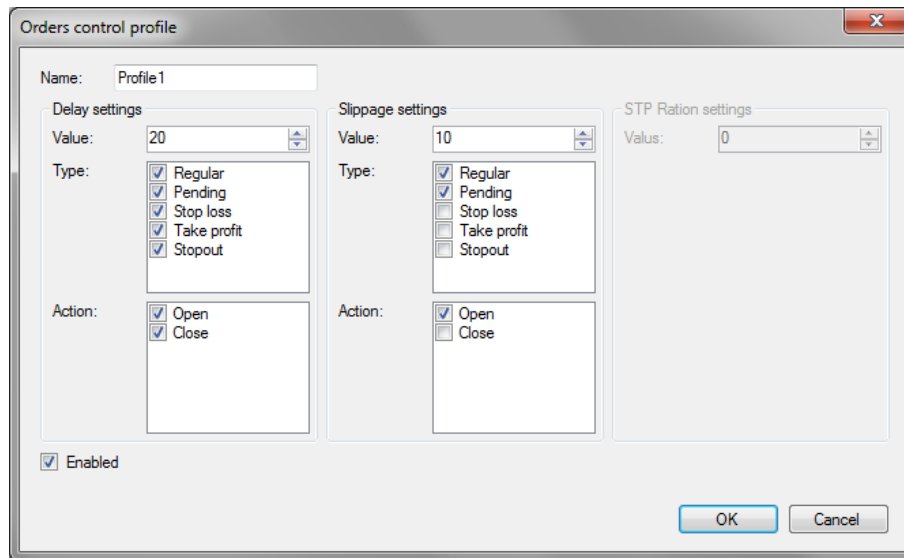
order management Profiles contain settings that apply to the MT4 orders. These profiles are used in the rules (see order management. orders rules «).



The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys: Add-Ins , editing- Enter or double-clicking the left mouse button; delete- Del (supported batch delete); Update F5 ; Search- Ctrl + F .

2.15.2.1 Create/edit profile.

When you create or edit rules form is used:



Name - is a unique profile name.

Enabled - activate/deactivate profile.

Group Delay settings:

Value - query execution timeout in seconds.

Type - query types MT4, for whom delay should apply.

Action - MT4 query command for which should be applied.

Band Slippage settings settings:

Value – the value of slippage.

Type - query types MT4, for whom delay should apply.

Action - MT4 query command for which should be applied.

STP settings group Ration settings:

At the moment, this functionality is not implemented.

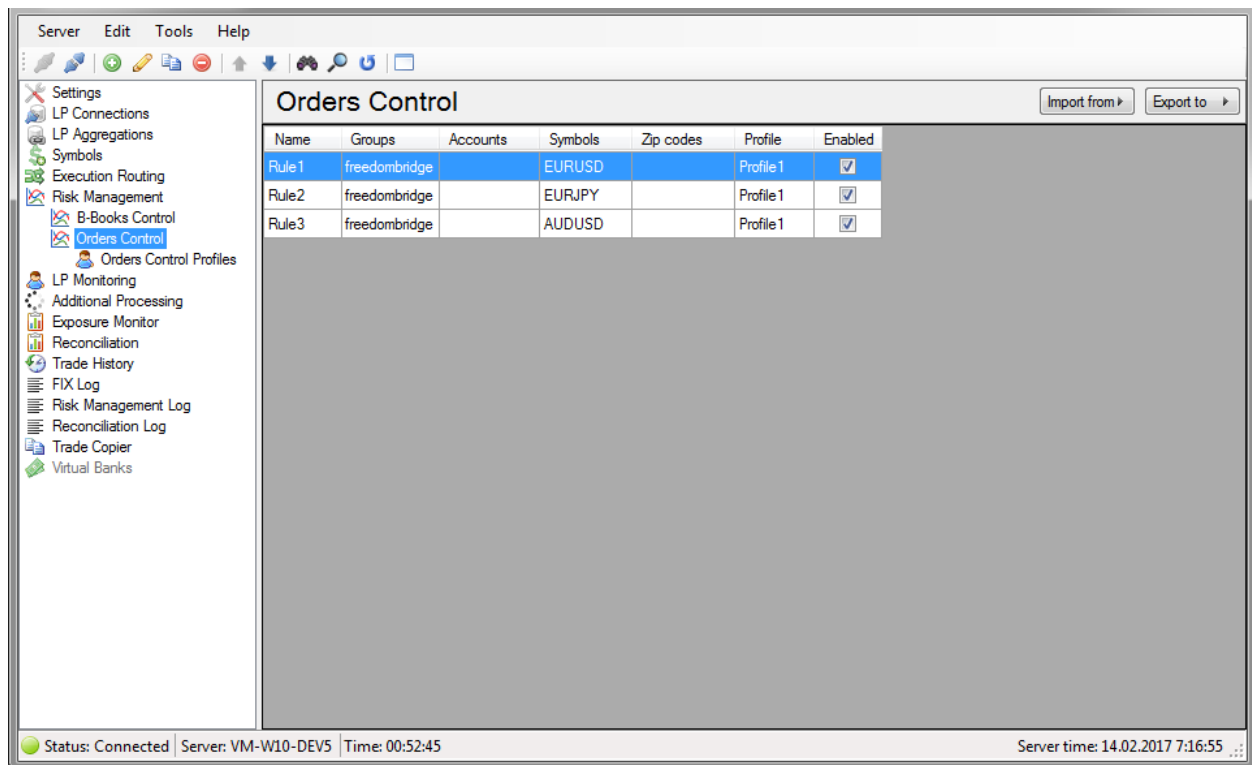
2.15.2.2 Export/Import

For portability tweaks aggregators provided export/import to/from an XML file (button in the upper-right corner of the form list of aggregators).



2.15.3 Order management rules - Control Orders.

The rules of control of warrants are used for applying the parameters, the profiles indicated (see **“Profiles of control of warrant”**) to the demands **MT4** with their working in plugin.



The list displays the connections registered in the LP system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys: Add-Ins , editing- Enter or double-clicking the left mouse button; delete- Del (supported batch delete); Update F5 ; Search- Ctrl + F .

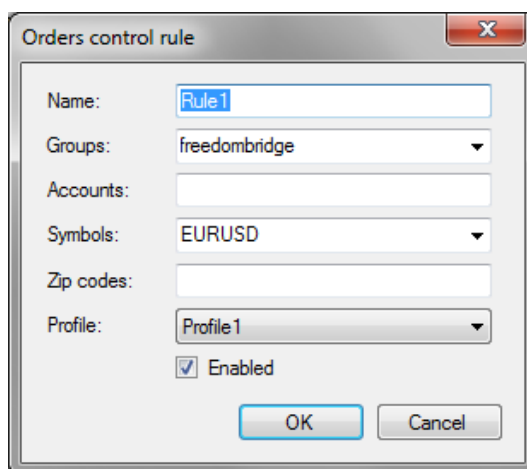
to change the sequence of elements in the list, there are special steps Move Up Move Down and . They are available via the context menu in the menu Edit and from the toolbar.



System, receiving a request for opening an order (or pending order activation) of MT4 , is looking for first routing element in the list, the Group (Groups), account (Accounts), symbol (Symbols) and zip code (Zip codes) which corresponds to a group account, character and index MT4 query. The parameters associated with the found rule apply to request profile (delay and slippage). Response actions accompanied by adding entries in Risk Management Log .

2.15.3.1 Add/Edit rule.

When you add whether you edit rules using the following edit form:



Name -the unique name of the order management rules.

Group -mask to specify groups of MT4, to requests from which this rule should apply.

Accounts -mask to specify MT4 accounts, to which this rule should apply.

Symbols -mask to specify characters MT4 to requests for which profile should be applied to this rule.

Zip codes -mask to specify indexes for MT4 users requests from which this rule should apply.

Profile -order management profile.

Enabled -enable/disable rules.

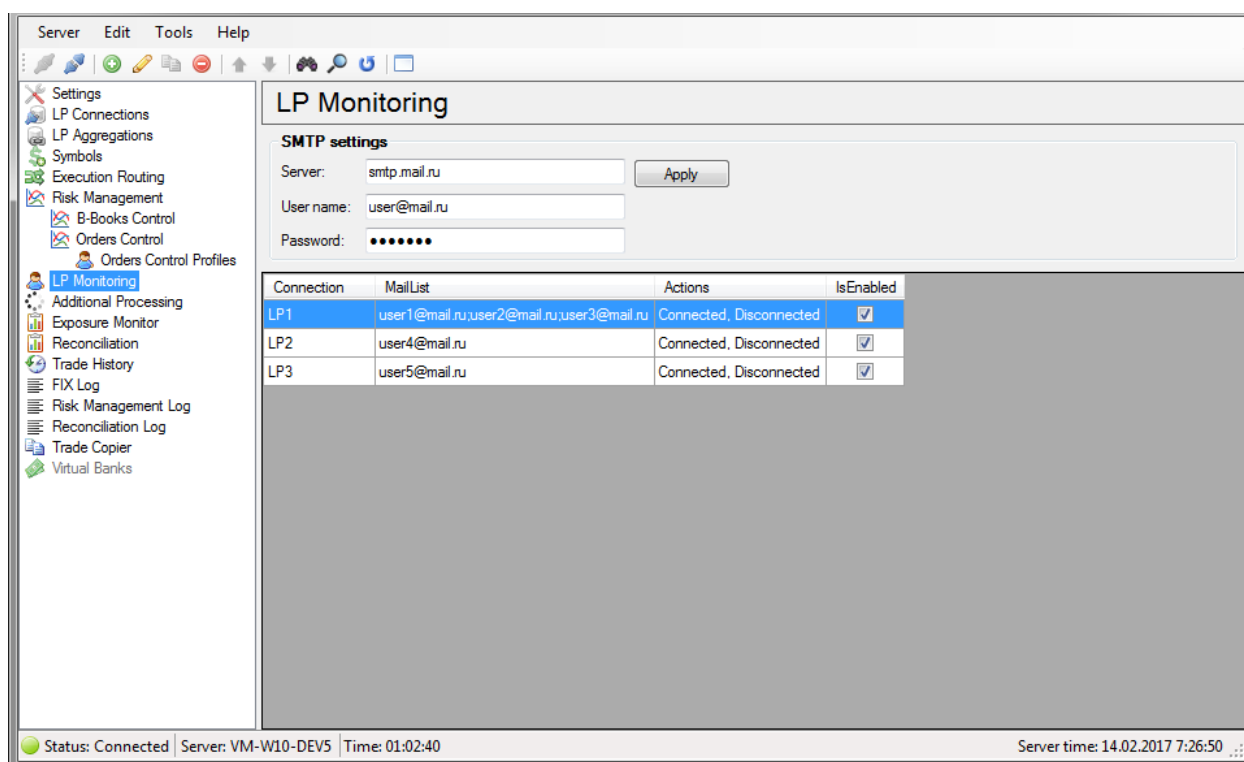
2.15.3.2 Export/import

For portability tweaks aggregators provided export/import to/from an XML file (button in the upper-right corner of the form list of aggregators).



2.16 Monitoring LP – “LP Monitoring” section.

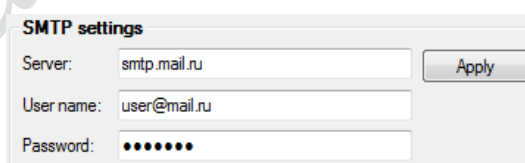
Monitoring LP allows you to track and report on certain events occur related to LP. Currently implemented change notification status of LP.



List monitoring settings. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys: Add-Ins , editing- Enter or double-clicking the left mouse button; delete- Del (supported batch delete); Update F5 ; Search- Ctrl + F .

2.16.1 SMTP settings

To specify the settings for the outgoing mail server (SMTP) settings field group is designed, located above the list:



Server -the name of the outgoing mail server.

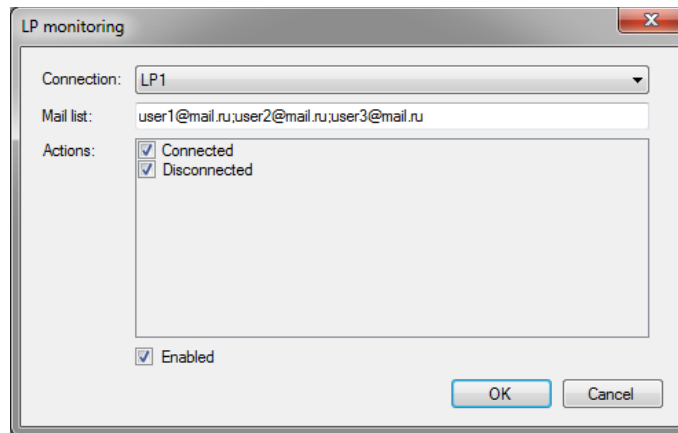
User name -the user name to log on to the mail server (mail address).

Password -user password for logging on to the mailbox server.

Apply - use imposed by the outgoing server settings. When you click on the button will attempt to send the message to a specified email address. If successful, a confirmation message will be displayed and your settings will be saved. If that fails, send a confirmation message will be displayed and your SMTP settings will not be saved!

2.16.2 Monitoring settings.

When adding or editing an item, use the following monitoring settings edit form:



Connection -name connection to LP, for which you want to apply the settings of the monitor.

Mail list -list of email addresses to which you want to send notifications about the events referred to in Actions.

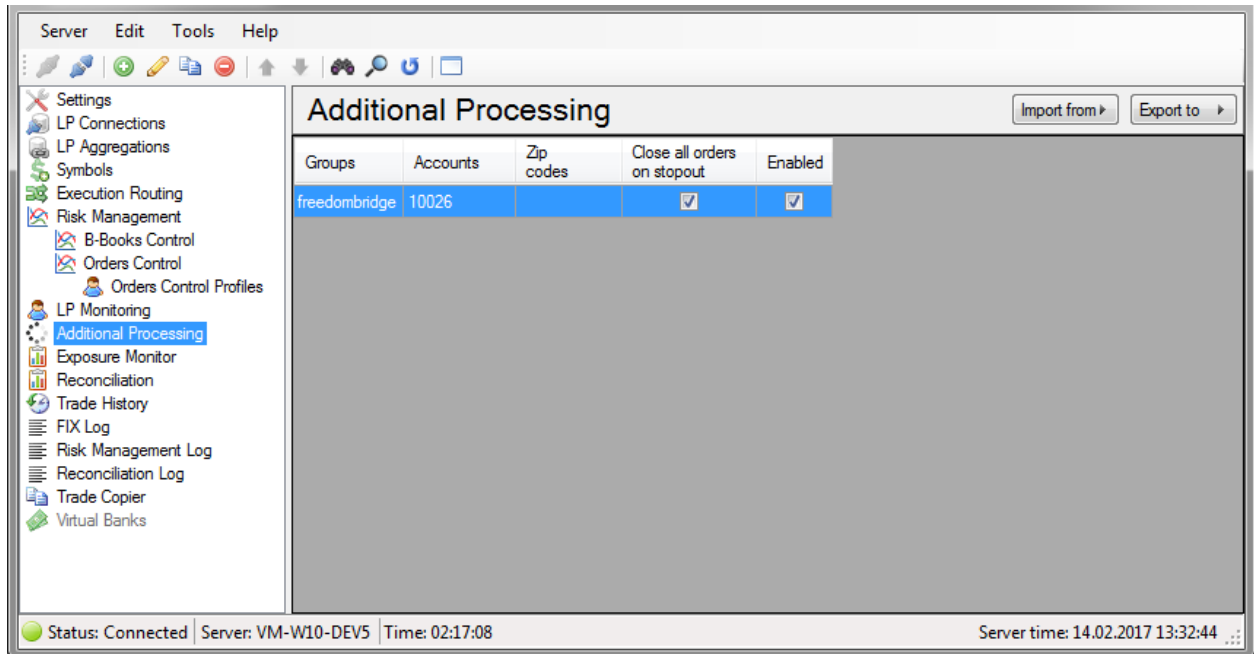
Actions -, upon the occurrence of the event list that you want to join our mailing list addresses specified in the list Mail.

Enabled -enabling/disabling the preference item.

2.17 Additional processing is Additional Processing

This section is used to configure additional queries and orders. New functionality will be added here as the system evolves.

at the moment this section is implemented logic plugin Stopout from MetaQuotes, because if you use uBridge Stopout plugin doesn't work properly-closed stopout plugin orders do not go through UBridge .



List displays the items registered in the system. To manage the list of connections, you can use the menu Edit , toolbar, or shortcut menu. As for editing, you can use hot keys: Add-Ins , editing- Enter or double-clicking the left mouse button; delete- Del (supported batch delete); Update F5 ; Search- Ctrl + F .

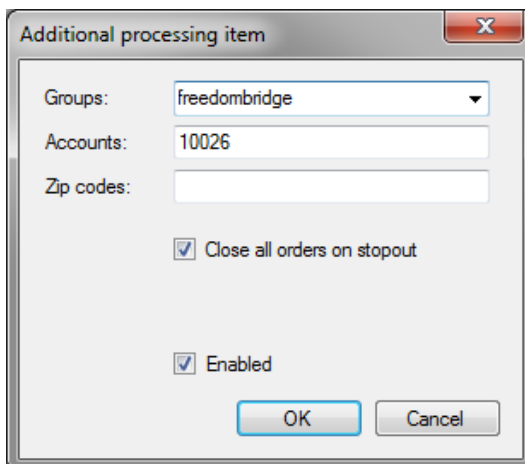
to change the sequence of elements in the list, there are special steps Move Up Move Down and . They are available via the context menu in the menu Edit and from the toolbar.



event Stopout the system looks for the first item in the list, additional processing Group (Groups), account (Accounts) and index (Zip codes) which corresponds to a group account, the Group and the index of the user for which the event occurred Stopout . If such an element is found, the plugin performs additional actions, in accordance with the parameters of the found element.

2.18 Edit the additional processing.

When adding additional processing element editing Lee uses the following edit form:



“Groups” -mask to specify groups MT4 , requests from which must be processed by the item routing.

“Accounts” -mask for MT4 accounts are set up, from which requests must be processed by the item routing.

“Zip codes” -mask to specify user index MT4, from which requests must be processed by the item routing.

“Close all orders on stop out” is a sign of closing all orders upon occurrence of user Stop out events. This option UBridge will close all user orders in accordance with the rules described in section closing configure routing queries . Thus processed only those orders that were discovered through UBridge .

“Enabled” -enabling/disabling the preference item.

2.18.1 Export/import

For portability to tweak further processing export/import to/from an XML file (button in the upper-right corner of the form list list of additional processing).



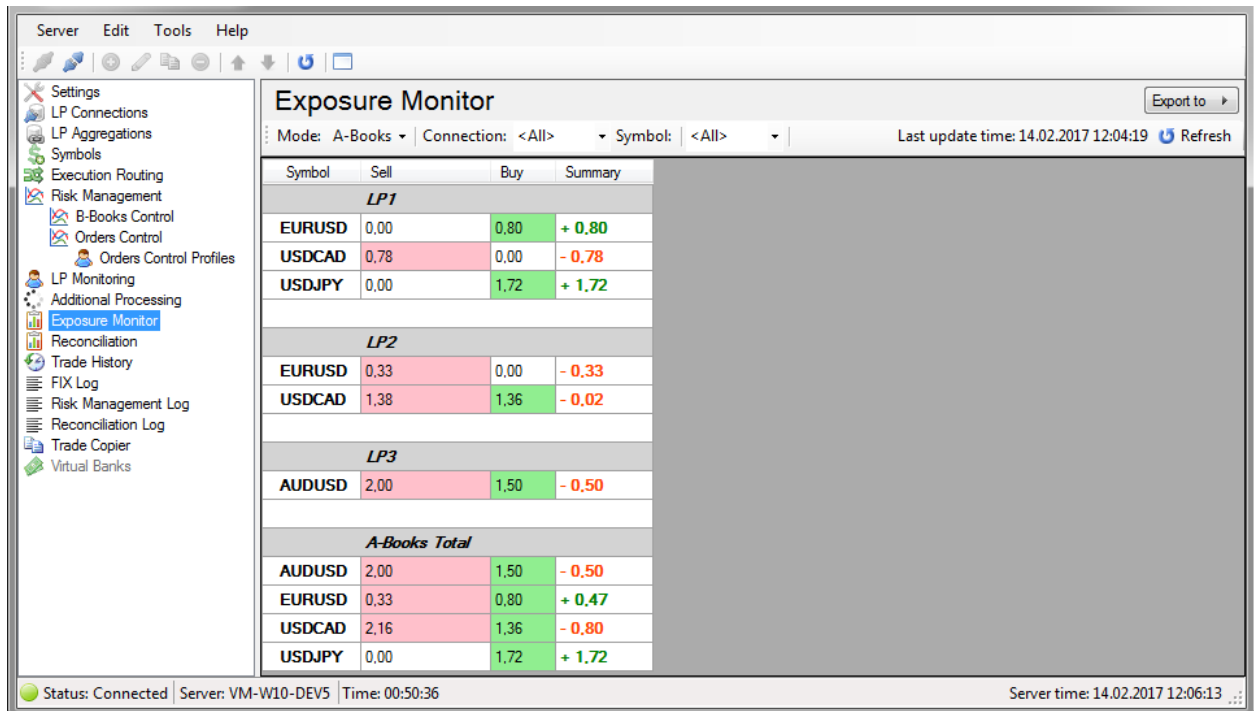
2.19 Exposure Monitor.

2.19.1 Exposure monitor

Exposure monitor shows total Exposure across connections and symbols for all positions open at the moment using the plugin uBridge .

There are 2 modes of display data.

“A-Books” -displays the Exposure positions opened on the LP:



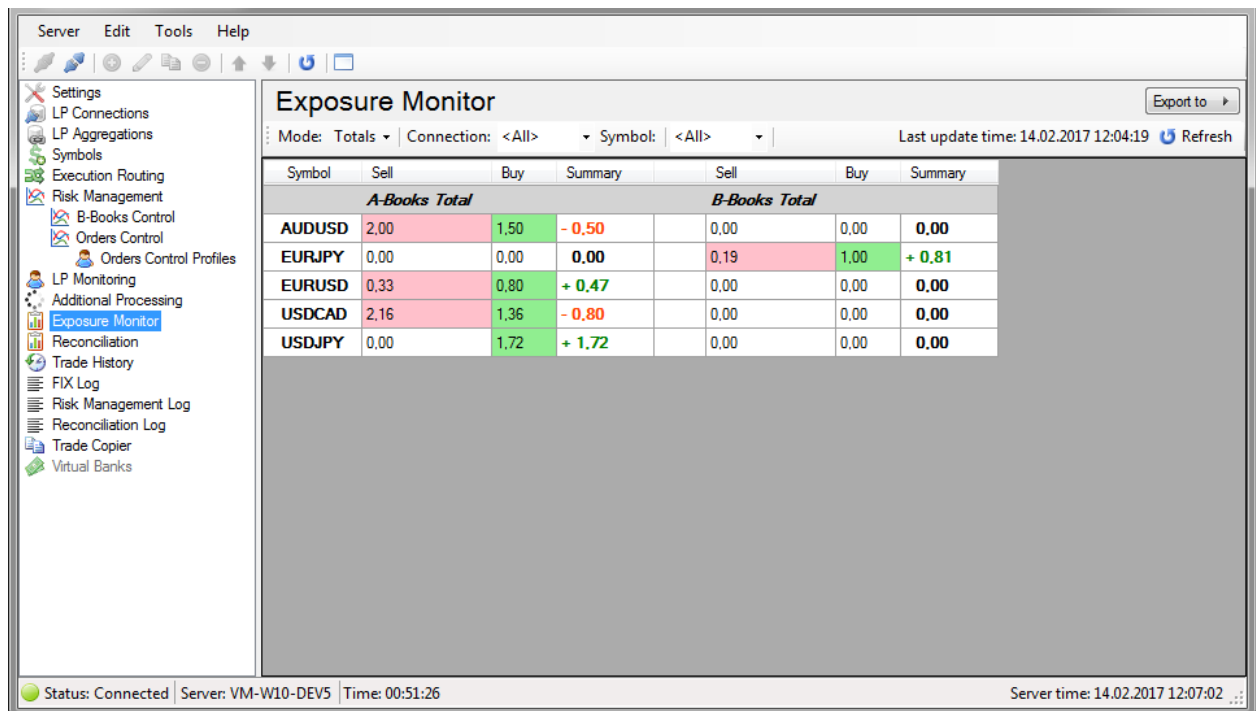
The screenshot shows the 'Exposure Monitor' window with a table of exposure data. The table is organized into sections for LP1, LP2, LP3, and an A-Books Total. Each row shows the symbol, sell and buy amounts, and a summary value. The status bar at the bottom indicates the server is connected and shows the time as 00:50:36.

Symbol	Sell	Buy	Summary
LP1			
EURUSD	0,00	0,80	+ 0,80
USDCAD	0,78	0,00	- 0,78
USDJPY	0,00	1,72	+ 1,72
LP2			
EURUSD	0,33	0,00	- 0,33
USDCAD	1,38	1,36	- 0,02
LP3			
AUDUSD	2,00	1,50	- 0,50
A-Books Total			
AUDUSD	2,00	1,50	- 0,50
EURUSD	0,33	0,80	+ 0,47
USDCAD	2,16	1,36	- 0,80
USDJPY	0,00	1,72	+ 1,72

Status: Connected | Server: VM-W10-DEV5 | Time: 00:50:36 | Server time: 14.02.2017 12:06:13

Trade

«Totals» -shows total Exposure by symbols for A-Books (positions open on the LP) and B-Books (order open locally using the Virtual Dealer):



Symbol	Sell	Buy	Summary	Sell	Buy	Summary
A-Books Total			B-Books Total			
AUDUSD	2,00	1,50	- 0,50	0,00	0,00	0,00
EURJPY	0,00	0,00	0,00	0,19	1,00	+ 0,81
EURUSD	0,33	0,80	+ 0,47	0,00	0,00	0,00
USDCAD	2,16	1,36	- 0,80	0,00	0,00	0,00
USDJPY	0,00	1,72	+ 1,72	0,00	0,00	0,00

Column Sell shows total value volume type positions Sell , Buy -the sum of items of type Buy . In the column Summary indicated total Exposure for the symbol/connection. Value with the sign «+» means that the total Exposure is of type Buy , or type Sell .



2.19.2 Filtering the displayed data.


To filter the displayed data have a filter with the following settings:

Mode -display mode. Available values are “A-Books” and “Totals”.

Connection -the name of the connection to the LP. Can be part of the name of the LP connection in this case when calculating Exposure positions opened will be taken into account on all LP names that contain a specified string. When you specify <All> connection filtering is not performed.</All>

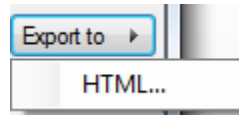
Symbol -symbol name of MT4. Can be part of the name of the symbol, in this case, when calculating the Exposure will take into account only the position open for characters with names that contain a specified string, for example, in the previous screenshot, if you specify «USD», then the list will contain the data for the following characters: AUDUSD, USDCAD, EURUSD and USDJPY. When you specify <All> connection filtering is not performed.</All>

For applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 .  Refresh 

 Refresh

2.19.3 Export Data

To export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.



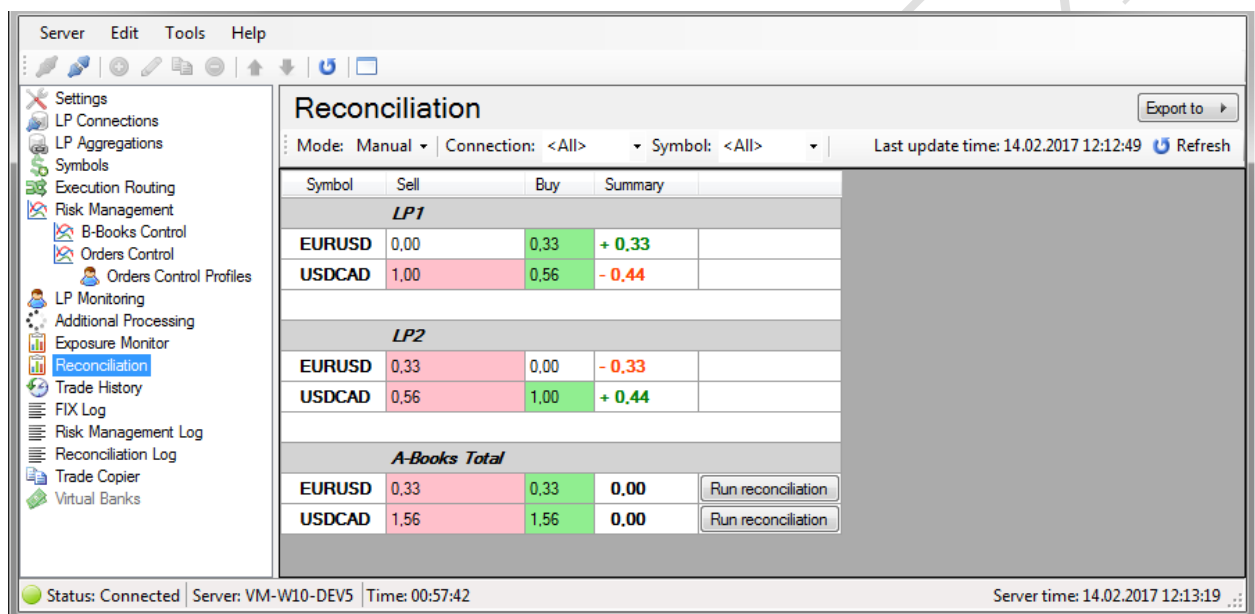
TradeToolsFX

2.20 Reconciliation.

Reconciliation is an operation offset (mutual closure) of two divergent positions on two LP. The operation Reconciliation becomes available if the opening and closing positions (i.e., this operation is possible for positions for which there is no associated orders in MT4) on different parts of that will remain open to the LP position. For example, when you open order buy USDJPY was opened buy position on LP1, and when you close this order was closed at LP2, i.e. when closing orders MT4 was opened opposite position on LP2, namely sell USDJPY. In this case, there are 2 different not related MT4 position on two different LP.

operation Reconciliation symbol for USDJPY LP1 will be sent a request for the opening of the opposite position, and the LP2 will be sent a request to open opposite positions for their compensation. The results of these queries LP fall into Reconciliation log .

to perform this procedure, you must use the button that is available only if the filter parameter values Connection and Symbol installed in <All> or not specified.</All>



Symbol	Sell	Buy	Summary	
LP1				
EURUSD	0,00	0,33	+ 0,33	
USDCAD	1,00	0,56	- 0,44	
LP2				
EURUSD	0,33	0,00	- 0,33	
USDCAD	0,56	1,00	+ 0,44	
A-Books Total				
EURUSD	0,33	0,33	0,00	Run reconciliation
USDCAD	1,56	1,56	0,00	Run reconciliation

Symbol -name character

Sell -total amounts for all not related to MT4 sell positions on the LP.

Buy - total amounts for all not related to MT4 buy positions on the LP.

Summary -sum of Buy and Sell orders (exposure). If it contains the character '+' -total value is of type buy, if '-' is the total value is of type sell.

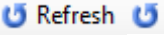
2.20.1 Filtering the displayed data.


To filter the displayed data have a filter with the following settings:

Mode -mode is always «Manual».

Connection -the name of the connection to the LP. Can be part of the name of the LP connection in this case filtering will be done by entering a string in the name of the connection. When you specify <All> connection filtering is not performed.</All>

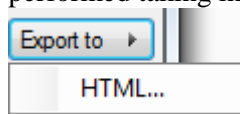
Symbol -symbol name of MT4. Can be part of the name of the symbol, in this case, the filter will be entering a string in the title character. When you specify <All> connection filtering is not performed.</All>

for applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 . 

 Refresh

2.20.2 Export Data

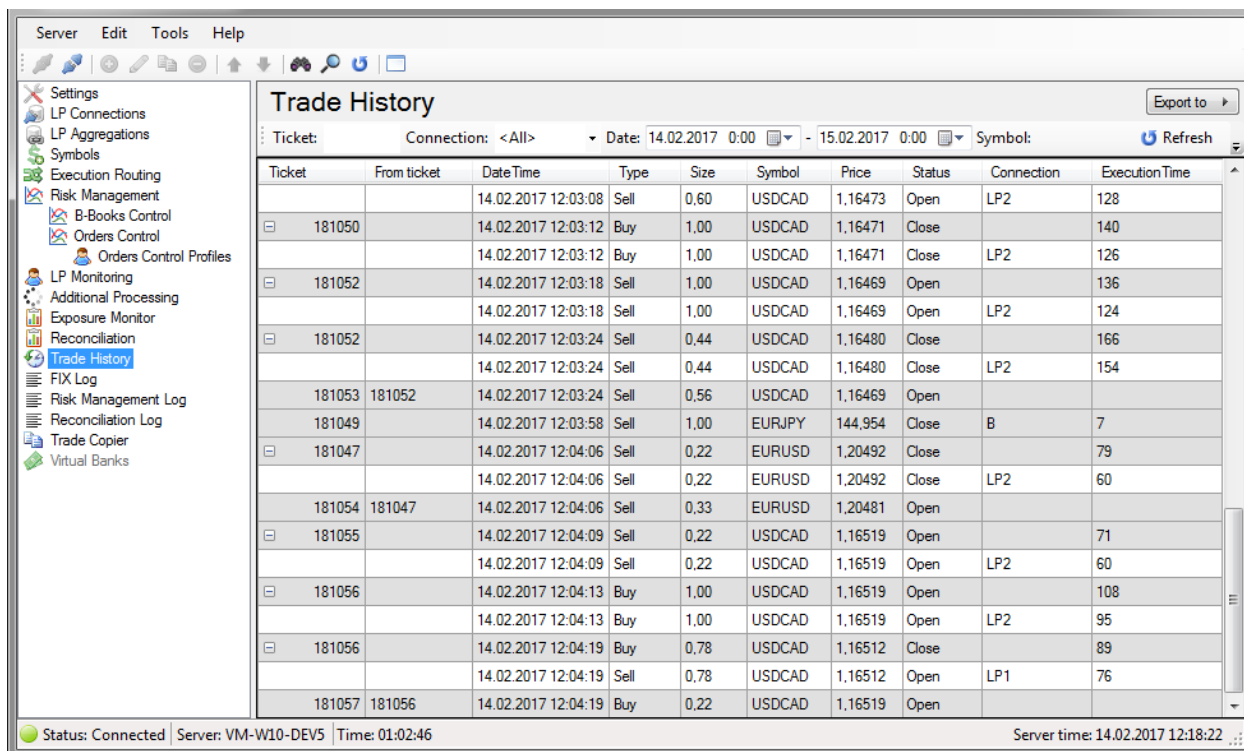
to export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.



TradeToolsFX

2.21 History of trade – “Trade History” section.

this section contains information about positions and orders, open and closed using uBridge plugin.



Ticket	From ticket	DateTime	Type	Size	Symbol	Price	Status	Connection	ExecutionTime
		14.02.2017 12:03:08	Sell	0.60	USDCAD	1,16473	Open	LP2	128
181050		14.02.2017 12:03:12	Buy	1.00	USDCAD	1,16471	Close		140
		14.02.2017 12:03:12	Buy	1.00	USDCAD	1,16471	Close	LP2	126
181052		14.02.2017 12:03:18	Sell	1.00	USDCAD	1,16469	Open		136
		14.02.2017 12:03:18	Sell	1.00	USDCAD	1,16469	Open	LP2	124
181052		14.02.2017 12:03:24	Sell	0.44	USDCAD	1,16480	Close		166
		14.02.2017 12:03:24	Sell	0.44	USDCAD	1,16480	Close	LP2	154
181053	181052	14.02.2017 12:03:24	Sell	0.56	USDCAD	1,16469	Open		
181049		14.02.2017 12:03:58	Sell	1.00	EURJPY	144,954	Close	B	7
181047		14.02.2017 12:04:06	Sell	0.22	EURUSD	1,20492	Close		79
		14.02.2017 12:04:06	Sell	0.22	EURUSD	1,20492	Close	LP2	60
181054	181047	14.02.2017 12:04:06	Sell	0.33	EURUSD	1,20481	Open		
181055		14.02.2017 12:04:09	Sell	0.22	USDCAD	1,16519	Open		71
		14.02.2017 12:04:09	Sell	0.22	USDCAD	1,16519	Open	LP2	60
181056		14.02.2017 12:04:13	Buy	1.00	USDCAD	1,16519	Open		108
		14.02.2017 12:04:13	Buy	1.00	USDCAD	1,16519	Open	LP2	95
181056		14.02.2017 12:04:19	Buy	0.78	USDCAD	1,16512	Close		89
		14.02.2017 12:04:19	Sell	0.78	USDCAD	1,16512	Open	LP1	76
181057	181056	14.02.2017 12:04:19	Buy	0.22	USDCAD	1,16519	Open		

history items have level 2-first level elements contain information about an order MT4 , and the second level contains information about positions open at LP.

when opening/closing MT4 warrant was open/closed the corresponding position on the LP the first level element will necessarily contain a second level:

181047		14.02.2017 12:04:06	Sell	0,22	EURUSD	1,20492	Close		79
		14.02.2017 12:04:06	Sell	0,22	EURUSD	1,20492	Close	LP2	60

If MT4 an order was opened/closed locally using the Virtual Dealer ' and then the second-level for such events will be absent, while in the column Connection will attend B ' ' meaning B-Books :

181049		14.02.2017 12:03:58	Sell	1,00	EURJPY	144,954	Close	B	7
--------	--	---------------------	------	------	--------	---------	-------	---	---

the second tier will be absent for the partial opening of the order after the partial closure in this case, the column will be filled From ticket , containing the order ticket, resulting in the partial closure of the partial opening of current orders:

181047		14.02.2017 12:04:06	Sell	0,22	EURUSD	1,20492	Close		79
		14.02.2017 12:04:06	Sell	0,22	EURUSD	1,20492	Close	LP2	60
181054	181047	14.02.2017 12:04:06	Sell	0,33	EURUSD	1,20481	Open		

2.21.1 First-level element (MT4 order)

Ticket - ticket MT4 (order number).

Ticket From - ticket order, partial closure which was a partial opening of the MT4 order with the ticket .

DateTime -date and time of opening/closing orders.

Type -order type. Buy and Sell values are available.

Size -order volume (lots).

Symbol -symbol.

Price -price opening/closing orders.

Status -status: Open -opening Close -closing.

Connection -for first-level element, this column is used to specify that a warrant was opened locally by Virtual Dealer. In this case this column be marked ' B ' (B- Books).

ExecutionTime -the total query execution time in milliseconds (based on the invoice date of the request until it is confirmed). The difference of this value and ExecutionTime second level shows the query execution delay plugin.

2.21.2 Elements of the second level (LP position)

Ticket - From ticket for secondary items not listed.

Date Time -date and time of opening/closing orders.

Type -type position.

Size -position volume (lots).

Symbol -symbol.

Price -price opening/closing position.

Status -status: Open -opening Close -closing.

Connection -the name of the LP connection on which open/closed position.

Execution Time - query execution time on LP. The difference of this value and Execution Time second level shows the query execution delay plugin.

2.21.3 Filtering the displayed data.

To filter the displayed data have a filter with the following settings:

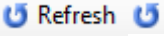
Ticket - ticket MT4 (order number).


Connection -the name of the connection to the LP. Is used to filter items in the second level. Can be part of the name of the LP connection in this case filtering will be done by entering a string in the name of the connection. If you specify <All> filtering is not performed.</All> If you specify <B-Books only=> will only display elements for positions, open/closed by Virtual Dealer.</B-Books>

Date -date and time range for which you want to display the history.

Symbol -symbol name of MT4. Can be part of the name of the symbol, in this case, the filter will be entering a string in the title character. If you specify <All> filtering is not performed.</All>

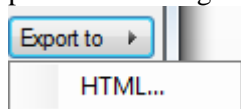
Status - MT4 order State: Open -opening Close -closing. If you specify <All> filtering is not performed.</All>

for applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 . 

 Refresh

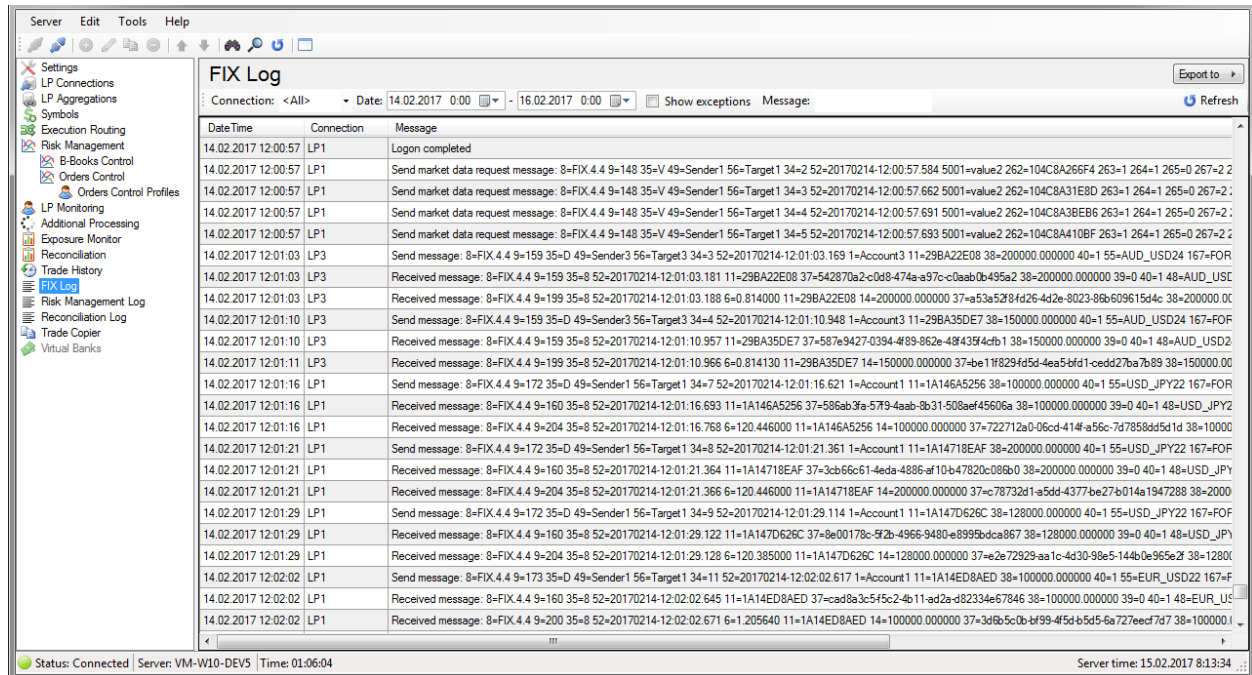
2.21.4 Export Data

to export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.



2.22 FIX message logs-Fix Log.

This section contains information about the Exchange UM FIX LP connections.



Date/Time	Connection	Message
14.02.2017 12:00:57	LP1	Logon completed
14.02.2017 12:00:57	LP1	Send market data request message: 8=FIX.4.4 9=148 35=V 49=Sender1 56=Target1 34=2 52=20170214-12:00:57 584 5001=value2 262=104C8A268F4 263=1 264=1 265=0 267=2 2
14.02.2017 12:00:57	LP1	Send market data request message: 8=FIX.4.4 9=148 35=V 49=Sender1 56=Target1 34=3 52=20170214-12:00:57 662 5001=value2 262=104C8A31E8D 263=1 264=1 265=0 267=2 2
14.02.2017 12:00:57	LP1	Send market data request message: 8=FIX.4.4 9=148 35=V 49=Sender1 56=Target1 34=4 52=20170214-12:00:57 691 5001=value2 262=104C8A3BEB6 263=1 264=1 265=0 267=2 2
14.02.2017 12:00:57	LP1	Send market data request message: 8=FIX.4.4 9=148 35=V 49=Sender1 56=Target1 34=5 52=20170214-12:00:57 693 5001=value2 262=104C8A410BF 263=1 264=1 265=0 267=2 2
14.02.2017 12:01:03	LP3	Send message: 8=FIX.4.4 9=159 35=D 49=Sender3 56=Target3 34=3 52=20170214-12:01:03 169 1=Account3 11=298A22E08 38=200000 000000 40=1 55=AUD_USD24 167=FOR
14.02.2017 12:01:03	LP3	Received message: 8=FIX.4.4 9=159 35=D 52=20170214-12:01:03 181 11=298A22E08 37=542870a2-c0d8-474a-a97c-c0aabb0495a2 38=200000 000000 39=0 40=1 48=AUD_USC
14.02.2017 12:01:03	LP3	Received message: 8=FIX.4.4 9=199 35=D 52=20170214-12:01:03 188 6=0 814130 11=298A22E08 14=200000 000000 37=a53a52f8d26-4d2e-8023-86b609615d4c 38=200000 00
14.02.2017 12:01:10	LP3	Send message: 8=FIX.4.4 9=159 35=D 49=Sender3 56=Target3 34=4 52=20170214-12:01:10 948 1=Account3 11=298A35DE7 38=150000 000000 40=1 55=AUD_USD24 167=FOF
14.02.2017 12:01:10	LP3	Received message: 8=FIX.4.4 9=159 35=D 52=20170214-12:01:10 957 11=298A35DE7 37=587e9427-0394-4f89-862e-4843f54c7b1 38=150000 000000 39=0 40=1 48=AUD_USD2
14.02.2017 12:01:11	LP3	Received message: 8=FIX.4.4 9=199 35=D 52=20170214-12:01:11 966 6=0 814130 11=298A35DE7 14=100000 000000 37=be1f829fd5d-4ea5-bfd1-ceed27ba7b89 38=150000 00
14.02.2017 12:01:16	LP1	Send message: 8=FIX.4.4 9=172 35=D 49=Sender1 56=Target1 34=7 52=20170214-12:01:16 621 1=Account1 11=1A146A5256 38=100000 000000 40=1 55=USD_JPY22 167=FOR
14.02.2017 12:01:16	LP1	Received message: 8=FIX.4.4 9=160 35=D 52=20170214-12:01:16 693 11=1A146A5256 37=586ab3fa-579-4aab-8b31-508aef45606a 38=100000 000000 39=0 40=1 48=USD_JPY2
14.02.2017 12:01:16	LP1	Received message: 8=FIX.4.4 9=204 35=D 52=20170214-12:01:16 768 6=120 446000 11=1A146A5256 14=100000 000000 37=722712a0-06cd-414f-a56c-7d7858dd5d1d 38=10000
14.02.2017 12:01:21	LP1	Send message: 8=FIX.4.4 9=172 35=D 49=Sender1 56=Target1 34=8 52=20170214-12:01:21 361 1=Account1 11=1A14718EAF 38=200000 000000 40=1 55=USD_JPY22 167=FOF
14.02.2017 12:01:21	LP1	Received message: 8=FIX.4.4 9=160 35=D 52=20170214-12:01:21 364 11=1A14718EAF 37=3cb66c61-4eda-4886-af10-b47820c086b0 38=200000 000000 39=0 40=1 48=USD_JPY
14.02.2017 12:01:21	LP1	Received message: 8=FIX.4.4 9=204 35=D 52=20170214-12:01:21 366 6=120 446000 11=1A14718EAF 14=200000 000000 37=c78732d1-a5dd-4377-be27b014a1947288 38=2000
14.02.2017 12:01:29	LP1	Send message: 8=FIX.4.4 9=172 35=D 49=Sender1 56=Target1 34=9 52=20170214-12:01:29 114 1=Account1 11=1A1470626C 38=128000 000000 40=1 55=USD_JPY22 167=FOF
14.02.2017 12:01:29	LP1	Received message: 8=FIX.4.4 9=160 35=D 52=20170214-12:01:29 122 11=1A1470626C 37=8e00178c-5f2b-4966-9480-e8995bdca867 38=128000 000000 39=0 40=1 48=USD_JPY
14.02.2017 12:01:29	LP1	Received message: 8=FIX.4.4 9=204 35=D 52=20170214-12:01:29 128 6=120 385000 11=1A1470626C 14=128000 000000 37=e2e72929-aa1c-4d30-98e5-144b0e965e2f 38=12800
14.02.2017 12:02:02	LP1	Send message: 8=FIX.4.4 9=173 35=D 49=Sender1 56=Target1 34=11 52=20170214-12:02:02 617 1=Account1 11=1A14ED8AED 38=100000 000000 40=1 55=EUR_USD22 167=F
14.02.2017 12:02:02	LP1	Received message: 8=FIX.4.4 9=160 35=D 52=20170214-12:02:02 645 11=1A14ED8AED 37=cad8a3c5f5c2-4b11-ad2a-d82334e67846 38=100000 000000 39=0 40=1 48=EUR_US
14.02.2017 12:02:02	LP1	Received message: 8=FIX.4.4 9=200 35=D 52=20170214-12:02:02 671 6=1 205640 11=1A14ED8AED 14=100000 000000 37=3d6b5c0b-bf99-4f5d-b5d5-6a727eef7d7 38=100000 01

The log table contains the following columns:

Date/Time -date and time of the log writes.

Connection -the name of the connection, for which this entry was made.

Message -informational message.

2.22.1 Filtering the displayed data.



To filter the displayed data have a filter with the following settings:


Connection -the name of the connection to the LP. Can be part of the name of the LP connection in this case filtering will be done by entering a string in the name of the connection. When you specify <All> connection filtering is not performed.</All>

Date/Time - date range.

Show exceptions -whether to display errors and exceptional situations.

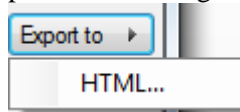
Message -part message.

for applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 .  Refresh 

 Refresh

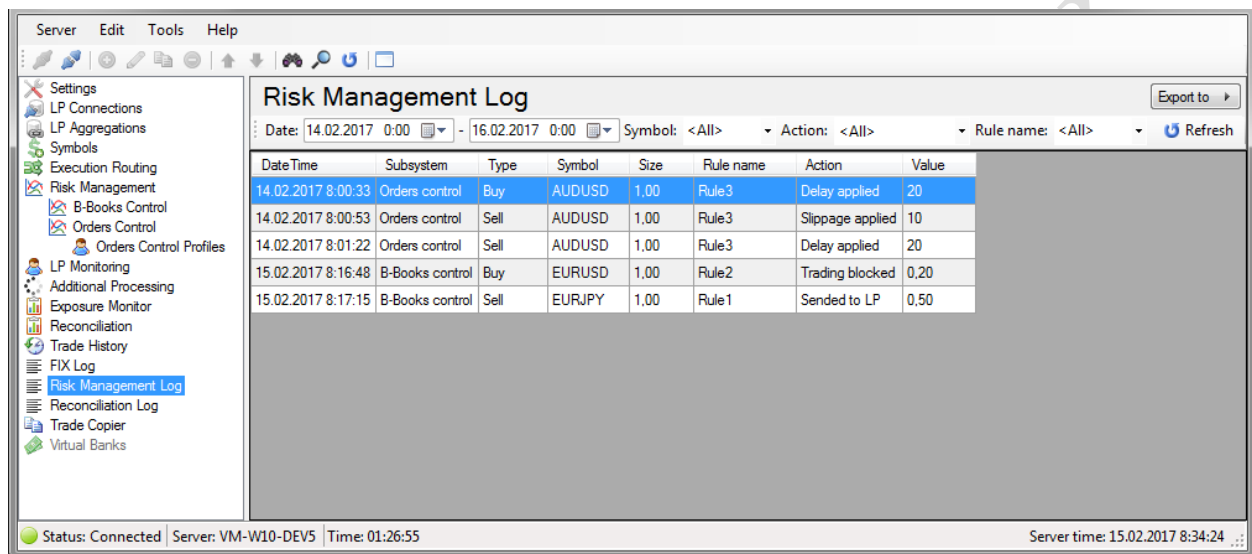
2.22.2 Export Data

to export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.



2.23 The log subsystem risk management-Risk Management Log.

this section displays information about the actions performed risk management subsystem on queries MT4 .



The screenshot shows the 'Risk Management Log' window with the following data:

DateTime	Subsystem	Type	Symbol	Size	Rule name	Action	Value
14.02.2017 8:00:33	Orders control	Buy	AUDUSD	1,00	Rule3	Delay applied	20
14.02.2017 8:00:53	Orders control	Sell	AUDUSD	1,00	Rule3	Slippage applied	10
14.02.2017 8:01:22	Orders control	Sell	AUDUSD	1,00	Rule3	Delay applied	20
15.02.2017 8:16:48	B-Books control	Buy	EURUSD	1,00	Rule2	Trading blocked	0,20
15.02.2017 8:17:15	B-Books control	Sell	EURJPY	1,00	Rule1	Sended to LP	0,50

The log contains the following columns:

DateTime -the date and time that the action.

Subsystem -, subsystem adds the entry to the log. Available values B- Books Control and Control Orders .

Type -type position.

Symbol -query symbol MT4.

Size -volume query MT4.

Rule name - name rules B-Books Control Rule.

Action -action performed risk management subsystem.

Value - restrictive value risk management subsystem.

2.23.1 Filtering of the displayed data.

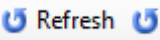
To filter the displayed data have a filter with the following settings:

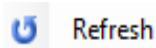
Date -date and time range for which you want to display the log.

Symbol -symbol name query MT4. Can be part of the name of the symbol, in this case, the filter will be entering a string in the title character. If you specify <All> filtering is not performed.</All>

Action – the action: If you specify <All> filtering is not performed.</All>

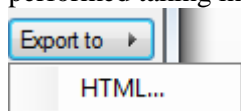
Rule name - name rules B-Books Control Rule. Can be part of the name of the LP connection in this case filtering will be done by entering a string in the name of the connection. When you specify <All> connection filtering is not performed.</All>

for applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 . 



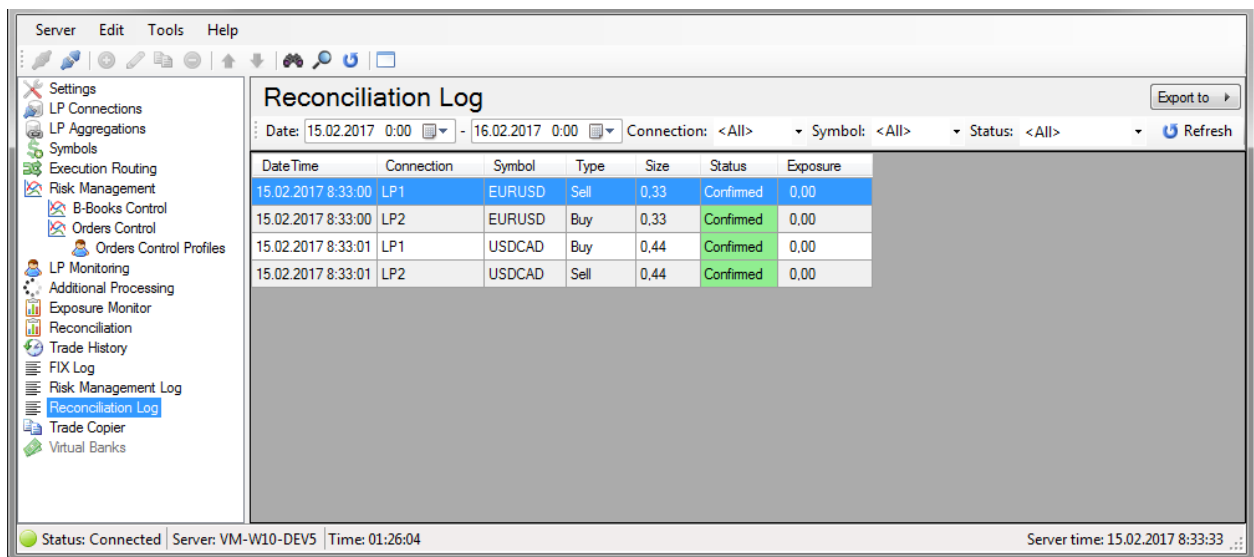
2.23.2 Export Data

to export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.



2.24 Reconciliation log-Log Reconciliation.

This section displays information about the result of the execution of requests for opening positions on the LP at the time of execution of the operation Reconciliation.



DateTime	Connection	Symbol	Type	Size	Status	Exposure
15.02.2017 8:33:00	LP1	EURUSD	Sell	0,33	Confirmed	0,00
15.02.2017 8:33:00	LP2	EURUSD	Buy	0,33	Confirmed	0,00
15.02.2017 8:33:01	LP1	USDCAD	Buy	0,44	Confirmed	0,00
15.02.2017 8:33:01	LP2	USDCAD	Sell	0,44	Confirmed	0,00

The log contains the following columns:

DateTime -date and time of the log writes.

Connection -the name of the connection to the LP.

Symbol -symbol position.

Type -type position.

Size -position volume.

Status - (result) of the opening position.

Exposure -total Exposure on the LP for the character after the operation.

2.24.1 Filtering of the displayed data.

To filter the displayed data have a filter with the following settings:



Date -date and time range for which you want to display the log.

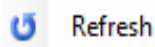
Connection -the name of the connection to the LP. Can be part of the name of the LP connection in this case filtering will be done by entering a string in the name of the connection. If you specify <All> filtering is not performed.</All>

Symbol -the name of the symbol of the open position. Can be part of the name of the symbol, in this case, the filter will be entering a string in the title character. If you specify <All> filtering is not performed.</All>



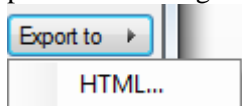
Status - (result) query execution: Confirmed -position has been opened, Rejected -LP has rejected a request to open a position Not connected -at the time of Reconciliation this LP was not available.

for applying filter options, you must refresh the list, you can use the button located on the right side of the filter button in the toolbar, the button from the menu Edit or context menu list, and just use the key F5 .  Refresh 



2.24.2 Export Data

to export data in a report as an HTML file has a button located in the upper right corner of the form. Export is performed taking into account the filter parameters, i.e. export data displayed at the time of export.

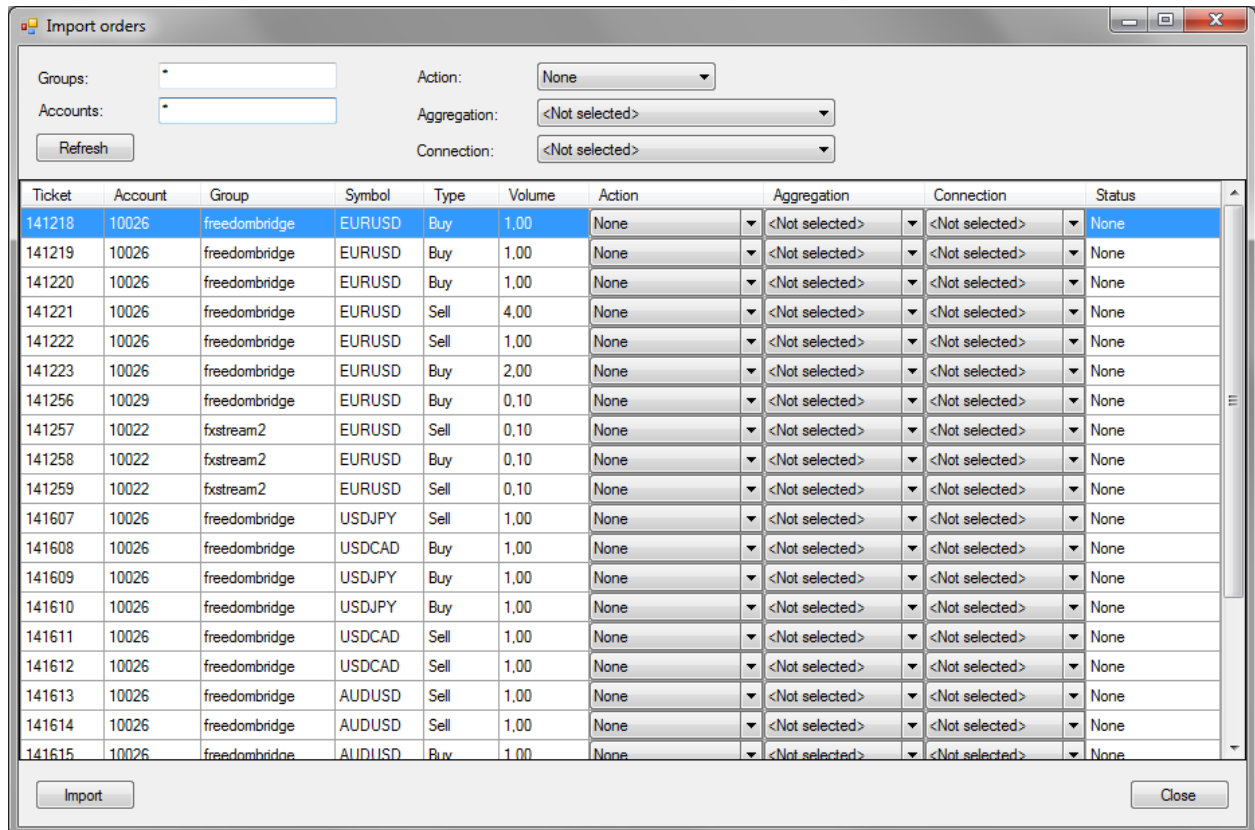


TradeToolsFX


2.25 Import orders.

sometimes need to add for processing with the user who has open orders. If you simply add the user to the processing plugin when closing orders, open until a user's connection to the plug-in, uBridge will not process them.

In UBridge Manager implemented import utility. To use it you must select in the main menu Tools - > Import orders ... this opens the import form orders.



Ticket	Account	Group	Symbol	Type	Volume	Action	Aggregation	Connection	Status
141218	10026	freedombridge	EURUSD	Buy	1.00	None	<Not selected>	<Not selected>	None
141219	10026	freedombridge	EURUSD	Buy	1.00	None	<Not selected>	<Not selected>	None
141220	10026	freedombridge	EURUSD	Buy	1.00	None	<Not selected>	<Not selected>	None
141221	10026	freedombridge	EURUSD	Sell	4.00	None	<Not selected>	<Not selected>	None
141222	10026	freedombridge	EURUSD	Sell	1.00	None	<Not selected>	<Not selected>	None
141223	10026	freedombridge	EURUSD	Buy	2.00	None	<Not selected>	<Not selected>	None
141256	10029	freedombridge	EURUSD	Buy	0.10	None	<Not selected>	<Not selected>	None
141257	10022	fxstream2	EURUSD	Sell	0.10	None	<Not selected>	<Not selected>	None
141258	10022	fxstream2	EURUSD	Buy	0.10	None	<Not selected>	<Not selected>	None
141259	10022	fxstream2	EURUSD	Sell	0.10	None	<Not selected>	<Not selected>	None
141607	10026	freedombridge	USDJPY	Sell	1.00	None	<Not selected>	<Not selected>	None
141608	10026	freedombridge	USDCAD	Buy	1.00	None	<Not selected>	<Not selected>	None
141609	10026	freedombridge	USDJPY	Buy	1.00	None	<Not selected>	<Not selected>	None
141610	10026	freedombridge	USDJPY	Buy	1.00	None	<Not selected>	<Not selected>	None
141611	10026	freedombridge	USDCAD	Sell	1.00	None	<Not selected>	<Not selected>	None
141612	10026	freedombridge	USDCAD	Sell	1.00	None	<Not selected>	<Not selected>	None
141613	10026	freedombridge	AUDUSD	Sell	1.00	None	<Not selected>	<Not selected>	None
141614	10026	freedombridge	AUDUSD	Sell	1.00	None	<Not selected>	<Not selected>	None
141615	10026	freedombridge	AUDUSD	Buy	1.00	None	<Not selected>	<Not selected>	None

to load existing open plugin has not processed orders must specify the template groups in the Groups box, template, user logins in the field Accounts and click. Then you should specify the following parameters for each order (data parameters can be specified in the table for each order or for all orders immediately, using the appropriate drop-down lists at the top of the form): 

Action -the action to perform on the warrant.

Available options:

None -order will not be processed;

Bind -order will be considered as an open plug-in, without opening the corresponding position on the LP (in this situation, it is expected that the LP position corresponding to the order);

Open and Bind -order will be considered as an open plugin with preliminary opening positions on the specified order parameters corresponding to the LP (this is essentially lazy processing request to open an order plugin uBridge on a specified LP);

Bind to Virtual Dealer -the order will be considered as an open plugin using Virtual Dealer (in this case Aggregation and Connection not used).

Aggregation -aggregator, that you want to bind the import order and open position for action Open and Bind .

Connection -LP connection that you want to bind the import order and open position for action Open and Bind.

To import orders, you must press the button at the bottom of the form.



Field Status in the orders list is changing during the import process and displays the processing state of the order. The following statuses are available:

None -this status shall bear all orders before they are processed.

Ignored -the order has not been set Action Aggregation and Connection .

Processing -order is in processing.

Imported -order processed (imported).

Rejected -LP returned rejected when trying to open a position for the action Open and Bind .

Not connected - not connected to the specified to import LP for action Open and Bind .

Internal error - when you import error occurred.

2.26 Restart the Metatrader 4 server.

to restart the MetaTrader 4 server, you can use the menu command “File” - > “Restart”.

3 UBRIDGE ON MT5 PLATFORM

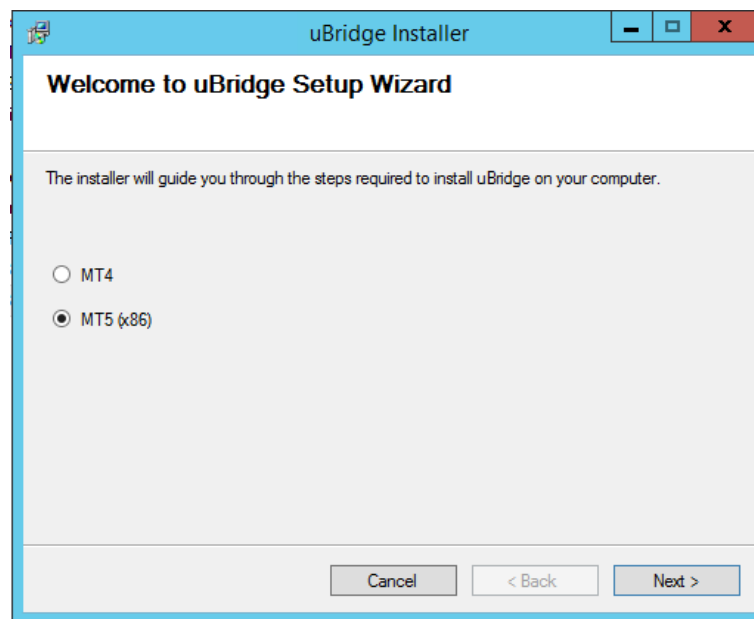
3.1 MT5 server uBridge service installation

To install uBridge Service application to MT5 platform you need to use installation package TTFX.uBridge.Installer_v().exe

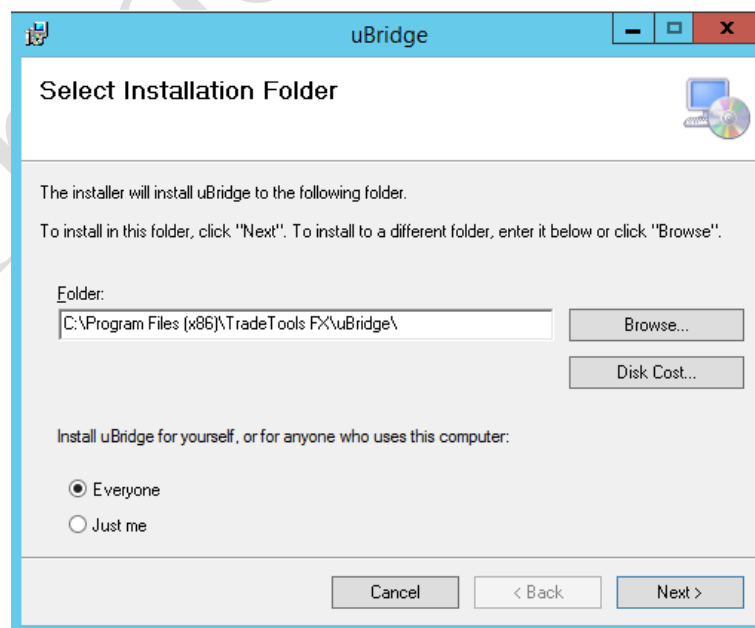


which contains a standard windows setup wizard. You should pass through following steps:

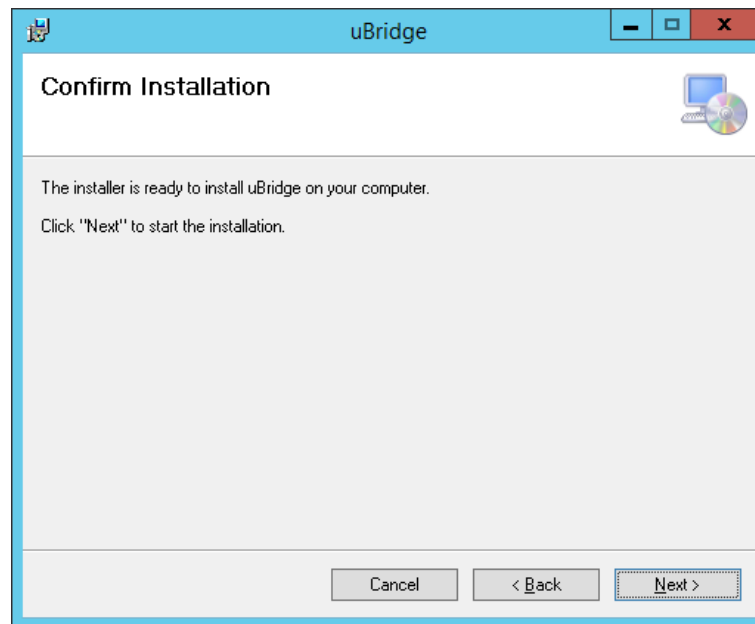
Select MT5 option



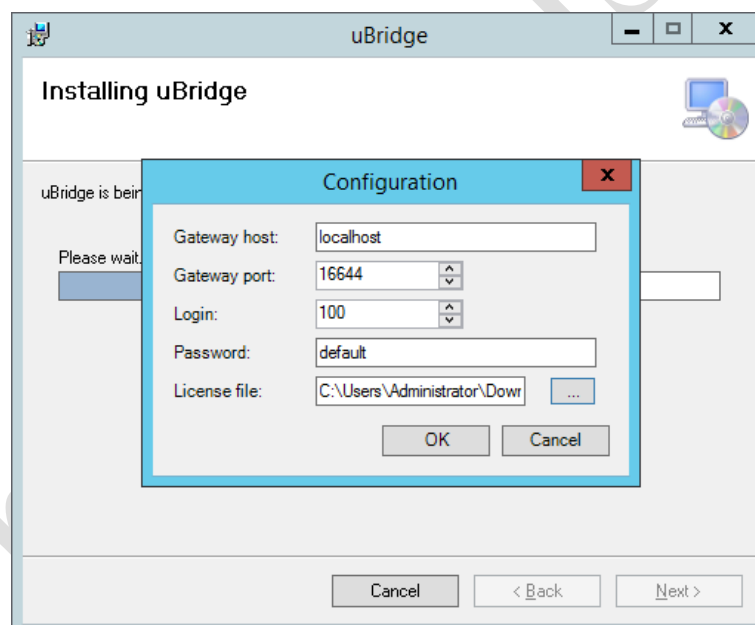
Select the installation folder.



Confirm installation.



Service configuration.



Gateway host – network address for service deploy.

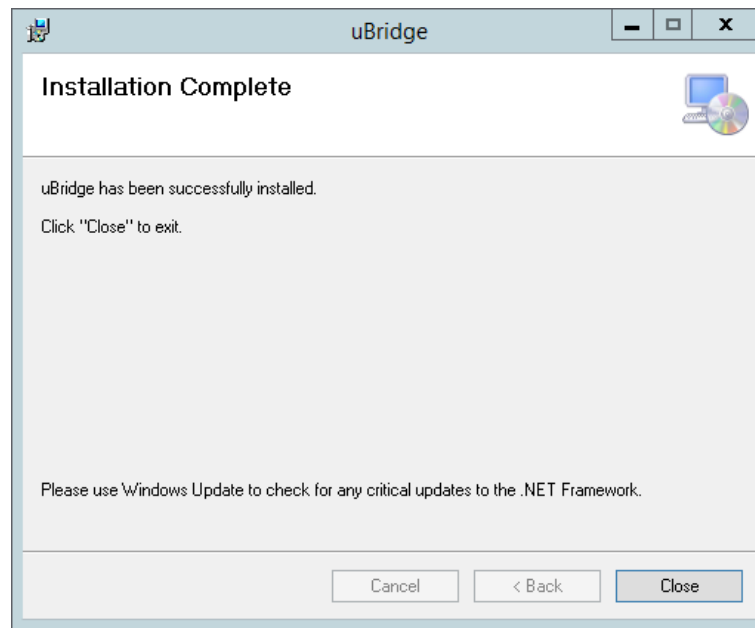
Gateway port – network port for service deploy.

Login - login name that will be used by MT5 Gateway to connect to MT5Bridge Service.

Password – user password.

License file – license file name.

Finish installation.

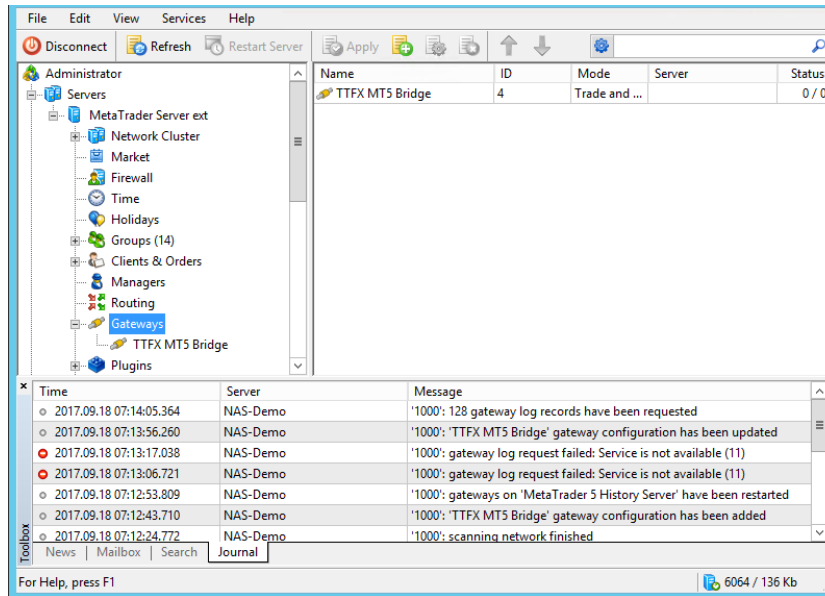


3.2 MT5 server configuration

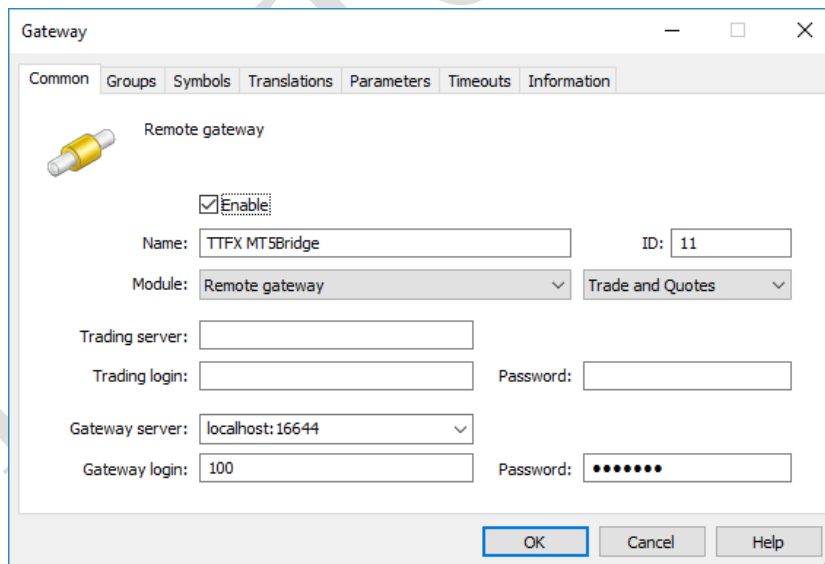
After uBridge service installation You must configure MT5 to communicate with it using MT5 Administrator.

3.2.1 Adding Gateway Configuration

Add new Gateway at MT5 Administrator “Gateways” menu



Specify “Common” parameters of gateway.



Name – Gateway name.

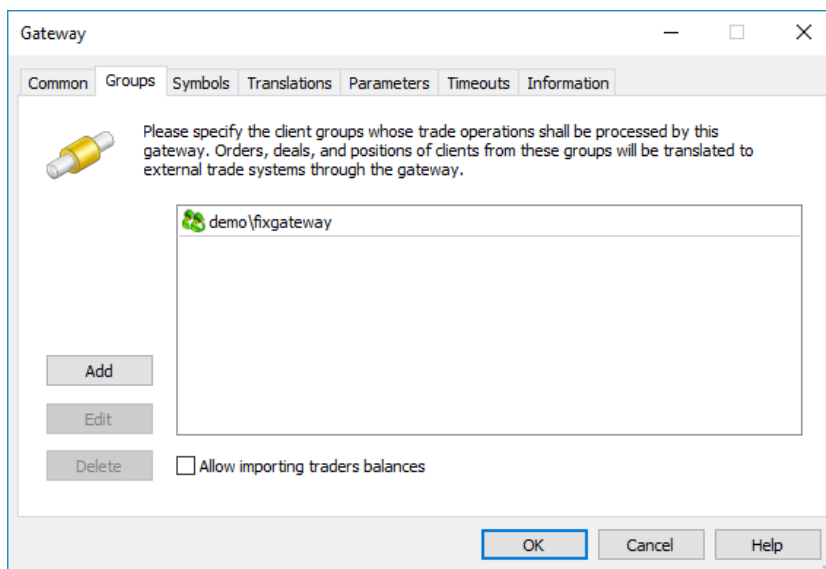
Module – select “Remote gateway”.

Type – select “Trade and Quotes”.

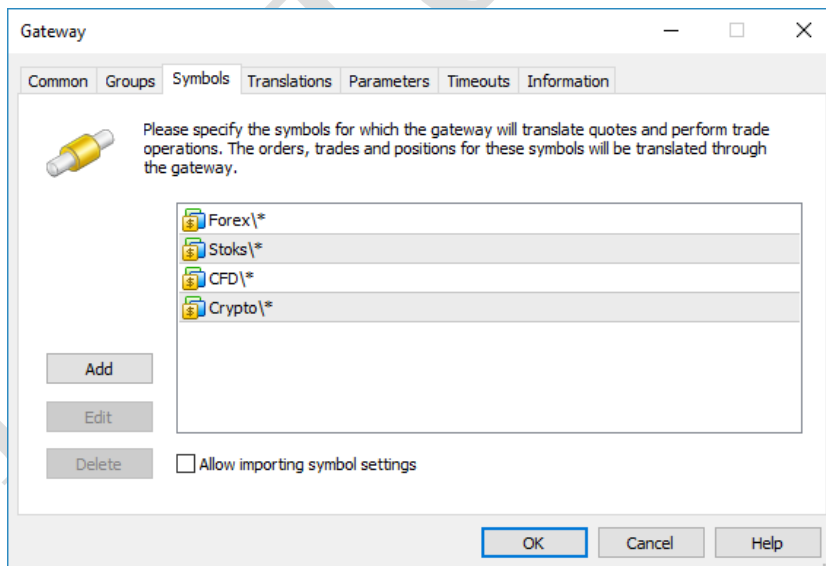
Gateway server – network address of server (<server_name>:<port>), where uBridge Service installed. If uBridge Service installed at the same host where MetaTrader 5 server, then **server_name** set as “localhost”. Port number should be same as “Gateway port” specified during uBridge Service installation.

Gateway login / password – credentials which are used for MetaTrader 5 server connection to uBridge. Must be same as Login и Password specified during uBridge service installation.

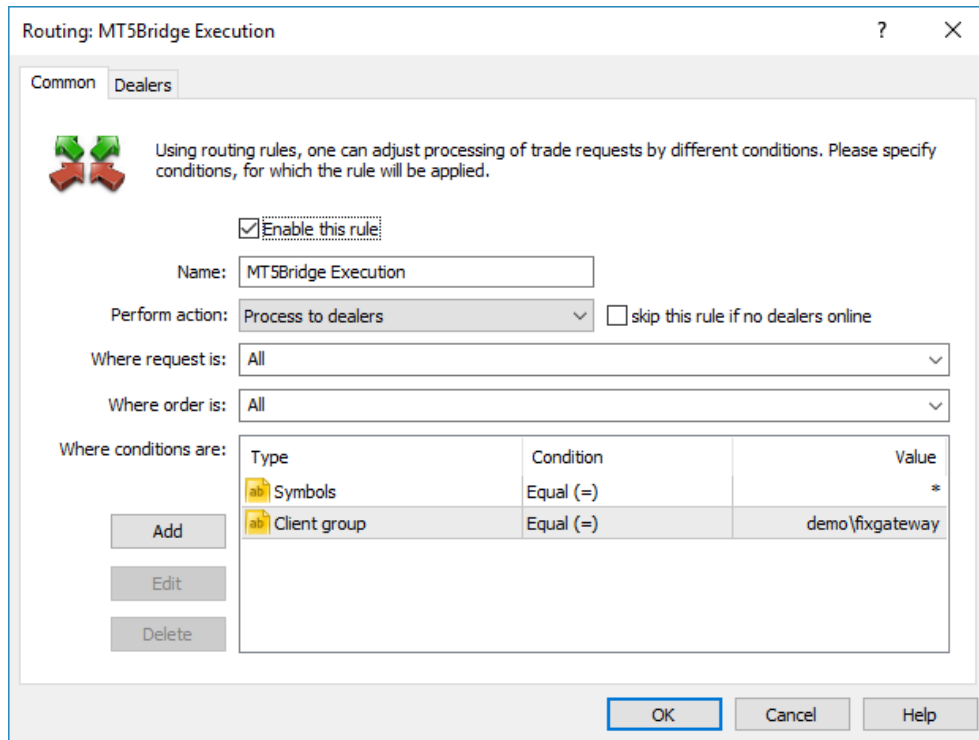
At “Groups tab” need to specify list of groups which must be processed by uBridge.



At «Symbols» tab need to specify list of securities, which must be processed by uBridge.



3.2.2 Adding Routing Configuration



Name – Name of routing rule.

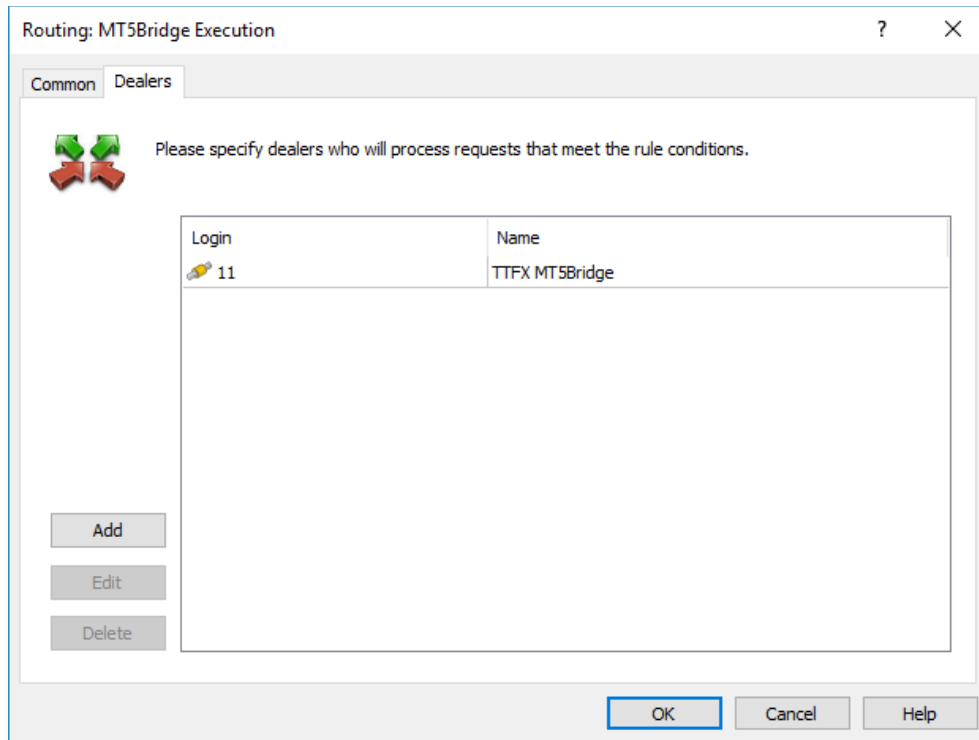
Perform action – select “Process to dealers”.

Skip this rule if no dealers online – should be disabled.

Where request is – choose “All” or other request types according to your needs

Where order is – choose “All” or other order types according to your needs

Where conditions are – specify groups or symbols which should be processed by bridge.



Add created gateway to the “Dealers” list. Gateway will process orders as a dealer. “Bridge dealer gateway” should be placed above default rule **Auto Execution**.

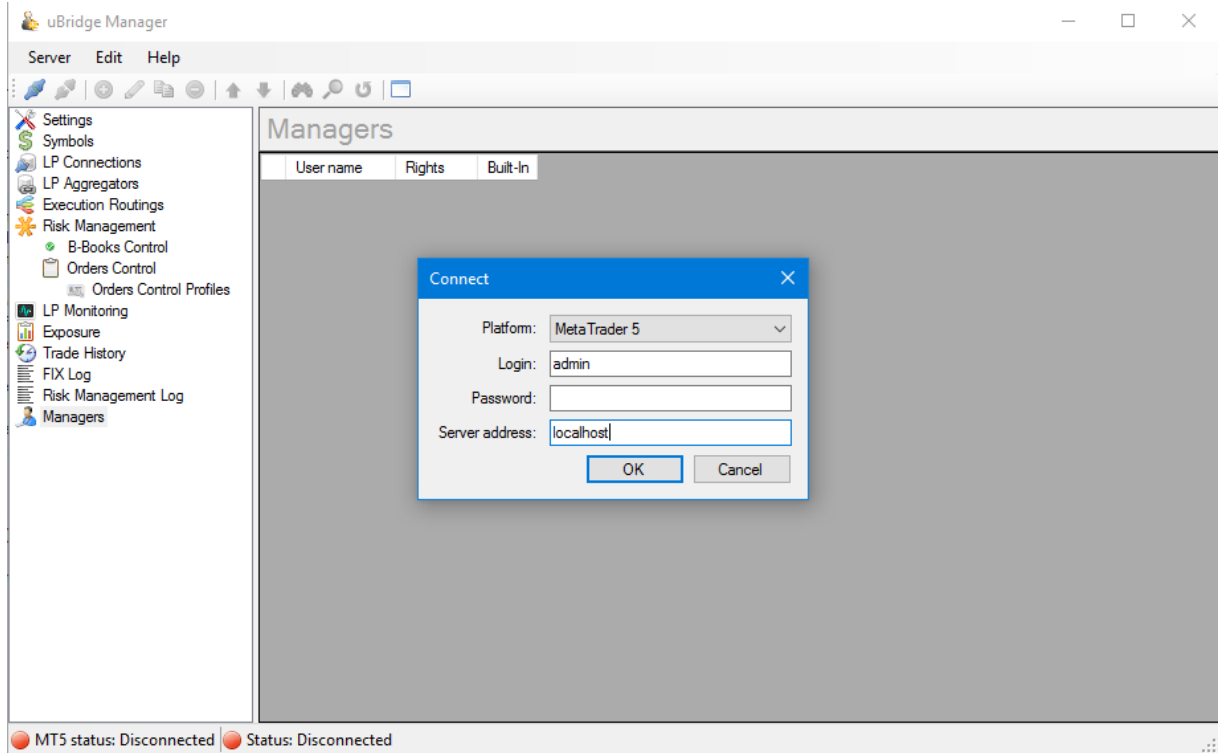
TradeTools

3.3 uBridge Manager Installation for MT5 server

Install uBridge manager according to point 2.2 [uBridge Manager installation](#).


3.3.1 Application launching.

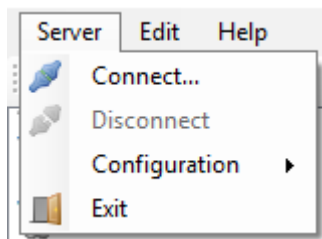
To launch uBridge Manager you need to select uBridge Manager from menu Start->All programs->TradeTools Fx. This opens the application main form and connections form.



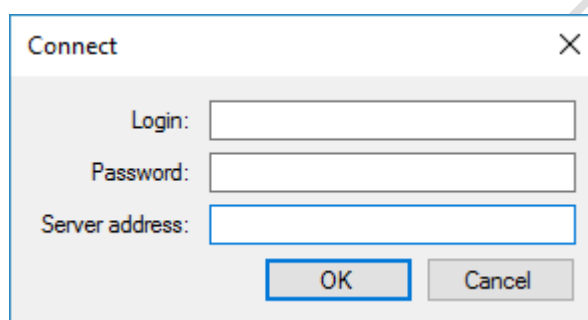
TradeTools

3.3.2 Connecting to server.

To connect to server you need to select **Connect...** command from **Server** menu or use  button on the Toolbar:



This will open the connect form.



The 'Connect' dialog box contains three input fields: 'Login:', 'Password:', and 'Server address:'. Below the fields are 'OK' and 'Cancel' buttons.

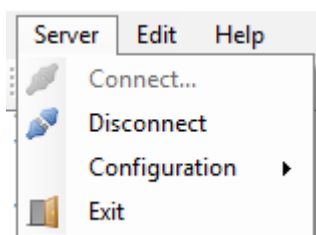
In this form, you need to enter the settings to connect to the server:

Login – manager login. (“admin” by default)

Password – manager password. (“admin” by default)

Server address – uBridge Service network address.

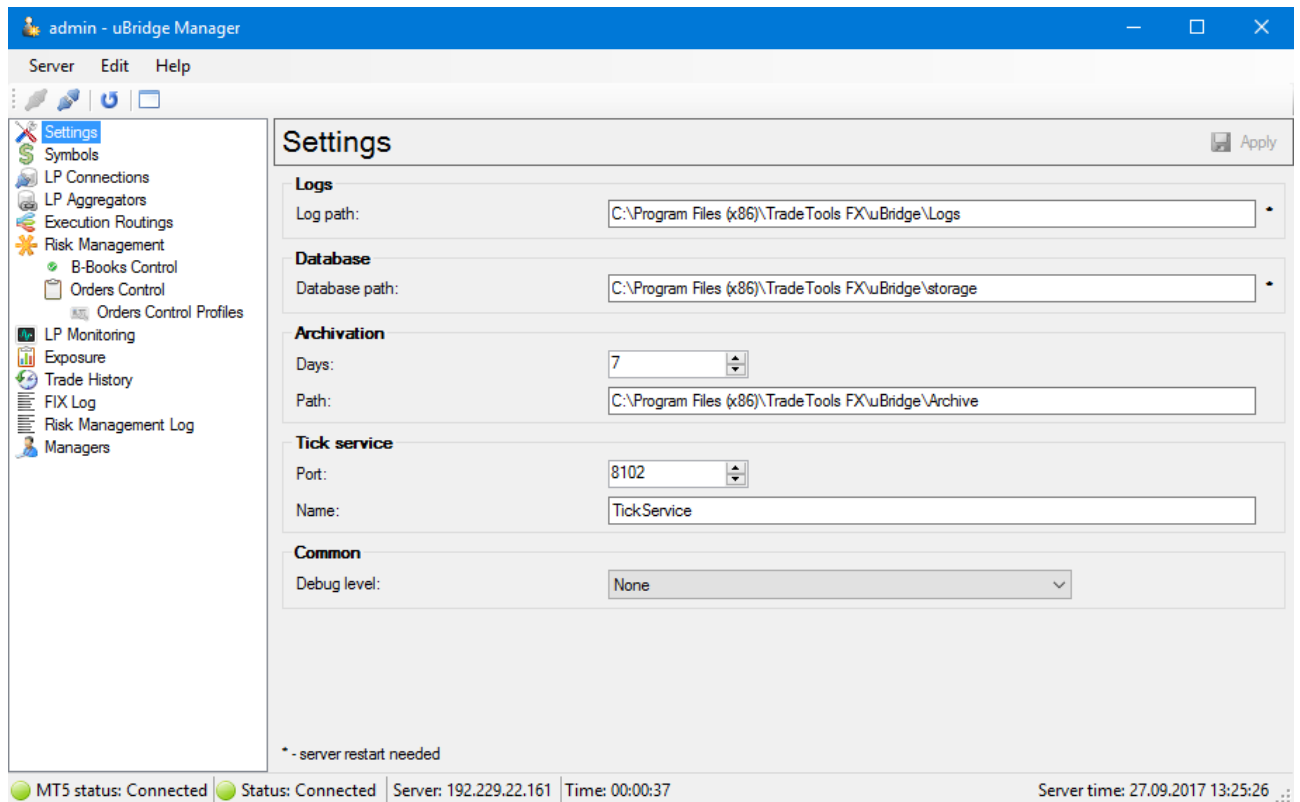
To disconnect from server you can select **Disconnect** command from **Server** menu or use  on toolbar.



3.4 Common settings

3.4.1 Settings

This section contains common settings of uBridge Service.



Logs.

Log path – the path to the log files directory on the server. To apply changing of this setting you need to restart uBridge service.

Database

Database path – the path to database file directory. To apply changing of this setting you need to restart uBridge service.

Archivation.

uBridge performs the archivation of FIX log, Trade history and Risk management log. During the archivation data from database moves to archive file on the disk.

Archivation is performed automatically every Sunday.

Days – defines data time range left in the database after archivation.

Path – archivation directory path on the server.

Tick service.

Tick service is used to get prices from MT5 server. It is needed to Virtual Dealer processing.



Port – tick service port.

Name – tick service name.

Common.

Debug level - debug log level. used for debug.

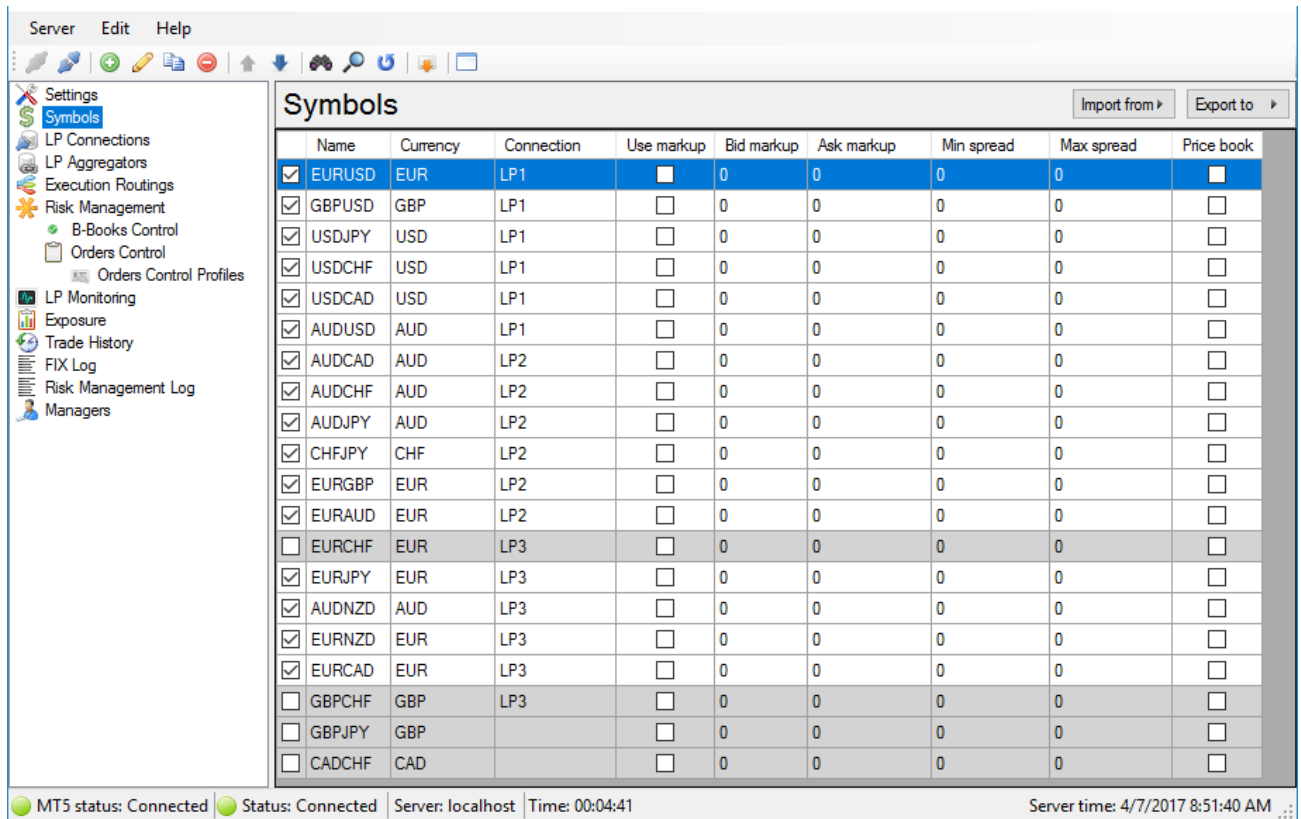
3.4.2 Changing of settings.

When you change the general settings of the element in the  **Settings** menu it will be marked with «*», that means that the settings has been changed. To apply the changes click the  **Apply** button, located in the upper right corner.

TradeToolsFX

3.5 Symbol settings – Symbols.


Symbol settings defines an LP connection (or aggregation) from which to take prices to be streamed to MT5 and markup to be applied to the streamed prices.

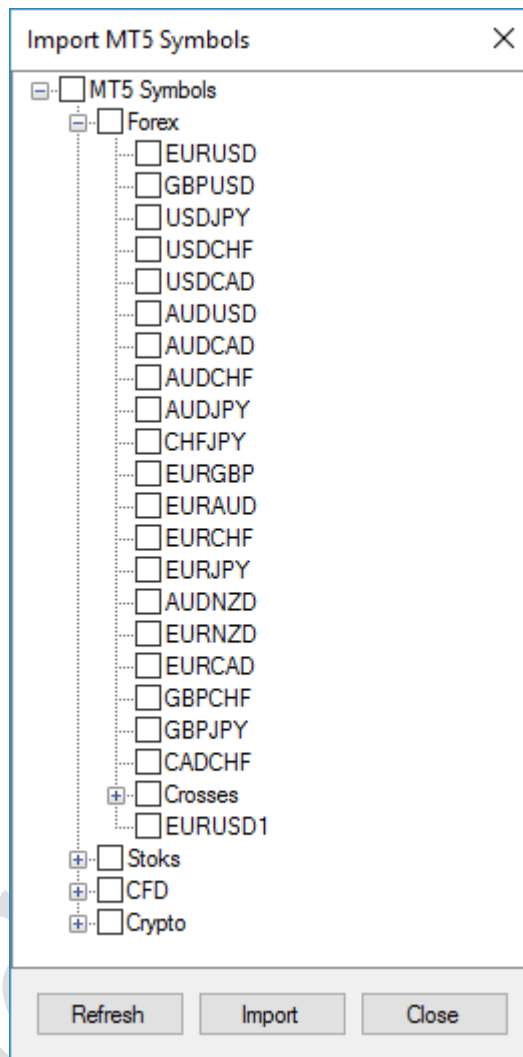


Name	Currency	Connection	Use markup	Bid markup	Ask markup	Min spread	Max spread	Price book	
<input checked="" type="checkbox"/>	EURUSD	EUR	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	GBPUSD	GBP	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	USDJPY	USD	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	USDCHF	USD	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	USDCAD	USD	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	AUDUSD	AUD	LP1	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	AUDCAD	AUD	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	AUDCHF	AUD	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	AUDJPY	AUD	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	CHFJPY	CHF	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	EURGBP	EUR	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	EURAUD	EUR	LP2	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input type="checkbox"/>	EURCHF	EUR	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	EURJPY	EUR	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	AUDNZD	AUD	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	EURNZD	EUR	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input checked="" type="checkbox"/>	EURCAD	EUR	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input type="checkbox"/>	GBPCHF	GBP	LP3	<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input type="checkbox"/>	GBPJPY	GBP		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>
<input type="checkbox"/>	CADCHF	CAD		<input type="checkbox"/>	0	0	0	0	<input type="checkbox"/>

The list contains the symbols registered in the system. To manage this list, you can use **Edit** menu, toolbar or context menu. In addition, to edit Symbol you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl + F**. You also can import symbols from MT5.

3.5.1 Importing symbols from MT5.

To import symbols from MT5 server click the  button on the toolbar. This will display a form of import symbols.

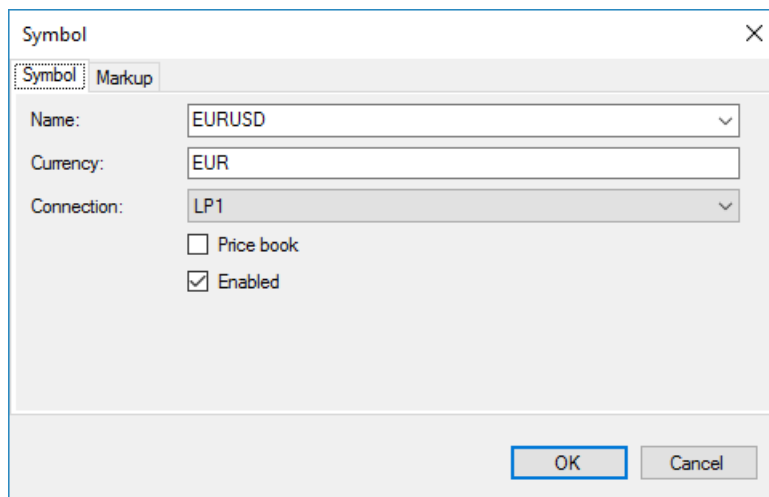


After choosing symbols for the import from MT5 sever, click on the Import button, this will add missing symbols and update existing ones to uBridge Manager symbols list. When you import a symbol its name and currency. To quickly collapse and expand the tree characters use «hot keys» Ctrl + C and Ctrl + E

3.5.2 Creating new / editing.

The next form is used to create or edit symbol:

Common symbol settings (Symbol tab).



Name – MT5 symbol name.

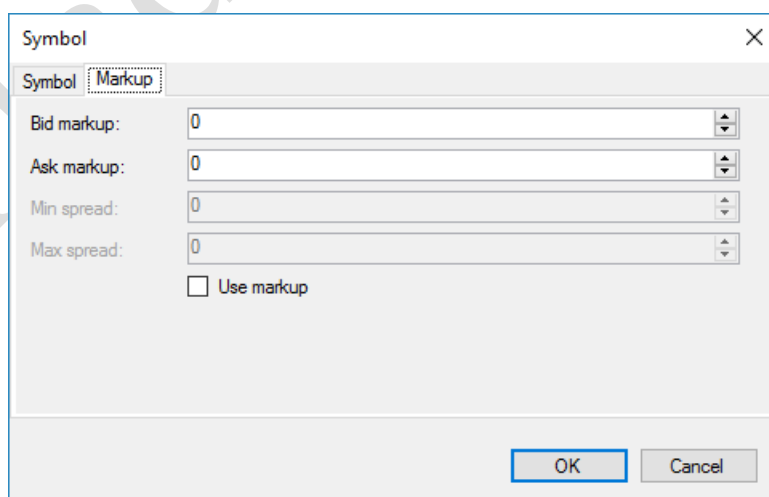
Currency – currency, used in NewOrder messages as FIX tag 15.

Connection – the name of “Market” connection or aggregation, which will be used to deliver prices to MT5 for this symbol.

Price book – enable streaming market data to MT5 as price books.

Enabled – enable / disable symbol.

Markup settings (Markup tag).



Bid markup – markup for Bid price in pips.

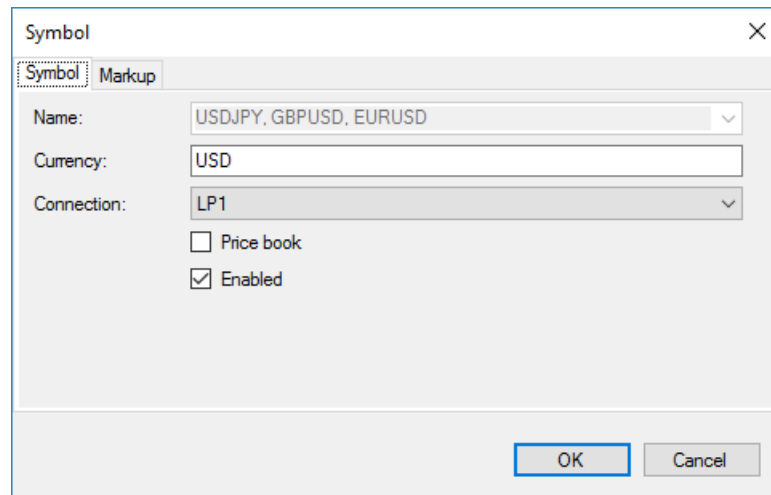
Ask markup – markup for Ask price in pips.

Min spread – minimal value of spread in pips (is not supported in this version).

Max spread – maximal value of spread in pips (is not supported in this version).

Use markup – if this flag checked markup settings would be applied to prices.

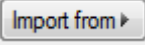
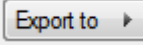
To use group edit of symbols choose several symbols in symbol list and click “Edit”

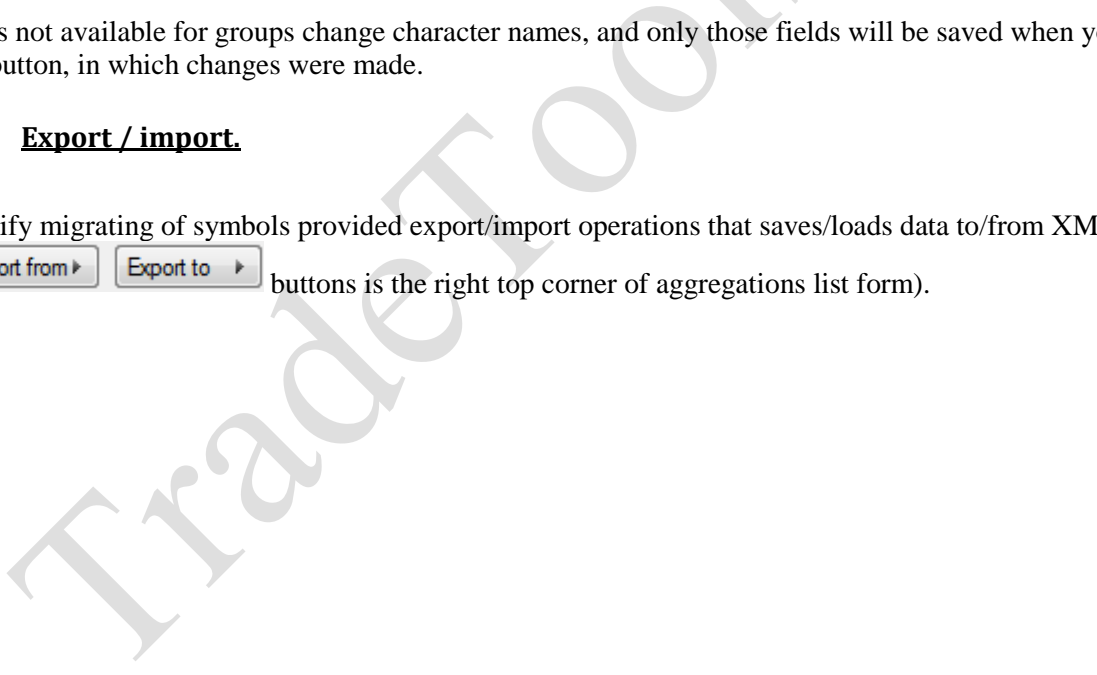


Editing is not available for groups change character names, and only those fields will be saved when you press the OK button, in which changes were made.

3.5.3 Export / import.

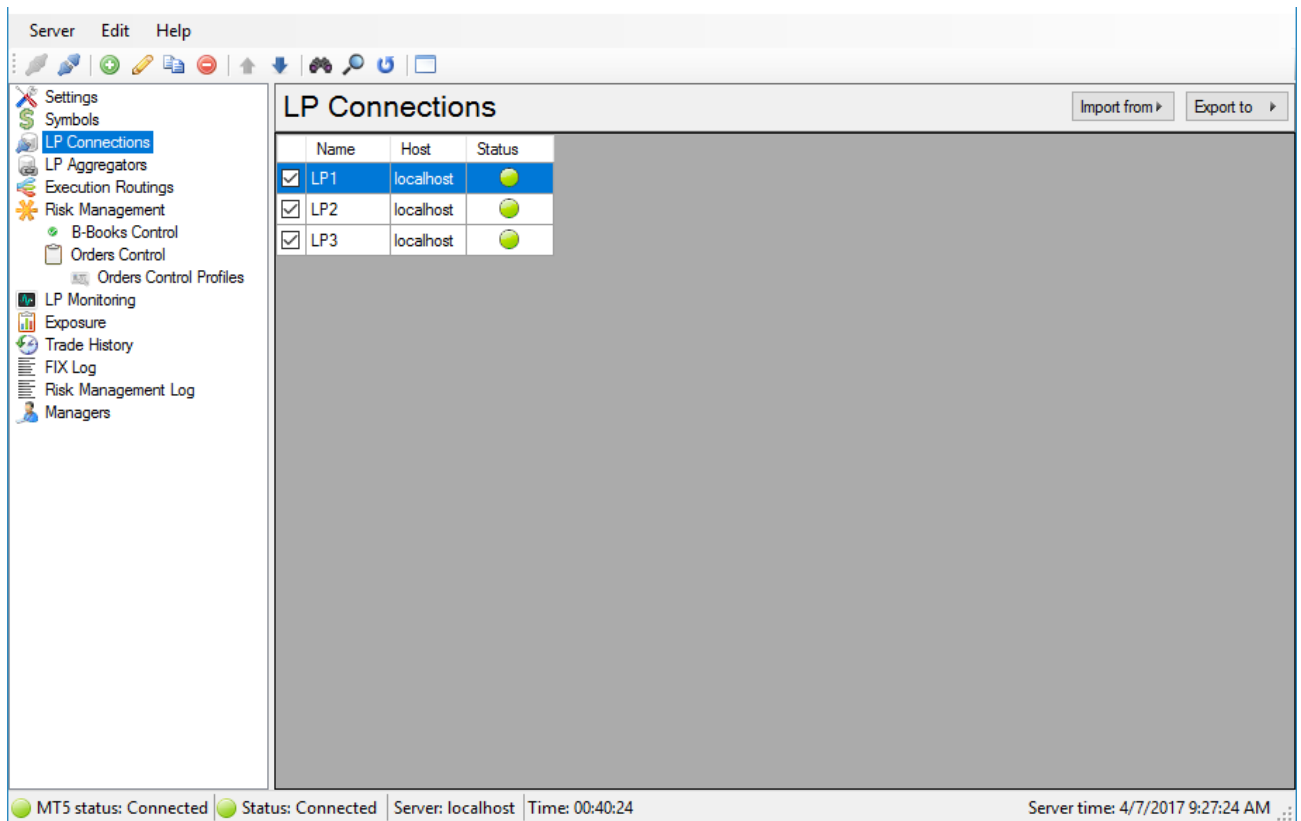
To simplify migrating of symbols provided export/import operations that saves/loads data to/from XML file

(use   buttons is the right top corner of aggregations list form).



3.6 LP connections settings - LP Connections.

This section is intended for setting up of LP connections.

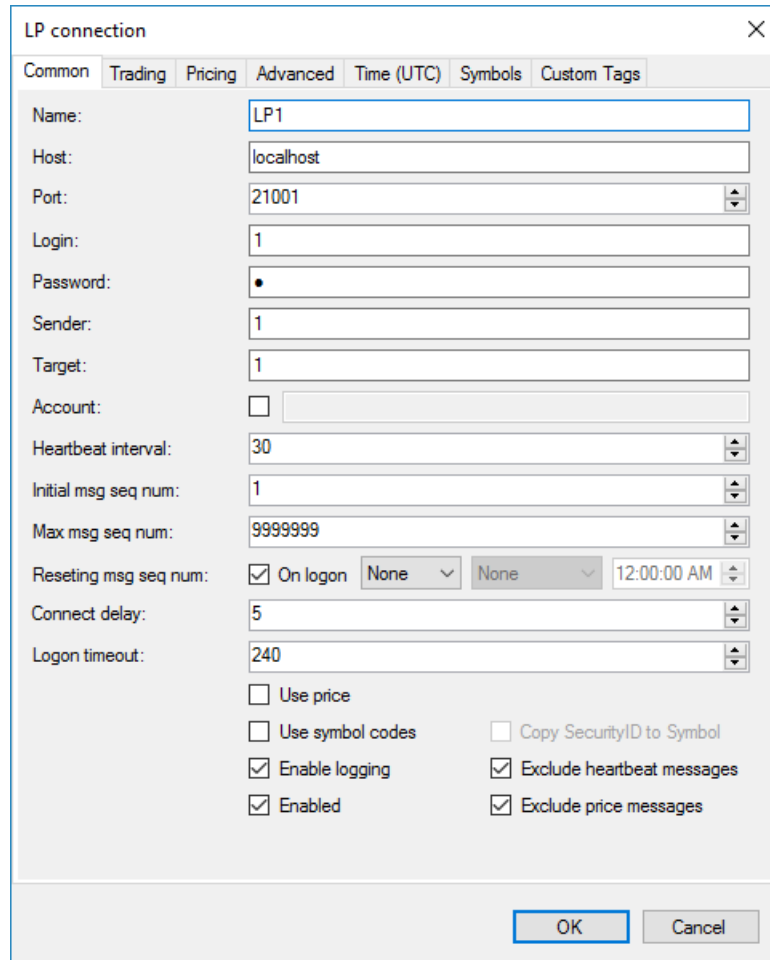


The list contains the LP connections registered in the system. To manage this list, you can use **Edit** menu, toolbar or context menu. In addition, to edit LP connection you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl + F**.

3.6.1 Creating new / editing.

The next form is used to create or edit LP connection:

3.6.1.1 Main of LP connection settings (Common tab).



Name – unique name of LP connection. The connection name must be unique within the connection and through aggregations. I.e. can not exist LP and connections aggregation with the same name (“[LP Aggregations](#)”).

Host – LP server network address.

Port – LP server port.

Login – user name to login to the LP server (FIX tag 553).

Password – password to login to the LP server (FIX tag 554).

Sender – FIX message sender (FIX tag 49).

Target – FIX message target (FIX tag 56).



Account – account, which used to performing trades on LP (FIX tag 1). If this setting is not specified then user name (**Login** field) will be used as **Account**.

Heartbeat interval – Heartbeat message sending interval (FIX tag 108).

Init msg seq num – sequence number of first FIX message in session (FIX tag 34).

Max msg seq num – maximum sequence number of FIX message. When this value is reached sequence number will be reset to initial value (FIX tag 34).

Resetting msg seq num – rules for message sequence number resetting:

On logon – if selected message sequence number will be reset on each logon message;

Daily – message sequence number will be reset each day at specified time;

Weekly – message sequence number will be reset at specified day and time;

Day – day of message sequence number reset. Available if **Weekly** selected;

Time – time of message sequence number reset. Available if **Daily** selected of **Weekly** and **Day** selected.

Connect delay – LP server connection delay, in seconds.

Logon timeout – interval of waiting for an answer from the LP server to the Logon message, in seconds.

Use price – if checked request price will be added to NewOrder FIX message (FIX tag 44).

Use symbol codes – if checked FIX tag 48 (SecurityID) will be used instead of tag 55 (Symbol) in NewOrder, MarketDataRequest and MarketDataSnapshotFullRefresh messages.

Copy SecurityID to Symbol – this parameter enable copy of **SecurityID** value(FIX tag 48) to **Symbol** (tag 55) when sending such messages as **MarketDataRequest**, **QuoteRequest** and **NewOrder** (required for some of LP, for example “Exante”).

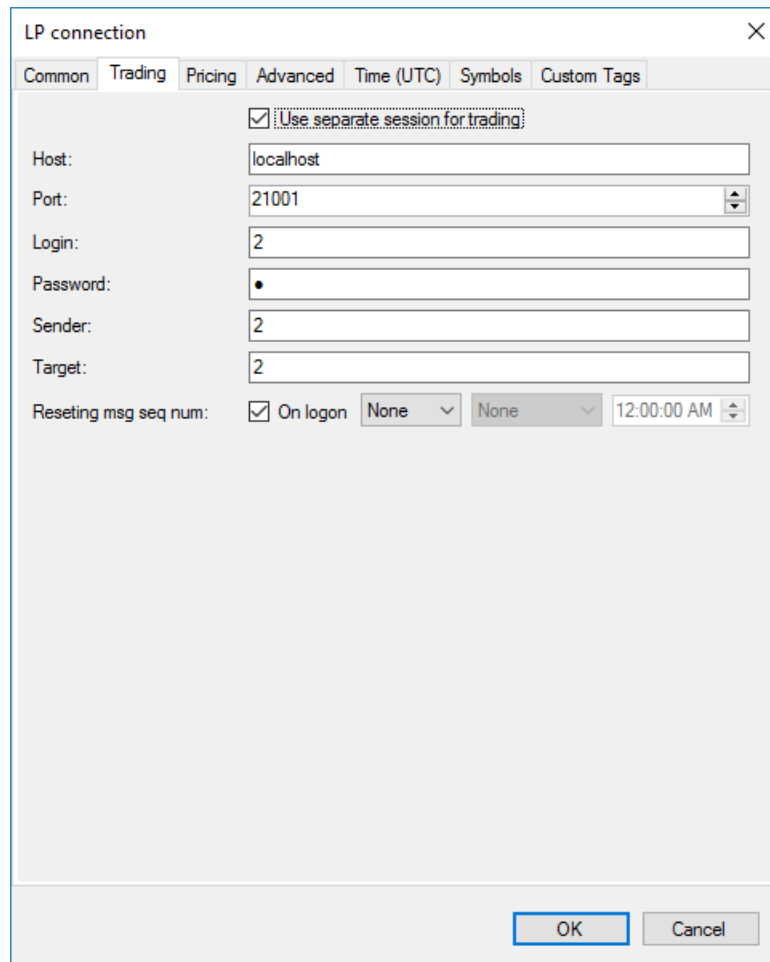
Enable logging – enabled FIX message logging for this connection to the [FIX log](#).

Exclude heartbeat messages – if you enable this setting Heartbeat messages will not get into the [FIX log](#).

Exclude price messages – if you enable this option price messages will not get into the [FIX log](#).

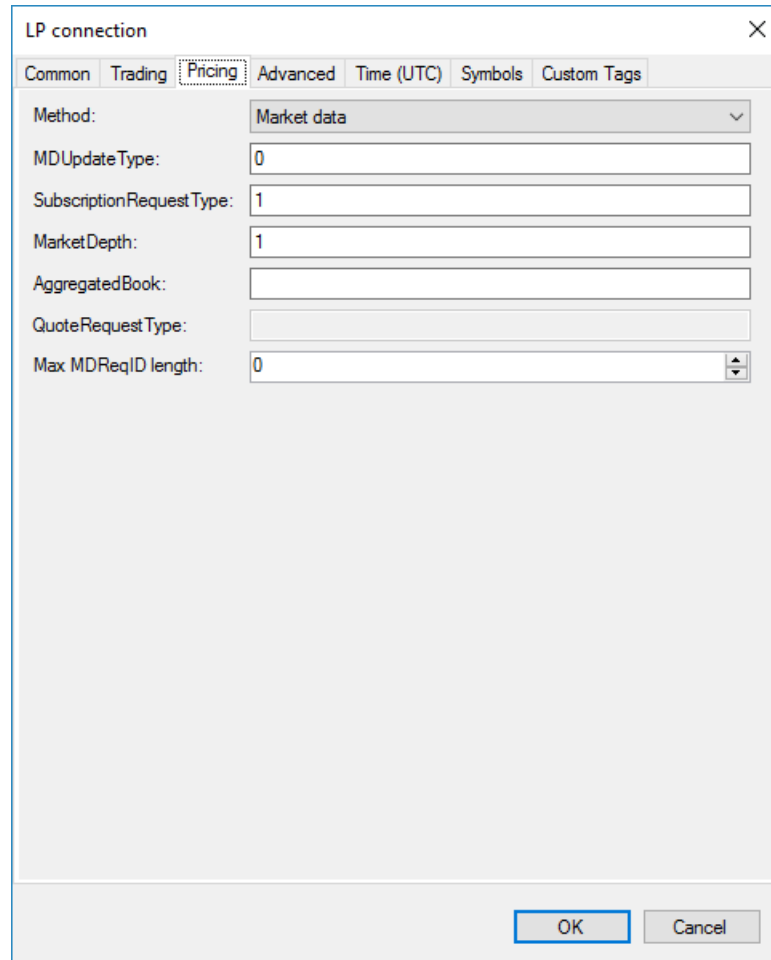
Enabled – enable / disable connection.

3.6.1.2 Trading session of LP connection settings (Trade tab).



Use separate session for trading – if selected different FIX session will be used for trading. In this case Main session will be used only for price streaming. The parameters on this tab is the same as on Common tab but applied for trading session. Missing parameters are taken from **Common tab** (see description of Common tab above).

3.6.1.3 Pricing parameters (Pricing tab).



Method – the method of obtaining prices from LP. Two methods are available: Market Data – prices will be obtained using Market Data messages, Quote – prices will be obtained using Quote messages.

MDUpdateType – value of FIX tag 255 in MarketDataRequest message.

SubscriptionRequestType – value of FIX tag 263 in MarketDataRequest message.

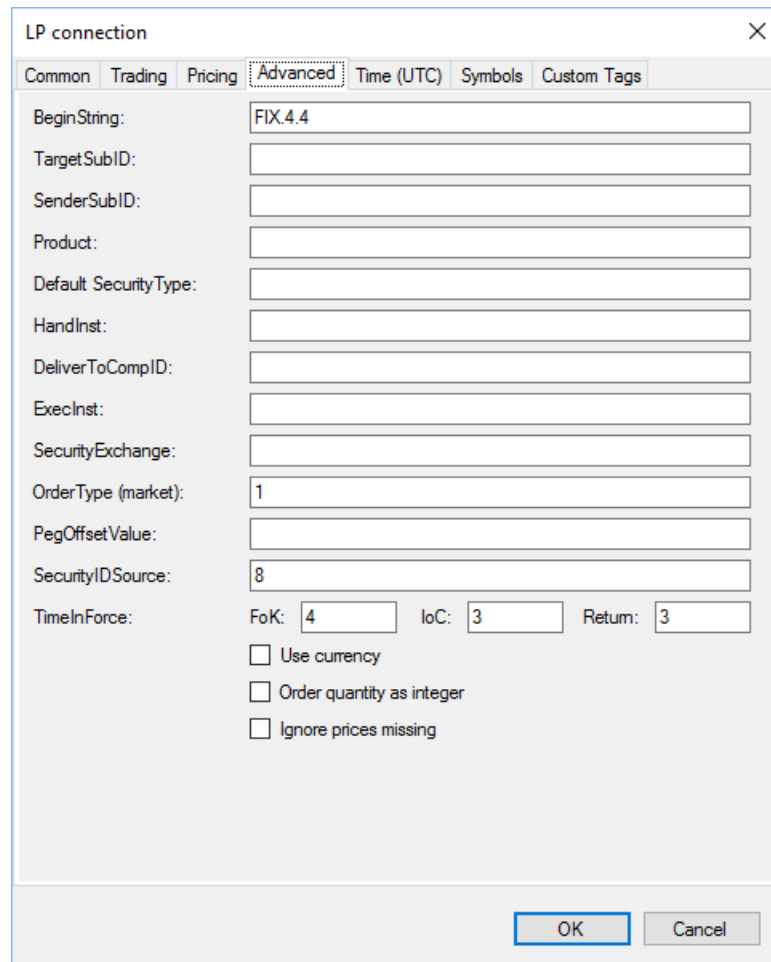
MarketDepth – value of FIX tag 264 in MarketDataRequest message.

AggregatedBook – value of FIX tag 266 in MarketDataRequest message.

QuoteRequestType – value of FIX tag 303 in QuoteRequest message.

MaxMDReqID length – maximal length of generated value of FIX tag 262 in MarketDataRequest message. If specified 0 the length is unlimited.

3.6.1.4 Advanced settings of connection (Advanced tab).



BeginString – value of FIX tag 8 in all FIX messages.

TargetSubID – value of FIX tag 57 in all messages.

SenderSubID – value of FIX tag 50 in all messages.

Product – value of FIX tag 460 in MarketDataRequest and NewOrder messages.

Default SecurityType – value of FIX tag 167 in MarketDataRequest and NewOrder messages. This value will be used if SecurityType does not specified for certain symbol at Symbols mapping form.

HandInst – value of FIX tag 21 in NewOrder message.

DeliverToCompID – value of FIX tag 128 in MarketDataRequest message.

ExecInst – value of FIX tag 18 in NewOrder message.

SecurityExchange – value of FIX tag 207 in NewOrder message.

OrderType (market) – value of FIX tag 40 in NewOrder message, which means market order.

PegOffsetValue – value of FIX tag 211 in NewOrder message.



SecurityIDSource – value of FIX tag 22 in MarketDataRequest and NewOrder messages. Used if **Use symbol codes** option is enabled on Common tab.

TimeInForce - value of FIX tag 59 in NewOrder message. FoK value used for MT5 requests with filling type FoK, IoC – for IoC, Return – for Return (pending activation). These parameters used for requests if no certain values specified for symbols in the “Symbol mapping” form

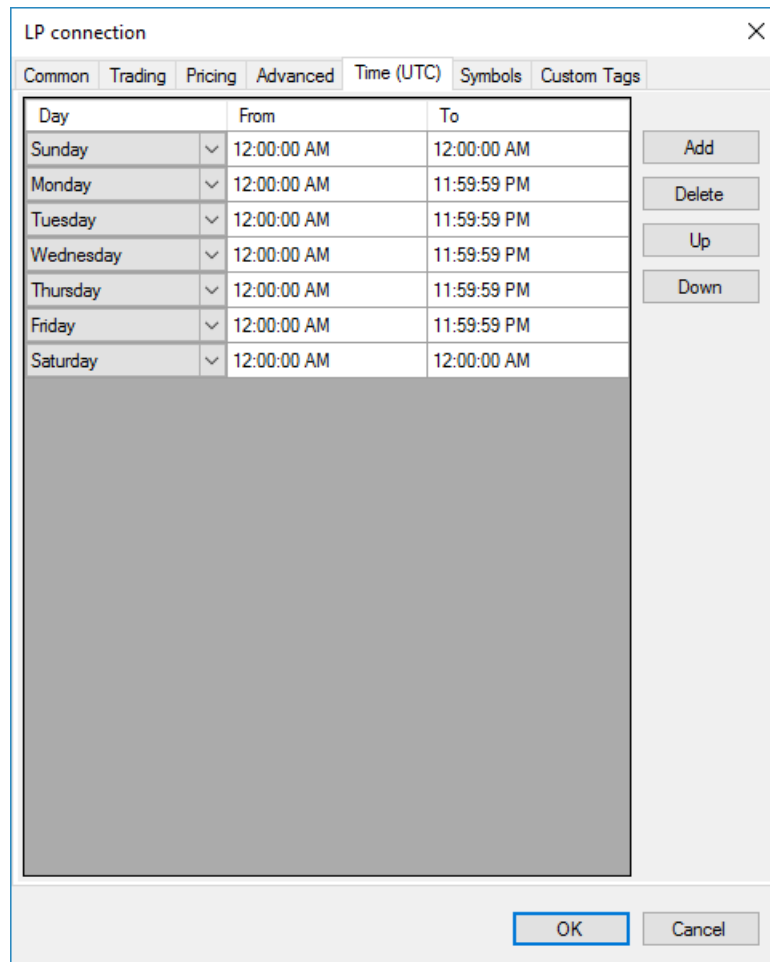
Use currency – sign to fill FIX tag 15 with **Currency** value of **Symbol** settings in NewOrder message.

Order quantity as integer – if you enable the option the **OrderQty** value (FIX tag 38 in NewOrder) will be passed as integer value, otherwise – as floating point value.

Ignore prices missing – when this option is set, the request to open a position will be sent to the LP regardless of the availability of prices coming from LP.

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3.6.1.5 Session time configuration (Time (UTC))



Day	From	To
Sunday	12:00:00 AM	12:00:00 AM
Monday	12:00:00 AM	11:59:59 PM
Tuesday	12:00:00 AM	11:59:59 PM
Wednesday	12:00:00 AM	11:59:59 PM
Thursday	12:00:00 AM	11:59:59 PM
Friday	12:00:00 AM	11:59:59 PM
Saturday	12:00:00 AM	12:00:00 AM

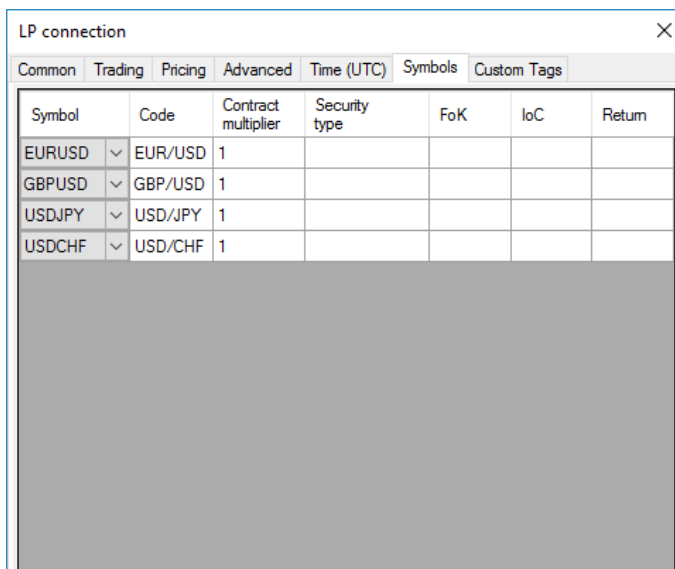
Day – day of week.

From – start time of period within the day. Specified to within a second.

To – end time of the period within the day. Specified to within a second.

The number of periods is unlimited

3.6.1.6 Connection symbol mapping (Symbols tab).



Symbol	Code	Contract multiplier	Security type	FoK	IoC	Return
EURUSD	EUR/USD	1				
GBPUSD	GBP/USD	1				
USDJPY	USD/JPY	1				
USDCHF	USD/CHF	1				

Sybmol – symbol from [Symbol settings](#).

Code – LP symbol code.

Contract multiplier – multiplier to convert volume of MT5 order to size of LP position and back.

Security type – value of FIX tag 22 in MarketDataRequest and NewOrder messages. If the value is not specified for a certain symbol, then **SecurityType** value specified in the **Advanced tab** will be used.

FoK – value of FIX tag 59 in NewOrder message for MT5 order requests type **FoK**. If the value is not specified, then **TimeInForce FoK** value specified in the **Advanced tab** will be used.

IoC – value of FIX tag 59 in NewOrder message for MT5 order requests type **IoC**. If the value is not specified, then **TimeInForce IoK** value specified in the **Advanced tab** will be used.

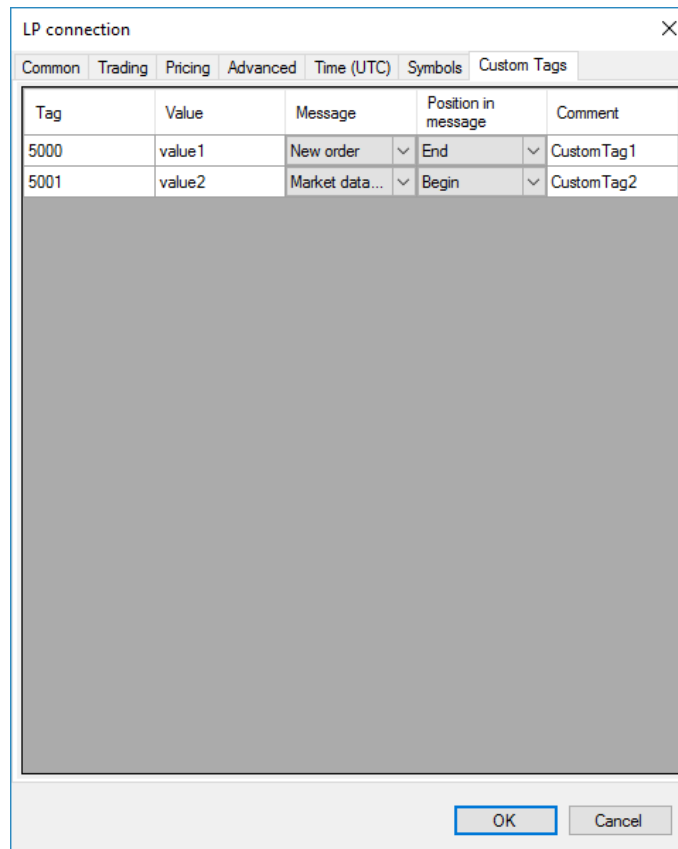
Return – value of FIX tag 59 in NewOrder message MT5 order requests type **Return**. If the value is not specified, then **TimeInForce Return** value specified in the **Advanced tab** will be used.

To edit list of connection symbol mappings you can use context menu or hot keys:

Add	Ins
Delete	Del
Copy	Ctrl+C
Paste	Ctrl+V
Export	
Import	

To simplify migrating of connection symbol mappings provided export/import commands that saves/loads settings to/from XML file.

3.6.1.7 Custom tags settings (Custom Tags tab).



In this tab, you can define custom tags that is not in the standard FIX specification.

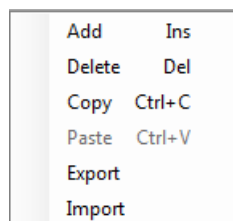
Tag – tag number.

Value – value of this tag.

Message – FIX message in which this tag should be used.

Position in message – the location the tag in message. Available values: Begin – tag will be places at the beginning of FIX message after standard header; End – tag will be placed at the end of FIX message before CheckSum tag.

To edit list of custom tags you can use context menu or hot keys:



To simplify migrating of custom tags provided export/import commands that saves/loads settings to/from XML file.

3.6.2 Deleting LP connection.

The system does not allow you to delete connection in the following cases:

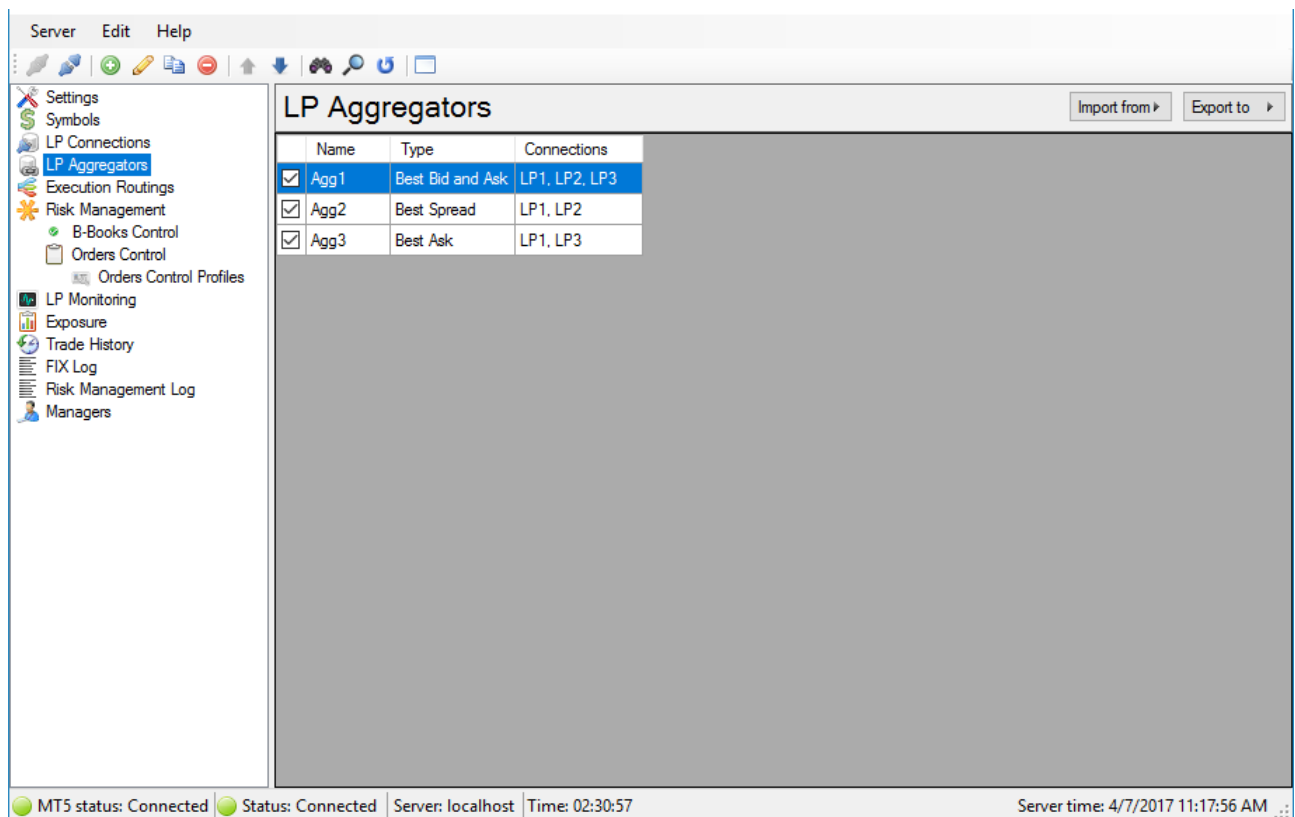
- If you trying to delete connection that is used in some aggregations (see “[LP Aggregations](#)”), symbols (see “[Symbols](#)”), B-Books control rules (see “[B-Books control](#)”), Execution routings or LP monitoring settings (see “[LP monitoring](#)”);
- If you trying to delete connection that have opened positions.

If system does not allow deleting the connection log message will be added in FIX log.

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3.7 Aggregators settings – LP Aggregators.

Connection aggregator is an object that allows you to choose the best connection from a given list of connections for some rule or prices for trading.



The aggregator contains several connections. «The best» connection for each aggregator is determined by the following algorithm:

- get the price book of connection, the system looks whether it is a connection, «the best» at the moment among all the connections aggregator;
- If not, the system compares the latest price books from all connections within the aggregator, and if the price book came is «the best», the connection from which came the price book, it is «the best» for the aggregator;
- If the connection from which came the price book was or was «the best», then aggregated price book «are forwarding» to MT5. For Aggregators of the type Best Bid And Ask the aggregated DOM (Depth of Market) is transferred to MT5 always, because the aggregated DOM is formed on the basis of the DOMs of all the aggregate connectors, and if any of them changes, the aggregate DOM changes.

The algorithm for determining the best LP:

Best Bid. The best is the LP, in which the Bid price on the top level of the DOM (Depth of Market) is the most important. For this aggregation mode, the best LP for buying and selling is always the same.

Best Ask. The best is the LP, in which the Ask price on the top level of the DOM (Depth of Market) has the smallest value. For this aggregation mode, the best LP for buying and selling is always the same.

Best spread. The best is the LP that has the lowest value of the Ask price and Bid price difference at the top level of the DOM. For this aggregation mode, the best LP for buying and selling is always the same.

Best Bid And Ask.

The best LP for sale is determined by the “Best Bid” rule.

The best LP for sale is determined by the ”Best Ask rule”.

The algorithm for forming an aggregate price DOM (Depth of Market) is as follows:

For aggregation types for “Best Bid”, “Best Ask” and “Best Spread”, the aggregate price DOM is a DOM of the best LP.

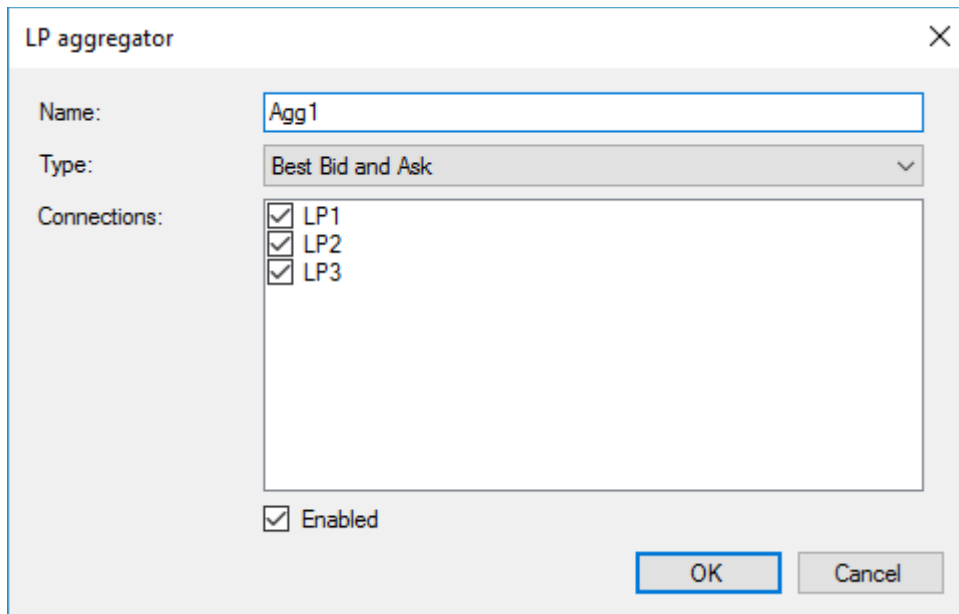
For the “Best Bid And Ask” aggregation type, a DOM is formed according to the following rules.

1. Bid prices for all LPs entering the aggregator are arranged in ascending order, in the case of the same prices, the values of the volumes are summed up.
2. Ask prices for all LPs entering the aggregator are arranged in descending order, in the case of the same prices, the values of the volumes are summed up.
3. On the basis of two lists of prices, the levels of the aggregated DOM are formed.

The list contains the LP aggregators registered in the system. To manage this list you can use **Edit** menu, toolbar or context menu. In addition, to edit LP aggregator you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl + F**.

3.7.1 Creating new / editing.

The next for is used to create or edit LP aggregator:



Name – unique name of LP aggregator. Aggregator name must be unique within the aggregators and connections, i.e. aggregator can not exist and connections with the same name.

Type – type of price aggregation. The next values are available: **Best Spread** – best connection has narrower spread; **Best Bid** – best connection have higher **Bid** price; **Best Ask** – best connection has smaller **Ask** price; **Best Bid And Ask** – best connection for **Buy** has smaller **Ask** price and best connection for **Sell** has higher **Bid** price.

Connections – list of aggregated connections.

Enabled –enable/disable aggregator.

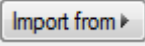
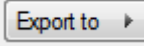
3.7.2 Deleting.

The system does not allow you to delete aggregator in the following cases:

- If you trying to delete aggregator that is used in any symbols (see “[Symbols](#)”), B-Books control rules (see “[B-Books control](#)”) or execution routings (see “[Execution routings](#)”);
- If you trying to delete aggregator that have opened positions.

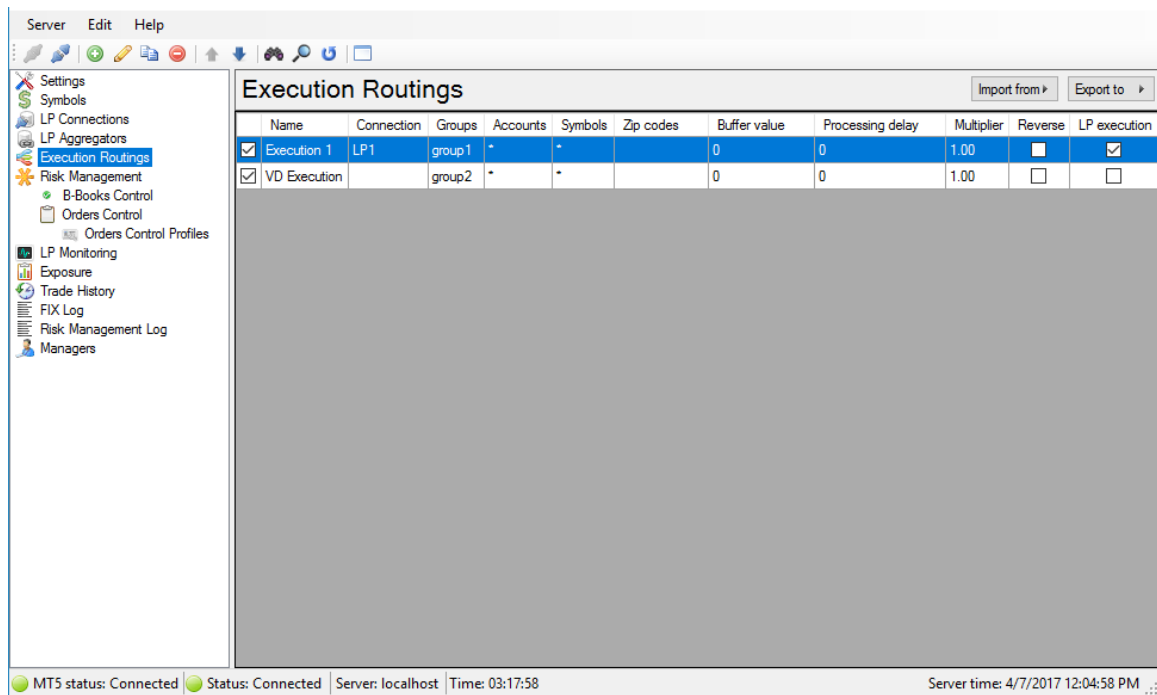
If system does not allow deleting the aggregator log message will be added to FIX log.

3.7.3 Export / Import aggregator settings.

To simplify migrating of aggregators provided export/import operations that saves/loads data to/from XML file (use   buttons is the right top corner of aggregators list form).

3.8 Execution Routings settings – Execution Routings.

Execution routings is used by the system to determine LP connection or LP aggregator, which will be used to process request. Routing can be configured to process request by “Virtual Dealer”. To do this you need to use “Virtual Dealer” type of Execution Routing element.



The list shows the registered members in the routing (Execution routing). To manage the list, you can use the menu Edit, toolbar or context menu. As for editing the routing elements can use hot keys: add - **Ins**, editing - **Enter** or double-click the left mouse button; Remove - **Del** (supported by the group deletion); Update - **F5**; Search – **Ctrl + F**.

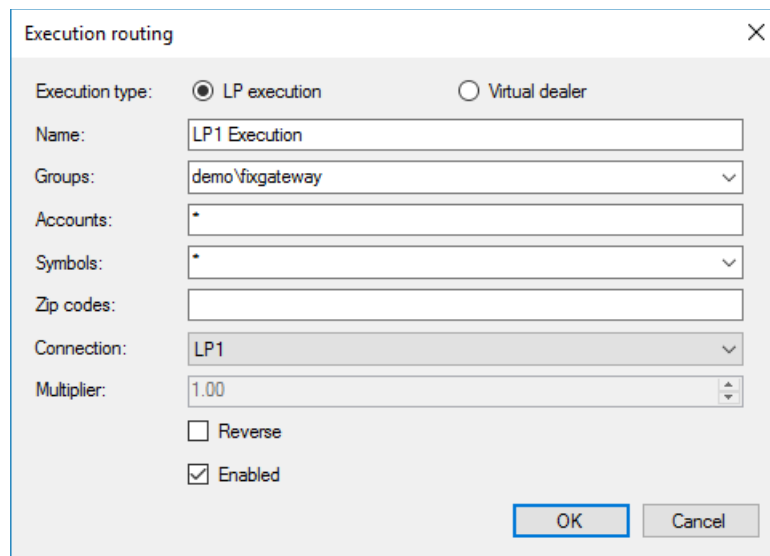
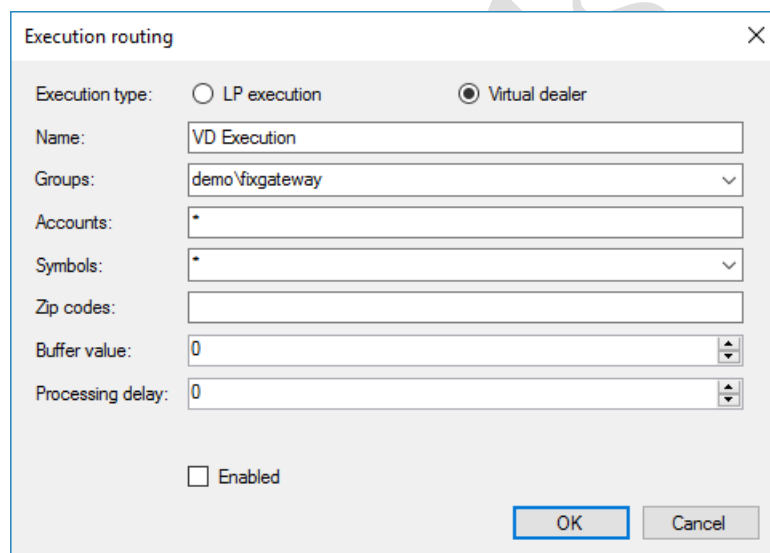
Order of element is matter. To change order you can use **Move Up** and **Move Down** actions. They are available on toolbar, menu Edit and context menu.



The system has received a request from the MT5, looking for the first element in the list of routing group (Groups), Account (Accounts), symbol (Symbols) and zip code which corresponds to a group account, the symbols and indices MT5 request. Parameters element found is used for the execution of the request. If an element is not found the bridge does not process the request.

3.8.1 Creating/editing routing item.

The next form is used to create or edit Execution Routing item:

Execution type – type of execution. The next variants are available: LP execution – request will be executed on LP; Virtual Dealer – request will be confirmed by Virtual Dealer. Depending on the type of different parameters are available for editing - for LP execution parameters **Connection**, **Multiplier** (not supported yet) and **Reverse**, and for **Virtual Dealer** parameters **Buffer value** and **Processing delay**.

Name – unique name of routing item.

Groups – MT5 group mask. Request with group matched to this mask will be processed by this routing item.

Accounts – MT5 login mask. Request with login matched to this mask will be processed by this routing item.

Symbols – MT5 symbol mask. Request with symbol matched to this mask will be processed by this routing item.



Zip codes – MT5 zip code mask. Request with zip code matched to this mask will be processed by this routing item.

Connection – reference to LP connection or aggregation which will be used to process request.

Multiplier – volume multiplier (not supported yet).

Reverse – hedge flag.

Buffer value – limit value adjustment to the price in points relative to the price request that the execution of the request is used for price query. When exceeding this value is the current price. This parameter is used in the type of performance **Virtual Dealer**.

Processing delay – processing delay is seconds.

Enabled – enable / disable routing item.

3.8.2 Export / Import.

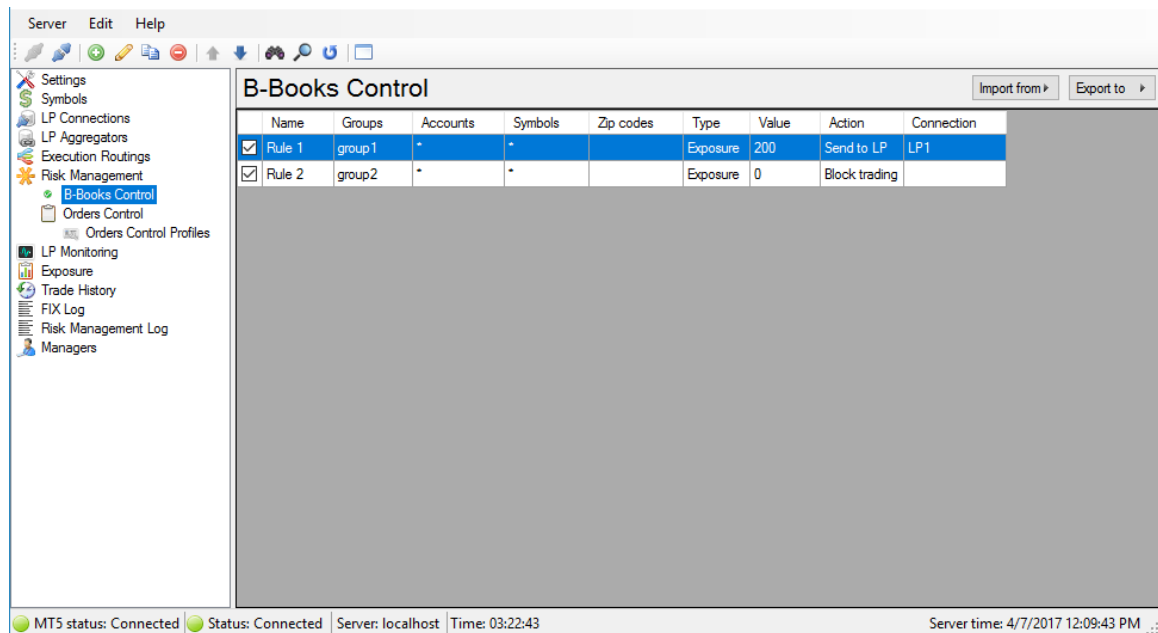
To simplify migrating of execution routings provided export/import operations that saves/loads data to/from XML file (use buttons is the right top corner of list form).



3.9 Risk Management subsystem – Risk Management.

3.9.1 B-Books control rules. B-Books Control.

B-Books control rules govern the order opening by Virtual Dealer.



The list shows registered rules. To manage the list, you can use the menu Edit, toolbar or context menu. As for editing the rule can use hot keys: add - **Ins**, editing - **Enter** or double-click the left mouse button; Remove - **Del** (supported by the group deletion); Update - **F5**; Search – **Ctrl + F**.

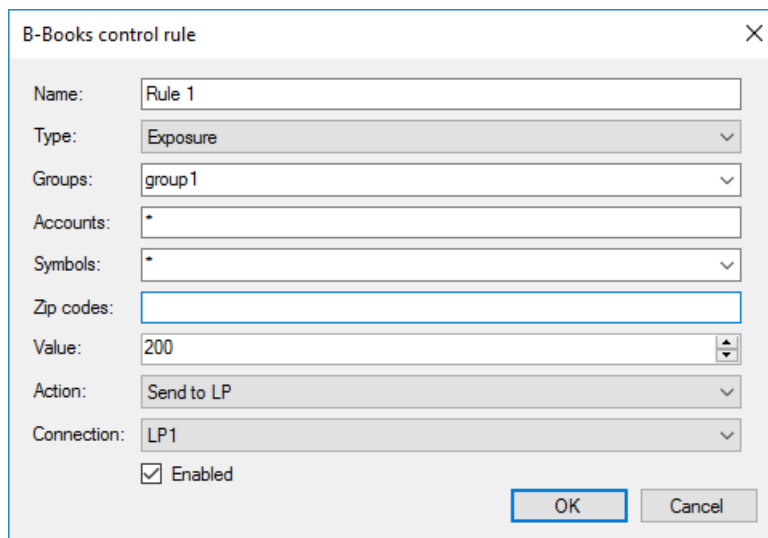
Order of rules is matter. To change order you can use **Move Up** and **Move Down** actions. They are available on toolbar, menu Edit and context menu.



The system has received a request from the MT5, determines the type of query execution using routing settings (see. «[Execution Routings settings](#)»), then if the type of query execution **Virtual Dealer**, the system searches for the first rule in the list, the group (Groups), symbol (Symbol), the zip code (Zip codes) and Account (Accounts) which corresponds to the group, symbol, index and query MT5 account. If a rule is found - it checks the condition of applying the rule to the request, and compares the specified parameter using the Type, the value specified in Value. In case of exceeding the value specified in Value system performs the action specified for the parameter Action. Enforcement action is accompanied by adding an entry in the log [Risk Management Log](#).

3.9.1.1 Creating new / editing.

The next form is used to create or edit rule item:



Name – unique name of the rule.

Type – type of rule. It defines the conditions under which the rule is triggered. Now supported only “Exposure” and “Order size” type. The rule applies to the type Exposure request if the total exposure to all the account specified by the parameters Groups, Accounts and Symbols, exceeds the value indicated in the field Value. For “Order size” type checked if request volume exceeds “Value”

Groups – MT5 group mask. Request with group matched to this mask will be processed using this rule.

Accounts – MT5 login mask. Request with login matched to this mask will be processed using this rule.

Symbols – Request with symbol which equals this this value will be processed using this rule.

Zip codes – MT5 zip code mask. Request with zip code matched to this mask will be processed using this rule.

Value – the value specified by a rule type, which when exceeded, this rule applies to requests.

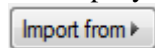
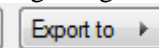
Action – operation is performed on request in the case of the condition of excess values **Value**. 2 values are available: **Block trading** and **Send to LP**.

Connection – the name of the connection to the LP or aggregator which must be executed query. Available at a value equal to the **Action** field **Send To LP**.

Enabled – enable / disable rule.

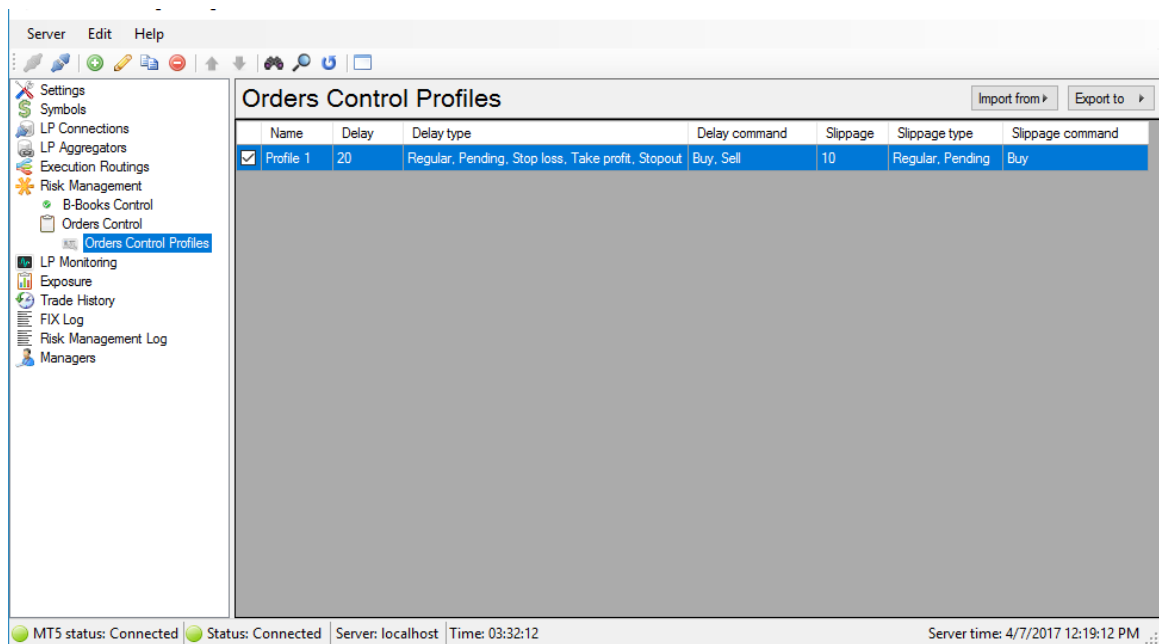
3.9.1.2 Export / Import.

To simplify migrating of rules provided export/import operations that saves/loads data to/from XML file (use

  buttons is the right top corner of list form).

3.9.2 Orders Control Profiles.

Orders Control profiles contain parameters to apply to MT5 orders. These profiles are used in Orders Control (see “[Orders Control Rules](#)”).

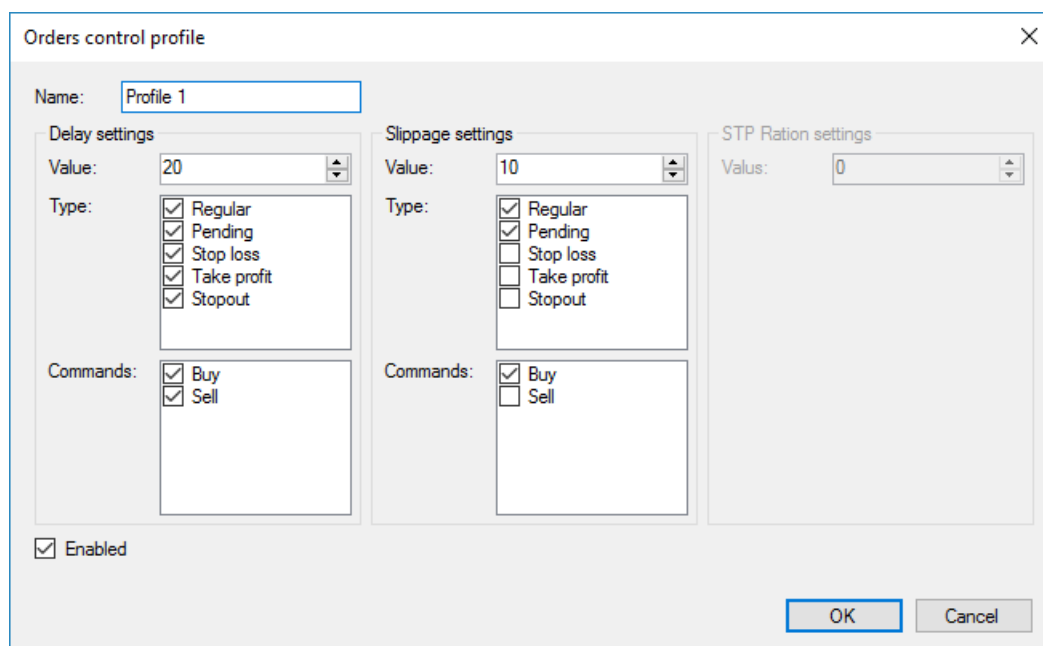


The list contains the profiles registered in the system. To manage this list you can use **Edit** menu, toolbar or context menu. In addition, to edit profile you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl+F**.

TradeTools

3.9.2.1 Creating new / editing.

The next form is used to create or edit profile:



Name – unique profile name.

Enabled – enable / disable profile.

Group “Delay settings”:

Value – processing delay value in seconds.

Type – MT5 request types to apply delay.

Command – MT5 request commands to apply delay.

Group “Slippage settings”:

Value – slippage value.

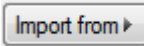
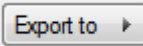
Type – MT5 request types to apply slippage.

Commands – MT5 request commands to apply slippage.

Group “STP Ration settings”:

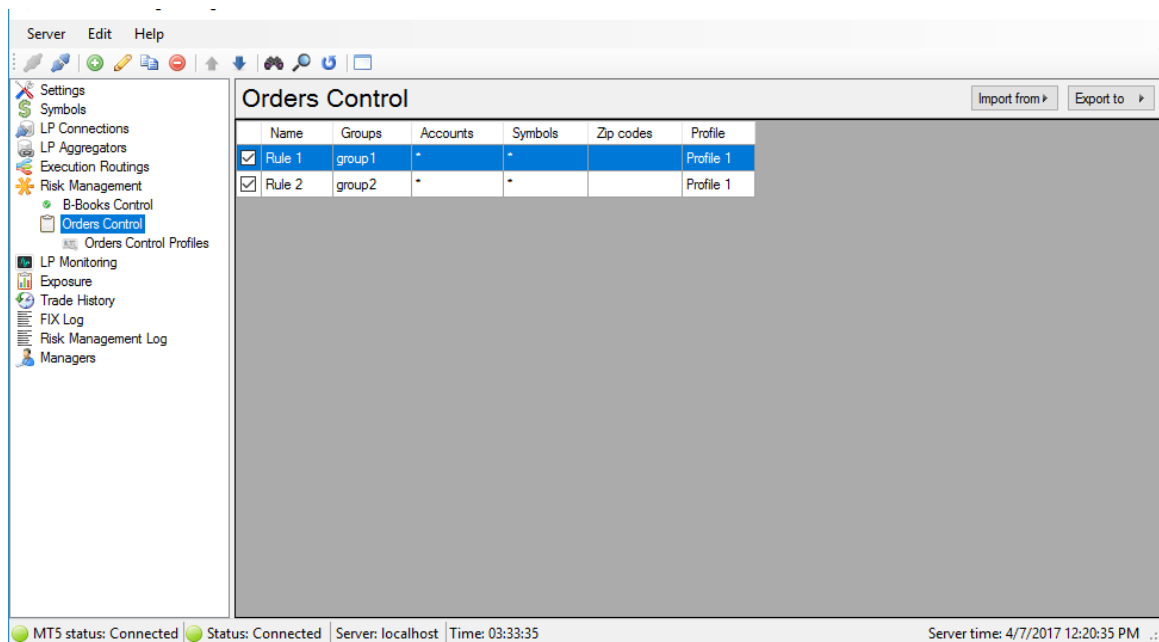
This functionality is not implemented yet.

3.9.2.2 Export / Import.

To simplify migrating of orders control profiles provided export/import operations that saves/loads data to/from XML file (use   buttons is the right top corner of profiles list form).

3.9.3 Orders Control Rules - Orders Control.

Orders Control rules is used to apply settings specified in Orders Control profiles (see “[Orders Control Profiles](#)”) to the MT5 requests.



The list contains the rules registered in the system. To manage this list you can use **Edit** menu, toolbar or context menu. In addition, to edit rule you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl+F**.

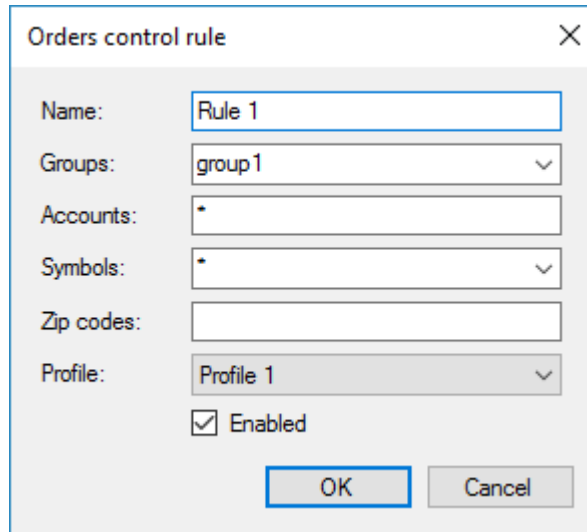
Order of rules is matter. To change order you can use **Move Up** and **Move Down** actions. They are available on toolbar, menu Edit and context menu.



When request comes from MT5 the bridge searches first rule matched by group (Groups), login (Accounts), symbol (Symbols) and zip code. Delay and slippage values from profile of found rule is applied by bridge. Execution of action is accompanied by adding an entry to the [Risk Management Log](#).

3.9.3.1 Creating new / editing.

The next form is used to create or edit rule:



Name – unique rule name.

Groups – MT5 group mask. Request matched to this mask will be processed using this rule.

Accounts – MT5 logins mask. Request matched to this mask will be processed using this rule.

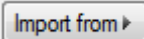
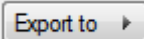
Symbols – MT5 symbol mask. Request matched to this mask will be processed using this rule.

Zip codes – MT5 zip code mask. Request matched to this mask will be processed using this rule.

Profile – reference to Orders Control profile.

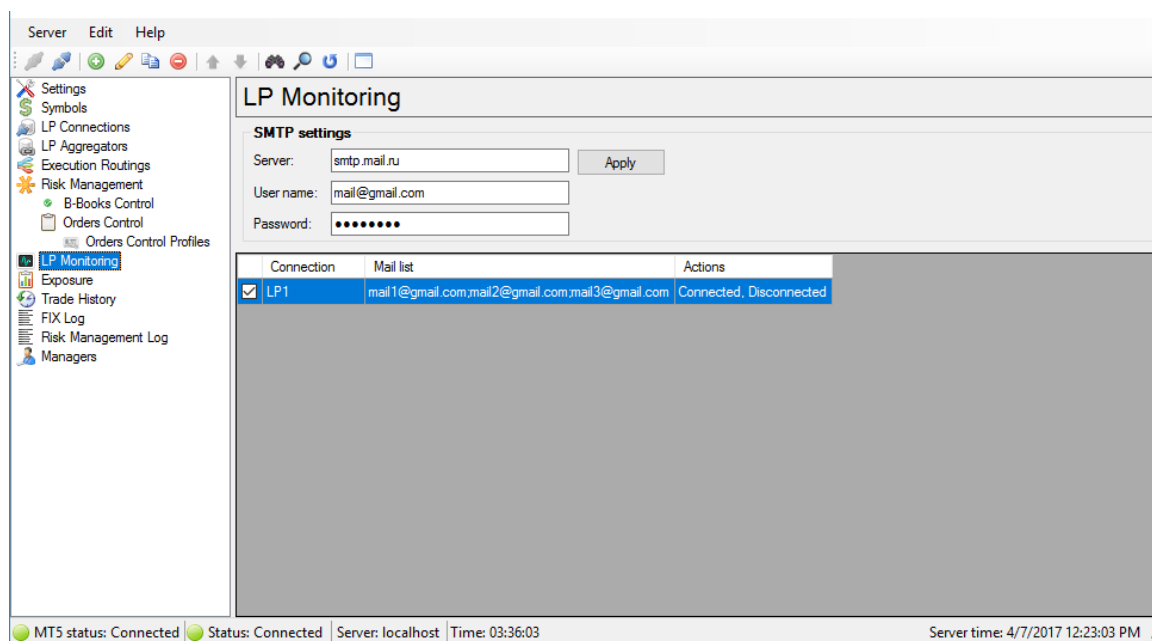
Enabled – enable / disable rule.

3.9.3.2 Export / Import.

To simplify migrating of rules provided export/import operations that saves/loads data to/from XML file (use   buttons is the right top corner of list form).

3.10 LP Monitoring.

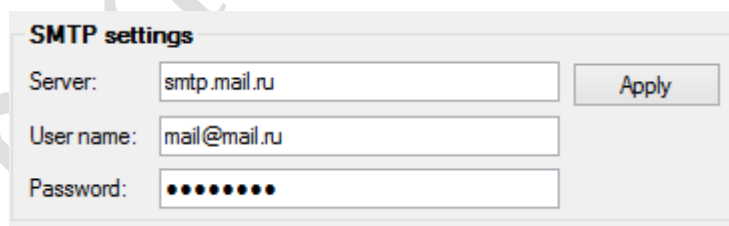
LP Monitoring allows monitoring and notifying the occurrence of some LP events. At this moment only LP connected / disconnected events implemented.



The list contains the monitoring items registered in the system. To manage this list you can use **Edit** menu, toolbar or context menu. In addition, to edit item you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl+F**.

3.10.1 SMTP settings.

To specify outgoing mail server settings group “SMTP settings” can be used:



Server – outgoing mail server name.

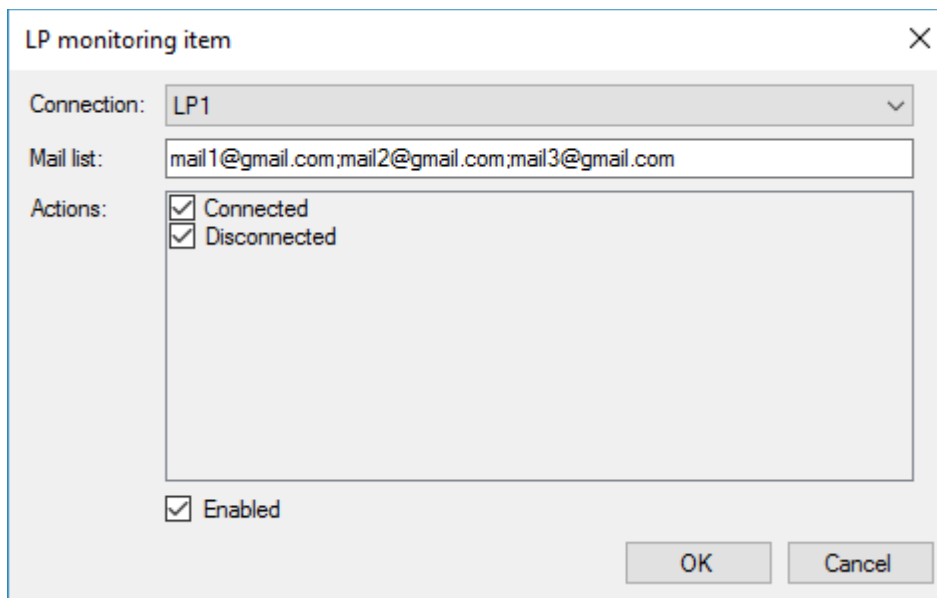
User name – user name to logon to the server.

Password – password to logon to the server.

Apply – the entered parameters outgoing mail server. By clicking on the button will attempt to send a test message to a specified email address. If successful, the message will be displayed and the settings are saved. In case of failure to send a corresponding message and SMTP settings will not be saved!

3.10.2 Creating new / editing.

The next form is used to create or edit monitoring item:



LP monitoring item

Connection: LP1

Mail list: mail1@gmail.com;mail2@gmail.com;mail3@gmail.com

Actions:

- Connected
- Disconnected

Enabled

OK Cancel

Connection – LP connection name.

Mail list – e-mail address list.

Actions – list of events upon the occurrence of which it is necessary to send mail notifications.

Enabled – enable / disable item.

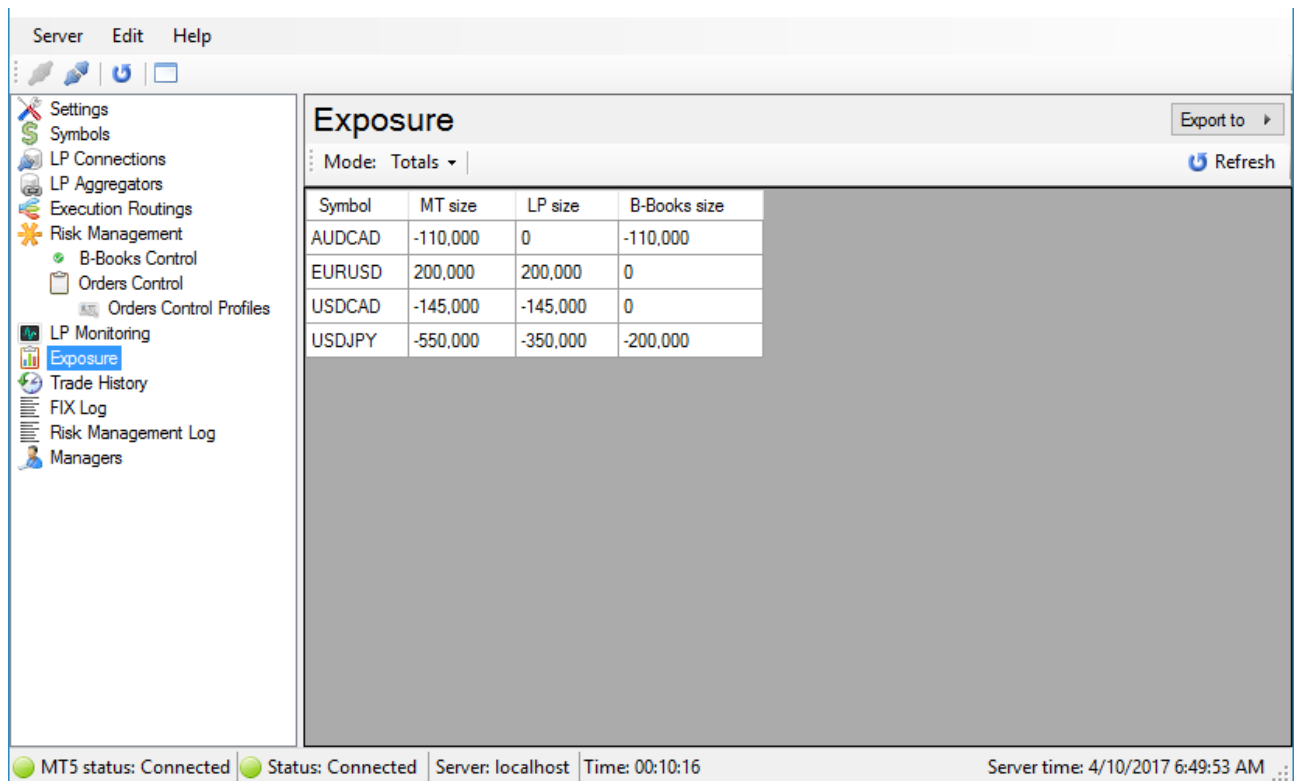
TradeTools

3.11 Exposure Monitor.

Exposure shows total exposure by LP connections and symbols which opened via uBridge.

There are two data view modes:

Totals – shows total Exposure by symbol.



The screenshot shows the 'Exposure' window in the TradeToolsFx application. The window title is 'Exposure' and it has a dropdown menu set to 'Totals'. The table displays the following data:

Symbol	MT size	LP size	B-Books size
AUDCAD	-110,000	0	-110,000
EURUSD	200,000	200,000	0
USDCAD	-145,000	-145,000	0
USDJPY	-550,000	-350,000	-200,000

The interface also includes a sidebar with navigation options like Settings, Symbols, LP Connections, LP Aggregators, Execution Routings, Risk Management, B-Books Control, Orders Control, Orders Control Profiles, LP Monitoring, Exposure, Trade History, FIX Log, Risk Management Log, and Managers. The status bar at the bottom shows 'MT5 status: Connected', 'Status: Connected', 'Server: localhost', 'Time: 00:10:16', and 'Server time: 4/10/2017 6:49:53 AM'.

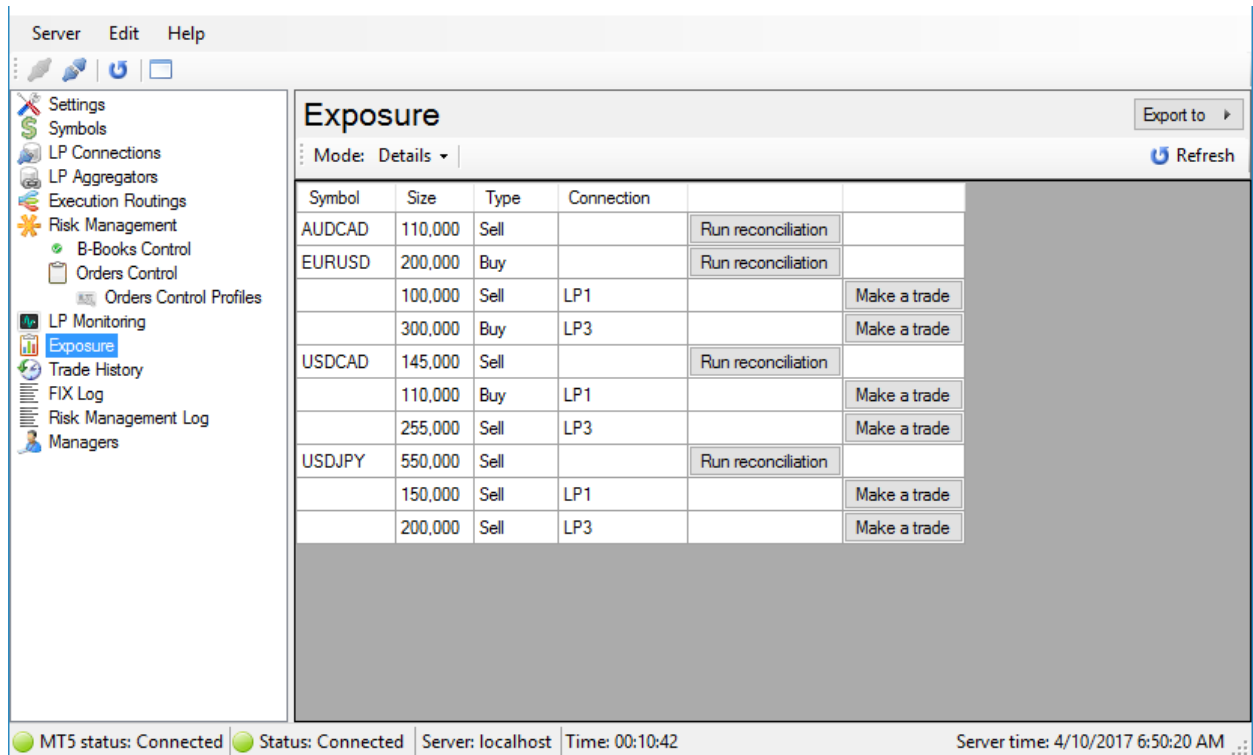
Symbol – MT5 symbol.

MT Size – total MT5 size. Positive value means **buy**, negative – **sell**.

LP Size – total LP size. Positive value means **buy**, negative – **sell**.

B-Books size – total B-Books size. Positive value means **buy**, negative – **sell**.

Details – shows detailed information how total size by symbol distributed by LP and B-Books.



Symbol – MT5 symbol.

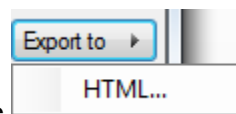
Size – total size on particular LP or total size by symbol if field **Connection** is empty.

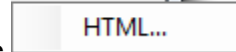
Type – trade type.

Connection – LP connection name.

Run reconciliation and **Make a trade** functionality is not supported now.

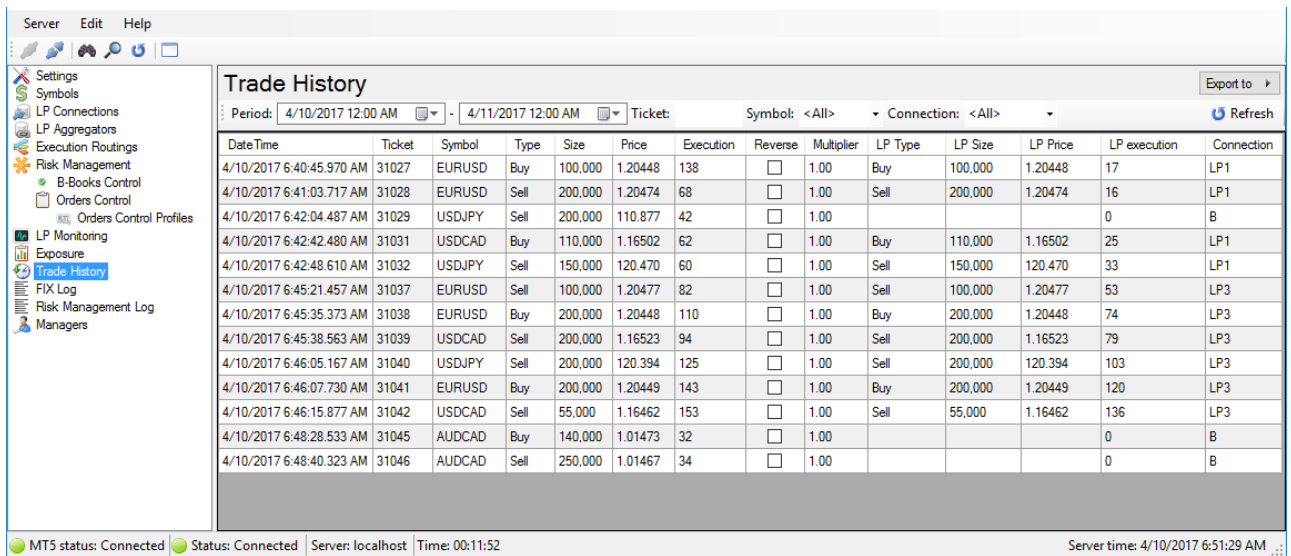
3.11.1 Data export.



To export data as report to the HTML file you can use  button from right top corner of form. Only data displayed in table will be exported.

3.12 Trade History.

Trade history contains information MT5 orders and LP positions processed by service.



DateTime	Ticket	Symbol	Type	Size	Price	Execution	Reverse	Multiplier	LP Type	LP Size	LP Price	LP execution	Connection
4/10/2017 6:40:45.970 AM	31027	EURUSD	Buy	100,000	1.20448	138	<input type="checkbox"/>	1.00	Buy	100,000	1.20448	17	LP1
4/10/2017 6:41:03.717 AM	31028	EURUSD	Sell	200,000	1.20474	68	<input type="checkbox"/>	1.00	Sell	200,000	1.20474	16	LP1
4/10/2017 6:42:04.487 AM	31029	USDJPY	Sell	200,000	110.877	42	<input type="checkbox"/>	1.00				0	B
4/10/2017 6:42:42.480 AM	31031	USDCAD	Buy	110,000	1.16502	62	<input type="checkbox"/>	1.00	Buy	110,000	1.16502	25	LP1
4/10/2017 6:42:48.610 AM	31032	USDJPY	Sell	150,000	120.470	60	<input type="checkbox"/>	1.00	Sell	150,000	120.470	33	LP1
4/10/2017 6:45:21.457 AM	31037	EURUSD	Sell	100,000	1.20477	82	<input type="checkbox"/>	1.00	Sell	100,000	1.20477	53	LP3
4/10/2017 6:45:35.373 AM	31038	EURUSD	Buy	200,000	1.20448	110	<input type="checkbox"/>	1.00	Buy	200,000	1.20448	74	LP3
4/10/2017 6:45:38.563 AM	31039	USDCAD	Sell	200,000	1.16523	94	<input type="checkbox"/>	1.00	Sell	200,000	1.16523	79	LP3
4/10/2017 6:46:05.167 AM	31040	USDJPY	Sell	200,000	120.394	125	<input type="checkbox"/>	1.00	Sell	200,000	120.394	103	LP3
4/10/2017 6:46:07.730 AM	31041	EURUSD	Buy	200,000	1.20449	143	<input type="checkbox"/>	1.00	Buy	200,000	1.20449	120	LP3
4/10/2017 6:46:15.877 AM	31042	USDCAD	Sell	55,000	1.16462	153	<input type="checkbox"/>	1.00	Sell	55,000	1.16462	136	LP3
4/10/2017 6:48:28.533 AM	31045	AUDCAD	Buy	140,000	1.01473	32	<input type="checkbox"/>	1.00				0	B
4/10/2017 6:48:40.323 AM	31046	AUDCAD	Sell	250,000	1.01467	34	<input type="checkbox"/>	1.00				0	B

DateTime – trade date and time.

Ticket – MT5 order number.

Symbol – MT5 symbol.

Type – MT5 trade type – buy/sell.

Size – MT5 trade size (volume * Contract size).

Price – MT5 trade price.

Execution – total request execution time in milliseconds.

Reverse – reverse trading flag.

Multiplier – trade size multiplier.

LP Type – LP trade type on.

LP Size – LP trade size.

LP Price – LP trade price.

LP Execution – LP request execution time in milliseconds.

Connection – connection where trade were executed.

ClOrdID – FIX tag 11 value is ID of MT5 request.

3.12.1 Display data filtering.

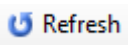


Trade history contains filter with the next parameters:

Ticket – MT5 order number. Filtering by **Ticket** column.

Connection – LP connection name. Filtering by **Connection** column. Permitted to specify part of the name, in this case items for all connections containing this part will be shown. If “<All>” value selected filtering by connections not made. If <B-Books> value selected only B-Books items will be shown.

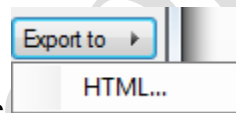
Period – filtering by **DateTime** column.

Symbol – MT5 symbol name. Filtering by **Symbol** column. Permitted to specify part of the symbol, in this case items for all symbols containing this part will be shown. If “<All>” value selected filtering by symbols not made.

To apply selected filtering parameters you can use  **Refresh** button in right side of filter panel,  toolbar button,  **Refresh** command from menu Edit or context menu, or use shortcut key **F5**.

3.12.2 Data export.

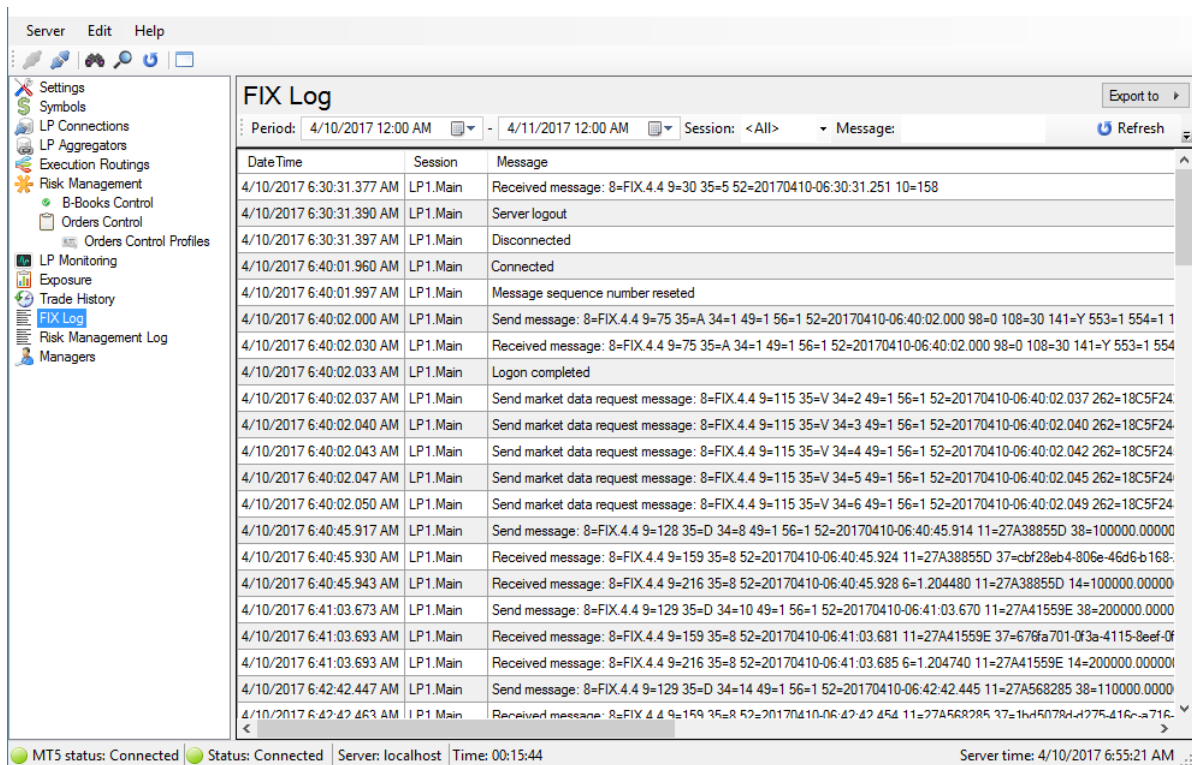
To export data as report to the HTML file you can use  button from right top corner of form. Only data displayed in table will be exported.



TradeToolsFX

3.13 FIX Log.

This log contains information about FIX messages exchange with LP.



Date/Time	Session	Message
4/10/2017 6:30:31.377 AM	LP1.Main	Received message: 8=FIX.4.4 9=30 35=5 52=20170410-06:30:31.251 10=158
4/10/2017 6:30:31.390 AM	LP1.Main	Server logout
4/10/2017 6:30:31.397 AM	LP1.Main	Disconnected
4/10/2017 6:40:01.960 AM	LP1.Main	Connected
4/10/2017 6:40:01.997 AM	LP1.Main	Message sequence number reseted
4/10/2017 6:40:02.000 AM	LP1.Main	Send message: 8=FIX.4.4 9=75 35=A 34=1 49=1 56=1 52=20170410-06:40:02.000 98=0 108=30 141=Y 553=1 554=1 1
4/10/2017 6:40:02.030 AM	LP1.Main	Received message: 8=FIX.4.4 9=75 35=A 34=1 49=1 56=1 52=20170410-06:40:02.000 98=0 108=30 141=Y 553=1 554
4/10/2017 6:40:02.033 AM	LP1.Main	Logon completed
4/10/2017 6:40:02.037 AM	LP1.Main	Send market data request message: 8=FIX.4.4 9=115 35=V 34=2 49=1 56=1 52=20170410-06:40:02.037 262=18C5F24
4/10/2017 6:40:02.040 AM	LP1.Main	Send market data request message: 8=FIX.4.4 9=115 35=V 34=3 49=1 56=1 52=20170410-06:40:02.040 262=18C5F24
4/10/2017 6:40:02.043 AM	LP1.Main	Send market data request message: 8=FIX.4.4 9=115 35=V 34=4 49=1 56=1 52=20170410-06:40:02.042 262=18C5F24
4/10/2017 6:40:02.047 AM	LP1.Main	Send market data request message: 8=FIX.4.4 9=115 35=V 34=5 49=1 56=1 52=20170410-06:40:02.045 262=18C5F24
4/10/2017 6:40:02.050 AM	LP1.Main	Send market data request message: 8=FIX.4.4 9=115 35=V 34=6 49=1 56=1 52=20170410-06:40:02.049 262=18C5F24
4/10/2017 6:40:45.917 AM	LP1.Main	Send message: 8=FIX.4.4 9=128 35=D 34=8 49=1 56=1 52=20170410-06:40:45.914 11=27A438855D 38=100000.00000
4/10/2017 6:40:45.930 AM	LP1.Main	Received message: 8=FIX.4.4 9=159 35=8 52=20170410-06:40:45.924 11=27A38855D 37=cbf28eb4-806e-46d6-b168-
4/10/2017 6:40:45.943 AM	LP1.Main	Received message: 8=FIX.4.4 9=216 35=8 52=20170410-06:40:45.928 6=1.204480 11=27A38855D 14=100000.00000
4/10/2017 6:41:03.673 AM	LP1.Main	Send message: 8=FIX.4.4 9=129 35=D 34=10 49=1 56=1 52=20170410-06:41:03.670 11=27A41559E 38=200000.0000
4/10/2017 6:41:03.693 AM	LP1.Main	Received message: 8=FIX.4.4 9=159 35=8 52=20170410-06:41:03.681 11=27A41559E 37=678fa701-0f3a-4115-8eef-0f
4/10/2017 6:41:03.693 AM	LP1.Main	Received message: 8=FIX.4.4 9=216 35=8 52=20170410-06:41:03.685 6=1.204740 11=27A41559E 14=200000.00000
4/10/2017 6:42:42.447 AM	LP1.Main	Send message: 8=FIX.4.4 9=129 35=D 34=14 49=1 56=1 52=20170410-06:42:42.445 11=27A568285 38=110000.0000
4/10/2017 6:42:42.463 AM	LP1.Main	Received message: 8=FIX.4.4 9=159 35=8 52=20170410-06:42:42.454 11=27A568285 37=1hd45078d-4d7f-416a-71f6-

Log contains the next columns:

Date/Time – date and time of log item.

Connection – LP connection name.

Message – message.

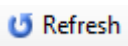


3.13.1 Data filtering.

FIX Log has filter with the next parameters:

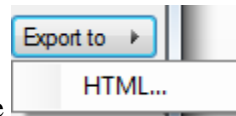
Connection – LP connection name. Permitted to specify part of the name, in this case items for all connections containing this part will be shown. If “<All>” value selected filtering by connections not made.


Period – filtering by Date/Time column.

Message – filtering by part of message.

To apply selected filtering parameters you can use  **Refresh** button in right side of filter panel,  toolbar button,  **Refresh** command from menu Edit or context menu, or use shortcut key **F5**.

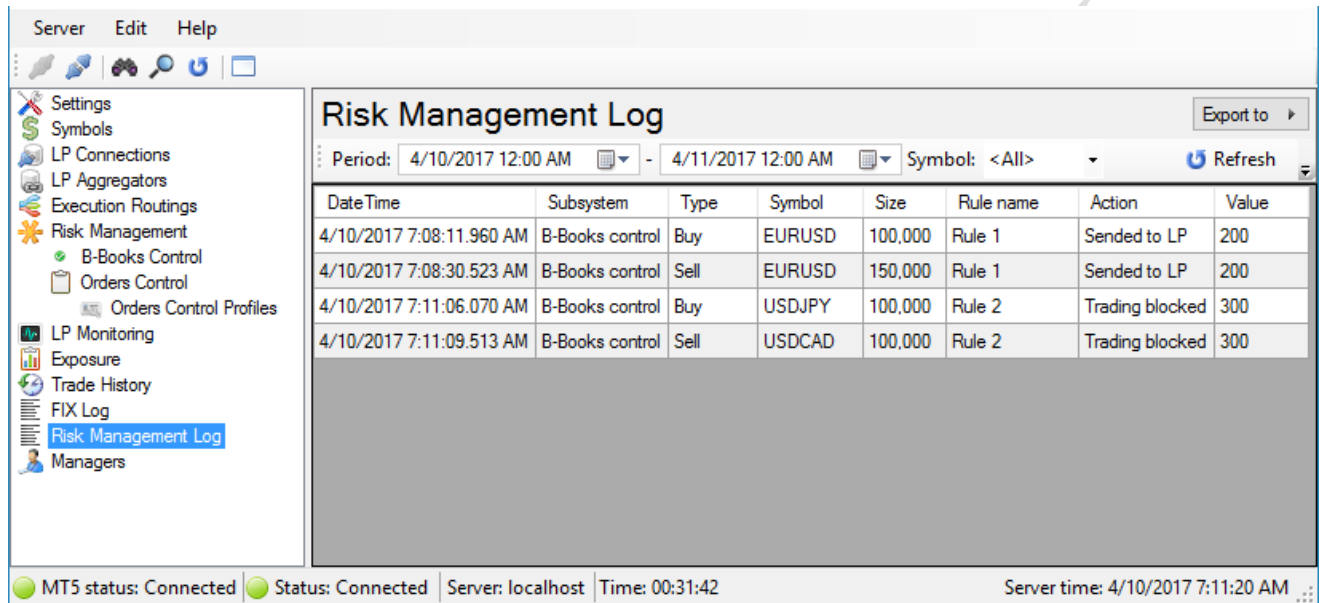
3.13.2 Data export.



To export data as report to the HTML file you can use  button from right top corner of form. Only data displayed in table will be exported.

3.14 Risk Management Log.

This section contains information about actions performed by Risk Management subsystem with MT5 requests.



DateTime	Subsystem	Type	Symbol	Size	Rule name	Action	Value
4/10/2017 7:08:11.960 AM	B-Books control	Buy	EURUSD	100,000	Rule 1	Sended to LP	200
4/10/2017 7:08:30.523 AM	B-Books control	Sell	EURUSD	150,000	Rule 1	Sended to LP	200
4/10/2017 7:11:06.070 AM	B-Books control	Buy	USDJPY	100,000	Rule 2	Trading blocked	300
4/10/2017 7:11:09.513 AM	B-Books control	Sell	USDCAD	100,000	Rule 2	Trading blocked	300

Log table contains the next columns:

DateTime – date and time of action.

Subsystem – risk management subsystem that added log item. Available values: [B-Books Control](#) and [Orders Control](#).

Type – MT5 order type.

Symbol – MT5 symbol.

Size – MT5 request size.

Rule name – B-Books Control Rule name applied to request.

Action – performed action.

Value – restriction value of risk management subsystem.

3.14.1 Display data filtering.

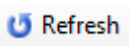


Risk management log contains filter with the next parameters:

Period – filtering by **DateTime** column.


Symbol – MT5 symbol name. Filtering by Symbol column. Permitted to specify part of the symbol, in this case items for all symbols containing this part will be shown. If “<All>” value selected filtering by symbols not made.

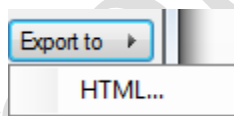
Action – filtering by Action column. If <All> value selected filtering not made.

Rule name – B-Books Control Rule name. Filtering by Rule name column. Permitted to specify part of the rule name, in this case items for all rules containing this part will be shown. If “<All>” value selected filtering not made.

To apply selected filtering parameters you can use  Refresh button in right side of filter panel,  toolbar button,  Refresh command from menu Edit or context menu, or use shortcut key **F5**.

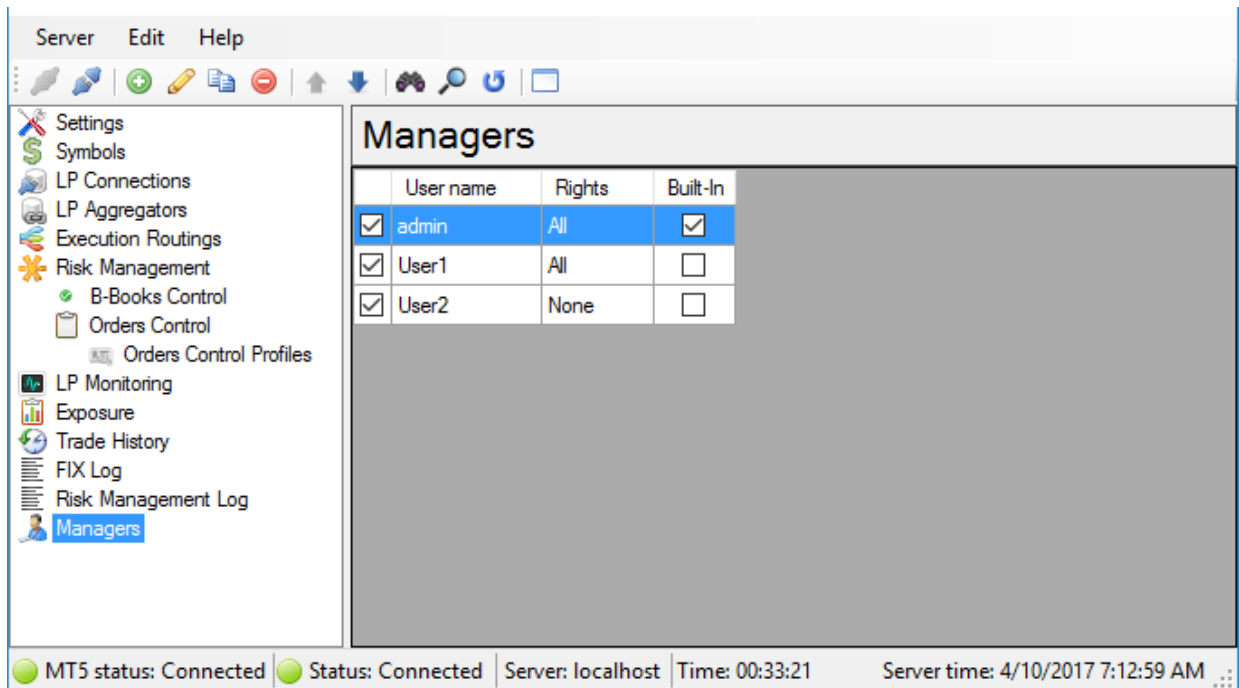
3.14.2 Data export.

To export data as report to the HTML file you can use  button from right top corner of form. Only data displayed in table will be exported.




3.15 User Management – Managers.

This view allows managing MT5 Bridge Manager users (managers).



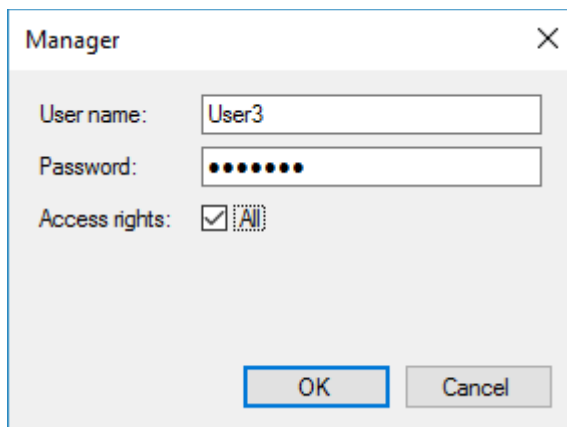
The list contains the managers registered in the system. To manage this list you can use **Edit** menu, toolbar or context menu. In addition, to edit item you can use the next hot keys: for adding – **Ins**, for editing – **Enter** or left mouse button double click; for deleting – **Del** (supported group deleting); for refresh – **F5**; for search – **Ctrl+F**.

To change password of a manager user  **Change Password...** command from context menu.

User **admin** is built-in user and cannot be deleted.

3.15.1 Creating new / editing.

The next form is used to create or edit bridge manager:



User name – unique user name.

Password – password.

Access right – access rights of user. This field is not used yet. All managers listed in this Managers list have all access to uBridge Manager functionality.

3.16 Export / Import configuration.

Configuration of uBridge Service can be completely exported and imported to/from XML file. To do this select corresponding command from main menu:

