VirtualDealer versus Manual Execution: What Is Better?

Introduction

Virtual Dealer Plugin is intended for full or partial emulation of the dealer's actions for symbol groups with manual execution. The plugin implements the following features:

- Confirmation of the clients' requests with regulated execution delay up to 5 seconds and recheck of Limit & Stop Level and Freeze Level.
- Processing of pending orders activations, Stops triggerings, and stopouts.
- Confirmation of requests on stream prices (Instant Execution) with adjustable permitted slippage.
- Watching symbol gaps, during which pending orders BUY STOP and SELL STOP and stops of open positions are activated not at the client's requested price, but at the gap price.
- Automated moving up the Limit & Stop Level and Freeze Level according to the preset list of news time.
- Disabling (setting, modifying, deletion) of pending orders during news receiving.
- Working in parallel with real dealers. In this mode, only those requests are processed the volumes of which do not exceed the preset level.

Plugin Installation

To install the plugin, one has to copy the VirtualDealer.dll file into the "/plugins" directory in the server root directory. Then restart the server.
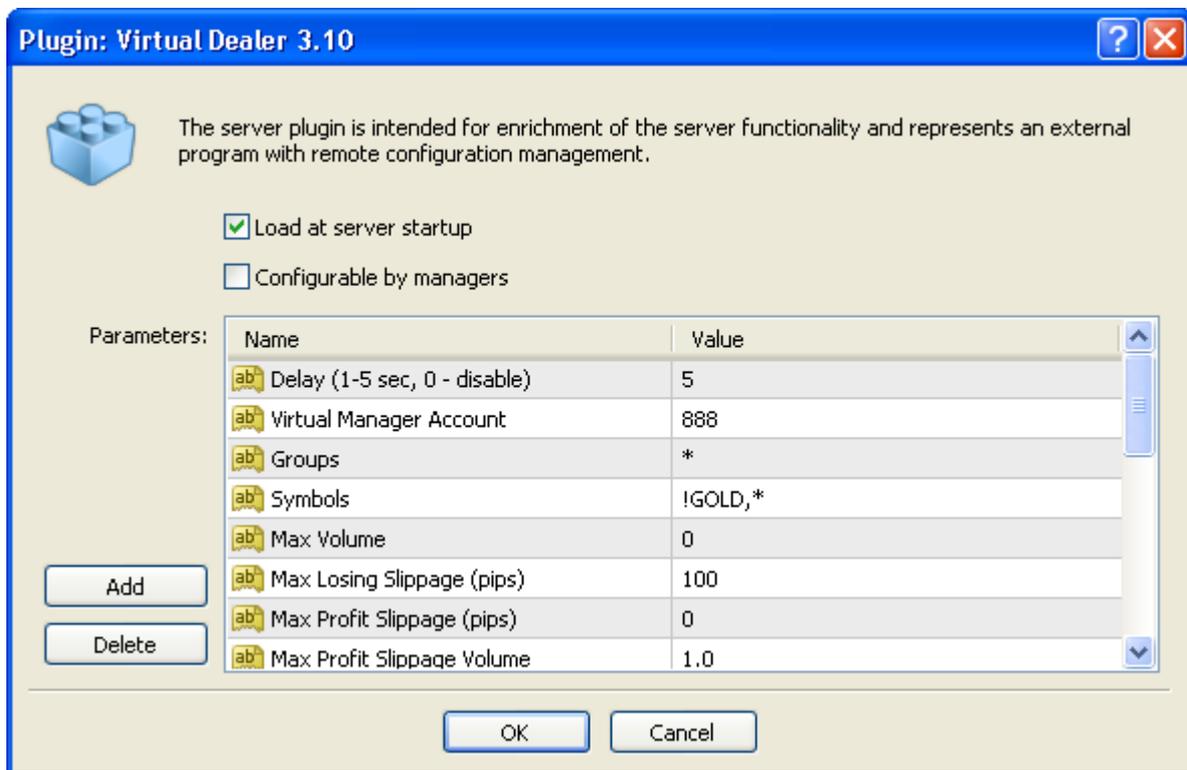
> **Important:** By default, the plugin will be disabled after the server restart. It will not start processing of clients' requests immediately.

If the plugin has already been installed and needs updating, the following must be done:

1. Stop the server (for example, using the **net stop mtsrv** command in the command line).
2. Replace the plugin in the "/plugins" folder with the updated version of it.
3. Launch the server (for example, using the **net start mtsrv** command in the command line).
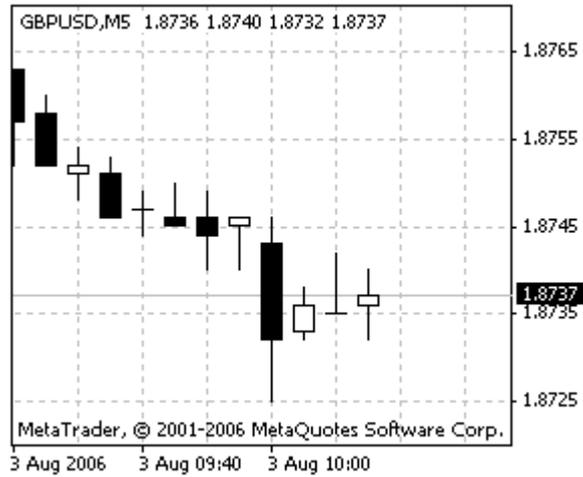
Plugin Setup

After plugin installation, it is necessary to configure its settings.

Parameters are described below.

Parameter	Description
Delay (1-5 sec, 0 - disable)	Delay of the request execution. If the delay equals to zero, it means that the plugin is disabled and does not process requests. If the delay is above zero, it means that the plugin is enabled and processes requests. The real delay may be one second shorter. For example, if the delay is specified as 5 seconds, confirmation will be sent to the client within 4 to 5 seconds.
Virtual Manager Account	The account number of the manager on behalf of whom the virtual dealer will act.
Groups	Groups processed by the Virtual Dealer. The groups can be listed using templates. For example, **demo*** - all demo groups, **!real,*** - all groups except for the real ones, **demoforex-usd,demoforex-jpy** - only groups named demoforex-usd and demoforex-jpy, respectively.
Symbols	List of symbols to be processed by the VirtualDealer. The symbols can be listed using templates. For example, **USD***- all symbols starting with USD; **!SILVER,!GOLD,*** - all symbols except for gold and silver.
Max Volume	Maximal amount of lots for a trade to be processed by the Virtual Dealer when there are other dealers online. If the trade volume exceeds its value and there is an online dealer with rights to process such requests, the Virtual Dealer skips such an operations. Thus, the human dealer can process dangerous requests.
Max Losing Slippage (pips)	The maximum permissible slippage of the market price against the client's request price during Delay time, at which the client's request is confirmed at its price **against the client**. Example: A client wants to sell GBPUSD at the current price of 1.8737. Virtual Dealer accepts the request and waits a preset amount of seconds.

GBPUSD,M5 1.8736 1.8740 1.8732 1.8737

1.8765
1.8755
1.8745
1.8737
1.8735
1.8725

MetaTrader, © 2001-2006 MetaQuotes Software Corp.
3 Aug 2006   3 Aug 09:40   3 Aug 10:00

GBPUSD,M5 1.8736 1.8742 1.8732 1.8742

1.8765
1.8755
1.8745
1.8742

#4186484 sell

1.8735
1.8725

MetaTrader, © 2001-2006 MetaQuotes Software Corp.
3 Aug 2006   3 Aug 09:40   3 Aug 10:00

The price has changed for 1.8742 during this time. This means that the client is mistaken and price has gone 5 points against the client. If the Max Losing Slippage is equal to 10 points, the client's request will be confirmed at his or her price (1.8737) and the client will lose (unrealized profit=-5 points - spread). If the Max Losing Slippage is set for 5 points, the client will be requoted at 1.8742.

This parameter works only for the Instant Execution mode. If this parameter is equal to 0, the Virtual Dealer always requotes when the price changes against the client.

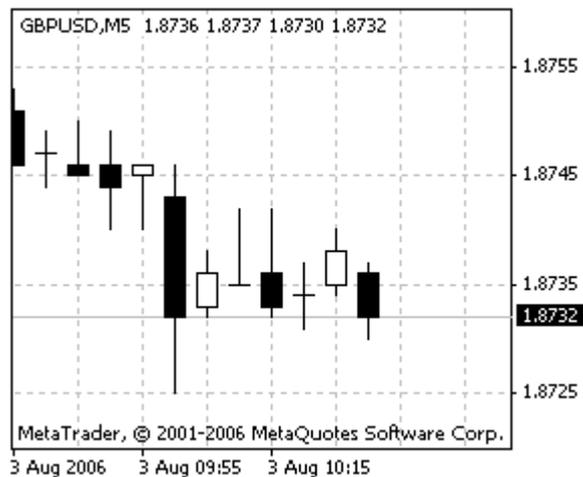| Max Profit Slippage (pips)	The maximum permissible slippage of the market price in the client's favor during Delay time, at which the client's request is confirmed at its price **in the client's favor**.

Important Note:

- If Max Profit Slippage = 0 (default value), Virtual Dealer requotes about 10% of requests.

- If Max Profit Slippage = 1, about 2% of requests are requoted.

- If Max Profit Slippage = 2, less than 1% of requests are requoted.

- If Max Profit Slippage exceeds 2 points, the Virtual Dealer does not practically requote the clients' requests.

This parameter must be used **only with the risk limitation by volumes** of clients' requests (the Max Profit Slippage Volume parameter). For example, to enable slippage to the client's favor by 1 point on volumes that do not exceed 0.1 of a lot, it is necessary to set Max Profit Slippage = 1, Max Profit Slippage Volume = 0.1.

Example:

A client wants to sell GBPUSD at 1.8732. Virtual Dealer accepts the request and waits a preset amount of seconds.

The price changed for 1.8727 during this time. This means that the client has guessed right and the price has gone 5 points in the client's favor. If the Max Losing Slippage is equal to 10 points and the volume does not exceed the Maximum Profit Volume, the client's request will be confirmed at his or her price (1.8732) as shown above and the client will open a position above the market or even directly with positive balance (unrealized profit=5 points - spread). If the Max Losing Slippage is set for 4 points, the client will be requoted at 1.8727.

This parameter works only for the Instant Execution mode. If this parameter is equal to 0, the Virtual Dealer always requotes when the price changes in the client's favor.

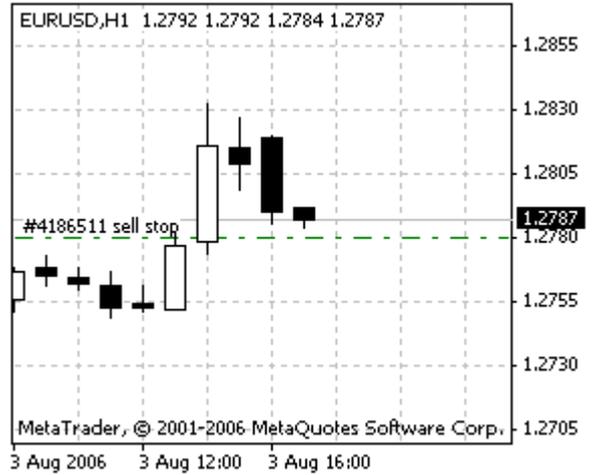| Max Profit Slippage Volume	The maximal volume of a transaction, at exceeding of which VirtualDealer always requotes when the price slips in the client's favor.
Gap Level (spreads)	The gap level is a value set in terms of spread. The gap mode is activated if the price difference between the current tick and the preceding tick exceeds or is equal to this level. For example, if Price Gap Level = 5 and spread is 3 points, the gap mode will be activated when the price changes by 15 (= 5 * 3) or more points.

The gap mode is dedicated to processing of orders on news (for example, NFP).

Orders are processed in this mode in the way as follows:

1. Stops are activated and processed only after the preset amount of confirmation ticks (Gap Tick Counter). For example, Price Gap Level = 5, spread is 3 points, and Gap Tick Counter = 5. At some time, a spike reaches 40 points and the gap mode is enabled (40 >= 5 * 3), pending orders and stops will not be processed on this tick (gap). The next 3 ticks come with price changes by 3, 2 and 4 points. Finally, the 5th tick comes where the price change
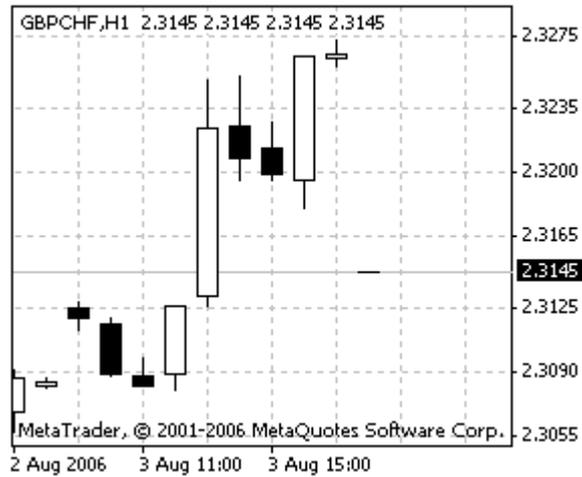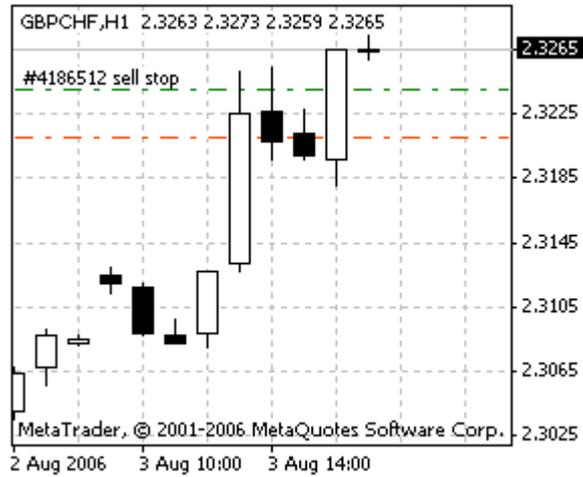
makes 1 point. At this moment, pending orders will be activated and stops will be processed at the price of this 5th tick. If a gap occurs among confirmation ticks again, the Gap Tick Counter will be reset and the count starts again.

2. Pending orders in gap are processed at the worst (for the client) price (BUY STOP, SELL STOP - at the gap price, BUY LIMIT, SELL LIMIT - at the client's price). At this, the order comment contains the note of **[started/gap]**. For example, the client has set SELL STOP at 1.2780. A spike from 1.2787 to 1.2730 has happened after some time.
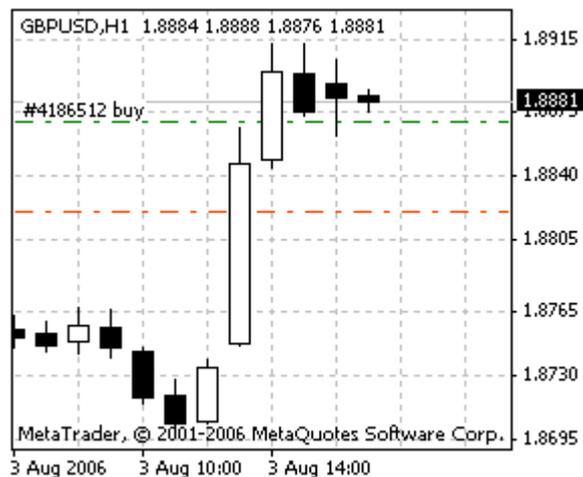

The price change has made 57 points. If spread is 3, Price Gap Level = 4 and Gap Tick Counter = 1, VirtualDealer will switch to the gap mode (57 >= 3 * 4) and immediately open the order at 1.2730, it means 50 points worse for the client.
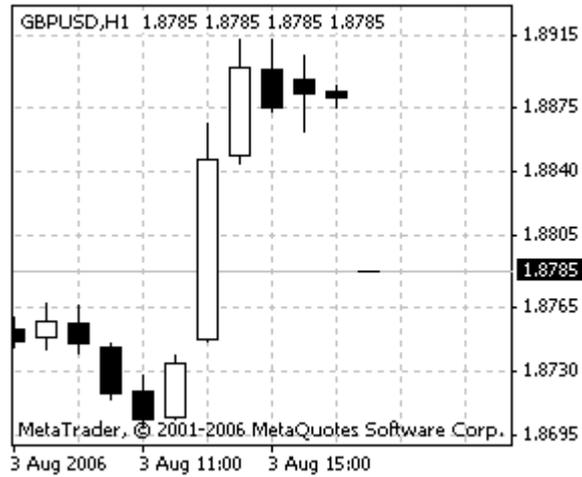
3. If the gap concerns both the activation price of the pending order and its Take Profit, VirtualDealer, depending on the Gap Pendings Cancel value, will either cancel this order or activate it at the gap price with cleared Take Profit. Virtual Dealer will write **[cancelled/gap]** in the canceled order comments. For example, the client places the SELL STOP at 2.3240 and Take Profit at 2.3210. A spike from 2.3265 to 2.3145 takes place.

The price has changed by 120 points. If spread is 3, Price Gap Level = 4, Gap Tick Counter = 1 and Gap Pendings Cancel = 1, VirtualDealer will switch to the gap mode for this symbol (120 >= 3 * 4) and cancel the order. But, if Gap Pendings Cancel = 0, VirtualDealer will open the client at 2.3145 and clear the Take Profit.

4. Stop Loss and Take Profit in gap can be processed with a slippage depending on the values of Gap Stop Loss Slide and Gap Take Profit Slide. If the Stop Loss slippage is allowed, the client can be closed at a worse (for the client) price. If the Take Profit slippage is allowed, the client can be closed at a better (for the client) price. In case of slippages in stops, VirtualDealer adds **[sl/gap]** or **[tp/gap]** for Stop Loss or Take Profit, respectively, in the order comments. For example, the client sets Stop Loss for BUY at 1.8820. At some time, the spike from 1.8881 to 1.8785 takes place.
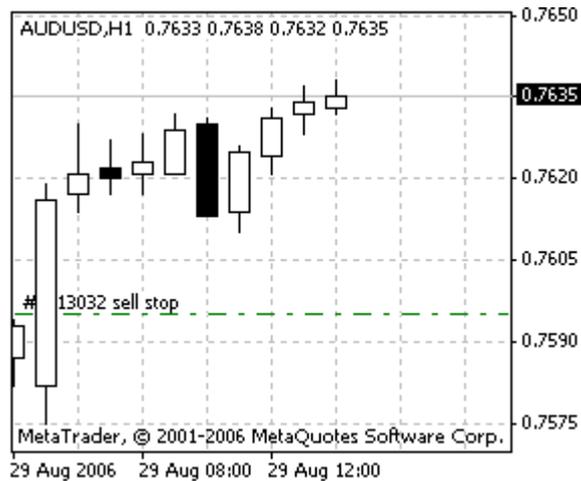
The price change has made 96 points. If spread is 3, Price Gap Level = 4, Gap Tick Counter = 1 and Gap Stop Loss Slide = 1, VirtualDealer will switch to the gap mode for the symbol (96 >= 3 * 4) and close the client at 1.8785, which is 35 worse for the client.

If this parameter is set for 0, the gap control will be disabled.

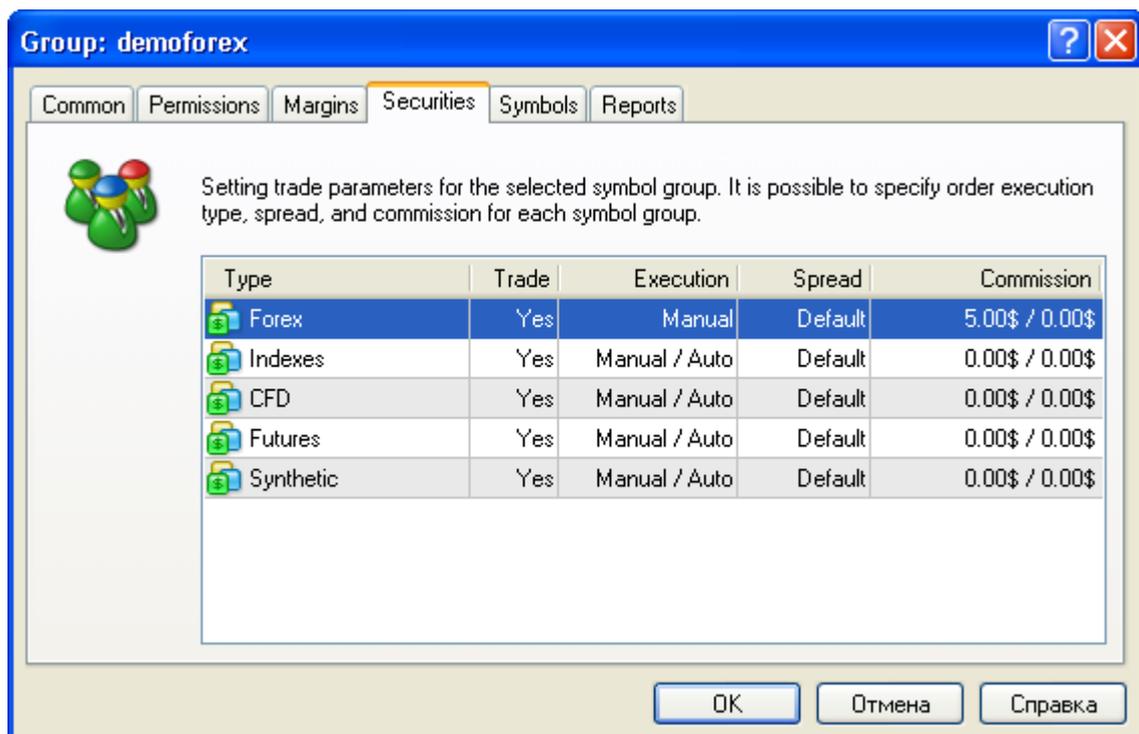| Gap Safe Level (spreads) | Gap safe level defined in spread units. If slippage in points for a pending or a stop (Stop Loss или Take Profit) order is less than Gap Safe Level * spread for a symbol, the request will be processed at the client's price. Otherwise, it will be processed at the gap price.
For example, a client has set SELL STOP at 0.7595. Фе some time, the price jumps from 0.7635 to 0.7585.

The price has changed by 50 points, and the difference between the client's price and the market one makes 10 points. At spread being equal to 3 points, Price Gap Level = 5 and Gap Safe Level = 4, the VirtualDealer will switch to the gap mode for the symbol (50 >= 3 * 5) and activate the pending order at the client's price = 0.7595 without slippage since 10 <= 3 * 4. If the Gap Safe Level were equal to 2, the VirtualDealer would activate the pending order at the gap price = 0.7585 since 10 > 3 |

	* 2.
Gap Tick Counter	The amount of confirmation ticks (price changes do not exceed Spread * Price Gap Level) necessary to cancel the gap mode for a symbol. At this, pending orders and stops triggered in gap will be activated only in the latest tick, all intermediary ticks will be ignored.
Gap Pendings Cancel	Flag that allows to cancel pending orders with Take Profit levels caught within the gap (value "1" - orders with simultaneously concerned activation level and Take Profit are canceled and noted with **[cancelled/gap]** in the comment, "0" -pending orders will be activated at the gap price, **[started/gap]** being noted in the comments and Take Profit being cleared).
Gap Take Profit Slide	Flag that allows to slip Stop Loss in gap (value "1" - Stop Loss is processed at the gap price, "0" - StopLoss is processed at the client's price).
Gap Stop Loss Slide	Flag that allows to slip Take Profit in gap (value "1" - Take Profit is processed at the gap price, "0" - Take Profit is processed at the client's price).
News Stops & Freezes (levels)	This value indicates by how many times Limit & Stop Level and Freeze Level increase for symbols at the time of news. If it is equal to 0, it means that Limit & Stop Level and Freeze Level do not increase at all.
Allow Pendings on News	Flag that allows to work with pending orders (place, modify and delete) at the time of news (value "1" - pending orders are allowed to be placed or modified, "0" - pending orders are prohibited to be placed or modified).
News Time 1 News Time 2 ... News Time N	News time in the format as follows: **year.month.day hour:minute:second, duration** where duration is set in minutes. For example, if a news that would strongly affect the market for approximately 15 minutes must emerge at 5.00 p.m. on Monday, the 7th August 2006, **2006.08.07 17:00:00,15** must be inputted in the plugin settings. One can set any desirable amount of items in the list.

Warning: The Max Volume is just a declarative restriction. If the Virtual Dealer cannot find a dealer capable and allowed to process the request with the volume exceeding the Max Volume (there are no online dealers at all), the Maximum Volume parameter will not be taken into consideration and such a request will be processed by the Virtual Dealer.

If not only plugins, but also real dealers will operate simultaneously, it would probably be reasonable to allow dealers controlling of the plugin.

Server Setup and Manager's Account Setup

Before enabling the plugin, one has to set up groups and symbols using MetaTrader Administrator, as well as to open a special manager's account for Virtual Dealer. To do so, one has to set the necessary symbols in groups to be processed by Virtual Dealer to the manual processing mode. Then one has to enable the "Fast confirmation on IE with deviation specified" parameter for them.

Important: The "Fast confirmation on IE with deviation specified" mode must be obligatorily enabled for symbols that will be processed by Virtual Dealer. Otherwise, the requests will not be processed by the plugin after requoting and result in losing them.

The next step is creation of the Virtual Dealer's account in the managers group. It can be 888, for example.

Login	Name	Group	City	Email	Balance	Status
888	VirtualDealer	manager			0.00	

After that, one has to add the Virtual Dealer's account (without authorizing it with any rights) to the managers list.

Login	Name	Mailbox	Groups	Rights
1	**First Admin**		,*,	admin, manager, accountant, dealer, con...
3	**Dealer**	anton	,*,	admin, manager, accountant, dealer, con...
888	VirtualDealer			

Working with the Plugin

In order to enable the plugin, it is enough to specify delay that does not equal to zero, from 1 to 5. Then Virtual Dealer will start processing the incoming requests. To disable it correctly, one has set the delay for zero.

Important: All changes in the plugin settings take effect immediately and do not demand restarting of the server.

The actions of Virtual Dealer can be found in the server log using the search by "VirtualDealer" or by its account number (for example, '888').

How to Order the Plugin

The plugin is an extension of the server functionality, so it is delivered at extra cost. For purchasing, please contact
gaies@metaquotes.net