

**CURRENEXOEM
LIQUIDITY BRIDGE
QUICK
INSTALLATION
GUIDE**

June 14th, 2016

V4.4.0

Version 5

Overview

This guide briefly describes the process for installing the Liquidity Bridge for version 4.4.0.

System Requirements

For optimal performance the Bridge should be installed on a server on the same network switch as the Platform and/or Bank connections to minimize latency.

- CPU: Quad Core Intel Xeon or better, (4+ multi-core highly preferred)
- RAM: 4GB+
- HDD RAID+5 Setup
- 250GB Min HDD space, with separate backup drive (Backup same as above)
- Network Bandwidth 1GB+ (enterprise brokers) 100MB (large brokers), 10MB (smaller brokers)
- Microsoft Windows 2008
- PostgreSQL Server 9.4.X
- Microsoft Visual Studio 2010 Redistributable Libraries
- IIS Express

Bridge Requirements

- Visual Studio 2010 Redistributable Libraries: <http://www.microsoft.com/en-us/download/details.aspx?id=40784>
- PostgreSQL: <http://www.postgresql.org/download/>
 - The PostgreSQL Server should be configured with all default parameters. If non-default parameters are used, contact Currenex Support to ensure proper functionality.
 - PostgreSQL should be configured with either the default database (postgres) or an alternative database to be used by the Bridge (postgresXXX).

Installation

The customer will be provided the Liquidity Bridge installer, which should be run from the machine that is to host the Liquidity Bridge.

A Diagnostic Monitor installer will also be provided to the customer. The Diagnostic Monitor must be placed in the same directory as the Liquidity Bridge installer prior to installation.

Name ^	Date modified	Type
 CurrenexOEMBridgeSetup	5/1/2015 3:06 PM	Application
 DiagnosticsMonitorSetup	5/1/2015 3:03 PM	Application

The Install Wizard will not be able to proceed with the bridge installation unless the Diagnostics Monitor is located same directory as the Liquidity Bridge installer.

The installer will deposit executable files for Bridge Settings, the Bridge Mechanism and Liquidity Connection. Folders will be created for Bridge resources (images, settings files, fix dictionaries, etc.), and for logging. The default directory structure for an install will look as follows:

X:\Program Files (x86)\Currenex\Bridge\

X:\Program Files (x86)\Currenex\Bridge\Logs\..

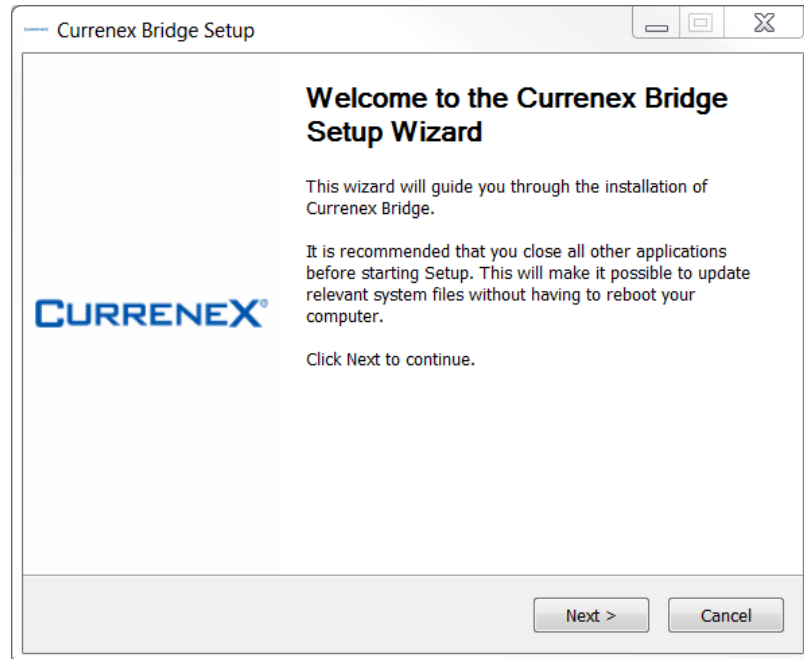
X:\Program Files (x86)\Currenex\Bridge\Base\Resources\...

X:\Program Files (x86)\Currenex\Bridge\base\MakerModules\...

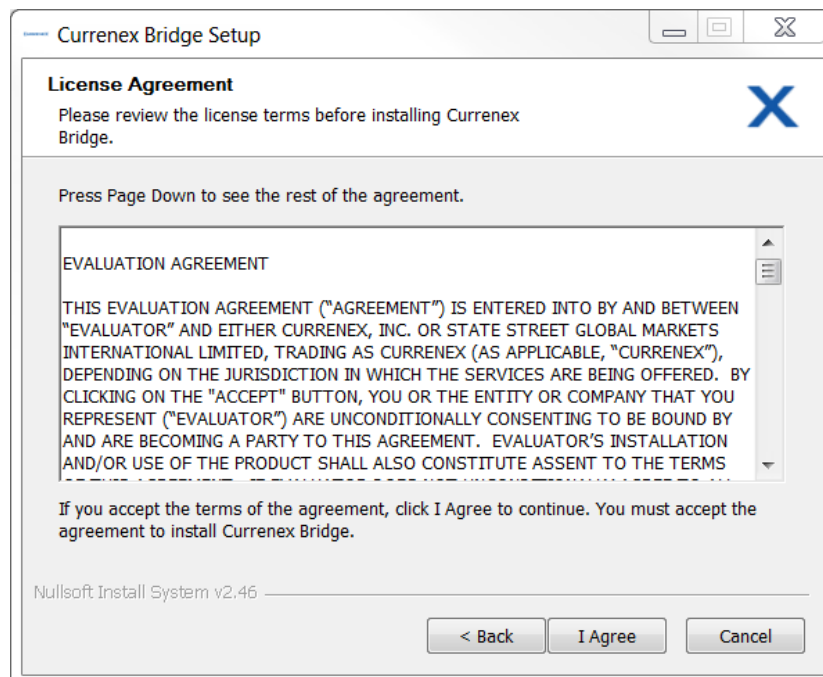
X:\Program Files (x86)\Currenex\Bridge\base\TakerModules\...

Installation Steps

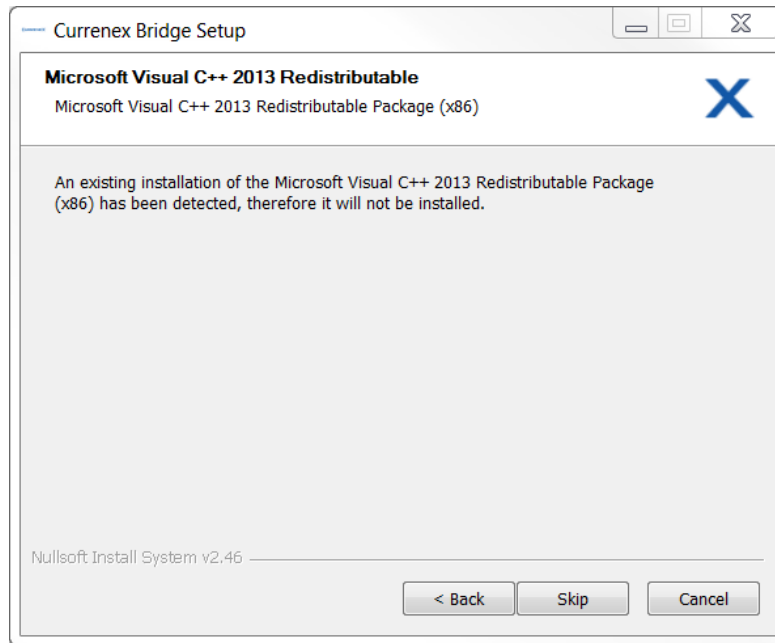
1.) Run installer, click next



2.) Accept the License Agreement

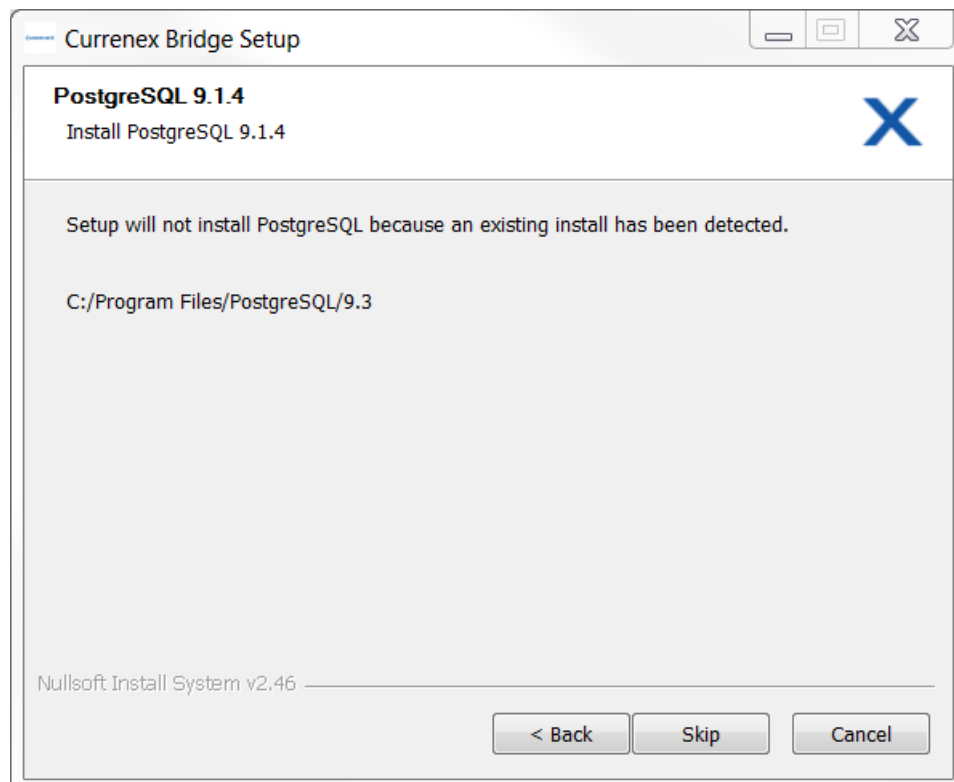


3.) Setup will detect MS Visual C++ 2013 Redistributable

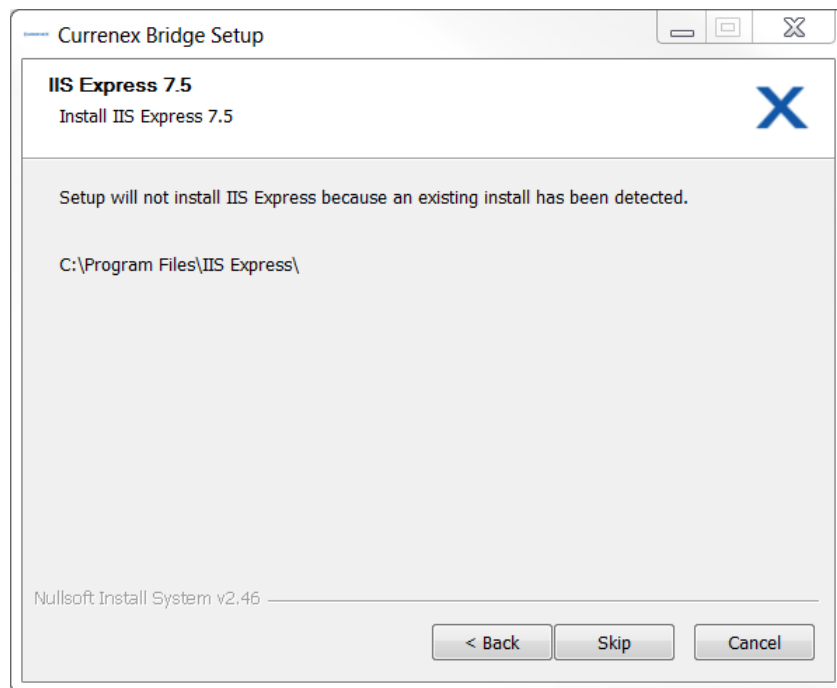


4.) Setup will detect PostgreSQL DB, and if not detected, will install the latest version

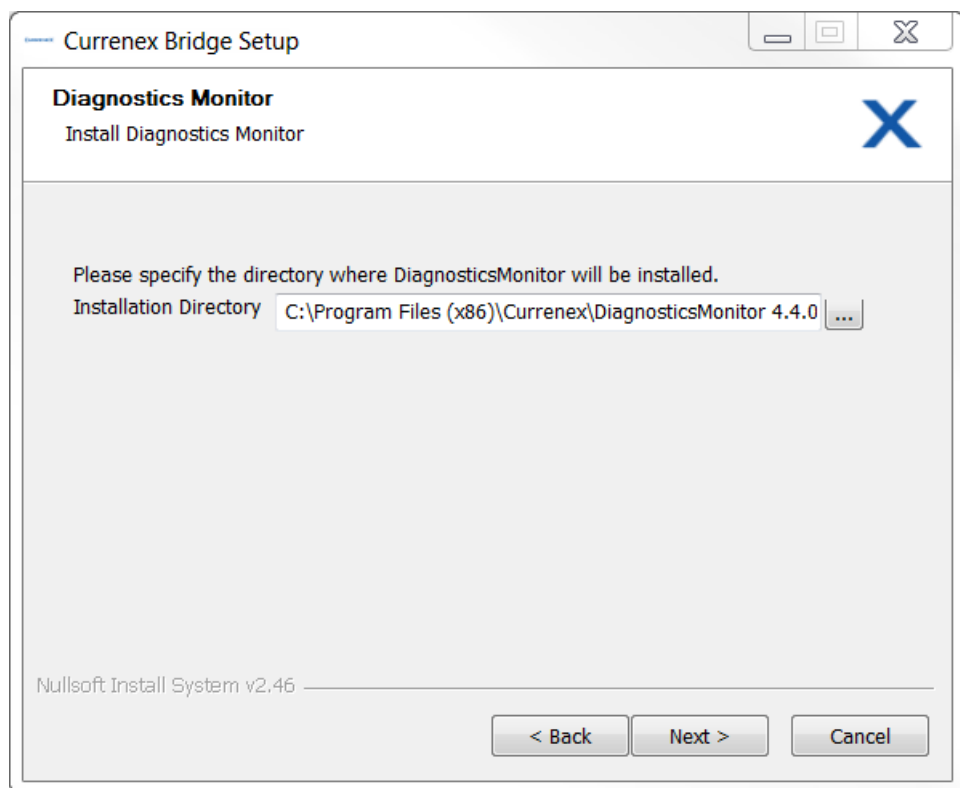
a. (we recommend installing version 9.3 manually from the website)



5.) **Setup will install detect IISExpress** on your system, and install if necessary

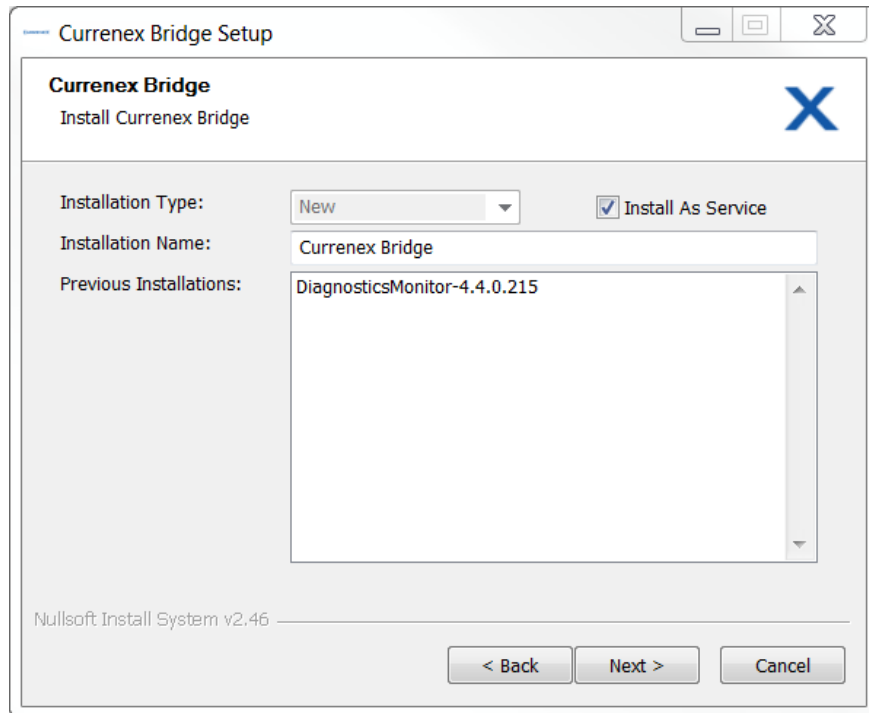


6.) **Select the path to install the Diagnostics Monitor**



7.) Service Installation:

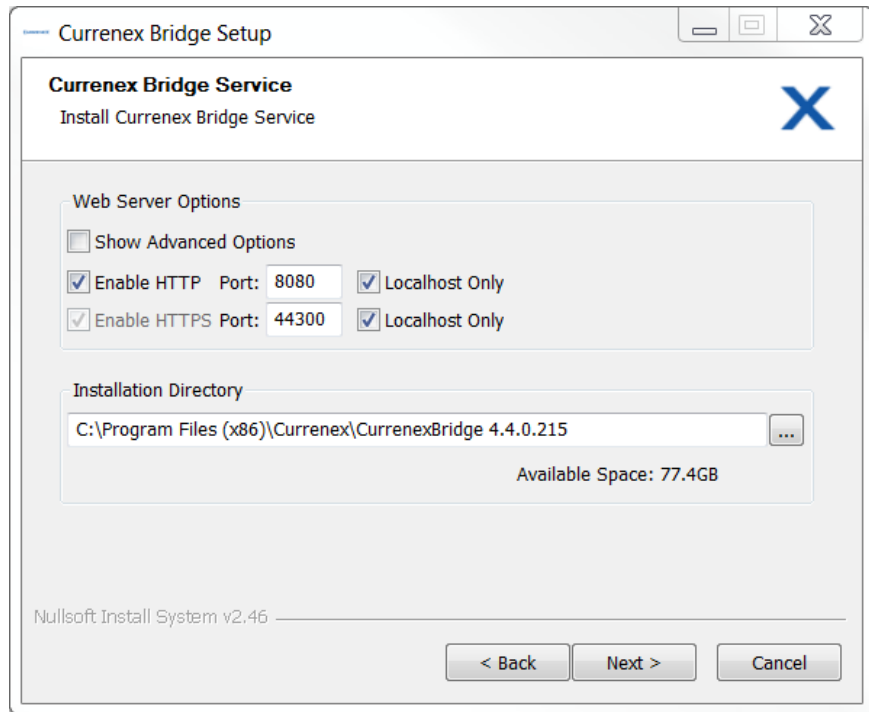
- a. **Installation Name:** Name of the Windows Service to be installed. Please name this something relevant to your bridge / bank providers (eg. [Bridge - MyBank](#))
- b. **If installing for the first time, leave “Install as Service” Checked!**
- c. **Leave “Use Default Service Account” Checked!**



The version number will automatically be added to the service name.
There is no need to add it to the installation name.

8.) Web Server Options Page:

- a. **Admin Password:** Enter a password for “admin” user that will be used to login to the bridge interface
- b. **Port configuration:**
 - i. **Ports:** We recommend you leave these default, unless there are other services on your machine that are using port 8080 and port 44300.
 - ii. **Localhost Only:** Uncheck this option to allow users from anywhere to connect to the bridge web GUI.
 - iii. **Installation Directory:** Specify bridge files install location.



The screenshot shows the 'Currenex Bridge Setup' window. The title bar reads 'Currenex Bridge Setup'. The main window has a header 'Currenex Bridge Service' with a sub-header 'Install Currenex Bridge Service' and a blue 'X' icon. The 'Web Server Options' section contains a 'Show Advanced Options' checkbox (unchecked). Below it are two rows: 'Enable HTTP Port: 8080' and 'Enable HTTPS Port: 44300'. Each row has a 'Localhost Only' checkbox (checked). The 'Installation Directory' section shows a text box with the path 'C:\Program Files (x86)\Currenex\CurrenexBridge 4.4.0.215' and a browse button (...). Below the text box, it says 'Available Space: 77.4GB'. At the bottom, it says 'Nullsoft Install System v2.46'. There are three buttons: '< Back', 'Next >', and 'Cancel'.

Currenex Bridge Setup

Currenex Bridge Service
Install Currenex Bridge Service

Web Server Options

☐ Show Advanced Options

☒ Enable HTTP Port: 8080 ☒ Localhost Only

☒ Enable HTTPS Port: 44300 ☒ Localhost Only

Installation Directory

C:\Program Files (x86)\Currenex\CurrenexBridge 4.4.0.215

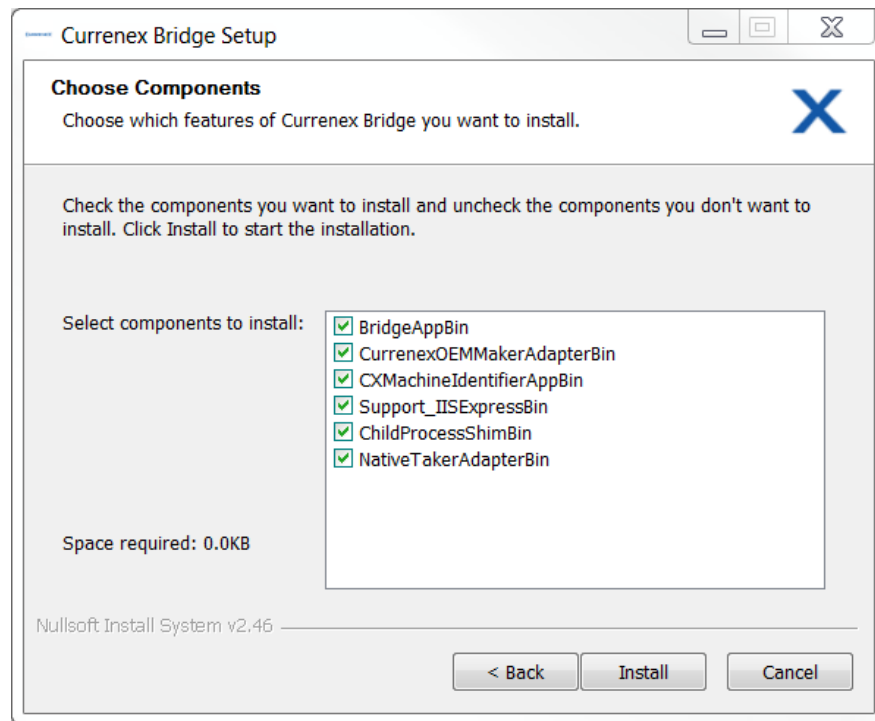
Available Space: 77.4GB

Nullsoft Install System v2.46

< Back Next > Cancel

9.) Component Selection Page

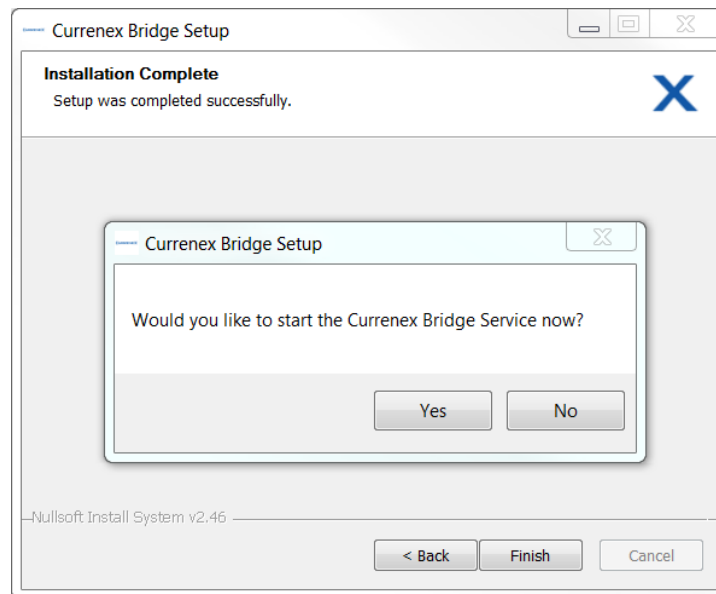
a. Select Components to install:



b. Click **Install**, the bridge files / service should install with configured options.

10.) Installation Complete

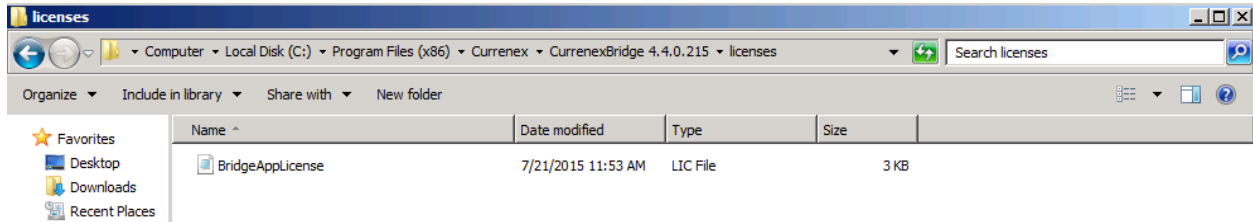
a. **Start Service?** Click **NO**.



Licensing your Bridge

If you already have bridge .lic files generated by Currenex, copy them to:

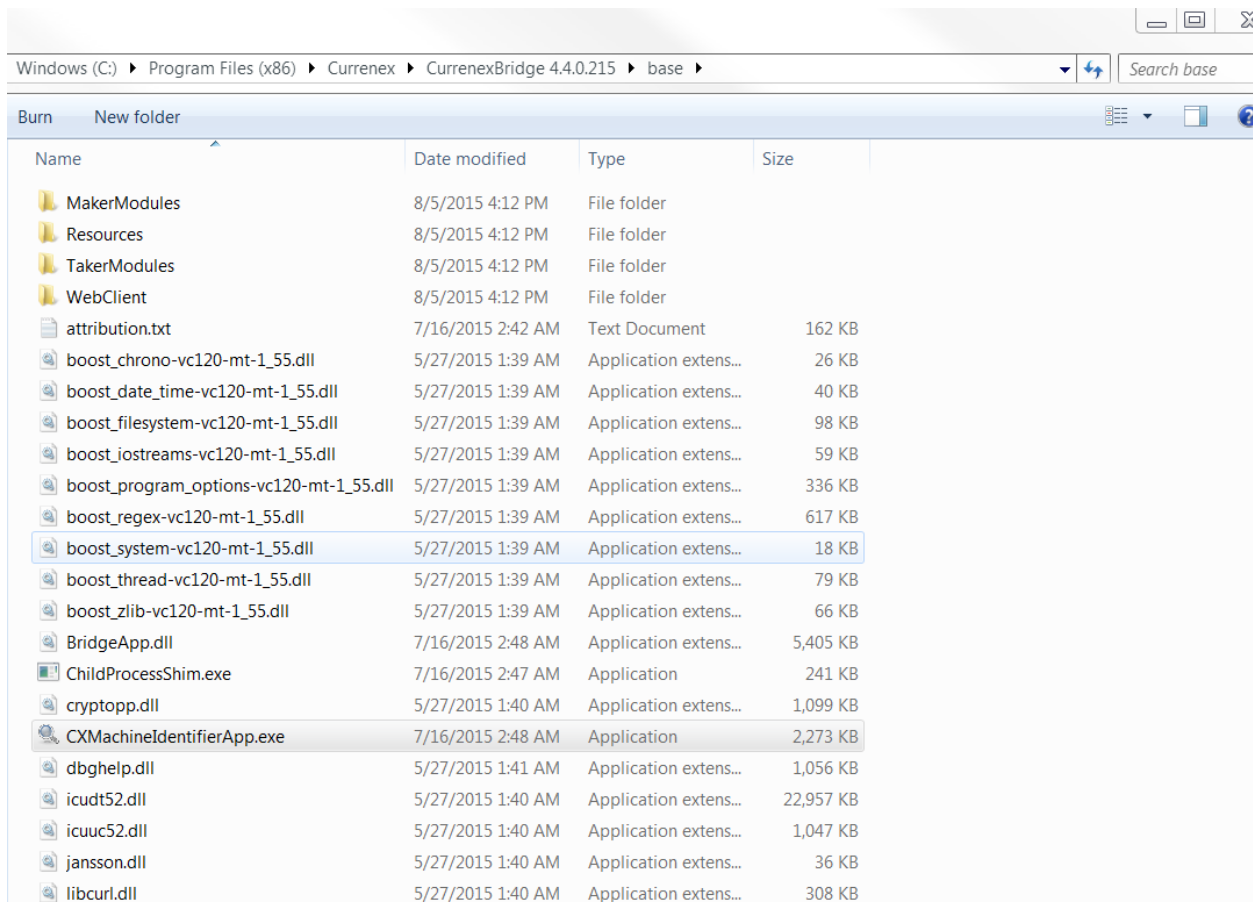
X:\<InstallPath>\Bridge\licenses



Clients upgrading from version 3.1.5 to 4.4.0 will need new licensing. Only one license file will be needed to operate the bridge. Please contact your Currenex representative to obtain updated licensing.

If you do not have licenses, please run the CXMachineIdentifierApp located at

X:\<InstallPath>\CurrenexBridge\base\CXMachineIdentifierApp.exe



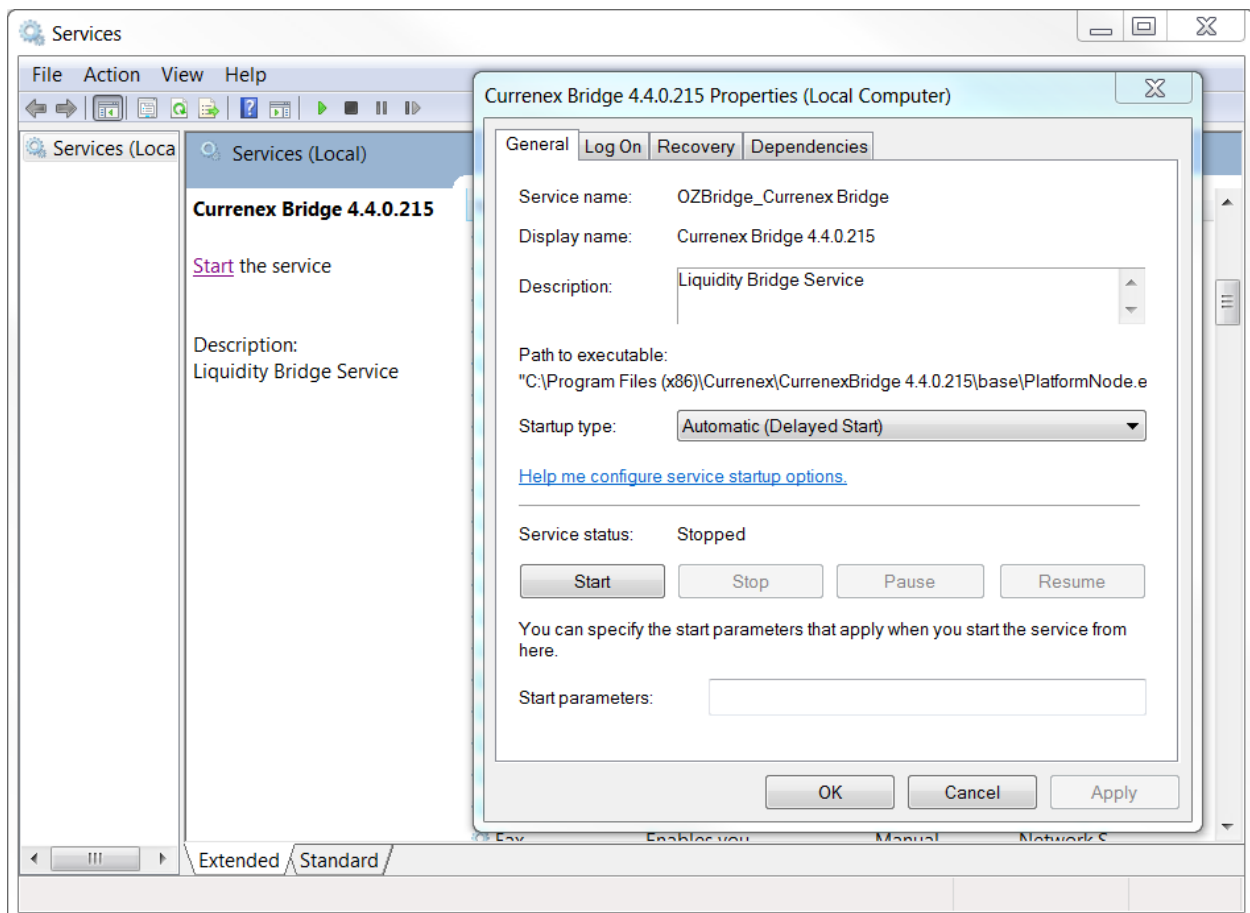
And copy/paste the machine identifier key into an email to <mailto:support@currenex.com> to request proper license files (Please contact <mailto:support@currenex.com?subject=Licensing> for more information on licensing)



Starting / Stopping Bridge (setting bridge service options)

The easiest way to manage bridge startup/shutdown/restart, is to use the **Windows Service Console**.

This can be accessed through Control Panel -> Administrative Tools -> Services.



First Time Configuration

Web Interface Overview

The web interface allows the broker to configure:

- Incoming ports for MT4 Taker connections, and credentials for FIX Taker connections.
- Database connection setting parameters.
- Alert/notification parameters, including SMTP Server settings.
- Symbols, quote precision, spreading rules and price channels.
- Maker credentials and Maker settings

The web interface also offers the broker several heads up displays that will be outlined in the following pages.

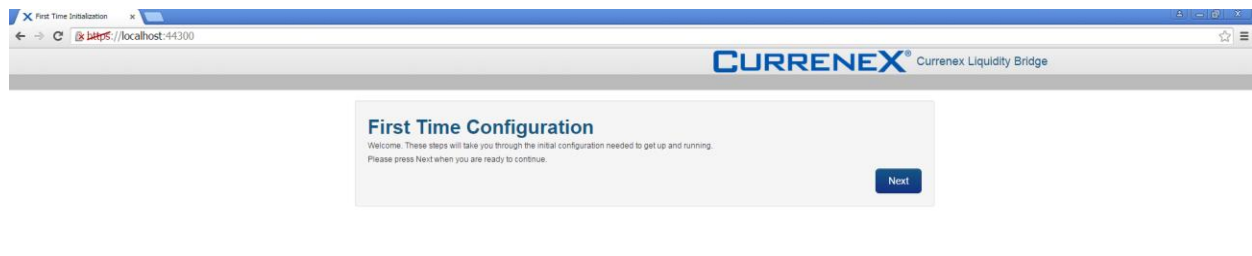
Web Interface First Run

First start your bridge from the previously mentioned Windows Service Console.

Then access the web interface at <http://localhost:8080>

The Bridge First Time Configuration must be run from a browser on local machine where the bridge is installed.

The First Time Configuration screen should appear and guide you through a brief setup wizard.



Configuring the Bridge Database

The next screen in the setup process is the Database Configuration screen. Enter the host, port, user ID, password and database name information requested in the form and select "Next".

PostgreSQL Server should be configured with all default parameters. If non-default parameters are used, contact Currenex Support to ensure proper functionality.

The screenshot shows a web browser window with the address bar displaying "https://localhost:44300". The page title is "CURRENEX Currenex Liquidity Bridge". The main content area is titled "Credentials Database Configuration". Below the title, there is a note: "We need to setup a connection to your database so we can store user credentials. Please enter the appropriate values below." and another note: "Note: This database configuration is only for the user credentials database. After the initial configuration is complete you can set your bridge database configuration on the settings page." The form contains five input fields: Host (localhost), Port (5432), User Id (postgres), Password (xxxxxxxx), and Database (postgres). A "Next" button is located at the bottom right of the form.

Please check the database configuration settings under Settings->BridgeApp as the password and database name may need to be updated again.

Configuring Bridge E-mail Notifications

The e-mail configuration page allows the client to specify the e-mail client that sends such notifications as risk alerts, disconnection notifications, etc. Typically, the default settings for this page are as follows:

Host: SMTP e-mail server socket

Port: SMTP email server port

Username: SMTP e-mail server user name

Password: SMTP e-mail server password

From Email Address: support@currenex.com (by default), the address appearing in the e-mail "from" field

The screenshot shows a web browser window with the address bar displaying "https://localhost:44300". The page title is "CURRENEX Currenex Liquidity Bridge". The main content area is titled "Email Configuration". Below the title, there is a note: "We need to setup a connection to your SMTP server so we can send email when necessary. Please enter the appropriate values below." and another note: "Note: This email configuration is only for emailing user password reset links. After the initial configuration is complete you can set your bridge email configuration on the settings page." The form contains five input fields: Host (localhost), Port (25), Username (username), Password (xxxxxxxx), and From Email Address (support@currenex.com). A "Next" button is located at the bottom right of the form.

Configuring Licensing

Every application requires a license to operate. Licenses have a 1 to 1 relationship with applications (1 license per application). If you have not received licenses, select the Generate Machine ID license and mail a copy of the machine ID to support@currenex.com.



The screenshot shows a web browser window with the address bar displaying "https://localhost:44300". The page header features the "CURRENEX" logo and the text "Currenex Liquidity Bridge". The main content area is titled "License Configuration" and includes a sub-header "You can now upload or modify product licenses. If you do not currently have the licenses available you can perform this step later from the Admin page. If you have not yet requested a license please select 'Generate Machine ID' below and send the result to your support representative." Below this, there is a table with the following rows:

License Name	
BridgeAppLicense	x
CurrenexOEMMakerAdapterLicense	x
Upload License Generate Machine Id	

A "Next" button is located at the bottom right of the table.

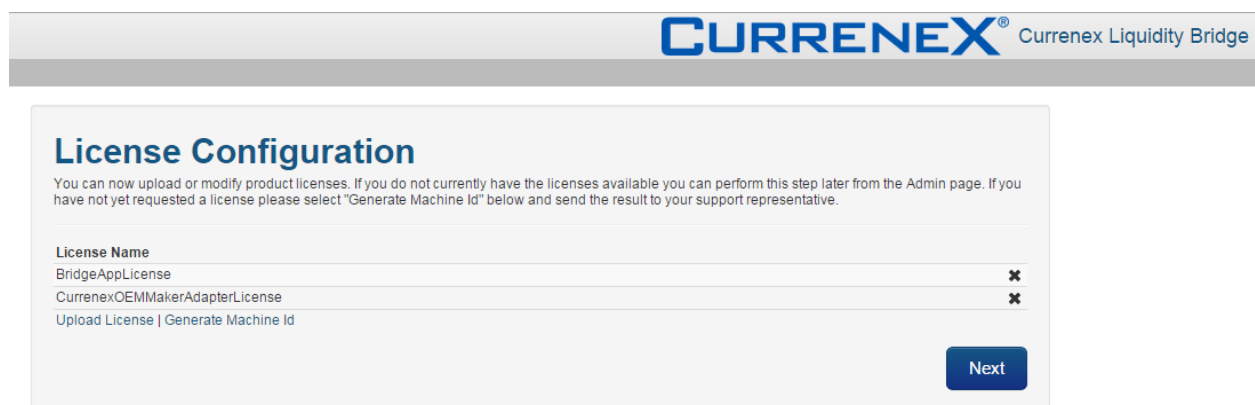
After receiving your licenses from Currenex support, place them on your server desktop and select the Upload License option, which allows you to browse through your files and select the necessary licenses.

Upload License

Please select your license file.

No file chosen

The initial license configuration, when all licenses have been selected, should resemble the following:



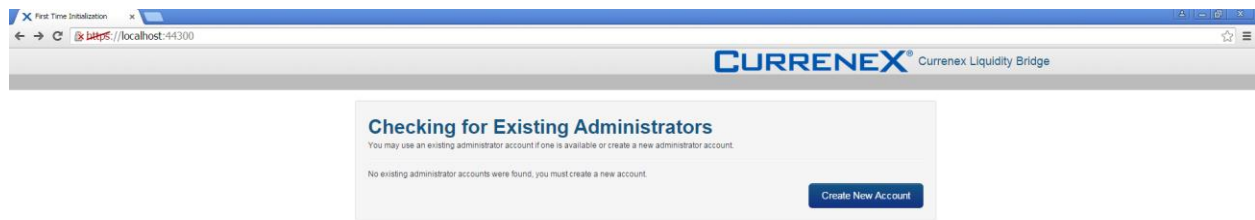
The screenshot shows the "License Configuration" page with the "CURRENEX" logo and "Currenex Liquidity Bridge" text. The sub-header is the same as in the previous screenshot. The table now shows all three licenses selected with an 'x' in the second column:

License Name	
BridgeAppLicense	x
CurrenexOEMMakerAdapterLicense	x
Upload License Generate Machine Id	

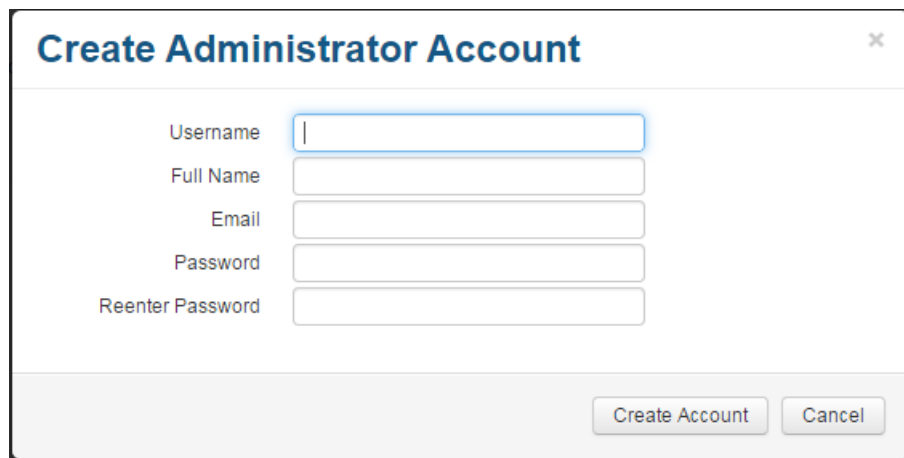
A "Next" button is located at the bottom right of the table.

Creating a Bridge Administrator

The Bridge Administrator screen allows you to create an administrator login to access the bridge.



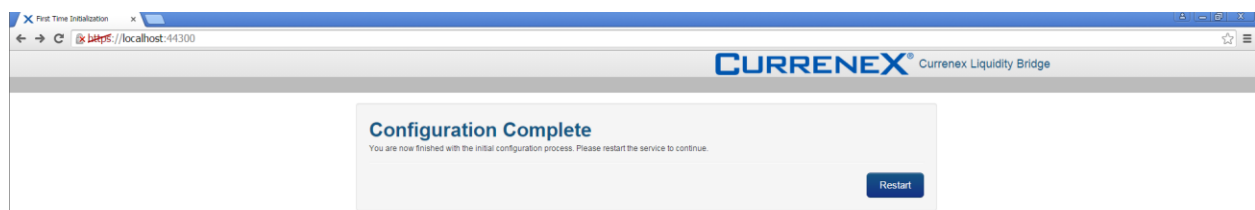
The bridge will first search for an existing administrator (for example, if another bridge has already been created on your server), if none exists, you will be prompted to create your own. Enter the requested information, choose and record a password, then select Create Account.

A screenshot of a 'Create Administrator Account' dialog box. The dialog box has a title bar with the text 'Create Administrator Account' and a close button (X). The main area contains five input fields: 'Username', 'Full Name', 'Email', 'Password', and 'Reenter Password'. The 'Username' field is currently selected. At the bottom right of the dialog box, there are two buttons: 'Create Account' and 'Cancel'.

Using *admin* for the first time user ID is recommended.

Completing the Configuration

After the configuration is complete, if there are no issues, a confirmation screen will appear, notifying the user that the setup has been complete. Select Restart to access the bridge for the first time.



Settings Interface

The Settings interface has many usability features that will be explained here. For the sake of complexity, we will use the “Symbol Settings” page, since it encompasses many of the editing concepts that are present across all settings pages.

Selecting the Settings Pages

Click the settings menu shown below, and then click the requested page.

Settings - Currenex Liquidity Bridge

https://localhost:44300/Settings

Status Exposure Risk Management Settings Admin

CURRENEX Currenex Liquidity Bridge

Connected Last Update: Wednesday, December 23, 2015 1:46:26 PM

Welcome admin Logout

Bridge

Cancel Save Save and Apply Dynamic Settings

Bridge

Common Settings

Credit Limits

CurrenexOEMMakerAdapter

NativeTakerAdapter

Symbol Settings

Warehouse

DBHost 127.0.0.1

DBPort 5432

Name postgres

BUser postgres

DBPassword password

Market Order Time Out 00:03:00.000000

Order Time Out 00:03:00.000000

DBExposure Update Time 00:00:10.000000

Maker Response Cancel Time Out 00:00:10.000000

Delay After Shutdown Starts Before Cancelling All Outstanding Orders 00:03:20.000000

Send Notification On Cancel Failure ☐

Enable Auto Roll Positions ☒

Warn About Inconsistent Settlement Dates ☒

Suppress Inconsistent Settlement Date Warnings For These Core Symbols

Enable Taker Latent Quote Dropping ☒

Enable Maker Latent Quote Dropping ☒

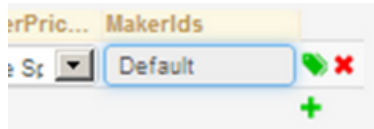
Write Full Quote Book To DB ☒

Release v4.4.0.215

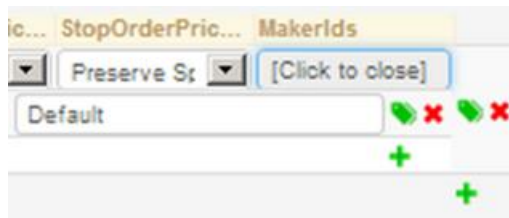
Control Legend

-  Add a setting or Row
-  Duplicate a setting or Row
-  Remove a setting or Row (Double-Click to remove)

Adding Rows to an Array (grey boxes with blue highlights)



By clicking on the box, you will expand the array of values, and add/remove lines from it.



Click back on the blue highlighted box to collapse the array view.

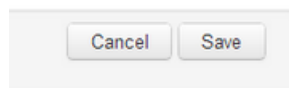
Moving Rows

Clicking and holding on the  icon at the beginning of a row will allow you to drag and drop the row to a new position in the hierarchy.

Saving Settings

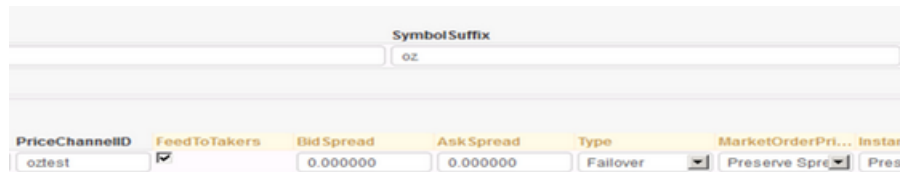
Cancel – This button will discard any unsaved settings and reload the page.

Save – This will save any configured settings, and backup the previous settings. (Note: a bridge restart is required to apply any new saved settings since last restart).



Save and Apply Dynamic Settings

Not all settings changes will require a restart. Dynamic settings can be saved and updated live on the bridge without the need of a restart. These settings are highlighted in gold and the changes can be applied by selecting the “Save and Apply Dynamic Settings” option next to the “Save” option in the top-right corner of the screen.

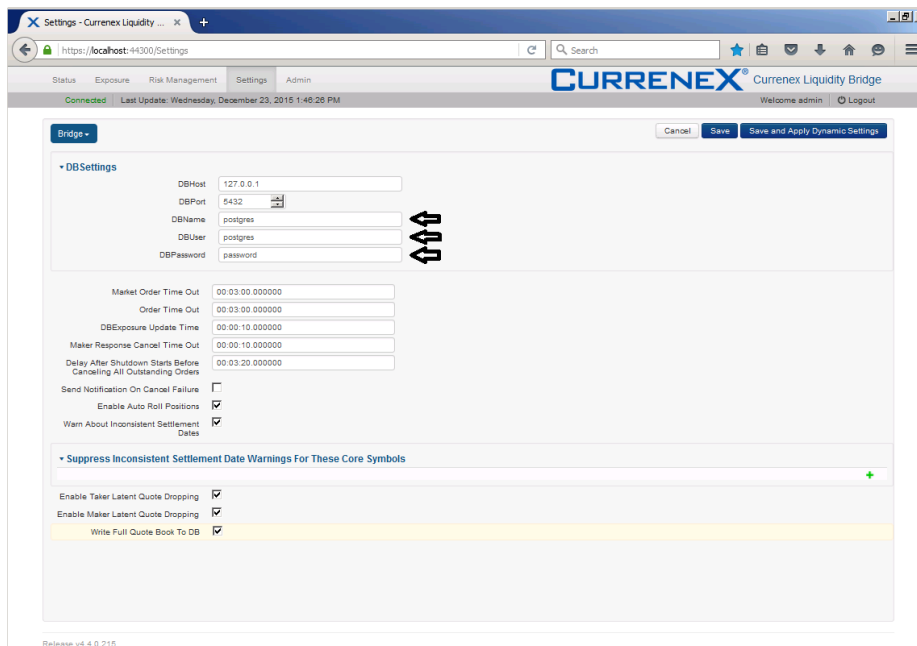


The screenshot shows a settings form for the Currenex Liquidity Bridge. At the top, there is a 'SymbolSuffix' field with the value '02'. Below it, a table lists various settings. The columns are 'PriceChannelID', 'FeedToTakers', 'BidSpread', 'AskSpread', 'Type', 'MarketOrderPri...', and 'Insta...'. The row for 'PriceChannelID' has the value 'oztest'. The row for 'FeedToTakers' has a checked checkbox. The row for 'BidSpread' has the value '0.000000'. The row for 'AskSpread' has the value '0.000000'. The row for 'Type' has the value 'Failover'. The row for 'MarketOrderPri...' has the value 'Preserve Spre...'. The row for 'Insta...' has the value 'Pres...'. The 'FeedToTakers', 'BidSpread', 'AskSpread', and 'Type' fields are highlighted in gold, indicating they are dynamic settings.

In this example, Feed To Takers, BidSpread, AskSpread and Type are all examples of dynamic settings while SymbolSuffix and PriceChannelID are not.

Configuring your Bridge Database

First, you will need to configure your database for the bridge to start up properly.



The screenshot shows the 'Settings - Currenex Liquidity Bridge' interface. The 'DBSettings' section is expanded, showing fields for 'DBHost' (127.0.0.1), 'DBPort' (5432), 'DBName' (postgres), 'DBUser' (postgres), and 'DBPassword' (password). There are three arrows pointing to the 'DBName', 'DBUser', and 'DBPassword' fields. Below this, there are several time-out settings: 'Market Order Time Out' (00:03:00.000000), 'Order Time Out' (00:03:00.000000), 'DBExposure Update Time' (00:00:10.000000), 'Maker Response Cancel Time Out' (00:00:10.000000), and 'Delay After Shutdown Starts Before Canceling All Outstanding Orders' (00:03:20.000000). There are also checkboxes for 'Send Notification On Cancel Failure' (unchecked), 'Enable Auto Roll Positions' (checked), and 'Warn About Inconsistent Settlement Dates' (checked). A section titled 'Suppress Inconsistent Settlement Date Warnings For These Core Symbols' is expanded, showing a list of symbols with a green plus icon. Below this, there are three checkboxes: 'Enable Taker Latent Quote Dropping' (checked), 'Enable Maker Latent Quote Dropping' (checked), and 'Write Full Quote Book To DB' (checked). The bottom of the page shows the release version 'Release v4.4.0.215'.

Bridge Status Interface

StatusExposureRisk ManagementSettingsAdmin (1)

CURRENEX®Currenex Liquidity Bridge

ConnectedLast Update: Monday, August 10, 2015 6:02:36 PMWelcome demoLogout (5)

▼Status (2)

BridgeApp

DatabaseConnected
New Trades5

CurrenexOEMMakerAdapter

Currenex
QuotesConnected [integration-fx.currenex.com:442]
Currenex
TradesConnected [integration-fx.currenex.com:443]

NativeTakerAdapter

MT4 QuotesConnected [127.0.0.1:33334]
MT4 TradesConnected [127.0.0.1:33333]

▼Log (3)

Filter

[20:00:04.563; #CurrenexOEMMakerAdapter, #Currenex Orders] Connected [integration-fx.currenex.com:443]
[20:00:04.563; #CurrenexOEMMakerAdapter, #Currenex Orders] Logging in with Provider ID: oneZero_v4.4.0.215_1000
[20:00:04.563; #CurrenexOEMMakerAdapter, #Currenex Orders] Sending FIX Login for SessionID: "FIX.4.2.int1fx300fxtrd->CNX" and MsgSeqNum: "1"
[20:00:04.563; #CurrenexOEMMakerAdapter, #Currenex Orders, #FIX] ToAdmin: 8=FIX.4.2.9=119 35=A 34=1 49=int1fx300fxtrd 52=20150809-20:00:04.563 56=CNX 58=oneZero_v4.4.0.215_1000 98=0 108=60 141=Y 554=Test1234 10=009
[20:00:04.640; #CurrenexOEMMakerAdapter, #Currenex Orders, #FIX] FromAdmin: 8=FIX.4.2.9=79 35=A 34=1 49=CNX 52=20150809-20:00:04.462 56=int1fx300fxtrd 98=0 108=60 141=Y 10=150
[20:00:04.640; #CurrenexOEMMakerAdapter, #Currenex Orders] Received FIX Login for SessionID: "FIX.4.2.int1fx300fxtrd->CNX" and MsgSeqNum: "1" while expecting SeqNum: "1"
[20:00:04.640; #BridgeApp, #BridgeAppProcessor] Trade Maker 'Currenex' Connected.
[20:00:04.640; #CurrenexOEMMakerAdapter, #Currenex Orders, #FIX] FromApp: 8=FIX.4.2.9=73 35=h 34=2 49=CNX 52=20150809-20:00:04.462 56=int1fx300fxtrd 336=0 340=2 10=128
[20:00:04.640; #CurrenexOEMMakerAdapter, #Currenex Orders] Ignored TradingSessionStatus message.
[20:00:06.275; #CurrenexOEMMakerAdapter, #Currenex Quotes] Attempting to connect to integration-fx.currenex.com:442
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes] Sending FIX Logout for SessionID: "FIX.4.2.int1fx300fxtrd->CNX" with no reason specified.
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes, #FIX] ToAdmin: 8=FIX.4.2.9=61 35=5 34=1 49=int1fx300fxtrd 52=20150809-20:00:06.289 56=CNX 10=080
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes] Connected [integration-fx.currenex.com:442]
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes] Logging in with Provider ID: oneZero_v4.4.0.215_1000
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes] Sending FIX Login for SessionID: "FIX.4.2.int1fx300fxtrd->CNX" and MsgSeqNum: "1"
[20:00:06.289; #CurrenexOEMMakerAdapter, #Currenex Quotes, #FIX] ToAdmin: 8=FIX.4.2.9=119 35=A 34=1 49=int1fx300fxtrd 52=20150809-20:00:06.289 56=CNX 58=oneZero_v4.4.0.215_1000 98=0 108=60 141=Y 554=Test1234 10=091
[20:00:06.359; #CurrenexOEMMakerAdapter, #Currenex Quotes, #FIX] FromAdmin: 8=FIX.4.2.9=79 35=A 34=1 49=CNX 52=20150809-20:00:06.181 56=int1fx300fxtrd 98=0 108=60 141=Y 10=165
[20:00:06.359; #CurrenexOEMMakerAdapter, #Currenex Quotes] Received FIX Login for SessionID: "FIX.4.2.int1fx300fxtrd->CNX" and MsgSeqNum: "1" while expecting SeqNum: "1"
[20:00:06.359; #BridgeApp, #BridgeAppProcessor] Quote Maker 'Currenex' Connected.
[20:00:06.360; #CurrenexOEMMakerAdapter, #Currenex Quotes, #FIX] FromApp: 8=FIX.4.2.9=73 35=h 34=2 49=CNX 52=20150809-20:00:06.181 56=int1fx300fxtrd 336=0 340=2 10=143
[20:00:06.360; #CurrenexOEMMakerAdapter, #Currenex Quotes] Ignored TradingSessionStatus message.
[20:00:06.360; #CurrenexOEMMakerAdapter, #MakerProcessor, #FIX] ToApp: 8=FIX.4.2.9=150 35=V 34=2 49=int1fx300fxtrd 52=20150809-20:00:06.360 56=CNX 146=1 55=EUR/USD 262=EUR/USD-OZBridgeSubscribe 263=1 264=1 265=1 266=Y 267=2 269=0 269=1 10=120
[20:00:06.360; #CurrenexOEMMakerAdapter, #MakerProcessor, #FIX] ToApp: 8=FIX.4.2.9=150 35=V 34=3 49=int1fx300fxtrd 52=20150809-20:00:06.360 56=CNX 146=1 55=XAU/USD 262=XAU/USD-OZBridgeSubscribe 263=1 264=1 265=1 266=Y 267=2 269=0 269=1 10=125
[20:00:06.360; #CurrenexOEMMakerAdapter, #MakerProcessor, #FIX] ToApp: 8=FIX.4.2.9=150 35=V 34=4 49=int1fx300fxtrd 52=20150809-20:00:06.360 56=CNX 146=1 55=USD/JPY 262=USD/JPY-OZBridgeSubscribe 263=1 264=1 265=1 266=Y 267=2 269=0 269=1 10=136

▼Taker Quotes - * - EUR/USD (4)

*EUR/USD

Taker

Bid Timestamp	Bid Maker ID	Bid Volume	Bid	Symbol	Spread	Layer	Ask	Ask Volume	Ask Maker ID	Ask Timestamp
22:04:20	Currenex	∞	1.10182	EUR/USD	(1.0)	0	1.10192	∞	Currenex	22:05:24

▼Maker Quotes - * - EUR/USD

*EUR/USD

Maker

Bid Timestamp	Bid Maker ID	Bid Volume	Bid	Symbol	Spread	Layer	Ask	Ask Volume	Ask Maker ID	Ask Timestamp
22:04:20	Currenex	∞	1.10182	EUR/USD	(1.0)	0	1.10192	∞	Currenex	22:05:24

▼Aggregated Quotes - * - EUR/USD

*EUR/USD

Aggregated

Bid Timestamp	Bid Maker ID	Bid Volume	Bid	Symbol	Spread	Layer	Ask	Ask Volume	Ask Maker ID	Ask Timestamp
22:04:20	Currenex	∞	1.10182	EUR/USD	(1.0)	0	1.10192	∞	Currenex	22:05:24
22:04:20	Currenex	∞	1.10182	EUR/USD!	(1.0)	0	1.10192	∞	Currenex	22:05:24
22:04:20	Currenex	∞	1.10182	EUR/USDa	(1.0)	0	1.10192	∞	Currenex	22:05:24
22:04:20	Currenex	∞	1.10182	EUR/USD	(1.0)	0	1.10192	∞	Currenex	22:05:24

Release v4.4.0.215

- Navigation Bar** – View connection to Web GUI status, Navigate to other sections of the Bridge GUI.
- Status** – Monitor connection status to database, makers and takers. Each maker and taker connection will show the corresponding socket and port that is connecting to the bridge.
- Log** – Displays a buffer of the bridge logs. The level of detail displayed is determined by log level in common. Logs can be paused and filtered by tag.
- Quotes** – Allows quotes to be viewed by maker, by taker or in aggregate. Can also be filtered by symbol.
- Logout** - Exit out of Bridge GUI.

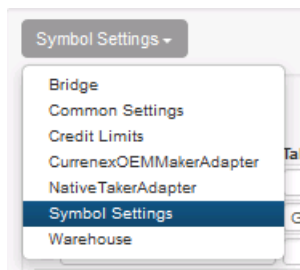
Status Pane

The Status Pane displays the overall status of every connection into the Bridge System.

Status	Description
Connected	The connection is stable and ready to accept traffic.
Server Listening...	The Server is waiting for a component to connect.
Connecting...	The Server is waiting to connect to a component.
Disconnected	The connection is currently broken, but was connected at some point.
Bind Error	The Bridge application was not able to listen on the specific port, do to an OS level restriction or lock.

Configuring Symbol Settings

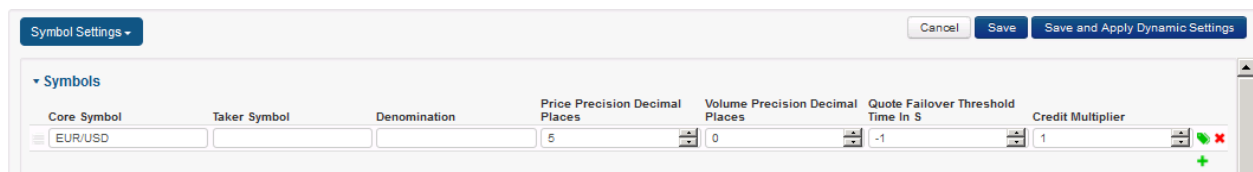
Navigate to the Symbol Settings page using menu settings:



Adding Symbols

Symbol subscriptions are added in the Symbols section.

Select the  symbol to create a new blank row, enter the symbol for the desired instrument as streamed by the liquidity provider (forex = CCY1/CCY2) and set the number of decimals:



Price Channels

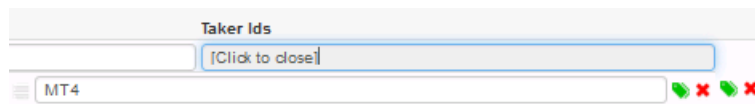
The PriceChannels section controls pricing for multiple markups on an instrument to one or more platforms. There must always be at least one main price channel.

First, select the  symbol to create a new blank row, enter the necessary information into the following fields:

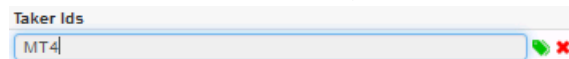
PriceChannelID: A name for the price channel

SymbolSuffix: A suffix to be added to the end of symbols in the price channel to flow to the platform, if left blank, the symbol will stream without a suffix

Taker Ids: The name of the platform (ex. *MT4*) to which the price channel will stream. To populate, click on the field and select the  symbol to create a new row:



Enter the name of the platform and click on the Platforms field to input:



Settings Rules

The SettingsRules is used to apply an instrument markup to a specific price channel and specify how pricing will be handled for specific order types.

Select the  symbol to create a new blank row and configure the following fields:

CoreSymbol: Core Symbol from *Symbols* section. Can be set to "*" to apply to all symbols.

PriceChannelID: Name of the price channel from the previous section. Can be set to "*" to apply to all symbols.

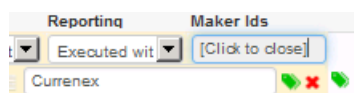
FeedToTakers: Controls if the pair will stream to the PriceChannelID's platform.

Bid/Ask Spread: Markup to be applied. See Index (*Applying Spreads*) for more details.

Type: Failover-- Feed symbols from the highest priority bank but failover to alternative LP if the primary is down.

Market/Instant/Limit/StopOrderPricing: Specifies how to handle pricing for order types. See Index (*Order Type Pricing*).

Maker Ids: Name of the liquidity provider streaming the instrument. To populate, click on the field and select the  symbol to create a new row:



Enter the name of the liquidity provider and click the Maker Ids field to input:



Installing Stunnel

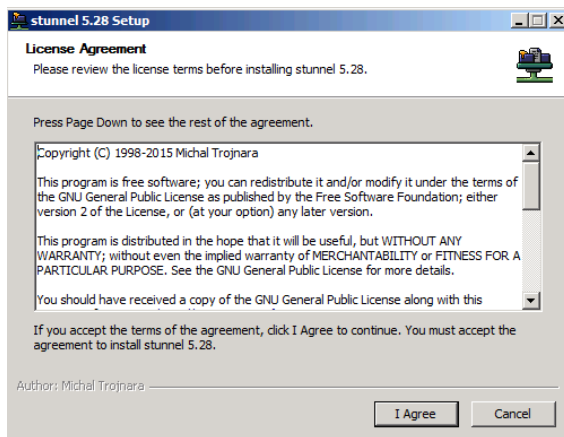
Stunnel is an open-source multi-platform computer program, used to provide a universal TLS/SSL tunneling service. *Stunnel is not always required to connect, please check with your liquidity provider whether stunnel is a required component for your connection.*

Download: <https://www.stunnel.org/downloads.html> (stunnel-4.56-installer.exe)

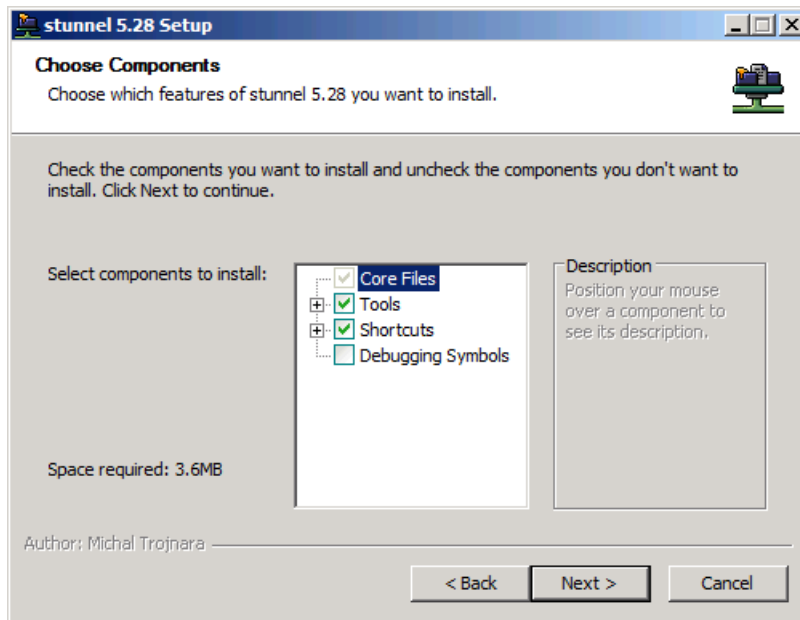
To install, double click the stunnel installer:

Name ^	Date modified	Type	Size
 stunnel-5.28-installer.exe	12/11/2015 12:11 PM	Application	3,143 KB

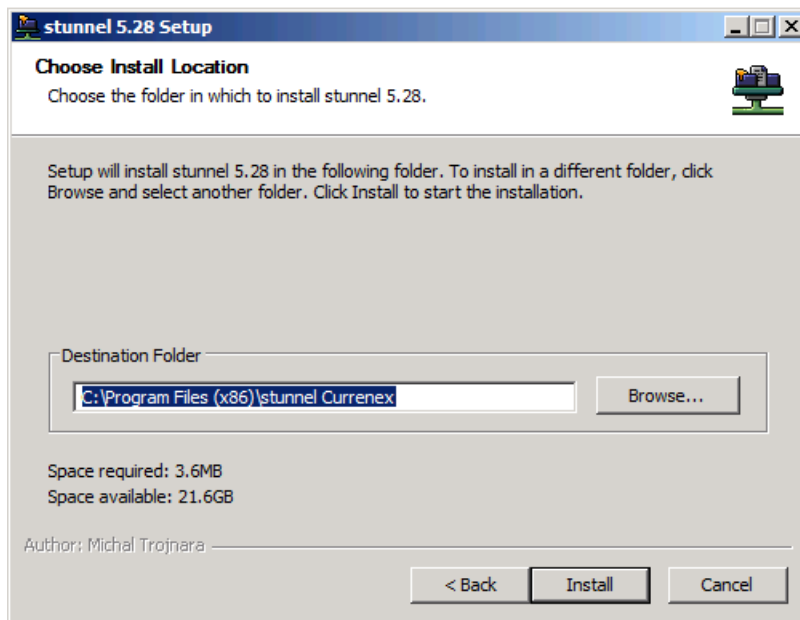
Agree to the GNU General Public License:



Select the components to be installed (all by default) and click Next:



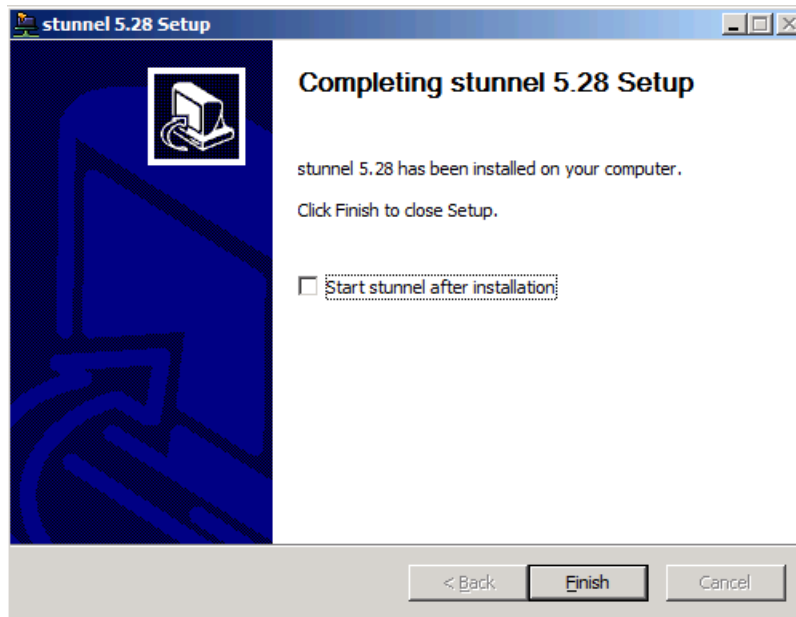
Select the installation location (C:\Program Files (x86)\stunnel by default) and select Install:



Use the default values when prompted:

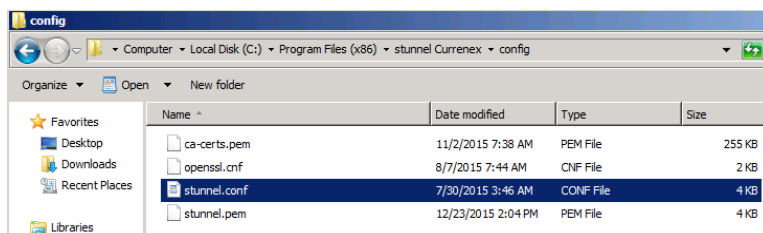
```
C:\Program Files (x86)\stunnel Currenex\bin\openssl.exe
WARNING: can't open config file: /dev/null/openssl/openssl.cnf
Generating a 2048 bit RSA private key
.....+++
.....+++
writing new private key to 'C:\Program Files (x86)\stunnel Currenex\config\stunnel.pem'
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [PL]:_
```

Select Close to complete the installation:



Configuring Stunnel

Navigate to the location Stunnel was installed and open the stunnel.conf file in a text editor:



The following is a brief description of the required fields to connect via Stunnel. Please contact your Currenex representative for connection details:

```
cert=stunnel.pem  
socket = l:TCP_NODELAY = 1  
socket = r:TCP_NODELAY=1  
client = yes
```

[CNX STR]

```
accept = (SocketConnectPort in CurrenexSettings.fix) ex: 2512  
connect = (IP:Port) ex: ip.currenex.com:442
```

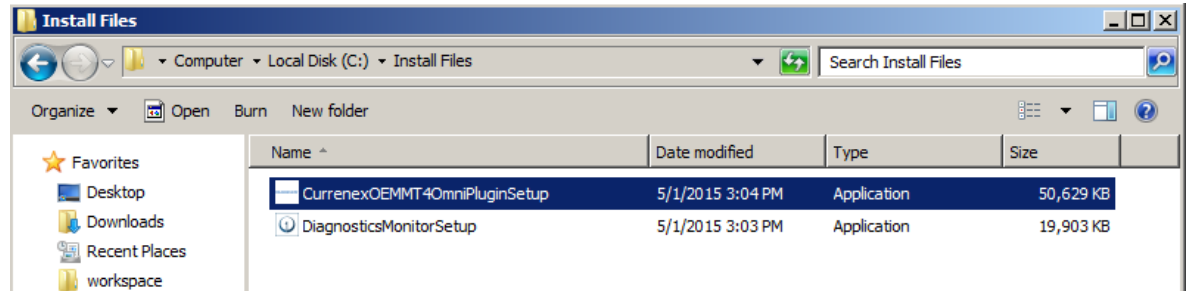
[CNX TRD]

```
accept = (SocketConnectPort in CurrenexSettings.fix) ex: 2513  
connect = (IP:Port) ex: ip.currenex.com:443
```

MT4 Omni and Final Router Plugins

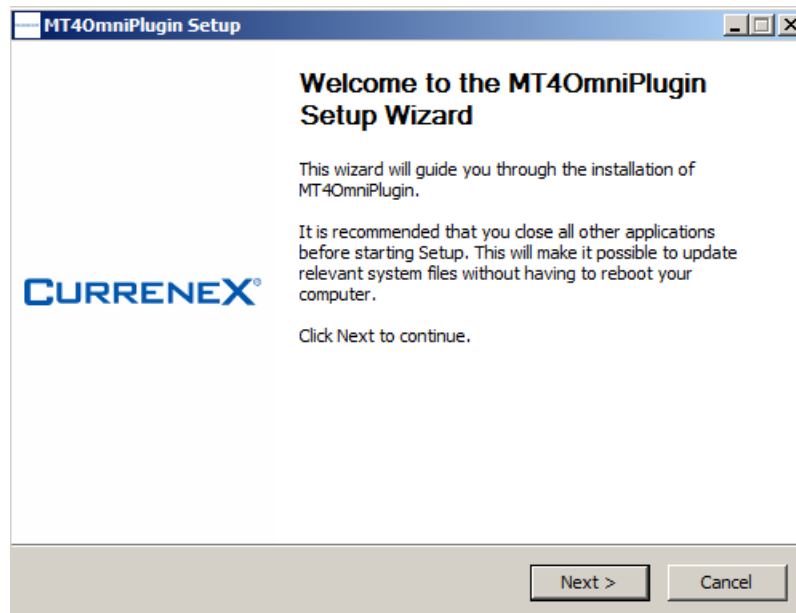
The following section describes the necessary steps to install the Currenex MT4 Omni and Final Router plugins.

1. Double click the Omni plugin installer:



The Install Wizard will not be able to proceed with the plugin installation unless the Diagnostics Monitor is located same directory as the plugin installer.

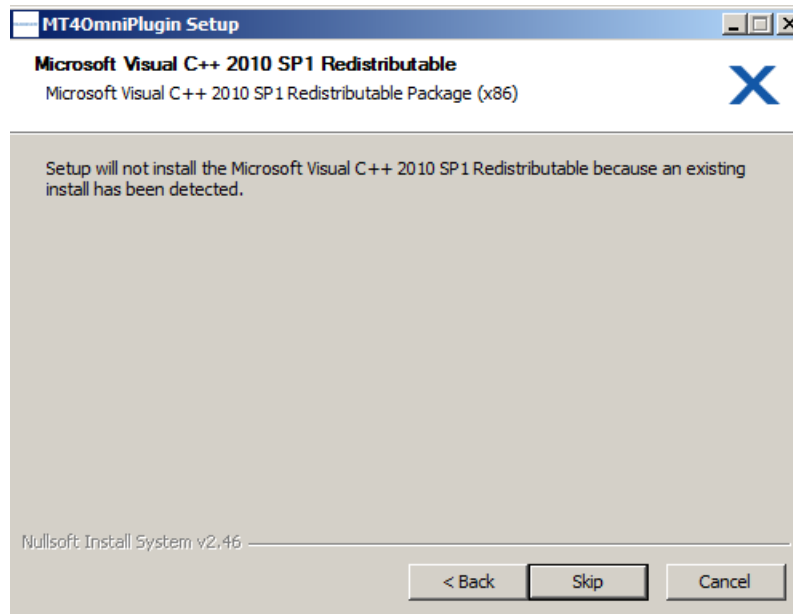
2. Click “Next” to continue:



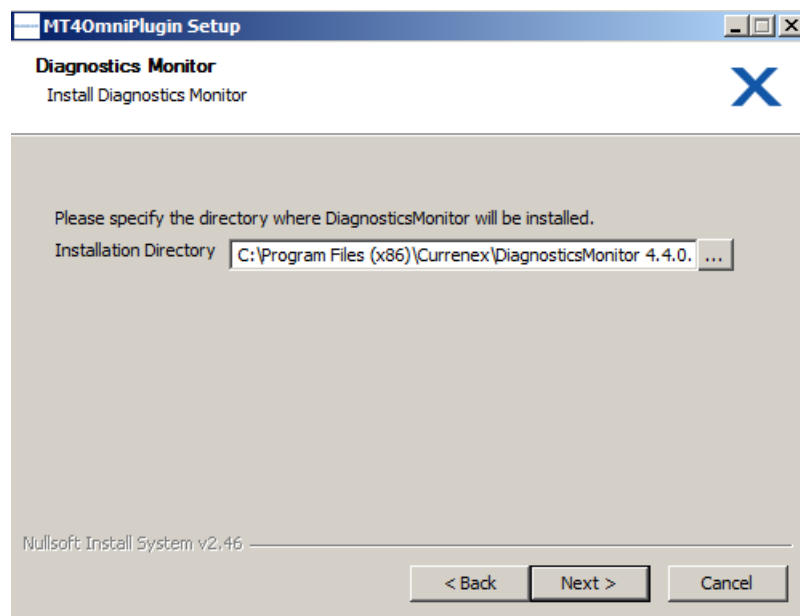
3. Agree to the User License Agreement:



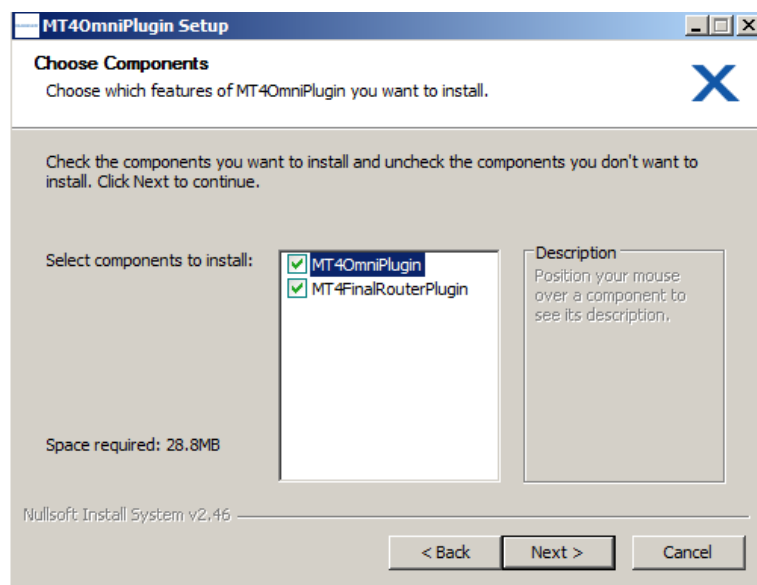
4. The installer should detect the C++ Redistributable from the bridge installation, but may need to be installed if the MT4 server runs on a separate machine:



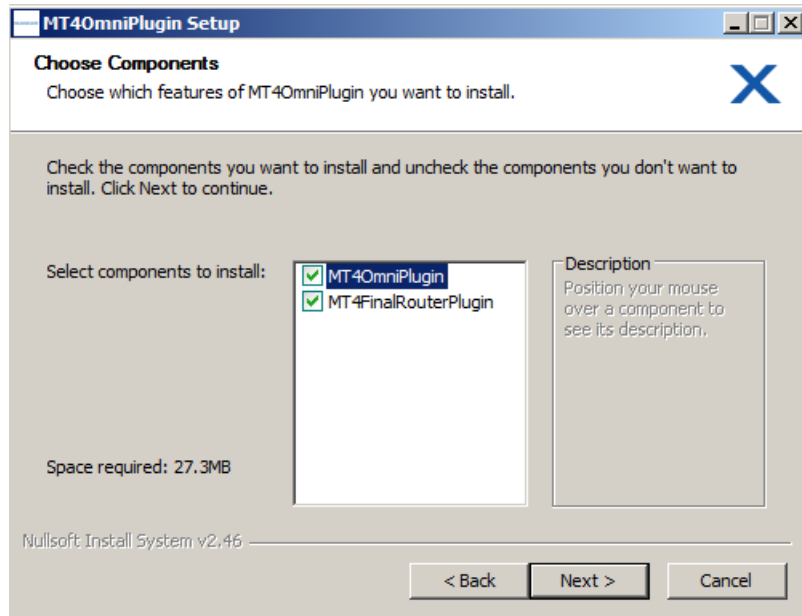
5. Select the installation directory for the Diagnostics Monitor installation:



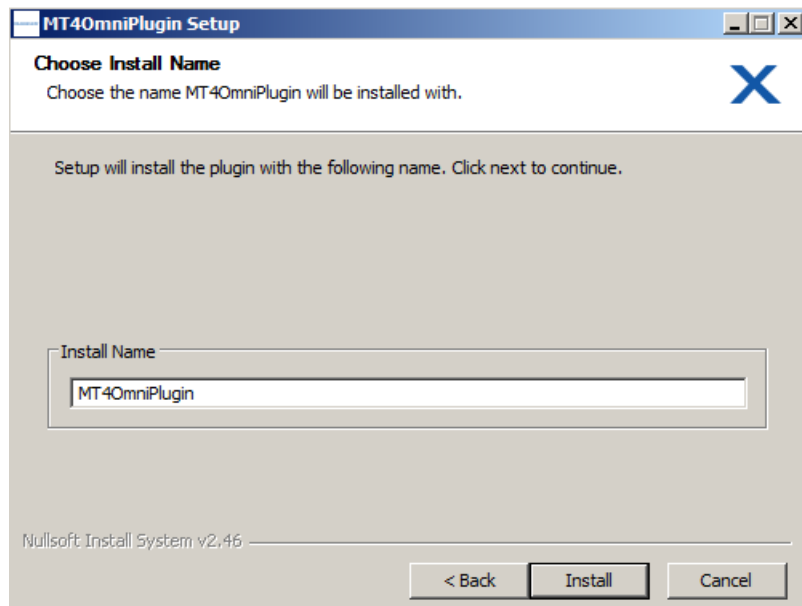
6. Select all components needed for download:



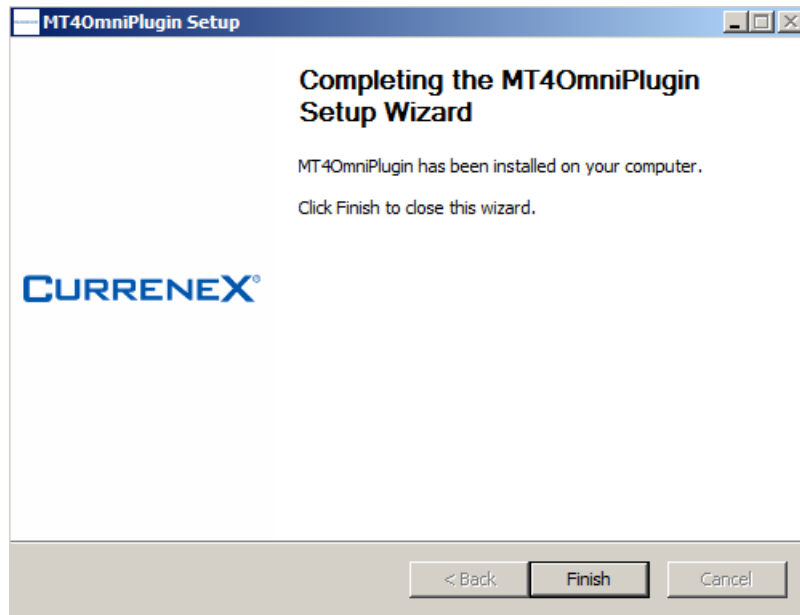
7. Select the installation location for the plugins (X:\MetaTrader Server\Plugins):



8. If using more than one Omni plugin, the name can be changed here; otherwise, select "Install" to finish:

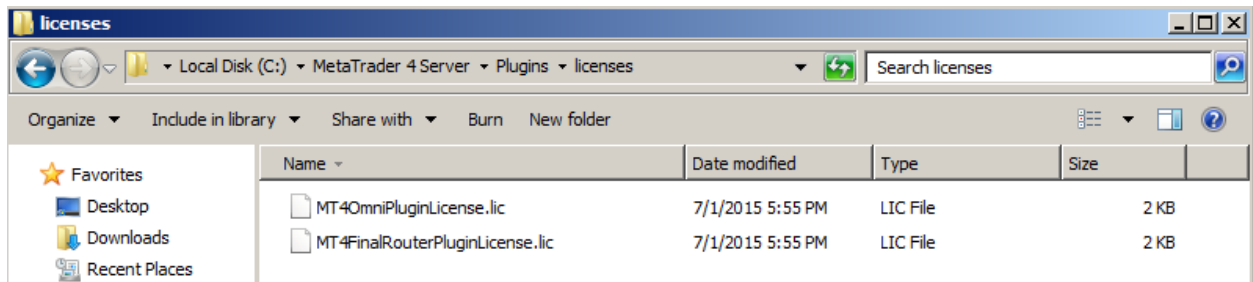


9. Click “Finish” to end the installation:

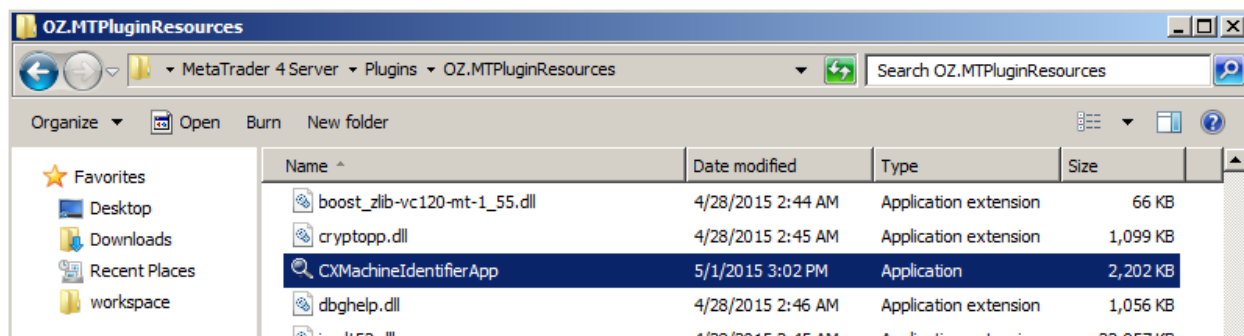


Licensing the Omni and Final Router

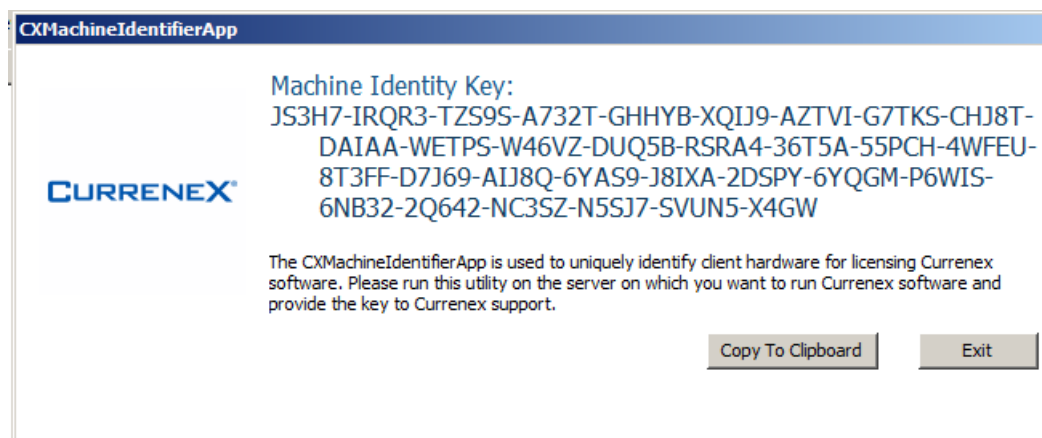
The MT4 Omni and Final Router licenses, ending in “.lic”, should be placed in the X:\MetaTrader Server\Plugins\licenses folder:



If you did not receive licensing for the MT4 Omni and Final Router plugins, and your MetaTrader Server is on a separate machine from the liquidity bridge, navigate to and double click the OZMachineIdentifierApp located in X:\MetaTrader Server\plugins\OZ.MtPluginResources folder:



Select the “Copy to Clipboard” option and email the machine key to <mailto:support@currenex.com>:



Setting up the Omni Plugin

Creating an MT4 Manager

Configuration of the MT4 Omni Plugin requires the creation of a user with manager rights.

First, navigate to the Accounts section of the MT Administrator and create a new account under the manager group (save the user name and password):

New Account

Creation of a new account. Its personal data, rights, group, master and investor passwords, and other parameters must be given in appropriate fields. Login field can be filled out with predefined value or left empty for automatic allocation by the server.

☒ Enable

Login: 10 Password: onezero12!@ Investor password: erz8ybj

Name: Bridge Manager

City: State: Country: United States

Address: Zip-code:

Phone: Email:

ID number: Status: RE Phone password:

Group: manager Comment:

Leverage: 1: 100 (forex only) Tax rate: % Agent account:

☒ Allow to change password ☐ Read only (without trading) ☒ Send reports

Next, go to the Managers section of the MT4 Administrator and create a new manager. Use the newly created account as the login and set the Role to “All manager rights”. The Groups field is a comma separated list of groups whose trades will be routed to the bridge via the Omni Plugin. To specify all groups, use “,*”; groups can also be excluded by putting a “!” before each group:

Manager: Bridge Dealer

The Manager is a privileged user having additional rights, such as administration of other users and process of trading operations.

Login: Available data for: days

Groups: Mailbox name:

☐ IP filter From: to:

Role:

Access Rights

☒ Manager (add/edit/delete accounts)	☒ Supervise trades
☒ Administrator (full access to server configuration)	☒ Accountant (deposit/credit/withdrawal money)
☒ Reports	☒ Risk manager
☒ Internal mail system	☒ Journals (direct access to server journals)
☒ Send news	☒ Market Watch (edit prices/spreads/execution types)
☒ Connections (show online clients)	☒ Personal details
☒ Configure server plugins	☒ Automatic server reports
☒ Access to technical support page	☒ Access to Applications Market

Trading Transactions

☒ Dealer ☒ Edit/Delete trades

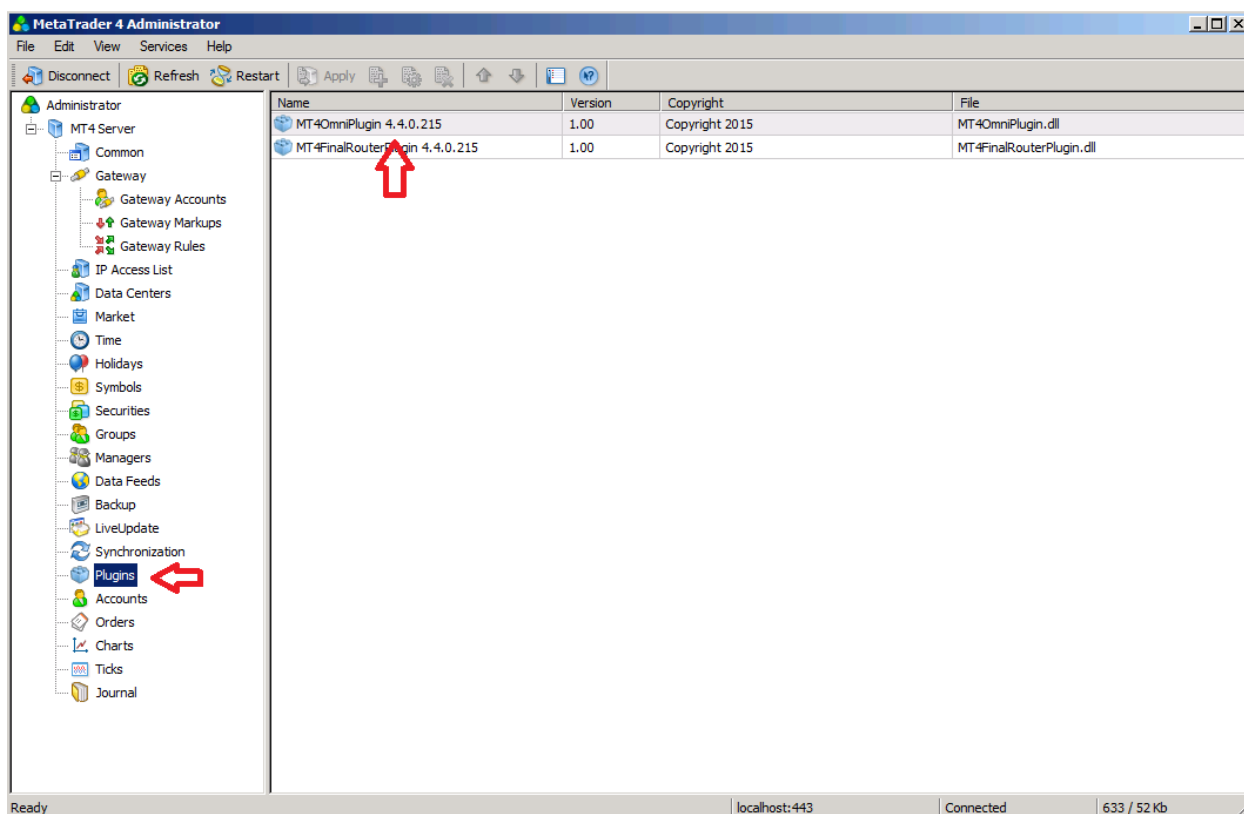
Routing table for securities:

Type	Use	Minimum Lots	Maximum Lots
Forex	Yes	0.00	100000.00
Bronze	Yes	0.00	100000.00

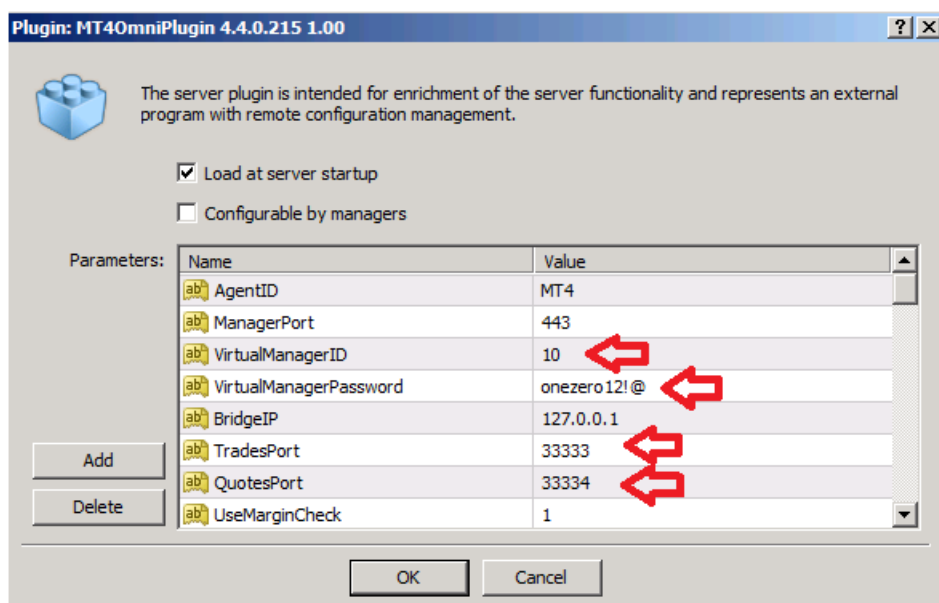
Click OK to create the manager.

Configuring the Omni Plugin

To configure the MT4 Omni plugin, double click the MT4 Omni plugin in the Plugins section on the MT4 Administrator: **Note: All settings changes will require a restart of the MT4 Server*

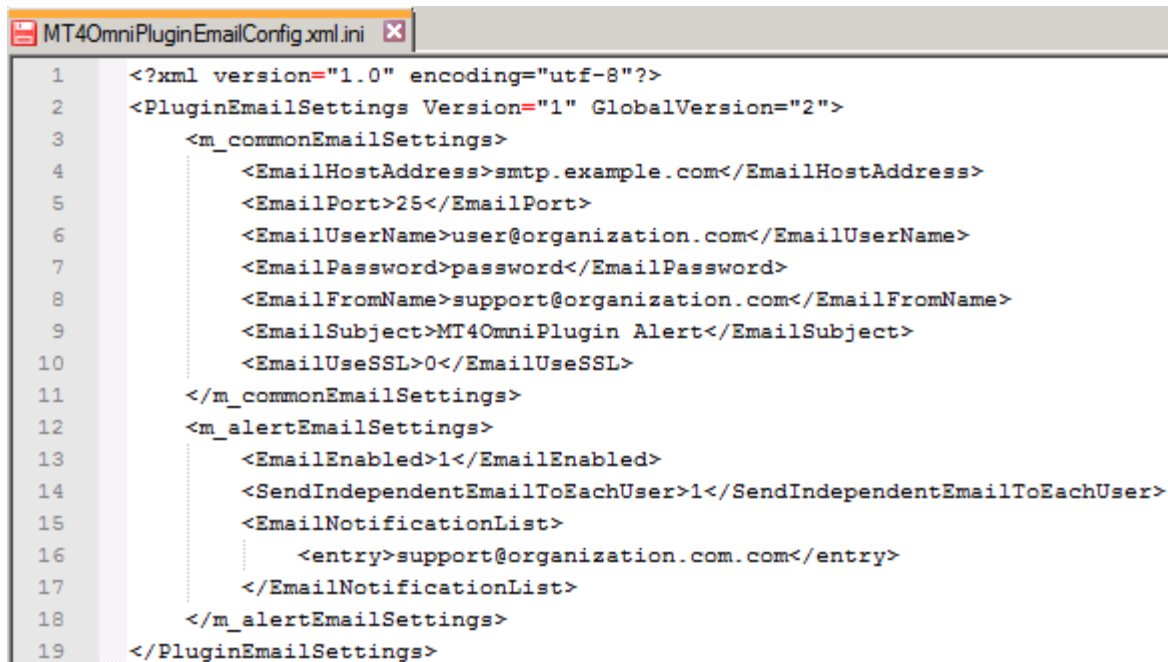


This will bring up the Omni Plugin settings window:



Configuring Omni Plugin E-mail Notifications

Omni plugin e-mail notifications can be configured in the Mt4OmniPluginEmailConfig.xml.ini file located in X:\MetaTrader 4 Server\plugins.



```
1 <?xml version="1.0" encoding="utf-8"?>
2 <PluginEmailSettings Version="1" GlobalVersion="2">
3   <m_commonEmailSettings>
4     <EmailHostAddress>smtp.example.com</EmailHostAddress>
5     <EmailPort>25</EmailPort>
6     <EmailUserName>user@organization.com</EmailUserName>
7     <EmailPassword>password</EmailPassword>
8     <EmailFromName>support@organization.com</EmailFromName>
9     <EmailSubject>MT4OmniPlugin Alert</EmailSubject>
10    <EmailUseSSL>0</EmailUseSSL>
11  </m_commonEmailSettings>
12  <m_alertEmailSettings>
13    <EmailEnabled>1</EmailEnabled>
14    <SendIndependentEmailToEachUser>1</SendIndependentEmailToEachUser>
15    <EmailNotificationList>
16      <entry>support@organization.com.com</entry>
17    </EmailNotificationList>
18  </m_alertEmailSettings>
19 </PluginEmailSettings>
```

To enable e-mail settings, change the value of the EmailEnabled tag to 1, enter the smtp connection details in the m_commonEmailSettings section including EmailHostAddress, EmailUserName and EmailUserPassword. Recipients can be included by adding <entry>email@address.com</entry> under the EmailNotificationList settings.

To exclude username and password for e-mail connections that do not require authentication, self-closing tags should be used—

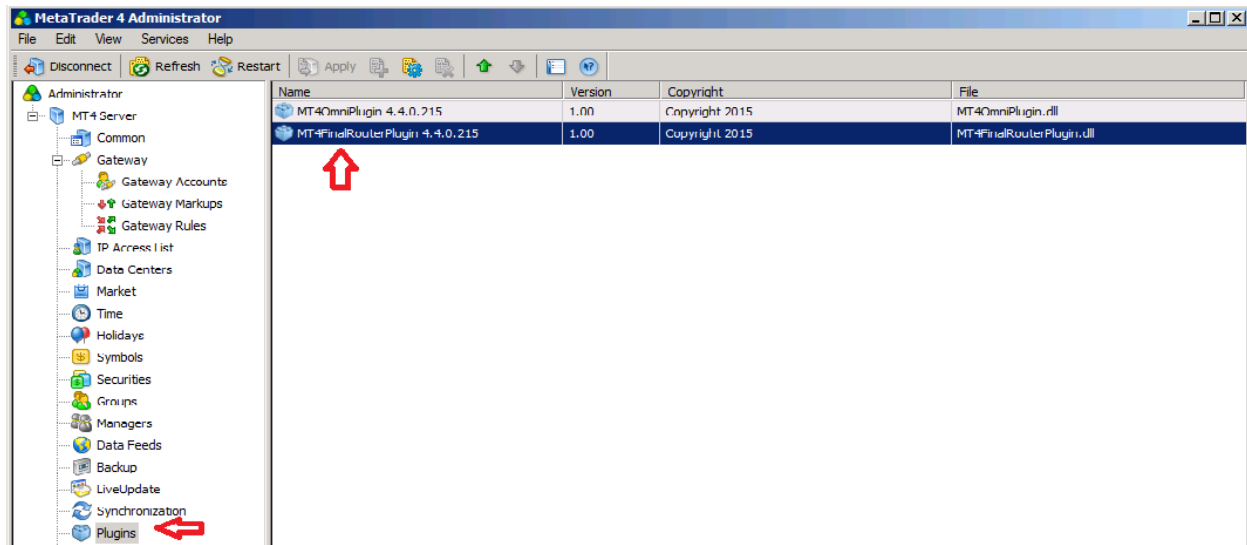
<EmailUserName/>

<EmailPassword/>

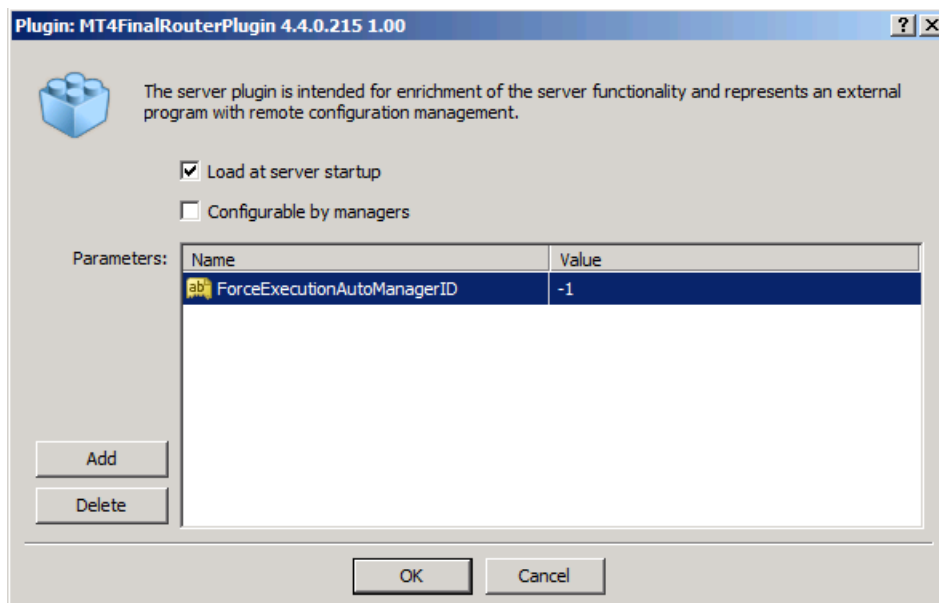
Configuring the Final Router

The Final Router plugin should always be placed last in the list of plugins. If the Virtual Dealer plugin is installed on MT4, the Final Router plugin must also be configured and should be set to deal for

all groups, except those being processed by the bridge dealer. To configure the Final Router, double click on the Final Router listing in the plugins section of the MT4 Administrator:



There is one setting for the MT4 Final Router, ForceExecutionAutoManagerID, which is set to -1 (disabled) by default, but will need to be set to the ID of the manager that will auto execute any trades that have not been routed by previous plugins.



Uninstalling the Bridge

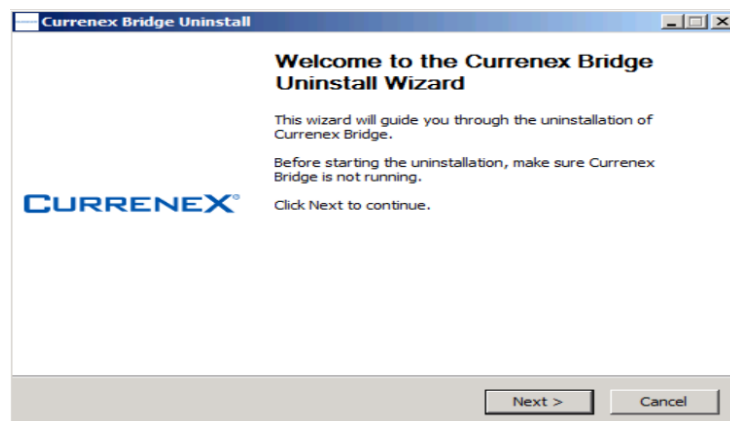
To uninstall the bridge, navigate to the Uninstallers folder in the bridge main directory.

) ▾ Program Files (x86) ▾ Currenex ▾ CurrenexBridge 4.4.0.215 ▾				
▾ Share with ▾ New folder				
Name ^	Date modified	Type	Size	
base	8/26/2015 3:21 PM	File folder		
licenses	8/26/2015 3:20 PM	File folder		
logs	8/26/2015 3:21 PM	File folder		
Uninstallers	8/26/2015 3:20 PM	File folder		
applicationhost	8/26/2015 3:21 PM	CONFIG File	46 KB	
BridgeAppSettingsConfig	7/21/2015 12:13 PM	XML Document	2 KB	
CommonAppSettingsConfig	8/4/2015 1:57 PM	XML Document	3 KB	
config.conf	8/26/2015 3:21 PM	XML Document	1 KB	
CurrenexOEMMakerAdapterConfig	7/21/2015 12:13 PM	XML Document	5 KB	
NetworkConfig	5/27/2015 1:41 AM	XML Document	3 KB	
OZFSymbolSettingsConfig	8/4/2015 2:35 PM	XML Document	2 KB	

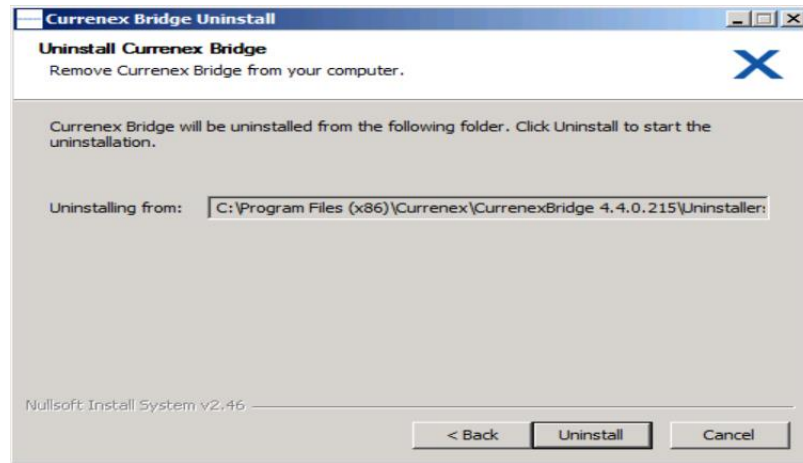
Double click the UninstallCXCurrenexBridge.exe application.

▾ Program Files (x86) ▾ Currenex ▾ CurrenexBridge 4.4.0.215 ▾ Uninstallers				
Name ^	Date modified	Type	Size	
uninstall	8/26/2015 3:21 PM	Text Document	224 KB	
UninstallCXCurrenexBridge	8/26/2015 3:20 PM	Application	131 KB	

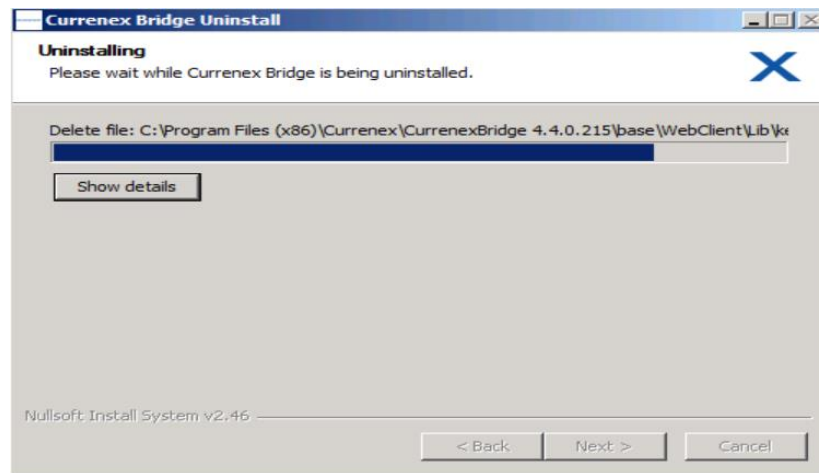
Click Next to begin the uninstallation wizard.



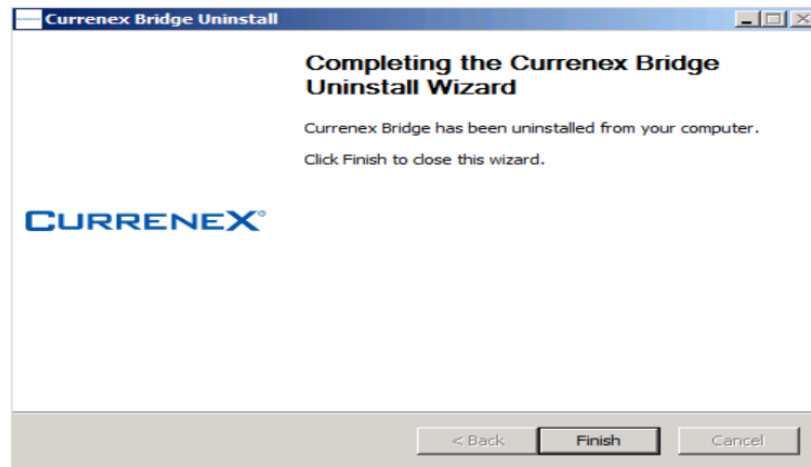
Click Uninstall to confirm the uninstallation process.



The uninstall wizard will run through the bridge removal process.

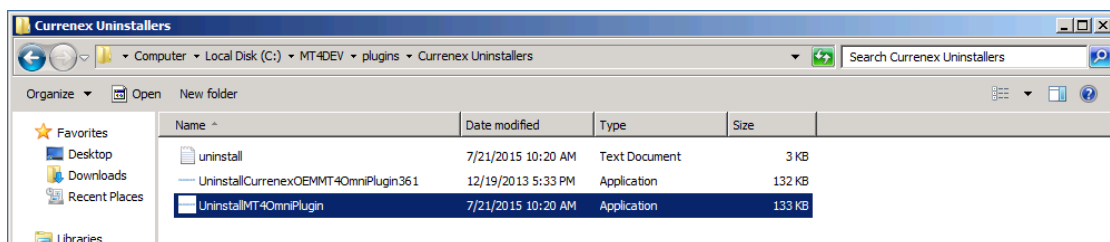


Once completed, the wizard will confirm. Select Finish to complete.



Please note that, once uninstalled, the main bridge folder will still need to be deleted from the file directory.

Uninstalling the Omni Final Router plugins requires the same procedure, uninstallers can be found in plugins/Currenex Uninstallers in the MetaTrader 4 Server directory.



Appendix

Applying Spreads

Spreads can be applied at the bridge level using the BidSpread/AskSpread fields in the SettingsRules section of the Symbol Settings page. These spreads are defined in terms of points (rather than pips) and can be applied such that -1 (bid) and +1 (ask) would result in a 2 point markup, while -10 (bid) and +10 (ask) would result in a 20 point markup, or 2 pips, and so on. *There will never be a need to enter floating numbers (decimals) into these fields.*

Order Type Pricing

As mentioned in the Price Channels section, the bridge allows you to specify how to handle specific order types (Market, Instant, Limit and Stop). There are 3 settings to choose from for each of these order types:

- **Executed with All Spreads:** Price is reported back to taker as the maker executed price at the maker with all spreads included (core, maker and taker spread). This setting was "Preserve the Spread" on previous bridge versions.
- **Executed with No Spread:** Price is reported back to taker as the maker executed price at the maker with no spreads included.
- **Executed with Maker Spread:** Price is reported back to the taker as the maker executed price with only the maker spread included.
- **Executed with Core and Maker Spread:** Price is reported back to the taker as the maker executed price with only the core and maker spreads included.
- **Requested with All Spreads:** Price is reported back to the taker as the maker requested price with all spreads included.
- **Requested with No Spread:** Price is reported back to the taker as the maker requested price with no spreads included.
- **Requested with Maker Spread:** Price is reported back to the taker as the maker requested price with only the maker spread included.
- **Requested with Core and Maker Spread:** Price is reported back to the taker as the maker requested price with only the core and maker spreads included.