



Multiple Application Platform Server

Installation Guide

Product version 6.6.4

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Introduction

These instructions describe how to install, test, and configure MAPS for use in your environment. This document is NOT intended to be a training guide. Once the software has been installed and you have verified proper functioning, we encourage you to take advantage of the various training opportunities you may have purchased, or the free live and recorded training available on our [training page](#).

You can find additional information such as the hardware/software requirements, OLE DB provider installation instructions, and other documentation on our [support website](#). If any problems arise in the installation of this software, please contact [Evisions Support](#) and we will be glad to assist.

Overview of MAPS

MAPS stands for **Multiple Application Platform Server**, and is the server that deploys Evisions' Higher Education suite of products. By creating a web-based application server, Evisions is able to deploy all of its products via the web. This common server allows a single point of administration for all Evisions Higher Education products.

Key benefits

- **Web-deployed client software** - no need to manually install applications on user's computers.
- **Central management of resources** used by the products (database configuration, users, groups, printers and various security tasks).
- **Does not require database drivers on users' PCs** - database calls are performed from the server, which sends results back to users.
- **Highly secure** - Uses AES encryption for all server to client communication. Web applications such as the launch page and Argos Web Viewer use the secure HTTPS protocol.
- **Server-side email queuing and delivery.**
- **Server-side web deployment of saved reports.**
- **Single installation for all Evisions Higher Education products** - easily install and configure your applications.

Architecture

The MAPS server software runs on a server at your institution and deploys the Higher Education applications, including Argos, FormFusion, IntelCheck, and the MAPS Config application. All applications are Microsoft Windows executable programs that are downloaded to users' PCs by MAPS. MAPS Config is used by your administrators to configure MAPS.

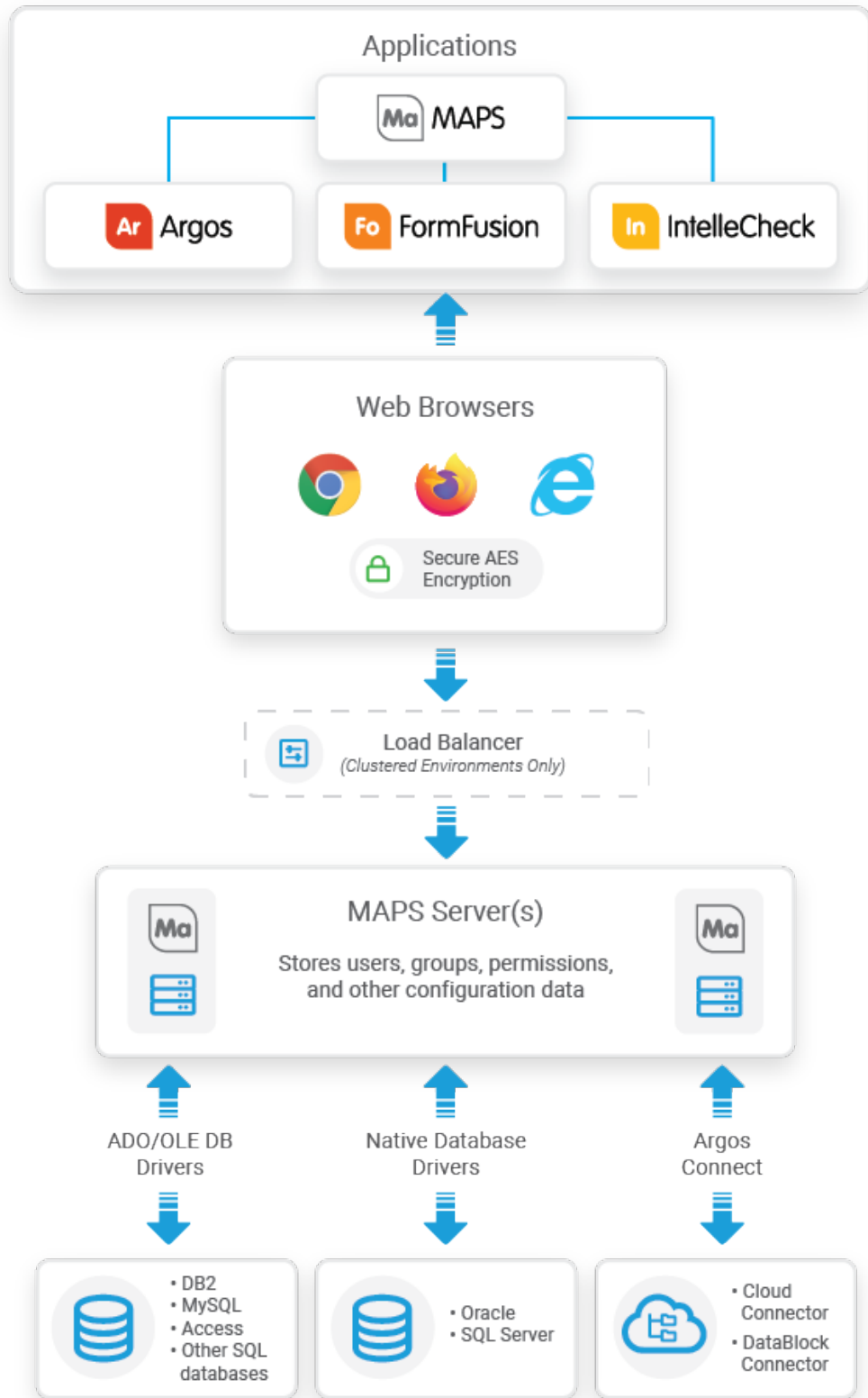
Application data such as FormFusion templates, Argos DataBlocks and reports, IntelCheck data, etc. is stored on the server where MAPS is installed. The server also stores MAPS configuration data—your users, groups, permissions, and other information.

Printing, email handling, and FTP access is done from the server, and not from the individual applications. MAPS also handles communication with SQL-based data sources by using the OLE DB providers for each data source.

Load Balancer

A clustered installation of MAPS is required in order to use the load balancer.

MAPS Architecture



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Planning the Installation

While MAPS can be installed on a server that is also running other software, this is not recommended. Throughout this guide, “Application server” is defined as the server on which your enterprise application runs, and the “MAPS server” as the server on which MAPS runs.

System Requirements

Please review the [MAPS Suite Hardware and Software Requirements](#) and verify that your system meets or exceeds these specifications.

Server Security

Firewall Configuration

Evisions recommends that MAPS be installed and configured behind firewalls on a secure, private network. Clients who install MAPS in other arrangements can introduce security vulnerabilities. The preferred configuration would have MAPS sharing a secure private network with your data sources and your email and LDAP servers.

Public vs. Private Networks

Public and private networks both use TCP/IP for communications. However, a private network differs from a public network in that access to a private network is tightly controlled. Firewalls are used to ensure only selected computers (and users) may access a private network.

Evisions recommends that MAPS be installed behind appropriate firewalls. While all communication to users is protected with encryption, communication between MAPS and other servers may not be.

Required Ports

Ports 8080 and 27467 must be opened through the firewall(s) to all users to access the software via the Internet (or other unsecured, public networks). MAPS also communicates with the FormFusion mapplet through port 27468, which must be opened to use FormFusion. Since the MAPS server software and FormFusion mapplet reside on the same computer, opening the port through a firewall may not be required (but the port must be opened).

HTTP Secure (HTTPS)

MAPS supports using HTTPS with SSL security certificates to establish secure communications between the server and your users. While the Evisions application clients communicate with the server using AES encryption, the eLauncher and the Argos Web Viewer run in a web browser using the HTTP protocol. If you will be using the Argos Web Viewer, you must acquire an SSL certificate and then configure HTTPS on the server where MAPS is installed (or on the load balancer, for clustered installations) to ensure secure communication between MAPS and users running the Argos Web Viewer.

The Evisions Support Site

<http://support.evisions.com> contains a variety of valuable resources:

- **HelpDesk** to report technical issues or request assistance
- **Training** links to live and recorded online training
- **Support resources**, for documentation, release notes, and upgrade information
- **Software downloads**, including the MAPS software
- **Forum**, where clients share information about Evisions’ products

Installation Types

MAPS can be installed in two different configurations depending on your institution's needs:

- [Standalone installations](#) install MAPS on a single server with local SQLite databases created during the MAPS installation. This is a good choice for environments with a small or moderate number of users, test environments, and other situations where a high degree of redundancy is not required. If your institution uses IntelCheck or FormFusion, these products can only be used on standalone MAPS servers. Note that standalone installations do not support the use of a load balancer.
- [Clustered installations](#) use three or more MAPS servers behind a load balancer, with a separately-installed PostgreSQL database shared by all MAPS servers. Institutions that have many users or run a large number of Argos reports may choose a clustered installation to improve performance, stability, and reliability in high-demand environments. At this time, Argos is the only Evisions product that is supported in a clustered environment, so if you also use FormFusion and IntelCheck you will need a separate standalone MAPS server for these products.

Clustering is an optional feature that can be added to your MAPS license. If you are interested in this option but are not yet licensed for it, please [contact your Evisions account representative](#) for more information. Clustering is required in order to use a load balancer.

Considerations for Installing the 64-bit Version of MAPS

MAPS 6.5 contains an update for 64-bit MAPS server technology. Supporting MAPS in a 64-bit environment provides improved memory for handling a larger number of requests that are sent and processed by the service.

- 64-bit MAPS Service and Config support 64-bit database drivers and printers.
- Applications clients (Argos, FormFusion, IntelCheck) continue to be 32-bit.

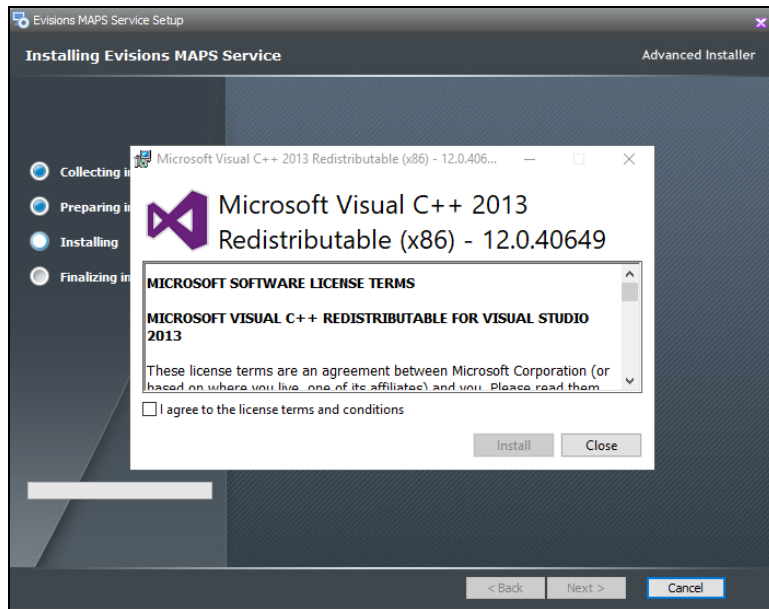
Evisions provides installation and setup files for both 32-bit and 64-bit installations.

- For new installations, Evisions recommends installing the 64-bit version.
- If you already have a 32-bit version of MAPS installed, you should install the 64-bit MAPS files on a new server, and then migrate the data from your existing MAPS server to the new one. See [Updating to 64-bit MAPS](#) for more information.
- If you already have an earlier 32-bit version of MAPS installed and do not want to migrate to a new server at this time, update your existing server to the new 32-bit version of MAPS 6.5.

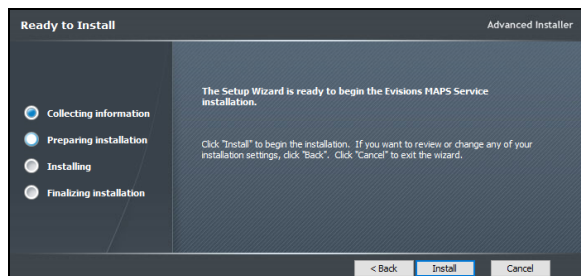
Standalone Installation

A standalone MAPS installation is the default installation type. All of the MAPS applications (Argos, FormFusion, and IntelCheck) can be installed in a standalone environment on a single MAPS server.

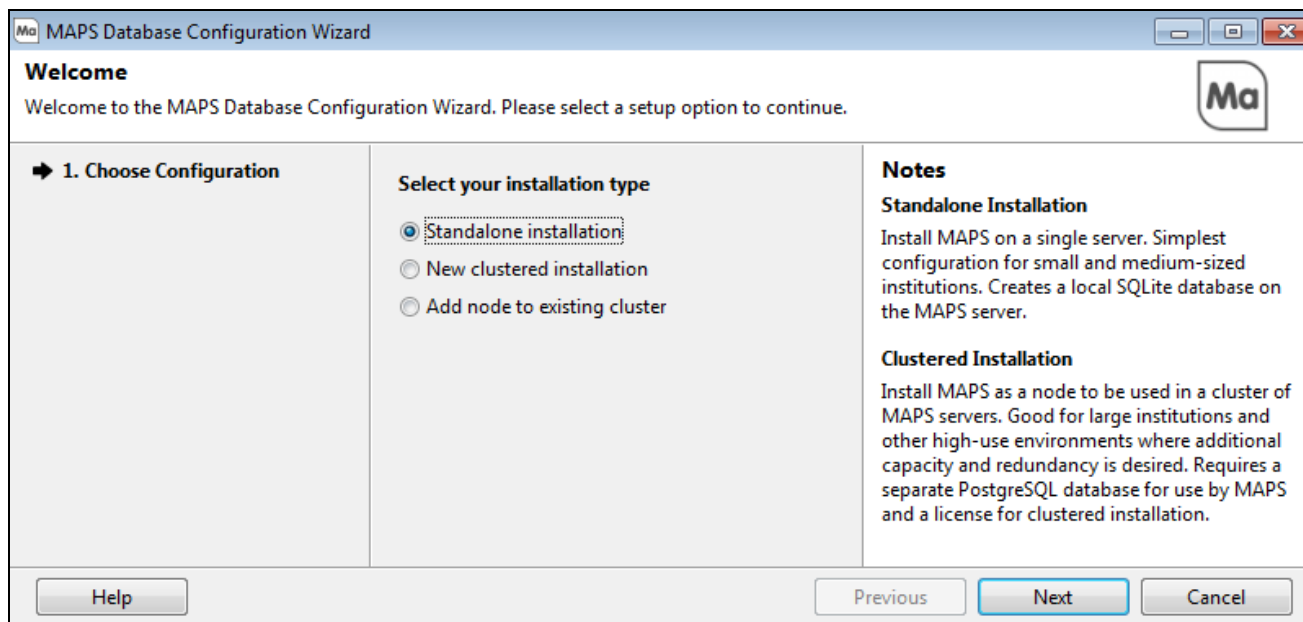
1. Log in to the machine where you want to install MAPS (typically a server or virtual server). You can log in to the server directly or via a tool such as Remote Desktop. **You must log in as a user who has administrative privileges in order to perform the installation.**
2. Download the [MAPS software](#) from the Evisions website and save it in a location where you can access it.
3. Double-click on the installation file that you downloaded to start the installation.
4. If your system does not already have the required version of Microsoft's Visual C++ redistributable package, you will need to install it before you can continue. Accept the license agreement, and then select Install to continue.



5. When prompted, review and accept the Evisions license agreement and select **Next**.
6. Specify the installation folder (the default is suggested) and select **Next**.
7. When you get to the final screen, select **Install** to proceed.



8. During the installation, the **MAPS Database Configuration Wizard** will appear, prompting you to choose an installation type. Choose the default value of **Standalone installation**, then select **Next**.



9. Proceed through the remaining screens in the MAPS Database Configuration Wizard and the setup program.
10. When the installation completes, the MAPS service should be running on the server.

Clustered Installation

Clustering is an optional MAPS feature that allows you to run multiple MAPS servers simultaneously, using a single data source for all servers. This provides several benefits:

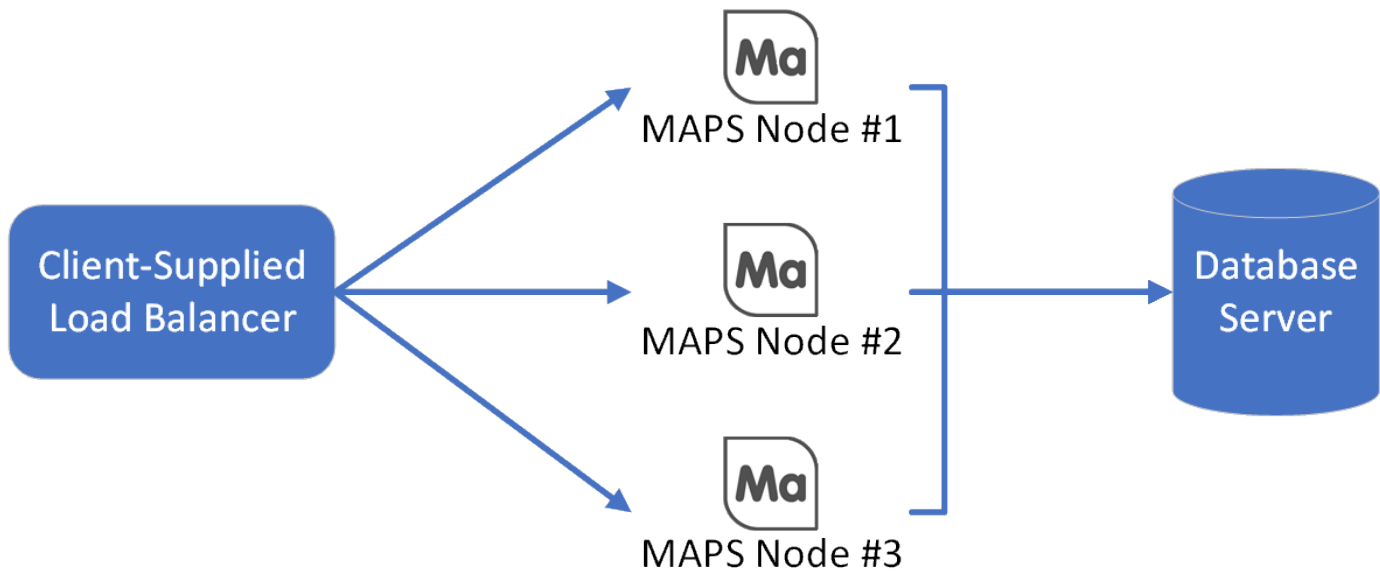
- Ability to support larger numbers of users.
- Increased performance, particularly in high-usage environments.
- Redundancy in case of server failure.
- Ability to take individual servers offline for maintenance without impacting users.

At this time, clustering is only supported for Argos. If your institution also uses FormFusion or IntelCheck, you will need a separate standalone MAPS server for these products.

If you are interested in a clustered installation but do not have this option included in your MAPS license, you can [contact your Evisions account representative](#) for more information.

A clustered installation requires several servers, including a database server and three or more MAPS servers. Virtual servers are fine for this purpose. Each MAPS server node will connect to the database server, ensuring that all users have access to the same data in real time.

You will also need a load balancer or load balancing software to distribute traffic among the MAPS server nodes.



Installation Overview

The steps involved in the installation are as follows:

1. Provision/acquire servers and load balancer.
2. Install PostgreSQL on the database server.
3. Install MAPS on one server node.
4. Migrate data from previous MAPS/Argos environment (optional).
5. Create additional MAPS server nodes.
6. Configure load balancer to distribute traffic to MAPS server nodes.
7. Configure MAPS as desired.

Hardware and Software Requirements

Refer to the [MAPS Suite Hardware and Software Requirements](#) for the minimum requirements for clustered installations, including specifications for the MAPS server nodes and the PostgreSQL database server.

Migration Requirements

If you plan to migrate data from an existing standalone MAPS installation into a clustered environment, you will also need the following:

- Previous standalone MAPS installation at version 6.1 or higher. If you are running an older version, see the [MAPS 6.1 Release Guide](#) for upgrade instructions.
- The MAPS service must be stopped on the old server prior to migration. Alternatively, you can make a copy of the MAPS Service directory and use the copy to perform the migration. The old server will not be affected by the migration, but the database must not be modified by running applications during the migration process.

If you plan to migrate data from an existing 32-bit standalone MAPS installation into a 64-bit clustered MAPS environment, you need to:

1. Upgrade your existing stand alone MAPS to a minimum version of 6.5 or higher. **Note:** We always recommend upgrading to the latest versions.
2. Update the 32-bit standalone MAPS to a 64-bit standalone MAPS environment (see [Updating to 64-bit MAPS](#) for help).
3. Use the 64-bit stand alone MAPS environment to move forward with a 64-bit clustered installation.

PostgreSQL Database Installation

The PostgreSQL database is where the MAPS, Argos, and MAPS auditing data is stored. The PostgreSQL database should be located on a server that is separate from the individual MAPS nodes, but is on the same network and is accessible from each node. All MAPS server nodes will connect to this database.

Refer to www.postgresql.org to download and install PostgreSQL on your database server. The installation instructions are provided in their documentation.

The database schemas and required users will be created during the MAPS installation.

Database Backups

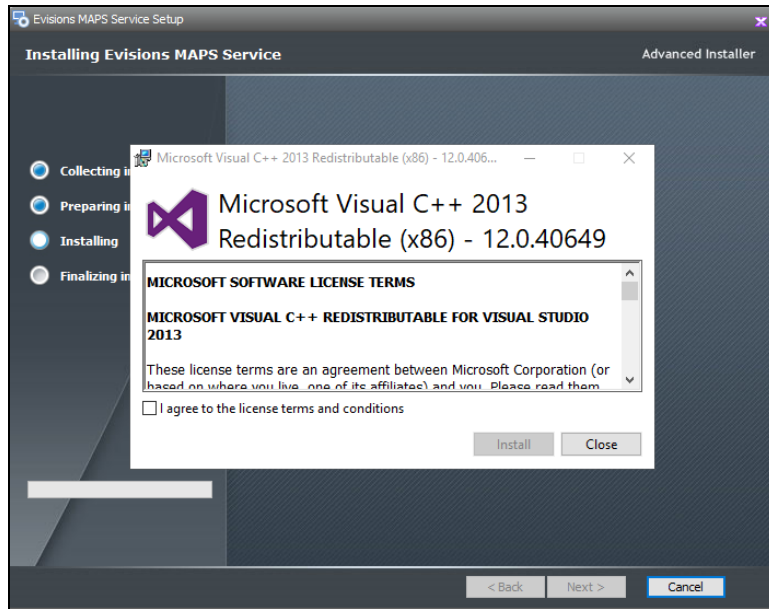
For production environments, you will need to make arrangements for the PostgreSQL server to be backed up periodically, such as every evening when usage is expected to be low. Note that MAPS is not able to perform database backups automatically as it does with standalone installations, since the database is no longer local to the MAPS server.

Installing MAPS in Cloud Environments

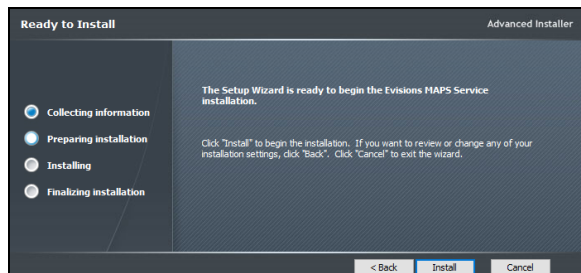
If you are installing your MAPS servers in a hosted environment, the PostgreSQL database server should also be hosted in that environment. Installing MAPS in other configurations may cause performance issues due to network delay between the database server and the MAPS nodes.

MAPS Installation and Migration

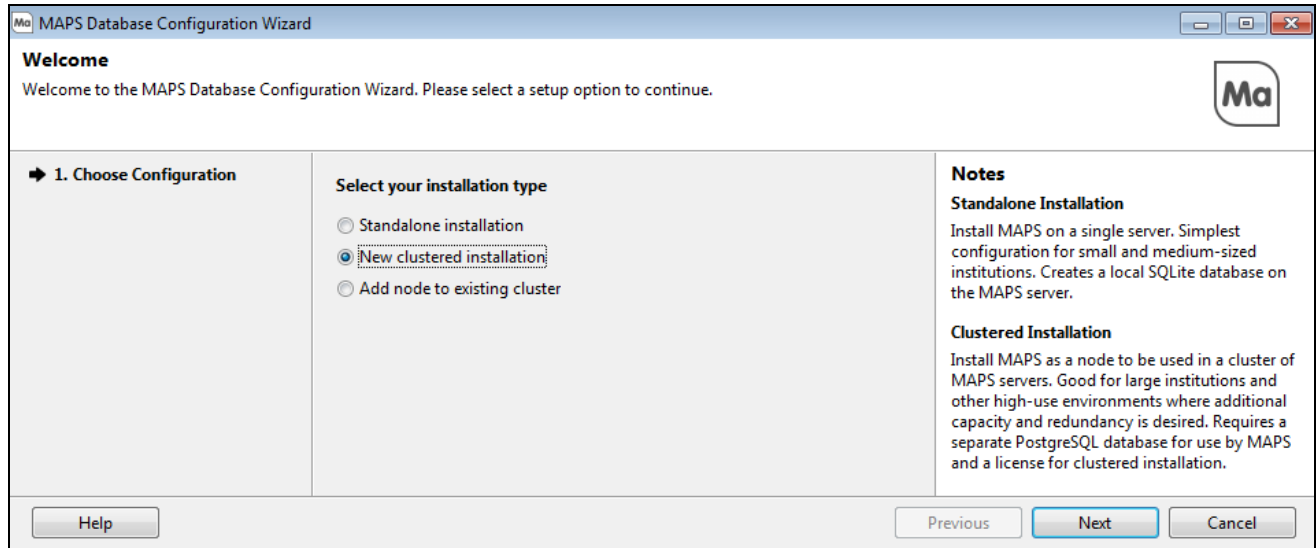
1. Log in to the server that will become your first MAPS node. This should be a new server with no preexisting MAPS installation. You can log in to the server directly or via a tool such as Remote Desktop. **You must log in as a user who has administrative privileges in order to perform the installation.**
2. Download the [MAPS software](#) from the Evisions website and save it in a location where you can access it.
3. Right-click on the installation file that you downloaded and select **Run as administrator**. *Note: The installation will fail later on if you do not run it as an administrator.*
4. If your system does not already have the required version of Microsoft's Visual C++ redistributable package, you will need to install it before you can continue. Accept the license agreement, and then select **Install** to continue.



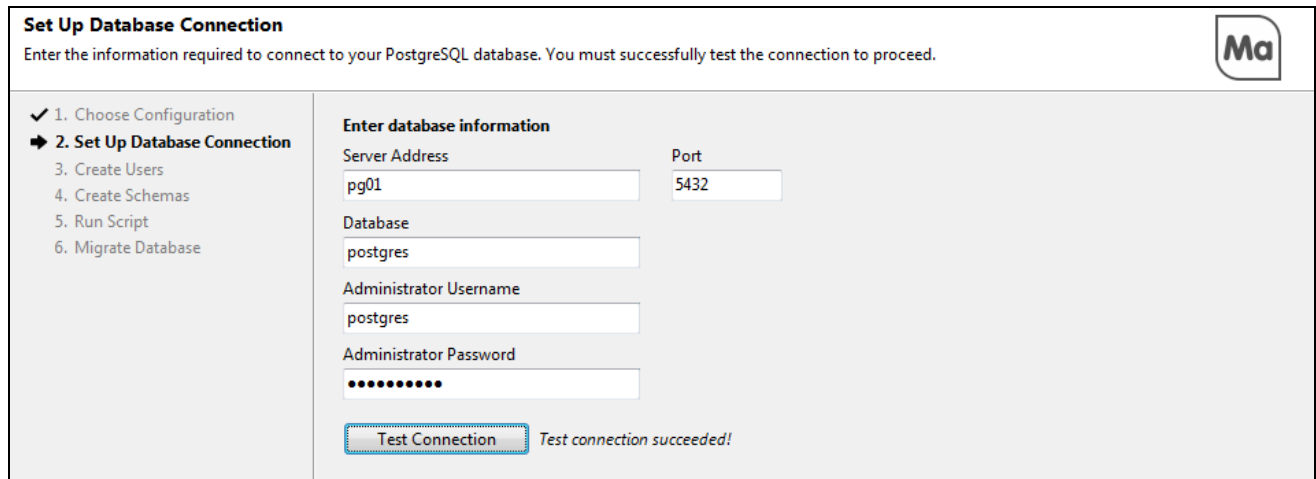
5. When prompted, review and accept the Evisions license agreement and select **Next**.
6. Specify the installation folder (the default is suggested) and select **Next**.
7. When you get to the final screen, select **Install** to proceed.



8. The MAPS Database Configuration Wizard will be launched automatically as part of the installation process. When asked to choose your installation type, select **New clustered installation**.



9. Enter the address of the PostgreSQL server that you configured in the previous step, along with the database name and the database administrator credentials. If you configured PostgreSQL to use a non-default port, you can also change that here.




After entering the database information, select **Test Connection**. If everything was correct, a "Test connection succeeded!" message will then be shown next to the Test Connection button. The test must be successful in order to proceed to the next step.

10. On the **Create Users** screen, you are creating the database users who will own the schemas and tables for the MAPS, MAPS auditing, and Argos databases. You can use the same user for all three databases, or create separate users.

Create Users

Create the users who will own the schemas and tables in each database. MAPS uses these credentials to connect to the databases and manage records.



- ✓ 1. Choose Configuration
- ✓ 2. Set Up Database Connection
- ➔ 3. **Create Users**
- 4. Create Schemas
- 5. Run Script
- 6. Migrate Database

MAPS Database User

Username: Password: Confirm Password:

Auditing Database User

Same as MAPS database user

Argos Database User


Same as MAPS database user

Note: Some cloud environments such as Microsoft Azure may require you to use a fully qualified username, for example `maps_admin@servername`.

11. On the **Create Schemas** screen, confirm or modify the names for the MAPS, MAPS Auditing, and Argos schemas, then select Next.

Create Database Schemas

Enter schema names for the MAPS, MAPS Auditing, and Argos databases.



- ✓ 1. Choose Configuration
- ✓ 2. Set Up Database Connection
- ✓ 3. Create Users
- ➔ 4. **Create Schemas**
- 5. Run Script
- 6. Migrate Database

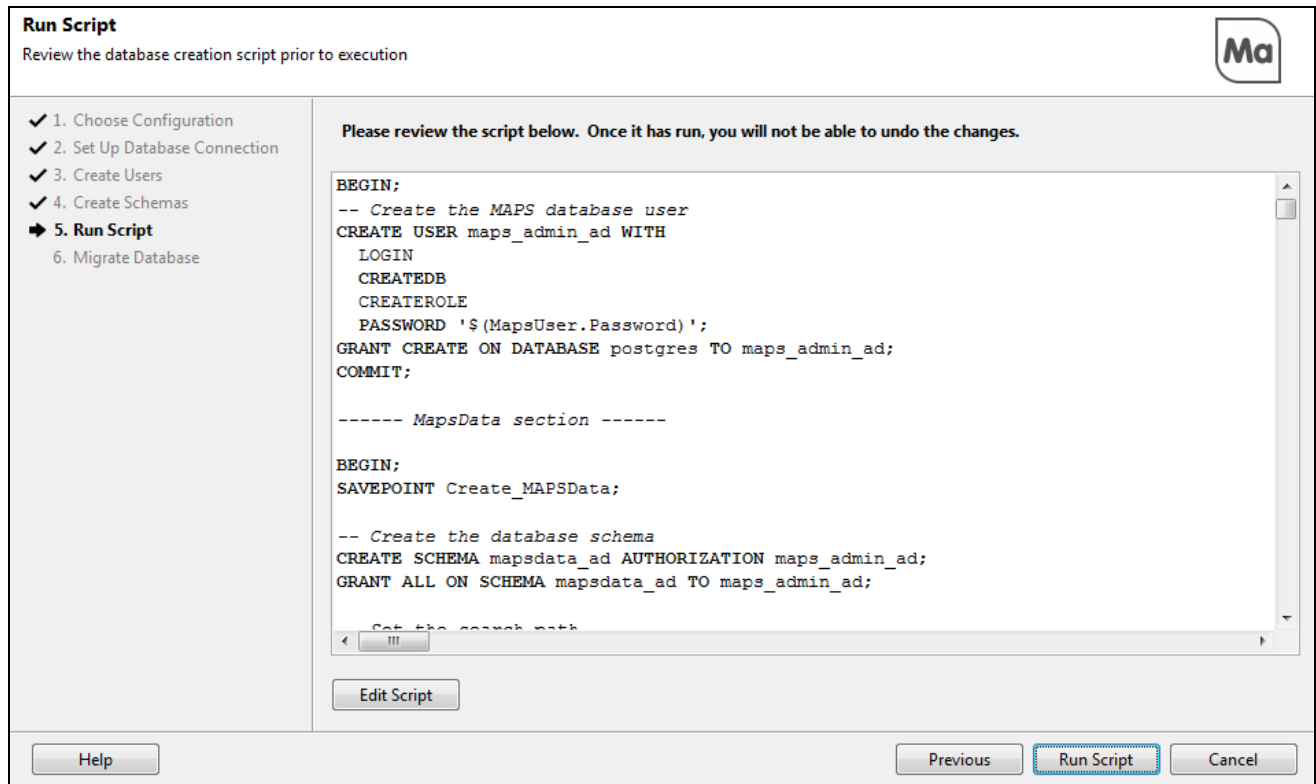
Create schema names

MAPS Schema Name:

Audit Schema Name:

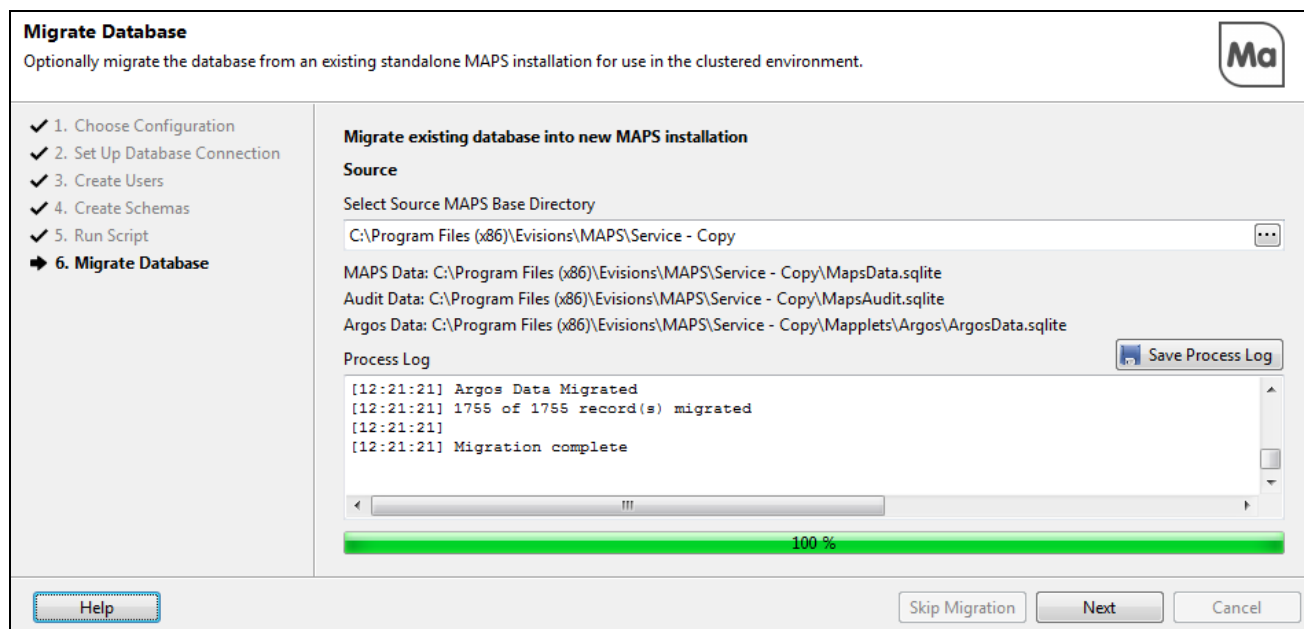
Argos Schema Name:

12. The **Run Script** screen shows a preview of the database creation script that is about to run. If changes are needed, you can choose to edit the script. When you have reviewed the script, select the **Run Script** button.



- On the **Migrate Database** screen, you have the option to migrate the SQLite databases from an existing standalone MAPS installation (version 6.1 or higher ONLY) into the new clustered environment so that all your data, users, and configuration settings will be brought over into the clustered environment. If you choose to migrate, enter the location of the MAPS Service directory from the old server. This can be done using a local copy of the directory obtained ahead of time, or you can enter the UNC path to the directory on the original server if you have access to it from your current location. The files in this directory will not be modified in any way, only imported into the new environment.

Note that if you plan to migrate existing databases, you must do it before you begin using MAPS or Argos in the clustered environment. You can do the migration now, or do it later by running the MapsDbConfig (32-bit) utility in the MAPS Service directory. This application gives you several options for modifying the installation or migrating databases after the initial setup. A shortcut to this application is created on the desktop as part of the installation process.



After selecting the directory to migrate from, select **Start Migration**. The **Process Log** area will update as the migration proceeds, and a progress indicator will be shown at the bottom of the screen. When the migration finishes, you should review the log for any errors. If necessary, use the **Save Process Log** button to save the log to a file. If you ran into any problems with the migration, this log file can assist Evisions Support with troubleshooting.

When finished with the migration, select **Next**; or, if you choose not to migrate a previous environment, select **Skip Migration**.

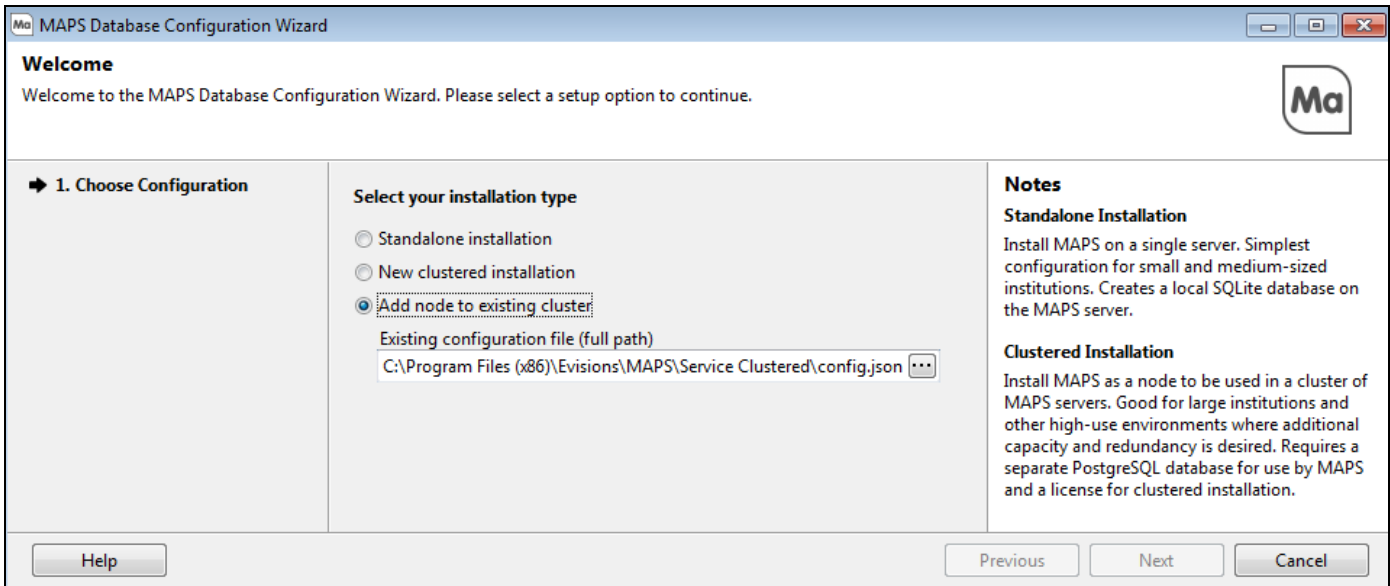
Note: If your previous MAPS installation used the Cloud Connector, you will need to refresh the data for each connector (or wait for it to be refreshed according to its configured refresh interval) before the connection will be usable in the clustered environment.

- The database configuration and MAPS installation is now complete. Select **Finish and Close Wizard** to return to the setup program, then select **Finish**.

Creating Additional MAPS Nodes

To create additional nodes for the cluster, you have two options:

- Clone the entire server, including the MAPS configuration.
- Run the installer on each additional MAPS server node, choosing the option to **Add node to existing cluster**.



Selecting this option prompts you to browse for the **config.json** file from the MAPS Service directory on the first server. This file contains information about the PostgreSQL database that MAPS should connect to. You can browse for the file on the original server, or use a copy located somewhere you can access from the new server. MAPS will read in this file and copy it into the Service directory on the new node during the installation.

After specifying the config.json file, select **Next**, then **Finish and Close Wizard** to complete the installation.

Load Balancer Configuration

A clustered MAPS installation is required in order to use the load balancer. To install the load balancer, follow the instructions provided by your vendor. Once it is installed, you will need to configure the settings required by MAPS. The screenshots in this guide were taken using Kemp Virtual LoadMaster, which is the load balancer that Evisions uses to test. Please note that the options available to you will vary depending on the specific load balancer you are using.

1. Set/enable extra ports 8080 and 27467, which are the default ports required by MAPS.
2. Modify the service type to use STARTTLS for SMTP.
3. Enable the option for server affinity/persistence (a.k.a. "sticky sessions"), which is required to support OLAP operations in the Argos Web Viewer. With this enabled, new sessions will be routed according to the specified scheduling method, but returning connections will be sent to the same server they used previously. Evisions has tested using a 10 minute persistence timeout, but you may adjust this if needed.

4. Choose the desired scheduling method (for example, "round robin").

Standard Options

Transparency
 Subnet Originating Requests
 Extra Ports: [Set Extra Ports](#)
 STARTTLS mode:

Persistence Options Mode:
 Timeout:

Scheduling Method:
 Idle Connection Timeout (Default 660): [Set Idle Timeout](#)
 Use Address for Server NAT
 Quality of Service:

5. Add an SSL certificate. **Note:** You will also need to add an SSL certificate in the MAPS Config.

SSL Properties

SSL Acceleration Enabled: Reencrypt:
 Supported Protocols: SSLv3 TLS1.0 TLS1.1 TLS1.2
 Require SNI hostname

Self Signed Certificate In use.
 Available Certificates:
 Assigned Certificates: [Set Certificates](#)
[Manage Certificates](#)

Cipher Set: [Modify Cipher Set](#)
 Assigned Ciphers:

Client Certificates:
 Strict Transport Security Header:

6. Add each of the host MAPS servers to the load balancer.

Real Servers [Add New ...](#)

Real Server Check Method: Checked Port: [Set Check Port](#)
 URL: [Set URL](#)
 Status Codes: [Set Status Codes](#)
 Use HTTP/1.1
 HTTP Method:
 Custom Headers: [Show Headers](#)
 Enhanced Options

Id	IP Address	Port	Forwarding method	Weight	Limit	Status	Operation
3	192.168.20.86	443+2	nat	1000	0	Enabled	Disable Modify Delete
4	192.168.20.87	443+2	nat	1000	0	Enabled	Disable Modify Delete

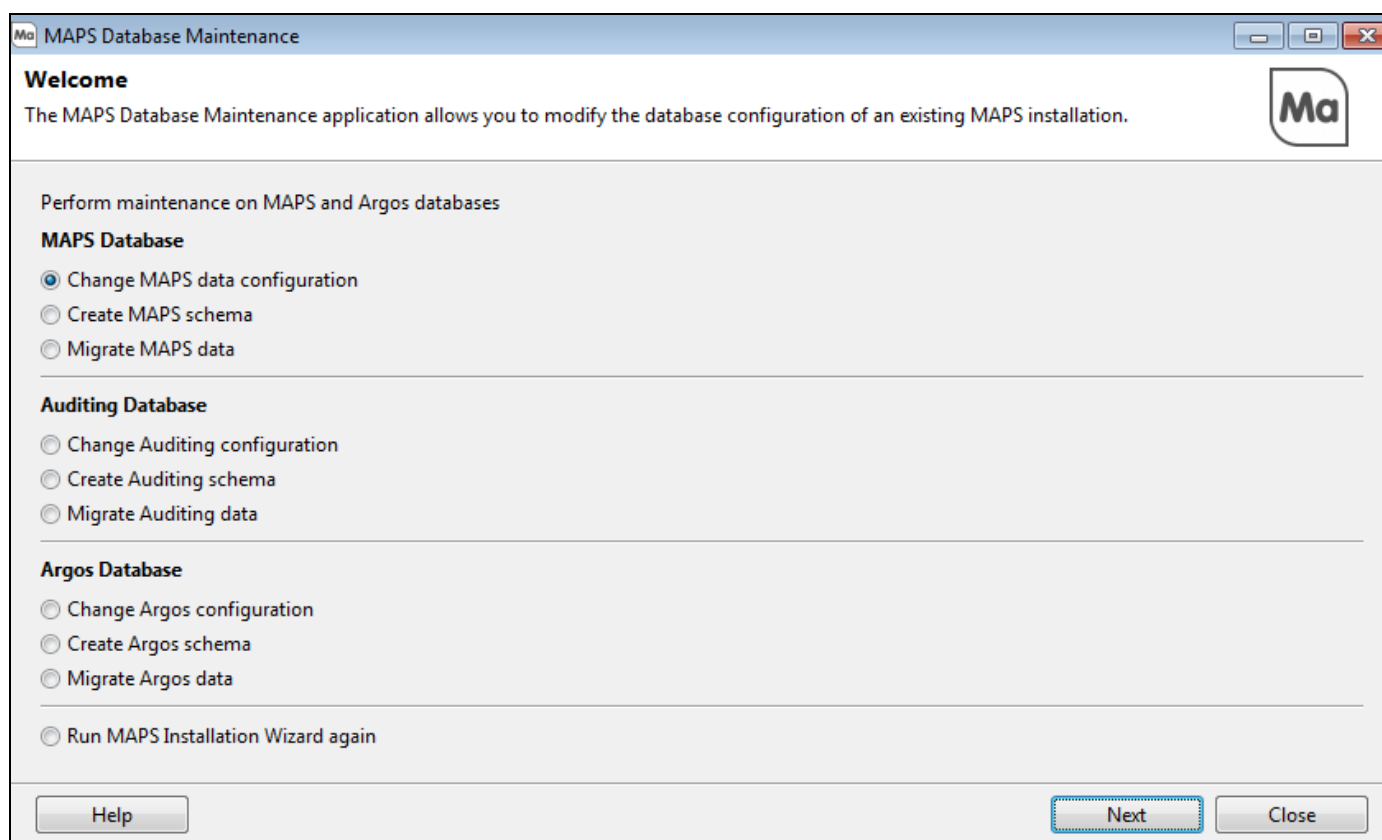
7. If desired, you may also configure the weight for individual hosts. Some scheduling methods (e.g., "weighted round robin") may use the weight to prioritize servers that have more resources.
8. Enable the option for server affinity/persistence (a.k.a. "sticky sessions"), which is required to support OLAP operations in the Argos Web Viewer. With this enabled, new sessions will be routed according to the specified scheduling method, but returning connections will be sent to the same server they used previously.

Health Checking

To enable your load balancer to confirm the status of each MAPS server, you can configure the load balancer to use HTTP ping to verify that the service is operational.

Database Maintenance

After installing MAPS, the MAPS Service folder contains an application called **MapsDbConfig (32-bit)** that can be used to modify the database configuration for a clustered environment if changes are required.



Running the application presents you with options to change configuration details for the MAPS, Argos, and MAPS auditing databases. You can:

- **Change configuration** - Modify the database address, port, name, schema, and credentials.
- **Create schema** - Run or rerun the scripts that create the database schema.
- **Migrate data** - If you skipped the migration during the initial installation, you can migrate data from a previous standalone MAPS installation using this option, as long as you have not yet begun to use the new MAPS installation.

- **Run MAPS Installation Wizard again** - Rerun the entire installation wizard, including the database configuration, schema creation, and data migration.

Running the MapsDBConfig (32-bit) tool in a standalone environment will only display the option to run the MAPS Installation Wizard again. Selecting this option will allow you to change installation types from standalone to clustered.

Database or Schema Changes Without Migration

If you change the MAPS database configuration from one PostgreSQL schema to another or from SQLite to PostgreSQL without migrating data from a previous SQLite database, you may see the following error the next time you try to log in via the eLauncher:

`There are no active versions of Configuration available. Please contact your system administrator to resolve this issue.`

To fix the problem, launch the MAPS Configuration executable from the Service\Applications\Configuration directory where you installed MAPS. Read in your MAPS license file and then check for updates. This should prompt you to reinstall the Config application, after which it should become available from the eLauncher.

MAPS Configuration

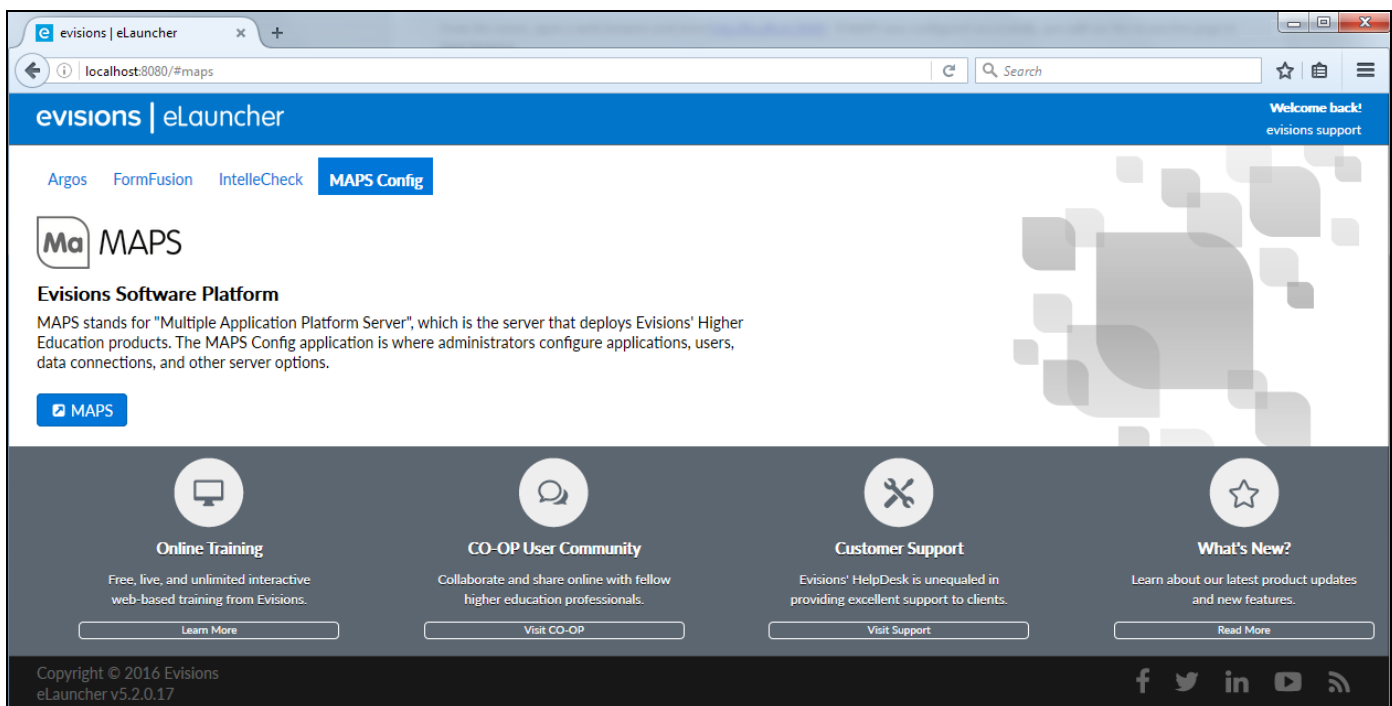
Launching the MAPS Config Application

Once MAPS is installed, you will need to configure the server to add users, data connections, email servers, and applications. Although you can log in to the MAPS Config from any machine, some aspects of the configuration such as creating ADO data connections and installing printers must be done from the server itself or from tools such as Remote Desktop.

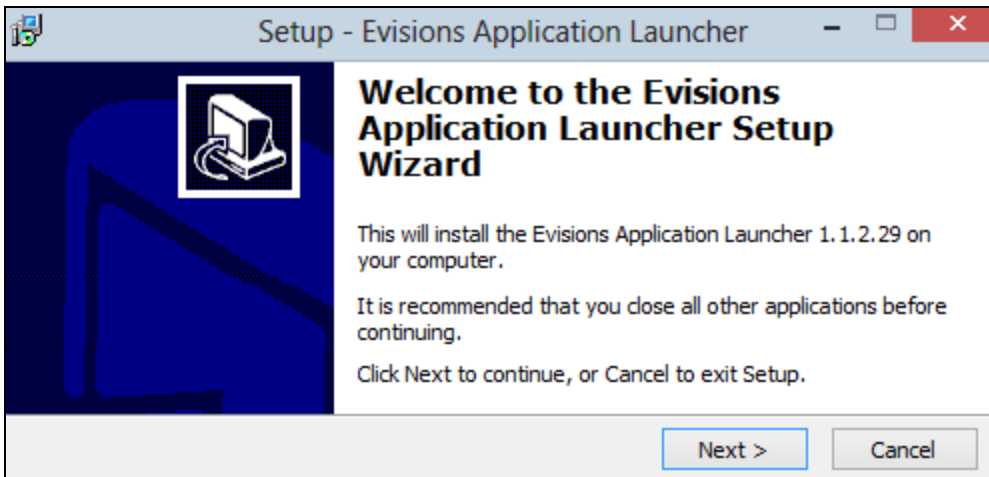
Important!

When adding a data connection using ADO drivers, the drivers shown for the connection are those installed on the machine where you are running the MAPS Config from. Similarly, when adding a printer, the printers shown are those installed on the local machine. Therefore, you should always add or edit ADO data connections and printers from the machine where MAPS is installed. If you edit these items from a different machine, the connections/printers may only work from that specific machine.

From the server, open a web browser and go to <http://localhost:8080>. If MAPS was configured successfully, you will see the eLauncher page in your browser.



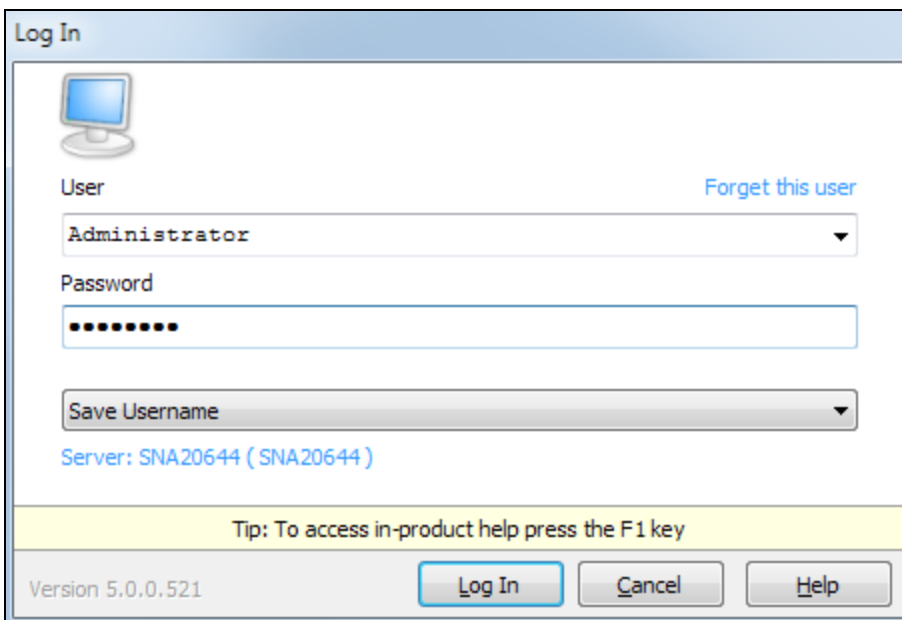
Go to the **MAPS Config** tab and click the blue **MAPS** button. You will be prompted to download and install the Evisions Application Launcher, which is the software that downloads the MAPS Config to your machine. Follow the instructions in the installation wizard.



As part of the installation, you may be prompted to install the Microsoft .NET Framework, which is required to run the Application Launcher.

Once the Application Launcher is installed, you can now log in to MAPS. Click the MAPS button in the eLauncher again to proceed.

You will be prompted to enter an administrative username and password. Enter **administrator** as the username and **Password** as the password (**Password** must be capitalized).



You can change the credentials for the default Administrator user after you have logged in, and/or create additional MAPS administrators. Only users who have been assigned the Administrator user role are able to access the MAPS Config.

Secure Transmission of Login Credentials

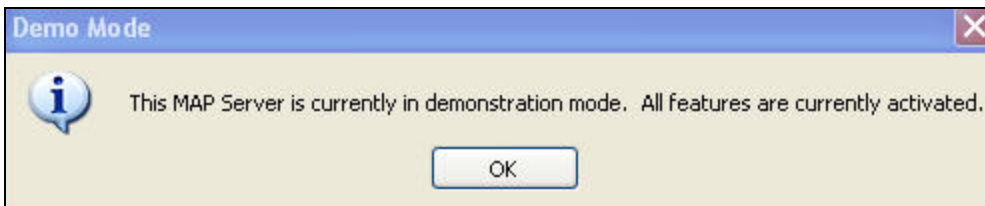
When logging in to the eLauncher using HTTP protocol (the default), users are required to log in through the applications rather than into the eLauncher. You have the option of enabling HTTPS in MAPS, which will allow users to log in once when they access the eLauncher instead of logging in to each application individually. You will also need to configure HTTPS for your server if you will be using the Argos Web Viewer. This ensures that login credentials and data are properly secured when logging in through the browser.

Refer to [HTTP and HTTPS File Server](#) for more information on configuring HTTPS.

What if MAPS Does Not Launch?

If you have another application that uses port 8080, this will prevent MAPS from launching. You will need to change the port number being used by the other application temporarily so that you can launch MAPS. You can then tell MAPS to [use a different port number](#).

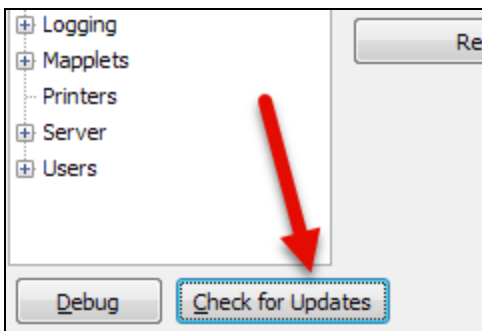
After logging in, you will see the following message:



Initially MAPS is in demonstration mode, which allows you to provide the license file for the applications. Without entering the license, you will be unable to install applications. Click OK to continue.

Updating MAPS and the MAPS Applications

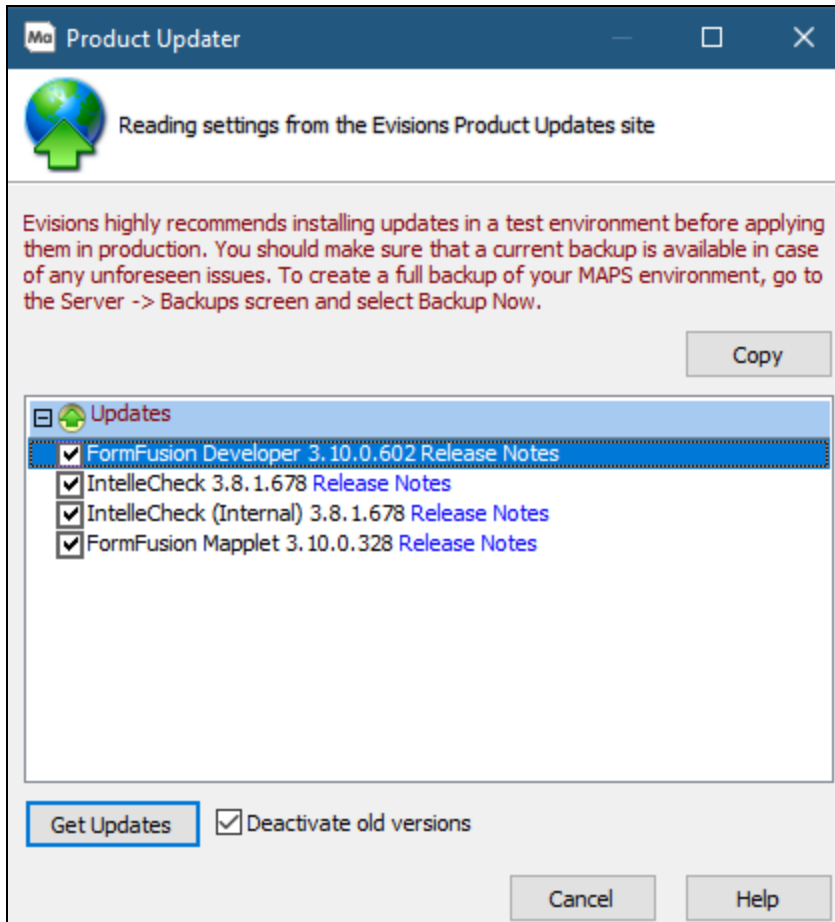
The **Check for Updates** button at the bottom of MAPS Config will show you if there are any updates available for your MAPS products. It is a good idea to check for updates immediately after installing MAPS, and again periodically whenever you want to ensure you are on the latest version.



If updates are available, they will be shown in a list. Check the box next to the update(s) you want to apply. To view the release notes associated with a particular update, select the **Release Notes** link to the right of the update. You should read the release notes prior to applying updates to existing systems. For new installations, you should select all available updates immediately to ensure you are on the latest version.

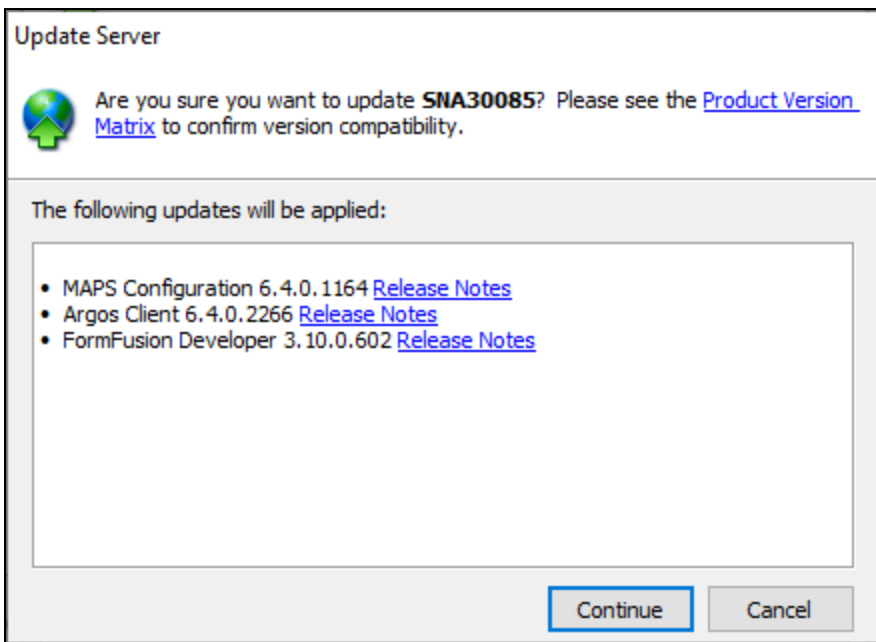
Clustered Installations

Before you update a clustered installation, refer to the additional instructions at the end of this section. It is important that you follow the instructions for backing up the data and database before starting the update.

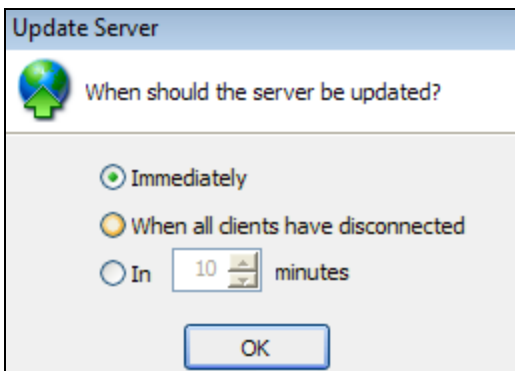


Keep the **Deactivate old versions** option selected unless you want to keep the previous version until you have tested the new version. If more than one application version is enabled, users will be prompted to choose a version when logging in. You can manage active versions on the [Applications](#) screen.

When you are ready to proceed, select the **Get Updates** button. You will be prompted to confirm the updates you have selected, and to review the product version matrix for compatibility:

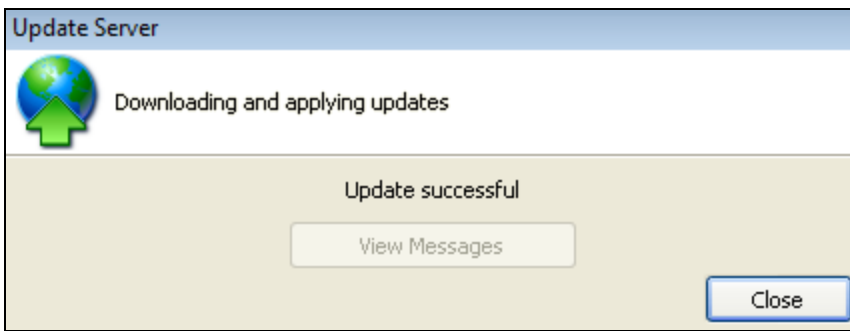


Select **Continue** to download and apply the updates. Updates to the MAPS applications (MAPS Config, Argos, FormFusion, and IntelCheck) will be applied immediately. If the updates include an update to the MAPS service, you will be asked when to apply it, since users will be disconnected from the system while the service restarts. For this reason, we recommend applying updates to the server at a time when users will not be on the system, such as at night or on the weekend.

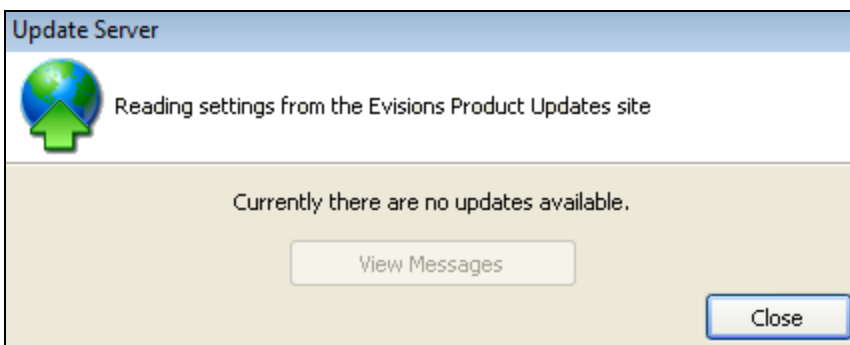


For initial installations or test environments, you can select **Immediately** to install the update now. You will be temporarily disconnected from the server while the update is applied. MAPS will reconnect automatically in a few minutes after the update is complete.

For existing installations, you may want to apply MAPS service updates **when all clients have disconnected** or **in [#] minutes**. These options can be useful if there are users on the system whose work you do not want to interrupt. If you specify a number of minutes to wait, users currently logged in to a MAPS application (other than the Argos Web Viewer, which currently does not support system notifications) will be warned prior to the service restart.



When the updates have finished, you should use the Check For Updates button again to check for additional updates. If your system is several versions behind, you will need to proceed through each update sequentially. Continue checking for updates and applying them until no further updates are available.



Important Notes:

- Updates should be verified in a test environment prior to applying them in production.
- MAPS does not automatically download or apply updates. MAPS will let you know when updates are available, and you can choose when to apply them.
- If you are updating the MAPS service at the same time as one or more applications, the service update may be delayed until certain database updates have finished. Database migrations may take longer if you have a very large number of Argos DataBlocks, FormFusion templates, etc.

Updating Clustered Installations

In a clustered installation, each of the servers in the cluster must be updated to the same version.

Back Up the PostgreSQL Server

Before you begin to update MAPS or the MAPS applications in a clustered environment, you must manually back up the PostgreSQL database.

- If MAPS data is the only data in the PostgreSQL database, you can back up the entire database.
- If data other than MAPS data resides in the PostgreSQL database, back up only the schemas used by the mapplet, the applications, and the license database.

Refer to the documentation provided with your database for additional information on backup and restore commands.

To back up the entire database, you can use the `pg_dump` command. For example:

```
rem Back up using pg_dump
:pg_dump
echo pg_dump...
pg_dump -U postgres -d %db% -f %filename%
```

```

rem createdb creates an empty schema. template0 is always an empty and unmodifiable database
:createdb
echo createdb...
createdb -U postgres -T template0 %newdb%

rem Load .sql file to new db
:load_sql
echo load sql file...
psql -U postgres -d %newdb% -f %filename%

rem Delete .sql file
del %filename%

```

To back up just the schema for the MAPS data, you can use a batch file like the following:

```

:backup
rem Backup schemas
for %%s in (%schemas%) do (
SET schema=%%s
SET filename=%APPDATA%\postgresql\%%s.sql
CALL :pg_dump
CALL :load_sql
CALL :delete_file
)

GOTO done

rem Back up using pg_dump
:pg_dump
echo pg_dump (%schema%)...
pg_dump -U postgres -d %db% -n %schema% -f "%filename%"
exit /B

rem Load .sql file to new db
:load_sql
echo load sql file (%schema%)...
psql -U postgres -d %newdb% -f "%filename%"
exit /B 0

rem Delete .sql file
:delete_file
echo filename: %filename%
IF "%save_sql%"==" " (
DEL "%filename%"
)
exit /B 0

:done
exit /b %ERRORLEVEL%

```

It is critical that you have a backup of the PostgreSQL database before you apply the update, so that you can roll back if a problem is discovered during testing. If you do run into any issues, contact [Evisions Support](#) for assistance.

Update the First Server

After you have your backup of the database, select one of the MAPS servers to update. It doesn't matter which one you select.

Use the **Check for Updates** button at the bottom of MAPS Config to display the available updates.

For this server, select all of the available updates from the list, including the License, if listed, and select the **Get Updates** button. Confirm that you want to apply the update, and allow the updates to complete before continuing.

Update the Remaining Servers

For each of the remaining servers, use the **Check for Updates** button at the bottom of MAPS Config to display the available updates.

For these servers, you only need to update the MAPS Service. The other applications have already been updated. Confirm that you want to apply the update, and allow the update to complete.

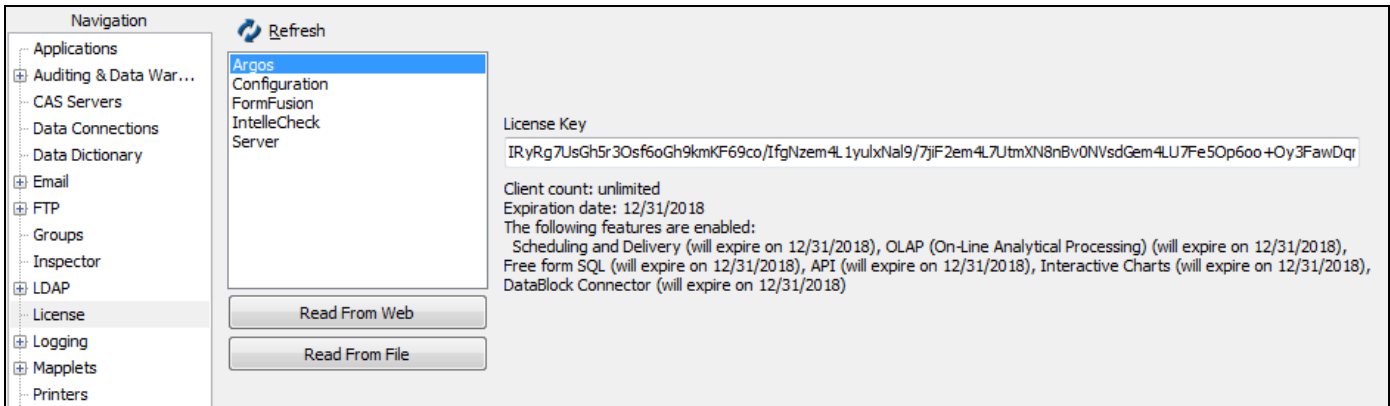
You can now proceed with testing the new version in your environment.

Entering Your Software License

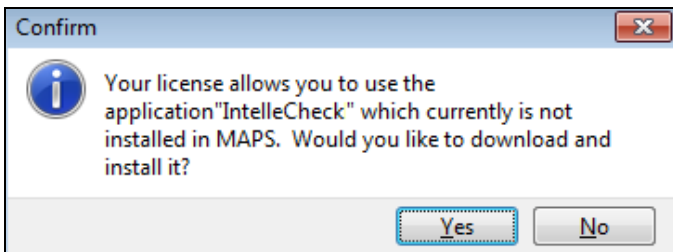
Automatic License Updates

As of MAPS 6.6, your product licenses are automatically verified and updated daily. You should no longer need to manually import or update the license files, but you may still do so if you wish.

The **License** screen is where you import the license file that was provided to you upon purchase of any of the MAPS applications. When you first install MAPS, it is running in a limited demonstration mode. You will need to read in your license file before you can use your licensed product(s).



Use the **Read From File** button to browse for the license file that was provided when you purchased the software. MAPS will verify your license and then prompt you to download and install any additional software included in your license.



If you want to install the application, select **Yes** to proceed. This process may take a few minutes, depending on the speed of your internet connection. This dialog will appear for each product that is included in your license.

Once an application has been installed, selecting it on the License screen will show you the details pertaining to its license, such as the client count, expiration date, and any optional modules that are included in your license. If your institution is licensed to run multiple MAPS nodes in a clustered environment, your allowed node count will be shown in the Server information.

If you purchase additional applications or optional modules in the future, you can update your license by selecting **Read From Web**. You will then be prompted to download and install any new products or modules. Alternatively, you can also get any available license updates by checking for updates in MAPS.

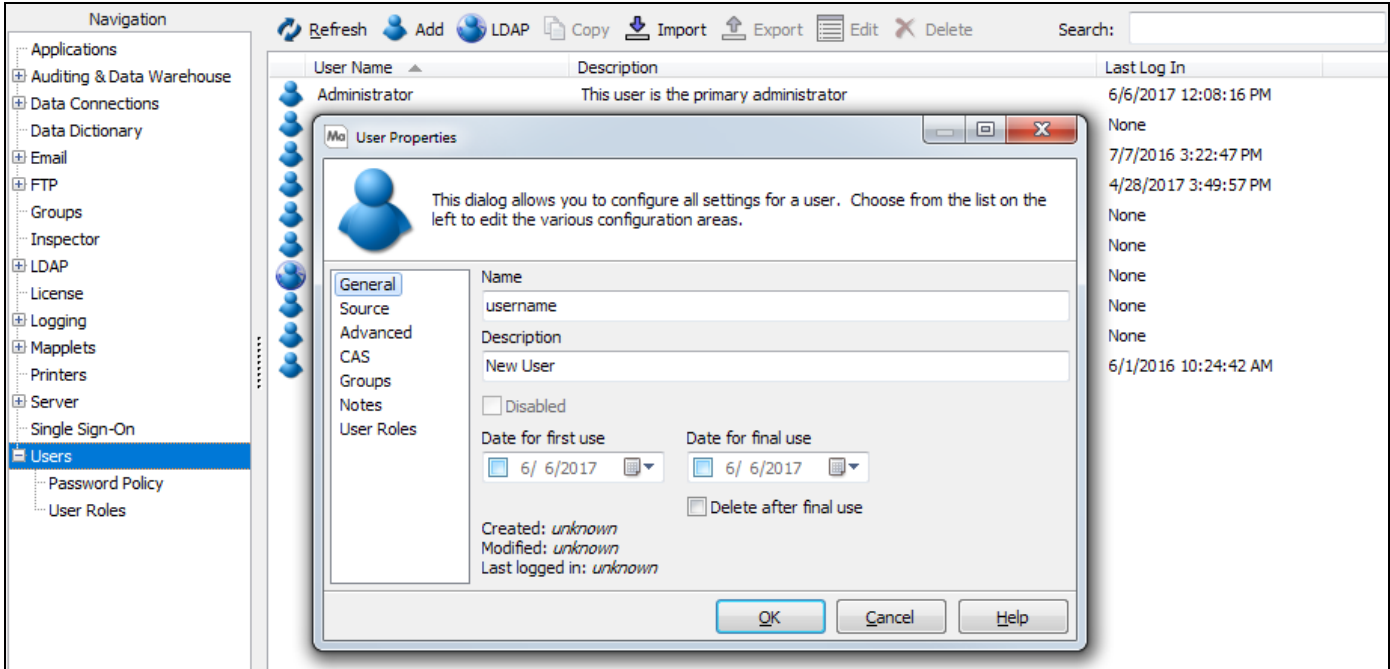
Installing Applications in Clustered Environments

When installing MAPS and Argos in a clustered environment, you should select No if you are prompted to install applications that do not support clustering, such as FormFusion and IntelCheck. If your institution owns these products, you will need to install them on a separate standalone MAPS server since they will not work correctly in a clustered environment.

Creating Users

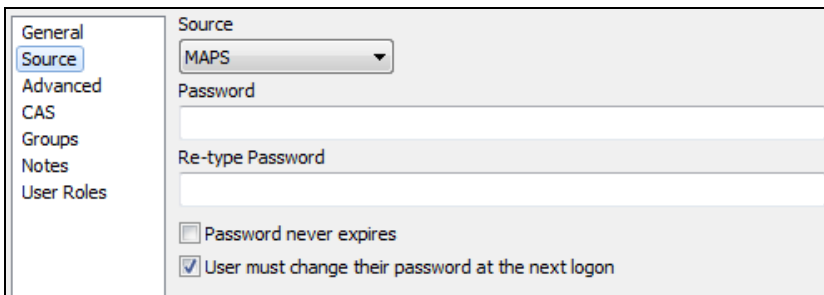
Any individual who will be accessing a MAPS application must have a valid username and password to log in. The **Users** screen allows you to set up and configure individual MAPS and LDAP users.

To get started, we recommend you add only a few test users. Go to the Users screen, then select the **Add** button at the top. The **User Properties** dialog box will appear. Enter a name and description for the user in the General section.



On the **Source** screen, enter a password for the user. Retype the password to verify.

For each user, you may choose to check the options for **Password never expires** or **User must change their password at the next logon** if desired.



On the **Advanced** screen, enter the user's email address.

General Source Advanced CAS Groups Notes User Roles	Queue Priority	Normal
	Email Address	
	Custom Fields	
	Key	Value
	Custom Field 1	
Custom Field 2		
Custom Field 3		

On the **User Roles** screen, assign a role to this user from the list of available user roles. User roles allow you to specify the permissions for Argos users and MAPS administrators. FormFusion and IntelCheck do not currently support configuring user roles through MAPS.

General Source Advanced CAS Groups Notes User Roles	Members	Report Viewer (system)	←	Available
			→	Administrator (system)
				Argos Administrator (system)
				DataBlock Designer (system)
				Report Writer (system)

In addition to the default roles, if needed you can also create your own custom [user roles](#) from a list of available operations.

Navigation Applications Auditing & Data Warehouse Data Connections Data Dictionary Email FTP Groups Inspector LDAP License Logging Mapplets Printers Server Single Sign-On Users Password Policy User Roles	Refresh Add Delete Copy Paste Argos Argos Administrator (system) DataBlock Designer (system) Report Viewer (system) Report Writer (system) MAPS Administrator (system) New Limited User Role Note: Products that do not support Role Based Security will not appear in this list.	Name Report Writer Edit Notes Created by Argos Mapplet on 6/4/2019 2:06:29 PM Last modified by Argos Mapplet on 6/4/2019 2:06:29 PM Description Users are able to create and delete reports but not DataBlocks	Added Operations Create Report Edit Library of Objects Edit Report Edit Report Notes Edit Report Raw Data Log on through Argos Web Viewer Run Saved Execution State Save Results of DataBlock Control View Explorer Tree	Available Operations Add to Data Dictionary Change DataBlock Connection Create DataBlock Create Folder Create Report Create Schedule Create Shared Shortcuts Edit DataBlock Edit DataBlock Raw Data Edit Folder Edit Library of Objects Edit Notes for DataBlock Edit Report Edit Report API Edit Report Notes Edit Report Raw Data Edit Schedule
	Debug Check for Updates	Help Support Log Out		

Creating Groups

[Groups](#) are created in a similar manner. Select "Groups" in the navigation pane to go to the Groups page.

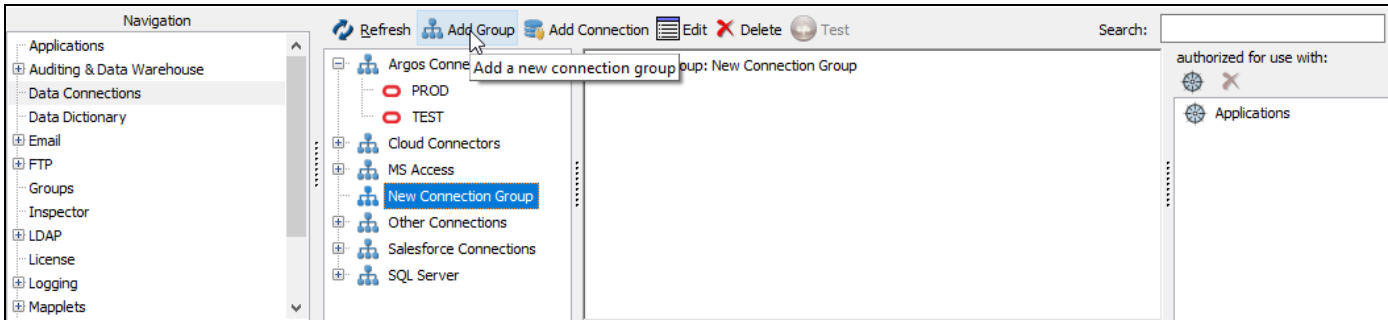
By default, all users are added to a group called "Everyone". You can add any number of additional groups to MAPS. Groups can be useful for assigning permissions to multiple users at once. You can also create groups based on LDAP group membership, avoiding the need to add individual users to MAPS.

For more information on user configuration, refer to the [Users section of the MAPS Help](#).

For special considerations related to setting up users and groups in a single sign-on environment, refer to the [Single Sign-On section of the MAPS Help](#), and [Using Groups with Single Sign-On](#).

Creating Data Connections

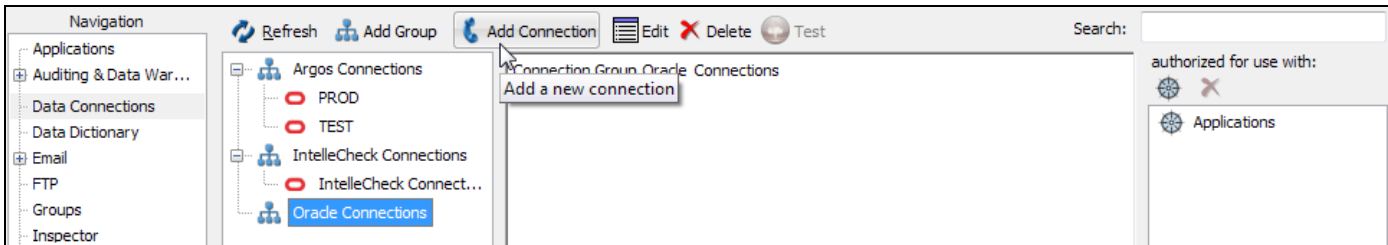
Go to the **Data Connections** screen and select **Add Group** to create a group to keep your connections organized.



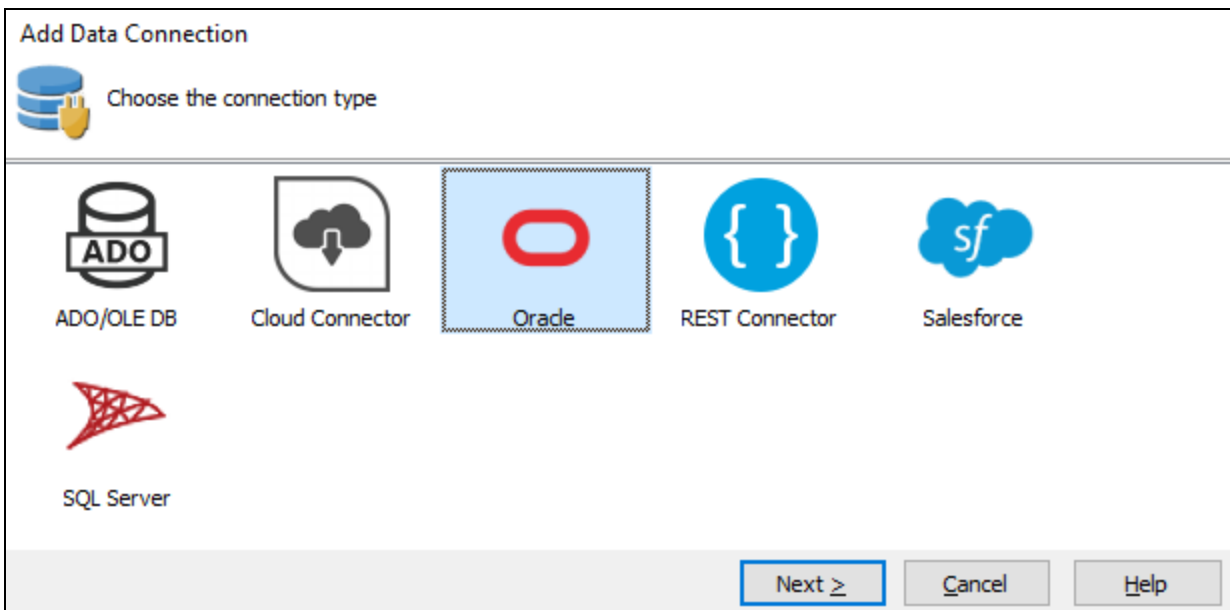
Connection Groups

Connection groups are logical groupings that help keep connections organized. You don't need to use connection groups, but they make it easier to authorize connections for use by an application, or to grant users and groups permissions to several connections at once.

Give your connection group a logical name. Select the connection group, then select **Add Connection**.



Select the type of database you want to connect to:



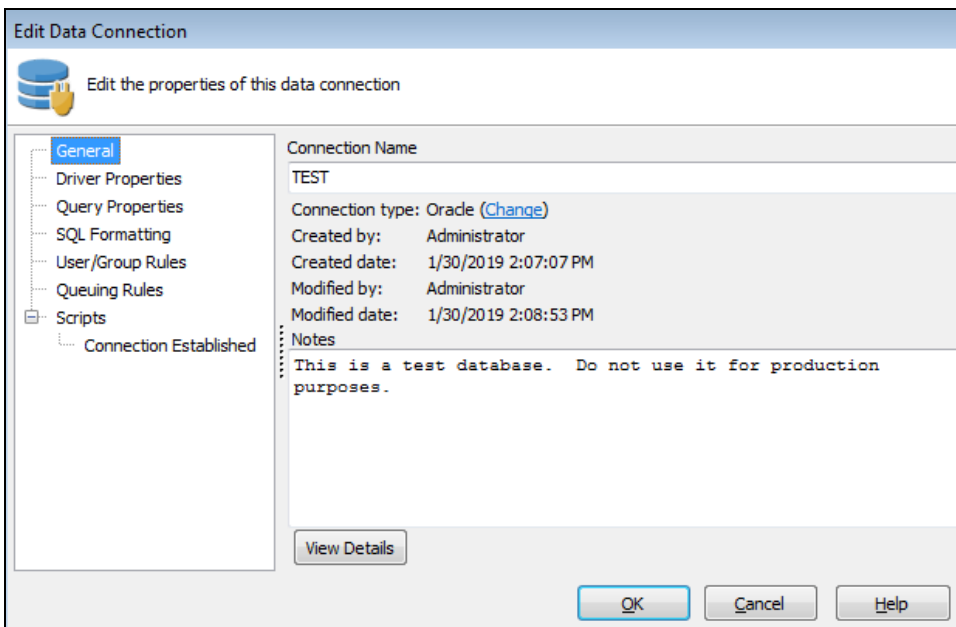
- **ADO/OLE DB** - Use an installed OLE DB provider to connect to the data source.
- [Cloud Connector](#) - Connect to an online third-party data source or web application via its API.
- **Oracle** - Use the native Oracle driver to connect to an Oracle database.
- [Salesforce Connector](#) - Use the optional Salesforce connector to connect to your Salesforce environment.
- **SQL Server** - Use the native SQL Server driver to connect to an MS SQL database.

Note: ADO/OLE DB connections MUST be created and edited from the server, either logged in directly or via a tool such as Remote Desktop. If you create an ADO/OLE DB connection while logged in elsewhere, you will only see the drivers for your local system and the connection may fail when attempting to use it from a machine that does not have those drivers installed.

The other connection types can be created or edited from any machine, since they are not dependent on local database drivers.

Choose the desired connection type, then select **Next**.

On the General tab of the **Edit Data Connection** dialog, enter the name that you wish users to see for this connection. You may also choose to add some notes for the connection. The notes are only visible in MAPS.

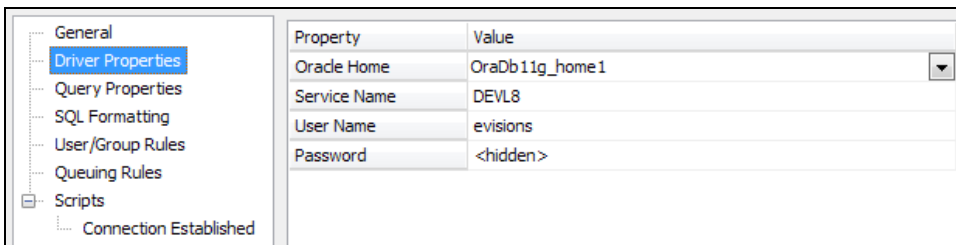


Configuring Driver Properties

The Driver Properties screen is where you configure settings specific to the database driver you are using.

Oracle Native Driver

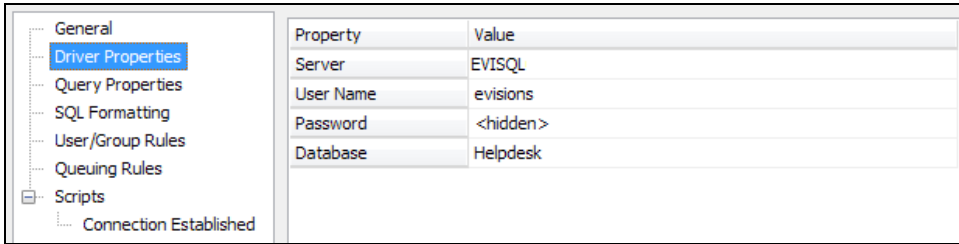
Enter the Oracle Home you wish to use, or leave it set to <default> if your server has only one Oracle Home. The Service Name is the name of the Oracle database you wish to use.



You can opt to specify a username and password at the connection level, or leave it blank depending on how you decide to configure your user/group rules later on. The most basic method of connection is to enter a username and password here that all users who use this connection will use to access the database.

SQL Server Native Driver

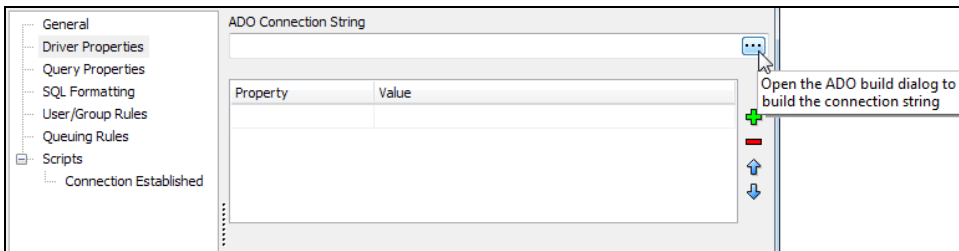
Enter the name of the server and database that you wish to use.



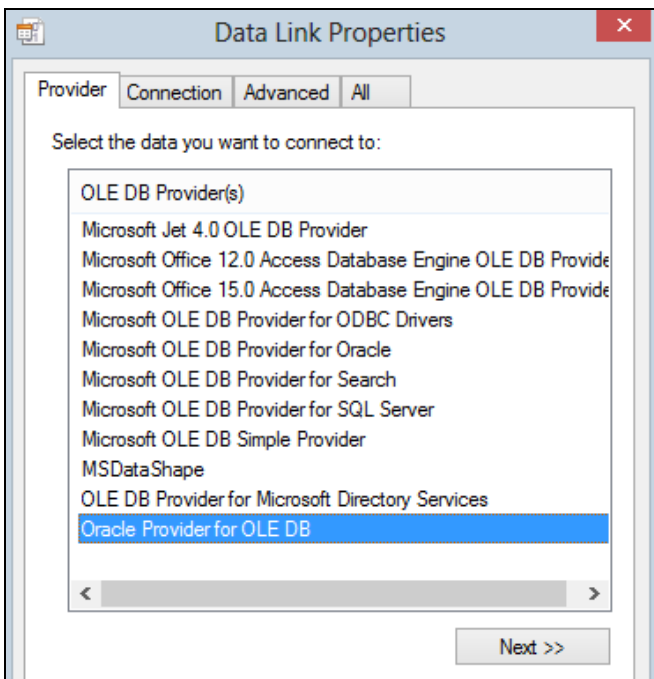
You can opt to specify a username and password at the connection level, or leave it blank depending on how you decide to configure your user/group rules later on. The most basic method of connection is to enter a username and password here that all users who use this connection will use to access the database.

ADO Driver

Click the ellipses on the right of the ADO Connection String field to generate the connection string.



On the **Provider** tab of the **Data Link Properties** dialog, select the OLE DB provider you wish to use.

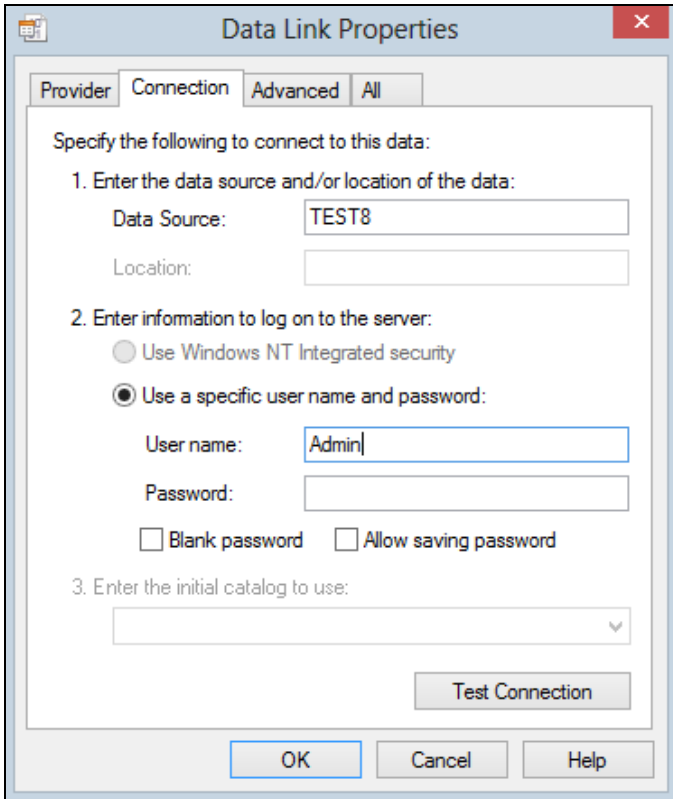


If you do not see the required provider, ensure that it has been installed on the MAPS server and that you are running the MAPS Configuration from the server itself. The providers shown here are those installed on the machine you are working on.

Note: If you are connecting to an Oracle database, we strongly recommend using the [Oracle Provider for OLE DB](#) and not the Microsoft OLE DB Provider for Oracle, as there are some known issues with the Microsoft provider.

Select **Next** to continue.

The remainder of the configuration process will vary depending on which OLE DB provider you are using. In this case, the Oracle provider requires that the database name (from the tnsnames.ora file on the MAPS server) be entered. Fill in the appropriate information for your connection type.



If you will be using the username and password defined in the connection string, check the **Allow saving password** box. Otherwise, you can configure connection credentials on a per-user or per-group basis later on the User/Group Rules screen.

Test the connection by clicking the **Test Connection** button at the bottom of the Connection tab. This will verify that the connection string is properly defined and that you have entered correct credentials for the database.

Select **OK** to save your settings.

Cloud Connector

If you are setting up a Cloud Connector to pull in third-party data, please refer to the [Cloud Connector documentation](#) for configuration details.

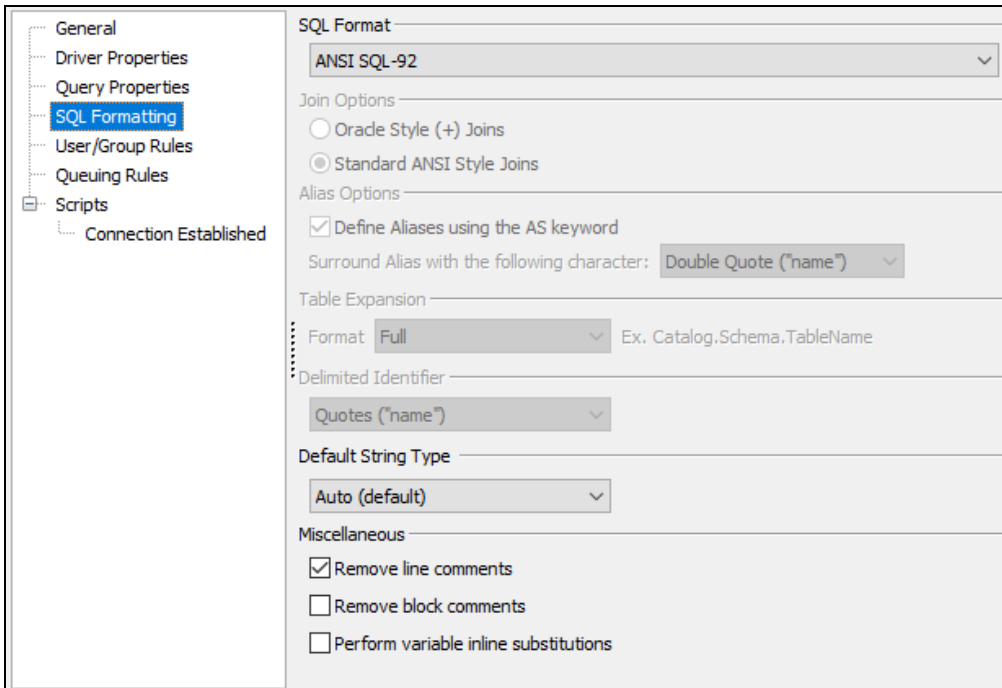
Salesforce Connector

If you are setting up a connection to a Salesforce environment, please refer to the [Salesforce Connector documentation](#) for configuration details.

Specifying the SQL Formatting

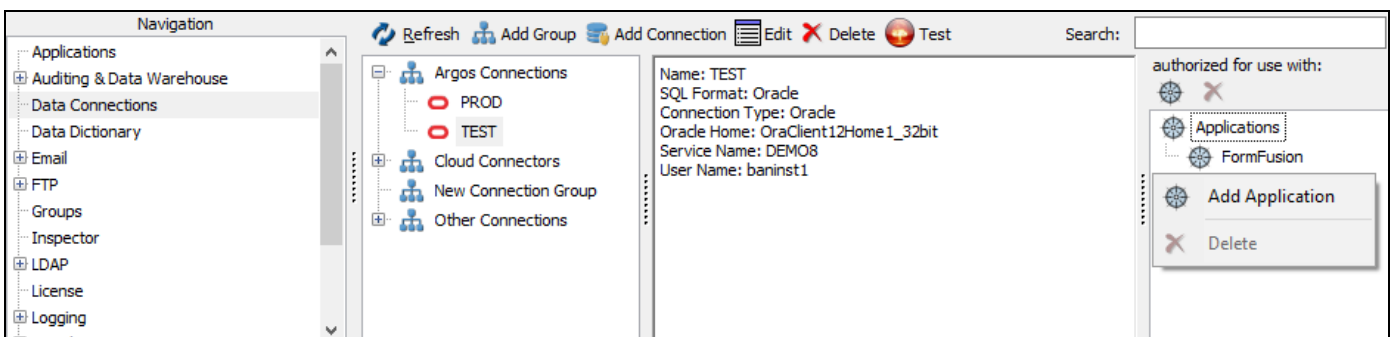
The SQL Formatting screen is where you specify the database format to use for communications via this data connection. You must select the correct SQL formatting options in order for queries to execute correctly. These options are used when generating queries in the Argos Visual Designer and for parsing queries in Argos and FormFusion.

You can choose from five predefined formats, define a [custom SQL format](#), or let MAPS choose the correct format. When possible, you should choose the exact format for your database. The predefined settings include ANSI SQL-92, Jet, Microsoft SQL Server, Oracle, and Unidata.



Authorizing the Connection

At this point you will need to authorize the data connection for use with one or more applications. Right-click anywhere in the **Authorized for use** pane on the right and select **Add Application**. Select the application(s) to authorize for this data connection.



Authorizing the Connection for Applications

You can authorize a data connection for use with an application on the Data Connections screen, or from the Applications screen. If you have set up a connection group, you can authorize applications for the entire group at once.

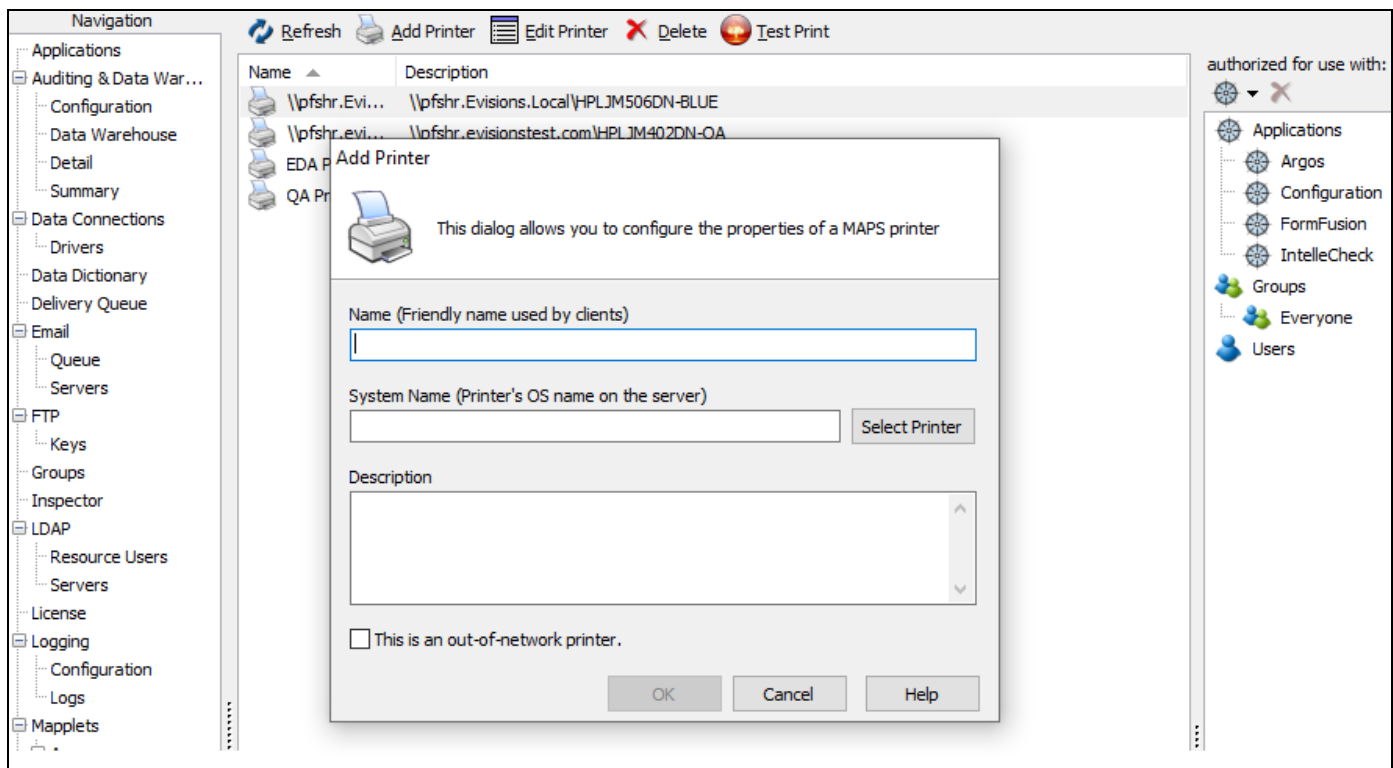
For more information on data connection configuration, refer to the [Data Connections section of the MAPS Help](#).

Adding Printers

In order to print from the MAPS applications, the printer(s) to be used must be added to MAPS and then authorized for use with specific applications by specific users and/or groups. For example, if you have FormFusion installed for printing letters, you would add the appropriate printers, but limit access to these printers to only the FormFusion application.

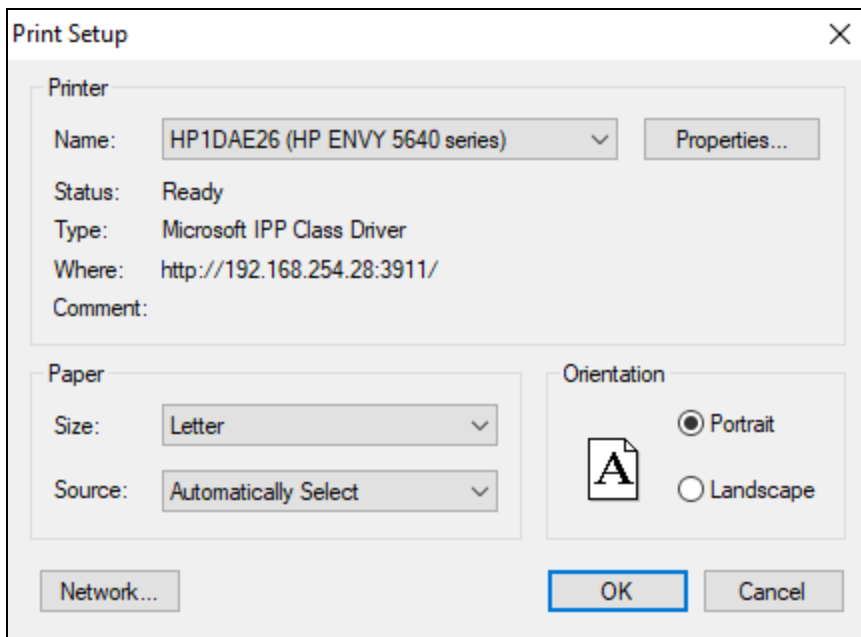
Adding a Printer

To add a printer, go to **Printers** in the Navigation pane, then select **Add Printer** to open the Add Printer dialog.



- **Name (Friendly name used by clients)** - The name given to a MAPS printer. This field cannot be empty.
- **System Name (Printer's OS name on the server)** - The name of the printer as it appears to the operating system. For local MAPS printers, you cannot change the System Name after it's been selected from Print Setup.
- **Description** - The user-provided description of a printer. Example: the printer's location or department.
- **Select Printer** - Opens the Print Setup dialog with the list of printers available to MAPS.
- **This is an out-of-network printer** - When checked, indicates this is an out-of-network printer to be used for cloud-based instances of MAPS.

The **Select Printer** button will open the Print Setup dialog, where you'll find a list of all printers installed on the machine.



Select the appropriate printer from the dropdown, then click OK.

Notes:

- You **must** add printers from the MAPS server itself, or from a Remote Desktop connection to the server.
- You should log in to the server where MAPS is installed as the [user the MAPS service is running as](#), and this user must have permissions to use the printers you wish to add.
- The printer driver must be installed on your server or installed as a network printer and accessible to MAPS for it to appear in the Print Setup dialog.
- At least one printer must be authorized for each MAPS application.
- MAPS requires a printer to be added to the server if one doesn't already exist. It can be a dummy printer if no physical printers are connected to the server. In either case at least one printer must be added to the server.

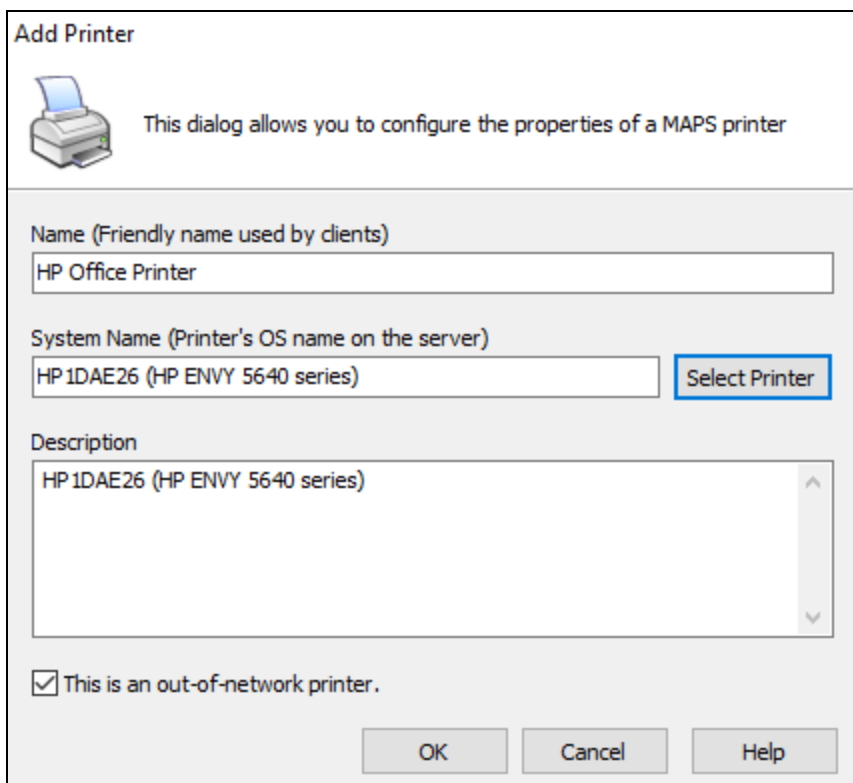
Configure Printers from the Server!

The printers that appear in the dialog are those that are available to the local system. In order for your printers to work correctly, you **MUST** add printers from the machine where MAPS is installed, or via a Remote Desktop session to this machine.

[Adding an Out-of-Network Printer](#)

For cloud-based instances of MAPS an out-of-network printer will need to be configured in order to print from MAPS applications. From the Edit Printer dialog, manually enter the system name of the printer being added.

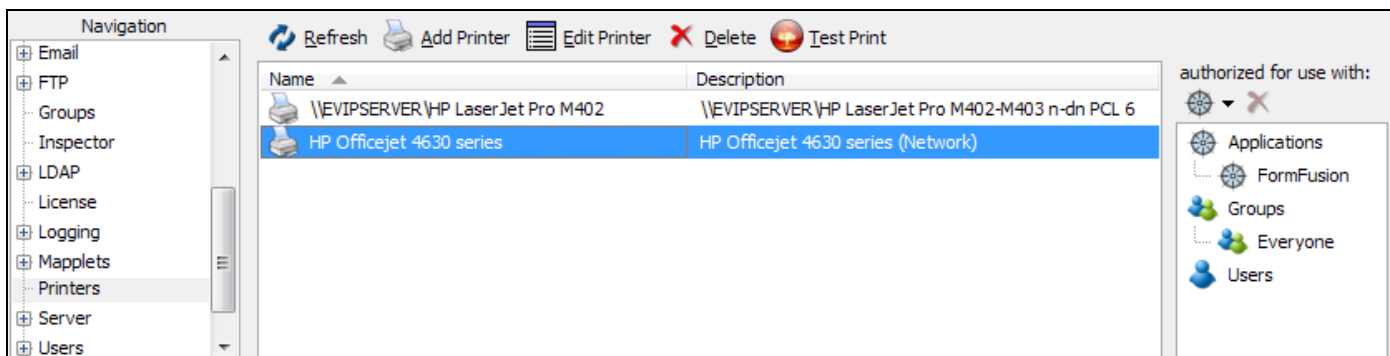
- The name being manually entered in the System Name field must match the printer's system name exactly as displayed on the cloud-based delivery device.



Lastly, ensure that the **This is an out-of-network printer** check box is checked, and select **OK**.

Authorization

You can now authorize the printer for use by individual applications, users, and groups. Right-click in the **Authorized for use with** pane on the right (or use the dropdown menu) and choose **Add Application**, **Add Group**, or **Add User**. These options open a list of available users, groups, or applications that can be authorized for use with the selected printer.



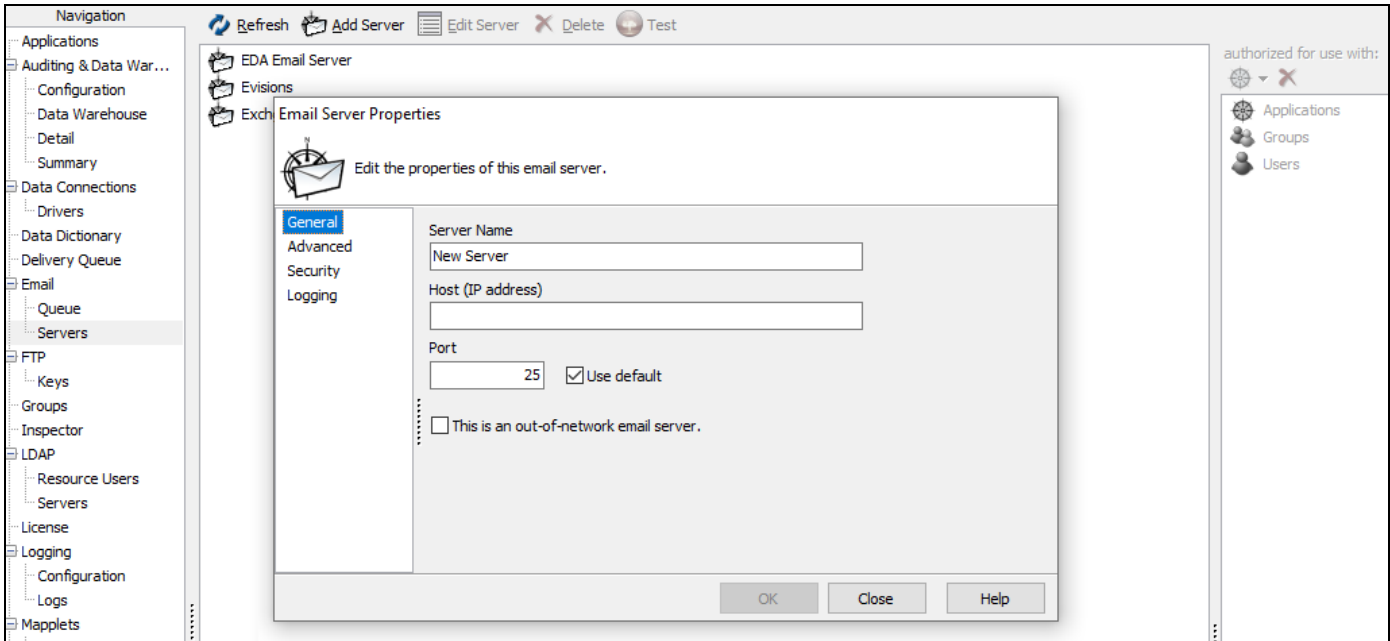
In this example, use of the HP Officejet 4630 printer is limited to the FormFusion application, and is available to all users (the “Everyone” group) who use FormFusion. To restrict access to specific users or groups, authorize those users or groups individually instead of using the “Everyone” group.

To verify that the printer was added to MAPS successfully, select the printer and then click the **Test Print** button at the top of the screen to send a test page to the printer.

If you run into any problems adding your printers, refer to the [Troubleshooting](#) section of the MAPS Help.

Adding Email Servers

The **Email -> Servers** screen is where you identify the email server(s) to be used with MAPS applications. For example, FormFusion output can be delivered via email. To use email in your applications, add your existing email server to MAPS by selecting **Add Server** at the top of the screen.



Email Server Configuration

The Email Server Properties dialog contains four screens:

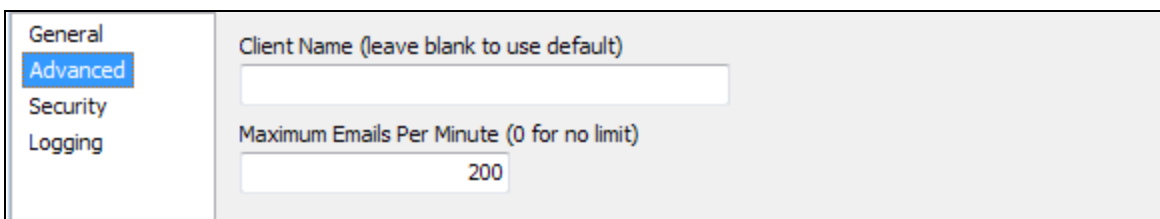
General

Server Name: Enter an identifier for this email server. The name you specify here is how this mail server will be listed in the MAPS applications, and does not need to match the actual mail server name.

Host (IP address): The IP or host name of the mail server.

Port: The default port for SMTP is port 25. If your mail server uses a different port, enter the port number here.

Advanced



Client Name: The domain name that appears in the header data of the emails sent from MAPS. If you leave this field blank, it shows the MAPS server's domain name.

Maximum Emails Per Minute: Allows you to control the rate at which MAPS sends queued emails to your mail server. This can be useful when sending out large-volume mass mailings.

Security

General	SMTP Security Level	
Advanced	(auto detect) ▼	<input checked="" type="checkbox"/> Use TLS
Security	User Name	Password
Logging	testuser	●●●●●●●●

SMTP Security Level: The type of security used by the mail server. The available options are auto-detect, none, login, plain, DIGEST-MD5, CRAM-MD5, and CRAM-SHA1. When in doubt, the preferred setup is to use (auto detect) to let MAPS determine the security settings of your mail server.

Use TLS: Check this box if your mail server supports Transport Layer Security for email encryption. Some mail servers, such as Gmail's, require TLS. MAPS 6.2 and higher support TLS versions 1.0 and up. Earlier versions of MAPS only support TLS 1.0.

User Name/Password: Enter the credentials for the mail account to use.

Logging

General	<input checked="" type="checkbox"/> Logging enabled
Advanced	Log filename (leave blank to use MAPS log)
Security	C:\Program Files\Evisions\MAPS\Services\Logs\email.log
Logging	

Logging: Check this box to enable email logging.

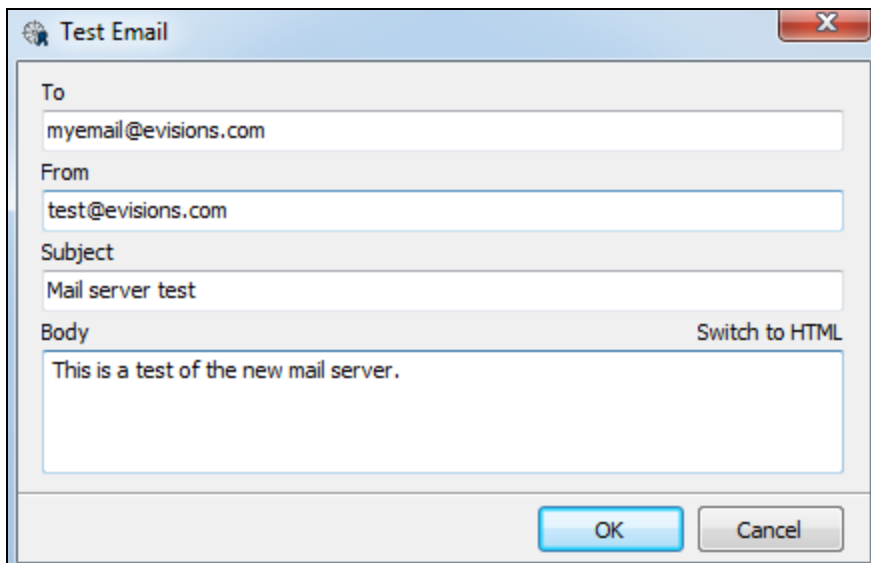
Log filename: By default, all log entries, including email logs, reside in the main MAPS log file. Alternatively, enter a path and filename if you wish to store the email logs in a separate file. Using a separate log file helps to reduce the size of the MAPS logs and makes it easier to find the specific information you need.

[Authorizing the Email Server](#)

You can now authorize the email server for use by individual applications, users, and groups. Right-click in the **Authorized for use with** pane on the right (or use the dropdown menu) and choose **Add Application**, **Add Group**, or **Add User**. These options open a list of available users, groups, or applications that can be authorized for use with the selected email server.

[Testing the Email Server](#)

To make sure the newly added email server works correctly, select the **Test** button at the top of the Email Servers screen. Enter some parameters in the Test Email dialog, then select OK to send a test email.



The screenshot shows a 'Test Email' dialog box with the following fields and content:

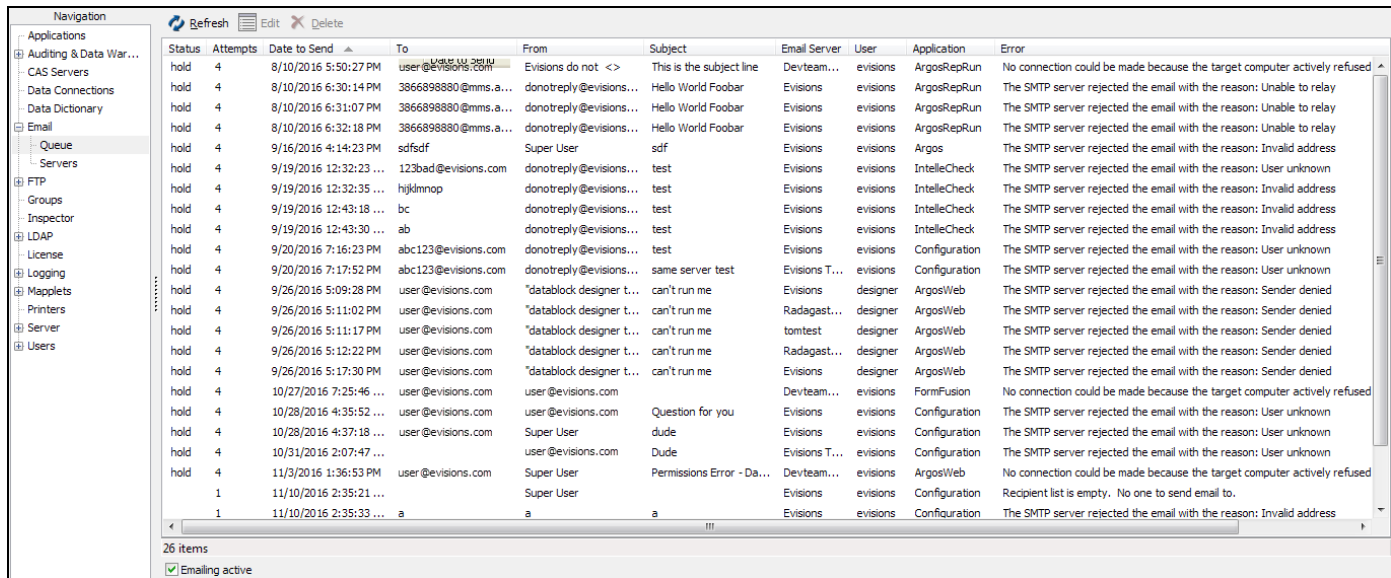
- To:** myemail@evisions.com
- From:** test@evisions.com
- Subject:** Mail server test
- Body:** This is a test of the new mail server.

At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

If you are entering multiple email addresses in the To field, separate the addresses using commas.

Email Queue

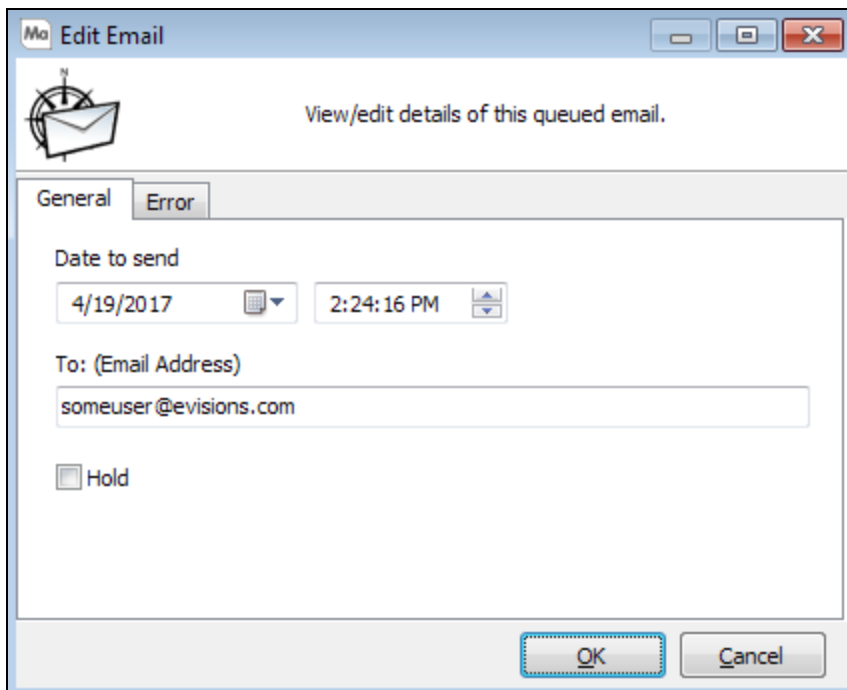
The **Email -> Queue** screen allows you to keep track of emails sent by MAPS or any of MAPS applications that have email capability. If all emails have been sent as intended, this list will be blank. MAPS will attempt to send an email four times. If it fails after the fourth try, the email will be held in the queue. Depending on the application, you can have the application specify to have these emails returned to sender. Several MAPS applications have the ability to queue an email to be sent at a later time. The date and time an email is scheduled to be sent is listed in the "Date to Send" column.



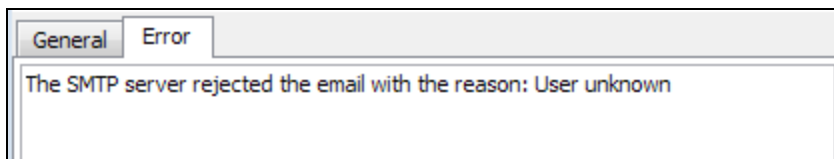
Status	Attempts	Date to Send	To	From	Subject	Email Server	User	Application	Error
hold	4	8/10/2016 5:50:27 PM	user@evisions.com	Evisions do not <>	This is the subject line	Devteam...	evisions	ArgosRepRun	No connection could be made because the target computer actively refused
hold	4	8/10/2016 6:30:14 PM	3866898880@mms.a...	donotreply@evisions...	Hello World Foo	Evisions	evisions	ArgosRepRun	The SMTP server rejected the email with the reason: Unable to relay
hold	4	8/10/2016 6:31:07 PM	3866898880@mms.a...	donotreply@evisions...	Hello World Foo	Evisions	evisions	ArgosRepRun	The SMTP server rejected the email with the reason: Unable to relay
hold	4	8/10/2016 6:32:18 PM	3866898880@mms.a...	donotreply@evisions...	Hello World Foo	Evisions	evisions	ArgosRepRun	The SMTP server rejected the email with the reason: Unable to relay
hold	4	9/16/2016 4:14:23 PM	sdfsd	Super User	sdf	Evisions	evisions	Argos	The SMTP server rejected the email with the reason: Invalid address
hold	4	9/19/2016 12:32:23 ...	123bad@evisions.com	donotreply@evisions...	test	Evisions	evisions	IntelleCheck	The SMTP server rejected the email with the reason: User unknown
hold	4	9/19/2016 12:32:35 ...	hijklmnop	donotreply@evisions...	test	Evisions	evisions	IntelleCheck	The SMTP server rejected the email with the reason: Invalid address
hold	4	9/19/2016 12:43:18 ...	bc	donotreply@evisions...	test	Evisions	evisions	IntelleCheck	The SMTP server rejected the email with the reason: Invalid address
hold	4	9/19/2016 12:43:30 ...	ab	donotreply@evisions...	test	Evisions	evisions	IntelleCheck	The SMTP server rejected the email with the reason: Invalid address
hold	4	9/20/2016 7:16:23 PM	abc123@evisions.com	donotreply@evisions...	test	Evisions	evisions	Configuration	The SMTP server rejected the email with the reason: User unknown
hold	4	9/20/2016 7:17:52 PM	abc123@evisions.com	donotreply@evisions...	same server test	Evisions T...	evisions	Configuration	The SMTP server rejected the email with the reason: User unknown
hold	4	9/26/2016 5:09:28 PM	user@evisions.com	"datablock designer t...	can't run me	Evisions	designer	ArgosWeb	The SMTP server rejected the email with the reason: Sender denied
hold	4	9/26/2016 5:11:02 PM	user@evisions.com	"datablock designer t...	can't run me	Radagast...	designer	ArgosWeb	The SMTP server rejected the email with the reason: Sender denied
hold	4	9/26/2016 5:11:17 PM	user@evisions.com	"datablock designer t...	can't run me	tomtest	designer	ArgosWeb	The SMTP server rejected the email with the reason: Sender denied
hold	4	9/26/2016 5:12:22 PM	user@evisions.com	"datablock designer t...	can't run me	Radagast...	designer	ArgosWeb	The SMTP server rejected the email with the reason: Sender denied
hold	4	9/26/2016 5:17:30 PM	user@evisions.com	"datablock designer t...	can't run me	Evisions	designer	ArgosWeb	The SMTP server rejected the email with the reason: Sender denied
hold	4	10/27/2016 7:25:46 ...	user@evisions.com	user@evisions.com		Devteam...	evisions	FormFusion	No connection could be made because the target computer actively refused
hold	4	10/28/2016 4:35:52 ...	user@evisions.com	user@evisions.com	Question for you	Evisions	evisions	Configuration	The SMTP server rejected the email with the reason: User unknown
hold	4	10/28/2016 4:37:18 ...	user@evisions.com	Super User	dude	Evisions	evisions	Configuration	The SMTP server rejected the email with the reason: User unknown
hold	4	10/31/2016 2:07:47 ...	user@evisions.com	user@evisions.com	Dude	Evisions T...	evisions	Configuration	The SMTP server rejected the email with the reason: User unknown
hold	4	11/3/2016 1:36:53 PM	user@evisions.com	Super User	Permissions Error - Da...	Devteam...	evisions	ArgosWeb	No connection could be made because the target computer actively refused
1	1	11/10/2016 2:35:21 ...		Super User		Evisions	evisions	Configuration	Recipient list is empty. No one to send email to.
1	1	11/10/2016 2:35:33 ...	a	a	a	Evisions	evisions	Configuration	The SMTP server rejected the email with the reason: Invalid address

The **Emailing active** checkbox at the bottom of the screen controls whether MAPS is currently attempting to send emails or not. Unchecking the box will prevent any emails from being sent from any of the MAPS applications.

When an email is selected, clicking the **Edit** button brings up the **Edit Email** dialog shown below where you can override the date and time the email will be sent, and edit the email address if needed. Checking the **Hold** checkbox will hold the email in the queue and not send it.



Click the **Error** tab to view the error that caused the email to be sent to the queue.



In cases where you have a large number of emails to edit, you can use Shift or Control to select multiple emails at once. Editing emails this way will make the same changes to all of the selected emails.

If you want to configure notifications to alert you when emails from one or more applications are failing, you can do this on the [Notifications](#) screen under the Server section of MAPS.

Authorizing Applications

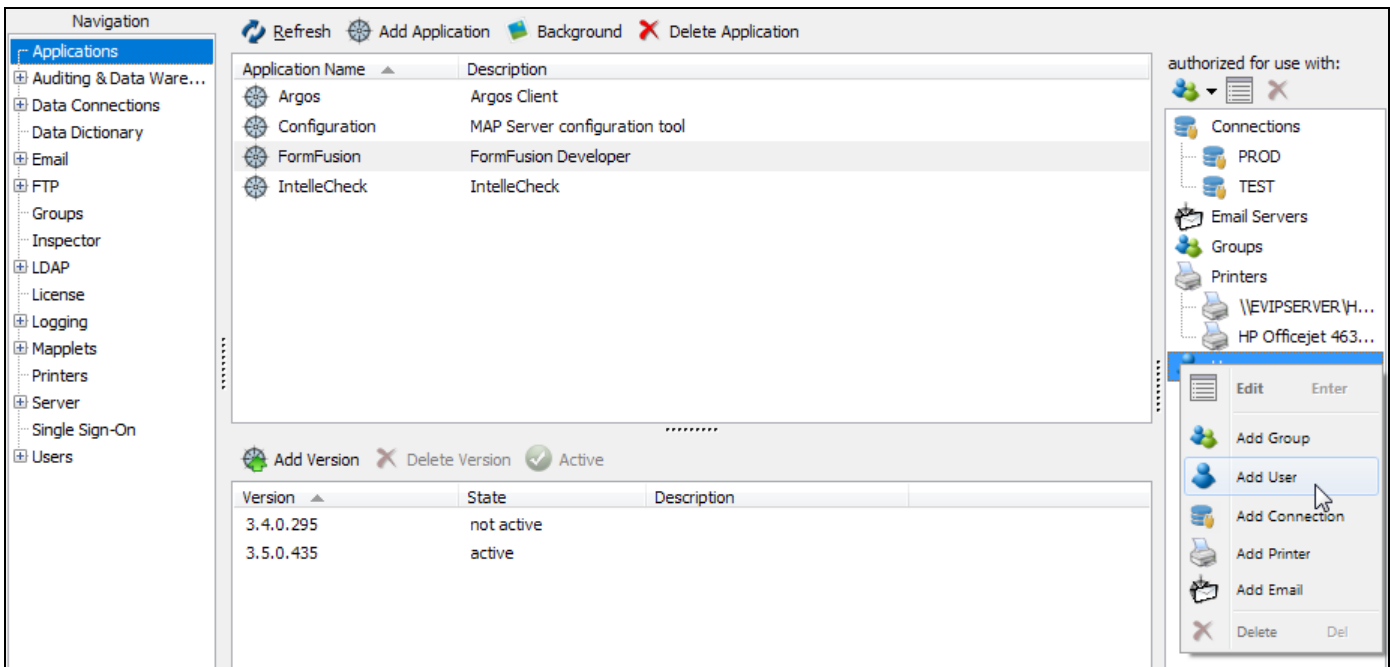
The previous examples described how to authorize items (data connections, printers, and email servers) for use with applications or by users and groups at the time the item was created. You can also create these authorizations from the Applications screen, which may be easier if you are making a lot of changes.

Authorization

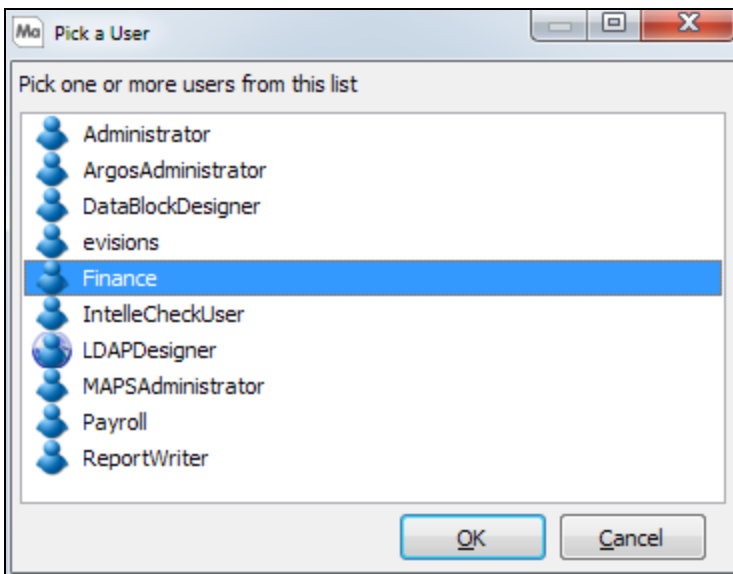
The process of identifying which users, groups, servers, printers, and data connections are allowed to use or be used by a given application.

If you have already performed the required authorizations, you can skip this section. If, however, you did not specify authorizations at the time you created an item (printer, data connection, etc.), you can do it now from the Applications screen. In this example, we are authorizing items for FormFusion.

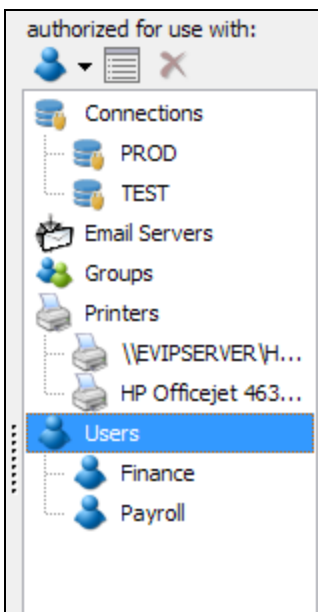
Select the FormFusion application, then right-click in the **Authorized for use with** pane on the right (or use the dropdown). In this example, we are choosing to authorize a user.



Select **Add User** to bring up the list of users previously created. Select the users who should have access to the application, then click **OK**.



After adding users, the screen will appear similar to the following:

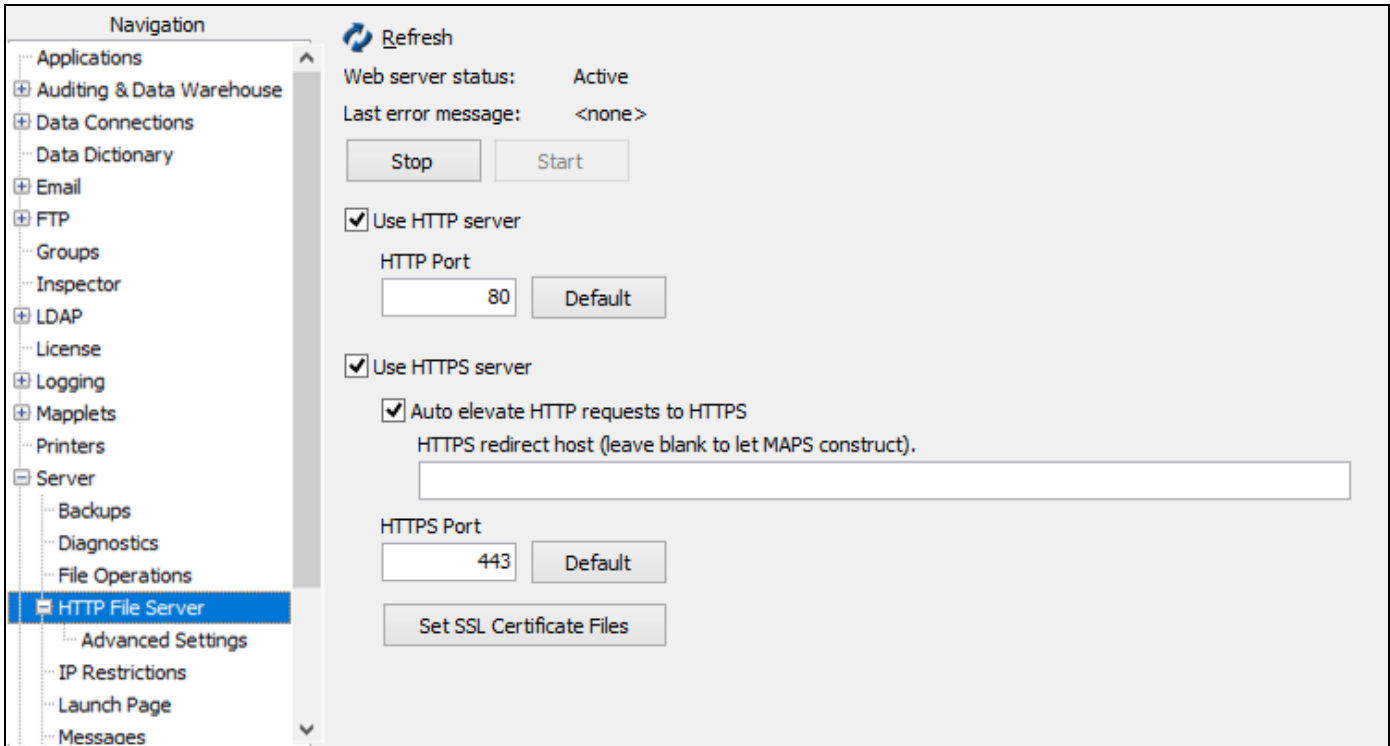


In a similar fashion, you may authorize existing data connections, email servers, users, groups, and printers for use with the applications.

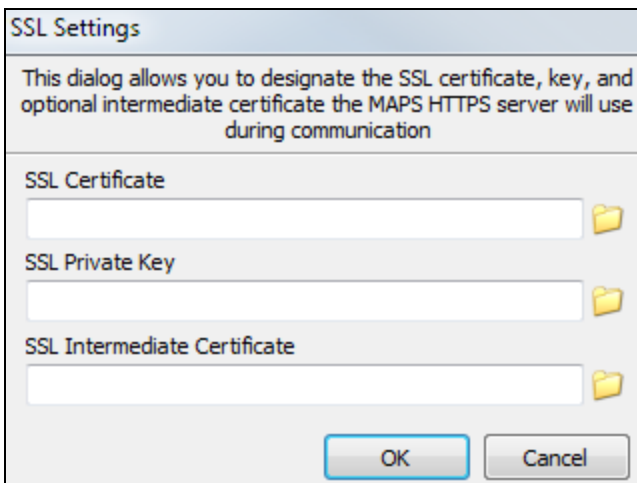
Adding an SSL Certificate

MAPS hosts the eLauncher landing page and the Argos Web Viewer on an integrated web server, which can be configured to use either HTTP or HTTPS depending on your institution's needs. Evisions highly recommends using HTTPS, which requires an SSL certificate for the server. Using HTTPS will improve security, as well as allow you to use the eLauncher's single sign-on features. HTTPS is also required in order to use the Argos Web Viewer.

Once you have [obtained an SSL certificate](#), go to the **HTTP File Server** screen in MAPS and check the box to **Use HTTPS Server**.



Use the **Set SSL Certificate Files** button to browse for the certificate files.



Click the folder icons to browse for the SSL certificate, private key, and intermediate certificate (if any), then select OK.

Verify that you are able to log in using HTTPS. Instead of the default URL of <http://localhost:8080>, you will use <https://localhost> to access the eLauncher. *If you specify a port other than 443 for HTTPS, you will also need to include the port number in the URL.*

Once you have confirmed that you are able to connect using HTTPS, you can enable the **auto elevate HTTP requests to HTTPS** feature. When this box is checked, users can type in a shorter HTTP URL and MAPS will automatically convert it to HTTPS.

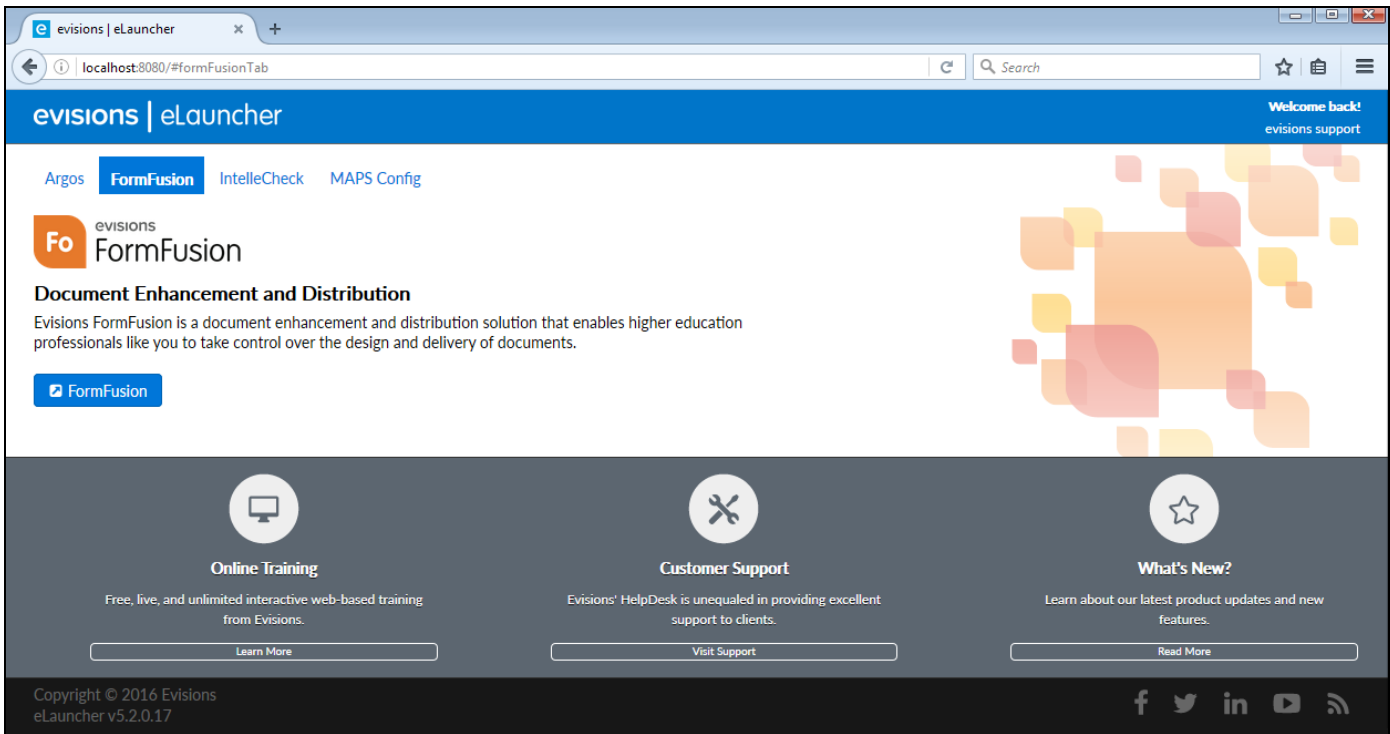
Important!

Do not check the option to auto-elevate HTTP requests to HTTPS until you have tested logging in using HTTPS and have confirmed that you are able to launch MAPS. If there is a problem with the certificate files, you may not be able to connect through the eLauncher and will need to run MAPS Config manually to correct the problem.

For more detailed information on configuring the HTTP/HTTPS file server, refer to the [HTTP File Server](#) page in the MAPS Help.

Testing Application Installation

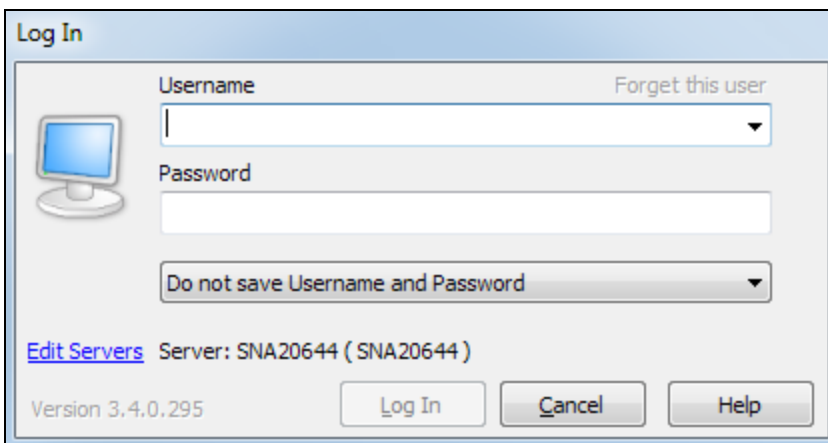
At this point you have completed the basic configuration of MAPS. You should test to ensure the client applications are accessible to your users. To perform this test, open a web browser (i.e. Internet Explorer) and go to <http://localhost:8080> (or the appropriate port if you had to change it).



In this example, we will show how to log in to FormFusion. However, the process is the same for all of the MAPS applications.

Click on the **FormFusion** tab, then click the blue **FormFusion** button to launch the application.

Log in as one of the newly created users.



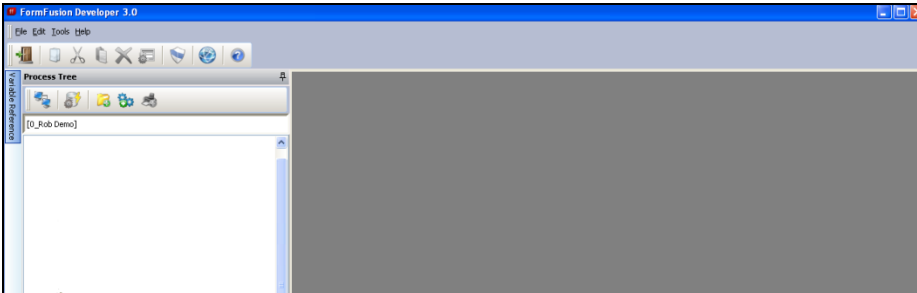
If this is a secure computer, you can also select to have FormFusion remember the username and/or password for this user.

Selecting a Server

If needed, click on "Edit Servers" to change the server address or port. When you enter the URL into your web browser, the application is passed the server information. However, if you wish to manually connect to a different server, you can use this option.

Click the **Log In** button to continue.

If the installation was successful, you should see the application launch. If not, contact [Evisions Support](#) for assistance in the installation.



Testing Recommendations

Remember to test the applications from a client computer on the Intranet as well. Also test from a client computer external to the Intranet to ensure that a firewall does not restrict access to the applications.

When not running the applications on the local host, launching the applications (from your browser) requires that you enter the IP address for the server (or server name) on which MAPS is running.

Installation of Application Launcher on Users' Machines

The Evisions Application Launcher (EAL) must be installed on each user's machine. For users who are able to install software on their computer, they will be prompted to download and install the EAL when attempting to launch any MAPS application for the first time after the new launcher has been enabled. They will also see this prompt whenever a MAPS update includes a new version of the EAL.

Users must have version 4.5 or higher of the Microsoft .NET Framework installed on their machines, or they will be prompted to install it while installing the EAL.

For institutions where end users do not have install permissions for the machines they use to launch the applications, we have provided an .msi installer that your IT department can use to roll out the new launcher via Group Policy. You can find the `evisions_application_launcher.msi` file on the machine where MAPS is installed. It will be located in the MAPS Service directory under `\http_files\evisions_application_launcher`. The full path will look similar to: `C:\Evisions\MAPS\Service\http_files\evisions_application_launcher\evisions_application_launcher.msi`.

Your IT department should ensure that the Microsoft .NET Framework is installed on each machine where the Evisions Application Launcher will be installed.

Getting Help

For information on using the software, please refer to the product Help, which contains detailed information on all aspects of the product.

If you are having problems with the installation or configuration, you can search our [support site](#), which includes a knowledge base of common issues. If you are unable to find the solution, submit a HelpDesk request with a detailed explanation of the problem you are experiencing.

Please do not hesitate to contact the Evisions HelpDesk if any questions or problems arise. We are here to help you and want to ensure your success.

Can't find what you're looking for?

We would love to make our documentation better! If you have a moment to let us know what we missed or how we can make the help more useful, please email us at TechDocs@evisions.com.