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Chapter 1

Altova LicenseServer
1 Altova LicenseServer

Altova LicenseServer (hereafter also called LicenseServer for short) provides a central location for the management of licenses for Altova products. Altova applications running in a network can have licenses assigned to them from the LicenseServer, thus giving administrators the flexibility to manage and monitor licenses.

Current version: 1.20

Licensing process with Altova LicenseServer
To assign an Altova server product a license via Altova LicenseServer, you need to do the following:

1. **Start LicenseServer**
2. Open the LicenseServer Configuration page, which is the Web UI of LicenseServer, on Windows, Linux, or Mac OS X
3. **Upload the license/s** you have received from Altova to LicenseServer. Do this in the License Pool tab of the Configuration page.
5. **Assign licenses** to Altova server In the Server Management tab of the Configuration page.

Licenses can thereafter be conveniently monitored and managed centrally with LicenseServer. See the Configuration Page Reference for available functionality.

Note: The LicenseServer Configuration page does not support SSL.

LicenseServer versions and their compatibility with Altova server products

New versions of Altova server products can only be licensed with the version of LicenseServer that is the latest at the time of the server product's release. However, older versions of Altova server products will work with newer versions of LicenseServer.

So, if you are installing a new version of an Altova server product and if your current LicenseServer version is not the latest, de-install this older version and install the latest version available on the Altova website. All registration and licensing information held in your older version of LicenseServer will be saved at the time of de-installation to a database on your server machine, and will be imported automatically into the newer version. When you install a newer version of LicenseServer, the older version will be de-installed before the newer version is installed.

The version number of the currently installed LicenseServer is given at the bottom of the LicenseServer configuration page (all tabs).

Current version: 1.20
About this documentation
This documentation is organized into the following parts:

- Introductory information about: network requirements; installation on Windows, Linux, and Mac OS X; and Altova ServiceController.
- How to Assign Licenses, which describes in a step-by-step way how to assign licenses with Altova LicenseServer.

Last updated: 05-12-2015
1.1 Network Information

Altova LicenseServer must be installed on a server machine that is accessible by all clients running Altova products that require a license. Any firewall on both the client and server must allow the network traffic to and from the LicenseServer that is necessary for the LicenseServer to operate correctly.

On the LicenseServer machine, port 35355 is used to distribute licenses, and therefore it must be open for network traffic with client machines.

The following are the default networking parameters and requirements of LicenseServer:

- For LicenseServer license distribution:
  Either one or both of
  - IPv4 TCP connection on port 35355
  - IPv6 TCP connection on port 35355

For administrative tasks, the LicenseServer is accessed by a web interface that uses port 8088. The port used can be configured to suit your requirements.

---

Connection to the Master Licensing Server at altova.com

The Altova LicenseServer needs to be able to communicate with the Master Licensing Server at altova.com to validate and authenticate license-related data and to ensure continuous compliance with the Altova license agreements. This communication occurs over HTTPS using port 443. If the Altova LicenseServer, after making the initial verification with the altova.com Master Licensing Server, is unable to again connect with altova.com for a duration of more than 5 days (= 120 hours), then the Altova LicenseServer will no longer permit the usage of any Altova software products connected to the Altova LicenseServer.

Any such loss of connection with the altova.com master servers will be logged in the Messages tab of the Configuration page of the Altova LicenseServer. In addition, the administrator can configure the Altova LicenseServer to automatically send an alert email when the connection to altova.com is lost. Alert Mail settings are available in the Settings tab of the Configuration page.
1.2 Installation (Windows)

Altova LicenseServer can be installed on Windows systems in one of two ways:

- As an independent installation.
- As part of an Altova server product installation. (Altova server products are: Altova FlowForce Server, Altova MapForce Server, Altova StyleVision Server, Altova RaptorXML(+XBRL), and Altova MobileTogether Server.)

If LicenseServer is not installed on your system at the time an Altova server product is installed, the option to install LicenseServer is selected by default during installation setup. If LicenseServer is already installed, the option to install it is deselected by default. You can change the default option if you like.

For information about how to proceed with assigning licenses, see the section How to Assign Licenses.

LicenseServer versions and their compatibility with Altova server products

New versions of Altova server products can only be licensed with the version of LicenseServer that is the latest at the time of the server product's release. However, older versions of Altova server products will work with newer versions of LicenseServer.

So, if you are installing a new version of an Altova server product and if your current LicenseServer version is not the latest, de-install this older version and install the latest version available on the Altova website. All registration and licensing information held in your older version of LicenseServer will be saved at the time of de-installation to a database on your server machine, and will be imported automatically into the newer version. When you install a newer version of LicenseServer, the older version will be de-installed before the newer version is installed.

The version number of the currently installed LicenseServer is given at the bottom of the LicenseServer configuration page (all tabs).

Current version: 1.20

The version number of the LicenseServer that is appropriate for any particular version of a server product is displayed during the installation of that version of the server product. You can choose to install this version of LicenseServer along with the server product, or you can install the newer version of LicenseServer separately. In both cases, the installer will automatically de-install the previous version and install the new version.
1.3 Installation (Linux)

Altova LicenseServer can be installed on Linux systems (Debian, Ubuntu, CentOS, RedHat).

Uninstalling old versions of LicenseServer

On the Linux command line interface (CLI), you can check whether LicenseServer is installed with the following command:

- [Debian, Ubuntu]: `dpkg --list | grep Altova`
- [CentOS, RedHat]: `rpm -qa | grep server`

If LicenseServer is not installed, go ahead with the installation as documented in the next steps. If LicenseServer is installed and you wish to install a newer version of it, uninstall the old version with the command:

- [Debian, Ubuntu]: `sudo dpkg --remove licenseserver`
- [CentOS, RedHat]: `sudo rpm -e licenseserver`

Installing Altova LicenseServer

On Linux systems, LicenseServer must be installed independently of other Altova server products. It is not included as part of the installation packages of Altova server products. Download Altova LicenseServer from the Altova website and copy the package to any directory on the Linux system.

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Installer extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debian</td>
<td>.deb</td>
</tr>
<tr>
<td>Ubuntu</td>
<td>.deb</td>
</tr>
<tr>
<td>CentOS</td>
<td>.rpm</td>
</tr>
<tr>
<td>RedHat</td>
<td>.rpm</td>
</tr>
</tbody>
</table>

In a terminal window, switch to the directory where you have copied the Linux package. For example, if you copied it to a user directory called MyAltova (that is located, say, in the /home/User directory), then switch to this directory as follows:

```
    cd /home/User/MyAltova
```

Install LicenseServer with the following command:

- [Debian]: `sudo dpkg --install licenseserver-1.20-debian.deb`
- [Ubuntu]: `sudo dpkg --install licenseserver-1.20-ubuntu.deb`
- [CentOS]: `sudo rpm -ivh licenseserver-1.20-1.x86_64.rpm`
[RedHat]:  sudo rpm -ivh licenseserver-1.20-1.x86_64.rpm

The LicenseServer package will be installed in:

/opt/Altova/LicenseServer

For information about how to proceed with assigning licenses, see the section How to Assign Licenses.

LicenseServer versions and their compatibility with Altova server products

New versions of Altova server products can only be licensed with the version of LicenseServer that is the latest at the time of the server product's release. However, older versions of Altova server products will work with newer versions of LicenseServer.

So, if you are installing a new version of an Altova server product and if your current LicenseServer version is not the latest, de-install this older version and install the latest version available on the Altova website. All registration and licensing information held in your older version of LicenseServer will be saved at the time of de-installation to a database on your server machine, and will be imported automatically into the newer version. When you install a newer version of LicenseServer, the older version will be de-installed before the newer version is installed.

The version number of the currently installed LicenseServer is given at the bottom of the LicenseServer configuration page (all tabs).

Current version: 1.20
1.4 Installation (Mac OS X)

Altova LicenseServer can be installed on Mac OS X systems (version 10.7 or higher). Since you might need to uninstall a previous version, uninstalling is described first.

Uninstalling old versions of LicenseServer

Before uninstalling LicenseServer, stop the service with the following command:

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenseServer.plist
```

To check whether the service has been stopped, open the Activity Monitor terminal and make sure that LicenseServer is not in the list.

In Applications, right-click the LicenseServer icon and select **Move to Trash**. The application will be moved to Trash. You will, however, still need to remove the application from the `usr` folder. Do this with the command:

```
sudo rm -rf /usr/local/Altova/LicenseServer
```

Installing Altova LicenseServer

Open the download page [http://www.altova.com/download.html](http://www.altova.com/download.html) and locate the Altova LicenseServer installer under "Server Software Products" for Mac. After downloading the disk image (.dmg) file, click to open it. This mounts a new virtual drive on your computer. On the virtual drive, double-click the package (.pkg) file, and follow the on-screen instructions. You will need to accept the license agreement for installation to proceed.

The LicenseServer package will be installed in the folder:

```
/usr/local/Altova/LicenseServer
```

To eject the virtual drive after installation, right-click it, and select **Eject**.
1.5 **Altova ServiceController**

Altova ServiceController (ServiceController for short) is an application for conveniently starting, stopping and configuring Altova services on Windows systems.

ServiceController is installed with Altova LicenseServer and with *Altova server products that are installed as services* (FlowForce Server, RaptorXML(+XBRL) Server, and Mobile Together Server). It can be started by clicking **Start | Altova LicenseServer | Altova ServiceController**. (This command is also available in the **Start** menu folders of *Altova server products that are installed as services* (FlowForce Server, RaptorXML(+XBRL) Server, and Mobile Together Server).) After ServiceController has been started, it can be accessed via the system tray (screenshot below).

To specify that ServiceController starts automatically on logging in to the system, click the **ServiceController** icon in the system tray to display the **ServiceController** menu (screenshot below), and then toggle on the command **Run Altova ServiceController at Startup**. (This command is toggled on by default.) To exit ServiceController, click the **ServiceController** icon in the system tray and, in the menu that appears (see screenshot below), click **Exit Altova ServiceController**.

---

**Starting and stopping Altova services**

Each installed Altova service component will have an entry in the ServiceController menu (see screenshot above). An Altova service can be started or stopped via a command in its ServiceController sub-menu. Additionally, important administration tasks of individual services can be accessed via the ServiceController menu. In the screenshot above, for example, Altova LicenseServer service has a sub-menu in which you can choose to access LicenseServer's Configuration page via the **Configure** command.
1.6 How to Assign Licenses

To assign an Altova server product a license using Altova LicenseServer, do the following:

1. Start LicenseServer
2. Open the LicenseServer Configuration page, which is the administrator's interface with LicenseServer, on Windows, Linux, or Mac OS X.
3. Upload the license/s you have received from Altova to the license pool of your Altova LicenseServer. Do this in the License Pool tab of the LicenseServer Configuration page.
4. Register the Altova server product (FlowForce Server, MapForce Server, StyleVision Server, RaptorXML(+XBRL) Server) with LicenseServer. Depending on the product's type, the method of registering it with LicenseServer will be different: either via the product's Web UI or its command line. See the documentation of your Altova server product for additional information.
5. In the Server Management tab of the LicenseServer Configuration page, assign a license to the Altova server product according to the number of cores on the product machine.

Note on cores and licenses

The licensing of Altova server products, except MobileTogether Server***, is based on the number of processor cores available on the product machine. For example, a dual-core processor has two cores, a quad-core processor four cores, a hexa-core processor six cores, and so on. The number of cores licensed for a product on a particular server machine must be greater than or equal to the number of cores available on that server, whether it's a physical or virtual machine.

For example, if a server has eight cores (an octa-core processor), you must purchase at least an 8-core license. You can also combine licenses to achieve the core count. So, two 4-core licenses can also be used for an octa-core server instead of an 8-core license.

If you are using a computer server with a large number of CPU cores but only have a low volume to process, you may also create a virtual machine that is allocated a smaller number of cores, and purchase a license for that number. Such a deployment, of course, will have less processing speed than if all available cores on the server were utilized.

Note: Each license can be used for only one client machine at a time, even if it has unused licensing capacity. For example, if a 10-core license is used for a client machine that has 6 CPU cores, then the remaining 4 cores of the license cannot be used simultaneously for another client machine.

*** MobileTogether Server licenses are assigned on the basis of the number of users, that is, the number of client devices that connect to MobileTogether Server.
1.6.1 Start LicenseServer

This section:

- How to start LicenseServer on Windows systems
- How to start LicenseServer on Linux systems
- How to start LicenseServer on Mac OS X systems
- Note about Connection to altova.com

Windows systems
You can start LicenseServer via the Altova ServiceController, which is available in the system tray.

First, click **Start | All Programs | Altova LicenseServer | Altova ServiceController** to start Altova ServiceController and display its icon in the system tray (see screenshot below). If you select the **Run Altova ServiceController at Startup** option, Altova ServiceController will start up on system start and its icon will be available in the system tray from then onwards.

To start LicenseServer, click the Altova ServiceController icon in the system tray, hover over **Altova LicenseServer** in the menu that pops up (see screenshot below), and then select **Start Service** from the LicenseServer submenu. If LicenseServer is already running, the **Start Service** option will be disabled.

Linux systems
To start LicenseServer as a service on Linux systems, run the following command in a terminal window.

```
[Debian]:           sudo /etc/init.d/licenseserver start
[Ubuntu]:           sudo initctl start licenseserver
[CentOS]:           sudo initctl start licenseserver
[RedHat]:           sudo initctl start licenseserver
```

(If you need to stop LicenseServer, replace **start** with **stop** in the above command.)
Mac OS X systems
To start LicenseServer as a service on Mac OS X systems, run the following command in a terminal window:

```
sudo launchctl load /Library/LaunchDaemons/com.altova.LicenseServer.plist
```

If at any time you need to stop LicenseServer, use:

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenseServer.plist
```

---

Connection to the Master Licensing Server at altova.com
The Altova LicenseServer needs to be able to communicate with the Master Licensing Server at altova.com to validate and authenticate license-related data and to ensure continuous compliance with the Altova license agreements. This communication occurs over HTTPS using port 443. If the Altova LicenseServer, after making the initial verification with the altova.com Master Licensing Server, is unable to again connect with altova.com for a duration of more than 5 days (= 120 hours), then the Altova LicenseServer will no longer permit the usage of any Altova software products connected to the Altova LicenseServer.

Any such loss of connection with the altova.com master servers will be logged in the Messages tab of the Configuration page of the Altova LicenseServer. In addition, the administrator can configure the Altova LicenseServer to automatically send an alert email when the connection to altova.com is lost. Alert Mail settings are available in the Settings tab of the Configuration page.
1.6.2 Open LicenseServer's Config Page (Windows)

This section:

- Opening the Configuration page if LicenseServer is on the same machine
- Opening the Configuration page if LicenseServer is on another machine
- Logging in with the initial password
- Setting a fixed port for the Configuration page

Opening the Configuration page if LicenseServer is on the same machine

On Windows systems, if LicenseServer is on the same machine, you can open the Configuration page of LicenseServer in one of two ways:

- Click Start | All Programs | Altova LicenseServer | LicenseServer Configuration Page. The Configuration page opens in a new tab of your Internet browser.
- Click the Altova ServiceController icon in the system tray, mouse over Altova LicenseServer in the menu that pops up (see screenshot below), and then select Configure from the LicenseServer submenu.

![Screenshot of LicenseServer Configuration page](image)

The Configuration page opens in a new browser window, and its login mask is displayed (screenshot below).

Opening the Configuration page if LicenseServer is on another machine

To open the LicenseServer Configuration page from some other Windows machine on the local network (than that on which LicenseServer is installed), enter the URL of the LicenseServer Configuration page in the address bar of a browser and press Enter. By default, the URL of the Configuration page will be:

http://<serverIPAddressOrName>:8088/

The URL is present in the HTML code of the Configuration page itself, which is named WebUI.html and is located at:
If you have set the URL of the Configuration page to be generated dynamically (in the Settings tab of the Configuration page), then a new URL is generated each time LicenseServer is started. You will need to check the current version of `WebUI.html` to find out the current URL of the Configuration page.

The dynamically generated URL in `WebUI.html` will have a form something like: `http://127.0.0.1:55541/optionally-an-additional-string`, and it is located in the function `checkIfServiceRunning()` in a script near the end of the `<head>` element. While the port number in the URL is dynamically assigned, the IP address part identifies the server on which LicenseServer has been installed. If you wish to access the LicenseServer Configuration page from another machine, make sure that the IP address part of the URL has the correct IP address or name of the server on which LicenseServer has been installed. For example, the URL could be something like: `http://MyServer:55541`.

Logging in with the initial password
After going through the steps above, the Configuration page is opened with the login mask displayed (screenshot below). You can log in with the initial password of `default`. After you have logged in, you can change your password in the Settings tab.

Setting a fixed or dynamic port for the Configuration page
The port of the Configuration page (Web UI)—and consequently its address—can be specified in the Settings page. By default the port is 8088. You can set any other port you want for the LicenseServer Configuration page (see screenshot below). Alternatively, you allow the port to be selected dynamically each time LicenseServer starts up. In this case, you will need to find out the URL of the Configuration page from the file `WebUI.html` (see Open LicenseServer Config Page (Windows) and Open LicenseServer Config Page (Linux)).
The advantage of a fixed port is that the page URL is known in advance and therefore can be accessed easily. If the port is assigned dynamically, the port part of the URL will have to be looked up in the file WebUI.html each time LicenseServer is started.
1.6.3  **Open LicenseServer's Config Page (Linux)**

**This section:**

- Opening the Configuration page for the first time with the returned URL
- URL of the LicenseServer Configuration page
- Logging in with the initial password
- Setting a fixed port for the Configuration page

---

**Opening the Configuration page for the first time with the returned URL**

On Linux systems, when you register your Altova server product with LicenseServer via the CLI, the URL of the LicenseServer Configuration page is returned. On opening this URL in a browser, you are prompted to read and accept the license agreement. After accepting the license agreement, the Configuration page's login mask is displayed (*screenshot below*).

---

**URL of the LicenseServer Configuration page**

To open the LicenseServer [Configuration page](#) at any time, enter its URL in the address bar of a browser and press **Enter**. By default, the URL of the Configuration page will be:

```
http://<serverIPAddressOrName>:8088/
```

The URL is present in the HTML code of the Configuration page itself, which is named `webUI.html` and is located at:

```
/var/opt/Altova/LicenseServer/webUI.html
```

If you have set the URL of the Configuration page to be generated dynamically (in the Settings tab of the Configuration page), then a new URL is generated each time LicenseServer is started. You will need to check the current version of `webUI.html` to find out the current URL of the Configuration page.

The dynamically generated URL in `webUI.html` will have a form something like: `http://127.0.0.1:55541`, and it is located in the function `checkIfServiceRunning()` in a script near the end of the `<head>` element. While the port number in the URL is dynamically assigned, the IP address part identifies the server on which LicenseServer has been installed. If you wish to access the LicenseServer [Configuration page](#) from another machine, make sure that the IP address part of the URL has the correct IP address or name of the server on which LicenseServer has been installed. For example, the URL could be something like: `http://MyServer:55541`.

---

**Logging in with the initial password**

After going through the steps above, the [Configuration page](#) is opened with the login mask displayed (*screenshot below*). You can log in with the initial password of **default**. After you have
logged in, you can change your password in the Settings tab.

Setting a fixed or dynamic port for the Configuration page
The port of the Configuration page (Web UI)—and consequently its address—can be specified in the Settings page. By default the port is 8088. You can set any other port you want for the LicenseServer Configuration page (see screenshot below). Alternatively, you allow the port to be selected dynamically each time LicenseServer starts up. In this case, you will need to find out the URL of the Configuration page from the file WebUI.html (see Open LicenseServer Config Page (Windows) and Open LicenseServer Config Page (Linux)).

The advantage of a fixed port is that the page URL is known in advance and therefore can be accessed easily. If the port is assigned dynamically, the port part of the URL will have to be looked up in the file WebUI.html each time LicenseServer is started.
1.6.4 Open LicenseServer's Config Page (Mac OS X)

This section:

- Opening the Configuration page for the first time with the returned URL
- URL of the LicenseServer Configuration page
- Logging in with the initial password
- Setting a fixed port for the Configuration page

Opening the Configuration page for the first time with the returned URL
On Mac OS X systems, when you register your Altova server product with LicenseServer via the CLI, the URL of the LicenseServer Configuration page is returned. On opening this URL in a browser, you are prompted to read and accept the license agreement. After accepting the license agreement, the Configuration page's login mask is displayed (screenshot below).

URL of the LicenseServer Configuration page
To open the LicenseServer Configuration page at any time, enter its URL in the address bar of a browser and press Enter. By default, the URL of the Configuration page will be:

http://<serverIPAddressOrName>:8088/

The URL is present in the HTML code of the Configuration page itself, which is named webUI.html and is located at:

/var/Altova/LicenseServer/webUI.html

If you have set the URL of the Configuration page to be generated dynamically (in the Settings tab of the Configuration page), then a new URL is generated each time LicenseServer is started. You will need to check the current version of webUI.html to find out the current URL of the Configuration page.

The dynamically generated URL in webUI.html will have a form something like: http://127.0.0.1:55541, and it is located in the function checkIfServiceRunning() in a script near the end of the <head> element. While the port number in the URL is dynamically assigned, the IP address part identifies the server on which LicenseServer has been installed. If you wish to access the LicenseServer Configuration page from another machine, make sure that the IP address part of the URL has the correct IP address or name of the server on which LicenseServer has been installed. For example, the URL could be something like: http://MyServer:55541.

Note: The Configuration page can also be accessed directly via the Finder | Applications | Altova License Server icon.
Logging in with the initial password

After going through the steps above, the Configuration page is opened with the login mask displayed (screenshot below). You can log in with the initial password of default. After you have logged in, you can change your password in the Settings tab.

Setting a fixed or dynamic port for the Configuration page

The port of the Configuration page (Web UI)—and consequently its address—can be specified in the Settings page. By default the port is 8088. You can set any other port you want for the LicenseServer Configuration page (see screenshot below). Alternatively, you allow the port to be selected dynamically each time LicenseServer starts up. In this case, you will need to find out the URL of the Configuration page from the file WebUI.html (see Open LicenseServer Config Page (Windows) and Open LicenseServer Config Page (Linux)).
The advantage of a fixed port is that the page URL is known in advance and therefore can be accessed easily. If the port is assigned dynamically, the port part of the URL will have to be looked up in the file `WebUI.html` each time LicenseServer is started.
1.6.5  Upload Licenses to LicenseServer

This section:

- Uploading a license file to the license pool of LicenseServer
- License status
- Activating the licenses you wish to use
- Next steps

Uploading a license file to the license pool of LicenseServer
After you have obtained a license file from Altova, you must upload it to the Altova LicenseServer. (How to do this is described below.) Each license file can contain one or more licenses and depends on your purchase. When you upload a license file, all the licenses in it will be uploaded to LicenseServer and can be assigned to an Altova product that has been registered with that LicenseServer. All the uploaded licenses, from one or more license files and for all Altova products, are collected in a license pool on the LicenseServer. The license pool is displayed in the License Pool tab of the LicenseServer Configuration page (screenshot below).

License files are uploaded to the LicenseServer using the Upload function of the License Pool tab (see screenshot below).

Click the **Browse** button and select the license file you want. The license file will appear in the Upload License File text field and the **Upload** button will be enabled. Click the **Upload** button to upload the license file. All the licenses in the file are uploaded and displayed in the License Pool tab. The screenshot below shows multiple licenses, uploaded from multiple license files.
License status
License status values are as follows:

- **Activating**: When a license is uploaded into the license pool of LicenseServer, the server will transmit license-related data to the altova.com master licensing server to validate, authenticate, and activate the license that was supplied. This is necessary to ensure compliance with the Altova license agreements. During this initial activation and authentication transaction—which typically lasts between 30 seconds and a couple of minutes, depending on your Internet connection, speed, and overall network traffic—the status of the license will be indicated as **Activating**.

- **Failed Verification**: If a connection with the altova.com master licensing server cannot be made, then the status of the license in the pool will be shown as **Failed Verification**. If this happens, check your Internet connection and firewall rules to ensure that LicenseServer is able to communicate with the altova.com master licensing server.

- **Active**: Once the license has been authenticated and activated, the status in the pool will change to **Active**.

- **Inactive**: If a license has been verified, but is present on another LicenseServer on the network, the status in the pool will be shown as **Inactive**. An **Inactive** status also results when a license is manually deactivated in the license pool by the administrator.

- **Blocked**: A license is shown in the license pool as **Blocked** if there was a problem authenticating the license and the altova.com master licensing server has not granted permission to the LicenseServer to use this license. This could be the result of a license agreement violation, over-usage of a license, or other compliance issues. Should you see a license showing up as **Blocked**, please contact Altova Support with your license.
information and any other relevant data.

These statuses are summarized in the table below:

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activating...</td>
<td>On upload, license information is sent to altova.com for verification.</td>
</tr>
<tr>
<td></td>
<td>Refresh the browser to view the updated status. Verification and activation can take a few minutes.</td>
</tr>
<tr>
<td>Failed Verification</td>
<td>A connection to altova.com could not be made. After establishing a connection, either restart the service or activate the license (with the Activate button).</td>
</tr>
<tr>
<td>Active</td>
<td>Verification was successful, the license is active.</td>
</tr>
<tr>
<td>Inactive</td>
<td>Verification was successful, but the license is on another LicenseServer on the network. Licenses can be made inactive with the Deactivate button.</td>
</tr>
<tr>
<td>Blocked</td>
<td>Verification was not successful. License is invalid and is blocked. Contact Altova Support.</td>
</tr>
</tbody>
</table>

**Note:** After a license has been sent to altova.com for verification, the browser must be refreshed to see the updated status. Verification and activation can take a few minutes.

**Note:** If a connection to altova.com could not be made, the status will be Failed Verification. After establishing a connection, either restart the service or try activating the license with the Activate button.

**Note:** When a license is given a status of Inactive or Blocked, a message explaining the status is also added to the Messages log.

Only an active license can be assigned to a product installation. An inactive license can be activated or deleted from the license pool. If a license is deleted from the license pool, it can be uploaded again to the pool by uploading the license file containing it. When a license file is updated, only those licenses in it that are not already in the pool will be uploaded to the pool. To activate, deactivate, or delete a license, select it and then click the Activate, Deactivate, or Delete button, respectively.

---

**Activate the license/s you wish to use**
Before you can assign a license to an Altova product, it must be active. So do ensure it is active. If it is inactive, select it and click Activate.

---

**Next Steps**
After you have uploaded the license file to the LicenseServer and checked that the license you
want is active, do the following:

1. Register the Altova server product (FlowForce Server, MapForce Server, StyleVision Server) with LicenseServer. (If you have already done this prior to uploading the license file, you can now start assigning licenses.)
2. Assign a license to your Altova product that has been registered with the LicenseServer.
1.6.6 Register Product/s

Before you can assign a license to an Altova server product, you must register the product installation with LicenseServer. The registration is done from the Altova server product, and the process is different for those server products that have Web UIs and those that are run from the command line only. You will need the server name or IP Address of the machine on which LicenseServer is installed to carry out the registration.

This section describes how to register different Altova server products:

- Register FlowForce Server
- Register MapForce Server
- Register StyleVision Server
- Register RaptorXML(+)BRL Server
- Register MobileTogether Server

Register FlowForce Server

This section:

- Methods of registering FlowForce Server with LicenseServer
- Accessing the FlowForce Server Setup page (Windows)
- Accessing the FlowForce Server Setup page (Linux)
- Registering FlowForce Server via the Setup page
- Registering FlowForce Server via the FlowForce CLI (Windows)
- Registering FlowForce Server via the FlowForce CLI (Linux)
- Next steps

Methods of registering FlowForce Server

FlowForce Server can be registered with LicenseServer using any of the following methods:

- Via the FlowForce Server Setup page
- Via the FlowForce CLI (Windows)
- Via the FlowForce CLI (Linux)

Accessing the FlowForce Server Setup page (Windows)

The FlowForce Server Setup page can be accessed in one of the following ways:

- Via the Start menu:
  

- Via Altova ServiceController: Click the ServiceController icon in the system tray. In the menu that pops up, select Altova FlowForce Web | Setup.

  This pops up the FlowForce Server Setup page (screenshot above).
Accessing the FlowForce Server Setup page (Linux)
After you have installed FlowForce Server on Linux (see the FlowForce Server user documentation for information about how to do this), start FlowForce Web Server as a service with the following command:

    sudo /etc/init.d/flowforcewebserver start

A message containing the URL of the FlowForce Server Setup appears in the terminal window:

    FlowForceWeb running on http://127.0.1.1:3459/setup?key=52239315203

Enter the URL in the address field of a browser and hit Enter to access the FlowForce Server Setup page (screenshot below).

Registering FlowForce Server via the Setup page
In the Setup page (screenshot below)—how to access it is described above—the LicenseServer field specifies the Altova LicenseServer to be used for registration.
The LicenseServer can be specified in one of two ways.

- You can search for Altova LicenseServers that are currently available on the network—that is, those that are currently running. Do this by clicking the **Search for Altova LicenseServers** button (highlighted yellow in the screenshot below).

The search returns a list of available Altova LicenseServers on the network. One LicenseServer will be selected (screenshot below) and the others will be available in the dropdown list of the combo box. Select the LicenseServer on which your FlowForce license is stored.
Alternatively, you can enter the address of the LicenseServer in the LicenseServer field. If the currently running LicenseServers are available as a dropdown list, you must click the **Manually Enter Address** button to be able to enter an address in the LicenseServer field.

After you have specified the LicenseServer, click **Register with LicenseServer**. The Altova server application will be registered with the specified LicenseServer, and that LicenseServer's **Configuration page** will open in a browser with its Server Management tab active (*screenshot below*).

**Note:** You may need to allow pop-ups in order for the LicenseServer Configuration page to be displayed.
In the screenshot below, three Altova products have been registered with the Altova LicenseServer at DOC.altova.com. How to assign licenses is described in the next section, Assign Licenses to Registered Products.

Registering FlowForce Server via the FlowForce CLI (Windows)

On Windows machines, FlowForce Server can also be registered with an Altova LicenseServer on your network via the command line (CLI) by using the licenseserver command:

```
FlowForceServer licenseserver Server-Or-IP-Address
```

For example, if LicenseServer is running on http://localhost:8088, then register FlowForce Server with:

```
FlowForceServer licenseserver localhost
```

If FlowForce Server was installed with other Altova server products as sub-packages, registering
FlowForce Server will automatically also register the Altova server products. After successfully registering FlowForce Server, you can go to LicenseServer and assign a license to FlowForce Server. How to do this is described in the section Assign Licenses to Registered Products.

Registering FlowForce Server via the FlowForce CLI (Linux)
On Linux machines, FlowForce Server can be registered with LicenseServer by using the `licenseserver` command of the FlowForce Server CLI. Note that FlowForce Server must be started with root rights.

```
sudo /opt/Altova/FlowForceServer2015/bin/flowforceserver licenseserver localhost
```

In the command above, `localhost` is the name of the server on which LicenseServer is installed. Notice also that the location of the FlowForce Server executable is:

```
/opt/Altova/MapForceServer2015/bin
```

After successfully registering FlowForce Server, you can go to LicenseServer and assign a license to FlowForce Server. How to do this is described in the section Assign Licenses to Registered Products.

Next Steps
After you have registered your Altova product with LicenseServer, do the following:

1. If you have not already uploaded your license file/s to the LicenseServer (see previous section, Upload the license/s), upload the license file now and check that the license you want is active. If you have already done this, carry on to the next step, Assign Licenses.
2. Assign a license to your Altova product that has been registered with the LicenseServer.

Register MapForce Server

*This section:*

- Registering MapForce Server from FlowForce Server (Windows)
- Registering a standalone MapForce Server (Windows)
- Registering MapForce Server (Linux)
- Next steps

MapForce Server can be installed as part of the FlowForce Server package or as a standalone server product. In either case, it must be registered with Altova LicenseServer. Only after it has been registered with LicenseServer can a license be assigned to it from LicenseServer. On
Windows systems, if MapForce Server was installed as part of the FlowForce Server package, it will automatically be registered when FlowForce is registered. On Linux systems, only if MapForce Server is installed after FlowForce Server will it be registered automatically when FlowForce Server is registered subsequently.

---

**Registering MapForce Server from FlowForce Server (Windows)**

MapForce Server is packaged with FlowForce Server, so when FlowForce Server is registered with an Altova LicenseServer on your network, MapForce Server will automatically also be registered with LicenseServer. How to register FlowForce Server is described in the FlowForce Server documentation and in the section, [Register FlowForce Server with LicenseServer](#).

After the registration, you can go to LicenseServer and assign a MapForce Server license to MapForce Server. How to do this is described in the section, [Assign Licenses to Registered Products](#).

---

**Registering a standalone MapForce Server (Windows)**

If you have installed MapForce Server as a standalone package, you must register it with an Altova LicenseServer on your network and then license it from the Altova LicenseServer. You can register MapForce Server via its command line interface (CLI) by using the `licenseserver` command:

```bash
MapForceServer licenseserver Server-Or-IP-Address
```

For example, if LicenseServer is running on `http://localhost:8088`, then register MapForce Server with:

```bash
MapForceServer licenseserver localhost
```

After successfully registering MapForce Server, you can go to LicenseServer and assign a license to MapForce Server. How to do this is described in the section, [Assign Licenses to Registered Products](#).

---

**Registering MapForce Server (Linux)**

On Linux machines, MapForce Server can be registered with LicenseServer by using the `licenseserver` Command of the MapForce Server CLI. Note that MapForce Server must be started with root rights.

```bash
sudo /opt/Altova/MapForceServer2015/bin/mapforceserver licenseserver localhost
```
In the command above, `localhost` is the name of the server on which LicenseServer is installed. Notice also that the location of the MapForce Server executable is:

```
/opt/Altova/MapForceServer2015/bin
```

After successfully registering MapForce Server, you can go to LicenseServer and assign a license to MapForce Server. How to do this is described in the section Assign Licenses to Registered Products.

### Next Steps
After you have registered your Altova product with LicenseServer, do the following:

1. If you have not already uploaded your license file/s to the LicenseServer (see previous section, Upload the license/s), upload the license file now and check that the license you want is active. If you have already done this, carry on to the next step, Assign Licenses.
2. Assign a license to your Altova product that has been registered with the LicenseServer.

### Register StyleVision Server

This section:

- Registering StyleVision Server from FlowForce Server (Windows)
- Registering a standalone StyleVision Server (Windows)
- Registering StyleVision Server (Linux)
- Next steps

StyleVision Server can be installed as part of the FlowForce Server package or as a standalone server product. In either case, it must be registered with Altova LicenseServer. Only after it has been registered with LicenseServer can a license be assigned to it from LicenseServer. On Windows systems, if StyleVision Server was installed as part of the FlowForce Server package, it will automatically be registered when FlowForce is registered. On Linux systems, only if StyleVision Server is installed after FlowForce Server will it be registered automatically when FlowForce Server is registered subsequently.

### Registering StyleVision Server from FlowForce (Windows)

StyleVision Server is packaged with FlowForce Server, so when FlowForce Server is registered with an Altova LicenseServer on your network, StyleVision Server will automatically also be registered with LicenseServer. How to register FlowForce Server is described in the FlowForce Server documentation and in the section, Register FlowForce Server with LicenseServer.

After the registration, you can go to LicenseServer and assign a StyleVision Server license to
StyleVision Server. How to do this is described in the section Assign Licenses to Registered Products.

Registering a standalone StyleVision Server (Windows)
If you have installed StyleVision Server as a standalone package on Windows, you must register it with an Altova LicenseServer on your network and then license it from the Altova LicenseServer. You can register StyleVision Server via its command line interface (CLI) by using the licenseserver command:

`StyleVisionServer licenseserver Server-Or-IP-Address`

For example, if LicenseServer is running on http://localhost:8088, then register StyleVision Server with:

`StyleVisionServer licenseserver localhost`

After successfully registering StyleVision Server, you can go to LicenseServer and assign a license to StyleVision Server. How to do this is described in the section Assign Licenses to Registered Products.

Registering StyleVision Server (Linux)
On Linux machines, StyleVision Server can be registered with LicenseServer by using the licenseserver command of the StyleVision Server CLI. Note that StyleVision Server must be started with root rights.

`sudo /opt/Altova/StyleVisionServer2015/bin/stylevisionserver licenseserver localhost`

In the command above, localhost is the name of the server on which LicenseServer is installed. Notice also that the location of the StyleVision Server executable is:

`/opt/Altova/StyleVisionServer2015/bin`

After successfully registering StyleVision Server, you can go to LicenseServer and assign a license to StyleVision Server. How to do this is described in the section Assign Licenses to Registered Products.

Next Steps
After you have registered your Altova product with LicenseServer, do the following:

1. If you have not already uploaded your license file/s to the LicenseServer (see previous section, Upload the license/s), upload the license file now and check that the license you want is active. If you have already done this, carry on to the next step, Assign Licenses.
2. Assign a license to your Altova product that has been registered with the LicenseServer.

Register RaptorXML(+XBRL) Server

This section:

- Registering RaptorXML(+XBRL) Server (Windows)
- Registering RaptorXML(+XBRL) Server (Linux)
- Next steps

RaptorXML(+XBRL) Server must be installed on the server machine or network to which LicenseServer is connected and then be started as a service. It must then be registered with LicenseServer. Only after registration can a license be assigned to it from LicenseServer. This section describes how to register RaptorXML(+XBRL) Server with LicenseServer.

Registering RaptorXML(+XBRL) Server (Windows)
You can register RaptorXML(+XBRL) Server via its command line interface (CLI) by using the licenseserver command:

- RaptorXML Server: `RaptorXML licenseserver Server-Or-IP-Address`
- RaptorXML+XBRL Server: `RaptorXMLXBRL licenseserver Server-Or-IP-Address`

For example, if LicenseServer is running on `http://localhost:8088`, then register RaptorXML(+XBRL) Server with:

- RaptorXML Server: `RaptorXML licenseserver localhost`
- RaptorXML+XBRL Server: `RaptorXMLXBRL licenseserver localhost`

After successfully registering RaptorXML(+XBRL) Server, you can go to LicenseServer and assign a license to RaptorXML(+XBRL) Server. How to do this is described in the section Assign Licenses to Registered Products.
Registering RaptorXML(+XBRL) Server (Linux)
On Linux machines, RaptorXML(+XBRL) Server can be registered with LicenseServer by using the `licenseserver` command of the RaptorXML(+XBRL) Server CLI. Note that RaptorXML(+XBRL) Server must be started with root rights.

```
sudo /opt/Altova/RaptorXMLServer2015/bin/raptorxmlserver licenseserver localhost
sudo /opt/Altova/RaptorXMLXBRLServer2015/bin/raptorxmlxbrlserver licenseserver localhost
```

In the command above, `localhost` is the name of the server on which LicenseServer is installed. Notice also that the location of the RaptorXML(+XBRL) Server executable is:

```
/opt/Altova/RaptorXMLServer2015/bin
/opt/Altova/RaptorXMLXBRLServer2015/bin
```

After successfully registering RaptorXML(+XBRL) Server, you can go to LicenseServer and assign a license to RaptorXML(+XBRL) Server. How to do this is described in the section Assign Licenses to Registered Products.

Next Steps
After you have registered your Altova product with LicenseServer, do the following:

1. If you have not already uploaded your license file/s to the LicenseServer (see previous section, Upload the license/s), upload the license file now and check that the license you want is active. If you have already done this, carry on to the next step, Assign Licenses.
2. Assign a license to your Altova product that has been registered with the LicenseServer.

Register MobileTogether Server
To start MobileTogether Server, click the ServiceController icon in the system tray, hover over Altova MobileTogether Server in the menu that pops up (see screenshot below), and then select Start Service from the MobileTogether Server submenu. If MobileTogether Server is already running, the Start Service option will be disabled.
Register MobileTogether Server via:

- The Settings tab of the MobileTogether Server Web UI: (i) Start MobileTogether Server via ServiceController (*see previous point*); (ii) Enter your password to access the Setup page; (iii) Select the LicenseServer name or address, and click **Register with LicenseServer**.

- its CLI, using the `licenseserver` command:
  ```
  MobileTogetherServer licenseserver [options] ServerName-Or-IP-Address
  ```
  For example, if `localhost` is the name of the server on which LicenseServer is installed:
  ```
  MobileTogetherServer licenseserver localhost
  ```

After successful registration, go to the **Server Management tab of LicenseServer's configuration page** to assign a license to MobileTogether Server.
1.6.7 Assign Licenses to Registered Products

This section:

- Before assigning a license
- The Server Management tab
- Icons in the Server Management tab
- Note on cores and licenses
- Assigning a license
- Unregistering products from LicenseServer

Before assigning a license

Before you assign a license to an Altova product, make sure that:

- The relevant license has been uploaded to the license pool of LicenseServer and that the license is active.
- Your Altova product has been registered with LicenseServer.

The Server Management tab

Licenses are assigned in the Server Management tab of the LicenseServer Configuration page (screenshot below). The screenshot shows that three Altova products have been registered with LicenseServer. (Since MapForce Server and StyleVision Server are bundled with FlowForce Server, registering FlowForce Server with LicenseServer automatically also registers MapForce Server and StyleVision Server. No additional registration of the latter two products are required if FlowForce Server is registered.)
Note the following points about the Server Management tab:

- Each product is listed under the name of its client machine. In the screenshot above, one client machine, named Doc.altova.com, is listed. This client machine (Doc.altova.com) has three Altova products registered with the LicenseServer. If an Altova product on a different client machine is registered with this LicenseServer, then that client machine, with its registered products, will also be listed in the Server Management tab.

- Each registered Altova product on a client machine has its own Key Code entry, which takes the key code of a license. A registered product's key code is assigned by clicking its Edit Assigned Licenses button (see icon list below) and selecting the required license from those available for that product (for example, FlowForce Server) in the license pool. This procedure is explained in more detail below.

- Each product also has a line stating how many CPU cores need to be licensed to run that product on that client. If the number of licensed cores is less than the number required, then the information is marked in red (see screenshot above). (The number of CPU cores that need to be licensed is the number of CPU cores on that client and is obtained from the client machine by LicenseServer.)

- If multiple versions of a single product (for example, StyleVision Server 2013 and StyleVision Server 2014) have been installed on one machine and if each of these installations has been registered with a single LicenseServer, then the multiple registrations are consolidated in a single registration in the Server Management tab and displayed as a single registration. When a license is assigned to this single registration,
all the installations indicated by that registration will be licensed. However, multiple instances of only one installation can be run simultaneously on the client machine. For example, multiple instances of StyleVision Server 2013 or multiple instances of StyleVision Server 2014 can be run simultaneously, but not one instance of StyleVision Server 2013 and one instance of StyleVision Server 2014. Note that newly installed versions must be registered for them to run.

- New versions of Altova server products can only be licensed with the latest version of LicenseServer at the time of the product's release. Older Altova server products will work with newer versions of LicenseServer. So, if you are installing a new version of an Altova server product and if your current LicenseServer version is not the latest, de-install the older version of LicenseServer and install the latest version. All registration and licensing information held in your older version of LicenseServer will be saved, at the time of de-installation, to a database on the server, and will be imported automatically into the newer version. (The version number of the LicenseServer that is appropriate for any particular version of a server product is displayed during the installation of that server product. You can choose to install this version along with the server product. The version of the currently installed LicenseServer is given at the bottom of the LicenseServer configuration page.)

**Icons in the Server Management tab**

- **Edit Assigned Licenses.** Available with each product. Pops up the Manage Licenses dialog, in which new licenses can be assigned to the product and already assigned licenses can be edited.

- **Show Licenses.** Appears with each license. Switches to the License Pool tab and highlights the selected license, so that license details can be read.

- **Unregister This Product.** Available with each product. The selected product (on the selected client machine) will be unregistered from LicenseServer.

**Note on cores and licenses**

The licensing of Altova server products, except MobileTogether Server**, is based on the number of processor cores available on the product machine. For example, a dual-core processor has two cores, a quad-core processor four cores, a hexa-core processor six cores, and so on. The number of cores licensed for a product on a particular server machine must be greater than or equal to the number of cores available on that server, whether it's a physical or virtual machine.

For example, if a server has eight cores (an octa-core processor), you must purchase at least an 8-core license. You can also combine licenses to achieve the core count. So, two 4-core licenses can also be used for an octa-core server instead of an 8-core license.

If you are using a computer server with a large number of CPU cores but only have a low volume to process, you may also create a virtual machine that is allocated a smaller number of cores, and purchase a license for that number. Such a deployment, of course, will have less processing speed than if all available cores on the server were utilized.
Note: Each license can be used for only one client machine at a time, even if it has unused licensing capacity. For example, if a 10-core license is used for a client machine that has 6 CPU cores, then the remaining 4 cores of the license cannot be used simultaneously for another client machine.

*** MobileTogether Server licenses are assigned on the basis of the number of users, that is, the number of client devices that connect to MobileTogether Server.

Assigning a license
To assign a license to a registered product, click the Edit Assigned Licenses button of that product. This pops up the Manage Licenses dialog (screenshot below).

Note the following points about the licenses displayed in the Manage Licenses dialog:

- The product to be licensed is listed at the top left of the dialog. In the screenshot above, the product is Altova FlowForce Server 2013.
- The dialog displays all the currently active licenses for that product in the license pool. In our screenshot, four currently active FlowForce Server licenses are in the license pool. LicenseServer will automatically detect from each license in the pool the product for which it has been issued.
- The licenses in the screenshot above have been licensed, respectively, for 3 CPU cores, 2 CPU cores, 4 CPU cores, and 4 CPU cores.
- You need to know the number of processor cores on the server on which the Altova server
product has been installed. If the machine has a dual-core processor, you need a two-core (the CPU Cores count) license. This license could be, for example, the second license in the list shown in the screenshot above. You can also combine licenses. So, if the machine's processor is octa-core (eight-core), you can combine two 4-core licenses; for example, the third and fourth licenses in the list shown in the screenshot above.

- The Manage Licenses dialog will list only currently active licenses for that product. Licenses for other Altova products will not be listed.
- Licenses that have been assigned already—for example, to another installation of the product on the network—will have their check boxes checked. So only unchecked licenses may be selected.
- CPU cores indicates for how many CPU cores a license is valid.
- If you wish to make modifications to the license pool—for example, to upload, activate, deactivate, or delete a license—click the Go to License Pool button.

Select the license you wish to assign. The license's check box will be checked. Also, the total number of CPU cores licensed for that product on that client is listed near the top left of the dialog as Max licensed CPU cores (see screenshot above). You can select more licenses if you wish to increase the number of licensed CPU cores for that product on that client. The Max licensed CPU cores in this case will be the sum of the CPU cores of all the selected licenses.

After selecting the license/s, click Apply Changes. The license/s will be assigned to that product and displayed in the Server Management tab (see screenshot below). The screenshot below shows that a 2-CPU-core license for Altova FlowForce Server has been assigned (to the client machine Doc.altova.com).

<table>
<thead>
<tr>
<th>Altova Raptor/XML+XBRL Server 2014</th>
<th>Key Code</th>
<th>CPU Cores</th>
</tr>
</thead>
<tbody>
<tr>
<td>This server has 2 CPU core(s). Licenses for 2 CPU core(s) are required. Limit to single thread execution</td>
<td>8UM9W6b-X5UJW9A-B199885-9462L75-5L2AA11-1B2FEBW8</td>
<td>2</td>
</tr>
<tr>
<td>Max licensed CPU cores</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Unregistering products
Each Altova product registered with LicenseServer is listed in the Server Management tab under its client machine name and has an Unregister icon to its right. Click this icon to unregister the product. If a license was assigned to the product, the assignment will be terminated when the product is unregistered. To unregister all products, click the Unregister Server and All Products button at the bottom of the Server Management tab (see first screenshot in this section).

To re-register a product, go to the product's pre-configuration page.
1.7 Configuration Page Reference

The LicenseServer Configuration page is the administrator's interface with LicenseServer (Web UI). It allows the management of LicenseServer and the licensing of Altova products that have been registered with LicenseServer (FlowForce Server, MapForce Server, StyleVision Server, RaptorXML(+XBRL) Server). The LicenseServer Configuration page is viewed in a web browser. How to open the Configuration page is described in the sections, Open LicenseServer Config Page (Windows) and Open LicenseServer Config Page (Linux).

This section is a user reference for the Configuration page and is organized by the tabs of the Configuration page:

- License Pool
- Server Management
- Server Monitoring
- Settings
- Messages, Log Out

For a step-by-step guide of how to assign licenses with LicenseServer, see the section How to Assign Licenses.
1.7.1 License Pool

This section:

- Uploading a license
- License status
- Activating, de-activating, and deleting a license
- Icons in the License Pool tab
- License information
- Note on cores and licenses

The License Pool tab displays all the licenses that are currently on the LicenseServer (see screenshot below). When a license file is uploaded to the LicenseServer with the Upload button on this page, all the licenses contained in the license file are placed in the license pool on the server and are displayed on the License Pool page.

The License Pool page displays information about all the licenses currently on the LicenseServer and thus provides a convenient overview of all Altova product licenses. On this page you can also activate, deactivate, and delete selected licenses.

Uploading a license

To upload a license file (which you receive from Altova GmbH for your Altova server product), click the Browse button, browse for the license file and select it. On clicking Upload, all the licenses
contained in the license file are placed in the license pool and displayed on the License Pool page (screenshot above).

License status
License status values are as follows:

- **Activating**: When a license is uploaded into the license pool of LicenseServer, the server will transmit license-related data to the altova.com master licensing server to validate, authenticate, and activate the license that was supplied. This is necessary to ensure compliance with the Altova license agreements. During this initial activation and authentication transaction—which typically lasts between 30 seconds and a couple of minutes, depending on your Internet connection, speed, and overall network traffic—the status of the license will be indicated as *Activating*....

- **Failed Verification**: If a connection with the altova.com master licensing server cannot be made, then the status of the license in the pool will be shown as *Failed Verification*. If this happens, check your Internet connection and firewall rules to ensure that LicenseServer is able to communicate with the altova.com master licensing server.

- **Active**: Once the license has been authenticated and activated, the status in the pool will change to *Active*.

- **Inactive**: If a license has been verified, but is present on another LicenseServer on the network, the status in the pool will be shown as *Inactive*. An *Inactive* status also results when a license is manually deactivated in the license pool by the administrator.

- **Blocked**: A license is shown in the license pool as *Blocked* if there was a problem authenticating the license and the altova.com master licensing server has not granted permission to the LicenseServer to use this license. This could be the result of a license agreement violation, over-usage of a license, or other compliance issues. Should you see a license showing up as *Blocked*, please contact Altova Support with your license information and any other relevant data.

These statuses are summarized in the table below:

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activating</strong></td>
<td>On upload, license information is sent to altova.com for verification. Refresh the browser to view the updated status. Verification and activation can take a few minutes.</td>
</tr>
<tr>
<td><strong>Failed Verification</strong></td>
<td>A connection to altova.com could not be made. After establishing a connection, either restart the service or activate the license (with the <strong>Activate</strong> button).</td>
</tr>
<tr>
<td><strong>Active</strong></td>
<td>Verification was successful, the license is active.</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>Verification was successful, but the license is on another LicenseServer on the network. Licenses can be made inactive with the <strong>Deactivate</strong> button.</td>
</tr>
</tbody>
</table>
**Blocked**  
Verification was not successful. License is invalid and is blocked. Contact Altova Support.

**Note:** After a license has been sent to altova.com for verification, the browser must be refreshed to see the updated status. Verification and activation can take a few minutes.

**Note:** If a connection to altova.com could not be made, the status will be Failed Verification. After establishing a connection, either restart the service or try activating the license with the Activate button.

**Note:** When a license is given a status of Inactive or Blocked, a message explaining the status is also added to the Messages log.

Only an active license can be assigned to a product installation. An inactive license can be activated or deleted from the license pool. If a license is deleted from the license pool, it can be uploaded again to the pool by uploading the license file containing it. When a license file is updated, only those licenses in it that are not already in the pool will be uploaded to the pool. To activate, deactivate, or delete a license, select it and then click the Activate, Deactivate, or Delete button, respectively.

**Connection to the Master Licensing Server at altova.com**
The Altova LicenseServer needs to be able to communicate with the Master Licensing Server at altova.com to validate and authenticate license-related data and to ensure continuous compliance with the Altova license agreements. This communication occurs over HTTPS using port 443. If the Altova LicenseServer, after making the initial verification with the altova.com Master Licensing Server, is unable to again connect with altova.com for a duration of more than 5 days (= 120 hours), then the Altova LicenseServer will no longer permit the usage of any Altova software products connected to the Altova LicenseServer.

Any such loss of connection with the altova.com master servers will be logged in the Messages tab of the Configuration page of the Altova LicenseServer. In addition, the administrator can configure the Altova LicenseServer to automatically send an alert email when the connection to altova.com is lost. Alert Mail settings are available in the Settings tab of the Configuration page.

**Activating, deactivating, and deleting a license**
An active license can be deactivated by selecting the license and clicking Deactivate. An inactive license can be activated (Activate button) or deleted (Delete button). When a license is deleted it is removed from the license pool. A deleted license can be added again to the license pool by uploading the license file containing it. If a license file is re-uploaded, only licenses that are not already in the license pool will be added to the license pool; licenses that are already in the pool will not be re-added.
Icons in the License Pool tab

Edit Assigned Licenses. Appears with each license (in the Assignments column). Pops up the Manage Licenses dialog, in which new licenses can be assigned to the product and already assigned licenses can be edited.

Show License Information. Appears with each license (in the Assignments column). Provides information about the currently active clients.

License information
The following license information is displayed:

- **Status**: Can be one of the following values: Failed Verification | Activating | Active | Inactive | Blocked. See License status above.
- **Name, Company**: The name and company of the licensee. This information was submitted at the time of purchase.
- **Key, Expires in days, SMP (days left)**: The license key to unlock the product, and the number of days left before the license expires. Each licensed purchase comes with a Support & Maintenance Package, which is valid for a certain number of days. The SMP column notes how many SMP days are still left.
- **Users / CPU Cores**: The number of users or CPU cores that the license allows. In the case of Altova’s MobileTogether Server product, licenses are assigned on the basis of the number of MobileTogether client devices that connect to MobileTogether Server. In the case of all other Altova server products, licenses are assigned on the basis of CPU cores (see note below).
- **Assignments**: Access to editing dialogs and information of individual licenses.

Note on cores and licenses
The licensing of Altova server products, except MobileTogether Server**, is based on the number of processor cores available on the product machine. For example, a dual-core processor has two cores, a quad-core processor four cores, a hexa-core processor six cores, and so on. The number of cores licensed for a product on a particular server machine must be greater than or equal to the number of cores available on that server, whether it's a physical or virtual machine.

For example, if a server has eight cores (an octa-core processor), you must purchase at least an 8-core license. You can also combine licenses to achieve the core count. So, two 4-core licenses can also be used for an octa-core server instead of an 8-core license.

If you are using a computer server with a large number of CPU cores but only have a low volume to process, you may also create a virtual machine that is allocated a smaller number of cores, and purchase a license for that number. Such a deployment, of course, will have less processing speed than if all available cores on the server were utilized.

Note: Each license can be used for only one client machine at a time, even if it has unused
licensing capacity. For example, if a 10-core license is used for a client machine that has 6 CPU cores, then the remaining 4 cores of the license cannot be used simultaneously for another client machine.

*** MobileTogether Server licenses are assigned on the basis of the number of users, that is, the number of client devices that connect to MobileTogether Server.
1.7.2 Server Management

This section:

- Icons in the Server Management tab
- Assigning licenses
- One client machine under different names
- Requesting an evaluation license
- Unregistering products

In the Server Management tab (screenshot below), you can assign licenses to registered products.

Note the following points about the Server Management tab:

- Each product is listed under the name of its client machine. In the screenshot above, one client machine, named Doc.altova.com, has three Altova products registered with the LicenseServer. If an Altova product on a different client machine is registered with this
LicenseServer, then that client machine, with its registered products, will also be listed in the Server Management tab.

- Each registered Altova product on a client machine has its own Key Code entry, which takes the key code of a license. A registered product's key code is assigned by clicking its Edit Assigned Licenses button and selecting the required license from those available for that product (for example, FlowForce Server) in the license pool. This procedure is explained in more detail below.
- Each product (except MobileTogether Server) also has a line stating how many CPU cores need to be licensed to run that product on that client. If the number of licensed cores is less than the number required, then the information is marked in red (see screenshot above). (The number of CPU cores that need to be licensed is the number of CPU cores on that client and is obtained from the client machine by LicenseServer.)

### Single thread execution
If a product license for only one core is available in the license pool, a machine with multiple cores can be assigned this one-core license. In such a case, the machine will run that product on a single core. Processing will therefore be slower as multi-threading (which is possible on multiple cores) will not be available. The product will be executed in single thread mode on that machine.

To assign a single-core license to a multiple-core machine, select the Limit to single thread execution check box for that product.

### Icons in the Server Management tab
- **Edit Assigned Licenses.** Available with each product. Pops up the Manage Licenses dialog, in which new licenses can be assigned to the product and already assigned licenses can be edited.
- **Show Licenses.** Appears with each license. Switches to the License Pool tab and highlights the selected license, so that license details can be read.
- **Unregister This Product.** Available with each product. The selected product (on the selected client machine) will be unregistered from LicenseServer.

### Assigning a license
To assign a license to a registered product, click the Edit Assigned Licenses button of that product. This pops up the Manage Licenses dialog (screenshot below).
Select the license you wish to assign. After selecting the license/s, click **Apply Changes**. The license/s will be assigned to that product and displayed in the Server Management tab (see screenshot below).

---

**One client machine under different names**

If a client machine is registered more than once with LicenseServer, it might appear in the Server Management tab under multiple names, that is, with multiple entries. This could happen, for example, if a machine is re-registered with the host name given in a different form.

To ensure that additional licenses are not redundantly assigned to the same machine under its different names, you should unregister redundant client machine entries by clicking the **Unregister server and all products** button of these machines. *(Note: While the client machines are considered for the purposes of this documentation to be clients of LicenseServer, they are in effect servers of their own products.)* Also, if the same license is assigned multiple times to the same machine under its different names, licensing conflicts could arise. So, to avoid these two situations (redundant licensing and multiple assignments of a single license), it is recommended that redundant entries of a single client machine be unregistered.

Given below are forms a machine name might take in the Server Management tab:
**Host name with domain name (the fully qualified domain name, FQDN), such as:** "win80-x64_1.my.domain.com" or "Doc3.my.domain.com". This happens when the host name of the machine (with or without the domain information) is passed as the argument of the licenseserver CLI command that is used to register the server product with LicenseServer. For example: `<AltovaServerProduct> licenseserver Doc3`. This produces an FQDN such as: Doc3.my.domain.com.

An FQDN is also produced when localhost is supplied on Windows 7 systems as the host name.

**Host name without domain name. For example:** "win80-x64_1" or "Doc3". This happens on Windows 8 systems when localhost is given as the machine name.

**localhost. In some cases, localhost is also displayed as a machine name.**

**Note:** If, during installation of the Altova server product on Windows machines, the machine is automatically registered with LicenseServer, localhost is used by the installer as the machine name.

---

**Requesting an evaluation license**

You can obtain a 30-day free evaluation license for each of a client's installed Altova products that have been registered with LicenseServer. Click the **Request Evaluation Licenses** button near the bottom of the Server Management tab. A dialog pops up containing a list of the Altova server products (on that client machine) which have been registered with LicenseServer. Make sure that the products for which you want an evaluation license are checked, then fill in the registration fields, and send the request. You will receive an e-mail from Altova containing the 30-day evaluation license/s. The number of cores for which the license will be valid per product will be exactly the number required by the product at the time the request is sent. Save the license/s to disk and **upload to the license pool**.

---

**Unregistering products**

Each Altova product registered with LicenseServer is listed in the Server Management tab under its client machine name and has an **Unregister** icon to its right. Click this icon to unregister the product. If a license was assigned to the product, the assignment will be terminated when the product is unregistered. To unregister all products, click the **Unregister Server and All Products** button at the bottom of the Server Management tab (see first screenshot in this section).

To re-register a product with LicenseServer, go to the product's Setup page or its CLI and register it. See: **Register FlowForce Server**, **Register MapForce Server**, **Register StyleVision Server**, and **Register RaptorXML(+/XBRL) Server**.

For more information, see the section, **Assigning Licenses to Registered Products**.
1.7.3 Server Monitoring

The Server Monitoring tab provides an overview of servers currently running licensed Altova products. It contains product information along with information about users and licenses.

<table>
<thead>
<tr>
<th>Servers</th>
<th>Product</th>
<th>Edition</th>
<th>Version</th>
<th>User</th>
<th>Address</th>
<th>Users</th>
<th>CPU</th>
<th>State</th>
<th>Failover</th>
<th>Last seen (seconds ago)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altova Raptor\XML Server</td>
<td>2015 rel. 3</td>
<td>VEsys</td>
<td>dde-ping</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>Running</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Altova Raptor\XML+XBRL Server</td>
<td>2014 rel. 2</td>
<td>VEsys</td>
<td>dde-ping</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>Running</td>
<td>Client too old</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Failover LicenseServers work with client applications that are v2015rel3 or later; older clients are flagged in the Primary LicenseServer (see screenshot above).
1.7.4 Settings

This section:

- Failover LicenseServer settings
- Network settings
- Alert Mail settings
- Miscellaneous settings

The Settings tab is described below. You can set the following:

- The password for logging in to LicenseServer. Enter the desired password and click Change Password.
- Test connectivity to Altova by clicking Test Connection to Altova. Note that you must save new settings (by clicking the Save button at the bottom of the pane) before testing the connection. The Test Connection to Altova button is disabled while the test is in progress, and becomes enabled again when the test has been completed.
- Client statistics
- Network settings for the web-based configuration page (Web UI), the proxy server used to connect to the Internet (if any), for and for LicenseServer (License Service). These settings are described in Network settings below.
- Email server settings and the alert mail recipient to contact in the event of a significant LicenseServer occurrence. These settings are described in Alert Mail settings below.
- After you change a setting, click Save at the bottom of the pane. A changed setting will not take effect till it is saved.

Failover LicenseServer settings

A second LicenseServer can be configured to take over from the Primary LicenseServer if the Primary LicenseServer becomes unavailable. This second LicenseServer is called the Failover LicenseServer.
To set up a LicenseServer as the Failover LicenseServer, do the following:

1. Install LicenseServer as described in the Installation section.
2. Set the LicenseServer's mode to *Failover LicenseServer* by selecting the corresponding radio button (see screenshot above). (By default the LicenseServer Mode is set to *Primary LicenseServer*.)
3. In the Find Primary LicenseServer dialog that appears (screenshot below), enter the Primary LicenseServer you want to back up with this Failover LicenseServer. You can do this in one of two ways: (i) Click **Search for LicenseServers** and then select, in the combo box, the LicenseServer you want to backup from the list of found LicenseServers; (ii) Click **Manually Enter Address**, and enter the address of the LicenseServer you want to backup. After entering the Primary LicenseServer, click **Connect to Primary LicenseServer**.
4. A confirmation dialog appears, asking whether you to confirm that you wish to set the current LicenseServer as the Failover LicenseServer of the Primary LicenseServer you have just selected. Going ahead with the confirmation will remove any installed licenses and registered clients. Click **Yes** if you wish to confirm.

Once a Failover LicenseServer has been configured, both the Primary LicenseServer and Failover LicenseServer will have notifications about their respective modes at the top of the Configuration Page. In the two screenshots below, the Failover LicenseServer is shown first, then the Primary LicenseServer.

Note the following points:

- After a Failover LicenseServer has been configured, it periodically synchronizes all licenses, registered clients, and license agreements from the Primary. If the Primary becomes unavailable, then the Failover takes over the role of LicenseServer. Once the Primary becomes available again, the Primary retakes control from the Failover. Any license-related modifications made on the Failover in this period will be lost when the Primary regains control.

- The Failover LicenseServer will provide licenses only to clients that are of version 2015 rel 3 or later. Older clients are flagged as such in the Server Monitoring tab of the Primary LicenseServer (**screenshot below**). We recommend that you upgrade your client applications to version 2015 rel 3 or later if you wish to use the Failover LicenseServer feature.
Network settings
Administrators can specify network access points to the LicenseServer configuration page and to LicenseServer.

Web UI
Changing these settings will cause the LicenseServer to restart and any currently running and licensed applications will be shut down!

Configure the host addresses where the web UI is available to administrators.

- All interfaces and assigned IP addresses
- Local only (localhost)
- Only the following hostname or IP address: 0.0.0.0

Ensure this hostname or IP address exists or LicenseServer will fail to start!

Configure the port used for the web UI.

- Dynamically chosen by the operating system
- Fixed port: 8088

Ensure this port is available or LicenseServer will fail to start!

Proxy Server
Configure the proxy server connection details if a proxy server is needed to communicate with Altova’s servers.

Name: myproxy
Port Number: 1205
User Name: myusername
Password: ********

License Service
Configure the host addresses where the LicenseServer service is available to clients.

- All interfaces and assigned IP addresses
- Local only (localhost)
- Only the following hostnames or IP addresses:

Ensure the hostnames or IP addresses exist or LicenseServer will fail to start!

- **Web UI:** Allowed IP addresses can vary from all interfaces and IP addresses on that machine to a fixed address, and ports can be either dynamically calculated or fixed. This allows a wide range of allowed IP-Address:Port settings. The default port setting is 8088.
- **Proxy Server (available from v1.3 onwards):** If a proxy server is being used to connect to the Internet, the details of the proxy server must be entered in the Proxy Server pane (see screenshot above). These fields need to be filled in only if a proxy server is being used. Also, proxy servers often do not need authentication (a user-name and password), in which case these two fields can be left blank. To configure LicenseServer for the proxy
server, enter the proxy server's host name, and, if required, a port number.

- **License Service:** IP addresses can vary from all interfaces and IP addresses on that machine to a fixed address. If you list hostnames and/or IP addresses, use a comma-separated list without any spaces (for example: hostname1,IPAddress1,hostname2). The port number is fixed at **35355**.

By default, these settings allow unrestricted access to LicenseServer and its configuration page from within the networks to which LicenseServer is connected. If you wish to restrict access to either LicenseServer or its configuration page, enter the appropriate settings and click **Save**.

Run a connectivity test (see above) to check that the settings are correct.

---

**Alert Mail settings**

Altova LicenseServer needs to be connected to the altova.com server. If the connection is broken for more than 24*5 hours (5 days), LicenseServer will not allow licenses. As a result, work sessions with Altova products licensed by LicenseServer could be disrupted.

In order to alert the administrator that a connection is broken, an alert mail can be sent to an email address. The Alert Mail pane (see screenshot below) is where you enter settings for sending alert mails to an administrator's email address.
SMTP Host and SMTP Port are the access details of the email server from which the email alert will be sent. User Authentication and User Password are the user's credentials for accessing the email server. The From field takes the address of the email account from which the email will be sent. The To field takes the recipient's email address.

Click Save when done. After saving the Alert Mail settings, email alerts will be sent to the address specified whenever a significant event occurs, such as when connection to altova.com is lost. Note that such events are also recorded in the Messages tab, and can be looked up there.

Miscellaneous settings

Show hints for receiving and deploying evaluation licenses
Checking this box (see screenshot above) displays, at the top of the configuration page, brief instructions about how to evaluate and deploy evaluation licenses.
Send a warning email if contact with a running product is lost
A warning message is sent from the From address to the To address if a connection with a product that is licensed and running is lost.
1.7.5 Messages, Log Out

The Messages tab displays all messages relevant to licenses in the license pool of the LicenseServer. Each message has a Delete button that allows you to delete that particular message.

The Log Out tab serves as the Log Out button. Clicking the tab logs you out immediately and then displays the Login mask.
1.8 Password Reset

If you forget your LicenseServer password, you can use the `passwordreset` command from the CLI to reset the password to `default`.

1. Open a command line window.
2. Change to the directory where the LicenseServer application package or executable is installed.
3. Enter the command: `licenseserver passwordreset`  
   This resets the LicenseServer administrator password to `default`.
4. You can now log in to the Administrator Web UI with the password `default`. 
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