Altova StyleVision Server 2015

User and Reference Manual
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Chapter 1

Altova StyleVision Server 2015
1 **Altova StyleVision Server 2015**

Altova StyleVision Server is an implementation of Altova StyleVision's built-in execution engine. It operates as a module of Altova's FlowForce Server, and it is also available as a standalone server product.

StyleVision Server executes transformation packages that have been deployed to a FlowForce Server. These transformations are initiated by FlowForce Server based on a variety of programmable time triggers, file triggers, or remote triggers. Additionally, StyleVision Server functionality can be invoked via the command line.

---

**System requirements, installation and licensing**

StyleVision Server is supported on the following operating systems:

- **Windows**
  - Windows XP (SP2 for x64; SP3 for x86), Windows Vista, Windows 7, Windows 8, or newer

- **Windows Server**
  - Windows Server 2008 R2 or newer

- **Linux**
  - CentOS 6 or newer
  - RedHat 6 or newer
  - Debian 6 or newer
  - Ubuntu 12.04 or newer

  Note that the Qt library (version 4 or later), available under GNU GPL and LGPL, must be installed.

- **Mac OS X**
  - Mac OS X 10.8 or newer

StyleVision Server is available for both 32-bit and 64-bit on Windows machines. For details about installation and licensing, see the setup sections for Windows, Linux, and Mac OS X.
1.1 Functionality

StyleVision Server transforms XML files into output HTML, PDF, RTF, and DOCX documents with the use of XSLT stylesheets. These XSLT stylesheets are obtained from PXF files that have been created in Altova's stylesheet designer application, Altova StyleVision.

StyleVision Server can be used in two ways:

- As part of the Altova FlowForce workflow. For more information about Altova FlowForce, visit the Altova website.
- As a standalone server product that is accessed via its command line interface (CLI).

An XML input file and a PXF file are passed to StyleVision Server, which produces the required output document/s.
1.1.1 In the FlowForce Workflow

A FlowForce job is created in Altova FlowForce Server. The FlowForce job specifies: (i) the inputs and outputs of a StyleVision Server transformation; and (ii) the triggers for when the job is to be executed, such as a specific time every day. At execution time, Altova FlowForce Server passes the transformation instructions to StyleVision Server, which then carries out the transformation.

The role of StyleVision Server in the FlowForce workflow is shown in the diagram below. (The role of MapForce Server in the workflow is also displayed since FlowForce jobs can be created that send Altova MapForce mappings to the Altova MapForce Server for execution.)

Additionally to being invoked by a FlowForce job, StyleVision Server can also be invoked via the command line. Usage is described in the section, Command Line Usage.
1.1.2 As a Standalone Server

StyleVision Server can be installed as a standalone product on Windows, Linux, and Mac OS X systems. In this version its functionality is invoked only via the command line. Usage is described in the section, Command Line Usage.
1.2 Setup on Windows

This section describes the installation and licensing of StyleVision Server on Windows systems.

Installation on Windows
- System requirements
- Installing StyleVision Server
- Altova LicenseServer
- LicenseServer versions
- Trial license
- Application folder location

Licensing on Windows
- Start ServiceController
- Start LicenseServer
- Register StyleVision Server
- Assign a license
1.2.1 Installation on Windows

StyleVision Server is available for installation on Windows systems. Its installation and setup procedure is described below.

- System requirements
  - **Windows**
    - Windows XP (SP2 for x64; SP3 for x86), Windows Vista, Windows 7, Windows 8, or newer
  - **Windows Server**
    - Windows Server 2008 R2 or newer

- Installing StyleVision Server
  StyleVision Server can be installed on Windows systems as follows:

  - As a separate standalone server product called StyleVision Server. To install StyleVision Server, download and run the StyleVision Server installer. Follow the onscreen instructions.
  - As part of the FlowForce Server installation package. To install StyleVision Server as part of the FlowForce Server package, download and run the FlowForce Server installer. Follow the onscreen instructions and make sure you check the option for installing StyleVision Server.

The installers of both StyleVision Server and FlowForce Server are available at the Altova website and will install the products with the necessary registrations. After installation, the StyleVision Server executable will be located by default at:

```plaintext
<ProgramFilesFolder>\Altova\StyleVisionServer2015\bin\StyleVisionServer.exe
```

- Altova LicenseServer
  - In order for StyleVision Server to work, it must be licensed via an Altova LicenseServer on your network.
  - When you install StyleVision Server or FlowForce Server on Windows systems, an option is available that allows you to download and install Altova LicenseServer together with StyleVision Server or FlowForce Server.
  - If an Altova LicenseServer is already installed on your network, you do not need to install another one—unless a newer version of Altova LicenseServer is required. (See next point, LicenseServer versions.)
  - During the installation process of StyleVision Server or FlowForce Server, check or uncheck the option for installing Altova LicenseServer as appropriate.

See the section, Licensing on Windows, for more information about how to register and license StyleVision Server with Altova LicenseServer.

- LicenseServer versions
Altova server products must be licensed either with the version of LicenseServer that is appropriate to the installed StyleVision Server version, or with a later version of LicenseServer.

The LicenseServer version that is appropriate for a particular version of StyleVision Server is displayed during the installation of StyleVision Server. You can install this version of LicenseServer along with StyleVision Server, or you can install LicenseServer separately.

Before installing a newer version of LicenseServer, any older one must be de-installed. The LicenseServer installer will do this automatically if it detects an older version.

LicenseServer versions are backwards compatible. They will work with older versions of StyleVision Server.

If you install a new version of StyleVision Server and if your installed LicenseServer version is older than the appropriate LicenseServer, install the latest version available on the Altova website.

At the time of LicenseServer de-installation, all registration and licensing information held in the older version of LicenseServer will be saved to a database on your server machine. This data will be imported automatically into the newer version when 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: 1.19

Trial license

During the installation process, you will be given the option of requesting a 30-day trial license for StyleVision Server. After submitting the request, a trial license will be sent to the email address you registered.

Application folder location

The application will be installed in the following folder:

| Windows XP | C:\Program Files\Altova\ |
| Windows Vista, Windows 7/8 | C:\Program Files\Altova\ |
| 32 bit Version on 64-bit OS | C:\Program Files (x86)\Altova\ |
1.2.2 Licensing on Windows

StyleVision Server must be licensed with an Altova LicenseServer in order to run it. Licensing is a two-step process:

1. Register StyleVision Server with LicenseServer. Registration is done from StyleVision Server.
2. Assign a license to StyleVision Server. License-assigning is done from LicenseServer.

The steps you need to carry out are given below.

Start ServiceController

Altova ServiceController is started in order to start Altova LicenseServer.

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.
Start LicenseServer

To start LicenseServer, click the **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.

Register StyleVision Server

- **Register StyleVision Server through FlowForce Server**
  
  If StyleVision Server was installed as part of a **FlowForce Server** installation, registering FlowForce Server with LicenseServer will automatically also register StyleVision Server. How to register FlowForce Server is described in the [FlowForce Server documentation](#). Essentially: (i) Start Altova FlowForce Web as a service 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**.

  After successful registration, go to the [Server Management tab of LicenseServer’s configuration page](#) to assign a license to StyleVision Server.

- **Register a standalone StyleVision Server**
  
  Register StyleVision Server via:

  - its CLI, using the **licenseserver** command:
    
    ```text
    StyleVisionServer licenseserver [options] ServerName-Or-IP-Address
    ```

    For example, if **localhost** is the name of the server on which LicenseServer is installed:

    ```text
    StyleVisionServer licenseserver localhost
    ```

    After successful registration, go to the [Server Management tab of LicenseServer’s configuration page](#) to assign a license to StyleVision Server.

Assign a license
After successfully registering StyleVision Server, it will be listed in the Server Management tab of the configuration page of LicenseServer. Go there and assign a license to StyleVision Server.

**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.
1.3 Setup on Linux

This section describes the installation and licensing of StyleVision Server on Linux systems (Debian, Ubuntu, CentOS, RedHat).

**Installation on Linux**
- System requirements
- Uninstall old versions of Altova server products
- Download the Linux package
- Install StyleVision Server
- Altova LicenseServer
- LicenseServer versions
- Trial license

**Licensing on Linux**
- Start LicenseServer
- Register StyleVision Server
- Assign a license

**Notes about Environment**
1.3.1 Installation on Linux

StyleVision Server is available for installation on Linux systems. Its installation and setup procedure is described below.

- System requirements
  - **Linux**
    - CentOS 6 or newer
    - RedHat 6 or newer
    - Debian 6 or newer
    - Ubuntu 12.04 or newer

  Note that the Qt library (version 4 or later), available under GNU GPL and LGPL, must be installed.

- FlowForce Server integration
  If you are installing StyleVision Server together with FlowForce Server, it is recommended to install FlowForce Server first. Otherwise, after having installed both StyleVision Server and FlowForce Server, run the following command:

  ```
  cp /opt/Altova/StyleVisionServer2015/etc/*.tool /opt/Altova/FlowForceServer2015/tools
  ```

  This command copies the `.tool` file from `/etc` directory of StyleVision Server to the FlowForce Server `/tools` directory. The `.tool` file is required by FlowForce Server; it contains the path to the StyleVision Server executable. You do not need to run this command if you install FlowForce Server before installing StyleVision Server.

- Uninstall old versions of Altova server products
  If you need to uninstall a previous version, do this as follows. On the Linux command line interface (CLI), you can check which Altova server products are installed with the following command:

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

  If StyleVision Server is not installed, go ahead with the installation as documented below in Installing StyleVision Server.

  If StyleVision Server is installed and you wish to install a newer version of StyleVision Server, uninstall the old version with the command:

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

  If you need to uninstall an old version of Altova LicenseServer, do this with the following command:

  ```
  [Debian, Ubuntu]:     sudo dpkg --remove licenseserver
  ```
Download the Linux package

StyleVision Server installation packages for the following Linux systems are available on the Altova website.

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Package extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debian 6 and higher</td>
<td>.deb</td>
</tr>
<tr>
<td>Ubuntu12.04 and higher</td>
<td>.deb</td>
</tr>
<tr>
<td>CentOS 6 and higher</td>
<td>.rpm</td>
</tr>
<tr>
<td>RedHat 6 and higher</td>
<td>.rpm</td>
</tr>
</tbody>
</table>

After downloading the Linux package, copy it to any directory on the Linux system. Since you will need an Altova LicenseServer in order to run StyleVision Server, you may want to download LicenseServer from the Altova website at the same time as you download StyleVision Server, rather than download it at a later time.

Install StyleVision Server

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:

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

Install StyleVision Server with the following command:

- **Debian**:
  ```bash
  sudo dpkg --install stylevisionserver-2015-debian.deb
  ```
- **Ubuntu**:
  ```bash
  sudo dpkg --install stylevisionserver-2015-ubuntu.deb
  ```
- **CentOS**:
  ```bash
  sudo rpm -ivh stylevisionserver-2015-1.x86_64.rpm
  ```
- **RedHat**:
  ```bash
  sudo rpm -ivh stylevisionserver-2015-1.x86_64.rpm
  ```

The StyleVision Server package will be installed in the folder:

```
/opt/Altova/StyleVisionServer2015
```

Altova LicenseServer

In order for any Altova Server product—including StyleVision Server—to run, that server product must be licensed via an Altova LicenseServer on your network.

On Linux systems, Altova LicenseServer will need to be installed separately. Download LicenseServer from the Altova website and copy the package to any directory on the Linux system. Install it just like you installed StyleVision Server (see previous step).

- **Debian**:
  ```bash
  sudo dpkg --install licenseserver-1.19-debian.deb
  ```
- **Ubuntu**:
  ```bash
  sudo dpkg --install licenseserver-1.19-ubuntu.deb
  ```
- **CentOS**:
  ```bash
  sudo rpm -ivh licenseserver-1.19-1.x86_64.rpm
  ```
- **RedHat**:
  ```bash
  sudo rpm -ivh licenseserver-1.19-1.x86_64.rpm
  ```
The LicenseServer package will be installed in:

/opt/Altova/LicenseServer

For information about how to register StyleVision Server with Altova LicenseServer and license it, see the section, Licensing on Linux.

LicenseServer versions

- Altova server products must be licensed either with the version of LicenseServer that is appropriate to the installed StyleVision Server version, or with a later version of LicenseServer.
- The LicenseServer version that is appropriate for a particular version of StyleVision Server is displayed during the installation of StyleVision Server. You can install this version of LicenseServer along with StyleVision Server, or you can install LicenseServer separately.
- Before installing a newer version of LicenseServer, any older one must be de-installed. The LicenseServer installer will do this automatically if it detects an older version.
- LicenseServer versions are backwards compatible. They will work with older versions of StyleVision Server.
- If you install a new version of StyleVision Server and if your installed LicenseServer version is older than the appropriate LicenseServer, install the latest version available on the Altova website.
- At the time of LicenseServer de-installation, all registration and licensing information held in the older version of LicenseServer will be saved to a database on your server machine. This data will be imported automatically into the newer version when 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: 1.19

Trial license

During the installation process, you will be given the option of requesting a 30-day trial license for StyleVision Server. After submitting the request, a trial license will be sent to the email address you registered.
1.3.2 Licensing on Linux

StyleVision Server must be licensed with an Altova LicenseServer in order to run it. Licensing is a two-step process:

1. **Register StyleVision Server** with LicenseServer. Registration is done from StyleVision Server.
2. **Assign a license** to StyleVision Server. License-assigning is done from LicenseServer.

The steps you need to carry out are given below.

▼ Start LicenseServer

To correctly register and license StyleVision Server with LicenseServer, LicenseServer must be running as a daemon on the network. Start LicenseServer as a daemon with the following command:

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

If at any time you need to stop LicenseServer, replace `start` with `stop` in the above command. For example:

```
sudo /etc/init.d/licenseserver stop
```

▼ Register StyleVision Server

Register StyleVision Server via:

- its CLI, using the `licenseserver` command:
  
  ```
sudo /opt/Altova/StyleVisionServer2015/bin/stylevisionserver licenseserver [options] ServerName-Or-IP-Address
  ```

  For example, if `localhost` is the name of the server on which LicenseServer is installed:
  
  ```
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 successful registration, go to the **Server Management tab of LicenseServer's configuration page** to assign a license to StyleVision Server.

▼ Assign a license

After successfully registering StyleVision Server, it will be listed in the **Server Management**
tab of the configuration page of LicenseServer. Go there and assign a license to StyleVision Server.

**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.
1.3.3 Notes about Environment

Folders
Given below is a list of important folders in your StyleVision Server setup.

- **Installation root**
  
  /opt/Altova/StyleVisionServer2015/

- **License Files**
  
  /var/opt/Altova/StyleVisionServer

- **Environment settings**
  
  /etc/profile.d/jdbc.sh
  
  The environment settings file must be defined according to your specific environment. The example path above serves only as a general guide.
  
  **Note:** The environment settings file sets the variables for all users on the system.

JDBC-Connections
Note the following points:

- The Java Runtime Environment or SDK must be installed.
- The JDBC-Connects for the target database must be installed.
- The following environment variables must be set correctly for your environment:
  - CLASSPATH: to find the jar-files
  - PATH: to find the JRE, but might not be necessary depending on the installation
  - JAVA_HOME: if necessary, depending on the installation.

**Note**
On Linux servers, the only database connections supported are JDBC.
1.4 Setup on Mac OS X

This section describes the installation and licensing of StyleVision Server on Mac OS X systems.

Installation on Mac OS X

- System requirements
- Uninstall old versions of Altova server products
- Download the Mac OS X package
- Install StyleVision Server
- Altova LicenseServer
- LicenseServer versions
- Trial license

Licensing on Mac OS X

- Start LicenseServer
- Register StyleVision Server
- Assign a license

Notes about Environment
1.4.1 Installation on Mac OS X

StyleVision Server is available for installation on Linux systems. Its installation and setup procedure is described below.

✦ System requirements
  
 ✦ Mac OS X
    
    Mac OS X 10.8 or newer

✦ FlowForce Server integration

If you are installing StyleVision Server together with FlowForce Server, it is recommended to install FlowForce Server first. If you install StyleVision Server before FlowForce Server, then, after having installed both StyleVision Server and FlowForce Server, run the following command:

```
cp /usr/local/Altova/StyleVisionServer2015/etc/*.tool /usr/local/Altova/FlowForceServer2015/tools
```

This command copies the .tool file from /etc directory of StyleVision Server to the FlowForce Server /tools directory. The .tool file is required by FlowForce Server; it contains the path to the StyleVision Server executable. You do not need to run this command if you install FlowForce Server before installing StyleVision Server.

✦ Uninstall old versions of Altova server products

In the Applications folder in Finder, right-click the StyleVision Server 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/StyleVisionServer2015/
```

If you need to uninstall an old version of Altova LicenseServer, you must first stop it running as a service. Do this 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 in Finder and make sure that LicenseServer is not in the list. Then proceed to uninstall in the same way as described above for StyleVision Server.

✦ Download the Mac OS X package

After downloading the MacOS X package from the Altova website, copy the package to any directory on the Mac OS X system. Since you will need to have an Altova LicenseServer installed in order to run StyleVision Server, you may want to download LicenseServer from the Altova website at the same time as you download StyleVision Server, rather than download it at a later time. The Mac OS X installer file has a .pkg file extension.

✦ Install StyleVision Server
In a Finder window, switch to the directory where you have copied the installer file, and double-click it. Go through the successive steps of the installer wizard. These are self-explanatory and include one step in which you have to agree to the license agreement before being able to proceed.

The StyleVision Server package will be installed in the folder:
- `/usr/local/Altova/StyleVisionServer2015` (application binaries)
- `/var/Altova/StyleVisionServer` (data files: database and logs)

StyleVision Server server daemon starts automatically after installation and a re-boot of the machine. You can start StyleVision Server as a daemon with the following command:

```
sudo launchctl load /Library/LaunchDaemons/com.altova.StyleVisionServer2015.plist
```

**Altova LicenseServer**

In order for any Altova Server product—including StyleVision Server—to run, that server product must be licensed via an Altova LicenseServer on your network.

On Mac OS X systems, Altova LicenseServer will need to be installed separately. Download Altova LicenseServer from the Altova website and double-click the installer package to start the installation. Follow the onscreen 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`

For information about how to register StyleVision Server with Altova LicenseServer and license it, see the section, Licensing on Mac OS X.

**LicenseServer versions**

- Altova server products must be licensed either with the version of LicenseServer that is appropriate to the installed StyleVision Server version, or with a later version of LicenseServer.
- The LicenseServer version that is appropriate for a particular version of StyleVision Server is displayed during the installation of StyleVision Server. You can install this version of LicenseServer along with StyleVision Server, or you can install LicenseServer separately.
- Before installing a newer version of LicenseServer, any older one must be de-installed. The LicenseServer installer will do this automatically if it detects an older version.
- LicenseServer versions are backwards compatible. They will work with older versions of StyleVision Server.
- If you install a new version of StyleVision Server and if your installed LicenseServer version is older than the appropriate LicenseServer, install the latest version available on the Altova website.
- At the time of LicenseServer de-installation, all registration and licensing information held in the older version of LicenseServer will be saved to a database on your server machine. This data will be imported automatically into the newer version when 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: 1.19

▼ Trial license

During the installation process, you will be given the option of requesting a 30-day trial license for StyleVision Server. After submitting the request, a trial license will be sent to the email address you registered.
1.4.2  Licensing on Mac OS X

StyleVision Server must be licensed with an Altova LicenseServer in order to run it. Licensing is a two-step process:

1. **Register StyleVision Server** with LicenseServer. Registration is done from StyleVision Server.
2. **Assign a license** to StyleVision Server. License-assigning is done from LicenseServer.

The steps you need to carry out are given below.

---

**Start LicenseServer**

To correctly register and license StyleVision Server with LicenseServer, LicenseServer must be running as a daemon. Start LicenseServer as a daemon with the following command:

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

If at any time you need to stop LicenseServer, replace `load` with `unload` in the above command:

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

**Register StyleVision Server**

Register StyleVision Server via:

- its CLI, using the `licenseserver` command:
  
  ```
sudo /usr/local/Altova/StyleVisionServer2015/bin/StyleVisionServer licenseserver [options] ServerName-Or-IP-Address
  
  For example, if `localhost` is the name of the server on which LicenseServer is installed:

  ```
sudo /usr/local/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:

  ```
/usr/local/Altova/StyleVisionServer2015/bin
  
  After successful registration, go to the [Server Management tab of LicenseServer's configuration page](#) to assign a license to StyleVision Server.

**Assign a license**

After successfully registering StyleVision Server, it will be listed in the [Server Management tab of the configuration page of LicenseServer](#). Go to there and assign a license to StyleVision Server.

**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.
1.4.3 Notes about Environment

Folders
Given below is a list of important folders in your StyleVision Server setup.

- **Installation root**
  `/usr/local/Altova/StyleVisionServer2015/`

- **License Files**
  `/var/Altova/StyleVisionServer`

- **Environment settings**
  `/Library/LaunchDaemons/com.altova.MobileTogetherServer.plist`
  The environment settings file must be defined according to your specific environment. The example path above serves only as a general guide.
  **Note:** These environment variables are only set for the StyleVision Server process and do not have an impact on other users.

---

JDBC-Connections
Note the following points:

- The Java Runtime Environment or SDK must be installed.
- The JDBC-Connects for the target database must be installed.
- The following environment variables must be set correctly for your environment:
  - **CLASSPATH:** to find the jar-files
  - **PATH:** to find the JRE, but might not be necessary depending on the installation
  - **JAVA_HOME:** if necessary, depending on the installation

**Note**
On Mac OS X servers, the only database connections supported are JDBC.
1.5 Command Line Usage

This section:

- Default location of StyleVision Server executable
- Usage and list of valid CLI commands

Default location of StyleVision Server executable
Given below are the default locations of the StyleVision Server executable:

**Windows**  
<ProgramFilesFolder>\Altova\StyleVisionServer2015\bin\StyleVisionServer.exe

**Linux**  
/opt/Altova/StyleVisionServer2015/bin/stylevisionserver

**Mac**  
/usr/local/Altova/StyleVisionServer2015/bin/stylevisionserver

Usage and list of valid CLI commands
General command line syntax for StyleVisionServer is:

**Windows**  
StyleVisionServer --h | --help | --version | <command> [options] [arguments]

**Linux**  
stylevisionserver --h | --help | --version | <command> [options] [arguments]

**Mac**  
stylevisionserver --h | --help | --version | <command> [options] [arguments]

Casing on the command line

- **StyleVisionServer** on Windows
- **stylevisionserver** on Unix (Linux, Mac)

* Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

where

<table>
<thead>
<tr>
<th>--h</th>
<th>--help</th>
<th>Displays the help text.</th>
</tr>
</thead>
<tbody>
<tr>
<td>--version</td>
<td>Displays the version of StyleVision Server.</td>
<td></td>
</tr>
</tbody>
</table>
Valid CLI commands are listed below and are explained in the sub-sections of this section.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>licenseserver</td>
<td>Register StyleVision Server with LicenseServer on the local network.</td>
</tr>
<tr>
<td>assignlicense</td>
<td>Upload a license to LicenseServer and assign it to StyleVision Server on this machine.</td>
</tr>
<tr>
<td>verifylicense</td>
<td>Check if the current StyleVision Server is licensed; optionally, check if a given license key is assigned.</td>
</tr>
<tr>
<td>generate</td>
<td>gen</td>
</tr>
<tr>
<td>setfopath</td>
<td>sfp</td>
</tr>
<tr>
<td>exportresourcestrings</td>
<td></td>
</tr>
<tr>
<td>setdeflang</td>
<td>sdl</td>
</tr>
<tr>
<td>help</td>
<td>Displays help for a specific command. For example: help generate</td>
</tr>
</tbody>
</table>
1.5.1 licenseserver

This section:

- Command syntax
- Command description
- Examples
- Command options

Command syntax

Windows  \texttt{StyleVisionServer licenseserver [options] Server-Or-IP-Address}

Linux  \texttt{stylevisionserver licenseserver [options] Server-Or-IP-Address}

Mac  \texttt{stylevisionserver licenseserver [options] Server-Or-IP-Address}

Command description

On execution, the \texttt{licenseserver} command registers StyleVision Server with the LicenseServer specified by the \texttt{Server-Or-IP-Address} argument. \texttt{Server-Or-IP-Address} identifies the machine on the network on which Altova LicenseServer is installed and running. It can be the machine's name or its IP address.

For the \texttt{licenseserver} command to be executed successfully, the two servers must be connected on the network and LicenseServer must be running. You must have administrator privileges to be able to register StyleVision Server with LicenseServer.

Once StyleVision Server has been successfully registered with LicenseServer, you will receive a message to this effect. The message will also display the URL of the LicenseServer. You can now go to LicenseServer to assign StyleVision Server a license. For details, see the LicenseServer documentation.

Examples

Examples of the \texttt{licenseserver} command:

\begin{verbatim}
stylevisionserver licenseserver DOC.altova.com
stylevisionserver licenseserver localhost
stylevisionserver licenseserver 127.0.0.1
\end{verbatim}

The commands above specify, respectively, the machine named \texttt{DOC.altova.com}, and the user's machine (\texttt{localhost} and \texttt{127.0.0.1}) as the machine running Altova LicenseServer. In each case,
the command registers StyleVision Server with the LicenseServer on the machine specified.

▼ Casing on the command line

* Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

---

**Command options**

Options are listed in their short forms (in the first column) and long forms (second column), together with their descriptions (third column). On the command line, one or two dashes can be used for both short and long forms.

| --j | --json | Prints the result of the registration attempt as a machine-parsable JSON object. Form: --json=true|false |
1.5.2 assignlicense (Windows only)

This section:

- Command syntax
- Command description
- Examples
- Command options

Command syntax

Windows  StyleVisionServer assignlicense [options] FILE

Note: This command is supported only on Windows systems. It is not supported on Linux or Mac systems.

Command description

On execution, the assignlicense command uploads the license file specified by the FILE argument to the registered LicenseServer, and assigns the license to StyleVision Server on this machine. The FILE argument takes the filepath of the license file.

The --test-only option allows you to upload to LicenseServer and validate the license, without assigning the license to StyleVision Server. For details about licensing, see the LicenseServer documentation.

Examples

Examples of the assignlicense command:

    stylevisionserver assignlicense C:\StyleVision Server12345.altova_licenses
    stylevisionserver assignlicense --test-only=true C:\StyleVision Server12345.altova_licenses

The first command above uploads the specified license to LicenseServer and assigns it to StyleVision Server.

The second command uploads the specified license to LicenseServer and validates it, without assigning it to StyleVision Server.

Casing on the command line

StyleVisionServer on Windows
**stylevisionserver on Unix (Linux, Mac)**

* Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

---

**Command options**

Options are listed in their short forms (in the first column) and long forms (second column), together with their descriptions (third column). On the command line, one or two dashes can be used for both short and long forms.

| --t | --test-only | Values are true|false. If true, then the license file is only uploaded to LicenseServer and validated. It is not assigned to StyleVision Server. Form: --test-only=true|false. Set to true if the option is specified without a value. |
| --- | --- | --- |
1.5.3 verifylicense (Windows only)

This section:

- Command syntax
- Command description
- Examples
- Command options

Command syntax

Windows  `StyleVisionServer verifylicense [options]`

Note: This command is supported only on Windows systems. It is not supported on Linux or Mac systems.

Command description

Checks whether the current product is licensed. Additionally, the `--license-key` option enables you to check whether a specific license key is already assigned to the product. For details about licensing, see the LicenseServer documentation.

Examples

Examples of the `verifylicense` command:

```
stylevisionserver verifylicense
stylevisionserver verifylicense --license-key=ABCDEFG-HIJKLMN-OPQRSTU-VWXYZ12-3456789
```

The commands above check, respectively, whether the product has been licensed, and whether the product has been licensed with the license key given as the value of the `--license-key` option.

Casing on the command line

```
StyleVisionServer on Windows
stylevisionserver on Unix (Linux, Mac)
```

* Note that lowercase (`stylevisionserver`) works on all platforms (Windows, Linux, and Mac), while upper-lower (`StyleVisionServer`) works only on Windows and Mac.
### Command options

Options are listed in their short forms (in the first column) and long forms (second column), together with their descriptions (third column). On the command line, one or two dashes can be used for both short and long forms.

| --l | --license-key | Checks whether the submitted license key has already been assigned to the product. Form: --license-key=VALUE |
1.5.4 generate

This section:

- Command syntax
- Command description
- Examples
- Command options

Command syntax

Windows

```
StyleVisionServer generate | gen [options] --inputxml=Filename
```

InputPXF

Linux

```
stylevisionserver generate | gen [options] --inputxml=Filename
```

InputPXF

Mac

```
stylevisionserver generate | gen [options] --inputxml=Filename
```

InputPXF

Command description

The generate command (short form is gen) takes:

- an input XML file (`--inputxml`) as a **mandatory option**, and
- an input PXF file (`InputPXF`) as its argument.

The command generates one or more output files (HTML, PDF, RTF, and/or DOCX) by transforming the input XML file using the XSLT document contained in the input PXF file. At least one **output-creation option** must be supplied.

Examples

Example of the generate command:

```
stylevisionserver generate --inputxml=Test.xml --html=Test.html Test.pxf
```

The command above contains the mandatory **--inputxml option**, the **InputPXF** argument (`Test.pxf`), and a minimum of one **output-creation option** (`--html`). The **--inputxml** switch is ignored if the main schema source is DB or DB-XML, but it must be present for syntactical reasons. If the output-creation option `--html` takes a relative path, as in the example above, the output file's location will be relative to the folder in which the PXF file is.

▼ Casing on the command line
StyleVisionServer on Windows
stylevisionserver on Unix (Linux, Mac)

* Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

Command options
Options are listed in their short forms (in the first column) and long forms (second column), together with their descriptions (third column). On the command line, one or two dashes can be used for both short and long forms.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--xml</td>
<td>The XML file to process. This option is mandatory. Form: --inputxml=Filename</td>
</tr>
<tr>
<td>--dbw</td>
<td>A simple WHERE clause that determines what rows of a DB-XML source to process. Form: --dbwhere=WHEREClause</td>
</tr>
<tr>
<td>--p</td>
<td>Assigns a value to a parameter defined in the PXF file. Form: --param=ParamName:ParamValue. The --param switch must be used before each parameter. Use quotes if ParamName or ParamValue contains a space. For example: --p=company:&quot;Nanonull Inc&quot;.</td>
</tr>
<tr>
<td>--html</td>
<td>The output HTML file to create. Form: --outhtml=Filename</td>
</tr>
<tr>
<td>--pdf</td>
<td>The output PDF file to create. Form: --outpdf=Filename</td>
</tr>
<tr>
<td>--rtf</td>
<td>The output RTF file to create. Form: --outrtf=Filename</td>
</tr>
<tr>
<td>--docx</td>
<td>The output DOCX file to create. Form: --outdocx=Filename</td>
</tr>
<tr>
<td>--fo</td>
<td>The FO file to create. Form: --outfo=Filename</td>
</tr>
<tr>
<td>--v</td>
<td>The display of all messages can be turned on or off, respectively, with --verbose=true or --verbose=false. Default is false if the option is not provided, true if the option is provided without a value.</td>
</tr>
<tr>
<td>--l</td>
<td>The language used for displaying messages. Form: --lang=languagecode. Languages supported on installation: en, de, es, ja</td>
</tr>
<tr>
<td>--h</td>
<td>Displays the help text for the generate command.</td>
</tr>
</tbody>
</table>

Note: If the output-creation options (--html, --pdf, --rtf, --docx, --fo) are given a relative path, the output file's location will be relative to the folder in which the PXF file is.
1.5.5 setfopath

This section:
- Command syntax
- Command description
- Examples

Command syntax

Windows  
```
StyleVisionServer setfopath | sfp [options] Path
```

Linux  
```
stylevisionserver setfopath | sfp [options] Path
```

Mac  
```
stylevisionserver setfopath | sfp [options] Path
```

Command description

The `setfopath` command (short form is `sfp`) specifies the path to an Apache FOP processor other than that included in the StyleVision Server package.

By default the Apache FOP processor that is included with StyleVision Server is used is used for processing FO documents and generating PDF output. If you wish to use some other Apache FOP processor instance than the processor supplied with StyleVision Server, use the `setfopath` command.

After an FO processor has been specified with the `setfopath` command, it is this processor that will be used when PDF is generated with subsequent `generate` commands. To change processors again, use the `setfopath` command again. To switch back to StyleVision Server’s FOP processor, locate the FOP folder on your system and use this path as the argument of `setfopath`.

On Windows systems, the FOP folder will be located under `<ProgramFilesFolder>\Altova\`; on Linux systems in a descendant folder of `<ProgramFilesFolder>\Altova\StyleVisionServer2015`.

Examples

After running the `setfopath` command, you can use the `generate` command to generate a PDF output-file using the just-specified FO processor:

```
stylevisionserver setfopath C:\FOP\FOP.bat
stylevisionserver generate --inputxml=Test.xml --pdf=Test.pdf Test.pxf
```
The commands above do the following:

1. The `setfopath` command specifies that the FO processor at the location `C:\FOP\FOP.bat` is to be used to generate PDF in subsequent PDF-generation commands.
2. The `generate` command generates a PDF file from the specified input XML, using transformation files contained in the PXF file. The FO processor specified in the previous command is used for generating the PDF.

**Casing on the command line**

<table>
<thead>
<tr>
<th>Command on Windows</th>
<th>Command on Unix (Linux, Mac)</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>StyleVisionServer</code></td>
<td><code>stylevisionserver</code></td>
</tr>
</tbody>
</table>

* Note that lowercase (`stylevisionserver`) works on all platforms (Windows, Linux, and Mac), while upper-lower (`StyleVisionServer`) works only on Windows and Mac.
1.5.6 exportresourcestrings

This section:

- Command syntax
- Arguments
- Command description
- Examples
- Creating localized versions of StyleVision Server

Command syntax

Windows  
StyleVisionServer exportresourcestrings LanguageCode XMLOutputFile

Linux  
stylevisionserver exportresourcestrings LanguageCode XMLOutputFile

Mac  
stylevisionserver exportresourcestrings LanguageCode XMLOutputFile

Arguments

The exportresourcestrings command takes the following arguments:

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LanguageCode</td>
<td>Specifies the language of resource strings in the exported XML file.</td>
</tr>
<tr>
<td></td>
<td>Supported languages are: en, de, es, ja</td>
</tr>
<tr>
<td>XMLOutputFile</td>
<td>Specifies the location and name of the exported XML file.</td>
</tr>
</tbody>
</table>

Command description

The exportresourcestrings command outputs an XML file containing the resource strings of the StyleVision Server application. It takes two arguments: (i) the language of the resource strings in the output XML file, and (ii) the path and name of the output XML file. Allowed export languages (with their language codes in parentheses) are: English (en), German (de), Spanish (es), and Japanese (ja).

Examples

An example of the exportresourcestrings command:

    stylevisionserver exportresourcestrings de c:\Strings.xml
This command creates a file called Strings.xml at c: that contains all the resource strings of the StyleVision Server application in German.

**Casing on the command line**

- **StyleVisionServer** on Windows
- **stylevisionserver** on Unix (Linux, Mac)

* Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

---

**Creating localized versions of StyleVision Server**

You can create a localized version of StyleVision Server for any language of your choice. Four localized versions (English, German, Spanish, and Japanese) are already available in the C:\Program Files (x86)\Altova\StyleVisionServer2015\bin folder, and therefore do not to be created.

Create a localized version as follows:

1. Generate an XML file containing the resource strings by using the `exportresourcestrings` command *(see command syntax above)*. The resource strings in this XML file will be one of the four supported languages: English (en), German (de), Spanish (es), or Japanese (ja), according to the `LanguageCode` argument used with the command.

2. Translate the resource strings from one of the four supported languages into the target language. The resource strings are the contents of the `<string>` elements in the XML file. Do not translate variables in curly brackets, such as `{option}` or `{product}`.


4. After you receive your localized DLL file from Altova Support, save the DLL in the C:\Program Files (x86)\Altova\<%APPFOLDER\bin folder. Your DLL file will have a name of the form StyleVisionServer2015\lc.dll. The _lc part of the name contains the language code. For example, in StyleVisionServer2015\de.dll, the de part is the language code for German (Deutsch).

5. Run the `setdeflang` command to set your localized DLL file as the StyleVision Server application to use. For the argument of the `setdeflang` command, use the language code that is part of the DLL name.

**Note:** Altova StyleVision Server is delivered with support for four languages: English, German, Spanish, and Japanese. So you do not need to create a localized version of these languages. To set any of these four languages as the default language, use StyleVision Server's `setdeflang` command.
1.5.7 setdeflang

This section:

- Command syntax
- Command description
- Examples
- Supported languages

Command syntax

Windows  
StyleVisionServer setdeflang | sdl LanguageCode

Linux  
stylevisionserver setdeflang | sdl LanguageCode

Mac  
stylevisionserver setdeflang | sdl LanguageCode

Command description

The setdeflang command (short form is sdl) sets the default language of StyleVision Server. It takes a mandatory LanguageCode argument.

Examples

An example of the setdeflang command:

```
stylevisionserver setdeflang DE
```

The command above sets the default language for messages to German.

- Casing on the command line

  StyleVisionServer on Windows
  stylevisionserver on Unix (Linux, Mac)

  * Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.

Supported languages

The table below lists the languages currently supported together with their language codes.
<table>
<thead>
<tr>
<th>Language</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN</td>
<td>English</td>
</tr>
<tr>
<td>DE</td>
<td>German</td>
</tr>
<tr>
<td>ES</td>
<td>Spanish</td>
</tr>
<tr>
<td>JA</td>
<td>Japanese</td>
</tr>
</tbody>
</table>
1.5.8 help

This section:

- Command syntax
- Command description
- Examples
- The --help option

Command syntax

Windows    StyleVisionServer help Command
Linux      stylevisionserver help Command
Mac        stylevisionserver help Command

Command description

The help command takes a single argument (Command): the name of the command for which help is required. It displays the correct syntax of the command and other information relevant to the correct execution of the command.

Examples

An example of the help command:

    stylevisionserver help exportresourcestrings

The command above contains one argument: the command exportresourcestrings, for which help is required. When the example command above is executed, information about the exportresourcestrings command will be displayed in the terminal.

- Casing on the command line

  StyleVisionServer on Windows
  stylevisionserver on Unix (Linux, Mac)

  * Note that lowercase (stylevisionserver) works on all platforms (Windows, Linux, and Mac), while upper-lower (StyleVisionServer) works only on Windows and Mac.
The --help option

Help information about a command is also available by using the --help option with the command for which help information is required. For example, using the --help option with the exportresourcestrings command, as follows:

    stylevisionserver exportresourcestrings --help

achieves the same result as does using the help command with an argument of exportresourcestrings:

    stylevisionserver help exportresourcestrings

In both cases, help information about the exportresourcestrings command is displayed.
1.6 **StyleVision Server API**

StyleVision Server provides an application programming interface (API) that you can access programmatically from your .NET, COM, or Java-based code.

This reference section is organized as follows:

- About the .NET Interface
- About the COM Interface
- About the Java Interface
- Code Examples
- API Reference
1.6.1 About the .NET Interface

The .NET interface is built as a wrapper around the COM interface. It is provided as a primary interop assembly signed by Altova and uses the namespace `Altova.StyleVisionServer`.

During installation, StyleVision Server will be registered automatically as a COM server object, so there is no need for a manual registration. If you receive an access error, open the Component Services and give permissions to the same account that runs the application pool containing StyleVision Server.

In order to use StyleVision Server in your .NET project, add a reference to the `Altova.StyleVisionServer.dll` file (see the instructions below). The `Altova.StyleVisionServer.dll` is located in the `bin` folder of the StyleVision Server installation folder. This `.dll` file is automatically added to the global assembly cache (GAC) during StyleVision Server installation (the GAC is typically located in the `C:\WINDOWS\assembly` folder).

Once StyleVision Server has been registered as a COM server object, and the `Altova.StyleVisionServer.dll` is available to the .NET interface, StyleVision Server API functionality becomes available in your .NET project.

To add a reference to the StyleVision Server DLL in a Visual Studio .NET project

1. With the .NET project open in Visual Studio, click Project | Add Reference. The Add Reference dialog box pops up.
2. On the Browse tab, browse for the folder: `<StyleVisionServer application folder>/bin`, select `Altova.StyleVisionServer.dll`, and click OK.

You can view the structure of the `Altova.StyleVisionServer` assembly using the Visual Studio Object Browser (to display the Object Browser, click Object Browser on the View menu).
1.6.2 About the COM Interface

StyleVision Server is automatically registered as a COM server object during installation. To check whether the registration was successful, open the Registry Editor (for example, by typing `regedit.exe` command at the command line). If registration was successful, the Registry will contain the classes `StyleVision.Server`. These two classes will typically be found under `HKEY_LOCAL_MACHINE\SOFTWARE\Classes`.

Once the COM server object is registered, you can invoke it from within applications and scripting languages that have programming support for COM calls. If you wish to change the location of the StyleVision Server installation package, it is best to uninstall StyleVision Server and then reinstall it at the required location. In this way, the necessary de-registration and registration are carried out by the installer process.
1.6.3 About the Java Interface

To access the StyleVision Server API from Java code, add the following references to the .classpath file of your Java project.

- **StyleVisionServer.jar**: The library that communicates with StyleVision Server
- **StyleVisionServer_JavaDoc.zip**: Documentation of the StyleVision Server API

Both files are available in the bin folder of the StyleVision Server installation folder. You can either reference the file from their original location or copy them to another location if this fits your project setup.

---

Adding library references in Eclipse

In Eclipse, you can add the classpath references by editing the properties of the Java project. The sample instructions below apply to Eclipse 4.4.

1. With the project open in Eclipse, on the **Project** menu, click **Properties**.
2. On the Libraries tab, click **Add External JARs**, and then browse for the StyleVisionServer.jar file located in the StyleVision Server installation folder.
3. Under **JARs and class folders on the build path**, expand the StyleVisionServer.jar record, and then double-click the Javadoc location: (None) record.
4. Ensure that the Javadoc in archive and External file options are selected, and then browse for the StyleVisionServer_JavaDoc.zip file located in the StyleVision Server installation folder.
5. Click **OK**. The reference to the StyleVision Server library and Javadoc archive is added to the .classpath file of the project.
1.6.4 Code Examples

The examples in this section are for the following programming languages:

- C++
- C#
- VBScript
- Visual Basic
- Java

C++

The example below shows how to use C++ code to generate an output RTF file using a PXF file and an input XML file. Ensure that StyleVision Server is installed and licensed and that it is available as a COM server object. Registration as a COM server object usually takes place during installation of StyleVision Server. To check if registration was successful, see About the COM Interface.

```c++
// StyleVisionServerAPI_Sample.cpp : Defines the entry point for the console application.
//
#include <iostream>
#include "atlbase.h"

// 32-bit StyleVision Server
#import "progid:StyleVision.Server"

// 64-bit StyleVision Server
//#import "progid:StyleVision_x64.Server"

int _tmain(int argc, _TCHAR* argv[])
{
    CoInitialize( NULL );

    try
    {
        StyleVisionServerLib::IServerPtr pSVS;
        CoCreateInstance( __uuidof( StyleVisionServerLib::Server ), NULL,
                        CLSCTX_ALL, __uuidof( StyleVisionServerLib::IServer ), reinterpret_cast< void** >( &pSVS ) );

        //Set a working directory - used for output and for intermediate files
        pSVS->WorkingDirectory = "c:\\temp";

        //Default path to the StyleVision Server executable is the installation path (same dir with the StyleVisionServer.dll)
        //In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
        //pSVS->ServerPath = "C:\\Program Files (x86)\\Altova\";
```

```
// Prepare the name of the working XML
pSVS->InputXML = "ExpReport.xml";

// Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
pSVS->OutputRTF = "ExpReport.rtf";

// Prepare the parameters, if your design uses parameters
// pSVS->AddParameter( "testparam1", "value 1" );

// Run the transformation; the output will be stored at C:\temp

// NOTE Please adapt the path to the input file in order to run the sample
if (pSVS->Run("C:\Program Files (x86)\Altova\StyleVisionServer2015\etc\Examples\ExpReport.pxf"))
    std::cout << "Success - finished execution" << std::endl;
else
    std::cout << pSVS->LastExecutionMessage << std::endl;

} catch (_com_error& err ) {
    BSTR  bstrMessage;
    (err).ErrorInfo()->GetDescription( &bstrMessage );
    std::cout << "Exception occurred: " << _com_util::ConvertBSTRToString( bstrMessage ) << std::endl;
}
CoUninitialize();
return 0;

C#

The example below shows how to use C# code to generate an output RTF file using a PXF file and an input XML file. Ensure that StyleVision Server is installed and licensed and that it is available as a COM server object. Registration as a COM server object usually takes place during installation of StyleVision Server. To check if registration was successful, see About the COM Interface.

namespace StyleVisionServerAPI_sample
{
    class Program
```csharp
static void Main(string[] args)
{
    //Create a StyleVision Server object

    //Set a working directory - used for output and for intermediate files
    objSVS.WorkingDirectory = "c:\temp";

    //Default path to the StyleVision Server executable is the installation path (same dir with the StyleVisionServer.dll)
    //In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
    //objSVS.ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2015\bin\StyleVisionServer.exe";

    //Prepare the name of the working XML
    objSVS.InputXML = "ExpReport.xml";

    //Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
    objSVS.OutputRTF = "ExpReport.rtf";

    //Prepare the parameters, if your design uses parameters
    //objSVS.AddParameter( "testparam1", "value 1" );

    //Run the transformation; the output will be stored at C:\temp \ExpReport.rtf
    // NOTE Please adapt the path to the input file in order to run the sample
    if (objSVS.Run("C:\Program Files (x86)\Altova\StyleVisionServer2015\etc\Examples\ExpReport.pxf"))
    {
        System.Console.WriteLine("Success - finished execution");
    }
    else
    {
        System.Console.WriteLine(objSVS.LastExecutionMessage);
    }
}
```

VBScript

The example below shows how to use VB Script code to generate an output RTF file using a PXF file and an input XML file. Ensure that StyleVision Server is installed and licensed and that it is available as a COM server object. Registration as a COM server object usually takes place during installation of StyleVision Server. To check if registration was successful, see About the COM Interface.
Option Explicit On

'Create a StyleVision Server object; use "StyleVision_x64.Server" if you want to use the 64-bit installation
Dim objSVS
Set objSVS = WScript.GetObject( "", "StyleVision.Server" )

'Set a working directory - used for output and for intermediate files
objSVS.WorkingDirectory = "C:\temp"

'Default path to the StyleVision Server executable is the installation path
(same dir with the StyleVisionServer.dll)
'In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
'objSVS.ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2015\bin \StyleVisionServer.exe"

'Prepare the name of the working XML
objSVS.InputXML = "ExpReport.xml"

'Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
objSVS.OutputRTF = "ExpReport.rtf"

'Prepare the parameters, if your design uses parameters
'Call objSVS.AddParameter("testparam1", "value 1")

' Run the transformation; the output will be stored at C:\temp\ExpReport.rtf
' NOTE Please adapt the path to the input file in order to run the sample
If objSVS.Run( "C:\Program Files (x86)\Altova\StyleVisionServer2015\etc \Examples\ExpReport.pxf" ) Then
   WScript.Echo( "Success - finished execution" )
Else
   WScript.Echo( objSVS.LastExecutionMessage )
End If

Visual Basic

The example below shows how to use C++ code to generate an output RTF file using a PXF file and an input XML file. Ensure that StyleVision Server is installed and licensed and that it is available as a COM server object. Registration as a COM server object usually takes place during installation of StyleVision Server. To check if registration was successful, see About the COM Interface.

Option Explicit On

Module Program
Sub Main()

' Create a StyleVision Server object

' Set a working directory - used for output and for intermediate files
objSVS.WorkingDirectory = "C:\temp"

' Default path to the StyleVision Server executable is the installation path (same dir with the StyleVisionServer.dll)
' In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
' objSVS.ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2015\bin\StyleVisionServer.exe"

' Prepare the name of the working XML
objSVS.InputXML = "ExpReport.xml"

' Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
objSVS.OutputRTF = "ExpReport.rtf"

' Prepare the parameters, if your design uses parameters
' Call objSVS.AddParameter("testparam1", "value 1")

' Run the transformation; the output will be stored at C:\temp\ExpReport.rtf
' NOTE Please adapt the path to the input file in order to run the sample
If (objSVS.Run("C:\Program Files (x86)\Altova\StyleVisionServer2015\etc\Examples\ExpReport.pxf")) Then
    System.Console.WriteLine("Success - finished execution")
Else
    System.Console.WriteLine(objSVS.LastExecutionMessage)
End If

End Sub

End Module

Java

The example below shows how to use Java code to generate an output RTF file using a PXF file and an input XML file. Ensure that StyleVision Server is installed and licensed and that it is available as a server object. Registration as a server object usually takes place during installation of StyleVision Server. To check if registration was successful, see About the Java Interface.

public class Program
```java
public static void main(String[] args) {
    try {
        // Create a StyleVision Server object

        // Set a working directory - used for output and for intermediate files
        objSVS.setWorkingDirectory( "C:temp" );

        // Default path to the StyleVision Server executable is the installation path (same dir with the StyleVisionServer.jar)
        // In case you copied the JAR file to a new location, you need to explicitly set the path to the .exe file
        // objSVS.setServerPath( "C:\Program Files (x86)\Altova\StyleVisionServer2015\bin\StyleVisionServer.exe" );

        // Prepare the name of the working XML
        objSVS.setInputXML( "ExpReport.xml" );

        // Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
        objSVS.setOutputRTF( "ExpReport.rtf" );

        // Prepare the parameters, if your design uses parameters
        // objSVS.AddParameter( "testparam1", "value 1" );

        // Run the transformation; the output will be stored at C:temp
        // NOTE Please adapt the path to the input file in order to run the sample
        if ( objSVS.generate( "C:\Program Files (x86)\Altova\StyleVisionServer2015\etc\Examples\ExpReport.pxf" ) )
            System.out.println( "Success - finished execution" );
        else
            System.out.println( objSVS.getLastExecutionMessage() );
    }
    catch ( Exception e )
    {
        e.printStackTrace();
    }
}
```
1.6.5  API Reference

This section is a user’s reference for the StyleVision Server API.

- **COM and .NET**
- **Java**

**COM and .NET**

The StyleVisionServer API exposes the **IServer** interface, which creates a new StyleVision Server object instance, and provides access to StyleVision Server.

The **IServer** interface has the following methods and properties.

---

**Methods**

- **AddParameter**

  Assigns a value to a parameter defined in the PXF file.

  - **C#**
    
    void AddParameter(string bstrName, string bstrValue)
  
  - **C++**
    
    HRESULT AddParameter([in] BSTR bstrName, [in] BSTR bstrValue);
  
  - **VB**
    
    Sub AddParameter(ByVal bstrName As String, ByVal bstrValue As String)

- **ClearParameterList**

  Clears the list of parameters.

  - **C#**
    
    void ClearParameterList()
  
  - **C++**
    
    HRESULT ClearParameterList();
  
  - **VB**
    
    Sub ClearParameterList()

- **Generate**

  Generates one or more output files (HTML, PDF, RTF, and/or DOCX) by using the PXF file specified with **TransformPath**. It transforms the input **XML** file (Working XML File in the PXF file) using the XSLT document contained in the PXF file. Returns **TRUE** in case of success; **FALSE** otherwise.
Properties

APIMajorVersion

Gets the major version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.

- C#
  ```csharp
  int APIMajorVersion { get; }
  ```
- C++
  ```cpp
  HRESULT APIMajorVersion([out, retval] INT* pnVal);
  ```
- VB
  ```vb
  ReadOnly Property APIMajorVersion As Integer
  ```

APIMinorVersion

Gets the minor version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.

- C#
  ```csharp
  int APIMinorVersion { get; }
  ```
- C++
  ```cpp
  HRESULT APIMinorVersion([out, retval] INT* pnVal);
  ```
- VB
  ```vb
  ReadOnly Property APIMinorVersion As Integer
  ```

APIServicePackVersion

Gets the service pack version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.
\section*{InputXML}

Sets the path and name of the XML file to be processed (the Working XML File in the PXF file).

\begin{itemize}
\item C#\begin{verbatim}
    string InputXML { set; }
\end{verbatim}
\item C++\begin{verbatim}
    HRESULT InputXML([in] BSTR bstrPath );
\end{verbatim}
\item VB\begin{verbatim}
    Property InputXML As String
\end{verbatim}
\end{itemize}

\section*{Is64Bit}

Returns TRUE if the StyleVision Server engine is a 64-bit executable.

\begin{itemize}
\item C#\begin{verbatim}
    bool Is64Bit { get; }
\end{verbatim}
\item C++\begin{verbatim}
    HRESULT Is64Bit([out, retval] VARIANT_BOOL* pbVal);
\end{verbatim}
\item VB\begin{verbatim}
    ReadOnly Property Is64Bit As Boolean
\end{verbatim}
\end{itemize}

\section*{LastExecutionMessage}

Gets the message received during the last \texttt{Generate} command.

\begin{itemize}
\item C#\begin{verbatim}
    string LastExecutionMessage { get; }
\end{verbatim}
\item C++\begin{verbatim}
    HRESULT LastExecutionMessage([out, retval] BSTR* pbstrResult );
\end{verbatim}
\item VB\begin{verbatim}
    ReadOnly Property LastExecutionMessage As String
\end{verbatim}
\end{itemize}
MajorVersion

Gets the major version of StyleVision Server.

C#  
int MajorVersion { get; }

C++
HRESULT MajorVersion([out, retval] INT* pnVal);

VB  
ReadOnly Property MajorVersion As Integer

MinorVersion

Gets the minor version of StyleVision Server.

C#  
int MinorVersion { get; }

C++
HRESULT MinorVersion([out, retval] INT* pnVal);

VB  
ReadOnly Property MinorVersion As Integer

OutputDOCX

Sets the path and name of the output DOCX file.

C#  
string OutputDOCX { set; }

C++
HRESULT OutputDOCX([in] BSTR bstrPath );

VB  
Property OutputDOCX As String

OutputHTML

Sets the path and name of the output HTML file.

C#  
string OutputHTML { set; }

C++
HRESULT OutputHTML([in] BSTR bstrPath );
VB

Property OutputHTML As String

▶ OutputPDF

Sets the path and name of the output PDF file.

C#

    string OutputPDF { set; }

C++

    HRESULT OutputPDF([in] BSTR bstrPath);

VB

Property OutputPDF As String

▶ OutputRTF

Sets the path and name of the output RTF file.

C#

    string OutputRTF { set; }

C++

    HRESULT OutputRTF([in] BSTR bstrPath);

VB

Property OutputRTF As String

▶ ProductName

Gets the name of the product: "StyleVision Server"

C#

    string ProductName { get; }

C++

    HRESULT ProductName([out, retval] BSTR* pstrVal);

VB

ReadOnly Property ProductName As String

▶ ProductNameAndVersion

Gets the complete name of the product, including the version number: "StyleVision Server 2014r2 sp1 (x64)".

C#
string ProductNameAndVersion { get; }

C++
HRESULT ProductNameAndVersion([out, retval] BSTR* pstrVal);

VB
ReadOnly Property ProductNameAndVersion As String

ServerPath

Gets or sets the path to the StyleVision Server executable.

C#
string ServerPath { set; get; }

C++
HRESULT ServerPath([in] BSTR bstrServerFile);
HRESULT ServerPath([out, retval] BSTR* pbstrServerFile);

VB
Property ServerPath As String

ServicePackVersion

Gets the service pack version of StyleVision Server (for example: 1 for Altova StyleVision Server 2014 r2 sp1 (x64)).

C#
int ServicePackVersion { get; }

C++
HRESULT ServicePackVersion([out, retval] INT* pnVal);

VB
ReadOnly Property ServicePackVersion As Integer

WorkingDirectory

Gets or sets the current directory for running jobs. Relative paths are evaluated against the working directory.

C#
string WorkingDirectory { set; get; }

C++
HRESULT WorkingDirectory([in] BSTR bstrWorkingDirectory);
HRESULT WorkingDirectory([out, retval] BSTR* pbstrWorkingDirectory);

VB
Property WorkingDirectory As String
Java

The package `com.altova.stylevisionserver` consists of the following classes:

- public class `StyleVisionServer` *(described below)*
- public class `StyleVisionServerException` extends `Exception`

---

StyleVisionServer Class

The `StyleVisionServer` class creates a new StyleVision Server object instance, and provides access to StyleVision Server. The methods of the `StyleVisionServer` interface are described below.

---

Methods of StyleVisionServer Class

The methods of the `StyleVisionServer` class are listed alphabetically below.

- **addParameter**
  
  public void `addParameter`(String name, String value)
  
  Adds the name and value of a new parameter. Each parameter and its value is specified in a separate call to the method. Parameters must be declared in the XSLT document.
  
  **Parameters:**
  
  - name: Holds the name of the parameter as a string.
  - value: Holds the value of the parameter as a string.

- **clearParameterList**
  
  public void `clearParameterList()`
  
  Clears the list of parameters.

- **generate**
  
  public boolean `generate`(String transfPath)
  
  Processes the PXF file specified in `transfPath`. Throws `StyleVisionServerException`. **Throws:** `StyleVisionServerException`
  
  **Parameters:**
  
  - transfPath: An absolute URL giving the location of the PXF file.

  **Returns:**
  
  - `true` if execution is successful
  - `false` if execution fails

  In case of an error, use `getLastExecutionMessage()`

- **getAPIMajorVersion**
  
  public int `getAPIMajorVersion()`
Gets the major version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.

\[
\text{getAPIMinorVersion}
\]

```java
public int getAPIMinorVersion()
```

Gets the minor version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.

\[
\text{getAPIServicePackVersion}
\]

```java
public int getAPIServicePackVersion()
```

Gets the service pack version of the StyleVision Server API. It can be different from the product version if the API is connected to another server.

\[
\text{getLastExecutionMessage}
\]

```java
public String getLastExecutionMessage()
```

Gets the message received during the last generate command.

\[
\text{getMajorVersion}
\]

```java
public int getMajorVersion()
```

Gets the major version of the application.

\[
\text{getMinorVersion}
\]

```java
public int getMinorVersion()
```

Gets the minor version of the application.

\[
\text{getProductName}
\]

```java
public String getProductName()
```

Gets the product name.

\[
\text{getProductNameAndVersion}
\]

```java
public String getProductNameAndVersion()
```

Gets the complete name and version number of the product.

\[
\text{getServicePackVersion}
\]

```java
public int getServicePackVersion()
```

Gets the service pack version of the StyleVision Server.

\[
\text{is64bit}
\]

```java
public boolean is64bit()
```

Checks whether the executable is 64-bit.

\textbf{Returns:}

true() for StyleVision Server (x64), false() otherwise.

\[
\text{setInputXML}
\]

```java
public void setInputXML(String path)
```
Sets the XML file to process. This must be the path of the Working XML File that is specified in the PXF file.

**Parameters:**
- **path:** Holds the path of the Working XML file in the PXF file.

```java
public void setOutputDOCX(String path)
```

Sets the path and name of the DOCX file to generate.

**Parameters:**
- **path:** The path and name of the DOCX file to generate.

```java
public void setOutputHTML(String path)
```

Sets the path and name of the HTML file to generate.

**Parameters:**
- **path:** The path and name of the HTML file to generate.

```java
public void setOutputPDF(String path)
```

Sets the path and name of the PDF file to generate.

**Parameters:**
- **path:** The path and name of the PDF file to generate.

```java
public void setOutputRTF(String path)
```

Sets the path and name of the RTF file to generate.

**Parameters:**
- **path:** The path and name of the RTF file to generate.

```java
public void setServerPath(String serverFile)
```

Sets the path of the StyleVisionServer executable.

**Parameters:**
- **serverFile:** The path of the StyleVisionServer executable.

```java
public void setWorkingDirectory(String workingDirectory)
```

Sets a default directory. Relative paths are resolved relative to this directory.

**Parameters:**
- **workingDirectory:** The path of the default (working) directory.
1.7 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: 1.19

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: 1.19
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: 02-24-2015
1.7.1 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.
1.7.2 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: 1.19

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.
1.7.3 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-1.19-debian.deb`
[Ubuntu]: `sudo dpkg --install licenseserver-1.19-ubuntu.deb`
[CentOS]: `sudo rpm -ivh licenseserver-1.19-1.x86_64.rpm`
[RedHat]: `sudo rpm -ivh licenseserver-1.19-1.x86_64.rpm`

The LicenseServer package will be installed in:
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: 1.19
1.7.4 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 the Applications terminal, 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
Download Altova LicenseServer from the Altova website (the installer file has a `.pkg` file extension), and double-click the installer package to start the installation. 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
```
1.7.5 **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.
1.7.6 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.

---

**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.

![Screenshot of the Altova ServiceController](image)

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 initctl1 start licenseserver
- [CentOS]: sudo initctl1 start licenseserver
- [RedHat]: sudo initctl1 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.

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.
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:

```
C:/ProgramData/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/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.
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:

\[
\text{http://<serverIPAddressOrName>:8088/}
\]

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:

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

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.
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.

### 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**).

![LicenseServer Configuration](image)

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 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. 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 <strong>Activate</strong> 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 <strong>Deactivate</strong> 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.

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(+XBRL) 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:

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

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

```
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.

```
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.

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).

**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.
1.7.7 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.

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>Activating...</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>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.

**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.

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**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.)
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**.
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.

![Server Monitoring Table](image)

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

**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**.

---

**Failover LicenseServer Settings**

To reduce the risk of an unavailable LicenseServer you can configure a second LicenseServer as a backup or "Failover LicenseServer". In the event that the Primary LicenseServer becomes unavailable a Failover LicenseServer can take over.

- **LicenseServer Mode**
  - Primary LicenseServer
  - Failover LicenseServer

**Please note:** The Failover LicenseServer periodically synchronizes all licenses, registered clients and license assignments from the Primary LicenseServer. Whenever a Failover LicenseServer takes over from a Primary LicenseServer any changes to these items made on the Failover LicenseServer during this period will be lost as soon as the Primary LicenseServer regains control. Other settings such as Proxy Server and Mail settings are independently set in each server and are not synchronized.

This is a Failover LicenseServer for the LicenseServer at **kubu6.aitova.com**

Last seen 2/5/2015, 11:56:04 AM
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.

<table>
<thead>
<tr>
<th>Servers</th>
<th>Edition</th>
<th>Version</th>
<th>User Address</th>
<th>Open CPU Cores</th>
<th>State</th>
<th>Failover</th>
<th>Last seen (seconds ago)</th>
<th>Licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altova RaptorXML Server</td>
<td>2015 rel. 3</td>
<td>VIEW 1.s</td>
<td>deji 2</td>
<td>6</td>
<td>Running</td>
<td>10</td>
<td>Licenses</td>
<td></td>
</tr>
<tr>
<td>Altova RaptorXML + XQuery Server</td>
<td>2014 rel. 2</td>
<td>VIEW 1.s</td>
<td>deji 2</td>
<td>6</td>
<td>Running</td>
<td>Client Side</td>
<td>Licenses</td>
<td></td>
</tr>
</tbody>
</table>
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.

- Hostname: myproxy
- Port Number: 1285
- User Name: myusername
- Password: ********

Leave the user name and password blank if no authentication is required.

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.

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.
1.7.8 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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