

Altova MapForce Server

User and Reference Manual

Altova MapForce Server User & Reference Manual

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Chapter 1

Altova MapForce Server

1 Altova MapForce Server

MapForce Server is an enterprise server product that runs on high-speed servers running MS Windows, Linux and Mac OS X operating systems. It operates as a module of FlowForce Server, and is also available as a standalone server product.

MapForce Server is supported on the following operating systems:

- Windows Server 2003, 2008 R2, or newer
- Windows XP with Service Pack 3, Windows 7, Windows 8, or newer
- Linux (CentOS 6, Debian 6, and Ubuntu 12.10, or newer)
- Mac OS X

MapForce Server is available for both 32-bit and 64-bit Windows versions.

Limitations:

- XML Signatures are not supported
- Global resources are not supported via the COM interface
- ODBC and ADO database connections are only supported by Windows. Other operating systems automatically connect via JDBC.

MapForce Server is available as part of the [FlowForce Server](#) installation package and interfaces with FlowForce server allowing you to define jobs, triggers, users, etc.

MapForce Server standalone:

MapForce Server is also available as a standalone product which can be downloaded from the [Altova download](#) page.

The Windows, Linux, and Mac OS X editions of the MapForce Server products also include Altova LicenseServer, which is needed to manage Altova server product licensing.

1.1 Installation on Windows

Note:

MapForce Server running under Windows has a minimum requirement: Windows XP with Service Pack 3.

Installing MapForce Server as part of FlowForce Server

The [FlowForce Server](#) installer allows you to install FlowForce Server, LicenseServer, as well as optionally MapForce Server and StyleVision Server. When installing FlowForce without having an Altova LicenseServer installed before make sure that you also select Altova LicenseServer.

MapForce Server standalone

The [MapForce Server standalone](#) installer contains a command-line binary which does not have a graphical user interface as well as Altova LicenseServer.

You can generate a MapForce Server Execution file (.mfx) from the MapForce command line using the `/COMPILE` command or via the menu item "Files->Compile to MapForce Server Execution File". Such a file can be directly executed on MapForce Server using the 'run' command without needing to use FlowForce Server. This allows you to execute mappings by running MapForce Server Execution Files (*.mfx) on any of the supported operating systems.

Note:

If FlowForce Server is installed at any time, then MapForce Server standalone will integrate itself into FlowForce Server. You will then be able to access MapForce Server through the FlowForce GUI.

Installing Altova LicenseServer

In order for MapForce Server to run, it must be licensed via an Altova LicenseServer on your network. (This applies only for non-Development Editions of MapForce Server.)

Altova LicenseServer will be downloaded and installed by default when you install either FlowForce Server or MapForce Server on Windows systems. If an Altova LicenseServer is already installed on your network, you do not need to install another one. In this case, during the installation process of FlowForce Server or MapForce Server, uncheck the option for installing Altova LicenseServer.

See the sections, [Licensing on Windows](#), [Licensing on Linux](#), or [Initial setup - Mac OS X](#) for more information about how to register and license MapForce Server with Altova LicenseServer.

Users and credentials - FlowForce

Users and user credentials are defined in FlowForce if you downloaded and installed MapForce Server as part of the FlowForce package, please see Access Control.

Users and credentials - MapForce Server standalone

If you installed the MapForce Server standalone installer, which only allows command line access, please ask your Administrator to set up the correct access permissions for you.

File paths in Windows

File paths given in this documentation will not be the same for all operating systems. You should note the following locations:

- MapForce Server stores its configuration file containing the default language setting in the following locations:

Windows XP	C:\Documents and Settings\All Users\Application Data\Altova\MapForceServer2013
Windows Vista, Windows 7/8	C:\ProgramData\Altova\MapForceServer2013

- Application folder: The Application folder is the folder where your Altova application is located. The path to the Application folder is, by default, the following.

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

1.1.1 Licensing on Windows

To license MapForce Server on Windows systems, you need to do the following:

1. If LicenseServer is not already running as a service, start it as a service. How to do this is described in the [Altova LicenseServer documentation](#).
2. Register MapForce Server with LicenseServer. Depending on whether you have installed MapForce Server (i) as part of FlowForce, or (ii) as a standalone product, the method of registering MapForce Server with LicenseServer will be different. Both methods are described below.
3. In the configuration page of LicenseServer, assign a license to MapForce Server according to the number of cores on the MapForce Server machine. How to do this is described in the [Altova LicenseServer documentation](#).

Registering MapForce Server from FlowForce

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.

After the registration, you can go to LicenseServer and assign a license to MapForce Server. How to do this is described in the [Altova LicenseServer documentation](#).

Registering a standalone MapForce Server

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 [options] Server-Or-IP-Address
```

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 [Altova LicenseServer documentation](#).

Note on cores and licenses

MapForce Server licensing is based on the number of cores available on the MapForce Server machine. The number of cores licensed must be greater than or equal to the number of cores available on the server, whether it's a physical or virtual machine. For example, if a server has eight cores, you must purchase at least an eight-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.

1.2 Installation on Linux

Packages

Installation packages are available for:

Distribution	Package extension
Debian 6	.deb
Ubuntu 12.04	.deb
CentOS 6	.rpm

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

Installation

The installation must be done as the root user. If you are logged in as root, leave out the "sudo" prefix when typing the following commands.

Uninstalling old versions

On the Linux command line, you can check which Altova server products are installed with the following command:

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

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

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

If you need to uninstall the LicenseServer use:

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

Installing MapForce Server

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

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

Install MapForce Server with the following command:

```
[Debian]: sudo dpkg --install mapforceserver-2013-debian.deb
[Ubuntu]: sudo dpkg --install mapforceserver-2013-ubuntu.deb
```

```
[CentOS]: sudo rpm -ivh mapforceserver-2013-1.x86_64.rpm
```

Installing Altova LicenseServer

In order for MapForce Server to run, it must be licensed via an Altova LicenseServer on your network. Download Altova LicenseServer package from the [Altova website](#) to any directory on the Linux system. Install it just like you did MapForce Server (see *previous step*).

```
[Debian]: sudo dpkg --install licenseserver-1.0-debian.deb
```

```
[Ubuntu]: sudo dpkg --install licenseserver-1.0-ubuntu.deb
```

```
[CentOS]: sudo rpm -ivh licenseserver-1.0-1.x86_64.rpm
```

For information about how to register MapForce Server with Altova LicenseServer and license it, see the section, [Licensing](#).

File paths in Linux

- Application path

Linux	/opt/Altova/MapForceServer2013/bin
-------	------------------------------------

1.2.1 Licensing on Linux

To license MapForce Server on Linux systems (Debian 6, Ubuntu 12.04, CentOS 6), do the following:

1. If LicenseServer is not already running as a service, start it as a service.
2. Register MapForce Server with LicenseServer.
3. In the configuration page of LicenseServer, assign a license to MapForce Server according to the number of cores on the MapForce Server machine. How to do this is described in the [Altova LicenseServer documentation](#).

Note: You must have both Altova MapForce Server and Altova LicenseServer installed. See the section [Installation on Linux](#) for information about installing these packages.

You must have Administrator privileges (root) to be able to register MapForce Server with LicenseServer!

Starting LicenseServer as a service

If LicenseServer is not already running on a different server in your network, LicenseServer must be installed and running as a service. Start LicenseServer as a service with the following command:

```
[Debian]: sudo /etc/init.d/licenseserver start
```

```
[Ubuntu]: sudo initctl start licenseserver
```

```
[CentOS]: sudo initctl start licenseserver
```

(If you need to stop LicenseServer, replace `start` with `stop` in the above command)

Registering MapForce Server

Before licensing MapForce Server from LicenseServer, MapForce Server must be registered with LicenseServer. You can register MapForce Server by using the [licenseserver](#) command of its CLI.

```
sudo /opt/Altova/MapForceServer2013/bin/mapforceserver licenseserver  
[options] Server-Or-IP-Address
```

In the command above, *Server-Or-IP-Address* is the name of the server on which LicenseServer is installed. Notice also that the location of the MapForceServer executable is:

```
/opt/Altova/MapForceServer2013/bin/mapforceserver
```

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 [Altova LicenseServer documentation](#).

Note on cores and licenses

MapForce Server licensing is based on the number of cores available on the MapForce Server machine. The number of cores licensed must be greater than or equal to the number of cores available on the server, whether it's a physical or virtual machine. For example, if a server has eight cores, you must purchase at least an eight-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.

1.3 Installation Mac OS X

MapForce Server 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 MapForce Server and LicenseServer

In the Applications terminal, right-click the MapForce 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/MapForceServer2013/
```

If you need to uninstall an old version of Altova LicenseServer, first stop the service with the command:

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenserServer11.plist
```

To check whether the service has been stopped, open the Activity Monitor terminal and make sure that LicenseServer is not in the list. Then proceed to uninstall in the same way as described above for MapForceServer.

Downloading the Mac OS X package

After downloading the Mac OS X package from the [Altova website](#), copy the package to any directory on the Mac OS X system.

Since you will need an [Altova LicenseServer](#) in order to run MapForce Server, you may want to download LicenseServer from the [Altova website](#) at the same time as you download MapForce Server, rather than download it at a later time. The Mac OS X installer file has a `.pkg` file extension.

Installing MapForce Server

In a terminal 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 MapForce Server package will be installed in the folder:

```
/usr/local/Altova/MapForceServer2013/
```

Clicking the MapForce Server icon in the Application terminal pops up this onscreen help.

Installing Altova LicenseServer

For MapForce Server to run, it 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 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
```

For information about how to register MapForce Server with [Altova LicenseServer](#) and license it, see the section, [Initial setup - Mac OS X](#).

1.3.1 Initial setup - Mac OS X

Licensing procedure

To license MapForce Server on Mac OS X systems, do the following:

1. If LicenseServer is not already running as a service, **start** it as a service.
2. **Register** MapForce Server with LicenseServer.
3. In the configuration page of LicenseServer, **assign** a license to MapForce Server machine. How to do this is described in the [Altova LicenseServer documentation](#).

Note: You must have both MapForce Server and [Altova LicenseServer](#) installed and running as services. See the section [Installation on Mac OS X](#) for information about installing these packages.

You must have administrator (root) privileges to be able to register MapForce Server with LicenseServer.

Starting LicenseServer as a service

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

```
sudo launchctl load /Library/LaunchDaemons/com.altova.LicenserServer11.plist
```

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

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenserServer11.plist
```

Registering MapForce Server

Before assigning a license to MapForce Server from LicenseServer, MapForce Server must be registered with LicenseServer. You can register MapForce Server by using the [licenseserver](#) command of its CLI.

```
sudo /usr/local/Altova/MapForceServer2013/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:

```
/usr/local/Altova/MapForceServer2013/bin
```

After successfully registering MapForce Server, you can go to LicenseServer and assign a license to MapForceServer. How to do this is described in the [Altova LicenseServer documentation](#).

1.4 Deploying mappings to Servers

A new command has been introduced in MapForce that lets you deploy a MapForce mapping to FlowForce Server, from where it can then be executed by MapForce Server.

This allows you to define jobs and job triggers, which define what a specific job does, and when it will execute.

Deploying a MapForce mapping to FlowForce:

This is done by opening a MapForce design file in MapForce and selecting the menu option **File | Deploy to FlowForce Server**.

Please see Deploying mappings to Servers for an example on how this is done.

Generating MapForce Server Execution files:

It is also possible to generate a mapping output file that can be directly executed on MapForce Server without needing to use FlowForce Server.

You can generate MapForce Executable Files in two ways:

- Using the MapForce command line using the `/COMPILE` command
Please see "Command line parameters" of the MapForce documentation for more information.
- Using the menu command **File | Compile to MapForce Server Execution File**.

To run a mapping and to generate its output is easily done by compiling the mapping with MapForce to a MapForce Server Execution file (.mfx) and to run this file with MapForce Server edition.

Run the MapForce Server Execution file:

The created MapForce Server Execution file can be run by MapForce Server using the command line command [run](#).

1.5 Command Line Usage

This section describes the command line interface of MapForce Server.

Default location on Windows

The MapForce Server executable (`MapForceServer.exe`) is located by default at:

```
<ProgramFilesFolder>\Altova\MapForceServer2013\bin\MapForceServer.exe
```

Default location on Linux

On Linux systems, the MapForce Server executable (`mapforceserver`) is located by default at

```
/opt/Altova/MapForceServer2013/bin/mapforceserver
```

where the first forward slash indicates the Root directory.

Usage

General command line syntax for `MapForceServer` is:

```
MapForceServer --h | --help | --version | <command> [options] [arguments]
```

where

<code>--h --help</code>	Displays the help text.
<code>--version</code>	Displays the version of MapForce Server.

Valid commands are listed below and explained in the sub-sections of this section.

run	Executes a MapForce Server execution file (.mfx)
licenseserver	Register MapForce Server with the Altova LicenseServer on the local network.
setdeflang <code>sdl</code>	Sets the default language.
help <i>COMMAND</i>	Displays help for a specific command. For example: <code>help run</code>
exportresourcestrings	Exports all application resource strings to an XML file

1.5.1 run

The `run` command executes a MapForce Server Execution file (.mfx). It requires an input mfx file as its argument.

```
MapForceServer run [options] MfxFile [> logfile.log]
```

Note: On Linux systems, use an all-lowercase `mapforceserver` to call the executable.

Example

Here's an example of the `run` command in its simplest form:

```
MapForceServer run ProdTest.mfx
```

To create a **log file** when running MapForce Server, use the redirect operator ">" at the end of the run command, e.g.:

```
MapForceServer run ProdTest.mfx > Mylog.log
```

Options

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

<code>--gc</code>	<code>--globalresourceconfig</code>	The name of the global resource configuration. Form: <code>--gc=VALUE</code>
<code>--gr</code>	<code>--globalresourcefile</code>	The path of the global resource definition file. Form: <code>--gr=FILE.</code>
<code>--l</code>	<code>--lang</code>	The language used for displaying messages. Form: <code>--lang=VALUE (en,de,ja,es)</code>
<code>--p</code>	<code>--param</code>	The input parameter you want to pass to the mapping, can be used multiple times. The <code>--param</code> switch must be used before each parameter. Form: <code>--p=NAME:VALUE</code> NAME specifies the name of the input parameter and VALUE its value, e. g. <code>--p=file:out.xml</code> Note: Use quotes if a name or a value contain space characters, e. g. <code>--p="output file":out.xml</code> <code>--p=company:"Nanonull Inc"</code>

Note for Windows:

Avoid using the end backslash and closing quote on the command line \" e.g. "C:\My

directory\". These two characters are interpreted by the command line parser as a literal double quotation mark. Use the double backslash \\ if spaces occur in the command line and you need the quotes ("c:\My Directory\\"), or try to avoid using spaces and therefore quotes at all e.g. c:\MyDirectory.

1.5.2 licenseserver

The `licenseserver` command specifies the name of the machine on the network running the Altova LicenseServer. Alternatively, you can specify the machine's IP address.

The `licenseserver` command registers MapForceServer with LicenseServer. Once this is done, you can, on LicenseServer, assign a license to MapForceServer. How to do this is described in the LicenseServer documentation.

```
MapForceServer licenseserver [options] Server-Or-IP-Address
```

Note: On Linux systems, use an all-lowercase `mapforceserver` to call the executable.

Example

Here's an example of the `licenseserver` command in its simplest form:

```
MapForceServer licenseserver DOC.altova.com
```

The command above specifies that the machine named `DOC.altova.com` is the machine running Altova LicenseServer. If the LicenseServer is running on the user's machine, the following commands would also be valid:

```
MapForceServer licenseserver localhost
MapForceServer licenseserver 127.0.0.1
```

Options

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

<code>--j</code>	<code>--json</code>	Prints the result of the registration attempt as a machine-parsable JSON object. Form: <code>--json=true/false</code>
------------------	---------------------	--------------------------------------------------------------------------------------------------------------------------

1.5.3 setdeflang

The `setdeflang` command (short form is `sdl`) takes:

```
MapForceServer setdeflang | sdl LanguageCode
```

Note: On Linux systems, use an all-lowercase `mapforceserver` to call the executable.

Example

Here's an example of the `setdeflang` command:

```
MapForceServer setdeflang de
```

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

Supported languages

The table below lists the languages currently supported together with their language codes.

en	English
de	German
es	Spanish
ja	Japanese

1.5.4 help

The `help` command takes a single argument: 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.

```
MapForceServer help Command
```

Note: On Linux systems, use an all-lowercase `mapforceserver` to call the executable.

Example

Here's an example of the `help` command:

```
MapForceServer help run
```

The command above contains one argument: the command `run`, for which help is required. When this command is executed, it will display information about the `run` command.

The `--help` option

Help information about a command is also available by using the `--help` option with that command. For example, using the `--help` option with the `run` command, as follows:

```
MapForceServer run --help
```

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

```
MapForceServer help run
```

In both cases, help information about the `run` command is displayed.

1.5.5 exportresourcestrings

The `exportresourcestrings` command outputs an XML file containing the resource strings of the MapForce 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`).

```
MapForceServer exportresourcestrings Language XMLOutput
```

Note: On Linux systems, use an all-lowercase `mapforceserver` to call the executable.

Arguments

The `exportresourcestrings` command takes the following arguments:

Language	Specifies the language of resource strings in the exported XML file. Allowed languages are: <code>en</code> , <code>de</code> , <code>es</code> , <code>ja</code>
XMLOutput	Specifies the location and name of the exported XML file.

Example

Here's an example of the `exportresourcestrings` command:

```
MapForceServer exportresourcestrings en c:\Strings.xml
```

This command creates a file called `Strings.xml` at `c:\` that contains all the resource strings of the MapForce Server application in English.

Creating localized versions of MapForceServer

Create a localized version of MapForce Server as follows:

1. Generate an XML file containing the resource strings by using the `exportresourcestrings` command (see *command syntax above*).
2. Translate the resource strings 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}`.
3. Contact [Altova Support](#) to generate a localized DLL file from your translated XML file.
4. After you receive your localized DLL file from [Altova Support](#), save the DLL in the `c:\Program Files (x86)\Altova\MapForceServer2013\bin` folder. Your DLL file will have a name of the form `MapForceServer2013_1c.dll`. The `_1c` part of the name contains the language code. For example, in `MapForceServer2013_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 MapForce Server app to use. Use the language code that is part of the DLL name as the argument of the `setdeflang` command.

Note: Altova MapForce 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 MapForce

Server's `setdeflang` command.

Chapter 2

Altova LicenseServer

2 Altova LicenseServer

Altova LicenseServer (hereafter also called LicenseServer) 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.

Licensing process with Altova LicenseServer

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

1. [Start LicenseServer](#).
2. Open the [LicenseServer Configuration page](#), which is the administrator's interface with LicenseServer, on [Windows](#) or [Linux](#).
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](#), [Register RaptorXML\(+XBRL\) Server with LicenseServer](#)) with LicenseServer. Depending on the product's type, the method of registering it with LicenseServer will be different: either via the product's GUI or its command line. See the documentation of your Altova server product for information about how to register it with LicenseServer.
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.

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

About this documentation

This documentation is organized into the following parts:

- Introductory information about: [network requirements](#); installation on [Windows](#) and [Linux](#); and [Altova ServiceController](#).
- [How to Assign Licenses](#), which describes in a step-by-step way how to assign licenses with Altova LicenseServer.
- [Configuration Page Reference](#): A description of the administrator's interface with LicenseServer.

Note:

The LicenseServer administration interface does not support SSL.

2.1 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, **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. If the Altova LicenseServer is unable to connect with the altova.com Master Licensing Servers 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](#).

2.2 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, and Altova SyleVision 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.

Note: If you wish to re-install Altova LicenseServer, you must first de-install the older version.

For information about how to proceed with assigning licenses, see the section [How to Assign Licenses](#).

2.3 Installation (Linux)

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

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]:          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]:          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.

Distribution	Installer extension
Debian	.deb
Ubuntu	.deb
CentOS	.rpm

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-1.1-debian.deb
[Ubuntu]:         sudo dpkg --install licenseserver-1.1-ubuntu.deb
[CentOS]:         sudo rpm -ivh licenseserver-1.1-1.x86_64.rpm
```

The LicenseServer package will be installed in:

```
/opt/Altova/LicenseServer
```

For information about how to proceed with assigning licenses, see the section [How to Assign Licenses](#).

2.4 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.

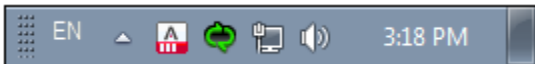
The LicenseServer package will be installed in the folder:

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

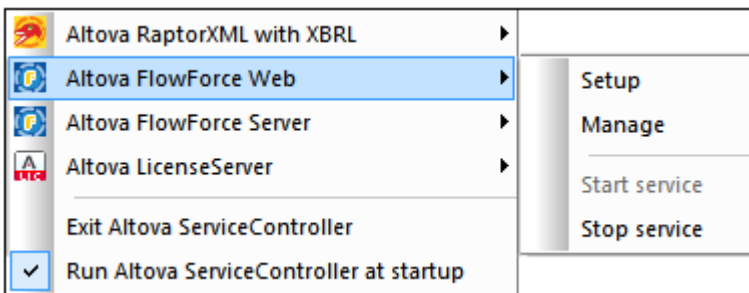

2.5 Altova ServiceController

The Altova ServiceController (hereafter also called ServiceController) is an application for conveniently starting, stopping and configuring Altova services **on Windows systems**. It is not available on Linux systems.

Altova ServiceController is installed with Altova LicenseServer, and can be started by clicking its command in the Altova LicenseServer folder of the **Start** menu. After the ServiceController has been started, it can be accessed via the system tray (*screenshot below*).



To run the ServiceController after logging in to the system, click the ServiceController icon in the system tray to pop up 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 pops up (*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, the Altova FlowForce Web service has a sub-menu in which you can choose to access its Setup page.

2.6 How to Assign Licenses

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

1. [Start LicenseServer](#).
2. Open the [LicenseServer Configuration page](#), which is the administrator's interface with LicenseServer, on [Windows](#) or [Linux](#).
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](#)) with LicenseServer. Depending on the product's type, the method of registering it with LicenseServer will be different: either via the product's GUI or its command line. See the documentation of your Altova server product for information about how to register it with LicenseServer.
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 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.

2.6.1 Start LicenseServer

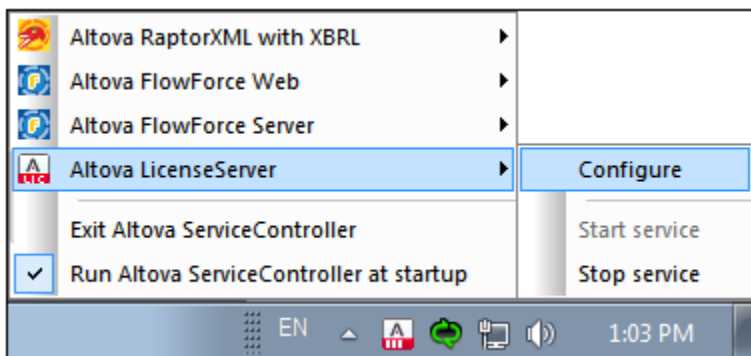
This section:

- How to start LicenseServer on [Windows systems](#)
- How to start LicenseServer on [Linux systems](#)
- How to start LicenseServer on [Mac OS X systems](#)
- Note about [Connection to altova.com](#)

Windows systems

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

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



Linux systems

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

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

(If you need to stop LicenseServer, replace **start** with **stop** in the above command)

Starting LicenseServer as a service

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.LicenserServer11.plist
```

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

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenseServer11.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. If the Altova LicenseServer is unable to connect with the `altova.com` Master Licensing Servers 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](#).

2.6.2 Open LicenseServer Config Page (Windows)

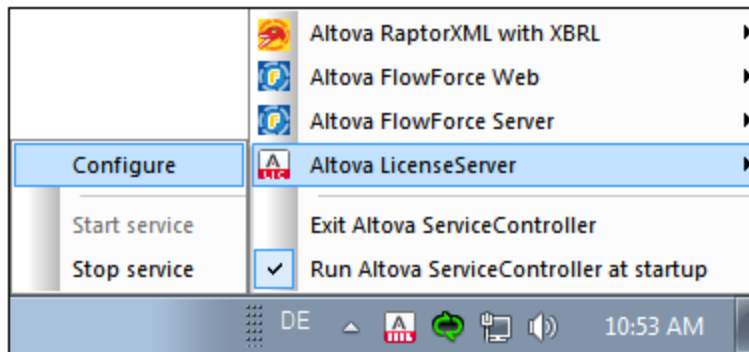
This section:

- [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:

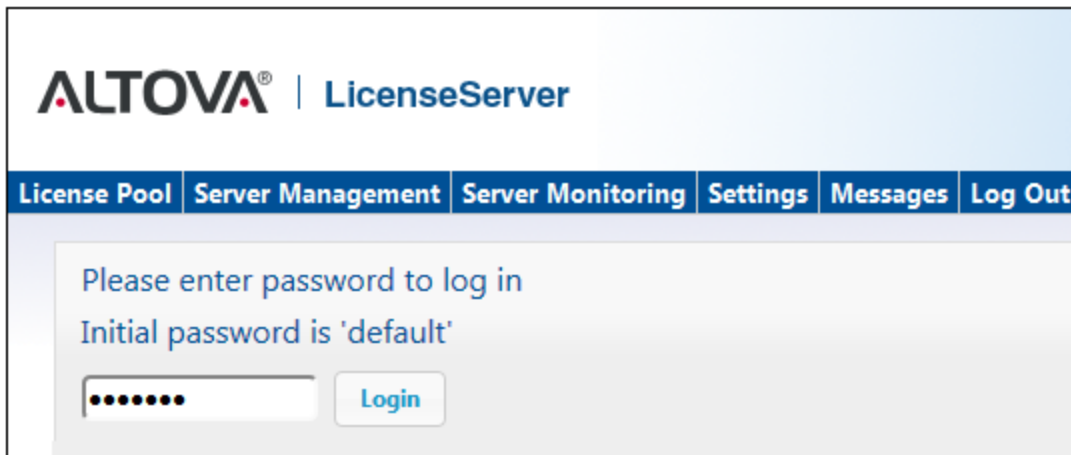
```
C:/ProgramData/Altova/LicenseServer/WebUI.html
```

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.



The screenshot shows the Altova LicenseServer login interface. At the top, the Altova logo and 'LicenseServer' are displayed. Below this is a navigation bar with tabs for 'License Pool', 'Server Management', 'Server Monitoring', 'Settings', 'Messages', and 'Log Out'. The main content area contains the text 'Please enter password to log in' and 'Initial password is 'default''. There is a password input field with six dots and a 'Login' button.

Setting a fixed or dynamic port for the Configuration page

The port of the Configuration page (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 \(Linux\)](#)).

Web UI

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

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 afresh.

2.6.3 Open LicenseServer Config Page (Linux)

This section:

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

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

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

URL of the LicenseServer Configuration page

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

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

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

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

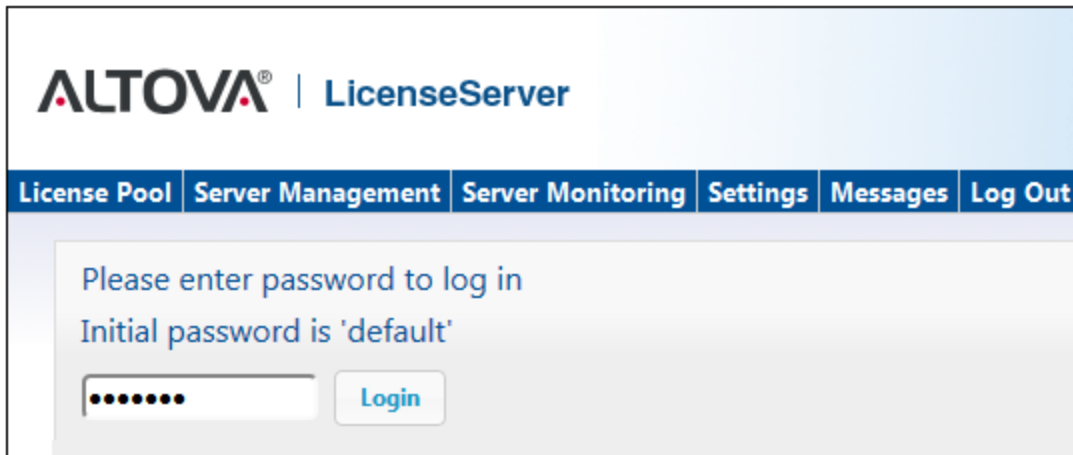
If you have [set the URL of the Configuration page](#) to be generated dynamically (in the Settings tab of the Configuration page), then a new URL is generated each time LicenseServer is started. You will need to check the current version of `webUI.html` to find out the current URL of the [Configuration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

The dynamically generated URL in `webUI.html` will have a form something like:

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

Logging in with the initial password

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



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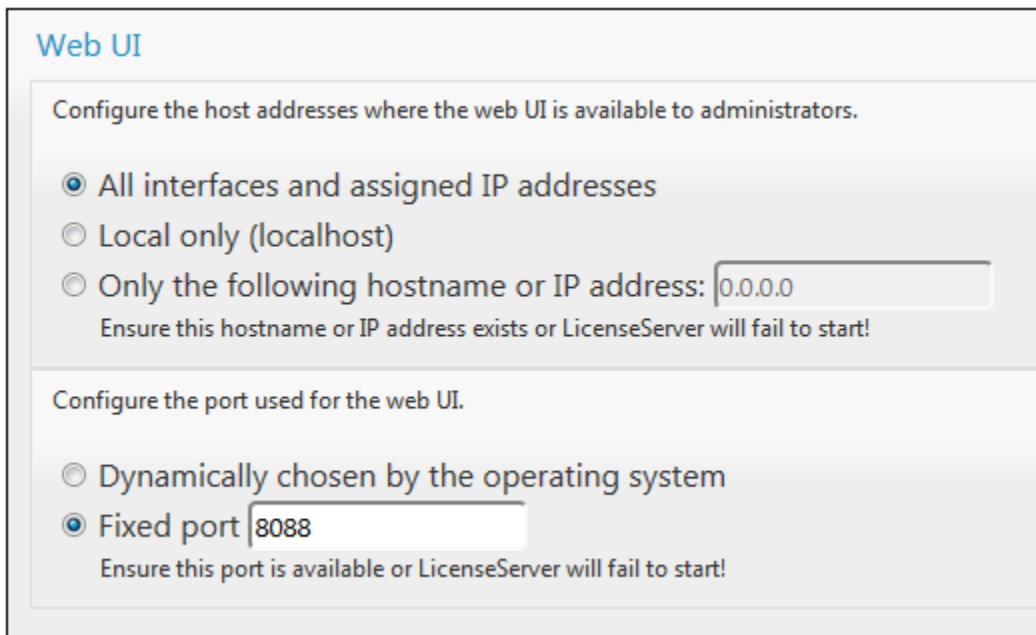
License Pool | Server Management | Server Monitoring | Settings | Messages | Log Out

Please enter password to log in
Initial password is 'default'

..... Login

Setting a fixed or dynamic port for the Configuration page

The port of the Configuration page (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 \(Linux\)](#)).



Web UI

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

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 afresh.

2.6.4 Open LicenseServer 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](#).

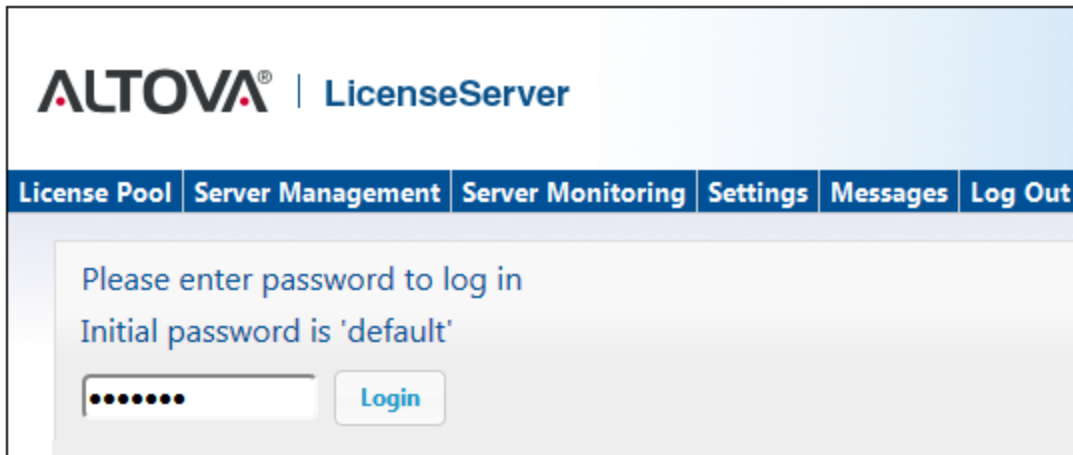
The dynamically generated URL in `webUI.html` will have a form something like:

```
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.



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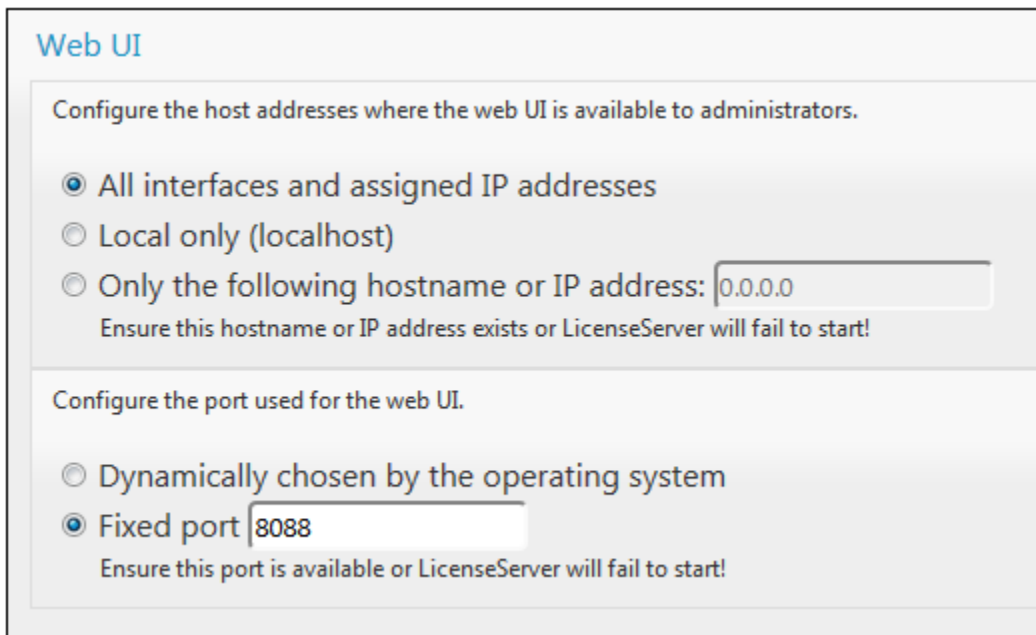
License Pool | Server Management | Server Monitoring | Settings | Messages | Log Out

Please enter password to log in
Initial password is 'default'

..... Login

Setting a fixed or dynamic port for the Configuration page

The port of the Configuration page (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 \(Linux\)](#)).



Web UI

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

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 afresh.

2.6.5 Upload Licenses to LicenseServer

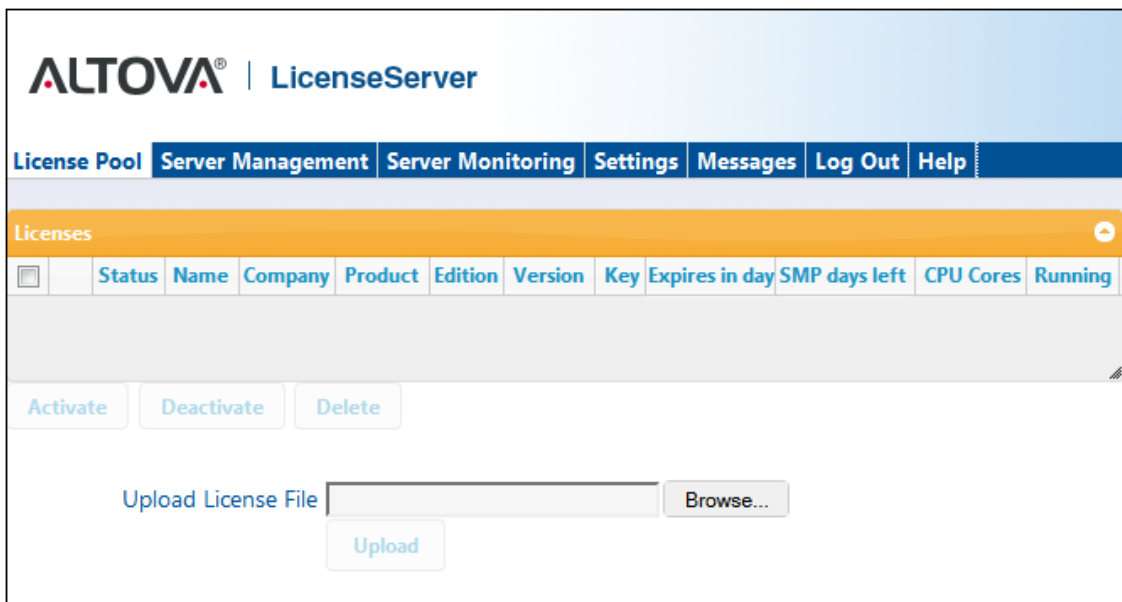
This section:

- [Uploading a license file to the license pool of LicenseServer](#)
- [License status](#)
- [Activating the licenses you wish to use](#)
- [Next steps](#)

Uploading a license file to the license pool of LicenseServer

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

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



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

The screenshot shows the Altova LicenseServer web interface. At the top, there is a navigation menu with options: License Pool, Server Management, Server Monitoring, Settings, Messages, Log Out, and Help. Below the menu is a table titled 'Licenses' with the following columns: Status, Name, Company, Product, Edition, Version, Key, Expires in day, SMP days left, CPU Cores, and Running. The table contains eight rows of license data. The second row is highlighted in yellow and has a checkmark in the first column. Below the table are buttons for 'Activate', 'Deactivate', and 'Delete'. At the bottom, there is a section for 'Upload License File' with a text input field containing 'C:\FS36_License.altova_licenses', a 'Browse...' button, and an 'Upload' button.

	Status	Name	Company	Product	Edition	Version	Key	Expires in day	SMP days left	CPU Cores	Running
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	CAWYXW8-	334	334	1	0
<input checked="" type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	7CMJT18-	334	334	2	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova MapForce Server		2013	MM5UC1U-	334	334	1	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova RaptorXML+XBRL		2013	HC139LF-	334	334	1	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova StyleVision Server		2013	3D78278-	334	334	1	0
<input type="checkbox"/>	Inactive	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	966PPHM-	334	334	3	0
<input type="checkbox"/>	Inactive	Mr. Nobody	Altova GmbH	Altova StyleVision Server		2013	DA5T2WU-	334	334	4	0

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:

Status	Meaning
<i>Activating...</i>	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.
<i>Failed Verification</i>	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).
<i>Active</i>	Verification was successful, the license is active.
<i>Inactive</i>	Verification was successful, but the license is on another LicenseServer on the network. Licenses can be made inactive with the Deactivate button.
<i>Blocked</i>	Verification was not successful. License is invalid and is blocked. Contact Altova Support .

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

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

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

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

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.

2.6.6 Register FlowForce Server with LicenseServer

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 \(Windows and Linux\)](#)
 - [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 \(Windows and Linux\)](#)
- [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:
Start | Altova FlowForce Server 2013 | FlowForce Server Setup Page
- 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 into the address field of a browser and hit Enter to access FlowForce Server Setup page (*screenshot above*).

Registering FlowForce Server via the Setup page (Windows and Linux)

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.

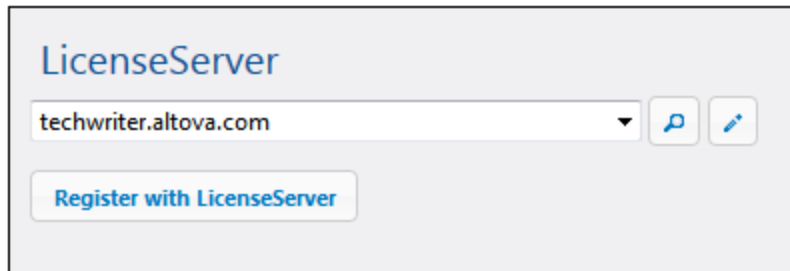
The screenshot shows the 'Setup' page for FlowForce Server 2013. At the top, there is a navigation bar with 'Home' and 'Help' links. The main heading is 'Setup'. Underneath, there is a section titled 'LicenseServer' with a text input field containing the placeholder 'Enter address here or search for LicenseServer'. To the right of this field are two icons: a magnifying glass (highlighted in yellow) and a pencil. Below the input field is a button labeled 'Register with LicenseServer'. The next section is 'FlowForce Web Server', which includes a 'Bind address' dropdown set to 'All interfaces (0.0.0.0)', a text field with '127.0.0.1', and a 'Port' field with '8082'. Below this is a 'Default time zone' dropdown set to 'Europe/Berlin'. The final section is 'FlowForce Server', which has a 'Bind address' dropdown set to 'All interfaces (0.0.0.0)', a text field with '127.0.0.1', and a 'Port' field with '4646'. At the bottom of the page is a large button labeled 'Apply settings and restart FlowForce services'.

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*).

This is a close-up of the 'LicenseServer' section from the previous screenshot. It shows the text input field with the placeholder 'Enter address here or search for LicenseServer'. The magnifying glass icon to the right of the field is highlighted in yellow, indicating it is the active search button. The 'Register with LicenseServer' button is also visible below the input field.

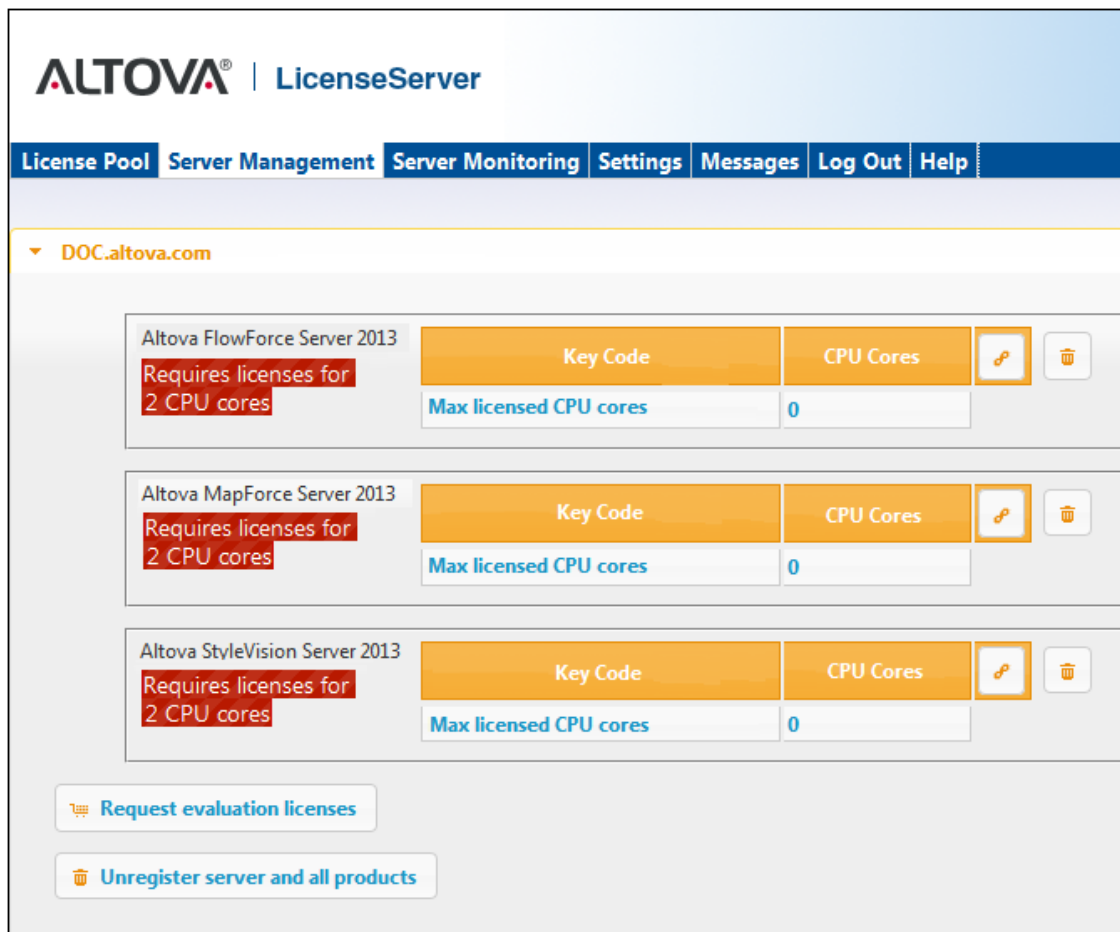
The search returns a list of available Altova LicenseServers on the network. One LicenseServer will be selected (*screenshot below*) and the others will be available in the dropdown list of the combo box. Select the LicenseServer on which your FlowForce license is stored.



- 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 more details of CLI commands, see the FlowForce CLI documentation (either in the CLI window itself, delivered with the installed product package, or on the [Altova website](#)).

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/FlowForceServer2013/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/MapForceServer2013/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 Licenses to LicenseServer](#)), 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.

2.6.7 Register MapForce Server with LicenseServer

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 more details of CLI commands, see the MapForce Server CLI documentation (either in the CLI window itself, delivered with the installed product package, or on the [Altova website](#)).

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/MapForceServer2013/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/MapForceServer2013/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 Licenses to LicenseServer](#)), 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.

2.6.8 Register RaptorXML(+XBRL) Server with LicenseServer

This section:

- [Registering RaptorXML\(+XBRL\) Server \(Windows\)](#)
 - [Registering RaptorXML\(+XBRL\) Server \(Linux\)](#)
 - [Next steps](#)
-

RaptorXML(+XBRL) Server must be installed on the server machine and then be started as a service. It must then be registered with LicenseServer. Only after it has been registered with LicenseServer 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 licenseserver Server-Or-IP-Address
```

For more details of CLI commands, see the RaptorXML(+XBRL) Server CLI documentation (either in the CLI window itself, delivered with the installed product package, or on the [Altova website](#)).

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/RaptorXMLServer2013/bin/raptorxmlserver 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/RaptorXMLServer2013/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 Licenses to LicenseServer](#)), 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.

2.6.9 Register StyleVision Server with LicenseServer

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 more details of CLI commands, see the StyleVision Server CLI documentation (either in the CLI window itself, delivered with the installed product package, or on the [Altova website](#)).

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/StyleVisionServer2013/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/StyleVisionServer2013/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 Licenses to LicenseServer](#)), 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.

2.6.10 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.)

ALTOVA® | LicenseServer

License Pool | **Server Management** | Server Monitoring | Settings | Messages | Log Out | Help

▼ DOC.altova.com

Product Name	Key Code	CPU Cores	Actions
Altova FlowForce Server 2013 Requires licenses for 2 CPU cores	Max licensed CPU cores	0	
Altova MapForce Server 2013 Requires licenses for 2 CPU cores	Max licensed CPU cores	0	
Altova StyleVision Server 2013 Requires licenses for 2 CPU cores	Max licensed CPU cores	0	

Request evaluation licenses

Unregister server and all 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`, 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.)

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 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.

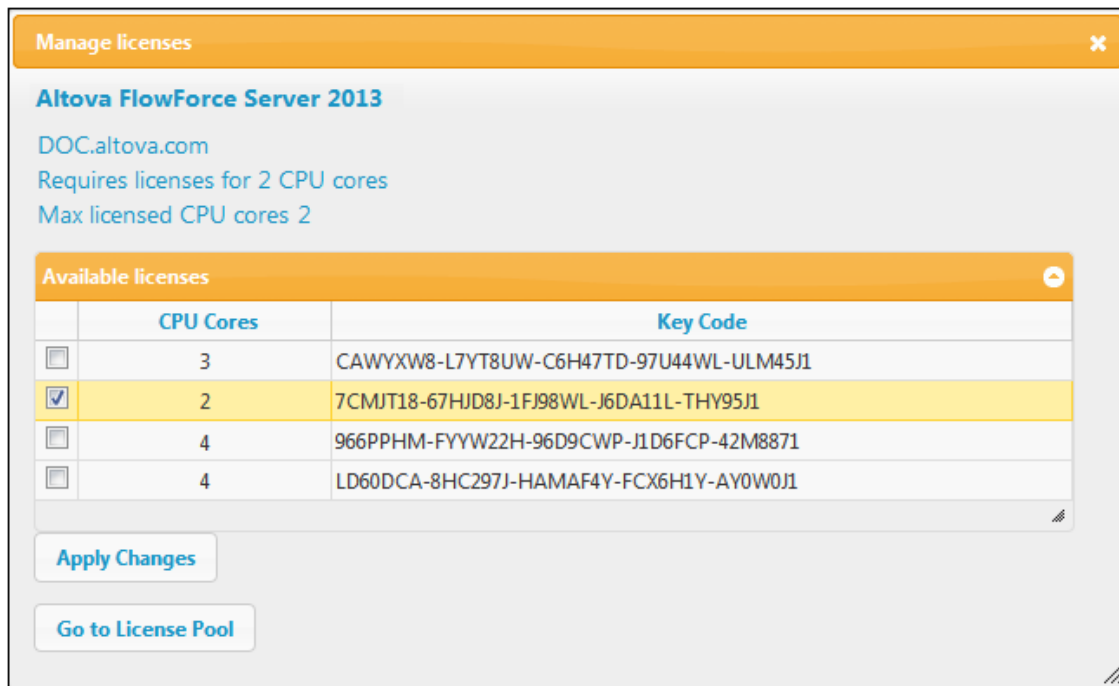
For example, if a server has eight cores (an octa-core processor), you must purchase at least an 8-core license. You can also combine licenses to achieve the core count. So, two 4-core licenses can also be used for an octa-core server instead of an 8-core license.

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.

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`).

Altova FlowForce Server 2013	Key Code	CPU Cores		
Requires licenses for 2 CPU cores	7CMJT18-67HJD8J-1FJ98WL-J6DA11L-THY95J1	2		
	Max licensed CPU cores	2		

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.

2.7 Configuration Page Reference

The LicenseServer Configuration page is the administrator's interface with LicenseServer. It allows the management of LicenseServer and the licensing of Altova products that have been registered with LicenseServer ([FlowForce Server](#), [MapForce Server](#), [StyleVision Server](#)).

The LicenseServer Configuration page is opened via 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's reference for the Configuration page and is organized by the tabs of the Configuration page:

- [License Pool](#)
- [Server Management](#)
- [Server Monitoring](#)
- [Server Monitoring](#)
- [Messages, Log Out](#)

For a step-by-step guide of how to assign licenses with LicenseServer, see the section [How to Assign Licenses](#).

2.7.1 License Pool

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.

<input type="checkbox"/>	Status	Name	Company	Product	Edition	Version	Key	Expires in day	SMP days left	CPU Cores	Running
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	CAWYXW8-	334	334	1	0
<input checked="" type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	7CMJT18-	334	334	2	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova MapForce Server		2013	MM5UC1U-	334	334	1	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova RaptorXML+XBRL		2013	HC139LF-	334	334	1	0
<input type="checkbox"/>	Active	Mr. Nobody	Altova GmbH	Altova StyleVision Server		2013	3D78278-	334	334	1	0
<input type="checkbox"/>	Inactive	Mr. Nobody	Altova GmbH	Altova FlowForce Server		2013	966PPHM-	334	334	3	0
<input type="checkbox"/>	Inactive	Mr. Nobody	Altova GmbH	Altova StyleVision Server		2013	DA5T2WU-	334	334	4	0

Upload License File:

Uploading a license

To upload a license file (which you receive from Altova GmbH for your Altova 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:

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

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

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

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

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

Connection to the Master Licensing Server at altova.com

The Altova LicenseServer needs to be able to communicate with the Master Licensing Server at `altova.com` to validate and authenticate license-related data and to ensure continuous compliance with the Altova license agreements. If the Altova LicenseServer is unable to connect with the `altova.com` Master Licensing Servers 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.

License information

The following license information is displayed:

- *Status*: There are five 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.
- *Product, Edition, Version*: The version and edition of the licensed products.
- *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.
- *CPU Cores*: The number of CPU cores that the license allows.
- *Running*: The number of CPU cores currently using the license.

Note on cores and licenses

The licensing of Altova server products 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.

2.7.2 Server Management

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

The screenshot displays the Altova LicenseServer interface. At the top, the logo 'ALTOVA® | LicenseServer' is visible. Below it is a navigation bar with tabs: License Pool, Server Management (selected), Server Monitoring, Settings, Messages, Log Out, and Help. The main content area shows a dropdown menu for the client machine 'DOC.altova.com'. Underneath, three product entries are listed:




- Altova FlowForce Server 2013**: Requires licenses for 2 CPU cores. Max licensed CPU cores: 0.
- Altova MapForce Server 2013**: Requires licenses for 2 CPU cores. Max licensed CPU cores: 0.
- Altova StyleVision Server 2013**: Requires licenses for 2 CPU cores. Max licensed CPU cores: 0.

Each product entry has a 'Key Code' field, a 'CPU Cores' field, and two icons: a key icon (for editing licenses) and a trash icon (for deleting the product). At the bottom of the interface, there are two buttons: 'Request evaluation licenses' and 'Unregister server and all products'.

Note the following points about the Server Management tab:

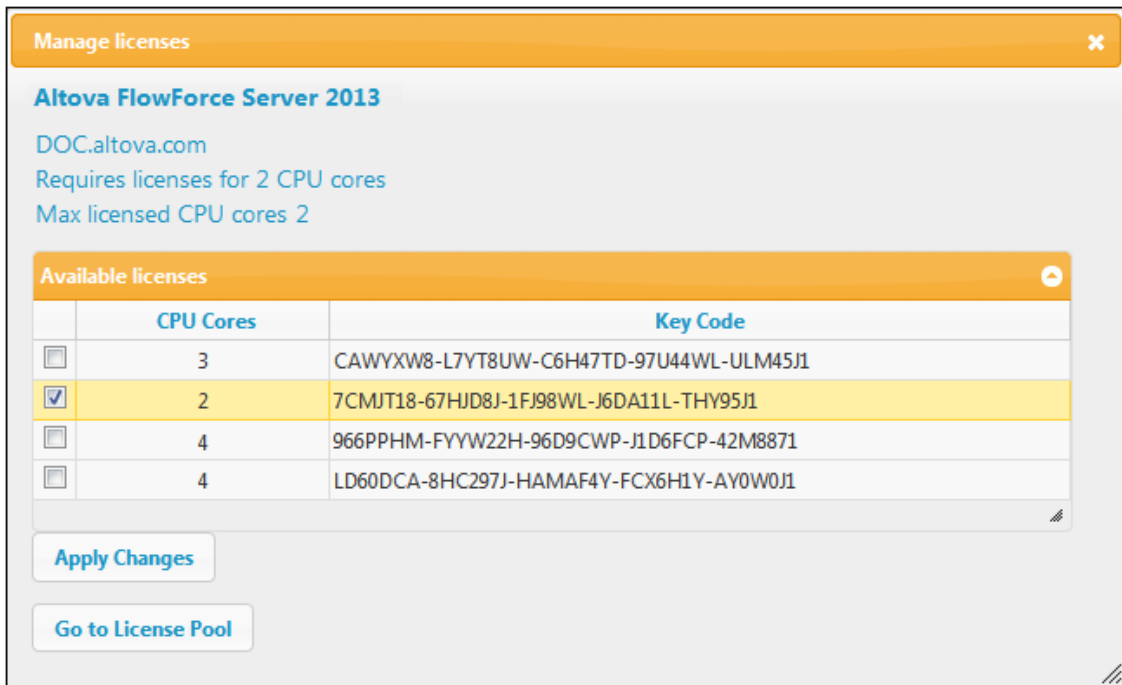
- Each product is listed under the name of its client machine. In the screenshot above, one client machine, named `Doc.altova.com`, has three Altova products registered with the LicenseServer. If an Altova product on a different client machine is registered with this LicenseServer, then that client machine,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

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*).



Manage licenses [Close]

Altova FlowForce Server 2013
 DOC.altova.com
 Requires licenses for 2 CPU cores
 Max licensed CPU cores 2

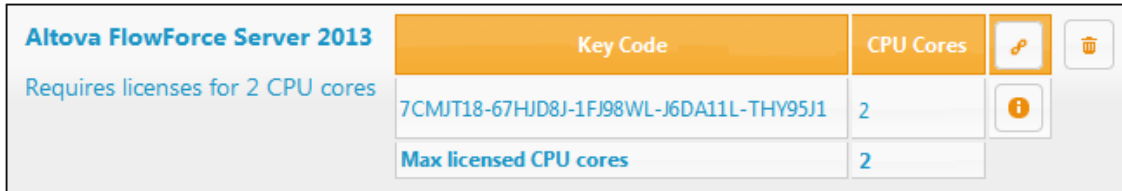
Available licenses [Refresh]

	CPU Cores	Key Code
<input type="checkbox"/>	3	CAWYXW8-L7YT8UW-C6H47TD-97U44WL-ULM45J1
<input checked="" type="checkbox"/>	2	7CMJT18-67HJD8J-1FJ98WL-J6DA11L-THY95J1
<input type="checkbox"/>	4	966PPHM-FYYW22H-96D9CWP-J1D6FCP-42M8871
<input type="checkbox"/>	4	LD60DCA-8HC297J-HAMAF4Y-FCX6H1Y-AY0W0J1




Apply Changes

Go to License Pool

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*).



Altova FlowForce Server 2013
 Requires licenses for 2 CPU cores

Key Code	CPU Cores		
7CMJT18-67HJD8J-1FJ98WL-J6DA11L-THY95J1	2		
Max licensed CPU cores	2		

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, go to the product's Setup page.

For more information, see the section, [Assigning Licenses to Registered Products](#).

2.7.3 Server Monitoring

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

2.7.4 Settings

The **Settings** tab is as shown below. You can set the following:

- The password for logging in to LicenseServer.
- Network settings for the web-based configuration page (Web UI), and for LicenseServer (License Service). These settings are described below the screenshot.
- Email server settings and the alert mail recipient. These are described below the screenshot.

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

LicenseServer Password

[Change Password](#)

Web UI

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

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!

Alert Mail

Configure email settings for communication with administrator.

SMTP Host

SMTP Port

User authentication

User password

From

To [Send Test Mail](#)

[Save](#)

Network settings

Administrators can specify network access points to the LicenseServer configuration page and to LicenseServer:

- *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**.
- *License Service:* IP addresses can vary from all interfaces and IP addresses on that machine to a fixed address. 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**.

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 that administrator that a connection is broken, an alert mail can be sent to an email address. The Alert Mail pane of this page enables settings to be made for sending alert mails to an administrator's email address.

SMTP Host and *SMTP Port* are the settings 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 a name by which email alerts can be recognized by the recipient, for example: `Altova LicenseServer`. 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. These events are also recorded in the [Messages tab](#).

2.7.5 Messages, Log Out

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

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

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