Altova StyleVision Server 2022
User & Reference Manual

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Introduction

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

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

System requirements, installation and licensing

StyleVision Server is supported on the following operating systems:

- **Windows**
  - Windows 7 SP1 with Platform Update, Windows 8, Windows 10, Windows 11

- **Windows Server**
  - Windows Server 2008 R2 SP1 with Platform Update or newer

- **Linux**
  - CentOS 7 or newer
  - RedHat 7 or newer
  - Debian 9 or newer
  - Ubuntu 16.04 LTS or newer

The following libraries are required as a prerequisite to install and run the application. If the packages below are not already available on your Linux machine, run the command `yum` (or `apt-get` if applicable) to install them.

<table>
<thead>
<tr>
<th>Required by</th>
<th>CentOS, RedHat</th>
<th>Debian</th>
<th>Ubuntu</th>
</tr>
</thead>
<tbody>
<tr>
<td>LicenseServer</td>
<td>libidn, krb5-libs</td>
<td>libidn11, libgssapi-krb5-2</td>
<td>libidn11, libgssapi-krb5-2</td>
</tr>
<tr>
<td>StyleVision Server</td>
<td>qt5-qtpointing, libidn,</td>
<td>libqt5gui5, libidn11,</td>
<td>libqt5gui5, libidn11,</td>
</tr>
<tr>
<td></td>
<td>krb5-libs</td>
<td>libgssapi-krb5-2</td>
<td>libgssapi-krb5-2</td>
</tr>
</tbody>
</table>

**Note:** If you plan to use Altova's Charts functionality, then at least one font must be installed on your system to ensure that charts will be rendered correctly. To list installed fonts, use, for example, the `fc-list` command of the Fontconfig library.

- **macOS**
  - macOS 10.15 or newer
StyleVision Server is available for both 32-bit and 64-bit on Windows machines. For details about installation and licensing, see the setup sections for Windows, Linux, and macOS.

**Note:** If the fillable parts of a fillable PDF are missing when the PDF is opened on a macOS system, one likely cause is that Java 6 is not installed on the machine. If this is the case, you can install Java 6 from https://support.apple.com/kb/dl1572?locale=en_US. If a version newer than Java 6 has already been installed on your system, then the installation of the older Java 6 version will not affect the working of the newer version, which will be the default version of the system.

*Last updated: 28 February 2022*
2 Functionality

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

StyleVision Server can be used in two ways:

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

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

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

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

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

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Altova StyleVision Server 2022
2.2 As a Standalone Server

StyleVision Server can be installed as a standalone product on Windows, Linux, and macOS systems. In this version its functionality is invoked only via the command line. Usage is described in the section StyleVision Server Command Line.
3 Setting Up StyleVision Server

This section describes installation, licensing and other setup procedures. It is organized into the following sections:

- Setup on Windows 12
- Setup on Linux 30
- Setup on macOS 27
- Upgrading StyleVision Server 33
- Migrating StyleVision Server to a New Machine 34
3.1 Setup on Windows

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

System requirements
- Windows 7 SP1 with Platform Update, Windows 8, Windows 10, Windows 11
- Windows Server 2008 R2 SP1 with Platform Update or newer

Prerequisites
- Perform installation as a user with administrative privileges.
- From version 2021 onwards, a 32-bit version of StyleVision Server cannot be installed over a 64-bit version, or a 64-bit version over a 32-bit version. You must either (i) remove the older version before installing the newer version or (ii) upgrade to a newer version that is the same bit version as your older installation.

3.1.1 Installing on Windows

StyleVision Server is available for installation on Windows systems. The broad installation and setup procedure is described below. For detailed information about specific parts of the installation procedure, see their respective topics.

Installing StyleVision Server

StyleVision Server can be installed on Windows systems as follows:

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

The installers of both StyleVision Server and FlowForce Server are available at the Altova Download Center (http://www.altova.com/download.html). You can select your installation language from the box in the lower left area of the wizard. Note that this selection also sets the default language of StyleVision Server. You can change the language later from the command line.

After installation, the StyleVision Server executable will be located by default at:

    <ProgramFilesFolder>\Altova\StyleVisionServer2022\bin\StyleVisionServer.exe

All the necessary registrations to use StyleVision Server via a COM interface, as a Java interface, and in the .NET environment will be done by the installer.

Uninstalling StyleVision Server

Uninstall StyleVision Server as follows:
Setting Up StyleVision Server

1. Right-click the Windows Start button and select Settings.
2. Open the Control Panel (start typing "Control Panel" and click the suggested entry).
3. Under Programs, click Uninstall a program.

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

3.1.2 Installing on Windows Server Core

Windows Server Core is a minimal Windows installation that does not use a number of GUI features. You can install StyleVision Server on a Windows Server Core machine as follows:

1. Download the StyleVision Server installer executable from the Altova website. This file is named StyleVisionServer<version>.exe. Make sure to choose the executable matching your server platform (32-bit or 64-bit).
2. On a standard Windows machine (not the Windows Server Core machine), run the command StyleVisionServer<version>.exe /u. This unpacks the .msi file to the same folder as the installer executable.
3. Copy the unpacked .msi file to the Windows Server Core machine.
4. If you are updating an earlier version of StyleVision Server, shut down StyleVision Server before carrying out the next step.
5. Use the .msi file for the installation by running the command msiexec /i StyleVisionServer.msi. This starts the installation on Windows Server Core.

Important: Keep the MSI file!
Note the following points:
- Keep the extracted .msi file in a safe place. You will need it later to uninstall, repair, or modify your installation.
- If you want to rename the MSI file, do this before you install StyleVision Server.
- The MSI filename is stored in the registry. You can update its name there if the filename has changed.

Register StyleVision Server with LicenseServer
If you are installing StyleVision Server for the first time or are upgrading to a major version, you will need to register StyleVision Server with an Altova LicenseServer on your network. If you are upgrading to a non-major version of StyleVision Server, then the previous LicenseServer registration will be known to the installation and there is no need to register StyleVision Server with LicenseServer. However, if you want to change the LicenseServer that is used by StyleVision Server at any time, then you will need to register StyleVision Server with the new LicenseServer.
To register StyleVision Server with an Altova LicenseServer during installation, run the installation command with the `REGISTER_WITH_LICENSE_SERVER` property, as listed below, providing the name or address of the LicenseServer machine as the value of the property, for example:

`msiexec /i StyleVisionServer.msi REGISTER_WITH_LICENSE_SERVER="localhost"`

To register StyleVision Server with an Altova LicenseServer after installation, run the following command:

`msiexec /r StyleVisionServer.msi REGISTER_WITH_LICENSE_SERVER="<MyLS-IPAddress>"`

**Useful commands**

Given below are a set of commands that are useful in the installation context.

To test the return value of the installation, run a script similar to that below. The return code will be in the `%errorlevel%` environment variable. A return code of 0 indicates success.

```
start /wait msiexec /i StyleVisionServer.msi /q
echo %errorlevel%
```

For a silent installation with a return code and a log of the installation process:

```
start /wait msiexec /i StyleVisionServer.msi /q /L*v! <pathToInstallLogFile>
```

To modify the installation:

```
msiexec /m StyleVisionServer.msi
```

To repair the installation:

```
msiexec /r StyleVisionServer.msi
```

To uninstall StyleVision Server:

```
msiexec /x StyleVisionServer.msi
```

To uninstall StyleVision Server silently and report the detailed outcome in a log file:

```
start /wait msiexec /x StyleVisionServer.msi /q /L*v! <pathToUninstallLogFile>
```

To install StyleVision Server using another language (available language codes are: German=de; Spanish=es; French=fr):

```
msiexec /i StyleVisionServer.msi INSTALLER_LANGUAGE=<languageCode>
```

**Note:** On Windows Server Core, the charts and barcode functionality of StyleVision Server will not be available.

**Note:** To install taxonomies, use the Taxonomy Package Manager via the command line. See the StyleVision Server manual for information about how to do this.

### 3.1.3 Installing LicenseServer (Windows)

In order for StyleVision Server to work, it must be licensed via an [Altova LicenseServer](#) on your network. When you install StyleVision Server or FlowForce Server on Windows systems, you can install LicenseServer together with StyleVision Server or FlowForce Server. If a LicenseServer is already installed on your network, you do not need to install another one—unless a newer version of LicenseServer is required. (See next point, **LicenseServer versions**.)
Setting Up StyleVision Server

During the installation process of StyleVision Server or FlowForce Server, check or uncheck the option for installing LicenseServer as appropriate. Note the following points:

- If you have not installed LicenseServer yet, leave the default settings as is. The wizard will install the latest version on the computer where you are running the wizard.
- If you have not installed LicenseServer yet and want to install Altova LicenseServer on another computer, clear the check box Install Altova LicenseServer on this machine and choose Register Later. In this case, you will need to install LicenseServer separately and register StyleVision Server afterwards.
- If LicenseServer has already been installed on your computer but is a lower version than the one indicated by the installation wizard, leave the default settings as is. In this case, the installation wizard will automatically upgrade your LicenseServer version. The existing registration and licensing information will be carried over to the new version of LicenseServer.
- If LicenseServer has already been installed on your computer or network and has the same version as the one indicated by the wizard, do the following:
  - Clear the check box Install Altova LicenseServer on this machine.
  - Under Register this product with, choose the LicenseServer with which you want to register StyleVision Server. Alternatively, choose Register Later. Note that you can always select Register Later if you want to ignore the LicenseServer associations and carry on with the installation of StyleVision Server.

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

LicenseServer versions

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

Current version: 3.8
3.1.4 Licensing StyleVision Server (Windows)

In order to use StyleVision Server, it must be licensed with Altova LicenseServer. Licensing is a two-step process:

1. **Register StyleVision Server** with LicenseServer. Registration is done from StyleVision Server.
2. **Assign a license** to StyleVision Server from LicenseServer. Download the latest version of LicenseServer from the Altova website, and install it on your local machine or a machine on your network.

These steps are described in this section. For detailed information, see the LicenseServer user manual at the Altova website.

3.1.4.1 Start LicenseServer, StyleVision Server

Altova LicenseServer (LicenseServer for short) and StyleVision Server are both started via Altova ServiceController.

**Altova ServiceController**

Altova ServiceController (ServiceController for short) is an application for conveniently starting, stopping and configuring Altova services on Windows systems. ServiceController is installed with Altova LicenseServer and with Altova server products that are installed as services (DiffDog Server, FlowForce Server, Mobile Together Server, and RaptorXML(+XBRL) Server). ServiceController can be accessed via the system tray (screenshot below).

To specify that ServiceController starts automatically on logging in to the system, click the ServiceController icon in the system tray to display the ServiceController menu (screenshot below), and then toggle on the command Run Altova ServiceController at Startup. (This command is toggled on by default.) To exit ServiceController, click the ServiceController icon in the system tray and, in the menu that appears (see screenshot below), click Exit Altova ServiceController.
Start LicenseServer
To start LicenseServer, click the **ServiceController** icon in the system tray, hover over Altova LicenseServer in the menu that pops up (*see screenshot below*), and then select **Start Service** from the LicenseServer submenu. If LicenseServer is already running, then the **Start Service** option will be disabled. You can also stop the service via ServiceController.

![ServiceController menu](image)

3.1.4.2 Register StyleVision Server
In order to be able to license StyleVision Server from Altova LicenseServer, StyleVision Server must be registered with LicenseServer.

To register StyleVision Server from the command line interface, use the `licenseserver` command and supply the address of the LicenseServer machine.

```
StyleVisionServer licenseserver [options] ServerName-Or-IP-Address
```

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

```
StyleVisionServer licenseserver localhost
```

If StyleVision Server was installed as part of a [FlowForce Server] installation, registering FlowForce Server with LicenseServer will automatically also register StyleVision Server. Essentially: (i) Start Altova FlowForce Web as a service via ServiceController (*see previous point*); (ii) Enter your password to access the Setup page; (iii) Select the LicenseServer name or address and click **Register with LicenseServer**. For more information, see Register FlowForce Server.

After successful registration, go to the [Client Management tab of LicenseServer's configuration page](https://www.altova.com) to assign a license to StyleVision Server.

**Note:** For more information about registering Altova products with LicenseServer, see the [LicenseServer user manual](https://www.altova.com).
3.1.4.3 License StyleVision Server

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

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 must be greater than or equal to the number of cores available on that server machine, whether the server is a physical or virtual machine. For example, if a server has eight cores (an octa-core processor), you must purchase at least one 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 one 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, would have less processing speed than if all available cores on the server were utilized.

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

Single-thread execution

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

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

Estimate of core requirements

There are various external factors that influence the data volumes and processing times your server can handle (for example: the hardware, the current load on the CPU, and memory allocation of other applications running on the server). In order to measure performance as accurately as possible, test the applications in your environment with data volumes and in conditions that approximate as closely as possible to real business situations.

3.1.5 Additional Setup Notes (Windows)

In order to run the Windows examples that are packaged with StyleVision Server in the etc\examples sub-folder of the application folder, the StyleVision Server DLL must be correctly registered with the system. A registration error typically occurs if you have, over time, installed different bit-versions of StyleVision Server (32-bit and 64-bit) on a single machine.
To correctly register the StyleVision Server DLL (either the 32-bit or 64-bit version) on Windows machines, do the following:

1. Open a command prompt in administrator mode
2. Switch to the folder in which the DLL is located. The command to do this would be: `cd C:\Program Files\Altova\StyleVisionServer2022\bin`
3. Run the following command to register the DLL (either 32-bit or 64-bit): `regsvr32 StyleVisionServer.dll`
4. Ensure that you get a popup saying that the registration succeeded
5. Open Visual Studio
6. Load the project using `StyleVisionServerAPI_Sample.sln`
7. Confirm that your `Program.cs` file contains valid pathways
8. Run the project by using `Ctrl+F5`

**Note:** The path to the application folder on Windows systems is typically: `C:\Program Files\Altova\StyleVisionServer2022`. 
3.2 Setup on Linux

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

System Requirements (Linux)

- CentOS 7 or newer
- RedHat 7 or newer
- Debian 8 or newer
- Ubuntu 16.04 LTS or newer

Prerequisites

- Perform installation either as root user or as a user with sudo privileges.
- The previous version of StyleVision Server must be uninstalled before a new one is installed.
- If you plan to use Altova's Charts functionality, then at least one font must be installed on your system to ensure that charts will be rendered correctly. To list installed fonts, use, for example, the fc-list command of the Fontconfig library.
- The following libraries are required as a prerequisite to install and run the application. If the packages below are not already available on your Linux machine, run the command yum (or apt-get if applicable) to install them.

<table>
<thead>
<tr>
<th>Required by</th>
<th>CentOS, RedHat</th>
<th>Debian</th>
<th>Ubuntu</th>
</tr>
</thead>
<tbody>
<tr>
<td>LicenseServer</td>
<td>krb5-libs</td>
<td>libgssapi-krb5-2</td>
<td>libgssapi-krb5-2</td>
</tr>
<tr>
<td>StyleVision Server</td>
<td>qt5-qtbase-gui, krb5-libs</td>
<td>libqt5gui5, libgssapi-krb5-2</td>
<td>libqt5gui5, libgssapi-krb5-2</td>
</tr>
</tbody>
</table>

3.2.1 Installing on Linux

StyleVision Server is available for installation on Linux systems. Its installation and setup procedure is described below. Perform installation either as root user or as a user with sudo privileges.

Integration with FlowForce

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

```
cp /opt/Altova/StyleVisionServer2022/etc/*.tool /opt/Altova/FlowForceServer2022/tools
```

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

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

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

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

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

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

On Debian and Ubuntu systems, it might happen that StyleVision Server still appears in the list of installed products after it has been installed. In this case, run the `purge` command to clear StyleVision Server from the list. You can also use the `purge` command instead of the `remove` command listed above.
- [Debian, Ubuntu]: `sudo dpkg --purge stylevisionserver`

Download the StyleVision Server Linux package

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

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

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

Install StyleVision Server

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

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

Install StyleVision Server with the following command:

- [Debian]: `sudo dpkg --install stylevisionserver-2022-debian.deb`
- [Ubuntu]: `sudo dpkg --install stylevisionserver-2022-ubuntu.deb`
- [CentOS]: `sudo rpm -ivh stylevisionserver-2022-1.x86_64.rpm`
- [RedHat]: `sudo rpm -ivh stylevisionserver-2022-1.x86_64.rpm`

**Note:** You may need to adjust the name of the package above to match the current release or service pack version.
The StyleVision Server package will be installed in the folder:

```
/opt/Altova/StyleVisionServer2022
```

### 3.2.2 Installing LicenseServer (Linux)

In order for StyleVision Server to work, it must be licensed via an Altova LicenseServer on your network. On Linux systems, Altova LicenseServer will need to be installed separately. Download LicenseServer from the Altova website and copy the package to any directory on the Linux system. Install it just like you installed StyleVision Server (see previous topic).

- **[Debian]**: `sudo dpkg --install licenseserver-3.8-debian.deb`
- **[Ubuntu]**: `sudo dpkg --install licenseserver-3.8-ubuntu.deb`
- **[CentOS]**: `sudo rpm -ivh licenseserver-3.8-1.x86_64.rpm`
- **[RedHat]**: `sudo rpm -ivh licenseserver-3.8-1.x86_64.rpm`

The LicenseServer package will be installed in:

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

For information about how to register and license StyleVision Server with Altova LicenseServer, see the section Licensing StyleVision Server. Also see the LicenseServer documentation for more detailed information.

LicenseServer versions

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

Current version: 3.8
3.2.3 Licensing StyleVision Server (Linux)

In order to use StyleVision Server, it must be licensed with Altova LicenseServer. Licensing is a two-step process:

1. **Register StyleVision Server** with LicenseServer. Registration is done from StyleVision Server.
2. **Assign a license** to StyleVision Server from LicenseServer. Download the latest version of LicenseServer from the Altova website, and install it on your local machine or a machine on your network.

These steps are described in this section. For detailed information, see the LicenseServer user manual at the Altova website.

3.2.3.1 Start LicenseServer, StyleVision Server

This topic describes how to start Altova LicenseServer (LicenseServer for short) and StyleVision Server. You must have administrator (root) privileges to be able to start these programs, so you should run these commands as the root user. If you are logged in as root, you can leave out the sudo keyword from the commands listed below.

**Start LicenseServer**

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

| < Debian 8 | sudo /etc/init.d/licenseserver start |
| ≥ Debian 8 | sudo systemctl start licenseserver |
| < CentOS 7 | sudo initctl start licenseserver |
| ≥ CentOS 7 | sudo systemctl start licenseserver |
| < Ubuntu 15 | sudo initctl start licenseserver |
| ≥ Ubuntu 15 | sudo systemctl start licenseserver |
| RedHat     | sudo initctl start licenseserver |

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

```
sudo systemctl stop licenseserver
```

3.2.3.2 Register StyleVision Server

To register StyleVision Server from the command line interface, use the licenseserver command:

```
sudo /opt/Altova/StyleVisionServer2022/bin/stylevisionserver licenseserver [options] ServerName-Or-IP-Address
```

For example, if localhost is the name of the server on which LicenseServer is installed:
sudo /opt/Altova/StyleVisionServer2022/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/StyleVisionServer2022/bin/

After successful registration, go to the Client Management tab of LicenseServer's configuration page to assign a license to StyleVision Server.

Note: For more information about registering Altova products with LicenseServer, see the LicenseServer user manual.

3.2.3.3 License StyleVision Server

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

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 must be greater than or equal to the number of cores available on that server machine, whether the server is a physical or virtual machine. For example, if a server has eight cores (an octa-core processor), you must purchase at least one 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 one 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, would have less processing speed than if all available cores on the server were utilized.

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

Single-thread execution

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

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

Estimate of core requirements

There are various external factors that influence the data volumes and processing times your server can handle (for example: the hardware, the current load on the CPU, and memory allocation of other applications running on the server). In order to measure performance as accurately as possible, test the applications in your
environment with data volumes and in conditions that approximate as closely as possible to real business situations.

### 3.2.4 Notes about Environment (Linux)

#### Folders

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

- **Installation root**
  ```
  /opt/Altova/StyleVisionServer2022/
  ```

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

- **Environment settings**
  ```
  /etc/profile.d/jdbc.sh
  ```

  The environment settings file (typically named `jdbc.sh`) is executed at system start. The definitions in it must be specific to your particular environment. The example path above serves only as a general guide.

  **Note:** The environment settings file sets the variables for all users on the system, so you must be careful when modifying settings. For example, if you modify a class path in this file, then the modifications will be applied across the system. If you wish to make changes for StyleVision Server only, you might want to consider using a unit file (explained in the section *JDBC Connections* below).

#### Database connections

On Linux, the following database connections are supported:

- JDBC — You can use JDBC for all supported databases except Microsoft Access
- Native connections — Currently available for SQLite and PostgreSQL databases

If you are using JDBC, note the following points:

- The Java Runtime Environment or SDK must be installed.
- The JDBC drivers for the target database must be installed.
- The following environment variables must be set correctly for your environment:
  - `CLASSPATH`: to find the jar-files that connect to the JDBC database; the jar-files can be entered either in (i) an executable script (like `jdbc.sh`) that is executed on system start or (ii) a unit file that is executed when StyleVision Server is started as a service. Using a unit file to specify the jar-files has the advantage that the files required for StyleVision Server's JDBC connections will be located without you having to modify the existing system configuration. A unit file is listed below.
  - `PATH`: to find the JRE, but might not be necessary depending on the installation
  - `JAVA_HOME`: if necessary, depending on the installation.
Listing of important files

The following shell script (or unit file) is copied to the folder `/opt/Altova/StyleVisionServer/etc` so as not to overwrite already existing configuration files. Make the necessary changes as required. Also see the section *JDBC Connections* above. The parts highlighted in blue are environment-specific and need to be adjusted to match your environment:

Shell script (unit file)

```bash
#!/usr/bin/env bash

# jdbc - environment -
export PATH=/usr/local/jdk1.7.0_17/bin:/usr/lib64/qt-3.3/bin:/usr/local/bin:/bin:/usr/local/sbin:/sbin:/home/qa/bin
export JAVA_HOME=/usr/local/jdk1.7.0_17
```
3.3 Setup on macOS

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

System Requirements (Linux)
- macOS 10.13 or newer

Prerequisites
- Ensure that Altova LicenseServer has been installed and is running
- Perform installation either as root user or as a user with sudo privileges.
- The previous version of StyleVision Server must be uninstalled before a new one is installed.
- If you plan to use Altova’s Charts functionality, then at least one font must be installed on your system to ensure that charts will be rendered correctly. To list installed fonts, use, for example, the fc-list command of the Fontconfig library.
- The macOS machine must be configured so that its name resolves to an IP address. This means that you must be able to successfully ping the host name from the Terminal using the command ping <hostname>.

3.3.1 Installing on macOS

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

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

```bash
cp /usr/local/Altova/StyleVisionServer2022/etc/*.tool /usr/local/Altova/FlowForceServer2022/tools
```

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

Uninstall StyleVision Server
In the Applications folder in Finder, right-click the StyleVision Server icon and select Move to Trash. The application will be moved to Trash. You will, however, still need to remove the application from the /usr folder. Do this with the following command:

```bash
sudo rm -rf /usr/local/Altova/StyleVisionServer2022/
```

If you need to uninstall an old version of Altova LicenseServer, you must first stop it running as a service. Do this with the following command:
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenseServer.plist

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

Install StyleVision Server

1. Download the disk image (.dmg) file of StyleVision Server from the Altova website (http://www.altova.com/download.html).
2. Click to open the downloaded disk image (.dmg). This causes the StyleVision Server installer to appear as a new virtual drive on your computer.
3. On the new virtual drive, double-click the installer package (.pkg).
4. 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. See also Licensing StyleVision Server.
5. To eject the drive after installation, right-click it and select Eject.

The StyleVision Server package will be installed in the folder:

- /usr/local/Altova/StyleVisionServer2022 (application binaries)
- /var/Altova/StyleVisionServer (data files: database and logs)

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

sudo launchctl load /Library/LaunchDaemons/com.altova.StyleVisionServer2022.plist

3.3.2 Installing LicenseServer (macOS)

In order for StyleVision Server to work, it must be licensed via an Altova LicenseServer on your network. The LicenseServer installation package is available on the virtual drive you have mounted in the previous step. To install LicenseServer, double-click the installer package included on the virtual drive and follow the on-screen instructions. You will need to accept the license agreement for installation to proceed.

Altova LicenseServer can also be downloaded and installed separately from the Altova website (http://www.altova.com/download.html).

The LicenseServer package will be installed in the folder:

- /usr/local/Altova/LicenseServer

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

LicenseServer versions

- Altova server products must be licensed either with the version of LicenseServer that is appropriate to the installed StyleVision Server version or with a later version of LicenseServer.
- The LicenseServer version that is appropriate for a particular version of StyleVision Server is displayed during the installation of StyleVision Server. You can install this version of LicenseServer along with
StyleVision Server. Alternatively, you can install LicenseServer separately.

- Before installing a newer version of LicenseServer, any older one must be de-installed. The LicenseServer installer will do this automatically if it detects an older version.
- LicenseServer versions are backwards compatible. They will work with older versions of StyleVision Server.
- If you install a new version of StyleVision Server and if your installed LicenseServer version is older than the appropriate LicenseServer, install the latest version of LicenseServer available on the Altova website.
- At the time of LicenseServer de-installation, all registration and licensing information held in the older version of LicenseServer will be saved to a database on your server machine. This data will be imported automatically into the newer version when the newer version is installed.
- The version number of the currently installed LicenseServer is given at the bottom of the LicenseServer configuration page (all tabs).

Current version: 3.8

3.3.3 Licensing StyleVision Server (macOS)

In order to use StyleVision Server, it must be licensed with Altova LicenseServer. Licensing is a two-step process:

1. **Register StyleVision Server** with LicenseServer. Registration is done from StyleVision Server.
2. **Assign a license** to StyleVision Server from LicenseServer. Download the latest version of LicenseServer from the Altova website, and install it on your local machine or a machine on your network.

These steps are described in this section. For detailed information, see the LicenseServer user manual at the Altova website.

3.3.3.1 Start LicenseServer, StyleVision Server

This topic describes how to start Altova LicenseServer (LicenseServer for short) and StyleVision Server. You must have administrator (root) privileges to be able to start these programs, so you should run these commands as the root user. If you are logged in as root, you can leave out the sudo keyword from the commands listed below.

Start LicenseServer

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

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

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

```
sudo launchctl unload /Library/LaunchDaemons/com.altova.LicenseServer.plist
```
3.3.3.2 Register StyleVision Server

To register StyleVision Server from the command line interface, use the `licenseserver` command:

```
sudo /usr/local/Altova/StyleVisionServer2022/bin/StyleVisionServer licenseserver
[options] ServerName-Or-IP-Address
```

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

```
sudo /usr/local/Altova/StyleVisionServer2022/bin/StyleVisionServer licenseserver localhost
```

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

```
/usr/local/Altova/StyleVisionServer2022/bin/
```

After successful registration, go to the Client Management tab of LicenseServer's configuration page to assign a license to StyleVision Server.

**Note:** For more information about registering Altova products with LicenseServer, see the LicenseServer user manual.

3.3.3.3 License StyleVision Server

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

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 must be greater than or equal to the number of cores available on that server machine, whether the server is a physical or virtual machine. For example, if a server has eight cores (an octa-core processor), you must purchase at least one 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 one 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, would have less processing speed than if all available cores on the server were utilized.

**Note:** Each Altova server product license can be used for only one client machine at a time, even if the license has unused licensing capacity. (A client machine is the machine on which the Altova server product is installed.) For example, if a 10-core license is used for a client machine that has 6 CPU cores, then the remaining 4 cores of licensing capacity cannot be used simultaneously for another client machine.

**Single-thread execution**

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

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

*Estimate of core requirements*

There are various external factors that influence the data volumes and processing times your server can handle (for example: the hardware, the current load on the CPU, and memory allocation of other applications running on the server). In order to measure performance as accurately as possible, test the applications in your environment with data volumes and in conditions that approximate as closely as possible to real business situations.

### 3.3.4 Notes about Environment (macOS)

**Folders**

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

- **Installation root**
  
  `/usr/local/Altova/StyleVisionServer2022/`

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

- **Environment settings**
  
  `/Library/LaunchDaemons/com.altova.StyleVisionServer.plist`

  The environment settings file must be defined according to your specific environment. The example path above serves only as a general guide.

  **Note:** These environment variables are only set for the StyleVision Server process and do not have an impact on other users.

**Database connections**

On MacOS, the following database connections are supported:

- JDBC — You can use JDBC for all supported databases except Microsoft Access
- Native connections — Currently available for SQLite and PostgreSQL databases

If you are using JDBC, note the following points:

- The Java Runtime Environment or SDK must be installed.
- The JDBC-Connects for the target database must be installed.
- The following environment variables must be set correctly for your environment:
  - `CLASSPATH`: to find the jar-files; the class path is set in the `Plist` file.
  - `PATH`: to find the JRE, but might not be necessary depending on the installation
  - `JAVA_HOME`: if necessary, depending on the installation
Java 6 for fillable PDF forms

If the fillable parts of a fillable PDF are missing when the PDF is opened on a Mac OS system, one likely cause is that Java 6 is not installed on the machine. If this is the case, you can install Java 6 from https://support.apple.com/kb/dl1572?locale=en_US. If a version newer than Java 6 has already been installed, then the installation of the older Java 6 version will not affect the working of the newer version, which will be the default version of the system.
3.4 Upgrading StyleVision Server

When you upgrade to a newer version of StyleVision Server, the license of your previous version will be used automatically for the newer version if, during installation:

- the new version is registered with the same LicenseServer as that with which the previous version of StyleVision Server was registered
- you accept the license agreement of StyleVision Server.

The simplest way to carry over a license from the previous version of StyleVision Server to the newer version is to let the installation process implement the required steps. The relevant steps during the installation process are listed below in the order in which they occur:

1. Let the installer register the new version of StyleVision Server with the LicenseServer that holds the license used by the older version of StyleVision Server.
2. Accept the license agreement of StyleVision Server. (If you do not accept the agreement, the new version will not be installed.)

Note: If you do not register StyleVision Server with the correct LicenseServer during the installation process, you will need to register and license StyleVision Server manually with your alternative LicenseServer.
3.5 Migrating StyleVision Server to a New Machine

If you want to migrate StyleVision Server from one machine to another (including across supported platforms), follow the guidelines below.

Migrating StyleVision Server to a new machine consists of re-assigning the license from the old machine to the new machine. Do this as follows:

1. Install StyleVision Server on the new machine. If it has already been installed as part of FlowForce Server installation, ignore this step.
2. On the new machine, register StyleVision Server with Altova LicenseServer.
3. On the old machine, make sure no clients are using the server.
4. Open the Altova LicenseServer administration page. Deactivate the license from the old StyleVision Server machine and re-assign it to the new machine.
4 StyleVision Server Command Line

Default location of StyleVision Server executable

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

Linux /opt/Altova/StyleVisionServer2022/bin/stylevisionserver

Mac /usr/local/Altova/StyleVisionServer2022/bin/stylevisionserver

Windows <ProgramFilesFolder>\Altova\StyleVisionServer2022\bin\StyleVisionServer.exe

Usage and list of CLI commands

The command line syntax is:

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

- `--help` (short form `--h`) displays the help text of the given command. If no command is named, then all commands of the executable are listed, each with a brief description of the command.
- `--version` displays the version number of StyleVision Server.
- `<command>` is the command to execute. Commands are described in the sub-sections of this section (see list below).
- `[options]` are the options of a command; they are listed and described with their respective commands.
- `[arguments]` are the arguments of a command; they are listed and described with their respective commands.

▼ Casing and slashes on the command line

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

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

CLI commands

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

- `assignlicense`: Uploads a license to LicenseServer and assigns this license to StyleVision Server.
- `exportresourcestrings`: Exports all application resource strings to an XML file.
- `generate`: Generates one or several documents from an input XML file and an XSLT stylesheet in the input PXF file.
- `help`: Displays information about the command that is submitted in the argument (or about all commands if no argument is submitted).
- `licenseserver`: Registers StyleVision Server with a LicenseServer on the local network.
- `pdfdata`: Generates form data from a PDF file to an FDF or XML file.
- **setdeflang**: Sets the default language of StyleVision Server.
- **setfopath**: Selects an alternative FO processor for subsequent PDF generation.
- **verifylicense**: Checks if current StyleVision Server is licensed and, optionally, whether it is licensed with the given license key.
- **version**: Displays the version number of StyleVision Server.
4.1 assignlicense (Windows only)

Syntax and description

The assignlicense command is available on Windows only (not on Linux or Mac systems). It uploads a license file to the Altova LicenseServer with which StyleVision Server is registered (see the licenseserver command), and assigns the license to StyleVision Server. It takes the path of a license file as its argument. The command also allows you to test the validity of a license.

```
stylevisionserver assignlicense [options] FILE
```

- The `FILE` argument takes the path of the license file.
- The `--test-only` option uploads the license file to LicenseServer and validates the license, but does not assign the license to StyleVision Server.

For details about licensing, see the LicenseServer documentation (https://www.altova.com/manual/AltovaLicenseServer/).

Casing and slashes on the command line

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

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

Backslashes, spaces, and special characters on Windows systems

On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File". Note, however, that a backslash followed by a double-quotation mark (for example, "C:\My directory\") might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence \" stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\".

Examples

Examples of the assignlicense command:

```
stylevisionserver assignlicense C:\licensepool\mylicensekey.altova_licenses
stylevisionserver assignlicense --test-only=true C:\licensepool\mylicensekey.altova_licenses
```

- The first command above uploads the specified license to LicenseServer and assigns it to StyleVision Server.
- The last command uploads the specified license to LicenseServer and validates it, without assigning it to StyleVision Server.
Options
Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: --option=value. Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is TRUE. Use the --h, --help option to display information about the command.

- test-only [t]
  --t, --test-only = true|false
  Values are true|false. If true, then the license file is uploaded to LicenseServer and validated, but not assigned.
4.2 exportresourcestrings

Syntax and description
The exportresourcestrings command outputs an XML file containing the resource strings of the StyleVision Server application in the specified language. Available export languages are English (en), German (de), Spanish (es), French (fr), and Japanese (ja).

```
stylevisionserver exportresourcestrings [options] LanguageCode XMLOutputFile
```

- The LanguageCode argument gives the language of the resource strings in the output XML file; this is the export language. Allowed export languages (with their language codes in parentheses) are: English (en), German (de), Spanish (es), French (fr), and Japanese (ja).
- The XMLOutputFile argument specifies the path and name of the output XML file.

How to create localizations is described below.

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

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

▼ Backslashes, spaces, and special characters on Windows systems
On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File". Note, however, that a backslash followed by a double-quotation mark (for example, "C:\My directory\") might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence \" stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \\". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\".

Examples
Examples of the exportresourcestrings command:
```
stylevisionserver exportresourcestrings de c:\Strings.xml
```
- The command above creates a file called Strings.xml at c:\ that contains the resource strings of StyleVision Server in German.

Creating localized versions of StyleVision Server
You can create a localized version of StyleVision Server for any language of your choice. Five localized versions (English, German, Spanish, French, and Japanese) are already available in the C:\Program Files
Create a localized version as follows:

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

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

3. Contact Altova Support to generate a localized StyleVision Server 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\StyleVisionServer2022\bin` folder. Your DLL file will have a name of the form `StyleVisionServer2022_lc.dll`. The `_lc` part of the name contains the language code. For example, in `StyleVisionServer2022_de.dll`, the `de` part is the language code for German (Deutsch).

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

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

Syntax and description

The `generate` command (short form `gen`) generates one or more output files (HTML, PDF, RTF, and/or DOCX) by transforming the input XML file using the XSLT document/s contained in the input PXF file.

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

- The `--inputxml` option is mandatory; it gives the path to the XML file.
- The `InputPXF` argument specifies the path to the PXF file which contains the XSLT document/s that will be used to generate the output document/s. PXF files are created with Altova's StyleVision application.
- Each output format is generated by specifying an option for that output (see Options list below). The value of each option is a path that specifies where the output is to be generated.

**Note:** StyleVision Server uses Apache FOP, the FO processor of the Apache Project, to generate PDF files from FO. Apache FOP is installed with StyleVision Server at the following location: On Windows systems, ProgramData\Altova\SharedBetweenVersions; on Linux and macOS systems, in a descendant folder of the StyleVisionServer2022 folder. Note that Apache FOP requires that Java Runtime Environment 1.6 or later be installed on the StyleVision Server machine. For 32-bit StyleVision Server, install the 32-bit Java; for 64-bit StyleVision Server, install the 64-bit Java.

▼ Casing and slashes on the command line

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

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

▼ Backslashes, spaces, and special characters on Windows systems

On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File”. Note, however, that a backslash followed by a double-quotation mark (for example, “C:\My directory\”) might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence \" stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \\". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\"

Examples

Examples of the `generate` command:

```
stylevisionserver generate --inputxml=C:\MyFiles\ExpReport.xml --html=Test.html ExpReport.pxf
```
stylevisionserver generate --inputxml=ExternalXML.xml --html=Test.html Test.pxf

- The commands above contain the mandatory --inputxml option, the InputPXF argument (Test.pxf), and a minimum of one output-creation option (--html in all the examples above).
- The input XML file to use can be located inside the PXF file (see second and third examples above) or it can be an external XML file (located outside the PXF file; see first and fourth examples above).
- The --inputxml switch is ignored if the main schema source is DB or DB-XML, but it must be present for syntactical reasons, and you should use something like --inputxml=database.
- If the output-creation option --html takes a relative path, as in the examples above, then the output file's location will be relative to the folder in which the PXF file is.

Options

- **inputxml [xml]**
  ```
  --xml, --inputxml = PathToXMLFile
  ```
  This option is mandatory. It specifies the path to the XML file to process. The XML file can be located inside or outside the PXF file. To target XML files inside a PXF file, use the |zip locator (see the highlighted part in the examples above). The --inputxml option is ignored if the main schema source of the input PXF is a DB or DB-XML.

- **dbwhere [dbw]**
  ```
  --dbw, --dbwhere = WHEREClause
  ```
  An SQL WHERE clause that determines what rows of a DB-XML source to process.

- **param [p]**
  ```
  --p, --param = $ParamName:ParamValue
  ```
  Assigns a value to a parameter defined in the PXF file. The --param switch must be used before each parameter. Use quotes if ParamName or ParamValue contains a space. Example: --p=$company:"Nanonull Inc"

- **prohibit-output-outside-target-folder**
  ```
  --prohibit-output-outside-target-folder = true|false
  ```
  Values are true|false. If true, does not allow the creation of output in any folder other than that in which the main output file (HTML, PDF, RTF, DOCX, FO) is created. This provides protection for other folders if needed. Default is false.

- **outhtml [html]**
  ```
  --html, --outhtml = FilePath
  ```
  Path to the HTML file to generate.

- **outpdf [pdf]**
  ```
  --pdf, --outpdf = FilePath
  ```
  Path to the PDF file to generate.
outrtf [rtf]
   --rtf, --outrtf = FilePath
   Path to the RTF file to generate.

outrdocx [docx]
   --docx, --outrdocx = FilePath
   Path to the DOCX file to generate.

outtext [text]
   --text, --outtext = FilePath
   Path to the Text file to generate.

outfo [fo]
   --fo, --outfo = FilePath
   Path to the FO file to generate.

generate-html-output-as-mime
   --generate-html-output-as-mime = true|false
   Values are true|false. If the option is not specified, default is false, if specified with no value, then true. If true, HTML output is generated as a mime stream.

taxonomy-package
   --taxonomy-package = FilePath
   Path to an additional taxonomy package. Add the option multiple times to specify more than one taxonomy package.

taxonomy-packages-config-file
   --taxonomy-packages-config-file = FilePath
   Path to the TaxonomyPackagesConfig.json file, which is a common file used by the Altova products XMLSpy, MapForce, and StyleVision to configure XBRL taxonomies for use across these products.

verbose [v]
   --v, --verbose = true|false
   Values are true|false. Turns the display of all messages, respectively, on or off. Default is false if the option is not provided, true if provided without a value.

lang [l]
   --l, --lang = en|de|es|fr|ja
   The language used for displaying messages.

Use the --h, --help option to display information about the command.

Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: --option=value.
Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is TRUE. Use the --h, --help option to display information about the command.

Catalogs
If you are using the Altova catalog mechanism, you can find the relevant catalog files in the etc folder of the StyleVision Server application folder. For detailed information, see the Catalogs section of the Altova StyleVision manual.
4.4 help

Syntax and description
The help command takes a single argument (Command), which is the name of the command for which help is required. It displays the command's syntax, its options, and other relevant information. If the Command argument is not specified, then all commands of the executable are listed, with each having a brief text description.

stylevisionserver help Command

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

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

Example
Example of the help command to display information about the licenser server command:

stylevisionserver help licenseserver

The --help option
Help information about a command is also available by using the --help option of the command for which help information is required. The two commands below produce the same results:

stylevisionserver licenseserver --help

The command above uses the --help option of the licenseserver command.

stylevisionserver help licenseserver

The help command takes licenseserver as its argument.

Both commands display help information about the licenseserver command.
4.5 licenseserver

Syntax and description

The `licenseserver` command registers StyleVision Server with the Altova LicenseServer specified by the `Server-Or-IP-Address` argument. For the `licenseserver` command to be executed successfully, the two servers (StyleVision Server and LicenseServer) must be on the same network and LicenseServer must be running. You must also have administrator privileges in order to register StyleVision Server with LicenseServer.

```bash
stylevisionserver licenseserver [options] Server-Or-IP-Address
```

- The `Server-Or-IP-Address` argument takes the name or IP address of the LicenseServer machine.

Once StyleVision Server has been successfully registered with LicenseServer, you will receive a message to this effect. The message will also display the URL of the LicenseServer. You can now go to LicenseServer to assign StyleVision Server a license. For details about licensing, see the LicenseServer documentation (https://www.altova.com/manual/AltovaLicenseServer/).

▼ Casing and slashes on the command line

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

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

▼ Backslashes, spaces, and special characters on Windows systems

On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File". Note, however, that a backslash followed by a double-quotation mark (for example, "c:\My directory\") might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence " stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\".

Examples

Examples of the `licenseserver` command:

```bash
stylevisionserver licenseserver DOC.altova.com
stylevisionserver licenseserver localhost
stylevisionserver licenseserver 127.0.0.1
```

The commands above specify, respectively, the machine named `DOC.altova.com`, and the user's machine (`localhost` and `127.0.0.1`) as the machine running Altova LicenseServer. In each case, the command registers StyleVision Server with the LicenseServer on the machine specified. The last command calls the server-executable to execute the command.
Options
Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: `--option=value`. Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is `true`. Use the `--h, --help` option to display information about the command.

```
json [j]
```

```
--j, --json = true|false
```

Values are `true|false`. If `true`, prints the result of the registration attempt as a machine-parsable JSON object.
4.6 pdfdata

Syntax and description

The pdfdata command generates an FDF file or XML file from the PDF file that is submitted as the InputPDF argument.

```
    stylevisionserver pdfdata [options] InputPDF
```

- The InputPDF argument specifies the path to the PDF file, from which the output FDF or XML file will be generated. If the PDF file does not have any form data, the generated file will contain no form data.
- Use the --outfdf option to specify the location of the generated FDF file or the --outxml option to specify the location of the generated XML file.

For more information about FDF files and designing fillable PDF forms, see the Altova StyleVision (Enterprise Edition) documentation.

▼ Casing and slashes on the command line

StyleVisionServer on Windows

StyleVisionServer on Windows and Unix (Linux, Mac)

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

▼ Backslashes, spaces, and special characters on Windows systems

On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File". Note, however, that a backslash followed by a double-quotation mark (for example, "C:\My directory\") might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence \" stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \\". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\".

Examples

Examples of the pdfdata command:

```
    stylevisionserver pdfdata --outdf=C:\test\forms\FDFData.fdf C:\test\forms\TestForm.pdf
    stylevisionserver pdfdata --outxml=C:\test\forms\XMLData.xml C:\test\forms\TestForm.pdf
```

The examples above create, respectively, and FDF file and an XML file from the same PDF input.

Options
StyleVision Server Command Line

\[ \text{outfdf} \]

\[ \text{--outfdf = FilePath} \]

The path to the generated FDF file.

\[ \text{outxml} \]

\[ \text{--outxml = FilePath} \]

The path to the generated XML file.

Use the \[ \text{--h, --help} \] option to display information about the command.

Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: \[ \text{--option=value} \]. Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is \text{TRUE}. Use the \[ \text{--h, --help} \] option to display information about the command.
4.7 setdeflang

Syntax and description
The setdeflang command (short form is sdl) sets the default language of StyleVision Server. Available languages are English (en), German (de), Spanish (es), French (fr), and Japanese (ja). The command takes a mandatory LanguageCode argument.

```
stylevisionserver setdeflang [options] LanguageCode
```

- The LanguageCode argument is required and sets the default language of StyleVision Server. The respective values to use are: en, de, es, fr, ja.
- Use the --h, --help option to display information about the command.

Casing and slashes on the command line

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

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

Examples
Examples of the setdeflang (sdl) command:

```
stylevisionserver sdl de
stylevisionserver setdeflang es
```

- The first command sets the default language of StyleVision Server to German.
- The second command sets the default language of StyleVision Server to Spanish.

Options
Use the **--h, --help** option to display information about the command.
4.8 setfopath

Syntax and description

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

```
stylevisionserver setfopath [options] Path
```

- By default the Apache FOP processor that is included with StyleVision Server is used for processing FO documents and generating PDF output. If you wish to use some other Apache FOP processor instance than the processor supplied with StyleVision Server, use the `setfopath` command with the `Path` argument giving the path to the FO processor you want to use.
- After an alternative FO processor has been specified with the `setfopath` command, it is this processor that will be used when PDF is generated with subsequent `generate` commands. To change processors again, use the `setfopath` command again. To switch back to StyleVision Server's FOP processor, locate the FOP folder on your system and use this path as the argument of `setfopath`.
- On Windows systems, the FOP folder that was installed with StyleVision Server will be located under `ProgramData\Altova\SharedBetweenVersions`; on Linux and macOS systems in a descendant folder of the `StyleVisionServer2022` folder.

For more information about FDF files and designing fillable PDF forms, see the Altova StyleVision (Enterprise Edition) documentation.

Casing and slashes on the command line

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

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

Backslashes, spaces, and special characters on Windows systems

On Windows systems: When spaces or special characters occur in strings (for example in file or folder names, or company, person or product names), use quotes: for example, "My File". Note, however, that a backslash followed by a double-quotation mark (for example, "C:\My directory\") might not be read correctly. This is because the backslash character is also used to indicate the start of an escape sequence, and the escape sequence " stands for the double-quotation mark character. If you want to escape this sequence of characters, use a preceding backslash, like this: \". To summarize: If you need to write a file path that contains spaces or an end backslash, write it like this: "C:\My Directory\".

Examples

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

```
stylevisionserver setfopath C:\FOP\FOP.bat
```
stylevisionserver generate --inputxml=Test.xml --pdf=Test.pdf Test.pxf

The commands above do the following:

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

Options

Use the `--h, --help` option to display information about the command.

Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: `--option=value`. Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is `TRUE`. Use the `--h, --help` option to display information about the command.
4.9 verifylicense (Windows only)

Syntax and description
The `verifylicense` command checks whether the current product is licensed. Additionally, the `--license-key` option enables you to check whether a specific license key is already assigned to the product. This command is supported only on Windows systems. It is not supported on Linux or Mac systems.

```
stylevisionserver verifylicense [options]
```

- To check whether a specific license is assigned to StyleVision Server, supply the license key as the value of the `--license-key` option.

For details about licensing, see the LicenseServer documentation (https://www.altova.com/manual/AltovaLicenseServer/).

Casing and slashes on the command line

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

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

Examples

Example of the `verifylicense` command:

```
stylevisionserver verifylicense
stylevisionserver verifylicense --license-key=ABCD123-ABCD123-ABCD123-ABCD123-ABCD123
```

- The first command checks whether StyleVision Server is licensed.
- The second command checks whether StyleVision Server is licensed with the license key specified with the `--license-key` option.

Options

Options are listed in short form (if available) and long form. You can use one or two dashes for both short and long forms. An option may or may not take a value. If it takes a value, it is written like this: `--option=value`. Values can be specified without quotes except in two cases: (i) when the value string contains spaces, or (ii) when explicitly stated in the description of the option that quotes are required. If an option takes a Boolean value and no value is specified, then the option's default value is `TRUE`. Use the `--h, --help` option to display information about the command.

```
license-key [l]
--license-key = Value
```

Checks whether StyleVision Server is licensed with the license key specified as the value of this option.
4.10 version

Syntax and description
The `version` command displays the version number of StyleVision Server.

```
stylevisionserver version
```

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

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

Example
Example of the `version` command:

```
stylevisionserver version
```
5  StyleVision Server API

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

This reference section is organized as follows:

- About the .NET Interface 56
- About the COM Interface 57
- About the Java Interface 58
- Code Examples 59
- API Reference 67
5.1 About the .NET Interface

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

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

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

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

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

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

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

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

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

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

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

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

**Adding library references in Eclipse**

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

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

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

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

5.4.1 C#

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

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

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

                //Default path to the StyleVision Server executable is the installation path
                //In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
                //objSVS.ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2022\bin\StyleVisionServer.exe";

                //Prepare the name of the working XML
                //This can be an absolute/relative path if the file is stored externally
                //not inside PXF
                // objSVS.InputXML = "ExpReport.xml";
                // Or it can contain the path INSIDE the PXF
                // objSVS.InputXML = "ExpReport.pxf|zip\ExpReport.xml";
                // Easiest way is to refer to the file as being embedded in the transformation file
```
objSVS.InputXML = "altova://packagedfile/ExpReport.xml";

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

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

// Run the transformation; the output will be stored at C:\temp\ExpReport.rtf
// NOTE Please adapt the path to the input file in order to run the sample
if (objSVS.Generate("ExpReport.pxf"))
    System.Console.WriteLine("Success - finished execution");
else
    System.Console.WriteLine(objSVS.LastExecutionMessage);
}
catch (System.Runtime.InteropServices.COMException ex)
{
    // Some general error like an invalid license happened
    System.Console.WriteLine("Internal Error - "+ ex.Message);
}
}

5.4.2 C++

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

#include <iostream>
#include "atlbase.h"

// The following import statements require the corresponding C++ tool-chain to be selected in the project configuration file.
#ifndef _WIN64
    // 32-bit StyleVisionServer
    #import "progid:StyleVision.Server"
#else
    // 64-bit StyleVisionServer
    #import "progid:StyleVision_x64.Server"
#endif

int _tmain(int argc, _TCHAR* argv[])
{
{  
    CoInitialize( NULL );
    
    try  
    {  
        //Create a StyleVision Server object  
        StyleVisionServerLib::IServerPtr pSVS;
        CoCreateInstance(__uuidof(StyleVisionServerLib::Server), NULL, CLSCTX_ALL,
                        __uuidof(StyleVisionServerLib::IServer), reinterpret_cast< void** >( &pSVS ) );

        //Set a working directory - used for output and for intermediate files  
        pSVS->WorkingDirectory = ".."; // this is relative to this applications'  
        working directory (the project folder)  

        //Default path to the StyleVision Server executable is the installation path  
        // (same dir with the StyleVisionServer.dll)  
        // In case you moved the binaries on the disk, you need to explicitly set the  
        // path to the .exe file  
        // pSVS->ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2022\  
        // \bin\StyleVisionServer.exe";
        // pSVS->ServerPath = "C:\Program Files\Altova\StyleVisionServer2022\bin\  
        // StyleVisionServer.exe";

        //Prepare the name of the working XML  
        // This can be an absolute/relative path if the file is stored externally  
        // (not inside PXF)  
        // pSVS->InputXML = "ExpReport.xml";
        // Or it can contain the path INSIDE the PXF  
        // Easiest way is to refer to the file as being embedded in the  
        // transformation file  
        pSVS->InputXML = "altova://packagedfile/ExpReport.xml";

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

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

        //Run the transformation; the output will be stored at C:\temp\ExpReport.rtf  
        // NOTE Please adapt the path to the input file in order to run the sample  
        if (pSVS->Generate("ExpReport.pxf"))
        {
            std::cout << pSVS->LastExecutionMessage << std::endl;
            std::cout << "Success - finished execution" << std::endl;
        }
        else
        {
            std::cout << pSVS->LastExecutionMessage << std::endl;
        }
    }
}
5.4.3 Java

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

```java
public class Program {

    public static void main(String[] args) {
        try {

            //Create a StyleVision Server object

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

            //Default path to the StyleVision Server executable is the installation path
            //In case you copied the JAR file to a new location, you need to explicitly set the path to the .exe file
            objSVS.setServerPath( "C:\\Program Files (x86)\\Altova\\StyleVisionServer2022\\bin\\StyleVisionServer.exe" );

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

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

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

            //Run the transformation; the output will be stored at C:\temp\ExpReport.rtf
        }
    }
}
```
// NOTE Please adapt the path to the input file in order to run the sample
if ( objSVS.generate( "C:\\Program Files (x86)\\Altova\\StyleVisionServer2022\\etc\\Examples\\ExpReport.pxf" ) )
    System.out.println( "Success - finished execution" );
else
    System.out.println( objSVS.getLastExecutionMessage() );
} catch ( Exception e)
{
    e.printStackTrace();
}

5.4.4 VBScript

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

Option Explicit

'Create a StyleVision Server object; use "StyleVision_x64.Server" if you want to use the 64-bit installation
Dim objSVS
' Since we load a COM-DLL we need care about the process architecture
On Error Resume Next ' ignore any COM errors avoiding uncontrolled script termination
Dim WshShell
Dim WshProcEnv
Set WshShell = CreateObject("WScript.Shell")
Set WshProcEnv = WshShell.Environment("Process")
Dim process_architecture
process_architecture= WshProcEnv("PROCESSOR_ARCHITECTURE")
If process_architecture = "x86" Then
    Set objSVS = WScript.GetObject( "", "StyleVision.Server" )
    If Err.Number <> 0 then
        WScript.Echo("You are running in a 32-bit process but StyleVision Server COM-API 32-bit seems not to be installed on your system.")
        WScript.Quit -1
    End If
Else
    Set objSVS = WScript.GetObject( "", "StyleVision_x64.Server" )
    If Err.Number <> 0 then
        WScript.Echo("You are running in a 64-bit process but StyleVision Server COM-API 64-bit seems not to be installed on your system.")
        WScript.Echo("If you have installed 32-bit StyleVision Server consider calling your script from the 32-bit console 'C:\Windows\SysWOW64\cmd.exe.'")
        WScript.Quit -1
    End If
End If

End If

On Error Goto 0  ' re-enable default error promotion

'Set a working directory - used for input, output and for intermediate files
'objSVS.WorkingDirectory = "C:\Program Files (x86) \Altova\StyleVisionServer2020\etc\examples"
objSVS.WorkingDirectory = ".."

'Default path to the StyleVision Server executable is the installation path (same dir with
the StyleVisionServer.dll)
'In case you moved the binaries on the disk, you need to explicitly set the path to the
.exe file
'objSVS.ServerPath = "C:\Program Files (x86) \Altova\StyleVisionServer2020\bin\StyleVisionServer_DebugDLL.exe"

' The Generate method will return 'True' if generation was successful otherwise 'False'.
' In the case of fundamental errors like termination of the server process a COM error will
be raised which
' can be handled using the VBScript Err object.
On Error Resume Next  ' ignore any COM errors avoiding uncontrolled script termination
Err.Clear

WScript.Echo("Running " & objSVS.ProductNameAndVersion & vbCrlf)

'Prepare the name of the working XML
'    This can be an absolute/relative path if the file is stored externally (not inside
PXF)
' objSVS.InputXML = "ExpReport.xml"
'    or it can contain the path INSIDE the PXF
objSVS.InputXML = "ExpReport.pxf|zip\ExpReport.xml"
'    or refer to the file as being embedded in the transformation file
'objSVS.InputXML = "altova://packagedfile/ExpReport.xml"

'Add output paths (absolute or relative to WorkingDirectory) for all formats that should be
generated
' make sure you have write permissions
'objSVS.OutputRTF = "C:\tmp\ExpReport.rtf"
objSVS.OutputPDF = "C:\tmp\ExpReport.pdf"
'objSVS.OutputHTML = "C:\tmp\ExpReport.html"

'Prepare the parameters, if your design uses parameters
'Call objSVS.AddParameter( "testparam1", "value_1" )

' Run the transformation. The PXF file path can be relative to the working folder or
absolute.
WScript.Echo("Generating output from ExpReport.pxf...")
If ( objSVS.Generate( "ExpReport.pxf" ) ) Then
    WScript.Echo( objSVS.LastExecutionMessage )
    WScript.Echo( "Success - finished execution" )
Else
    WScript.Echo( objSVS.LastExecutionMessage )
End If
' handle COM errors
If Err.Number <> 0 Then
    WScript.Echo("Internal error - " & Err.Description )
    WScript.Quit -1
End If

On Error Goto 0                        ' re-enable default error promotion

5.4.5  Visual Basic

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

Option Explicit On

Module Program

    Sub Main()

        Try
            ' Create a StyleVision Server object
            Dim objSVS As Altova.StyleVisionServer.Server = New
            Altova.StyleVisionServer.Server

            ' Set a working directory - used for output and for intermediate files
            ' objSVS.WorkingDirectory = "C:\Program Files (x86)\Altova\MapForceServer2020\etc\Examples"
            objSVS.WorkingDirectory = "..\..\..

            ' Default path to the StyleVision Server executable is the installation path (same dir with the StyleVisionServer.dll)
            ' In case you moved the binaries on the disk, you need to explicitly set the path to the .exe file
            ' objSVS.ServerPath = "C:\Program Files (x86)\Altova\StyleVisionServer2020\bin\StyleVisionServer.exe"
            ' objSVS.ServerPath = "C:\Program Files\Altova\StyleVisionServer2020\bin\StyleVisionServer.exe"

            ' Prepare the name of the working XML
            ' This can be an absolute/relative path if the file is stored externally
            ' (not inside PXF)
            ' objSVS.InputXML = "ExpReport.xml"
            ' Or it can contain the path INSIDE the PXF
            objSVS.InputXML = "ExpReport.pxf|zip\ExpReport.xml"
            ' Easiest way is to refer to the file as being embedded in the transformation file
' objSVS.InputXML = "altova://packagedfile/ExpReport.xml"

' Add output paths (absolute or relative to WorkingDirectory) for all formats that should be generated
objSVS.OutputRTF = "C:\tmp\ExpReport.rtf"
objSVS.OutputPDF = "C:\tmp\ExpReport.pdf"
objSVS.OutputHTML = "C:\tmp\ExpReport.html"

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

' Run the transformation; the output will be stored at C:\temp
If (objSVS.Generate("ExpReport.pxf")) Then
    System.Console.WriteLine(objSVS.LastExecutionMessage)
    System.Console.WriteLine("Success - finished execution")
Else
    System.Console.WriteLine(objSVS.LastExecutionMessage)
End If

Catch ex As Exception
End Try

End Sub

End Module
5.5  API Reference

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

- COM and .NET
- Java

5.5.1  COM and .NET

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

The IServer interface has the following methods and properties.

Methods
AddParameter

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

- **C#**
  
  ```csharp
  void AddParameter(string bstrName, string bstrValue)
  ```

- **C++**
  
  ```
  HRESULT AddParameter([in] BSTR bstrName, [in] BSTR bstrValue);
  ```

- **VB**
  
  ```vb
  Sub AddParameter(ByVal bstrName As String, ByVal bstrValue As String)
  ```

ClearParameterList

Clears the list of parameters.

- **C#**
  
  ```csharp
  void ClearParameterList()
  ```

- **C++**
  
  ```
  HRESULT ClearParameterList();
  ```

- **VB**
  
  ```vb
  Sub ClearParameterList()
  ```

Generate

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

- **C#**
  
  ```csharp
  bool Generate(string bstrTransfPath)
  ```

- **C++**
  
  ```
  HRESULT Generate([in] BSTR bstrTransfPath, [out, retval] VARIANT_BOOL* pbSuccess );
  ```

- **VB**
  
  ```vb
  Function Generate(ByVal bstrTransfPath As String) As Boolean
  ```

Properties
▼ APIMajorVersion

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

- C#
  
  ```csharp
  int APIMajorVersion { get; }
  ```

- C++
  
  ```
  HRESULT APIMajorVersion([out, retval] INT* pnVal);
  ```

- VB
  
  ```vb
  ReadOnly Property APIMajorVersion As Integer
  ```

▼ APIMinorVersion

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

- C#
  
  ```csharp
  int APIMinorVersion { get; }
  ```

- C++
  
  ```
  HRESULT APIMinorVersion([out, retval] INT* pnVal);
  ```

- VB
  
  ```vb
  ReadOnly Property APIMinorVersion As Integer
  ```

▼ APIServicePackVersion

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

- C#
  
  ```csharp
  int APIServicePackVersion { get; }
  ```

- C++
  
  ```
  HRESULT APIServicePackVersion([out, retval] INT* pnVal);
  ```

- VB
  
  ```vb
  ReadOnly Property APIServicePackVersion As Integer
  ```

▼ InputXML

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

- C#
  
  ```csharp
  string InputXML { set; }
  ```
C++
HRESULT InputXML([in] BSTR bstrPath);

VB
Property InputXML As String

Is64Bit
Returns TRUE if the StyleVision Server engine is a 64-bit executable.

C#
bool Is64Bit { get; }

C++
HRESULT Is64Bit([out, retval] VARIANT_BOOL* pbVal);

VB
ReadOnly Property Is64Bit As Boolean

LastExecutionMessage
Gets the message received during the last Generate command.

C#
string LastExecutionMessage { get; }

C++
HRESULT LastExecutionMessage([out, retval] BSTR* pbstrResult);

VB
ReadOnly Property LastExecutionMessage As String

MajorVersion
Gets the major version of StyleVision Server.

C#
int MajorVersion { get; }

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

VB
ReadOnly Property MajorVersion As Integer

MinorVersion
Gets the minor version of StyleVision Server.

- **C#**
  ```csharp
  int MinorVersion { get; }
  ```

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

- **VB**
  ```vbnet
  ReadOnly Property MinorVersion As Integer
  ```

**OutputDOCX**

Sets the path and name of the output `.docx` file.

- **C#**
  ```csharp
  string OutputDOCX { set; }
  ```

- **C++**
  ```cpp
  HRESULT OutputDOCX([in] BSTR bstrPath );
  ```

- **VB**
  ```vbnet
  Property OutputDOCX As String
  ```

**OutputFO**

Sets the path and name of the output `.fo` file.

- **C#**
  ```csharp
  string OutputFO { set; }
  ```

- **C++**
  ```cpp
  HRESULT OutputFO([in] BSTR bstrPath );
  ```

- **VB**
  ```vbnet
  Property OutputFO As String
  ```

**OutputHTML**

Sets the path and name of the output `.html` file.

- **C#**
  ```csharp
  string OutputHTML { set; }
  ```

- **C++**
  ```cpp
  HRESULT OutputHTML([in] BSTR bstrPath );
  ```

- **VB**
  ```vbnet
  Property OutputHTML As String
  ```
Property OutputHTML As String

OutputPDF

Sets the path and name of the output PDF file.

C#
    string OutputPDF { set; }
C++
    HRESULT OutputPDF([in] BSTR bstrPath);
VB
    Property OutputPDF As String

OutputRTF

Sets the path and name of the output RTF file.

C#
    string OutputRTF { set; }
C++
    HRESULT OutputRTF([in] BSTR bstrPath);
VB
    Property OutputRTF As String

OutputText

Sets the path and name of the output Text file.

C#
    string OutputText { set; }
C++
    HRESULT OutputText([in] BSTR bstrPath);
VB
    Property OutputText As String

ProductName

Gets the name of the product: "StyleVision Server"
### ProductName

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

- **C#**
  ```csharp
  string ProductName { get; }
  ```
- **C++**
  ```cpp
  HRESULT ProductName([out, retval] BSTR* pstrVal);
  ```
- **VB**
  ```vb
  ReadOnly Property ProductName As String
  ```

### ProductNameAndVersion

- **C#**
  ```csharp
  string ProductNameAndVersion { get; }
  ```
- **C++**
  ```cpp
  HRESULT ProductNameAndVersion([out, retval] BSTR* pstrVal);
  ```
- **VB**
  ```vb
  ReadOnly Property ProductNameAndVersion As String
  ```

### ServerPath

Gets or sets the path to the StyleVision Server executable.

- **C#**
  ```csharp
  string ServerPath { set; get; }
  ```
- **C++**
  ```cpp
  HRESULT ServerPath([in] BSTR bstrServerFile );
  HRESULT ServerPath([out, retval] BSTR* pbstrServerFile );
  ```
- **VB**
  ```vb
  Property ServerPath As String
  ```

### ServicePackVersion

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

- **C#**
  ```csharp
  int ServicePackVersion { get; }
  ```
- **C++**
  ```cpp
  HRESULT ServicePackVersion([out, retval] INT* pnVal);
  ```
Properties:

**ServicePackVersion**

ReadOnly Property ServicePackVersion As Integer

---

**WhereClause**

Sets an SQL WHERE clause that determines the rows of a DB-XML schema source to process.

- C#
  ```csharp
  string WhereClause { set; }
  ```
- C++
  ```cpp
  HRESULT WhereClause([in] BSTR bstrPath);
  ```
- VB
  ```vb
  Property WhereClause As String
  ```

---

**WorkingDirectory**

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

- C#
  ```csharp
  string WorkingDirectory { set; get; }
  ```
- C++
  ```cpp
  HRESULT WorkingDirectory([in] BSTR bstrWorkingDirectory);
  HRESULT WorkingDirectory([out, retval] BSTR* pbstrWorkingDirectory);
  ```
- VB
  ```vb
  Property WorkingDirectory As String
  ```

---

**5.5.2 Java**

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

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

### StyleVisionServer class

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

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

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

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

- **generate**
  ```java
  public boolean generate(String transfPath)
  ```
  Processes the PXF file specified in `transfPath`. Throws `StyleVisionServerException`.
  **Parameters:**
  - `transfPath`: An absolute URL giving the location of the PXF file.
  **Returns:**
  - `true()` if execution is successful
  - `false()` if execution fails
  In case of an error, use `getLastExecutionMessage()`.

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

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

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

- **getLastExecutionMessage**
  ```java
  public String getLastExecutionMessage()
  ```
  Gets the message received during the last generate command.

- **getMajorVersion**
public int getMajorVersion()
Gets the major version of the application.

▶ getMinorVersion
public int getMinorVersion()
Gets the minor version of the application.

▶ getProductName
public String getProductName()
Gets the product name.

▶ getProductNameAndVersion
public String getProductNameAndVersion()
Gets the complete name and version number of the product.

▶ getServicePackVersion
public int getServicePackVersion()
Gets the service pack version of the StyleVision Server.

▶ is64bit
public boolean is64bit()
Checks whether the executable is 64-bit.
Returns:
true() for StyleVision Server (x64), false() otherwise.

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

▶ setOutputDOCX
public void setOutputDOCX(String path)
Sets the path and name of the DOCX file to generate.
Parameters:
path: The path and name of the DOCX file to generate.

▶ setOutputFO
public void setOutputFO(String path)
Sets the path and name of the FO file to generate.
Parameters:
path: The path and name of the FO file to generate.

▶ setOutputHTML
public void setOutputHTML(String path)
Sets the path and name of the HTML file to generate.
Parameters:
path: The path and name of the HTML file to generate.

setOutputPDF
public void setOutputPDF(String path)
Sets the path and name of the PDF file to generate.
Parameters:
path: The path and name of the PDF file to generate.

setOutputRTF
public void setOutputRTF(String path)
Sets the path and name of the RTF file to generate.
Parameters:
path: The path and name of the RTF file to generate.

setOutputText
public void setOutputText(String path)
Sets the path and name of the Text file to generate.
Parameters:
path: The path and name of the Text file to generate.

setServerPath
public void setServerPath(String serverFile)
Sets the path of the StyleVisionServer executable.
Parameters:
serverFile: The path of the StyleVisionServer executable.

setWhereClause
public void setWhereClause(String whereClause)
Sets an SQL WHERE clause that determines the rows of a DB-XML schema source to process.
Parameters:
whereClause: The SQL WHERE clause that determines the rows of a DB-XML schema source to process.

setWorkingDirectory
public void setWorkingDirectory(String workingDirectory)
Sets a default directory. Relative paths are resolved relative to this directory.
Parameters:
workingDirectory: The path of the default (working) directory.
6 XBRL Taxonomy Manager

XBRL Taxonomy Manager is a tool that provides a centralized way to install and manage XBRL taxonomies for use across all Altova XBRL-enabled applications, including StyleVision Server. On Windows, XBRL Taxonomy Manager has a graphical user interface and is also available at the command line. On Linux and Mac*, the tool is available at the command line only.

* The Linux and macOS operating systems are applicable only if you are running XBRL Taxonomy Manager on those operating systems in conjunction with Altova cross-platform server applications such as MapForce Server, StyleVision Server, or RaptorXML+XBRL Server.

XBRL Taxonomy Manager provides the following features:

- View XBRL taxonomies installed on your computer, and check whether new versions are available for download.
- Download newer versions of XBRL taxonomies independently of the Altova product release cycle. All taxonomies are maintained by Altova on an online-based storage accessible to XBRL Taxonomy Manager, and you can download them as soon as they become available.
- Install or uninstall any of the multiple versions of a given taxonomy (or all versions if necessary).
- A single XBRL taxonomy represents a “package” but it may have dependencies on other taxonomies. Whenever you choose to install or uninstall a particular taxonomy, any dependent taxonomies are detected and also installed or removed automatically. The graphical user interface (or the command line if applicable) informs you when dependencies are being added or removed.
- XBRL taxonomies maintained through XBRL Taxonomy Manager benefit from the XML catalog mechanism that enables URI references in instance or schema documents to be resolved from local files, as opposed to being retrieved from the Internet. This is extremely important in the case of big XBRL taxonomies where schema resolution from remote URIs is not practical or even recommended, mainly for performance reasons.

XBRL Taxonomy Manager provides a way to administer any of the XBRL taxonomies required for use in any one of the Altova XBRL-enabled applications (see list below). These include the European Banking Authority Reporting Framework taxonomies, US-GAAP Financial Reporting taxonomies, and various other country- or domain- specific XBRL taxonomies. To view the full list, either run XBRL Taxonomy Manager or run the list command at the command line.

Custom XBRL Taxonomies

If you need to work with custom XBRL taxonomies that are not included with XBRL Taxonomy Manager, you can enable those as follows:

- From your Altova XBRL-enabled desktop application, run the Tools | Options menu command, and then go to the XBRL | Taxonomy Packages settings page. From the settings page, browse for the .zip package of your custom XBRL taxonomy.
- From your Altova XBRL-enabled server application, provide the --taxonomy-package or --taxonomy-package-config-file options when running commands or API methods that support them. For example, these options are supported by XBRL validation commands such as `valxbrl` or `valxbrltaxonomy` in RaptorXML+XBRL Server, or by the run command (or the equivalent API method) in MapForce Server.
Altova XBRL-enabled applications
The following Altova applications are XBRL-enabled and thus benefit from the features provided by XBRL Taxonomy Manager:

- Altova XBRL Add-ins for Excel (EBA, Solvency II)
- MapForce Enterprise Edition
- MapForce Server
- MapForce Server Advanced Edition
- RaptorXML+XBRL Server
- StyleVision Server
- StyleVision Enterprise Edition
- XMLSpy Enterprise Edition

Changes in XBRL taxonomies using XBRL Taxonomy Manager take effect for all the applications listed above if they are installed on the same computer.

Installation
XBRL Taxonomy Manager is installed automatically whenever you install any Altova XBRL-enabled application or the Altova Mission Kit Enterprise Edition. Likewise, it is removed automatically when you uninstall the last Altova XBRL-enabled application from your computer or the Altova Mission Kit Enterprise Edition.

How it works
Altova maintains an online taxonomy storage where all XBRL taxonomies used in Altova products are stored. This taxonomy storage is updated on a periodical basis, for example, shortly after new versions of relevant taxonomies are released by their issuing organizations.

Whenever you run XBRL Taxonomy Manager at the graphical user interface, information about the latest available taxonomies is displayed in a dialog box, where you can view, install, upgrade or uninstall them. You can also perform the same actions at the command line interface.
You may also install taxonomies by running .altova_taxonomies files downloaded from the Altova website (https://www.altova.com/taxonomy-manager). In addition, when you take an action that requires loading XBRL taxonomies, StyleVision Server prompts you to install the missing XBRL taxonomies.

Regardless of the manner in which taxonomies were installed, all information about installed taxonomies is tracked in a centralized location on your computer, also known as the local cache directory. The local cache directory contains information about Altova packages (except for the actual taxonomy files, which are installed on demand). The local cache directory is at the following path:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux</td>
<td>/var/opt/Altova/pkgs</td>
</tr>
<tr>
<td>macOS</td>
<td>/var/Altova/pkgs</td>
</tr>
</tbody>
</table>
Windows | C:\ProgramData\Altova\pkgs

The local cache directory gets updated automatically from time to time, so as to propagate the latest state of the online storage to the local computer. More specifically, the cache is updated as follows:

- When you run the XBRL Taxonomy Manager.
- When you run StyleVision Server for the first time in the same calendar day.
- If StyleVision Server is already running, the cache directory gets updated every 24 hours.
- You can also update the local cache from the online storage on demand, by running the update command at the command line interface.

As you install or uninstall taxonomies, the local cache directory gets automatically updated with information about the available and installed taxonomies, as well as the taxonomy files themselves.

The local cache directory is maintained automatically based on the taxonomies you install or uninstall; it should not be altered or deleted manually. If you ever need to reset XBRL Taxonomy Manager to the original “pristine” state, run the reset command of the command line interface, and then run the initialize command. (Alternatively, run the reset command with the -i option.)
6.1 Run XBRL Taxonomy Manager

You can run XBRL Taxonomy Manager by using the approaches listed below, as applicable.

Graphical user interface (Windows only)
If StyleVision Server runs on Windows, you can run XBRL Taxonomy Manager as follows:

- Double-click the file with the `.altova_taxonomies` extension downloaded from the Altova website.
- From the Windows Control Panel, right-click the Altova Taxonomy Manager entry and select Change or Uninstall from the context menu.

After you complete the installation of StyleVision Server, the check box Invoke Altova Taxonomy Manager is available on the last page of the installation wizard.

Command line interface (Windows)
To run XBRL Taxonomy Manager from a command line interface:

1. Open a command prompt window and change directory to `C:\ProgramData\Altova\SharedBetweenVersions`.
2. To display help at the command line, run:

   ```
   TaxonomyManager.exe --help
   ```

Command line interface (Linux, macOS)
To run XBRL Taxonomy Manager from a command line interface:

1. Open a terminal window and change directory to `%INSTALLDIR%/bin`, where `%INSTALLDIR%` is the program’s installation directory.
2. To display help at the command line, run:

   ```
   sudo ./taxonomymanager --help
   ```
6.2 Install a Taxonomy

You can install a taxonomy by using the approaches listed below, as applicable.

Note the following:

- Installing or uninstalling a taxonomy from XBRL Taxonomy Manager takes effect for all user accounts on the same computer.
- Installing or uninstalling a taxonomy from XBRL Taxonomy Manager takes effect in all Altova XBRL-enabled applications installed on the same computer.
- If the current taxonomy has dependencies on other taxonomies, the dependent taxonomies are also installed (or uninstalled, as applicable).

Graphical user interface (Windows only)

To install a taxonomy:

1. Run XBRL Taxonomy Manager.
2. Select the check box next to the taxonomies or taxonomy versions you want to install, and click Apply.

Alternatively, if you have downloaded a file with the .altova_taxonomies extension from the Altova website, double-click the .altova_taxonomies file to run it. XBRL Taxonomy Manager opens when you run the .altova_taxonomies file.

Command line interface (Windows)

To install a taxonomy, run:

```
TaxonomyManager.exe install FILTER...
```

Where FILTER means one of the following:

1. A taxonomy identifier in the format <name>-<version>, for example: eba-2.10, us-gaap-2020.0. To view all the available taxonomy identifiers and versions, run the list command.
2. An .altova_taxonomies file downloaded from the Altova website.

Command line interface (Linux, macOS)

To install a taxonomy, run:

```
sudo ./taxonomymanager install FILTER...
```

Where FILTER means one of the following:

1. A taxonomy identifier in the format <name>-<version>, for example: eba-2.10, us-gaap-2020.0. To view all the available taxonomy identifiers and versions, run the list command.
2. An .altova_taxonomies file downloaded from the Altova website.
**Installing taxonomies on demand**

Whenever StyleVision Server detects that certain XBRL taxonomies must be installed on your computer, you may be prompted to install taxonomies on demand. For example, if you run a command that requires loading XBRL taxonomies, and if no XBRL taxonomies are currently installed, the command is cancelled and an error message similar to the following appears:

Unable to load a schema with target namespace [...] from [...].

Details:
I/O Error: File [...] is part of missing taxonomy [...] Call 'taxonomymanager install [...]'.

To install the missing taxonomy, run the install command as suggested by the error message. You can always view all of the previously installed taxonomies by running the list command.

**Applying patches**

Occasionally, XBRL taxonomies may receive patches from their issuers. When the XBRL Taxonomy Manager detects that patches are available, the following happens:

- If you use XBRL Taxonomy Manager through the Windows graphical user interface, the respective XBRL taxonomies are shown with the icon.
- If you use the command line or a Linux/macOS system, any XBRL taxonomies that have patches are listed when you run the executable with the list -u command.

**To apply a patch on Windows:**

1. Click the **Patch Selection** button. The icon of each XBRL taxonomy that qualifies changes from to , and the dialog box informs you about the patches that are to be applied, for example:
Note: The Patch Selection button is enabled only when there are patches available for any of the currently installed XBRL taxonomies.

2. Click Apply.

To apply a patch at the command line interface:

1. Run the list -u command. This lists any taxonomies where patch upgrades are available.
2. Run the upgrade command to install the patches.

For more information, see the reference to the Command Line Interface.
6.3 View Installed Taxonomies

You can view the currently installed taxonomies by using the approaches listed below, as applicable.

Graphical user interface (Windows only)
To view all installed taxonomies from a graphical user interface, run XBRL Taxonomy Manager. A selected check box next to a taxonomy (or a taxonomy version) indicates that that taxonomy is installed.

Command line interface (Windows)
To view all available taxonomies from a command line interface, run:

```
TaxonomyManager.exe list
```
To view only installed taxonomies, run:

```
TaxonomyManager.exe list -i
```
To view only taxonomies where a newer version is available, run:

```
TaxonomyManager.exe list -u
```

Command line interface (Linux, macOS)
To view all available taxonomies, run:

```
sudo ./taxonomymanager list
```
To view only installed taxonomies, run:

```
sudo ./taxonomymanager list -i
```
To view only taxonomies where a newer version is available, run:

```
sudo ./taxonomymanager list -u
```
6.4 Uninstall a Taxonomy

You can uninstall a taxonomy by using the approaches listed below, as applicable.

Graphical user interface (Windows only)
To uninstall a taxonomy:

1. Run XBRL Taxonomy Manager.
2. Clear the check box next to the taxonomies or taxonomy versions you want to uninstall. If the selected taxonomy is dependent on other taxonomy packages, a dialog box opens, informing you that the dependencies will be removed as well, for example:

   ![Package Dependencies dialog box](image)

   The following packages depend on the selected package and therefore have to be removed too:
   US GAAP 2020 - Financial reporting taxonomy provided by the US Security and Exchange Commission

3. Click **Apply** to remove the taxonomy and its dependencies.

Command line interface (Windows)
To uninstall a taxonomy, run:

```bash
TaxonomyManager.exe uninstall FILTER...
```

Where `FILTER` means one of the following:

1. A taxonomy identifier in the format `<name>-<version>`, for example: **eba-2.10, us-gaap-2020.0**. To view all the available taxonomy identifiers and versions, run the `list` command.
2. An `.altova_taxonomies` file downloaded from the Altova website.

Command line interface (Linux, macOS)
To uninstall a package, run:

```bash
sudo ./taxonomymanager uninstall FILTER...
```

Where `FILTER` means one of the following:

1. A taxonomy identifier in the format `<name>-<version>`, for example: **eba-2.10, us-gaap-2020.0**. To view all the available taxonomy identifiers and versions, run the `list` command.
2. An `.altova_taxonomies` file downloaded from the Altova website.
6.5 Command Line Interface

To call XBRL Taxonomy Manager at the command line, you need to know the path of the executable. By default, the XBRL Taxonomy Manager executable is installed at the following path:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux*</td>
<td>/opt/Altova/StyleVisionServer2022/bin/taxonomymanager</td>
</tr>
<tr>
<td>macOS*</td>
<td>/usr/local/Altova/StyleVisionServer2022/bin/taxonomymanager</td>
</tr>
<tr>
<td>Windows</td>
<td>C:\ProgramData\Altova\SharedBetweenVersions\TaxonomyManager.exe</td>
</tr>
</tbody>
</table>

* The Linux and macOS paths are applicable only if you are running XBRL Taxonomy Manager on those operating systems in conjunction with Altova cross-platform server applications such as MapForce Server, StyleVision Server, or RaptorXML+XBRL Server.

By convention, this documentation omits the full path of the executable when describing a given command, and uses `<exec>` instead of the executable name, for example:

```
<exec> help
```

Where `<exec>` is the path or name of the executable.

Calling XBRL Taxonomy Manager from the installation directory

To call the executable without having to type the full path, change the current directory to the one below:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux</td>
<td>cd /opt/Altova/StyleVisionServer2022/bin</td>
</tr>
<tr>
<td>macOS</td>
<td>cd /usr/local/Altova/StyleVisionServer2022/bin</td>
</tr>
<tr>
<td>Windows</td>
<td>cd &quot;C:\ProgramData\Altova\SharedBetweenVersions&quot;</td>
</tr>
</tbody>
</table>

You can now run a command by calling the executable with a relative path, for example:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux</td>
<td>sudo ./taxonomymanager help</td>
</tr>
<tr>
<td>macOS</td>
<td>sudo ./taxonomymanager help</td>
</tr>
<tr>
<td>Windows</td>
<td>TaxonomyManager.exe help</td>
</tr>
</tbody>
</table>

**Note:** On Linux and macOS systems, the prefix `./` indicates that the executable is in the current directory. The prefix `sudo` indicates that the command must be run with root privileges.

Calling XBRL Taxonomy Manager from any directory

To call the executable from any directory, refer to it using the absolute path. Alternatively, if you want to call the program by typing just the executable name, you can edit the PATH environment variable of your operating
system so that it includes the full path to the executable's directory. For ways to change the PATH environment variable, refer to the documentation of your operating system.

Notes:

- After changing the PATH environment variable, you may need to close the terminal window and open a new one, in order for the changes to take effect.
- On Linux and macOS, using `sudo` does not take into account the user's PATH.

Command line syntax

The general syntax for using the command line is as follows:

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

In the listing above, the vertical bar `|` separates a set of mutually exclusive items. The square brackets `[]` indicate optional items. Essentially, you can type the executable path followed by either `--h`, `--help`, or `--version` options, or by a command. Each command may have options and arguments. The list of commands is described in the following sections.

6.5.1 help

This command provides contextual help about commands pertaining to XBRL Taxonomy Manager executable.

Syntax

```
<exec> help [command]
```

Where [command] is an optional argument which specifies any valid command name.

Remarks

You can also invoke help by typing a command followed by `-h` or `--help`, for example:

```
<exec> list -h
```

You can also invoke general help by typing `-h` or `--help` directly after the executable, for example:

```
<exec> --help
```

Example

The following command displays help about the `list` command:

```
Linux, macOS ./taxonomymanager help list
```
### 6.5.2 info

This command displays detailed information for each of the taxonomies supplied as argument. The detailed information includes the title, version, description, publisher, and dependency references.

**Syntax**

```
<exec> info [options] FILTER...
```

To specify multiple taxonomies, repeat `FILTER` as many times as necessary.

**Arguments**

<table>
<thead>
<tr>
<th>FILTER</th>
<th>List only taxonomies that contain this string in their name (for example, <code>eba</code> or <code>us-gaap-2020.0</code>). You can specify this argument multiple times.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To view the full list of identifiers, run the <code>list</code> command.</td>
</tr>
</tbody>
</table>

**Options**

| --help, --h | Display help about this command at the command line. |

**Example**

The following command displays detailed information about the `eba-2.10` and `us-gaap-2020.0` taxonomies:

- **Linux, macOS**
  
  ```
  ./taxonomymanager info eba-2.10 us-gaap-2020.0
  ```

- **Windows**
  
  ```
  TaxonomyManager.exe info eba-2.10 us-gaap-2020.0
  ```

### 6.5.3 initialize

This command initializes the XBRL Taxonomy Manager environment. It creates a cache directory where information about all taxonomies is stored. Initialization is performed automatically the first time when you install an Altova application that includes supports for XBRL Taxonomy Manager, so you don't need to run this command under normal circumstances. You typically need to run this command after executing the `reset` command.

**Syntax**

```
<exec> initialize [options]
```
The alias of this command is \texttt{init}.

**Options**

| --help, --h | Display help about this command at the command line. |
| --silent, --s | Display only error messages. The default value is \texttt{false}. |
| --verbose, --v | Display more information during execution. The default value is \texttt{false}. |

### 6.5.4 install

This command installs one or more taxonomies. Note the following:

- Installing or uninstalling a taxonomy from XBRL Taxonomy Manager takes effect for all user accounts on the same computer.
- Installing or uninstalling a taxonomy from XBRL Taxonomy Manager takes effect in all Altova XBRL-enabled applications installed on the same computer.
- If the current taxonomy has dependencies on other taxonomies, the dependent taxonomies are also installed (or uninstalled, as applicable).

**Syntax**

\texttt{<exec> install [options] FILTER...}

To specify multiple taxonomies to install, repeat \texttt{FILTER} as many times as necessary.

**Arguments**

| FILTER | Where FILTER means one of the following:
|--------|---------------------------------------------------
|        | 1. A taxonomy identifier in the format \texttt{<name>-<version>}, for example: \texttt{eba-2.10, us-gaap-2020.0}. To view all the available taxonomy identifiers and versions, run the \texttt{list} command.
|        | 2. An \texttt{.altova_taxonomies} file downloaded from the Altova website.
|        | You can also use abbreviated identifiers if they are unique, for example, \texttt{eba}. If you use an abbreviated identifier, this will install the latest available version of that taxonomy. |

**Options**

| --help, --h | Display help about this command at the command line. |
| --silent, --s | Display only error messages. The default value is \texttt{false}. |
| --verbose, --v | Display more information during execution. The default value is \texttt{false}. |
Example
The following command installs the latest **eba** (European Banking Authority) and **us-gaap** (US Generally Accepted Accounting Principles) taxonomies:

<table>
<thead>
<tr>
<th>OS</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td><code>./taxonomymanager install eba us-gaap</code></td>
</tr>
<tr>
<td>Windows</td>
<td><code>TaxonomyManager.exe install eba us-gaap</code></td>
</tr>
</tbody>
</table>

### 6.5.5 list

Use this command to list taxonomies at the command line, in one of the following ways:

- list all available taxonomies
- list specific taxonomies
- list only installed taxonomies
- list only taxonomies that require upgrade.

#### Syntax

```
<exec> list [options] [FILTER...]
```

This command can be abbreviated with `ls`.

#### Arguments

<table>
<thead>
<tr>
<th>FILTER</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List only taxonomies that contain this string in their name. You can specify this argument multiple times.</td>
<td></td>
</tr>
</tbody>
</table>

#### Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>--help</code></td>
<td>Display help about this command at the command line.</td>
</tr>
<tr>
<td><code>--installed</code></td>
<td>List only installed taxonomies. The default value is <strong>false</strong>.</td>
</tr>
<tr>
<td><code>--upgradeable</code></td>
<td>List only taxonomies where patch upgrades are available. The default value is <strong>false</strong>.</td>
</tr>
</tbody>
</table>

#### Examples

To list all available taxonomies, run:

<table>
<thead>
<tr>
<th>OS</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td><code>./taxonomymanager list</code></td>
</tr>
<tr>
<td>Windows</td>
<td><code>TaxonomyManager.exe list</code></td>
</tr>
</tbody>
</table>
To list only installed taxonomies, run:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td>./taxonomymanager list -i</td>
</tr>
<tr>
<td>Windows</td>
<td>TaxonomyManager.exe list -i</td>
</tr>
</tbody>
</table>

To list all taxonomies that contain either "eba" or "us-gaap" in their name, run:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td>./taxonomymanager list eba us-gaap</td>
</tr>
<tr>
<td>Windows</td>
<td>TaxonomyManager.exe list eba us-gaap</td>
</tr>
</tbody>
</table>

## 6.5.6 reset

This command removes all installed taxonomies and the cache directory.

**Warning:** This command deletes all installed taxonomies and their information.

After running this command, make sure to run the `initialize` command, in order to recreate the cache directory. Alternatively, run the `reset` command with the `--i` option.

Note that `reset --i` restores the original installation of the product, so it's recommended to run the `update` command as well, after performing a reset. Alternatively, run the `reset` command with the `--i` and `--u` options.

**Syntax**

```
<exec> reset [options]
```

**Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--help, --h</td>
<td>Display help about this command at the command line.</td>
</tr>
<tr>
<td>--init, --i</td>
<td>Initialize the XBRL Taxonomy Manager environment after reset. Valid values are true and false. The default value is false.</td>
</tr>
<tr>
<td>--silent, --s</td>
<td>Display only error messages. The default value is false.</td>
</tr>
<tr>
<td>--update, --u</td>
<td>Initialize and update the XBRL Taxonomy Manager environment after reset. Valid values are true and false. The default value is false.</td>
</tr>
<tr>
<td>--verbose, --v</td>
<td>Display additional information during execution. The default value is false.</td>
</tr>
</tbody>
</table>

**Examples**

To reset the XBRL Taxonomy Manager, run:
6.5.7  setdeflang

This command sets the language of XBRL Taxonomy Manager.

Syntax

<exec> setdeflang language

Where language is a mandatory argument supplying the language code. The alias of this command is sdl.

Arguments

| language | The language to be set. Valid values are English (en), French (fr), German (de), Japanese (ja), and Spanish (es). |

Options

|--help, --h | Display help about this command at the command line. |

Examples

To set the language to Spanish, run:

| Linux, macOS | ./taxonomymanager setdeflang es |
| Windows      | TaxonomyManager.exe setdeflang es |

6.5.8  uninstall

This command uninstalls one or more taxonomies. By default, any taxonomies referenced by the current one are uninstalled as well. To uninstall just the current taxonomy and keep the referenced taxonomies, set the option --k.

Syntax

<exec> uninstall FILTER...

To specify multiple taxonomies, repeat FILTER as many times as necessary.
Arguments

FILTER

Where FILTER means one of the following:

1. A taxonomy identifier in the format <name>-<version>, for example: `eba-2.10, us-gaap-2020.0`. To view all the available taxonomy identifiers and versions, run the `list` command.
2. An `.altova_taxonomies` file downloaded from the Altova website.

Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>--help, --h</code></td>
<td>Display help about this command at the command line.</td>
</tr>
<tr>
<td><code>--keep-references, --k</code></td>
<td>If this option is set, then referenced taxonomies are not uninstalled. The default value is <code>false</code>.</td>
</tr>
<tr>
<td><code>--silent, --s</code></td>
<td>Display only error messages. The default value is <code>false</code>.</td>
</tr>
<tr>
<td><code>--verbose, --v</code></td>
<td>Display additional information during execution. The default value is <code>false</code>.</td>
</tr>
</tbody>
</table>

Example

The following command uninstalls the `eba-2.10` and `us-gaap-2020.0` taxonomies and their dependencies:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td><code>./taxonomymanager uninstall eba-2.10 us-gaap-2020.0</code></td>
</tr>
<tr>
<td>Windows</td>
<td><code>TaxonomyManager.exe uninstall eba-2.10 us-gaap-2020.0</code></td>
</tr>
</tbody>
</table>

6.5.9 update

This command queries the list of taxonomies available from the online storage and updates the local cache directory. The update of this information takes place implicitly and you shouldn't need to run this command unless you have performed a `reset` and `initialize`.

Syntax

```
<exec> update [options]
```

Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>--help, --h</code></td>
<td>Display help about this command at the command line.</td>
</tr>
<tr>
<td><code>--silent, --s</code></td>
<td>Display only error messages. The default value is <code>false</code>.</td>
</tr>
<tr>
<td><code>--verbose, --v</code></td>
<td>Display additional information during execution. The default value is <code>false</code>.</td>
</tr>
</tbody>
</table>
Example

The following command updates the taxonomies information explicitly.

<table>
<thead>
<tr>
<th>Platform</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux, macOS</td>
<td>./taxonomymanager update</td>
</tr>
<tr>
<td>Windows</td>
<td>TaxonomyManager.exe update</td>
</tr>
</tbody>
</table>

### 6.5.10 upgrade

This command upgrades all eligible taxonomies to the latest available patch version. In other words, it performs only upgrades at patch level of a specific release. Running this command is meaningful only if there are upgradeable taxonomies available. You can identify upgradeable taxonomies by running the `list -u` command.

**Note:** The `upgrade` command would remove a deprecated taxonomy if no newer version is available.

**Syntax**

```
<exec> upgrade [options]
```

**Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--help, --h</td>
<td>Display help about this command at the command line.</td>
</tr>
<tr>
<td>--silent, --s</td>
<td>Display only error messages. The default value is false.</td>
</tr>
<tr>
<td>--verbose, --v</td>
<td>Display additional information during execution. The default value is false.</td>
</tr>
</tbody>
</table>
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