



# Tekla Structures

## Installation Guide



Product version 21.0  
March 2015

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# 1 Tekla Structures installation

Tekla Structures installation software and environments are available for download in Tekla Downloads and on the Tekla Structures installation DVD. Before you can start using Tekla Structures, you need to install the Tekla Structures software and environments on your computer, and in addition, install and set up a Tekla Structures license server and activate your Tekla Structures license. Tekla Structures uses an activation-based licensing system called FlexNet Publisher License Management (FlexNet).

The Tekla Structures software installation file is a full main or intermediate version package. Tekla Structures environments are available as separate installation files. You need to install at least one environment. The licenses you can use and their activation IDs are listed in an entitlement certificate you receive via e-mail from Tekla.

You can install the Tekla Structures license server on the same computer as the Tekla Structures software and environments. The license server can also be installed on a separate server computer if there are many Tekla Structures users and many Tekla Structures licenses in the company.

It is also possible to install Tekla Structures across the company network as a centralized installation if there are many Tekla Structures users in the company.

- Version updates:** Version updates are published to complement a main or intermediate version of Tekla Structures. Version updates are available in Tekla Downloads. The updates contain new features, improvements and fixes to existing features.
- Service releases and progress versions** Service releases are available to all customers with a valid maintenance agreement. We recommend all users to install the latest service release.
- Progress versions are available to specific user groups. Progress versions are installed on top of a main or intermediate version, or on top of a service release.
- Borrowing licenses with License Borrow Tool** If you want to work offline and do not have the Tekla Structures license server on your computer, you can borrow an activated license from the license server using the Tekla Structures License Borrow Tool. The borrowed license is transferred from the license server to your computer. It is not available for other users during the borrowing. The installer for Tekla Structures License Borrow Tool is available in Tekla Downloads and on the Tekla Structures installation DVD.

**Multi-user server** When you have a project where many users need to work on the same model simultaneously, and your company has more than one Tekla Structures license, we recommend using the Tekla Structures multi-user server.

The Tekla Structures multi-user server installer is available in Tekla Downloads.

**Extensions** Extensions are applications that have been made using the Tekla Open API or custom components. Extensions are not part of the Tekla Structures product release. Extensions for Tekla Structures are available in Tekla Warehouse.

**Tekla User Assistance** Tekla User Assistance collects all help and support material to one place. By default, all help content is online. You can access Tekla Structures help material in Tekla User Assistance by pressing the F1 button in Tekla Structures. You can also use the help offline. Offline help installation packages are available in Tekla Downloads.

**See also** [Tekla Structures installation prerequisites on page 4](#)  
[Tekla Structures installation folders on page 5](#)  
[Installing Tekla Structures on page 8](#)

## 1.1 Tekla Structures installation prerequisites

Installing Tekla Structures requires one of the following operating systems: Windows 8.1, Windows 8, and Windows 7 SP1.

Tekla Structures is available as a 64-bit and a 32-bit version. The 64-bit Tekla Structures allows you to create and handle larger models than the 32-bit Tekla Structures. It is not possible to install both the 32-bit and 64-bit version of Tekla Structures on the same computer.

The following redistributable packages are automatically installed during the Tekla Structures software installation if they, or newer versions of the packages, do not exist on your computer. The 64-bit Tekla Structures needs both the x86 and x64 redistributables. The 32-bit Tekla Structures needs the x86 redistributables.

- Microsoft .NET 4.5.1
- Microsoft Visual C++ 2010 Redistributable (x64) 10.0.40219
- Microsoft Visual C++ 2010 Redistributable (x86) 10.0.40219
- Microsoft Visual C++ 2013 Redistributable (x64) 12.0.21005
- Microsoft Visual C++ 2013 Redistributable (x86) 12.0.21005

Recommended hardware is described in [Tekla Structures 21.0 Hardware Recommendations](#).

**See also** [Installing Tekla Structures on page 8](#)  
[Tekla Structures service releases and progress versions on page 11](#)

## 1.2 Tekla Structures installation folders

Install Tekla Structures to an empty folder to ensure you get all the files that are included in the installation package.

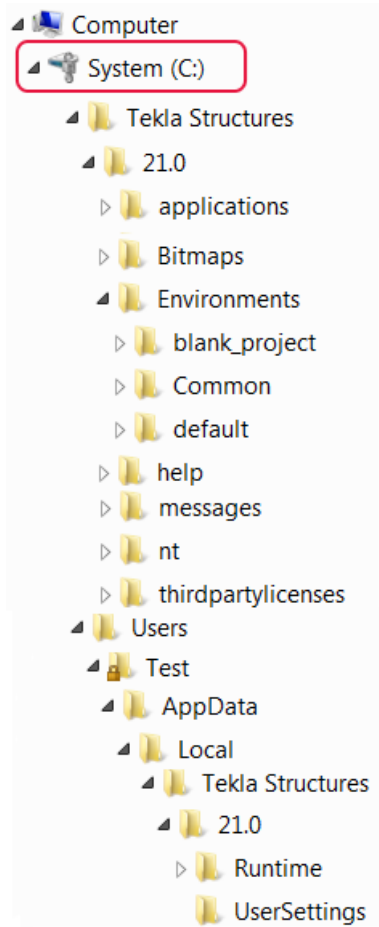
You can select the Tekla Structures software installation folder in the software installation wizard. By default, the software is installed under `\Program Files`. If you have previous Tekla Structures versions installed, the installation wizard shows the default installation location according to the latest Tekla Structures installation, for example, `C:`

`\TeklaStructures\`.

The location of the environment installation folder depends on where you have installed the software. You cannot select the installation folder for environments in the installation wizard. By default, the environments are installed under `\Program Data`. The default location is used when the software is installed under `\Program Files`.

The image below shows the default installation folder structure under `\Program Files` and `\Program Data`. User settings are stored under `\Users`.





When you have installed the software and the environments, you can check the installation paths in Windows **Control Panel**.

**See also** [Installing Tekla Structures on page 8](#)

[Tekla Structures service releases and progress versions on page 11](#)

# 2 Installing Tekla Structures

To use Tekla Structures, you need to install the Tekla Structures software and at least one Tekla Structures environment. You also need to have the Tekla Structures license server installed, either on your own computer or on another computer, and you need to activate your Tekla Structures license.



You need to be logged in with administrator rights to install the Tekla Structures software on your computer.

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To install Tekla Structures software and environments:

1. Install the Tekla Structures software.
  - a. Download the installation file from Tekla Downloads or the Tekla Structures installation DVD to your computer.
  - b. Double-click the installation file to run the installation.
  - c. Follow the steps in the installation wizard to complete the installation.

You can select the installation folder and the model folder.

2. Install the Tekla Structures environments.

Note that the location of the environment installation folder depends on where you have installed the software. You cannot select the environment installation folder in the installation wizard.

- a. Download the environment installation files from Tekla Downloads or the Tekla Structures installation DVD to your computer.

You need to install at least one environment.

- b. Double-click the installation file to run the installation.
- c. Follow the steps in the installation wizard to complete the installation.

**See also** [Tekla Structures installation prerequisites on page 4](#)  
[Tekla Structures installation folders on page 5](#)



[Adding an environment to Tekla Structures on page 9](#)

[Tekla Structures settings in Windows registry on page 9](#)

## 2.1 Adding an environment to Tekla Structures

You can add as many environments as you want to Tekla Structures. You need to have at least one environment installed to use Tekla Structures.

The latest environment installation files are in Tekla Downloads. If you are using a service release or a progress version, ensure that you have the latest environment installation file when adding an environment to the service release or progress version.

To add an environment:

1. Download the environment installation file from Tekla Downloads or the Tekla Structures installation DVD to your computer.
2. Double-click the installation file to run the installation.
3. Follow the steps in the installation wizard to complete the installation.

Note that the location of the environment installation folder depends on where you have installed the software. You cannot select the environment installation folder in the installation wizard.

**See also** [Installing Tekla Structures on page 8](#)

[Installing a Tekla Structures service release or progress version on page 11](#)

## 2.2 Tekla Structures settings in Windows registry

Windows registry is a hierarchical database that stores configuration settings and options on Microsoft Windows operating systems. Registry settings are used during a Tekla Structures session and during a Tekla Structures installation.



Do not change the registry settings. Changing the settings can cause the operating system to fail. It is possible to view the registry settings using the Registry Editor.

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**User settings** Tekla Structures user settings, for example, general options, toolbar locations, and dialog box locations and sizes are stored in the registry. The settings are saved in a registry key named after the Tekla Structures version number in the registry branch `HKEY_CURRENT_USER\Software\Tekla\Structures\<VERSION>`.

Tekla Structures uses the hardcoded default settings when opened for the first time after the installation. If you change a setting during the Tekla Structures session, for example move a toolbar, Tekla Structures saves the change during the session, or when you exit Tekla

Structures. When you open the same version of Tekla Structures again, the changed setting is used. The moved toolbar, for example, is positioned according to the changed registry value.

When upgrading to a newer Tekla Structures version, you can use the Migration Wizard tool to copy the settings you have changed.

**Installation settings** The Tekla Structures installation saves information to the following registry keys:

- `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Tekla\Structures\<VERSION>` is used in a computer that has a 64-bit operating system for both 64-bit and 32-bit Tekla Structures.
- `HKEY_LOCAL_MACHINE\SOFTWARE\Tekla\Structures\<VERSION>` is used in a computer that has a 32-bit operating system.

**See also** [Tekla Structures installation on page 3](#)

# 3 Tekla Structures service releases and progress versions

Tekla Structures service releases and progress versions are version updates that contain new features, improvements and fixes to existing features. To use a service release or a progress version, you must have the related main or intermediate version of Tekla Structures installed. The service release and progress version installation package includes only the changed files.

You can install any service release or progress version on top of the related main or intermediate version. You can also install a progress version on top of a service release. If you install a progress version on top of a service release, the progress version must be newer than the service release, or a version that was released at the same time as the service release.

You do not need to install all the service releases or progress versions of a certain version. For example, you can install an SR2 version on top of a main or intermediate version without having to install SR1. Note that you cannot install an older service release on top of a newer service release, for example, SR1 on top of SR2.

You need to install the latest environments to ensure that the environments work correctly in the service release or progress version. We recommend that you update all the environments you are using.

**See also** [Installing a Tekla Structures service release or progress version on page 11](#)

[Installing an earlier Tekla Structures service release or progress version on page 12](#)

## 3.1 Installing a Tekla Structures service release or progress version

To install a Tekla Structures service release or progress version:

1. Ensure that you have the latest related main or intermediate version of Tekla Structures installed. If you do not have it, you must install it first.
2. Download the service release or progress version software installation file from Tekla Downloads to your computer.
  - a. Double-click the installation file to run the installation.

- b. Follow the steps in the installation wizard to complete the installation.  
You cannot select the installation folder in the installation wizard.
3. Download the needed environment installation files from Tekla Downloads to your computer.  
You do not need to remove any environments. Installing a newer version of an environment automatically upgrades the older version of that environment.
  - a. Double-click the installation file to run the installation.
  - b. Follow the steps in the installation wizard to complete the installation.

**See also** [Tekla Structures service releases and progress versions on page 11](#)  
[Installing Tekla Structures on page 8](#)

## 3.2 Installing an earlier Tekla Structures service release or progress version

We recommend that you use the latest Tekla Structures service release or progress version. In certain situations, you may need to take an earlier Tekla Structures service release or progress version into use even though you are already using a newer service release or progress version.

To install an earlier Tekla Structures service release or progress version:

1. Uninstall the service release or progress version software you are now using in Windows **Control Panel**.
2. Uninstall the related main or intermediate version software in Windows **Control Panel**.
3. Uninstall the related environments in Windows **Control Panel**.
4. Download the software installation file of the main or intermediate version from Tekla Downloads or the Tekla Structures installation DVD.
  - a. Double-click the installation file to run the installation.
  - b. Follow the steps in the installation wizard to complete the installation.  
You can select the installation folder and the model folder.
5. Download the software installation file of the service release or progress version from Tekla Downloads.
  - a. Double-click the installation file to run the installation.
  - b. Follow the steps in the installation wizard to complete the installation.  
You cannot select the installation folder in the installation wizard.

6. Download the environment installation files related to the service release or progress version that you have installed.

The latest environments are in Tekla Downloads. You need to install at least one environment.

- a. Double-click the installation file to run the installation.
- b. Follow the steps in the installation wizard to complete the installation.

**See also** [Tekla Structures service releases and progress versions on page 11](#)  
[Tekla Structures installation folders on page 5](#)

# 4 Tekla Structures upgrade to a new version

You can have many Tekla Structures versions on your computer. When you install and start using a new main or intermediate version, you do not need to uninstall the older versions. Note however, that you can have only one service release or progress version related to a certain Tekla Structures version on your computer.



We recommend that you complete any models you are already working on using your current version of Tekla Structures. Once you save a model in the new version, you cannot open it in the previous versions anymore.

In the new Tekla Structures version, you can use the information you have customized in the previous version. We strongly recommend that you create project and firm folders, and store the files you customize in these folders. Tekla Structures does not replace the files in project and firm folders when you install a new version. If you do not use project and firm folders, you need to transfer the customized information to the new version manually.

You can use the Migration Wizard tool to copy some of the personal settings to the new version. Migration Wizard opens automatically when you start a new Tekla Structures version for the first time.

Migration Wizard shows the version number from which the settings are copied and the version number to which the settings are copied. You can select which settings are copied, for example, the `user.ini` file and registry settings, such as toolbar locations, dialog box sizes and locations, and general options.

You can skip the copying if you do not want to copy the settings, or if you want to copy the settings from some other Tekla Structures version than suggested in Migration Wizard.

**See also** [Copying personal settings to a new Tekla Structures version on page 14](#)

[Transferring customized information to a new Tekla Structures version on page 15](#)

## 4.1 Copying personal settings to a new Tekla Structures version

You can copy your personal settings from an older Tekla Structures version to a newer Tekla Structures version using the Migration Wizard tool. Migration Wizard opens automatically when you start a new version of Tekla Structures for the first time.

To copy personal settings in Migration Wizard:

1. Start the new Tekla Structures version.
2. In Migration Wizard, click **Next** to start copying the settings.
3. Select the settings you want to copy and click **Next**.

You can copy user settings and registry settings.

4. Check that you have selected the correct settings.
5. Click **Copy**.



If you want to copy the settings later, you can start Migration Wizard manually by double-clicking the `MigrationWizard.exe` in the `..\Tekla Structures \<version>\nt\bin\applications\tekla\Migrations` folder. You can select the version from which the settings are copied and the version to which the settings are copied.

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See also [Tekla Structures upgrade to a new version on page 14](#)

## 4.2 Transferring customized information to a new Tekla Structures version

You can transfer customized information from a previous Tekla Structures version to the new Tekla Structures version. You can copy some information automatically to the new version using the Migration Wizard tool, for example, the user menus, toolbars and shortcuts you have created.

To transfer customized information to the new Tekla Structures version:

1. If you have used project and firm folders to store customized files, go to **Tools --> Options --> Advanced Options...** and check that the `XS_FIRM` and `XS_PROJECT` advanced options point to the folders where the customized files are located.
2. If you have not used project and firm folders to store customized files, you need to transfer the customized files manually to the new Tekla Structures version to use the information. Check at least the following:
  - Advanced options
  - Files related to templates, reports and drawings

- Catalogs: Profile Catalog, Material Catalog, Bolt Catalog, Bolt Assembly Catalog, Reinforcing Bar Shape Catalog
- Conversion files
- NC export settings
- Printer catalog settings
- User-defined attributes
- Saved model object properties

**See also** [Tekla Structures upgrade to a new version on page 14](#)

[Copying personal settings to a new Tekla Structures version on page 14](#)



# 5 Uninstalling Tekla Structures

To uninstall the Tekla Structures software:

1. Uninstall the Tekla Structures software in Windows **Control Panel**.
2. If needed, delete the additional files or extensions related to Tekla Structures manually from the installation folders.

**See also** [Tekla Structures installation folders on page 5](#)

[Uninstalling Tekla Structures environments on page 18](#)

# 6 Uninstalling Tekla Structures environments

To uninstall the Tekla Structures environments:

- Go to Windows **Control Panel** and uninstall the environments.

After you have uninstalled an environment, it is not shown in the Tekla Structures login dialog box anymore.

**See also** [Uninstalling Tekla Structures on page 17](#)  
[Tekla Structures installation folders on page 5](#)

# 7 Installing Tekla Structures multi-user server as a service

The Tekla Structures multi-user server installer installs the multi-user server as a service. When you have installed the server, the service is always available and it is automatically started when the server computer is started. There is no need to log in and no need to start the server manually every time you start your computer. Tekla Structures multi-user server allows many users to work on the same model simultaneously.

We recommend that you use the latest multi-user server version available regardless of the Tekla Structures version that you use.

To install Tekla Structures multi-user server as a service:

1. Download the multi-user server software installation file from Tekla Downloads.
2. Double-click the installation file to run the installation.
3. Follow the steps in the installation wizard to complete the installation.

The server is by default installed to:

- `c:\Program Files\Tekla Structures Multiuser Server in a 32-bit operating system`
- `c:\Program Files (x86)\Tekla Structures Multiuser Server in a 64-bit operating system`

You cannot change the installation path during the installation.

The multi-user server uses TCP/IP port 1238.

The installation log is written to the `xs_server.log` file that is available in:

- `c:\Documents and Settings\All Users\Application Data\TeklaStructuresServer` in the Windows Server 2003 operating system
- `c:\ProgramData\TeklaStructuresServer` in all other operating systems that Tekla Structures multi-user server supports

See also [Tekla Structures installation on page 3](#)

# 8 Centralized installation of Tekla Structures

Installing Tekla Structures across the company network saves time when there are many Tekla Structures users in the company.

Centralized installation allows you to run the Tekla Structures installation silently in the background so that the users do not see the installation wizard dialog boxes. For more information, see [Centralized distribution of Tekla Structures 21.0](#) .

**See also** [Tekla Structures installation on page 3](#)

# 9 Disclaimer

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