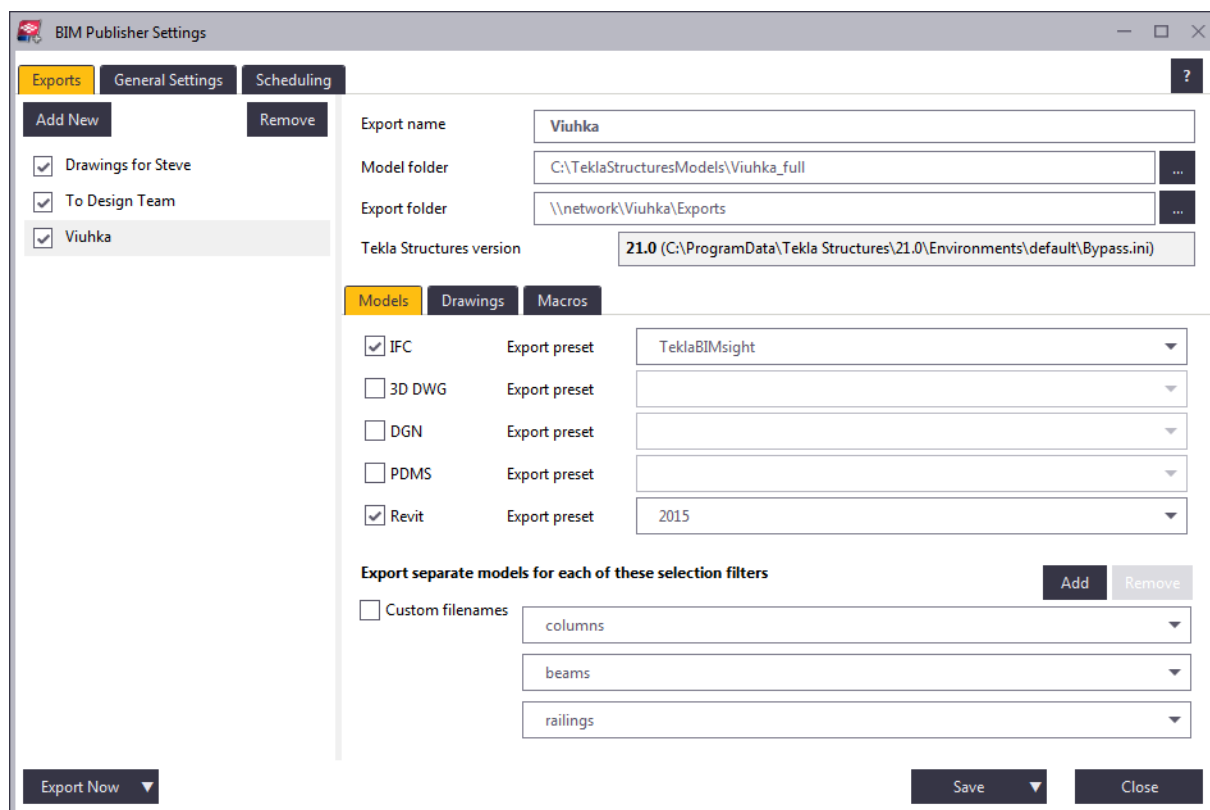


BIM Publisher

Save time by automating your exports.



The screenshot shows the 'BIM Publisher Settings' dialog box with the 'Exports' tab selected. The left sidebar contains a list of export configurations: 'Drawings for Steve', 'To Design Team', and 'Viuhka' (which is selected). The main area displays the settings for the 'Viuhka' export, including the export name, model folder, export folder, and Tekla Structures version. Below this, the 'Models' tab is active, showing a list of export presets for IFC, 3D DWG, DGN, PDMS, and Revit. The 'Revit' preset is selected, and the 'Export preset' dropdown is set to '2015'. At the bottom, there is a section for 'Export separate models for each of these selection filters' with a list of filters: 'columns', 'beams', and 'railings'.

BIM Publisher Settings

Exports | General Settings | Scheduling

Add New | **Remove**

- ☒ Drawings for Steve
- ☒ To Design Team
- ☒ **Viuhka**

Export name: Viuhka

Model folder: C:\TeklaStructuresModels\Viuhka_full

Export folder: \\network\Viuhka\Exports

Tekla Structures version: 21.0 (C:\ProgramData\Tekla Structures\21.0\Environments\default\Bypass.ini)

Models | Drawings | Macros

- ☒ IFC | Export preset: TeklaBIMsight
- ☐ 3D DWG | Export preset:
- ☐ DGN | Export preset:
- ☐ PDMS | Export preset:
- ☒ Revit | Export preset: 2015

Export separate models for each of these selection filters

- ☐ Custom filenames
 - columns
 - beams
 - railings

Export Now | **Save** | **Close**

1. Purpose and description

The BIM Publisher performs a batch export of multiple models and their drawings in a variety of formats. Add as many models you need, choose which filters to use and export them with any installed Tekla Structures version. You can do this automatically during the night so that everyone in the team will have fresh models in the morning.

For example, you can create a selection filter in Tekla Structures based off an UDA and then set up this tool to publish these parts as an IFC model to a network folder every Friday.

Available formats are IFC, 3D DWG, DGN, Unitechnik, BVBS, CIS/2 Analysis, CIS/2 Design, Revit*, Aveva E3D*, Smart3D (8.7 or newer for TS 2019i+)*, PDMS* and CPIxml* for models, and PDF, DWG and DXF for drawings.

** Available once the corresponding exporting extensions are installed from Tekla Warehouse.*

2. System requirements

Tekla Structures configuration:	Any
Environments:	Any

3. Installation and launch

To install and launch the extension:

1. Run the installer.
2. Launch 'BIM Publisher Settings' from your start menu

Note: There are two main executables in the install folder: 'BIMPublisher.Settings.exe' which lets you set up the exports and 'BIMPublisher.exe' which is the actual exporter.

4. Basic Usage

Set up the exports with the 'BIM Publisher Settings' application. From this interface you can then start the exports directly or schedule them to run later.

When creating exports, the BIM Publisher combines information from several places. The settings interface automatically detects available export presets and filters based on the chosen model, the Tekla Structures version and the environment (which is defined in the chosen startup dialog bypass file). Any additions or modifications to the presets and filters should be done from within the appropriate dialogs in Tekla Structures, and if needed you must edit the Tekla Structures startup dialog bypass files manually as well.

5. Set up bypass files for automatic Tekla Structures launch

The first time you use the BIM Publisher you need to open the '**General Settings**' tab and set up the bypass file paths for the Tekla Structures versions you wish to use. The version combo box is populated with the installed Tekla Structures versions that are found in registry.

Enabled Tekla Structures versions and Bypass.ini paths

Add

Remove

2017 ▼	C:\ProgramData\Tekla Structures\2017\Environments\default\Bypass.ini	...
2016i ▼	C:\ProgramData\Tekla Structures\2016i\Environments\default\Bypass.ini	...
2016 ▼	C:\ProgramData\Tekla Structures\2016\Environments\default\Bypass.ini	...

The bypass files define the environment, role and license that will be used when Tekla Structures launches.

In order to modify the bypass.ini files you need to open them in a text editor. The settings XS_DEFAULT_ENVIRONMENT, XS_DEFAULT_ROLE and XS_DEFAULT_LICENSE (if there are several available) must be set or uncommented in each file.

In the BIM Publisher Settings dialog, you can have several rows with the same Tekla Structures version and different bypass files.

[Advanced] You can also specify the user or company ini file to use on startup by adding the switch -i followed by the .ini path to the bypass file path. So the syntax is [BYPASS INI PATH] -i [USER/COMPANY INI PATH].

6. Set up what to export

On the 'Exports' tab you set up exports. Add a new export with the 'Add New' button on the left hand side.

Export name	<input type="text" value="Trimble Office"/>	
Model folder	<input type="text" value="C:\TeklaStructuresModels\Tekla House"/>	...
Export folder	<input type="text" value="C:\TeklaStructuresModels\Tekla House\Exports"/>	...
Tekla Structures version	<input type="text" value="2017 (C:\ProgramData\Tekla Structures\2017)"/>	

Models

Drawings

Macros

<input checked="" type="checkbox"/> IFC	Export preset	<input type="text" value="TeklaStructures"/>
<input type="checkbox"/> 3D DWG	Export preset	<input type="text"/>
<input checked="" type="checkbox"/> Aveva	Export preset	<input type="text"/>
<input type="checkbox"/> DGN	Export preset	<input type="text"/>
<input type="checkbox"/> Revit	Export preset	<input type="text"/>

Export separate models for each of these selection filter combinations

☐ Custom filenames

AddRemove

Floor - 1

Floor - 2

Floor - 3

Then, for each export define

- **Export name.** Any name for the export.
- **Model folder.** The Tekla Structures model to export. The same model can appear in several exports.

- **Export folder.** The folder in which the exported files will appear. This folder gets created if it doesn't exist.
- **Tekla Structures Version.** The Tekla Structures version and bypass file to use for this export. Only the versions that are defined on the 'General Settings' tab will appear in the list.
- **Model exports:**
 - **Enabled model export formats** and a preset for each enabled format. Presets can be added or edited in the corresponding export dialog in Tekla Structures. You can change what formats are visible here on the 'General Settings' tab.
 - **Object filters.** These are the selection filters defined in Tekla Structures. For each filter row, a new model with only the objects matching the filter will be exported, in each of the enabled export formats. You can select a filter from the filter name drop-down.
 - i. You can add multiple filters on the same row by hovering an already inserted filter name and clicking the 'add' button that appears. Using multiple filters will export the objects that matches any or all of the filters. Toggle between any and all by clicking the orange box between the filter names. The box shows 'and' (match both) or 'or' (match any).
 - ii. You can use filters from any folder on your computer by adding the folder to the '**Additional filter folders**' text field on the 'General Settings' tab. Use this to show e.g. the filters in your FIRM folder, which aren't available otherwise. The filters found in the folders will show up first in the filter selection drop-downs.
 - iii. If the filter or filter combination doesn't match any objects in the model, nothing will get exported.
 - **Custom output filenames** (if desired). If you click the 'Custom filenames' check box you can override the default filenames of the exported files. Text boxes will appear that let you modify the filenames. You can use certain tags that will get converted during export, for example, if you type "[modelName]" the string will get converted to the name of the model in the exported file (e.g. "New model 1"). Whenever you click a text box the tags are available for insertion from a popup dialog.
- **Drawing exports:**
 - **Drawing export folder.** Leave this field empty to use the same folder as for models.

- **Enabled drawing export formats** and a preset for each enabled format. Since DWG and DXF presets cannot be created in Tekla Structures, new presets can be added and edited by clicking the 'Edit DWG/DXF presets...' button. PDF export will use the currently saved settings for that model unless you specify the path to another preset file.
- **Drawing filters.** For each filter, set the drawing type(s) to be exported and, if desired, a subfolder to export to. By default all drawings of the selected type(s) will be exported. If needed you can filter drawings based on report property or UDA values. Whenever you edit a property name in the table you get a list of pre-defined properties to use, but other properties can be entered as well (UDA names must be prefixed with "USERDEFINED."). The property values can contain wildcards ('*' or '?').
- **Macros:**
 - Here you can define macros that will be executed before or after an export. This opens up a lot of possibilities, e.g. set the work plane before export or do a model sharing read in. You can enter the name of a macro that's found in the macros folder (i.e. the ones that are visible inside Tekla Structures) or enter an absolute path to any macro file (*.cs) on the drive.

The export preset and filter combo boxes will automatically be populated with the available values based on the picked model, the Tekla Structures version and the bypass file. Note that you can type a custom value into the preset and filter combo boxes if your desired value is not found but you are sure it will be present when the export is triggered.

In the list of exports you can uncheck exports you don't want to run when the export is triggered.

7. Only export if the model has been updated

On the 'General Settings' tab, there's an option that can be checked to only do exports for which the model or the export settings have been updated.

8. Set up scheduling

On the 'Scheduling' tab you can enable scheduling and set up times and weekdays when the export will be triggered. The schedule is applied when you save the settings.

The scheduler requires the user to be logged in when the export is triggered.

If more flexibility is needed you can add the BIM Publisher executable path (visible on the scheduling tab as well) to e.g. Windows Task Scheduler and set up the scheduling there. This might also be needed if you are going to run the exports from a server or if you wish to use an external export settings file (see next section).

9. Starting the exports

In the settings dialog, hit 'Save' to save your settings. These settings will now be used in all future exports. In the 'Save' drop down menu you can export to or import settings from a file if needed.

If you'd like to execute the export immediately you can hit 'Export Now'. Otherwise exports will be triggered as defined on the 'Scheduling' tab, or triggered by an external scheduler (see previous section).

[Advanced] The exporter executable is called 'BIMPublisher.exe'. When exporting, there is an option to override the current settings file and use any exported settings file by giving the file path as an argument when launching the exporter; e.g. BIMPublisher.exe C:\PathToFolder\MySettings.xml.

10. When the BIM Publisher runs

When the BIM Publisher is triggered it opens a window that shows the current status. First the export settings are read in. Exports are then grouped by Tekla Structures version and Model to improve performance. The BIM Publisher will launch the needed Tekla Structures versions one at a time and execute the exports. A log in the BIM Publisher dialog will show which stage the export process currently is at. These logs are saved to the file system and the log folder can be accessed from the user interfaces if needed.