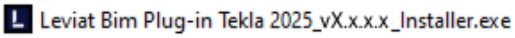
TEKLA Leviat BIM Plugin instructions

Plugin Version : 4.x
for TEKLA 2023 / TEKLA 2024 / TEKLA 2025

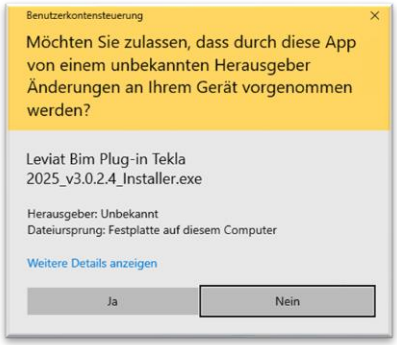
How to install the Plugin – Admin rights required

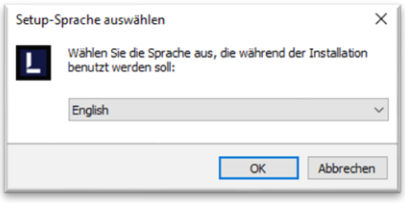
Note: The previous Leviat BIM Plugin version needs to be uninstalled to avoid unexpected behaviours!

To start the installation, double-click on the installation file. Here the example for version 4.x.x.x.. Higher versions might be slightly different.

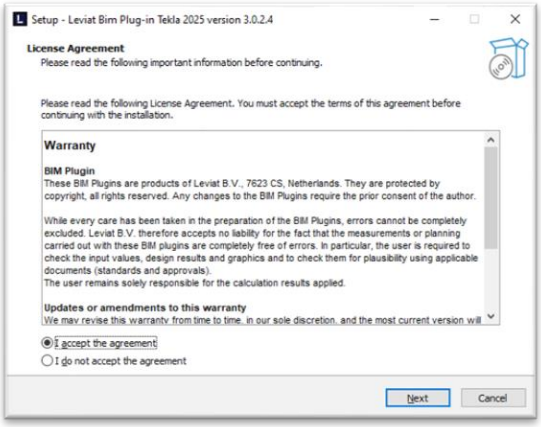


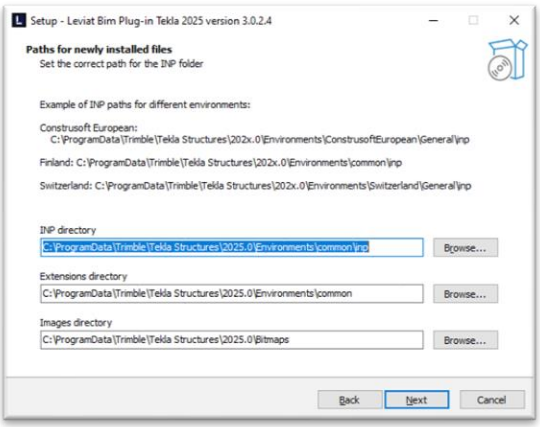
A pop-up window for administrative rights will appear. Once you have done so, select the language for the installation process in the following window.

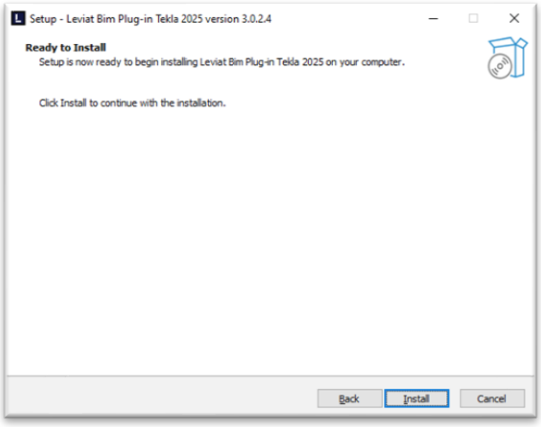


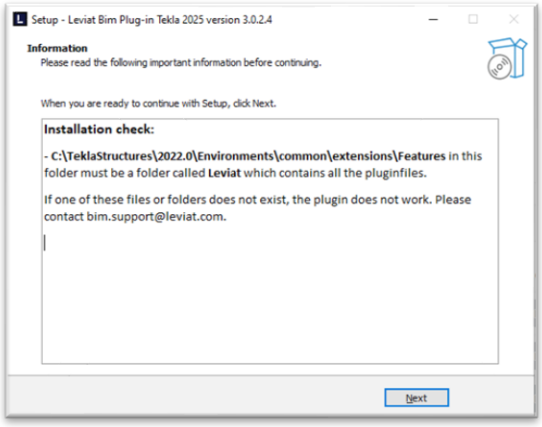


Follow the next steps by clicking “Next” and “Install”.

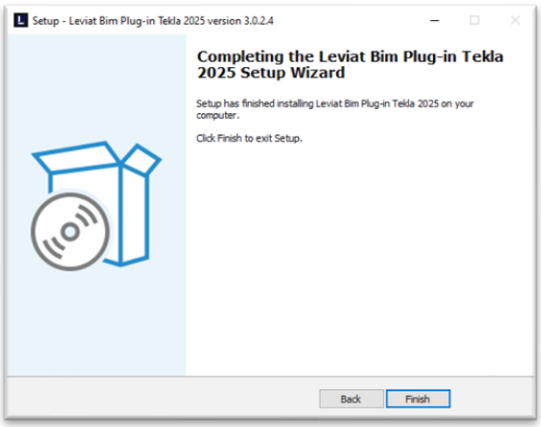








Everything will be installed correctly once you press “Finish” in the last window.



First steps – Plugin project environment settings

Before doing anything, the user should configure their preferred environment, under the SETTINGS tab (accessible via the settings icon).

The user can select the PLUGIN LANGUAGE as well as the COUNTRY in which the project is being designed.

Get started with the Plugin

Once installed, the Leviat BIM Plugin for Tekla can be found in the "L" tab of the side panel.

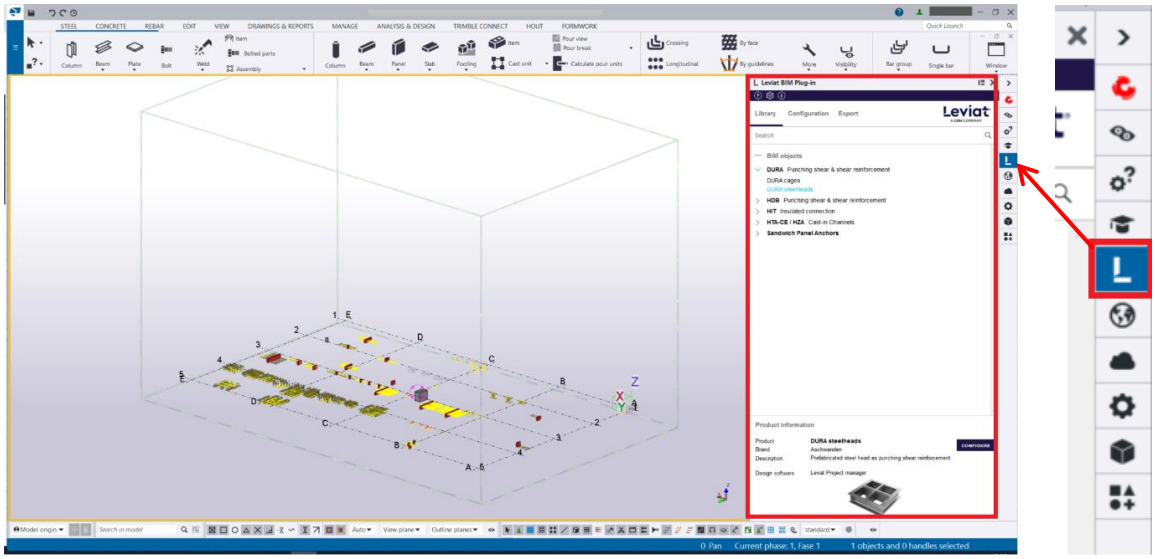


Figure 1 – Leviat BIM Plugin in the side panel in Tekla

There are 3 main tabs in the plugin: LIBRARY, where the user can browse the range of products integrated in the plugin; CONFIGURATION, where the user can configure the types within the selected product; and EXPORT, where the user can export Leviat BIM objects in lists.

There are 3 additional tabs: HELP, where the user can check basic instructions on how to work with the plugin and create a bug report; SETTINGS, where the user can change the project environment; INFO, where the user can check additional information about the plugin, such as the current version, warranty information and privacy policy.

Figure 2 – Main plugin view

The SETTINGS TAB allows the user to configure the preferred project environment.

The user can select the PLUGIN LANGUAGE as well as the COUNTRY in which the project is designed.

Note: The selected COUNTRY (LANGUAGE) affects the product range, product data and bill of material. This language will be applied to the attributes of the BIM objects.

In the DEFAULT FOLDERS, the user can set the folder to which the lists will be exported. This folder can be changed by clicking on it.

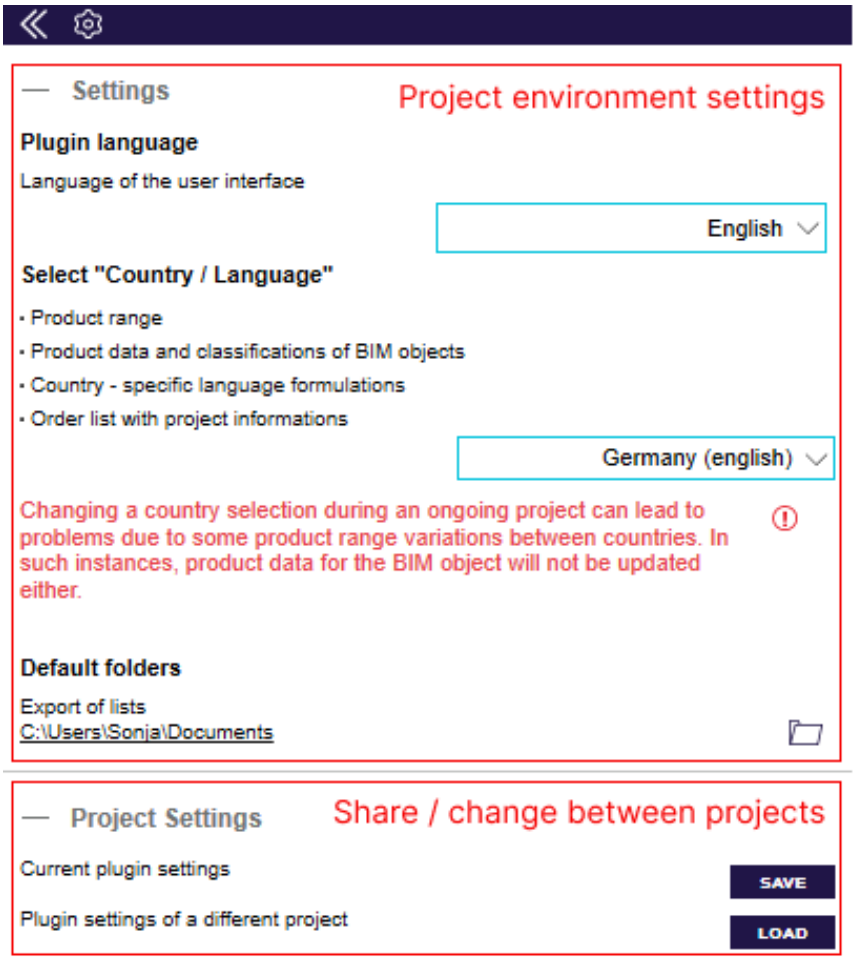


Figure 3 – Settings tab

The PROJECT SETTINGS allow the user to save/load the settings. This allows you to move between projects or share settings.

Saved are the project environment settings.

Configuring a product

The CONFIGURATION tab opens when a product is selected from the LIBRARY. This can be done either by double clicking on the product in the Library or by pressing the CONFIGURE button at the bottom of the LIBRARY tab.

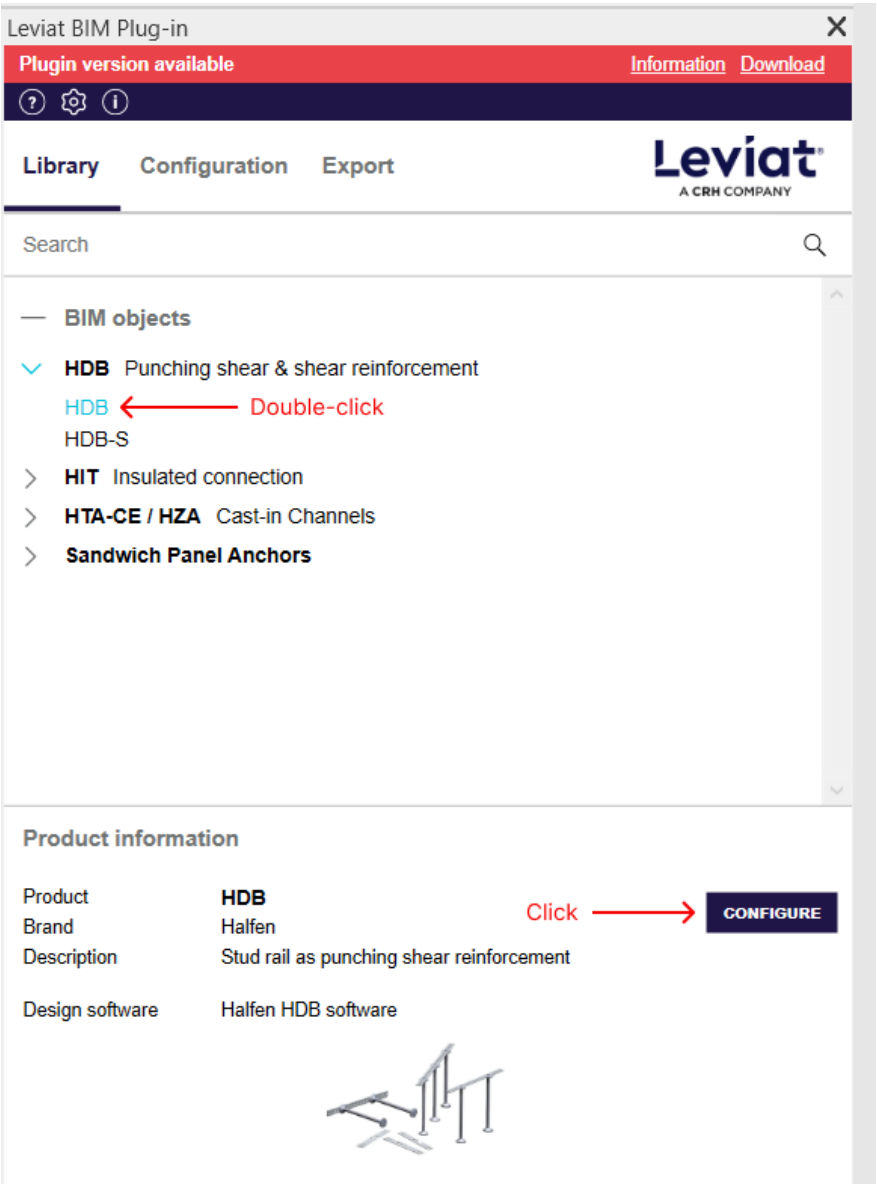


Figure 4 – Selecting a product to configure

In the CONFIGURATION tab, the user can configure the product to obtain the desired type from the database.

The user has 2 possibilities to select a product type:

1. Copy a product code directly into the PRODUCT CODE text box and press ENTER.

   Note: Any code can be inserted within a product. The product configuration is correct, although the fields of the product selection might not be adapted correctly. For some products as **DURA steelheads** only this option is available.

2. In the product selection area, select the desired values for each available property, depending on the product. Once all the properties have a value, the product code will be filled in automatically.

To get back all options for a value already set, select DELETE SELECTION from the pull-down menu.

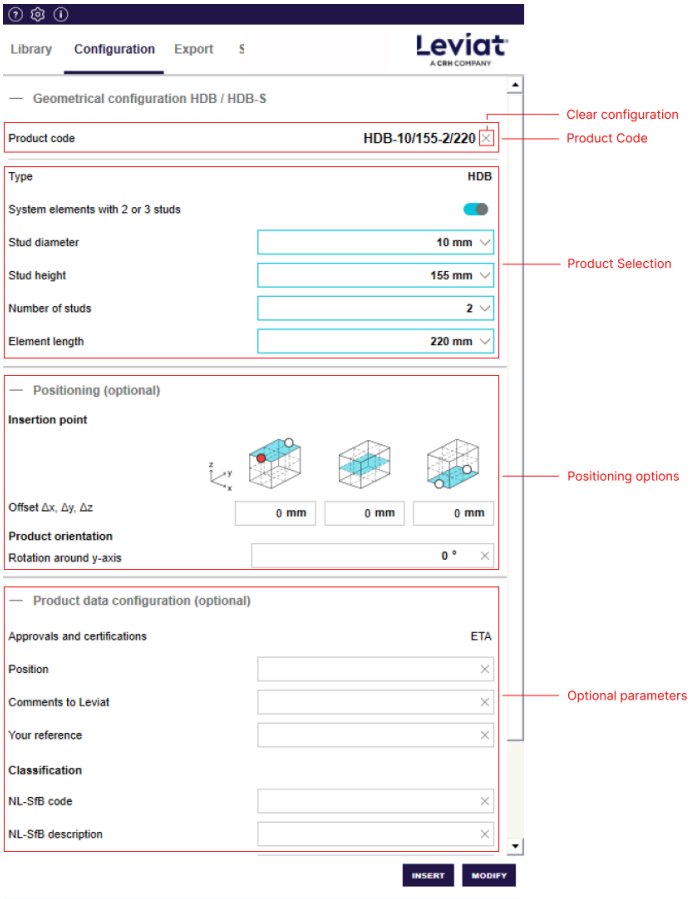


Figure 5 – Configuration tab

The user can also add custom parameter values under the PRODUCT DATA CONFIGURATION section. These are optional parameters. Note: These attributes should also only be modified using the Plugin.

To change a defined configuration of the same product, click on the cross of CLEAR CONFIGURATION.

Insert a product

Options

To insert an object into the model, the user must press the INSERT button. The MODIFY button will change the currently selected object to the configured one. If nothing is selected in the model, the user will receive a pop-up warning that no object is selected.

There are additional optional parameters that the user can choose from before inserting a product, under the “Positioning (optional)” part. The options are: insertion point position, offset (x, y and z directions) and product orientation (“Rotation around y-axis”).

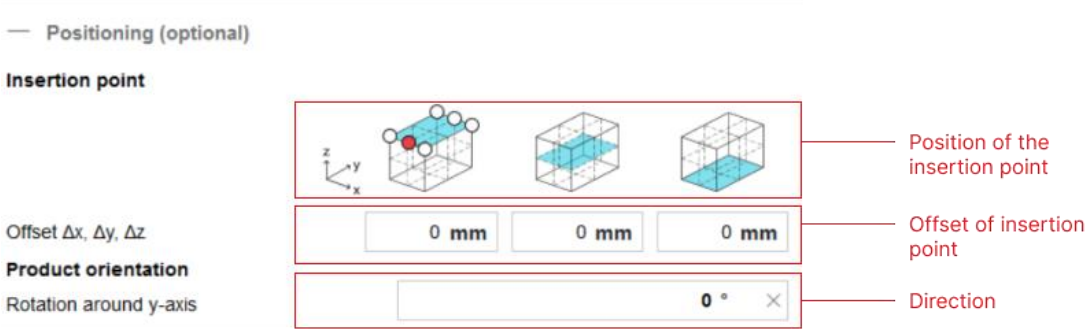


Figure 6 – Additional positioning options

The INSERTION POINT defines the position of the object that will be its origin at the moment the object is placed in the model. The possible insertion points are shown as a white circle in the 3 figures representing each plane of the product (top, middle or bottom). It is highlighted in red once a product has been configured. Depending on the product, there are different ways to modify it.

OFFSET moves the object in x, y or z direction according to its origin/insertion point. Negative values are allowed. This function allows pre-casters to place products easily e.g. placing an object with a concrete cover.

ROTATION AROUND Y-AXIS allows the user to rotate the object in its ZX plane, i.e. perpendicular to the length of the product. You can enter any value in degrees and the object will be rotated on insertion.

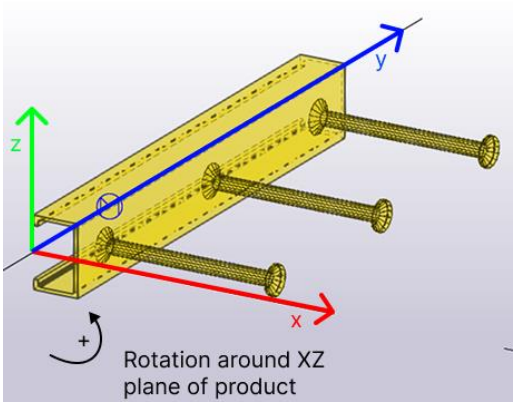


Figure 7 – Example of a 90 degrees rotation on insertion

2-point placement (new in 4.x)

From version 4.x the Leviat BIM Plugin allows for the positioning of a BIM object by using 2 points – the 1st defines its origin, and the 2nd defines the direction along the object's length.

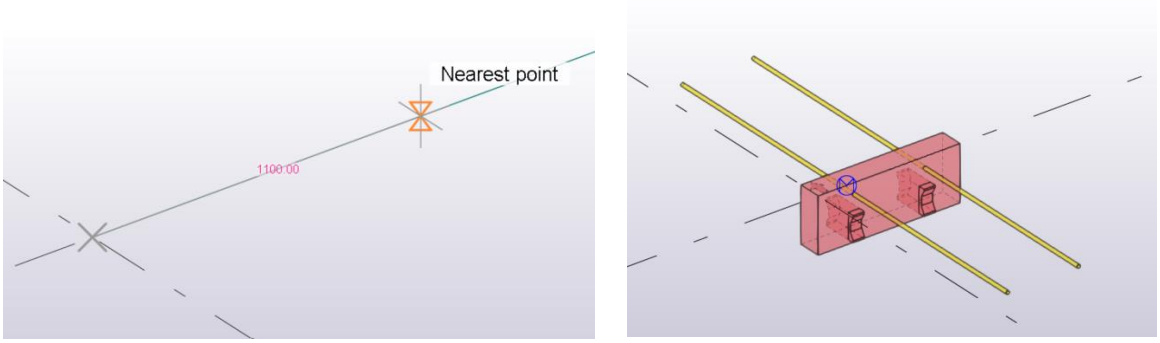


Figure 8 – 2-point placement in Tekla

1-point/ same point placement

The Leviat BIM Plugin version 3.0.0.1 already allowed a BIM object to be placed by selecting a single point in the model. In the new version, the user cannot insert an object by selecting only one point in the model. However, selecting the same point twice will insert the object with the default direction.

Create an object export list in Excel

The EXPORT tab allows the user to export the list of the selected Leviat objects in the model to Excel. The Excel templates vary according to the selected project environment.

Note: All the “Leviat” BIM objects currently present in the **Leviat Tekla Warehouse** can also be exported using our plugin. To achieve the best results, use “Select Assemblies” selection mode to export. Other selection modes might generate unexpected behaviours.

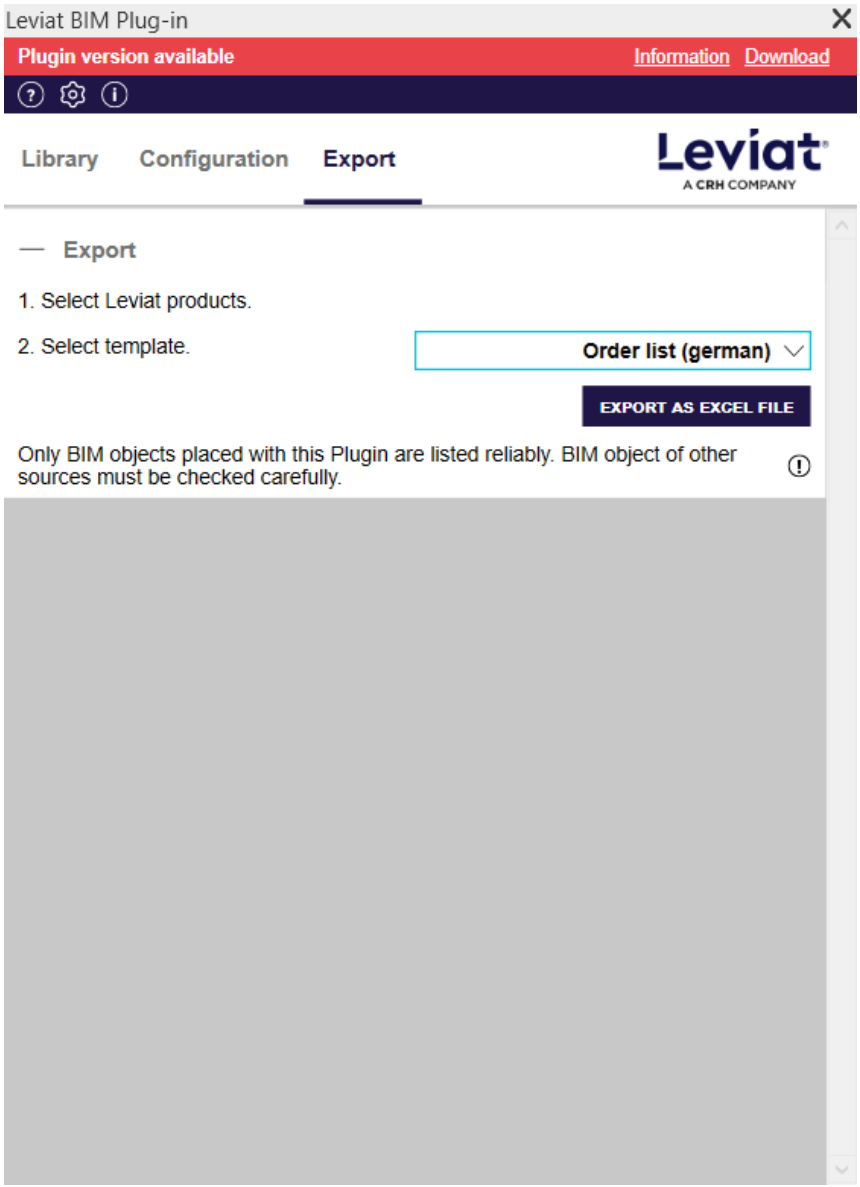


Figure 9 – Export tab

Note on Part/Material report creation

To avoid issues, **attribute "Name" must be used for filtering.** All Leviat BIM object's name correspond to the Product Code.

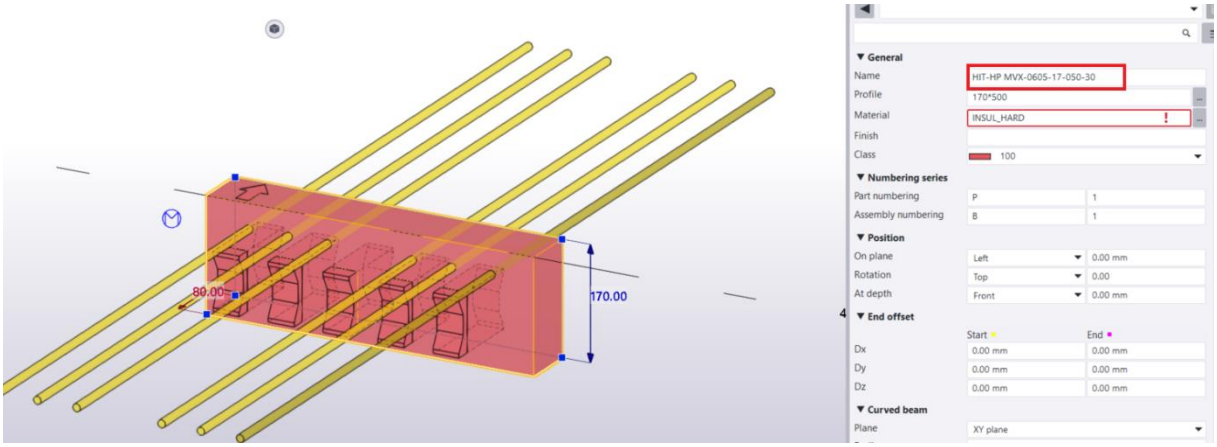


Figure 10 – "Name" attribute as product code

There are two ways of filtering in Tekla: the "View Filter" and the "Selection Filter". The user can check here how to use these filters in Tekla.

Recommended view settings

You can configure the View Display settings by double-clicking on an empty space of the project. You'll then see the "View Properties". Then, click "Display" to get the Display properties.

Please make sure you configure the View Display settings as in the following image.

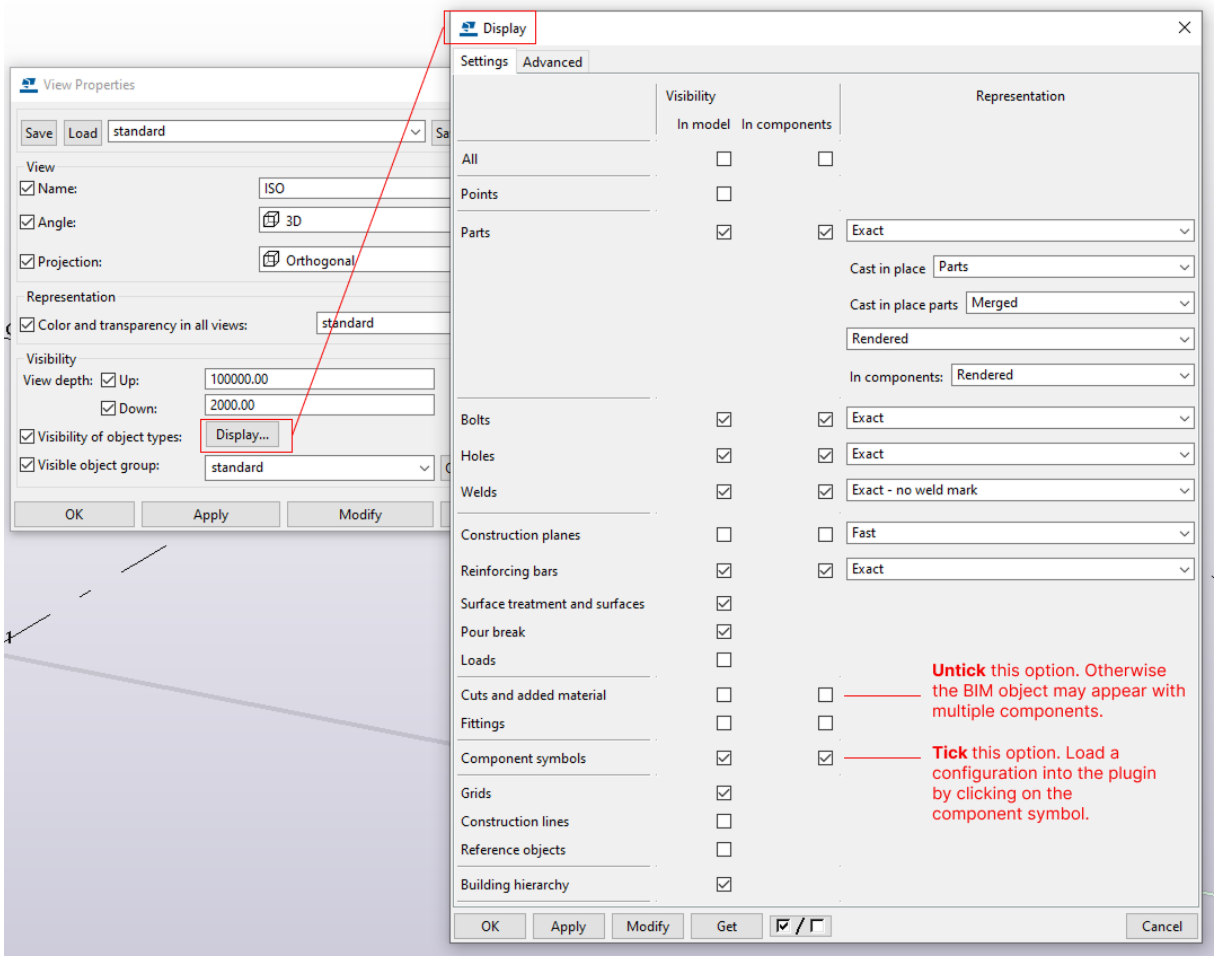


Figure 11 – Display settings

Advanced installation options

Adjust the path for locally stored plugin data

This may be necessary if the plugin interrupts the update process at plugin startup. Adjust then the path for locally stored plugin data. You will need permissions to write and delete data in the selected folder.
Note: OneDrive or other folders that require you to close a pop-up when deleting or performing similar actions may cause problems or fail to update later.

Open the Registry editor on your PC. You might need to contact your IT Administrator for that action.

1. Open the following folder: Computer\HKEY_CURRENT_USER\SOFTWARE\Pro Engineers\Leviat\BIM-Plugin
2. Right click on “AppDataPath” and select “Change”.
3. Change the path to a folder where you have the rights to read and write data.

Figure 12 – Paths in Registry

Customized parameter mapping

If you are interested to map product data to another parameter or add values, please contact bim.support@leviat.com.

Silent installation

If you are interested in a silent installation option, please contact bim.support@leviat.com.

Note about Tekla Environments & Leviat INP file

The Leviat INP “objects_leviat.inp” file creates a “Leviat” tab in the user-defined attributes menu with all the Leviat database attributes mapped to the selected BIM object (Figure 13).

Depending on the environment selected for Tekla, the INP files are read from different folders. The Leviat BIM Plugin installation file (.exe) provided by Leviat should be enough to install the Leviat INP file in the correct folder.

However, the INP file is provided together with the installation ZIP file so the user can manually copy it to the correct folder where Tekla is reading it, in case the “Leviat” tab is not visible.

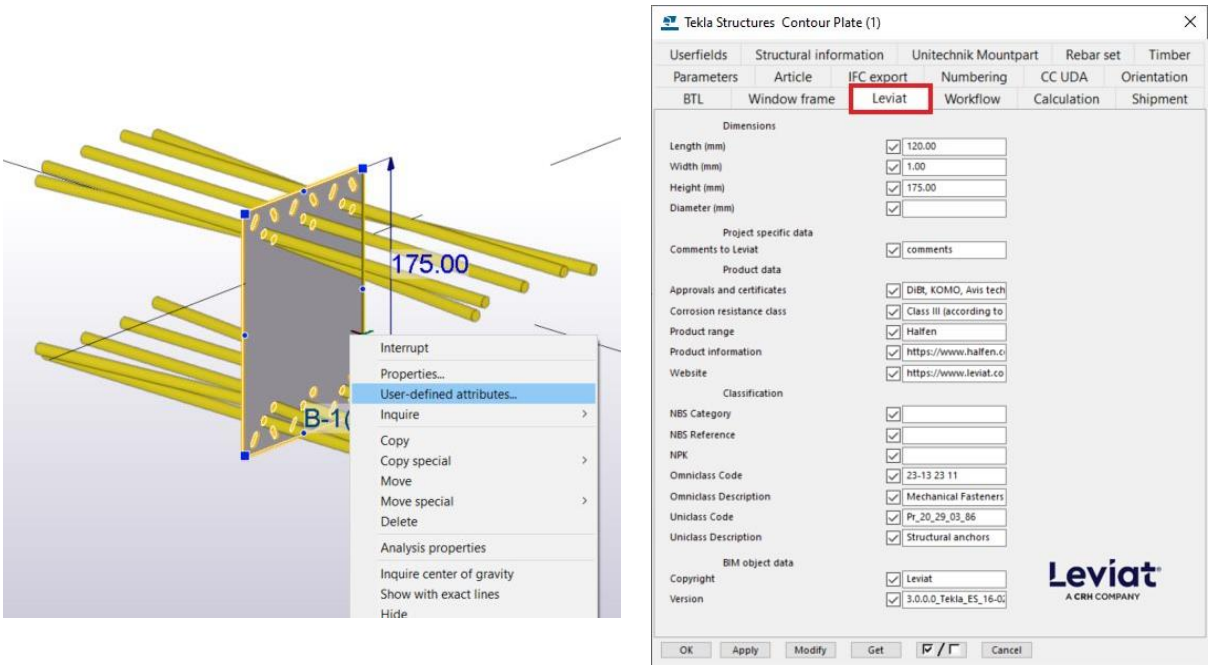


Figure 13 – Leviat tab for BIM object attributes

Here are some examples of the default INP folders according to the environment:

- **Default environment**

  C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\common\inp
- **Construsoft European environment**

  C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\ConstrusoftEuropean\General\inp
- **Finland environment**

  C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\common\inp
- **Switzerland environment**

  C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\Switzerland\General\inp

Note: If the user has installed Tekla under C:\TeklaStructures, the paths above would be slightly different.

Errors / warnings

Plugin update failed

If you want to open the Plugin and get this error message, follow these instructions: Adjust the path for locally stored plugin data.

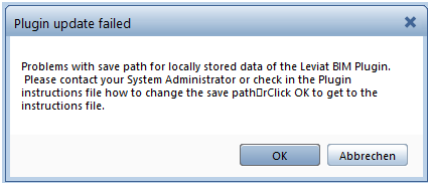


Figure 14 – Error while starting up plugin

Then, restart TEKLA.