

ALLPLAN Leviat BIM Plugin instructions

Plugin version: 4.x
for Allplan 2023 / Allplan 2024 / Allplan 2025

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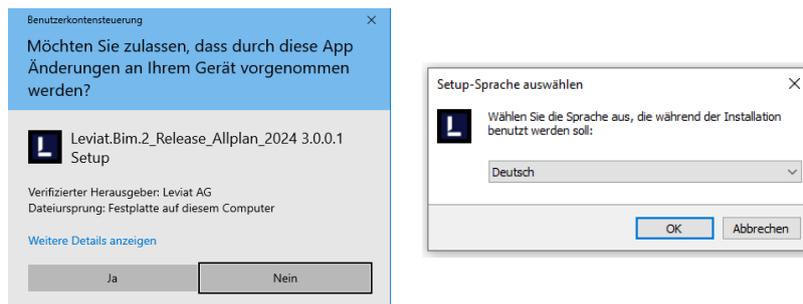
How to install the Plugin - Admin rights required

Note: The previous Leviat BIM Plugin versions need to be uninstalled to avoid unexpected behaviors!

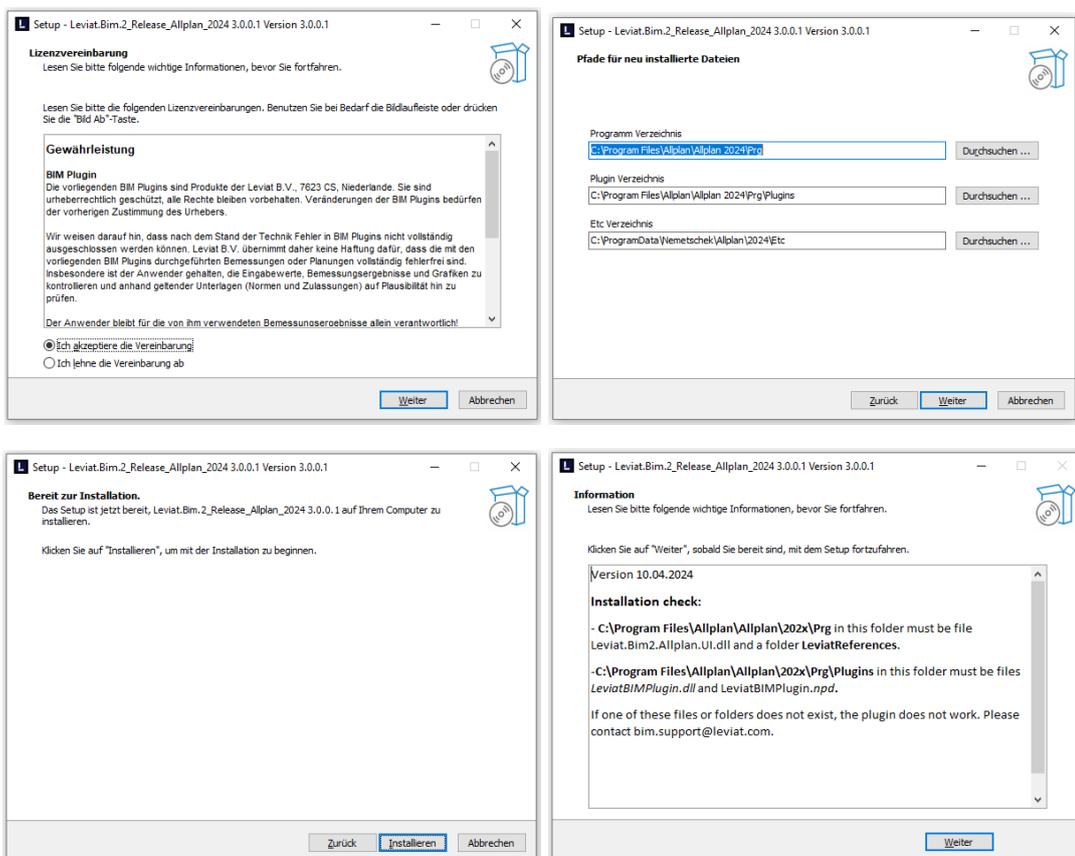
To start the installation, double-click on the installation file. Here the example for version 3.x.x.x.. For higher versions there might be small differences.

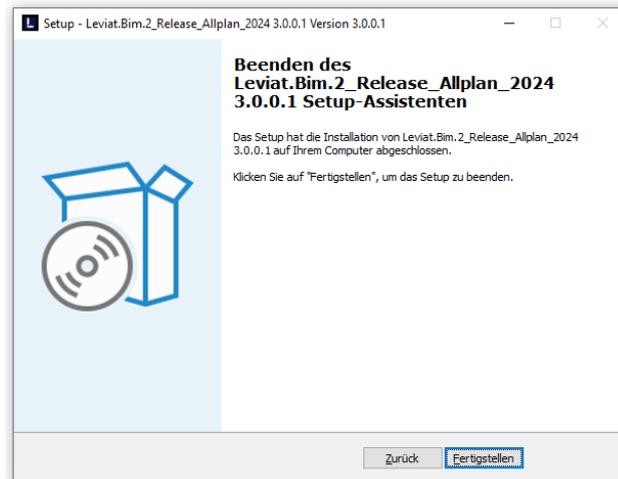
 **Leviat.Bim.2_Release_Allplan_2024_v3.0.0.1_Installer.exe**

A pop-up will appear asking for administrative rights. 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 when you click "Finish" in the last window.





Getting started with the Plugin

The Leviat BIM Plugin can be found in the ENGINEERING and PRECAST module (as in the previous version).



Figure 1 – Leviat BIM Plugin in the Engineering or Precast module



Figure 2 – Plugin within the Leviat menu

The plugin is opened in the side panel.

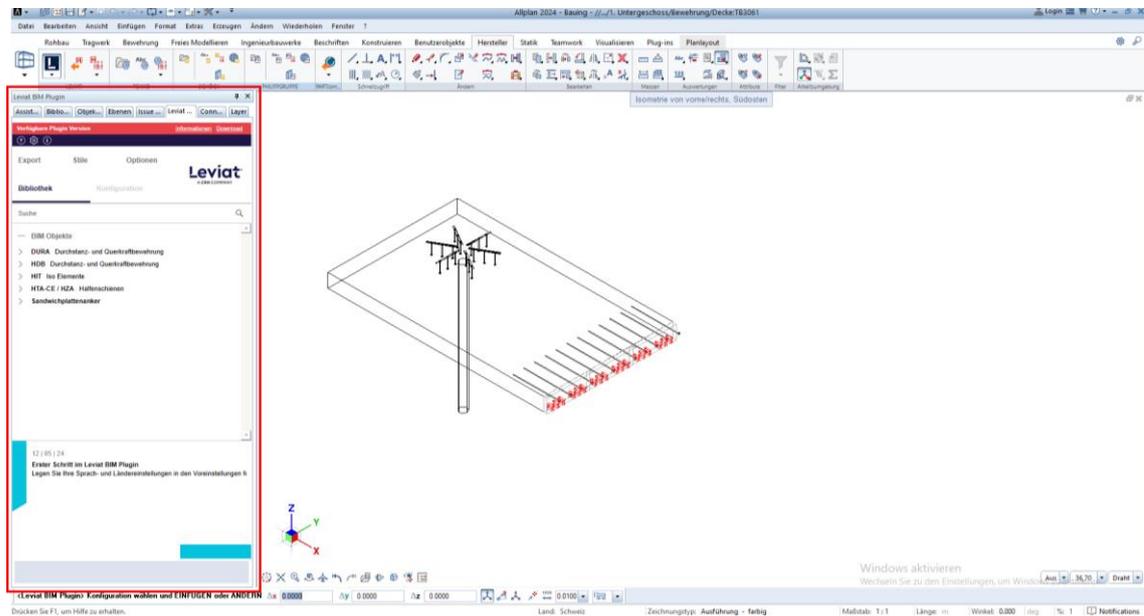


Figure 3 – BIM Plugin visible in the side panel

Navigating in the Plugin

There are 5 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 of a selected product.
- EXPORT, where the user can export Leviat BIM objects in lists.
- STYLES, where the user can define graphical representation using Allplan functions.
- OPTIONS, where the user can set the “Einbauteilkatalog”-reference for the precast module and link different Level of Geometry (LOG) to specific scales.

There are 3 additional tabs:

- HELP, where the user can check the basic instructions on how to work with the plugin and can 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 data protection policy.

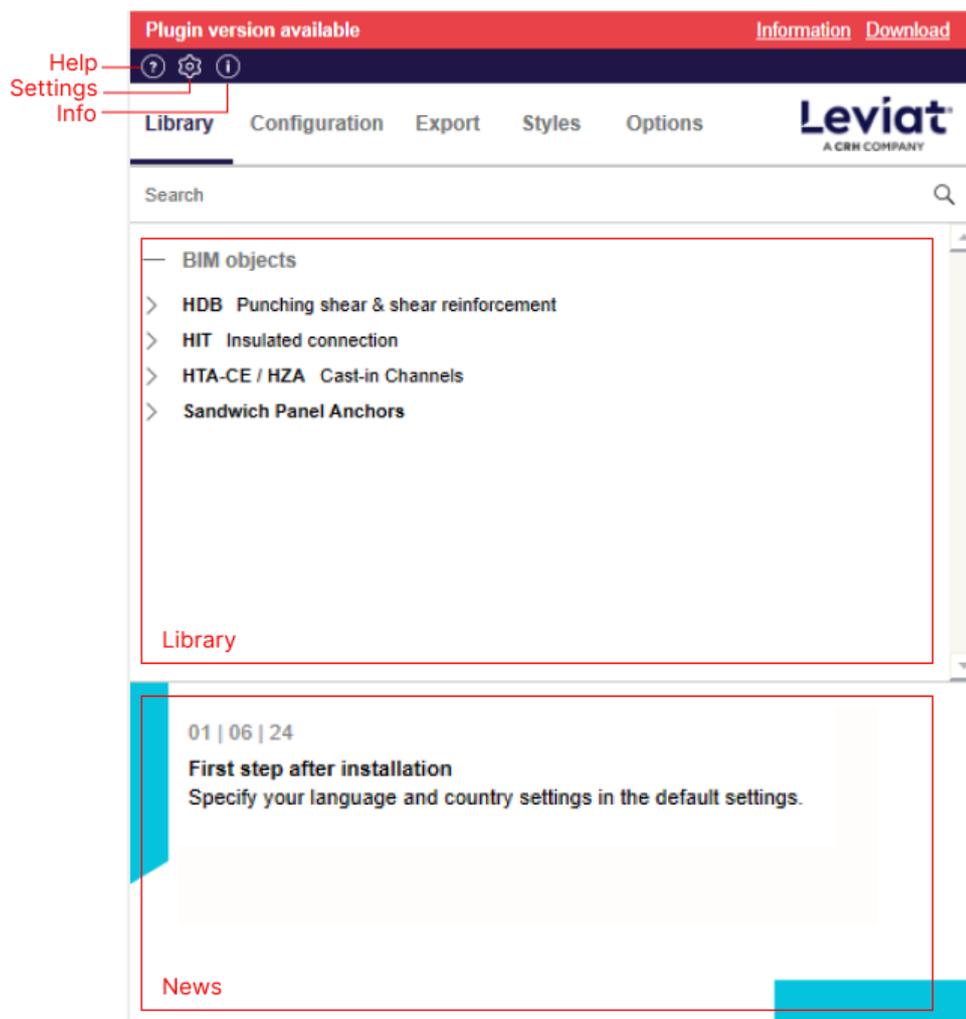


Figure 4 – Main plugin view

First steps – Plugin project environment settings

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 being 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 the path. It can be opened by clicking on top of the folder symbol.

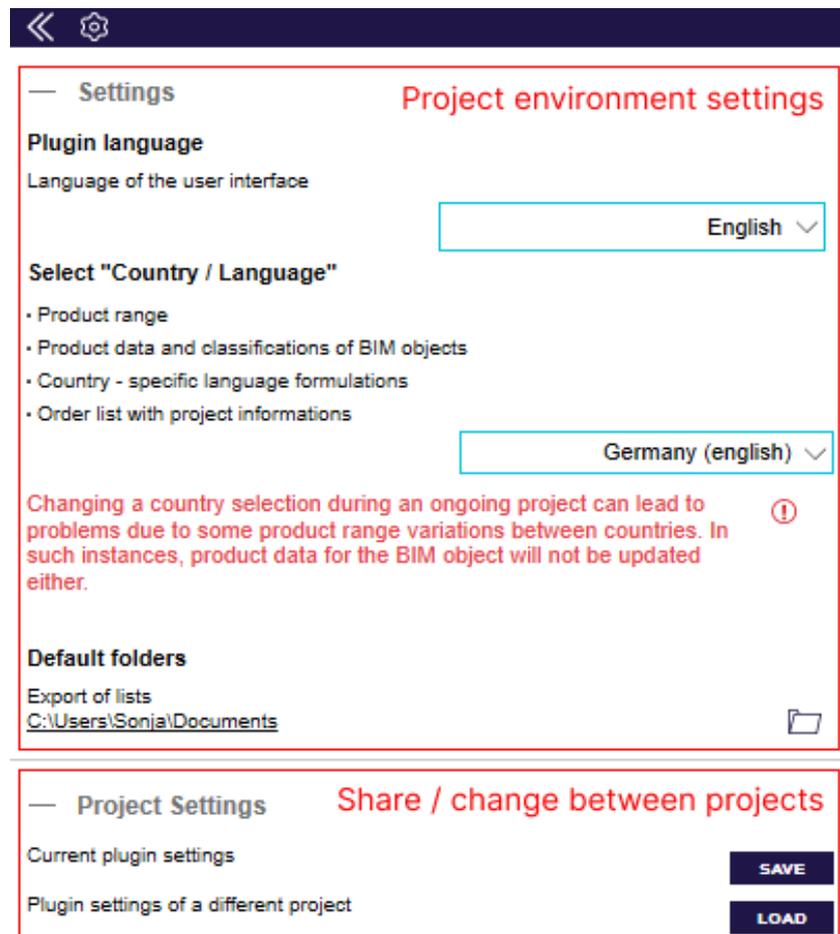


Figure 5 – Settings tab

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, STYLES and OPTIONS.

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.

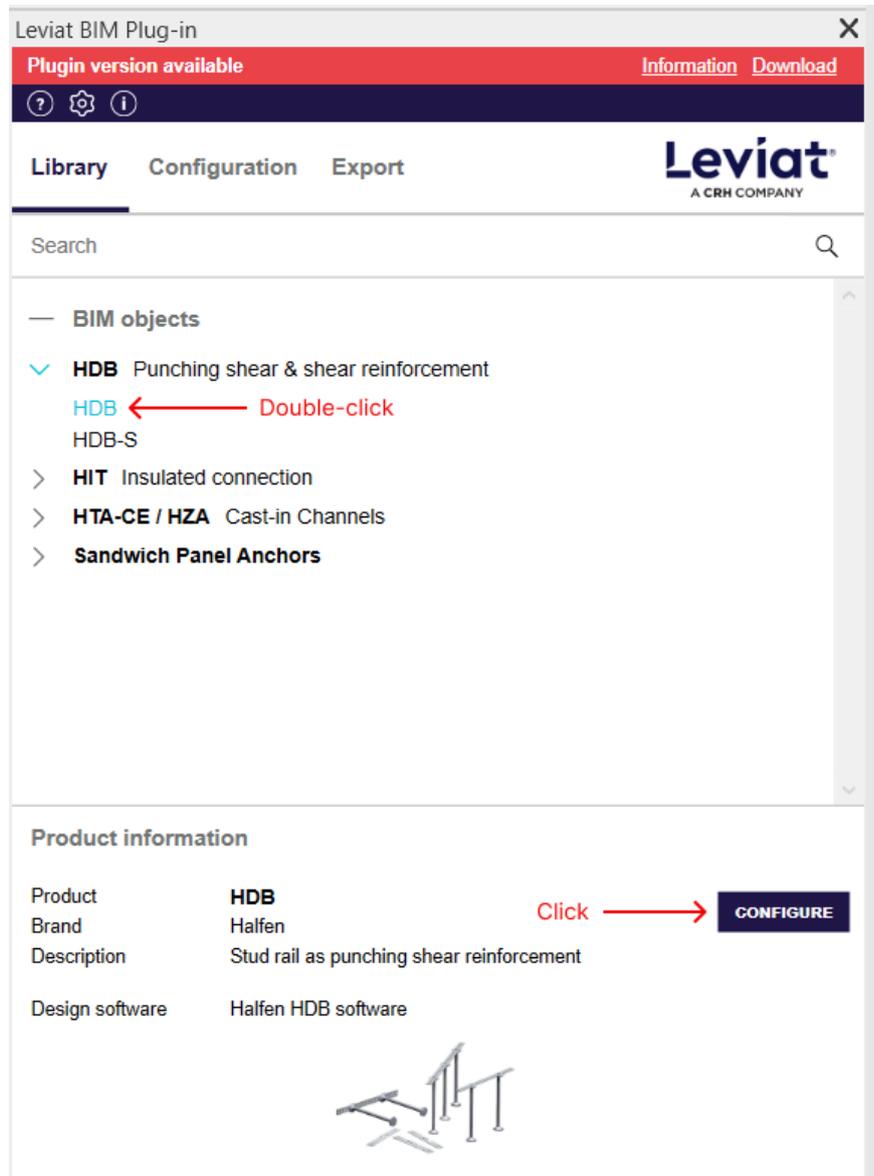


Figure 6 – Selecting a product to configure

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

The user has 2 ways to select a product type:

1. Copy a product code directly into the PRODUCT CODE text box and press ENTER.
For some products such as **DURA Steelheads** only this option is available.

Any code can be inserted within a product. The product configuration will be correct, although the product selection fields may not be adjusted correctly.

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 is automatically filled in.

The screenshot shows the 'Configuration' tab in the Leviat software. The main title is 'Geometrical configuration HDB / HDB-S'. The 'Product code' field contains 'HDB-10/155-2/220'. Below this, the 'Type' is set to 'HDB'. The 'System elements with 2 or 3 studs' option is checked. The 'Product Selection' section includes dropdown menus for 'Stud diameter' (10 mm), 'Stud height' (155 mm), 'Number of studs' (2), and 'Element length' (220 mm). The 'Positioning (optional)' section features 'Insertion point' visualizations and 'Offset Δx, Δy, Δz' (all 0 mm) fields. The 'Product data configuration (optional)' section includes 'Approvals and certifications' (ETA), 'Position', 'Comments to Leviat', 'Your reference', 'Classification', 'NL-SIB code', and 'NL-SIB description' fields. Red annotations on the right side of the image point to specific features: 'Clear configuration' (cross icon), 'Product Code' (text box), 'Product Selection' (dropdowns), 'Positioning options' (3D models), 'Optional parameters' (ETA field), and three specific annotations for the 'Your reference' field: '@1412 wird in Excel Export und Report übernommen', 'Für Sonderwünsche: @1216 wird in Excel Export und Report übernommen', and 'Für die ERP Nummer: @307'. At the bottom, there are 'INSERT' and 'MODIFY' buttons.

Figure 7 – 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.

Delete a configuration or individual values

Click or double-click on the cross of DELETE CONFIGURATION (see Figure 8) to generate a new configuration of the same product.

Select DELETE SELECTION from the pull-down menu to get back all options for an already defined value,

Note: If there are dependencies between different properties, you may need to DELETE the entire CONFIGURATION.

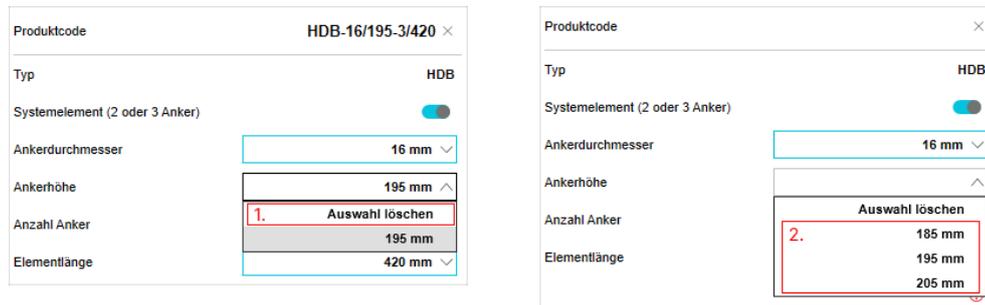


Figure 8 – Changing a single value of a configuration

Options for inserting a product

To insert an object into the model, the user must press the INSERT button in the CONFIGURATION tab.

Insert with direct rotation and/or linear placement

- Press the INSERT button.
- Hold down the CTRL key on the keyboard and place the object by clicking the left mouse button.
- Define the rotation with a second click.

Note: If the second click is further away, several objects will be placed in a line.

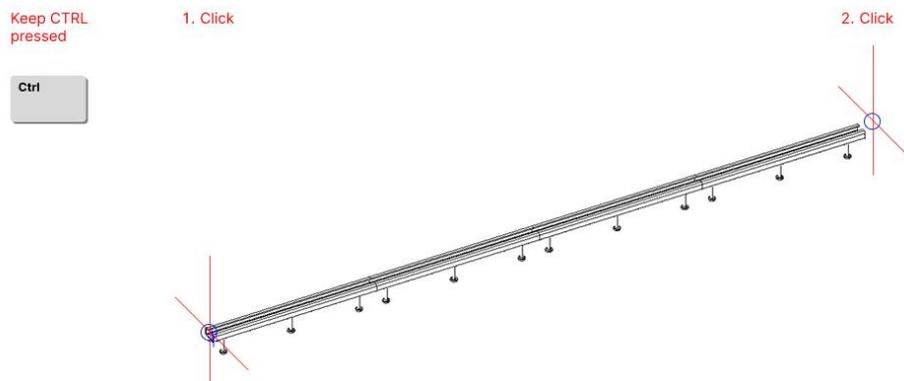


Figure 9 – Insert while pressing CTRL-key

Positioning

There are additional optional parameters that the user can choose from before inserting a product, under the “Positioning (optional)” part.

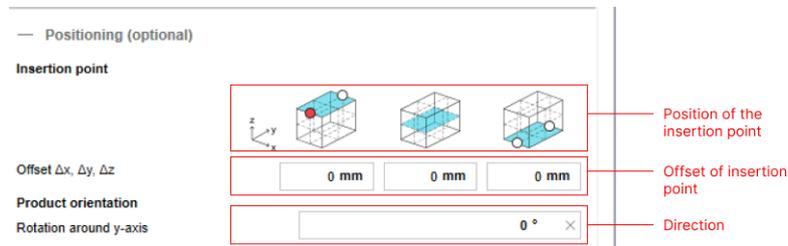


Figure 10 – Positioning options

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 you have different options for changing it.

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

ROTATION AROUND Y-AXIS rotates the product at any angle. It can help pre-casters to place all products in the opposite direction by rotating a product by 180°.

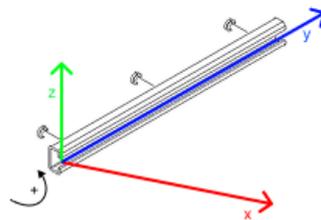


Figure 11 – Rotation around y-Axis – Example with 90°

Setting STYLES

The STYLES and OPTIONS tabs are only active before inserting a product.

Note: Changes will be applied to all products inserted afterwards! Objects already placed will not be affected by changes.

Styles settings are stored locally on your PC. Set them once according to your standards.

The screenshot shows the 'Configuration' dialog box with the 'Styles' tab selected. The 'Leviat A CRH COMPANY' logo is in the top right. Below the tabs, there are two sections: 'Box or bounding box of lower LOG' and 'Steel'. Each section contains the following settings:

- Layer:** STANDARD (dropdown)
- Color:** 1 (dropdown) with a 'By layer' checkbox.
- Pen:** 0.13 (dropdown) with a 'By layer' checkbox.
- Line type:** 1 (dropdown) with a 'By layer' checkbox.
- Face:** 1 undefiniert (dropdown)
- Select texture:** No texture selected (text) with a 'Select' button.

Figure 12 – Edit in Plugin

Setting OPTIONS (Catalogue reference / LOG to scales)

Note: Changes will be applied to all products inserted afterwards! Objects already placed will not be affected by changes.

Option settings are stored locally on your PC. Set them once according to your standards.

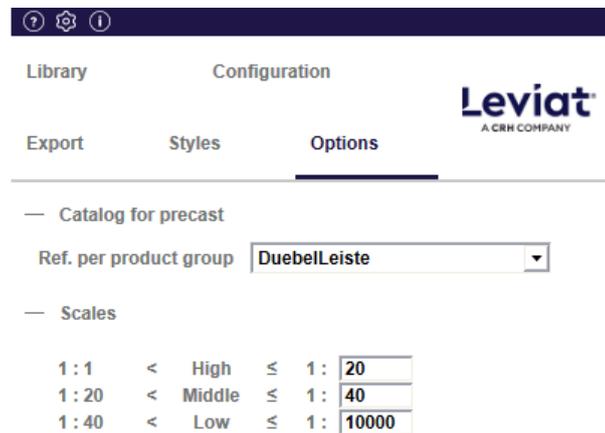


Figure 13 – Options

Catalogue references for precast

The reference can be set for each product group.

LOG to scales

2 or 3 different levels of geometry (LOG) are defined for each Leviat product. Here you can link them to a specific scale.

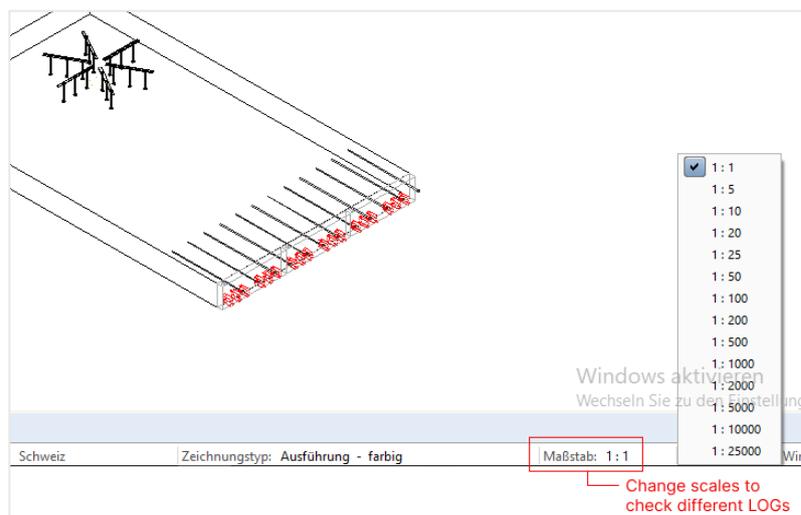


Figure 14 – ALLPLAN scales

Open the Plugin in edit mode

Allplan allows the user to edit objects using the “Edit” mode. To use it, there are two options.

Open the Plugin from Leviat menu bar



Figure 15 – Menu bar in ENGINEERING and PRECAST module

Open plugin from context menu

1. Hover over a Leviat product and click with the RIGHT BUTTON of the mouse for the context menu. Select EDIT IN LEVIAT BIM PLUGIN. The Leviat BIM Plugin opens and the CONFIGURATION tab displays the selected product type and its attributes.

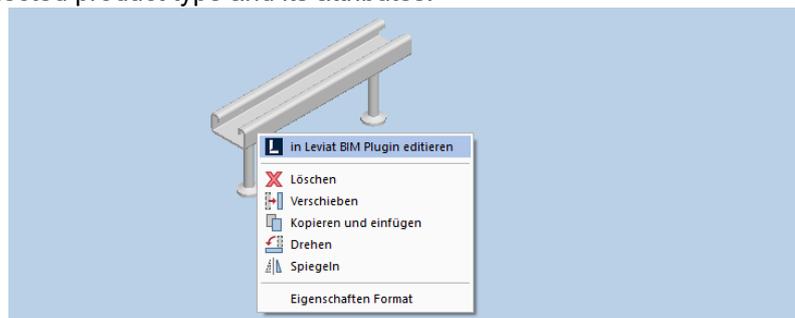


Figure 16 – Edit in Plugin

2. Change the configuration.
3. Press the MODIFY button and the selected object will be modified. Make another selection and the changes will be applied.

Checking Leviat product attributes

Note: These attributes should also only be modified using the Plugin, if needed.

| Punkt-Einbauteil | | |
|-------------------|----------------------------|---|
| Klassifizierung | | |
| Ab | IFC-Objektyp | IfcDiscreteAccessory |
| 123 | Tragendes Bauteil | <input checked="" type="checkbox"/> |
| Material/Qualität | | |
| Ab | Material | LEVIAT Ribbed or smooth reinforcing steel bars of strength class B-E |
| Ab | Bezeichnung | HDB-S-14/125-2/200 |
| Basis | | |
| 123 | Abrechnungsart | Stck |
| 0,0 | Faktor | 1.000000 |
| Ab | Langtext | HDB-S-14/125-2/200 |
| Geometrie | | |
| ID | | |
| Profile | | |
| 0,0 | Durchmesser (d) | 14,00 mm |
| Sonstige | | |
| 123 | Anzahl der Eisenabstände | 2 |
| Ab | Artikelnummer | |
| Ab | Beschreibung | Stud rail as shear reinforcement |
| Ab | Copyright | Leviat |
| Ab | FunktionHierarchisch | Punching shear reinforcement |
| Ab | Hersteller | Leviat |
| Ab | Homepage Hersteller | https://www.leviat.com/de-de |
| Ab | Katalogreferenz | Duebelliste |
| Ab | Kurztext | HDB-S |
| Ab | Marke | Halfen |
| Ab | OmniClass-Nummer | 23-13 31 21 12 |
| Ab | OmniClass-Titel | Reinforcement components |
| 123 | Positionsnummer | 1 |
| Ab | Produktdaten-Link | https://www.halfen.com/en_DE/product-ranges/concrete/reinforce |
| Ab | Typ | HDB-S |
| Ab | Uniclass 2015 Beschreibung | Prefabricated reinforcement |
| Ab | Uniclass 2015 Code | Pr_20_96_71_67 |
| Ab | Untertyp | System Element |
| Ab | Version | 3.0.0.1_AllPlan_DE_16-02-2024_638531031683544468 |
| Ab | Zertifikate | DIBt |

Figure 17 – Attributes

Here is how the user can check the attributes according to the version:

- Allplan 2024/2025: Left click on a Leviat product to display the attributes in the Properties tab.
- Allplan 2023: Select MODIFY ATTRIBUTES and click on a Leviat product.

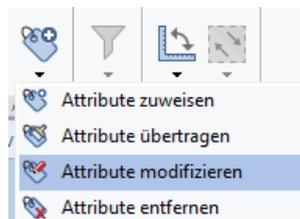


Figure 18 – Modify attributes

EXPORT: Creating a list of products in Excel

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

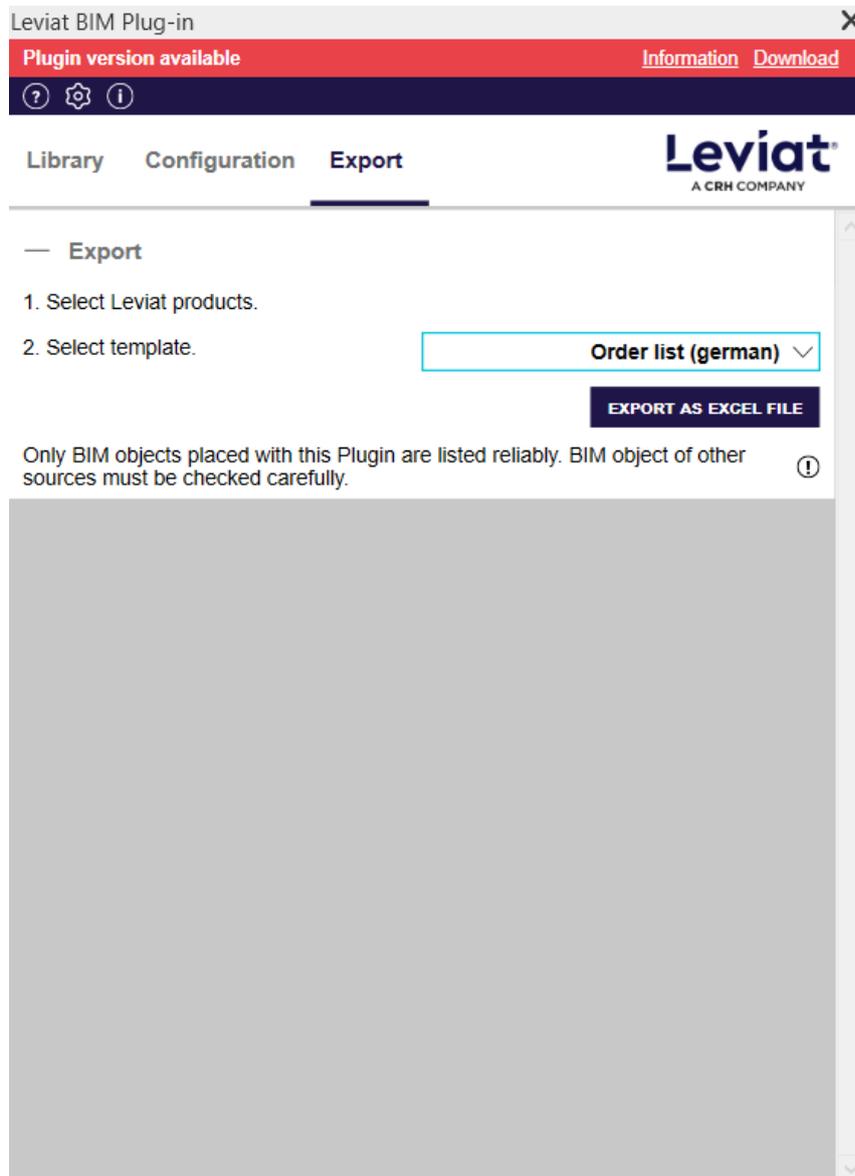


Figure 19 – Export tab

ALLPLAN Reports

| Pos. | Anzahl | Bezeichnung | Artikelnr. / Plantext / Dim.text | Kommentare |
|---------------------------------------|--------|-------------------------------------|----------------------------------|-----------------|
| Durchstanz- und Schubbewehrung | | | | |
| 01 | 1 | DURA 100/35-BF1.N26.U | 6100000013 | |
| 02 | 1 | DURA 100/35-BF1.N26.U | 6100000013 | Info für Leviat |
| 03 | 1 | DURA-45L hk=220mm | 6100000018 | |
| 04 | 1 | HDB-25/605-4/1045 (210/230/230/300) | 6100000069 | |
| Balkonschlüsse | | | | |
| 05 | 2 | HIT-HP MVX-0502-18-100-30 | 0930.210 | |
| Verankerungstechnik | | | | |
| 06 | 1 | HTA-CE 38/17 A4-250/3 | | |
| 07 | 1 | HTA-CE 38/17 FV-250/3 | | |
| Sandwichplattenverbindungen | | | | |
| 08 | 1 | SP-FA-1-200-160-A4 | 0771.010-00024 | |
| 09 | 1 | SP-SPA-1-05-160-A4 | 0270.010-00001 | |
| 10 | 1 | SP-SPA-2-09-300-A4 | 0271.010-00113 | |
| 11 | 1 | SP-SPA-A-03-140-A4 | 0272.010-00002 | |
| 12 | 1 | SP-SPA-FLEX-04-310-A4 | 1000209761 | |

Leviat GmbH 1/1
Liebigstrasse 14 | 40764 Langenfeld
Telefon +49 2173-970 0
info.de@leviat.com | www.leviat.com
Version: ALLPLAN 05/24

Figure 20 – Leviat Report

You will also receive various Allplan reports with the installation file. Copy these to the following folder:

Allplan 2023 C:\ProgramData\Nemetschek\Allplan\2023\Etc\reports\eng\Fixtures\Leviat

Allplan 2024 C:\ProgramData\Nemetschek\Allplan\2024\Etc\reports\eng\Fixtures\Leviat

Allplan 2025 C:\ProgramData\Nemetschek\Allplan\2025\Etc\Reports\eng\Fixtures\Leviat

Then select the reports via the Leviat menu bar in the ENGINEERING and PRECAST module. Click on the selected report to select the folder above and choose a report.

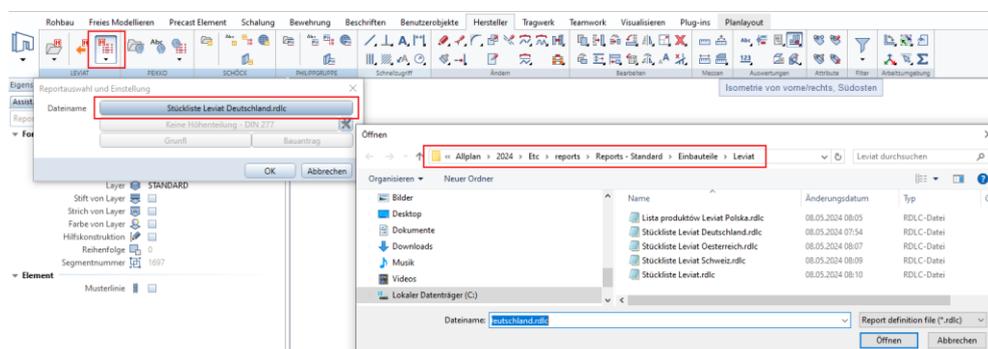


Figure 21 – Select Leviat report and adapt folder path

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 22 – 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. STYLES and Setting OPTIONS (Catalogue reference / LOG to scales) can be predetermined.

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.

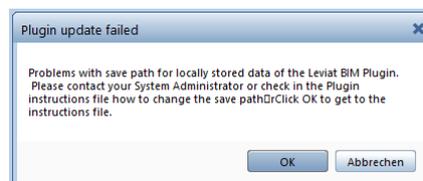


Figure 23 – Error while starting up the plugin

Then, restart ALLPLAN.