

TEKLA Leviat BIM Plugin instructions

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

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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.

Leviat Bim Plug-in Tekla 2025_vX.x.x.x_Installer.exe

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.

Benutzerkontensteuerung	×
Möchten Sie zulassen, dass durch diese App von einem unbekannten Herausgeber Änderungen an Ihrem Gerät vorgenommen werden?	
Leviat Bim Plug-in Tekla 2025_v3.0.2.4_Installer.exe Herausgeber: Unbekannt Dateiursprung: Festplatte auf diesem Computer	Setup-Sprache auswählen Wählen Sie die Sprache aus, die während der Installab
Weitere Details anzeigen	English
Ja Nein	OK Abbred

Follow the next steps by clicking "Next" and "Install".

inse Agreement	Paths for newly installed files	
rease read the following input cart information before continuing.	Set the correct path for the INP folder	(
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.	Example of INP paths for different environments:	
	Construsoft European:	
Warranty	C: \ProgramData \Trimble \Tekla Structures \202x.0 \Environments \ConstrusoftEuropean \General	Vnp
BIM Plugin	Finland: C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\common\inp	
These BM Plugins are products of Leviat B.V., 7623 CS, Netherlands. They are protected by copyright, all rights reserved. Any changes to the BM Plugins require the prior consent of the author.	Switzerland: C:\ProgramData\Trimble\Tekla Structures\202x.0\Environments\Switzerland\General	Ninp
While every care has been taken in the preparation of the Bill Plugins, errors cannot be completely	10 Junior	
excluded. Leviat B.V. therefore accepts no lability for the fact that the measurements or planning carried out with these BIM plugins are completely free of errors. In particular, the user is required to	The directory	
check the input values, design results and graphics and to check them for plausibility using applicable	Califició autorara (Luxole (Lexa paracimes (2025) n ferrir common fato	owse
documents (standards and approvals).	Extensione dearthru	
The user remains solely responsible for the calculation results applied.	CulticeraneData Trimble Table Ctrust year 2025 OlSev (compacts) common	
Updates or amendments to this warranty	c. Programosa (minor (rese searce es posso primo interes pointion)	Owise
We may revise this warranty from time to time, in our sole discretion, and the most current version will	Images directory	
I accept the agreement	C:\ProgramData\Trimble\Tekla Structures\2025.0\Bitmaps Bro	owse
I go not accept the agreement	1	





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.

Help —	Leviat BIM Plug-in Plugin version available ⑦ ô ①	X Information Download
Settings Info —	Library Configuration Export	
	Search	Q
	 BIM objects DURA Punching shear & shear reinforcement HDB Punching shear & shear reinforcement HIT Insulated connection HTA-CE / HZA Cast-in Channels Sandwich Panel Anchors 	^
	Library	
	12 05 24 First step in the Leviat BIM Plugin Set your language and country settings in the preferences.	
	News	

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.

≪ ©	
- Settings Pro	oject environment settings
Plugin language	
Language of the user interface	
	English \checkmark
Select "Country / Language"	
Product range	
Product data and classifications of BIM obje	ects
Country - specific language formulations	
 Order list with project informations 	
	Germany (english) 💛
Changing a country selection during an oproblems due to some product range var such instances, product data for the BIM either.	ongoing project can lead to iations between countries. In object will not be updated
Default folders	
Export of lists <u>C:\Users\Sonja\Documents</u>	
- Project Settings Share	change between projects
Current plugin settings	SAVE
Plugin settings of a different project	LOAD

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.

Leviat BIM Plug-in					×
Plugin version avail	able			Information	Download
⑦ 尊 ()					_
Library Confi	guration Expo	ort			
Search					Q
 BIM objects HDB Punchin 	g shear & shear rei	inforcement			
HDB	Double-clic	k			
> HIT Insulated	connection				
> HTA-CE / HZA	Cast-in Channels	;			
> Sandwich Par	nel Anchors				
					~
Product informa	tion				
Product	HDB		Click -		ONFIGURE
Brand	Halfen Stud rail as puschi	ing choor roinfor	comont		
Description	Stud rail as punch	ing shear reinion	cement		
Design software	Halfen HDB softwa	are			

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.

0 🕸 🛈		
Library Configuration Export §		t"
— Geometrical configuration HDB / HDB	-S	Clear configuration
Product code	HDB-10/155-2/220 🖄	Product Code
Туре	HDB	
System elements with 2 or 3 studs	•	
Stud diameter	10 mm ${ m v}$	
Stud height	155 mm $ arsigma$	Product Selection
Number of studs	2 ∨	
Element length	220 mm \vee	
— Positioning (optional)		
Insertion point		
z y		Positioning options
Offset ∆x, ∆y, ∆z	0 mm 0 mm	
Product orientation	0 * V	
Rotation around y-axis	U A	
 Product data configuration (optional) 		
Approvals and certifications	ETA	
Position	×	
Comments to Leviat	×	Optional parameters
Your reference	×	
Classification		
NL-SfB code	×	
NL-SfB description	×	•
	INSERT MODI	Y

Figure 5 – Configuration tab

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

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 1^{st} defines its origin, and the 2^{nd} 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** "<u>Name</u>" **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 <u>here</u> 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.

J.	T Display		×
	Settings Advanced		
T View Properties		Visibility	Representation
Save Load standard		In model In components	
	All		
View Name: ISO	Points		
Angle:		·	
	Parts		Exact ~
Projection:			Cast in place Parts ~
Representation			Cast in place parts Merged ~
Color and transparency in all views:			Rendered
Visibility			In components: Rendered
View depth: Up: 10000.00			in components: Nendered
Viribility of object types	Bolts		Exact ~
Visible object group:	Holes		Exact ~
standard v	Welds		Exact - no weld mark
OK Apply Modify			
/	Construction planes		Fast
	Reinforcing bars		Exact ~
,	Surface treatment and surfaces	\checkmark	
r -	Pour break	\checkmark	
	Loads		Untick this option. Otherwise
	Cuts and added material		the BIM object may appear with
	Fittings		multiple components.
	Component symbols		Tick this option. Load a
	Grids		by clicking on the
	Construction lines		component symbol.
	Reference objects		
	Building hierarchy		
	OK Apply Mod	ify Get ☑/□	Cancel

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.

	only change this part of the path	1
AppDataPath REG_SZ	C:\Users\User \AppData\Roaming\Leviat\BIM-Plugin\X.x.x.x	
ab)CustomerDataPath REG_SZ	C:\Users\User \AppData\Roaming\Leviat\BIM-Plugin\Customer	
	C: (Users) User (AppData (Koaming (Leviat (bitter rugin (C	ustomer

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 <u>bim.support@leviat.com</u>.

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.



	Userfields	Structural infor	mation L	Initechnik Mountpa	rt Rebar set	t Timber
	Parameters	Article	IFC export	Numbering	CC UDA	Orientation
	BTL	Window frame	Leviat	Workflow	Calculation	Shipment
	Dim	ensions	-			
/	Length (mm)		12	0.00		
	Width (mm)		1.0	10		
	Height (mm)		17	5.00		
	Diameter (mm)					
	Proj	ect specific data	11			
75.00	Comments to L	eviat	CO	mments		
175.00	Pro	duct data				
	Approvals and	certificates		Bt, KOMO, Avis tech		
	Corrosion resis	lance class		ess III (according to		
at h	Product range	tion	✓ Ha	nen		
	Wabrite	tion		tps://www.nalten.c		
ined attributes	Clar	sification		h2-1/manarengreo		
tu attributes	NBS Category					
	NBS Reference					
anasial A	NPK					
i speciai	Omniclass Code		23	-13 23 11		
pecial	Omniclass Desc	ription	M	chanical Fasteners		
	Uniclass Code		Pr.	20_29_03_86		
roperties	Uniclass Descrip	ation	🗸 Str	uctural anchors		
lysis properties	BIM	object data			Laud	-
inter of gravity	Copyright		Le	riat	Levi	ατ
w with exact lines	Version		3.0	0.0.0_Tekla_ES_16-00	A CRH COMP	PANY

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: <u>Adjust the</u> path for locally stored plugin data.



Figure 14 – Error while starting up plugin

Then, restart TEKLA.