

bimstep

# Plugins operation instruction

---

BS • BIM

# Export to Navisworks

The plugin "Export to Navisworks" will help Bim specialists to do batch unloading to ".nwc" format of models and Revit. This plugin will allow you to save a lot of time on the routine operations of uploading your models from ".rvt" format to ".nwc" format in order to collect summary models by object and to perform collision checks. Just build a table with the models you want to export and run the plugin. By the way, the plugin will allow you to process models lying on both local storage and Revit Server.

## 1. Preparing Excel file for plugin operation

To work with the plugin, you will first need to set up an Excel file in ".xlsx" or ".csv" format as follows:

Obligatory starting from the 2nd row!

Column A - Model Name must have the extension ".rvt"

Column B - Path to the location of the Revit model. This can be either the path to local storage or the path to Revit Server. In the case of Revit Server, you need to specify the path in the following format:

RSN://\*server name\*/\*folder name\*/.

Column C - Specify the path to the folder where the plugin will need to upload the model in ".nwc" format.

Column D - (optional field) Specify, if necessary, a new name for the model in ".nwc" format.

	A	B	C	D
1	nameModel	PathRVT	PathNWC	NewName*
2	Snowdon Towers Sample Site.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Site
3	Snowdon Towers Sample Plumbing.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Plumbing
4	Snowdon Towers Sample HVAC.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	HVAC
5	Snowdon Towers Sample Electrical.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Electrical
6	Snowdon Towers Sample Facades.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Facades
7	Snowdon Towers Sample Architectural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Architectural
8	Snowdon Towers Sample Structural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Structural

Save this file, we will need it for the plugin to work.

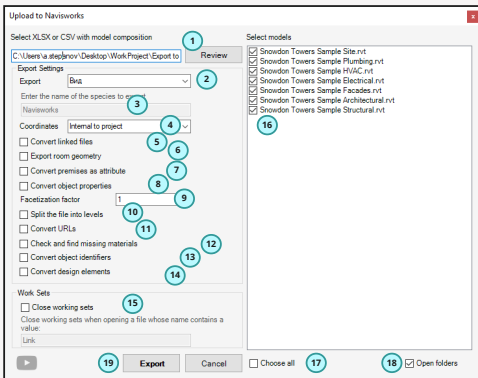
## 2. Plugin operation

After the Excel file is prepared, you can run the plugin. To do this, open Revit, and then either in an open document or just in an open Revit application, go to the BS\_Bim tab and run the "Export to Navis" plug-in.



In the opened window you will have to specify a lot of settings. Let's analyze them.

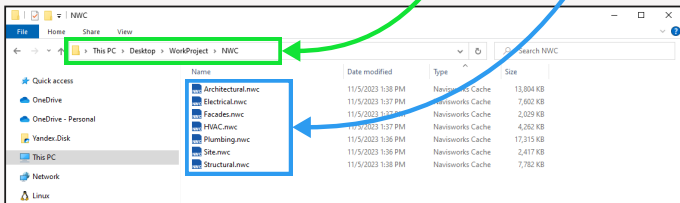
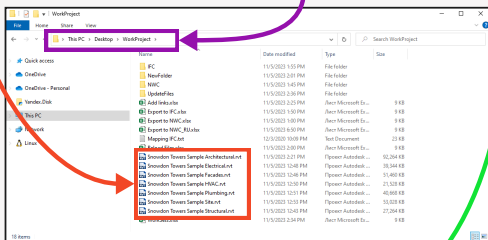
1. Select the ".xlsx" or ".csv" file collected in the previous step.
2. Specify the type of export in ".nwc" format - it will be a specific view or the whole model.
3. In case we are going to export only elements from a certain view, enter its name here. In general, it is a preset view, the name of which is "Navisworks".
4. Specify the coordinates for export.
5. Check the box if it is necessary to convert linked files.



6. Specify whether it is necessary to export the geometry of the rooms that are in the model.
7. Specify if we will convert the rooms as an attribute.
8. We specify if we need to transform the properties of the elements.
9. Set the facetization factor.
10. Specify whether we will split the file by levels.
11. Whether we will transform URLs.
12. Whether it is necessary to check and find missing materials.
13. Specify whether we need to convert item id's.
14. Whether we are converting construct elements.
15. Check the checkbox if we want the plugin not to open any working set that has values in the field below with a comma. This functionality is mainly necessary so that the plugin when opening a model does not open work sets that you do not need for this task, and thus the process was faster. Therefore, if you have related files in separate working sets, specify the name of this/these working sets and the plugin will not open them when opening the model itself.
16. Check the checkboxes for the models that we want to upload to Navisworks.
17. We can select or deselect all models using this checkbox.
18. Check the box if we want the plugin to immediately open the folders where the models were exported.
19. And finally, after all the settings, click on the "Export" button.

As a result, we get the exported models in ".nwc" format.

	A	B	C	D
1	nameModel	PathRVT	PathNWC	NewName*
2	Snowdon Towers Sample Site.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Site
3	Snowdon Towers Sample Plumbing.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Plumbing
4	Snowdon Towers Sample HVAC.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	HVAC
5	Snowdon Towers Sample Electrical.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Electrical
6	Snowdon Towers Sample Facades.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Facades
7	Snowdon Towers Sample Architectural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Architectural
8	Snowdon Towers Sample Structural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\NWC\	Structural



# Export to IFC

Plugin "Export to IFC" will help Bim specialists to do batch unloading to ".ifc" format of models and Revit. This plugin will allow you to save a lot of time on routine operations to unload your models from ".rvt" format to ".ifc" format. Just collect a table with the models you want to unload and run the plugin. By the way, the plugin will allow you to process models lying both on local storage and on Revit Server.

## 1. Preparing Excel file for plugin operation

To work with the plugin, you will first need to set up an Excel file in ".xlsx" or ".csv" format as follows:

Obligatory starting from the 1st row!

Column A - Model Name with ".rvt" extension is mandatory

Column B - Path to the location of the Revit model. This can be either the path to local storage or the path to Revit Server. In the case of Revit Server, you need to specify the path in the following format:

RSN://\*server name\*/\*folder name\*/.

Column C - Specify the path to the folder where the plugin will need to upload the model in ".ifc" format.

Column D - Specify the absolute path to the parameter mapping file

Column E - (optional field) Specify, if necessary, a new name for the model in ".ifc" format.

	A	B	C	D	E
1	Snowdon Towers Sample Site.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Site
2	Snowdon Towers Sample Plumbing.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Plumbing
3	Snowdon Towers Sample HVAC.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	HVAC
4	Snowdon Towers Sample Electrical.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Electrical
5	Snowdon Towers Sample Facades.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Facades
6	Snowdon Towers Sample Architectural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Architectural
7	Snowdon Towers Sample Structural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	c:\Users\A.stepanov\Desktop\WorkProject\IFC\	c:\Users\A.stepanov\Desktop\WorkProject\Mapping_IFC.txt	Structural

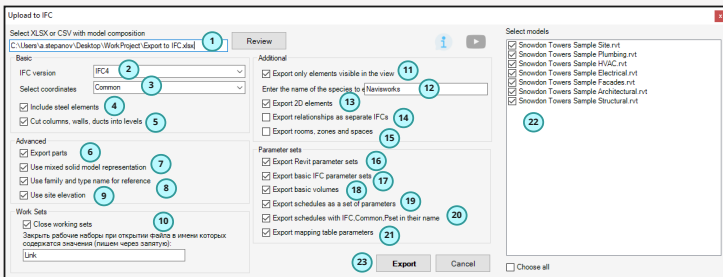
Save this file, we will need it for the plugin to work.

## 2. Plugin operation

After the Excel file is prepared, you can run the plugin. To do this, open Revit, and then either in an open document or just in an open Revit application, go to the BS\_Bim tab and run the "Export to IFC" plugin.

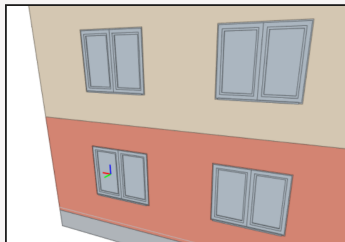


In the opened window you will have to specify a lot of settings. Let's go analyze them.



1. Select the model sheets file in ".xlsx" or ".csv" format
2. Select the IFC version.
3. Specify by which coordinates we will do the export.
4. Check the checkbox if it is necessary to export links of other elements.
5. Check the box if we want columns, walls and ducts to be cut by levels.
6. Check the box if we want to export parts.
7. Check the box if we want the geometry to be exported to IFC in a representative form.

**Without presentational graphics mode turned on**



**With presentational graphics mode turned on**



8. Check the box if we want to get the family name and type name in the reference property  
Example based on a window family:

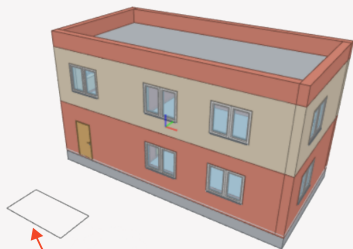
**With the family name and type name checkbox turned on**

Pset_WindowCommon	
FireRating	0.5h
IsExternal	No
IsExternal	Yes
Reference	Window-Double-Hung w Transom_Sill and Jack Arch:27" x 102"
ThermalTransmittance	3,129291

**No checkbox, just the name**

Pset_WindowCommon	
FireRating	0.5h
IsExternal	No
Reference	27" x 102"
ThermalTransmittance	3,129291

9. If we want to export by coordinates using the site elevation, check this box.
10. If your files are storage files, you can additionally specify which working sets the plugin can initially close when opening models. In this case, the export will be much faster. Specify names separated by commas.
11. If we want to export not the whole model, but only the elements from a certain view, check the box.
12. If the checkbox is checked in item 11, then enter the name of the view, which is necessary for the plugin to find in the model and export from it.
13. In case we want to export also 2D elements, check the checkbox



**Model lines on the plan**

14. If there are links in your model and you also want to upload them, check the box and all links will be uploaded next to the main file.
15. If you want rooms, zones, spaces to be unloaded in IFC, check this option and you will get rooms in IFC as well. This setting works only when selecting unloading by a certain type

### With premises

Active	Type
<input checked="" type="checkbox"/>	Types
<input checked="" type="checkbox"/>	Wall
<input checked="" type="checkbox"/>	Door
<input checked="" type="checkbox"/>	Window
<input checked="" type="checkbox"/>	Space

### Without premises

Active	Type
<input checked="" type="checkbox"/>	Types
<input checked="" type="checkbox"/>	Wall
<input checked="" type="checkbox"/>	Door
<input checked="" type="checkbox"/>	Window

16. In Revit we have standard parameters, if you want to export them, check the box. Example of exporting parameters on the example of a wall, displaying in BimVision

## Revit parameters uploaded

Properties	Location	Classification	Relations	Name	Value	Unit
<input checked="" type="checkbox"/>				<b>Element Specific</b>		
<input checked="" type="checkbox"/>				<b>Profile</b>		
<input checked="" type="checkbox"/>				Analytical Properties		
<input checked="" type="checkbox"/>				Constraints		
<input checked="" type="checkbox"/>				Construction		
<input checked="" type="checkbox"/>				Cross-Section Definition		
<input checked="" type="checkbox"/>				Dimensions		
<input checked="" type="checkbox"/>				Graphics		
<input checked="" type="checkbox"/>				Identity Data		
<input checked="" type="checkbox"/>				Materials and Finishes		
<input checked="" type="checkbox"/>				Other		
<input checked="" type="checkbox"/>				Phasing		
<input checked="" type="checkbox"/>				<b>Structural</b>		

## Revit parameters not uploaded

Properties	Location	Classification	Relations	Name	Value	Unit
<input checked="" type="checkbox"/>				<b>Element Specific</b>		
<input checked="" type="checkbox"/>				<b>Profile</b>		

17. For IFC files, among all the standard settings in Revit, there are also basic settings. If you want to unload them, specify this setting in the window

Example of parameter unloading on the example of a wall, displaying in BimVision

## Unloading with basic IFC parameters

Properties	Location	Classification	Relations	Name	Value	Unit
<input checked="" type="checkbox"/>				<b>Element Specific</b>		
<input checked="" type="checkbox"/>				<b>Profile</b>		
<input checked="" type="checkbox"/>				<b>Pset_EnvironmentalImpactIndicators</b>		
				Reference	Wall-Ext_102Bwk-75Ine-100LBk-12P	
<input checked="" type="checkbox"/>				<b>Pset_ReinforcementBarPitchOfWall</b>		
				Reference	Wall-Ext_102Bwk-75Ine-100LBk-12P	
<input checked="" type="checkbox"/>				<b>Pset_WallCommon</b>		
				ExtendToStructure	No	
				IsExternal	Yes	
				LoadBearing	No	
				Reference	Wall-Ext_102Bwk-75Ine-100LBk-12P	
				ThermalTransmittance	0,239926	

## Unloading without basic IFC parameters

Properties	Location	Classification	Relations	Name	Value	Unit
<input checked="" type="checkbox"/>				<b>Element Specific</b>		
<input checked="" type="checkbox"/>				<b>Profile</b>		



18. In addition, when uploading to IFC you can export the basic volumes at the same time  
Example of parameter unloading on a wall example, display in BimVision

Properties	Location	Classification	Relations	Name	Value	Unit
<b>Element Specific</b>						
+ Profile						
+ Qto_WallBaseQuantities						
				GrossFootprintArea	3,886	m2
				GrossSideArea	103,3809	m2
				GrossVolume	29,980461	m3
				Height	8 000	mm
				Length	13 400	mm
				NetSideArea	103,3809	m2
				NetVolume	29,980461	m3
				Width	290	mm

19. If you have some schedule in Revit, and you want the model to be unloaded to IFC according to its structure, you can check the checkbox, and then you will have another set of parameters with values similar to the schedule in IFC in the element properties.

Example of parameter unloading on the example of a wall, displaying in BimVision

Properties	Location	Classification	Relations	Name	Value	Unit
<b>Element Specific</b>						
+ Profile						
+ Wall Schedule						
				Base Offset	0	mm
				Cross-Section	Vertical	
				Family	Basic Wall	
				Family and Type	Basic Wall: Wall-Ext_102BwK-75Ins-100LBk-12P	
				Function	Exterior	
				Heat Transfer Coefficient (U)	0,235926	

The same specification in revit looks like this

<Wall Schedule>							
A	B	C	D	E	F	G	H
Base Offset	Count	Cross-Section	Default Exterior Ang	Family	Family and Type	Function	Heat Transfer Coeff
0	1	Vertical		Basic Wall	Basic Wall: Wall-Ex: Exterior		0.2359 W/(m² K)
0	1	Vertical		Basic Wall	Basic Wall: Wall-Ex: Exterior		0.2359 W/(m² K)
0	1	Vertical		Basic Wall	Basic Wall: Wall-Ex: Exterior		0.2359 W/(m² K)
0	1	Vertical		Basic Wall	Basic Wall: Wall-Ex: Exterior		0.2359 W/(m² K)

I.e. all parameters as in the specification in the revit were simply displayed in a separate parameter set in the IFC.

20. This item complements item 19. Since you will have many specifications for elements in your revit, then in the end, when uploading to IFC, each of them will have its own set of parameters - this is a lot. Therefore, there is a possibility to sift and make uploads only for those specifications, which name has the words "IFC", "Common", "Pset" in it

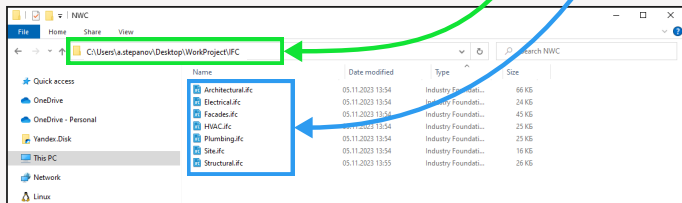
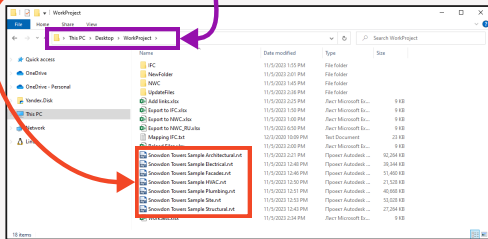
21. The most important point for the correct setting of parameter unloading. At the very beginning, we set the path to the parameter mapping text file in the Excel file. It is this checkbox that finally allows the plugin to do the unloading to IFC taking into account those mapping files that we specified in Excel. So don't forget to turn it on!

22. This window displays all models that the plugin has read from the selected model sheet file in ".xlsx" or ".csv" format. You can select all models or specific models to upload.

23. Click "Export" and the plugin starts its work.

As a result, in the folder that we specified in the model sheets file, we get a set of files in the "IFC" format

	C	D	E
1	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
2	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
3	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
4	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
5	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
6	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt
7	c:\Users\I.a.stepanov\Desktop\WorkProject\	c:\Users\I.a.stepanov\Desktop\WorkProject\IFC\	c:\Users\I.a.stepanov\Desktop\WorkProject\Mapping IFC.txt



# Unload models

The Unload Models plugin will allow BIM professionals to do regular uploads of storage files between folders on a local server or from a revit server to a local server or between two revit servers. Just build a table with the models you want to unload and run the plugin.

## 1. Preparing Excel file for plugin operation

To work with the plugin, you will first need to set up an Excel file in ".xlsx" or ".csv" format as follows:

Obligatory starting from the 1st row!

Column A - Model Name with ".rvt" extension is mandatory

Column B - Path to the location of the Revit model. This can be either the path to local storage or the path to Revit Server. In the case of Revit Server, you need to specify the path in the following format:

RSN:/\*server name\*//\*folder name\*/.

Column C - Specify the path to the folder or Revit Server where the plugin will need to reload the models.

Column D - (optional field) Specify a new name for the model, if necessary.

	A	B	C	D
1	Snowdon Towers Sample Site.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Site.rvt
2	Snowdon Towers Sample Plumbing.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Plumbing.rvt
3	Snowdon Towers Sample HVAC.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	HVAC.rvt
4	Snowdon Towers Sample Electrical.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Electrical.rvt
5	Snowdon Towers Sample Facades.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Facades.rvt
6	Snowdon Towers Sample Architectural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Architectural.rvt
7	Snowdon Towers Sample Structural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Structural.rvt

Save this file, we will need it for the plugin to work.

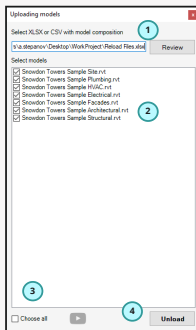
## 2. Plugin operation

After the Excel file is prepared, you can run the plugin. To do this, open Revit, and then either in an open document or just in an open Revit application, go to the BS\_Bim tab and run the "Export to IFC" plugin.

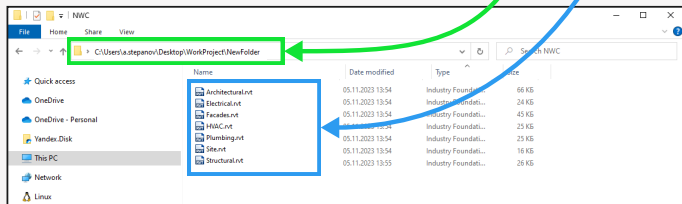
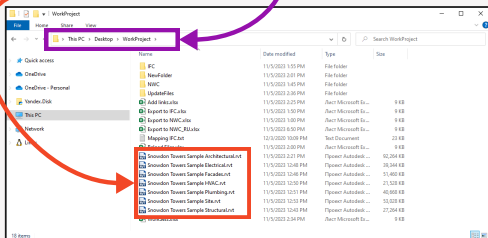


In the opened window you will have to specify a lot of settings. Let's analyze them.

1. Select the ".xlsx" or ".csv" file that you and I collected in the previous step.
2. Select one or more models that the plugin read from the Excel file.
3. If you want to select all models at once, check the "Select all" box.
4. Click the "Unload" button and the plugin starts its work, reloading the models from one place to another.



A	B	C	D
Snowdon Towers Sample Site.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Site.rvt
Snowdon Towers Sample Plumbing.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Plumbing.rvt
Snowdon Towers Sample HVAC.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	HVAC.rvt
Snowdon Towers Sample Electrical.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Electrical.rvt
Snowdon Towers Sample Facades.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Facades.rvt
Snowdon Towers Sample Architectural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Architectural.rvt
Snowdon Towers Sample Structural.rvt	c:\Users\A.stepanov\Desktop\WorkProject\	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Structural.rvt



# Working sets

The Working Sets plugin will allow you to quickly and easily create working sets in new models. You will be able to prepare an Excel document with the names of work sets and use it to create working sets in batch in 2 clicks.

## 1. Preparing Excel file for plugin operation

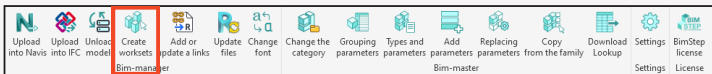
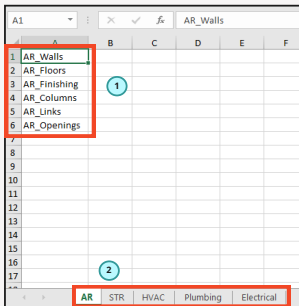
To work with the plug-in, you will first need to set up an Excel file in ".xlsx" or ".csv" format.

1. Be sure to write down the names of the work sets you want to create starting from the 1st line in column A.
2. If you are working in the ".xlsx" format. If you are working in ".xlsx" format, you will be able to make several sheets and in each of them make a different set.

Save this file, we will need it for the plugin to work.

## 2. Plugin operation

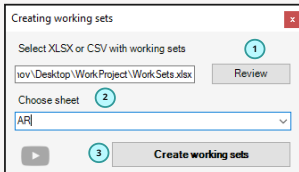
After preparing the Excel file, you can run the plugin. To do this, open Revit, and then either in an open document or just in an open Revit application, go to the BS\_Bim tab and run the "Create Working Sets" plugin.



In the window that opens, you need to select the following settings:

1. Select the previously prepared Exel file.
2. Select the sheet if it was ".xlsx" format.
3. Click on the "Create Working Sets" button.

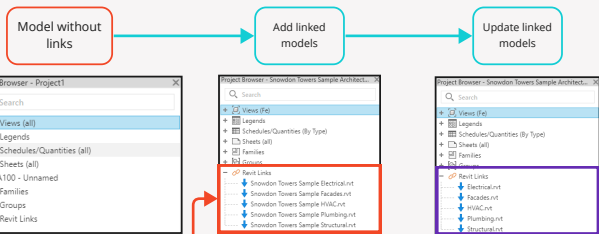
Done! Working Sets with names taken from Excel have been batch added to your collaboration model.



# Add/update links

The "Add or update links" plugin will allow BIM professionals to quickly add or update links in an open model while allowing you to immediately close unnecessary working sets. Suppose you have made a new model and now your task is to add many links to the rest of the project documentation sections in the current model. To do it manually is very long, especially when you need to link models to each other and then 10 models with 10 operations in each - in the end it will be about 100 clicks to add a link and then still close unnecessary work sets. That's a very long time. That's why you can use the "Add or update links" plugin. Also, the plugin can not only add links, but also update them. This is necessary if previously added links have been moved to some other location or changed their name. In this case, Revit will lose these links and they need to be updated manually. So, in order for the plugin to work - you need to prepare Excel with the composition of models in advance.

Below is the general scheme of the plugin's operation



## 1. Preparing Excel file for plugin operation

	A	B	C
1	Snowdon Towers Sample Site.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Site.rvt
2	Snowdon Towers Sample Plumbing.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Plumbing.rvt
3	Snowdon Towers Sample HVAC.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	HVAC.rvt
4	Snowdon Towers Sample Electrical.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Electrical.rvt
5	Snowdon Towers Sample Facades.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Facades.rvt
6	Snowdon Towers Sample Architectural.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Architectural.rvt
7	Snowdon Towers Sample Structural.rvt	C:\Users\A.stepanov\Desktop\WorkProject\NewFolder	Structural.rvt

To work with the plugin, you will first need to set up an Excel file in ".xlsx" or ".csv" format as follows:

Obligatory starting from the 1st row!

Column A - Model Name with ".rvt" extension is obligatory

Column B - Path to the location of the Revit model. This can be either the path to local storage or the path to Revit Server. In the case of Revit Server, you need to specify the path in the following format:

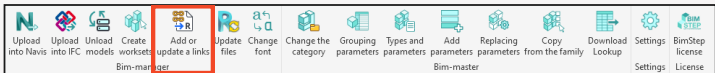
RSN://\*server name\*/\*folder name\*/\*

Column C - (optional field) Specify if you want to update an existing link in your model to another model that has a name that does not match the name in column A.

Save this file, we will need it for the plugin to work.

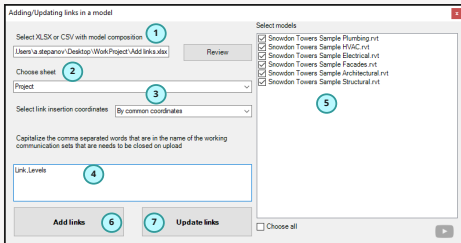
## 2. Plugin operation

After preparing the Excel file, you can run the plugin. To do this, open Revit and then the model to which you are going to add a link. Then go to the BS\_Bim tab and run the "Add or Update Link" plugin.



In the opened window you will have to specify a lot of settings. Let's analyze them.

1. Select the model sheets file in ".xlsx" or ".csv" format
2. If the ".xlsx" file has been selected, you will also be able to select a specific sheet.
3. Specify the coordinates by which we want to add a link.

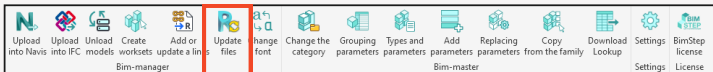


4. In order that certain working sets from the linked model are immediately closed when you add or update a link, you can list the words that are in the name of these working sets in this window using commas.
5. Select one or more models that you want to add.
6. Click the "Add Links" button to add the linked models.
7. To update the linked models, click the "Update Links" button.

Done! Linked models have been added or updated!

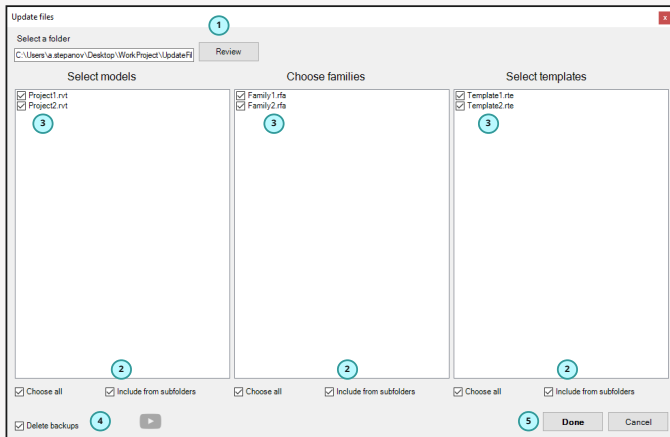
# Update files

The "Update Files" plugin allows you to batch update families, models and templates to the current Revit version. Launch the plugin.



After launching the plugin you will have a window where you will need to select some settings:

1. First of all you will need to select a folder so that the plugin can detect which models, families and templates are located in the selected folder.
2. Then, if necessary, you will be able to check each of the boxes to specify whether you want to search in subfolders.
3. In the end, for each of the boxes you will need to specify by checkboxes, which families, models or templates you want to update to the latest version of revit. If necessary, you can specify "Select All".
4. The plugin, in the process of its work, will re-save files to the current version and, of course, will be backed up. If you want the backups to be immediately deleted from the folders, check this box.
5. And click done. That's it! All files have been updated!

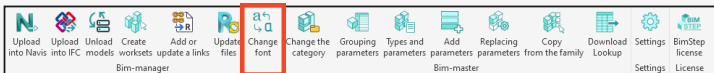




# Change the font

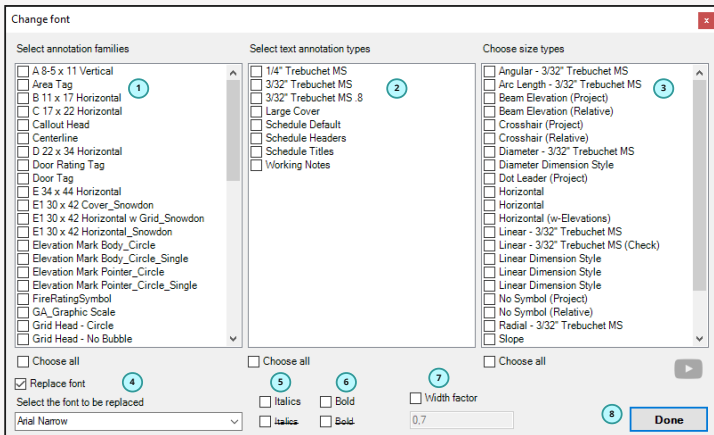
The "Change the font" plugin will allow you to change the font to the one you specify in all types of text annotations in the project, in dimension styles, and in selected annotation families that are loaded in the project.

Launch the plugin.



After running the plugin - you will get a window where you will need to select some settings:

1. Choose in which annotation families we want to change the font.
2. Choose in which types of text annotations we want to change the font.
3. Select in which size types we want to change the font.
4. Check the box if we want to change the font type, and select one of the suggested styles from the drop-down list.
5. Check the box if we want the text to be italicized or not. If there is no need to change, do not put these checkmarks anywhere.
6. Check the box if you want the text to be bold or not bold. If you don't need to change it, don't put these checkmarks anywhere.
7. Check the box and specify the width factor if we want to change it.
8. Click ready and the plugin will process all families and types of text and sizes that were selected in steps 1-3.



# Change family category

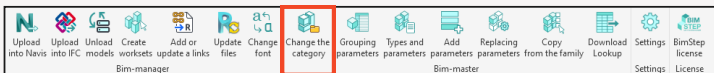
The "Change family category" plugin allows you to quickly and batch change the category of families in a project or in a folder.

Surely you have had such a situation, that you download families from the manufacturer or made families yourself and did not decide in advance what category these families will have. So you always set "Generalized model", and then, when it comes to specification, you realize that you need a different category.

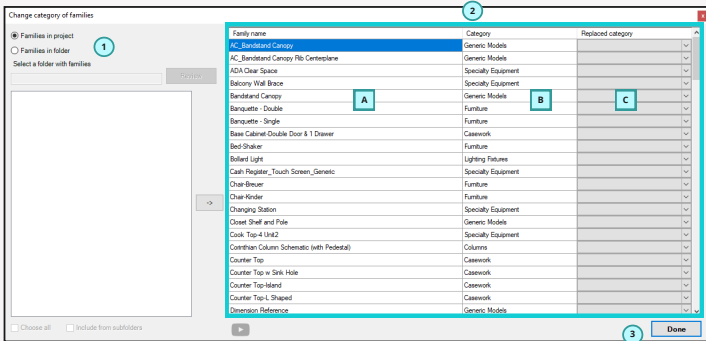
You start to open each of the families and change the category manually. In principle, it is not so difficult, but when there are dozens of families, it takes a lot of time.

Now you can use for realization of this task our plugin in BS\_Bim line, namely plugin "Change category of families".

Launch the plugin.



## 1- Change family categories in the project



After launching the plugin you will have a window where you will need to select some settings:

1. Select the function of plugin operation by families in the open project.
2. In the right part of the window you will immediately get a list of all loaded families in your project.

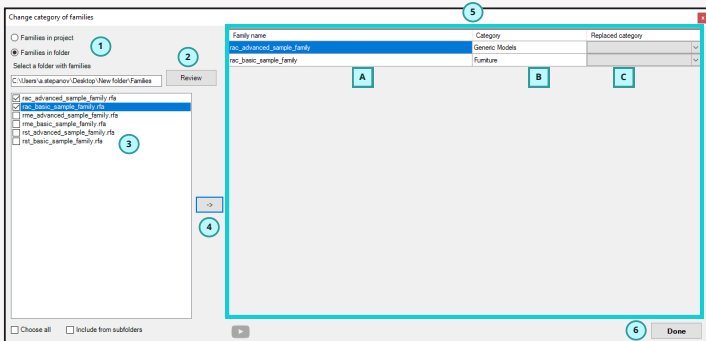
Column A - family name

Column B - Current category of the family

Column C - Select the category you want to replace it with. 3.

3. click done and the plugin will batch replace the category of the specified families in the project!

## 2. Change family categories in the folder



After launching the plugin you will have a window where you will need to select some settings:

1. Select the function of the plugin to work by families in the folder.
2. Select the folder, if you need to take into account including subfolders, check the box at the bottom of the window.
3. Select the families to be processed.
4. Use this button to move the selected families to the right side of the window. At this point, the plugin will temporarily open these families and determine the current category of the family.
5. By analogy with the processing of families in the project: in the right part of the window we get the list of all loaded families in your project.  
 Column A - family name  
 Column B - Current family category  
 Column C - Select the category we want to replace it with.
6. Click done and the plugin will batch replace the category of the specified families in the folder!

# Grouping parameters

The "Parameter grouping" plugin will allow you to batch and quickly change the grouping of a family parameter location, as well as replace the instance/type.

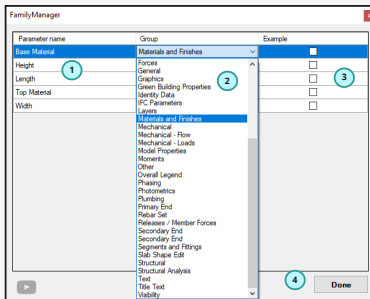
The plugin will be useful in the work of specialists who often work in families and want to quickly change the grouping of the location of certain parameters or replace the type of parameter with an instance.

So, in an open family launch the plugin.



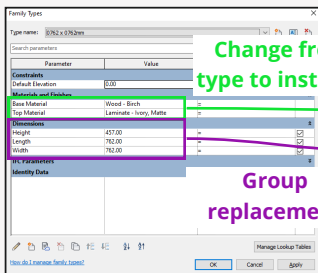
After launching the plugin you will have a window where you will need to select some settings:

1. This column shows all the settings that are in the family.
2. Here you can change the location group of the parameter by selecting some other one from the drop-down list.
3. In the last column, you can check or uncheck the box, thereby specifying the instance/type of the parameter.
4. Click done and the plugin changes the parameter location group and type/instance.



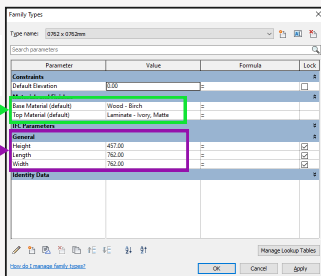
Before running the plugin

After running the plugin



Change from  
type to instance

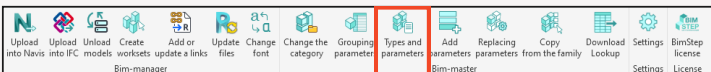
Group  
replacement



# Types and parameters

The Types and Parameters plugin will allow you to batch and quickly process parameters in your open family. You will be able to transfer a parameter from a general to a family parameter, delete, rename parameters and sizes, add a suffix or prefix, replace one value with another, and reset the value of parameters.

So, in an open family, launch the plugin.

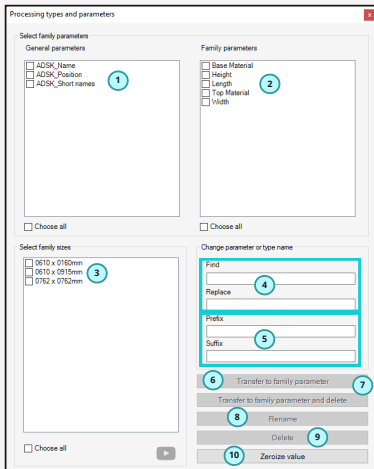


After launching the plugin you will have a window where you will need to select some settings:

1. In this window, select the General settings that are in the family.
2. In this window, select the common family settings that you use in your family.
3. In this window select the sizes that you have in your family.

---  
**After you have selected something from steps 1-3, you can customize the actions that can be done with the selected parameters or sizes.**

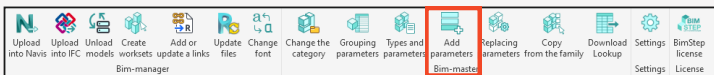
4. If you want to change the name of parameters or sizes by replacing one value with another, specify them in "Find" and "Replace".
5. If you want to change the parameter or size designation by adding a suffix or prefix, specify them in "Find" and "Replace".



6. Press this button if you want to change a common parameter to a family parameter. The common parameter will not be deleted.
7. Command similar to step 6, but the common parameter is removed from the family.
8. Command to rename the selected parameters and sizes.
9. Command to delete the selected parameters and sizes.
10. Command to reset the value of the selected parameters to zero.

# Add parameters

The "Add Parameters" plugin will allow you to batch and quickly add common parameters to an open family or to families of a selected folder. You can also create sets of frequently added parameters and use it when developing families. So, run the plugin in an open family or project.



Add common parameters

Into an open family (1)  
 In the families of the selected folder (2)

Select a folder with families (3)  
 C:\Users\A.stepanov\Desktop\New folder\Families [Browse]

Hide unselected (9)

Choose set: Set (7) [Delete]

Type in the name of set: Set (6) [Save]

Add	Parameter name	Group	Example	Setting	Fill type
<input checked="" type="checkbox"/>	ADSK_Unit	Data (4)		pos.	By type
<input checked="" type="checkbox"/>	ADSK_Signification	Data		BinStep	Formula
<input checked="" type="checkbox"/>	ADSK_Position	Data			
<input checked="" type="checkbox"/>	ADSK_Name	Data			

Choose all (4)     Include from subfolders  
 [Reset all]    Chosen 4 parameters.    [Done] (10)

see next page

After launching the plugin you will have a window where you will need to select some settings:

1. Choose the format of work on adding parameters. We will add parameters to the open family or to the families of the selected folder.
2. In case the format of work is the second, then you must be sure to select the folder in which the plugin will first define and display below the list of families.
3. Select which families from the selected folder should be processed.
4. If you want to search for families from subfolders, check the box.
5. In this table you will see all the parameters that the plugin has defined from your general parameters file. Next, let's analyze each column:

Column A - Check the box if we want to add this common parameter to families.

Column B - This displays the name of the common parameter.

Column C - Specify the parameter group where you want to add the common parameter.

Column D - Check the box if we want the added parameter to be by instance.

Column E - With the plugin you can immediately fill the parameter in two ways:

"By Type" or "By Formula". Choose one of the methods if you want to fill the parameter.

Column F - Fill the value if you have chosen the type of filling in column E.

6. In order not to have to make the plugin customization according to item 5 every time, you can save all selected settings in a separate set. To do this, enter the name of the set and then click on the "Save" button.

7. Accordingly, if you have previously made a set according to item 6, you will be able to select it in this drop-down list . After selecting a previously saved set, they will be set in the table of item 5.
8. Button to reset all the settings you have made.
9. Since there may be many rows in the table you can use this checkbox to hide the unselected ones as indicated on the screenshot.
10. Click done and the plugin will work.

- 1 General parameters were added to the "Data" group by type
- 2 General parameters have been added to the Data group by instance
- 3 The common parameter was added to the "Data" group by type and immediately filled in using the formula
- 4 The common parameter was added to the "Data" group by type and immediately populated by type

Family Types

Type name: 0762 x 0762mm

Search parameters

Parameter	Value	Formula	Lock
<b>Constraints</b>			
<b>Materials and Finishes</b>			
<b>Dimensions</b>			
Height	457.00	=	<input checked="" type="checkbox"/>
Length	762.00	=	<input checked="" type="checkbox"/>
Width	762.00	=	<input checked="" type="checkbox"/>
<b>IFC Parameters</b>			
<b>Data</b>			
ADSK_Name		=	
ADSK_Position (default)		=	
ADSK_Signification	BimStep	= "BimStep"	
ADSK_Unit	pcs.	=	
<b>Identity Data</b>			

Manage Lookup Tables

[How do I manage family types?](#)

OK Cancel Apply

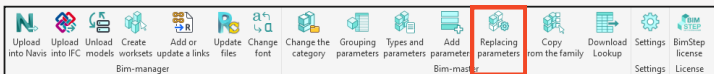
# Change parameters

The "Add Parameters" plugin will allow you to batch replace common parameters that are already in the family with your common parameters. This is often necessary when you download a family from the internet. It works correctly, but all the information is not written to the common parameters that you use in your project. Accordingly, because of this problem, you cannot correctly put stamps and specifications in your project. At the same time, the plugin does not delete existing common parameters in the family, otherwise it could completely break the operability of the families. Therefore, the plugin works according to the following algorithm:

Therefore, the plugin works according to the following algorithm:

1. Transfers the old common parameter into a family parameter
2. Adds a new generic parameter from your generic parameter file.
3. Makes a link between the old and new parameter through a formula.

As a result, you get a fully working family, as it was before processing by the plugin, as well as a list of your common parameters, which you can use in your project in marks and specifications. So let's run the plugin!

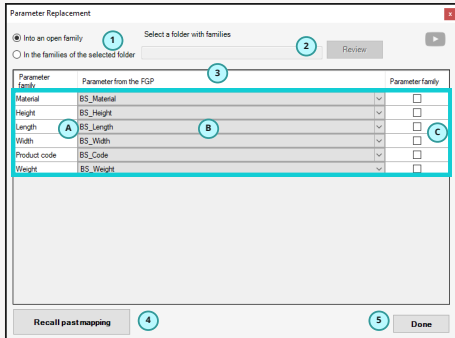


After launching the plugin you will have a window where you will need to select some settings:

1. Choose the format of work on parameter replacement.

We will replace parameters in the open family or in families of the selected folder.

2. If the format of work is the second, then you must necessarily select the folder in which the plugin will first determine and display below the list of common parameters.



3. The most important window on parameter replacement customization.

Column A - it displays the list of all common parameters, which the plugin found in the open family or in families of the selected folder.

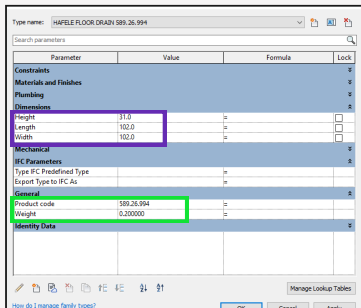
Column B - In this column we specify the mapping of parameters. I.e. we select in the drop-down list the parameter from our file of common parameters, with which we want to make a replacement.

Column C - In case you do not want to do parameter mapping, but you want the common parameter to become just a family parameter, check the box.

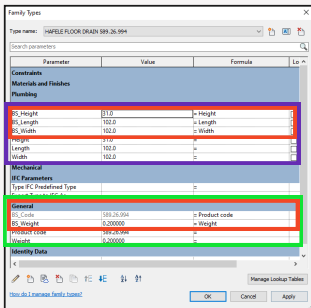


- Since parameter mapping may be repeated during your work, you can click on this button and the plugin will set the parameters to be replaced by itself by analogy, as you configured them in previous runs of the plugin.
- Click done and the plugin performs parameter mapping according to the algorithm described above.

## Before running the plugin



## After running the plugin





# Unload Lookup

The "Unload Lookup" plugin will allow you to export lookup tables from a family to a ".xlsx" file without losing any data. The plugin will be useful for Bim specialists who often work with families and you need to change the lookup table, for example, add another position, but you do not have the original lookup table. So let's launch the plugin!



After launching the plugin, a window opens in which you must specify the following:

1. Select the file format ".xlsx". in which you need to upload the search table.
2. Select in the drop-down list the search table you want to upload.
3. Click "Export" and the plugin will perform the unload! Done!

