

ARCHLine.XP® 2019

New features

Preview 1

Information in this document is subject to change without notice and does not represent a commitment on the part of CadLine. The software, which includes the information contained in any databases, described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of the agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or nondisclosure agreement. The licensee (purchaser) may make one copy of the software for the purpose of creating a backup copy. No part of this manual may be reproduced, transmitted, transcribed, or translated into any language in any form or by any means, without the express written permission of CadLine.

2019. CadLine. All rights reserved.

In no event shall CadLine be liable for special, indirect or consequential damages in connection with or arising from the use of this document or any programs contained herein.

Microsoft, MS, and MS-DOS are registered trademarks and Windows is a trademark of Microsoft Corporation.

ARCHLine.XP® is a trademark of CadLine.

This manual was produced using *Microsoft Word* and *ARCHLine.XP®*.

Contents

1.	User interface Enhancements	6
1.1.	Renewed Navibar tool	6
1.2.	View Control Bar	7
1.3.	Camera icon on Floor Plan view	7
1.4.	Welcome Screen – Icon / List view	7
1.5.	Help panel	9
1.6.	Visual keyboard layout for keyboard shortcuts	9
1.7.	Ribbon bar menu access to most common door / window types	10
1.8.	Ribbon bar menu access to most common object types	10
1.9.	New Paneled Doors	11
1.10.	New grips	11
1.10.1.	Parapet height /relative height modifier	11
1.10.2.	Wall marker	11
1.10.3.	New grip points for ceiling, sweep 3D	12
1.10.4.	New rotation grip at 2D elements	12
1.10.5.	Text height modifier	12
1.11.	Nudging Elements	12
2.	Interoperability	14
2.1.	Multiple instances of ARCHLine.XP	14
2.2.	Renewed worksharing with Multi-user (team) mode	15
2.2.1.	Flow diagram for setting up Team project	15
2.2.2.	Setting up working areas	17
2.2.3.	Changing the Editable Status of working areas	18
2.2.4.	Work offsite or offline	18
2.2.5.	Update Local Copy to the central model	19
2.2.6.	Reassign elements to a different working area	19
2.2.7.	Convert Team project to single-user project	19
2.2.8.	Change active working area on the View Control Bar	19
2.3.	Design Phases	20
2.3.1.	IFC export extended with Design Phase filter	23
2.4.	Layer Variations	24
2.4.1.	Delete all items on a layer and purge the layer	24
3.	Architectural Enhancements	25
3.1.	Join two windows as corner window	25
3.2.	Renewed ramp tools	25
3.3.	Brise Soleil	26
3.4.	Uniforming a staircase contour appearing in various Edit Layout commands	29
3.5.	Roof with custom shape - cross section profile editable	29
3.6.	Wall Dimension to Core Layer axis	30
3.7.	Wall Dimension to farthest end points	30
4.	Interior Design Enhancements	31
4.1.	Tiling with predefined patterns	31
4.2.	Tiling by pattern group	32
4.3.	Tiling list sorted by rooms	32
4.4.	Picture in wall new feature: Managing transparent images	33
5.	Materials	33
5.1.	Color Card	33
6.	Visual Enhancements	36
6.1.	Rendering Styles	36
6.2.	Shadow Simulation	37
7.	Documentation Enhancements	38
7.1.	Schedules	38
7.1.1.	Creating a Schedule	38
7.1.2.	Placing Schedule	38
7.1.3.	Update Schedule	41
7.1.4.	Save to Excel	41
7.1.5.	Exporting Schedule to another User or Project	41
7.1.6.	Import Schedule	42
7.1.7.	Save Schedule for use in all projects globally	42
7.2.	Compare between 2 design phases	43

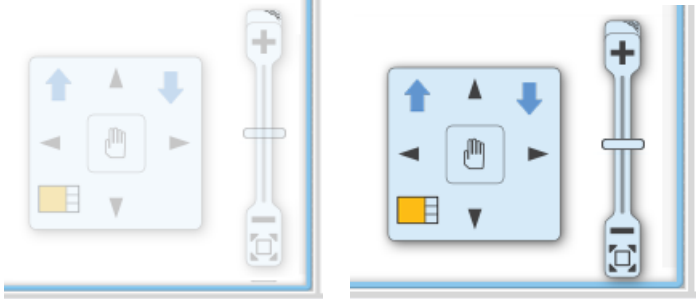
7.3.	Section and Elevation	43
7.4.	Horizontal Section.....	45
7.5.	Roof hatch on floorplan.....	45
7.6.	Plot Layout: View Titles on Sheets	46
8.	Minor new features and feature extensions.....	47
8.1.	Display door Effective clear width	47
8.2.	Length dimension: „Distance and bearing ",	48
8.3.	DWG preview with Unit of Measure pre-setting	49
8.4.	Wall 1m representation at floor plan for doors and windows.	50
8.5.	Move wall endpoint command changed to one click command	51
8.6.	Door/window width/height in Properties panel changed to combo box with predefined EU and DIN values51	
8.7.	Lintel (doors and windows) new parameters	51
8.8.	New switch in the Option - Item Settings – Plot Layout Group.	54
8.9.	Creating terrain road with rounded nodes.....	56
8.10.	Import from 3D Warehouse	57
8.11.	Roof and slab new feature.....	57
8.12.	Gable Roof edge material.....	57
8.13.	Creating styles new feature	58
8.14.	Improvements of Room and Area	59
8.15.	Room summary table automatic update is default	59
8.16.	Room stamp	59
8.17.	List of floors / roofs in room calculation.....	60
8.18.	Other:.....	60

1. User interface Enhancements

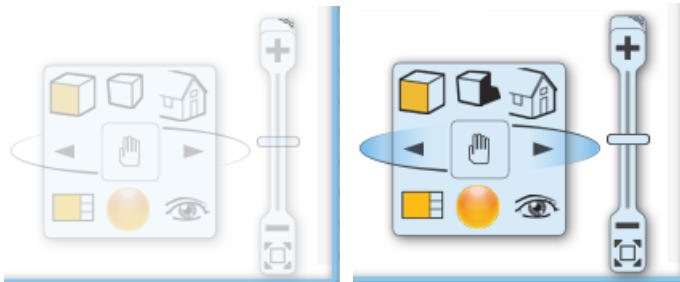
1.1. Renewed Navibar tool

The navigation controls are in the bottom right corner of the view and fade when you are not using them. To show the navigation controls, move the mouse over the navbar.

2D view:



3D view



Zoom in/out and optimal view:



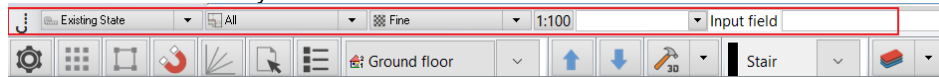
Drag the zoom slider or click the + or – to zoom in or out

1.2. View Control Bar

The View Control Bar provides quick access to rules to control the display of elements in different views.
The View Control Bar includes the following tools:

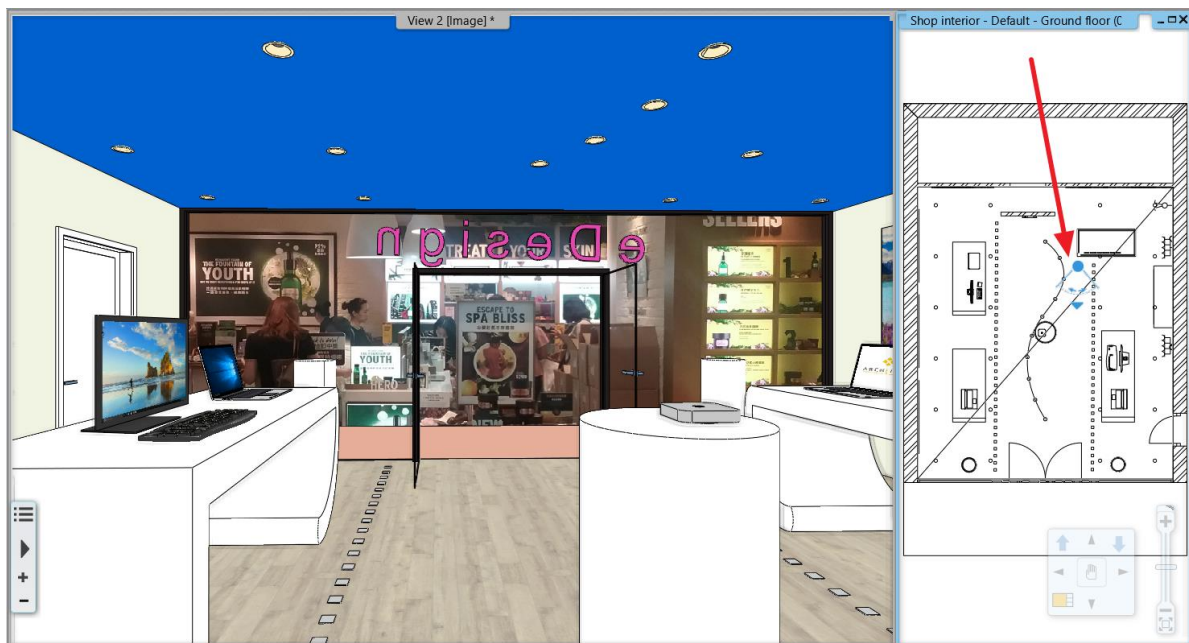
- ❖ Phase status
- ❖ Phase filters
- ❖ Wall state
- ❖ Opening Detail Level
- ❖ Layer variation groups
- ❖ Input field

The View Control Bar by default is located above the status bar:



1.3. Camera icon on Floor Plan view

Camera icon allows to view what we would actually see if we were standing at the given location in the floorplan.



1.4. Welcome Screen – Icon / List view

Expanding the welcome dialog with a simple list view where all projects are listed with following details:
Project name | Path | Date and Size form.

This would allow you to display up to hundreds of projects at once sorted by name, date, etc.

You can swap the ICON / LIST view to the right side of the dialog.

Create a new project or open an existing one



NEW PROJECT
OPEN PROJECT
EXIT

Search
First steps video
Demo projects

HIGHLIGHTED PROJECTS

ICON / LIST

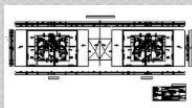


Scholtz_Gabor_E-
Invest_Bp_2018.pro



eDesign_Shop_2018.pro

RECENT PROJECTS



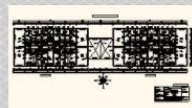
Gyurjan_tarsashaz_2019.pro



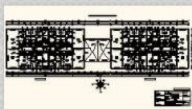
eggendorfer 22012_wd.pro



Harosi_Kriszti_Planimetria_201



Gyurjan_tarsashaz_2016.pro



Gyurjan_tarsashaz_.pro



polierplan-leeb-1.pro



2017_06 - AZZINI - PISCINA
COMUNE dopo
PAESAGGISTICA 19.pro



Chiswick_park_Final_all_purge

Professional - 64 Bit Release 1 v180920 Build 32



NEW PROJECT
OPEN PROJECT
EXIT

Search
First steps video
Demo projects

ICON / LIST

Filtering

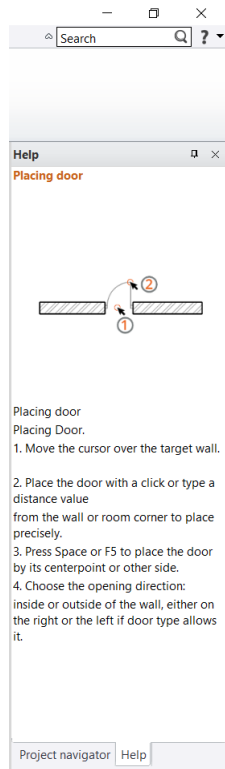
Name	Path	Date	Size
Transvaalstraatkontich45_Wannes_Malaise_Frank_Van_Asch.05.07.2018.pro	C:/Users/zoli/Documents/ARCHlineXP Draw/2018/	2018.07.09. 12:12	271 MB
SAC_Prefab_home_07_donot_publish.pro	D:/Exhibition/	2018.08.17. 17:38	168 MB
eDesign_Shop_2019.pro	C:/Users/zoli/Documents/ARCHlineXP Draw/	2018.08.08. 14:04	15 MB
Scholtz_Gabor_E-Invest_Bp_2018.pro	/Support/Sample_projects/	2018.08.08. 09:39	10 MB
Document25.pro	C:/Users/zoli/Documents/ARCHlineXP Draw/	2018.09.18. 17:26	2 MB
2017_06 - AZZINI - PISCINA COMUNE dopo PAESAGGISTICA 19.pro	//cad-server/Design/Exhibition/01_Presentation_Project/05_Architecture/	0.00.00. 00:00	16 MB
Chiswick_park_Final_all_purged.pro	//cad-server/Design/Exhibition/01_Presentation_Project/04_Apartment/Chiswick/	0.00.00. 00:00	15 MB
eggendorfer 22012_wd.pro	//cad-server/Design/Exhibition/01_Presentation_Project/05_Architecture/	0.00.00. 00:00	68 MB

Professional - 64 Bit Release 1 v180920 Build 32

1.5. Help panel

On the right side of the screen, the Help palette appear together with Project Navigator by default.

The Help palette shortly introduces how to use the currently selected tool. It may contains an image (optional) and the instructions what to do next when using a tool.



If you want to create more space in the drawing area, click the Auto Hide icon in the upper right corner and the Help palette disappears behind a tab. To see the Help palette again, hover over the tab, and you see the palettes in a slimmed-down format. To close the Help palette completely, click the X in the upper right corner.

To see the Help palette again, select Options > User Interface - Help.

1.6. Visual keyboard layout for keyboard shortcuts

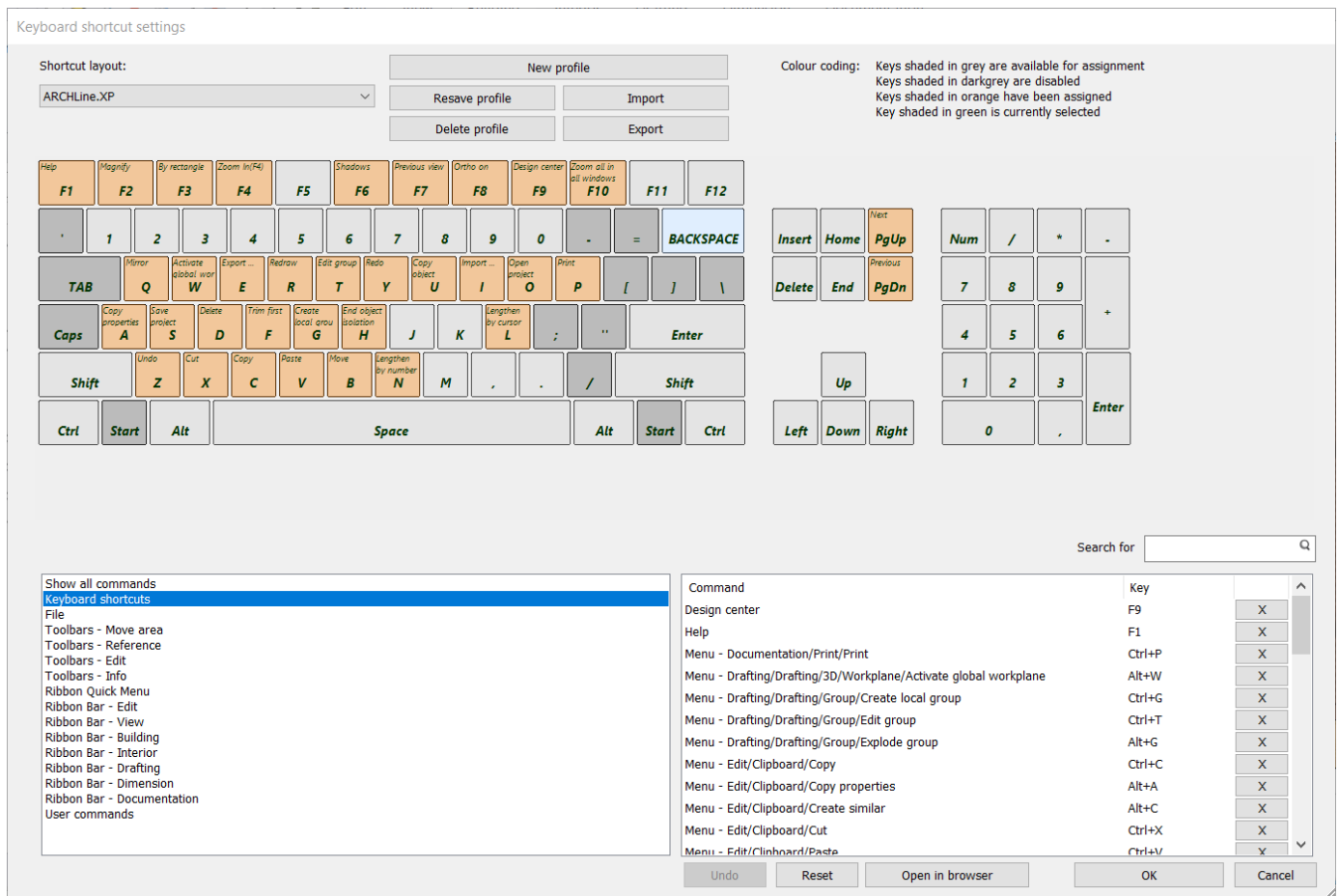
Keyboard shortcuts provide an alternative way to execute commands.

The new ARCHLine.XP 2019 keyboard shortcuts management can boost your productivity.

Each of the keyboard shortcuts assigned to that key is displayed by the visual keyboard when holding the mouse over a button for a short time.

Pressing the Ctrl, Shift, Alt buttons rearranges the visual keyboard and displays the keyboard shortcuts available with the key pressed.

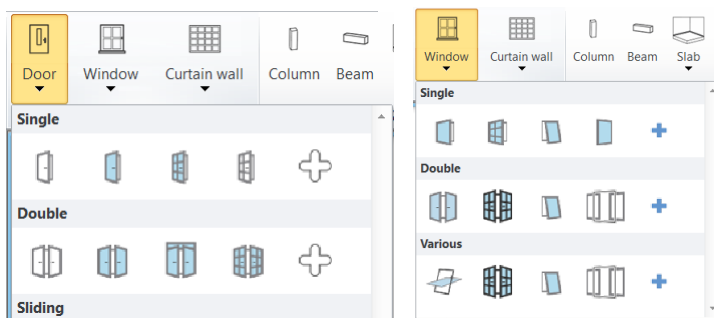
When you change a shortcut, you can choose Save it as new profile to save the customized shortcut set as a new profile.



1.7. Ribbon bar menu access to most common door / window types

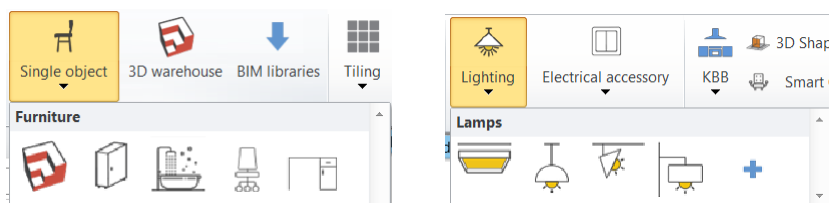
For elements such as doors and windows clicking on type icons you can place directly the most common door / window types.

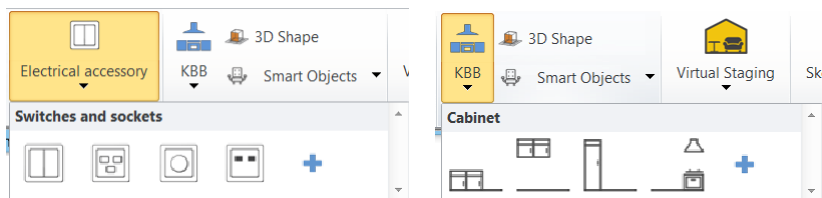
In addition clicking on the + icon the program displays the selected category in the Design Center. You can place the content of the category with drag and drop method.



1.8. Ribbon bar menu access to most common object types

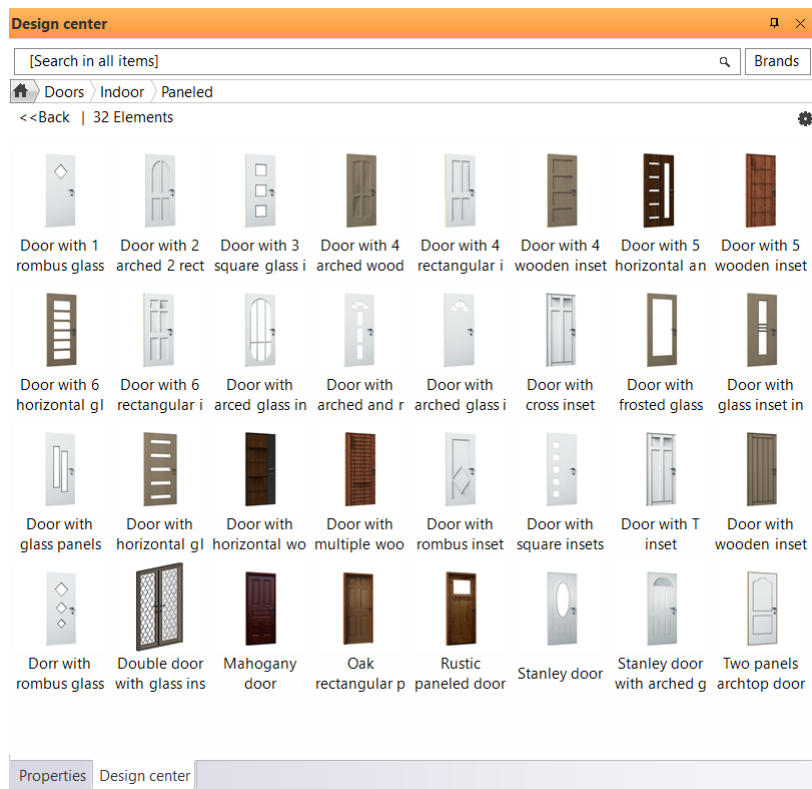
For elements such as objects, lamps, switches and sockets, cabinets clicking on icons the program displays in Design Centre the selected category. You can place the content of the category with drag and drop method.





1.9. New Paneled Doors

For The Paneled doors category is extended with 32 new typical paneled doors.



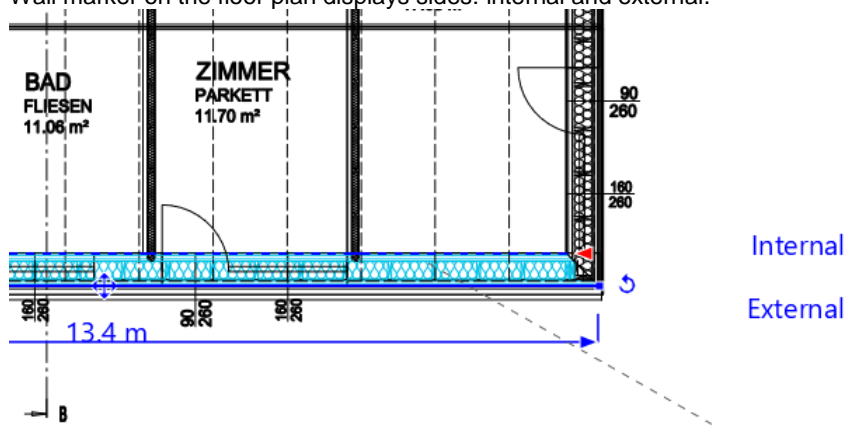
1.10. New grips

1.10.1. Parapet height /relative height modifier

For elements such as doors and windows clicking on the grip will cause the change of parapet height. In addition for elements such as object, column, beam clicking on the grip will cause the change height relative to floor.

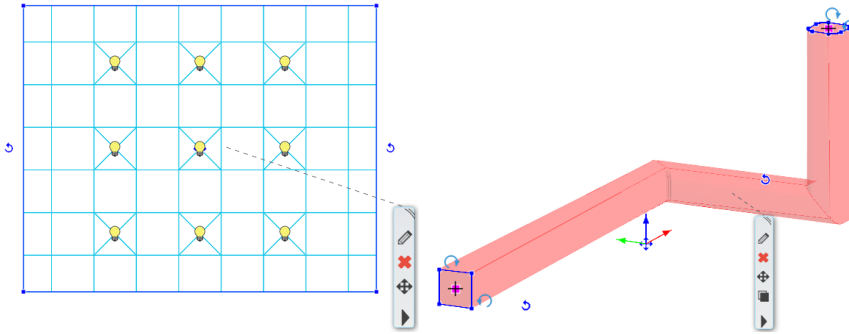
1.10.2. Wall marker

Wall marker on the floor plan displays sides: internal and external.



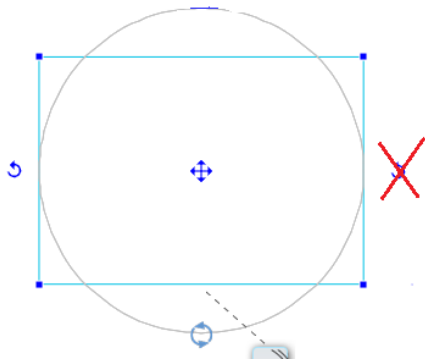
1.10.3. New grip points for ceiling, sweep 3D

Extended grip points help the editing of the selected element.



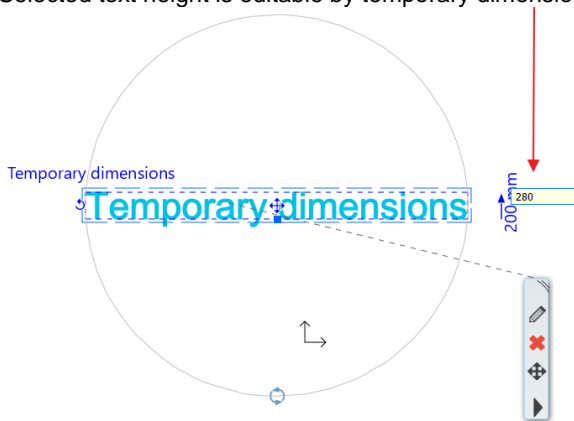
1.10.4. New rotation grip at 2D elements

New rotation grip for 2D elements: line, polyline, arc, text, 2D group, raster image. The rotation icon on the right side disappears.



1.10.5. Text height modifier

Selected text height is editable by temporary dimension.

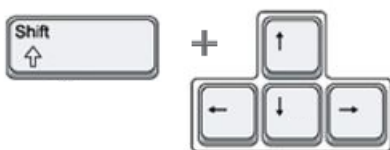


1.11. Nudging Elements

Nudging is a very simple way to move the selected elements.

Press the keyboard arrow keys to move the elements horizontally or vertically in specific distance.

Each press of a keyboard arrow key moves the selected elements with the normal or fine increments.



Nudge settings:

Set up your setting in Option dialog > Snap and Grid panel.

Default increments:

Normal - 100 mm.

Increment to move the selected elements (Pressing the arrow keys on keyboard)

Fine - 10mm.

Fine increment to move the selected elements (holding down the SHIFT key then selecting the arrow keys on keyboard)

2. Interoperability

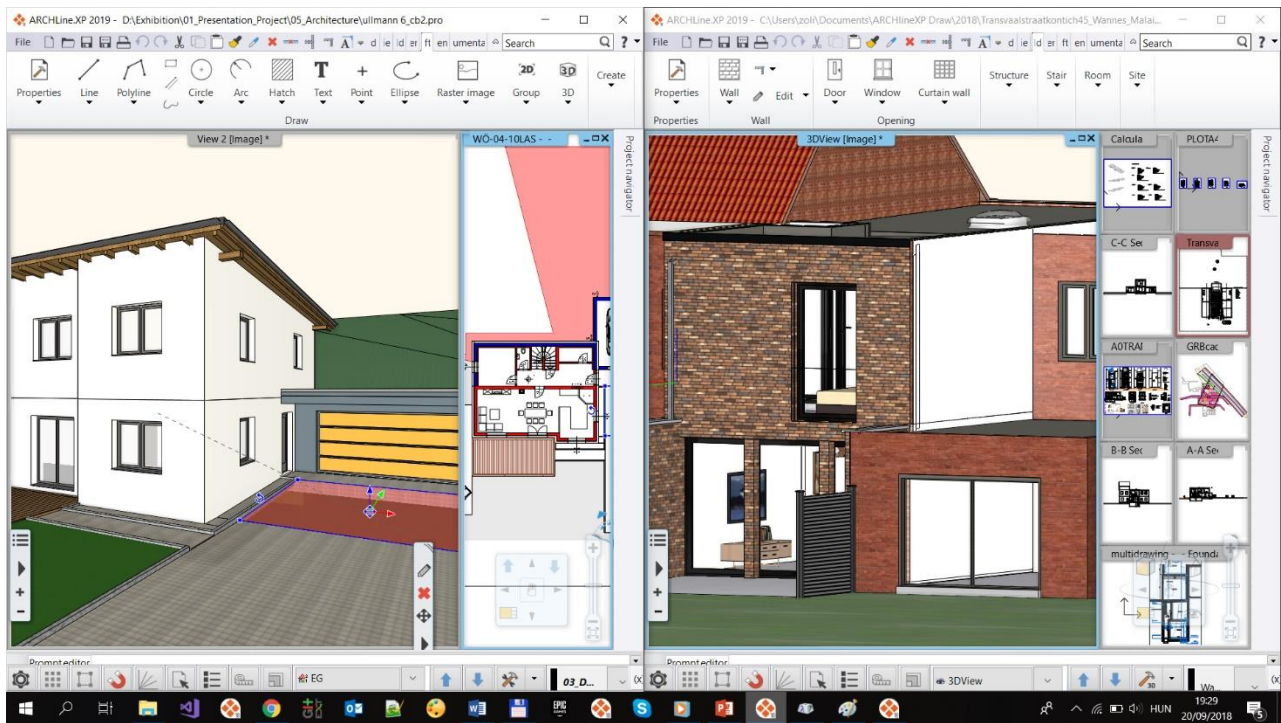
2.1. Multiple instances of ARCHLine.XP

Some users are so multitasking that they need everything to be done together or in parallel. ARCHLine.XP 2019 can bring them this kind of ease. Now it is possible to run multiple versions of ARCHLine.XP 2019 at the same time.

Using multiple instances of ARCHLine.XP you can copy data from one project to another.

To copy a part of your floor plan from one project to another, using multiple instances of ARCHLine.XP, simply use the copy and paste clipboard commands in Edit menu.

Note: This function is disabled in Studio version.



2.2. Renewed worksharing with Multi-user (team) mode

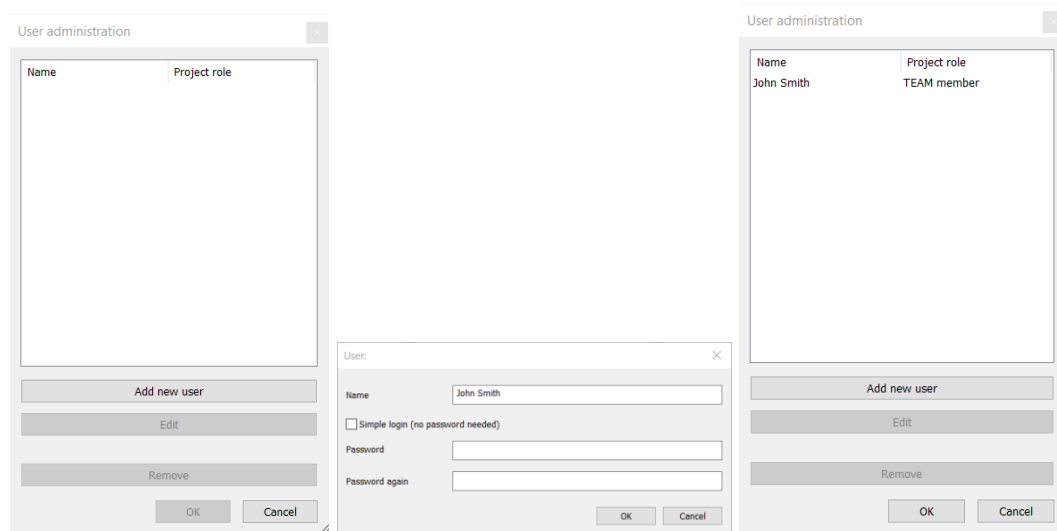
The Teamwork tools makes available to work on the same project with your colleagues together. Every part of your project updates automatically, so that the plan and the documentation are one coherent unit through the lifecycle of it.

Rules of the game:

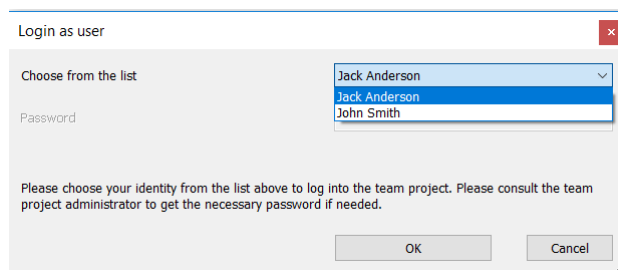
- Teamwork allows simultaneous access to a shared model through use of a central model.
- The central model has to be saved on a network drive to which all team members have access.
- Master working area is privileged to define team project fundamentals (Storey structure, layers, geo-location and initial state of the project)
- All users work locally on different working areas. Every user can manage one working area in active state to which new elements are added.
- Graphic Override enabled to provide different output of the view (color, line types, line weight, half-tone, and hatch pattern).
- Save command means synchronizing local working areas with central model so that other users can see the updated workFlow diagram:

2.2.1. Flow diagram for setting up Team project

1. Administrator creates a new Team project by choosing New project when ARCHLine.XP starts.
Location of the command: File > Teamwork > New project
In the Save dialog, Administrator specifies a file name and directory location for the central model on a network drive to which all team members (users) have access.
2. Administrator adds new users by defining the name that will be used to login. Password is optional.
The following image shows the User administration dialog, adding users.



3. Administrator will login choosing one of the identity already defined.



4. The next step is to create the Master working area. Master working area is the only working area where password is required to enter.

Working area

Name:

Password:

Password again:

Now you need to set up a name and password for the so called "Master" working area.

A Master working area is a special, protected working area which contains fundamentals of your team project that can be later modified only with administrator rights (storeys, layers, initial state of the project, ...).

OK Cancel

5. Additional working areas can be created to provide simultaneous access to a shared model for the other users.

Working area manager

Active	Working area	Current owner	Visible	Editable	Graphic override
<input checked="" type="radio"/>	Master working area	Jack Anderson			No override

The list above represents the current status and ownership of the team project working areas; you may even add new ones or rename existing areas. All team members can personalize the [Graphic override] settings for their own taste. Certain functions may be accessible for administrators only.

Add new working area Change password

OK Cancel

Working area

Name:

OK Cancel

The following image shows the Working area manager dialog, with two working areas.

Working area manager

Active	Working area	Current owner	Visible	Editable	Graphic override
<input checked="" type="radio"/>	Master working area	Jack Anderson			No override
<input type="radio"/>	Interior design	Jack Anderson			No override

The list above represents the current status and ownership of the team project working areas; you may even add new ones or rename existing areas. All team members can personalize the [Graphic override] settings for their own taste. Certain functions may be accessible for administrators only.

Add new working area Change password

OK Cancel

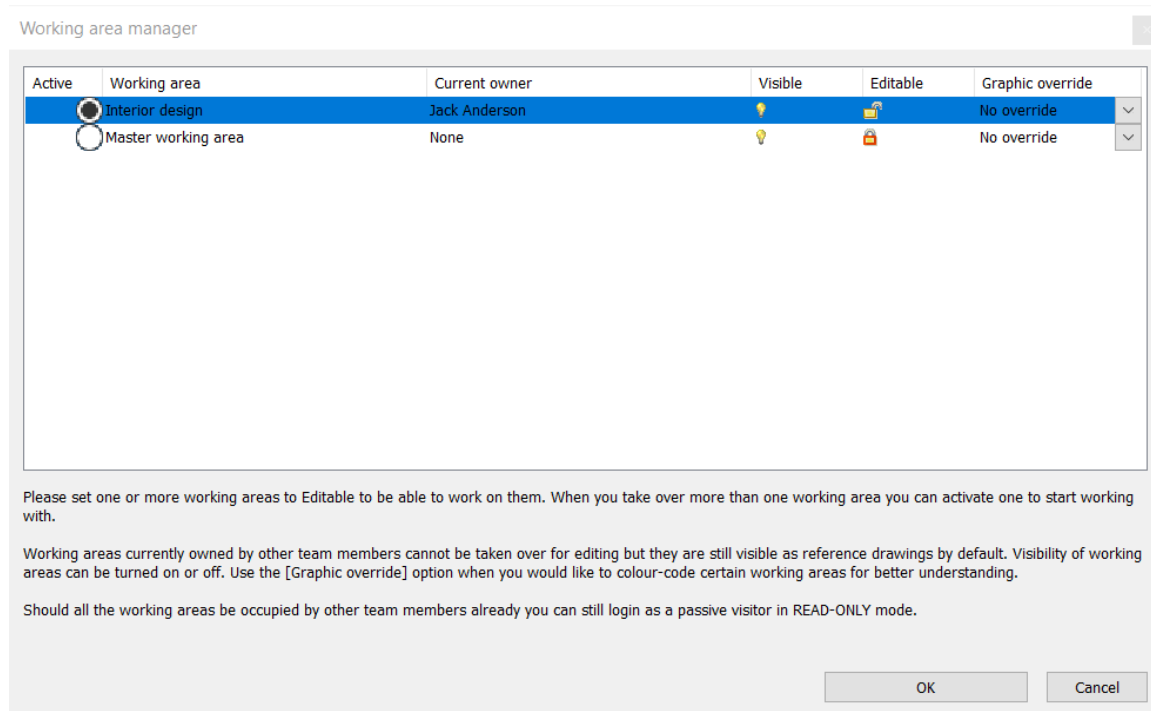
6. Administrator resaves the project.
7. Users can login choosing one of the identity already defined and begin to work on Team projects.

2.2.2. Setting up working areas

The workspace is a collection of elements handled by a team member, eg. walls, windows, doors, stairs, etc. Only one user can edit each working area at a given time. All users can view the working areas owned by other users, but they cannot make changes on it.

The Working area manager dialog provides the following information:

Active	Designates the working area to which new elements are added.
Working Area	Indicates the name of the working area. Click inside the name field to rename it
Current owner	Indicates the current owner of the working area.
Visible	Allows to show or hide the working area.
Editable	<p>By default all working area are locked for editing. Choose one or more working areas you want to edit. When you take over more than one working area you can activate one working area to which new elements are added. Working areas currently owned by other team members cannot be taken over for editing but they are still visible as reference drawings by default.</p> <p>Should all the working areas be occupied by other team members already you can still login as a passive visitor in READ-ONLY mode.</p>
Graphic Override	Use the Graphic override option when you would like to colour-code representation of different working areas for better understanding.



Choose the active working area

User can only create elements in the Active Working Area only. Click on the circle icon in the first column to select your active working area.

Visible

Choose the working area you want to make visible. You can improve performance if you hide working areas that are not required for your current work.

Editable

Choose one or more working areas you want to edit. Working areas currently owned by other team members cannot be taken over for editing.

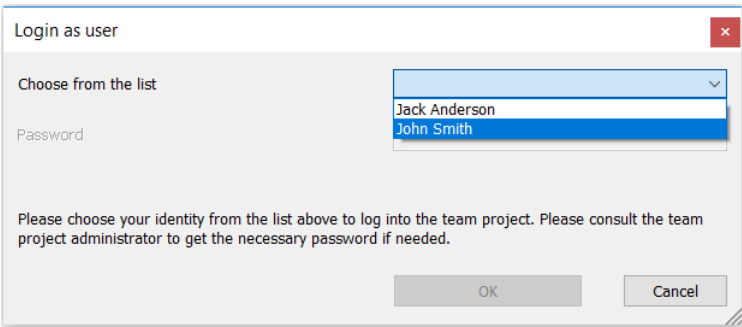
Graphic Override

You can specify graphic override of color, line types, line weight, half-tone display, and hatch pattern. When the Halftone option is enabled the halftone of the element colour will be used for representation. Hatch pattern can be also overridden in case the element has hatch pattern representation.

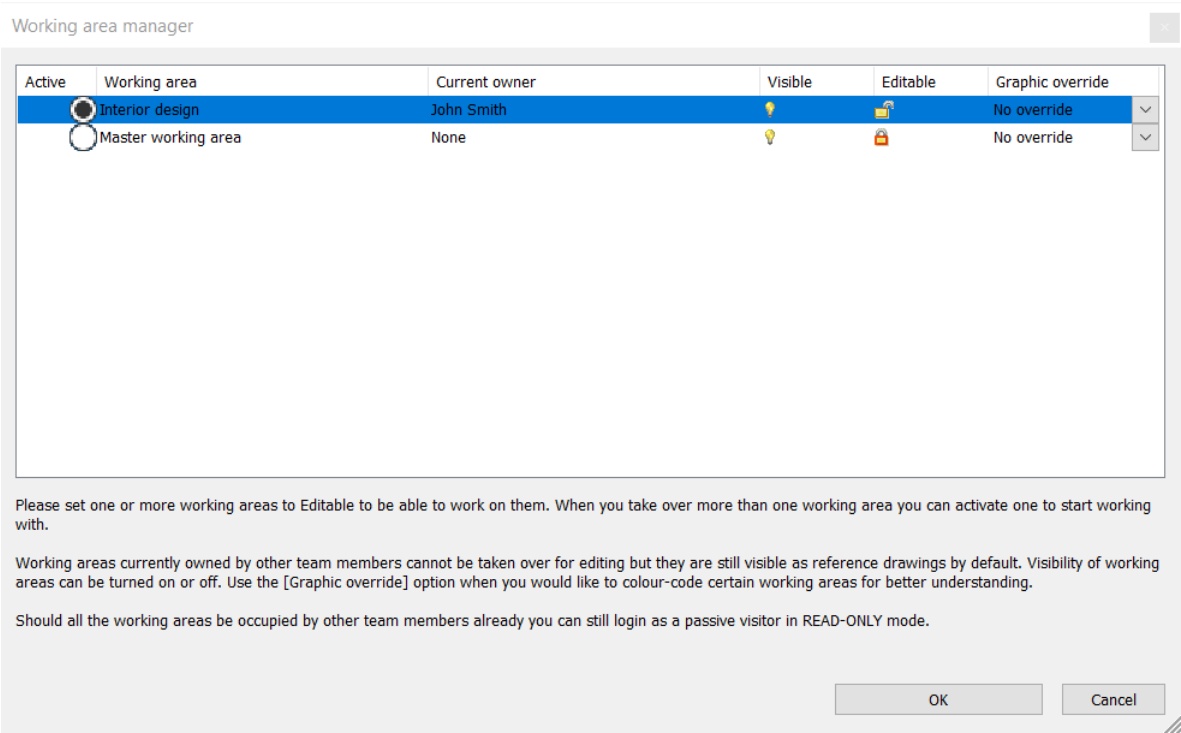
2.2.3. Changing the Editable Status of working areas

If you want to create new elements on a different working area you have to close the Team project and open it again.

Login as an user and choose another working area



You can only set the active state of a working area that is not owned by another user.



2.2.4. Work offsite or offline

Change to Offline mode is useful when you are not connected to the network to save your changes.

Working in OFFLINE mode you can work on the project and make changes on your editable working areas far from the team, with no network connection. Project changes are saved on your hard drive each time you modify and resave the project. To share changes with the team members switch back to ONLINE mode when you can do that and save the project file.

Location of the command: File > Teamwork > Administrative Tools > Creating a Local Copy for Offline mode

Note: all changes made on this project are not available for other team members until you switch back to ONLINE mode and save the project again.

2.2.5. Update Local Copy to the central model

Using this command you join again to the Team and synchronize your changes with central model.

You can update your local changes to the central model and you will see the latest changes from other team members

2.2.6. Reassign elements to a different working area

In the drawing area, select elements you wish to reassign.

Select the target working area.

2.2.7. Convert Team project to single-user project

The command converts Team project to single-user project.

Location of the command: File > Teamwork > Administrative tools > Convert Team project to single-user project

- Save the project.
- Exit from the project.
- Open the project again. From now on you can work in single user mode.

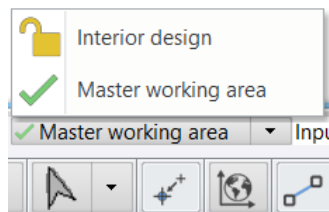
2.2.8. Change active working area on the View Control Bar

The View Control Bar always displays the active working area.

To change the active working area, click on the Drop-down list and select another one.

You can choose from editable working areas only.

The active working area drop-down provides the same function as the corresponding dialog clicking on the File > Teamwork > Working Area Administration command.



2.3. Design Phases

Using design phases you can separate the building construction into multi-phase design.
Building renovation projects, or the project complexity often requires to separate in multiple phases.

Design phase

The design phase can be Existing and New.
When creating a new element, it will be associated to the current phase (Existing or New).
Demolition is NOT a phase you cannot create an element with demolished phase.
Any elements can be set for demolition with modification command.

The design phases can be tracked in full documentation, so 3D views, sections, elevations, and consignment lists follow the status of the current phase.

1. New Elements are created in the New Construction phase.
2. Existing elements are created in the Existing Phase
3. Demolished: The element created in the previous phase disappears in the given phase.

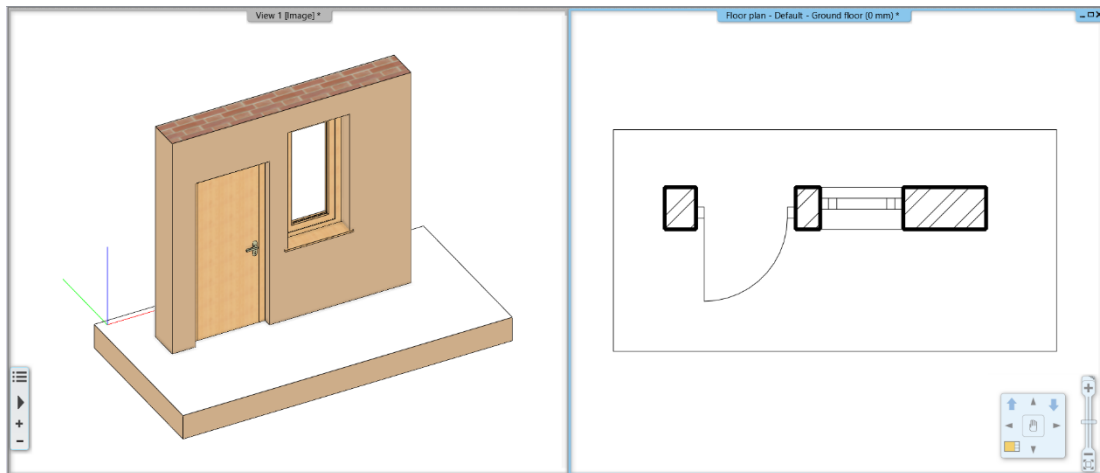
Any elements can be set for any other design phase with modification command. Select an element and set the

Phase filters

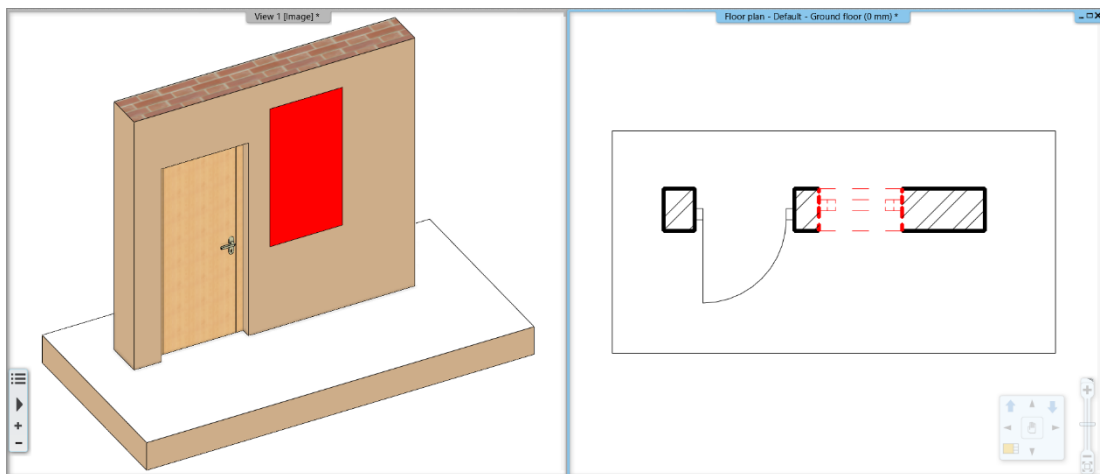
Phase filter means rules applying to display of elements based on their phase status: new, existing or demolished.
ARCHLine.XP comes with 5 phase filters:

- a. All phases
- b. Existing plan
- c. Demolition plan
- d. Existing plan after demolition
- e. New construction plan

The following images display a floor plan with existing wall, demolished window and new window in different phases:

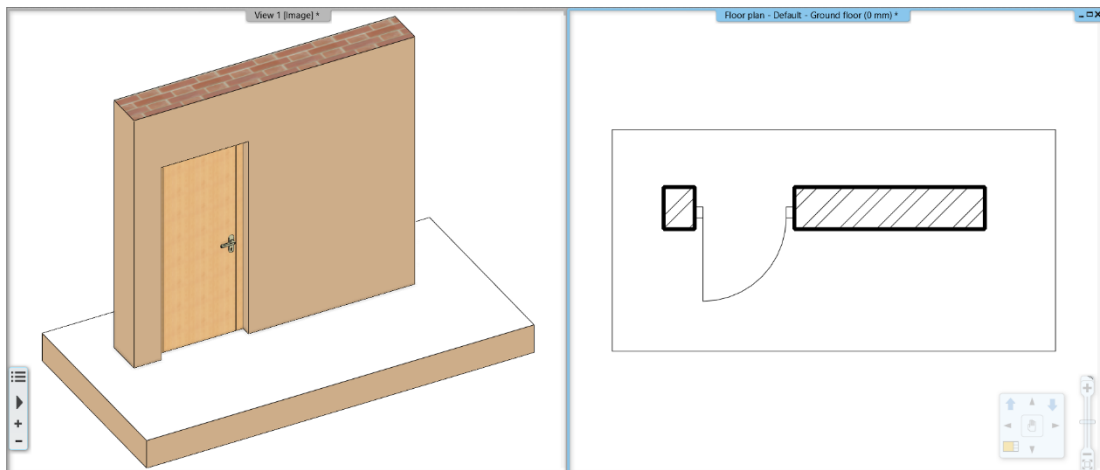


Phase filter: Existing plan



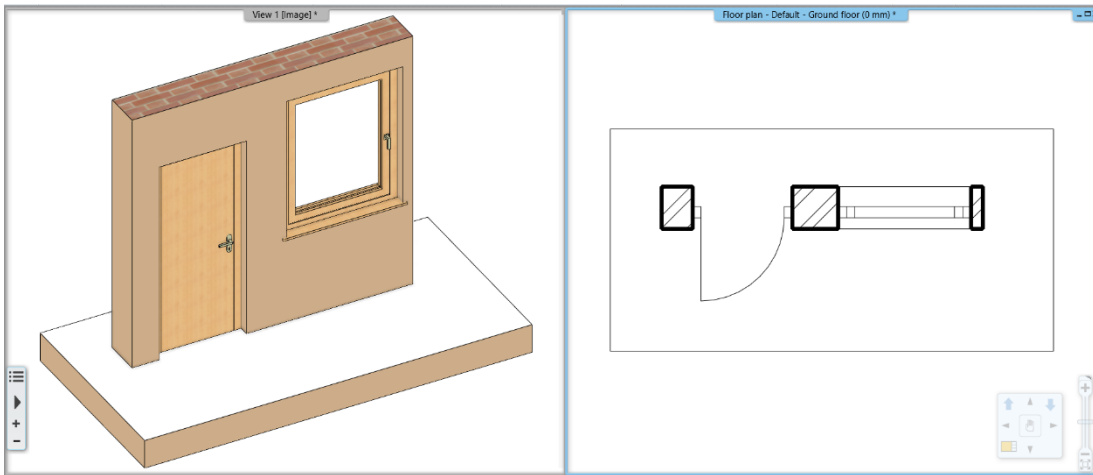
Phase filter: Demolition plan.

ARCHLine.XP in 2D marks with red and in 3D automatically refills the void in red left by the demolished window.

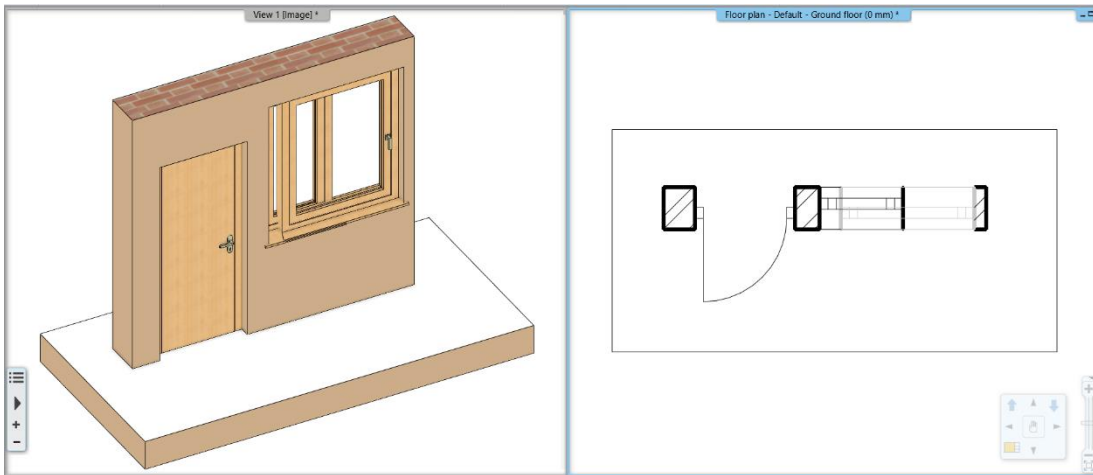


Phase filter: Existing plan after demolition

ARCHLine.XP in 3D will automatically refill the void left by the demolished window within the wall.

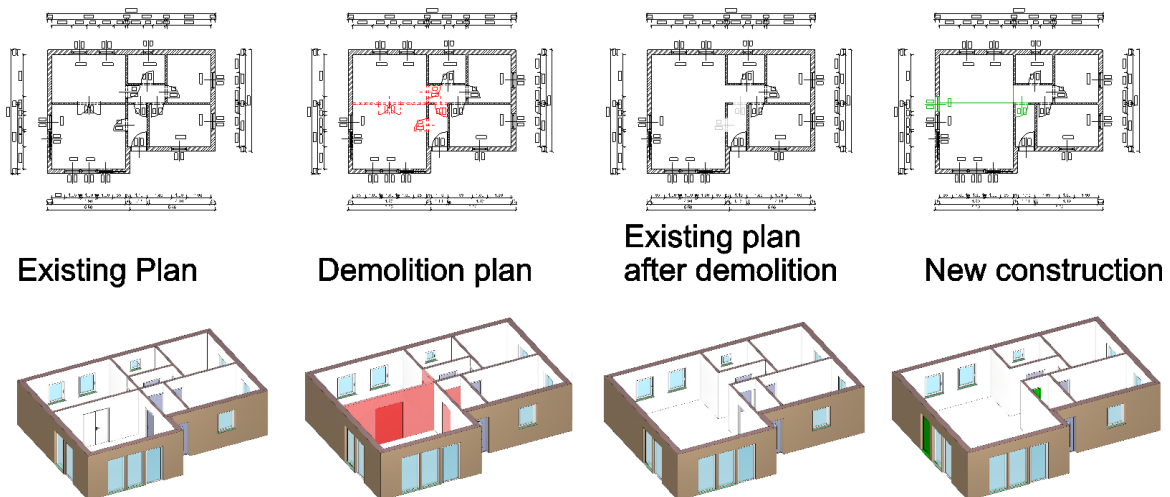


Phase filter: New construction plan

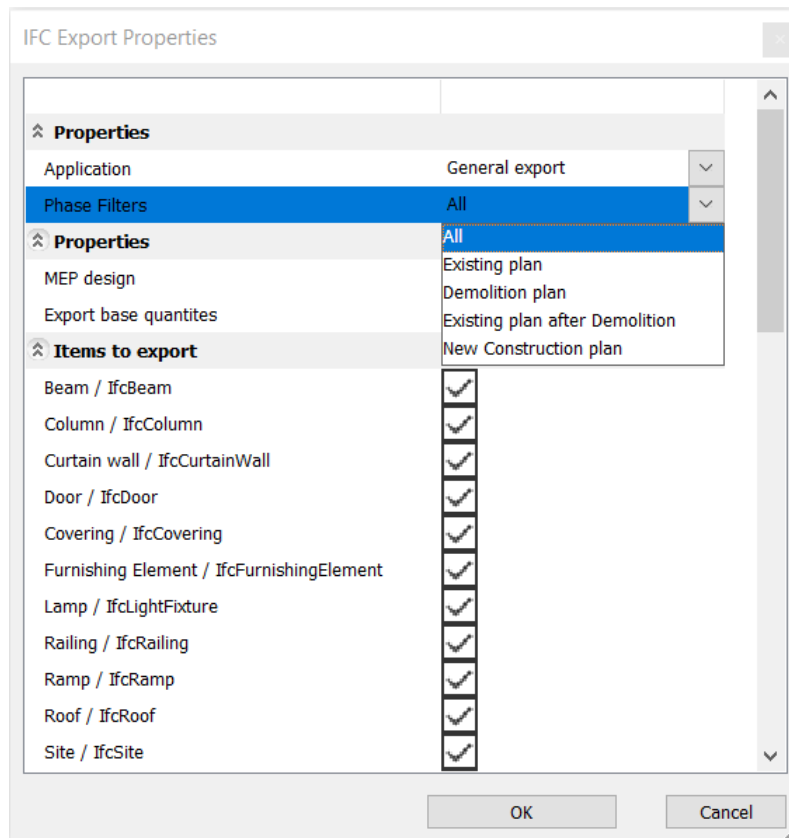


Phase filter: All
ARCHLine.XP displays all elements with different colors.

The following image displays a real floor plan with different phase filters:



2.3.1. IFC export extended with Design Phase filter

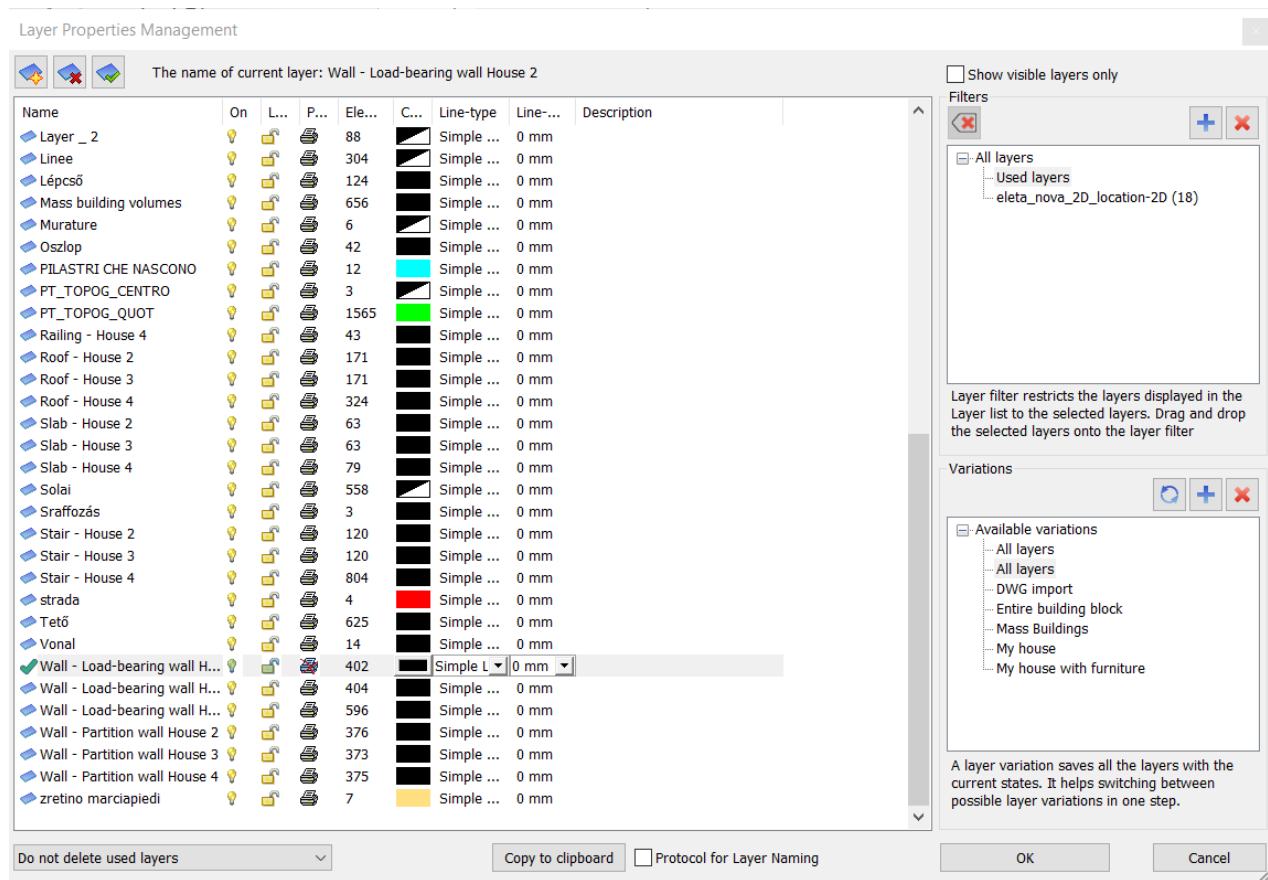


2.4. Layer Variations

Layer variations is a new feature in the organization of project data.

When the project has entailed so much information that it becomes confusing to understand you can control the project visibility by Layer variations.

Switching between variations you can hide or show the desired part of the project in one step.



2.4.1. Delete all items on a layer and purge the layer.

The new toggle button in the bottom left corner of the Layer Properties Manager Dialog allows to delete layers that contain items.

3. Architectural Enhancements

3.1. Join two windows as corner window

Any combination of standard windows can be joined.
Wall ends allow window joins. It is allowed to pull them apart and using the trim/extend to wall corner.

There are two methods to create the corner windows:

1. Automatic
2. Manual

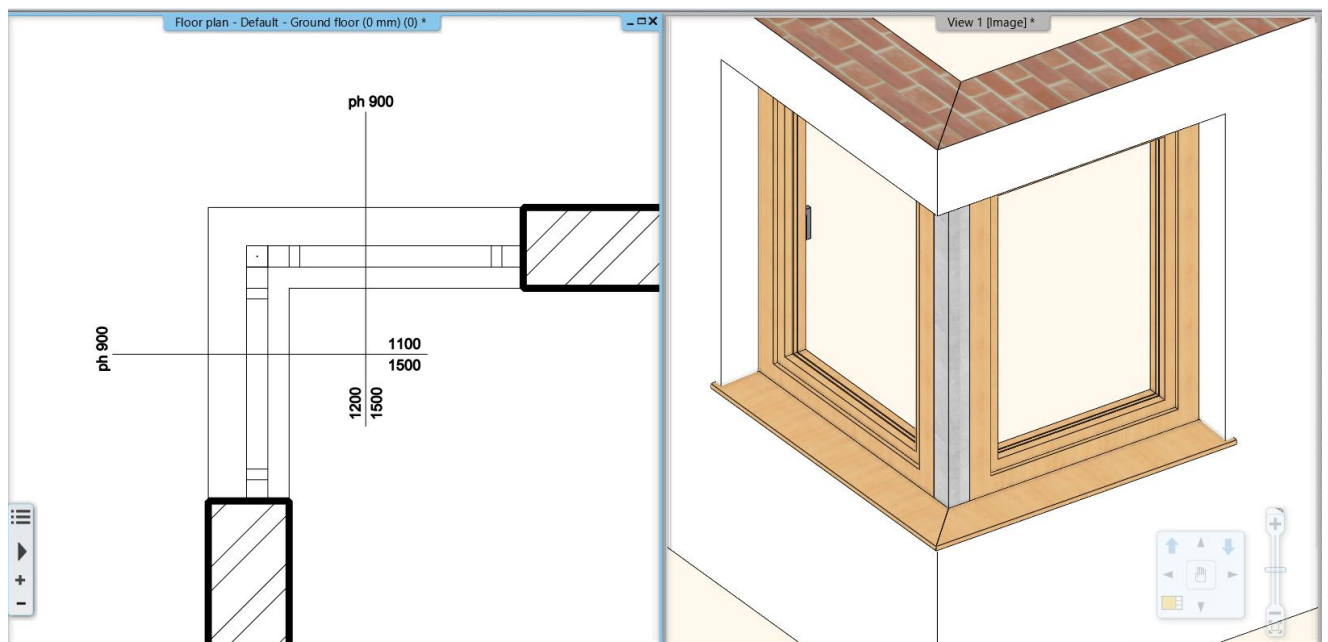
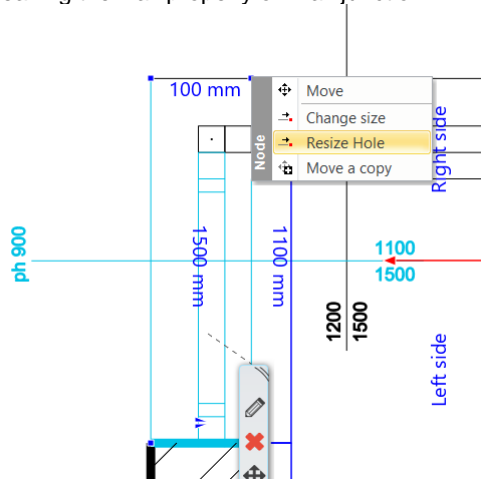
Automatic

To create a corner window place two windows on each side of a corner where two walls meet.
Using the Join two windows/doors on wall corner command select the first and second window.
ARCHLine.XP can create a corner post between two windows.

Manual

Select the first window, and drag it to the corner until you see the window snap to the end of the wall.

Using the Resize empty void command you can extend the void separately on left or right side of the door / window, breaking the wall properly on wall junction.



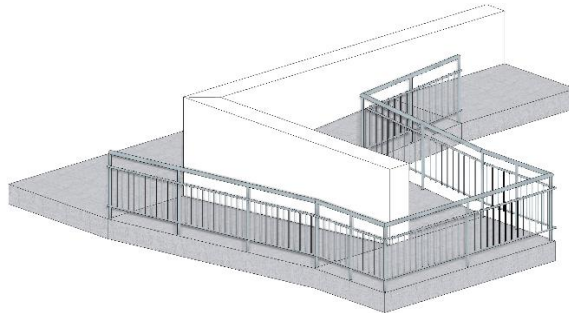
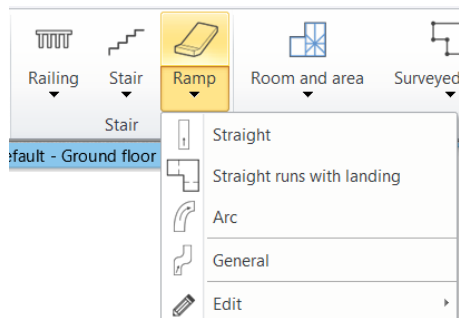
3.2. Renewed ramp tools

Creating a ramp with or without handrails and a landing is easy to accomplish using the renewed Ramp tool, which behaves much like the stair tools.

3 new tools are available:

- Straight sloped ramp
- Arc ramp
- Two ramp segments connected by a landing

Ramps are drawn going up so they should be drawn from the lower part to higher.
Ramp cross section is editable by Add Section Profile command



3.3. Brise Soleil

The modern building structures require the brise soleil objects. According the international standard we renamed the Outdoor Shader toll to Brise Soliel tool.

The tool is renewed. The Brise Soleils are ready to use as 3 separate tools in the ARCHLine.

3 new methods are available:

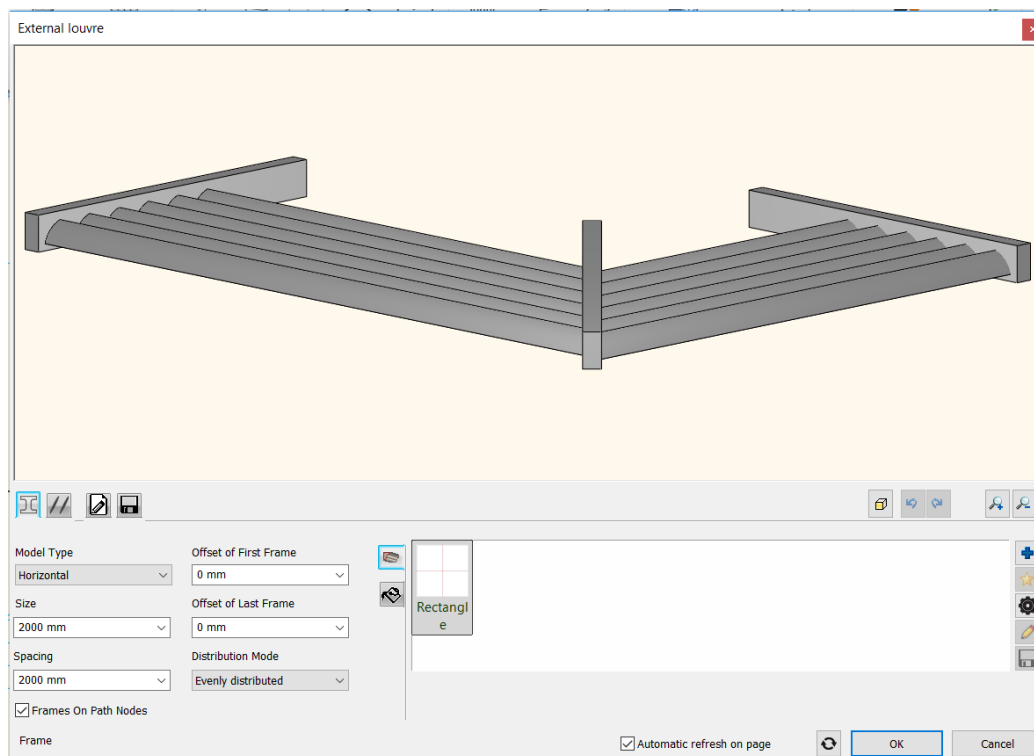
-Horizontal

-Vertical

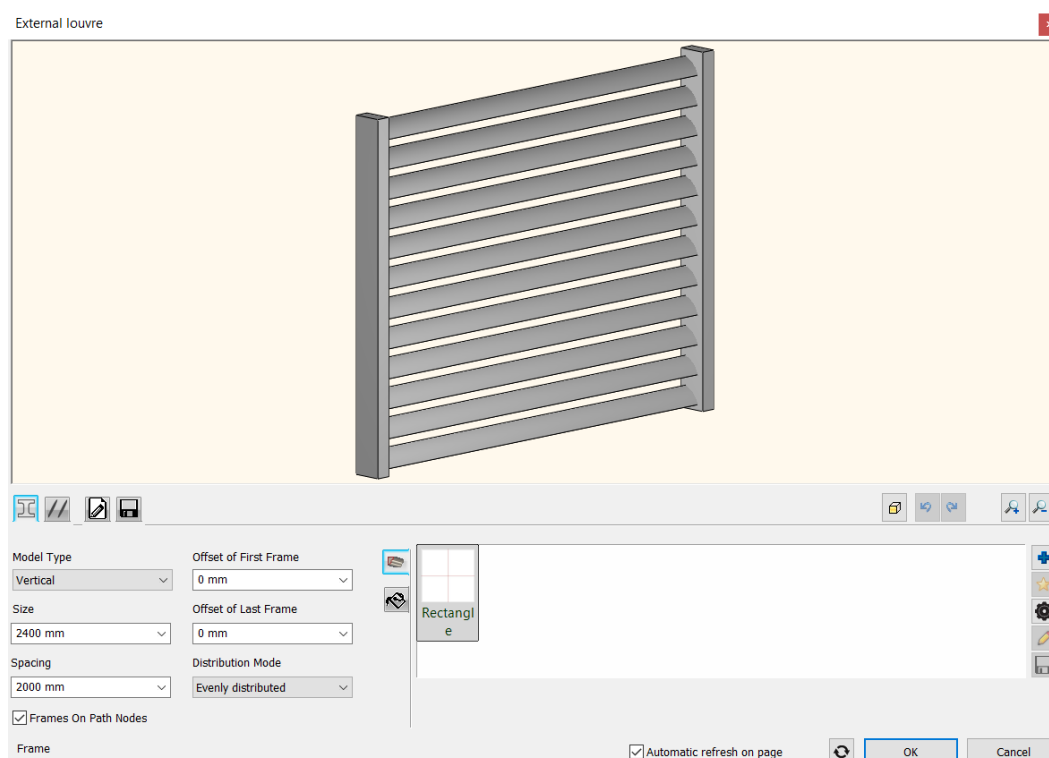
-Custom



Brise Soleil – Horizontal



Brise Soleil – Vertical



Brise Soleil – Custom – Free form profile

External louvre

Model Type

Custom

Spacing

2000 mm

☒ Frames On Path Nodes

Frame

Offset of First Frame

0 mm

Offset of Last Frame

0 mm

Distribution Mode

Evenly distributed

Rectangle

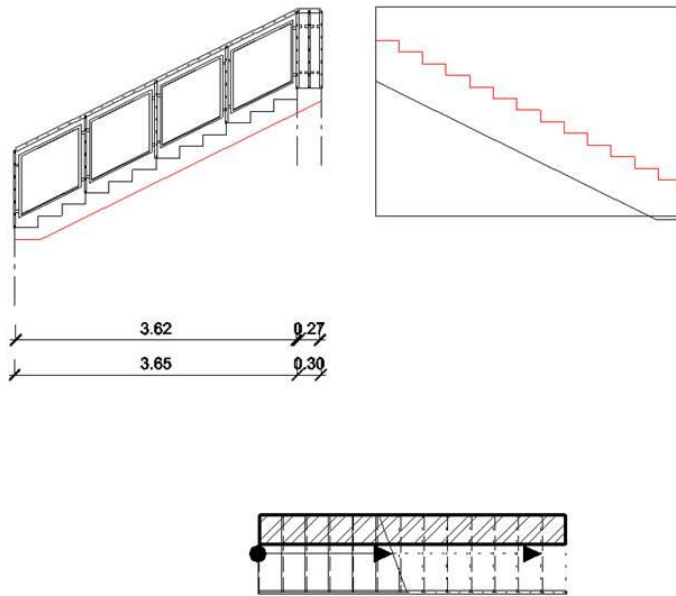
☒ Automatic refresh on page

OK

Cancel

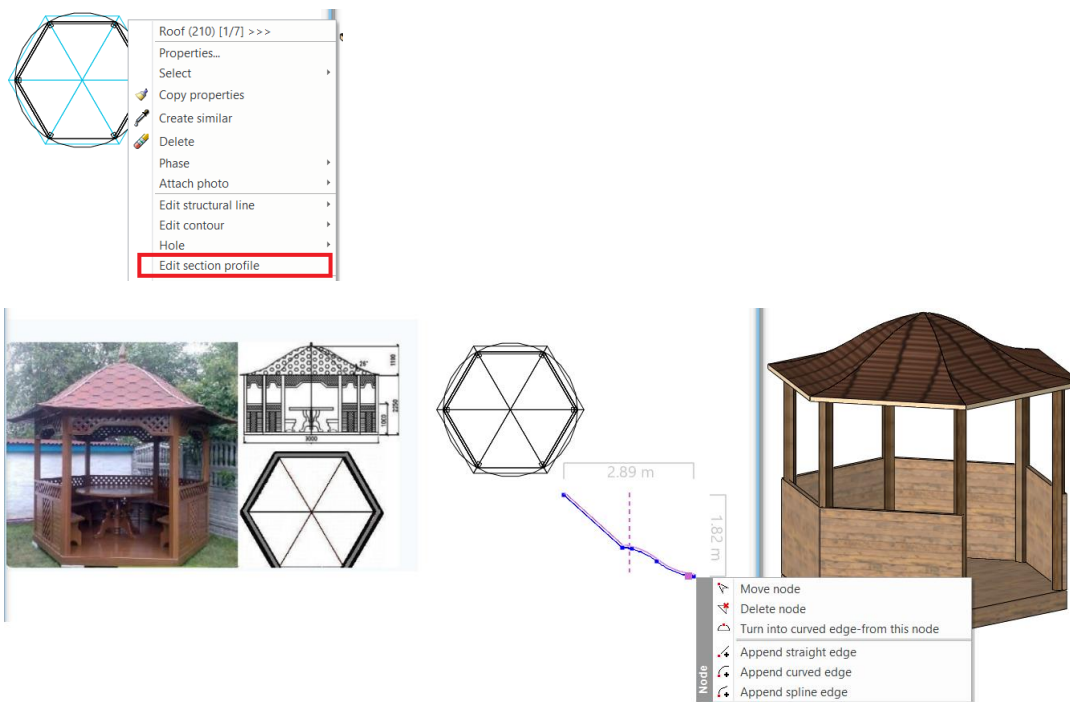
3.4. Uniforming a staircase contour appearing in various Edit Layout commands

The lower and upper contours of the stairs are also displayed in the editing commands. This way, you can decide whether the stair wall cut command is to hold the stairs above or below the stairs. Structurally, both situations may be justified.



3.5. Roof with custom shape - cross section profile editable

When you create a roof with custom shape you sketch the profile first and then use that shape on the roof you create. This profile is available later to edit with Edit section profile command.



3.6. Wall Dimension to Core Layer axis

You can dimension the axis of the core layer in the wall.

Select the wall dimension command and switch on the Dimension to core layer only and the Dimension the midpoint checkbox together.

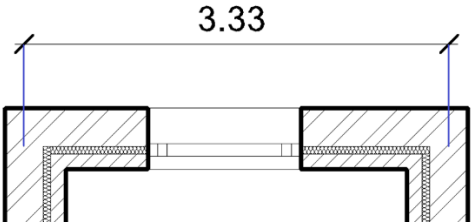
Commands to execute:

Wall endpoints and connections

☒Dimension the midpoint

☒Dimension to core layer only

☐Dimension each wall layer separately



3.7. Wall Dimension to farthest end points

Building > All Walls dialog Dimension options is extended with this: The farthest end points of the walls.

Wall dimension

Dimension options:

Wall endpoints and connections

Door / window frame and wall endpoints

Door / window axes and wall endpoints

Wall endpoints

Sills

The farthest end points of the walls

Add

Delete

Commands to execute: (from the inside to out)

Door / window frame and wall endpoints

Wall endpoints and connections

The farthest end points of the walls

☐Dimension the midpoint

☐Dimension to core layer only

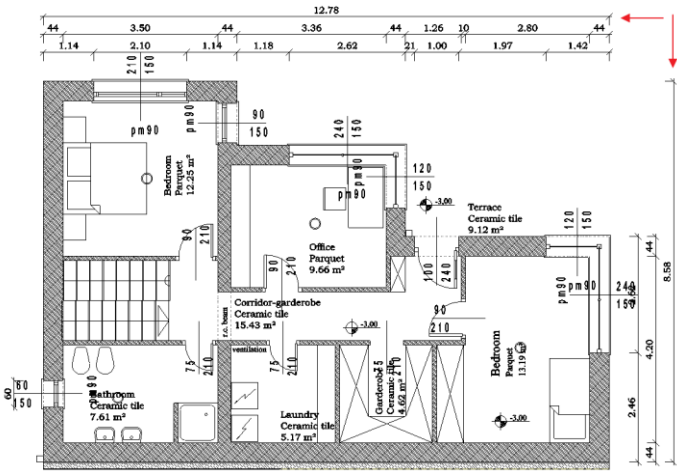
☐Dimension each wall layer separately

Openings dimensions

Attention. Opening width may be the gross, net or gross reduced by the frame value

OK

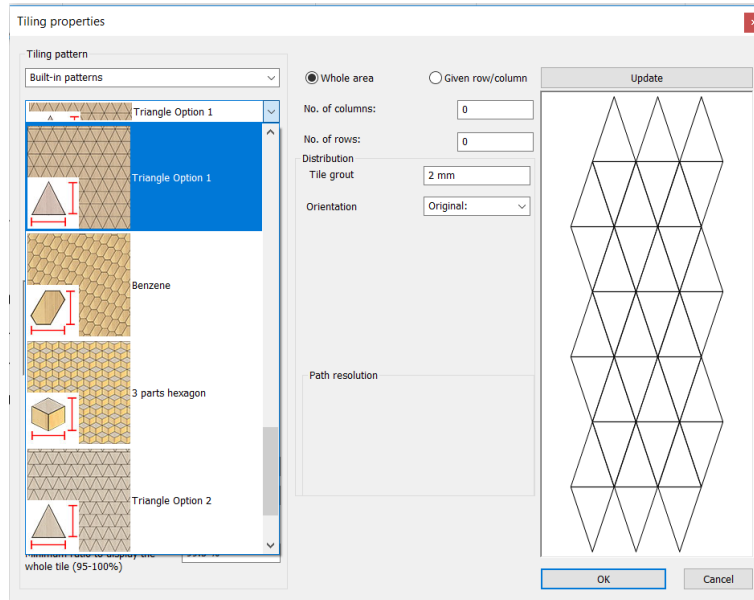
Cancel



4. Interior Design Enhancements

4.1. Tiling with predefined patterns

Modern tiling layouts require novel interior design solutions. Number of built-in patterns has increased. New patterns: Triangle, Benzene, 3 parts hexagon, various Chevron types, Fan, Alhambra.



Examples: www.equpeceramicas.com

4.2. Tiling by pattern group

Tiling dialog: Tiling by pattern group is extended with new features to manage row and column shift (Dx and Dy).

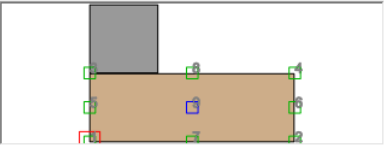
Tiling properties

Tiling pattern

Tiling pattern

Horizontal step (Sx): 903 mm

Vertical step (Sy): 303 mm



Tiling pattern

☐ Overwrite values of definition

☐ Compute tipping angle

Minimum ratio to display the whole tile (95-100%) 99.5 %

☒ Whole area

☐ Given row/column


No. of columns: 0


No. of rows: 0


Distribution

Orientation Original:

Shift:

☐ 

☐ 

☒ 

Column shift (Dy): -303 mm

Row shift (Dx): 303 mm

Path resolution

Path finding: ☐

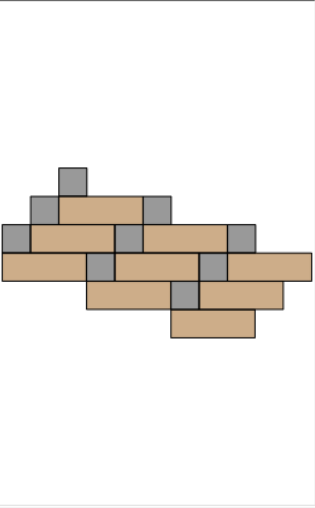
Sort: ☐

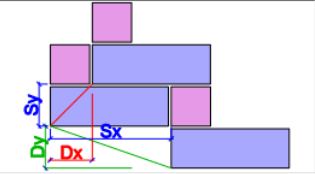
Background area

Thickness: 0 mm

Material: Default material

Update










OK

Cancel

4.3. Tiling list sorted by rooms

The Tiling consignment is extended with a new Excel worksheet that lists the tiles sorted by rooms.

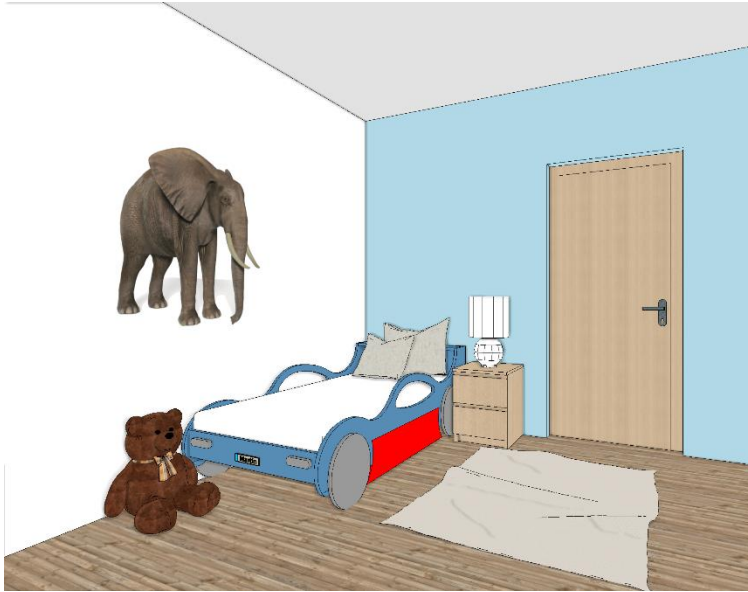
	A	B	C	D	E	F	G	H	I	J
1	Tiles sorted by rooms									
2										
3	Bath FL1									
4	Image	Name of the product *	Producer	Size [mm]	Area [m2]	Total (pc)	Full/Part/Fragment	Price	Value	Tiles
5		Unicer_beige	Generic	400x400	5.69	36	(25/11/0)	0		Rectangle
6										
7										
8										
9		Amtico_AR0SMS45_Stria_Crater	Generic	457x610	2.33	13	(6/3/4)	0		Rectangle
10										
11										
12										
13		sicis_mosaic	Generic	150x100	0.32	22	(10/12/0)	0		Rectangle
14										
15										
16										
17	Others									
18	Image	Name of the product *	Producer	Size [mm]	Area [m2]	Total (pc)	Full/Part/Fragment	Price	Value	Tiles
19		Amtico_AR0SMS45_Stria_Crater	Generic	457x610	0.01	2	(0/0/2)	0		Rectangle
20										
21		Amtico_AR0SMS46_Stria_Crater	Generic	183x1220	15.81	90	(47/33/10)	0		Rectangle
22										
23										
24										
25										
26										
27										
28										
29										
30										

TilesAreasTile detailsRooms

4.4. Picture in wall new feature: Managing transparent images

Images that are saved in PNG format can be transparent.

The Picture on Wall command has been expanded to handle PNG format images, so you can place any background and borderless shape on the wall.



5. Materials

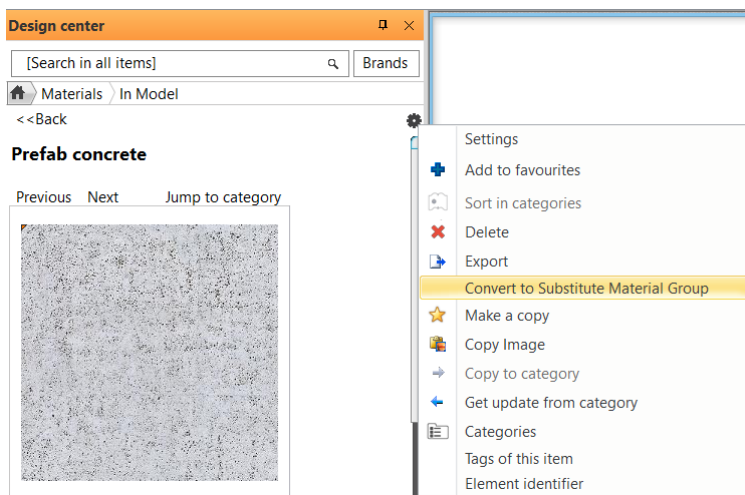
5.1. Color Card

The Colour Card is for replacing a colour or texture with another colour or texture you choose - but this time, the change will take place on the entire 3D model. It replaces the used colour or texture with one of the predefined group of elements.

With only one click, you can visualize how the building would look like in an entirely different colour scheme. You can either create a new Colour Card, or turn an existing material into a new Card.

In the Design Center, select the Material panel and In Model category

Click on a material you are going to convert. Click on Options button and select the command: Convert to Colour Card Group.



Color card manager

Name of the new material:

Category:

Sub category:

Producer:

(Use \ to organize into tree-structure eg: Myroom\Furniture)

Current:

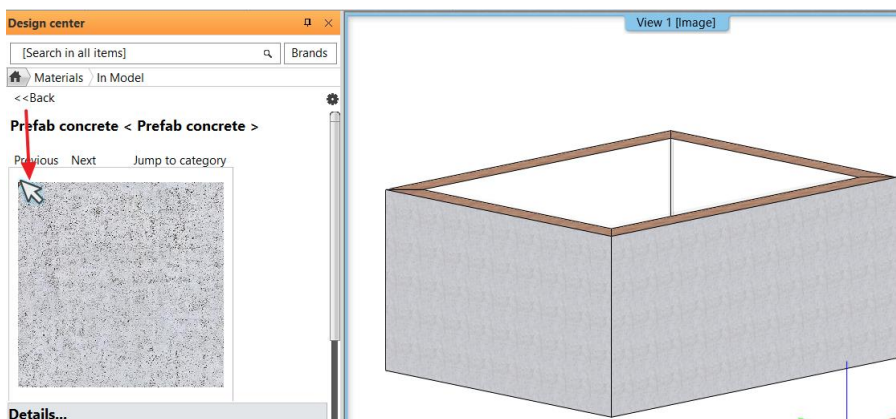
Name

- ☐ Prefab concrete
- ☐ Bright
- ☐ Dark_grey
- ☐ g110
- ☒ RAL 5024 Pastel blue

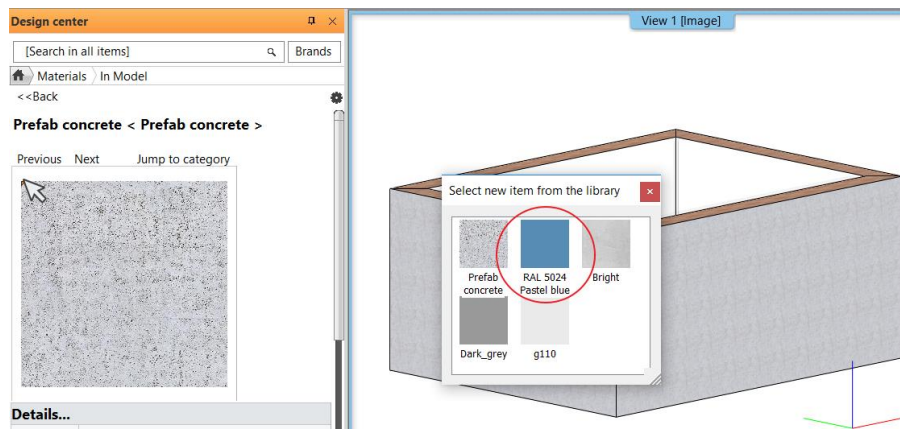
The Color card is a collector of real material and displays the currently selected material. You can list any number of materials in the list. It has the advantage that different versions of the same 3D model can be presented by selecting another element in the list without changing the project. If materials are directly linked to walls, windows, furniture, etc., then their modifications will not affect the 3D model in general. YOU CAN APPLY MATERIALS IN THE PROJECT CATEGORY ONLY.

In the dialog you can add new materials, delete from the group and you can select a new current one. When you close the dialog with Ok, the program replaces the given material with the current one. Attention the material name remains the same!

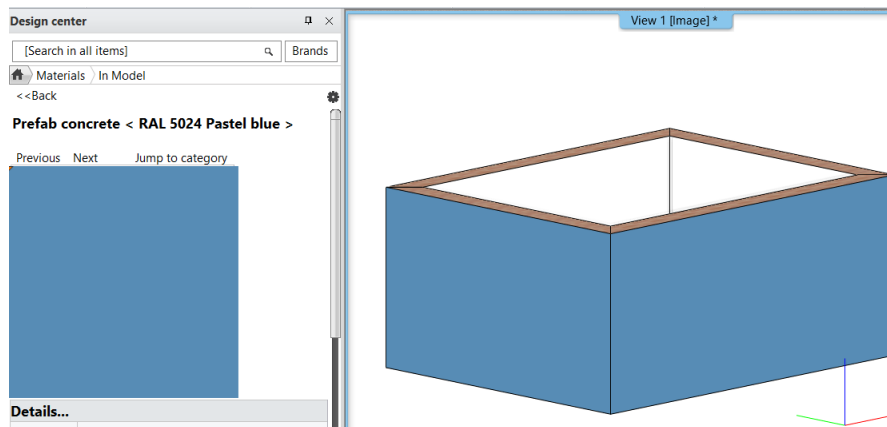
You can change the current material from the Color CardArd anytime. Click on the arrow icon in the left top corner of the image or click on Options button and Settings command.
 Example:



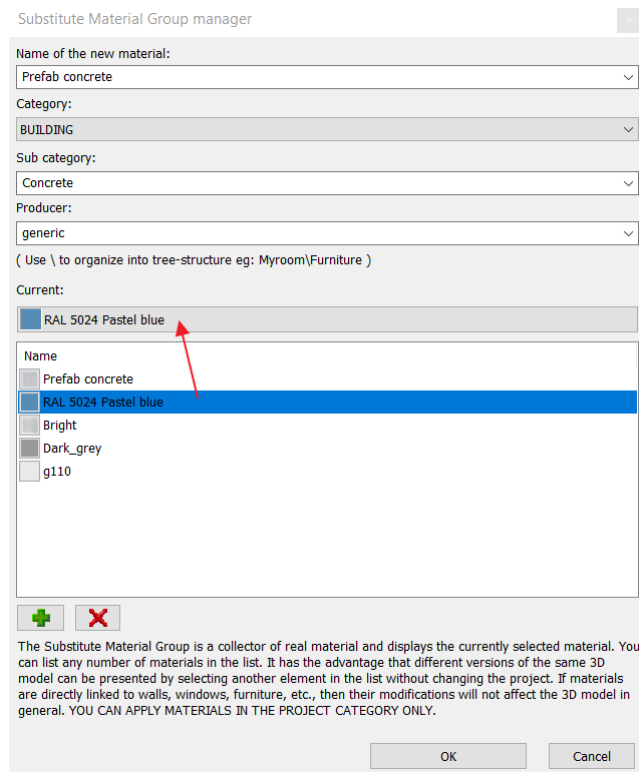
Select a new current material.



Output:



You can choose a new current material with Settings command too:



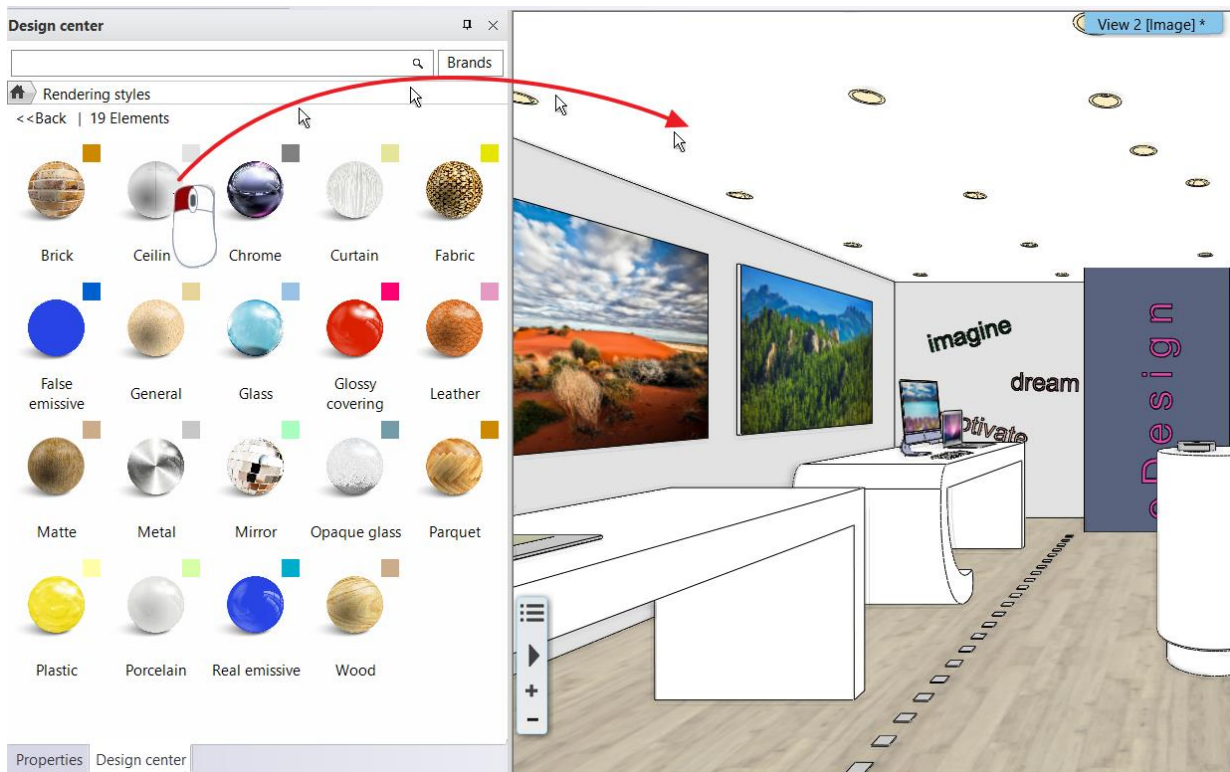
6. Visual Enhancements

6.1. Rendering Styles

The Render quality and performance parameters are classified into specific groups such as metal, glass, brick, mirror, etc. The render styles are optimized groups to visualize the associated quality and performance parameters.

The render styles can be assigned with drag and drop to any materials. The effects are visible in internal Rendering application.

The command does NOT change the size and texture of the materials, it replaces the material quality parameters only. In addition to the sets, custom settings can be made, but the use of custom properties is primarily recommended for users with rendering experience.

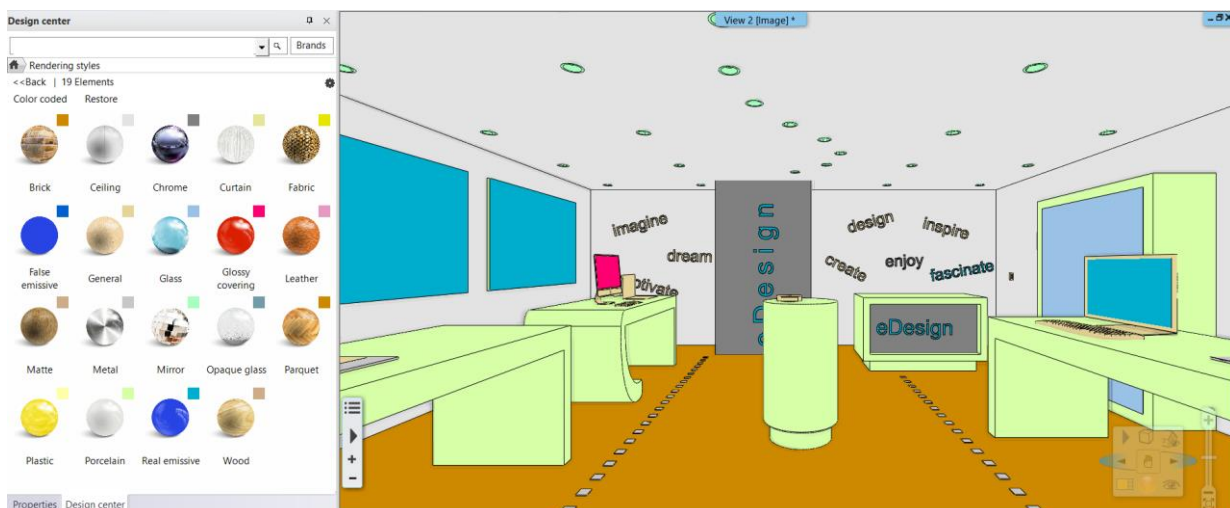


Color coded visualization

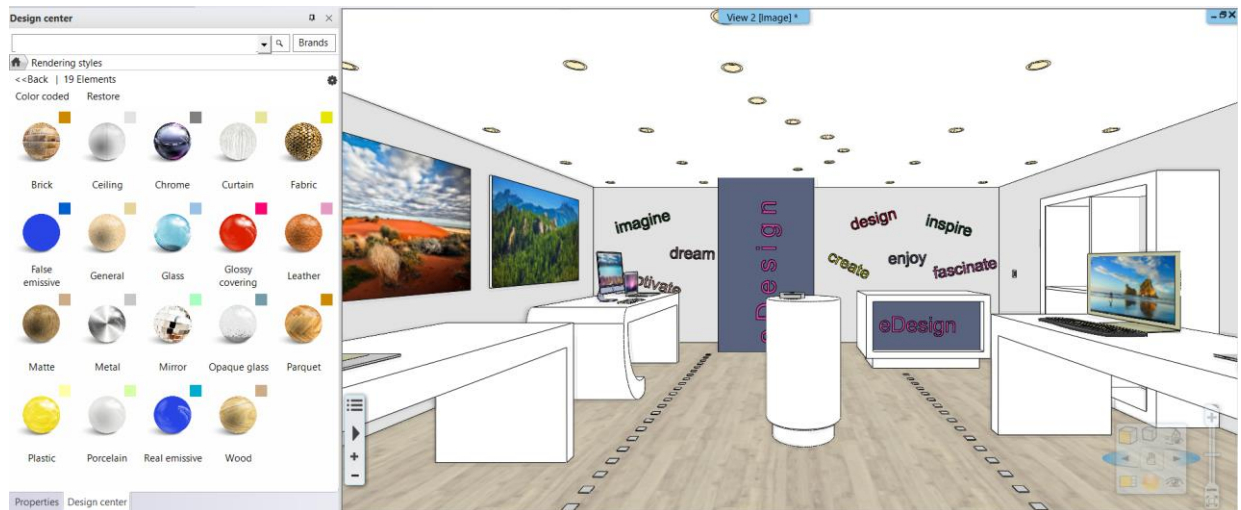
Color-coded view enables the classified visualization of render styles.

Color codes are displayed in the upper right corner of the render style icons.

Clicking on the Color coded command in the Design Center the ARCHLine.XP displays the model with the pure colors assigned to each render style. It makes easy to check render styles assignment through the related colors.

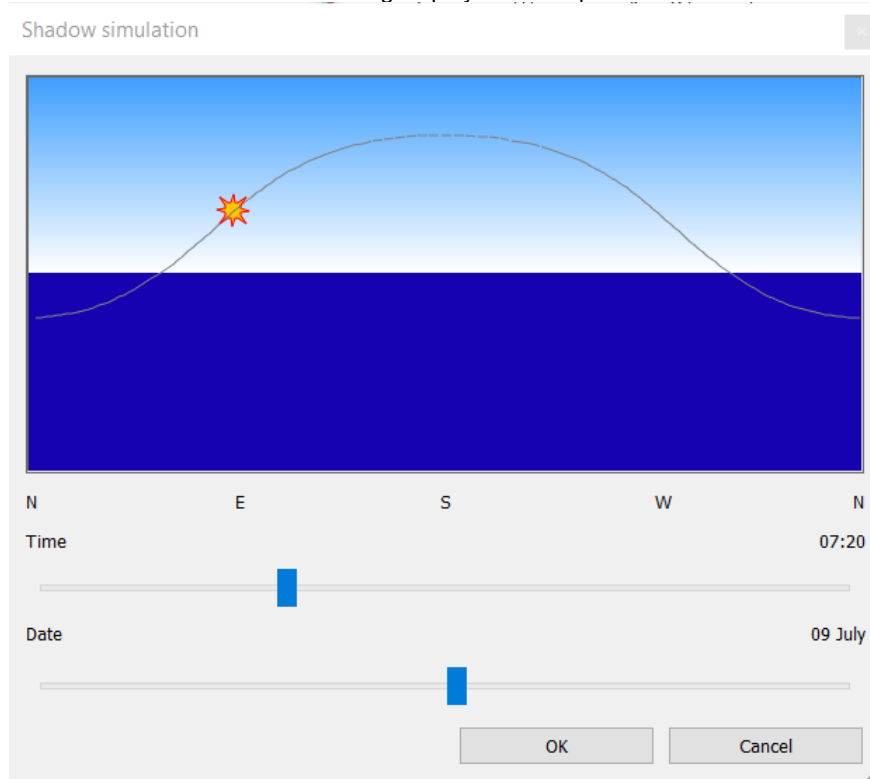


Restore view:



6.2. Shadow Simulation

Renewed Shadow Simulation dialog displays the sun path.



7. Documentation Enhancements

7.1. Schedules

A schedule is a spreadsheet representation of extracted properties of the project elements.

The schedule lists the selected properties of every instance of any type of element according to schedule's grouping criteria.

Note: This function is disabled in Studio version.

Location of the command: Ribbon > Documentation > Schedule

About schedules

You can create and place a schedule at any moment in the project. Any changes that affect then the schedule, will automatically update the content of the schedule.

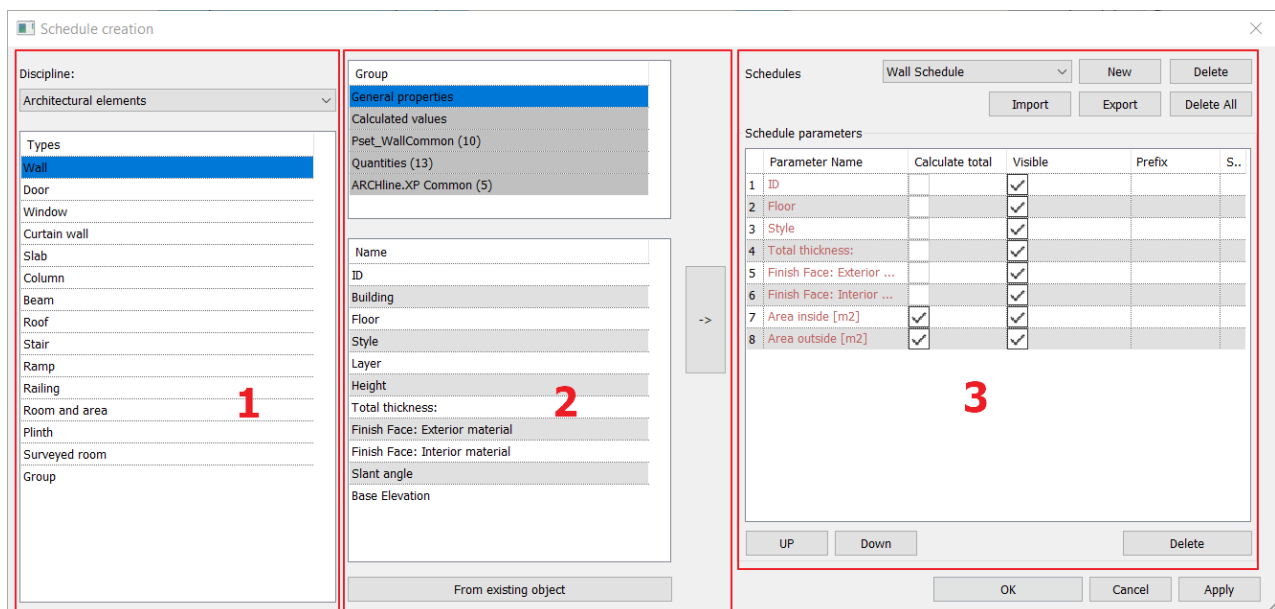
You can export a schedule to an Excel spreadsheet with Save to Excel command.

You can apply design phases to a schedule.

7.1.1. Creating a Schedule

You can create a new schedule in the Schedule Creation dialog.

Location of the command: Ribbon > Documentation > Schedule > Define schedule



The dialog is separated into three columns.

The first column displays automatically the type of element grouping as Architectural elements, Interior and Site. Select the type you are going to assign the new schedule.

The second column displays the General properties of the selected element, the calculated values and BIM parameter groups. Select from the list a property and click on the right arrow button to add this property to the schedule.

The third column in the dialog displays the schedule template.

How to create a schedule?

1. Select the appropriate type of element to create a new schedule (such as a wall schedule).
2. Select a category from the Group. Select a property from the list. Click on the right arrow to place it into the schedule.
3. Repeat the step 2. to add more properties to the schedule.
4. Optionally, sort the schedule template with Up and Down button or Delete the property placed by mistake.
5. Optionally, format the schedule with Calculate Total, Visible, Prefix, Postfix options.

7.1.2. Placing Schedule

Schedules can be placed at any time during the planning process.

How to place a schedule?

1. Select the discipline and the appropriate type of element (such as a wall schedule).
2. Select a Schedule from the Schedules Group.
3. Optionally you can change the fields for schedule parameters: Calculate total, visibility, prefix and suffix.

- Press Ok to close the dialog and format the schedule in the next dialog before placing.

Discipline: Architectural elements

Schedules: Wall Schedule

Types: Wall, Door, Window, Curtain wall, Slab, Column, Beam, Roof, Stair, Ramp, Railing, Room and area, Plinth, Surveyed room, Group

	Parameter Name	Calculate total	Visible	Prefix	S.
1	ID		<input checked="" type="checkbox"/>		
2	Floor		<input checked="" type="checkbox"/>		
3	Style		<input checked="" type="checkbox"/>		
4	Total thickness:		<input checked="" type="checkbox"/>		
5	Finish Face: Exterior...		<input checked="" type="checkbox"/>		
6	Finish Face: Interior...		<input checked="" type="checkbox"/>		
7	Area inside [m2]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
8	Area outside [m2]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

OK Cancel Apply

After you have selected the type of schedule, you need to specify how the information should display.

☐ Current 1 floor ☒ All floors

N.	Sort by	Ascending order	Grouping
1	Floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Style	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	None	<input type="checkbox"/>	<input type="checkbox"/>

☒ Header

☒ Footer Totals and title

☒ Grand totals Totals and title

Phase Filters: All

☒ Itemize every instance

OK Cancel

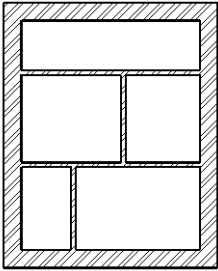
You can specify multiple sorting options by properties (Ascending / descending order, Grouping) and add header, footer, and grand-total.

Footer and Grand Totals display the sum of the elements from all the groups.

Options:

- ❖ Totals: Displays subtotals and gran totals only for those columns that can have them.
- ❖ Totals and title. Displays total and title information.
- ❖ Count totals and title: Title shows the header information. Count shows the number of elements in the group. Totals display the total below a column that can have a sum.

Example: Wall schedule having subtotals and Grand Totals are „Count totals and title”.



Wall Schedule						
ID	Style	Total thickness	Finish Face: Exterior material	Finish Face: Interior material	Area inside [m2]	Area outside [m2]
Floor - 1. floor						
161	1 layered 10 wide wall	100 mm	Bright white	Bright white	10.16 m²	10.16 m²
141	1 layered 10 wide wall	100 mm	Bright white	Bright white	10.16 m²	10.43 m²
198	1 layered 10 wide wall	100 mm	Bright white	Bright white	4.81 m²	4.81 m²
21	1 layered 10 wide wall	100 mm	Bright white	Bright white	5.08 m²	5.08 m²
54	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.16 m²	12.48 m²
30	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.43 m²	12.48 m²
24	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	12.79 m²	15.38 m²
42	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	12.79 m²	15.38 m²
Count: 8 Totals:					76.38 m²	86.2 m²
Floor - Ground floor						
17	1 layered 10 wide wall	100 mm	Bright white	Bright white	8.57 m²	8.57 m²
103	1 layered 10 wide wall	100 mm	Bright white	Bright white	9.28 m²	9.51 m²
83	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.43 m²	12.93 m²
2	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	11.61 m²	13.94 m²
71	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	11.88 m²	14.27 m²
8	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	9.11 m²	11.06 m²
Count: 6 Totals:					60.88 m²	70.28 m²
Count: 14 Grand totals:					137.26 m²	156.48 m²

Grouping. A new blank row displays between the grouped elements, as shown in the following image.

Schedules

Current 1 floor

All floors

N. Sort by

Ascending order

Grouping

1 Floor

2 Style

3 Total thickness

4 None

Header

Footer

Grand totals

Phase Filters

All

Itemize every instance

OK

Cancel

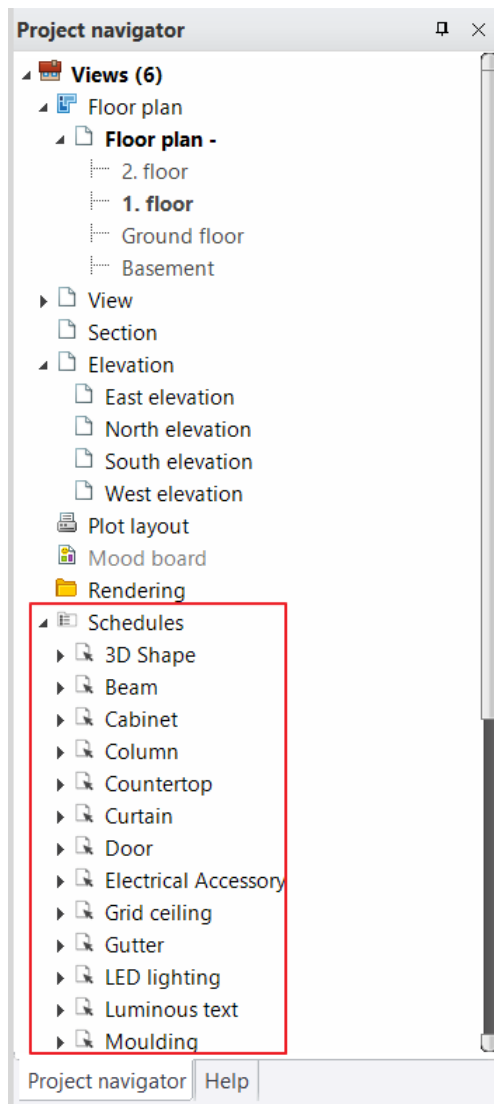
Floor plan - Default - 1. floor (3000 mm) *

Wall Schedule							
ID	Floor	Style	Total thickness	Finish Face: Exterior material	Finish Face: Interior material	Area inside [m2]	Area outside [m2]
Floor - 1. floor							
161	1. floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	10.16 m²	10.43 m²
198	1. floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	10.17 m²	10.17 m²
21	1. floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	5.08 m²	5.08 m²
141	1. floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	9.89 m²	10.43 m²
54	1. floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.16 m²	12.48 m²
30	1. floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.43 m²	12.48 m²
24	1. floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	12.79 m²	15.38 m²
42	1. floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	12.79 m²	15.38 m²
Count: 8 Totals:					81.47 m²	91.83 m²	
Floor - Ground floor							
17	Ground floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	8.57 m²	8.57 m²
103	Ground floor	1 layered 10 wide wall	100 mm	Bright white	Bright white	9.28 m²	9.51 m²
83	Ground floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	10.43 m²	12.93 m²
2	Ground floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	11.61 m²	13.94 m²
71	Ground floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	11.88 m²	14.27 m²
8	Ground floor	1 layered 38 wide wall	380 mm	Coffee cream	Bright white	9.11 m²	11.06 m²
Count: 6 Totals:					60.88 m²	70.28 m²	
Count: 14 Grand totals:					142.35 m²	162.11 m²	

The schedules can be applied to phase filters.
You can also choose to list all instances of an element type, or collapse multiple instances onto a single row.

If automatic update is on, changes to the project, that affect the schedule, update the schedule.
Schedule can be placed on the floor plan and saved in an Excel spreadsheet too.

! Note: You can choose and place a schedule from Project Navigator too. Use Drag and Drop to add a schedule for the drawing.



7.1.3. Update Schedule

As a result of this command, changes to the project, that affect the schedules, update the schedules.

As a result of this command, all schedules update displaying all changes that affect the schedules.

Example: If you change or delete a wall, the wall and room schedule having Footer and Grand Totals are updated accordingly.

Editing Cells in a Schedule

You can edit some cells in a schedule by clicking in them.

You can either select a value, text or Material name.

To finish editing in a cell, press Enter. The changes are applied to the appropriate element.

Example:

1. If you have a door or window schedule and it contains the BIM parameter Manufacturer, click on the field and change the manufacturer name.
2. If you wish to change the wall finish face: Exterior Material click on the material name and select a new material from the Material dialog.

7.1.4. Save to Excel

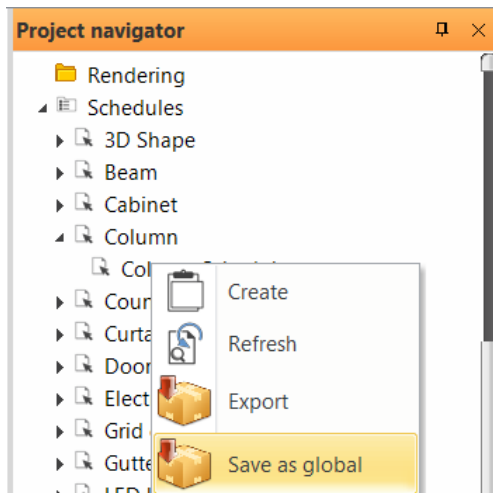
As a result of this command, the selected schedule is saved in an Excel spreadsheet.

7.1.5. Exporting Schedule to another User or Project

You can save the schedule template in an XML format file for use in another project or sending to another user.

1. In the Project Navigator, right-click the schedule name, and click Export. You find the same function in the Define Schedule dialog clicking on the Export button.
2. In the Save As dialog, enter a name for the file, and click Save.

This procedure saves the schedule template.



7.1.6. Import Schedule

You can import the schedule template from an XML format file.

1. In the Define Schedule dialog click on the Import button.
2. Select the schedule file in the Open dialog, and click Ok.

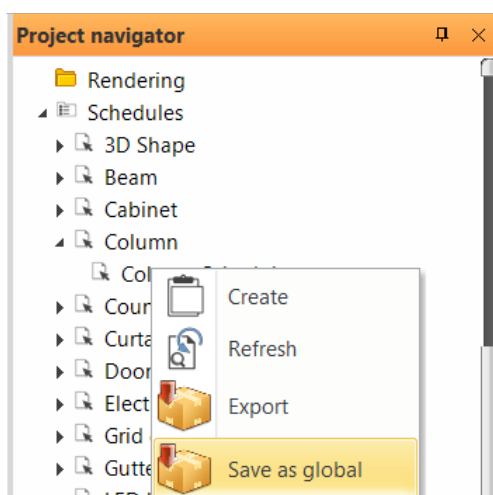
This procedure imports the schedule template.

7.1.7. Save Schedule for use in all projects globally

You can save the schedule template in an XML format file for use in all projects globally.

1. In the Project Navigator, right-click the schedule name, and click Save as global.
2. In the Save As dialog, enter a name for the file, and click Save.

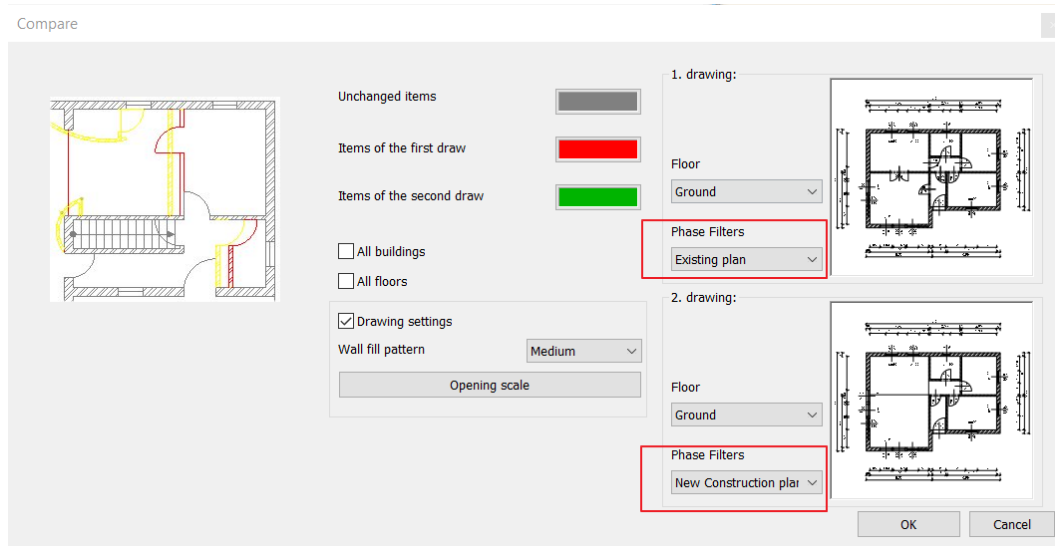
This procedure saves the schedule template.



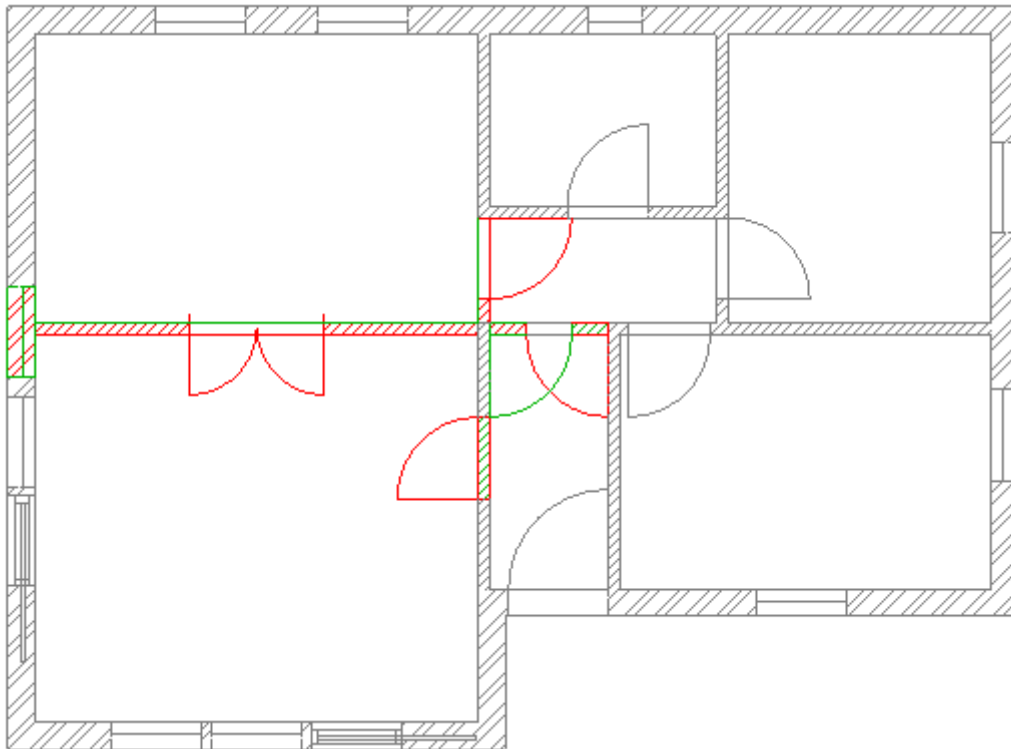
7.2. Compare between 2 design phases

The function compares two design phases of the same floor plan and displays the graphical changes visually.

- Choose the design phases to compare.
- Specify different colours for unchanged objects, objects of the first (original) drawing, and objects of the second (new) drawing.



The result is a third drawing which displays the changes between the two phases with the assigned colours.

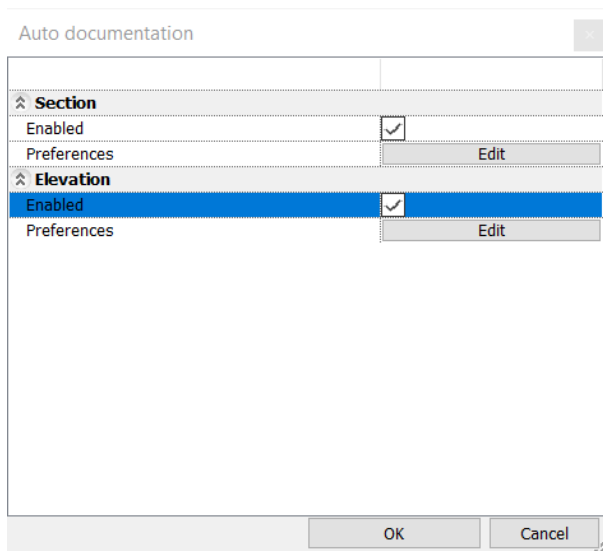


7.3. Section and Elevation

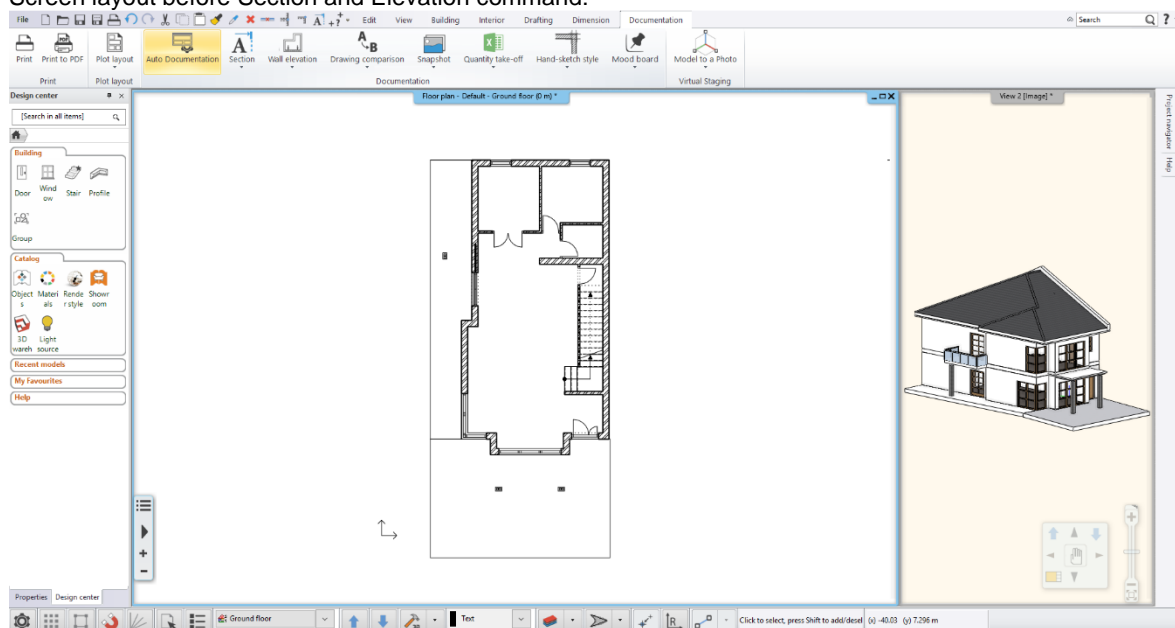
The command places two sections across the centre of the model perpendicular to each other (A-A, B-B) and creates the four main elevation view in one step

The command is available under the **Ribbon bar / Documentation / Section** tab.

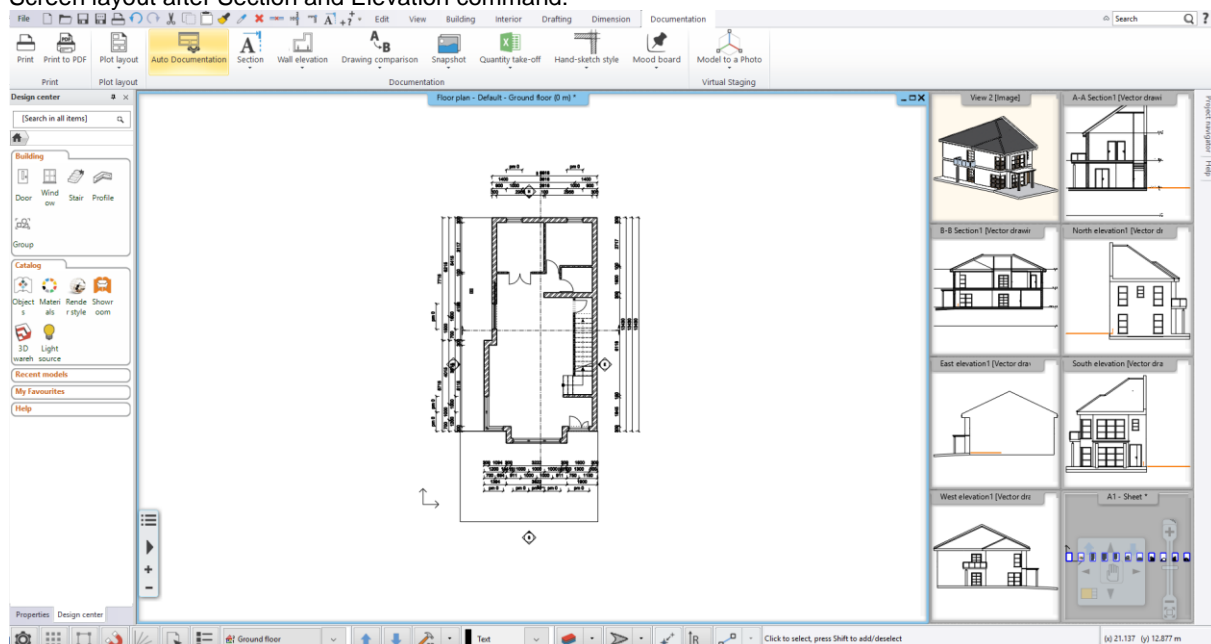
The setting dialog helps to select which steps you want to activate and what are the main parameters.



Screen layout before Section and Elevation command:

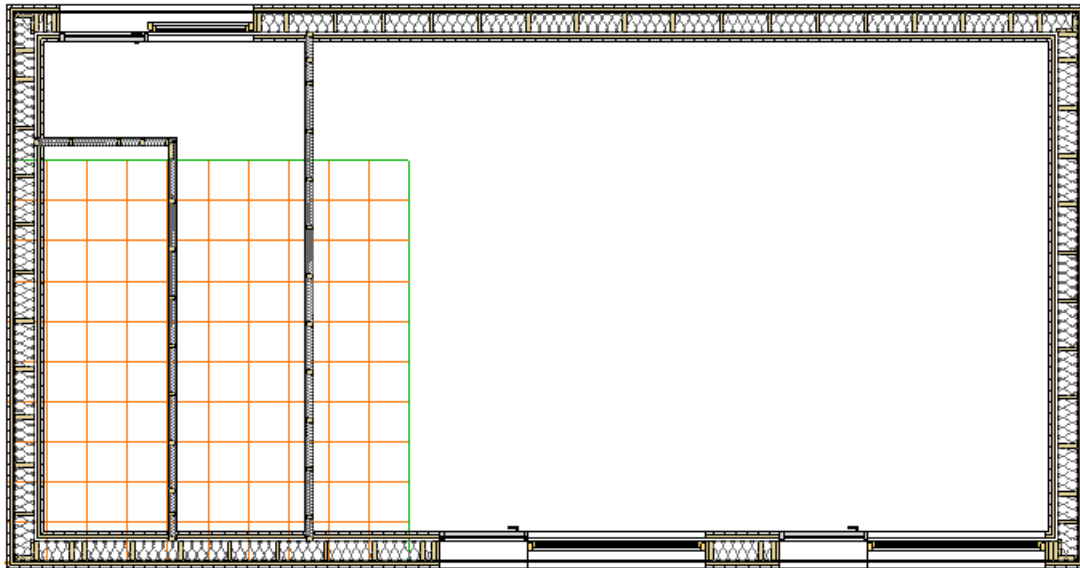


Screen layout after Section and Elevation command:



7.4. Horizontal Section

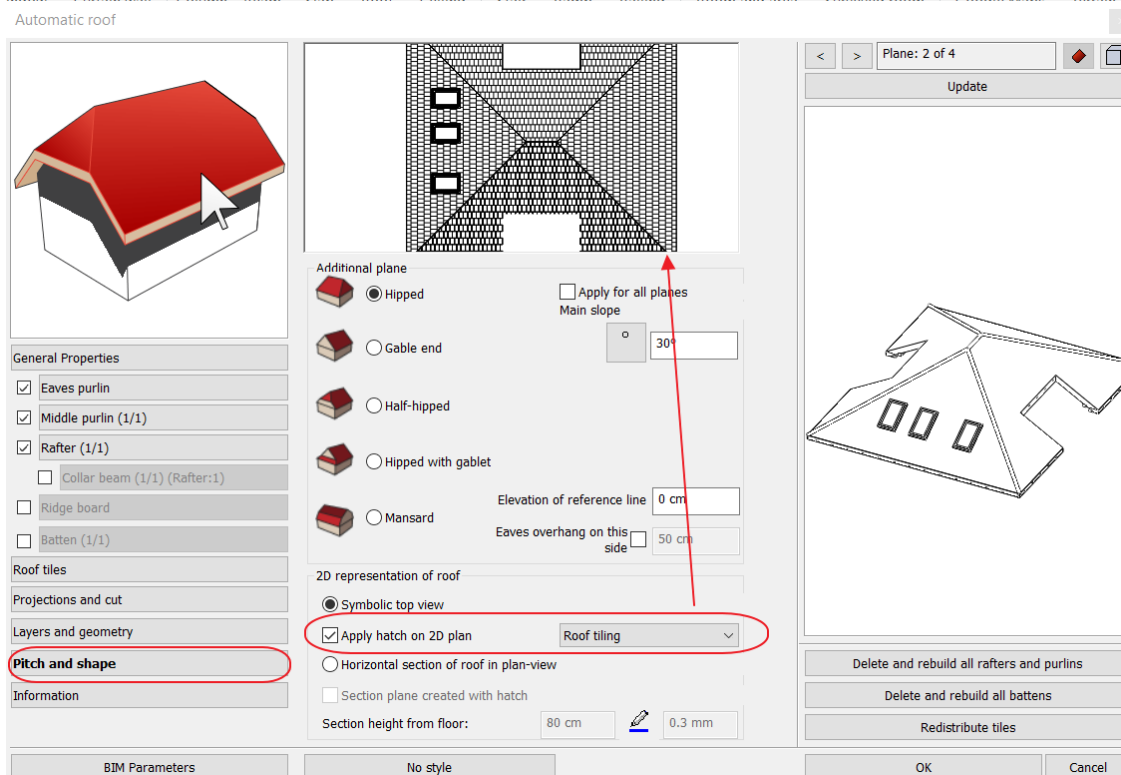
Horizontal section is representing 3D model as cut horizontally through a certain elevation. The command is available under the **Ribbon bar / Documentation / Section** tab. Example: Horizontal section at 1m:

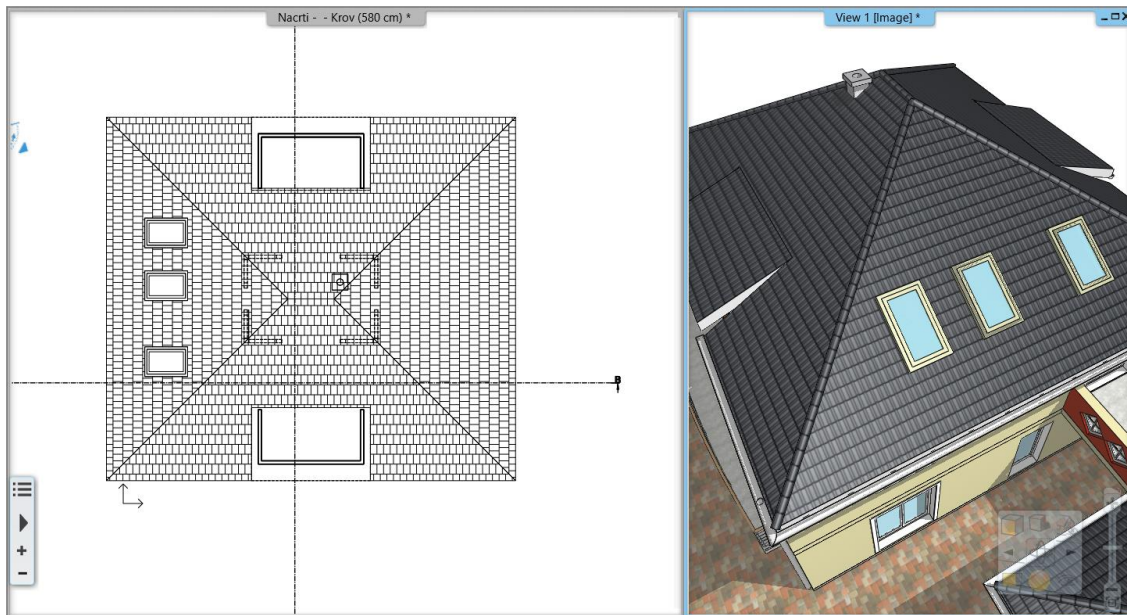


7.5. Roof hatch on floorplan

When you place a roof on floorplan you can assign a hatch style representing the roof tiles. Attention, hatch properties are part of the hatch style, change is possible if you redefine the style.

The Apply hatch on 2D plan is available under the **Roof Properties** dialog / **Pitch and Shape** panel.



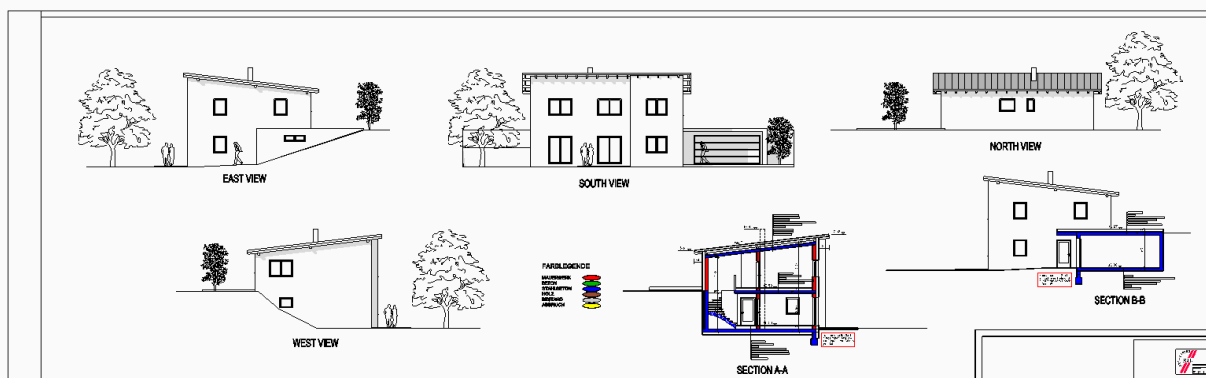


7.6. Plot Layout: View Titles on Sheets

When you place a document on Plot Layout, ARCHLine.XP displays the title, such as floor plan and storey, elevation, section, and 3D view name.

The title is Project-specific information and linked to Project Navigator documents name.

You can rename the title text. The renaming method changes the name of the document in the Project Navigator and on the Plot Layout together.



8. Minor new features and feature extensions


8.1. Display door Effective clear width

Door

Main parameters	Width:	900 mm
Representation	Height:	2100 mm
Reveal, void, niche	Thickness:	100 mm
Basic geometry		
Outer handle	<input type="checkbox"/> Hide opening and make a void	
Inner handle	Distance from wall line	100 mm
Accessories	Sill height	0 mm
Interior and exterior sills	<input type="checkbox"/> Outer sill height:	0 mm
Built-in details	<input type="checkbox"/> Add level shift	
	Effective clear width	750 mm
	Colour	
	Line type	Simple Line
	Line weights	0 mm
	Draw Order	8 - Bottom-most
	Reference axis	Side
	Distance from wall corner	0 mm
	Lining and architrave	
	Dimension, consignment	
	Thermal parameters	
	Ratio (Illumination area)	100%
	Ratio (Ventilation area)	100%
	Material	Value
	Solid	Beech
	Wing	Beech

BIM Parameters Normal door

Redraw

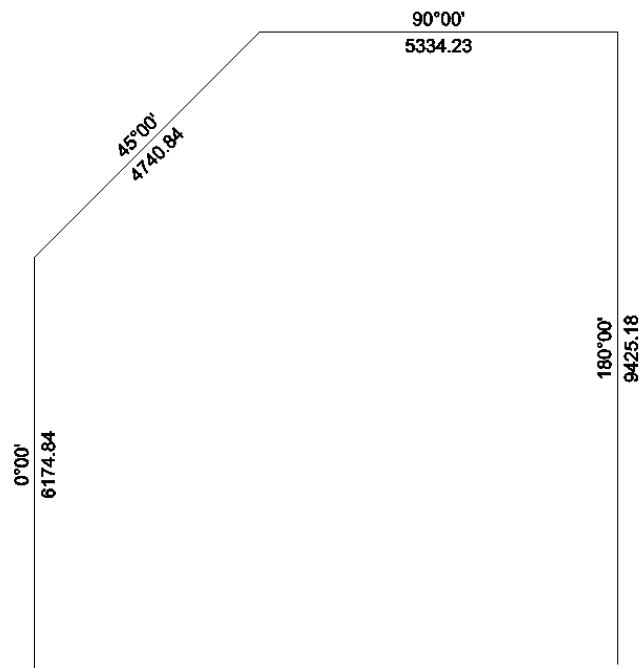


Flush

OK Cancel

8.2. Length dimension: „Distance and bearing ”,

Displays the length of a drawing (eg land) and the angle of the lines relative to the North.




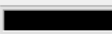




Dimension properties




► Dimension general properties

► Text properties

► Dimension text properties

▼ Arrowheads

      0 mm

 0.18 mm  200 mm  Shape of arc length dimension (until 90°)

▼ Format properties

Length format ☒ Distance and bearing


DIN 83.3 # Format 0.12 Digits

[mm] 50

Value multiplier 1 50

☒ Dimension texts are visible Upper

Display parameter with its value:
-> value of dimension
\$u -> unit
\$- -> plus-minus sign
\$2 -> superscript 2 \$3 -> superscript 3
\$d -> degree sign \$# -> # sign

 Using dot or comma (,) as decimal separator. See the setting in File/Options/Units and Angles panel.

☐ Suppress trailing zeros

☐ Use 1000 separator (,)

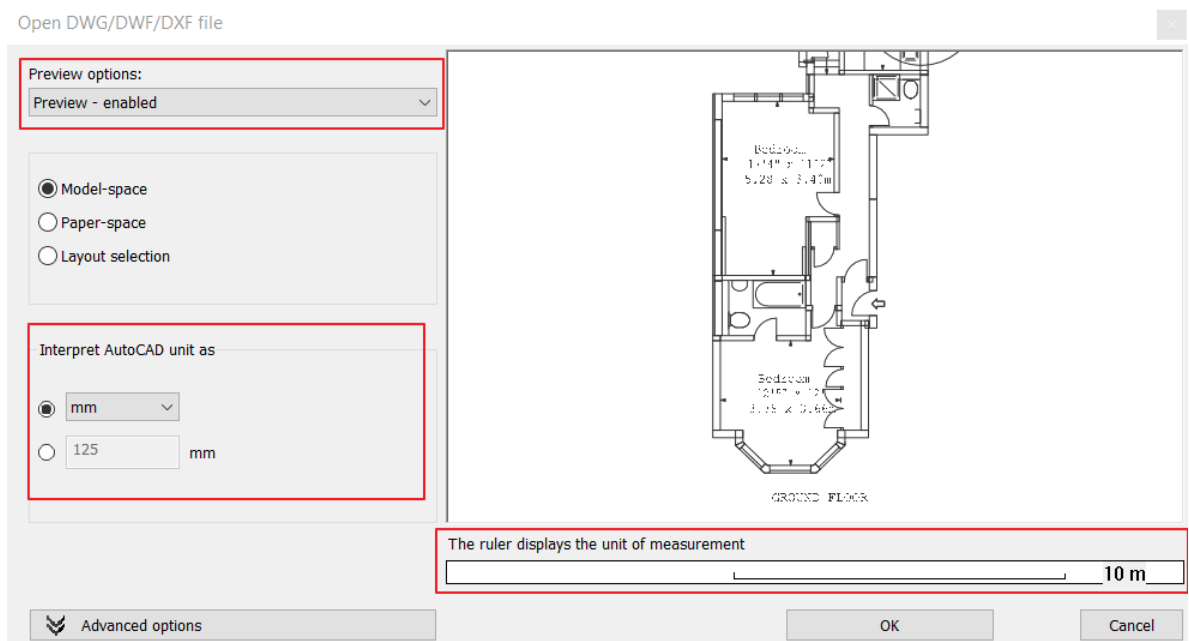
► Dimension line

BIM Parameters Bearing and length from North

OK Cancel

8.3. DWG preview with Unit of Measure pre-setting

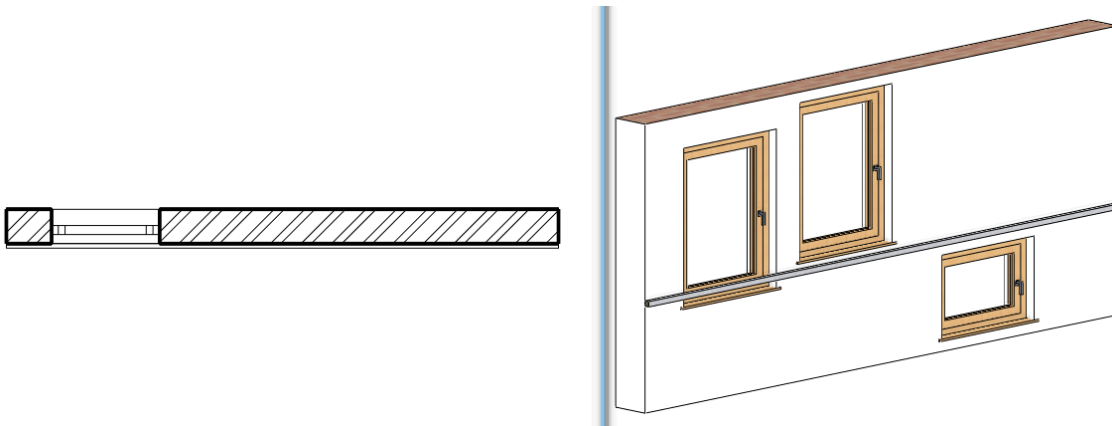
DXF/DWG import dialog is extended with a ruler displaying the current unit of measurement. The unit how to interpret the imported drawing can be set as metric or imperial.



- DXF/DWG export supports the \$INSUNITS and \$MEASUREMENT Codes in the HEADER Section Group

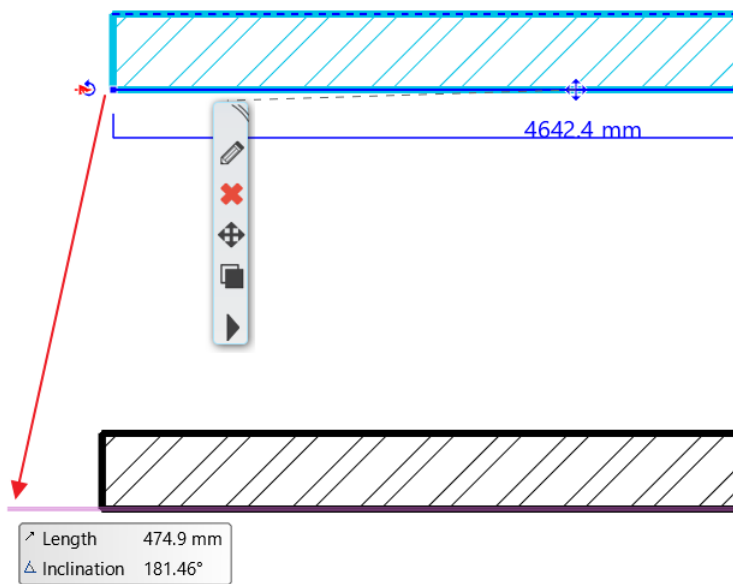
8.4. Wall 1m representation at floor plan for doors and windows.

Display of openings above cut plane height with two options: Dotted or Not displayed



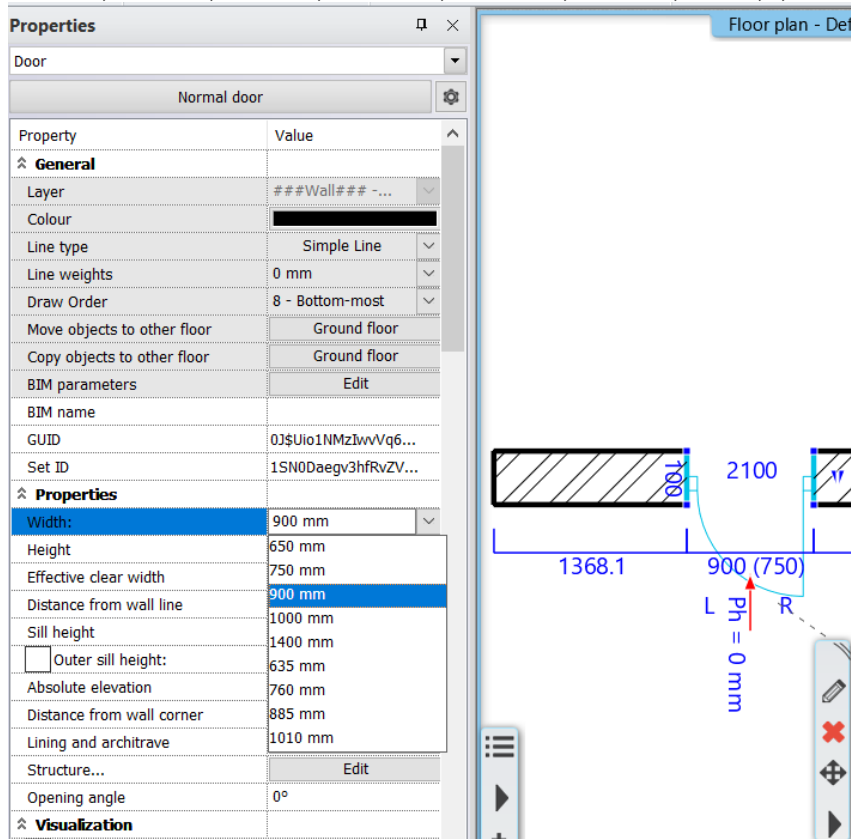
Graphics		
Open and Save		
Units and angles		
Snap and grid		
Cursor and marker		
User interface		
Item settings		
Workspace		
2D Floor plan background colour		
3D Image View background options	Edit	
3D Vector Graphics background colour		
Plot Layout background colour		
Section view background colour		
Inactive building colour		
Selection colour		
Colour of elements outside of the editable group		
Colour of reference element in multi-selection		
Active item's colour in dialog view		
New component's colour in a dialog view		
Design Center background colour		
Project Navigator background colour		
<input type="checkbox"/> Long cross cursor		
Set active view size in %	60	
<input checked="" type="checkbox"/> Origin indicator		
*Line caps	Fine	
Presentation settings		
Graphics Engine	DirectX 11 mode	
Max. raster image size (pixels)	Defined by the graphics driver	
<input checked="" type="checkbox"/> Alert me if video drivers are older than recommended		
*Build 3D model		
*Drawing settings		
Opening scale	1:100	
<input checked="" type="checkbox"/> Cut plane is activated on floor plan		
Display of openings above cut plane height	Not Displayed	
Items to be displayed on floor plan from cut plane height:	1000 mm	
Wall fill pattern	Fine	
Maximum number of visible periods of the line type pattern	200	

8.5. Move wall endpoint command changed to one click command



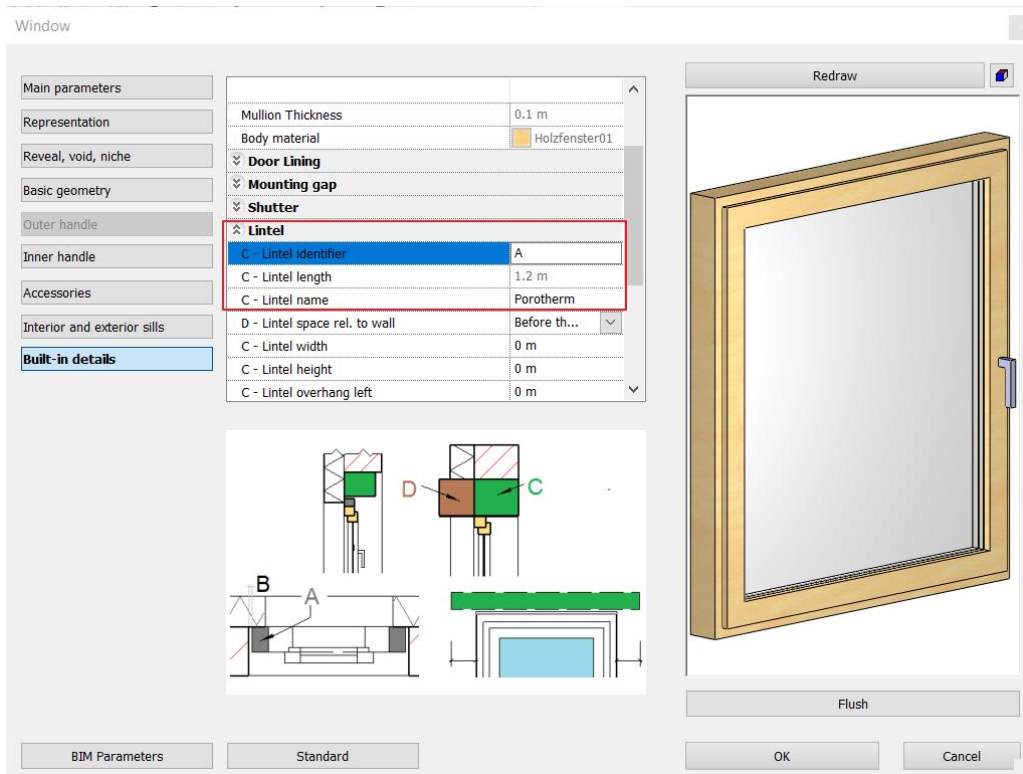
8.6. Door/window width/height in Properties panel changed to combo box with predefined EU and DIN values

65x210, 75x210, 90x210, 100x210, 140x210, DIN: 63,5x200,5; 76x200,5; 88,5x200,5; 101x200,5

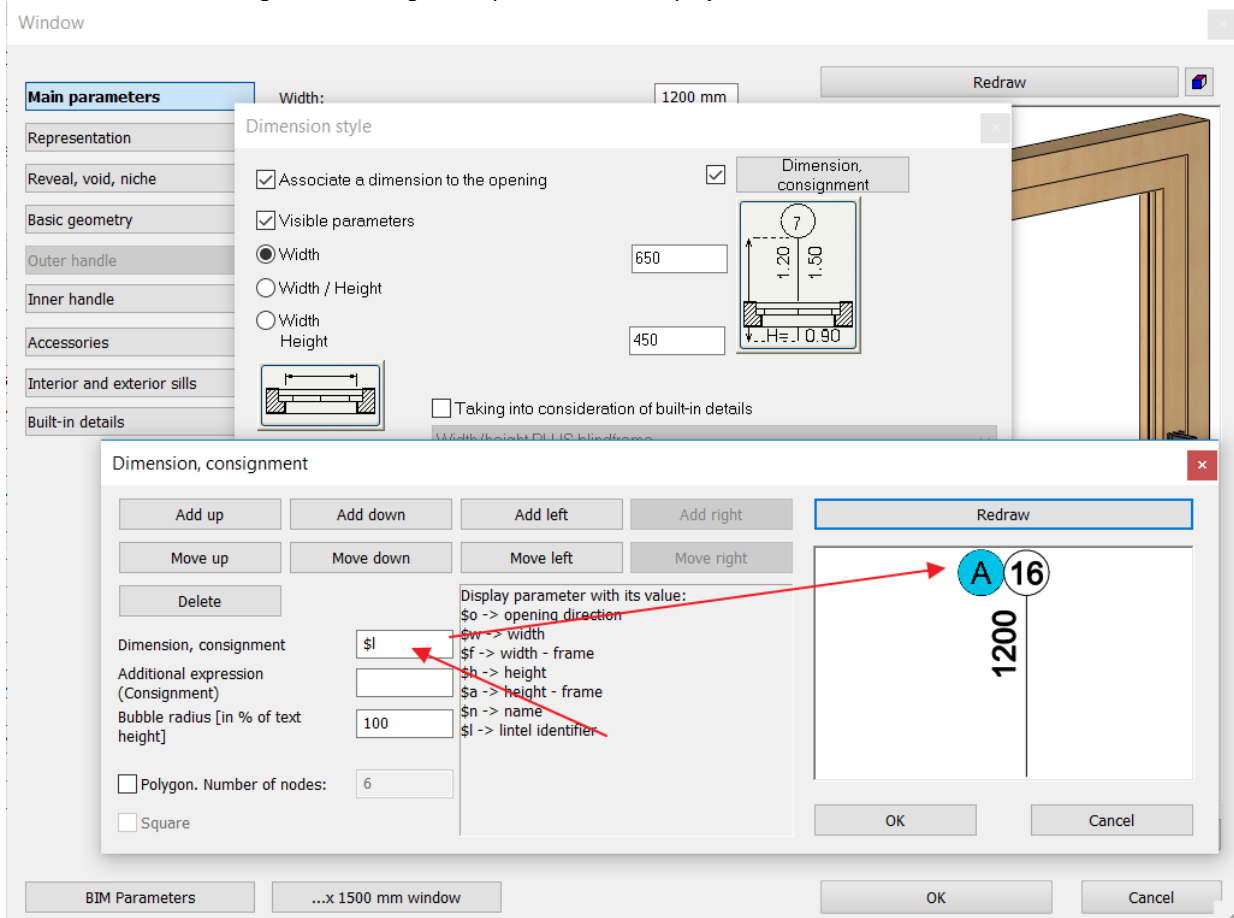


8.7. Lintel (doors and windows) new parameters

Name, identifier, cross section representation.



Lintel name can be assigned as consignment parameter and displayed in Door/window schedules.



Main parameters

Representation

Reveal, void, niche

Basic geometry

Outer handle

Inner handle

Accessories

Interior and exterior sills

Built-in details

^ Mullion

☐ On left side ☐ On right side

Rectangular cross-section

Edit

Mullion Width 100 mm

Mullion Thickness 100 mm

Body material

Beech

^ Door Lining

^ Mounting gap

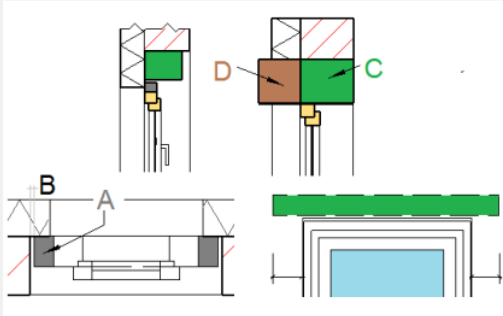
^ Shutter

^ Lintel

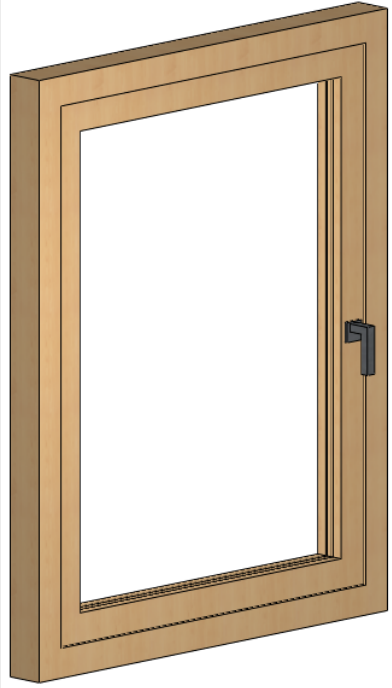
C - Lintel identifier A

C - Lintel length 1200 mm

C - Lintel name



Redraw



1 leaf 1

OK

Cancel

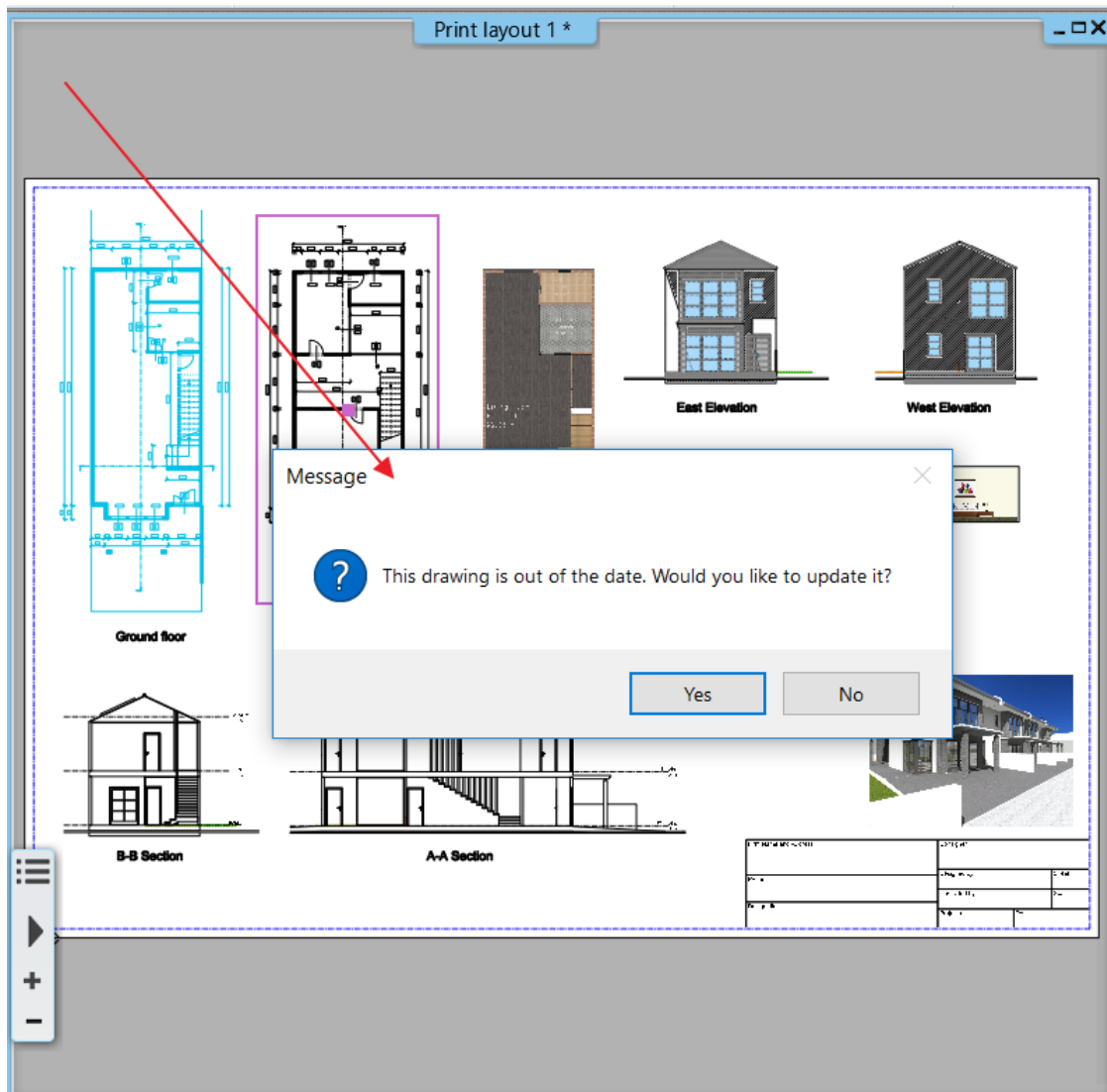
BIM Parameters

...x 1500 mm window

ARCH|INE.

8.8. New switch in the Option - Item Settings – Plot Layout Group.

You can turn off the warning message to update the out of same drawings on the Plot layout:
„Tracking changes on so the drawings on the plot layout are updated when the original drawing changes.”



8.9. Creating terrain road with rounded nodes

The width of the road and the rounding of the nodes can be specified in the stiles. Default radius in the nodes is 6m.

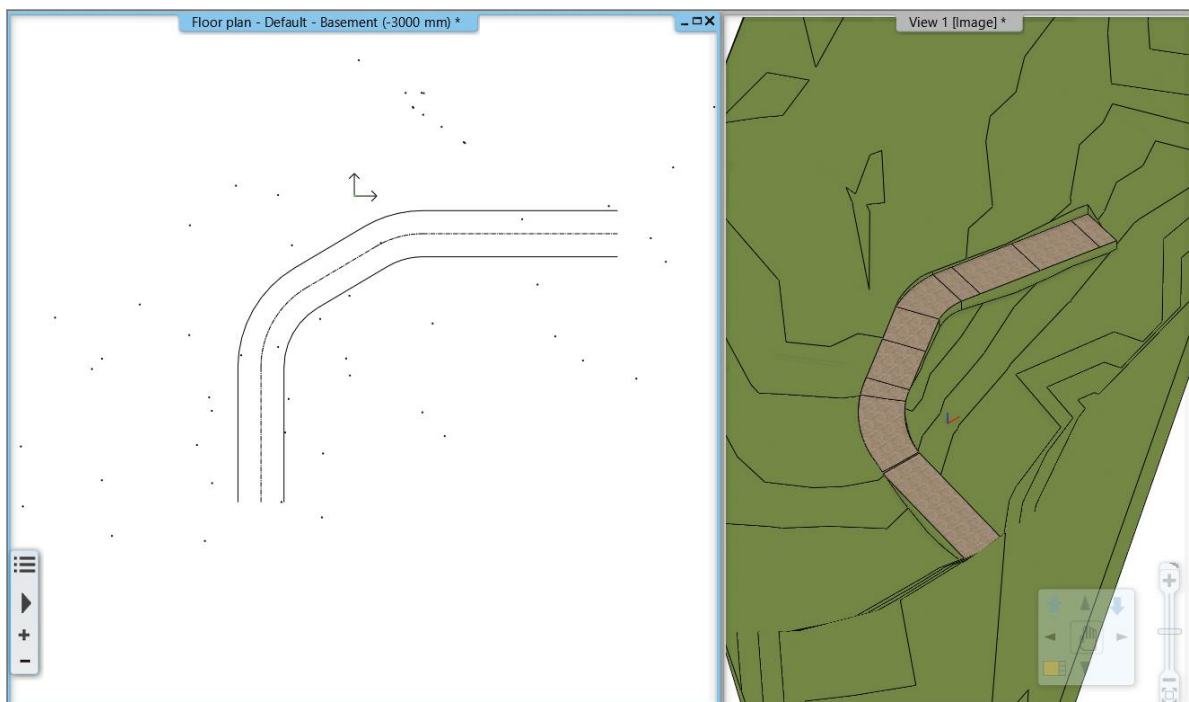
Properties

Terrain

Normal terrain

Property	Value
General	
Layer	###Terrain###
Colour	
Line type	Simple Line
Line weights	0 mm
Draw Order	8 - Bottom-most
BIM parameters	Edit
BIM name	* VARIES *
GUID	33uyP5OdTDHvFfithYs30A
General properties	
Arc resolution	5
Horizontal surface elevation	0 mm
Terrain surface material	Grass007
Body material	Default material
Plateau material	Soil
Road	
Road material	Terrain
Road width	3000 mm
Radius of rounding	6000 mm
Elevation information	
<input checked="" type="checkbox"/> Show heights	
Elevation text style	Arial 200
Elevation text position	Top-right
Rounding Off Decimals	0.12

OK Cancel



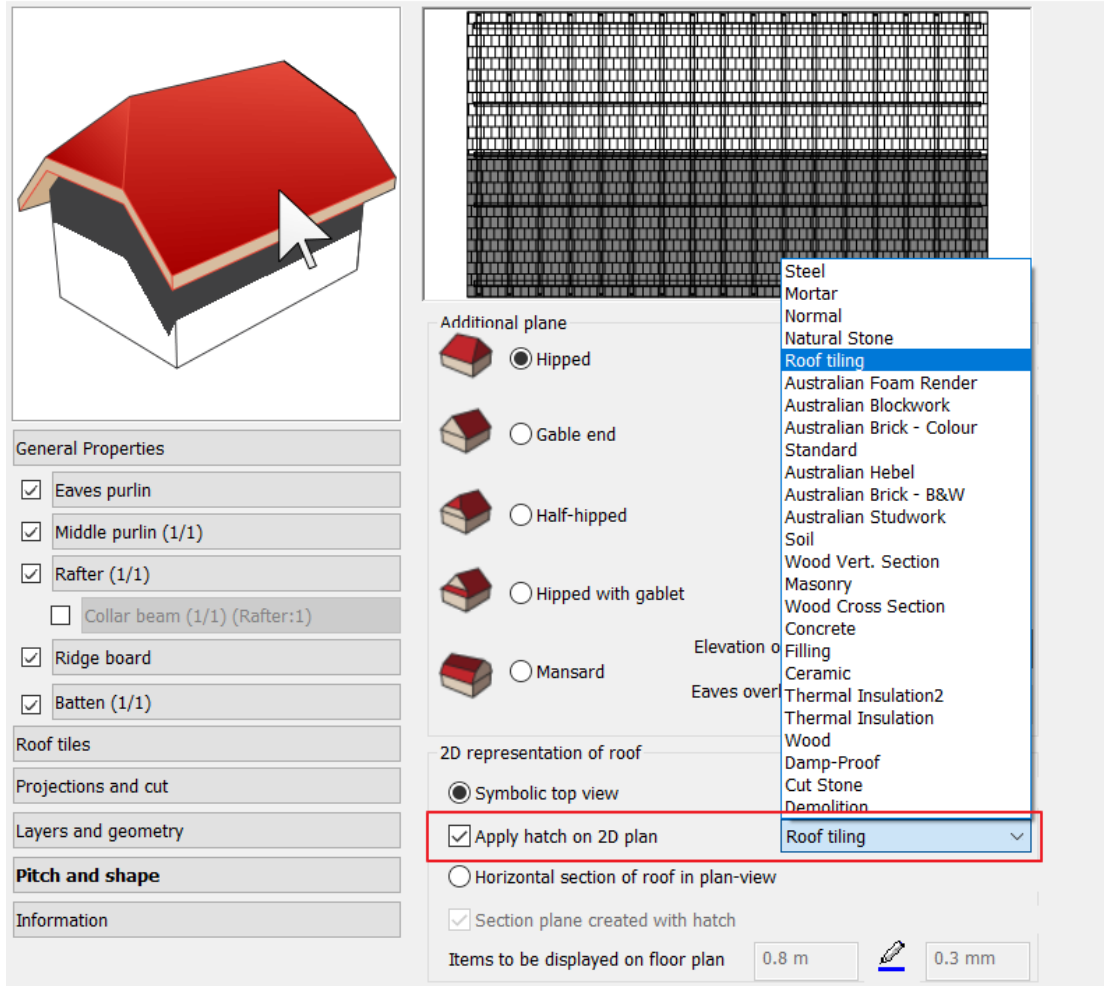
8.10. Import from 3D Warehouse

The files in 2019 SKP format are downloadable.

8.11. Roof and slab new feature

Roof can be displayed with hatch styles on the floor plan.

Automatic roof



8.12. Gable Roof edge material

Gable Roof edge material management has changed. It applies the top surface material.

8.13. Creating styles new feature

Creating styles is optional into the Project only or My (user) category, so it may be usable in every project.

Styles

New name of style

AW_HLZ_17

Folder

Ziegel

Subfolder

Folder and subfolder specification is not mandatory.
If you specify these, the given style name will automatically fit into the hierarchy.

Scope

☐ Available in this project only

☒ Available in all projects

OK

Cancel

8.14. Improvements of Room and Area

WOFL norm height and area factor values can be entered in the Options / Global Values panel.

Room	
<input checked="" type="checkbox"/> Automatic space recalculation	
<input type="checkbox"/> Embedded wainscotings (ON: Inside wall, OFF: inside the room)	
<input checked="" type="checkbox"/> Use Superscript2	
<input checked="" type="checkbox"/> Use Superscript3	
Minimal height belonging to the net area (Norm I - SU):	1.5 m
Minimal height belonging to the net area (Norm I - SNR):	1.4 m
Minimal height belonging to the net area (DIN 277):	1.9 m
Minimum height for net area (WoFIV)	1 m
Secondary height for net area (WoFIV)	2 m
Factor 1 for net area calc. (WoFIV)	50
Factor 2 for net area calculation (WoFIV)	100
Subtract from room area the columns, chimneys whose floor area is ...	0 m ²
Subtract from room area the columns, chimneys whose height is less ...	1.5 m
Add to floor area opening niches down to the floor if depths exceed ...	0.13 m
Take off the staircase areas of the stairs are higher than (DIN 277)	2 m

8.15. Room summary table automatic update is default

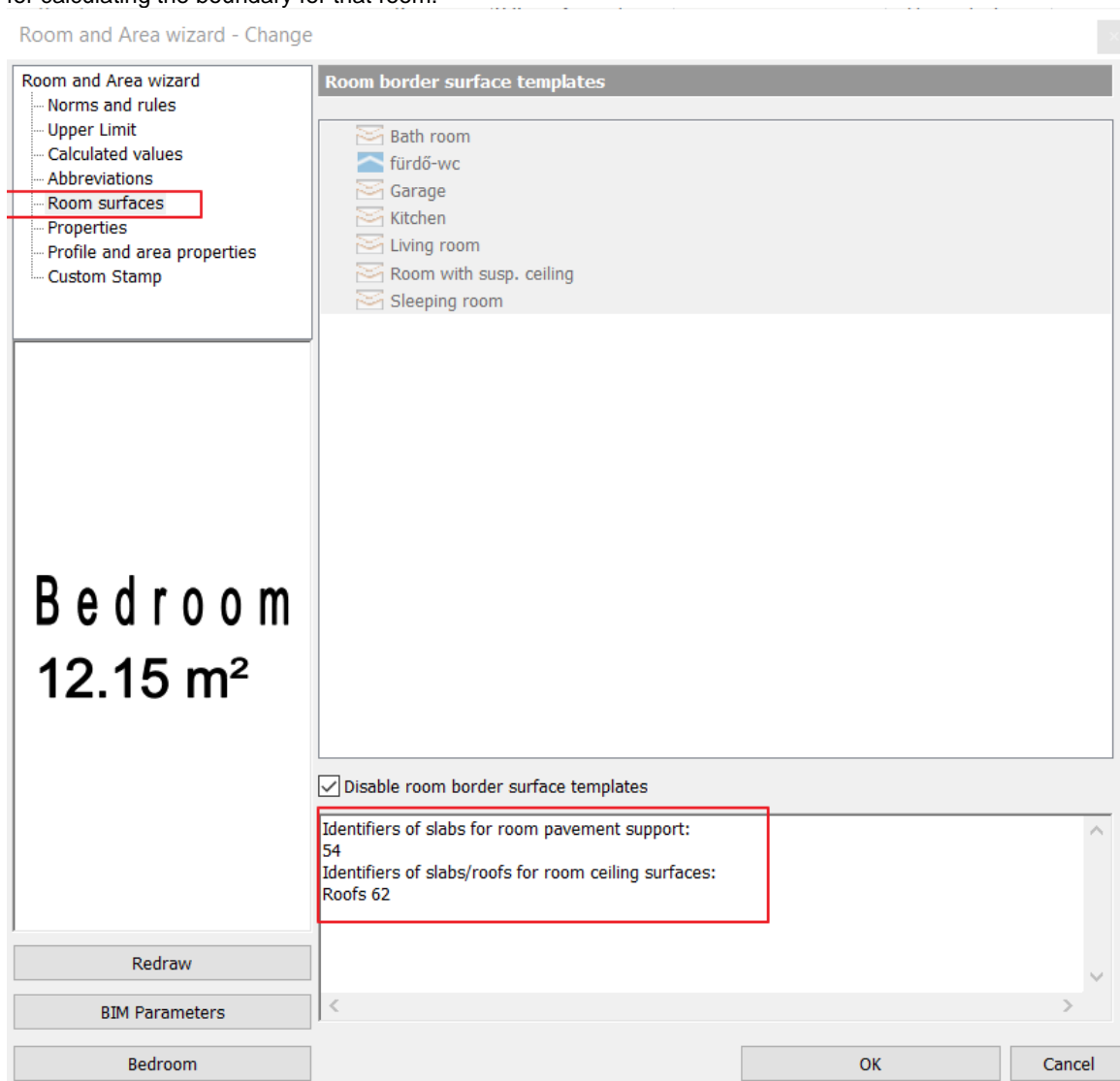
Any changes on the drawing that modifies the room elements automatically updates the room summary table.

8.16. Room stamp

When room is displayed with hatch the room stamp overlaps it.

8.17. List of floors / roofs in room calculation

In the room and area dialog, boundary surfaces panel, the program displays the list of floors / roofs that the program uses for calculating the boundary for that room.



8.18. Other:

- Making a wall view, the border of the region can be trimmed.