

*ARCHLine.XP® 2012*

*Windows*

***ARCHLine.XP® Interior***

***Tutorial 1***

***Preliminary level***

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First Edition

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This tutorial was produced using Microsoft Word and ARCHLine.XP<sup>®</sup>.

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This tutorial series is developed for ARCHLine.XP® users and will guide you through the software fundamentals, basic tools and 3 preliminary level workshops.

It assumes that you have no previous knowledge concerning CAD design.

By reading through this tutorial, you will get a beginner's overview of the powerful interior design tools available at your disposal.

This guide will give you the skills you need to make your business more successful using a professional interior design software.

CadLine

## What is ARCHLine.XP® INTERIOR?

ARCHLine.XP® Interior is a comprehensive CAD software for interior architecture. It contains all the capabilities that are required to prepare professional documentations of interior architecture.

ARCHLine.XP® Interior is a perfect tool for people, who intend to design sitting rooms, bathrooms, kitchens or the internal spaces of new or renovated houses, including offices and commercial units.

## Benefits

Easy design tools allow users to design quickly a complete floor plan and space model in minutes from scratch.

Easy-to-use features make ARCHLine.XP® the ideal software for novice interior designers.

Photo-realistic 3D Interiors.

ARCHLine.XP® makes designing your office, renovated house and business unit easy and fun to do, while providing you with professional building plans.

## Getting Started and Working in ARCHLine.XP® Interior

This tutorial is a guide that helps you to be practiced through typical interior examples. To get the most out of this tutorial it is best to run ARCHLine.XP® Interior and YouTube with the appropriate video, so that you can experiment with the concepts that are mentioned in the tutorial.

*In this tutorial we use the **metric** system of measurement.*

*In the brackets we provide you the **imperial** and **US** measurement systems as well.*

Example: Width: 1m (3'-3 1/4") Height: 2.1m (6'-10 3/4")



## **Lesson 1: Reception Room**



# 1. Lesson 1: Reception Room

This workshop goes through the design of a typical reception room and provides you with the following principles and basic skills in both 2D and 3D:

- ❖ Fundamentals of CAD design: Interface and drawing tools.
- ❖ Basic architectural design: Accurate drawing of walls, doors, windows, slab, ceiling.
- ❖ Interior design: Cornicing, skirting boards, curtains, wall mounted pictures, lights, furniture.
- ❖ Visuals: Finishes and materials from producers, shadows, photorealistic/rendered images.
- ❖ Documentation: Dimensioning, floor plan and elevations.
- ❖ You will be able to visualize a 3D model, wall views, photorealistic/rendered images, incorporating textures and fabric patterns.
- ❖ Suitability: Beginners in computer design.

In this lesson we are going to create the project of the following reception room:

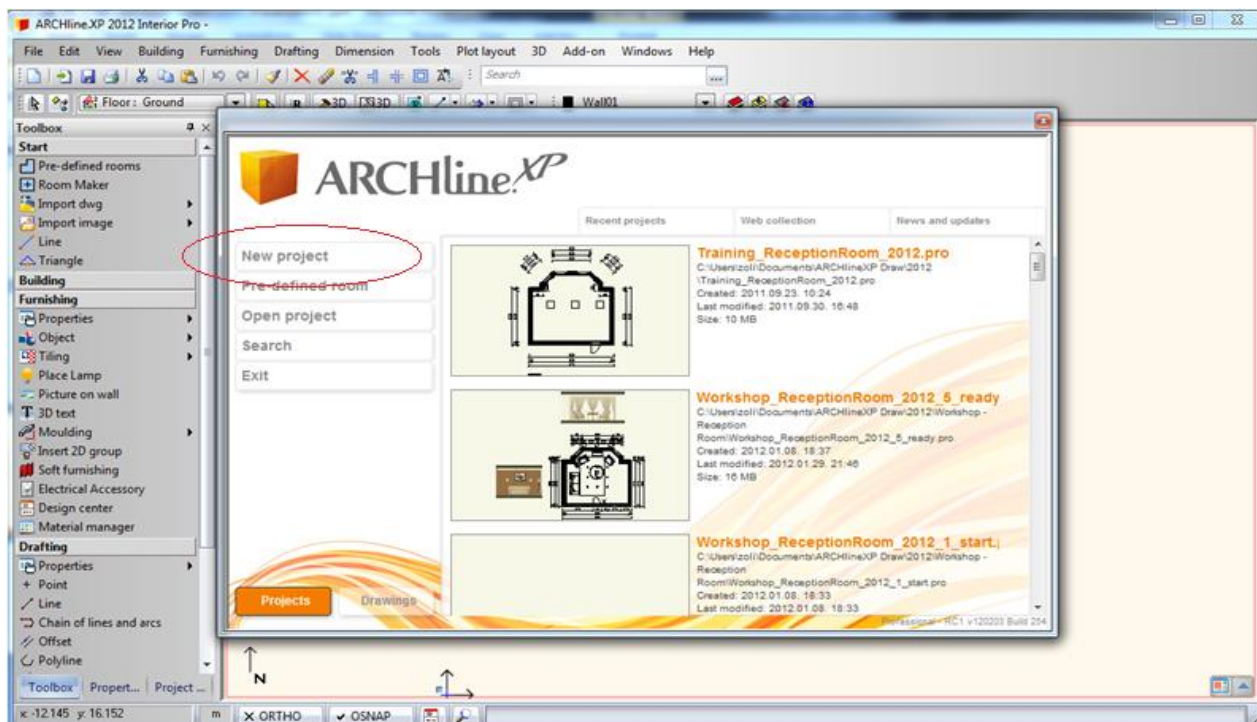


- Open your browser with: <http://www.youtube.com/watch?v=AaUxAEi0oTw>
- Your screen should look as follows: Press the ARROW button in the bottom left corner to play the video and pause it any time you need with pressing the same button again.



### Starting

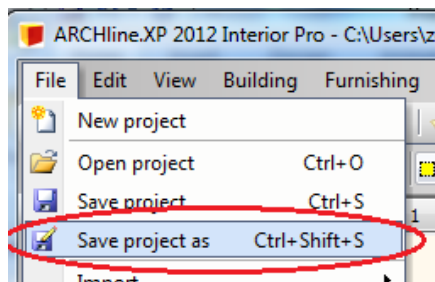
- Start ARCHLine.XP® Interior, Your screen should look similar as follows:
- Click on New Project to start .



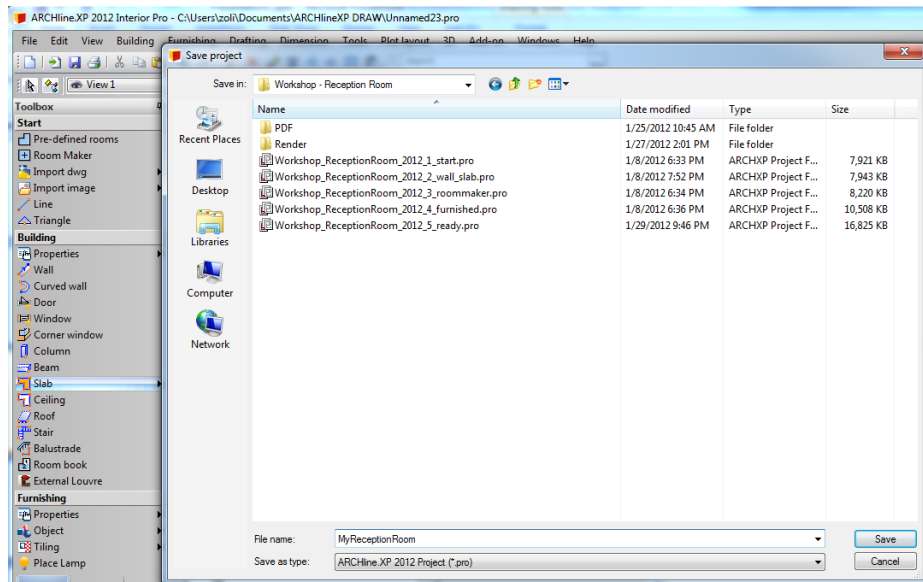
### Save your project

- Before starting to design it is recommended to save your project with a real project name, as MyReceptionRoom.pro.
- Click on File menu – **Save project as** command and type your file name to save the project.

### Tutorial



Your screen should look as follows:

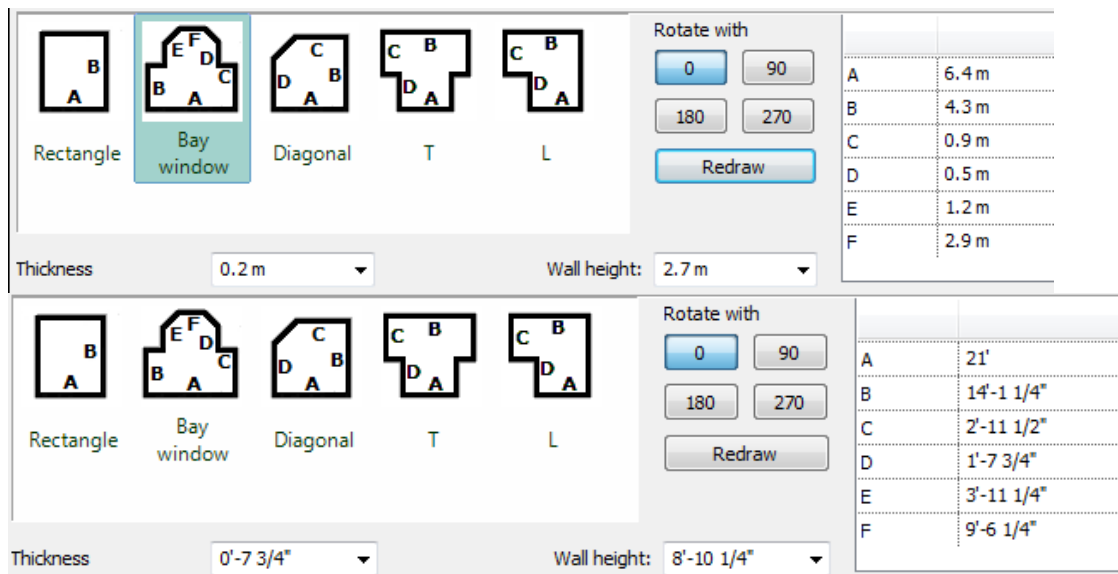
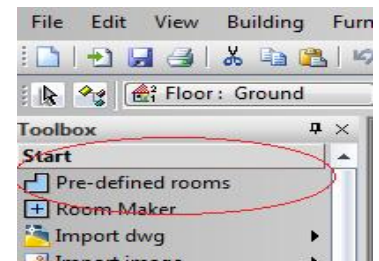


## 1.1. Room design

- Click on Toolbox, Start menu, **Pre-defined rooms** command
- Choose in the upcoming dialog the room shape: **Bay window**
- Create your room with exact room internal measurements:  
Type these values and press redraw.  
A: 6.4, B: 4.3, C: 0.9, D: 0.5, E: 1.2, F: 2.9.  
(A: 21', B: 14'-1 1/4", C: 2'-11 1/2", D: 1'-7 3/4", E: 3'-11 1/4", F: 9'-6 1/4").

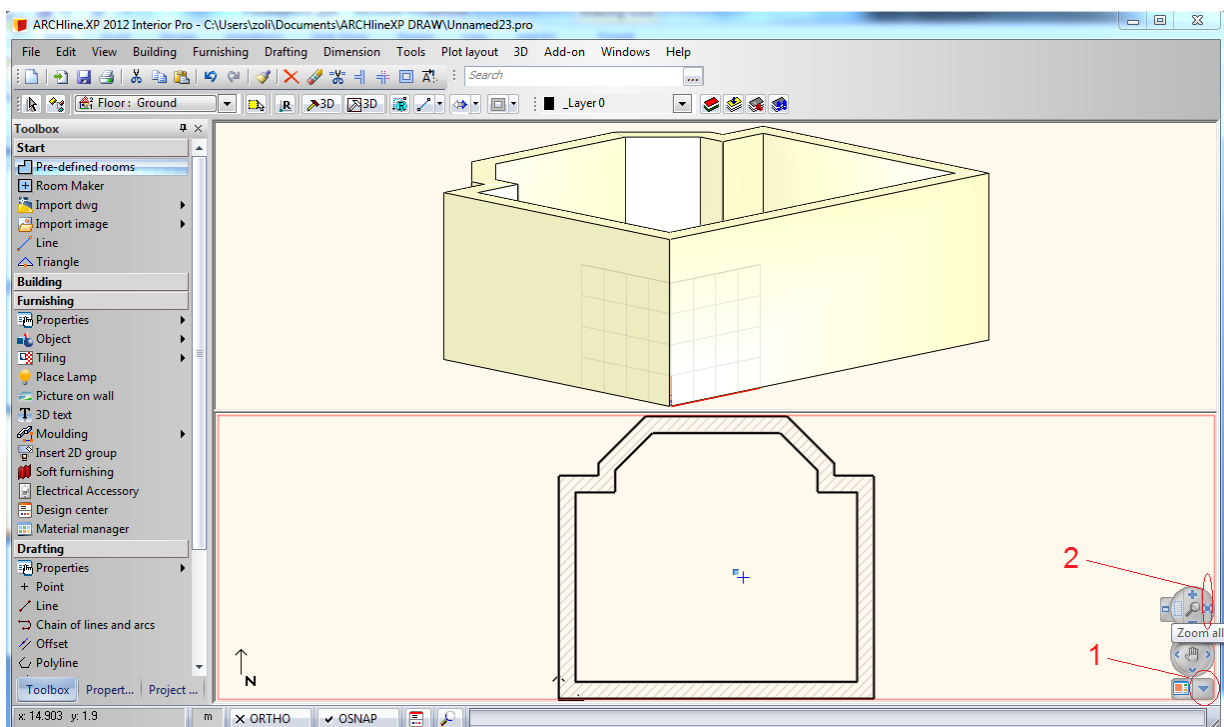
The values represent the internal wall lengths.

Wall properties: Thickness: 0.20m (0'-7 3/4") Wall height: 2.70m (8'-10 1/4"),



- Press the Close button and place the room shape on the drawing area with mouse left click near to the origin.

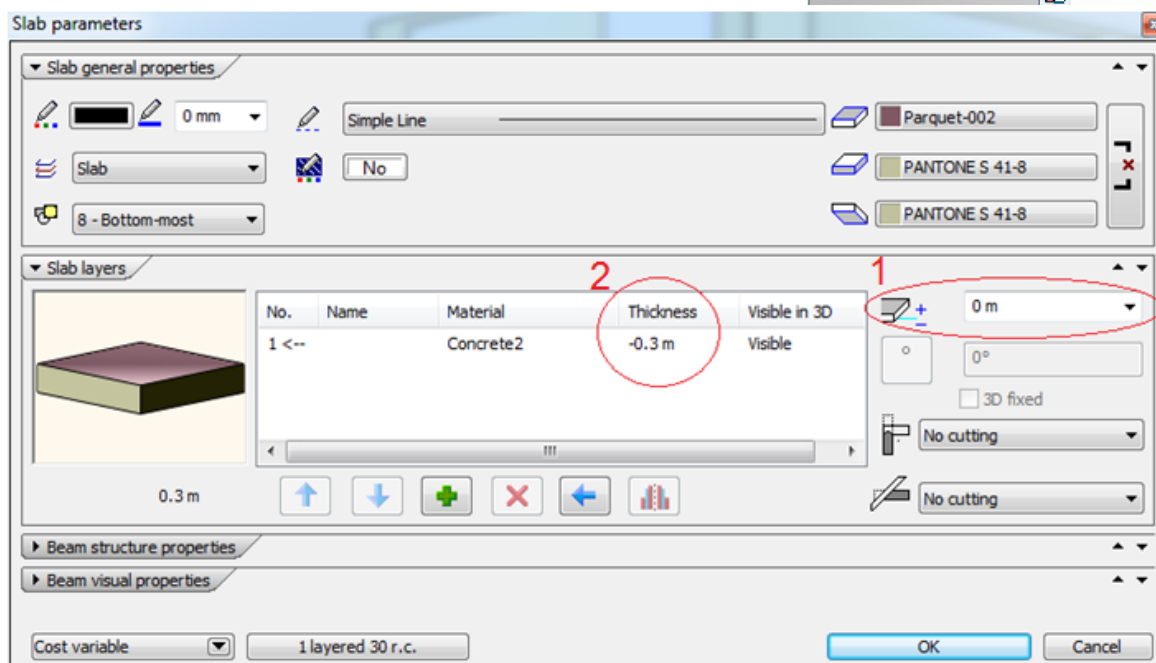
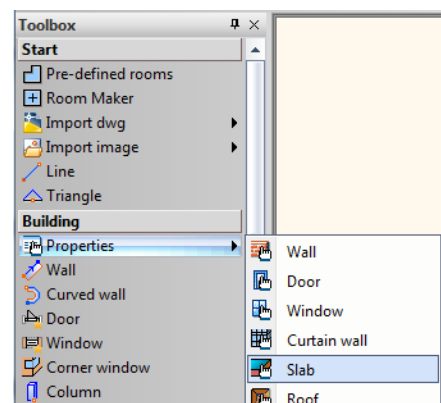
Your screen should look as follows: If you see your design partly, click on the bottom right corner icon marked as 1 in order to open the **navibar tool** and after click on the icon marked as 2 to have the optimal view.



## 1.2. Floor definition

### 1.2.1. Properties of floor

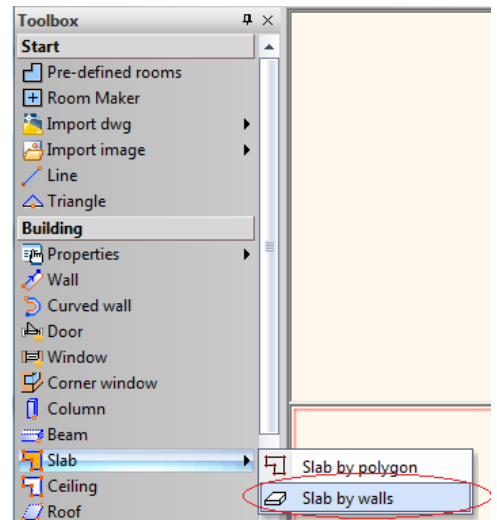
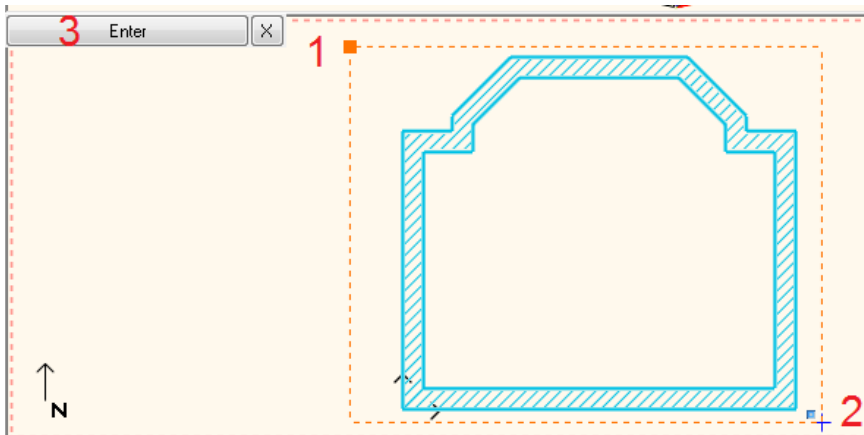
- Define floor properties: Toolbox- Building menu – Properties - Slab: Set up these values in the dialog:
- Floor relative height (1): 0.0m (0"); Thickness (2) : -0.3m (-0'-11 3/4");





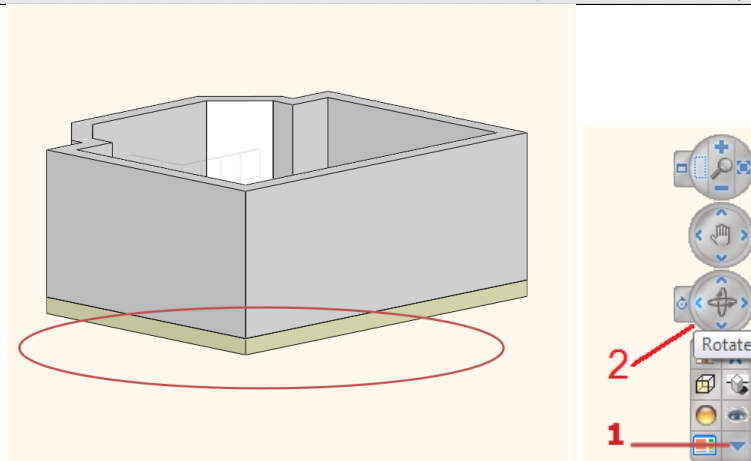
### 1.2.2. Create floor

- Define floor: Toolbox - Building menu – Slab - Slab by walls.
- Select the walls with selection window with two clicks somewhere outside the walls (1,2).
- Finally click in Enter (3) button to close the command. The program creates now the floor and generates in 3D as well.



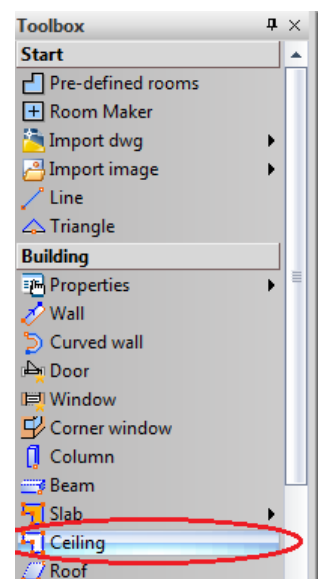
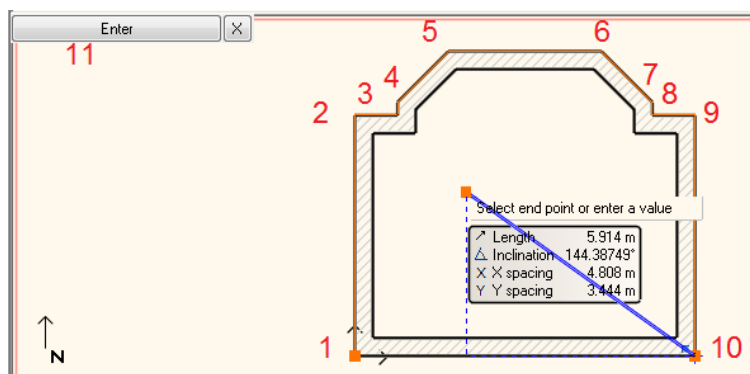
Your screen should look as follows: The slab is ready and you see it in the 3D view under the walls.

**Note:** Click with left mouse button into the 3D view and try to rotate it clicking on the NavBar (1) – Rotate button



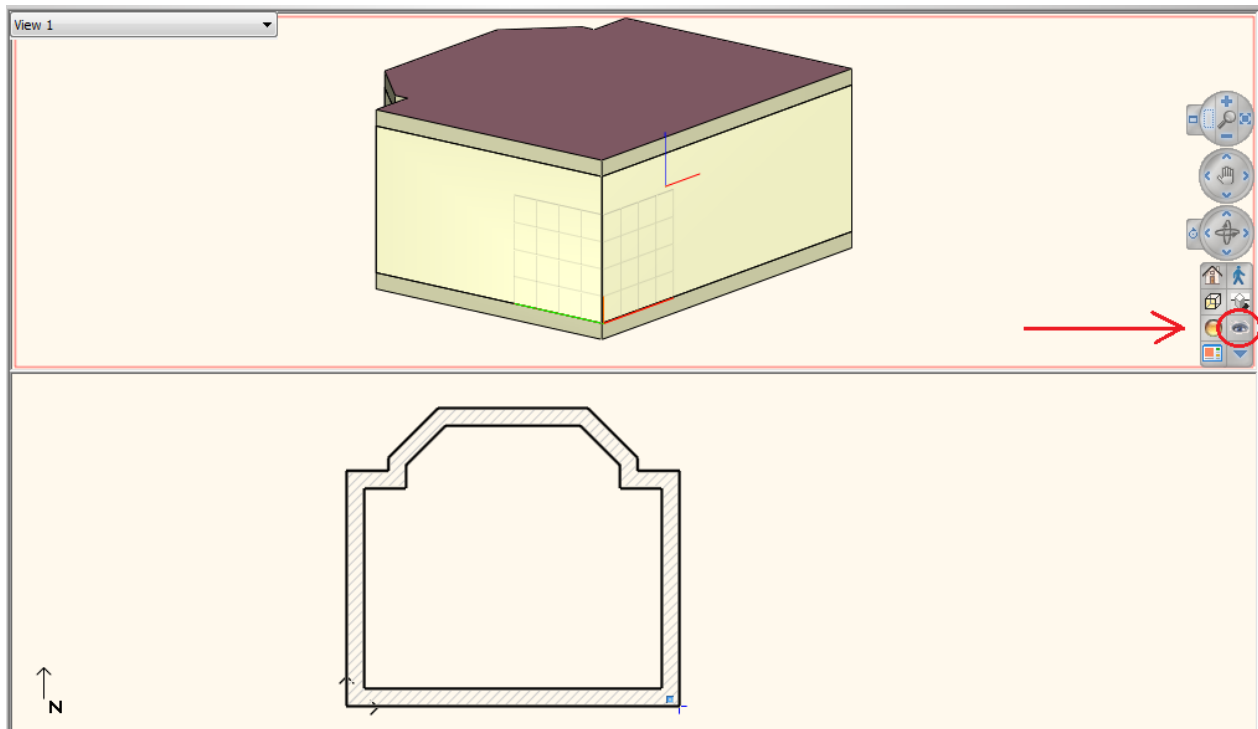
### 1.2.3. Ceiling definition

- Activate the 2D view with a left click inside the window.
- Define ceiling: Toolbox - Building menu – Ceiling.
- Click on the wall vertex points one by one as below. Finally click in Enter button (11) to close the ceiling contour.



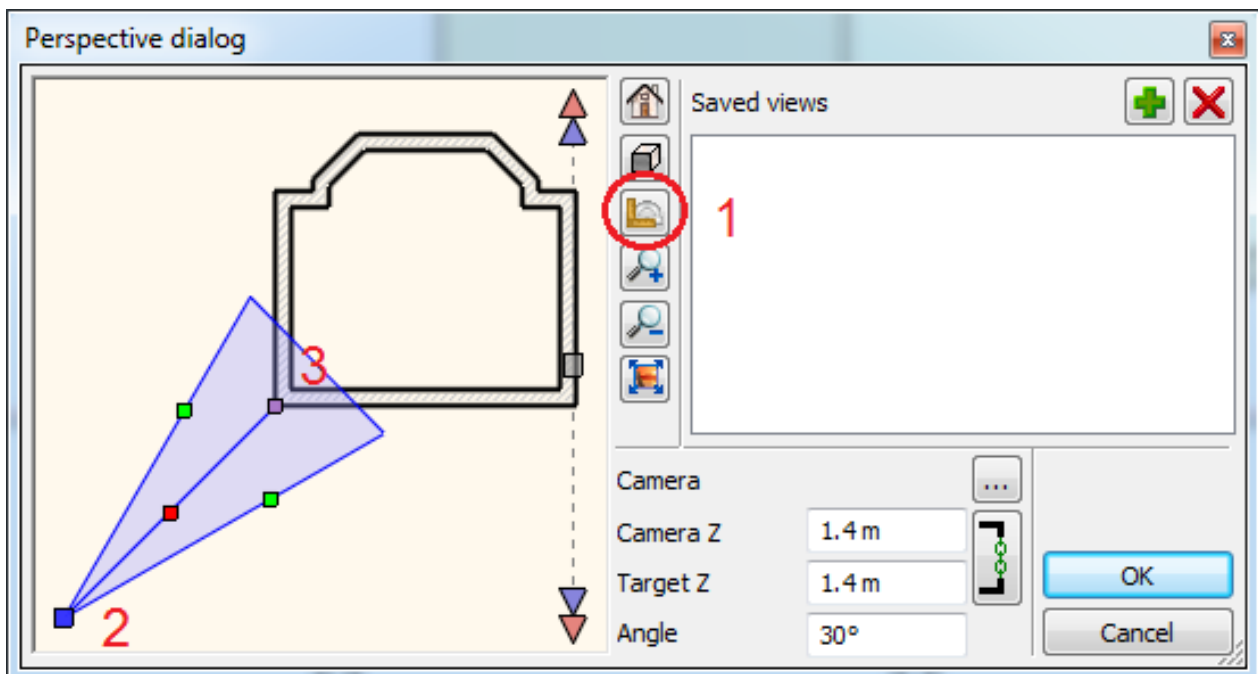
### 1.3. Perspective views

It is recommended to save some perspective views now. These saved views makes easier later to overview your room inside. Activate the 3D window and click on the Navibar Perspective view icon. Define and save 2 views in the upcoming dialog.

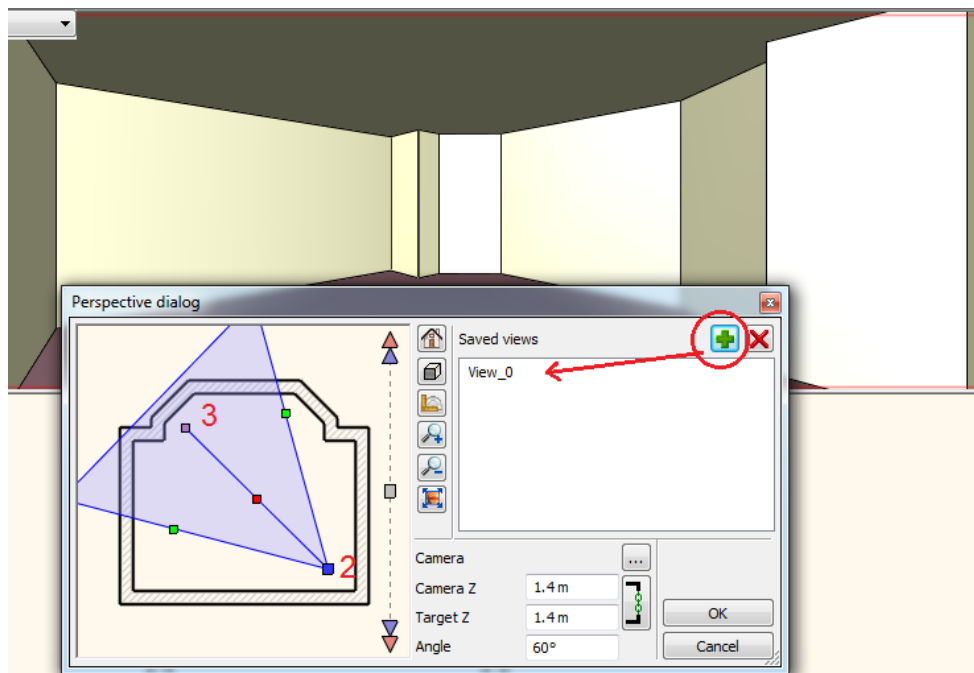


#### *Perspective view dialog*

- Click on the floor plan icon (1) below. Then click on the camera point (2) and drag it near to the room bottom right corner. Now click on the target point (3) and drag it near to the bay window left corner.



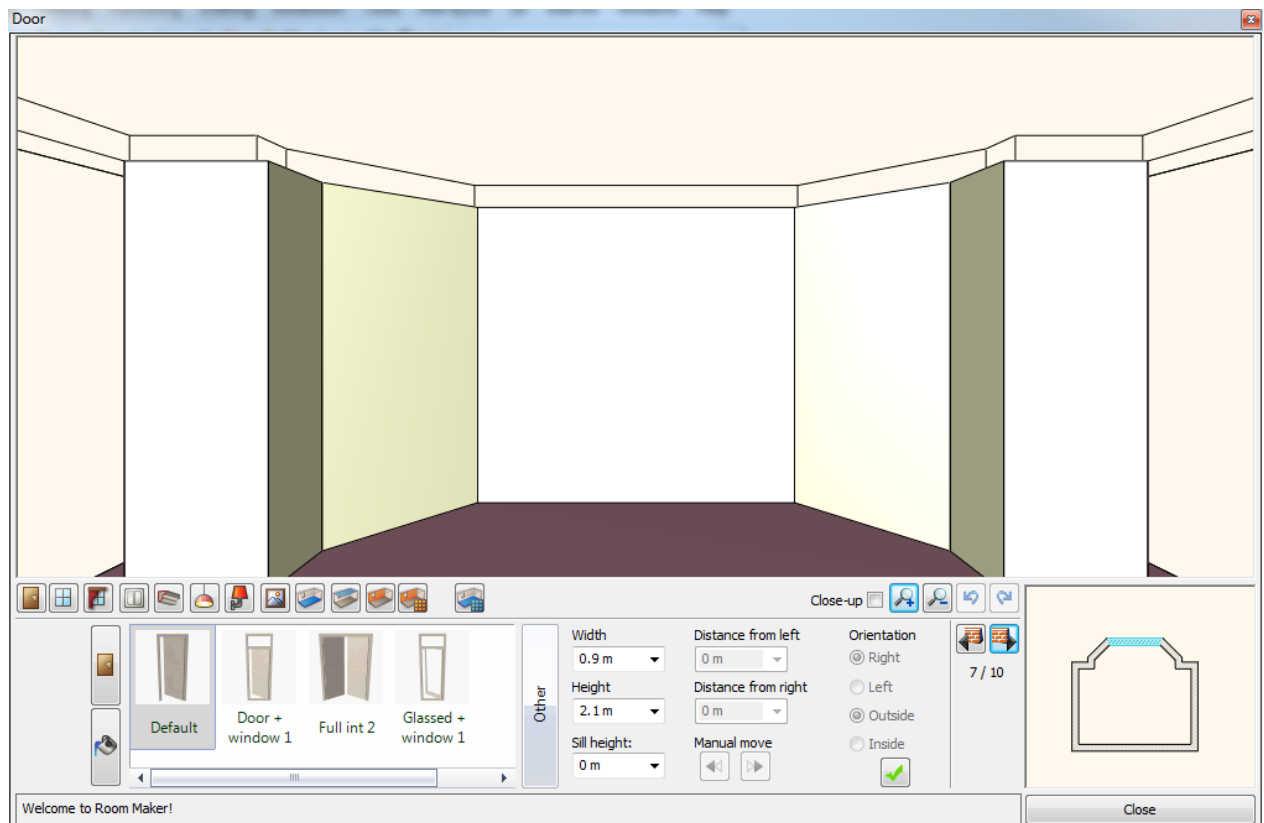
When you are ready click on the green plus sign and the view is saved. Repeat it once again with an eye point near to the room bottom left corner and the destination point near to the bay window right corner. Save it again with green plus and press Ok to close the dialog.



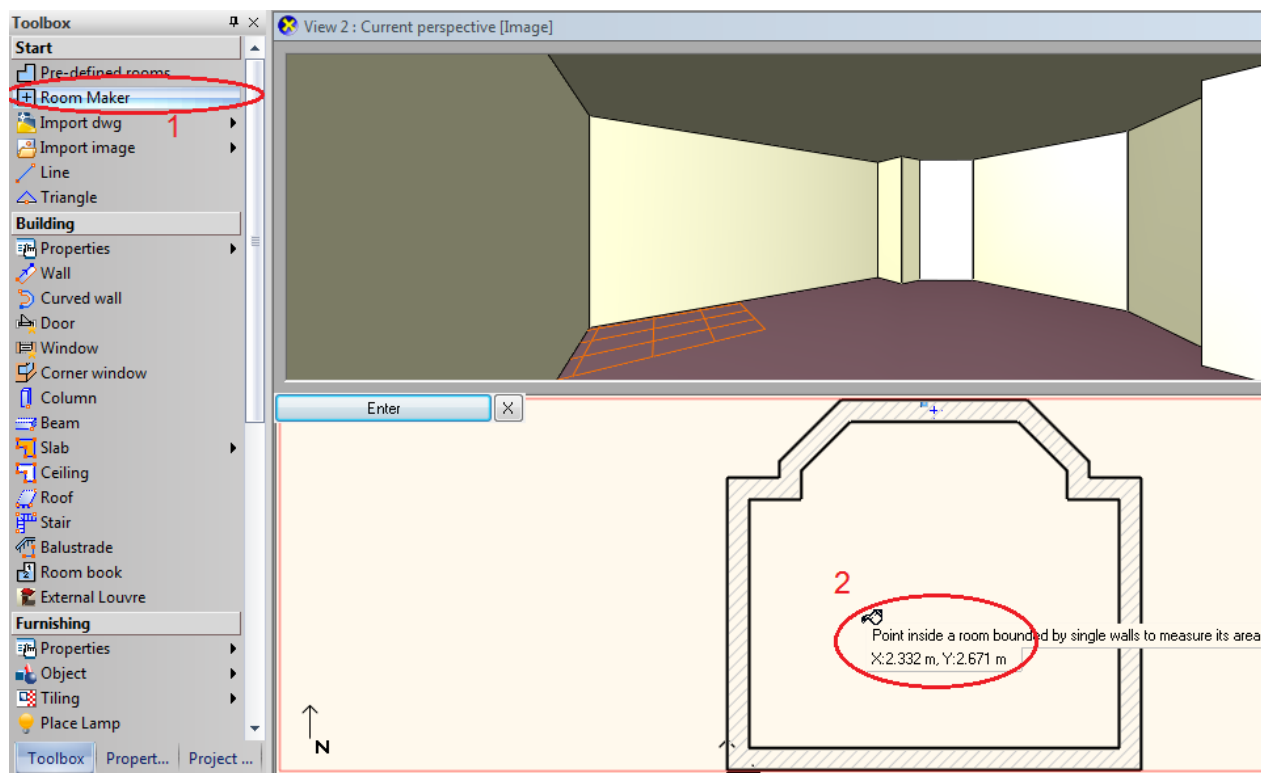
**Note:** Use Page Up and Page Down buttons to swap among the saved views.

## 1.4. Room Maker

Room Maker is an all-in-one design tool that highly speeds up the interior design starting from an empty room. Start off by placing doors and windows. Then you can decorate the room with your choice of items very quickly.



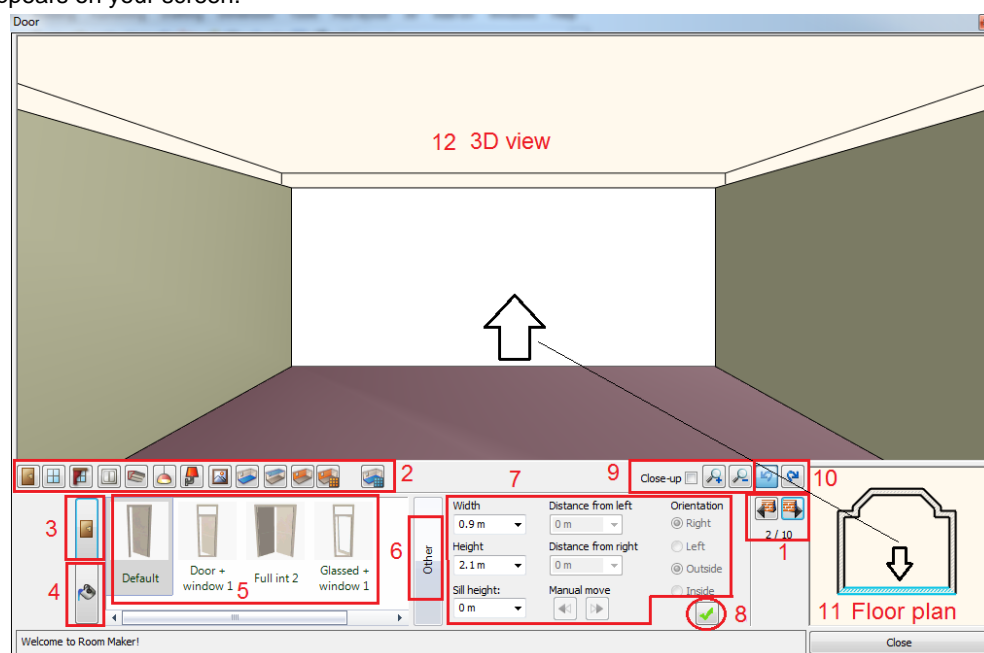
- Start the command: Toolbox – Start menu – Room Maker as indicated with 1.
- Click inside the room on the floor plan as indicated with 2.
- The Room Maker dialog appears on your screen.



### 1.4.1. Room Maker – Interface overview

The Room Maker dialog appears on your screen.

1. Wall finder
2. Toolbar
3. Type finder
4. Texture finder
5. Favourites
6. Other types
7. Properties
8. Add new item
9. Zooming
10. Undo / redo
11. Floor plan
12. 3D view



### 1.4.2. Room Maker – Interface overview

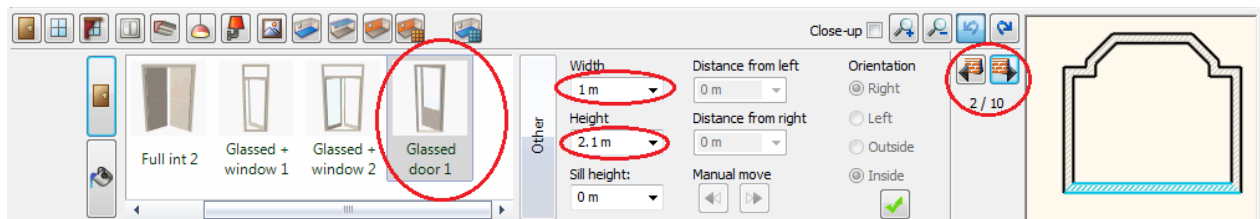
1. **Wall finder:** The room will turn to the left / right and displayed frontal to the selected wall. You work on this wall or some cases on floor or ceiling.
2. **Toolbar:** The container for interior design items. One of them is always active and Room Maker works with the selected one.
3. **Type finder:** It enables to see the *last used types* in the Favourites box.
4. **Texture finder:** It enables to see the *last used textures* in the Favourites box.
5. **Favourites:** You see here the *last used types or textures*.
6. **Other types:** Here you can choose from the *library of types or textures*.
7. **Properties:** These values are used when you insert a new item or modify it.
8. **Insert new:** You can insert a new item with a click on the Green Tick.

9. **Zooming:** Zoom in or zoom out the 3D view. In order to get a close-up view of the selected item click in the Close-up checkbox.
10. **Undo / redo:** Deletes the last change done reverting it to the older state. Redo reverts the effects of the undo. You can undo and redo up to 16 actions
11. **Floor plan:** The floor plan that focuses on the selected item (highlighted)
12. **3D view:** Three dimensional view facing to the selected wall / floor

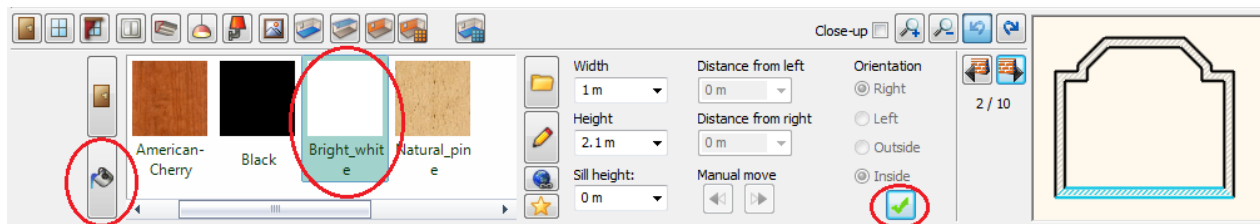
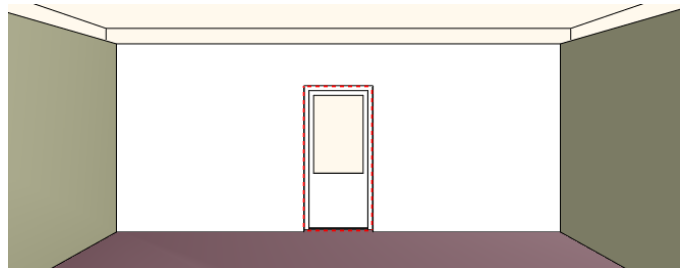
### 1.4.3. Room Maker – Doors

#### First door

- Select the indicated wall with Wall finder: We place 2 doors on 6.4m (21') long wall.  
Select **Glassed door1** from the favourites and change properties: Width: 1m (3'-3 1/4") Height: 2.1m (6'-10 3/4")



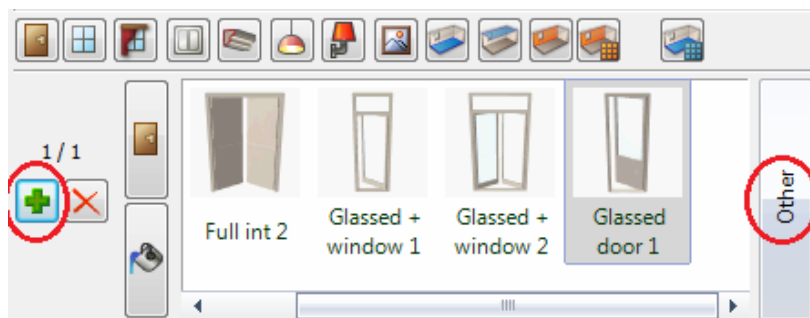
- Click on the Texture finder button
- Select Bright\_white from the favourites
- Click on Green tick – it will place the door in the wall centre point

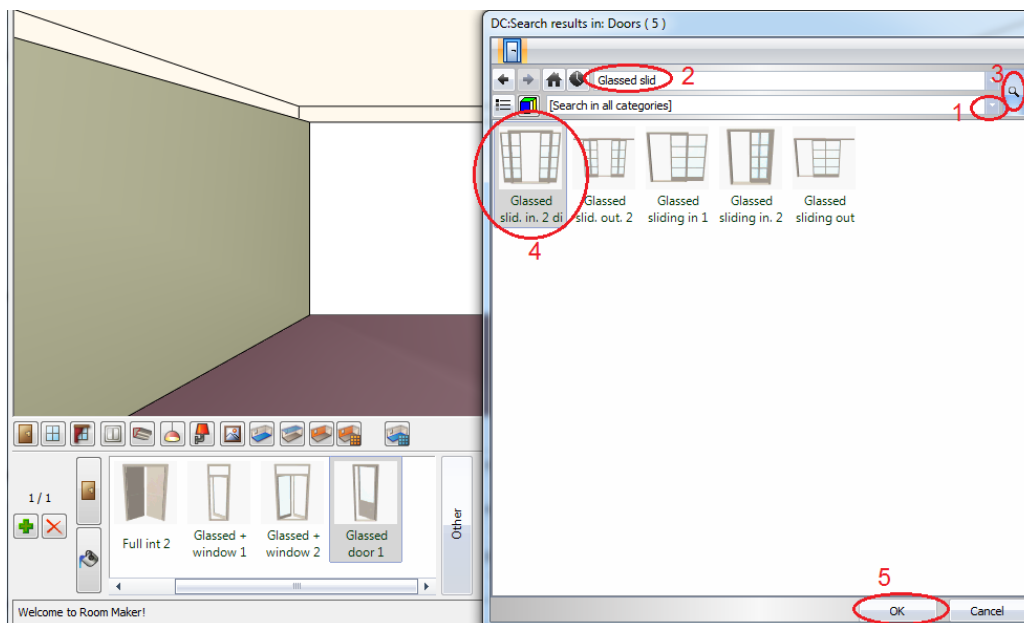


#### Second door

Place now the second door on the same wall.

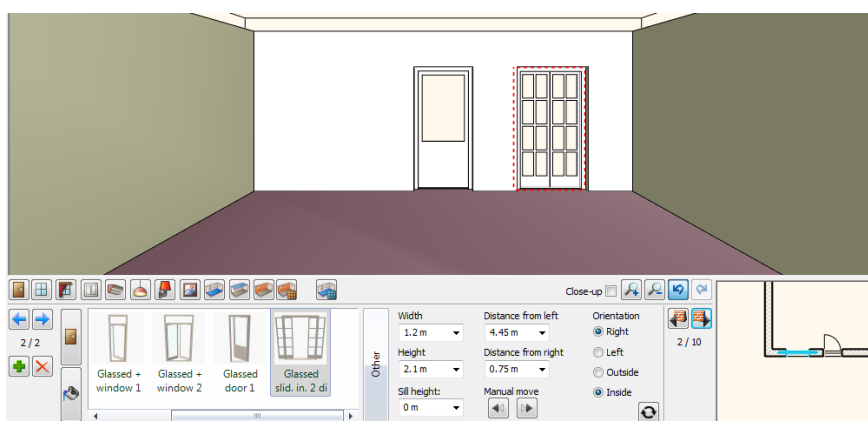
- Press the Green Plus first to prepare the next door on the same wall.
- The **Glassed slid. in. 2 diff** door is missing from the favourites so must find it with pressing the Other button.
- You will see the Design Centre that contains all door types.
- Click on the arrow button (1) and select the first line as "Search in all categories"
- Type the door name partly in the search field (2) : Glassed slid
- Press the Search button (3)
- Click on the marked type in the search result list.
- Press Ok to close the dialog. The selected door will be placed in the Door favourites list in Room Maker



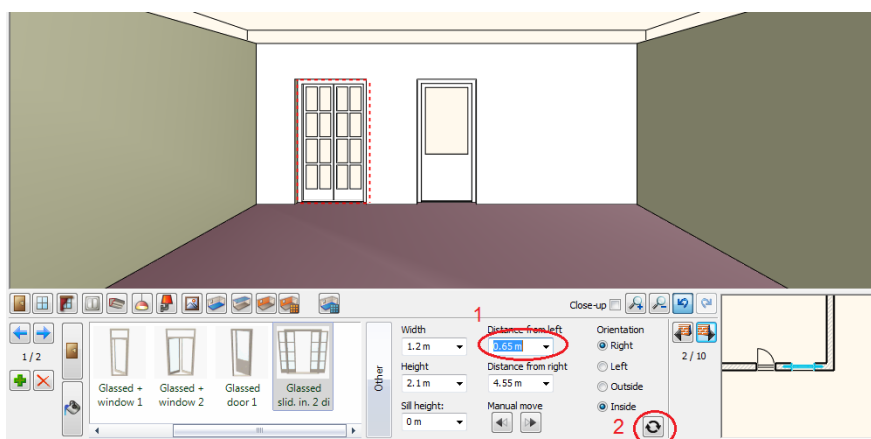


- Width: 1.2m (3'-11 1/4")

- Click on Green tick – it will place the door in the wall where it is possible.



- Change left distance to 0.66m (2'-2") (1) and press Enter or Update icon (2).

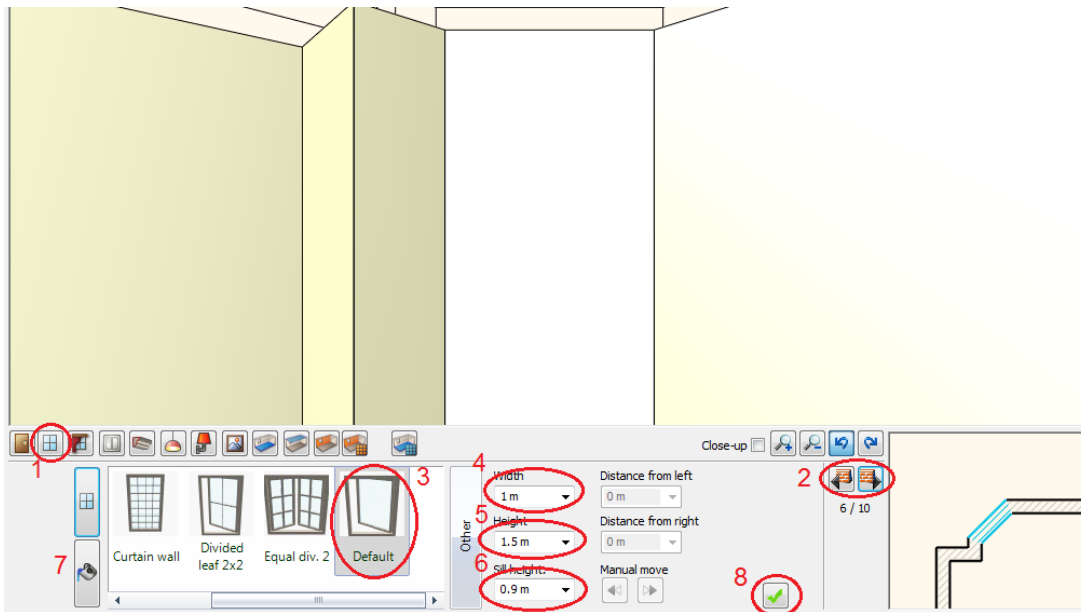


#### 1.4.4. Bay windows

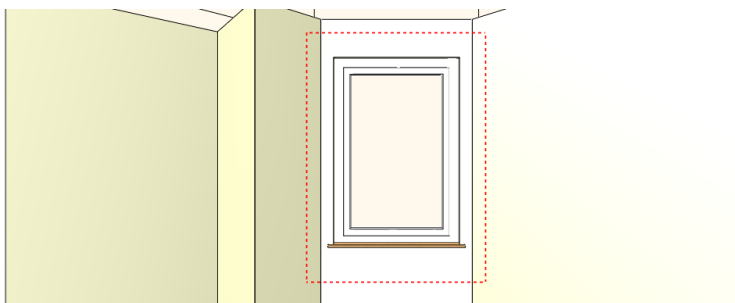
##### First window

- Place 4 windows in the bay. Press on the Toolbar the window icon (1). Select the indicated wall with Wall finder (2): We place one window on this 1.2m (3'-11 1/4") long wall.

- Choose Default type from the favourites (3) and change properties: Width: 1m (3'-3 1/4"), Height: 1.5m (4'-11"), Sill height 0.9m (2'-11 1/2"), (marked as 4,5,6,) Texture: Bright\_white (7);

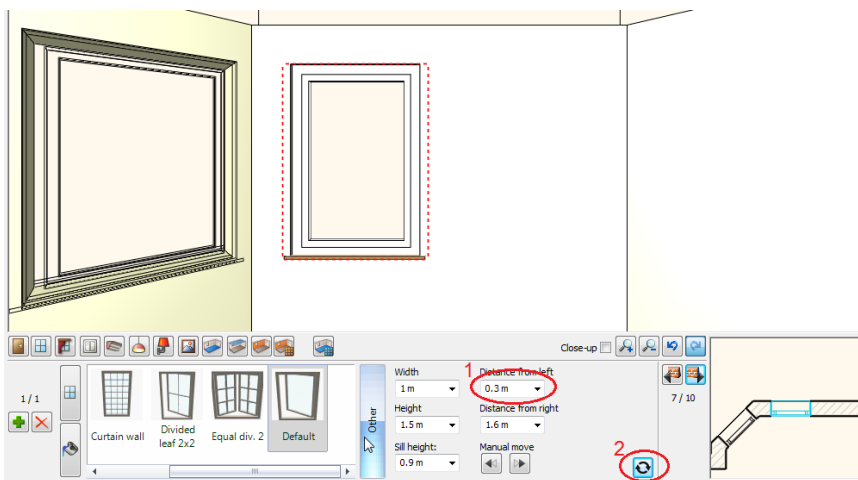


- Click on Green tick (8) – it will place the window in the centre of the wall.

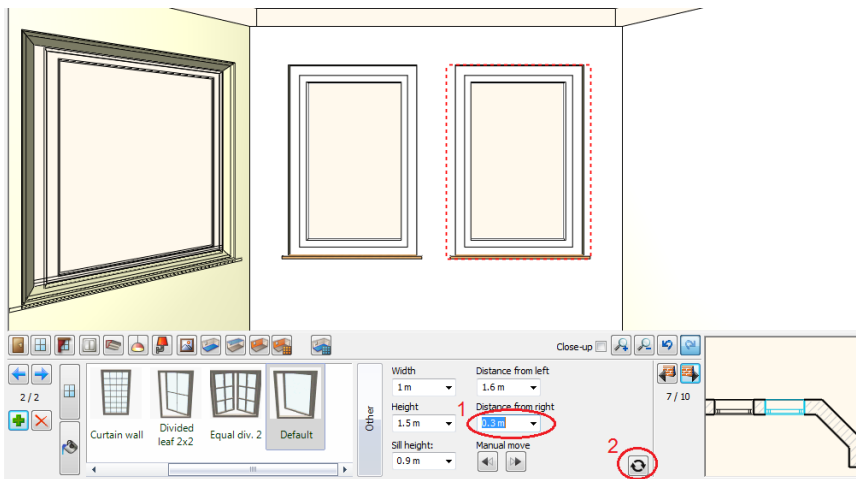


### Second and third windows

- Place 2 windows on the next wall. Repeat the instructions above.
- When you placed the first window you have to change its "Distance from left" value to 0.3m (1')(1) and press Enter or Update icon (2).



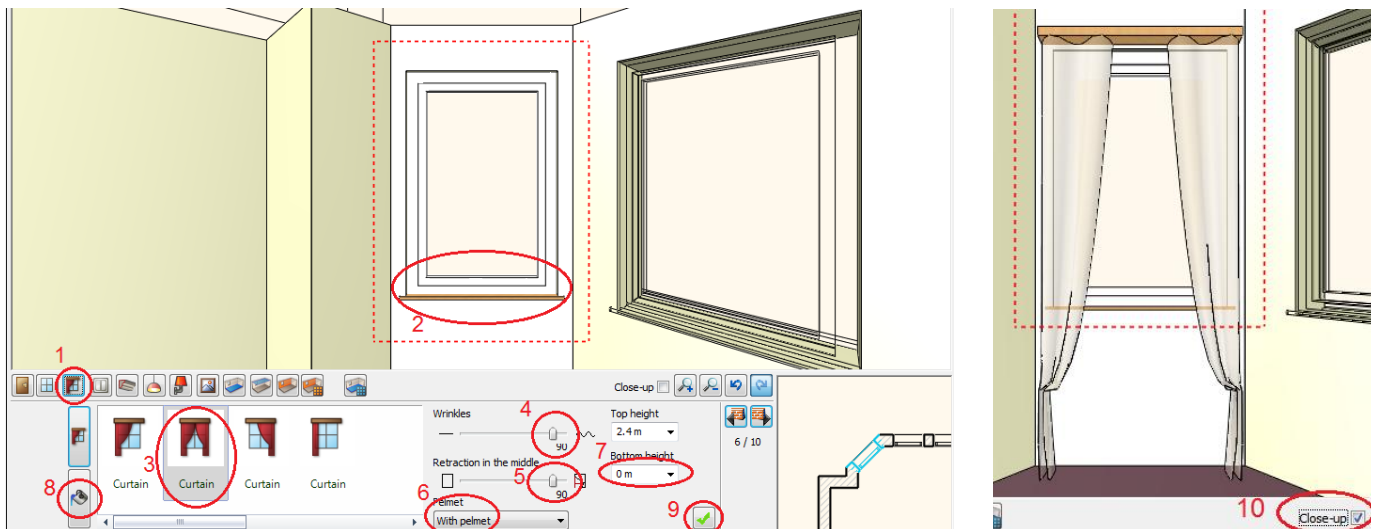
- Place the third window on the same wall.
- Press the + (Green Plus) first to prepare the next window.
- Click on Green tick – it will place the window on the wall where it is possible.
- Change its "Distance from right" value to 0.3m (1')(1) and press Enter or Update icon (2).



**Note:** Place now the missing 4<sup>th</sup> bay window on next wall repeating the technique described above.

### 1.4.5. Curtains

- Place the 4 curtains in front of the windows in the bay.
- Press on the Toolbar the curtain icon (1). Click on the left bay window (2). The curtain will be placed on this window.
- Select the second curtain type from the favourites (3) and change properties: Pleats: high (90%), Retraction in the middle: high (90%), With pelmet, Bottom height: 0.0m (0'')(4,5,6,7)
- Click on the Texture (8) and select "Curtain 02"
- Click on Green tick (9) – it will place the curtain in front of the window.
- Click on Close-up (10) checkbox to see the curtain in optimal view.

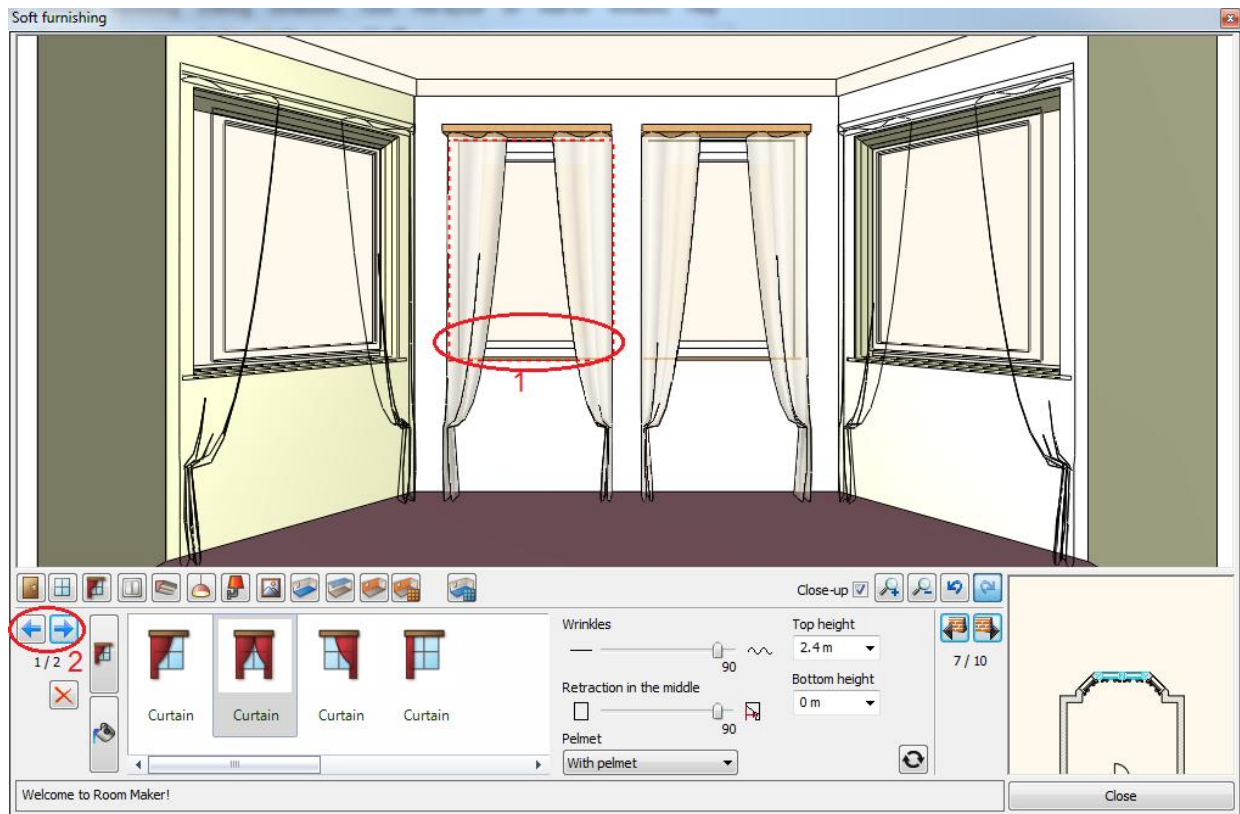


#### More curtains

- Select the next wall in the bay with Wall finder and place the curtains on two windows.
- There are two ways to select the second window: (1) click on the window or (2) click on the blue left or right arrow on the dialog left side to select the consecutive window.

**Note:** Place now the missing 4<sup>th</sup> curtain on the right side of the bay.

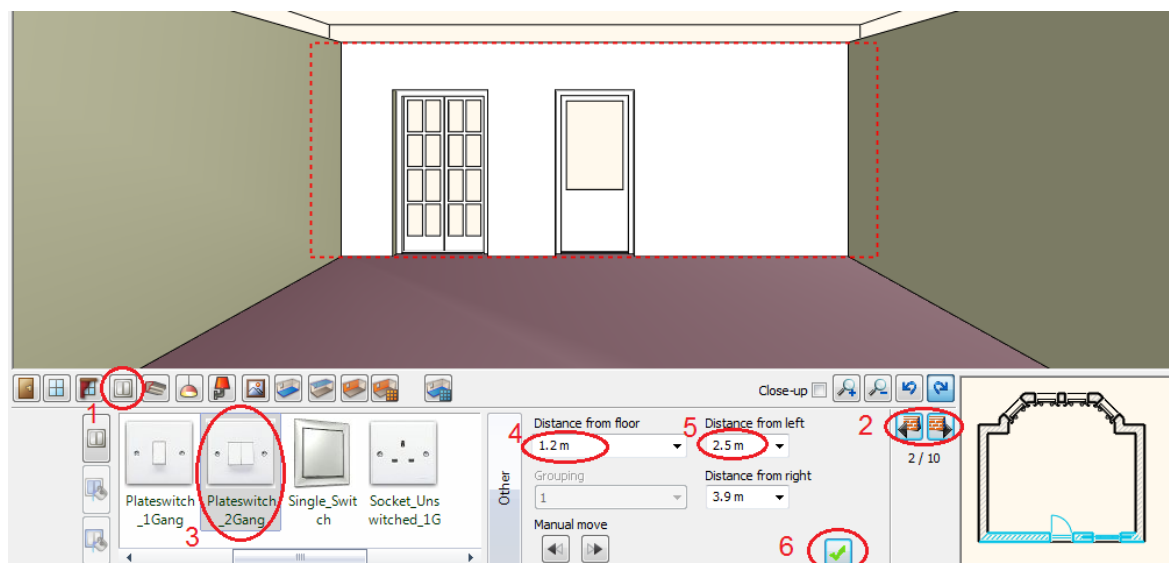




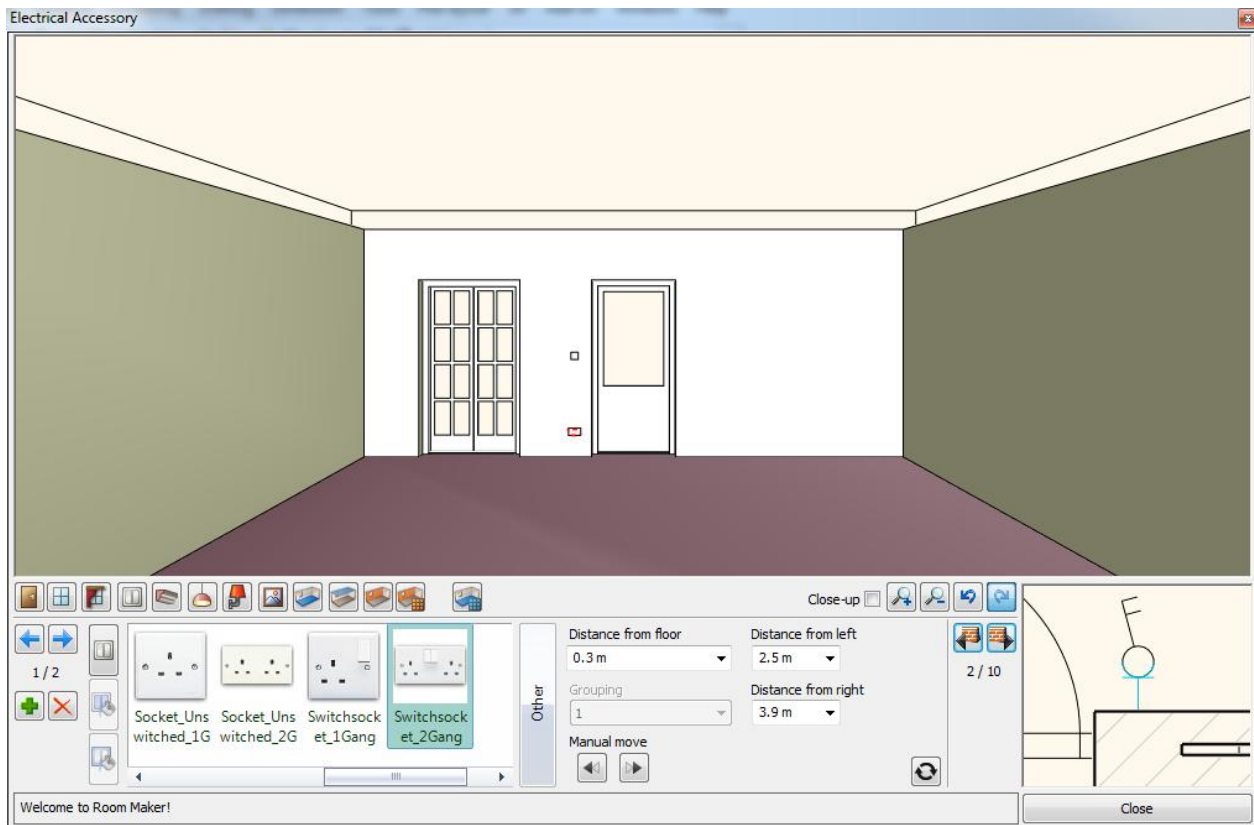
### 1.4.6. Light Switches & Sockets

Place light switch and socket between the two doors on the 6.4m (21') long wall.

- Press on the Toolbar the Electrical Accessory icon (1).
- Select the 6.4m (21') long wall with Wall finder (2)
- Select the **Plateswitch\_2Gang** type from the favourites (3) and change properties: Distance from floor: 1.2m (3'-11 1/4") Distance from left: 2.5m (8'-2 1/2") (4,5)
- Click on Green tick (6) – it will place the switch on the wall. (See image below)
- Press the **+** (Green Plus) to prepare the next socket.
- Select the **Switchsocket\_2Gang** type from the favourites and change properties: Distance from floor: 0.3m (1'), Distance from left: 2.5m (8'-2 1/2").
- Click on Green tick (6) – it will place the socket on the wall.



- Your screen should look as follows:

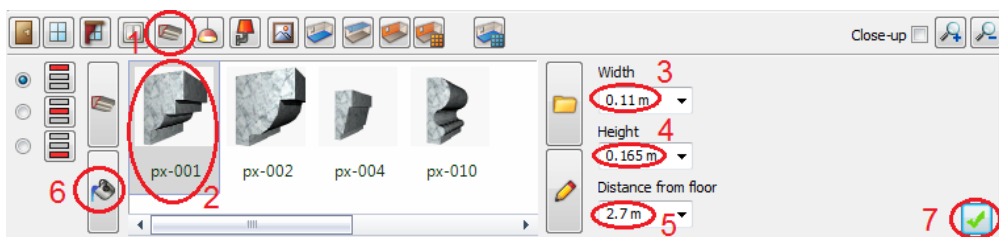


### 1.4.7. Profiles

#### Cornice

Place cornice that goes around the room.

- Press on the Toolbar the Profiles icon (1).
- Select the px-001 profile from the favourites (2) and change properties: width: 0.11m (0'-4 1/4"); height: 0.165m (0'-6 1/2"), Distance from the floor: 2.7m (8'-10 1/4") (3,4,5)
- Click on the Texture (6) and select "Bright\_white"
- Click on Green tick (7) – it will place the cornice around the room.

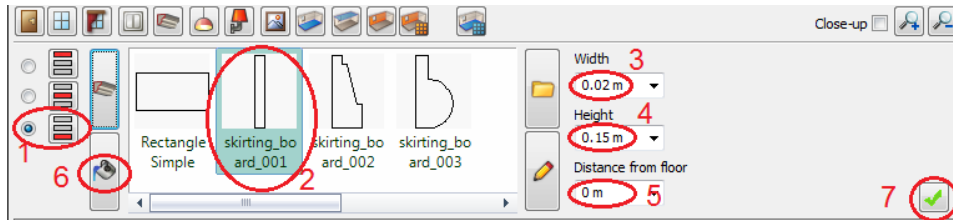


#### Skirting Board

Place skirting board that goes around the room except the door.

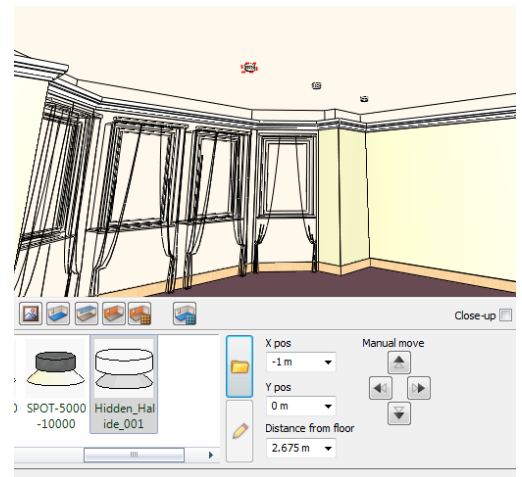
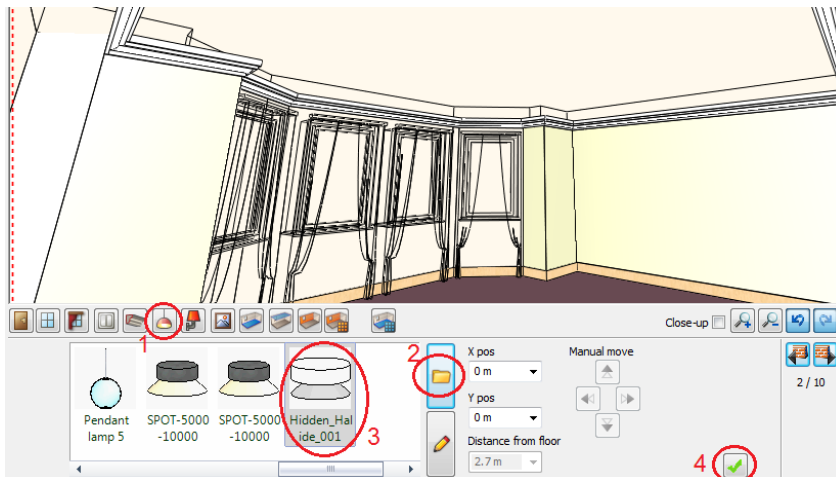
- Click on the Skirting Board icon on the left (1)
- Select the skirting\_board\_001 profile from the favourites (2) and change properties: width: 0.02m (3/4"); height: 0.15m (6"), Distance from the floor: 0m (0") (3,4,5)
- Click on the Texture (6) and select "Pine-natural"

- Click on Green tick (7) – it will place the skirting board around the room.



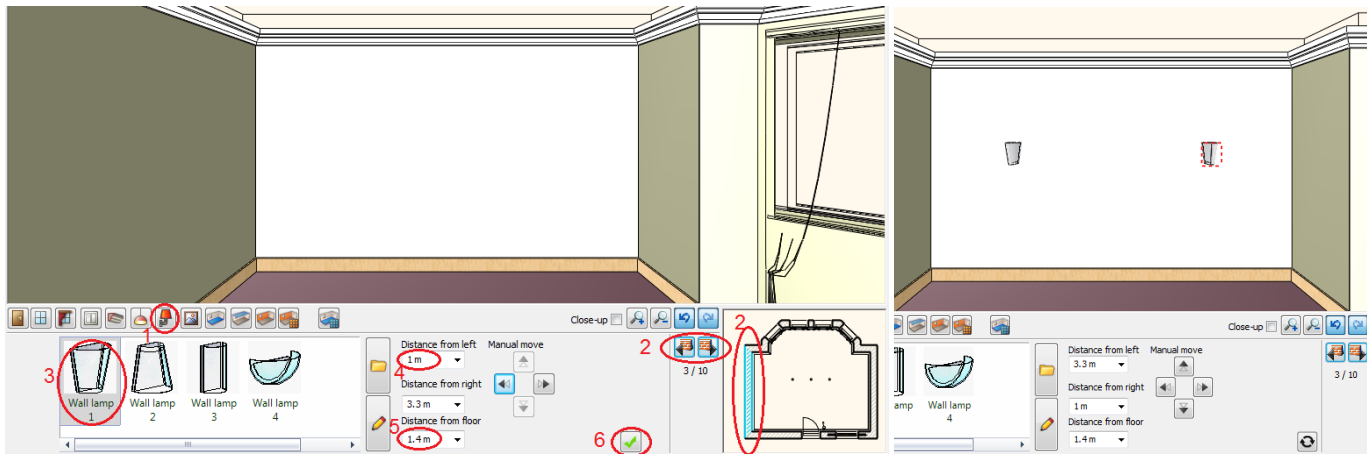
#### 1.4.8. Ceiling lights

- Place lights on ceiling.
- Press on the Toolbar the Ceiling lights icon (1).
- The Hidden\_Halide\_001 (3) is missing from the favourites so must find it with pressing the Other button (2).
- Click on Green tick (4) – it will place the light on the ceiling. (See image left)
- Press the + (Green Plus) to prepare the next light: X position: -1m (-3'-3"), Y position: 0m (0"),
- Click on Green tick (4) – it will place the light on the ceiling.
- Repeat it once again: Press the + (Green Plus) to prepare the next light: X position: +1m (3'-3"), Y position: 0m, (0"),
- Click on Green tick (4) – it will place the light on the ceiling. (See image right)



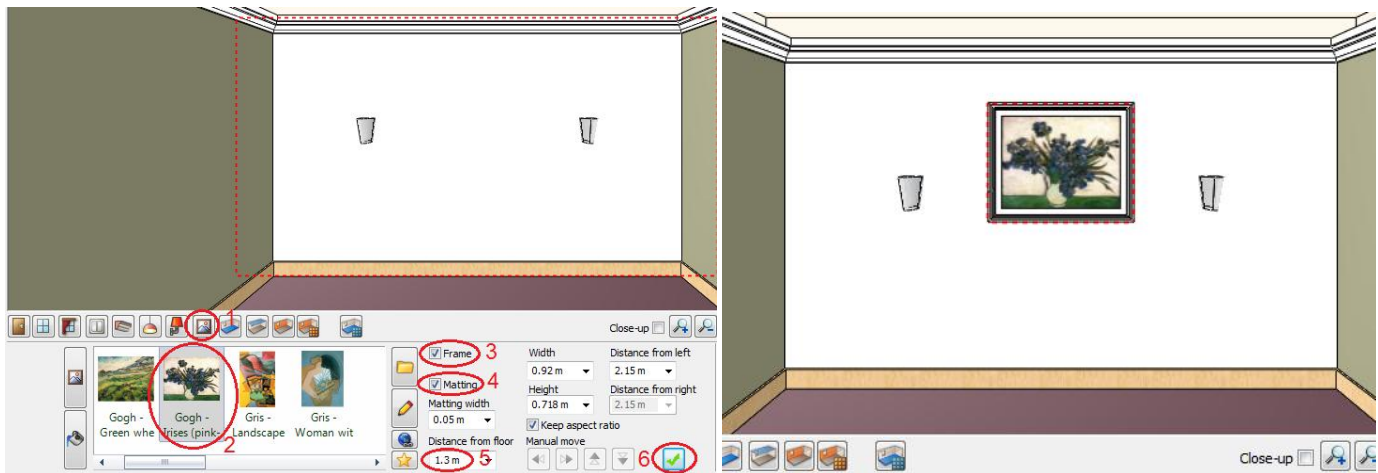
#### 1.4.9. Wall lights

- Place lights on the wall. Press on the Toolbar the Wall lights icon (1).
- Select the left side wall with Wall finder (2).
- Choose "Wall Lamp 1" (3) from the favourites and change properties: Distance from **left**: 1m (3'-3"), Distance from floor: 1.4m (4'-7") (4,5).
- Click on Green tick (6) – it will place the light on the wall (See image left)
- Press the + (Green Plus) to prepare the next light: Distance from **right**: 1m (3'-3"),
- Click on Green tick (6) – it will place the next light on the wall. (See image right)



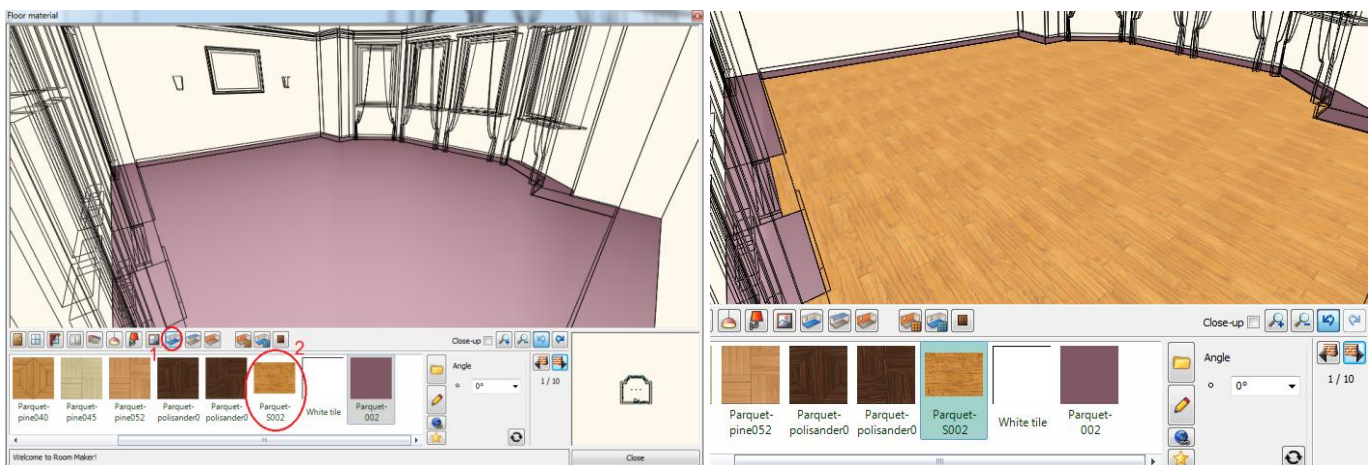
#### 1.4.10. Picture on the wall

- Place a picture on the wall. Press on the Toolbar the Picture on Wall icon (1).
- Choose "Gogh - Irises" (3) from the favourites and change properties: Distance from floor: 1.4m (4'-7") (5).
- Click on Green tick (6) – it will place the picture on the wall. (See image right)



#### 1.4.11. Floor material

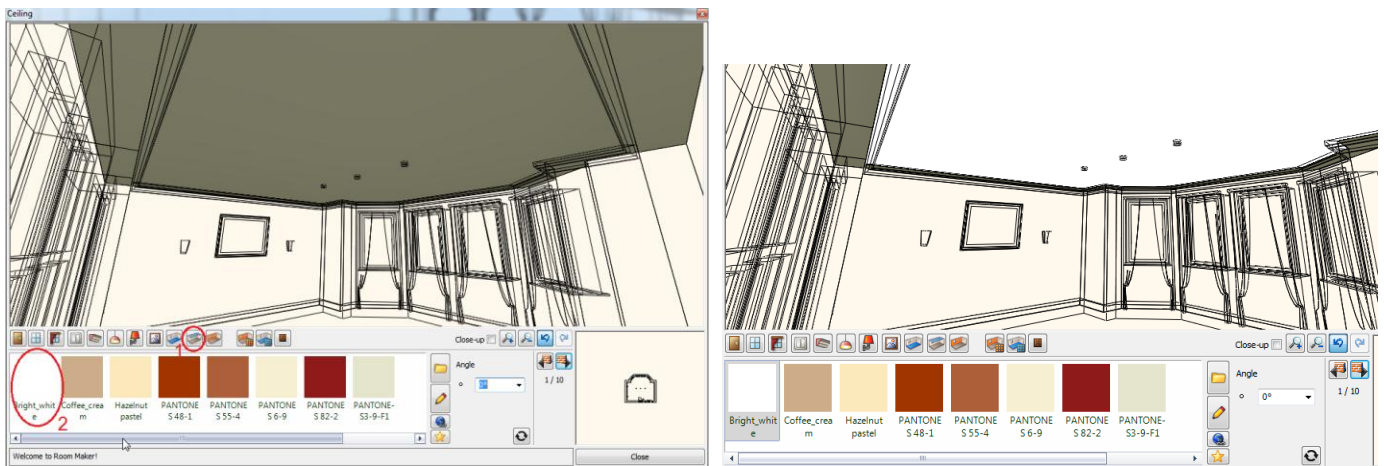
- There is a wide choice of material for floor covering . Press on the Toolbar the Floor Material icon (1).
- Choose "Parquet – S002" (2) from the favourites (See image left). It will apply the selected material on the floor.



#### 1.4.12. Ceiling material

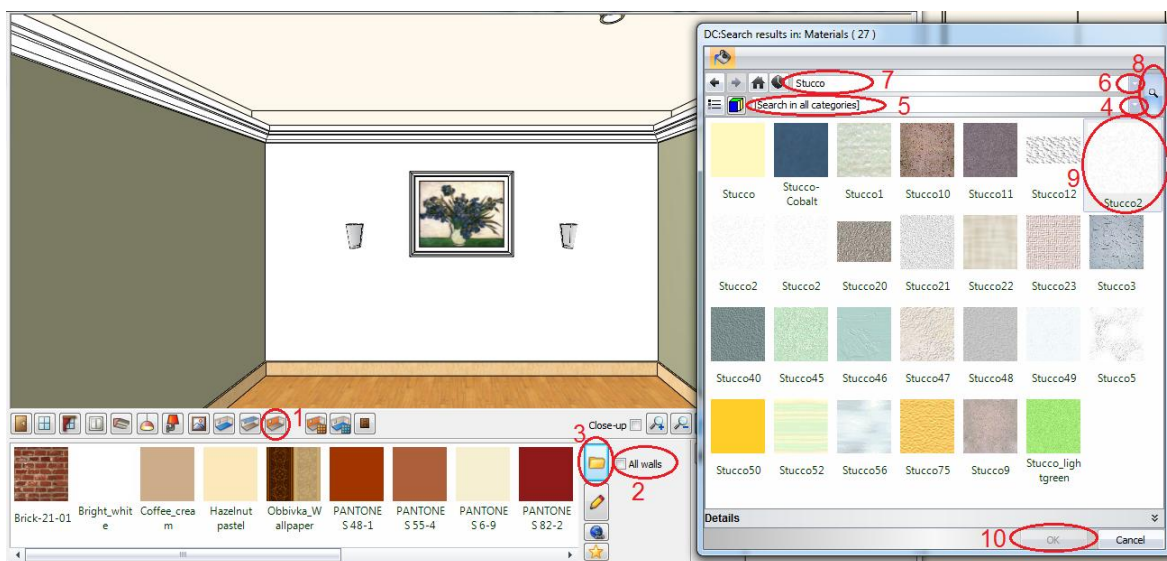
- The command is very similar to floor material . Press on the Toolbar the Ceiling Material icon (1).
- Choose "Bright\_white" (2) from the favourites (See image left). It will apply the selected material on the ceiling (See image right).





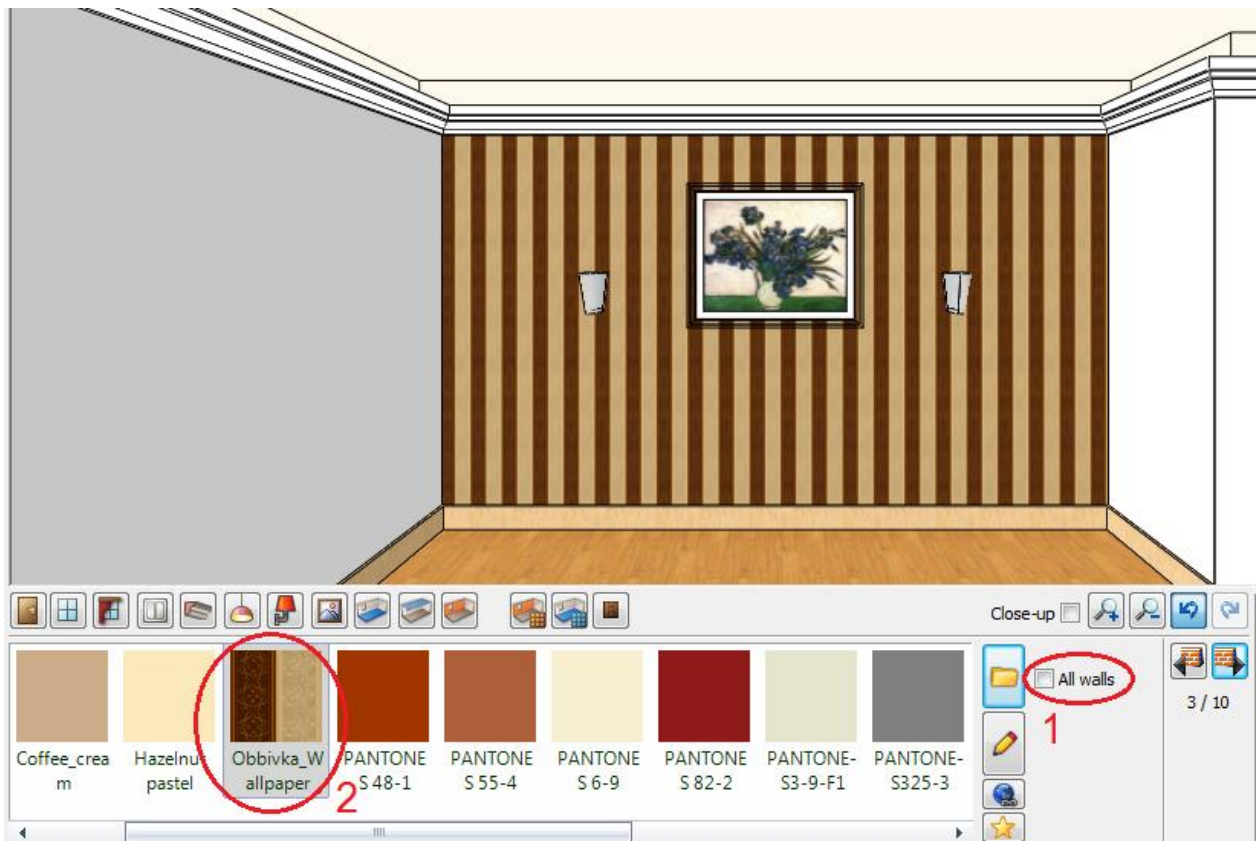
### 1.4.13. Wall material

- The command is very similar to floor material . Press on the Toolbar the Wall Material icon (1).
- Select a wallpaper that is missing from favourites. First activate the “All walls” checkbox (2) as condition to change the wallpaper on each wall in one step.
- Click on the Other button (3). You will see the Design Centre with all textures.
- Click on the arrow button (4) and select the first line as “Search in all categories”
- Type the name partly in the search field (6,7) : Stucco
- Press the Search button (8). The search term “Stucco” returns all names beginning with “Stucco”.
- Click on the marked item (9) in the search result list.
- Press Ok (10) to close the dialog. The selected texture will be placed in the favourites list in Room Maker and will be applied to all walls right away.



### Change Texture on one wall

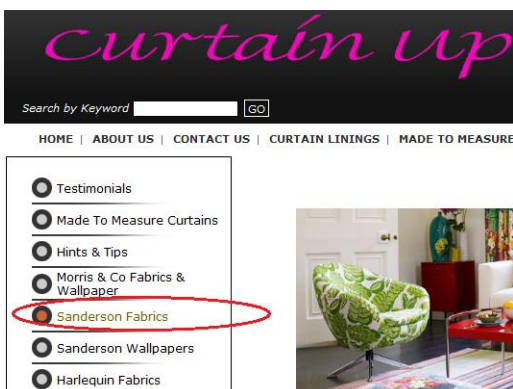
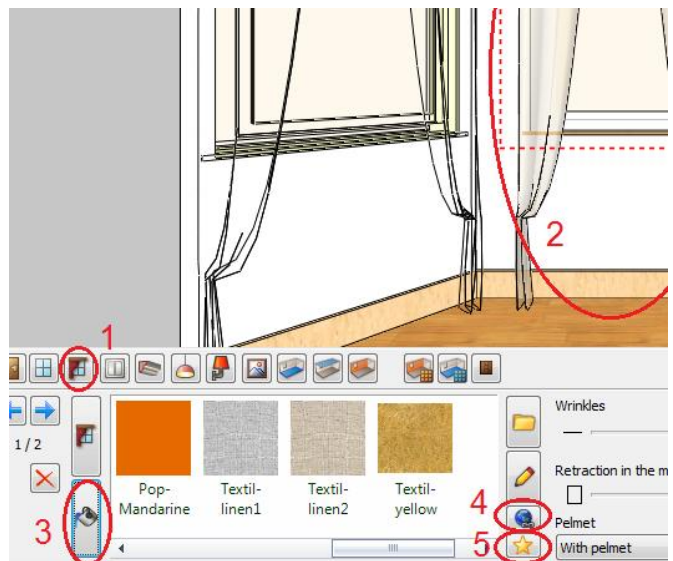
- Switch off the All wall checkbox (1) and click on “Obbivka\_wallpaper” (2). It will be applied only on the selected wall.
- Your screen should look as follows:



#### 1.4.14. Change Curtain fabric\*

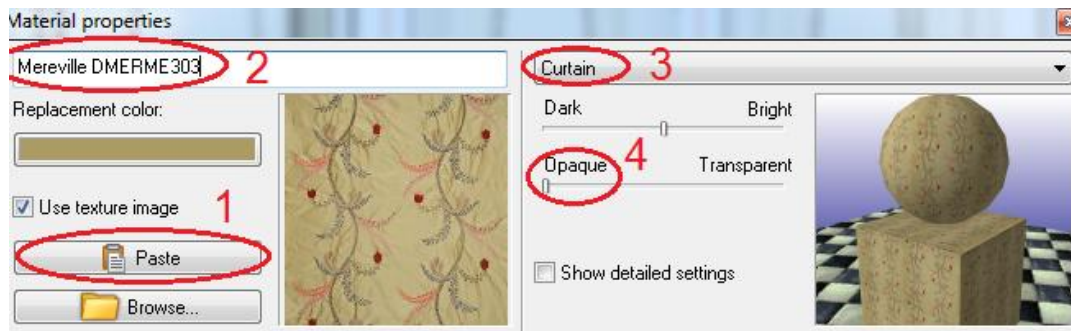
\*This topic is optional as requires Internet connection to import fabric from Producer website.

- Press on the Toolbar the Soft Furnishing icon (1) and click on a curtain (2). Click on the Texture button (3).
- Click on the Internet button (4). Your browser opens the ARCHLine.XP® Useful links website. [www.archlinexp.com/useful\\_links](http://www.archlinexp.com/useful_links)
- Go to Curtain Up website to select a Sanderson fabric. Choose Mereville DMERME303. Click on the image, it will be enlarged. Now right click on the big image, and choose Copy image command.

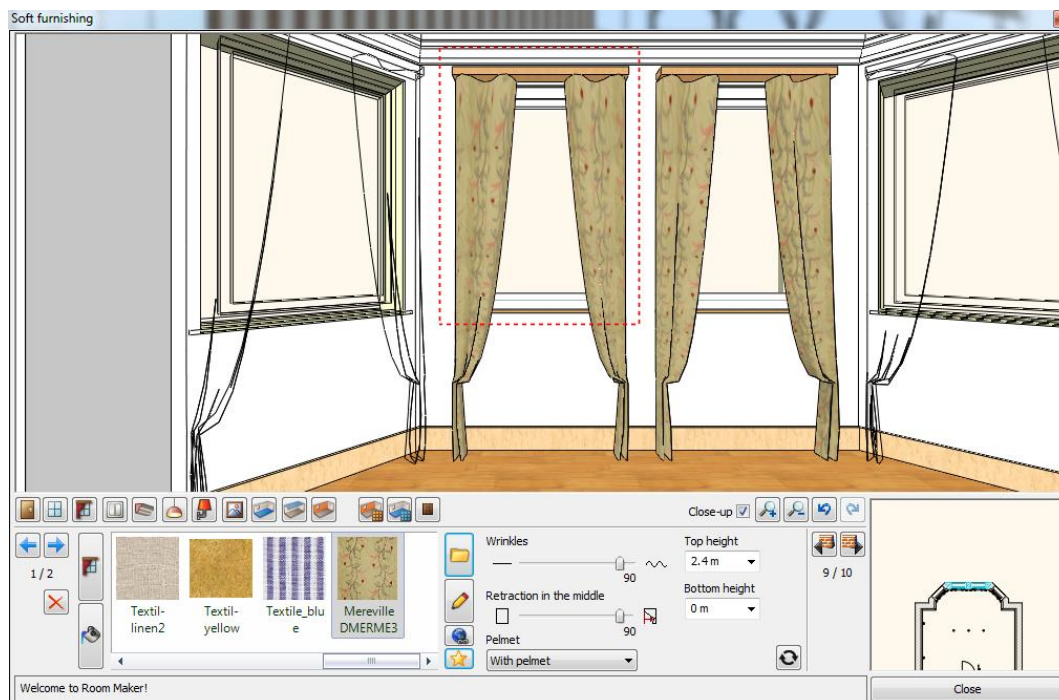




- Return to Room Maker and select New material icon (5).
- Press the Paste button (1). The image will be copied into the dialog.
- Type the name or copy and paste from the website into the name field (2).
- Select the curtain category to qualify the texture quality (3).
- Move the Opaque slider (4) to the left because this fabric is not transparent. Click on Ok to close the dialog. The new fabric is added to the favourites list in the Room Maker.



- The curtain takes the new fabric. Please repeat it for the remaining 3 curtains.
- Your screen should look as follows:

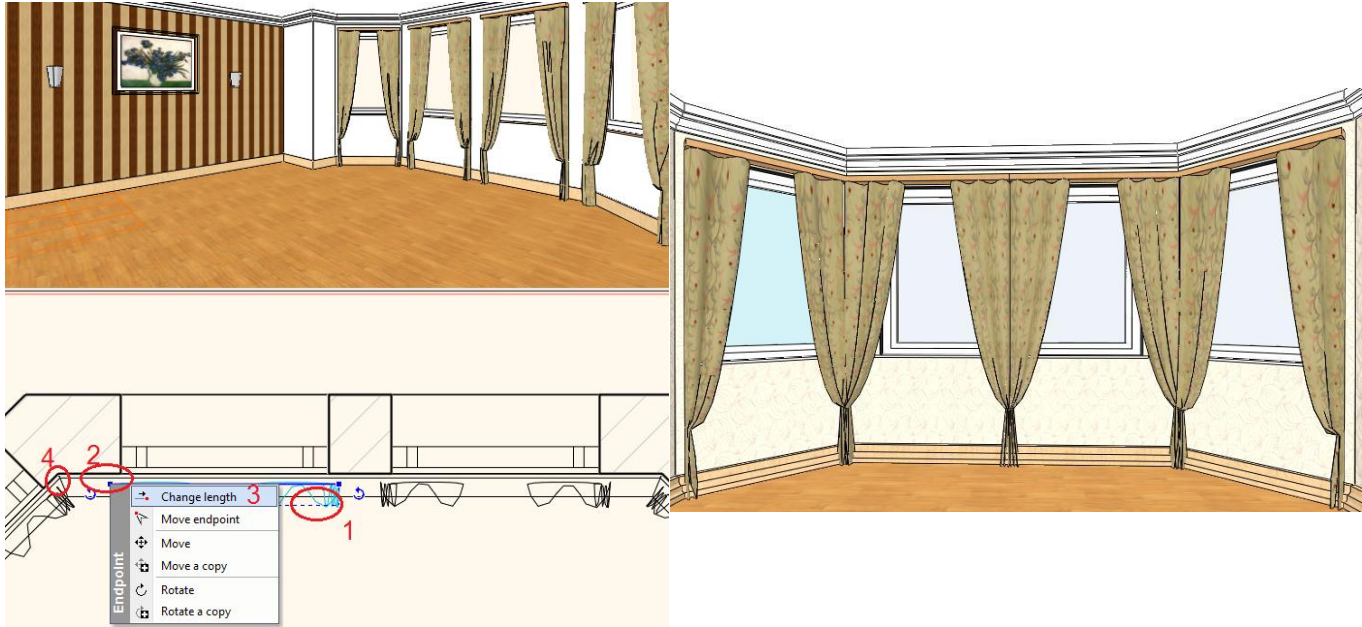


- Close the Room Maker: Press on **Close** button.



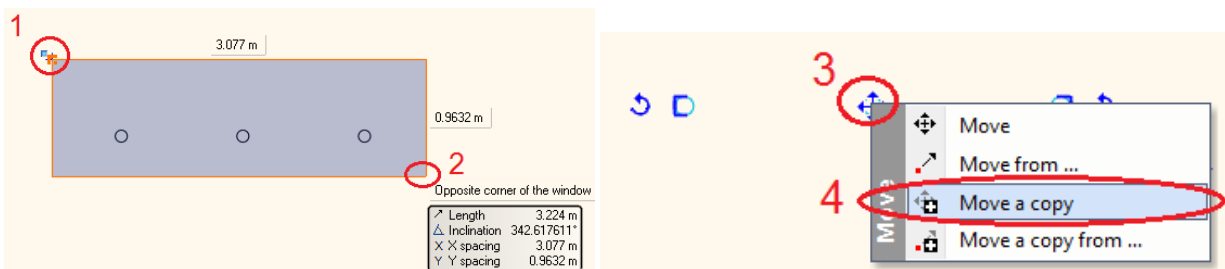
## 1.5. Curtain editing

- Zoom in the floor plan focusing on the curtains and click on the left curtain (1).
- The curtain is highlighted now. Click on the blue dot marker on the left side (2). Select the Change length command from the upcoming menu (3).
- Extend the curtain till the wall corner on the left (4). Repeat the command with the next blue dot marker on the right side and extend it till the middle point between the two curtains.
- Repeat the procedures to the remaining 3 curtains. You will get a continuous curtain line in the bay window.
- Your screen should look as follows:

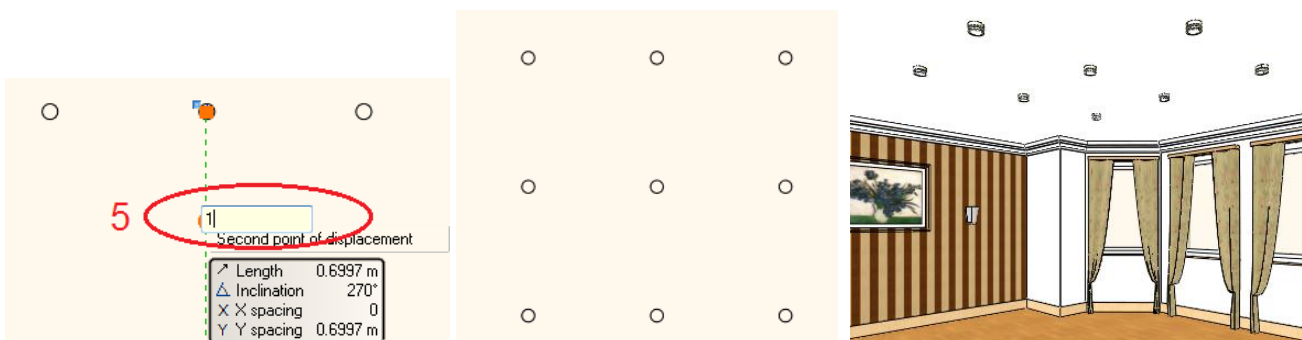


## 1.6. Lights editing

- Zoom in the floor plan focusing on the lights and select all with two clicks that forms an enclosing box around the lights (1,2).
- The lights are highlighted now. Click on the middle anchor marker (3). Select the Move a copy command from the upcoming menu (4).



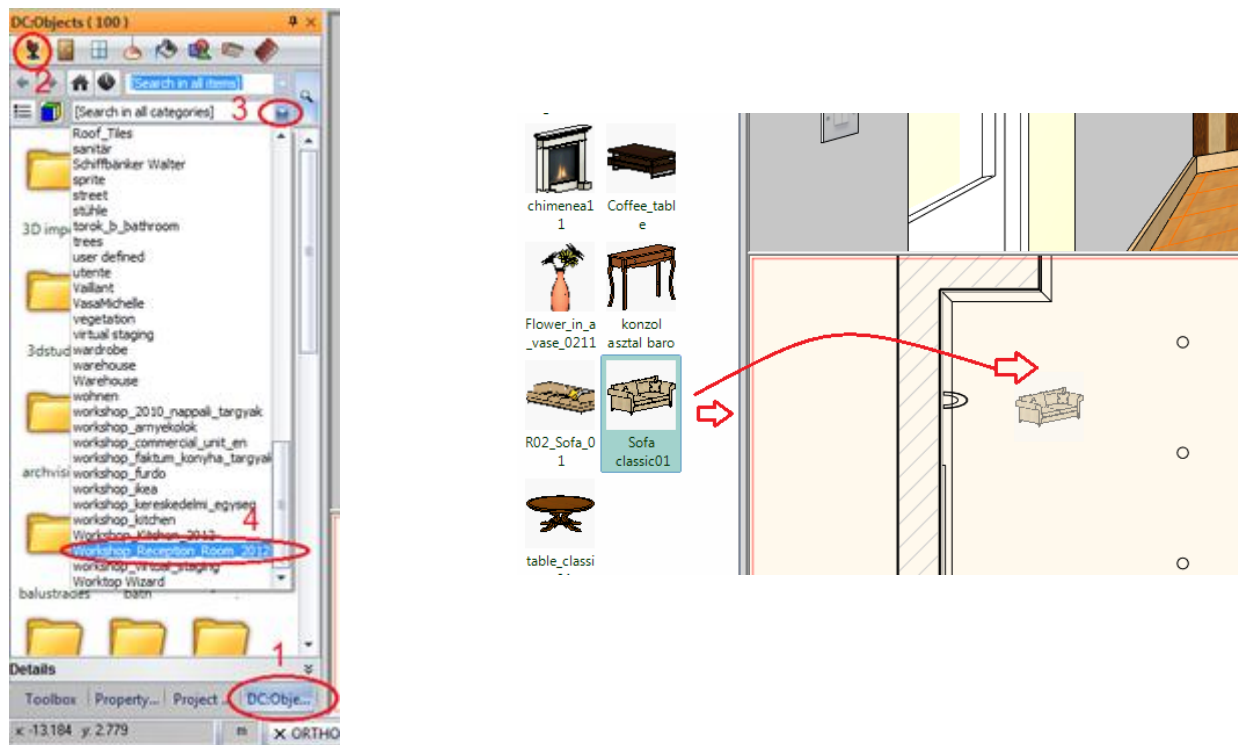
- Move the cursor vertical down. You will see the green vertical dotted line as direction line.
- Type 1m (3'-3 1/4") on the keyboard (5) and press ENTER. The three lights will be duplicated with 1m (3'-3 1/4") distance.
- Repeat the procedure once again in vertical up direction. You will get 9 lights in a matrix form.
- Your screen should look as follows:





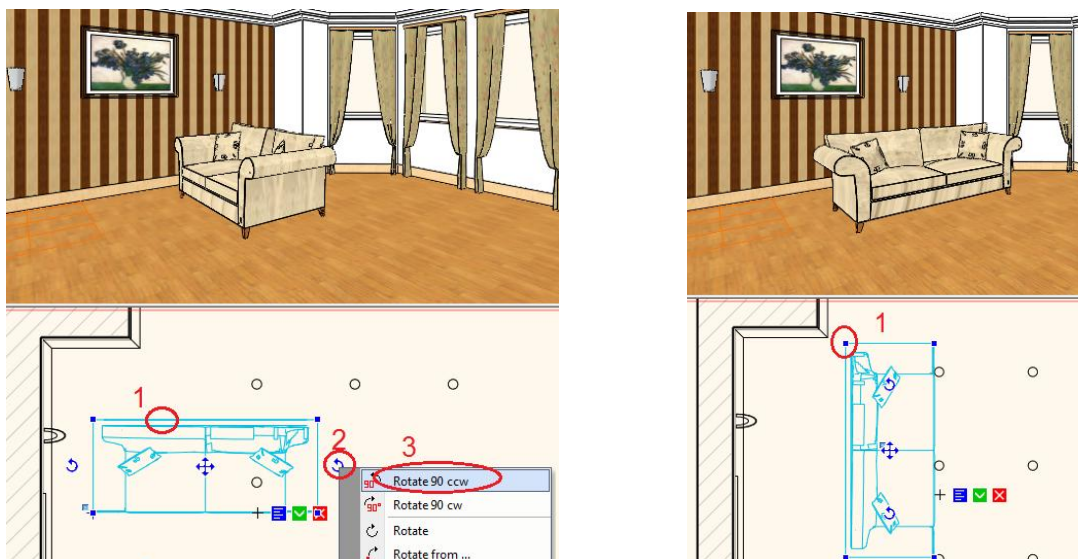
## 1.7. Furniture

- Press ESCAPE now and click inside the floor plan. This way you activate that window.
- Click on DC: Object... Button (1) . Choose the chair icon on the top (2). It represents the object library. Click on the categories arrow (3) and select the Workshop Reception Room 2012 category (4) .
- You will place the appropriate furniture to the floor plan from here using the drag and drop method.
- *The basic sequence of drag-and-drop is:*
- *Move the mouse to the furniture.*
- *Press, and hold down, the left button on the mouse , to "grab" the furniture,*
- *"Drag" the furniture to the desired location,*
- *"Drop" the furniture by releasing the left button.*
- Choose Sofa classic01 and place it on the floor plan using drag and drop method.



### Editing furniture

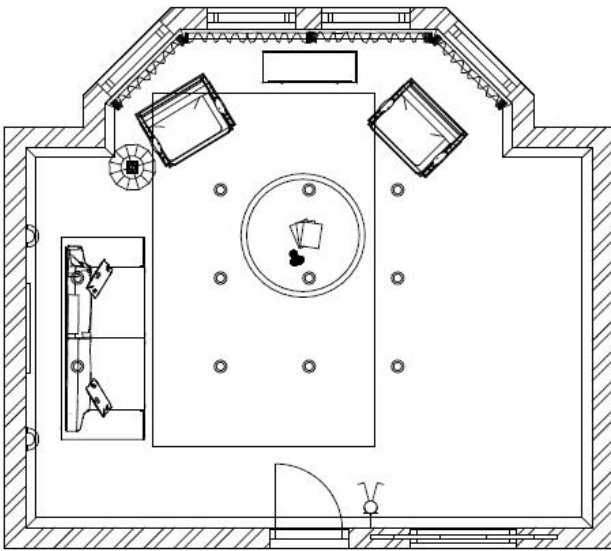
- Place the sofa near to the left wall of the room. In the next step we will rotate it by 90 degrees.
- Click on the sofa (1). The sofa is highlighted now. Click on the right rotation marker (2). Select the "Rotate 90 ccw" command (3) from the upcoming menu.
- The sofa will be rotated and will be parallel to the left wall.



In the next step we will move it near to the wall corner.

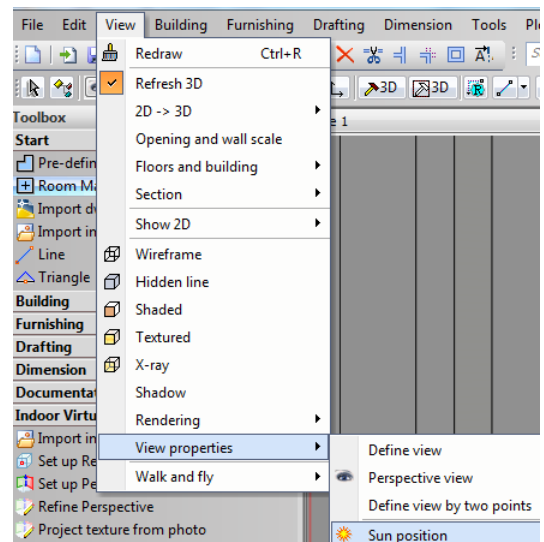
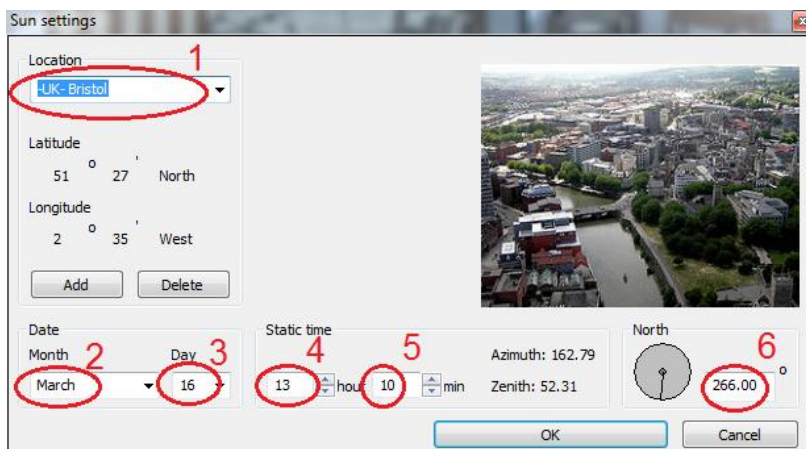
- Click on the sofa. The sofa is highlighted now. Click on the top left blue dot marker (1). Select the Move command from the upcoming menu.
- Repeat the procedure to place the following items: armchair\_02, carpet\_03, sofa 01, table – baroque, table classic 1 ...

Your screen should look as follows:



## 1.8. Shadows

- Open View menu and select the View properties / Sun position command.
- Select the following setting in the dialog : Location – UK-Bristol (1), Date: March, 16 (2,3), Time: 13, 10 minutes (4,5) North: 266 degree (6). Press Ok.



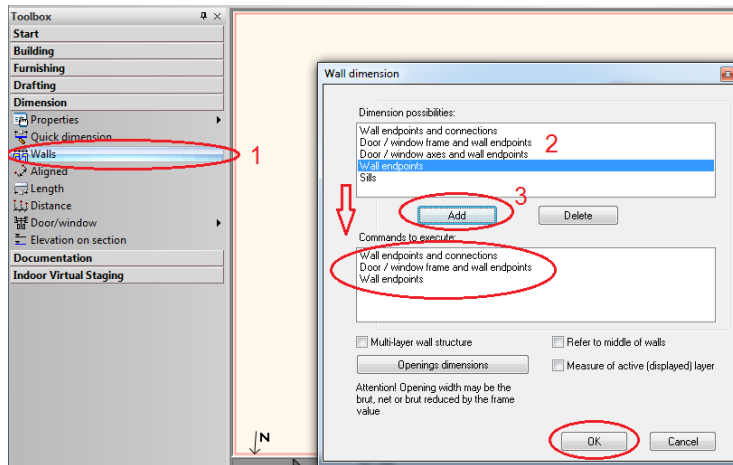
- Open Navibar (1) and click on Shadow icon (2)
- Your screen should look as follows:



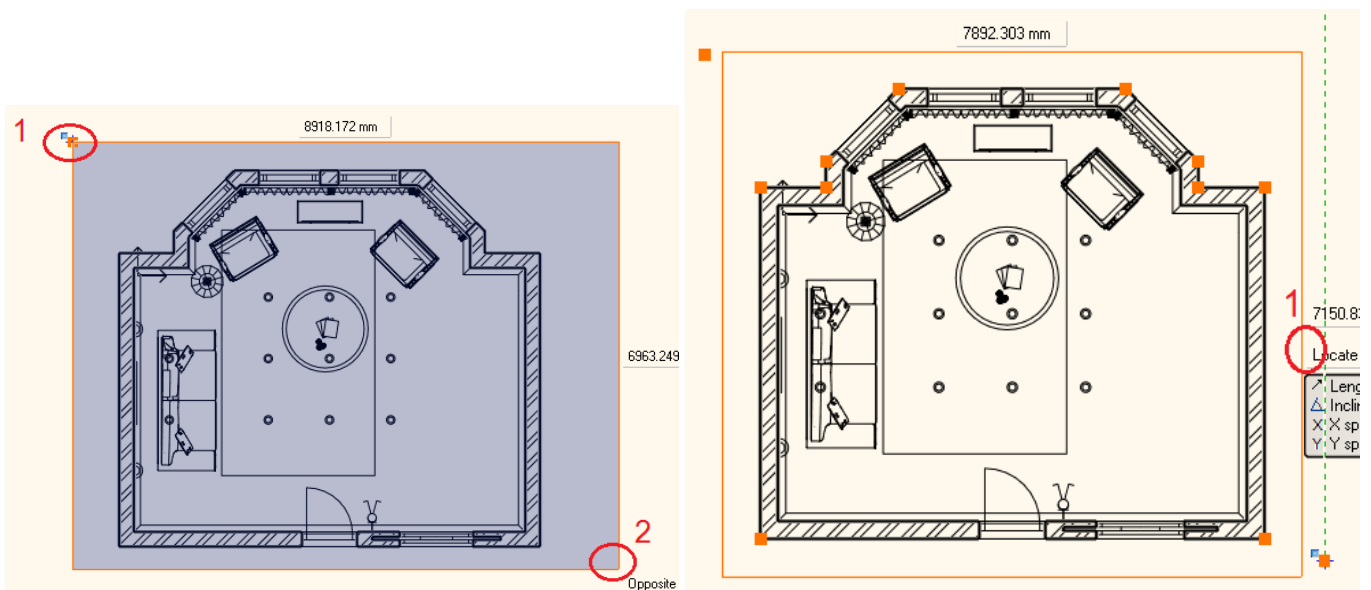
## 1.9. Documentation

### 1.9.1. Dimension

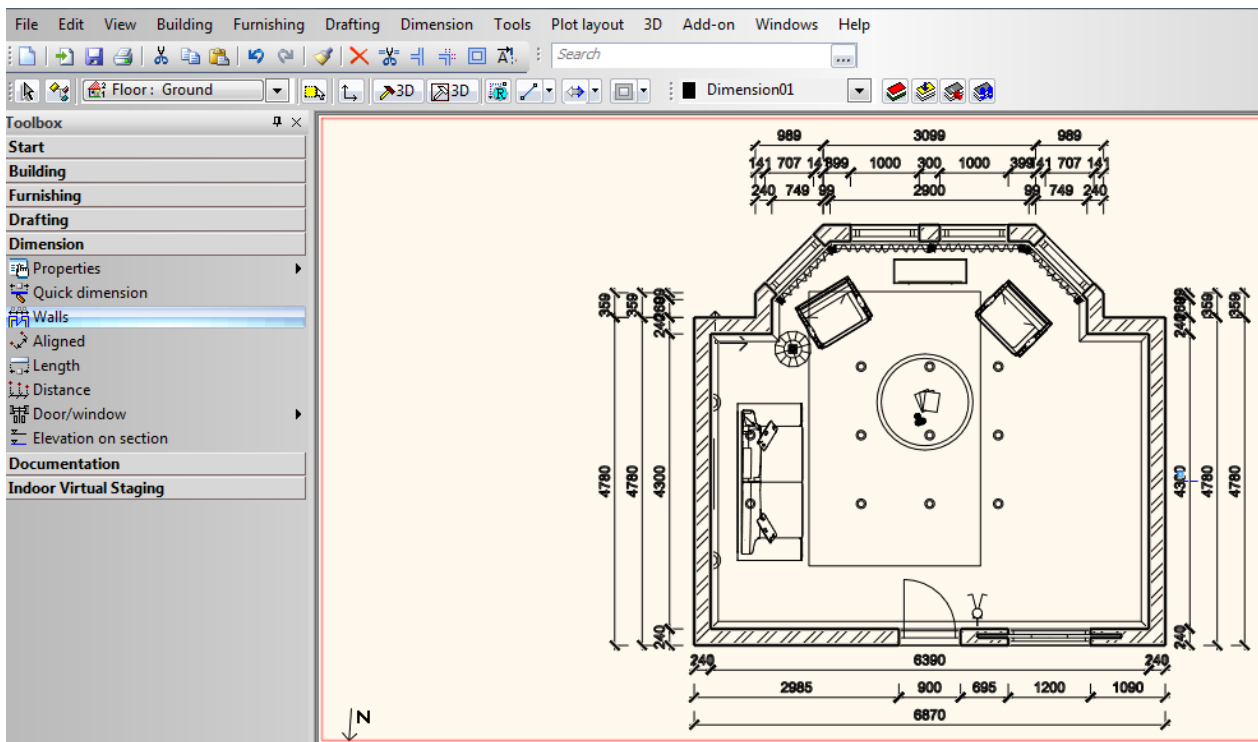
- Open in the Toolbox the Dimension menu and choose Walls command (1).
- Select the following settings in the dialog as indicated (2,3). Press Ok.



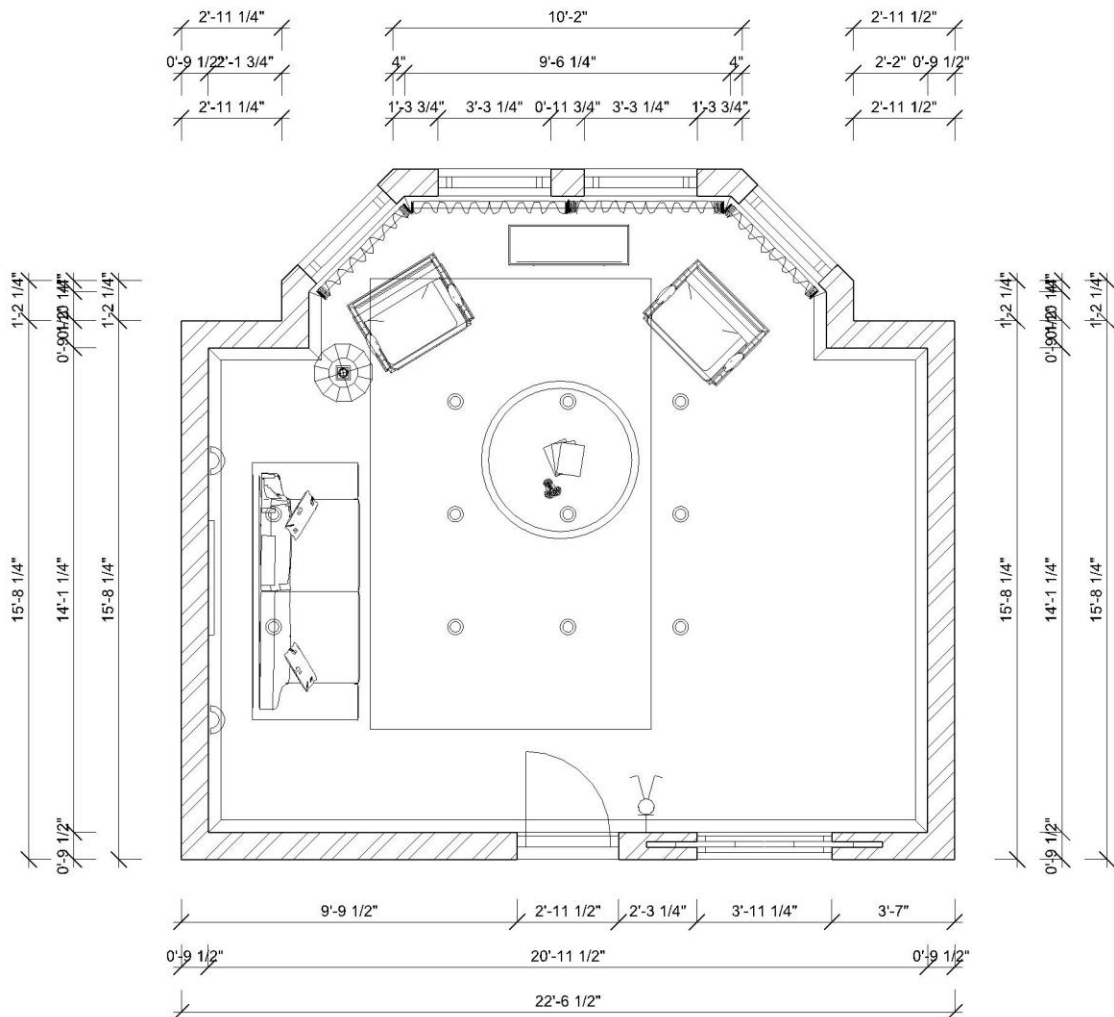
- Zoom in the floor plan focusing on the room and select all items with two clicks that forms an enclosing box around all (1,2).
- Press ENTER and click a little bit outside of the room (1).



- Your screen should look as follows:



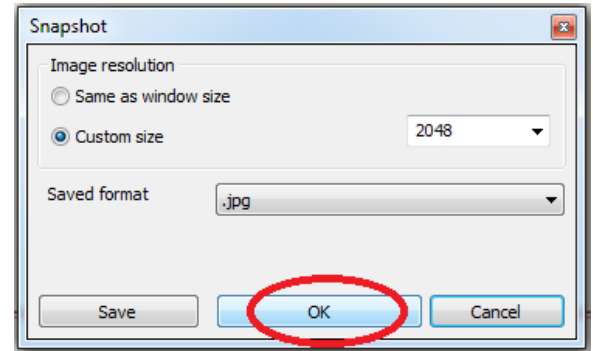
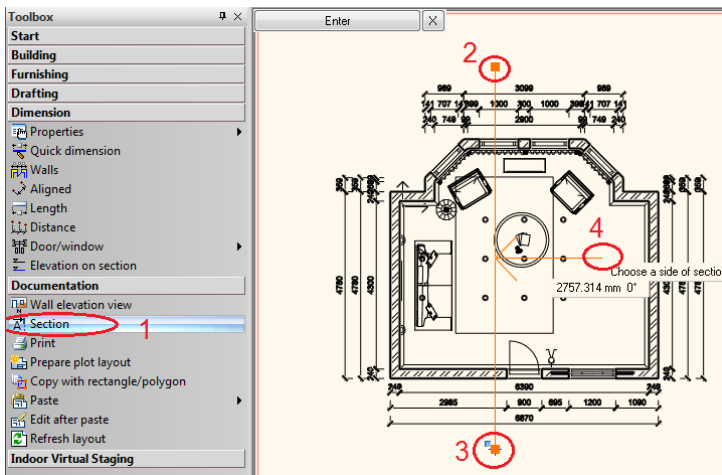
Or





### 1.9.2. Wall section

- Open in the Toolbox the Documentation menu and choose Section command (1).
- Define the section line on the floor plan (2,3) and the direction (4) with another click.

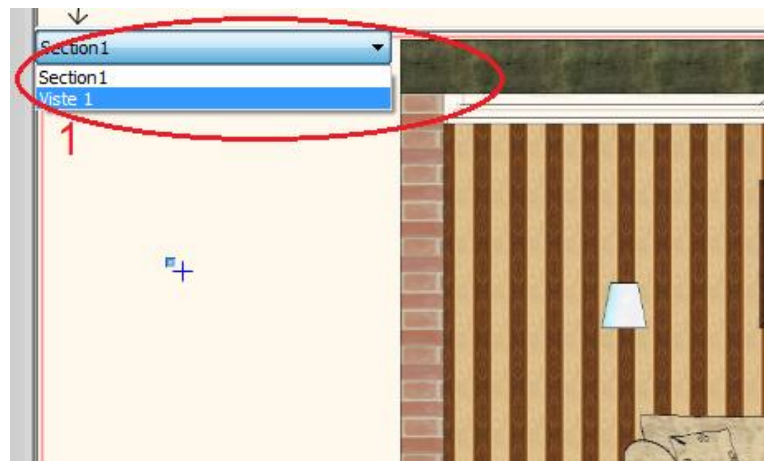


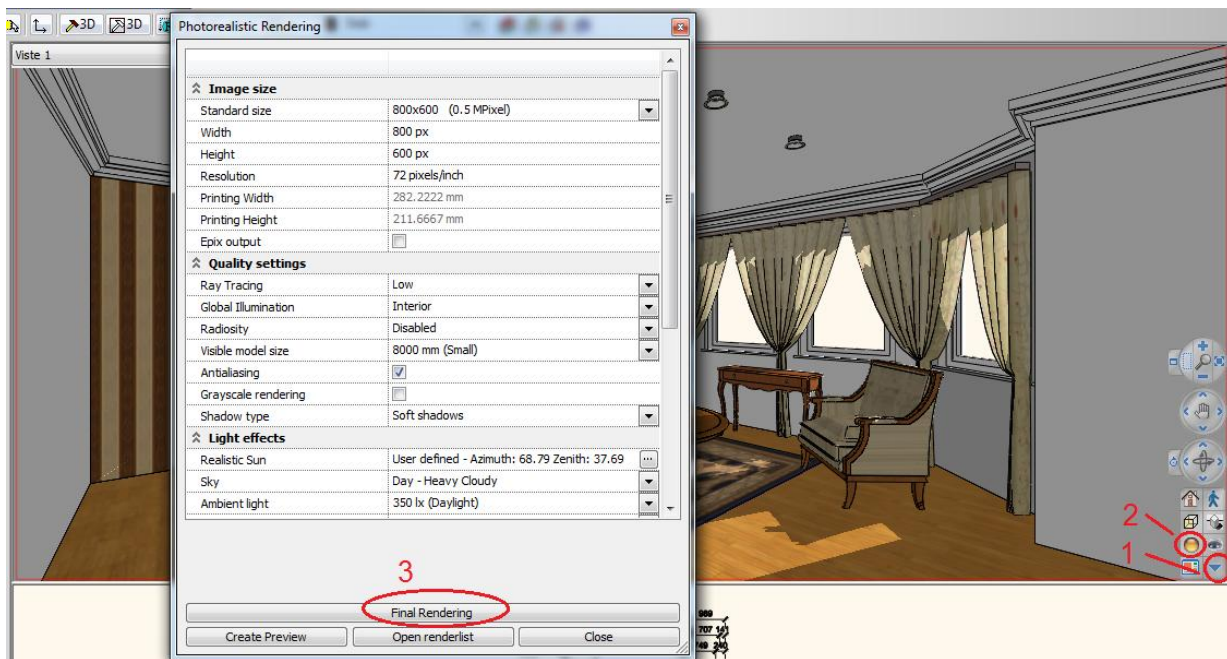
- Press Ok in the Snapshot dialog.
- The wall view will replace your 3D view. Your screen should look as follows:



### 1.10. Rendering

- Click on the View selector (1) and Select the View 1. The 3D view will replace the wall view.
- Open Navibar (1) and click on Rendering (2) icon.
- For the first time do not change the default settings in the Rendering dialog.
- Press on the Final rendering button. It takes a few time while the software generates the photorealistic image.





Your screen should look as follows:



## **Lesson 2: Foundation**





## 2. Lesson 2: Foundation

### 2.1. Introduction

This tutorial will introduce the general management and editing basics of ARCHLine.XP.

The goal of the tutorial is to help learning the general appropriate tools and concepts for everyday work in an easy to follow and logical way.

We recommend this tutorial for everyone:

- ❖ who took part on one of the trainings of ARCHLine.XP® and who is curious to know how to use the software in the future
- ❖ who is about to take part on advanced trainings,
- ❖ who would like to see a completely general layout editing tools need to know how

ARCHLine.XP® is compatible with Windows operating system and it is using the terminology of it when talking about menus and icons and other interface elements.

This is true when we talk about how to create, select, edit items or clicking (left mouse button) to launch a command (for example or by clicking on an icon or selecting one from the menu), and to print on printers installed in Windows.

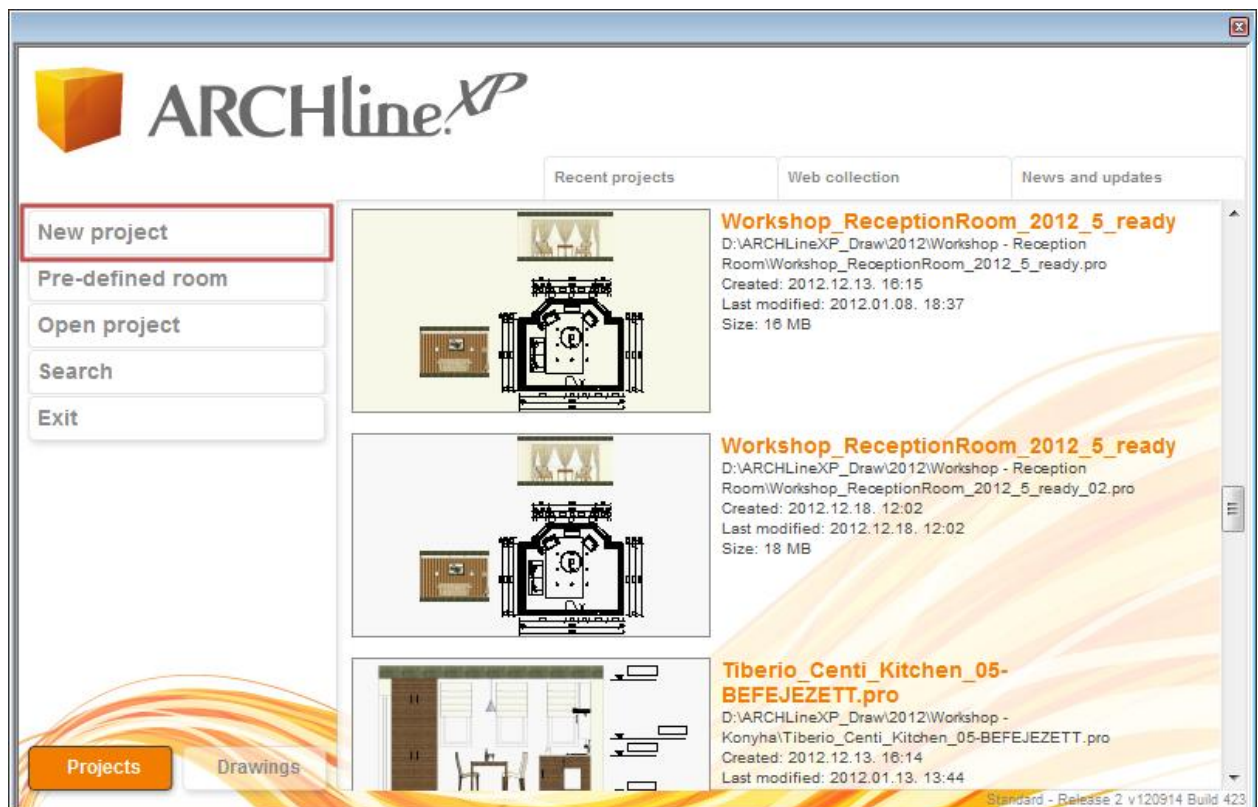
The tutorial goes through the basic functions of the software, the knowledge of which is necessary to solve design tasks effectively using the program.

The software is more powerful than what you will learn from this tutorial. You can learn about more features by using the built-in "Help" and attending the courses and trainings or by experiencing by yourself.

#### 2.1.1. Welcome Dialog

When ARCHLine.XP® starts you can start a new project on the Welcome dialog by clicking on the New Project button.

The Welcome dialog automatically opens when you are starting ARCHLine.XP® or you are about to close an existing project and create a new one.



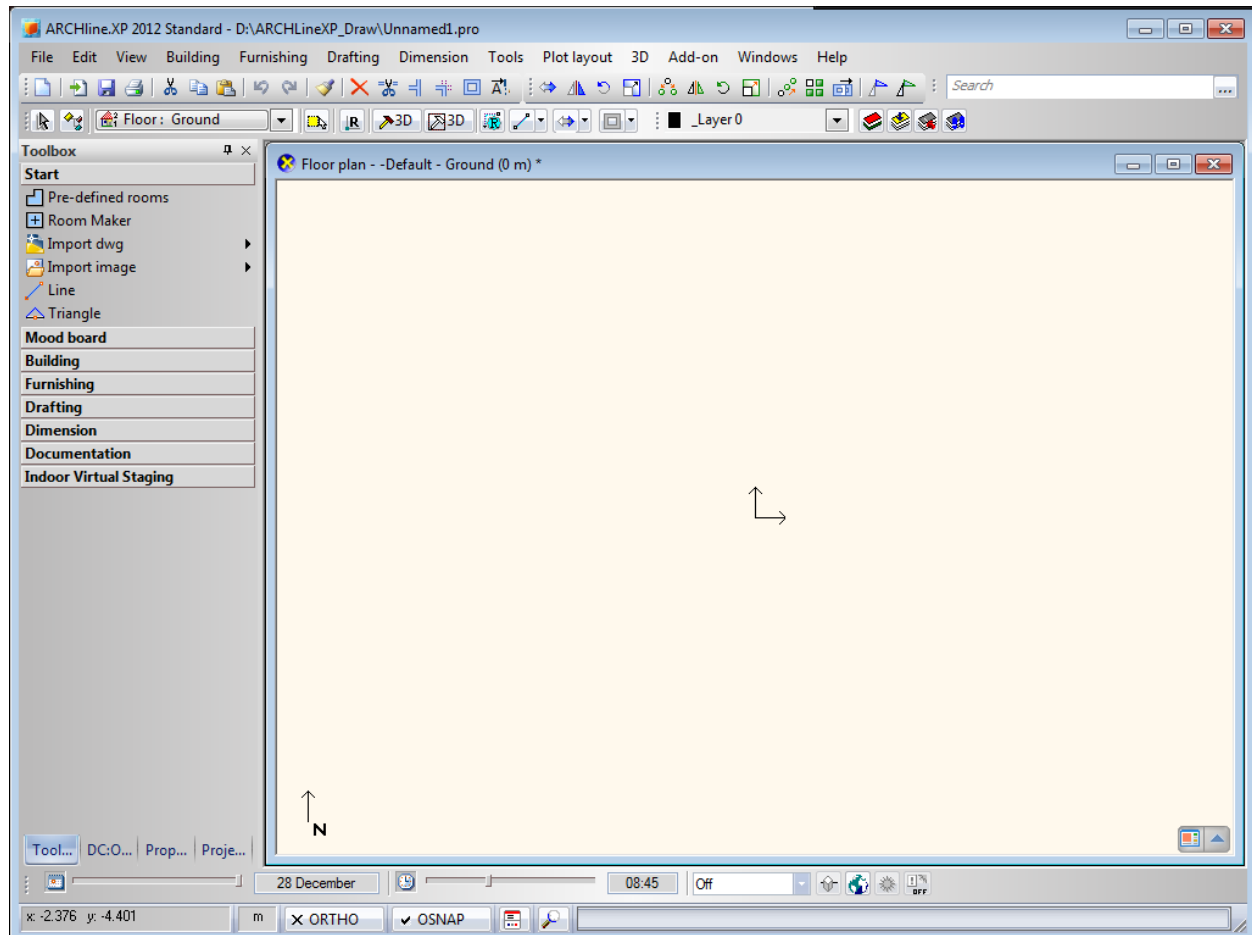
The Welcome Dialog

### Start a new project

- ❖ Click on the New Project button in the Welcome dialog.
- ❖ This will create a new blank project with an empty floor plan in it where you can begin your work

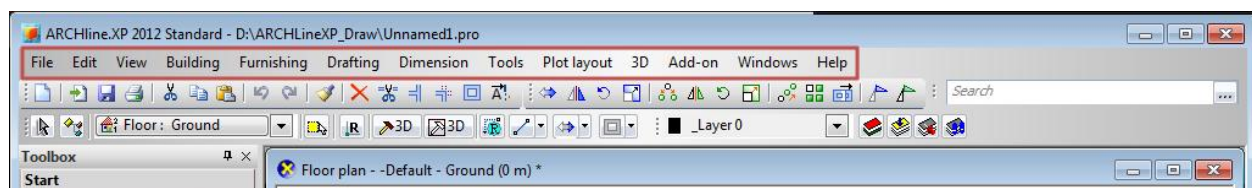
### 2.1.2. Interface

Before starting the actual work it is worth reviewing the ARCHLine.XP® software interface and its main components, thus later in the description of the tutorial it will be easier to associate certain names and concepts to the appropriate parts of the interface.

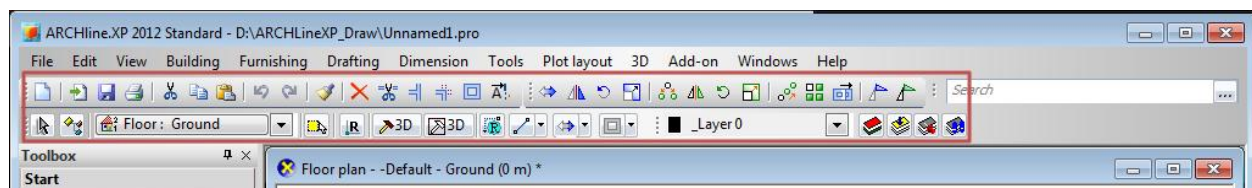


ARCHLine.XP® interface

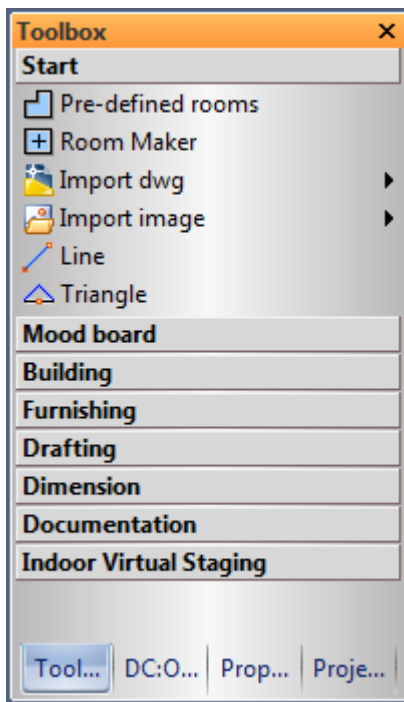
The ARCHLine.XP® interface has the following different main parts: Menu bar, Toolbars, Toolbox and Drawing area.



Menu bar



Toolbars

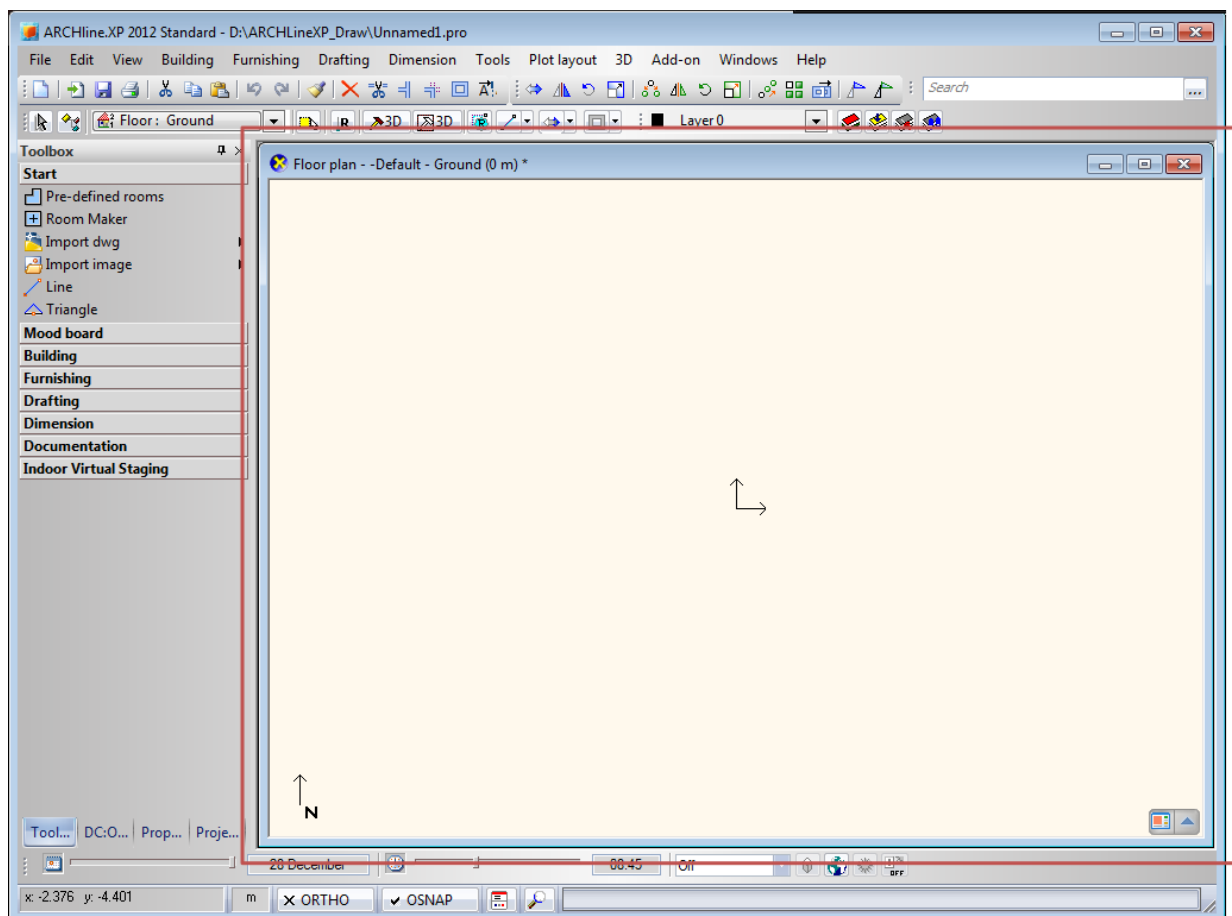


The Toolbox



For your convenience we suggest you to work with the default layout of ARCHLine.XP. In this layout you will see the following tabs on the bottom of the Toolbox: Toolbox, Property Grid, Project Navigator, and DC: Objects.

If you see any interface other than the default layout, please use the “Menu bar / Windows / Default position of toolbars” command.



Work area

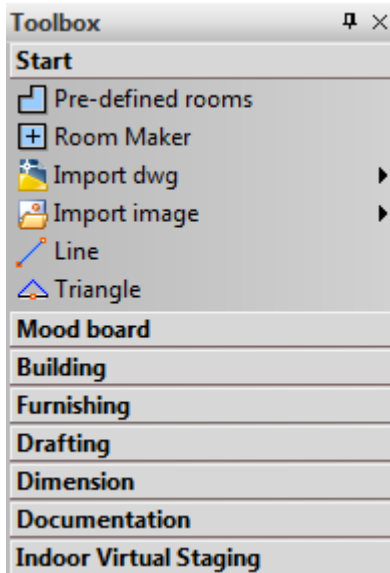
During your work with ARCHLine.XP® you will mainly use the Toolbox and the Work area.

The Toolbox on the left side contains frequently used tools grouped into categories like Start, Mood Board, Building and Furnishing etc.

You might find some differences in the Toolbox groups of different versions of the software, but for each of them it is true, that separately you can open and close them, to see only the tools currently necessary.

### The Toolbox

- ❖ Open the Start category.
- ❖ There is no Start category in the architectural version, please use the Drafting category instead.



*The Start category in the Toolbox*

## 2.2. Basic Drafting tools

### 2.2.1. Drawing in ARCHLine.XP: \*Click & Release\*

Before starting your work, familiarize yourself of drawing with the software. In this chapter you can review all the necessary main concepts. We recommend all readers to read through the following chapter to make the terminology and concepts clear for the following parts of the tutorial.

#### **The use of the mouse – \*Click & Release \***

In the following we will create two drawing elements using the Line tool (Toolbox / Drafting / Line).

Before starting we have to clarify the meaning of a Click in the tutorial – and generally in the software.

A click is defined as:

„**Click:** pushing down and releasing the left mouse button immediately”

First, to learn the process of drawing we will create a few simple lines.

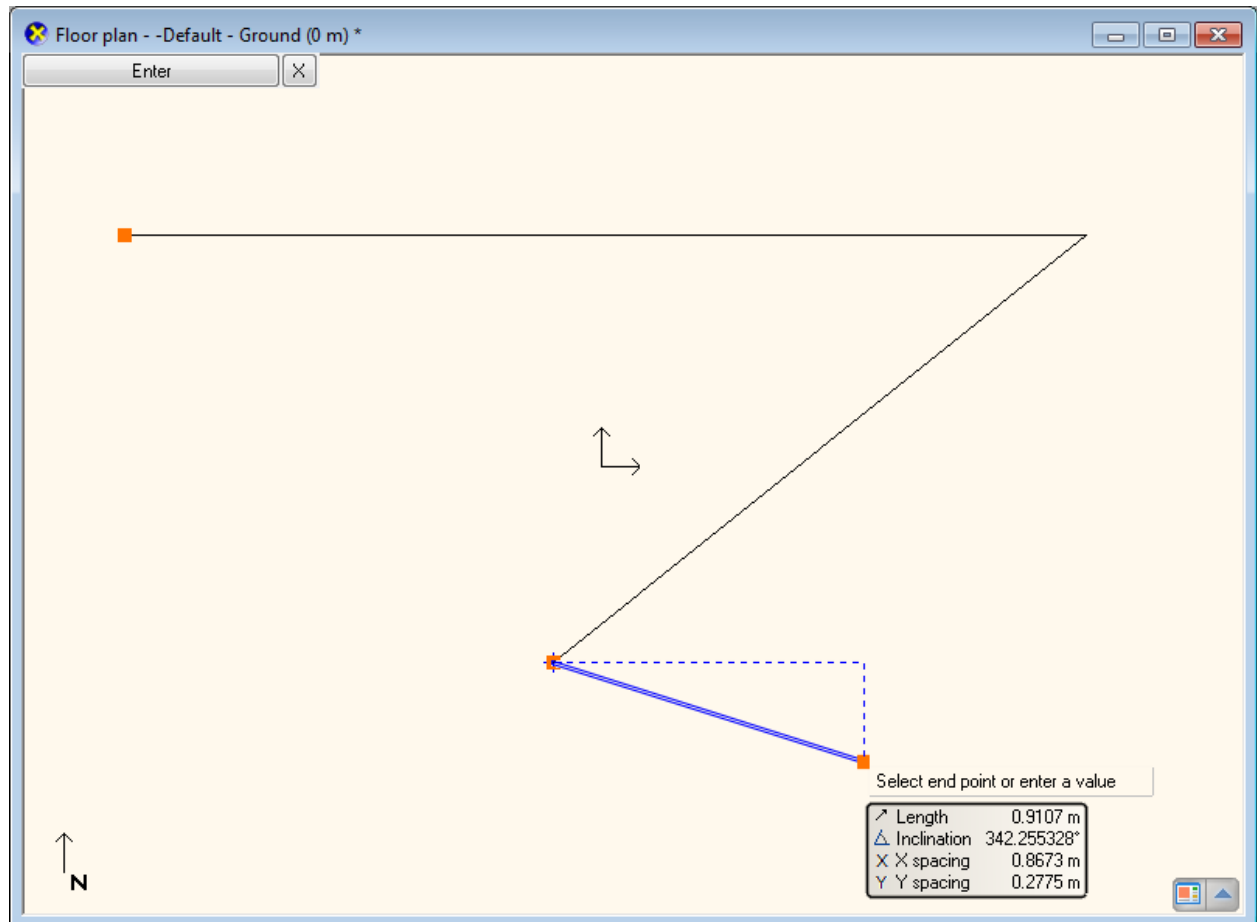
#### **Drafting lines:**

- ❖ Click on the Line tool in the Toolbox / Start category (in the architectural version: Toolbox / Drafting)
- ❖ Then move the mouse over the drawing area. You will see that the shape of the cursor is changed; highlighting that you can draw something.
- ❖ Click anywhere in the left side of the drawing area. You just placed the first point of the line.
- ❖ Now move the cursor to the right side and click somewhere again. You just drew your first line, which appears as a black solid line.
- ❖ Now move the cursor again and you will see that the endpoint of the previous line automatically became the starting point of a new line.
- ❖ Now move the cursor to an empty part of the drawing area, and click again. The second line is ready.

You can easily create lines graphically by just “clicking”. Please do it with simple clicks always: hold down the mouse button for a second and immediately release it. This is called the Click & Release technique.

If it is not especially mentioned else in this tutorial, you should ALWAYS use this technique when working. There is no need to use the other mouse button; the left button is the only one that you need, as you might use to do it in other applications such as web browsers and word processor applications.

Since there is a third line automatically started and in this example we're only drawing two lines we have to end the current tool with the escape key (This is a key on the computer keyboard in the upper left corner with the label „ESC“.)



The drawing contains 2 lines, and now it is possible to create a 3<sup>rd</sup> one

### Exit the tool you are currently using

- Press the ESC on the keyboard. This will end the command.

Notice that now, when you move the mouse over the work area, the blue line which followed the cursor earlier is disappeared. Instead of it, now the mouse cursor has the shape of a normal arrow again.

While drawing, when you would like to escape a tool (because for example, you want to start another one), you can always press the ESC key on the computer keyboard.

## 2.2.2. Undo and Redo

The software continuously keeps track of the last 16 steps of the drawing process. Until now we have done only 2 steps by drawing our 2 lines. If you want to undo the last line created you have to use the Undo command. The Undo command steps back 1 step in the order of previously executed commands.



The Undo command on the toolbar

- Click on the Undo command and it will make the latest created line disappeared.
- Click on the Undo again and the first line will also disappear.

Please note that the colour of the Undo button is changed to light grey, because there are no more steps that can be undone. Since the software can undo only the last 16 steps, you can't get back to an earlier stage using this tool. The opposite pair of the Undo command is the Redo; with that you can redo what you have undone; for example you can display it again.

The Undo and Redo command can be used for corrections of small mistakes, for example when you would like to remove a previously created item that is at the wrong position. In this case, first press the ESC on your keyboard and click the Undo icon as many times necessary to you get to the state you want to see in the drawing area. If you accidentally take too many steps back, please use the Redo command.

- Now please use the Undo and Redo command to see the two lines you just drew both disappear and appear again.



The Redo command next to the Undo on the toolbar

### 2.2.3. Zoom in, Zoom out and Zoom all

You can zoom the drawing by using the controllers of the Navibar in the bottom right corner of the drawing window. Click on the plus sign to zoom in, or use the minus sign to zoom out the drawing on the screen.



The Navibar

The Navibar is a simple tool to navigate in the drawing windows. Its appearance in the 2D (2D drawing, Printing Layout) and 3D (3D view, Dynamic Section) is different.

With the Navibar, you can navigate through your drawings with simple left mouse clicks or by dragging in some cases like zooming, panning or rotating. To drag, you have to click on the appropriate command (Zoom, Pan or Rotate on the Navibar), hold down the mouse button and move the mouse.

#### Zoom in / out using the mouse wheel

You can scroll the mouse wheel up and down. This way you can **zoom in and out**.

- Move the cursor to the point where you wish to zoom into. Scroll the wheel up or down. Scrolling up, you can zoom in; scrolling down, you can zoom out. The centre of zoom is always at the position of the mouse cursor when you zoom in. When you zoom out, the centre is the centre of the drawing window.
- When you are done, just release the wheel to exit the zoom command

You can also activate this command, if you:

- Select the **Zoom +/-** icons from the *Navibar*, or if you
- Press the **Ctrl** key together with the **+/-** numeric keys on the ground plan or on a perspective view.

#### Optimal Zoom

- Keep the mouse over the 2D drawing and double click with the wheel of the mouse like as a button.

„**Double click**: pressing the button or the wheel of the mouse twice quickly”

A double-click will only occur if you press the wheel twice quite quickly.

If you managed to perform the double click, you will be able to see the whole 2D drawing on the screen fitting into the corners of the drawing window.



**Zoom into a specific area:**

- Hover the mouse cursor over the edge where the two lines join each other and scroll up. Notice that the software is zooming to the corner point.

If the corner point is "slipping" out from under the mouse cursor, please move the mouse over the corner again and use the mouse wheel to zoom again. The program will zoom into the specified area once again approaching the CORNER point. This way you can perfectly control the zoom function and you can always exactly do what you want to do.

- Double-click the mouse wheel again, in order to achieve the optimal zoom.

**2.2.4. Panning the drawing**

By pressing down the mouse wheel and moving the cursor at the same time the „drawing sheet“ can be moved.

- Press down and keep pressing the mouse wheel.
- This operation starts the Pan command.
- Move the cursor to the position you want and release the wheel.

You have now moved the whole drawing to a specific direction on the screen.



The command can also be activated, if you

- Use the Pan tool on the **Navibar**, or
- Press the **Ctrl** key together with an **Arrow** key when the 2D plan is active.

Please practice using the zoom and pan tools a few times and very soon you will notice it becomes quite natural and obvious to use.



The operations zoom and pan can be used together.

**2.2.5. Simple selection and delete**

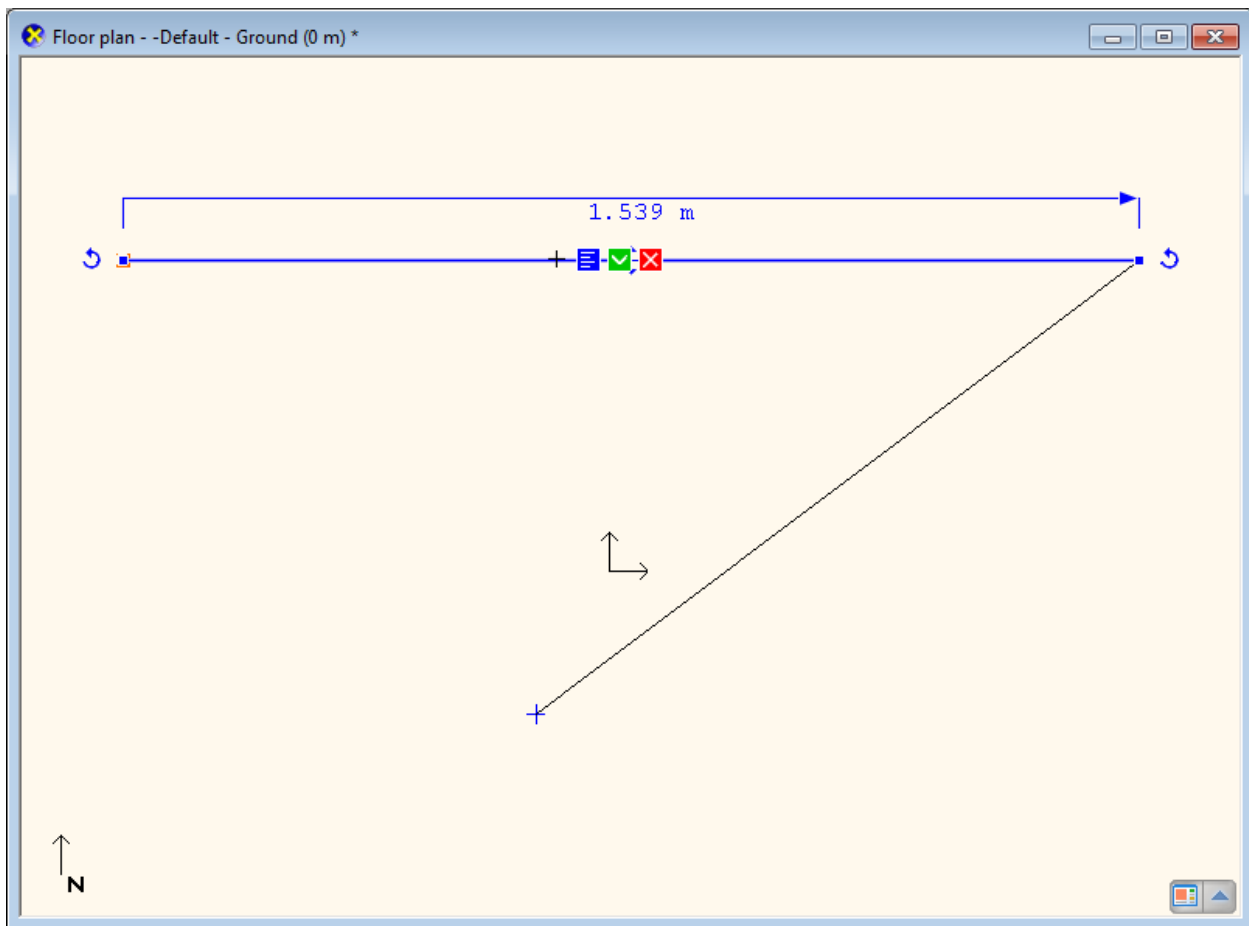
It is important to know how to delete a specific item of the drawing. In this example, we want to delete the only the first line but keep the second.

In order tell the program which elements you would like to work with, you have to select it.

To select, we need to hover the mouse cursor over the first line, and then we need to click on it.

**Simple selection**

- Move your mouse over the first line drawn, and then click once. You might see a similar result to the following example.




The first line is selected on the floor plan.

ARCHLine.XP® represents selection by a selection colour and by a few markers appearing around the selected item. Markers are interactive tools that help modifying selected items without using menus. The main point of using ARCHLine.XP® markers is that it is very easy to handle them.

The appearance of markers can be various depending on their goal. Using markers reduces time, increases design speed and can be learned easily.

### Delete

- Click on the delete marker  and you will see that the line will disappear.

Deleting an item is also a step, which can be undone the same way you drew something. So, if you click the Undo command now, the deleted line will appear again.

### Undo

- Click the Undo command and as the last executed step on the plan was the deletion of the line it will reappear in the drawing again.

## 2.2.6. Select multiple items


During editing, one of the most important tools is the selection. Notice if now you select one of the lines, and then you click on another one, the previous selection disappears. In order to be able to select multiple items at the same time we need to know how to do it. For this press the CTRL on the keyboard. Do the following:

### Multiple selections

- Select one of the lines and press and hold the CTRL key on your keyboard.
- While still pressing the CTRL key, move the mouse over the other (unselected) line and click on it.
- Now you can release the CTRL key, and you will see that both of the lines are selected.

Holding down the CTRL key while an item is already selected you will be able to add another one to the selection. The markers will appear and you can now delete the two lines together.

### Delete the 2 lines

- Delete the selected lines using  the delete marker. The drawing is now empty.

### Tutorial

### 2.2.7. Selection by rectangle

To select multiple items, you can use the rectangle selection.

The rectangle selection can be performed by clicking on an empty part of the drawing area and after moving the mouse to another position clicking again in the drawing area. This way you can specify a rectangle area. There are two cases of the selection by rectangles command:

#### ***Selection by rectangle: from left to right***

- Draw some lines the same way as before.
- If you are currently in a command, please press ESC to close it.
- Move the mouse to the upper left corner of the drawing area and click on an empty area.
- Move the mouse down to the right so that the resulting semi-transparent rectangle partially covers the lines, and make sure that there are lines which are bit out of the blue selection box. Click again.

### 2.2.8. Selection by type

All items of the same type can be selected by a single click.

The method is the following:


- Press down and hold the CTRL key on the keyboard.
- Move your mouse over an item type in the Toolbox and click on it. All items of the selected type become selected.
- Release the CTRL key.

#### ***Exercise:***

Select all the lines on the drawing:

- Press down and hold the CTRL key on the keyboard.
- Move your mouse over the Line tool in the Toolbox and click on it.
- Release the CTRL key.

Now all the lines on the drawing are selected.

- Finally erase all the lines of the drawing by using the Delete marker. 

## 2.3. Design

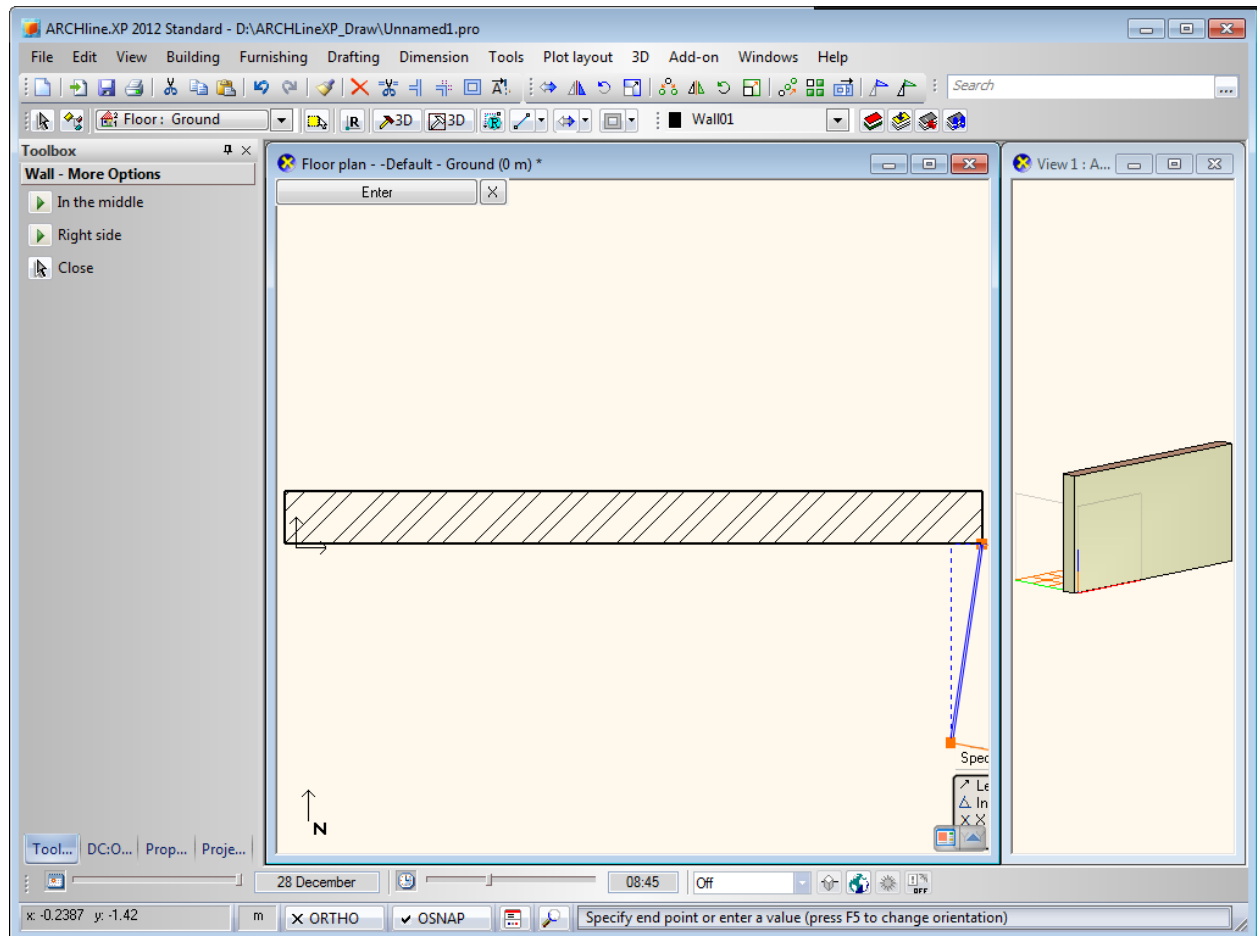
### 2.3.1. Creating Walls

We will start with a simple floor plan. Similar to the way you can create simple lines, you can create much more complex drawings by using other tools. This time we will create walls with known lengths. We will create the following simple floor plan:

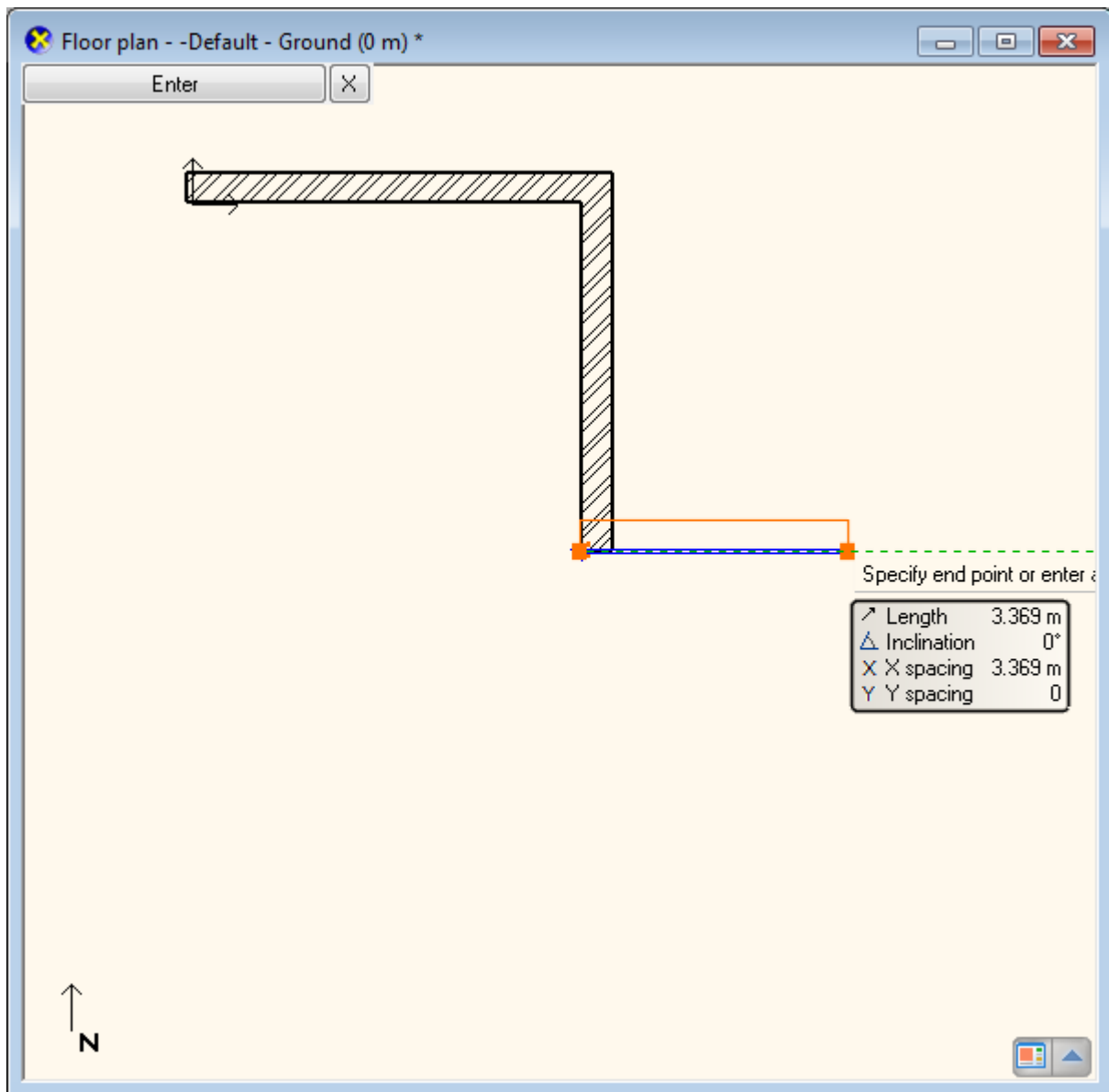


- The blue line is the reference line of the wall, while the orange line represents the thickness of it. The length can always be defined along the blue line.
- The wall will be 5m (16'-4 3/4") long, so press the 5m (16'-4 3/4") on the keyboard.
- Press the Enter key on the keyboard in order to accept the entered value.

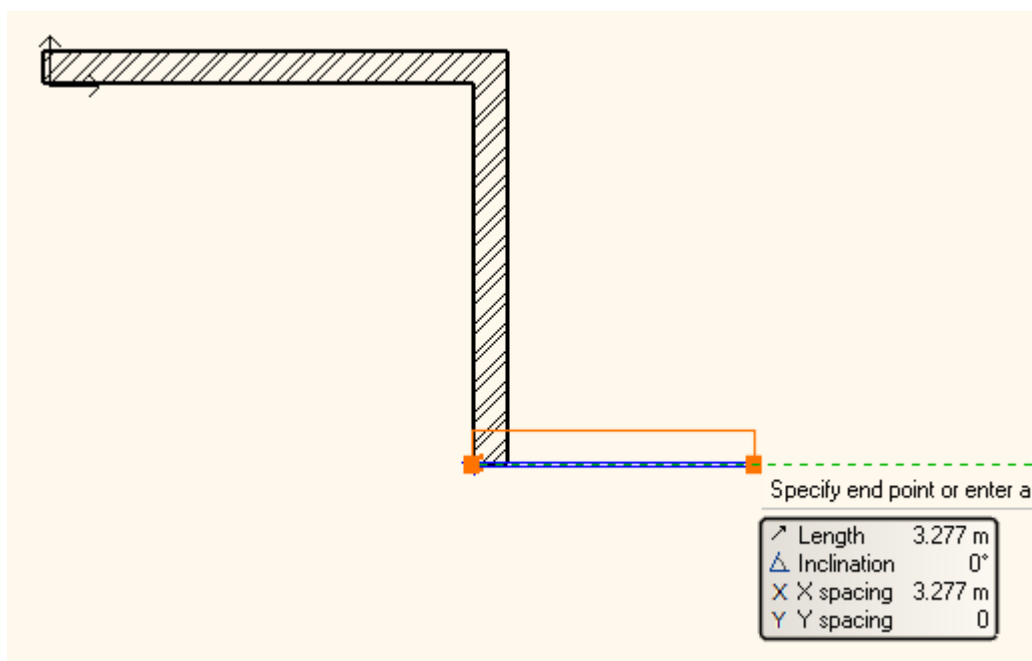
The 5m (16'-4 3/4") long horizontal wall is created and a new window is opened on the right side which shows the 3D model of this wall. The software automatically generates the 3D model.



- Move the mouse vertically down and type 4.4m (14'-5 1/4"), and then press Enter on your keyboard.
- Use the zoom all or the zoom out and zoom in tools to see a similar content to the following example. This way you can make some space for the remaining part of the plan.



### 2.3.2. Continue creating walls

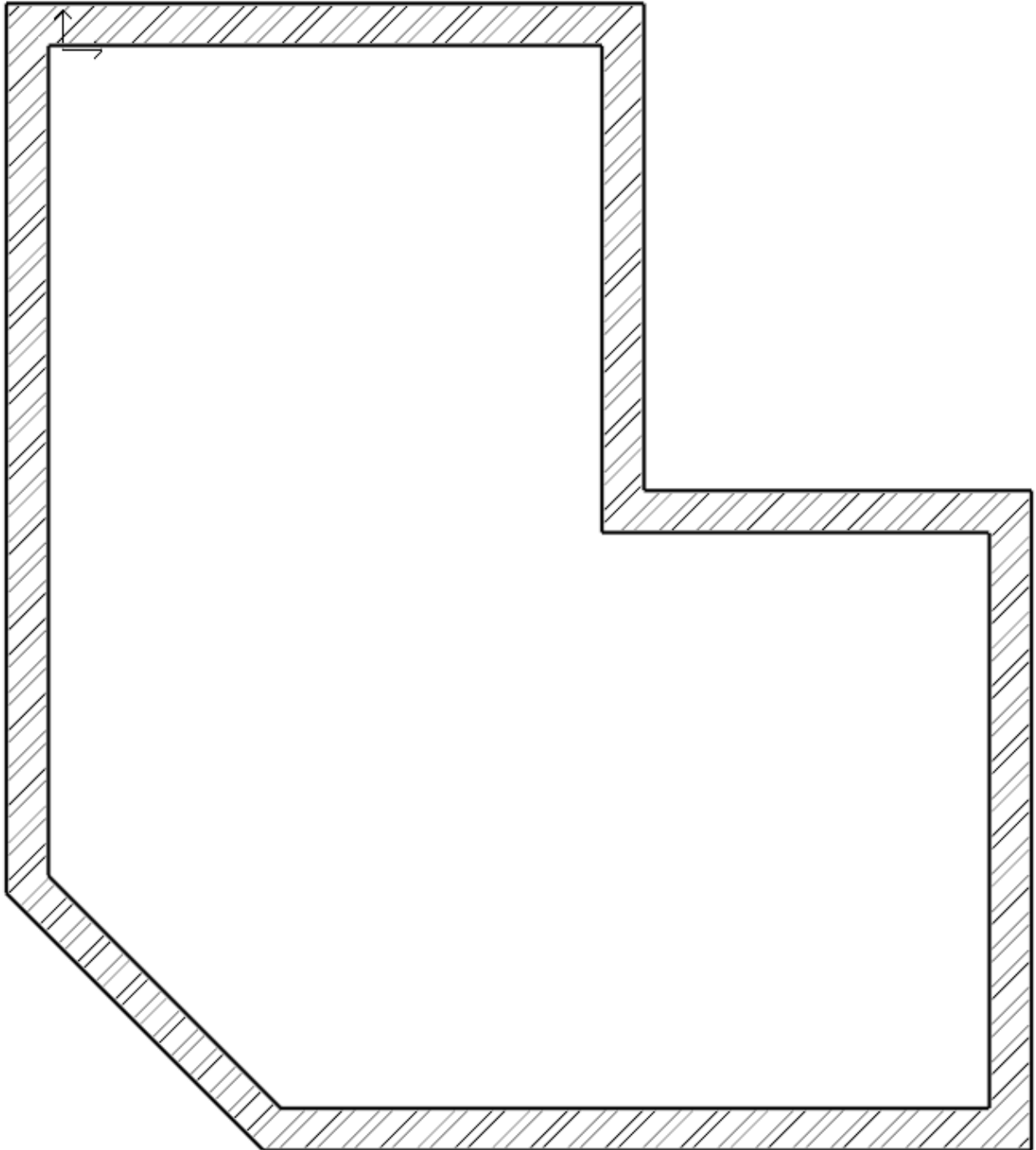




- Move the mouse horizontally to the right and type 3.5m (11'-5 3/4") and press Enter. When the Enter key is pressed the third wall is created.
- Move the mouse vertically downwards and type 5.2m (17'-0 3/4") and press the Enter key on your keyboard.
- Move the mouse left and type 6.4m (21'). Press the Enter on your keyboard.
- Move the mouse to the left and upward at an angle of approximately 45 degrees and type 2.97m (9'-9"). Press the Enter on your keyboard.
- Finally, move the mouse up and when you see the "E"-shaped cursor, click on the starting point of the first wall. The walls form a closed shape, the room is ready.
- Finally, press the ESC your keyboard to close the command.



While drawing, you can use the zoom in / out and pan functions at any time.



*The room is ready*

### 2.3.3. Active window

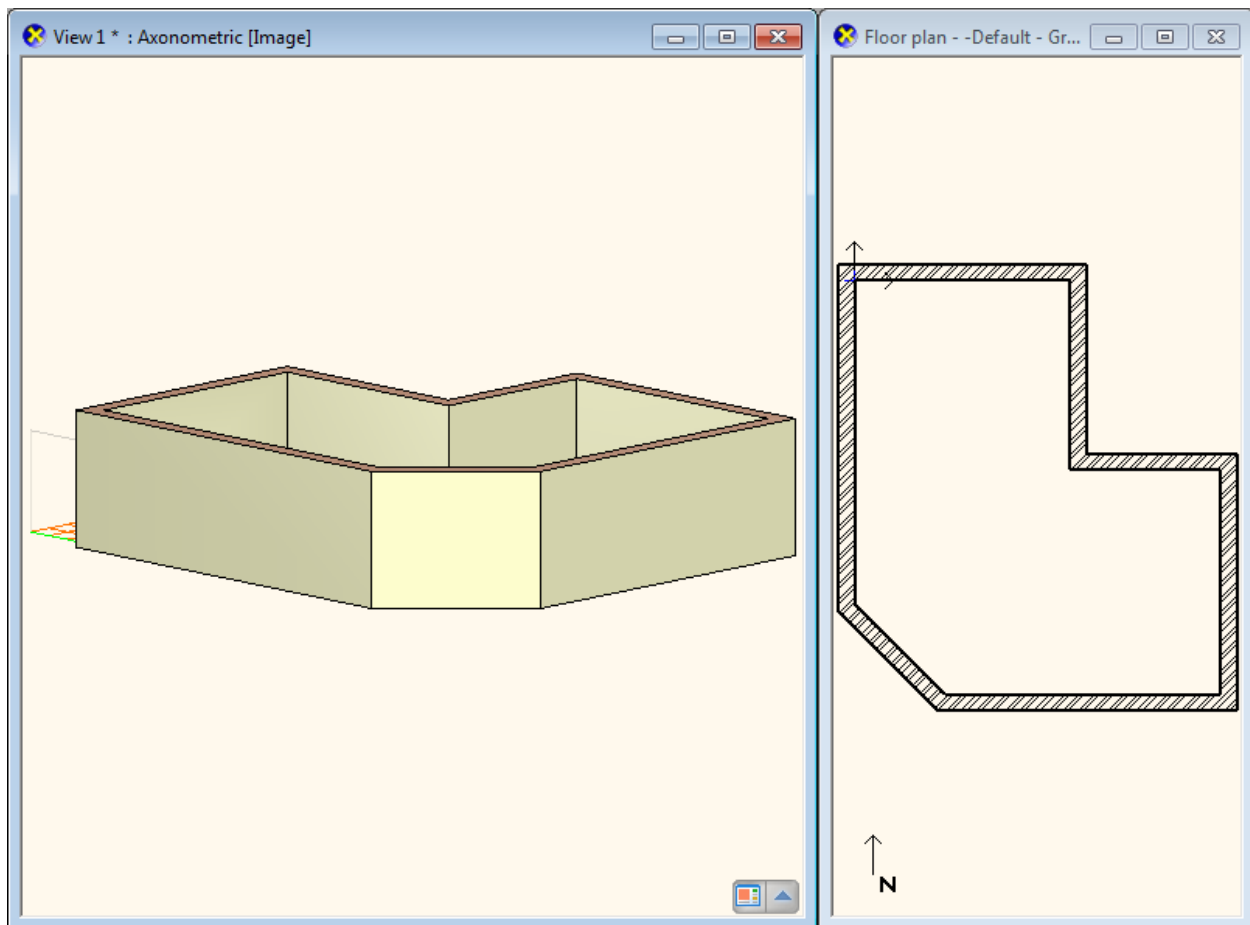
As you might already noticed at the first time drawing a wall, the 3D model was automatically created in a second window. The advantage of this split layout is that all the changes in the floor plan can be seen in the 3D model too.

So far the active window was the 2D, where we created the walls. In order to handle the 3D content you have to click anywhere in the 3D window to activate it. In this case, the 3D model window frame will change its colour and the Navibar will jump in the lower right corner of this window.

You can swap the 2D and 3D windows. For this you have to click on the Navibar at the bottom left corner on the “Enlarge active window” button. Please do the following:

#### ***Enlarge the active window***

- Currently the 2D window is active. Click on the 3D window. This way you can make it activated.
- Press the “Enlarge active window” tool on the Navibar. The 2D and the 3D switch places.
- Repeat the previous steps to exercise a few times. Finally make the 3D to be the active larger window.



The 3D window is the larger one.

### 2.3.4. Manage the 3D View

Working in the 3D, just as on the 2D drawing, you can zoom in and zoom out and pan the content. You can see the 3D view from different directions. Besides using the Rotate command of the Navibar there is also a quicker way to do so. Please do the following:

#### ***Rotate the 3D view using the mouse and keyboard***

- Move your mouse over the model in the 3D window.
- Press and hold down the Shift on your keyboard, and then press and hold down the mouse wheel and start to move the mouse (again we use the mouse wheel as a button).
- When you want to complete the rotation, release the Shift key and the mouse wheel.

If you haven't use anything like this before it may seem complex at first rotating this way, but soon you will get used to it and see that you will be able to work more efficiently than using the Navibar only.

- Rotate the model to adjust the view to see it from the side and above, so you'll be able to follow the changes when creating the partition walls, the openings and the ceiling.

### 2.3.5. The 3D representation modes

While we already know efficient tools that can be used efficiently without the Navibar there are still many other convenient tools that are on the Navibar. Let's see the standard views and presentation settings now.

On the Navibar, click the View icon to display a menu showing the different views to choose from.

#### View

- Try various views by selecting them (From the right side, Front view, Top view, etc...).
- Finally, select the axonometric view and rotate to have a better view from the top.

Thanks to the ease of use you can quickly select a standard view later in your work whenever it becomes necessary. In addition the 3D model representation can also be changed.

#### Presentation settings

- In the Navibar, click the Presentation settings icon. A menu opens where you can set how to display the model.
- Try each of the different representations and see how the model will change. Finally select the default Textured display mode.

We will not deal with the other options on the Navibar; instead of it we continue working with our floor plan.

### 2.3.6. Partition walls – with properties

The main walls are ready so we can continue working with the partition walls. Before starting, please activate the 2D window and enlarge it. If we would continue to draw the walls now it would be with the same properties as before.

To draw the partition walls we have to change the properties (wall thickness).


Do the following:

#### Setting Properties:

- Click on the Toolbox / Building / Properties / Wall command. This will bring up a dialog box called Wall Properties
- Please change the wall thickness from 0.38m (1'-3") to 0.1m (4") and click on the OK at the bottom part of the dialog.

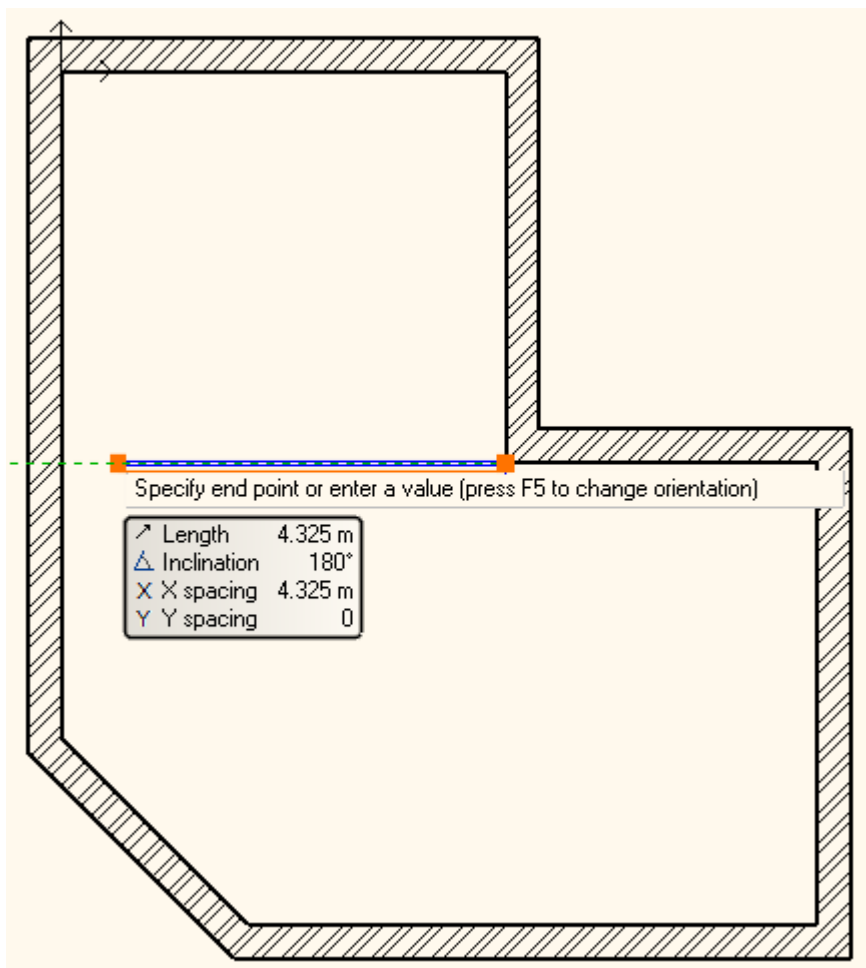
In the drawing, nothing has changed, but from now on when you will create a new wall it will have a thickness of 10 cm (4"). To draw partition walls please follow these steps:

#### Partition wall

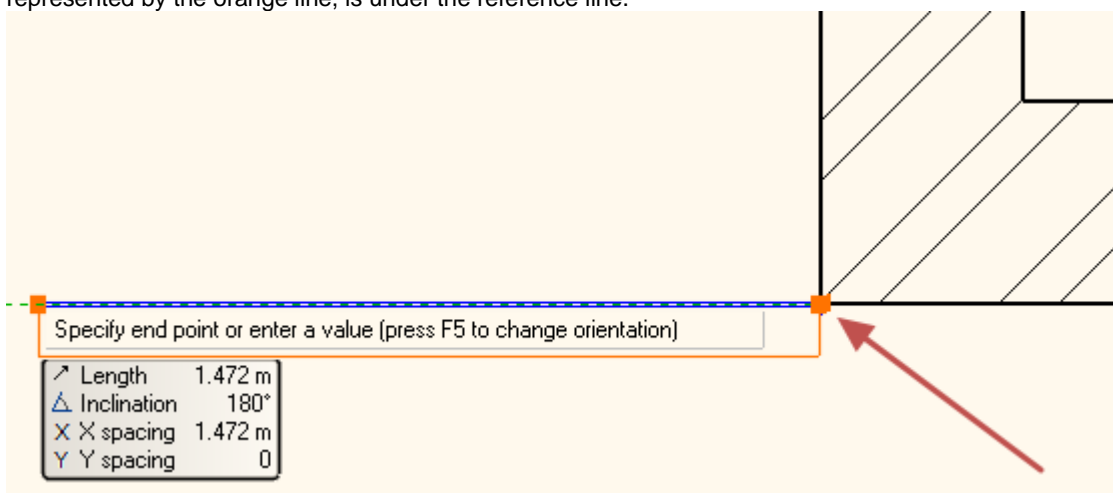
- To create walls click on the **Toolbox – Building –  Wall tool**.
- Activate the 2D drawing and move the mouse to the L-shaped floor plan to its inner corner point and click to place the starting point of the partition wall exactly into the corner.



When the cursor is over an endpoint, an "E" will be displayed. This way the software is highlighting that the mouse cursor is right on top of an endpoint of the drawing.



- Move the mouse to the left horizontally. Now the blue reference line is on the top, so that the wall thickness, which is represented by the orange line, is under the reference line.




For now, we need the wall thickness to be above the blue reference line, so that the partition wall and the neighbouring main wall will share the same line.

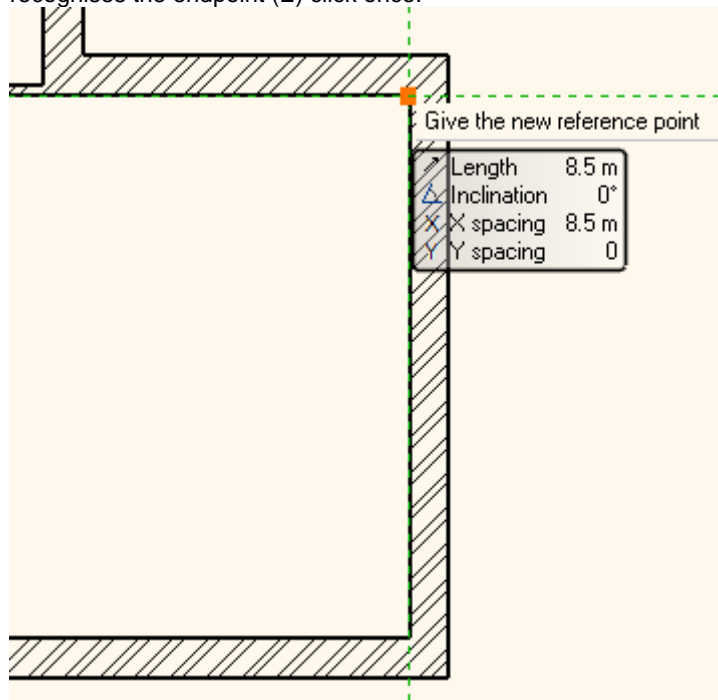
On the left side of the interface you can see the More Options list.

- Now click on the “Right side” command then move the mouse back to the drawing area.
- Now, the reference line of the wall is on the other side of the wall thickness.
- Place the endpoint of the wall on the inner side of the opposite wall perpendicularly.
- Press the Enter on the keyboard. Now you can draw another wall.

Now we will set the starting point of the second partition wall. To do this, we will need to place a temporary reference point in a corner and measure a distance from there.

- To create walls click on the **Toolbox – Building –  Wall tool**.

- Select the New reference point command  from the toolbar.
- Move the mouse inside the L-shaped floor plan to the right wing to the inner right top corner point and when the software recognises the endpoint (E) click once.



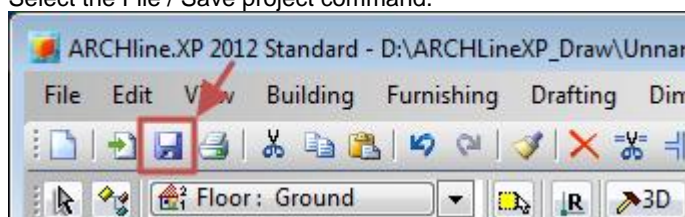
- Move the mouse horizontally to the left and type 2.4m (7'-10 1/2"), and press Enter. The program now measured the distance of 2.4m (7'-10 1/2") horizontally to the left from the previously defined reference point, and placed the starting point of the wall.
- Move the mouse vertically downwards and when the perpendicular point is recognised on the opposite wall, click once to place the endpoint. (Take care! The nearby midpoint (M), easily grabs the mouse, so you should zoom in to be able to work precisely.)
- Press ESC to close the wall tool.

### 2.3.7. Save the Project

During work there is no automatic save. You should save the project!  
Please do the following:

#### Save the project

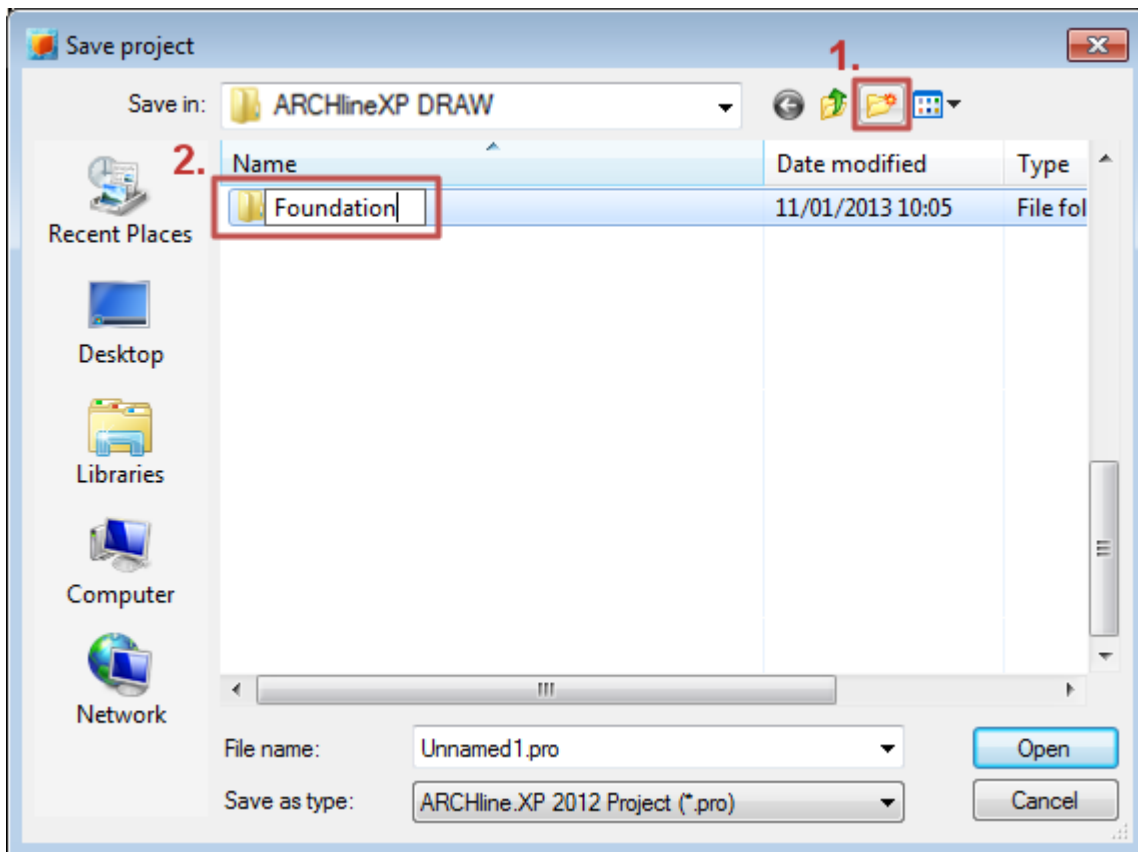
- Select the File / Save project command.



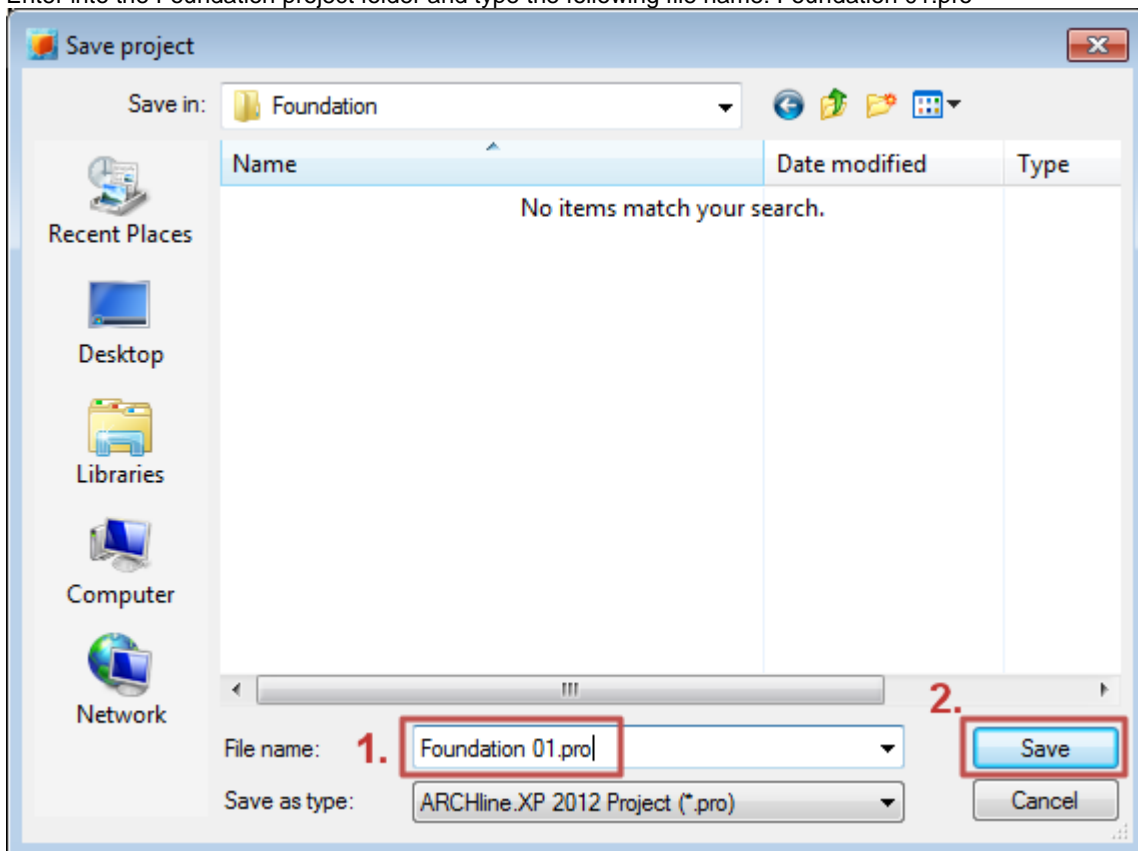
*The Save project command on the interface*

Since now we are saving the project for the first time we have to name it. By default, during the installation process the software creates ARCHLine.XP® Draw folder where you can save your projects. You can find this folder in the My Documents folder on your computer named as "ARCHLine.XP Draw".

- Create a new folder in the ARCHLine.XP Draw folder using the New Folder button. Name it as "Foundation".



- Enter into the Foundation project folder and type the following file name: Foundation 01.pro



- Click on the Save button.  
We suggest you to save your projects quite frequently (e.g. every 10 -15 minutes).





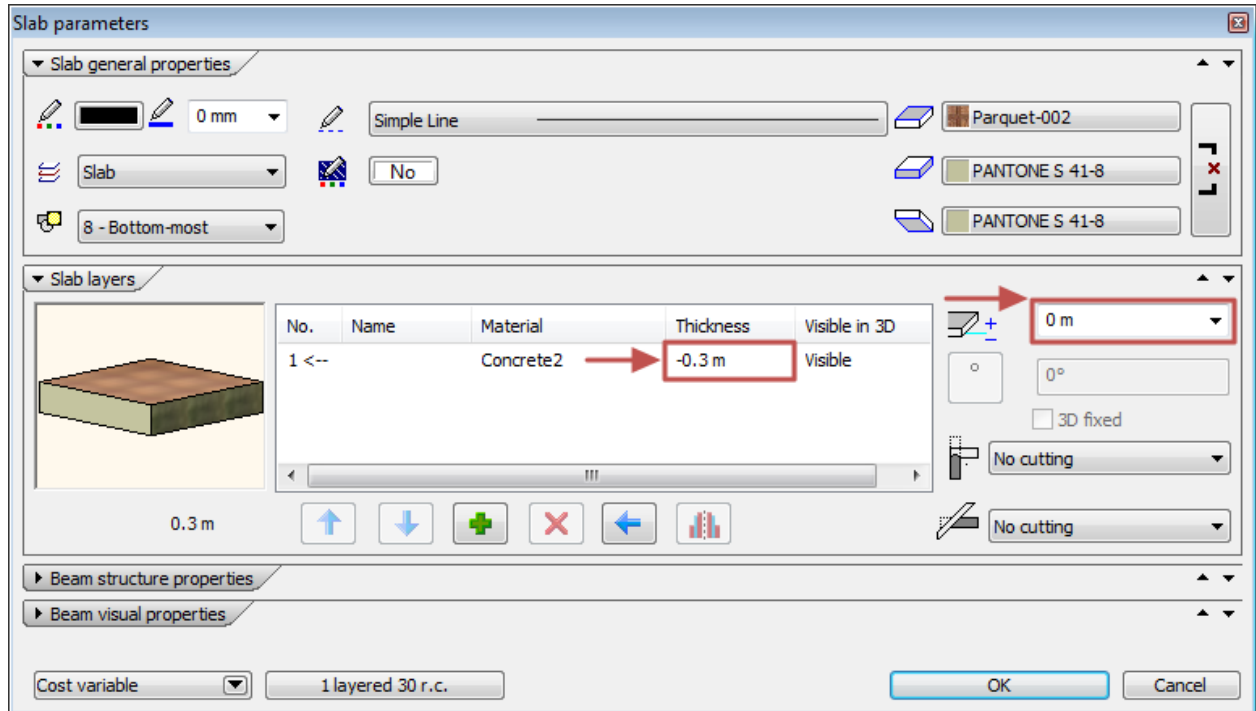
We recommend you to frequently make a copy of your project.

You can also change the default ARCHLine.XP Draw project folder in the File / Preferences / General / File Location dialog. For beginners we suggest not to change the default folder.

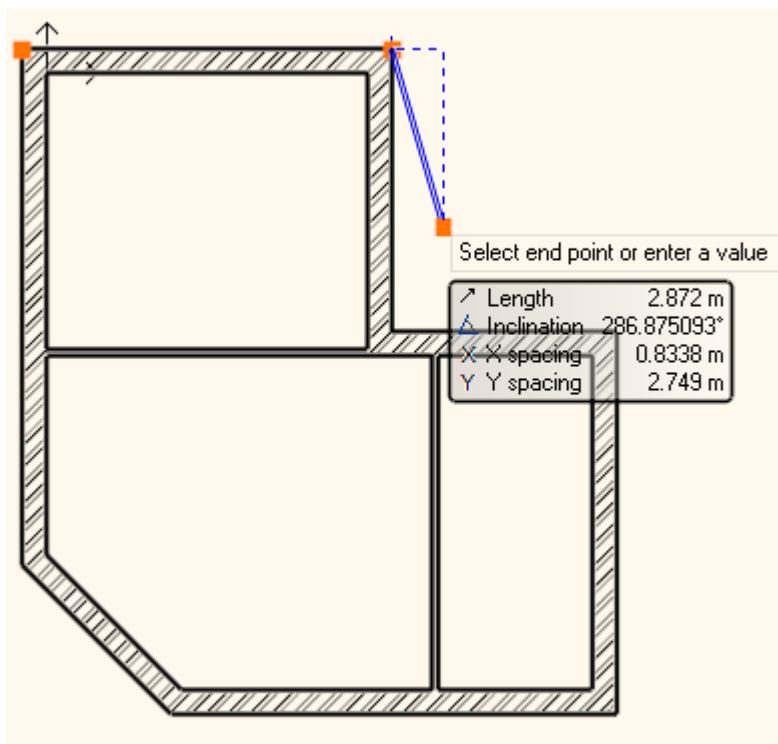
### 2.3.8. The Slab tool – Create a Floor

We will create the floor using the slab tool. Set the slab properties before using the slab command:

- Select the Toolbox / Building / Properties / Slab command. The Slab Properties dialog window appears.
- Check the following properties of the slab: Relative height: 0m (0"); Slab thickness -0.3m (-0'-11 3/4"), finally click on the OK button (right bottom corner of the dialog).



- Select the Toolbox / Building / Slab / Slab by polygon tool.
- Move the cursor to the upper left part of the floor plan to the outer corner point of the main walls and when you see the "E", please click.
- Move the mouse cursor over the following outer corner point, and click again to place the second corner point.



- Place the remaining 6 corners points too. The last corner point is the one which you placed first.


When you click on the last corner point of the slab the program will create the ceiling. The result can be seen in the 3D window.

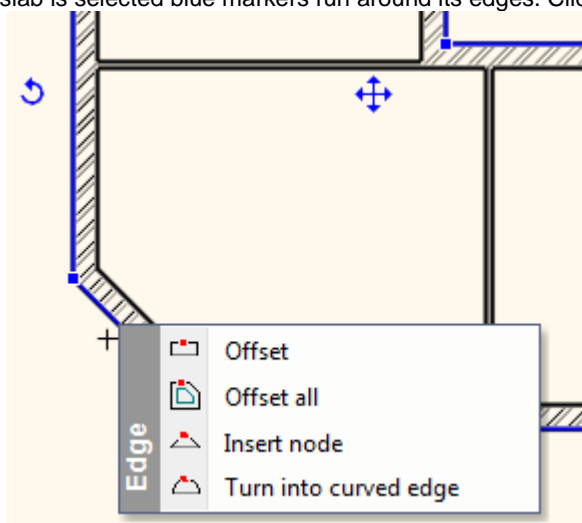
The 45 degree angle wall will have an entrance door in it. In addition, it is necessary to place a stair there, which now we will achieve by changing the contour of the slab.

### Modify the contour of the slab

- Select the previously created slab. To do this, click on the external contour of the main walls.

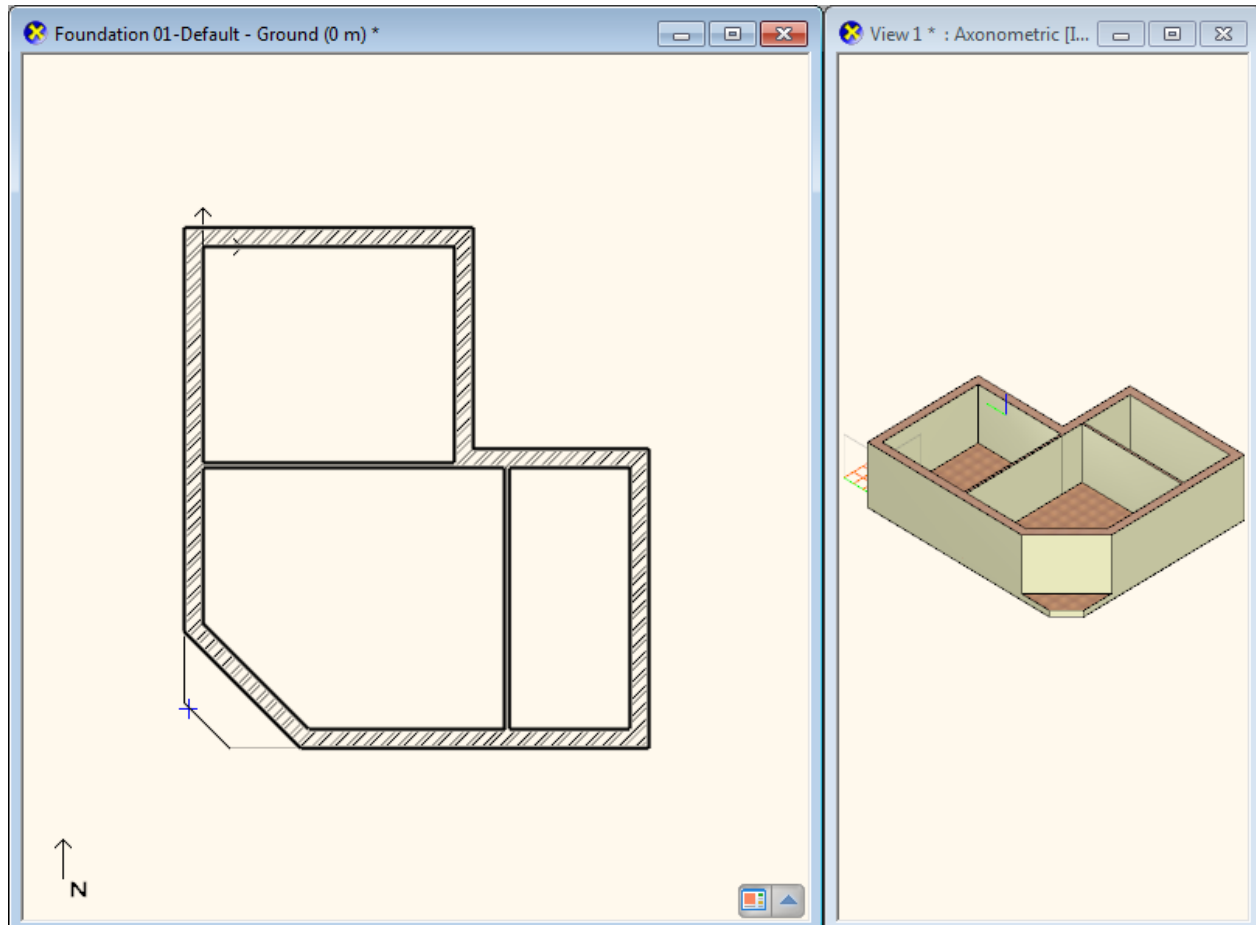
At very early stages of a drawing process some parts of the project will become already crowded with the 2D symbols of certain items. If there is more than one item at the point where you have clicked, the Quick selection dialog will appear at the left top corner of the drawing window, to help you choose the proper item.

- Press the "Jump to the next item"  button of the Quick selection dialog to make the slab selected. If the slab is selected you can see the selection on the floor plan and also the text "Slab" will appear on the left side of the Quick selection dialog.
- When the slab is selected blue markers run around its edges. Click on the 45 degree angle blue line.



- ❖ The marker menu appears. Click on the Offset command.
- Move the cursor down and left 45 degrees (perpendicular to the current edge) and type 1 (3'-3 1/4"), and then press Enter.
- Finally press the ESC key on your keyboard.

Following the previous steps you have just created a one-step stair in front of the entrance. Using similar methods later terraces and balconies can be established.



There is a full featured Stair tool in the program which you can use to create real complex staircases. The Stair tool is the focus of another advanced level tutorial.

### 2.3.9. Floor management – Create and edit floors

With ARCHLine.XP® you can work on large drawings not only in the horizontal direction, but in the vertical direction you can also create the necessary structures to design multi-storey buildings. The following example shows a simple task to make you easily learn and understand the concept of floors.

The use of the floors can be necessary because of the following:

- ❖ The symbols of the elements on the different levels should appear on different drawings corresponding to the proper floor of the item. The layout of the ground floor, the first floor, loft, etc. should be represented on their own respective drawings separately.
- ❖ On the other hand it is also easier to specify the height of the elements and furniture referring to their own floor instead of using a global zero level always.

Create a floor level. Repeat the following steps:

#### **Create the floor of the flat roof**

- Click on the “Floor: Ground” button. The “Edit floor levels” dialog will appear.

In the list there is only the Ground floor now. This floor is made by the software by default every time when you start a new project.

- Click on the Add Up button. The software will create a new floor above the existing one named as Level 1.
- To rename Level 1 click on the name of it. Type the following: **Flat roof**
- Click OK.

**Edit floor levels**

Current building: Default

Rename building Delete building

Num.	Name	Floor he...	Height	State
1	Flat roof	3 m	3 m	Off
0	Ground	0 m	3 m	Active

Delete floor Add up Add down Insert below the current

Copy objects to other floor Move objects to other floor

Absolute height of building compared to sea level 0 m

Level shift (shift current floor height with this 0 m

Environment floor will be visible in the floor plan ☒

Horizontal floor structure ☐

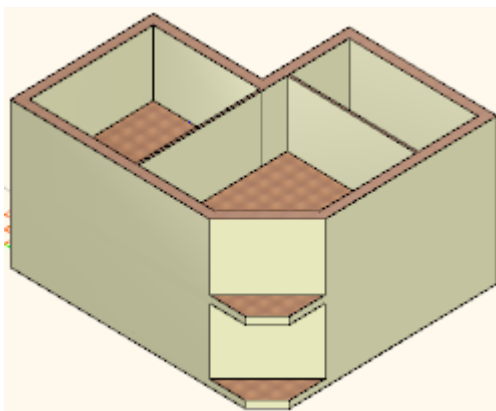
OK Cancel

- The project now has two floors, and the content of the Ground floor is visible. The building of the current exercise has a flat roof. We will be copy walls and ceilings of the Ground floor to the flat roof level. Now do the following:

#### **Copy the walls and ceiling of the Ground floor:**

- Select the entire floor plan with the selection rectangle.
- Press the Ground floor button. The Edit floor levels dialog appears.
- Press the Copy objects to other floor.
- In the appearing dialog window select the floor named "Flat roof". Press the OK to copy the selected items.

In the 3D window now you can see that the full content of the ground floor is copied to the upper floor as well. On this level, we will create a flat roof so we will not need the partition walls, and we need to change the height of the main walls too.



#### **Modifying the properties of the copies**

- Select the partition walls on the flat roof floor and delete them.

- Now select one of the main walls. The "Property grid" will appear on the left side of the screen. There you will find the "Height" property of the wall which now is 2.7m (8'-10 1/4").
- Click on the property in the "Property grid" on the left side and change the wall height to 1m (3'-3 1/4"), and press Enter.

The properties of multiple walls can also be changed using this method. Instead of it, now we will learn about the Copy properties command.

### **Copy properties - optional**

- Select the 1m (3'-3 1/4") tall main wall on the floor plan.
- Click on the paintbrush icon in the top toolbar of the program. This is the **Copy Properties** command.
- The Properties dialog box labelled Wall appears with the properties that can be copied. Make sure that the Height of 1m (3'-3 1/4") is enabled (there should be a black tick at the left side of this property row). Enabling or disabling property options allow the selection of properties that you would like to copy or you would like to leave unchanged.
- Press the OK button.
- By using the rectangle selection, please select the content of the entire Flat roof on the floor plan.
- Now press the Enter on the keyboard.

The result of the previous steps will be that the program will copy the properties of the selected wall (now all of them) to the selected walls. Now the height of all walls is 1m (3'-3 1/4"). We are ready with the flat roof.

There is an even faster solution to the previous exercise:

### **Select elements by type:**

Task: Select all the walls on the level of the flat roof and change the walls height to 1m (3'-3 1/4").

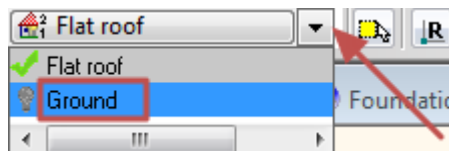
- Hold down the CTRL key on the keyboard.
- Click on the Wall tool in the Toolbox.
- Release the CTRL key.
- Change the height of the walls to 1m (3'-3 1/4") using the Property grid on the left side and press Enter.

All the walls on the Flat roof floor are now changed to 1m tall.

### **Switch to the Ground floor**

In order to continue working on the Ground floor it is necessary to jump back to that level as currently we are still working on the "Flat roof" floor.

- Click on the arrow on the right side of the Flat roof button. In the appearing list you can see a green check mark next to the name of the Flat roof floor indicating that this level is currently the active one.
- Click on the name of the Ground floor and you will see the ground floor elements appearing. We will continue here by creating the doors and windows.

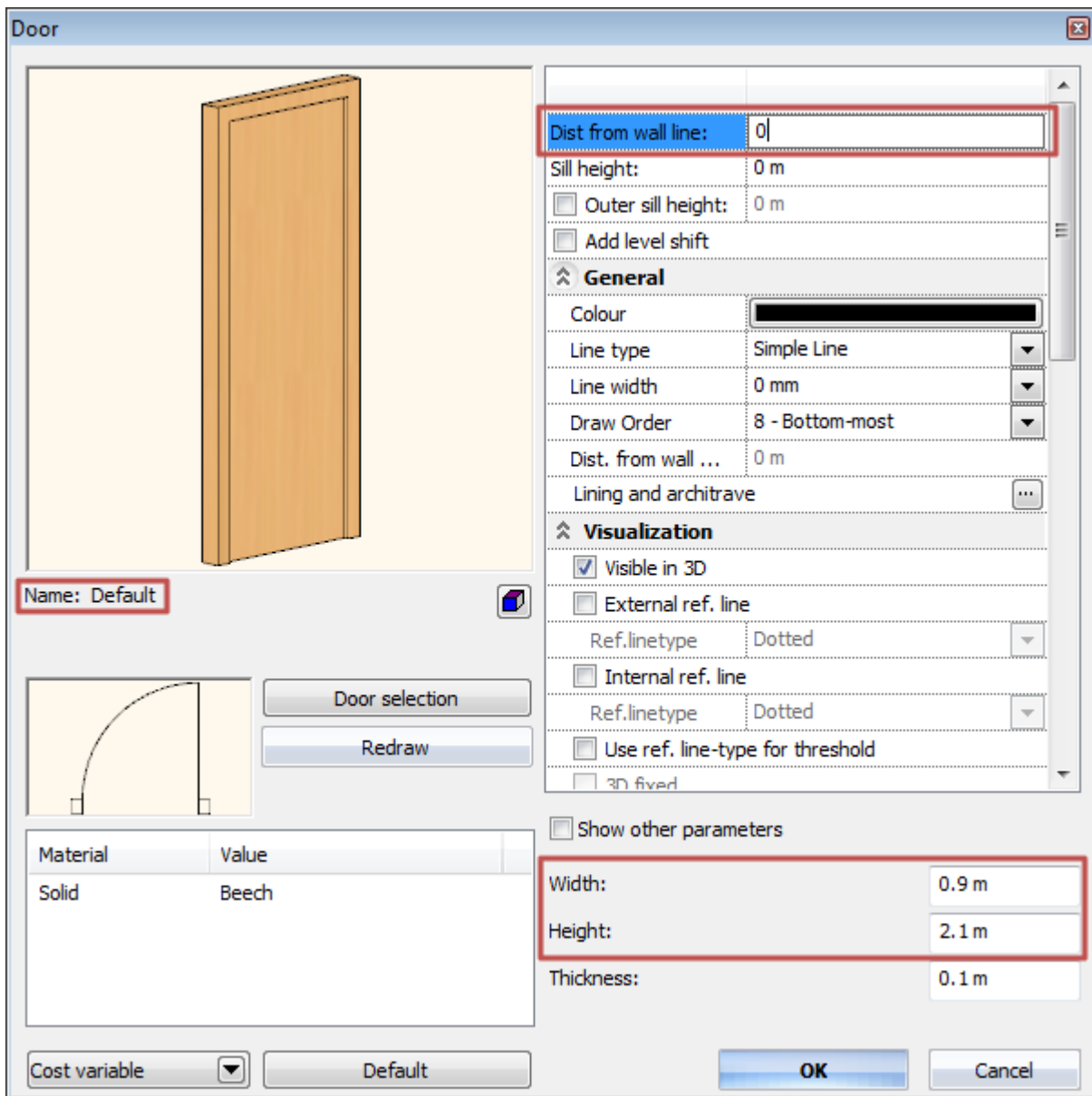


To switch between floors you can use the Page Up and Page Down keys on the computer keyboard. Pressing these keys you can jump one level up or one level below in the floor list.

## **2.3.10. Drawing the Doors**

We are going to draw doors inside the already existing main walls and partition walls. The first door will be a simple door placed into the partition wall. Proceed as follows:

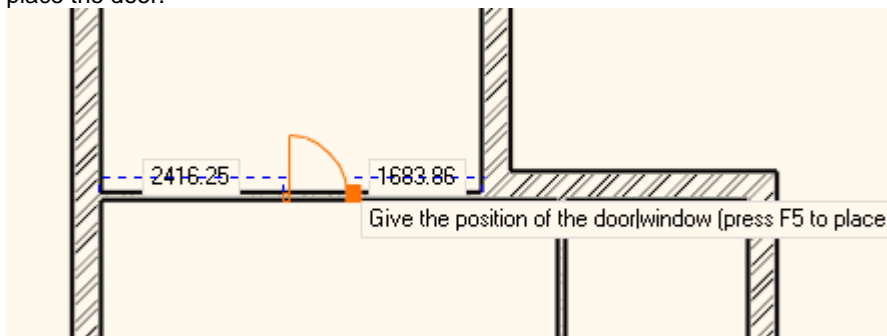
- Select the menu item **"Properties / Door"** in the category **"Building"** of the Toolbox. Now the dialog box **"Door properties"** appears.
- Name of door: Simple; Width: 0.9m (2'-11 1/2"); Height: 2.1m (6'-10 3/4"); Distance from the wall line: 0.0m (0").



- Click on the button OK.

### Placing the first door

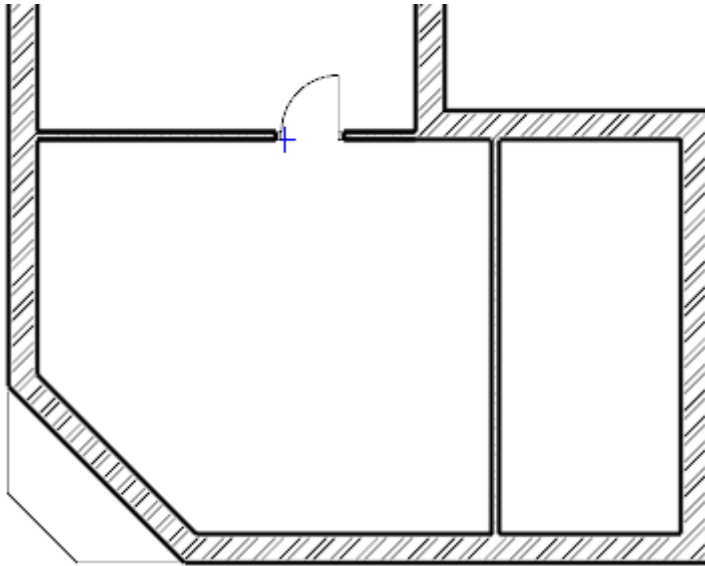
- Select the tool **Door** in the category **Building** of the Toolbox.
- Move the cursor over the drawing area above the horizontally aligned thin partition wall. At that moment, the cursor changes over to an orange door symbol.
- Move the cursor above the top side of the horizontal wall. Now the orange reference point appears which can be used to place the door.



- Type in the value 0.95m (3'-1 1/2"), then press the key Enter. By this operation, you have specified the distance between the orange reference point and the nearest wall corner, which is 95 cm (3'-1 1/2") according to the original drawing.



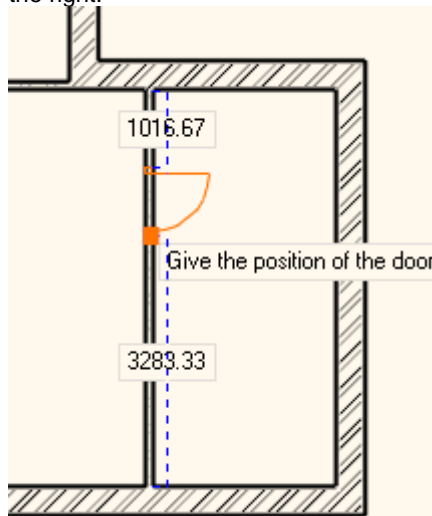
- Move the cursor around the placed door symbol. Observe that the opening direction of the door changes. Move the cursor until the opening direction corresponds to the opening direction shown in the original floor plan, and click. Now the door is ready with the appropriate opening direction.



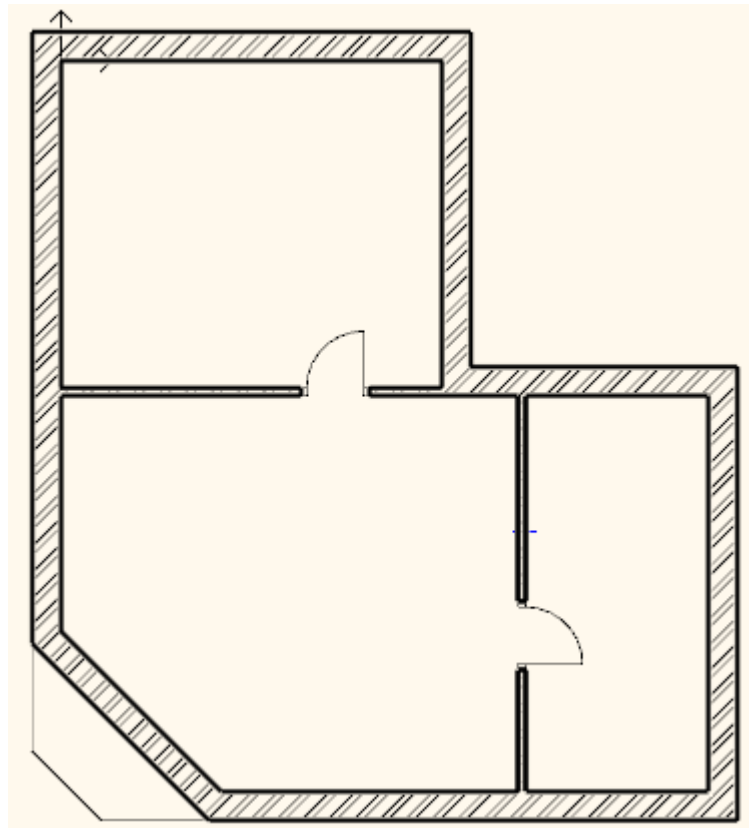
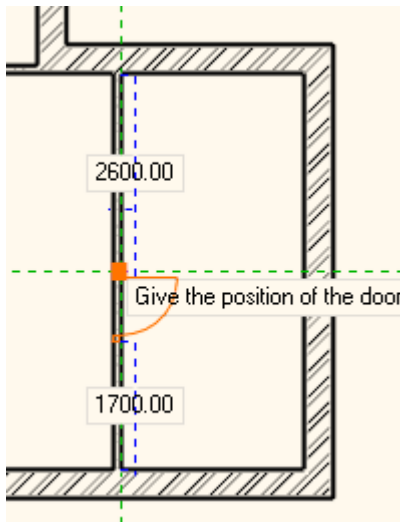
### Placing the second door

Proceed as follows:

- Move the cursor over the partition wall shown vertically in the drawing, actually to the side of the wall facing the room to the right.



- Notice that the orange reference point appears at the lower half of the door cursor. The reference point can be changed during the process of drafting.
- Now a couple of additional options appear at the place of the Toolbox, with the help of which you can intervene in the process of drafting the door. Select the instruction "**Next reference point**", and move the cursor over the partition wall again. This time, the orange reference point appears at the middle of the door.
- Select the option "**Next reference point**" again, and move the cursor again over the right side of the door. This time, the reference point appears at the upper extreme point of the door. Determine the distance between the marked reference point and the nearest wall corner similarly as you did for placing the first door.
- Type in the value 2.70m (8'-10 1/4"), which is shown in the drawing also, and press the key Enter. Now the door appears in the wall.
- Determine the opening direction of the placed door by moving the cursor around the door symbol and clicking. The door is now finished, and it appears in the model too.
- Press the ESC key to close the command.

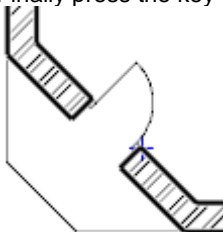


### 2.3.11. Modifying the property of an existing item

#### Placing the entrance door



The next step is to draft the entrance door according to the floor plan. Modifying properties of an existing item can be done easily. For this reason, initially the entrance door will be drafted as a single-wing door, similarly as the internal doors, and then we modify it to become a double-wing door.

- Select the Door tool again in the Building category of the Toolbox.
- Move the cursor over the main wall shown in inclined position in the drawing, actually at the side of the wall facing the room.
- Notice that the orange reference point appears at the lower half of the door cursor.
- Select the instruction "Next reference point" from the options shown at the left, and move the cursor again over the side of the main wall facing the room. This time, the reference point is located at the middle of the door.
- Move the cursor along the internal side of the wall towards the middle of the wall until the shape of cursor changes and the letter M appears. It means that the reference point of the door is kept exactly at the middle of the wall section. Click with the mouse to place the door into the main wall, exactly at its middle.
- Move the cursor to determine the desired opening direction, then click to confirm.
- Finally press the key ESC to close the command.

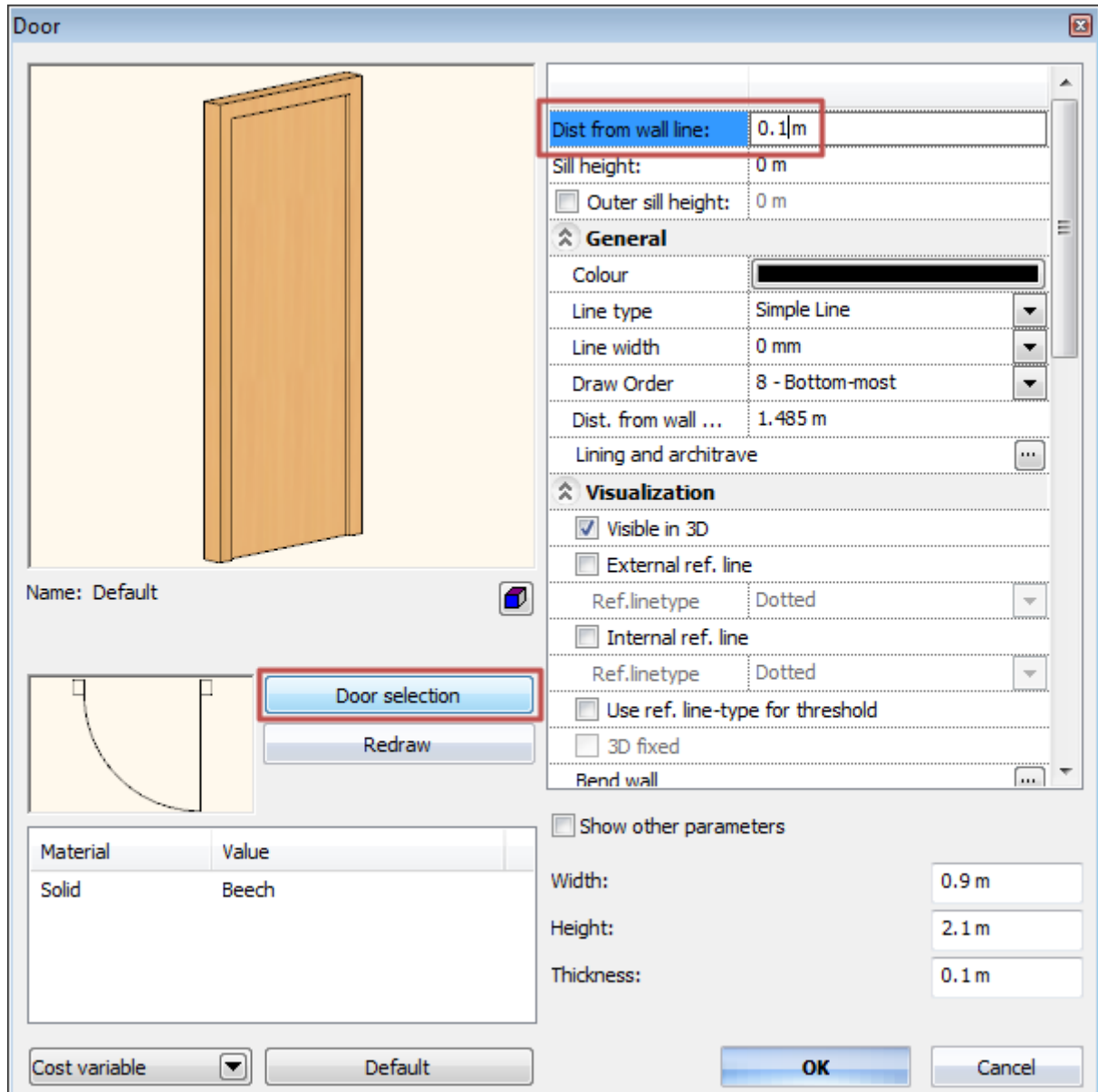


The type of the entrance door, and its alignment in the wall do not corresponding to those shown in the floor plan for the time being. Therefore, it has to be modified. Proceed as follows:

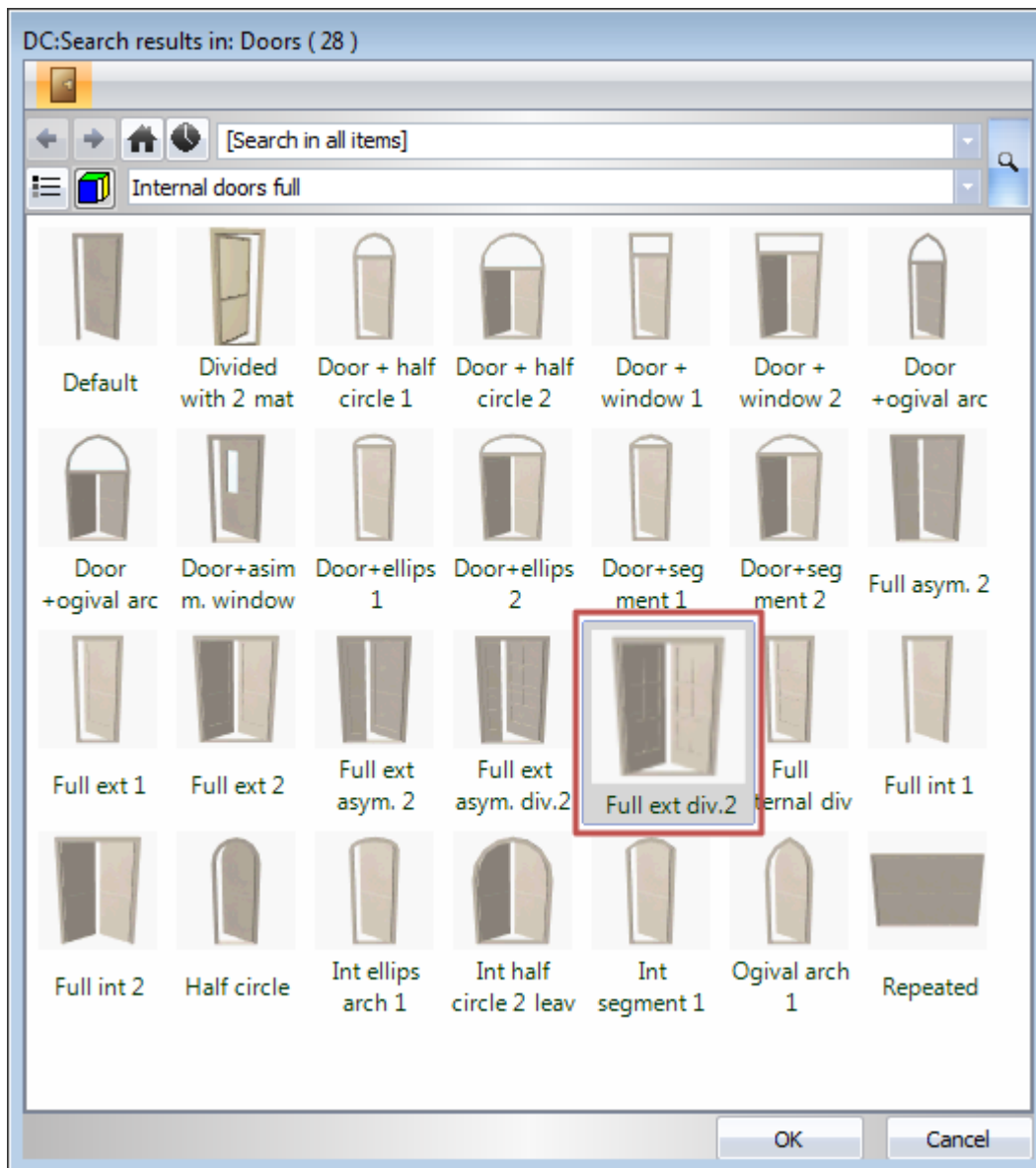
#### Modification of properties

- Select the entrance door in the floor plan.
- Markers appear as a result of the selection, the first of which is a dark blue page . This is the "Property marker". The properties of the selected item can be displayed and modified with the help of this.
- Click on the "Property marker" . Now the "Door Property" box appears.

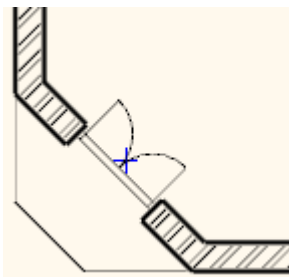
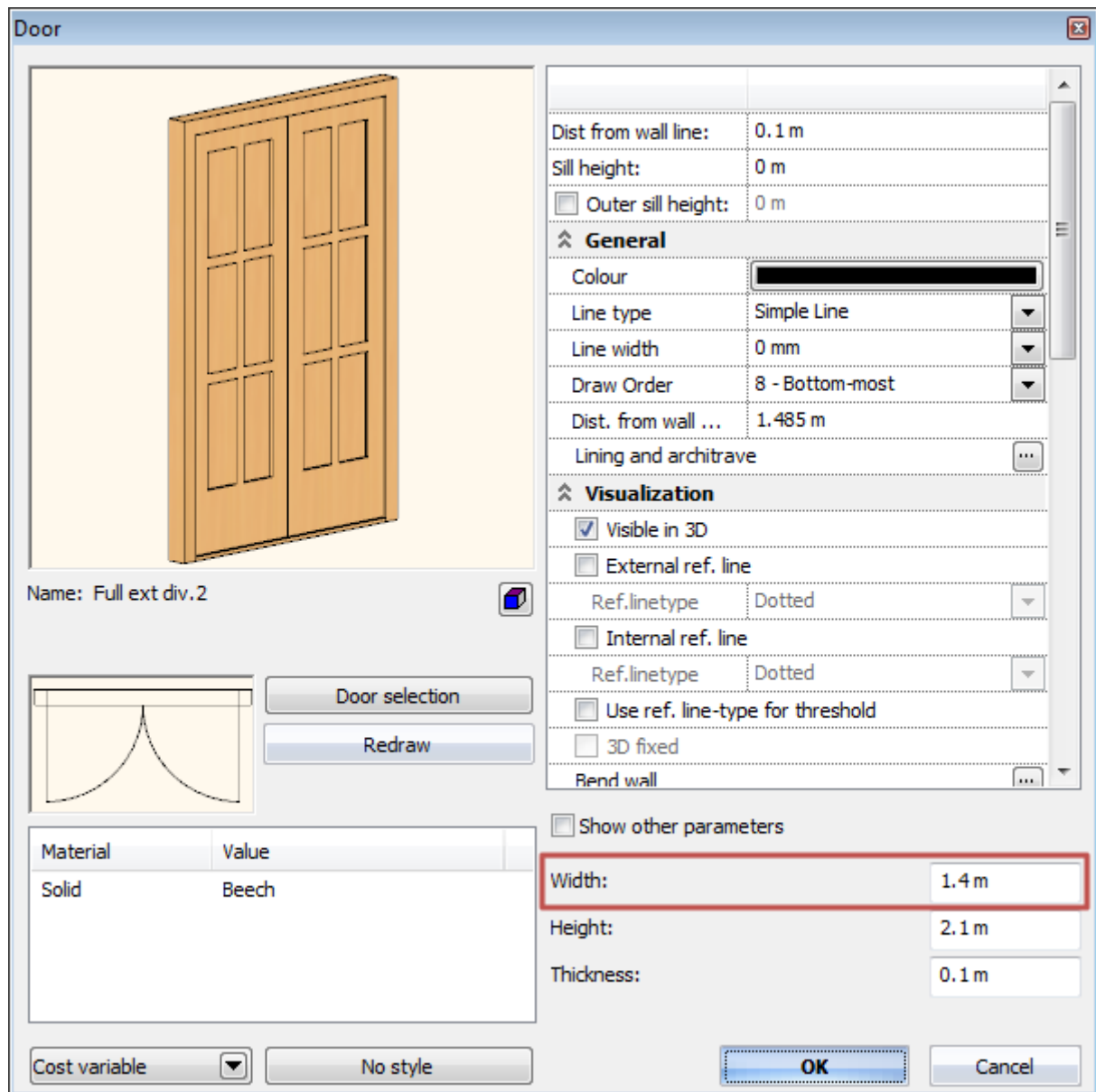
- You can see the Distance from the wall at the top right corner. Modify it to 0.1m (4").



- Click on the button "**Door selection**", and select a double-wing door from the library, and click on the button OK.



- You can see the Width value at the lower right part of the Property screen. Modify it to 1.4m (4'-7").
- Click on the button OK. The modification of the door has been done.
- Press the key ESC.

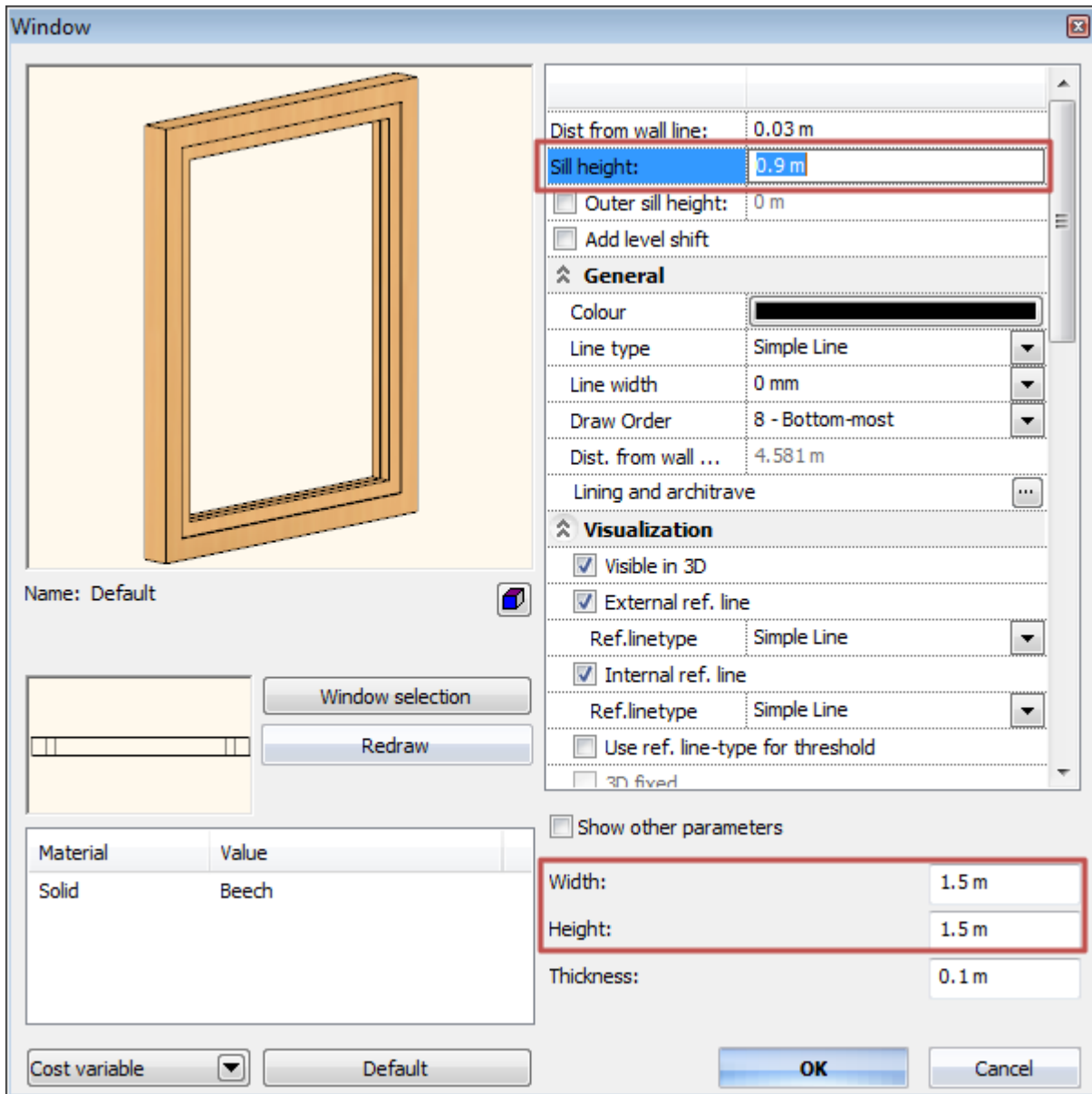


### 2.3.12. Drafting the windows

Now let's continue working with the windows.

#### **Adjusting the properties**

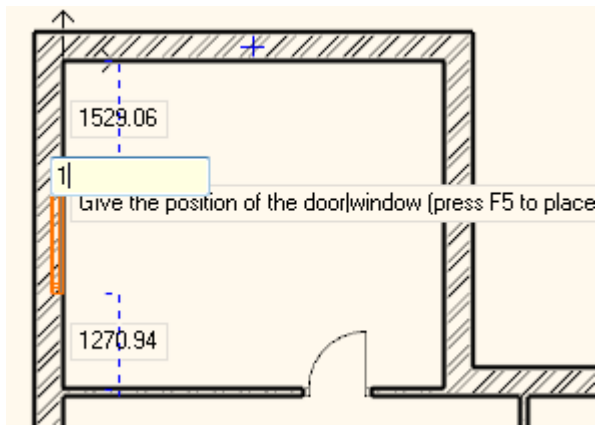
- Click on the menu item Toolbox - Building - Properties - Window.
- In the list at the upper right part of the appearing dialogue screen let the Parapet height be: 0.9m (2'-11 1/2").
- The Width and Height are: 1.5m (4'-11") and 1.5m (4'-11").
- Click on the button OK to accept the settings.



By following the couple of steps above you have determined the dimensions of the new windows. Now install two windows.

### Drafting the windows

- Click on the tool "Window" in the category "Building" in the "Toolbox".
- Move the cursor over the side of the left main wall shown in the floor plan facing the upper room. The reference point appears here also, with the help of which you can place the window. The reference point can be relocated with the method used when we installed the door.
- Select the option "Next reference point" from the options appearing at the left side, and move the cursor again over the wall section. The reference point is located now at the middle.
- Again, select the option "Next reference point" from the options appearing at the left side, and move the cursor again over the wall section. The reference point is located now over the upper corner point of the window.
- Type in the value 1 (3'-3 1/4"), and press the key Enter. By doing so, you have specified that the distance between the reference point and the nearest corner point is 1m (3'-3 1/4"). The window appears in the wall accordingly.

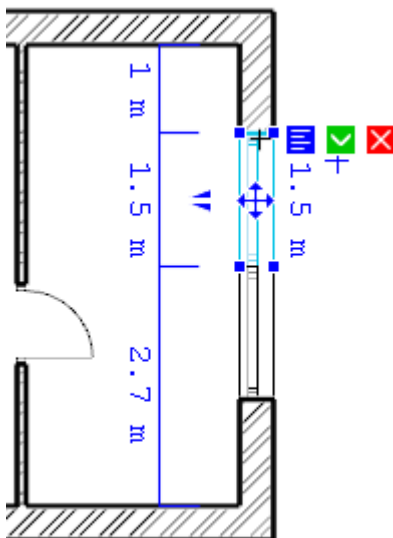


- Now move the cursor to the side of the same main wall facing the room below.
- With the method applied above make sure that the window is properly located in the wall, so that its upper corner point is at a distance of 0.90m (2'-11 1/2") (from the corner points at the connection of the main wall and the partition wall).
- After completing this operation, press the key ESC.

With the help of the operations above you have learnt how to install more than one window with given properties in a wall section.

This procedure can also be used in the same way with most of the tools offered by ARCHLine.XP®, so the steps are:

- ❖ adjust the required properties,
  - ❖ draft additional items (walls, doors, windows, lines, etc.) with the appropriate drafting tool without interruption,
  - ❖ finally, you exit the drafting mode by pressing the key ESC.
- Before proceeding to the next chapter, draft the second window also in the wall of the Storage room located at the right side of the floor plan.



## 2.4. Furnishing and representation

### 2.4.1. Setting up the perspective

In this chapter we deal with the furnishing of the rooms. Therefore, it is necessary to set up one or more perspectives besides the axonometric view of the model, so that we would be able to see and show how the model looks like from the inside to the customers.

#### **Setting up and saving the perspective views**

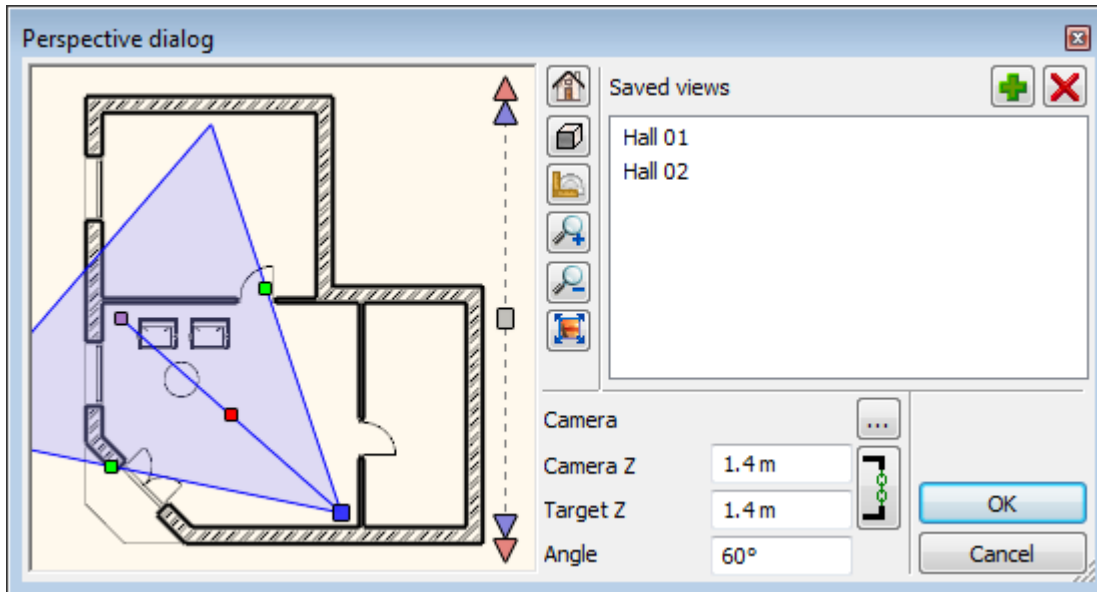
- Activate and enlarge the 3D screen with the help of the tool Navibar - Enlarge active window.
- Find the eye icon at the bottom right part of Navibar, and click on it.
- The "Perspective dialog" appears.
- Click on the button of 2D display, which depicts a yellow square ruler. As a result, the drawing of the Ground level of the floor plan appears at the left instead of the 3D top view.
- Press the orange-blue coloured button "Fit to window". As a result, the blue camera tool, as well as the floor plan is displayed.



- With the help of **left button of the mouse click on** the blue marker representing a view point and keep the button depressed, and move it to the bottom right corner of the hall within the room. *Exceptionally and for practical reasons, the left mouse button is to be kept depressed during the movement in case of this dialogue box!*
- With the **left button of the mouse click on** the violet-coloured marker representing the view point, and while keeping the button depressed, move it to the left top corner of the room.

With these two operations you have determined a perspective view.

- Store this setting of perspective. For this purpose, click on the green cross at the top right corner of the dialog box. Now the program saves the view under the name View 0.
- A modifying button indicated with three dots can be seen right to the name of the newly saved view. Click on it, and in the appearing dialogue box key in the new name of the view without quotation marks: "Hall 01" instead of View 0, then click on the button OK. This way you have renamed the previously saved view.
- Create a second view also by using the above operations, which points to the upper right corner of this room from the entrance door. Finally, rename it to "Hall 02".



- Select the saved view named "Hall 01", then click on the button OK to close the dialog box.

You can adjust and save additional views by following the above operations any time, so that a preferred view could be selected and displayed later with a single click with exactly the same viewpoint from time to time again.



When you have a number of saved views, then you can select the views by using the keys "Page up" or "Page down" which are used during the change of floor plan levels also.

Notice: the changing over works only if the 3D screen is the active screen! In the 3D screen the program will change over the saved views, and not the levels!

## 2.4.2. Furniture items - The Design Center

Working as an open system, the software ARCHLine.XP® is capable of handling furniture items having different formats and from various sources without complicated file operations, and can read and place these items into the project with a single click.

If no internet connection is available at the moment, then you can use

- ❖ the limited number of furniture items provided by the installer,
- ❖ the furniture items used in the previously opened projects,
- ❖ the furniture items downloaded during the former internet connection,
- ❖ your own furniture items that have been created with the help of the furniture wizard of the program, or by other 3D modelling tools.

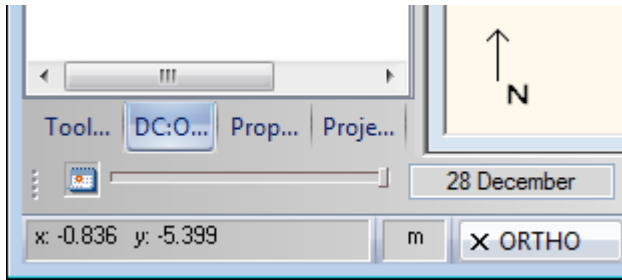
As soon as you are connected to the internet, you will be able to access many additional furniture items:

- ❖ from the Showroom of ARCHLine.XP® free of charge,
- ❖ with the help of the browser of the free service of Google 3D Warehouse,
- ❖ from other web sites that allow downloading freely or by payment.

From here on, we will refer to furniture items as objects.

Let us start by discussing the locations of the objects that can be accessed right after installing the program, which are ready to use. The objects of the program can be found in the ARCHLine.XP® Design Center. In order to get acquainted with its use, the procedure below should be followed:

A couple of tabs can be seen just below the Toolbox. Click on the tab "DC: Object".

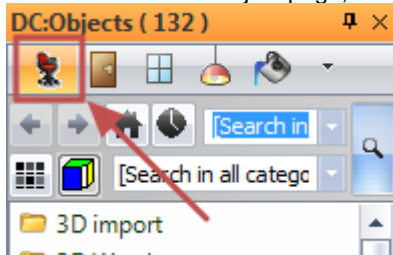


Now the Object page of the Design Center has appeared. With the help of the browser you can find the objects that you want to work with at this moment from a large number of objects.

The Design Center contains the following items available in the program in groups:

- ❖ objects,
- ❖ doors,
- ❖ windows,
- ❖ lamps,
- ❖ materials,
- ❖ 2D groups,
- ❖ profiles,
- ❖ stair shapes.

Make sure that the Object page, indicated with a red chair icon at the upper right corner of the Design Center, is active.



Click on the icon once for this purpose. You will find the objects within the Object page sorted into groups. With the help of a search, you can find all of the objects very quickly within these categories, the names of which contain the expression you defined.

Follow these steps:

- Click on the topmost search field of the Design Center. This is the field, where you can see the text [Search in all items] in the default case. Define here the expression or part of a name you intend to make the search for.
- Delete the text that has appeared here, and type in the word "armchair" without quotation marks, then press the key Enter, or the button Search located to the right of the search field

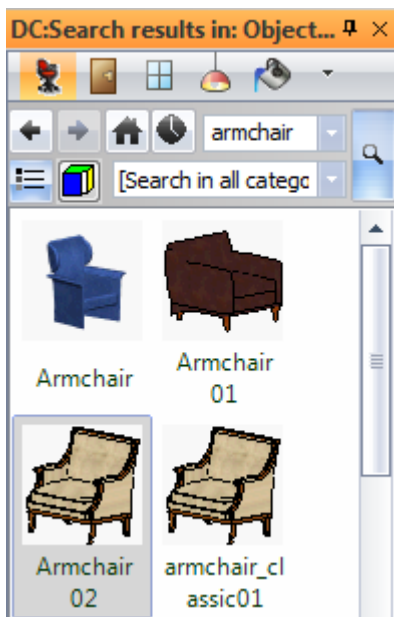


- The program finds and lists all the objects, in the name of which the searched word is included.

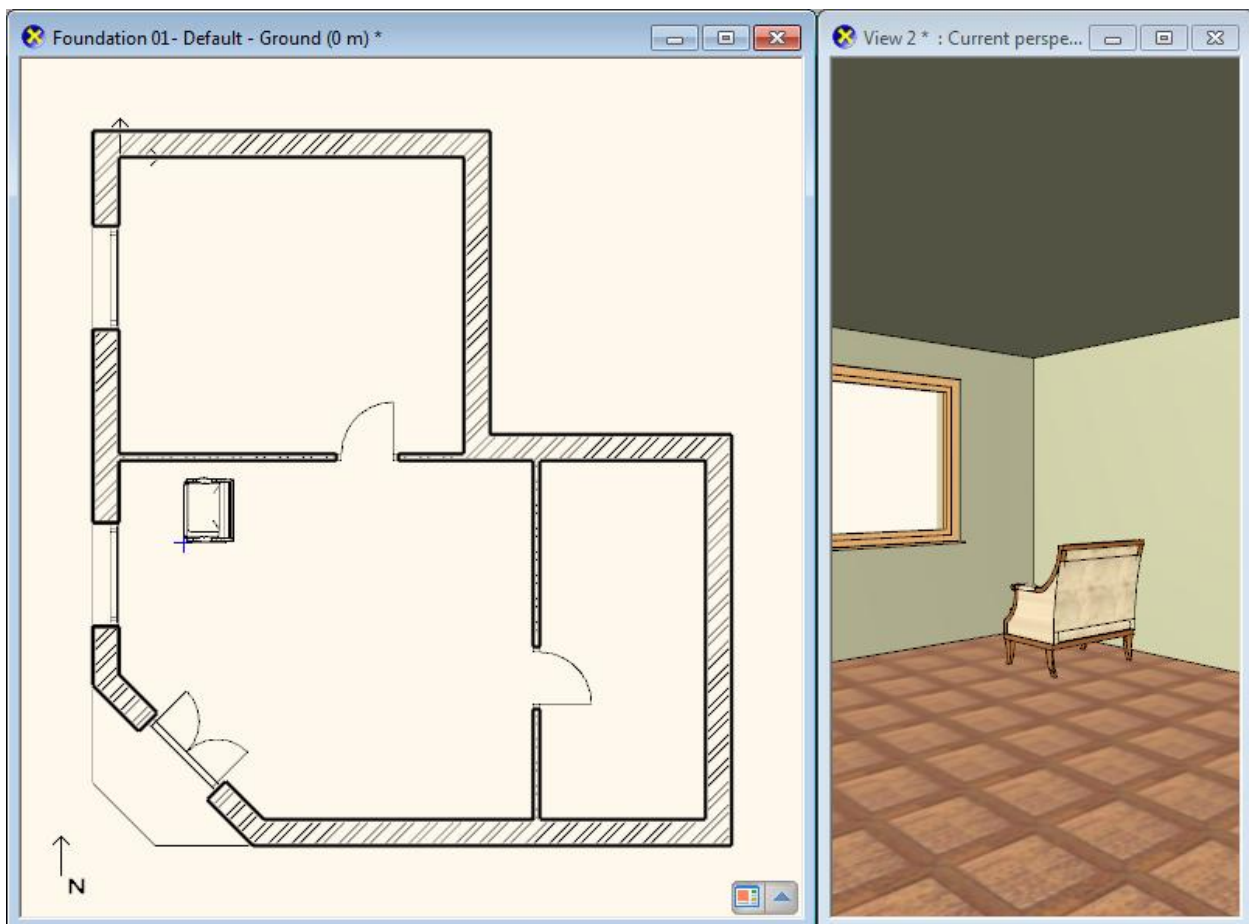
Now you can check among the found objects, and you can place any of the objects in the currently active 2D drawing.

Follow these steps:

- Click on the object "Armchair 02", and keep the mouse button depressed.



- With the mouse button depressed, move the cursor over the 2D drawing area, and release the mouse button.
- Move the cursor, and observe that the top view of the object "Armchair 02" is displayed with orange colour, and it moves together with the movement of the cursor.
- Move the armchair over the room that has an entrance door in the drawing, and place the armchair in front of the partition wall with a click.
- Now the program offers yet another copy of the selected armchair for placing. Press the key ESC to finish placing objects.



In the perspective screen it can be seen that the armchair faces the window in the current model. We will now turn the armchair in the appropriate direction with the help of the already know markers.

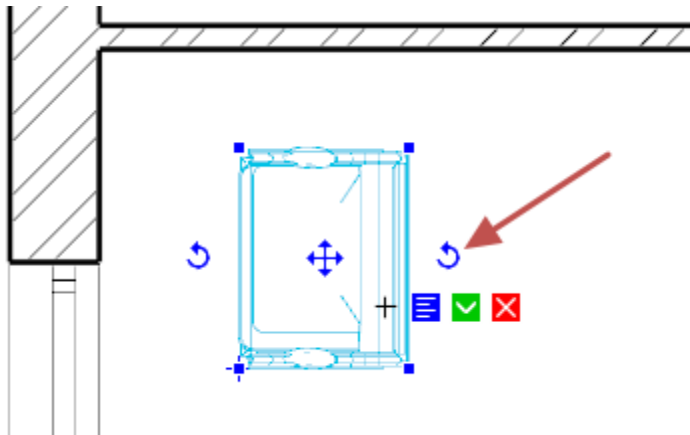
### 2.4.3. Movement and rotation

The use of markers is the simplest way of moving and rotating the drawing components already placed in the drawing. Proceed as follows:

- Zoom to the area of the drawing, where the armchair can be seen.
- Select the placed armchair in the 2D drawing.
- A number of coloured markers appear on the screen. Click on the marker that shows a deep-blue curvy arrow. This is the Rotation marker.



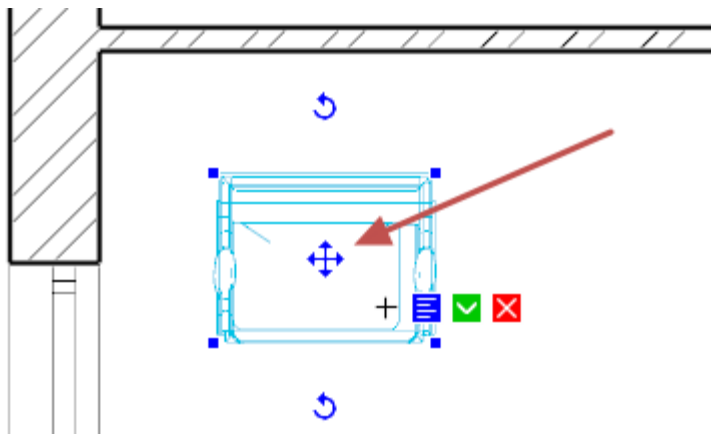
If the rotation marker does not appear during the selection, then the component is too small in the given section of the drawing. In such a case, zoom in to this part of the drawing until the rotation marker appears.



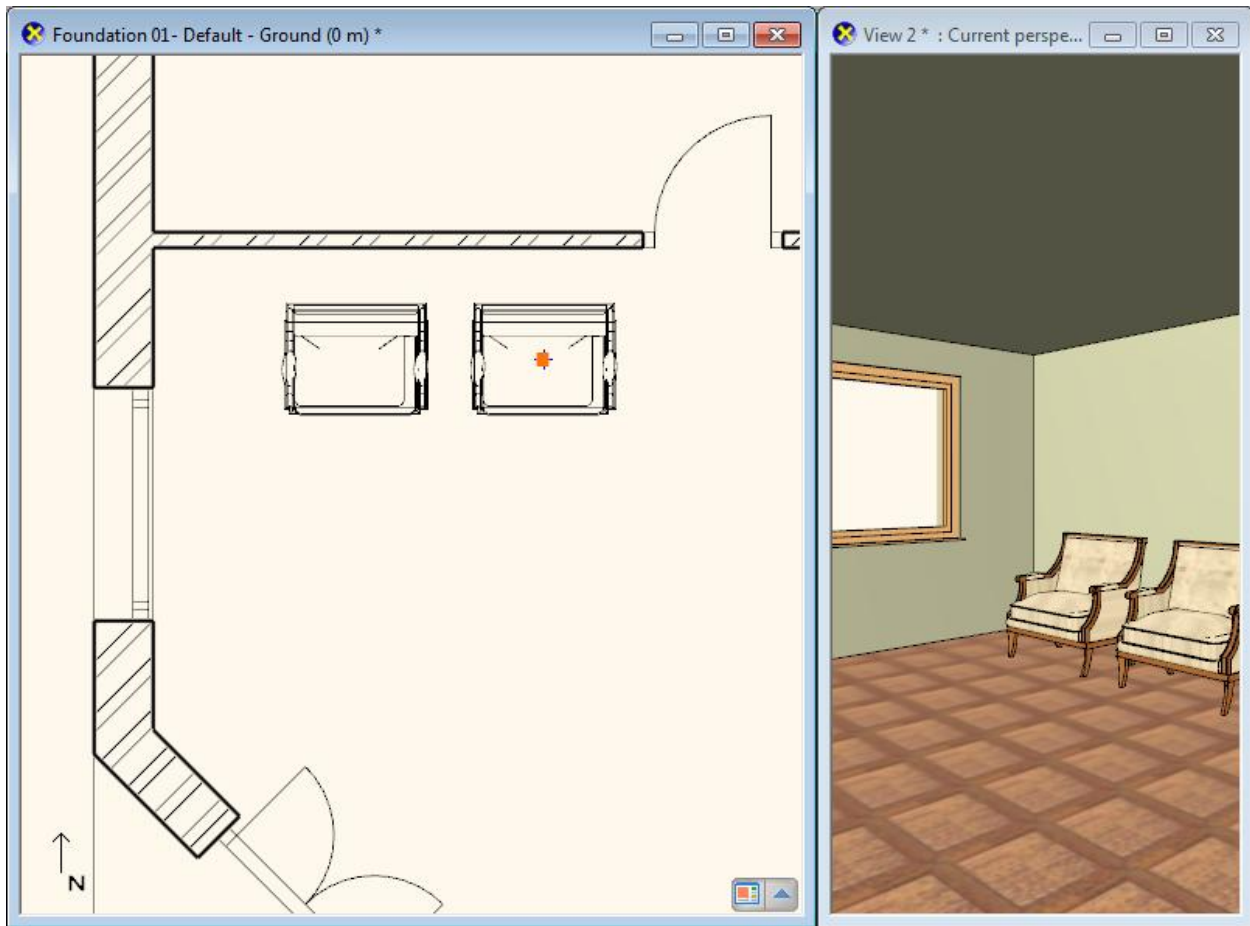
- The Rotation menu appears after you click on the Rotation marker (this can be seen written on the band running at the left side of the menu: "Rotation"). Select the menu item "Rotate 90 ccw". Now the armchair is rotated, so that it faces the entrance door.

The armchair faces in the appropriate direction. Place a second armchair next to the former one:

- If no armchair is selected in the drawing, then select one.
- A number of markers appear now, from which select the one that has arrows pointing in four directions. This is the Movement marker.



- Select the menu item "Move a copy" in the appearing menu.
- Move the cursor, so that the virtual copy appearing in orange colour is located to the right of the original armchair, then place the copy by clicking. Now we can see two identical armchairs in the floor plan as well as in the model.



Study the Rotation and Movement menus, and notice how the program offers various possibilities for moving and rotating the selected components. You are encouraged to try these possibilities, because it is possible to use them very efficiently in many circumstances, as you will experience it soon.

#### 2.4.4. Furniture items – The 3D Warehouse

**Attention: An internet connection is necessary to perform the operations described in the chapter below.**

Suppose we plan to place a coffee table in front of the two armchairs placed in the hall. Now we search for an actual coffee table using the internet. Proceed as follows:

- Open the category Furniture of the Toolbox appearing at the left side. Select the submenu Objects, and then its menu item Google 3D Warehouse.



Alternatively, this command can be found also under the menu item File menu / Import / 3D Warehouse.

- The internal browser of ARCHLine.XP® appears shortly with the opening page of 3D Warehouse.
- Type in the word "table" without quotation mark in the search field, then click on the button Search.


The browser of 3D Warehouse reviews all the objects in the database very quickly, then sorts and offers the ones for which the given expression "table" is true. The hits can be refined, if the former simple search word is supplemented with another expression.

3D Warehouse [Building Maker](#) [English](#) | [Sign In](#)

**Trimble 3D Warehouse** powered by Google


Search:  Models  [Advanced Search](#)

3D Warehouse Results Sorted by relevance Results 1 - 12 of many for coffee table (0.3 seconds) - [RSS](#)




**IKEA BUSKBO Coffee table**  
by [Alons](#)  
Alon's Collection  
[Download Model](#)

★★★★★




**Minotti Cernobbio Coffee Table**  
by [DesignFurniture](#)  
Oak coffee table by Minotti  
[Download to SketchUp 7](#)

★★★★★



**Wrought Metal, Wood, and...**  
by [James M. Allen](#)  
A rectangular coffee table...  
[Download Model](#)

★★★★★



**KARE 74352 Coffee Table Flint...**  
by [KARE Sketchup](#)  
teak wood, glass Teak Holz...  
[Download Model](#)

★★★★★

- Now write the expression "coffee table" in the search field instead of the word "table", then press the button Search again. You can observe that the result of the search typically lists different kinds of coffee tables among the hits.
- Try now to find a product of an actual manufacturer. Type in the expression „kare coffee table" without quotation marks, and press the button Search.
- From the hits select the object named „KARE 74352 Coffee Table Flint...". Yet another page appears now showing the selected object with a large image.
- Click on the button "Download model" located below the image at the middle, as a result of which the program starts to download the selected coffee table.

3D Warehouse [Building Maker](#) [English](#) | [Sign In](#)

**Trimble 3D Warehouse** powered by Google

Search:  Models  [Advanced Search](#)

[KARE](#) > KARE 74352 Coffee Table Flint Stone (Couchtisch Flint Stone)  
**KARE 74352 Coffee Table Flint Stone (Couchtisch Flint Stone)** uploaded by: [KARE Sketchup](#) on October 13, 2009

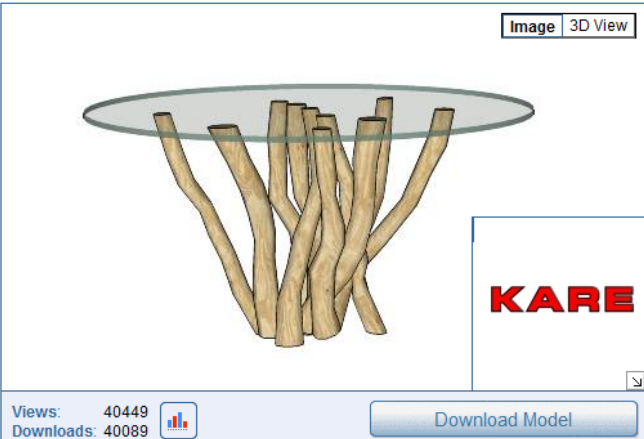
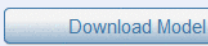



Image 3D View


**KARE**

Views: 40449 Downloads: 40089 


**Similarly shaped models**

[See other models shaped like this](#) 

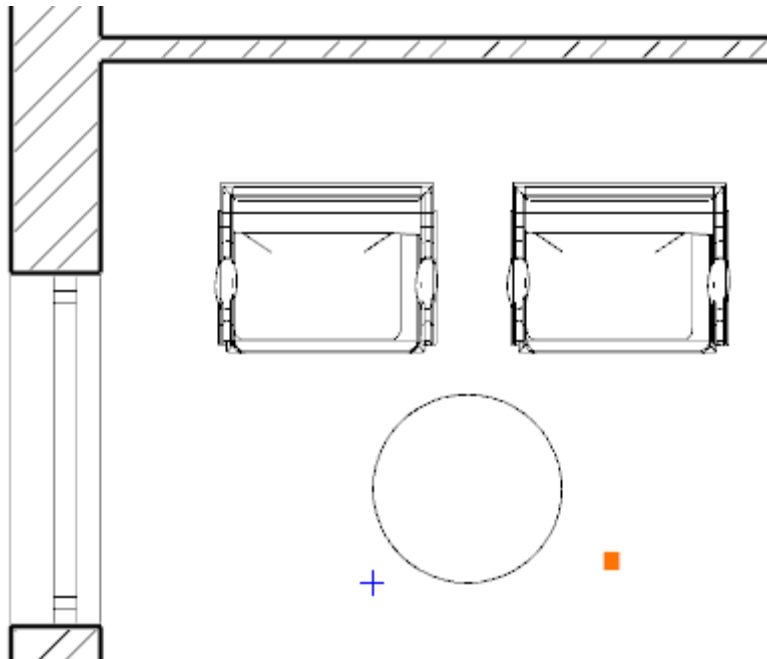
**Collections containing this model**



**Related items**

More models by [KARE Sketchup](#): 

- Within a short time, the program will automatically offer the selected table for placing. Move the cursor until the orange-coloured virtual top view appears, and place the table in front of the two armchairs. Select the 3D screen to observe the current status of the 3D model.



### 2.4.5. Layer management

A frequent task is to illustrate a floor plan in different ways, so that we can observe the pre-planned alternatives of a furnished floor plan. Most design software usually facilitates the execution of this task with the help of the so called layers. If you did not meet the term "layer" yet, then read the explanation below to understand the idea.

#### What are the layers?

Imagine layer as a traditional layer used for overhead projectors, or as the frequently used tracing paper. You can draft various figures on this tracing paper, including walls or armchairs and coffee tables.

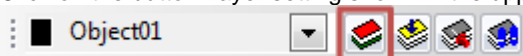
Name the tracing papers as "Walls" and „Hall furniture arrangement 1". If you place the tracing papers on the top of one another, then you can see the walls, as well as the furniture items placed at the hall. If you pull out the tracing paper named „Hall furniture arrangement 1" from below the layer named "Walls", then only the walls are displayed.

You may also place another tracing paper named „Hall furniture arrangement 2", and you may develop a second alternative arrangement for the hall, and you can interchange the tracing papers showing the first and the second alternatives depending on what you intend to display.

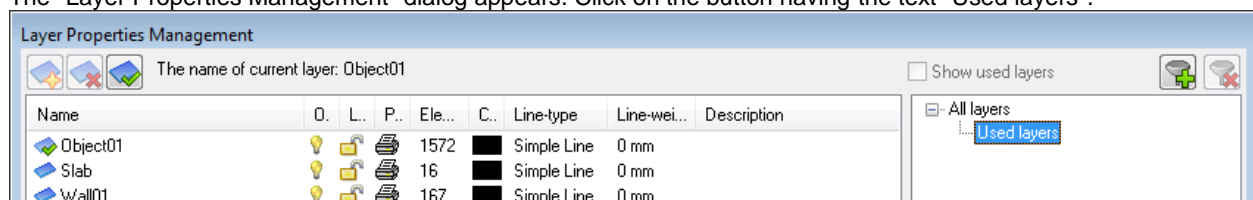
The operations mentioned in the example can be performed with the use of layers. A simple example is shown below for this task. The layers can be managed and reviewed with the help of the Layer Properties Management window.

#### Opening the Layer settings

- Click on the button Layer setting shown in the upper toolbar of the program.



- The "Layer Properties Management" dialog appears. Click on the button having the text "Used layers".



The exhibited list shows the layers, on which you have already placed components during this project. Notice in the list that a layer named Object01 is also included. The armchairs and the coffee table placed so far are on this "tracing paper" / layer.

It is evident from the above description, that the program automatically sorts the various drawing components to different layers depending to their kinds. Accordingly, the walls are arranged on the layer Wall01, the floor slabs are on the layer Slab, while the objects are arranged on the layer Object01.

#### Renaming layers

- Click on the name Object01, which can be renamed now.



- Type in the name „Hall furniture arrangement 1" without quotation mark, then press the key Enter.

Because yet another layer is required (in order to be able to illustrate two different kinds of arrangement in the floor plan), therefore, we have to find the existing layer Object02, and we have to rename this also.

- Click on the filter "All layers" in the list on the right.
- Find the layer named Object02 in the full list of layers.
- Click on the name of the layer in order to allow renaming.
- Type in the name "Hall furniture arrangement 2" without quotation marks, and then press the key Enter.
- Conclude renaming of layers by clicking on the button OK at the bottom right corner of the Layer manager.

After completing the renaming of layers it is necessary to make sure that the present furniture items are located on the layer "Hall furniture arrangement 1". Proceed as follows:

### Checking the layer properties of objects

- Click on one of the armchairs in the floor plan.

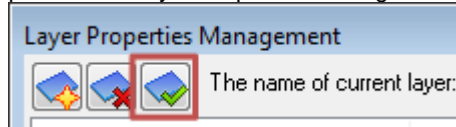
Notice that there is a property named "Layer" among the properties appearing at the left side, which presently shows the value "Hall furniture arrangement 1". It means that the selected object is located on the layer "Hall furniture arrangement 1".

- By means of selecting, make sure that the other two objects are also located on the layer "Hall furniture arrangement 1". Finally, press the key ESC to discontinue the selection.

In the next step we turn off the visibility of the layer showing the first arrangement, so that it would not interfere with the work, then we develop the second arrangement too.

### Switching off the visibility of the layer

- Open the Layer manager with the button located in the upper toolbar of the program.
- The presently active layer is the one named "Hall furniture arrangement 1". The visibility of the active layer cannot be switched off. Therefore, the second produced layer shall be selected and activated before switching off the visibility. Select the layer named "Hall furniture arrangement 2" in the list, and click on the button "Activate layer" located at the upper left part of the "Layer Properties Management" window.

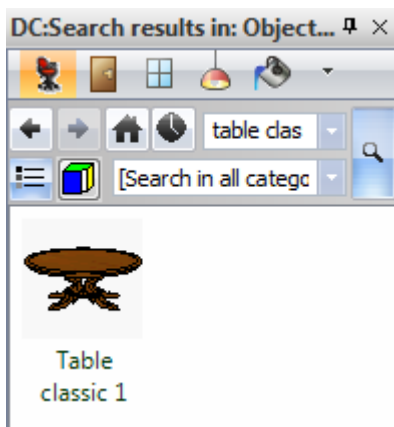


- Now the visibility of the first layer can be switched off. Click on the light bulb icon in the row of layer named "Hall furniture arrangement 1". As a result, the bulb becomes dark.
- Press the button OK at the lower right corner of the "Layer Properties Management".

The two armchairs and the coffee table have disappeared, because you have switched off the visibility of the relevant layer. This step corresponds to the situation when a tracing paper is pulled out from below another drawing.

### Drafting the second alternative arrangement

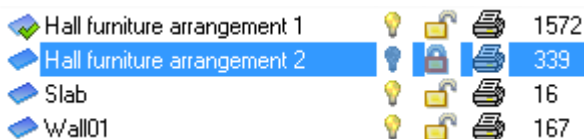
- Click on the tab titled as "DC: Object" at the bottom of the Toolbox to open the Design Center.
- Use the browser of the Design Center to find the object "Armchair 01".
- The panel "Details" appear at the lower part of the Design Center. Click on the button "Modify" containing three dots at the end of the row "Show more options".
- At the upper right part of the appearing dialogue box set the Layer property to "Hall furniture arrangement 2". By this operation you made sure, that the program will place the selected object to the selected layer when the placing command is given. Press the button OK.
- Place one copy of the object "Armchair 01" on the drawing in front of the left window of the hall.
- Select the placed armchair, and then use the rotation menu to rotate the armchair until its back is towards the window (This can be accomplished by clicking on the Rotation marker, and with the help of the instruction "Rotate 90 ccw".)
- Find and place the object named "Table classic 1" also in front of the armchair.



Currently you can see the 2D drawing of the second alternative arrangement. For the time being, the 3D model shows both arrangements simultaneously. We will discuss this later. To finish this chapter, we are going to make the first alternative arrangement visible again in the floor plan. Proceed as follows:

### Changing over to the previous alternative drawing

- Open the "Layer Properties Management" dialog with the help of the upper toolbar of the program.
- Find the layer "Hall furniture arrangement 1", and click on the padlock icon located in its row. By this operation the visibility of the layer is switched on, and its content can be edited, meaning that all the objects located on this layer can be moved and rotated. Activate this layer as learned above.
- Find the layer "Hall furniture arrangement 2", and click on the light bulb icon located in its row. By this operation, its visibility is switched on.



- Press the button OK at the lower right corner of the dialog box.

By now, the floor plan shows the alternative arrangement that has been drafted first. As opposed to that, the 3D view displays both statuses simultaneously. It is time now for you to learn how to display the 3D model with the content corresponding to the status of the floor plan!

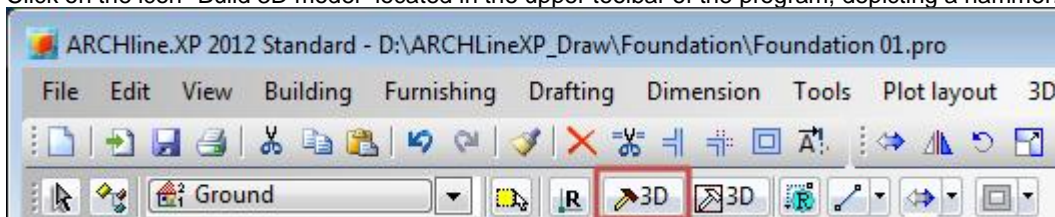
### 2.4.6. Playing with the model – The „3D hammer”

In most the cases the ARCHLine.XP® takes off the burden from the shoulder of the designer by updating the model on a regular basis. You may have seen a number of examples for this feature, starting from the drafting of wall, through copying the already drafted walls, up to the modification of properties, and you were able to follow the changes also in the 3D screen.

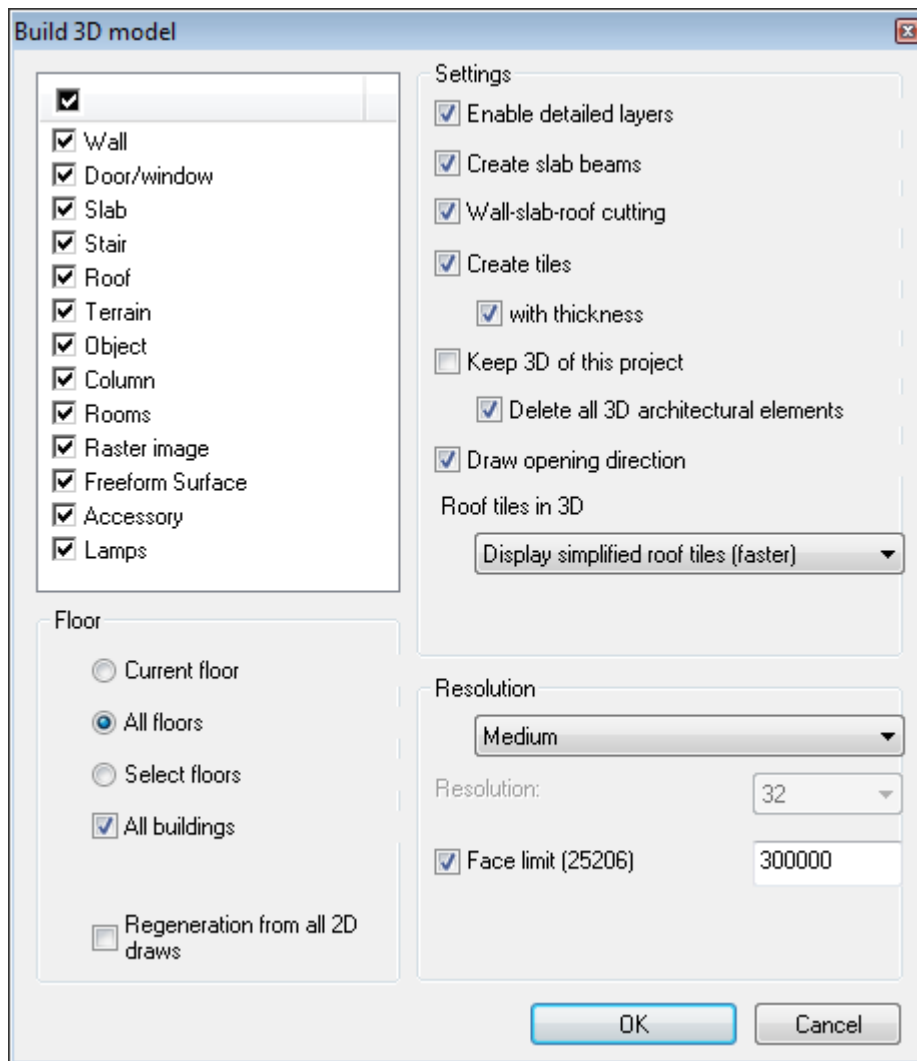
The regular automatic updating of the model, however, might slow down the project among certain conditions. In such cases it is recommended to turn off this option: **View menu – Refresh 3D**.

### Updating the 3D model

- Click on the icon "Build 3D model" located in the upper toolbar of the program, depicting a hammer.



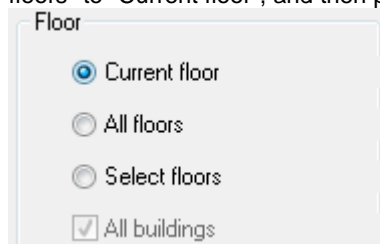
- Attention: you may see two similar icons. This time the one with yellow handle at the left is required.
- The Build 3D model dialog box appears. Leave all features on default, and press the button OK at the bottom of the dialog box.



Notice how the program starts to work upon pressing the button OK, and how the status corresponding to the floor plan appears soon. It is also possible to display only a part of the present status, for instance only the components located at the ground floor.

### ***Displaying the active level only***

- Click again on the icon "Build 3D model".
- The "Build 3D model" dialog box appears. Find the framed area "Floor" at the lower left quarter, and change the option "All floors" to "Current floor", and then press the button OK at the bottom of the dialog box.



Upon pressing the button OK, the program starts to work, and it displays the model soon in a way, that the only visible components are those which you have drafted at the floor named "Ground" presently seen in the floor plan. This kind of depicting could be an excellent tool to prepare a semi top view, a so called doll house view from the floor plan.

If you wish to see the entire model, then the model is to be generated again by choosing the option "All floors".

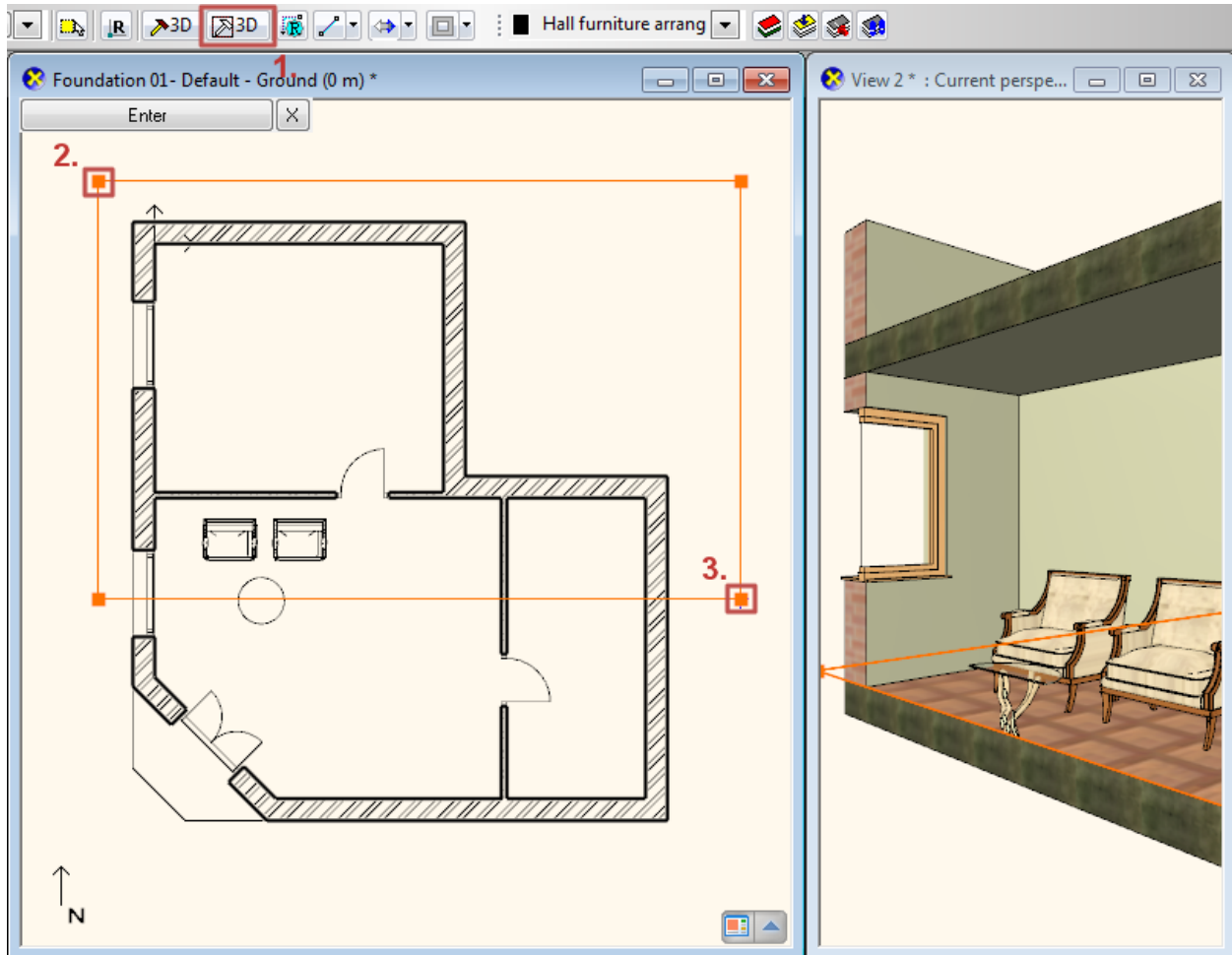
### ***Re(building) the entire 3D model***

- Click again on the icon "Build 3D model".
- The "Build 3D model" dialog box appears. Select the option "All floors", and rebuild the entire model again by pressing the button OK.

Besides the previous possibilities, you can cut the model in half also, thus producing an interesting 3D view showing a spatial section of your design.

### Displaying the part selected with a rectangle

- Arrange the 2D drawing so that the entire floor plan is visible.
- Find the button in toolbar of the program named 2D -> 3D by rectangle on all floors, which is located to the right of the 3D hammer used before, which depicts a hammer framed with a rectangle.
- Move the cursor to the upper left corner of the drawing area, and click. This way you have placed the first corner point of the rectangle.
- Now move the cursor until the lower edge of the depicted rectangle cuts the model in two approximately where the coffee table is placed in front of the armchairs. Move the cursor to the right edge of the drawing and click once.



The model that has been cut along the edges of the rectangle mentioned above appears within a short period of time.

- Rebuild the entire model again showing all the floors according to the procedure learned before.

Finally, you may learn the use of 3D filtering, which is also very useful during the designing process. In this case, the program depicts only the components that are selected in the floor plan.

### Display the selected components only

- In the floor plan select the two armchairs and the coffee table placed in front of them.
- Click on the 3D hammer (at the left) which was used first.



The program displays the 3 selected items only in the model. This possibility is particularly useful, when you want to focus your attention to a well-defined small parts of a complex drawing.

- Rebuild the entire model with the learned procedure.

#### 2.4.7. Save project using another file name – Content of the project

In conclusion you may assess what the project actually contains, and you may save it to yet another project file. First, let us consider why it is necessary at all.

Saving of the various stages of the project prepared with ARCHLine.XP® might be necessary for a number of reasons, similarly to the situation when working with other applications. One of the most important one of these reasons is the principle of "One file is not enough". If you have your work in a single file, than all your previous work may be lost if this file is lost, e.g. you delete it or it gets damaged!

The state of art data storage methods try to use increasingly safer methods to protect the data and your work, but it is still better if you make intentional efforts to protect them by creating copies of your work instead of using only a single file.

#### ***Saving the project under different name***

- Select the menu item **"File / Save project as ..."** in the main menu.
- The appearing dialog box indicates that the project presently contains two drawings, the floor plan and the model. Click on the button **Save** at the bottom of the dialogue box.
- Type in the new name **"Foundation 02.pro"** in the appearing box, and save it by clicking on the button **Save**.

### 2.5. Summary

#### ***Congratulations!***

You made an excellent job by meeting a serious and very useful milestone, you have completed the training session of ARCHLine.XP® dealing with the foundations!

Now you may review your work to realize that you have learnt the use of tools that can facilitate the resolution of quite complex tasks starting from the use of very simple but very necessary tools. With the help of this training material you made acquaintance with the methods of the accurate and precise drafting.

With the knowledge you acquired so far you will be able to process complex floor plans for your own designing efforts, or you may redraw printed drawings too.



## **Lesson 3: Bathroom -Tiling**





### 3. Lesson 3: Bathroom -Tiling

This course goes through the design of a bathroom project and provides you the following principles and basic skills in both 2D and 3D:

- ❖ Basic architectural design: Floor plans, walls, doors, slabs.
- ❖ Tiling design: Wall and floor tiling, using manufacturer's tiling layouts from catalogues, or designing individual layouts.
- ❖ Sanitary design: Using latest products from worldwide known producers.
- ❖ Quantity take-off: Calculating the quantity and number of tiles.
- ❖ Accessories: Lighting, additional furniture and products.
- ❖ Visuals: Wall views, rendered images.
- ❖ Suitability: Suitable for those designers just participated on the reception room preliminary course.

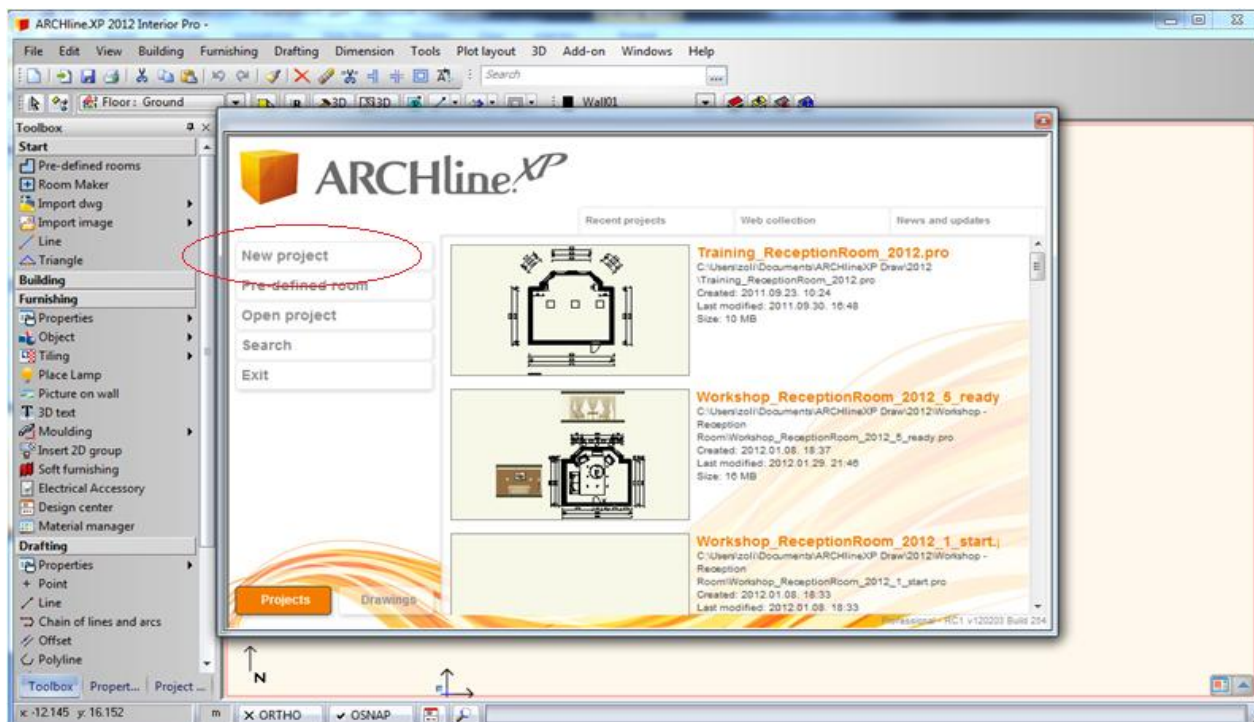
We will create the project of the following bathroom:



- Open your browser with: [http://www.youtube.com/watch?v=1N6DG8wC6uo&feature=player\\_embedded](http://www.youtube.com/watch?v=1N6DG8wC6uo&feature=player_embedded)
- Your screen should look as follows: Press the ARROW button in the bottom left corner to play the video and pause it any time you need with pressing the same button again.

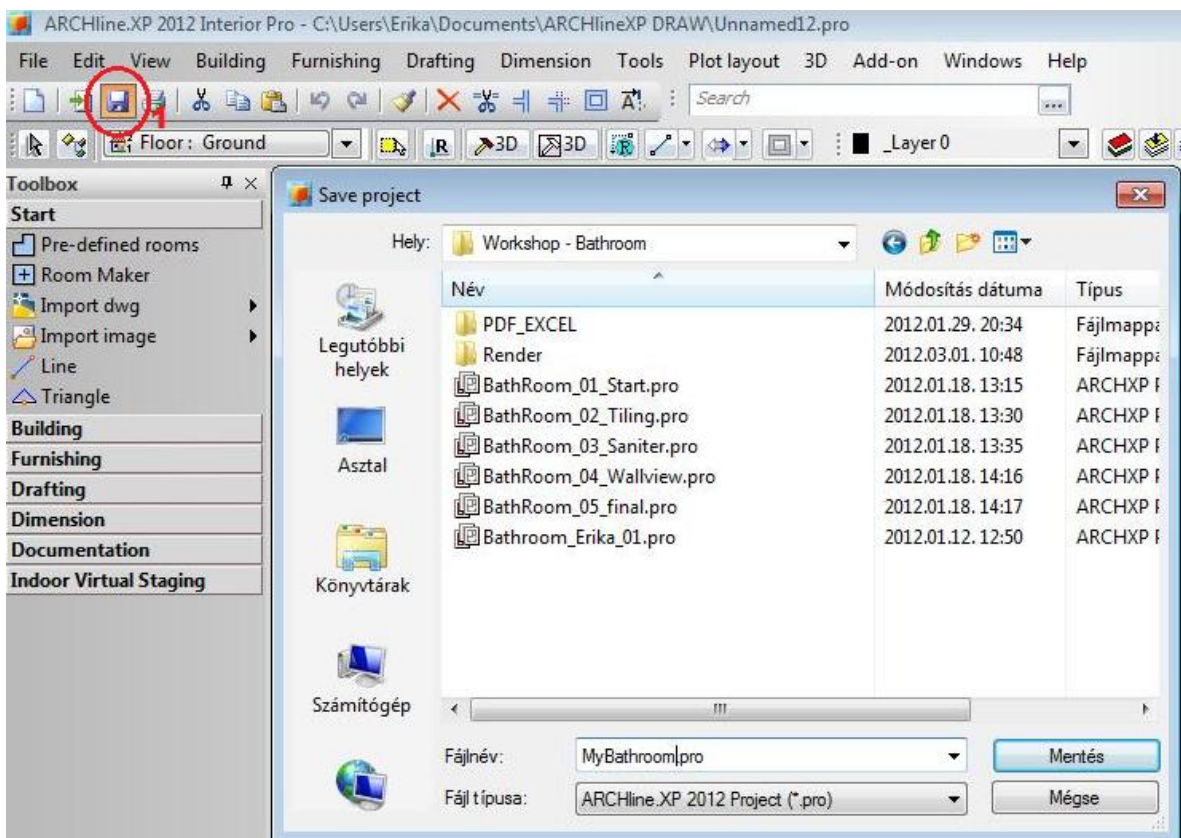


- Start ARCHLine.XP® Interior, Your screen should look similar as follows:
- Click on New Project to start.



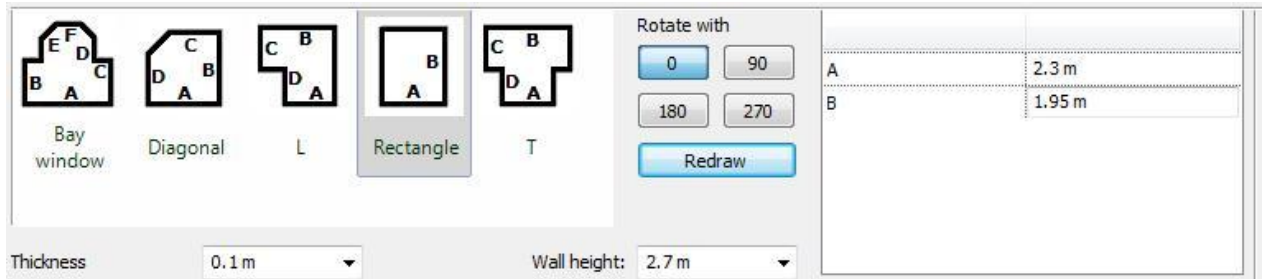
### Save your project

- Before starting to design it is recommended to save your project with a real project name, as MyBathroom.pro.
- Click on the Save icon and type your file name to save the project. Your screen should look as follows:



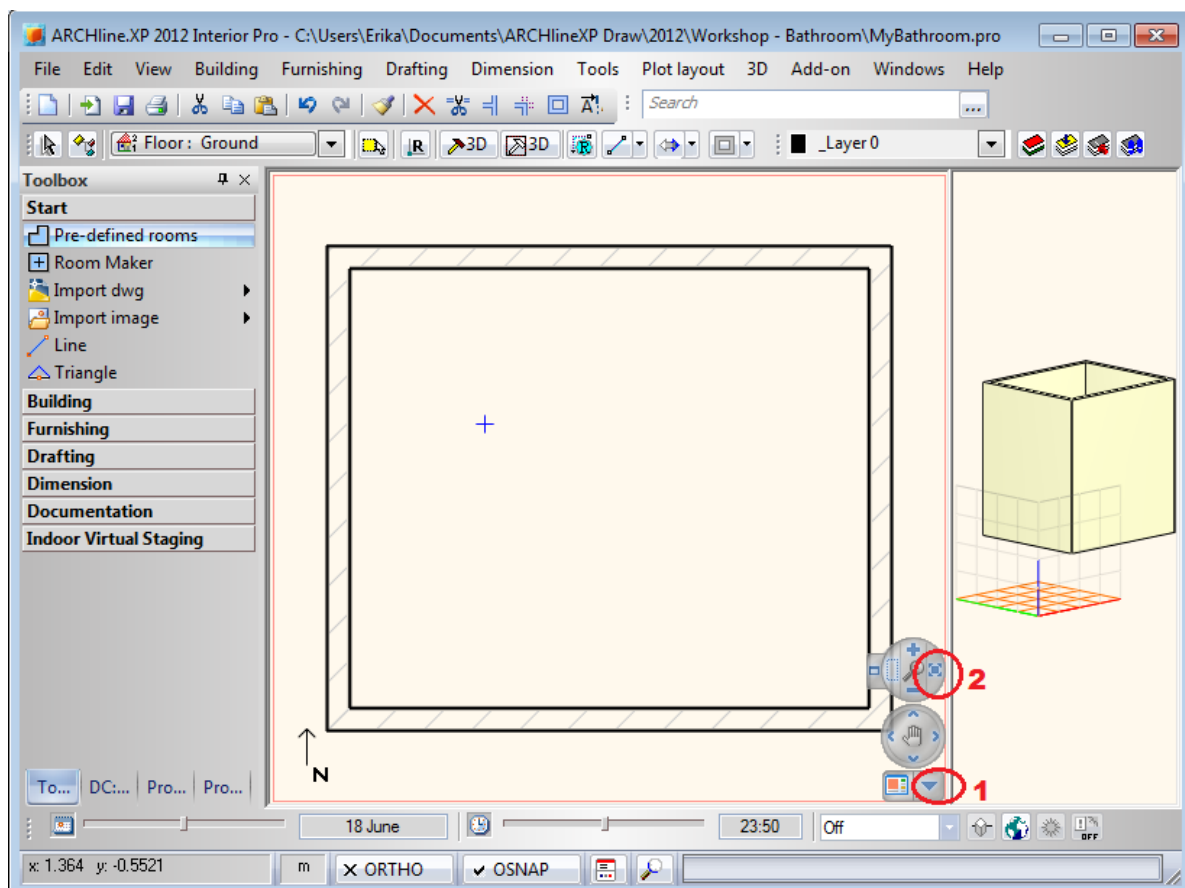
### 3.1. Room design

- Click on Toolbox, Start menu, **Pre-defined rooms** command.
- Create your room with exact room internal measurements:
- Choose in the upcoming dialog the room shape: **Rectangle**
- Type these values and press redraw. A: 2.3 (7'-6 1/2"), B: 1.95 (6'-4 3/4")  
The values represent the internal wall lengths.
- Wall properties: Thickness: 0.1m (4"), Wall height: 2.7m (8'-10 1/4").



- Press the Close button and place the room shape on the drawing area with mouse left click near to the origin.

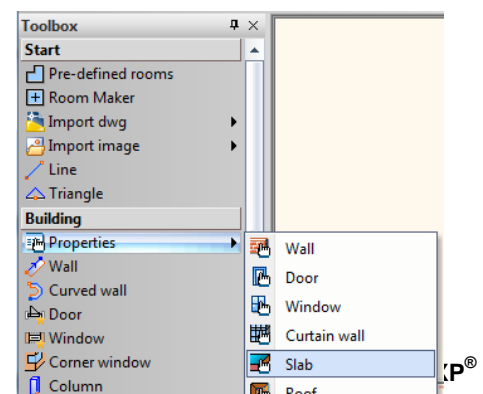
Your screen should look as follows: If you see your design partly, click on the bottom right corner icon (1) in order to open the **navibar tool** and after click on the icon Zoom All (2) to have the optimal view:

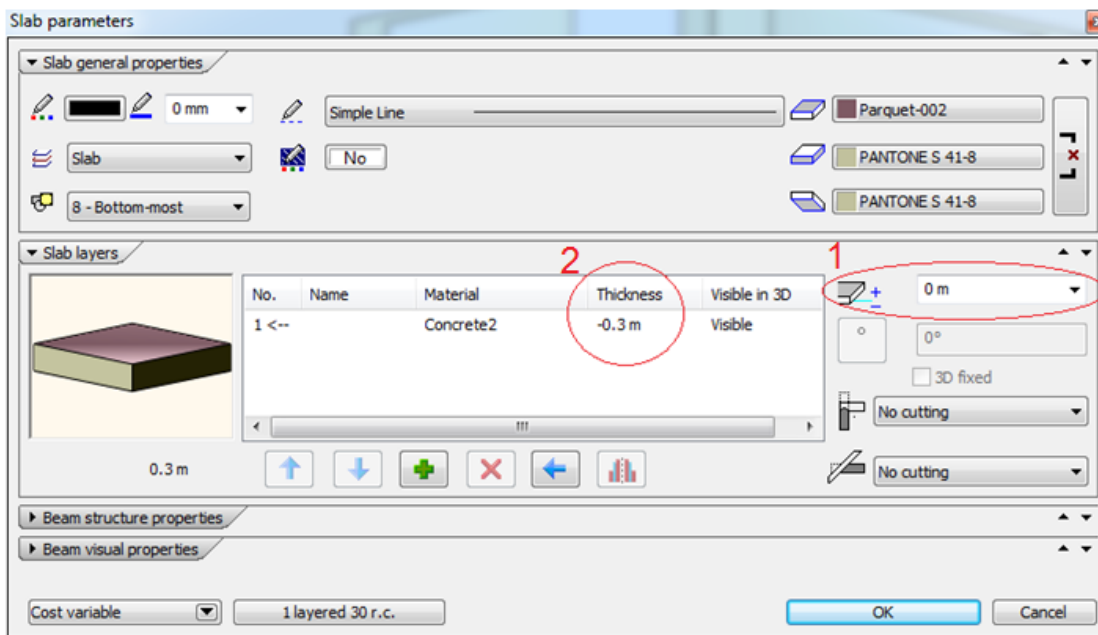


### 3.2. Floor and Ceiling

#### 3.2.1. Properties of floor

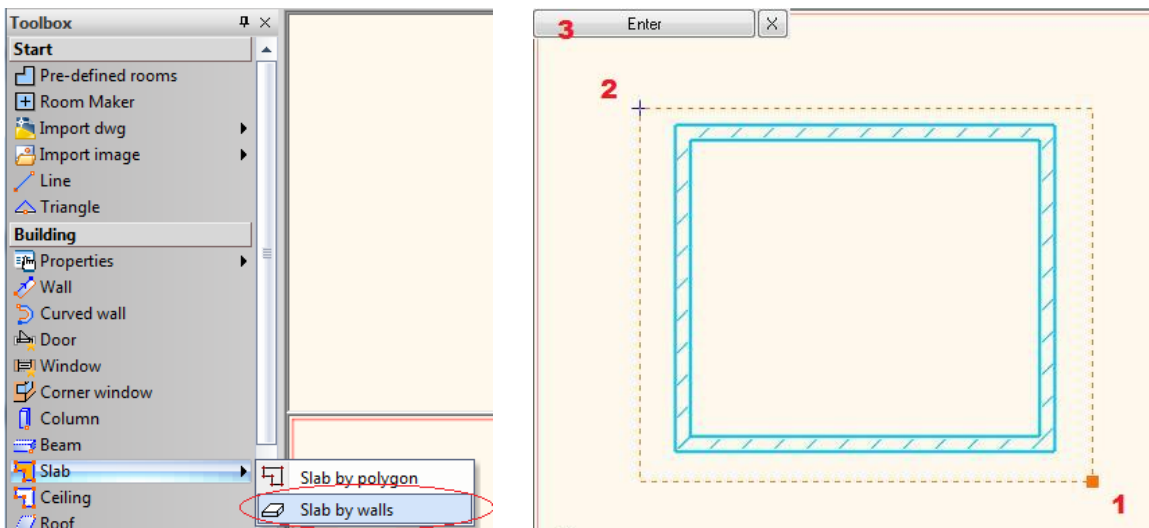
- Define floor properties: Toolbox- Building menu – Properties - Slab:  
Set up these values in the dialog:
- Floor relative height (1): 0.0m (0"); Thickness (2) : -0.3m (-0'-11 3/4");





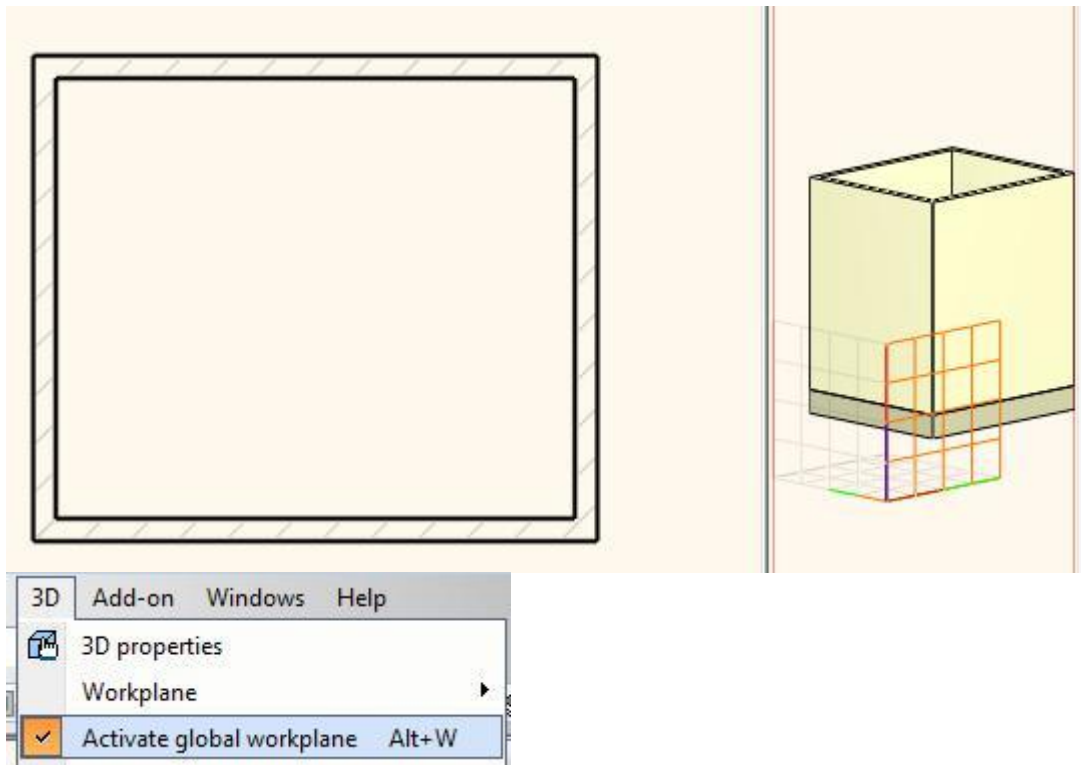
### 3.2.2. Floor definition

- Define floor: Toolbox - Building menu – Slab - Slab by walls.
- Select the walls with selection window with two clicks somewhere outside the walls (1,2).
- Finally click in Enter (3) button to close the command. The program creates now the floor and generates in 3D as well.



Your screen should look as follows: The floor is ready and you see it in the 3D view under the walls.

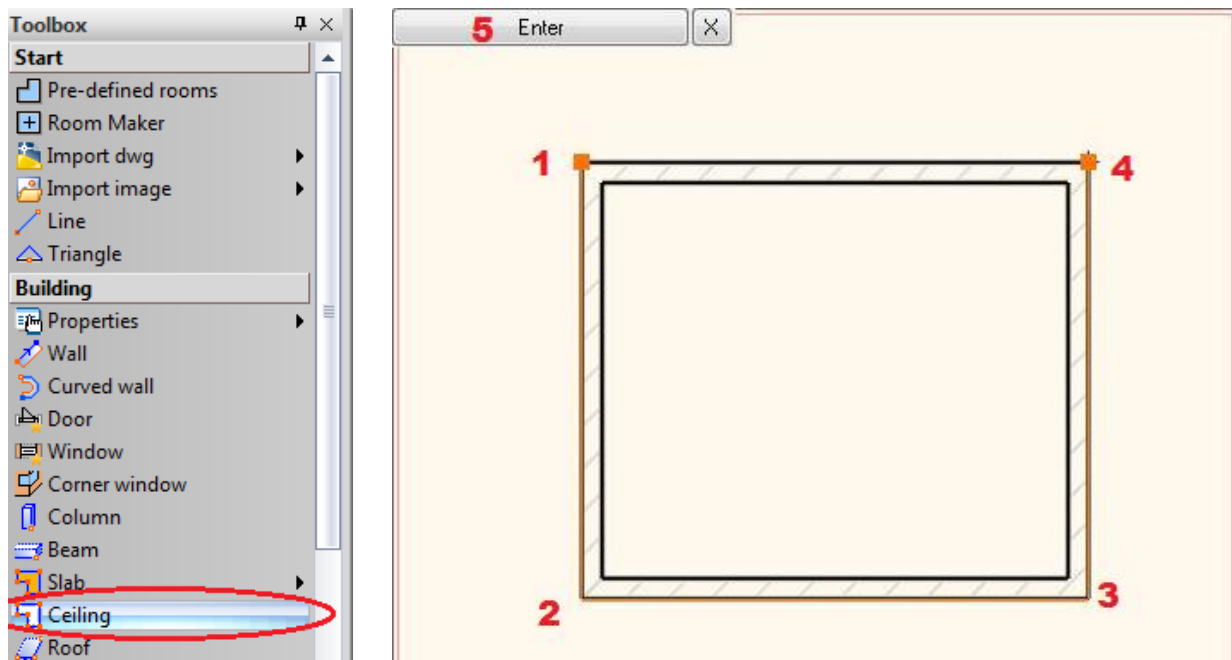




In the 3D window the workplan (grid) is active. To switch on/off use the Activate global workplan command in the 3D menu.

### 3.2.3. Ceiling definition

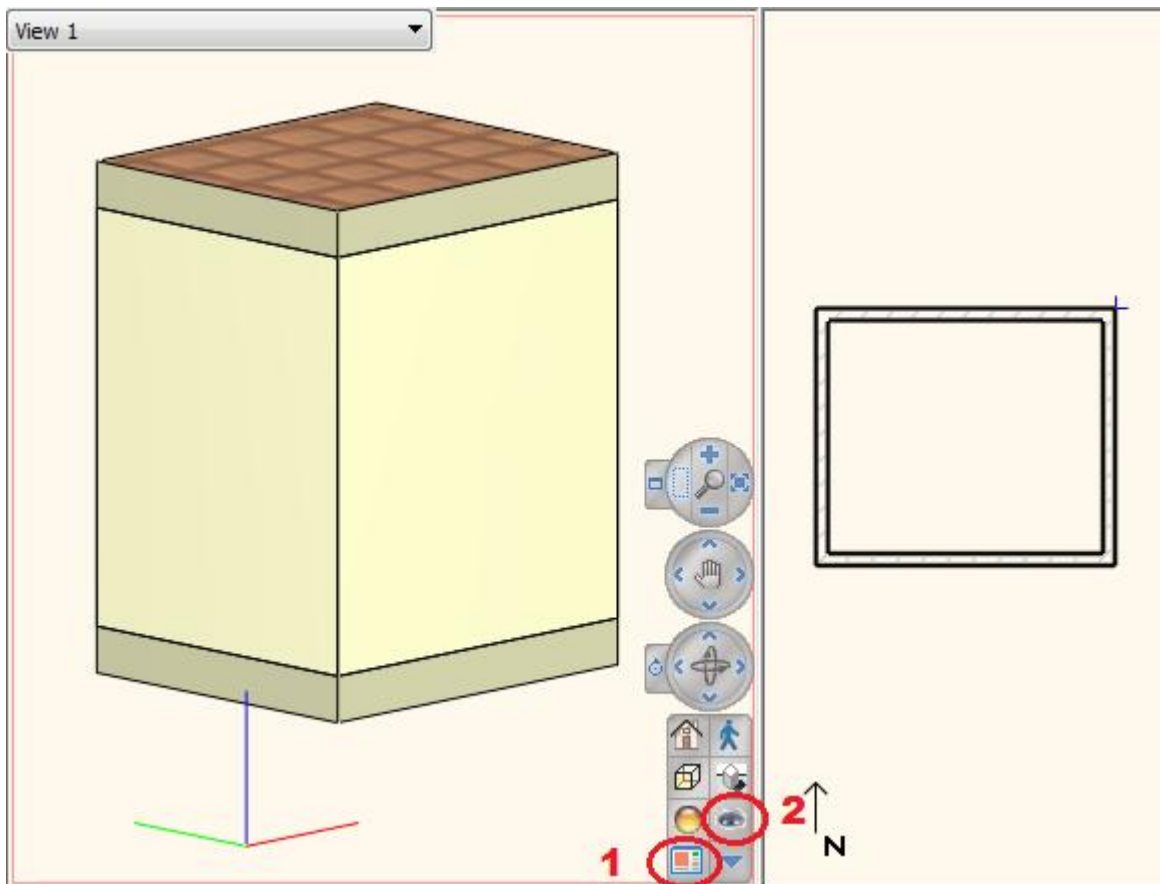
- Activate the 2D view with a left click inside the window.
- Define ceiling: Toolbox - Building menu – Ceiling.
- Click on the wall vertex points one by one as below. Finally click in Enter button (5) to close the ceiling contour.



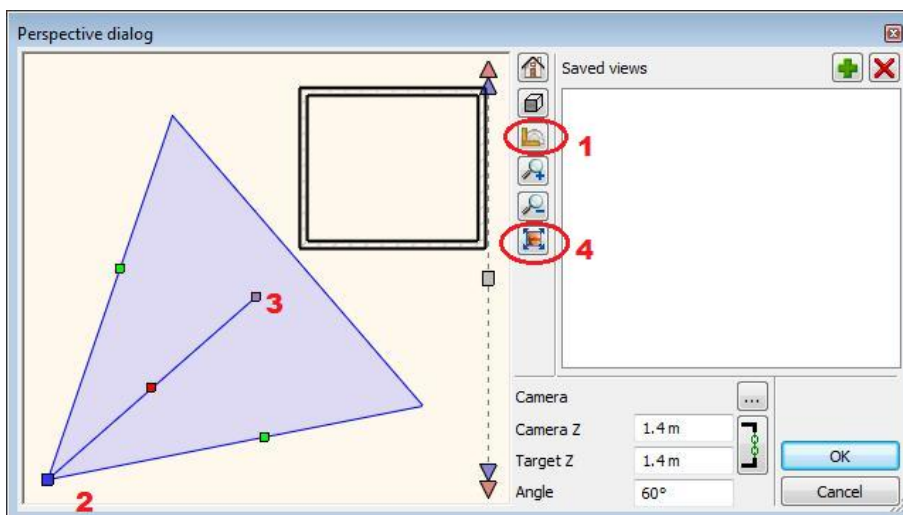
### 3.3. Perspective views

It is recommended to save some perspective views now. These saved views makes easier later to overview your bathroom inside.

- Click on the enlarge active window icon (1) to switch between the 2D and 3D views.
- Activate the 3D window and click on the Navibar Perspective view icon (2). Define and save 2 views in the upcoming dialog.



- Click on the floor plan icon (1) below. Then click on the camera point (2) and drag it near to the bathroom bottom left corner. Now click on the target point (3) and drag it near to the bathroom right corner. Click on the Fit to window icon (4).

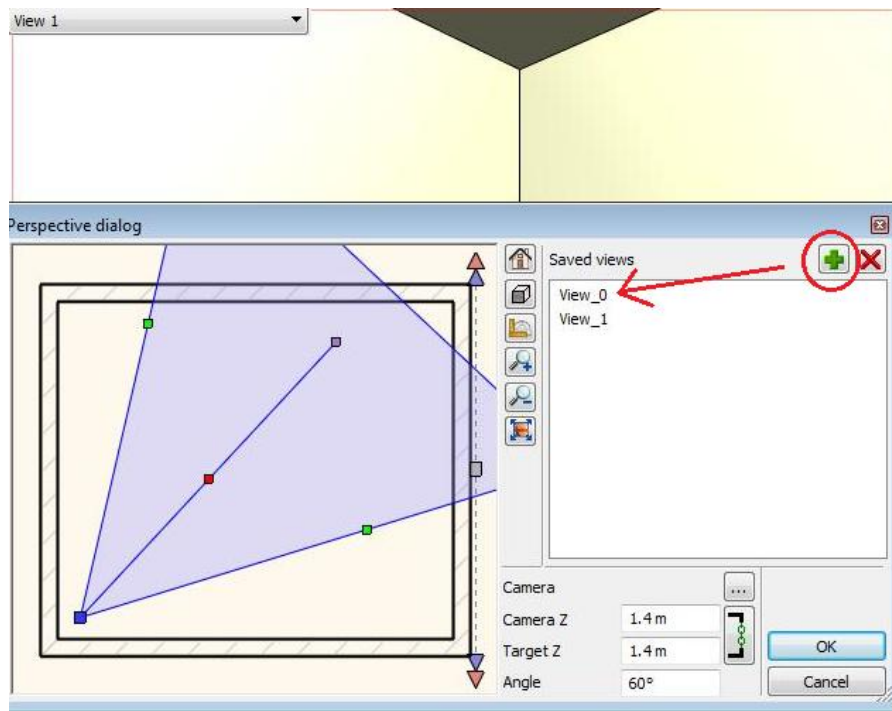


- When you are ready click on the green plus sign and the view is saved. Repeat it once again to define another perspective view. Save it again with green plus and press Ok to close the dialog.



Use Page Up and Page Down buttons to swap among the saved views.

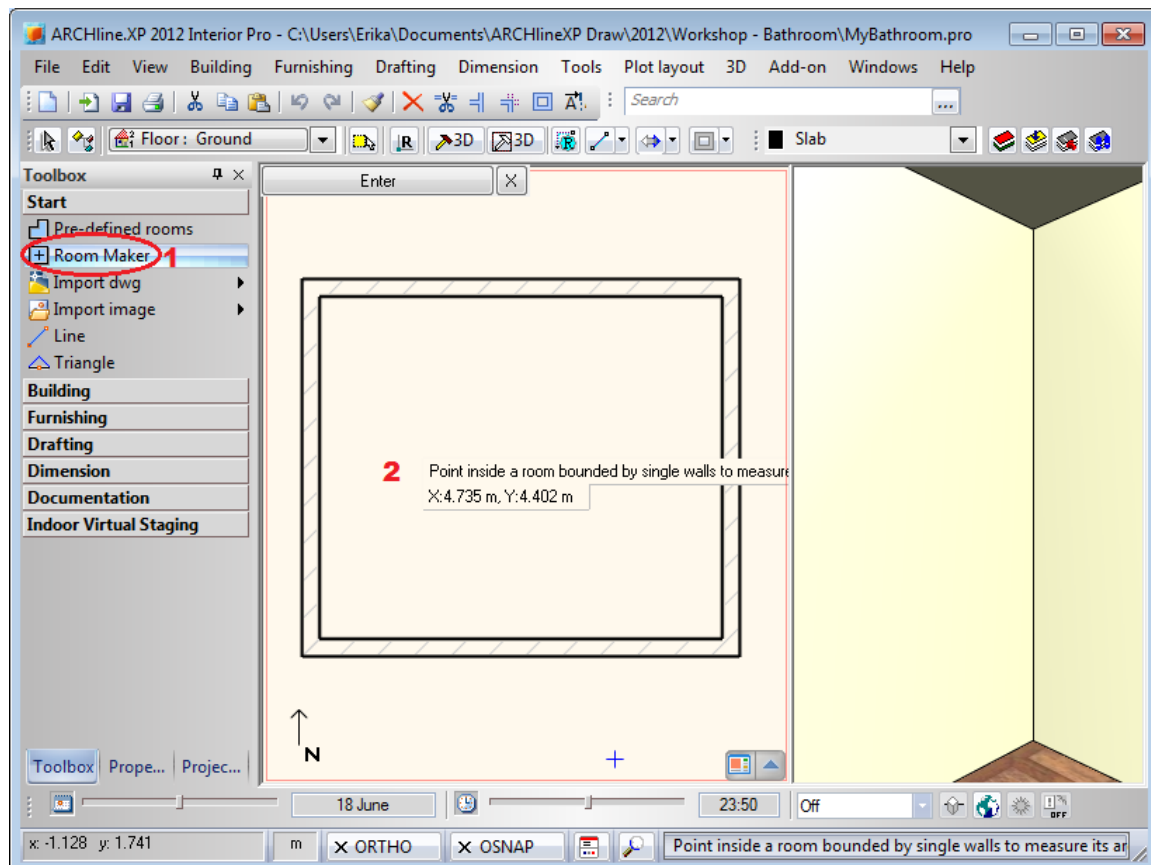




### 3.4. Room Maker

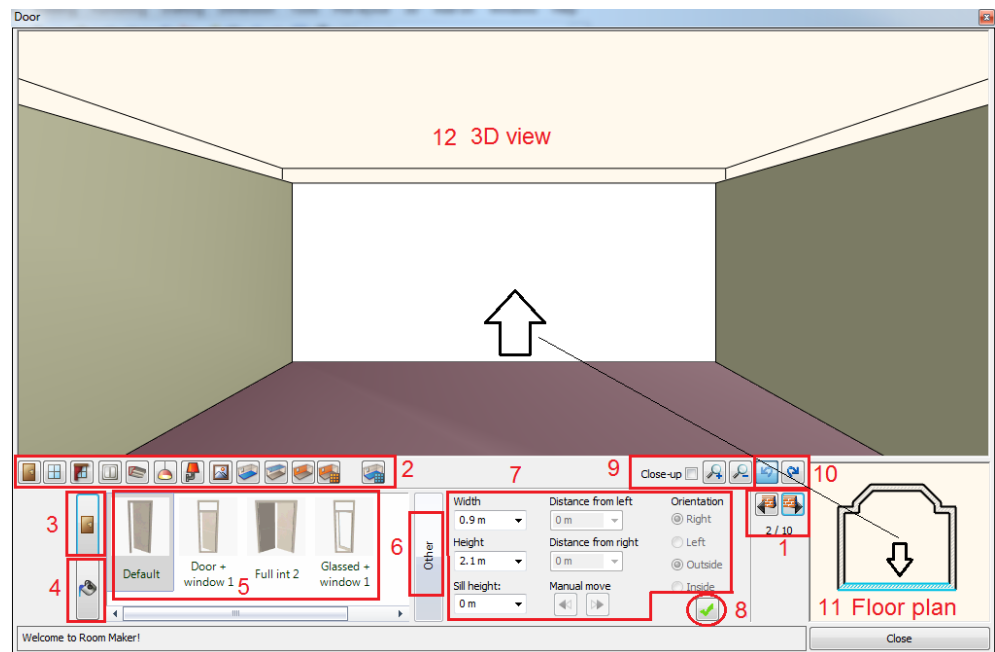
Room Maker is an all-in-one design tool that highly speeds up the interior design starting from an empty room. Start off by placing door. Then you can put tiling on the walls and the floor in the bathroom with your choice of items very quickly.

- Start the command: Toolbox – Start menu – Room Maker (1).
- Click inside the bathroom on the floor plan (2).



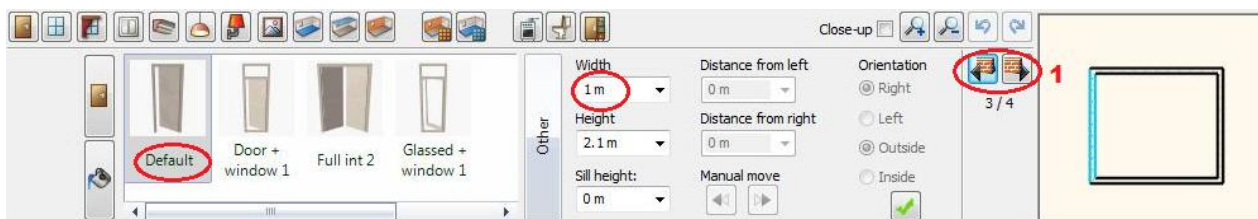
The Room Maker dialog appears on your screen.

1. Wall finder
2. Toolbar
3. Type finder
4. Texture finder
5. Favourites
6. Other types
7. Properties
8. Add new item
9. Zooming
10. Undo / redo
11. Floor plan
12. 3D view

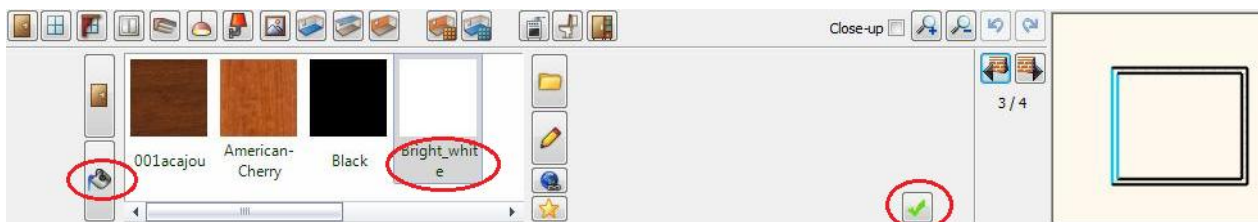


### 3.4.1. Door

- Select the indicated wall with Wall finder (1): We place a door on 1.95m (6'-4 3/4") long wall on the left side.
- Select **Default** door from the favourites and change properties: Width: 1m (3'-3 3/4");

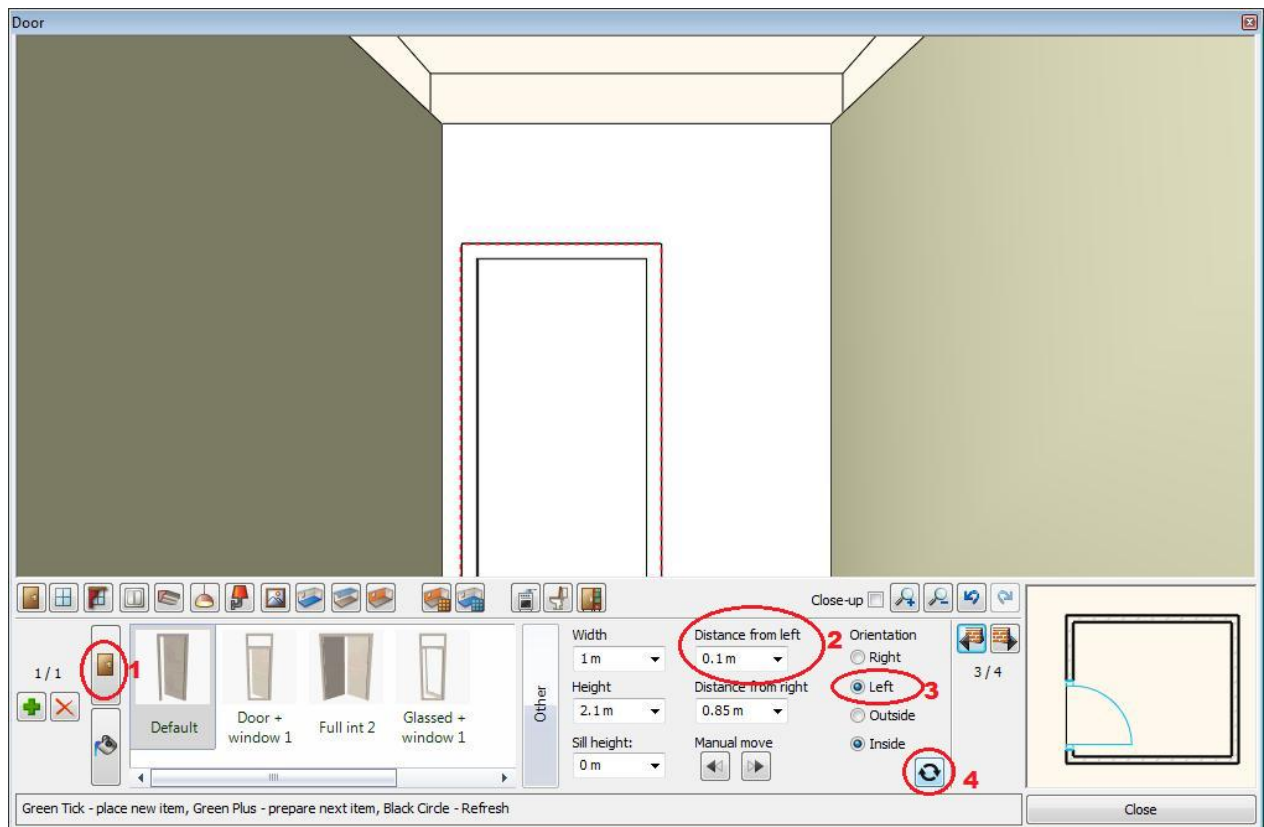


- Click on the Texture finder button
- Select Bright\_white from the favourites
- Click on Green tick – it will place the door in the wall centre point



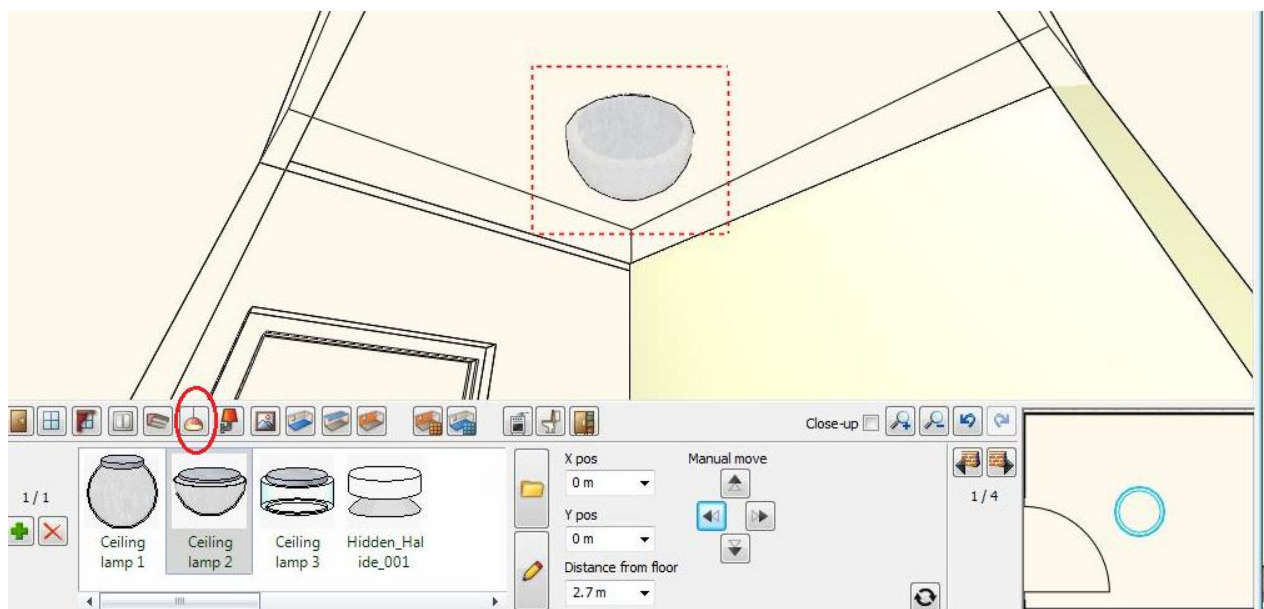
### Modify door

- Click on the Door finder (1), Change left distance to 0.1m (4") (2).
- Change the orientation (3), and press Enter or Update icon (4).



### 3.4.2. Ceiling lamp

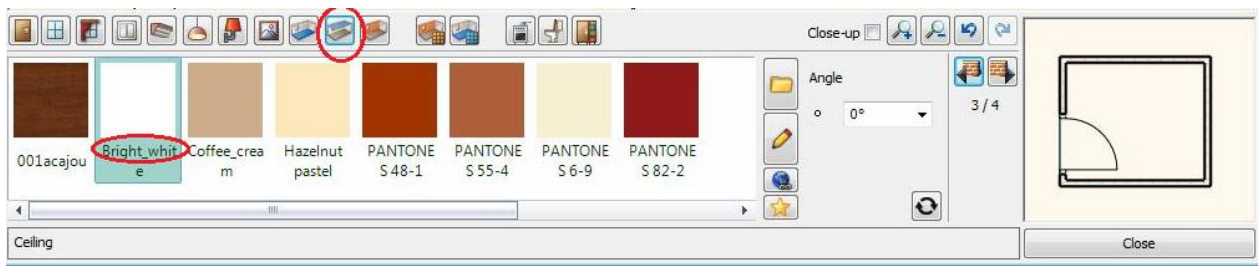
- Add a ceiling lamps to make light in the room.
- Press on the Toolbar the Ceiling Lamps icon.
- Choose "Ceiling lamp 2" from the favourites.
- Click on **Green tick** to add – it will place the lamp on the center of the ceiling.



### 3.4.3. Ceiling color

To add a ceiling finish, simply click on a choice of color in the favourites and it will automatically show in the project.

- Press on the Toolbar the Ceiling Color icon.
- Choose "Bright\_white" from the favourites. It will apply the selected material on the ceiling.



### 3.5. Room Maker – Wall Tiling

Next, will place a “metallic crema” tile to all the walls. After that we will change some tiles to „metallic flower” décor tiles. We will have a bath with a height of 0.53m (1'-8 ¾") in the bathroom; therefore we would like the grout of the tile and the top of bath to align as we will now demonstrate.



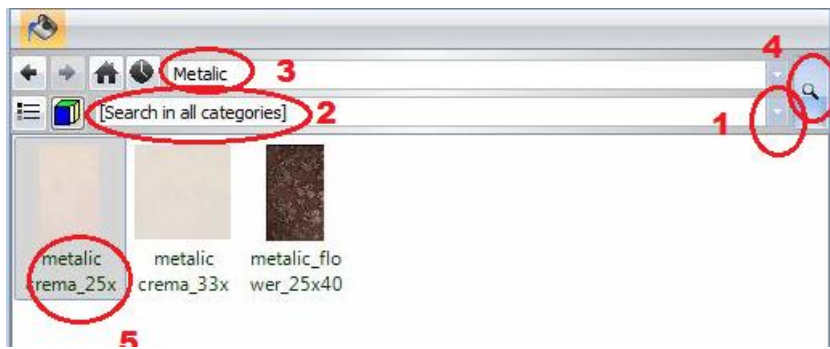
#### 3.5.1. Metallic crema tile on all walls

- Click on the wall tiling icon (1) to tile the walls of the bathroom.
- Click on the Tile material icon (2).
- Select a tile finish from the tile library clicking on the Other button (3). You will see the Design Centre with all textures.

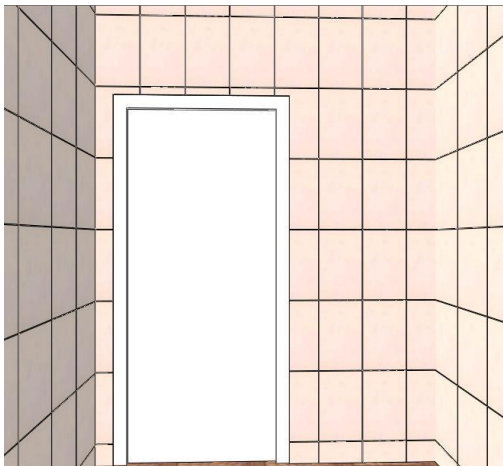
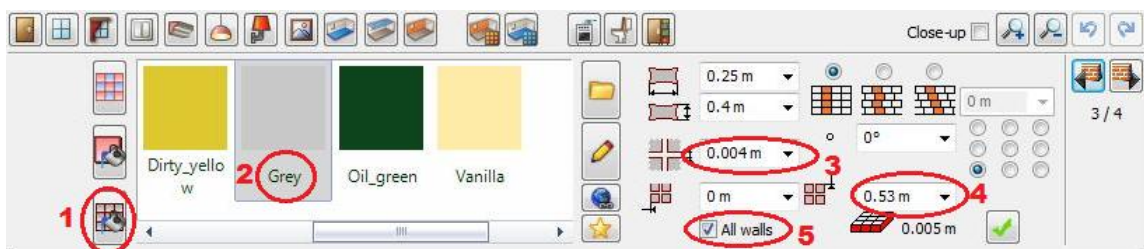


- Click on the arrow button (1) and select the first line as “Search in all categories” (2)
- Type the name partly in the search field (3): „Metalic”
- Press the Search button (4). The search term “Metalic” returns all names beginning with “Metalic”.





- Click on the marked item (5) in the search result list.
- Press Ok to close the dialog. The selected texture will be placed in the favourites list in Room Maker.
- Click on the Tile grout icon (1) and select Grey (2) color for the grouting;
- adjust the grouting dimension: 0.004m ( $\frac{1}{8}$ " )(3);
- type 0.53m ( $1'8 \frac{3}{4}$ " ) in the vertical offset (4) to align the grout of the tile and the top of bath.
- Select All walls (5) and click on the green tick to add.

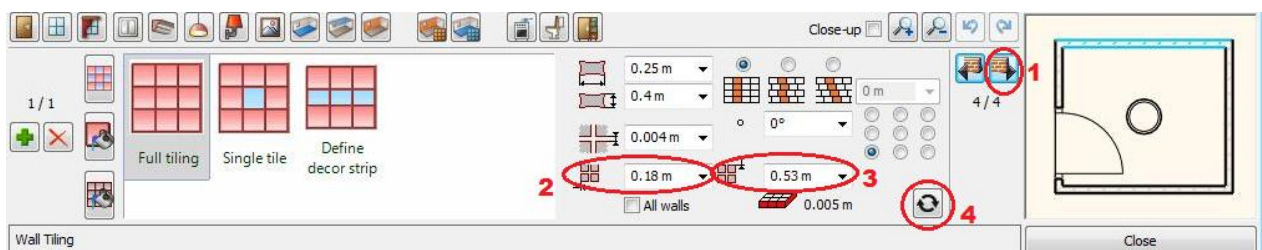


### 3.5.2. Change placed tile

Already placed tiles can be changed ; you can also change the horizontal and vertical offset.

#### **Modify tile on the first wall.**

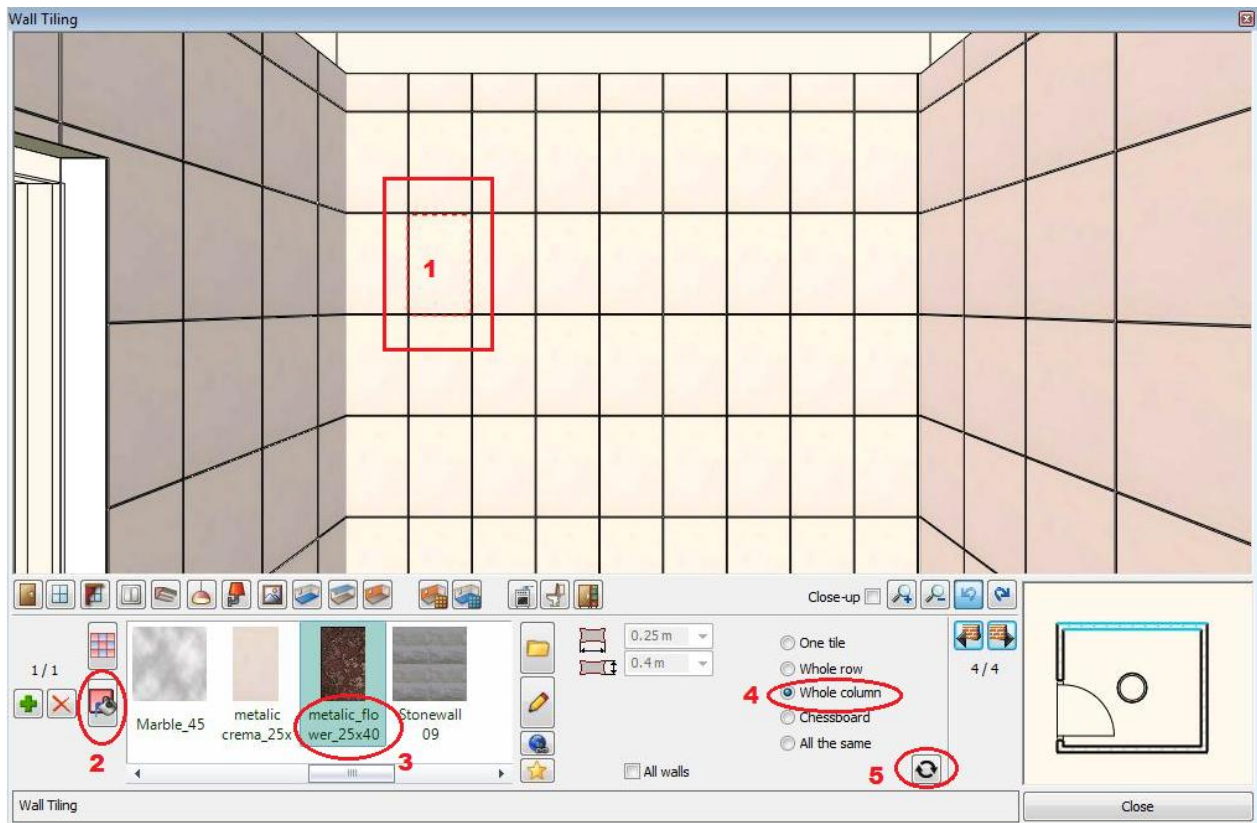
- Use the wall finder to navigate to the next wall (1).
- Set the Horizontal offset: 0.18m (7") (2) and Vertical offset: 0.53m ( $1'8 \frac{3}{4}$ " ) (3).
- Click on the update icon (4) to update changes.



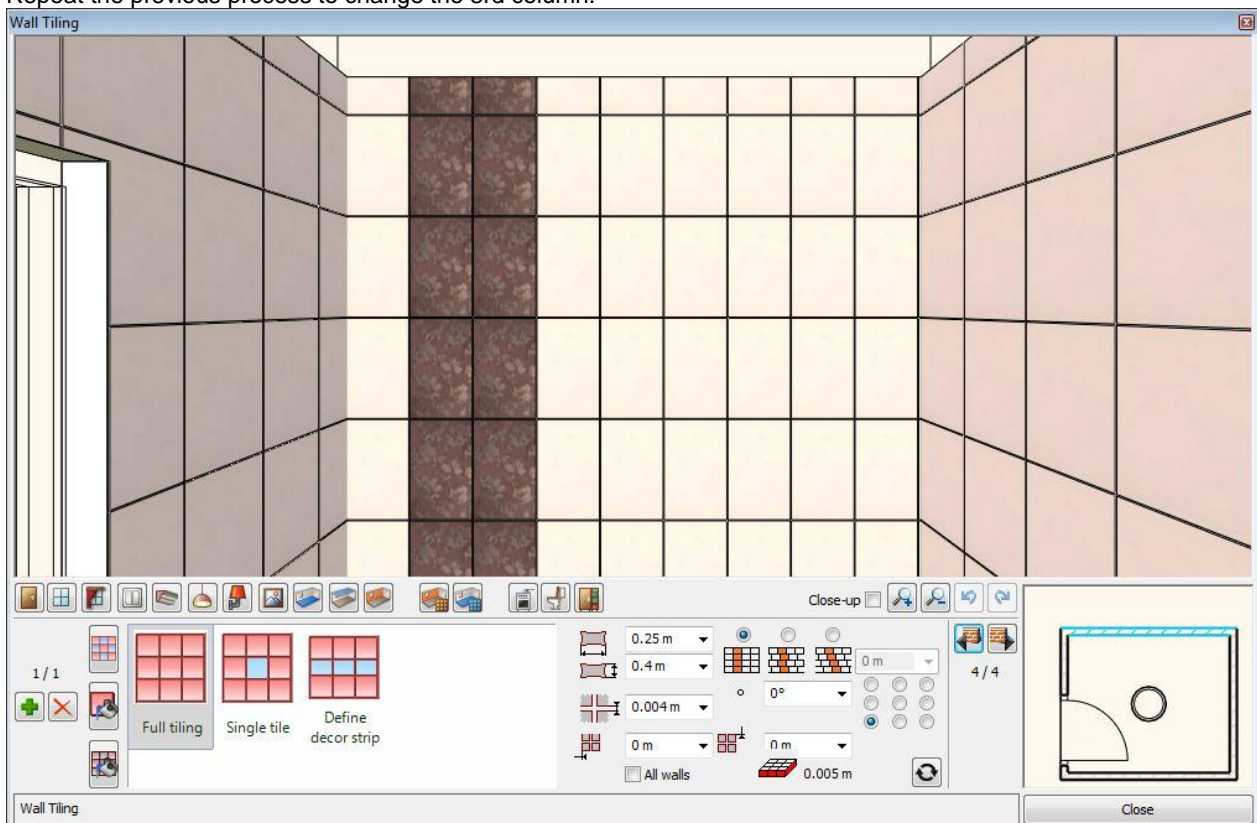
### Decor tiles on the first wall

Now we will demonstrate how to position décor tiles. We will change the tiles of the 2nd and 3rd column to the Metallic flower décor tiles on the selected wall.

- Click on the wall to select the tile in the 2nd column that you wish to change (1).
- Select the Metallic flower finish from the library and put in the favourites (3)
- Select the whole column tab (4) and click on the update icon (5) to update the changes.

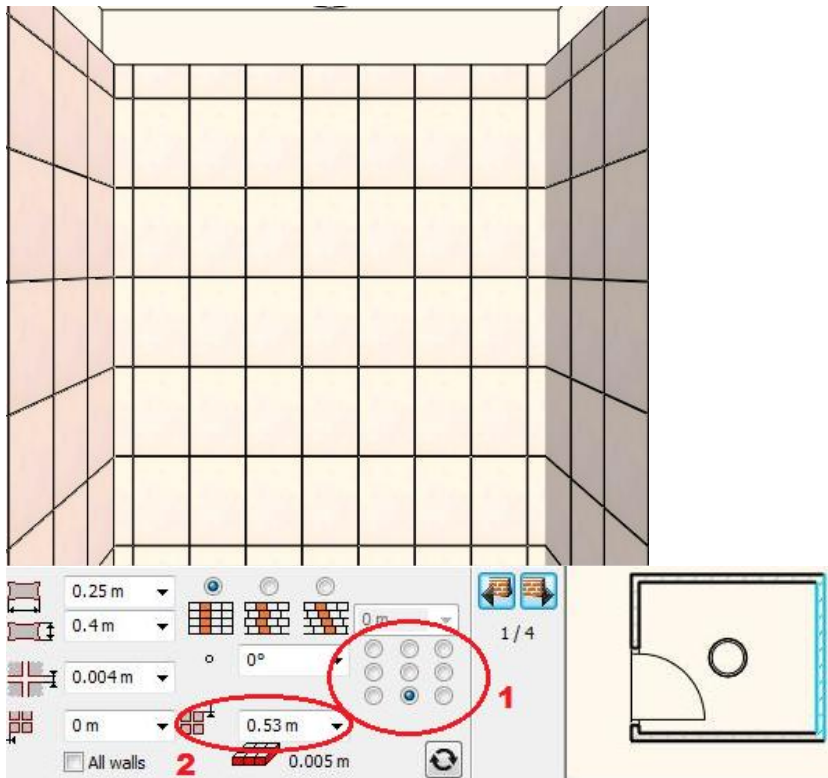


- Repeat the previous process to change the 3rd column.



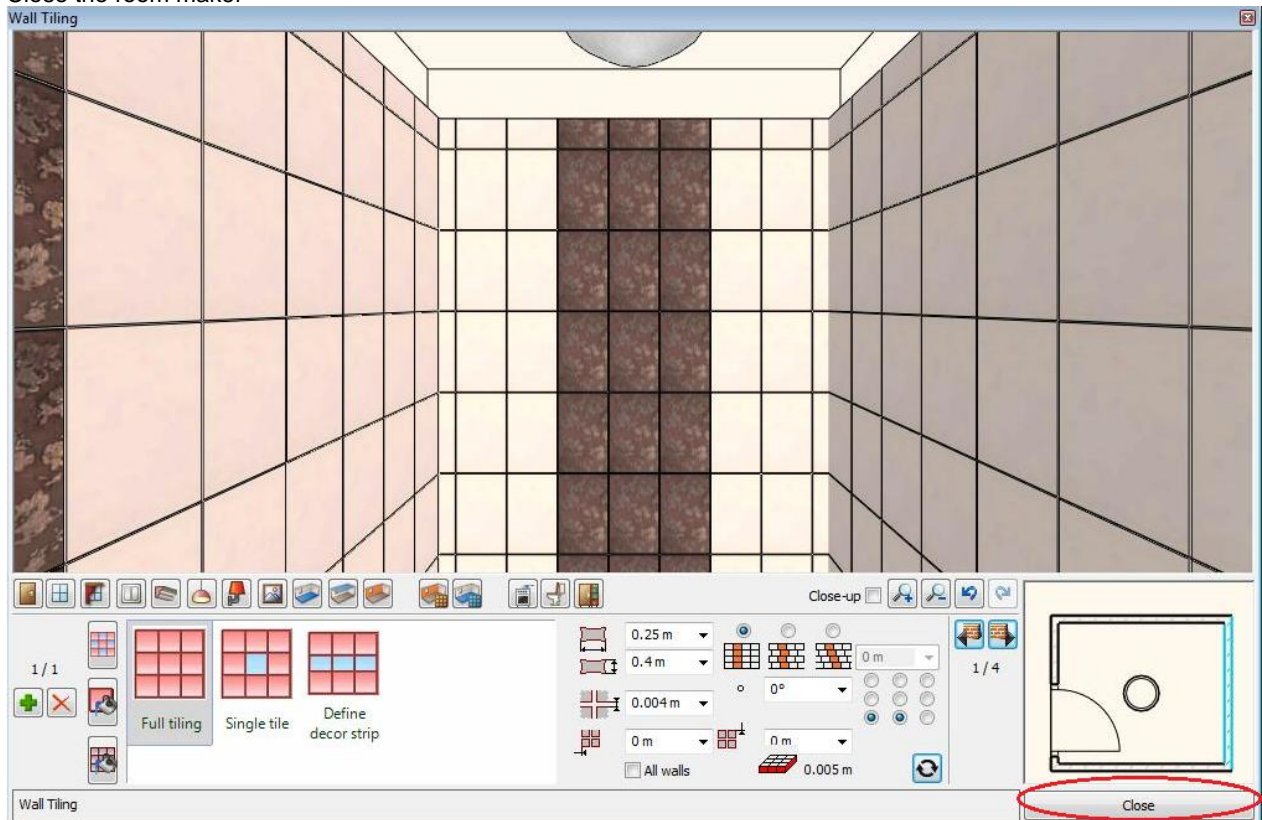
### 2.8.6. Tiling in the centre on the 2nd wall

- Use the wall finder to navigate to the next wall. On this wall we change the position of the tiling to centre.
- Click on the bottom centre of the alignment grid (1) to setup the tiling position.
- Adjust the vertical offset (2) dimension: 0.53m (1'-8 3/4").
- Click on the update icon to update changes.



### Decor tiles on the 2nd wall

- Change the tiles of the 4<sup>th</sup> 5<sup>th</sup> and 6<sup>th</sup> column to the Metallic flower décor tile using the previous method (2.8.4)
- Close the room maker

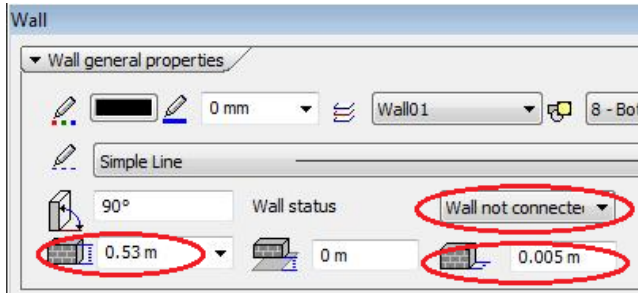
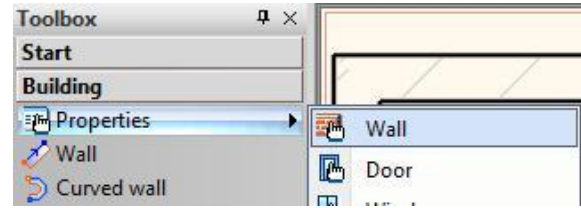




### 3.6. Create panel wall

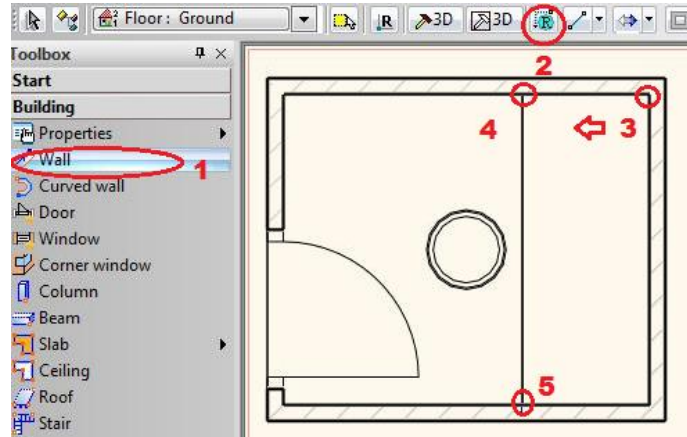
We will now demonstrate how to place a panel wall to cover the front of the bath.

- Go into the wall properties;
- Adjust the wall thickness ( $\frac{1}{4}$ " ) and set the height to 0.53m (1'-8  $\frac{3}{4}$ " );
- Select the wall not connected tab and click OK.



We will place the panel wall a distance of 0.8m (2'-7  $\frac{1}{2}$ " ) from the back wall to create space for the bath.

- Click on the Wall (1);
- Choose the Reference point icon (2);
- Click on the 3rd point, move the cursor to the 4th point direction, type: 0.8m (2'-7  $\frac{1}{2}$ " );
- Draw a wall until the 5th point.

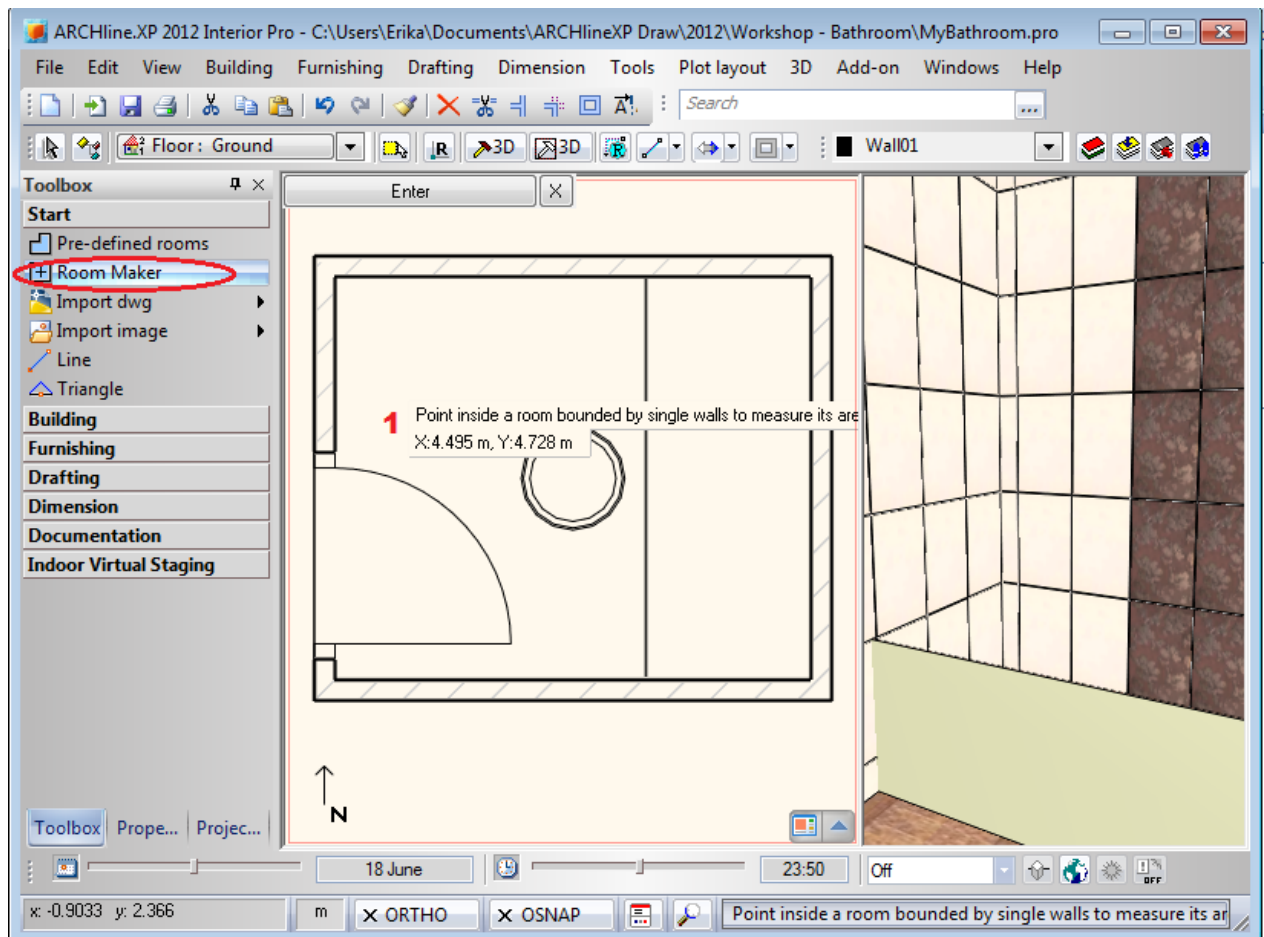


### 3.7. Room Maker – tiling on the panel wall and floor

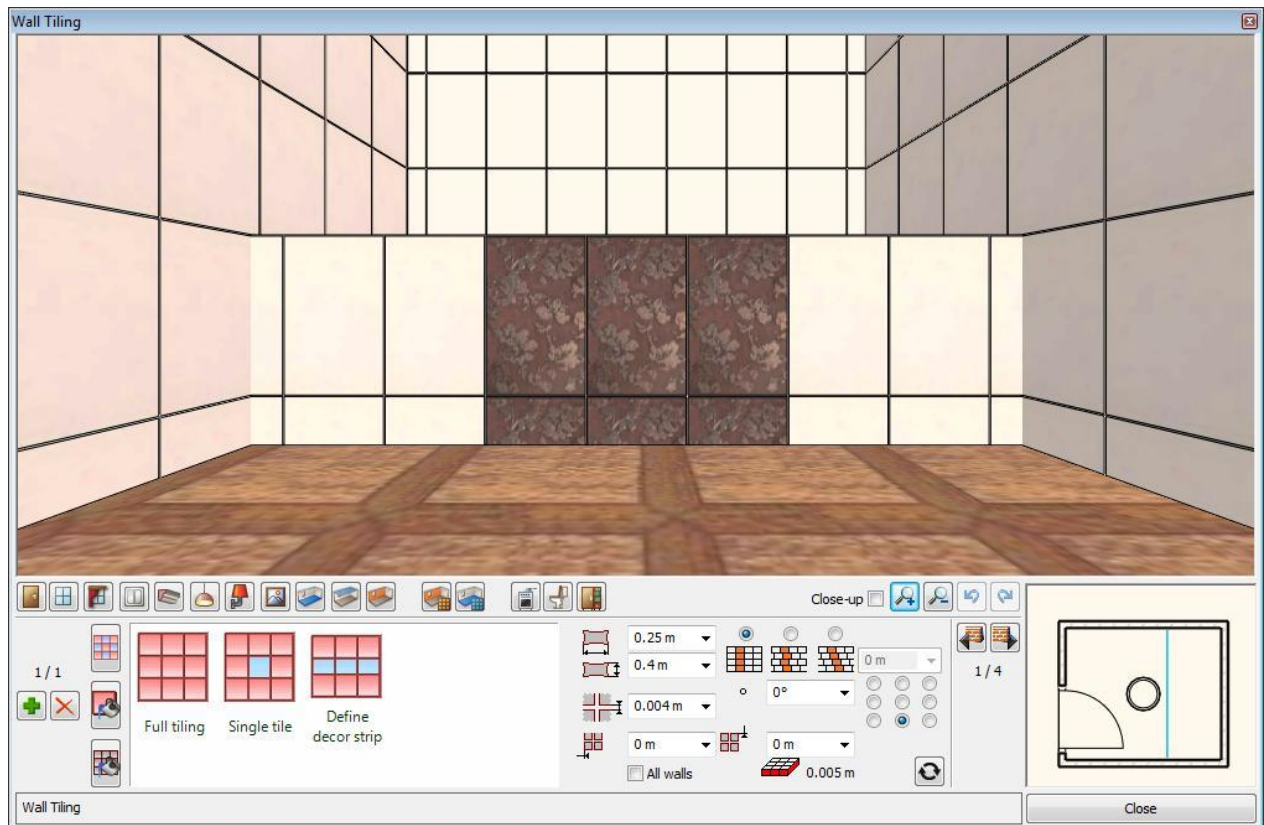
#### 3.7.1. Tiling on the panel wall

Now, we will tile the panel wall using the room maker.

Observe closely, the panel wall divided the room so therefore we will click inside the room near to the door (1):



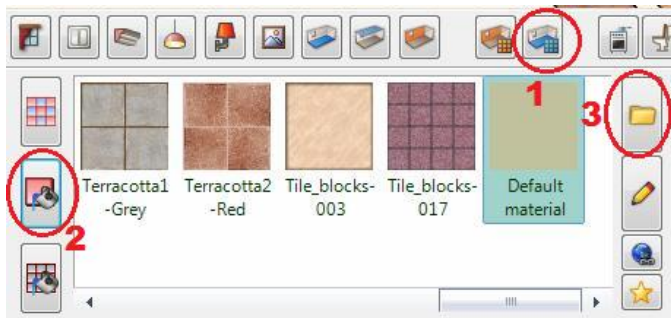
Use the previous method to place the tiling as in the wall behind the panel.



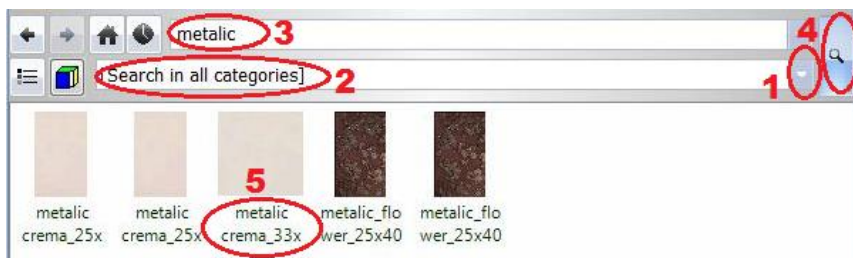
### 3.7.2. Tiling on the floor

There is a similar tool to design a floor tiling:

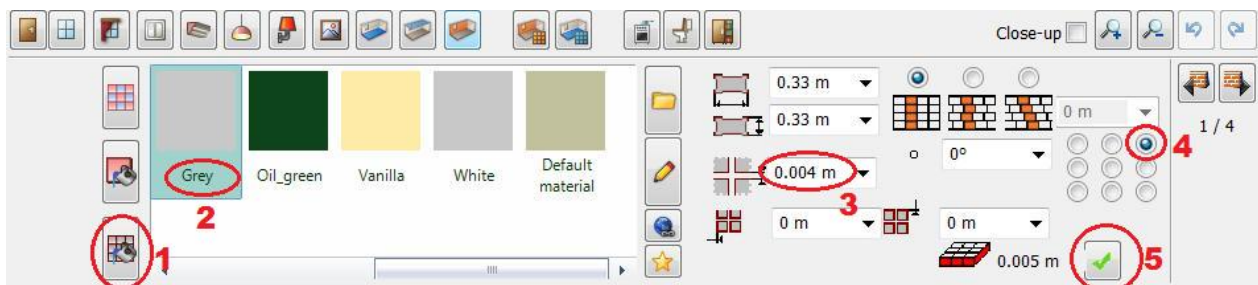
- Click on the floor tiling icon (1) to tile the floor of the bathroom.
- Click on the Tile material icon (2).
- Select the „metallic crema” tile finish from the tile library clicking on the Other button (3).



- Click on the arrow button (1) and select the first line as “Search in all categories” (2)
- Type the name partly in the search field (3): „metallic”
- Press the Search button (4)..



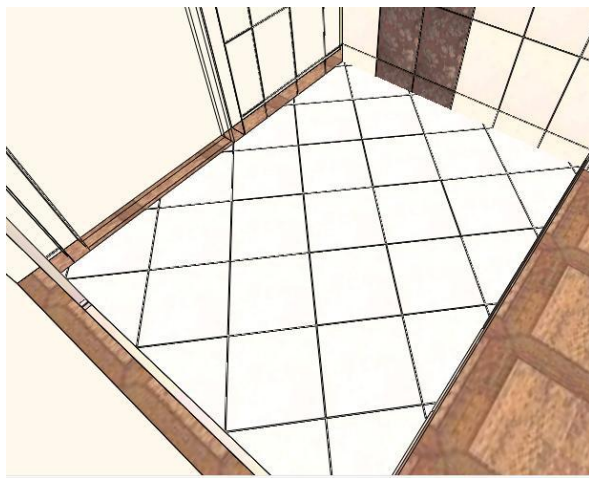
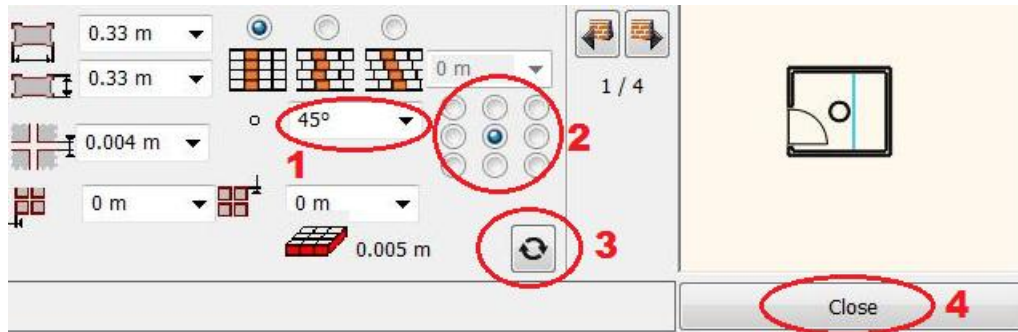
- Click on the marked item „metallic crema” (5) in the search result list.
- Press Ok to close the dialog. The selected texture will be placed in the favourites list in Room Maker.
- Click on the Tile grout icon (1) and select Grey (2) color for the grouting;
- adjust the grouting dimension: 0.004m (1/8") (3);
- click on the top right of the alignment grid (4);
- click on the green tick to add (5).



### Change the tile

Already placed tiles can be changed:

- Set the degree of the tile direction: 45°(1).
- Click on the middle centre of the alignment grid (2).
- Click on the update icon (3) to update changes.
- Now you can close the room maker (4).



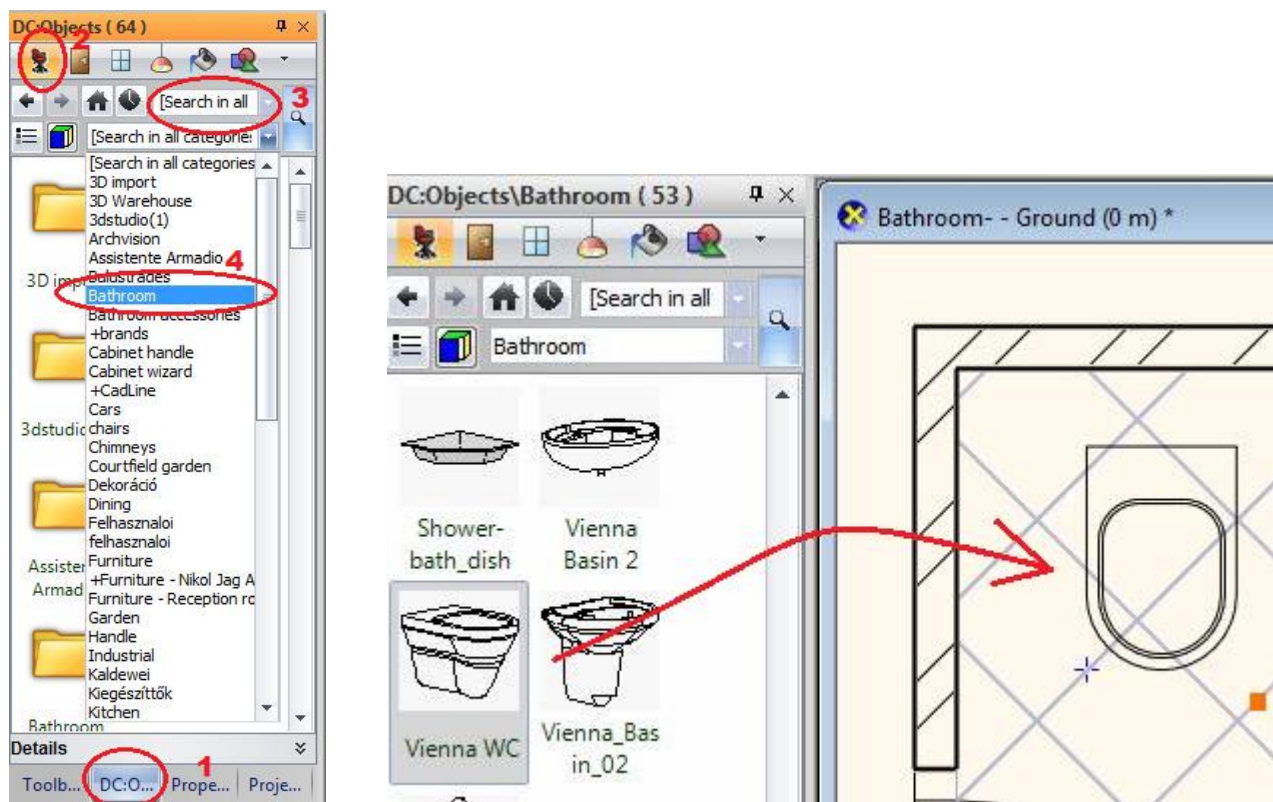
### 3.8. Sanitary ware

- Press ESCAPE now and click inside the floor plan. This way you activate that window.
- Click on DC: Object... Button (1) . Choose the chair icon on the top (2). It represents the object library. Click on the categories arrow (3) and select the Bathroom category (4) .
- You will place the appropriate sanitary ware to the floor plan from here using the „drag and drop” method.

#### **The basic sequence of drag-and-drop is:**

- *Move the mouse to the furniture.*
- *Press, and hold down, the left button on the mouse , to "grab" the object,*
- *"Drag" the object to the desired location,*
- *"Drop" the object by releasing the left button.*
- Choose Vienna WC and place it on the floor plan using drag and drop method.

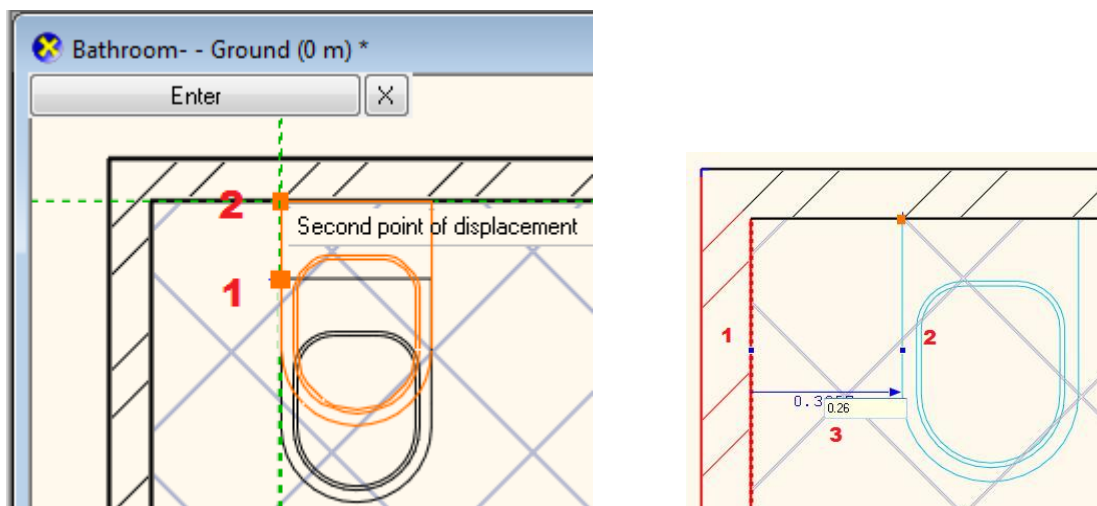




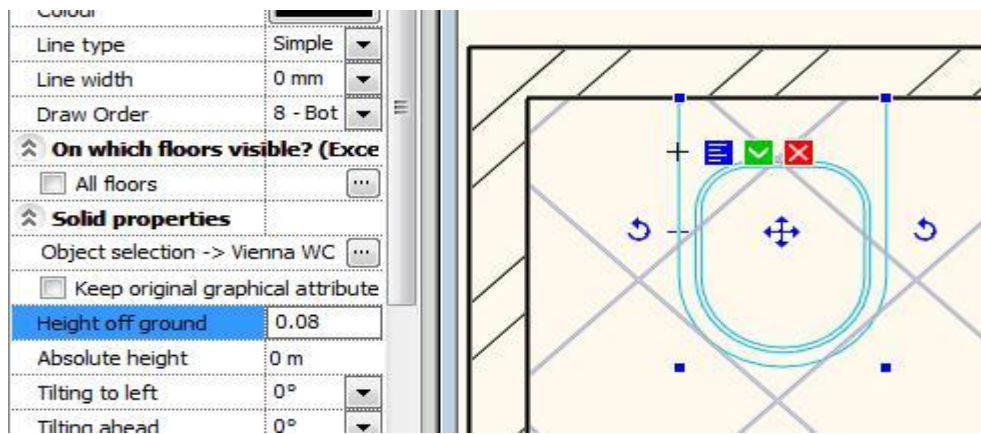
### Editing sanitary ware

- Click on the Vienna WC. It is highlighted now. Click on the left-top corner marker (1). Select the “Move” command from the upcoming menu.
- Move it on the wall (2).

In the next step we will move it 0.26m (0'-10 1/4") from the left wall corner:



- Click on the left wall. Press the SHIFT key and hold it.
- Click on the WC. The wall color becomes red.
- Click on the dimension text and type: 0.26m (0'-10 1/4"). Enter
- Click on the WC, and change the height off ground: 0.08m (0'-3 1/4") on the left side.

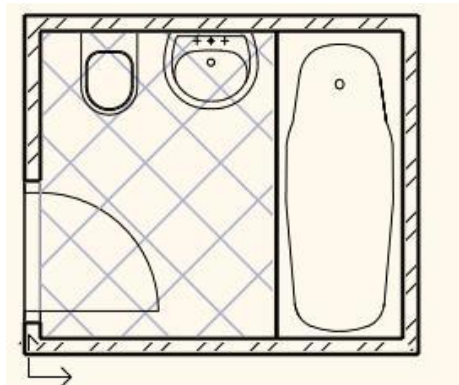


### Place basin and bath

Place the basin and bath using the previous method:

- **Basin:** Vienna\_basin\_02, Height off ground: 0.35m (1'-1 3/4"); distance: 0.17m (0'-6 3/4") from WC corner point,
- **Bath:** Bath-tube 80x170A , Width: 1.95m (6'-4 3/4") Depth: 0.8m (2'-7 1/2"), High: 0.41m (1'-4 1/4"), Height off ground: 0.14m (0'-5 1/2")
- Place accessories from the Bathroom accessories category.

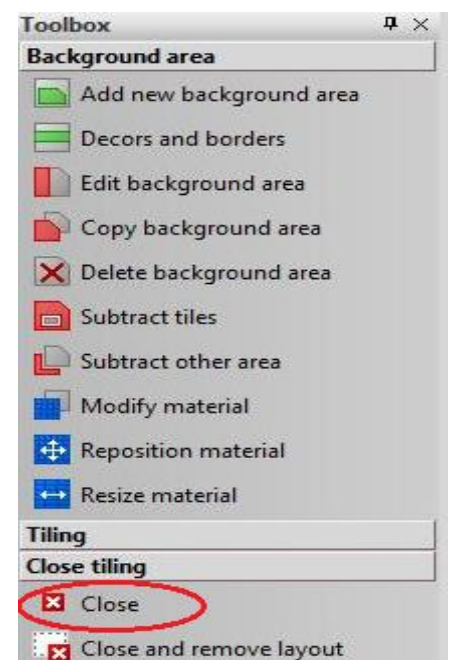
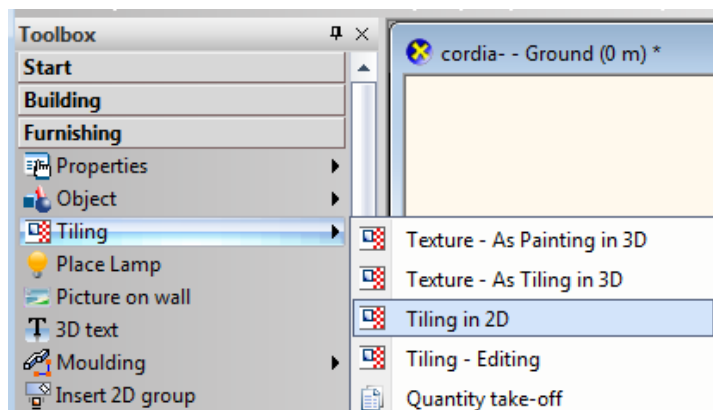
See the result below:

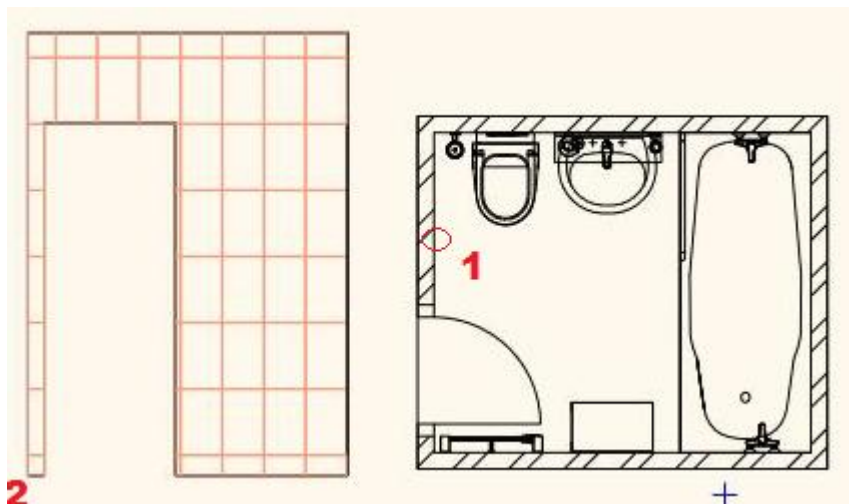


## 3.9. Tiling layout

We place the layouts of the wall tiling:

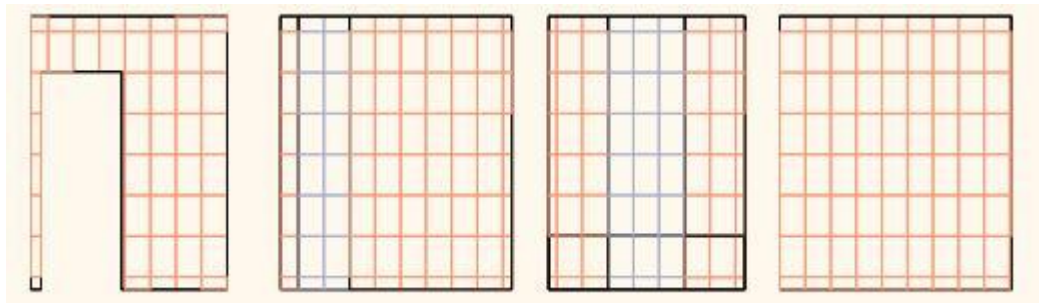
- In the Furnishing group click on the Tiling – Tiling in 2D command.
- Choose the Tiling on wall side command from the dialog.
- Click on the internal side (1) of the left wall.
- Place the layout of tiling (2).
- Click on the close command on the left side, to keep the layout and close the command.
- Repeat the previous method for all walls.





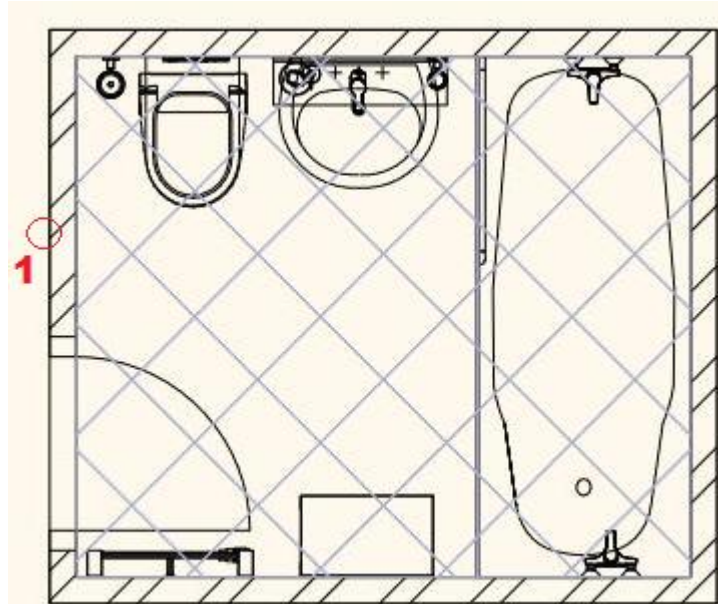
### Tiling layout for all walls

See the result of wall tiling layout :



We place the layout of the floor tiling:

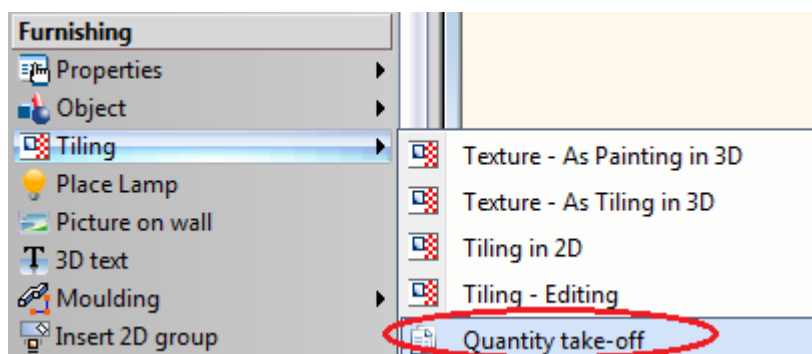
- In the Furnishing group click on the Tiling – Tiling in 2D command.
- Choose the Tiling on floor command from the dialog.
- Click on the outer side (1) of the floor.
- Enter.



### 3.10. Quantity take off

Quantity take off report helps you to order the required quantities from producer.

- In the Furnishing group click on the Tiling – Quantity take off command .
- In the Consignment dialog click on the OK.
- Give the name of the EXCEL table.



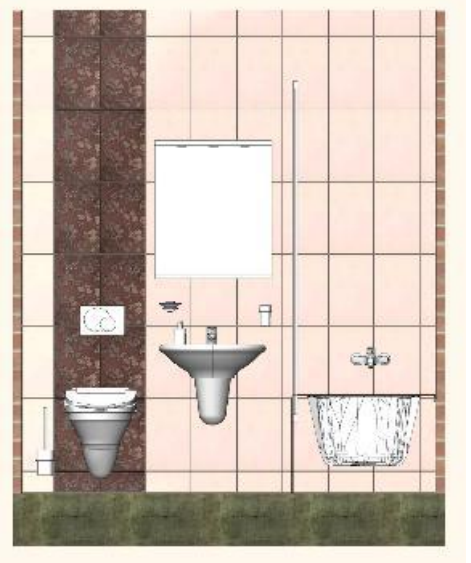
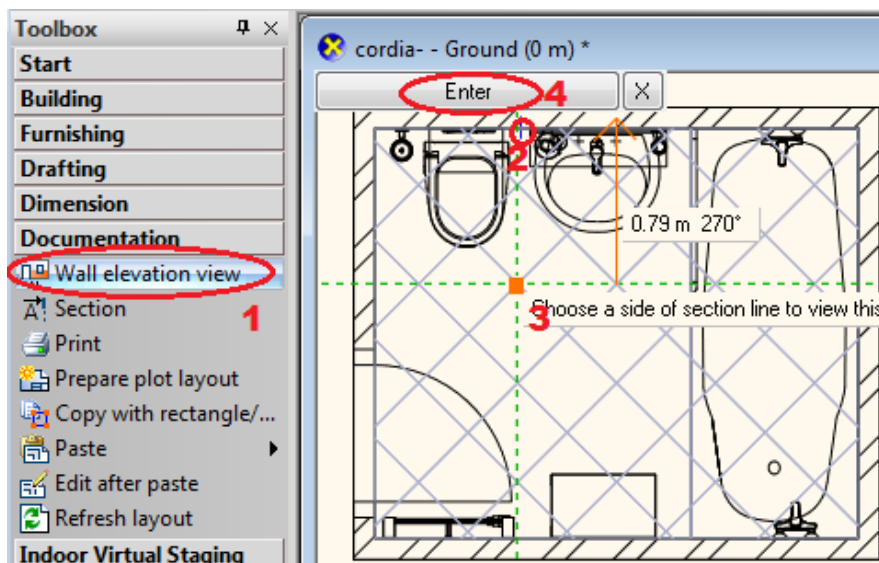
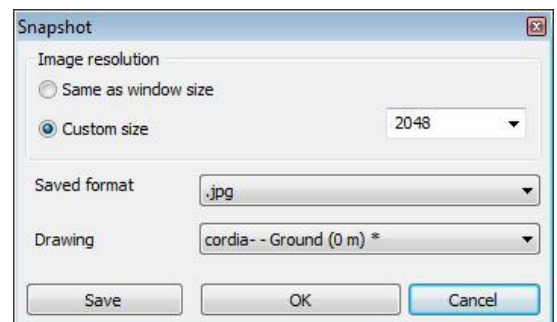


- The EXCEL list appears:

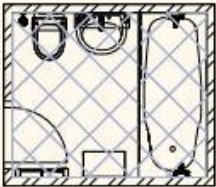
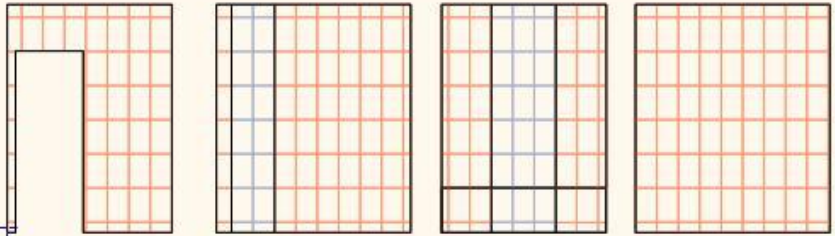
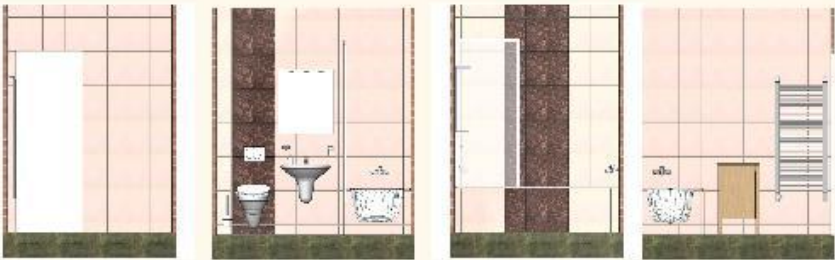
	A	B	C	D	E	F	G	H
1	<b>Tiling consignment</b>							
2	<b>metallic crema_25x40</b>							
3		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
4		250	400	17,33	247	(137/11/99)	0	
5								
6								
7								
8								
9	<b>metallic flower_25x40</b>							
10		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
11		250	400	3,34	40	(30/0/10)	0	
12								
13								
14								
15								
16	<b>metallic crema_33x33</b>							
17		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
18		333	333	4,48	57	(18/23/16)	0	
19								
20								
21								

### 3.11. Wall elevation view

- Open in the Toolbox the Documentation menu and choose Wall elevation view command (1).
- Click on the internal part of the wall (2).
- Move the arrow and click on the desired point (3).
- Click on the Enter (4).
- The dialog appears. Click OK.
- The wall view is placed. Move it on the appropriate place.
- Repeat the previous method for all walls.



3.12. Overview



	A	B	C	D	E	F	G	H
1	<b>Tiling consignation</b>							
2	<b>metalic crema 25x40</b>							
3		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
4		250	400	17,33	247 (137/11/99)		0	
5								
6								
7								
8								
9	<b>metalic flower 25x40</b>							
10		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
11		250	400	3,34	40 (30/0/10)		0	
12								
13								
14								
15								
16	<b>metalic crema 33x33</b>							
17		Width (mm)	Height (mm)	Area (m2)	Total (pc)	Full/Part/Fragment	Price	Value
18		333	333	4,48	57 (18/23/16)		0	
19								
20								
21								



## **Lesson 4: Kitchen Design and Cabinet Wizard**



## 4. Lesson 4: Kitchen Design and Cabinet Wizard

This workshop illustrates how to model a kitchen project for any room. It provides you with the following principles and basic skills in both 2D and 3D:

- ❖ Basic architectural design: Room shape with door, window, slab, ceiling.
- ❖ You will create your own bespoke kitchen furniture library.
- ❖ You build up a cabinet with all its details i.e. corpus, doors, shelves, handles, feet and accessories.
- ❖ Select and place these objects from the library and design a complete kitchen.
- ❖ Visuals: Finishes and materials from producers, shadows, photorealistic/rendered images.
- ❖ Documentation: 2D floor plan, section, perspective and wall view.
- ❖ Quantity take-off.
- ❖ Suitability: Beginners in computer design.

During this workshop you will design this kitchen:

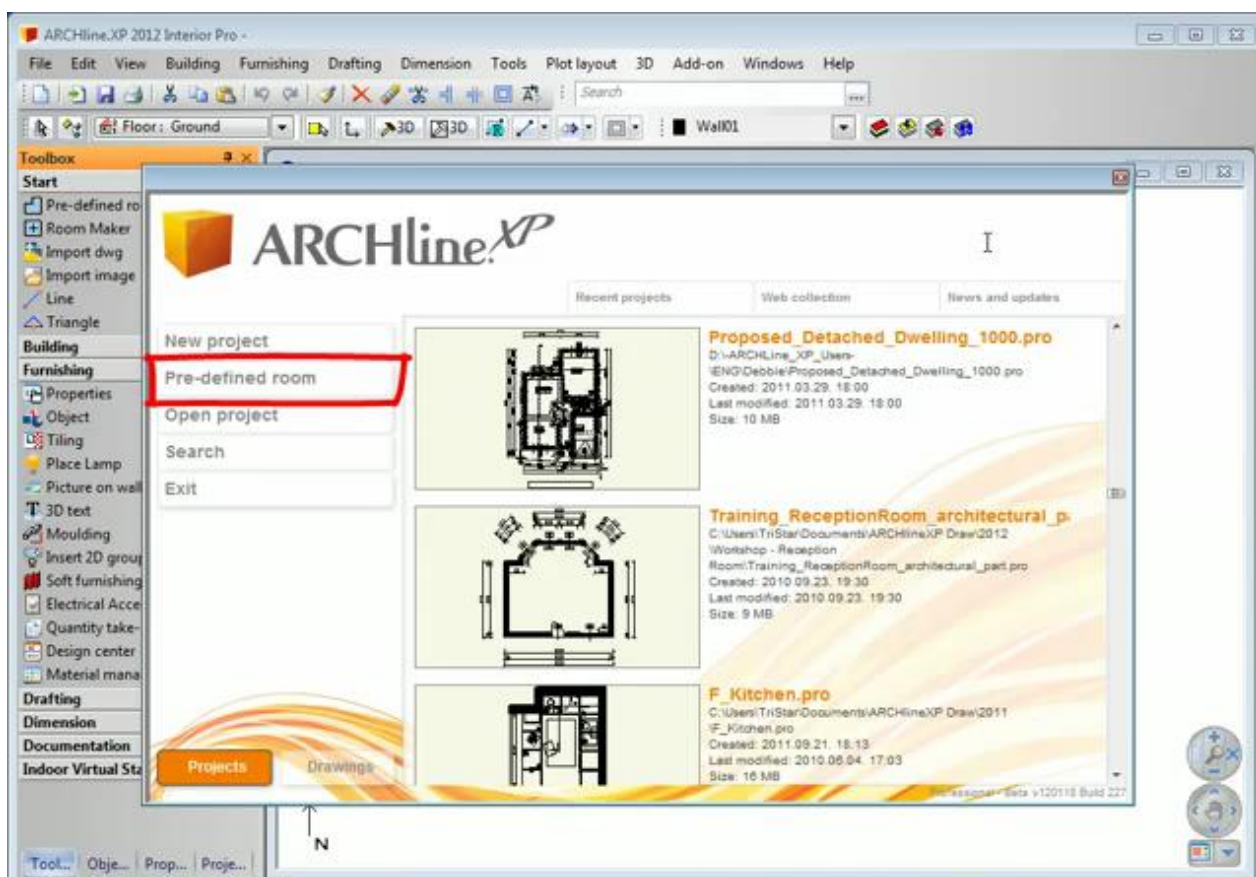


- Open your browser with: [http://www.youtube.com/watch?v=hvQe\\_HPllc](http://www.youtube.com/watch?v=hvQe_HPllc)
- Your screen should look as follows: Press the ARROW button in the bottom left corner to play the video and pause it any time you need with pressing the same button again.





- Start ARCHLine.XP® Interior, Your screen should look similar as follows:
- Click on Pre-defined room command to start .

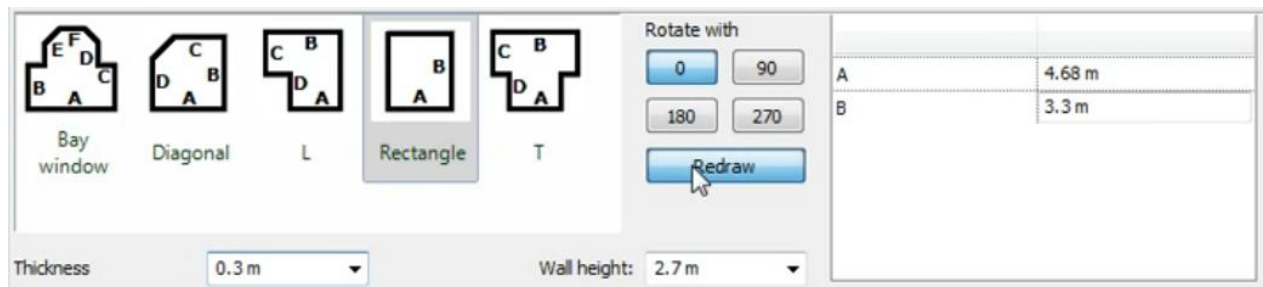


### Room design

- Choose in the upcoming dialog the room shape: **Rectangle**

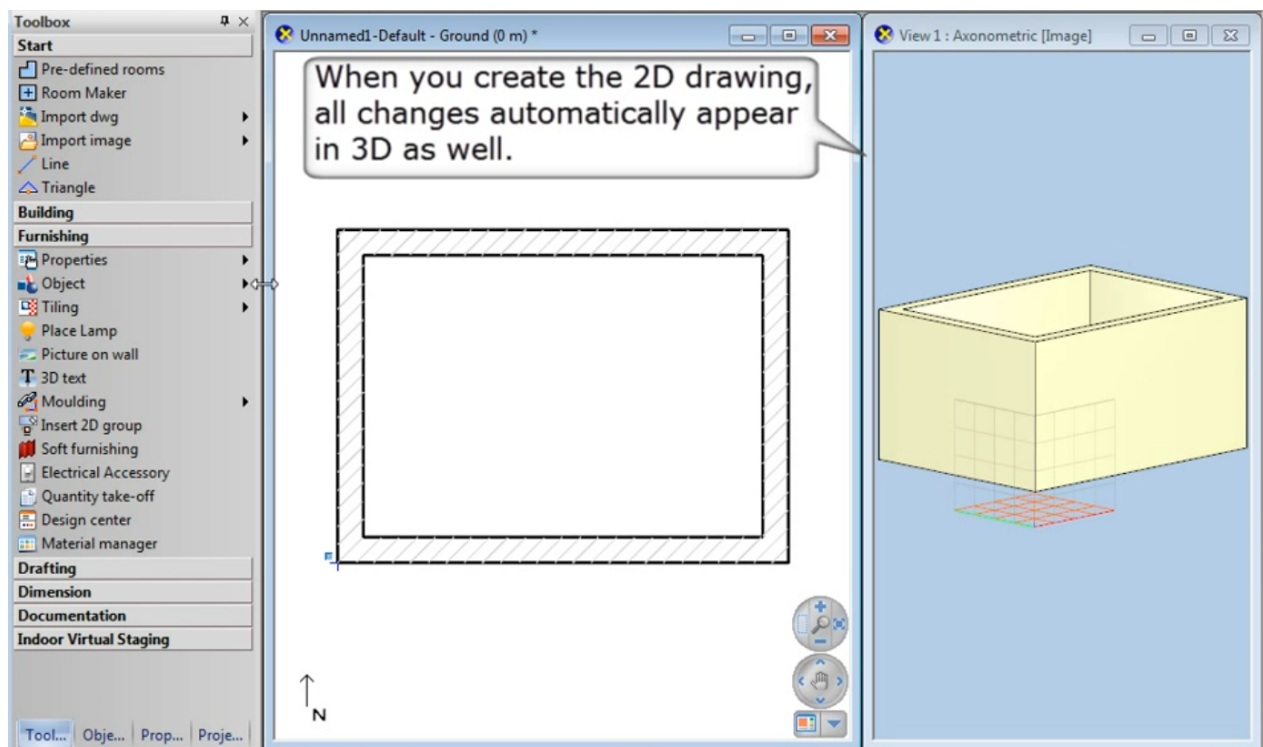
### Tutorial

- Create your room with exact room internal measurements in m:
- Type these values and press redraw. A: 4.68m (15'-4 1/4"), B: 3.3m (10'-10")
- The values represent the internal wall lengths. Wall properties: Thickness: 0.3m (0'-11 3/4"), Wall height: 2.70m (8'-10 1/4"),



- Press the Close button and place the room shape on the drawing area with mouse left click near to the origin.

Your screen should look as follows:



If you see your design partly, click on the bottom right corner icon marked as 1 in order to open the **navibar** tool and after click on the icon marked as 2 to have the optimal view.

## 4.1. Save your project

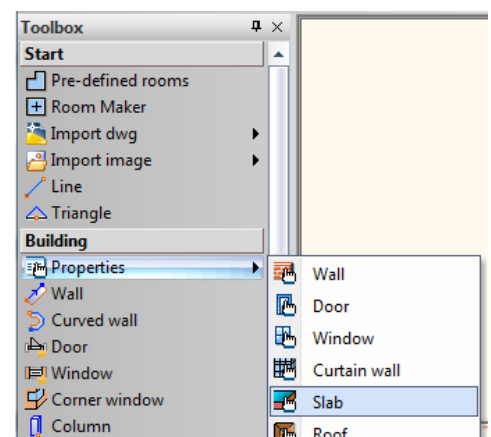
Before starting to design it is recommended to save your project with a real project name, as MyKitchen.pro.

- Click on File menu – **Save project** command and type your file name to save the project.

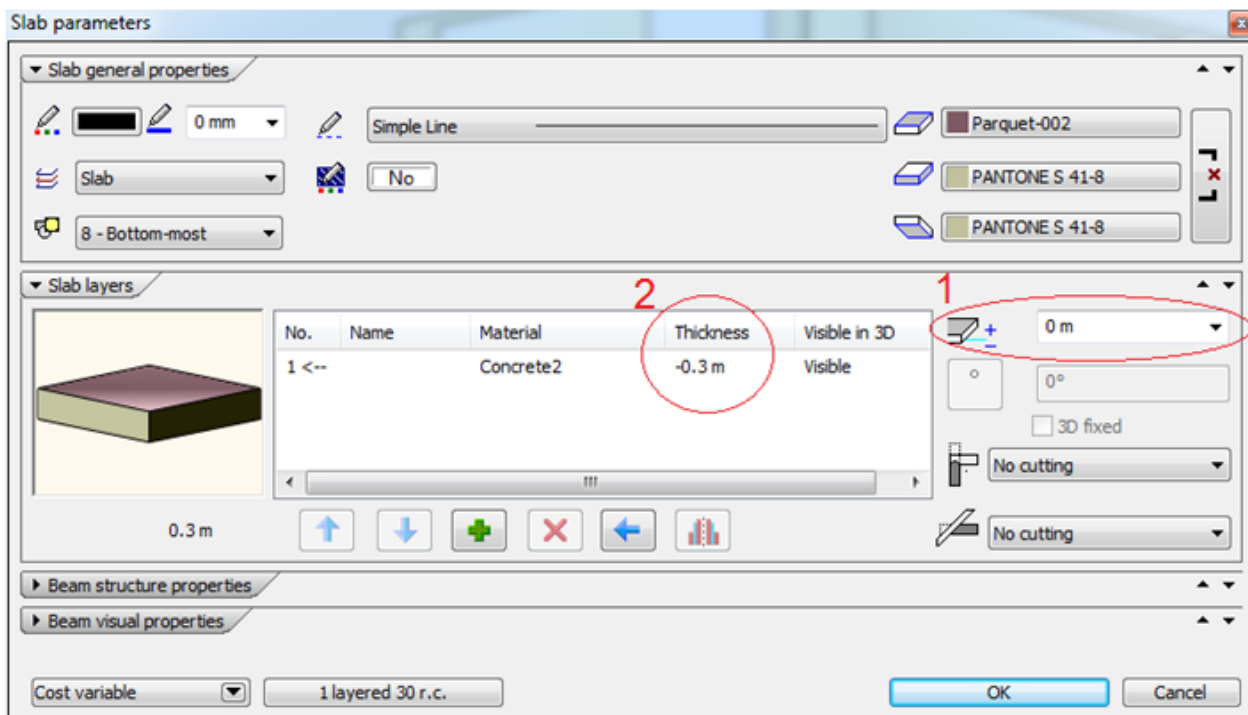
## 4.2. Floor

### 4.2.1. Floor properties

- Define floor properties: Toolbox- Building menu – Properties - Slab: Set up these values in the dialog:
- Floor relative height (1): 0.0m (0"); Thickness (2) : -0.3m (-0'-11 3/4")

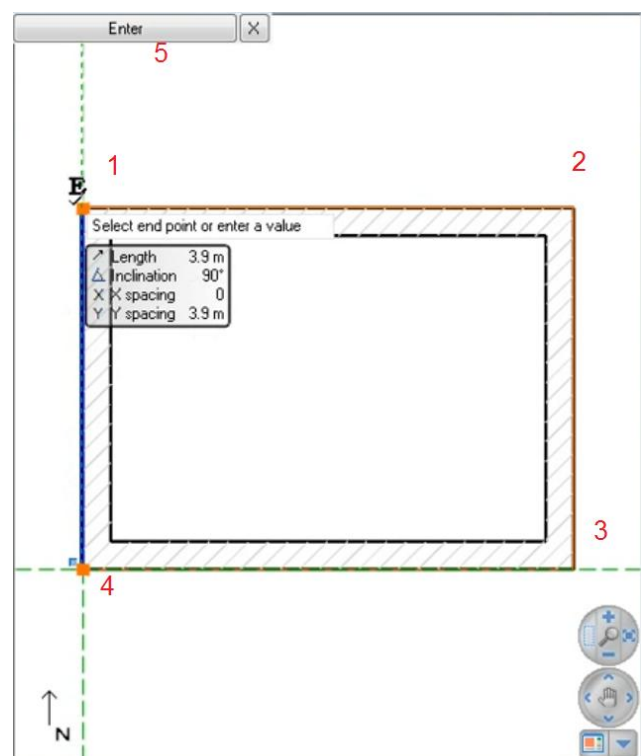
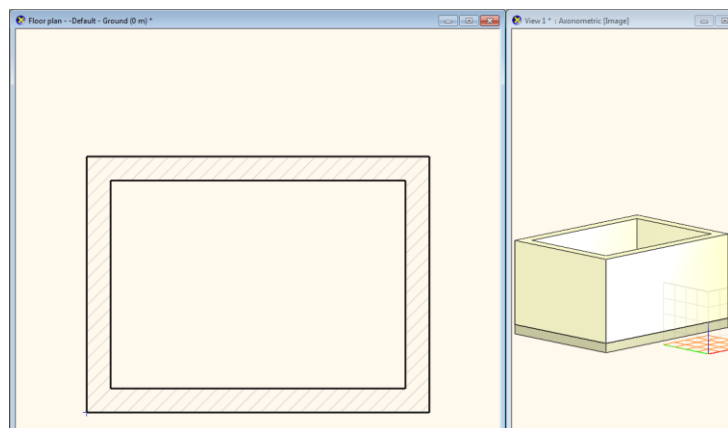






#### 4.2.2. Floor definition

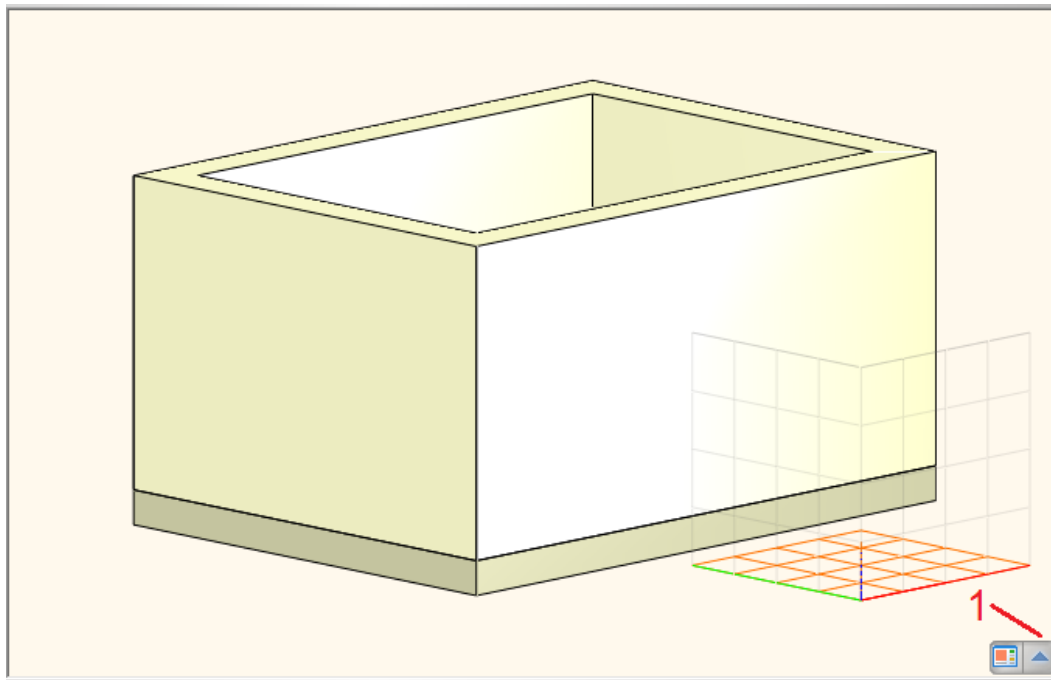
- Define floor: Toolbox - Building menu – Slab - Slab by polygon.
- Click on the wall vertex points one by one (1,2,3,4).
- Finally click in Enter (5) button to close the command. The program creates now the new floor and generates in 3D as below.



#### Rotate the model

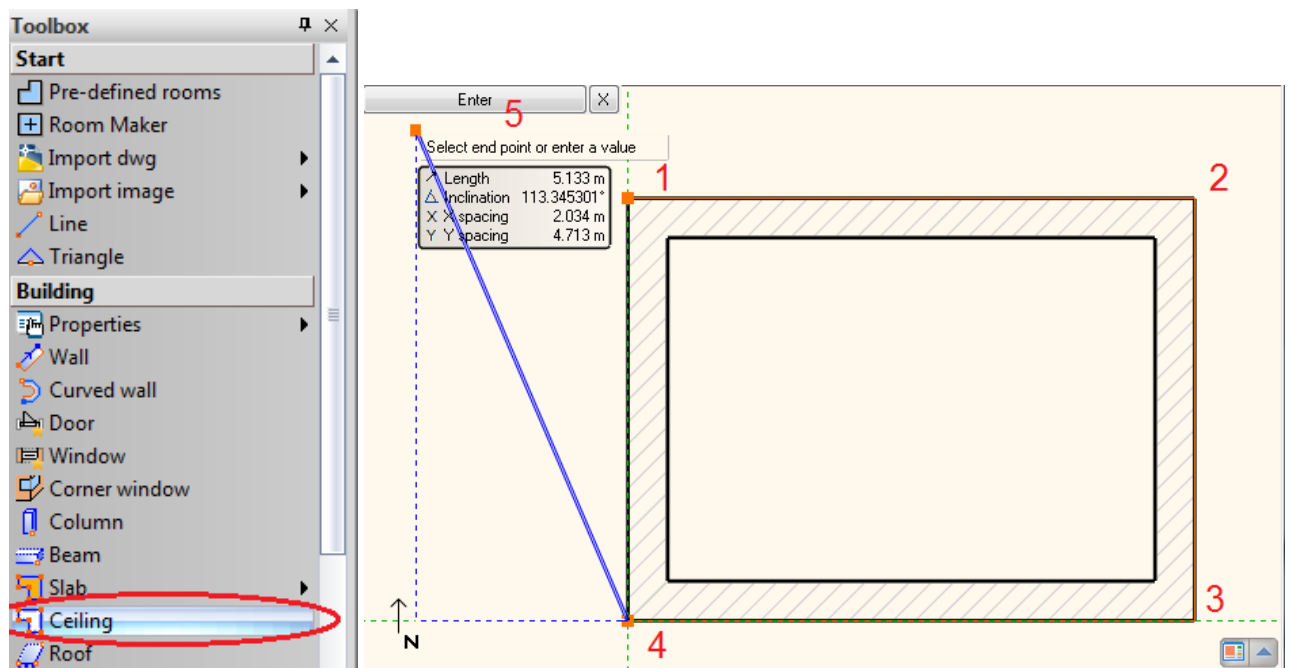
Your screen should look as follows: The slab is ready and you see it in the 3D view under the walls.

- Click with left mouse button in the 3D view on the blue triangle icon near to the bottom right corner (1). It opens the Navibar where you find the Rotate icon (2). Move the cursor over it. Click and hold down the mouse button and start to move the mouse in any direction. It will rotate the model as you move the mouse.



### 4.2.3. Ceiling definition

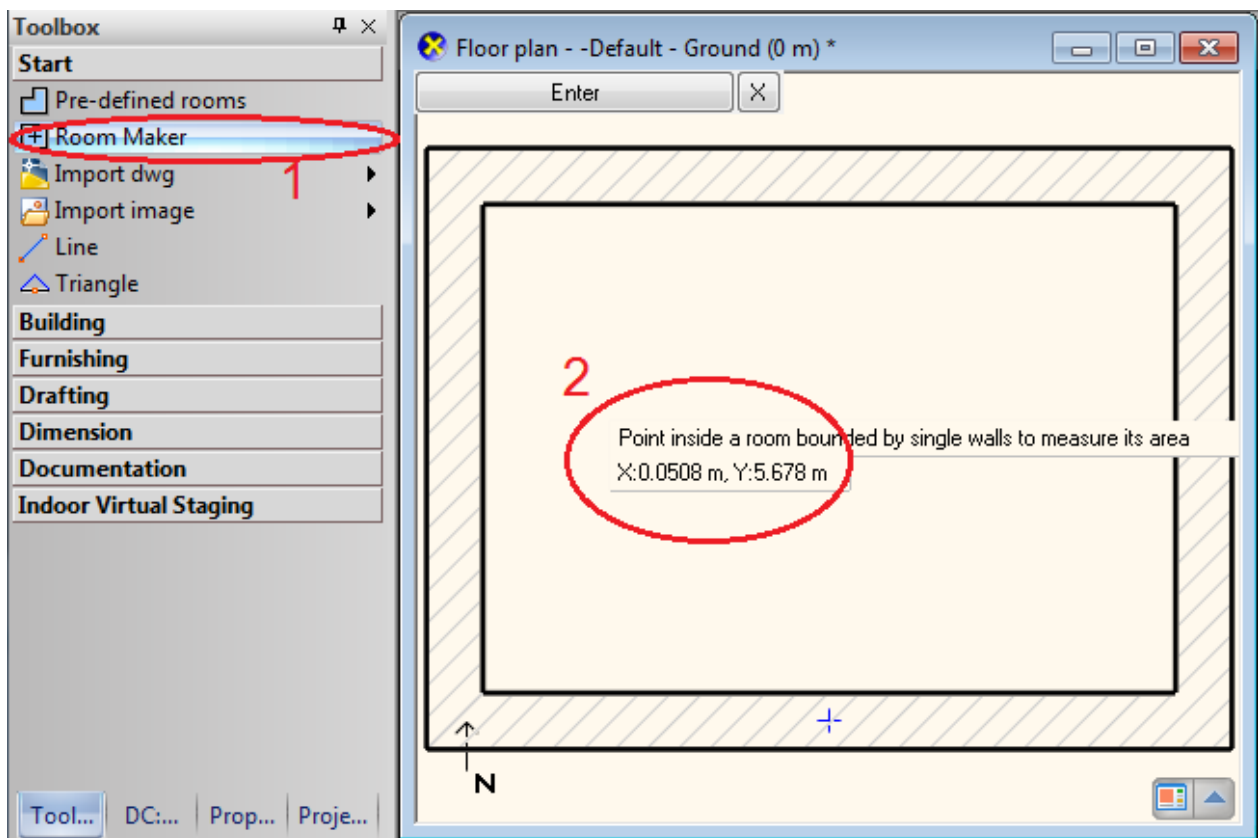
- Activate the 2D view with a left click inside the window.
- Define ceiling: Toolbox - Building menu – Ceiling.
- Click on the wall vertex points one by one as below. Finally click in Enter button (5) to close the ceiling contour.



### 4.3. Room Maker

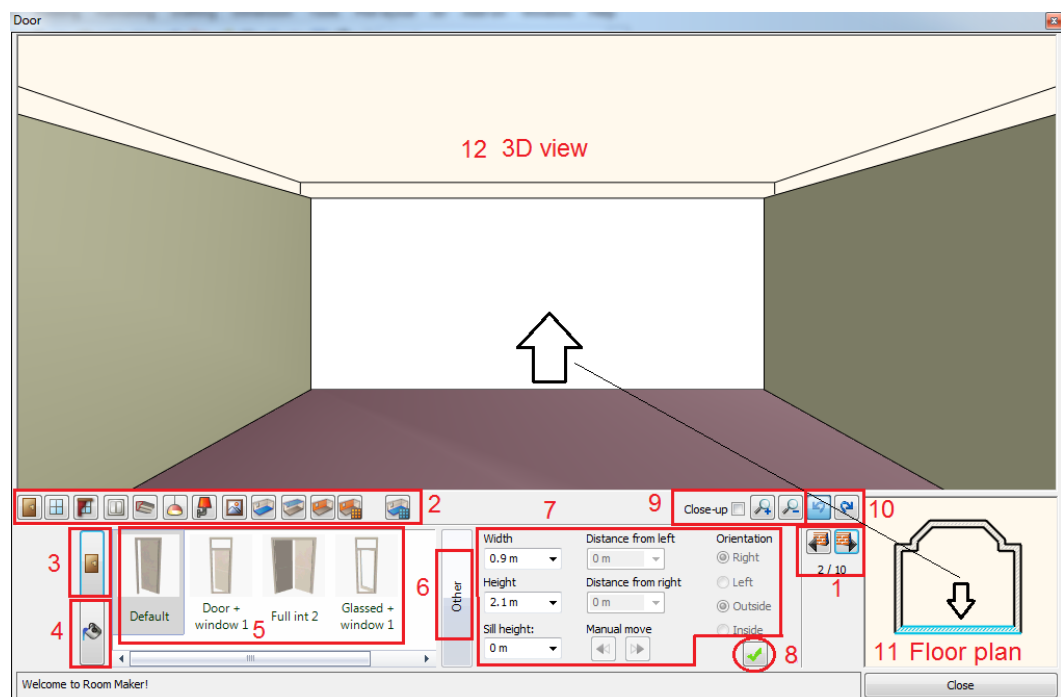
Room Maker is an all-in-one design tool that highly speeds up the interior design starting from an empty room. Start off by placing doors and windows. Then you can decorate the room with your choice of items very quickly.

- Start the command: Toolbox – Start menu – Room Maker as indicated with 1.
- Click inside the room on the floor plan as indicated with 2.
- The Room Maker dialog appears on your screen.



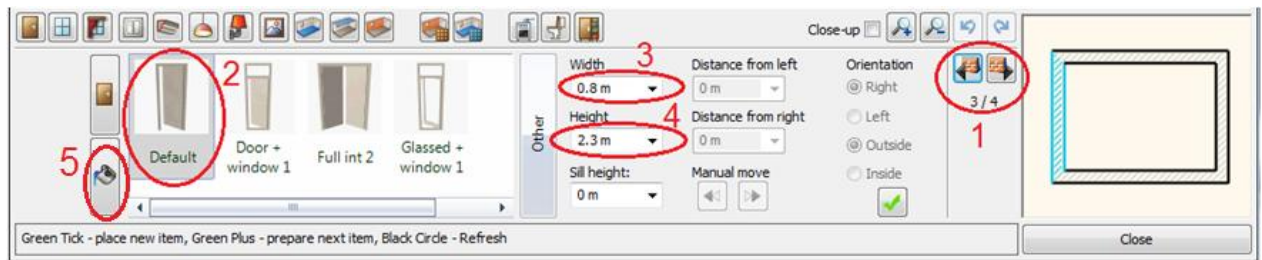
- The Room Maker dialog appears on your screen.

1. Wall finder
2. Toolbar
3. Type finder
4. Texture finder
5. Favourites
6. Other types
7. Properties
8. Add new item
9. Zooming
10. Undo / redo
11. Floor plan
12. 3D view

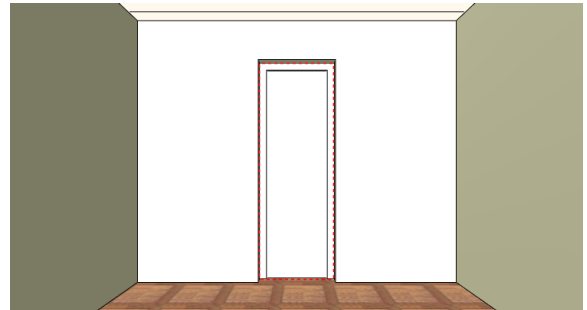


#### 4.3.1. Place door

- Select the indicated wall with Wall finder(1): We place a door on this wall.
- Select **Default** door(2) from the favourites and change properties: Width:0.8m (2'-7 1/2") Height: 2.3m (7'-6 1/2") (marked as 3,4);



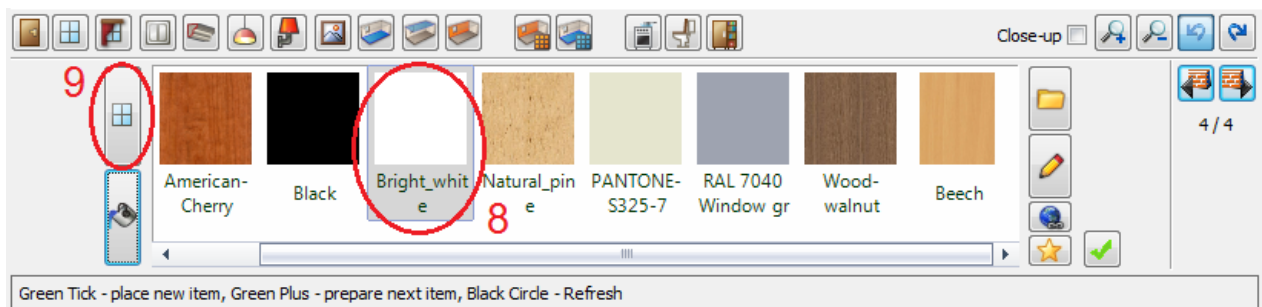
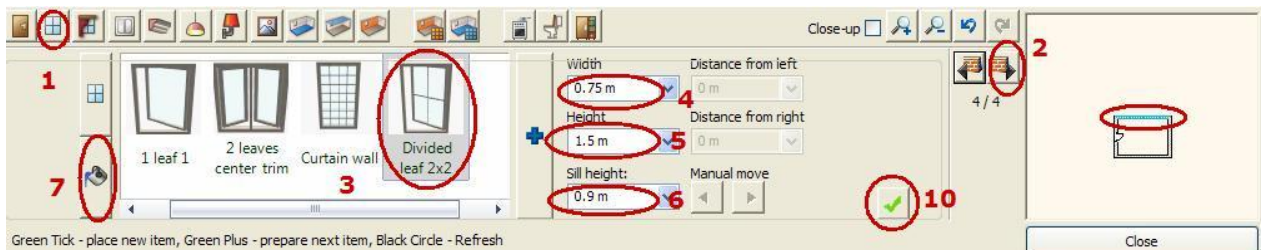
- Click on the Texture finder button (5).
- Select Bright\_white (6) from the favourites.
- Click on Green tick – it will place the door in the wall centre point.



#### 4.3.2. Place window

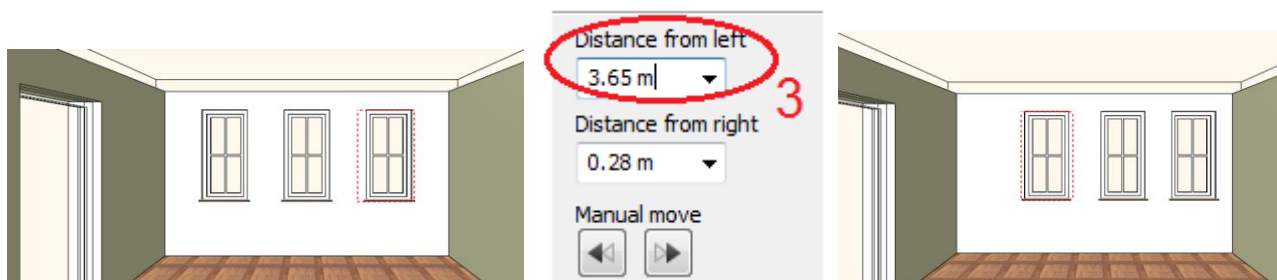
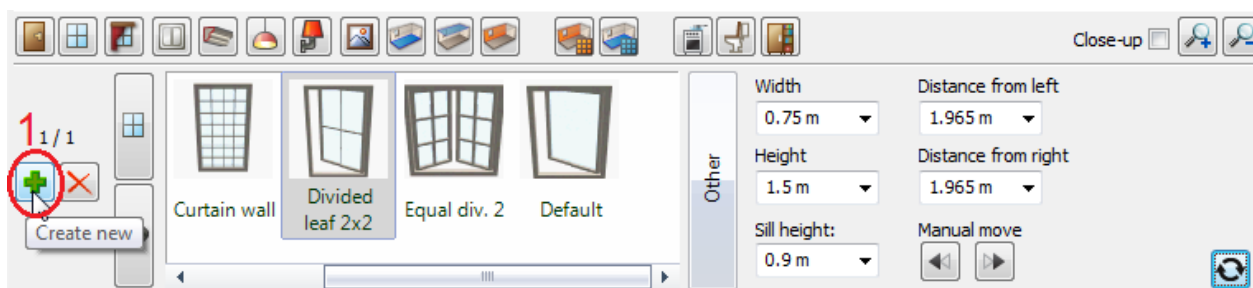
Place 3 windows on wall.

- Press on the Toolbar the window icon (1). Select the indicated wall with Wall finder (2): We place the windows on this wall.
- Choose Divided leaf 2x2 type from the favourites (3) and change properties: Width: 0.75m (2'-5 1/2"), Height: 1.5m (4'-11"), Sill height 0.9m (2'-11 1/2"), (marked as 4,5,6.) Click on Texture Finder (7) and select Bright\_white (8); click on Type finder (9) and Green tick (10) – it will place the window in the centre of the wall.



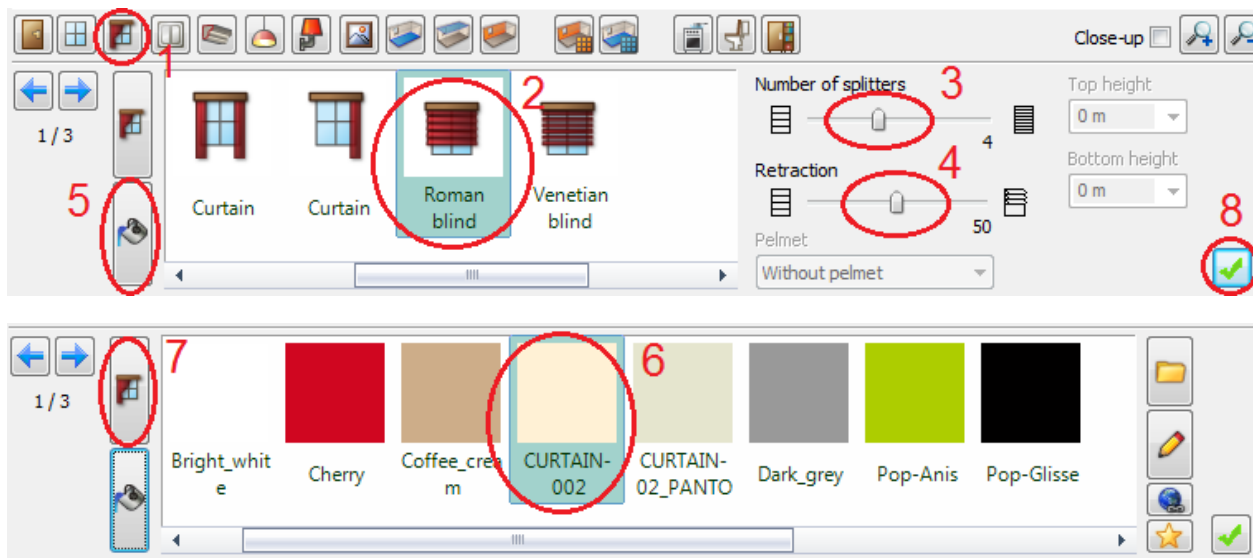
- To add more than one door or window to a wall, click on the + (Green Plus) (1) to prepare the new opening and the Green tick (2) to add your selection– it will place the window on the wall where it is possible.
- Place now the missing 3<sup>rd</sup> window on the wall repeating the technique.

- Change its distance from left to 3.63m (11'-11") (3). Previously placed windows can also be edited. Click on the middle window and change its distance from left to 2.44m (8'). Click on the left side window and change its distance from left to 1.24m (4'-1").



### 4.3.3. Curtains

- You can place different style curtains and blinds on windows. Click on the + (Green Plus) to prepare the new curtain (no need for the first time) and the Green tick to add your selection– it will place the curtain on the selected window.
- Press on the Toolbar the curtain icon (1). Click on the left window. The curtain will be placed on this window.
- Select the Roman blind from the favourites (2) and change properties: Number of splitters: 4, Retraction: 50% (marked as 3, 4)
- Click on the Texture Finder (5) and select "Curtain 002" (6), click on Type finder (7) and Green tick (8) – it will place the roman blind on the window.

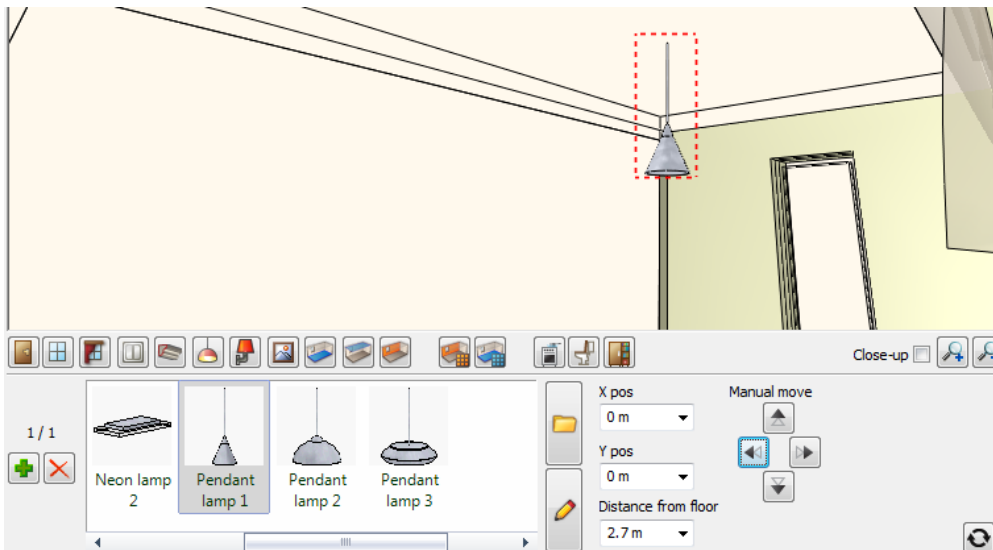
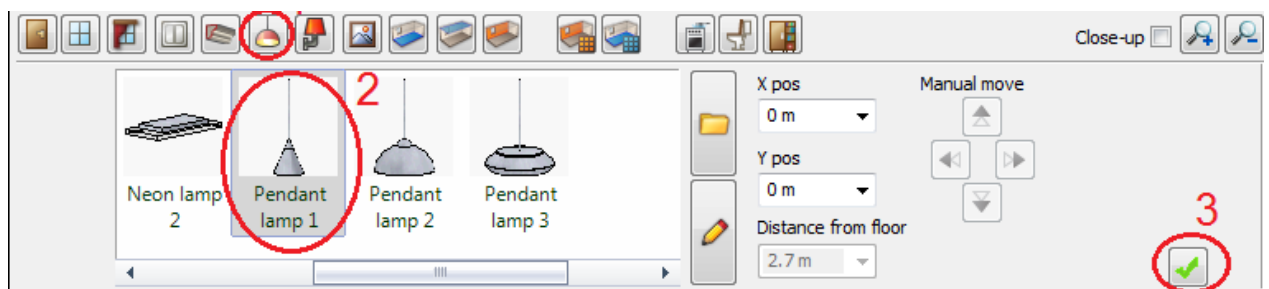


Place the missing roman blinds on the next windows repeating the technique.



#### 4.3.4. Ceiling light

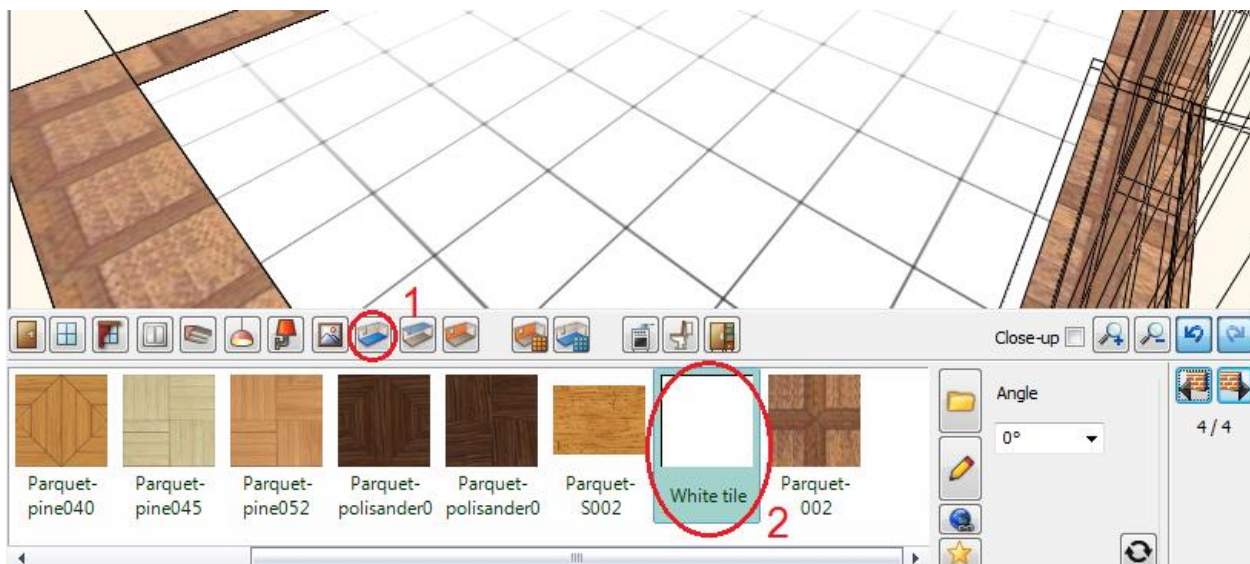
- Place light on ceiling. Press on the Toolbar the Ceiling lights icon (1).
- Select the Pendant lamp 1(2) from the favourites.
- Click on **Green tick** (3) – it will place the light on the ceiling.



#### 4.3.5. Floor material

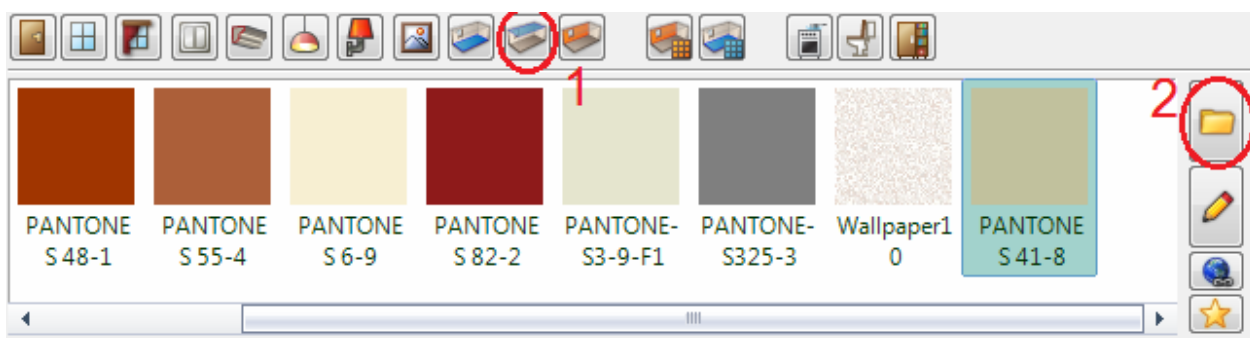
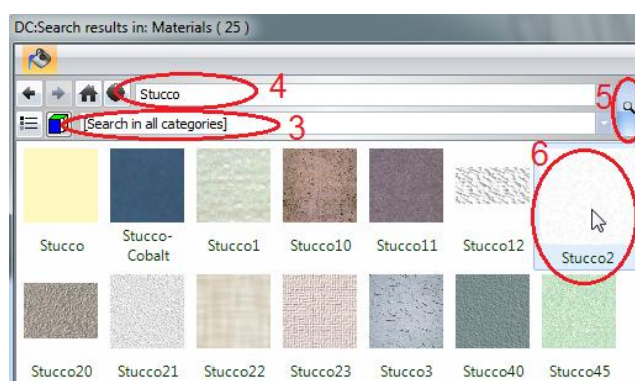
- Press on the Toolbar the Floor Material icon (1).
- To add a flooring click on "White tile" (2) in the favourites and it will automatically show in the project. The same method applies to the ceiling material.





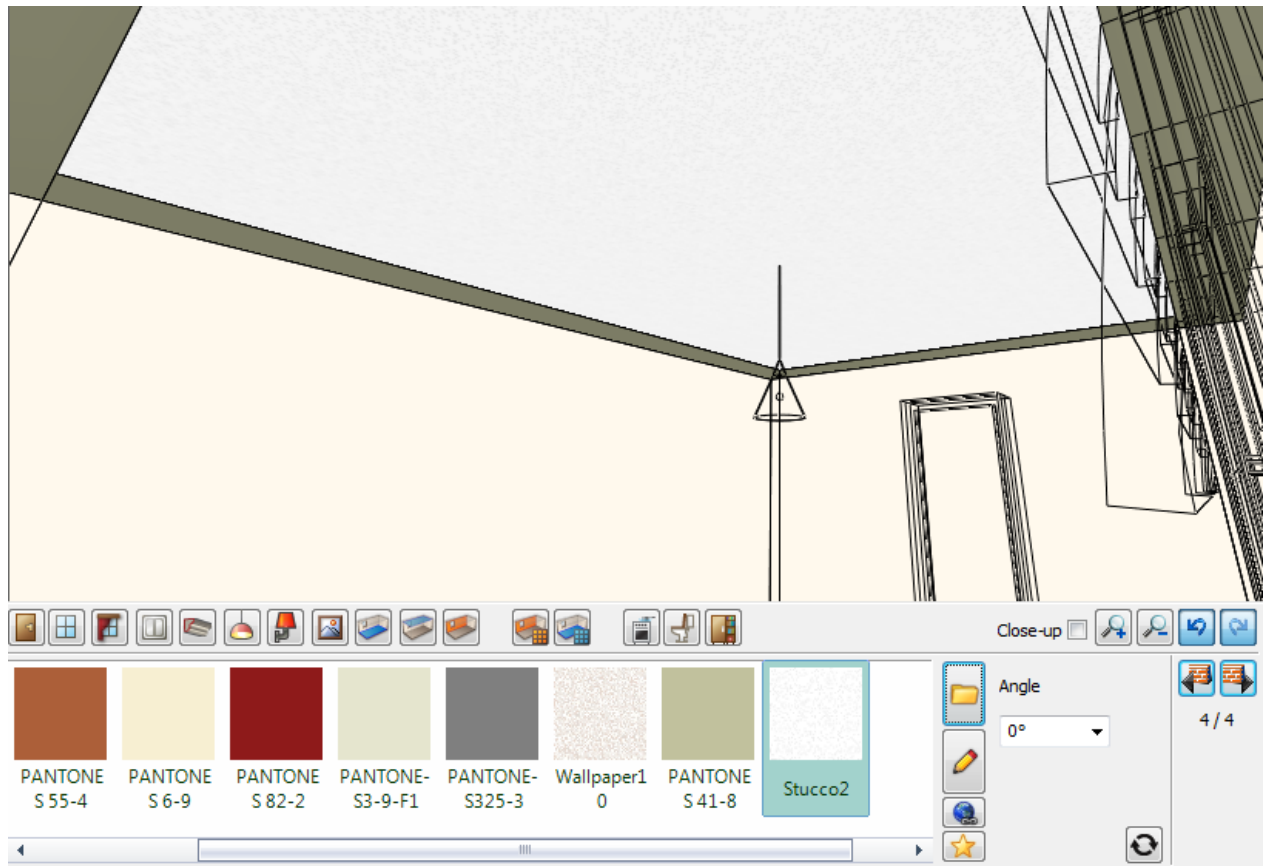
### 4.3.6. Ceiling material

- The command is very similar to floor material. Press on the Toolbar the Ceiling Material icon (1).
- Select a texture that is missing from favourites.
- Click on the Other button (2). You will see the Design Centre with all textures.
- Click on the arrow button (3) and select the first line as "Search in all categories"
- Type the name partly in the search field (4) : Stucco
- Press the Search button (5). The search term "Stucco" returns all names beginning with "Stucco".
- Click on the marked item named Stucco2 (6) in the search result list.



Press Ok to close the dialog. The selected texture will be placed in the ceiling materials favourites in Room Maker and will be applied to ceiling right away.

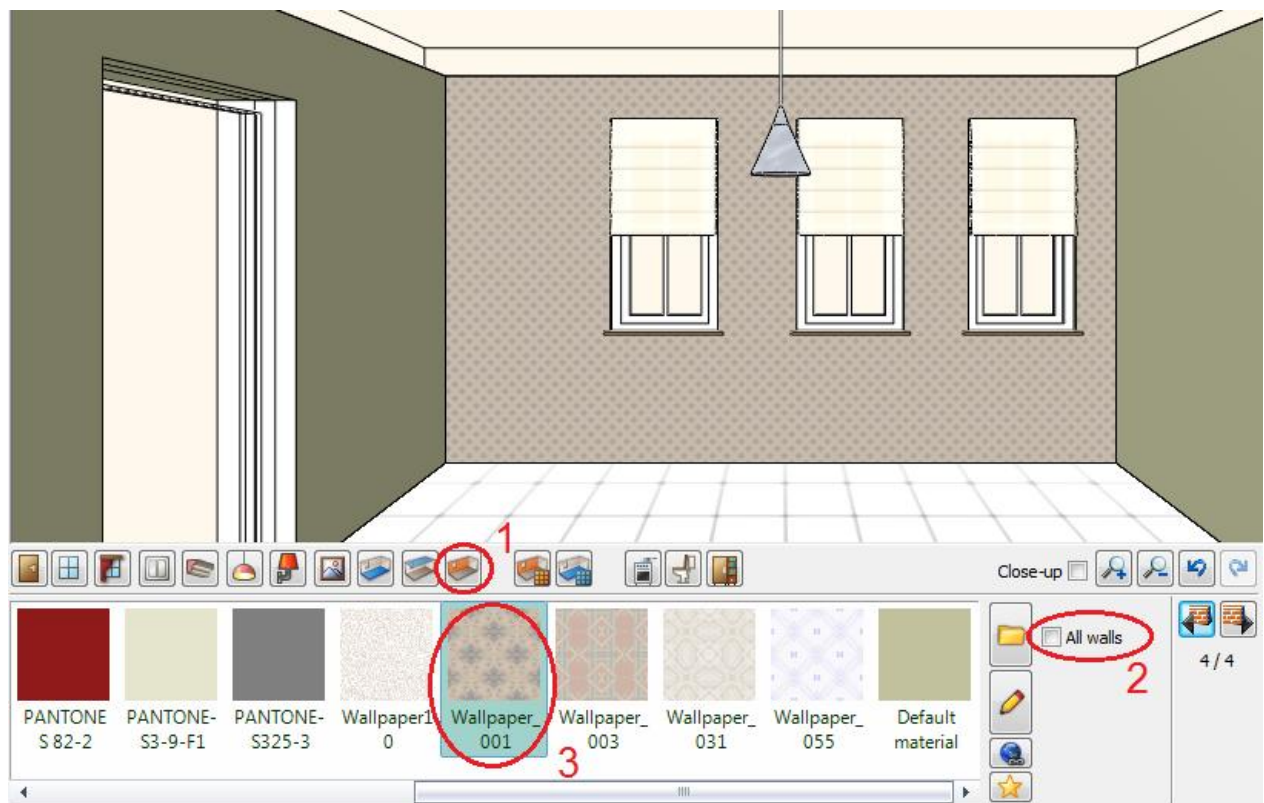




### 4.3.7. Texture of the wall

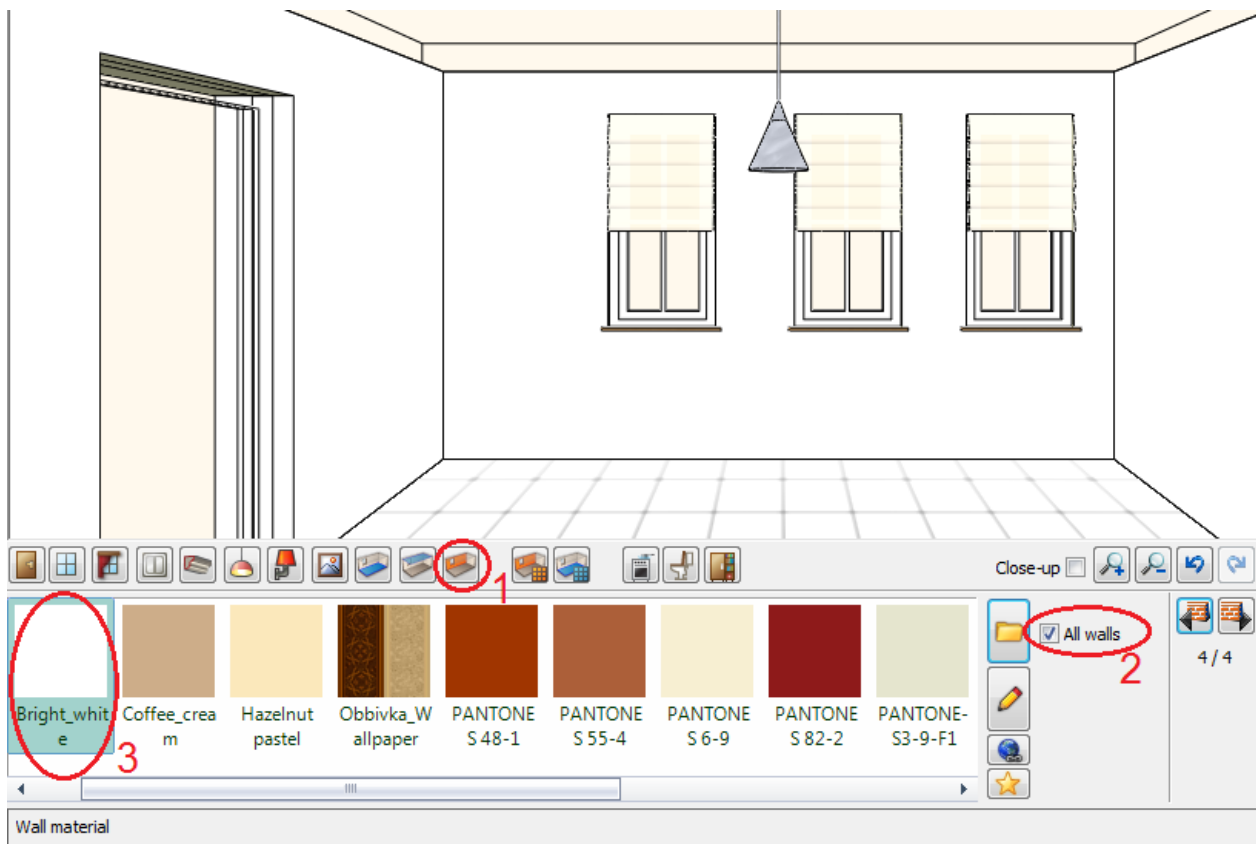
#### Change Texture on one wall

- Press on the Toolbar the Wall Material icon (1).
- Switch **off** the All wall checkbox (2) and click on "Wallpaper\_001" (3). It will be applied only on the selected wall. Your screen should look as follows:



**Change Texture on all walls**

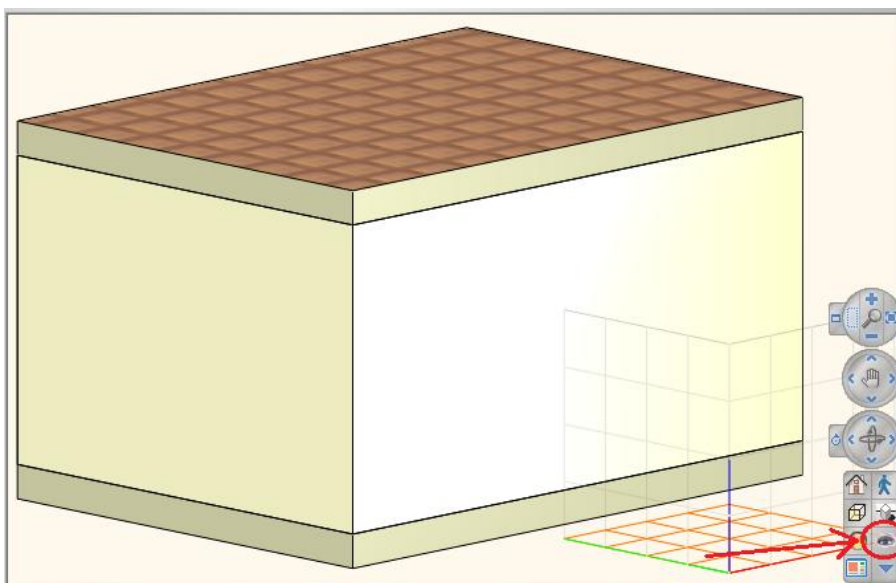
- Press on the Toolbar the Wall Material icon (1).
- Switch **on** the All walls checkbox (2) and click on “Bright\_white” (3). It will be applied only all walls. Your screen should look as follows:



- Close the dialog

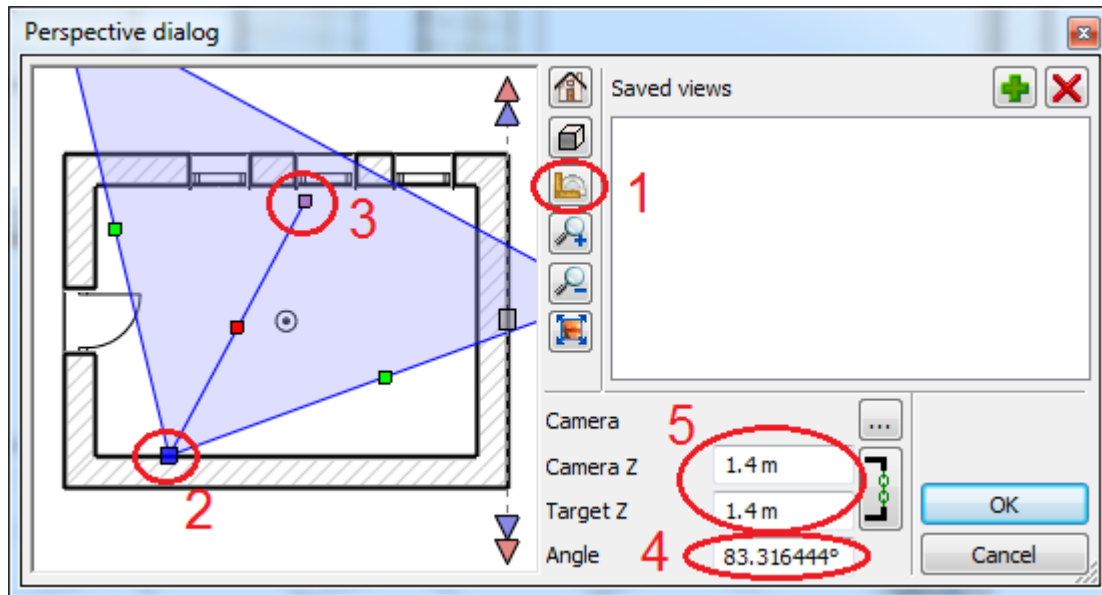
**4.4. Perspective views**

It is recommended to save some perspective views now. These saved views makes easier later to overview your room inside. Close the Room Maker and activate the 3D window and click on the Navibar Perspective view icon. Define and save 2 views in the upcoming dialog.

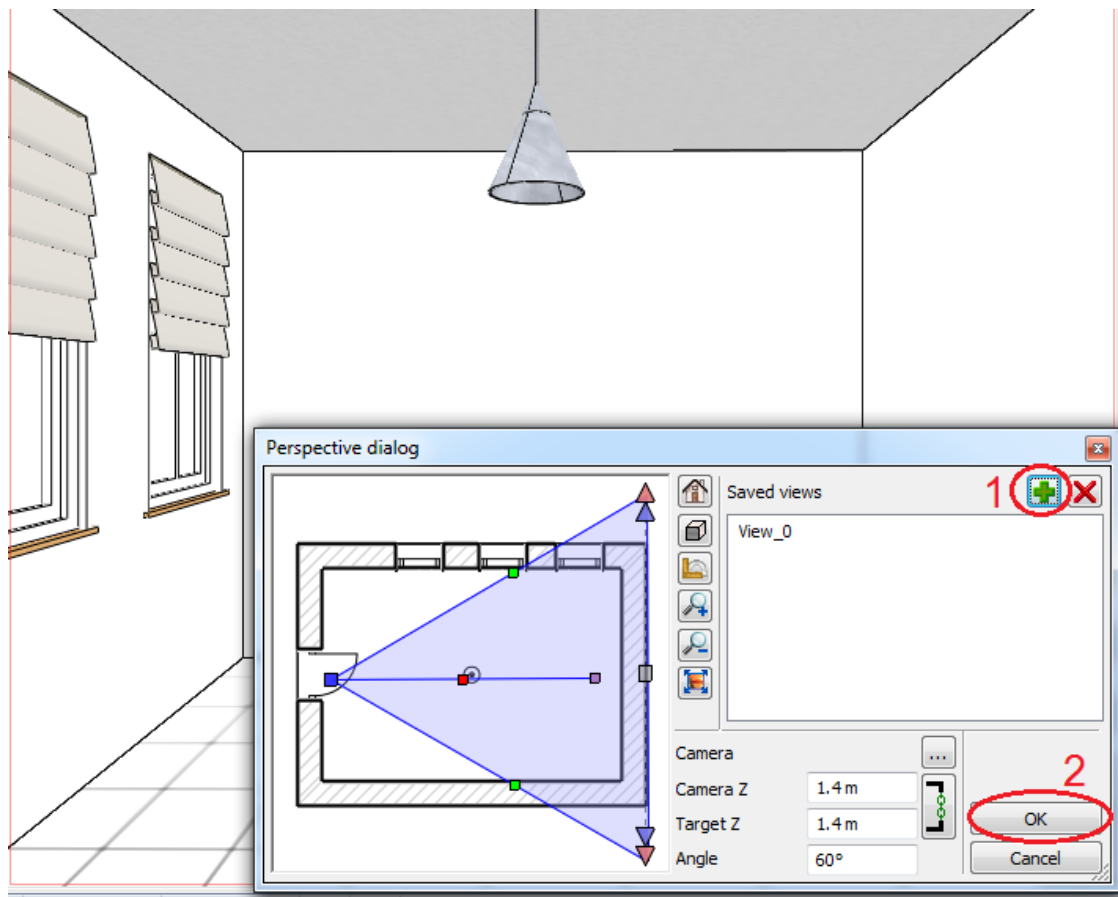


**Perspective view dialog**

- Click on the floor plan icon (1). Then click on the camera point (2) and drag it near to the door middle point. Now click on the target point (3) and drag it near to the middle of the opposite wall.
- Change the Angle value (4) to 60 degree and the Camera and Target elevation (5) to 1.4m (4'-7").



- When you are ready click on the green plus sign (1) and the view is saved. and press Ok (2) to close the dialog.

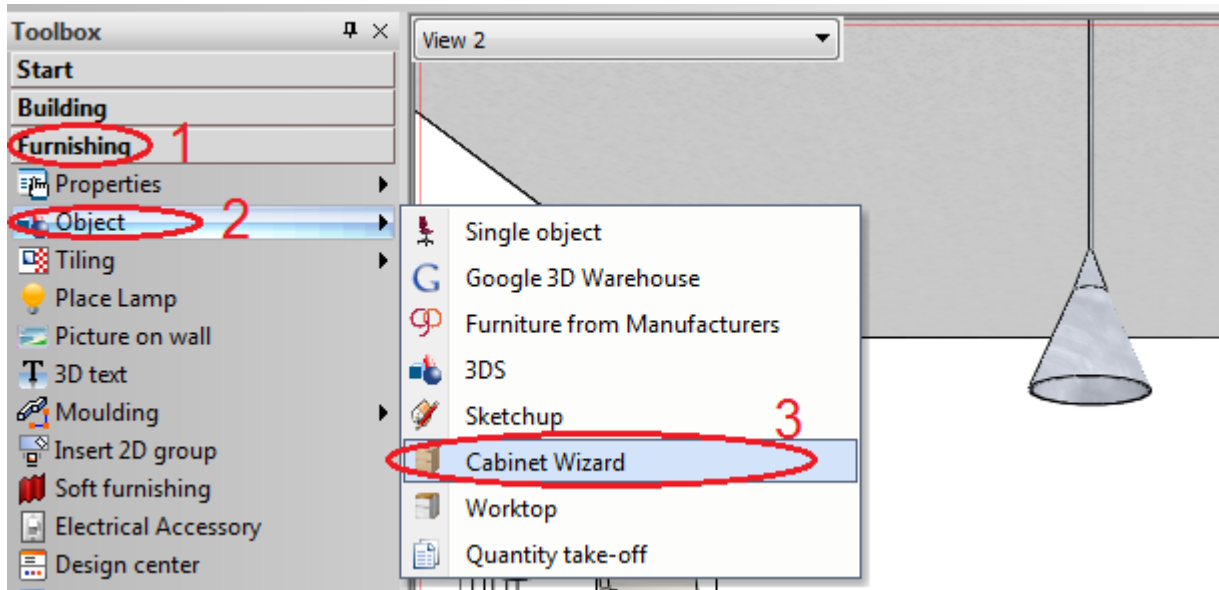


You can save more views as well. If you have more saved views use Page Up and Page Down buttons to swap among the saved views.

## 4.5. Cabinet wizard – Single door base cabinets

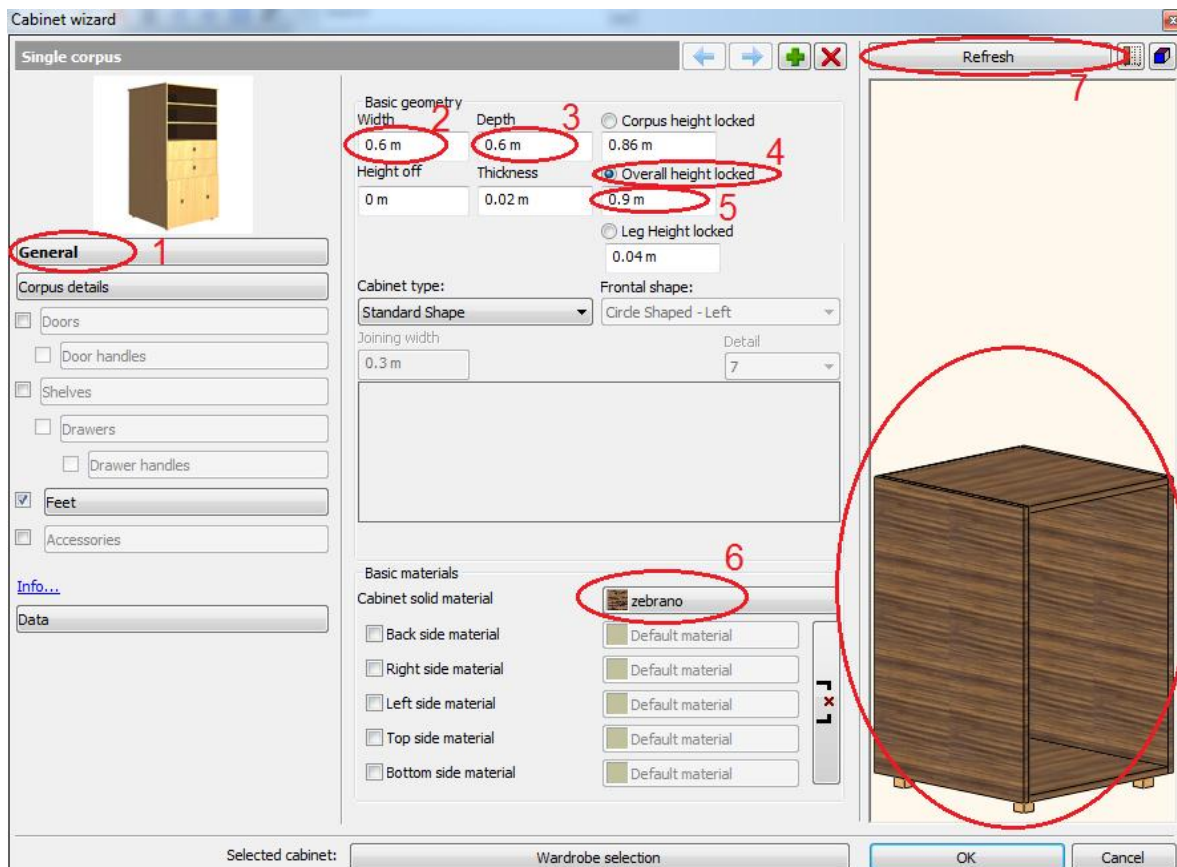
Use the cabinet wizard tool to create bespoke wardrobes, kitchen cabinets and bathroom cabinets.

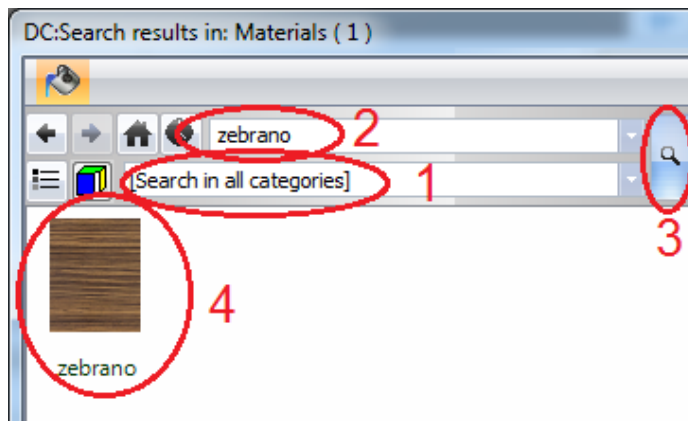
- Press on the Toolbar the Furnishing button (1) and click on Object(2). Click on the Cabinet Wizard button (3).
- Define and wardrobe properties in the upcoming dialog.



### 4.5.1. General tab

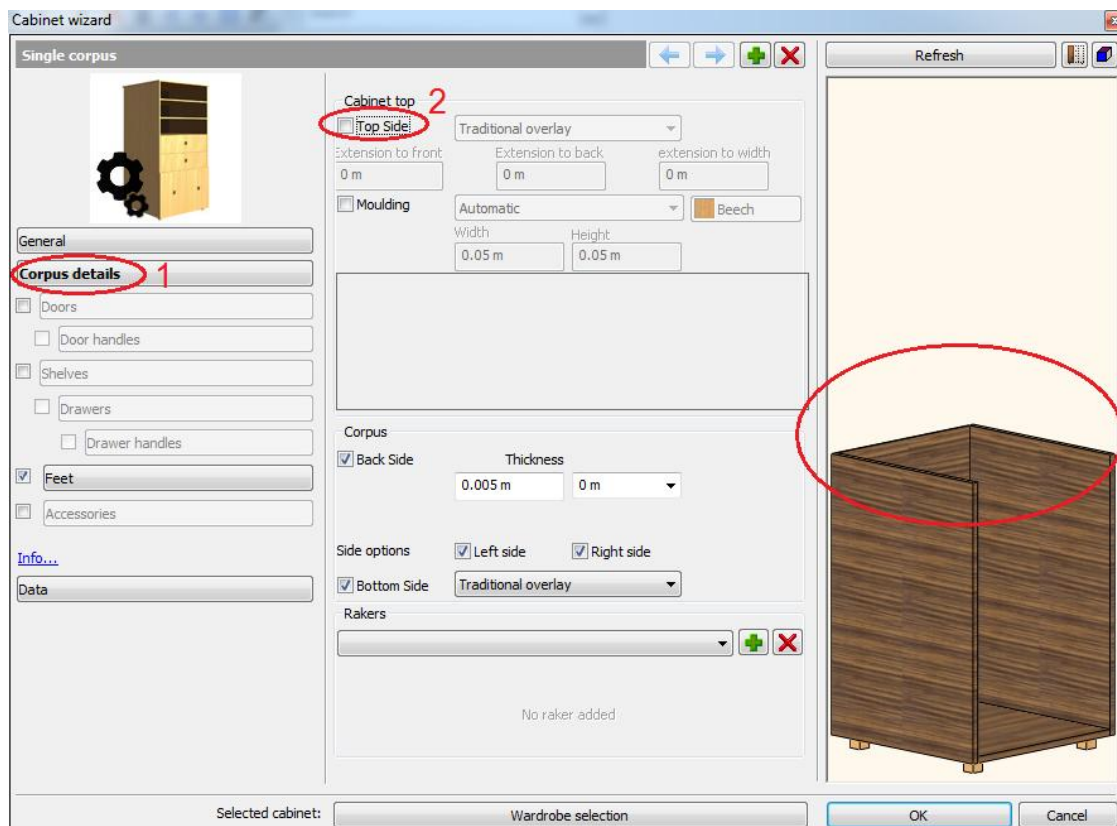
- Activate the General tab(1).
- Edit the basic geometry of the width: 0.6m (1'-11 1/2") (2), depth: 0.6m (1'-11 1/2") (3), click on the "Overall height locked" radio button(4) and set the overall height: 0.9m (2'-11 1/2") (5) as here.
- Select a finish(6) by searching "Zebrano" in the material library. Use the refresh button(7) to update changes.





#### 4.5.2. Corpus details tab

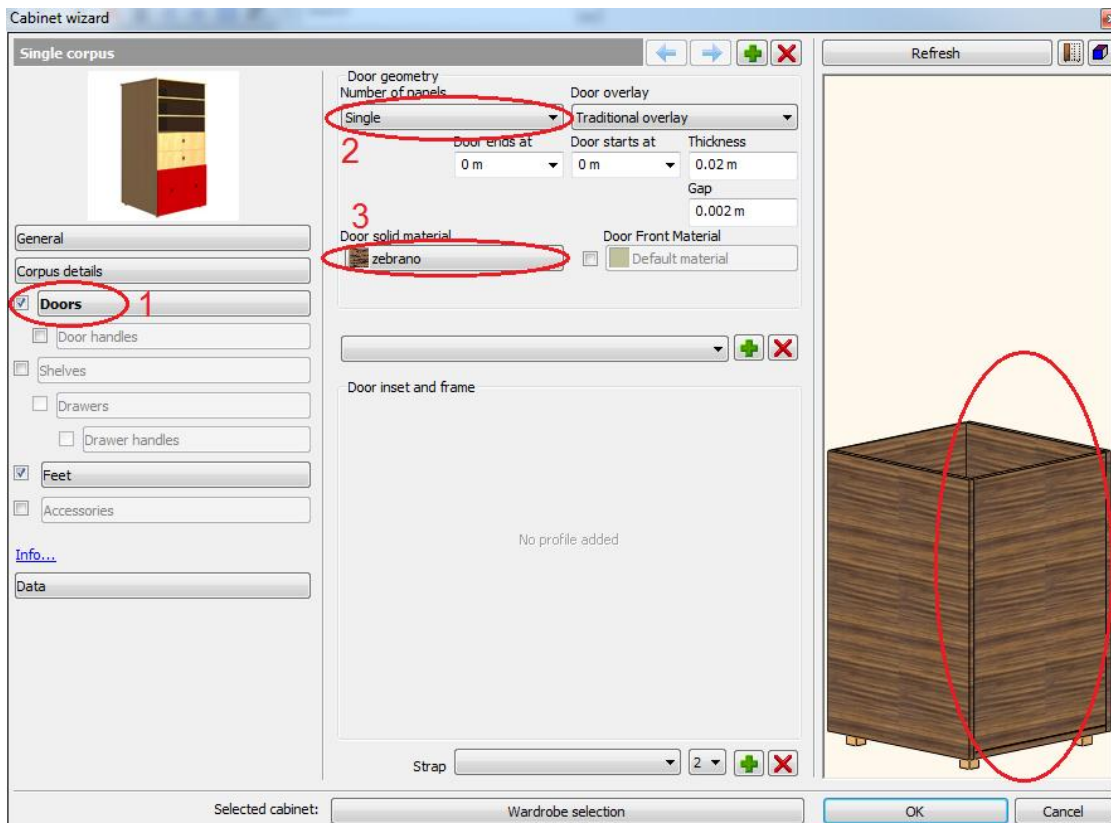
- Click on the Corpus details tab(1). Switch off the “Top side” (2). Use the refresh button if needed to update change.



#### 4.5.3. Doors tab

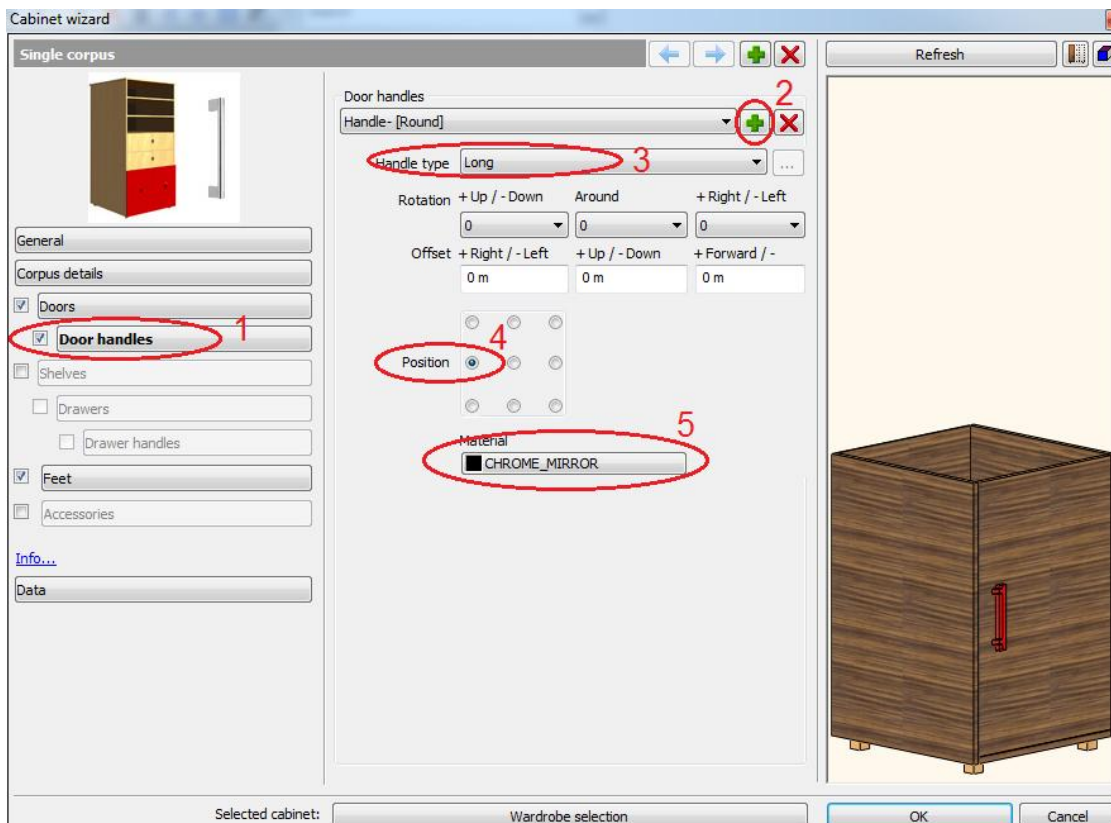
- Click on the checkbox and activate the Doors tab(1).
- Select from the list the “Single” door (2).
- Select a finish(3) “Zebrano”.
- Use the refresh button if needed to update change.





#### 4.5.4. Door handle tab

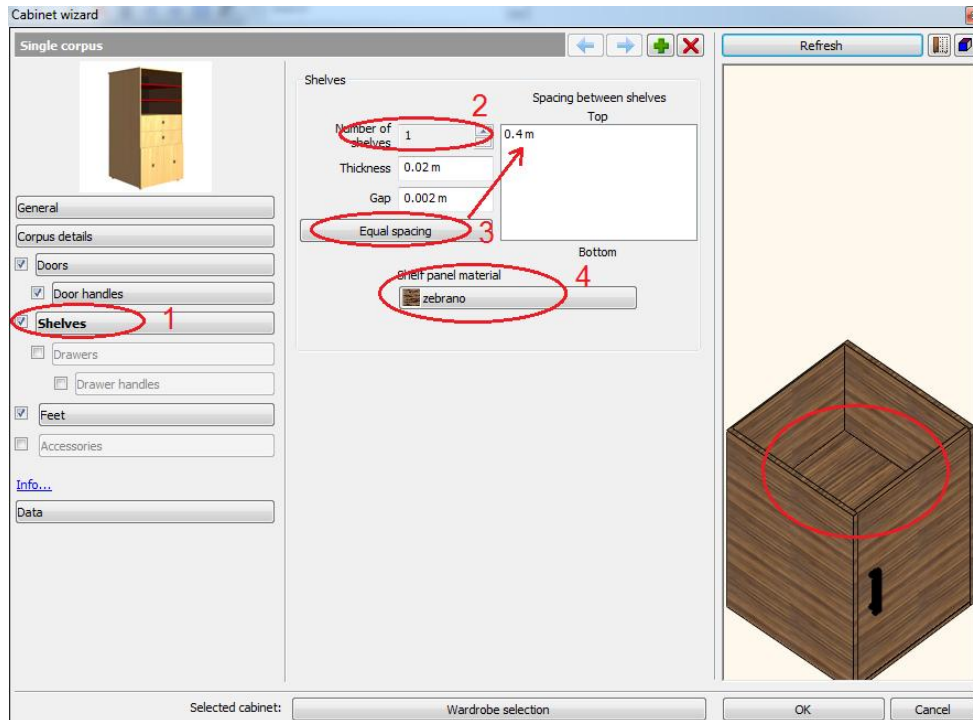
- Click on the checkbox and activate the Door handles tab(1).
- Click on the **Green Plus +** to add a handle(2).
- Select from the list the “Long” type(3). Adjust its position on left middle side (4).
- Select the “CHROME\_MIRROR” from material library(5).
- Use the refresh button if needed to update changes.





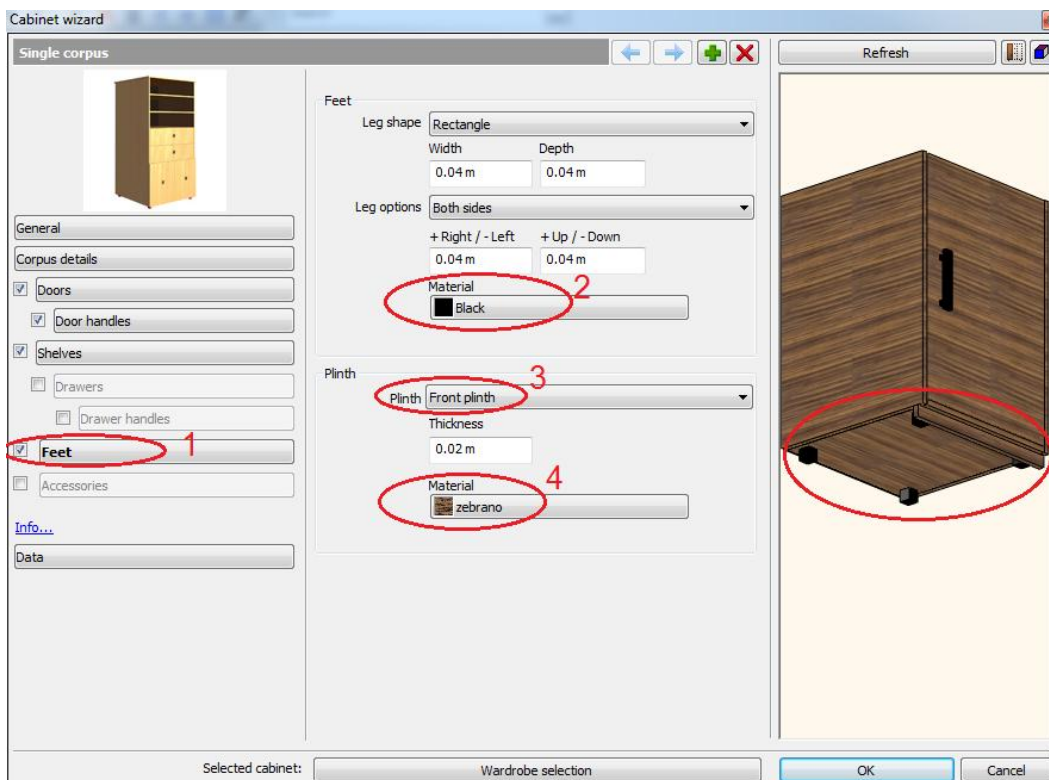
### 4.5.5. Shelves tab

- Click on the checkbox and activate the Shelves tab(1).
- Click on small up arrow (2) to add a shelf.
- Click on the “Equal spacing” button to place the shelf in the middle (3).
- The height value will be displayed in the “Spacing between shelves” list. Here you can change its height if needed.
- Select the “Zebrano” from material library(4). Use the refresh button if needed to update changes.
- Move the cursor over the 3D view. Click and hold down the mouse button and start to move the mouse in any direction. It will rotate the model as you move the mouse.



### 4.5.6. Feet tab

- Click on the checkbox and activate the Feet tab(1).
- Select the “Black” from material library(5) for feet material.
- Add plinth with choosing from the list the “Front plinth” type(3).
- Select the “Zebrano” from material library(5) for plinth material. Use the refresh button if needed to update changes.
- Move the cursor over the 3D view. Click and hold down the mouse button and start to move the mouse in any direction. It will rotate the model as you move the mouse.

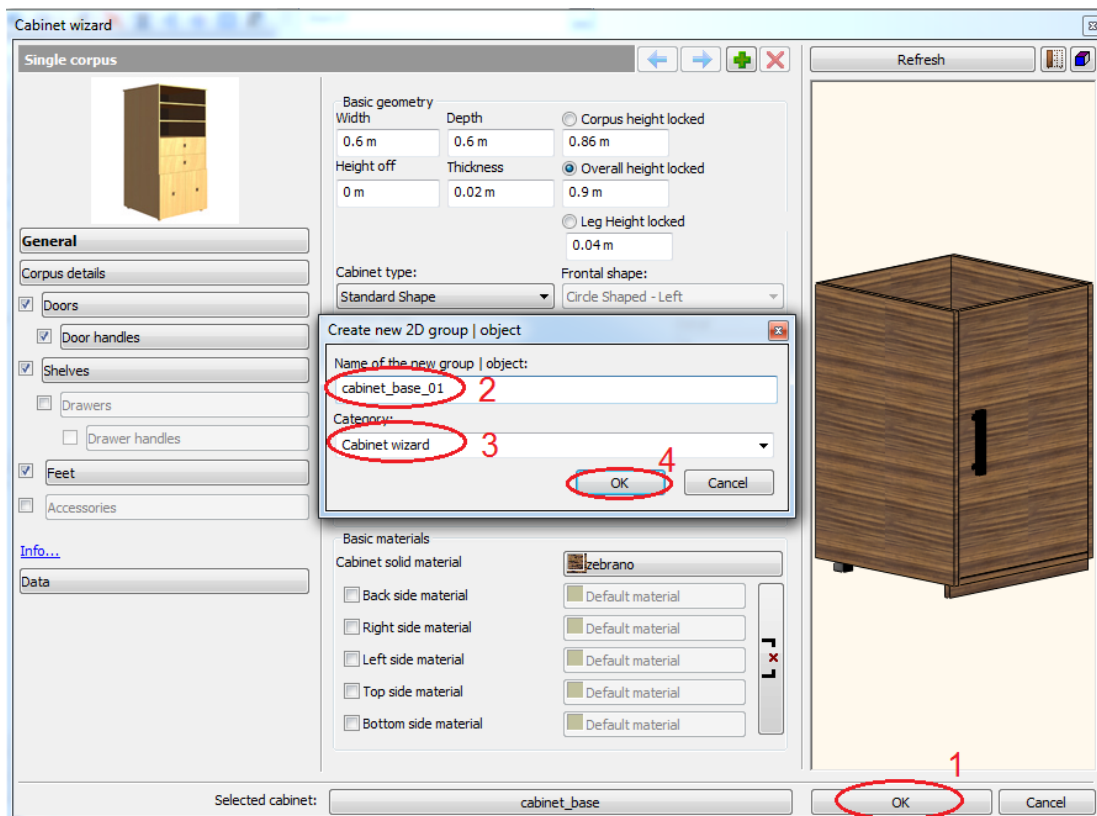


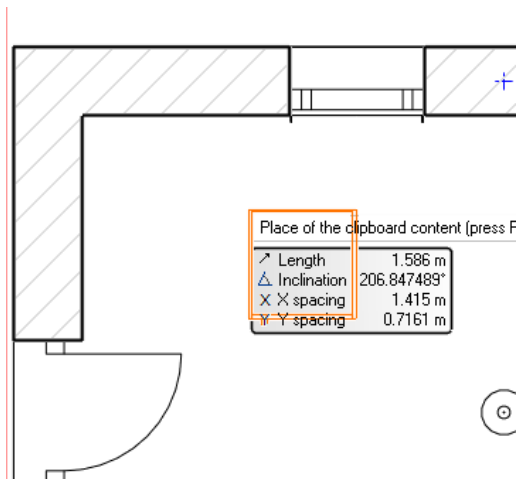
#### 4.5.7. Save

The new cabinet is completed. Add a name to the completed object and place in a category and save it in the object library. From now on you can place the completed object in any project.

- Click on the Ok button (1) and add the name "cabinet\_base\_01" (2) in the upcoming small dialog. Select the "Cabinet wizard" (3) category. Press Ok (4) to save in the library.

Now place the completed object in the 2D window.

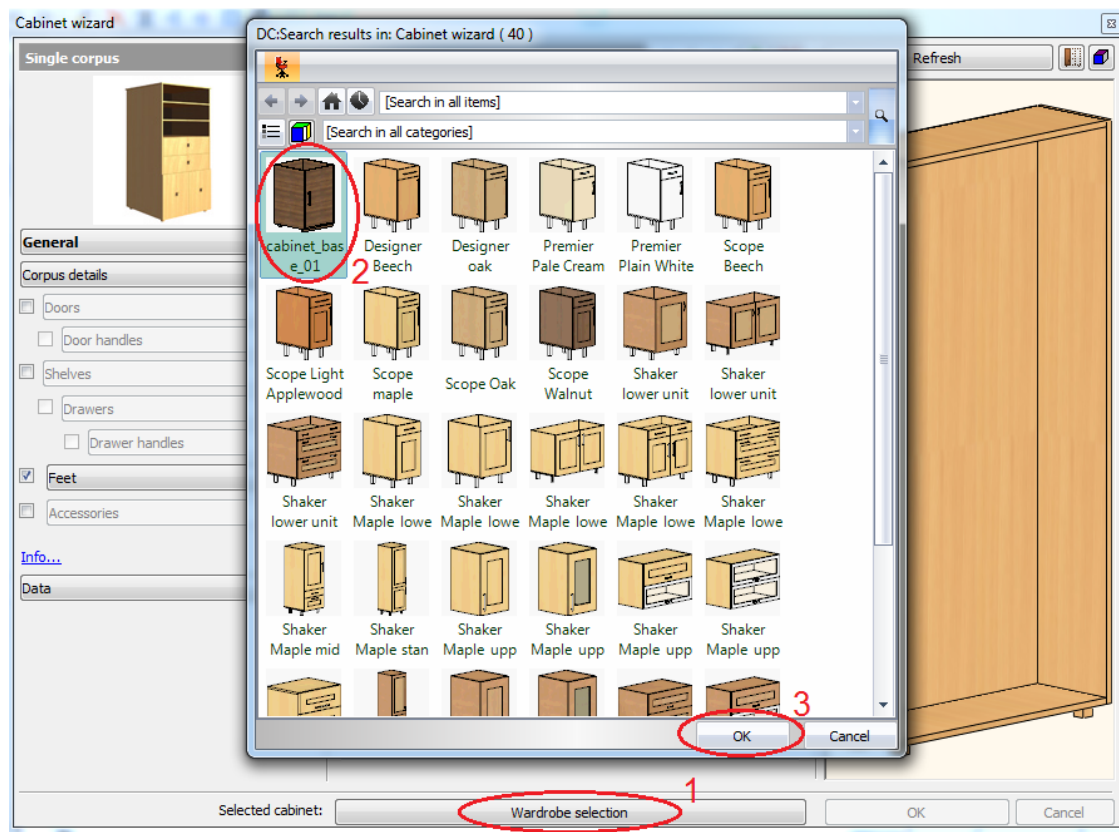




## 4.6. Cabinet wizard – Lower corner cabinet

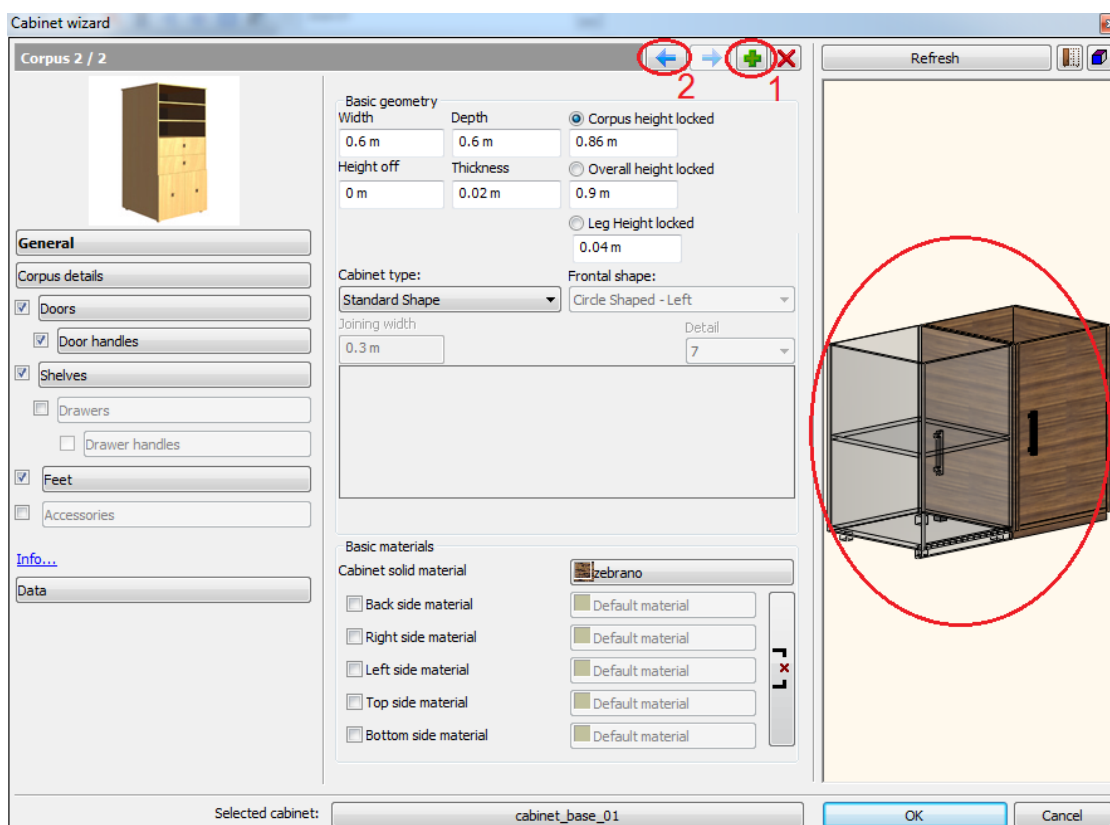
New cabinets can be created from already existing cabinets.

- Go into cabinet wizard again press the Wardrobe selection (1) button and select an existing cabinet “cabinet\_base\_01” from the list (2). Press Ok (3) to load it into Cabinet wizard dialog to form it into a new furniture.



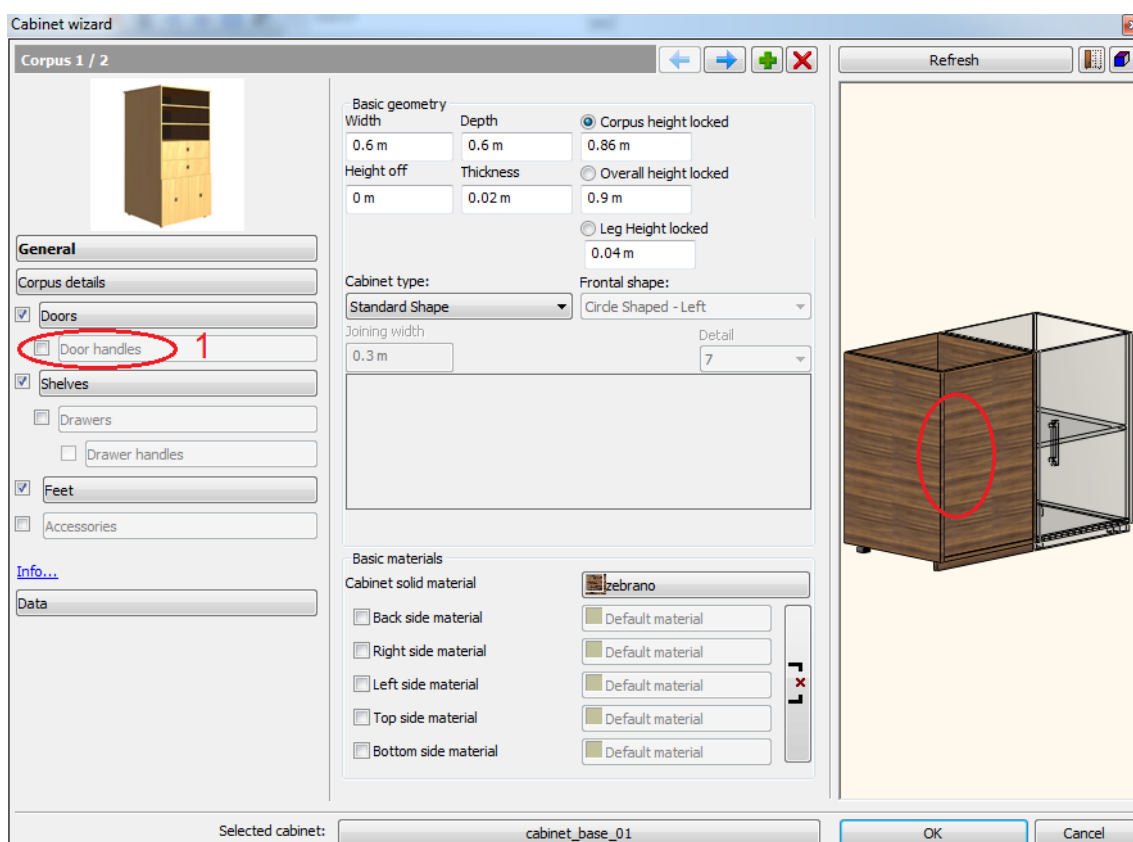
### Double the corpus

- Click on the **Green plus** (1) to double the corpus. Use the blue arrows to
- navigate between the 2 parts. Now click on the blue arrow (2) to activate the first part.



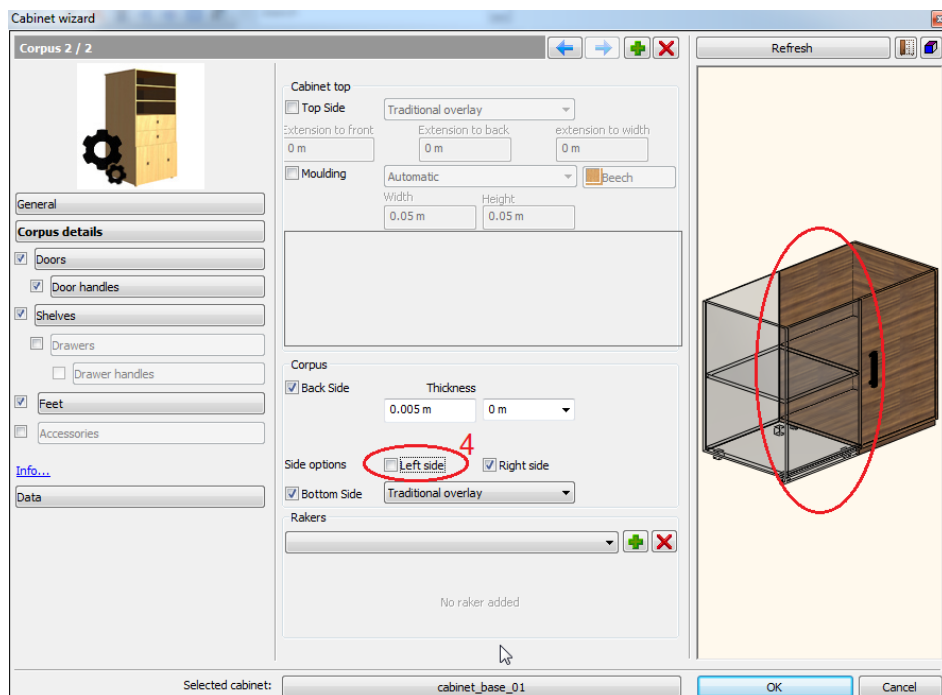
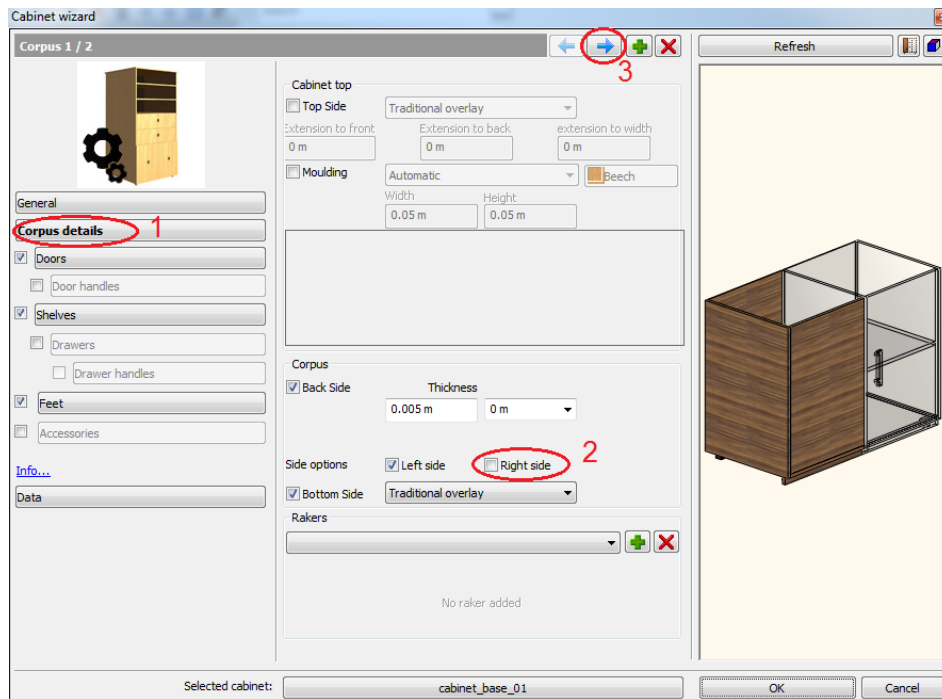
### Door handle off

- In the door handles tab uncheck the handle (1).



### Corpus side off

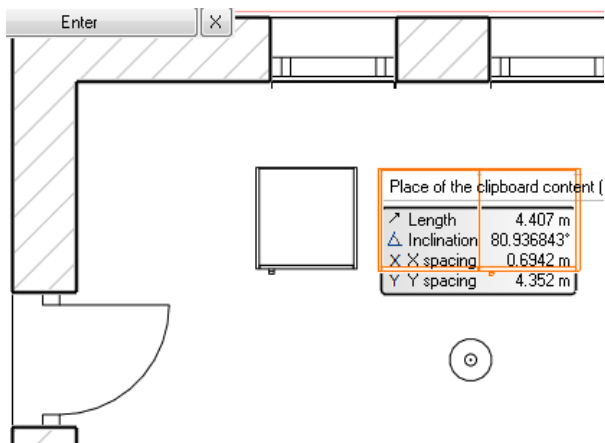
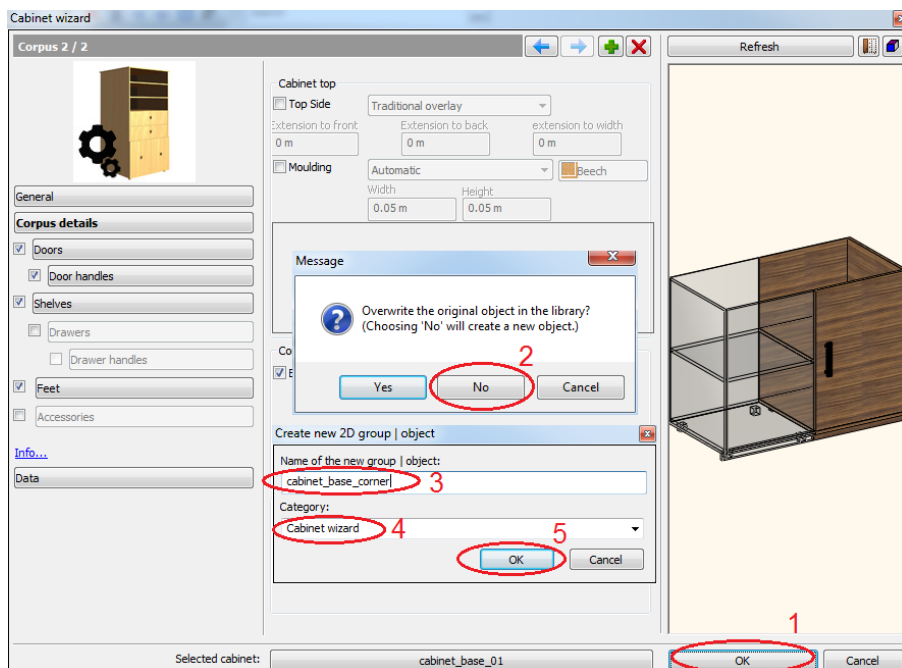
- Click on the Corpus details tab(1).
- In the corpus, uncheck the right side(2) , then click on the blue arrow (3) to navigate to the right part, and uncheck the left side(4).



## Save

The new cabinet is completed. Add a name to the completed object and place in a category and save it in the object library. From now on you can place the completed object in any project.

- Click on the Ok button (1) and select “No” (2) in the upcoming small dialog. In this case you will create a new object in library. Add the name “cabinet\_base\_corner” (3) in the next upcoming small dialog. Select the “Cabinet wizard” (4) category. Press Ok (5) to save in the library.
- Now place the completed object in the 2D window.

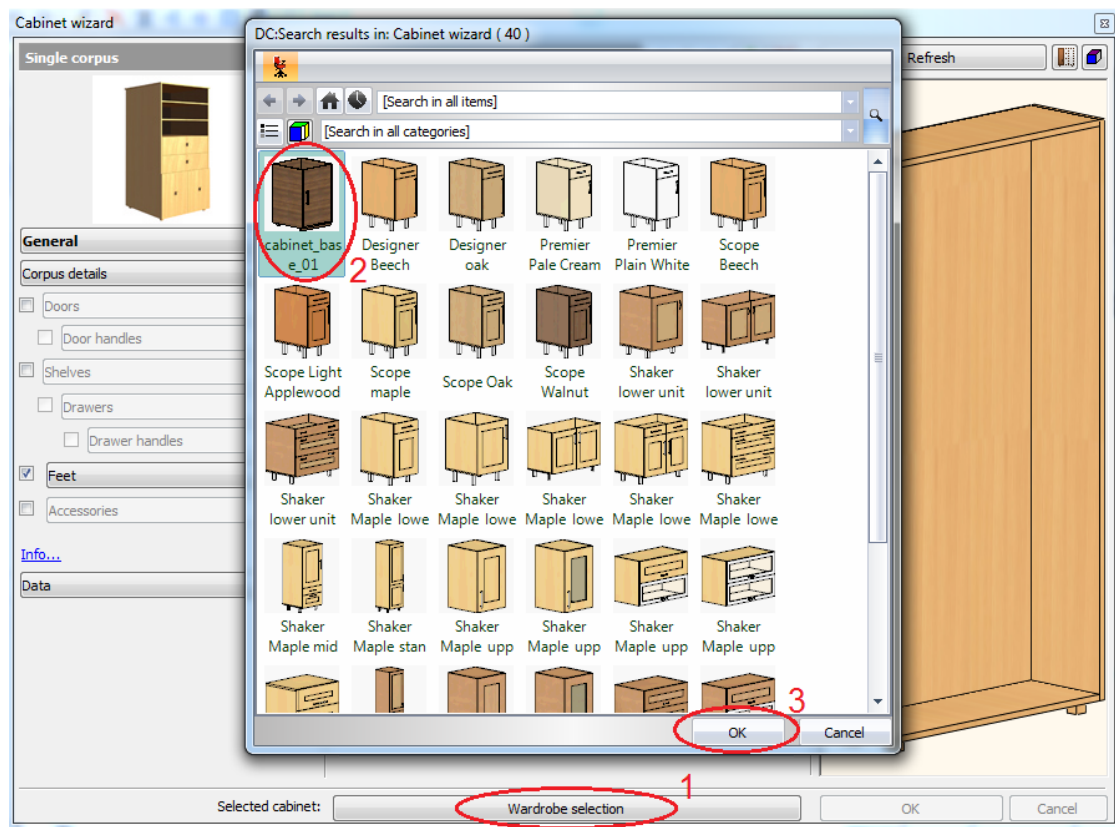


## 4.7. Cabinet wizard – Double door base cabinet

New cabinets can be created from already existing cabinets.

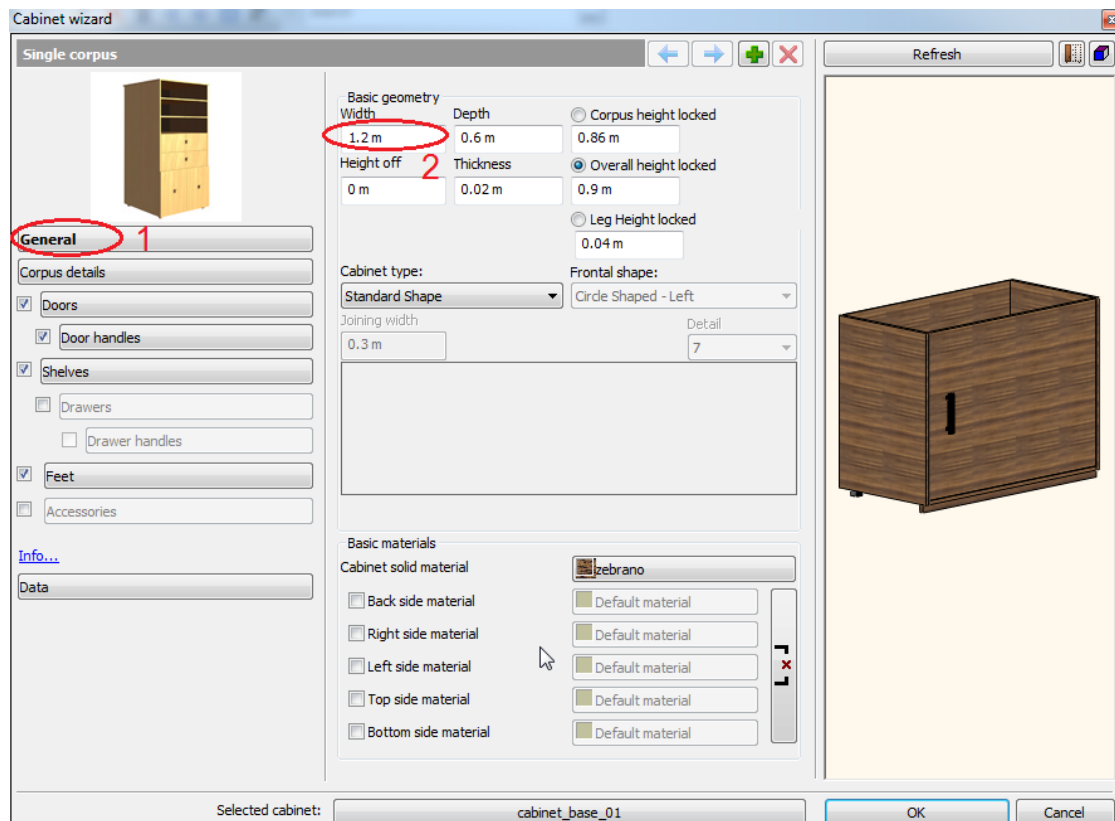
- Go into cabinet wizard again press the Wardrobe selection (1) button and select an existing cabinet “cabinet\_base\_01” from the list (2). Press Ok (3) to load it into Cabinet wizard dialog to form it into a new furniture.

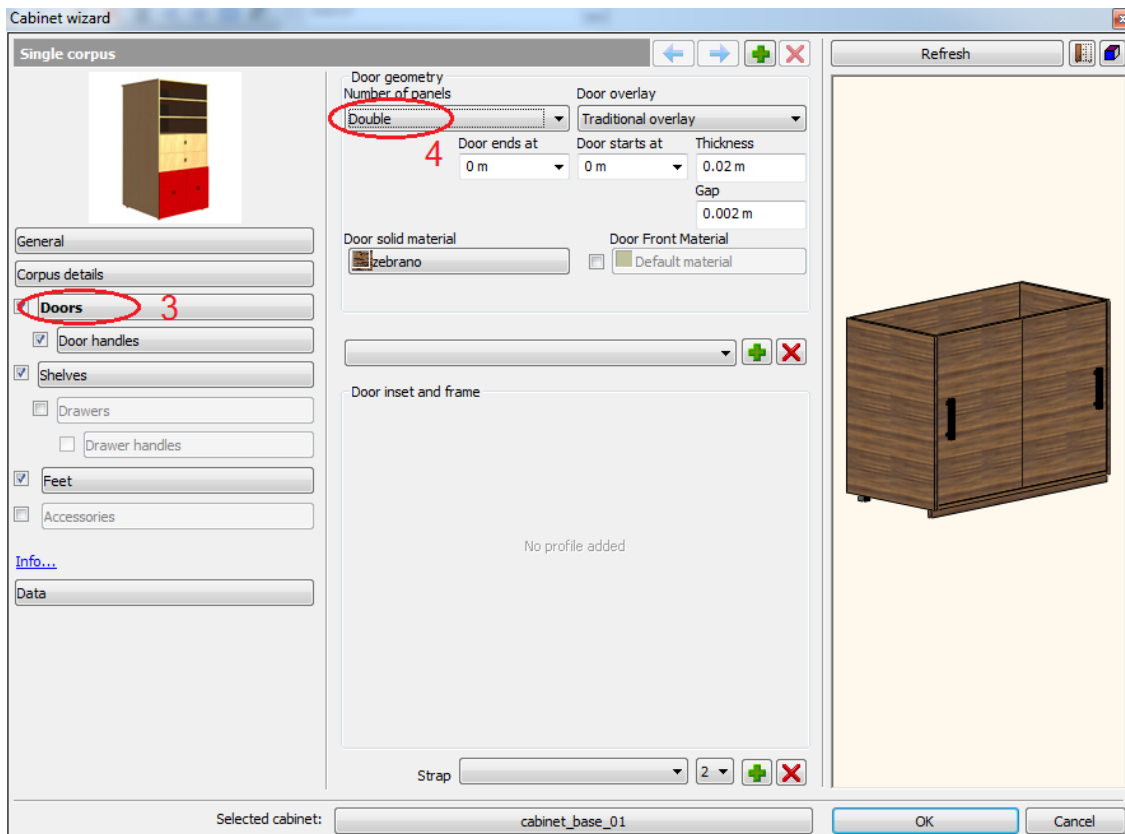




### New size

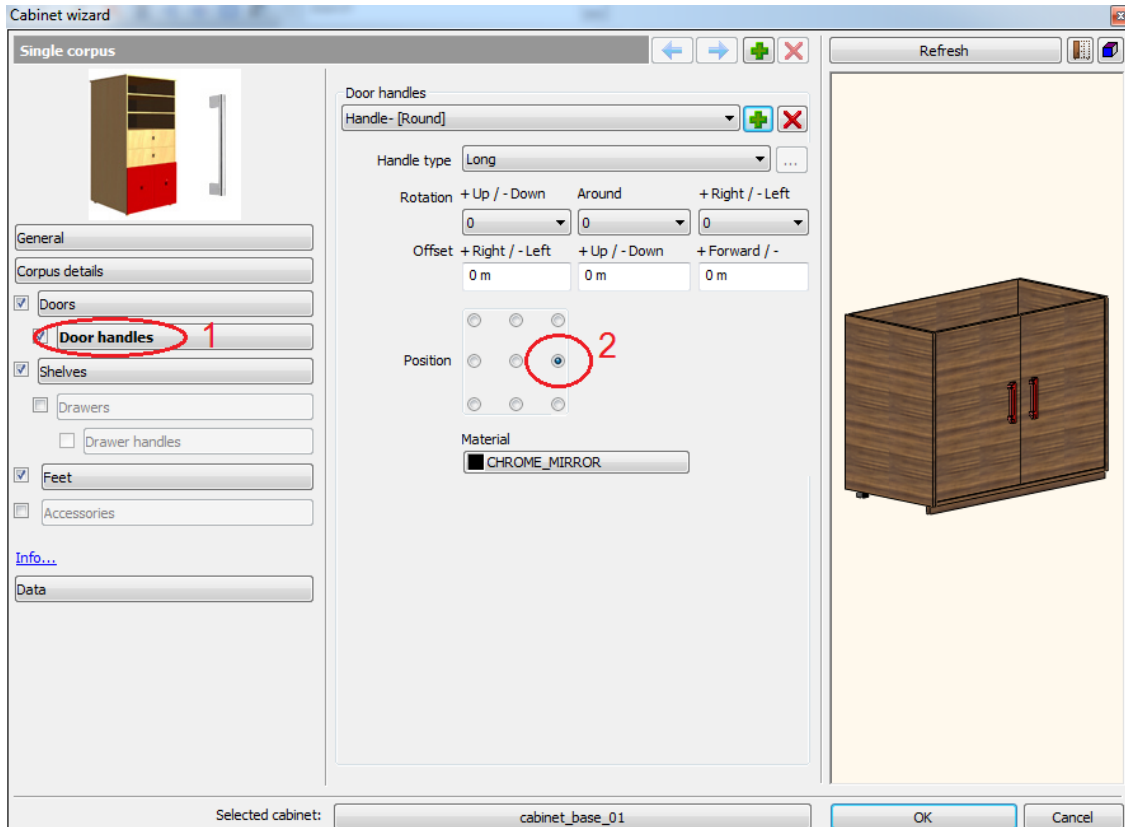
- Click on the General tab(1). Edit the basic geometry of the width as 1.2m (3'-11 1/4") (2). Use the refresh button(7) to update changes.
- Click on the Doors tab(3). Select from the list the "Double" door (4). Use the refresh button if needed to update changes.





### Door handle

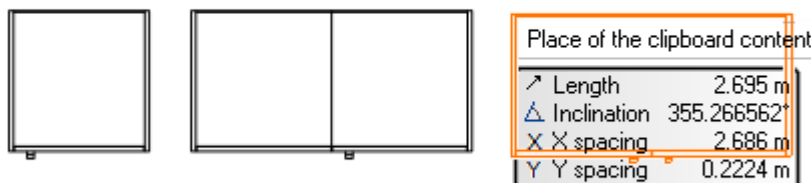
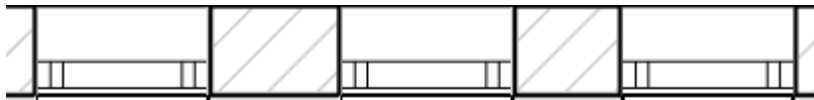
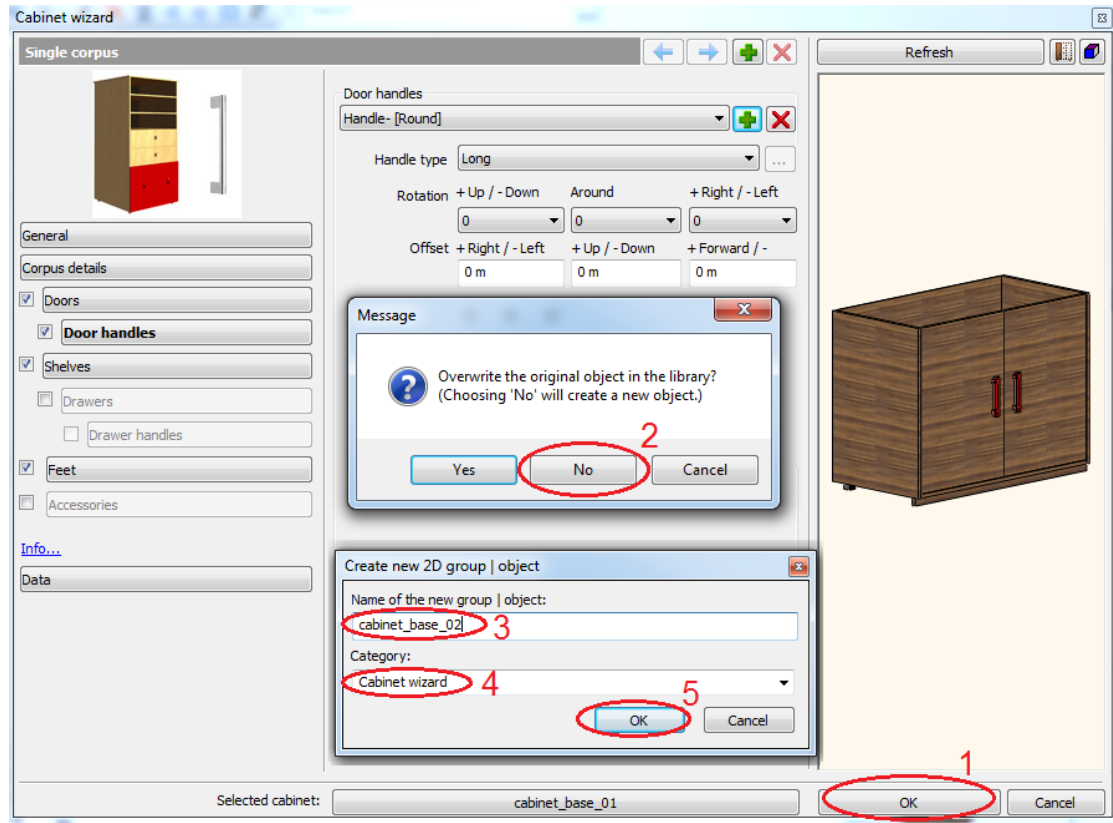
- Click on the Door handles tab(1). Adjust its position on right middle side (4). Use the refresh button if needed to update changes.



## Save

The new cabinet is completed. Add a name to the completed object and place in a category and save it in the object library. From now on you can place the completed object in any project.

- Click on the Ok button (1) and select “No” (2) in the upcoming small dialog. In this case you will create a new object in library. Add the name “cabinet\_base\_02” (3) in the next upcoming small dialog. Select the “Cabinet wizard” (4) category. Press Ok (5) to save in the library.
- Now place the completed object in the 2D window.



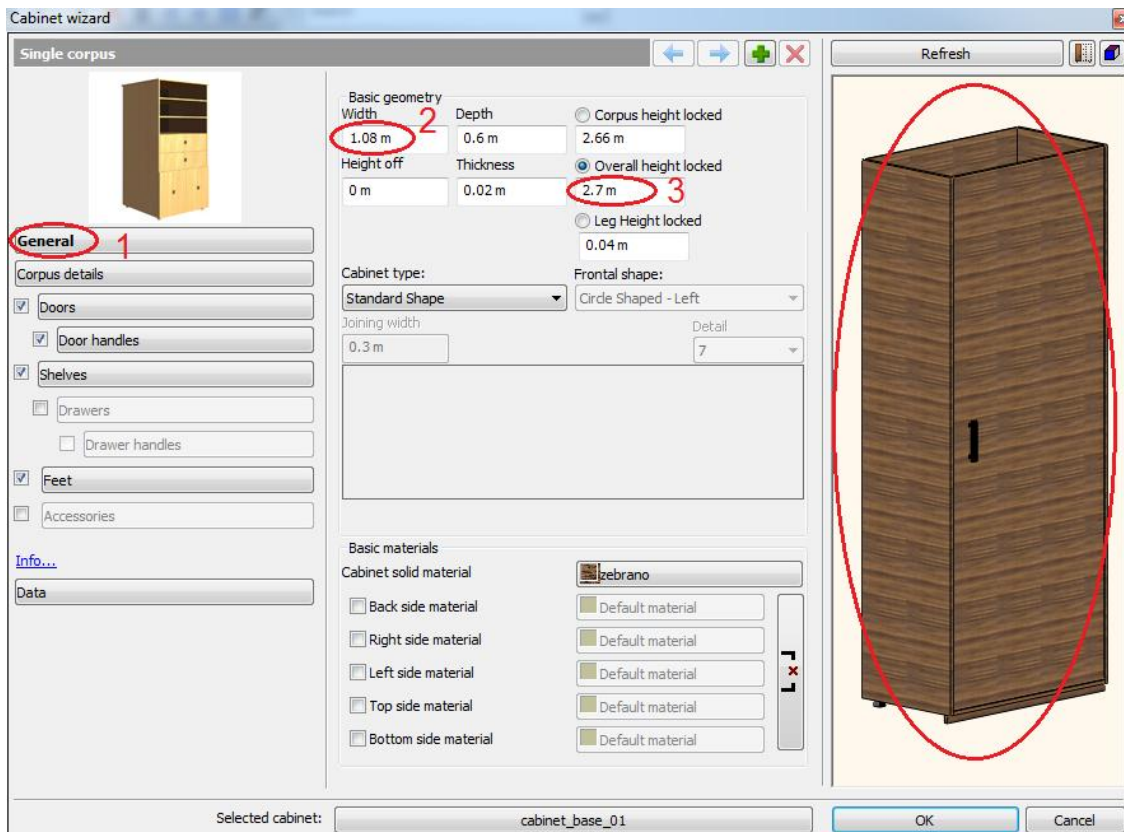
## 4.8. Cabinet wizard – Double door tall cabinet

New cabinets can be created from already existing cabinets.

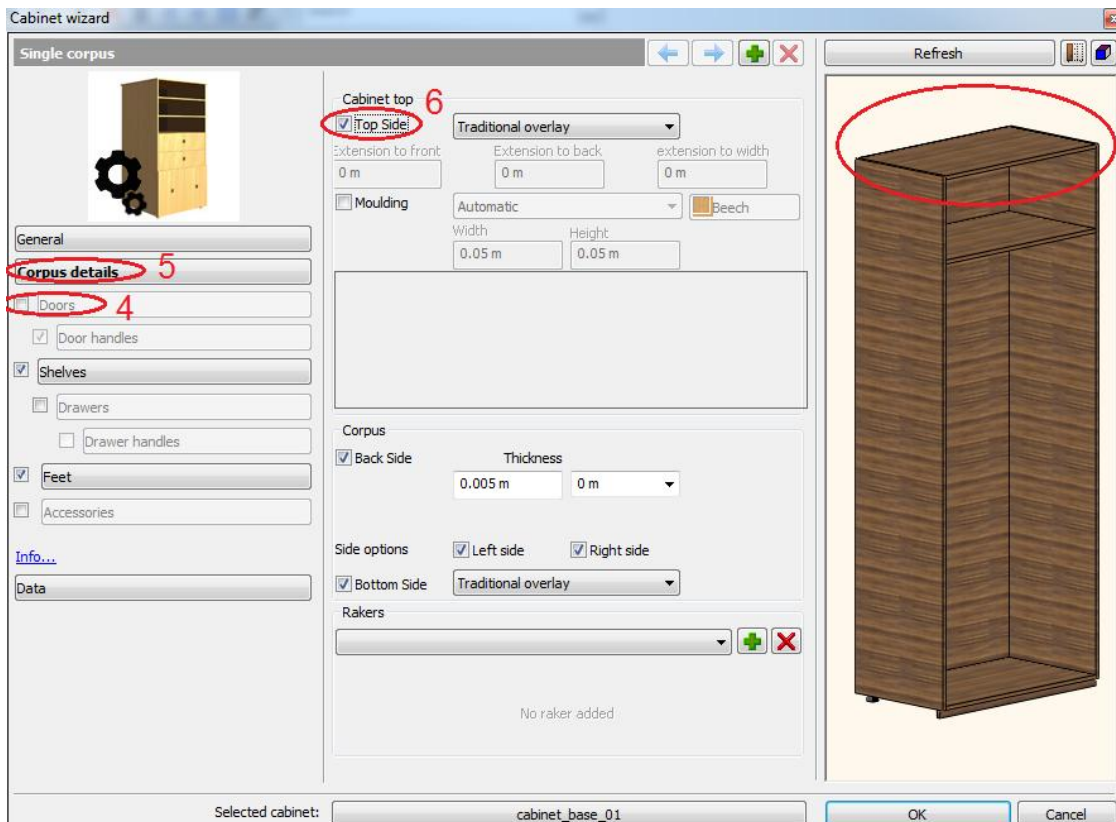
- Go into cabinet wizard again press the Wardrobe selection button and select an existing cabinet “cabinet\_base\_01” from the list. Press Ok to load it into Cabinet wizard dialog to form it into a new furniture.

**New size**

- Click on the General tab(1). Edit the basic geometry of the width as 1.08 m (3'-6 1/2") (2). Set the overall height (3) as 2.7m (8'-10 1/4"). Use the refresh button to update changes.

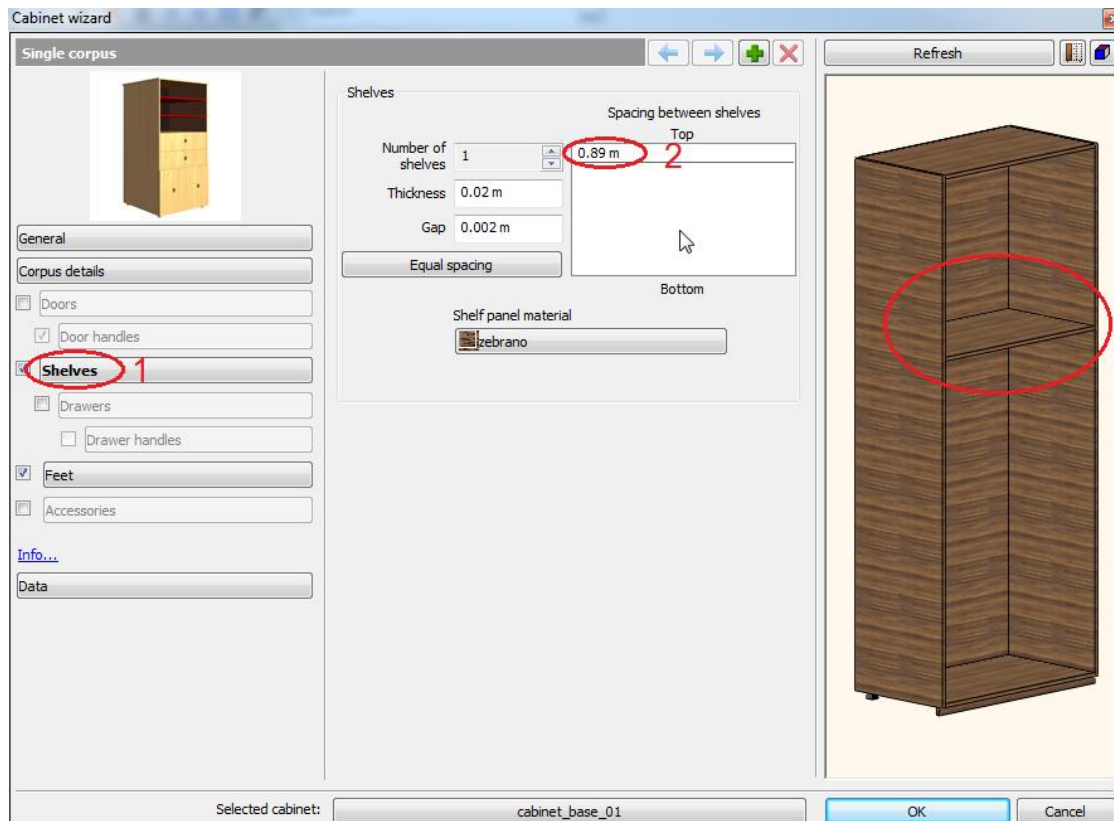


- Uncheck the Doors tab (4). Click on the Corpus details tab (5).
- Switch on the "Top side" (6). Use the refresh button if needed to update changes.

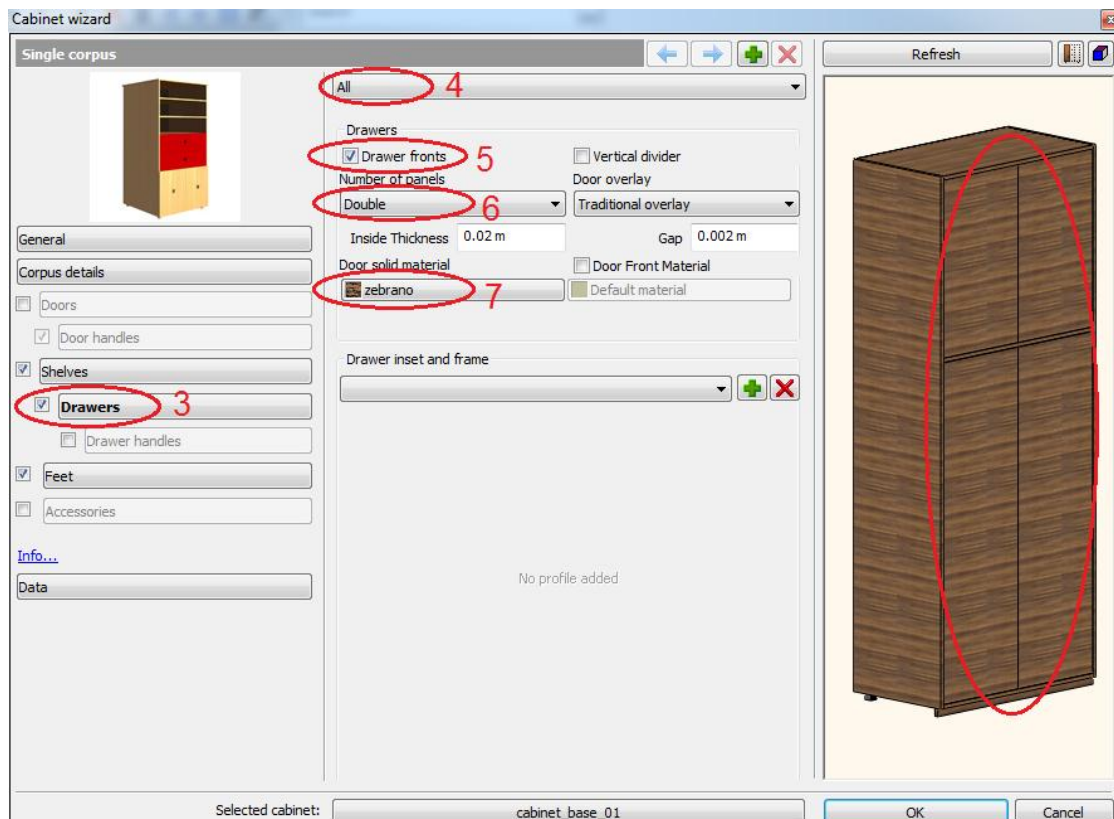


### Shelves and drawers

- Click on the checkbox and activate the Shelves tab (1). Set the height value as 0.89m (2'-11") in the "Spacing between shelves" list(2). Use the refresh button if needed to update changes.



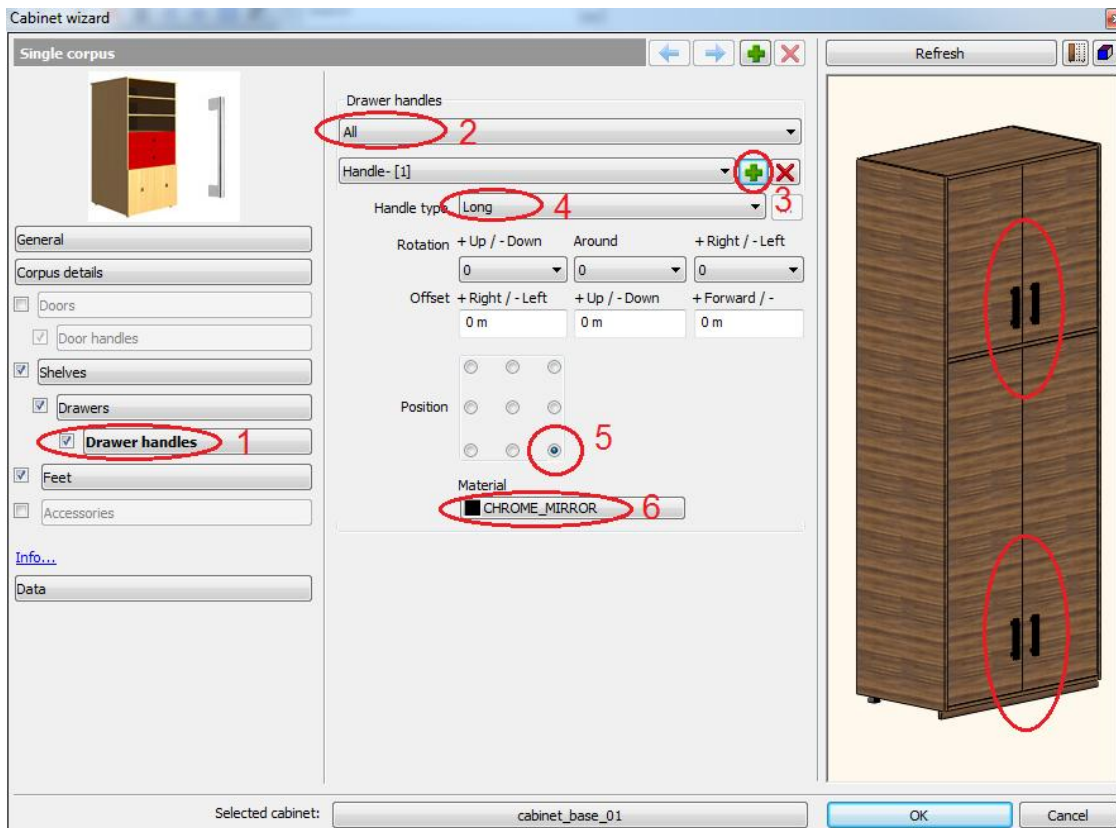
- Click on the checkbox and activate the Drawers tab (3). Click on All (4), check the drawer fronts (5), select the double panel (6), and next select "Zebrano" finish by searching in the material library.



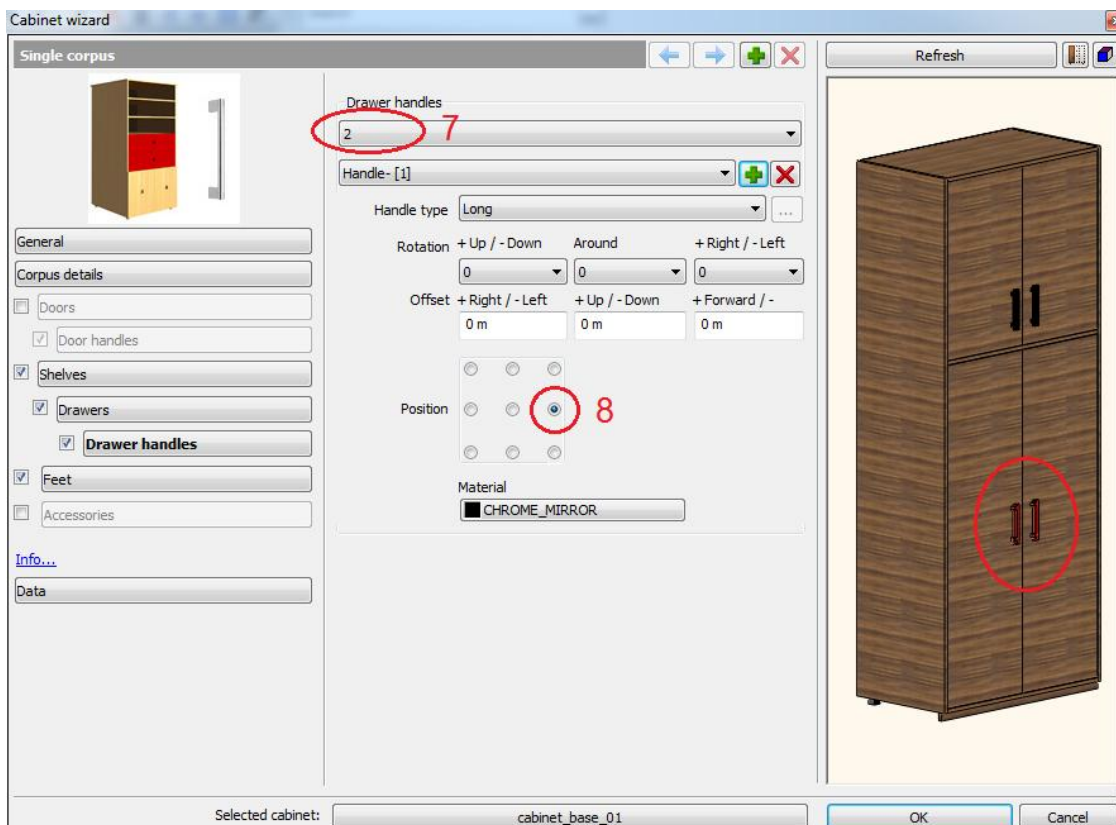


### Handle of the drawer

- Click on the checkbox and activate the Drawer handles tab (1). Click on All (2), click on the Green plus (3) to add a handle and select the "Long" handle type (4). Adjust its position to lower right (5).
- Select the "CHROME\_MIRROR" from material library(6). Use the refresh button if needed to update changes.



- Select the 2<sup>nd</sup> handle in the Handles list (7). Adjust its position to middle right (8).

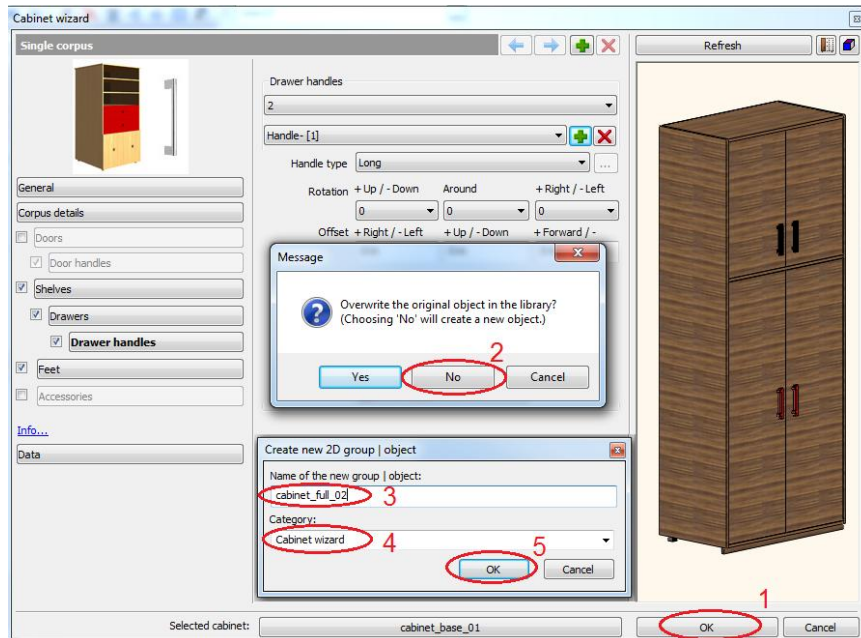




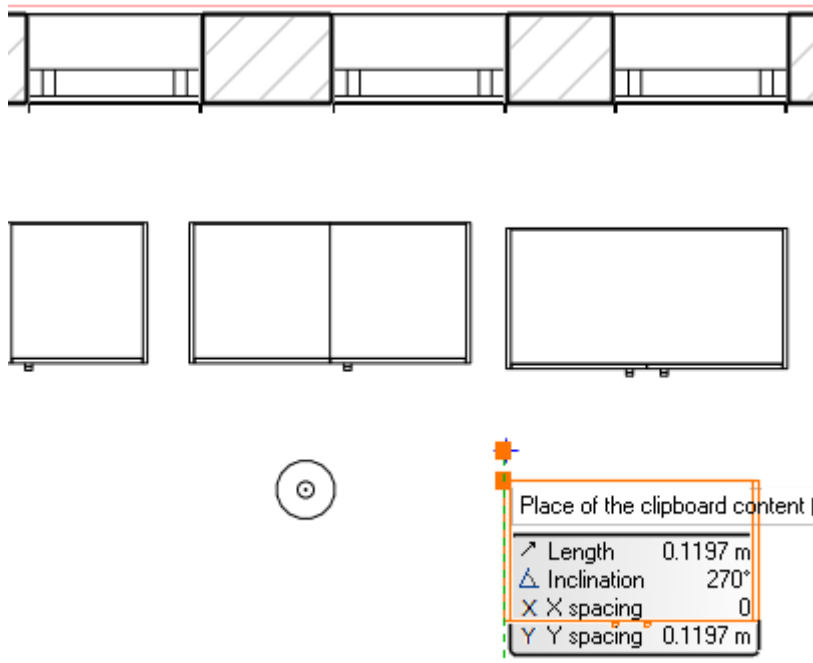
## Save

The new cabinet is completed. Add a name to the completed object and place in a category and save it in the object library. From now on you can place the completed object in any project.

- Click on the Ok button (1) and select “No” (2) in the upcoming small dialog. In this case you will create a new object in library. Add the name “cabinet\_full\_02” (3) in the next upcoming small dialog. Select the “Cabinet wizard” (4) category. Press Ok (5) to save in the library.



- Now place the completed object in the 2D window.



## 4.9. Cabinet wizard – Double door top cabinet- Optional

Now you create a top cabinet with two door in your own using the following parameters:

- Wardrobe selection: choose cabinet\_base\_02
- General panel: Width: 1.2m (3'-11 1/4"); Depth: 0.28m (11"); Overall height: 0.94m (3'-1"); Corpus material: Bright white; Height off ground: 1.3m (4'-3 1/4");
- Corpus details panel: Top side enabled;

- Door panel: aligned to the right bottom;
- No legs.
- Finally delete all the previously placed items in the 2D window.

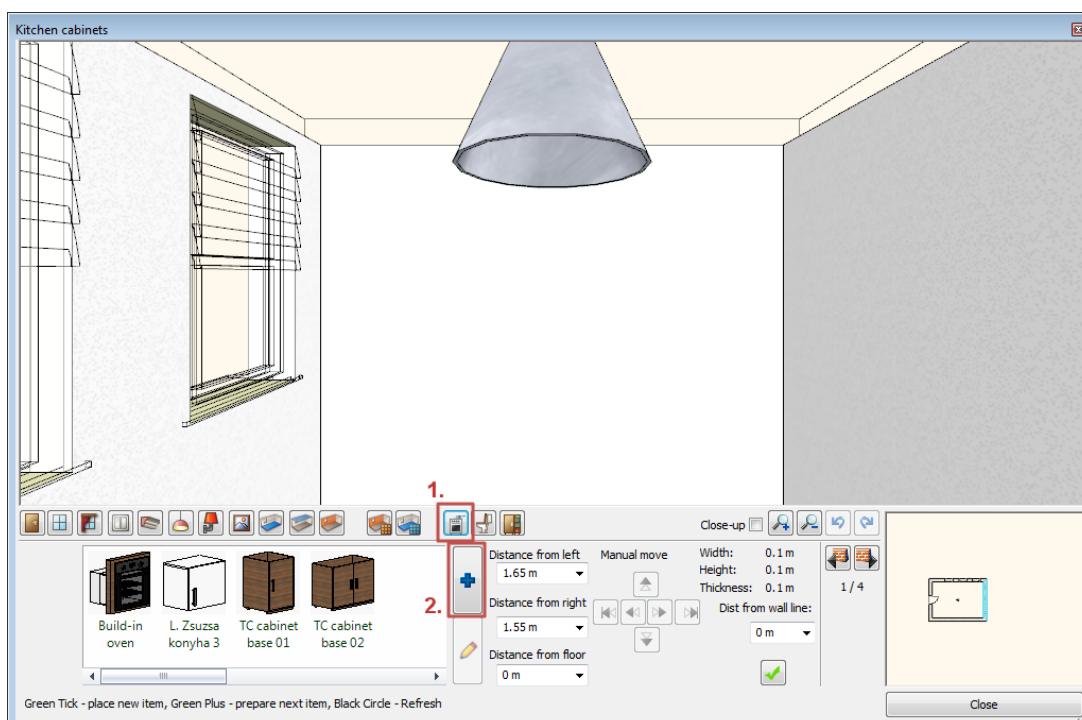
The furniture we just made and saved into the library we will now place using the tools of the **Room Maker**. This way we can let the software align the sides of the units to each other.

## 4.10. Placing furniture using the Room maker

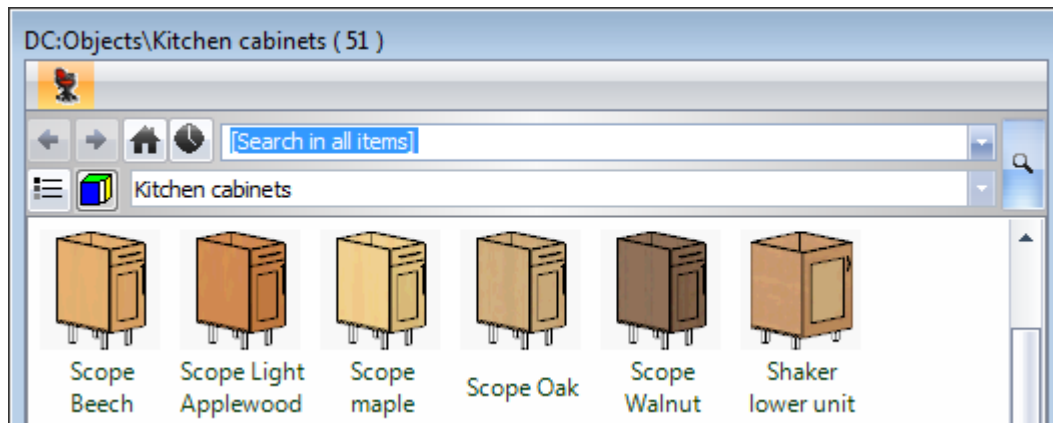
Before start placing furniture, start playing the following YouTube video: **Kitchen design - Part 2**.



- Open your browser: <http://www.youtube.com/watch?v=Gva2kcW9eMo>
- Click on the Play button in the left bottom corner of the YouTube video player. You can stop the playback any time you need.  
After watching, let's go back to ARCHLine.XP®:
- Start the Room maker and click inside the kitchen.



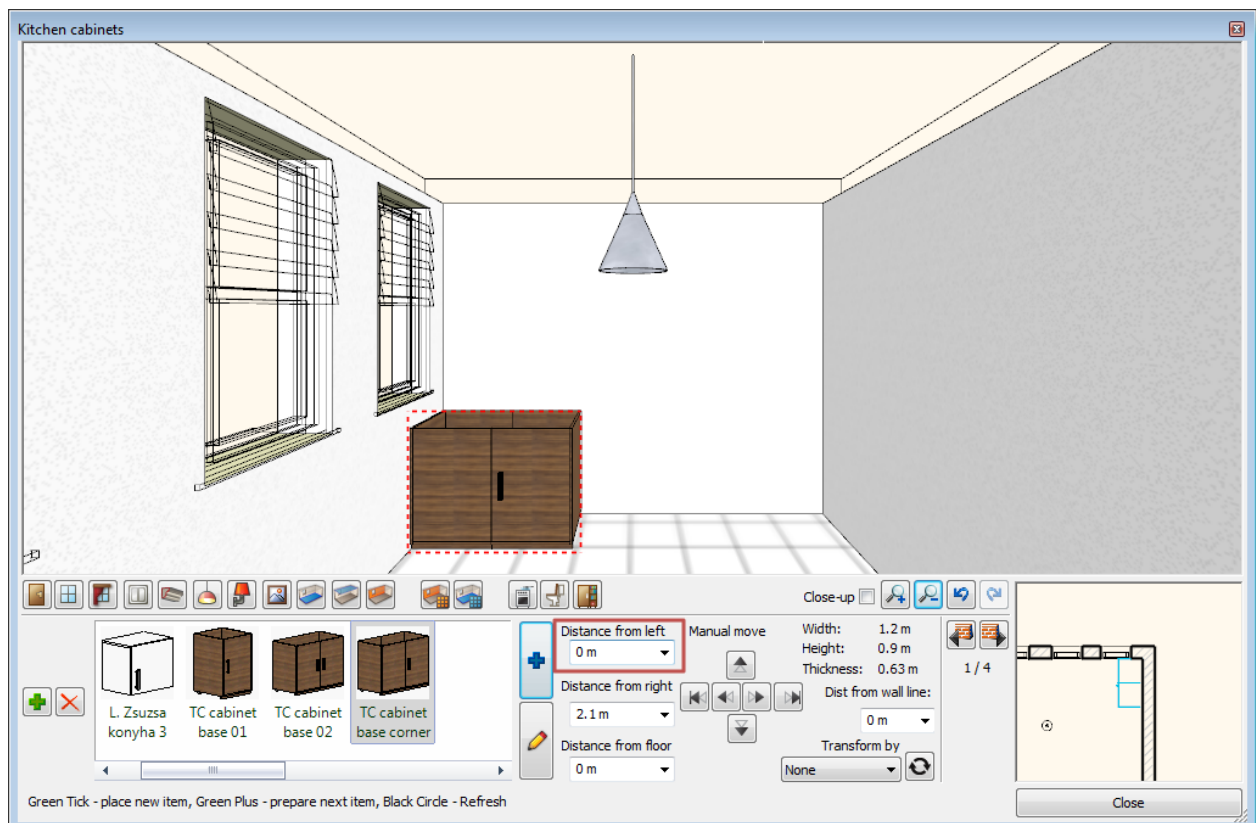
- Select the Kitchen cabinets page (1).  
There are cabinets with the name starting with TC\_.... We will use these cabinets in this tutorial.
- When you would like to use your own cabinets you need to click on the button which has a blue cross on it (2) and you can select them in the appearing dialog window. All selected cabinets will be loaded into the Favourites list:



### ***Placing a lower corner cabinet into the left side corner***

- Select the cabinet named „TC cabinet base corner” in the Favourites list.
- Make the kitchen wall active according to the following picture.
- Distance from left: 0.0 (0")
- Green thick

The selected item is aligned into the left corner in front of the wall:

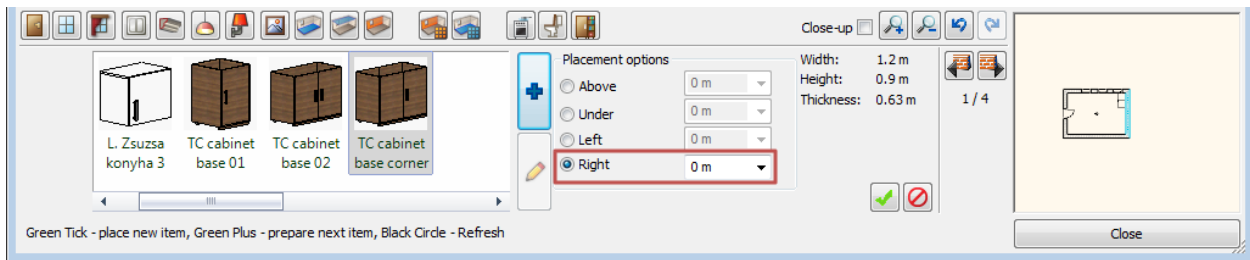


### ***Placing a lower corner cabinet into the right side corner***

- Click on the green plus to prepare placing a new item in front of the current wall.
- Select the cabinet named „TC cabinet base corner” in the Favourites list.

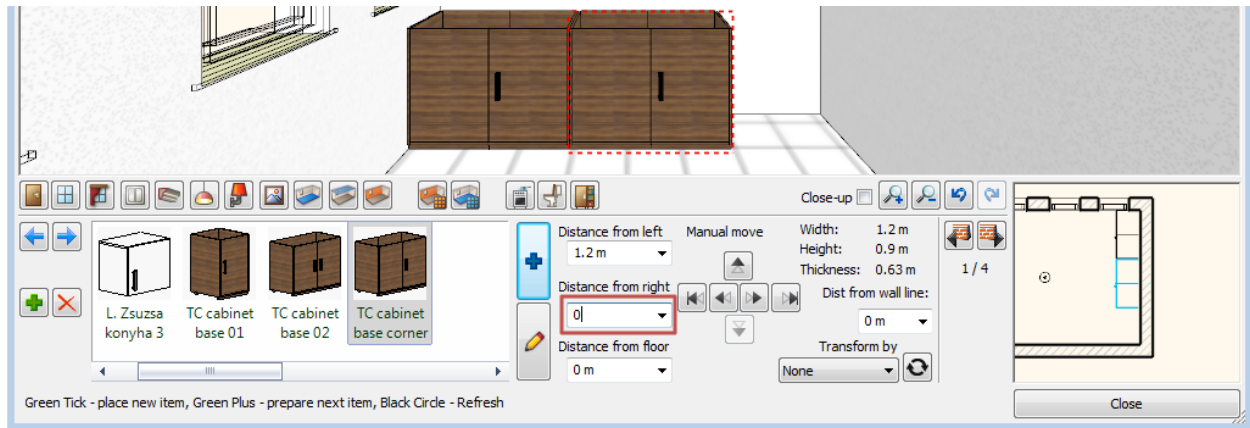
Place it next to the previous one to the right:

- Distance from right: 0.0 (0")
- Green thick

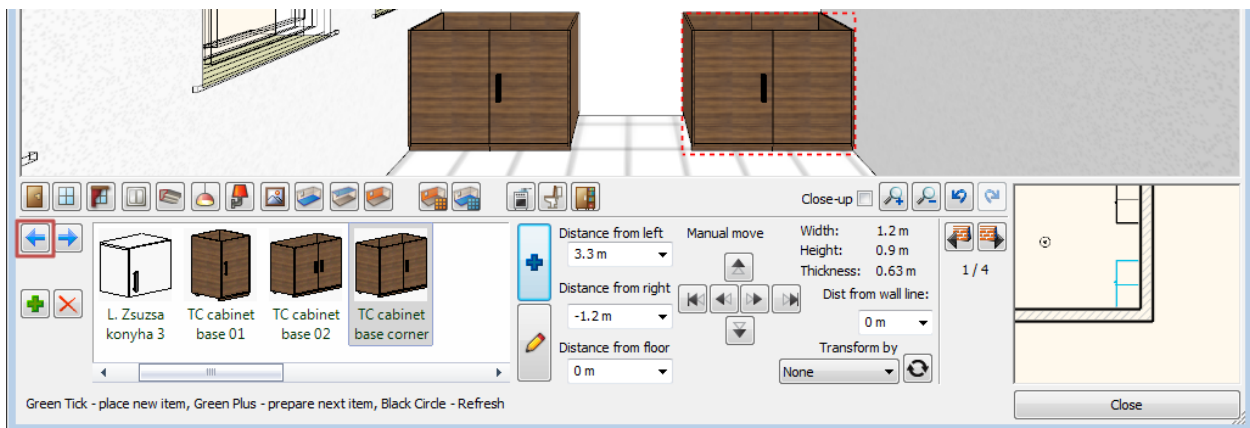


Now set the distance of the cabinet from the right corner.

- Distance from right: 0.0 (0")



- Select: Transform by - Mirrored
- Update (or Enter)

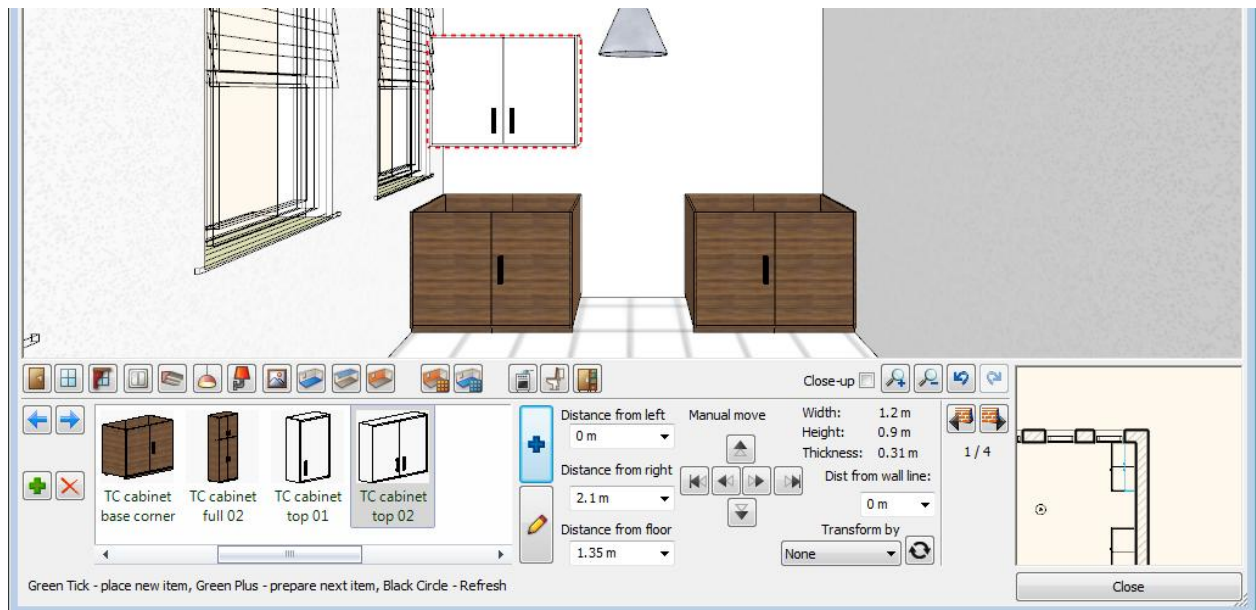
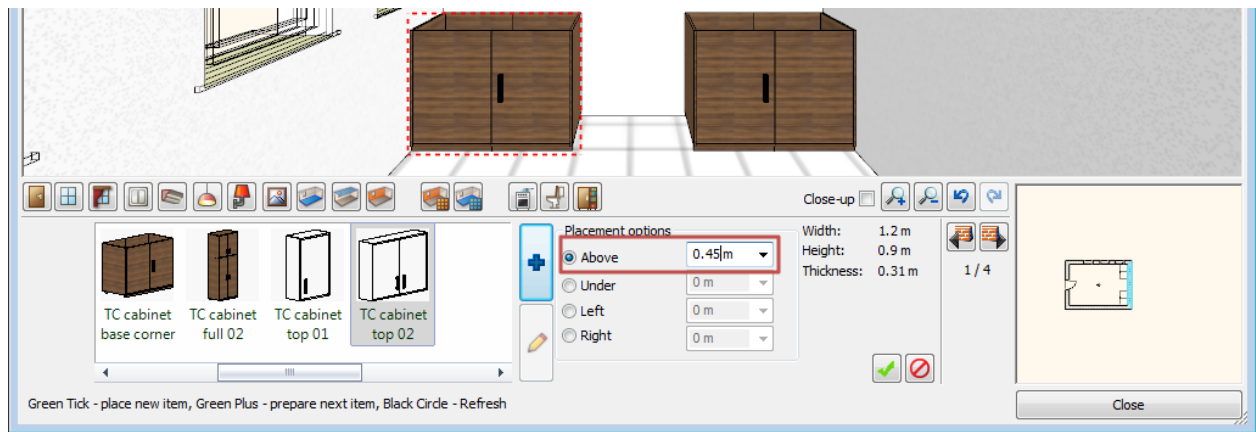


The selected item is aligned into the right corner in front of the wall.

### Placing the double door top cabinet

The top cabinet will be placed above the left side corner item by 0.45m (1'-6"). To do so, first the left side corner cabinet must be selected.

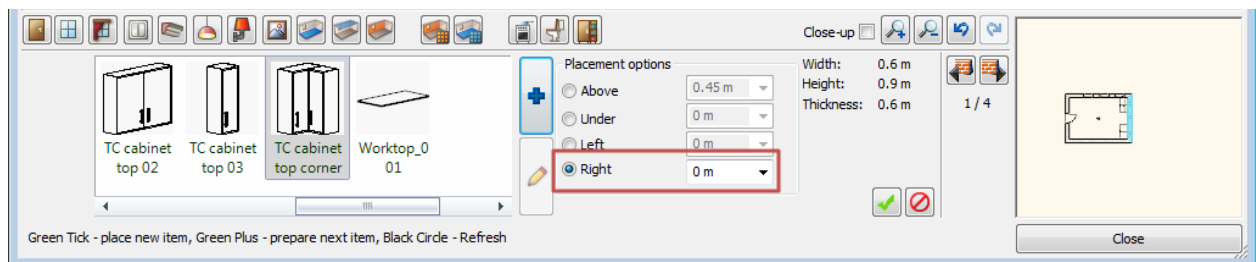
- Click on the blue arrow (highlighted on the previous image), and the left side item becomes selected.
- Click on the green plus to prepare placing a new item on this wall.
- Select the TC cabinet top 02 item.
- Above: 0.45m (1'-6"), Green thick



### Placing the top corner cabinet

The top corner cabinet will be placed right next to the double door top cabinet and it will be moved to the right corner after. Now the double door top cabinet is the active (selected) one.

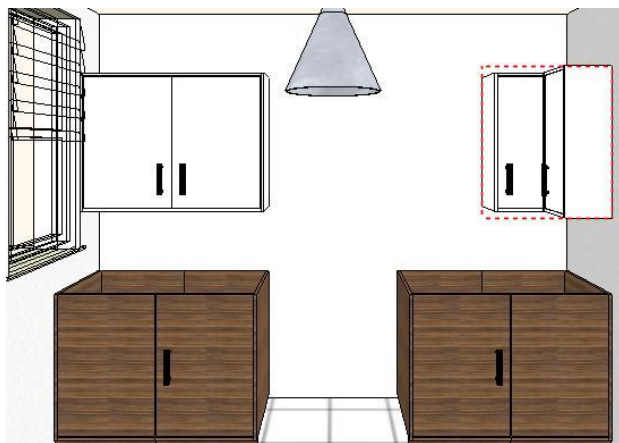
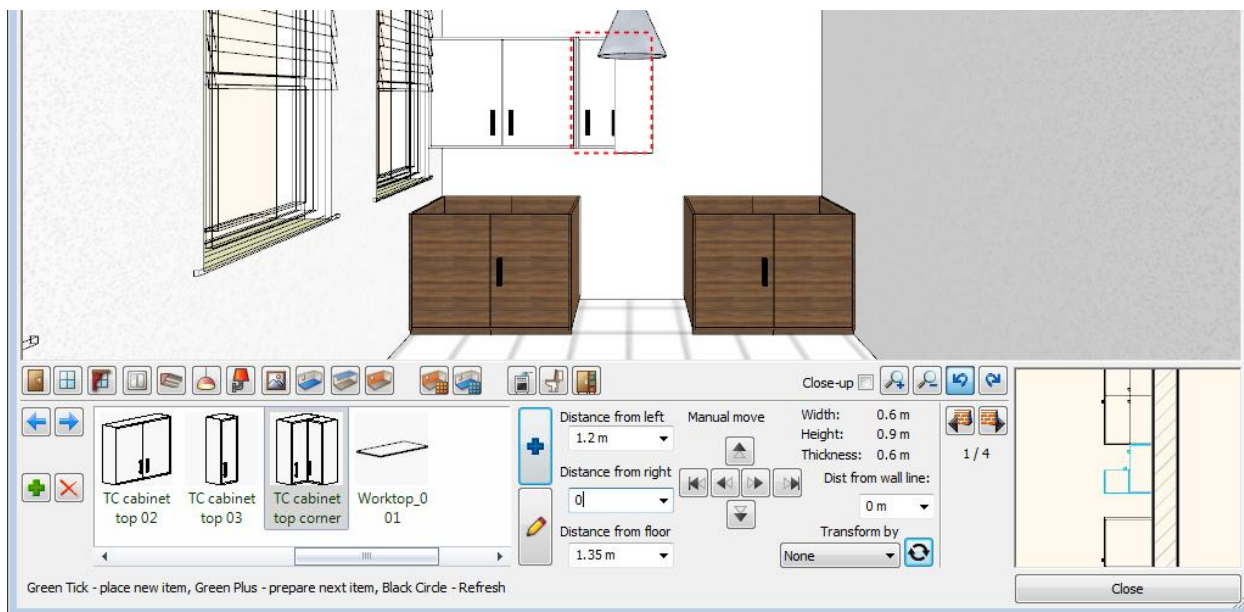
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet top corner
- Placement option is Right: 0 (0"), Green thick



Now move it to the right corner:

- Distance from right: 0 (0"), Update (Enter)

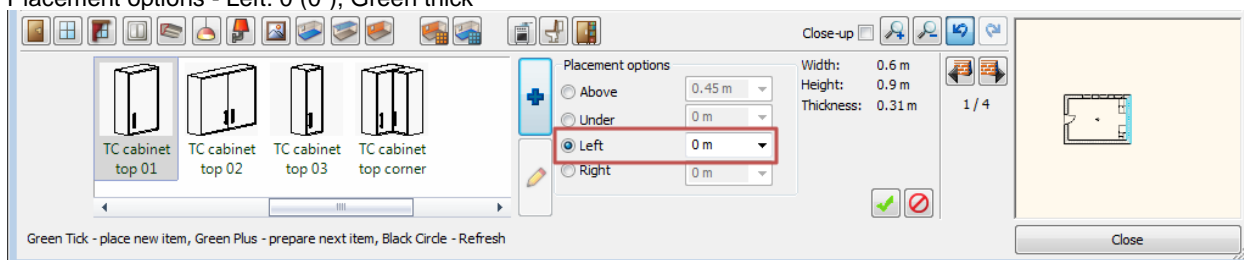




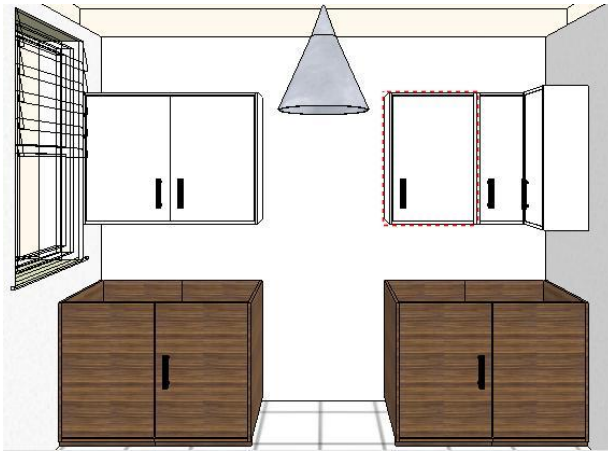
### Placing the single door top cabinet

The single door top cabinet will be placed next to the top corner cabinet on the left side. Now the top corner cabinet is the active one.

- Click on the green plus to prepare placing a new item on this wall.
- Select the item:
- Placement options - Left: 0 (0"), Green thick





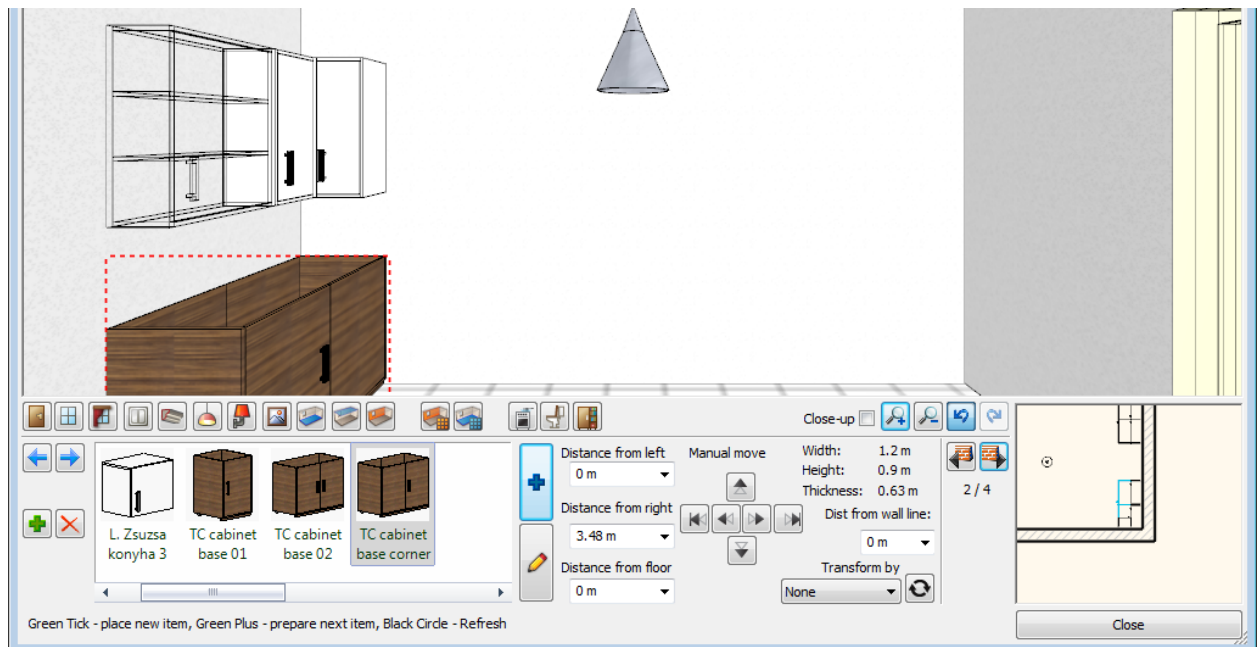


We will place further cabinets on the right side wall.

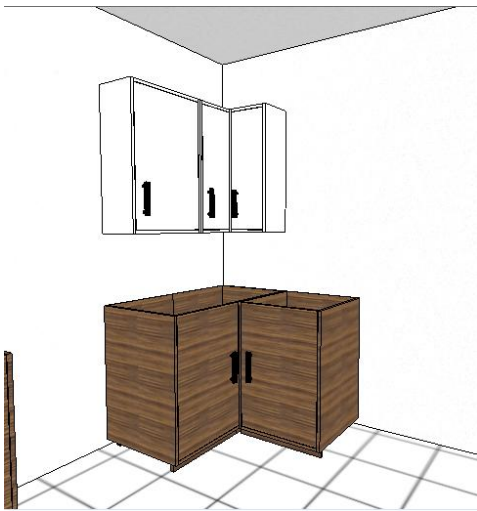
### ***Placing a single door base cabinet***

The single door base cabinet will be placed on the right side wall next to the lower corner cabinet.

- Navigate to the right side wall.  
The lower corner cabinet is the active one now.



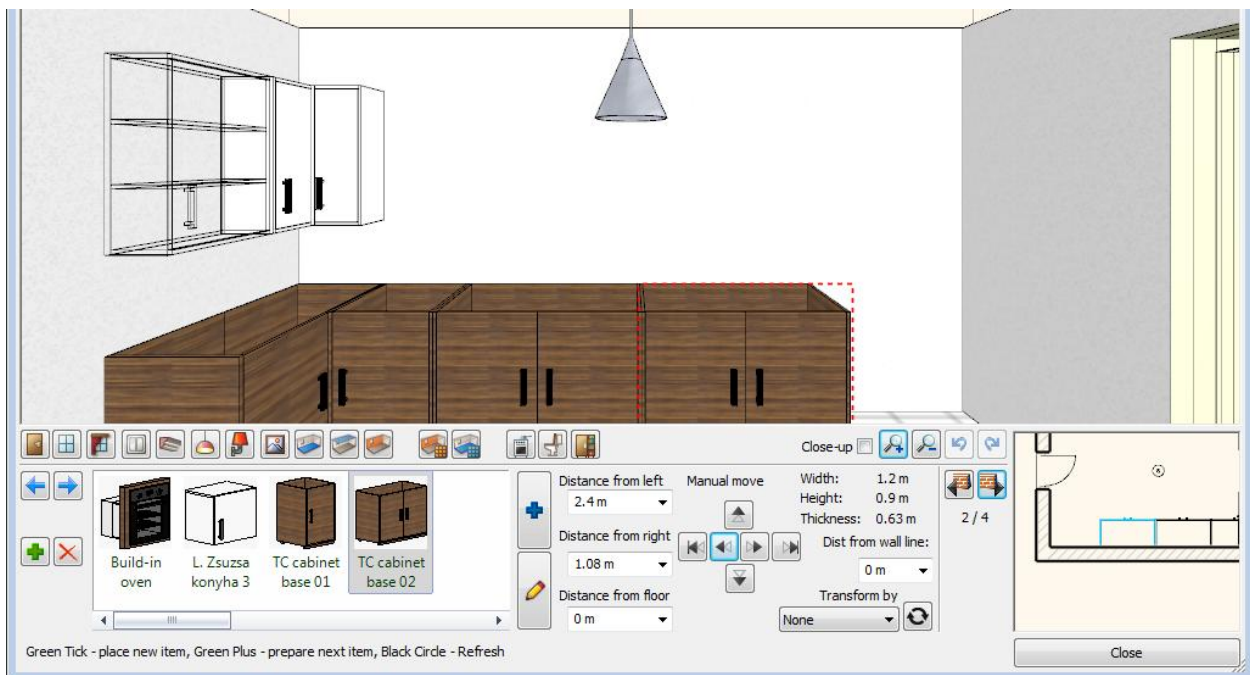
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet base 01.
- Placement options - Right: 0 (0"), Green thick



### Placing the double door base cabinets

The double door base cabinets will be placed right next to the single door unit to the right one after the other. Now the single door unit is the active one.

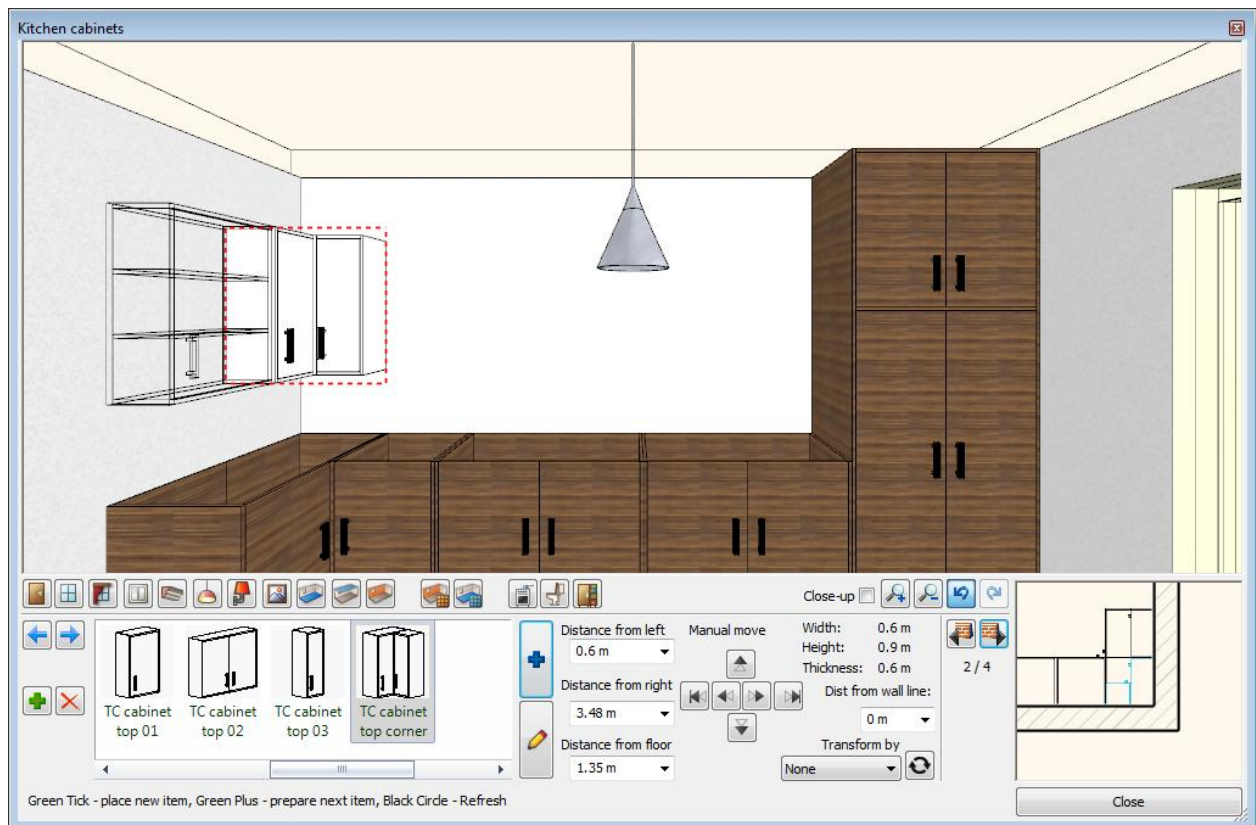
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet base 02.
- Placement options - Right: 0 (0"), Green thick
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet base 02.
- Placement options - Right: 0 (0"), Green thick



### Placing the tall cabinet

The tall cabinet will be placed next to the previously created double door item, to the right side.

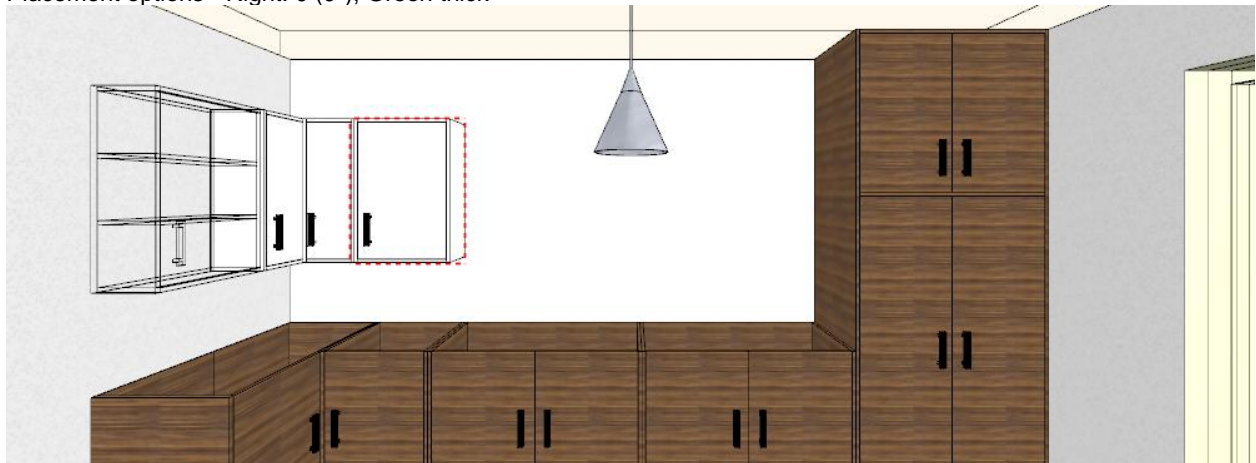
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet full 02.
- Placement options - Right: 0 (0"), Green thick
- Click on the top corner cabinet in the 3D window to make it selected:



### Placing the single door top cabinet

The single door top cabinet will be placed next to the top corner cabinet to the right side.

- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet top 01.
- Placement options - Right: 0 (0"), Green thick



### Placing double door top cabinet

2 pieces of the double door top cabinet will be placed next to the previously created single door cabinet to the right side.

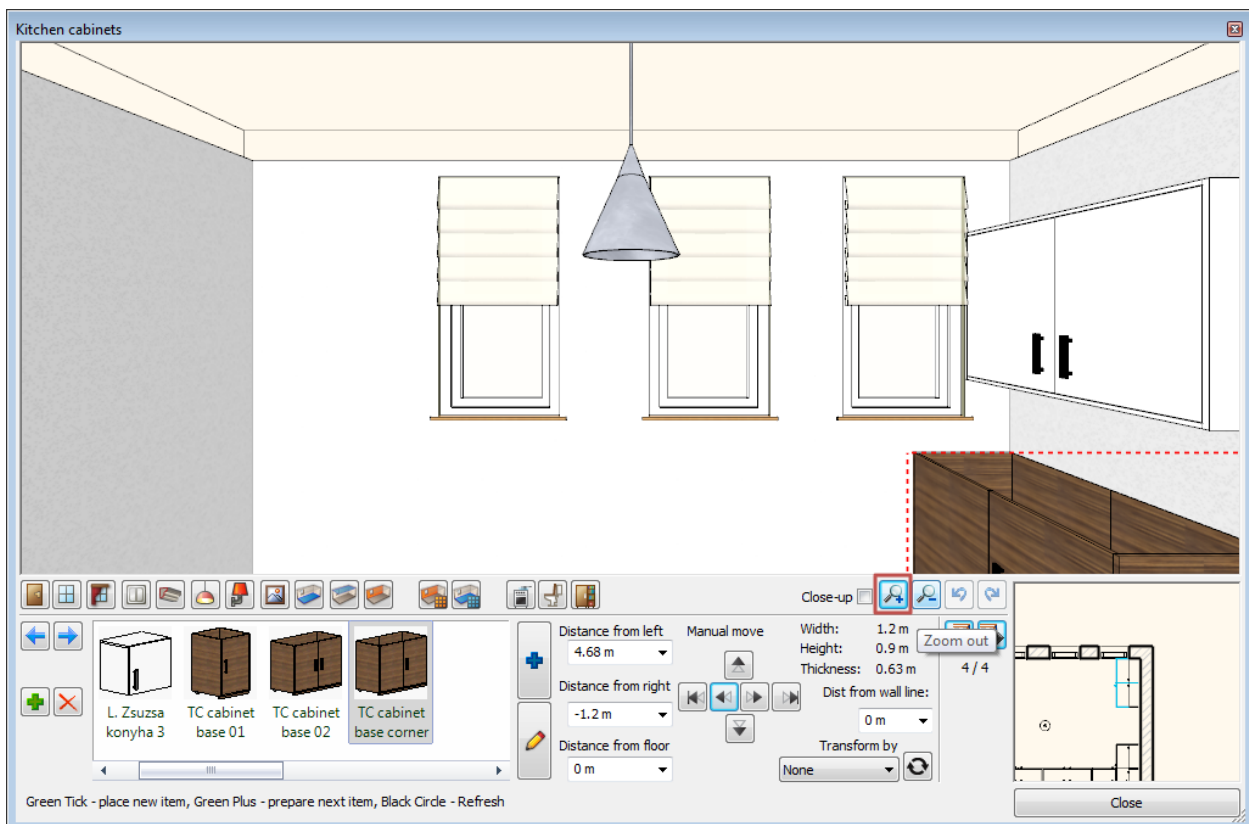
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet top 02.
- Placement options - Right: 0 (0"), Green thick
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet top 02.
- Placement options - Right: 0 (0"), Green thick



### Placing a single door base cabinet under the window

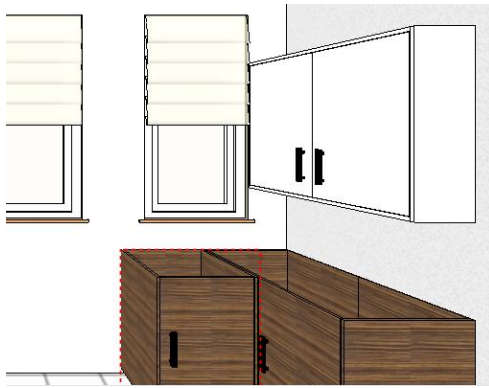
The single door base cabinet will be placed on the left side wall under the window next to the corner cabinet on the left side.

- Navigate to the opposite wall.
- Activate the corner cabinet.
- Use „Zoom in” button to zoom into the room according to the following example.



- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet base 01.  
Placement options - Left: 0 (0"), Green thick





### ***Placing the tall cabinet***

The tall cabinet will be placed next to the previously created single door unit to the left side and it will be moved to the left corner.

- Click on the green plus to prepare placing a new item on this wall.
- Select the item: TC cabinet full 02.
- Placement options - Left: 0 (0"), Green thick
- Distance from left: 0 (0"), Update.
- Close the Room maker.

All the kitchen cabinets are placed in the kitchen:



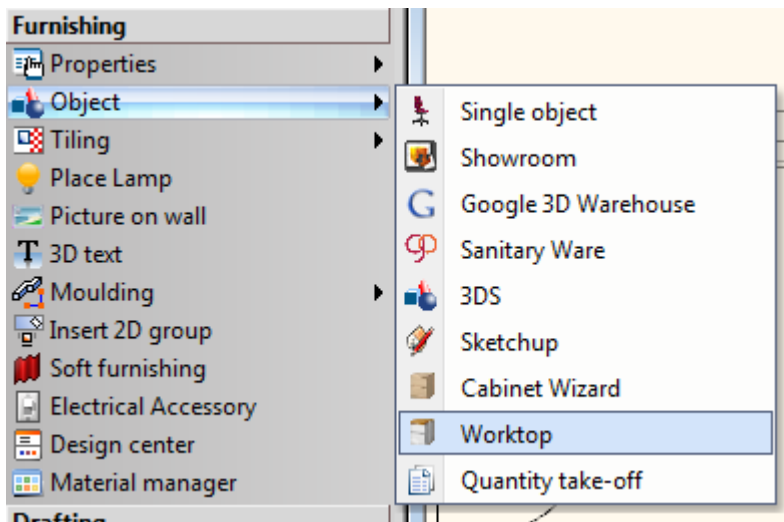
## **4.11. Worktop wizard**

There will be 3 different worktops created with the Worktop wizard.

### **4.11.1. Worktop on the left – 1.2m (3'-11 1/4")**

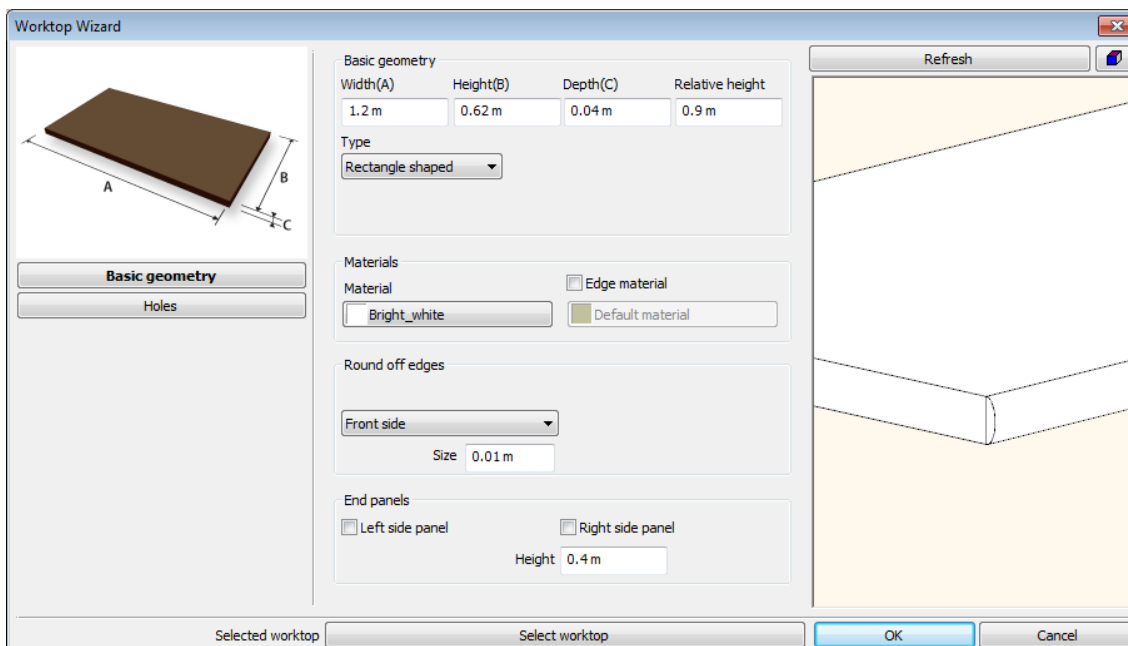
The first worktop will be 1.2m (3'-11 1/4") long and there is no hole cut into it.

- Choose the Toolbox / Furnishing / Object / Worktop tool.  
Using the appearing wizard you can create worktops by setting up their properties.



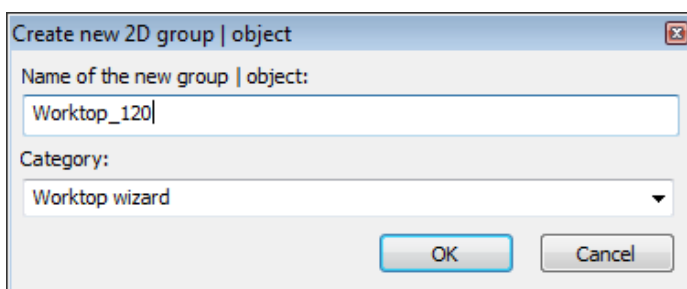
### Basic geometry

- Use the following values as seen on the following picture as well:  
A: 1.2m (3'-11 1/4"), B: 0.62m (2'-0 1/2"), C: 0.04m (0'-1 1/2"), Relative height: 0.9m(2'-11 1/2").
- Material: Bright white
- Round off edges: Front side, Size: 0.01m (3/8")



The first worktop is ready. Please save it:

- Click OK. Type the following name: Worktop\_120, and select the category: Worktop wizard. Click OK to save it into the library.



- Please press the ESC key on the computer keyboard now instead of placing it on the 2D drawing. We will use the Room maker to place the worktops on top of the cabinets.



### 4.11.2. 2<sup>nd</sup> worktop – 2.1m (6'-10 ¾")

The 2<sup>nd</sup> worktop is 2.1m (6'-10 ¾") long and there is a hole cut into it for the built-in gas hob.

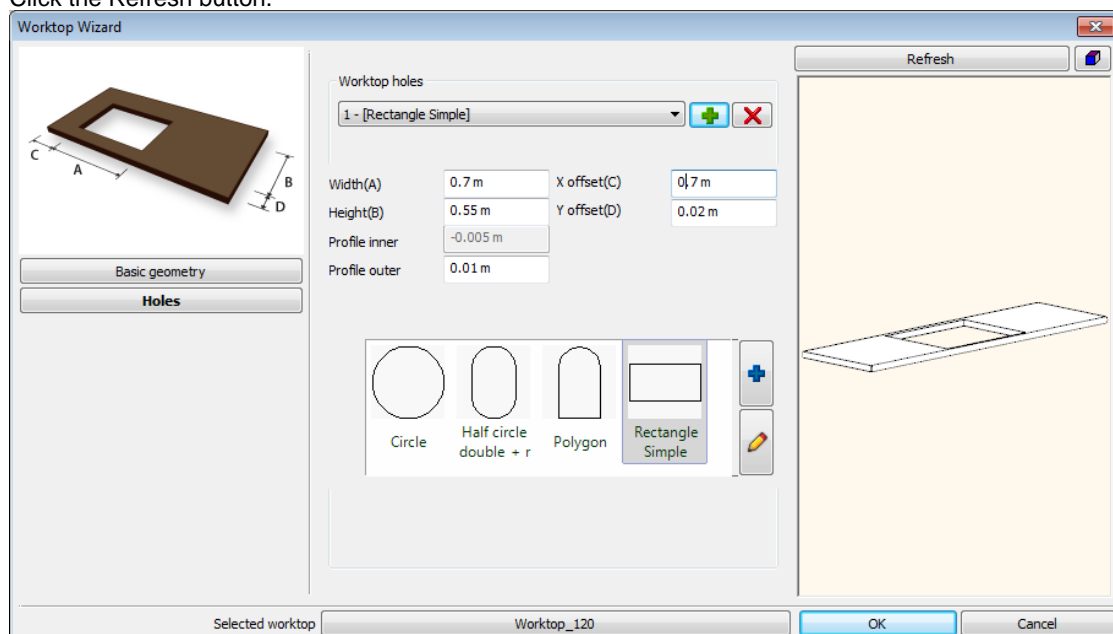
- Choose the Toolbox / Furnishing / Object / Worktop tool.
- Click on the „Select worktop” button to select the previously created worktop from the Worktop wizard category and click OK.

#### Basic geometry

- Change the value A: 2.1 (6'-10 ¾"):

#### Holes

- Define the hole by clicking on the Holes button on the left side of the dialog window.
- Click on the green plus.
- Select the Rectangle Simple shape.
- Set the size of the hole:  
A: 0.7 (2'-3 ½"), B: 0.55 (1'-9 ¾")
- Set the X and Y offset:  
C: 0.7 (2'-3 ½"), D: 0.02 (¾")
- Click the Refresh button.



The 2<sup>nd</sup> worktop is done. Please save it:

- Click OK and choose “No” so you can save it as a new worktop. Type the following name: Worktop\_210, and choose the Worktop wizard category. Click OK to save in the library.
- Please press the ESC key on the computer keyboard to discard placing the worktop.

### 4.11.3. Worktop on the right – 3.6m (11'-9 ¾")

The worktop to the right will be 3.6m (11'-9 ¾") long and there will be a hole cut into it for the kitchen sink.

- Choose the Toolbox / Furnishing / Object / Worktop tool.
- Click on the Select worktop button and select the previously created worktop (Worktop\_210) from the Worktop wizard category. Click OK.

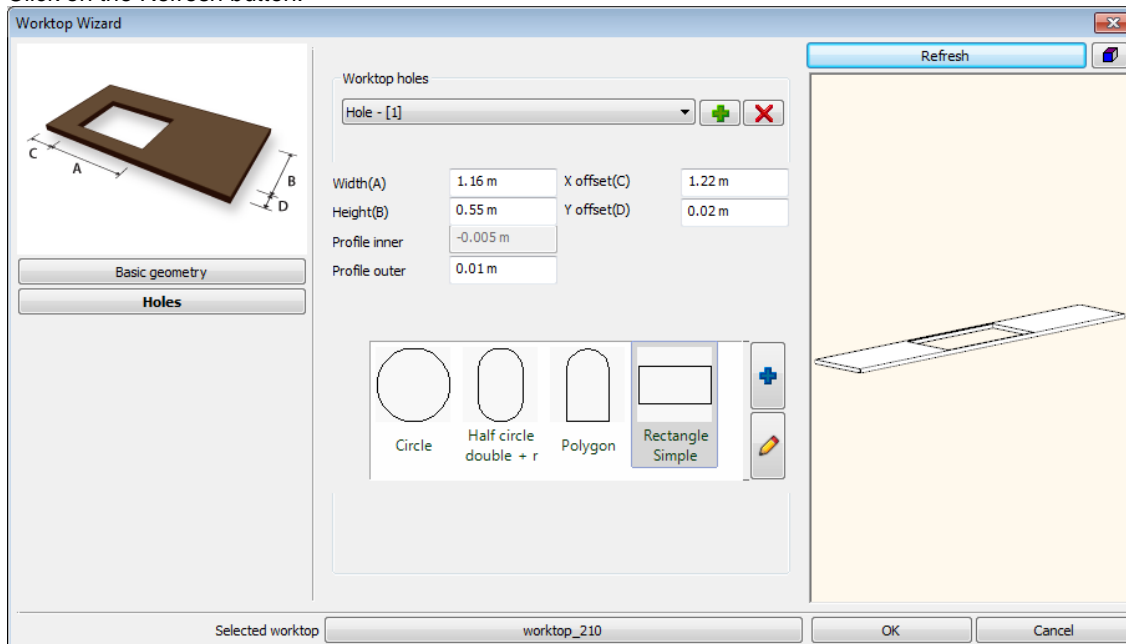
#### Basic geometry

- Change the value A: 3.6 (11'-9 ¾")

#### Holes

- Click on the Holes button, to define the hole in the worktop
- Change the size of the hole:  
A: 1.16 (3'-9 ¾"), B: 0.55 (1'-9 ¾")
- Change the offset of the hole:  
C: 1.22 (4'), D: 0.02 (¾")

- Click on the Refresh button.



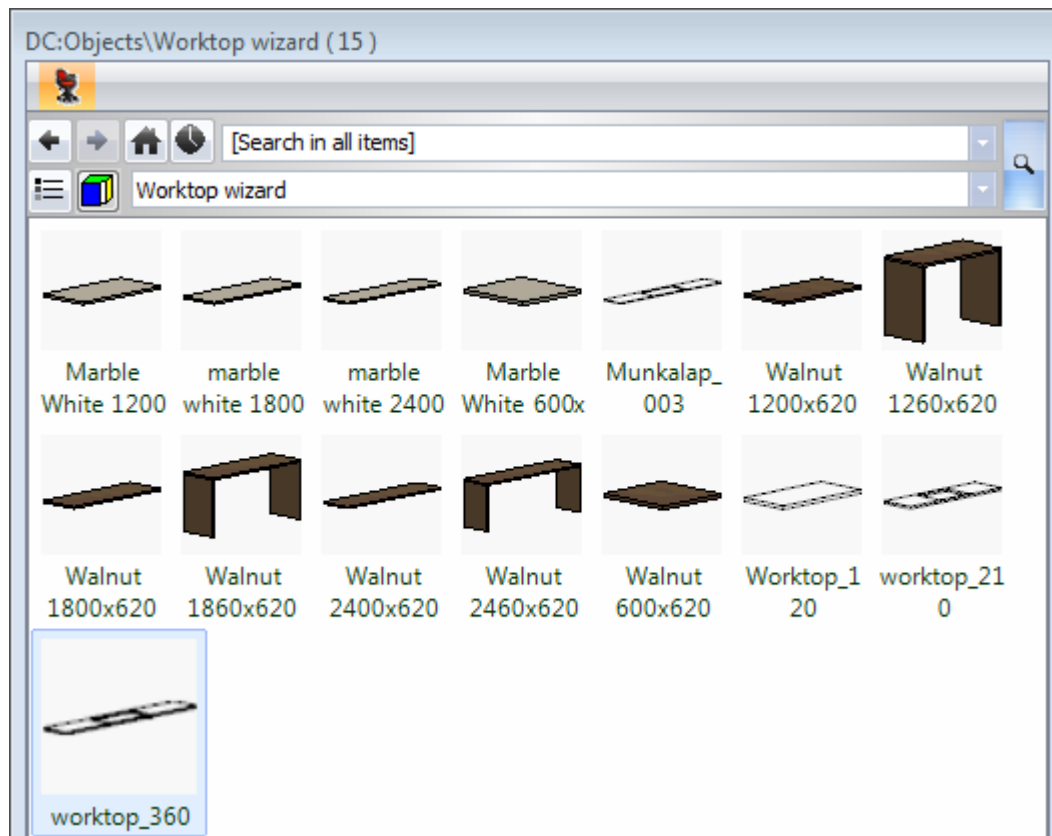
The last worktop is done. Please save it:

- Click Ok and choose No to save the worktop as a new item. Type the following name: Worktop\_360, and choose the Worktop wizard category. Click OK to save the worktop into the library.
- Please press the ESC key on the computer keyboard to discard placing the worktop.

## 4.12. Placing worktops by using the Room maker

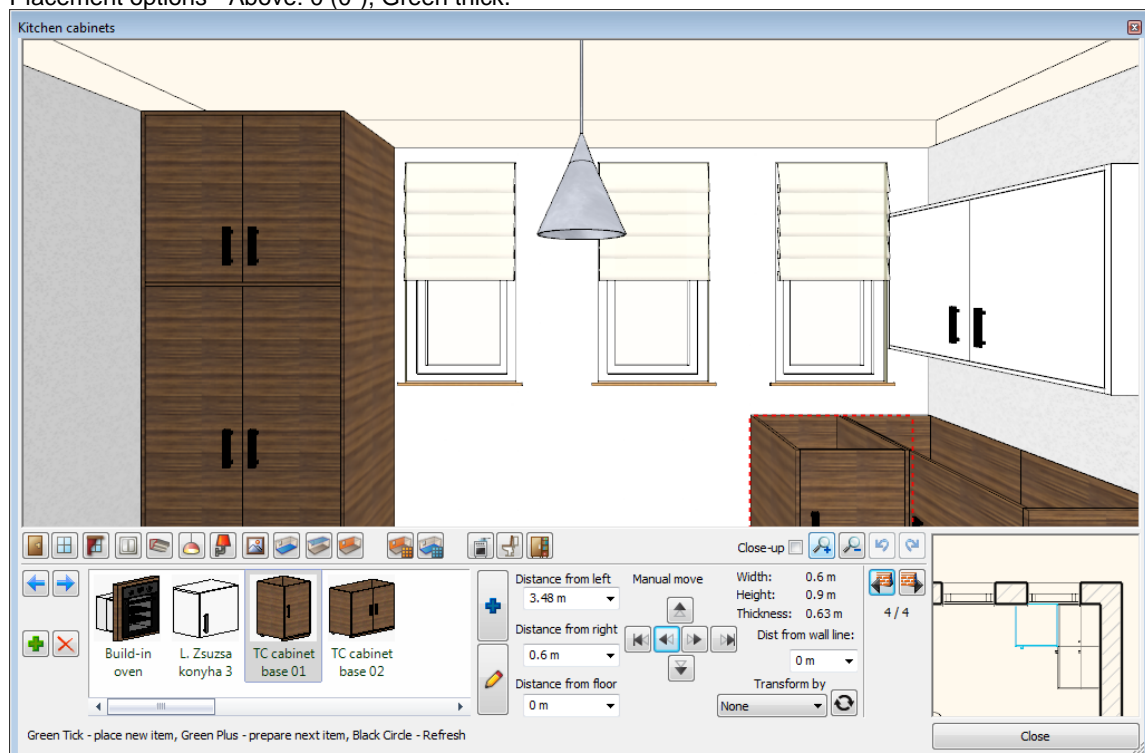
The previously created 3 worktops will be placed using the Room maker.

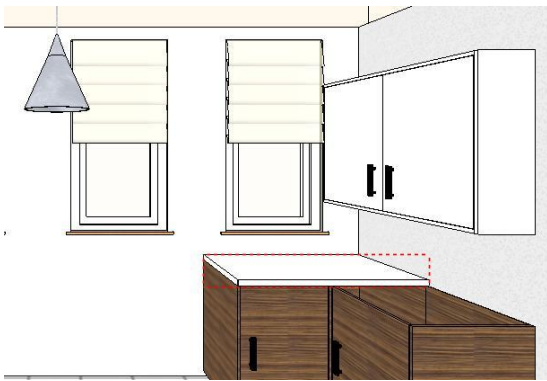
- Start the Room maker and click into the kitchen.
- Choose the Kitchen cabinets page.
- There are ready made worktops in the Favourites list with the name worktop\_... You can use these or the previously created ones as well by clicking on the blue plus and select them one by one, adding to the Favourites list:



### Placing the first 1.2m (3'-11 1/4") long worktop

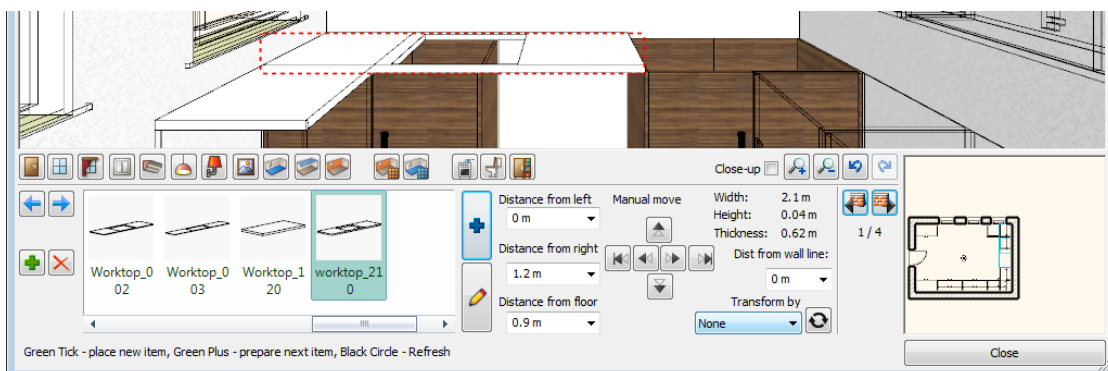
- Navigate to the left side wall.
- Activate the single door unit under the window by selecting it (or by using the blue arrows).
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: Worktop\_120.
- Placement options - Above: 0 (0"), Green thick.





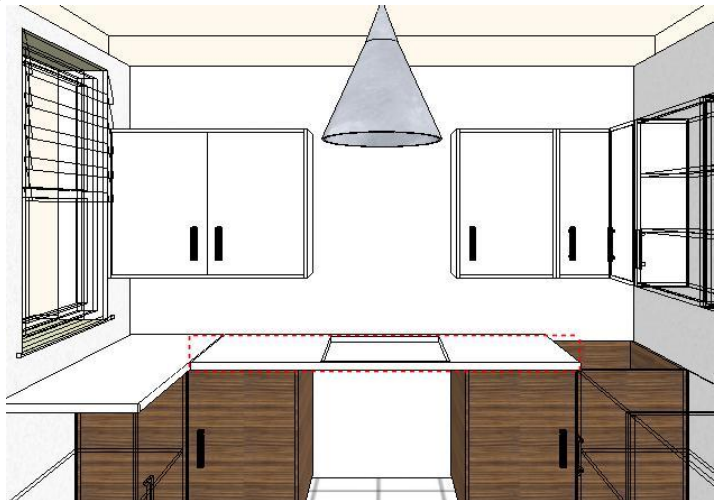
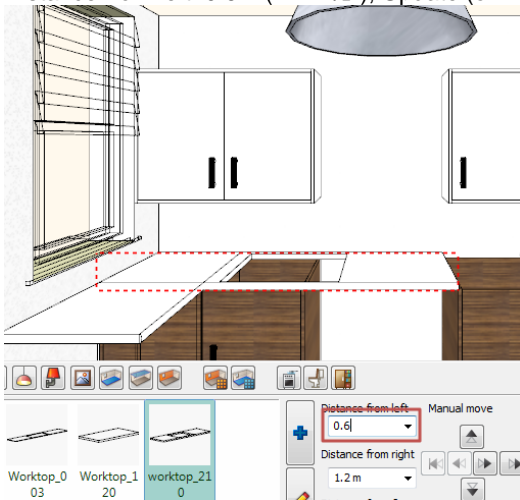
### Placing the 2<sup>nd</sup> 2.1m (6'-10 3/4") long worktop

- Navigate to the next wall to the right. Make sure that the lower left corner cabinet is active.
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: Worktop\_210.
- Placement options - Above: 0 (0"), Green thick.



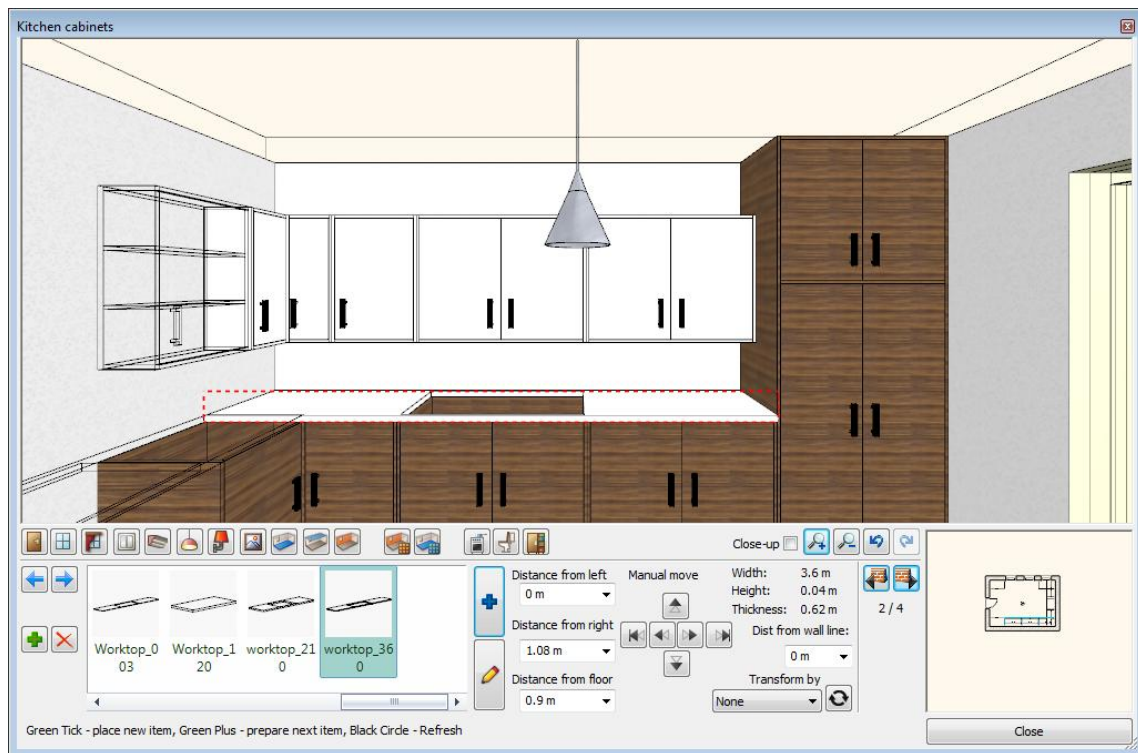
Make the worktop shifted 0.6m (1'-11 1/2") to the right:

- Distance from left: 0.6m (1'-11 1/2"), Update (or Enter)



### Placing the 3<sup>rd</sup> 3.6m (11'-9 3/4") long worktop

- Navigate to the next wall to the right. Make sure that the lower left corner cabinet is active.
- Click on the green plus to prepare placing a new item on this wall.
- Select the item: Worktop\_360.
- Placement options - Above: 0 (0"), Green thick.



- Please close the Room maker.

### ***Kitchen accessories***

Choose the Kitchen accessories category in the Design Center. Place the Built-in oven, the Gas hob, the Extractor hood, the Kitchen sink and any other accessory of your choice into the kitchen.

The final version of the kitchen:

