

# Room Arranger, version 3.26

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This program is intended for designing room interiors. It allows you to place furniture, items and other objects. You can additionally move and rotate objects, change their colors and dimensions. But you can also plan your entire flat, one floor of the house or a new garden.

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## LICENSE AGREEMENT

**The program is freeware** and it can be distributed only free of charge. Using of the program is free of charge as well.

The program is provided "as-is", and no warranties of any kind (including implied warranties of merchantability or fitness for a particular purpose), express or implied, are made as to it or any medium it may be on. Under no circumstances will we provide any other remedy for direct, indirect, special, consequential, punitive, incidental or other damages arising from it, including such from negligence, strict liability, or breach of warranty or contract, even after notice of the possibility of such damages.

Installing and using the program signifies acceptance and agreement to the terms and conditions of this license. If you do not agree with the terms of this license you must cease to use the program and remove the program from your storage devices.

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# INSTALL AND UNINSTALL

The program is distributed with an installation program. Leave "Additional Languages" checked if you want to install other languages (not only English) and then select the directory to install in. You can launch the program from the Start menu. If you already have an older version, you should not uninstall it.

In order to uninstall the program you must launch the *Uninstall* command from the Start menu (*Start-Programs-Room Arranger*) or select the corresponding item in *Start-Settings-Control panel-Add/Remove Programs*.

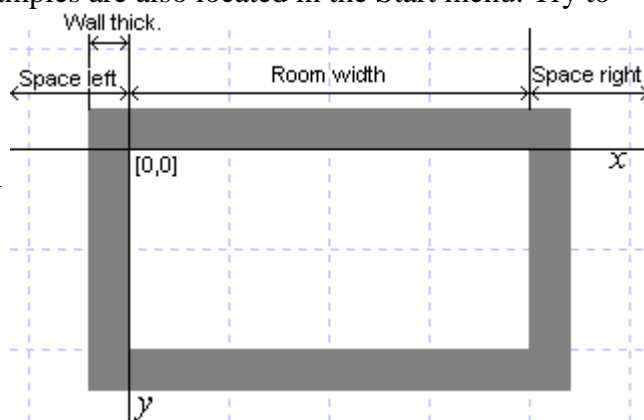
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## GETTING STARTED, CREATING THE ROOM

At first, you should look at the example. Open it using the menu command **Room->Open** and select the file *Sample.mst* (distributed with the program). Shortcuts to the samples are also located in the Start menu. Try to study it and play with objects. Then you can create your own room using the menu command **Room->New**.

At the beginning, you should define the dimensions of the room. You can do it in the window **Room->Change Size**. All numbers in the program are in centimeters, but you can change it and, when planning airfield or the layout of new houses, the unit can be meter, inch, etc... See [Room Properties](#) window.



### Walls

If you don't have a rectangular room or if you want to draw the plan of the entire flat, you must click **Edit walls** button in the dialog window mentioned above. Next window will appear in which you can adjust current walls or add new. Choose the wall in the listing (new wall as a last blank record), fill in the coordinates and press **Save** to confirm changes for every wall. Alignment of the wall stands for the position of the wall in respect to the coordinates - it can be above them, going through them or below them. See [Room Walls](#) window.

### Measurement

The room dimensions are displayed on the status bar. You can find there also the mouse position relative to the upper left corner of the room and used zoom factor (see menu **View**). You can **measure the distances** in the room using the mouse after pressing button on the toolbar or hitting **M** key. Holding Shift during Measurement measures line with rotation in 45 degrees multiples. If you don't wish to see the result after the end of the measuring, fix the second point of the line with the right mouse button.

### Local Coordinates

You can temporary change the origin of the coordinates in the room (**View->Local Coordinates**). Position relative to this new point is then displayed on the status bar and it is used also for setting object position. It can be useful if you know the distances for example from the upper right corner of the room. See [Local Coordinates](#) window.

Windows and doors are the first objects to be added to the room. You should place them very precisely.

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## ADDING OBJECTS

Objects are added in two possible ways: either from menu **Objects->Add Object** or right-clicking on the free space in the room. Try to find required object in the library. If you have found it or there is an object only with different size (you can change it afterwards), add it to the room with double-click or selecting it and pressing Enter.

See [Library](#) window.

If you can't find the object in the library, button **Add basic object** will bring the dialog where you can select the shape and other properties of the new object.

If you place the mouse cursor over the object in the room and wait a moment, a brief info about it will appear. And using a right-click, you can select one of the following commands from the pop-up menu:

1. **Properties** - edit the object properties
2. **Duplicate Object** - create a copy of the object
3. **Remove Object** - delete the object
4. **Place to Layer** - move object to the different layer (see [next chapter](#))
5. **Bring to Front ...**
6. **Send to Back** - these functions are good for placing the objects on the top of another object (for example put TV on the cupboard, push a chest under the table,...). In that case, you must sort them with these two commands. These commands do not affect z-position.
7. **Rotate 90 Degrees Right ...**
8. **Rotate 90 Degrees Left ...**
9. **Rotate 180 Degrees** - quickly change the rotation

See [Object Properties](#) and [Label Properties](#) windows.

### Object Selection

If you click on the object, it becomes selected and small rectangle corners are drawn around it. Then you can use keyboard shortcuts to manipulate with the object. Pressing one of the **arrow keys** will move the object one unit in the given direction, holding Shift increases 5x the speed of the movement. This can be useful for precise object placement.

**Delete** key is for removing the selected object, **Alt+Enter** shows its properties, **Ctrl+R** and **Ctrl+L** rotates the object. You can select other objects with **Page Up** and **Page Down** keys. If you want to deselect the object, you can click anywhere on the free space in the room or press Esc. However, it is still possible to select only one object at one time, multi selection will be added soon.

Last performed change of position or properties of objects and the room can be undone by the command **Room->Undo** or using a toolbar button.

Menu command **Objects->Listing** is dedicated to displaying the list of all objects in the room. You can remove objects or change their properties by clicking the right mouse button.

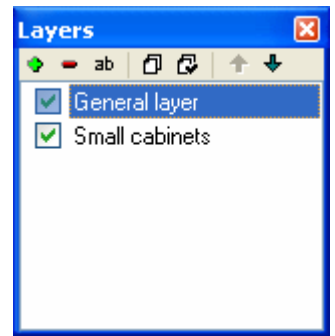
See [Object Listing](#) window.

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## LAYERS

If you have large amount of objects in the room and some of them are placed on the top of others, you can split them to two (or more) layers. For example, if you have small cabinets under the long table and you want to see them and arrange them, the best thing is to have those cabinets in the separate layer and move this layer under the layer with the table. Another example is to dedicate one layer to the energy or water distribution. The last tricky example: the lowest layer contains **carpeting**, etc. - basic rectangles one unit high. You can hide it in order to see the grid.



At first, you will have to show layers window (**View->Show Layers Window**) and create a new layer. There is always at least one layer in the room and one of them is active (it is selected in the Layers window). New objects are added to this active layer. You can move the object to the different layer with the command **Place to Layer** in its [context menu](#).

Layer order also affects the z-order (not z-position) of the objects in the room. All object from the higher layer are drawn on the top of the objects from the lower layers (change this order using buttons on the Layers window). To see the objects from the lower layer, you can hide higher layers unchecking the checkbox.

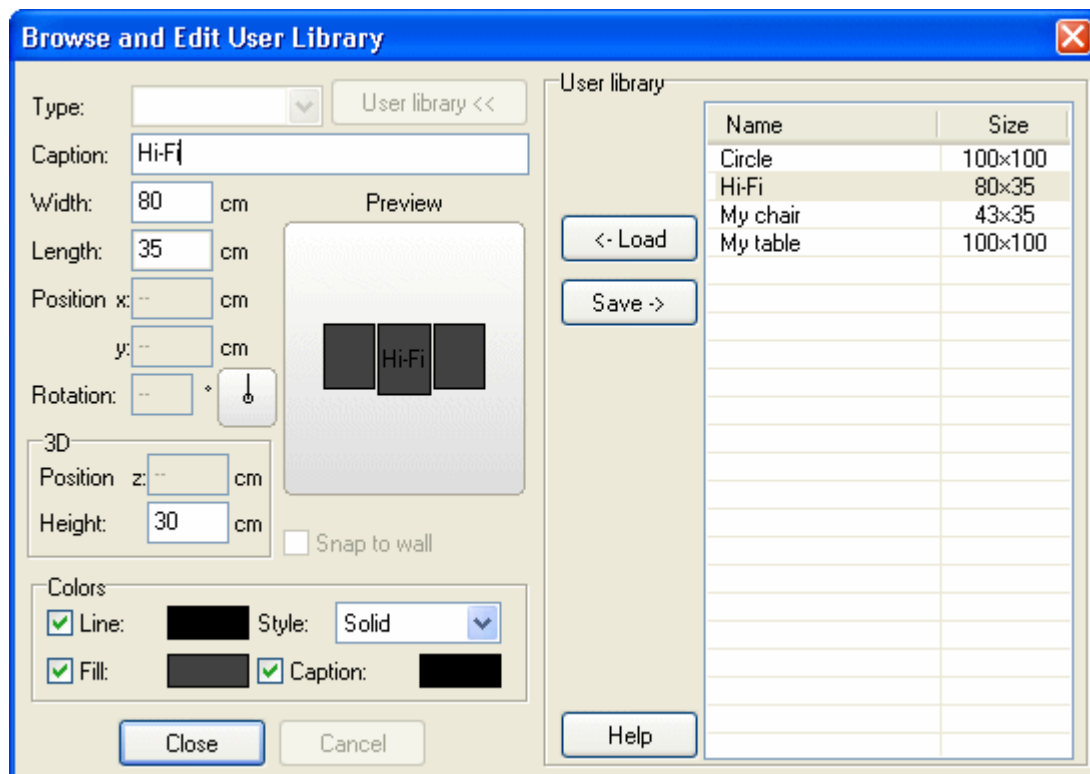
Removing the layer will also remove all objects placed in it. It is better to merge layers. If you want to remove only one layer out of three, hide the third one and **Merge visible layers**. All layer operations are undoable.

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## USER LIBRARY

There are many objects in the main library, but you would like to add your own objects and remember their definition for later use. The User library is here just for this purpose. You can find it as a first library page when adding new object and you've certainly spotted it on the right side of the Object properties window, which serves for creating of the user library as well.



If you select some predefined object on the right side and press **Load** button, its properties will be transferred into the object from the room that you are currently modifying.

Similarly, pressing **Save** button will add (or update) the object to the library. Object is saved with some name, so try to input something reasonable, accurate and general at the same time.

The User library is stored in the file named Catalog.msk in the program directory. You should not edit it manually. It is much better to use menu command **Objects->Browse User Library**. Then you can:

- add new objects: fill in something on the left side and insert it using **Save** button to the library. You can transcribe some real paper catalogue this way.
- edit existing: select the object on the right side, press **Load**, edit it on the left and press **Save**.
- delete or rename existing: right-click on the object and select appropriate option.

It is still not possible to add your own complex objects to the library.

See [Object Properties](#) window.

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## ADDING LABELS

There is a special object, which can be added to the drawing. It's Label. You can create new label similarly to any other object either from menu or using right mouse button. Unlike object captions, label can stay anywhere in the room. It can also carry more lines of text and, especially, you can select its font, which size is changed according to the zoom level in the room.

See [Label Properties](#) window.

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## SAVING INTO FILE, PRINTING AND EXPORT

It is strongly recommended to save your drawing into the file from time to time. There are several commands in the **Room** menu for this purpose. You can open the files also using a double click in Explorer or any other file manager, or dragging the file into the program window.

You can also print your work (**Room->Print**). Select the paper orientation in your printer setup. In the bottom side of the window there is a schematic view on the paper and you can select (and edit) what shall be printed along the image.

See [Print](#) window.

Furthermore, you can save the result as an image (**Export** submenu, don't hesitate to use PNG format, everyone can open it and the image very small) or copy it into the clipboard and subsequently insert it into a text editor (like MS Word), add some comments and then print it. As a default, 100% zoom is always used for printing and export (the most accurate drawing). You can change it in [Options](#).

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## EXPLORE IN 3D

In order to make any use of 3D view, you should set height and z-position for all objects in their properties. Furthermore, you will need some external VRML viewer; it is not part of the installation program. Two of them are described below, both of them use Internet browser's window for the viewing.

Please, study their help, navigation in virtual worlds is quite difficult (before you get accustomed to it). All moves are performed with mouse (press left mouse button and drag). There are three exploring modes: **Walk**, **Slide** (including panning and flying), **Tilt** (rotating the view), you can switch among them using the buttons in the viewer (see images). If you switch off gravity you can fly.

Room Arranger generates several sights of the room for you. They are accessible in the **Viewpoint** list and you can go through all of them (in case of Cosmo Player) using keys Page Down and Page Up (recommended). The first viewpoint is the start position you choose in the program.

See [Explore in 3D - Setup](#) window.

## Cosmo Player

**Strengths:** easy navigation utilizing all three mouse buttons (left button: Walk, middle: Tilt, right: Slide)

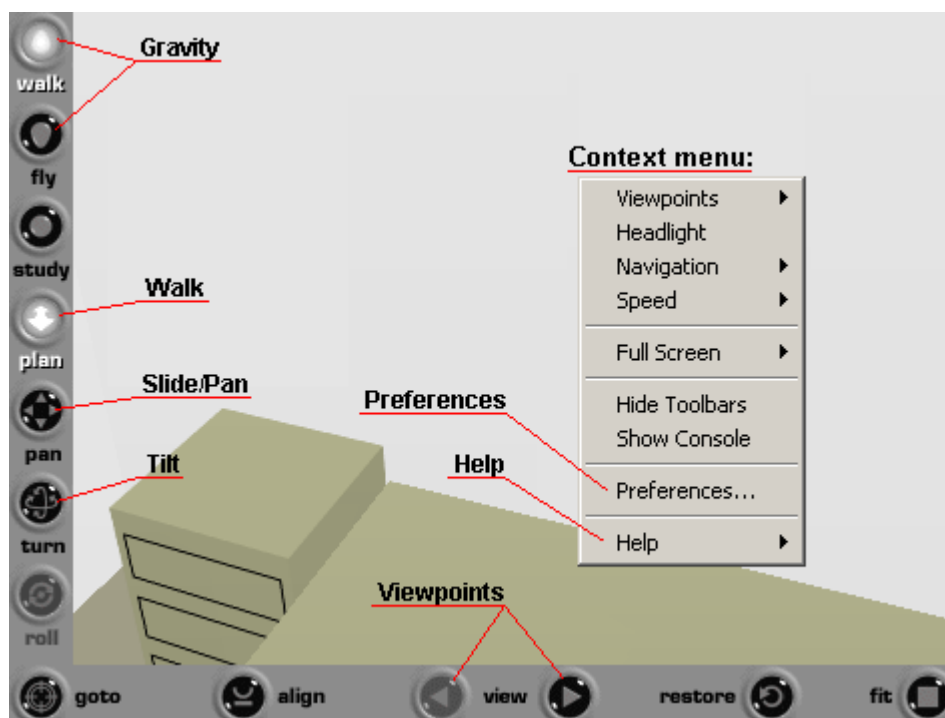
**Preferences** (differences to the default setup): on the Graphics page select OpenGL Renderer. Direct3D sometimes jams the computer while you can achieve much higher speed and smoothness with OpenGL in this viewer.



## Cortona

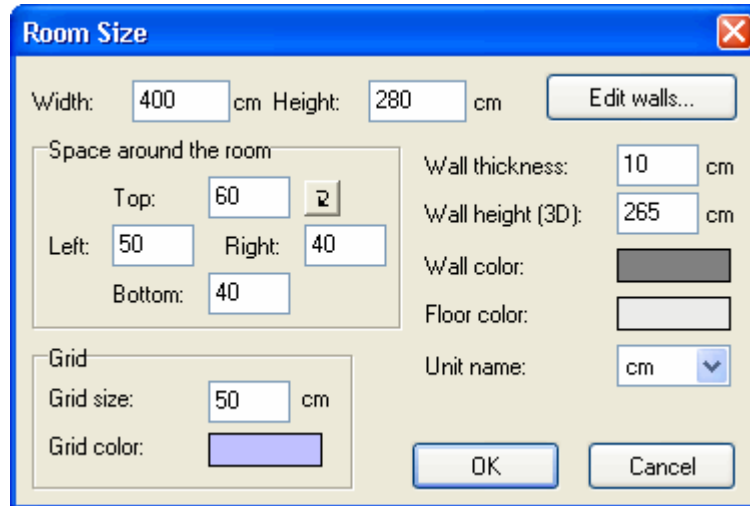
**Strengths:** better image quality (antialiasing in particular). It is possible that you already have this viewer, it can be installed together with MSIE 6

**Preferences** (differences to the default setup): on the Navigation page select Always for Animate viewpoints, and on Renderer page check Idle-time at AntiAliasing.



## ROOM PROPERTIES

Menu: **Room->Change Size.**



Width, Height

Room dimensions. Width is the dimension along the x axis, height along the y axis.

Edit Walls

Shows [window](#) for advanced wall adjustment - if your room is not rectangular.

Space around the room

Free space around the room, including space occupied by walls. Small button next to Top space will copy the Top value to all other values.

Grid

Properties of the grid that can be displayed under the room, it helps you to conceive of distances.

Wall thickness

Default wall thickness. All walls in the room has this thickness, but you can change them separately in [Edit Walls](#).

Wall height (3D)

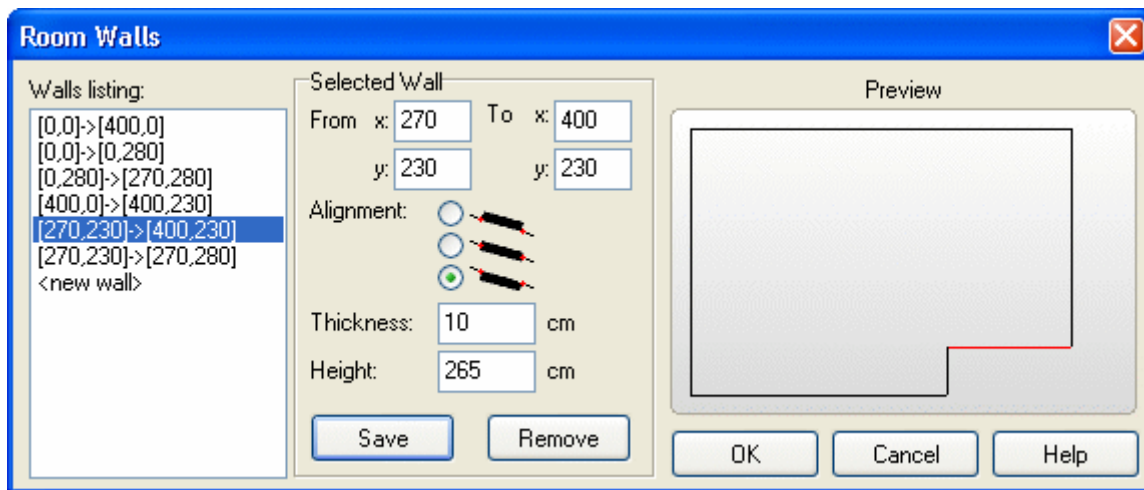
Height of the walls in 3D.

Unit name

Unit. Important when adding objects from the library.

See also: [Getting started, creating the room](#)

## ROOM WALLS



### Walls listing

Properties of the selected wall are displayed on the right. The last item is blank record prepared for adding a new wall.

### From, To

Position of the start and end point in the room. Width and height of the room are automatically changed to fit the walls; it means that you don't have to keep walls in the room dimensions entered before.

### Alignment

Position of the wall in respect to the coordinates - it can be above them, going through them or below them.

### Thickness

Wall thickness.

### Height

Wall height in 3D.

### Save

Confirm and save changes for selected wall.

### Remove

Remove selected wall.

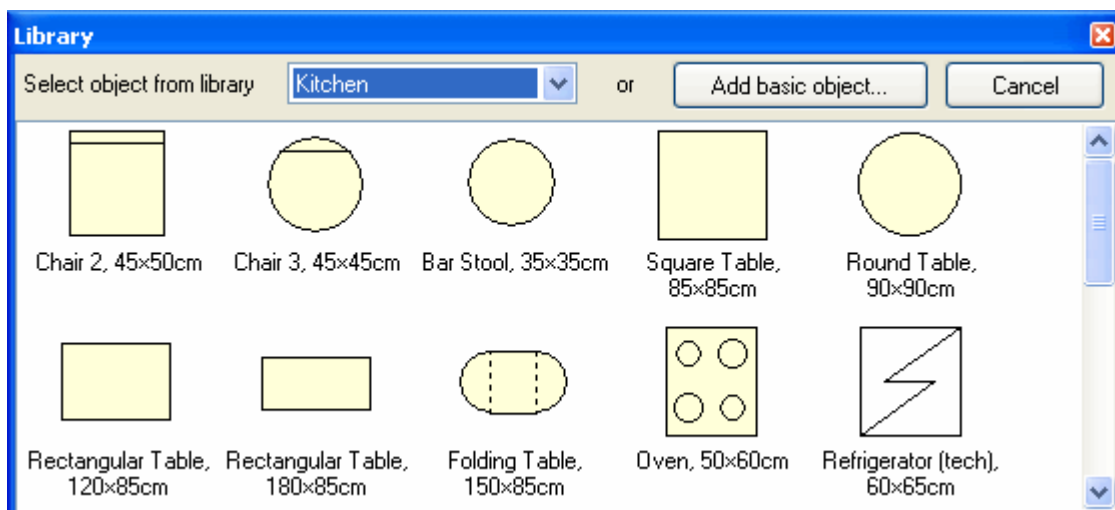
### Preview

Selected wall has red color. You can also select the wall by clicking on it in this image.

See also: [Getting started, creating the room](#), [Room properties](#)

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## LIBRARY





You can add the object to the room with double-click or select it and press Enter.

### Library selection

The library is divided into several pages; this is their listing. The first page is [User library](#).

### Add basic object

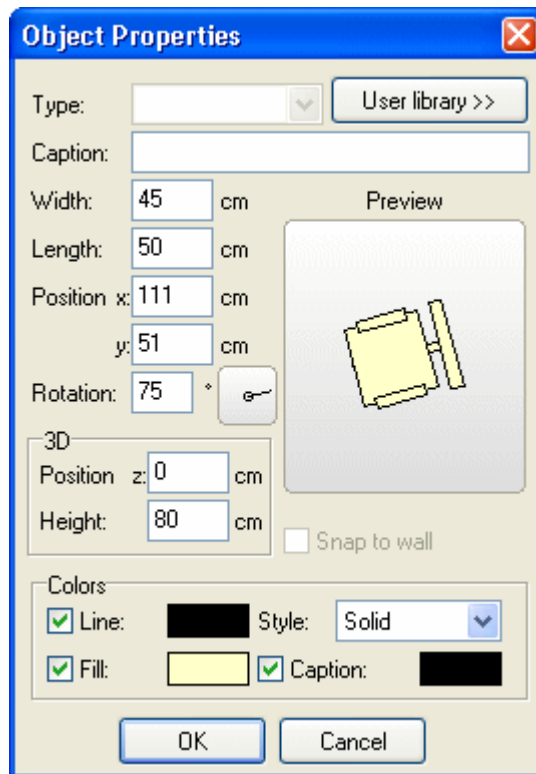
Leaves this window and shows the [window](#) for adding object having basic shape (rectangle/block, circle/cylinder, etc..).

See also: [Adding Objects](#)

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## OBJECT PROPERTIES



### Type

Change the shape of the object. It is disabled for complex objects.

### Caption

Text that appears on the object or the name of the object in the [User library](#).

### Width, Length (Depth), Height

Dimensions along x, y and z axis. They can be decimal numbers.

### Position x, y, z

Position in the room. L next to it indicates you have [local coordinates](#) turned on.

### Rotation

Rotation in degrees. You can adjust the rotation using the helper beside it and if you hold Shift key, the rotation will change in 45 degrees multiples.

### Colors

Various colors. If you uncheck them, appropriate part of the object becomes invisible.

### Style

Line style, dashed lines can be used for objects on the top of something else.

### Snap to wall

Object must stay in/at the wall. This is valid for windows and door by now.

### User library

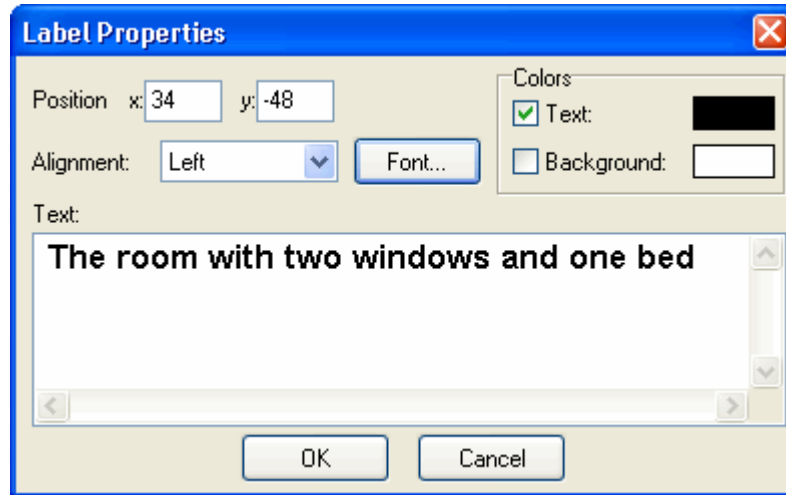
See [User library](#) chapter for details.

See also: [Adding Objects](#), [User library](#)

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## LABEL PROPERTIES



Position

Position in the room. L next to it indicates you have [local coordinates](#) turned on.

Alignment

Text alignment.

Font

Select label font.

Colors

Various colors. If you uncheck them, appropriate part of the object becomes invisible.

Text

Text, can have multiple lines.

See also: [Adding Objects](#), [Object properties](#)

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## OBJECT LISTING

Menu: **Objects->Listing**.

Caption	Size [cm]	Position [cm]
Cabinet	45×60	13, 53
Cabinet	60×60	269, 279
Door	90×90	310, 217
Hidden treasury	60×40	300, 232
Chair 3	45×45	257, 131
Chair 3	45×45	155, 63
Chest of Drawers	100×50	394, 1
Chest of Drawers	60×40	1, 183
Keyboard	47×17	38, 114
LCD	40×15	10, 110
Office Chair 2	45×50	111, 51
Phone	16×20	16, 181
Plant	25×25	363, 1

Displays the list of all objects in the room, but only from the [visible layers](#). You can remove objects or change their properties by clicking the right mouse button. It is possible to copy the entire listing to the clipboard and paste it in some text editor.

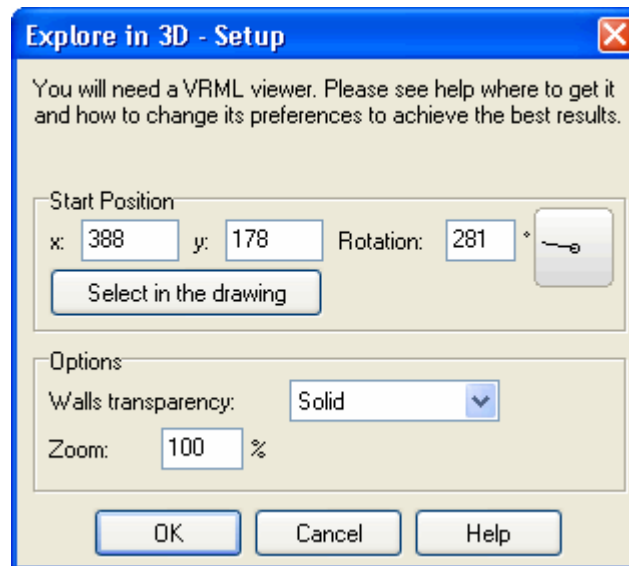
See also: [Layers](#)

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## EXPLORE IN 3D - SETUP

Menu: **View->Explore in 3D.**



### Start position

Position of the first (initial) viewpoint. It can be saved into to the room file.

### Select in the drawing

You can select the start position with the mouse.

### Rotation

Rotation in degrees. You can adjust the rotation using the helper beside it and if you hold Shift key, the rotation will change in 45 degrees multiples.

### Walls transparency

Select if you want to see the walls. [default: solid]

### Zoom

Zoom level of the virtual world. 200% means that 1 cm in the room will be 2 cm in the virtual reality. [default: 100%]

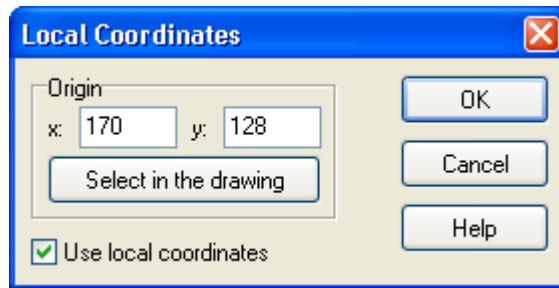
See also: [Explore in 3D](#)

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## LOCAL COORDINATES

Menu: **View->Local Coordinates.**



### Origin

New position of the origin of the coordinates in the room. The x-axis is still growing from left to right and y-axis from top to bottom of the image. Z-axis is not affected

### Select in the drawing

You can select the origin with the mouse.

### Use local coordinates

Switch on/off local coordinates.

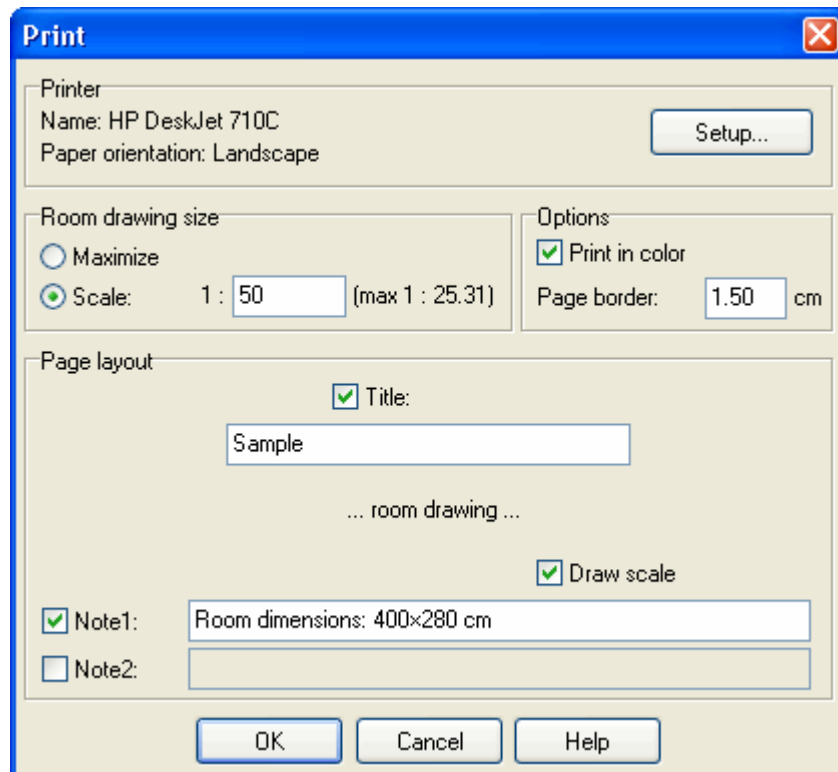
See also: [Getting started, creating the room](#), [Room properties](#)

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## PRINT

Menu: **Room->Print**.



### Printer

Name of the selected printer.

### Setup

Select the printer, paper orientation, print quality...

### Maximize

Room drawing will be as large as possible according to the paper size and the presence of additional texts.

### Scale

Print room in certain scale, i.e. 1:50 means 1 cm on the paper is 50 cm in reality. The highest possible scale is shown next to it.

Print in color

Print in color or only in gray scale. [default: on]

Page border

Free space on the paper. [default: 1.5 cm]

Title

Check it if you want to print some big caption above the image.

Draw scale

Check it if you want to print scale under the image.

Note 1, Note 2

Check it if you want to print some additional information using smaller font under the image. The room dimensions are filled to the Note 1 if it is set in [Options](#).

*Tip: if you want to print in scale 1:50 and the image doesn't fit the page, try to reduce the page border, switch off all texts or rotate the paper in Printer setup.*

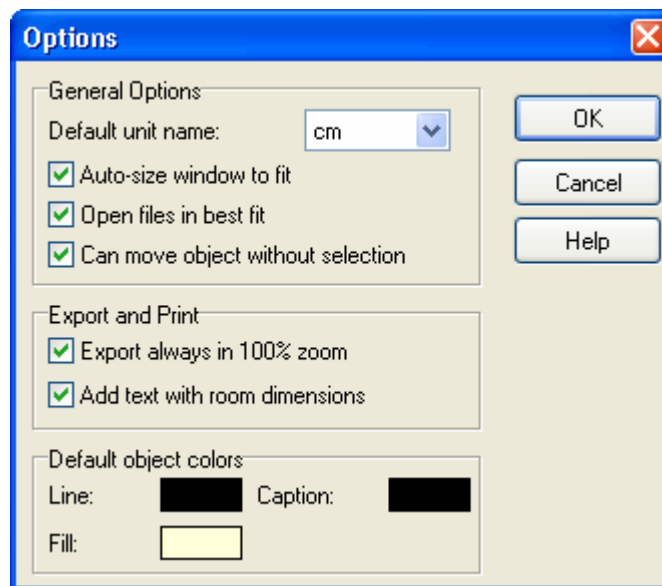
See also: [Saving Into File, Printing And Export](#)

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## OPTIONS

Menu: **Configure->Options**.



Default unit name

Unit used for new rooms. [default: cm]

Auto-size window to fit

Change the main window size according to the size of the room and zoom factor. [default: on]

Open files in best fit

Start with the zoom in which the whole room can be shown. [default: on]

Can move objects without selection

If unchecked, you must first click on the object to select it, release the mouse button and then you can move it. [default: on]

Export always in 100% zoom

Use 100% zoom when [Saving as an image](#) and printing. This image can be very large and maybe won't fit in the computer memory. In that case uncheck this option. [default: on]

Add text with room dimensions

Draw text with room dimensions on the bottom left part on the image file or into the Note 1 when printing. [default: on]

Default object colors

Initial colors of the new object.