

The logo for pCon PLANNER. The word 'pCon' is in a bold, white, sans-serif font, with the 'C' being a larger, stylized green letter. Below it, the word 'PLANNER' is in a smaller, white, all-caps, sans-serif font.

**pCon**  
PLANNER

A stylized illustration of a black pen with a silver tip, positioned as if drawing a white crosshair on a green grid. The grid is contained within a circular frame that has a 3D effect, appearing to be a ring or a shallow bowl. The background of the entire page is a vibrant green with abstract, overlapping, curved shapes that create a sense of depth and movement.

New features of pCon.planner 6.3

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# 1. Create photo-realistic images and videos

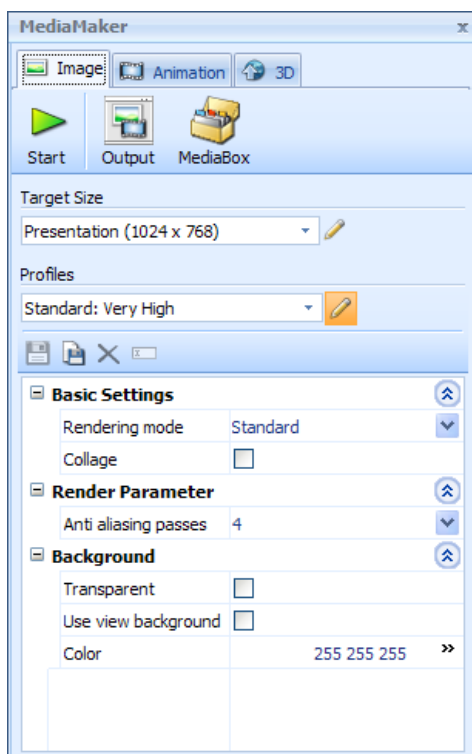
The pCon.planner 6 offers a range of tools you can use to present your drawings. These include options for creating and managing real-time images, photo-realistic images, animations and videos. You can also publish images, animations or a representation of the entire planning in the Web and thus make these accessible to other interested parties.



Media Maker

The central tool for creating media content is the new **Media Maker**. For each type of presentation there is a separate tab, under which all the necessary settings are clearly organized. The **Media Maker** can be found in the **Presentation** tab and can be interfaced after opening the pCon.planner work area.

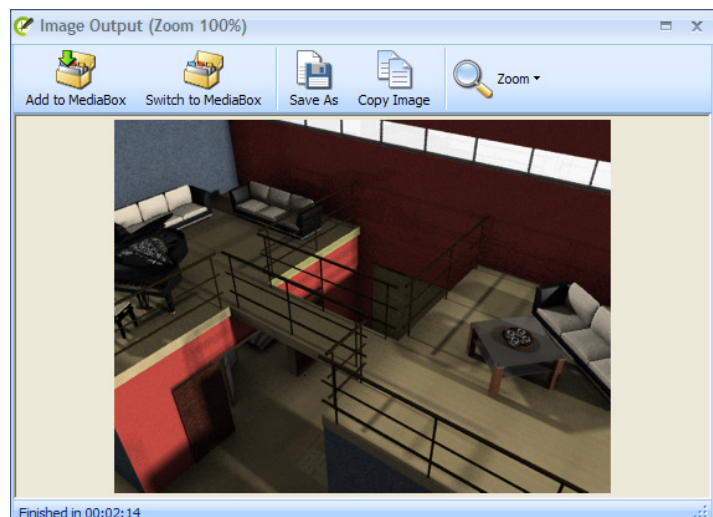
## Creating images with the Media Maker



1. The image is always calculated according to the set **projection** in the active **work area**. Therefore before starting the image creation, make sure you have selected the desired view.
2. Open the **Media Maker** and change to the register **Image**.
3. Select the desired resolution in the drop-down box **Target Size**. Custom resolutions can be defined by clicking on the pen icon (✎).
4. In the next drop-down box **Profiles** you can find the pre-defined standard profiles that control the type and quality of the image. Profiles with the prefix **Photo** generate photo-realistic images, while those with the prefix **Standard** produce real-time images of the work area.
5. Click on the pen icon (✎) next to the drop-down box **Profiles** to open additional settings options. You can save your changes as **Individual profiles** for later use.
6. Click on the **Start** button to start the creating of images.

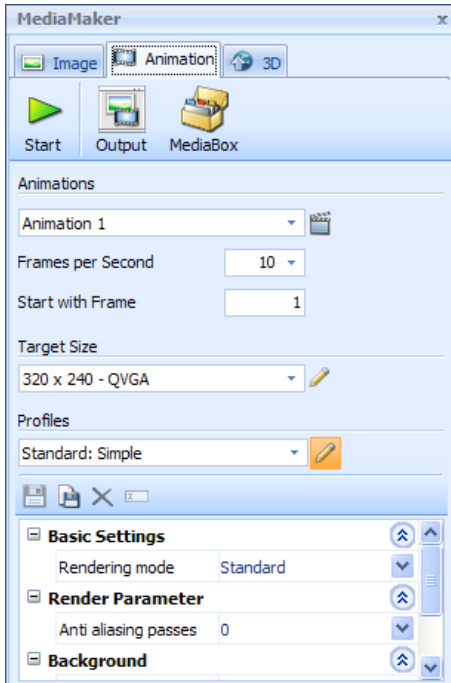
Once the image has been generated, a window opens showing the **Image Output**. You can now decide whether you want to save the image (**Save As**), copy it to the clipboard (**Copy Image**) or add it to the media box (**Add to MediaBox**).

After the **Image Output** window closes, you can open it again by clicking on the button **Output** in the **Media Maker**. Here you can access the recently generated image and save it once again.



The **quality** of a photo-realistic image depends strongly on the chosen rendering-settings in connection with the characteristics of light sources, objects and materials used in the planning. The time required to calculate the image varies according to the selected settings.

### Creating image sequences and videos with the Media Maker

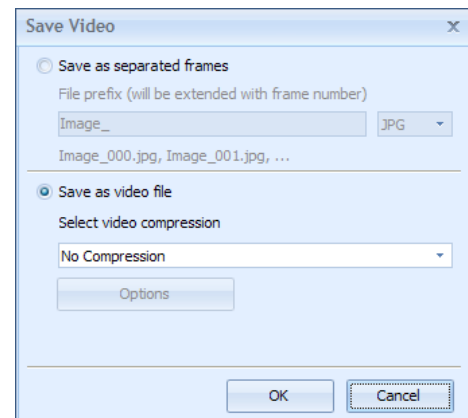


1. The animations saved in the planning are the basis for calculating image sequences in the **Media Maker** and saving these or converting them into videos. The required settings are, with a few small differences, the same as those for generating individual images.
2. First create an animation in the planning, then open the **Media Maker** and change to the tab **Animation**.
3. Set the number of **Frames per Second** to be used in the animation. Values of between 25 and 30 are appropriate for creating a smooth, fluid video.
4. Set the desired **Target Size** (image resolution).
5. Using the **Profiles**, specify whether you wish to generate a photo-realistic or real-time image sequence. You can edit the profiles by clicking on the pen icon (✎) and save these as **individual profiles**.
6. Click on the **Start button**, to generate an image.

As soon as the calculation of the image sequence has been completed, the **Image Output** window opens. You can add the image sequence you have generated to the **Media Box** and from there publish it in the Web.

You can also save the resulting image sequence immediately or convert it into a video (**Save As...**). A dialog opens offering both options.

When generating videos, you can choose between different **Compression** rates. The choice available depends on the video codecs installed on your computer.



### Publish drawings in the Web



An additional possibility to present a planning offers the function **3D** of the **Media Maker**. After a click on the start button your drawing will be prepared and uploaded to the Internet.

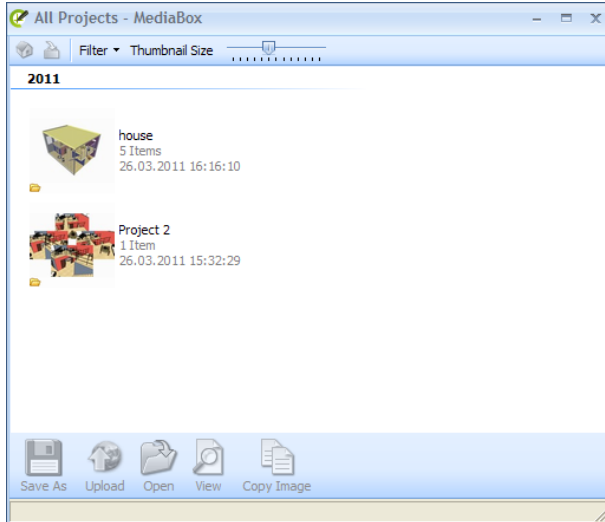
Your web browser will then open the **pCon.portal** web page. After registering, this free service allows you to send a link to the uploaded drawing. Recipients of this link can then move around your drawing interactively using their web browser.

## Managing media content with Media Box

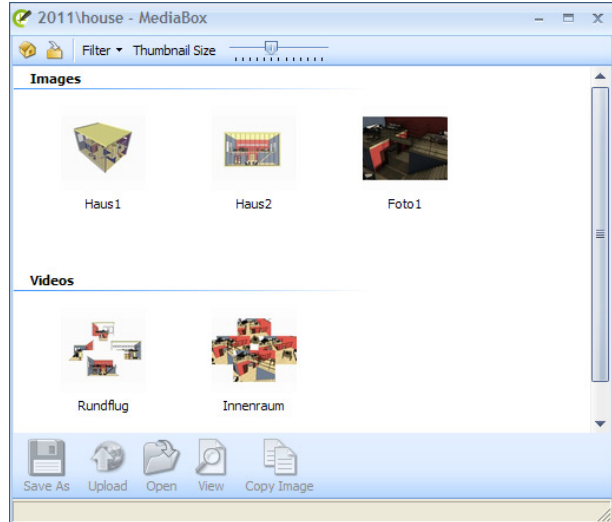


Media Box

**Media Box** is a tool for managing the images and animations you generate. You can organise your media according to specific projects and can also view, publish or edit content. **Media Box** is located in the **Presentation** register of the menu or can be opened in the **Media Maker** or the **Image Output** window.



Media Box: project overview

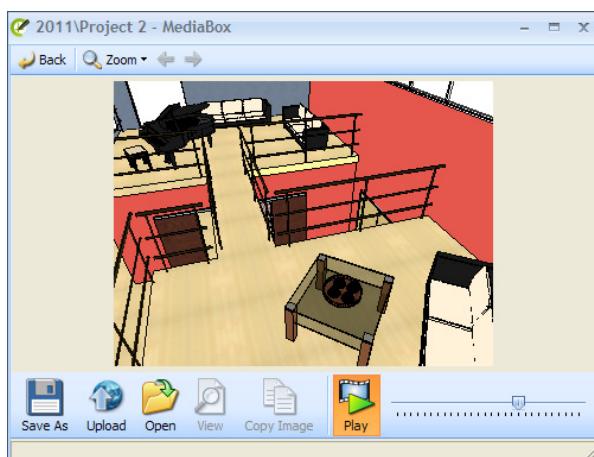


Media Box: different media types in a project

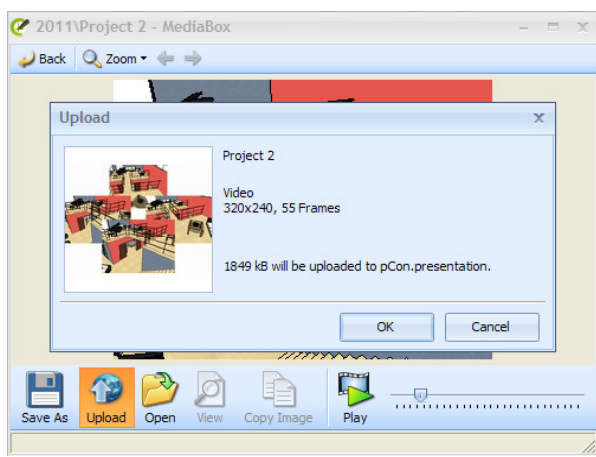
After creating images and animations with the **Media Maker**, you can transfer these to the **Media Box** using the function **Add to Media Box**. In the **Media Box**, you can organise the media content you generate in projects. A project corresponds to the drawing used and initially bears the same name as the drawing. Within a project, all media content is presented according to the various **Categories**. You can also insert media types that have not been generated using pCon.planner with the help of the **Import** function.

The following functions are available for media content in **Media Box**:

- **Upload** – Images and animations can be uploaded free of charge to the pCon.portal in the Web. This generates a link to the media type, which can be sent to friends and business partners by e-mail. They can then view your planning results in the Web.
- **Save as** – Media content can also be exported from the **Media Box**. For images sequences, there is also the option of converting these into a video.
- **Open** – This function opens the media type in an external program (e.g. image editing).
- **View** – The integrated viewer allows you to open images and play videos.



Viewer with a video and play function



Publish a video

## 2. Additional interior room elements

The pCon.planner 6.3 provides a greater range of interior design elements. The users can insert and edit stairs, ceilings, railings and radiators in their drawings allowing them to take into account the structural features of individual rooms. Furthermore the existing glass front room element offers more options to be customized and therefore better matches its real counterparts.

### Staircase tool



Staircase button

The staircase tool can be found in the section **Additional**s of the room elements. After activation the position, rotation and dimensions of the staircase can be defined interactively in the planning. Accordingly the staircase geometry will be generated.

It is possible to modify the dimensions and characteristics of the staircase via interactors or the **property editor** afterwards. Also handrails, landings and adjacent staircases can be added in the same way.

The diagram shows a 3D perspective view of a staircase with several interactors placed on it. A legend identifies the interactors: a red circle for Handrail interactors, a green square for Landing interactors, and a blue diamond for New staircase interactors. Dimensions are shown: 2,600 for the height, 1,745 for the depth, and 3,682 for the total width. To the right, a 'Properties' panel is open, showing the following settings:

Properties	
Layer	72_EGR_INSERT
Name	
<b>Staircase</b>	
Height	2,600 m
Depth	3,682 m
Stair	0,245 m
Rise	0,170 m
Handrails	Both
<b>Landing</b>	
Type	Left
Height	0,100 m
Depth	1,300 m
Handrails	Both
Front Handrail	On

*Selected staircases can be modified via interactors or the property editor.*

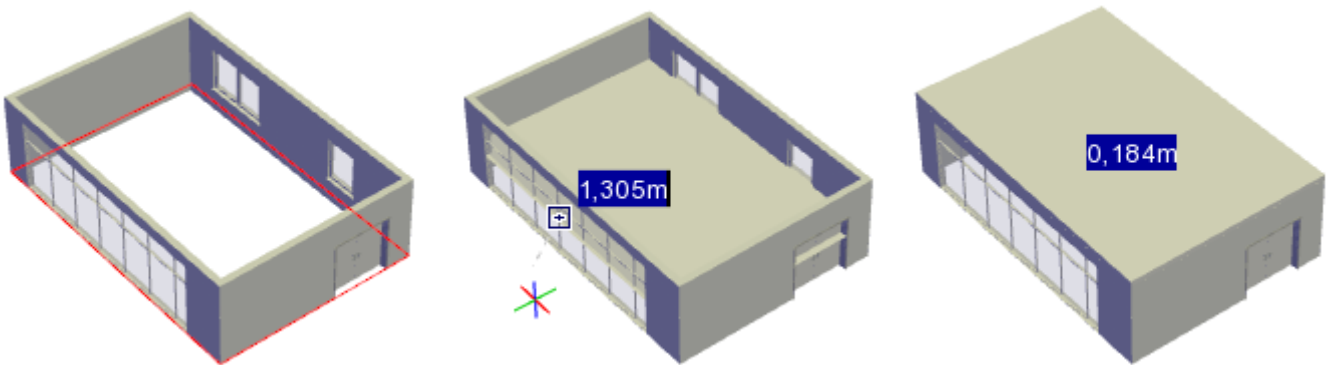
## Ceiling tool



Ceiling button

The ceiling tool is also part of the **Additional**s section within the room elements. The following steps explain how to insert a ceiling into rooms. Similar to the creation of floors, ceilings can only be used with closed rooms.

1. Click on the **ceiling** button and move the mouse over your planning. If a closed room can be found near the mouse position, a red frame inside or outside the selected room appears. You can switch between the two ceiling types by moving the mouse. To confirm your selection click the left mouse button.
2. In the next step you can choose the position of the ceiling by moving the cursor up and down or by entering a value. The positioning can be finished with the left mouse button or by using the **Enter** key.
3. Finally the thickness of the ceiling can be defined. This can also be done with the mouse or by entering a value. The confirmation is similar to the second step.



The ceiling tool workflow: selecting a room, choosing the position and defining the thickness of the ceiling.

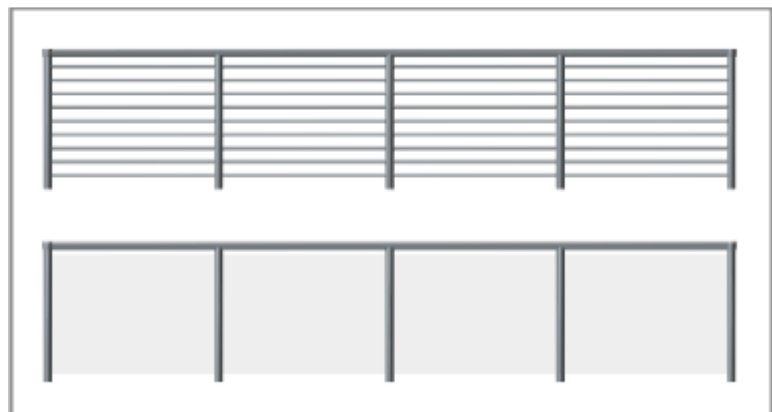
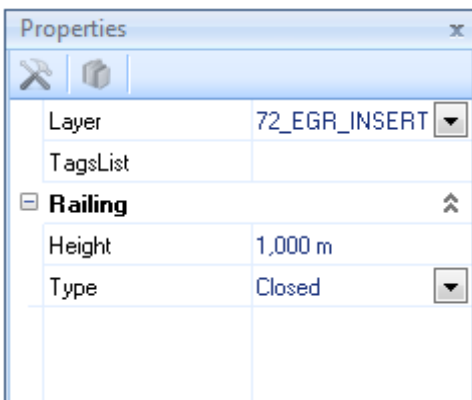
## Railing



Railing button

In the **Additional**s section of the **room elements** you will find the **Railing** button. After activation you can directly start to create railings in your drawing. The insertion of railings is similar to the drawing of walls.

In the **property editor** you can define whether the railing should be open or closed.



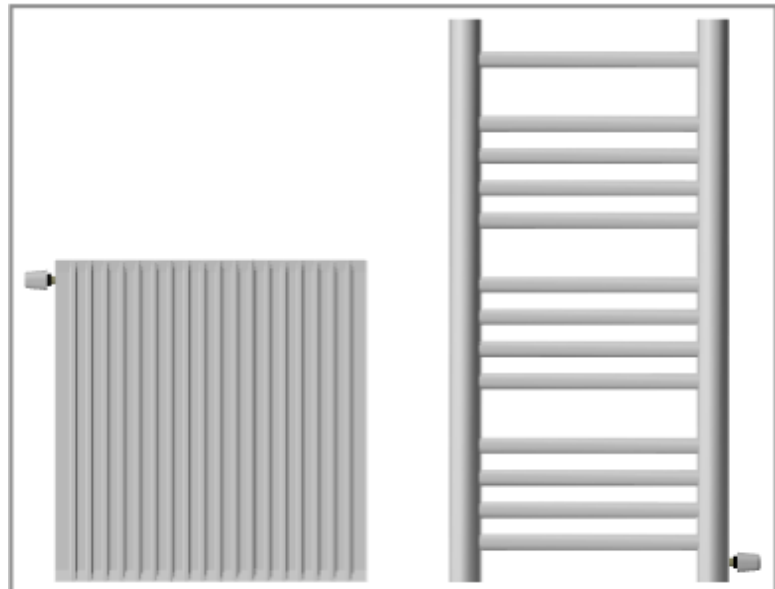
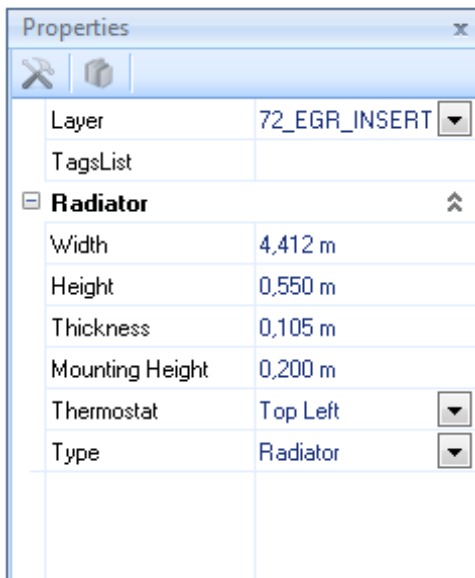
In pCon.planner 6.3 open and closed railings are possible.

## Radiator tool



Radiator button

With pCon.planner 6.3 you can create **Radiators**. In the section **Additional** (group **room elements**) you will find the **Radiators** button. By clicking on it you activate the drawing process. The **property editor** shows several characteristics of the selected radiator, which can be changed, e.g. you can define whether to use a standard radiator or a bath heater or at which position the thermostat should be inserted.



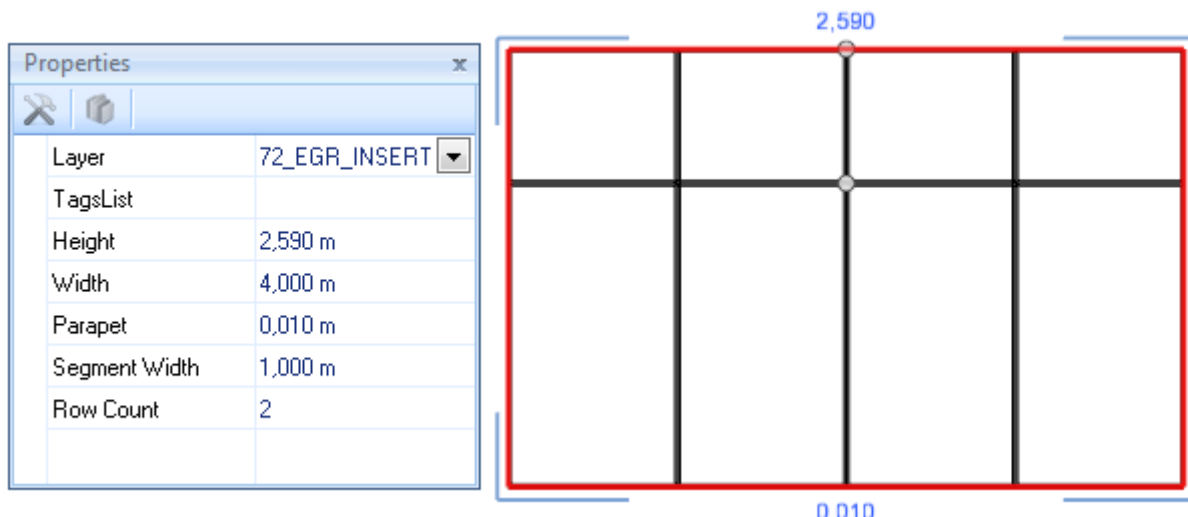
In pCon.planner 6.3 two different types of radiators are available.

## Customized glass front



Glass front button

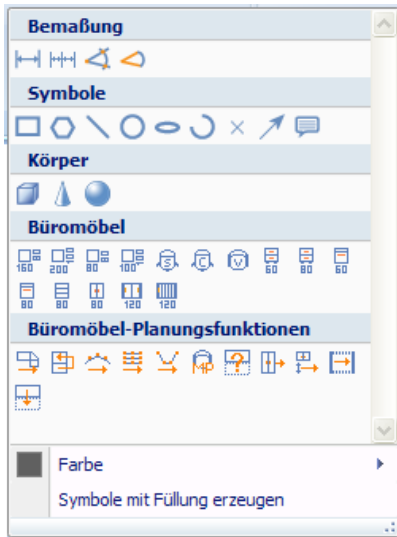
The **glass fronts** and **glass panels** now offer more properties for individual modification. Beside the possibility to change the dimensions via interactors / value entry in the planning, the according properties are now available in the **property editor** too. Additionally the width of the glass front segments can be defined and row dividers are supported. The position of the dividers can be modified with interactors directly in the planning.







Modification of a glass front by combined usage of properties and interactors.

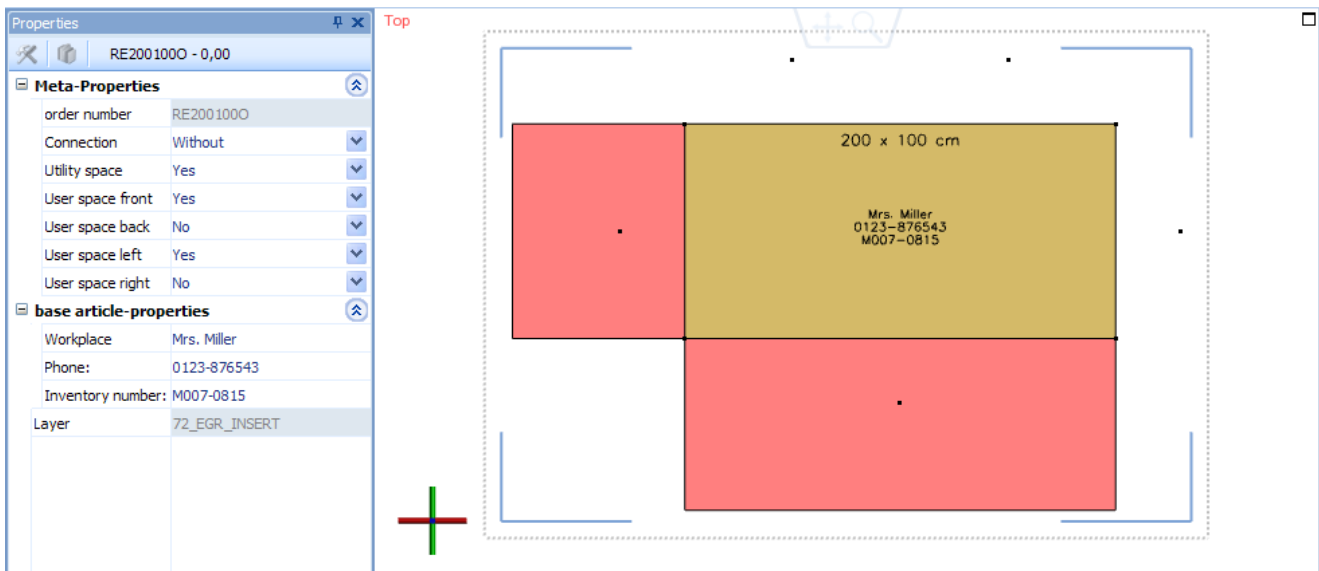
### 3. Symbol library

pCon.planner 6.3 contains a new library of **two dimensional office furniture symbols**. Items available include neutral representations of desks, office chairs, pedestals and various types of cabinet. The symbols can be used for **2D area planning** within rooms. In addition, there are a number of **comfortable functions** available, which support you during planning and help to make the process more efficient. The new symbols and functions are organised under the drawing elements in their own groups.



- Desk symbols in different dimensions:  

- Symbols for swivel, conference and visitor chairs:  

- Symbols for mobile and fixed pedestals in two depths:  

- Symbols for filing shelves as well as revolving doors and roller shutter cabinets:  


The symbols have a range of **Properties**, which can be adjusted using the Properties editor. To configure a symbol you must first double-click on it. You can achieve the same effect by clicking on the small hammer icon that appears close to the selected symbol.

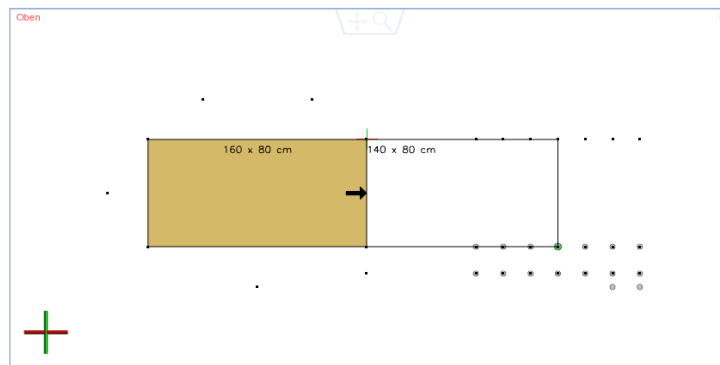


The category **base article properties** comprises the properties relevant for **floor planning management** (e.g. inventory number). The information entered is presented **directly by the symbol** and can therefore be printed together with the plan. The category **Meta-Properties** contains the properties for controlling the visibility of areas and for changing dimensions or the type of symbol. The areas provide a visual representation of the **floor planning requirements of the furniture** (e.g. floorspace, functional area). It is therefore possible to plan floorspaces realistically and avoid planning errors at an early stage.

## Planning assistants and functions

### 1.) Planning functions for *desk* and *cabinet symbols*

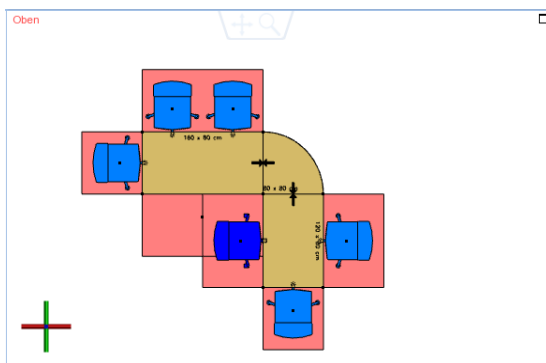
- Some of the planning functions start with a pre-configuration dialog that allows you to define the properties of the symbols to be generated in advance (e.g. type, dimensions).
- The functions always begin with the selection of a starting point and rotation. Two different planning sequences are then possible:
  - a) Definition of an area using a frame, in which the symbols are generated **automatically**.
  - b) **Step-by-step planning** of symbols, in which the next symbol is determined by moving the mouse over selection points. The points available depend on the planning situation.
- For both processes, you confirm your selection with a left mouse click.
- **Function type b)** continues until you press the ESC key.



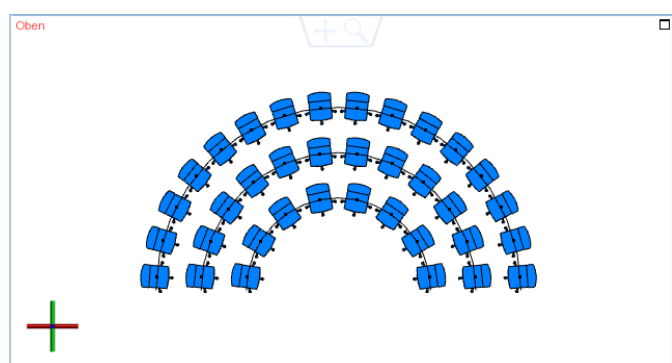
Step by step planning of desk symbols

### 2.) Planning functions for *automatic chair placement*

- These functions allow you to place chair symbols automatically along pre-defined paths or around selected desk symbols.
- You can create the placement paths using the corresponding function (e.g. curved path).
- To place chairs automatically, you must first select a desk symbol or placement path using a frame. After confirming your selection by pressing ENTER, you can define further properties – e.g. distances between symbols – in a dialog.



Automatic chair placement around desk symbols.



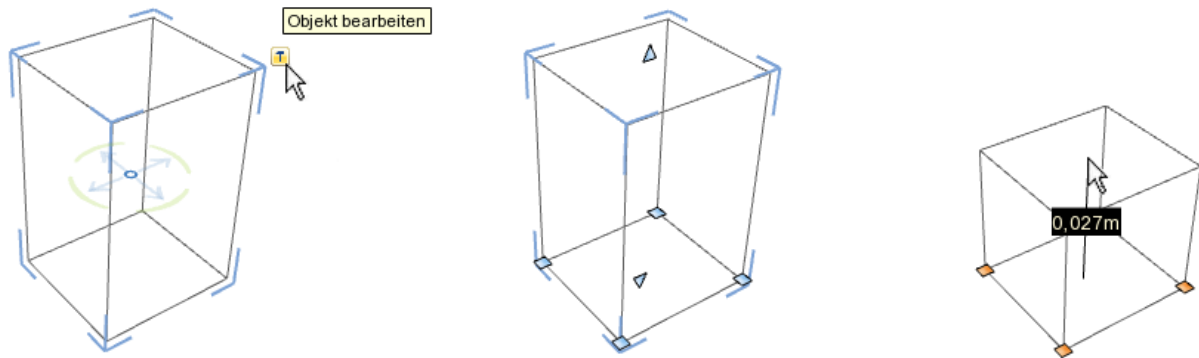
Chair placement along curved path.

### 3.) Test functions for *user areas* and for *Show/Hide functional areas*

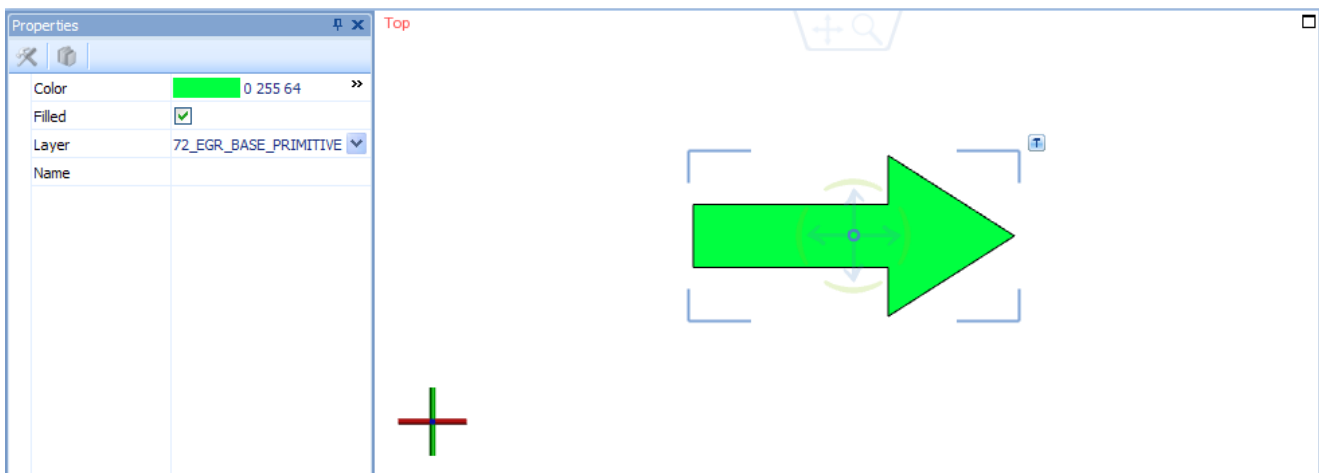
- These functions allow you to check the floorspace requirements for all the selected symbols and control their visibility.
- Select by dragging the frame and confirm by pressing ENTER.

## 4. Improved drawing elements

An important innovation in the drawing elements is the option for **retrospective editing** using interactors. These allow you to completely redesign or adjust the size of all objects such as cuboids, areas, circles, lines etc. after you have generated them. You can start retrospective editing with a **double-click** on the drawing element or by clicking on the **hammer** symbol next to the selected objects.



As well as the new interactors for retrospective editing, the drawing elements also have new properties, which can be adjusted in the Properties editor. These include a **colour property** and a **filled property** for the drawing element. These new properties make it possible to assign both a fill colour and a colour based on your selection.



*The properties Color and Filled on the new drawing element Arrow.*

## 5. Enhanced navigation

The possibilities of navigation in pCon.planner 6.3 have been expanded. Beside the existing modes **Zoom**, **Pan**, **Orbit** and **Walkthrough** the user can now look around in a planning without leaving his position. The according navigation bar is positioned at the top of each viewport. It is transparent until the mouse is dragged over it and a navigation mode is activated with a click. The available modes are different for **perspective** and **orthogonal** projections.



**Pan** - allows to move the view of the planning two-dimensionally



**Orbit** - swivels the view three-dimensionally around one set point



**Zoom** - zooms in and out on the planning



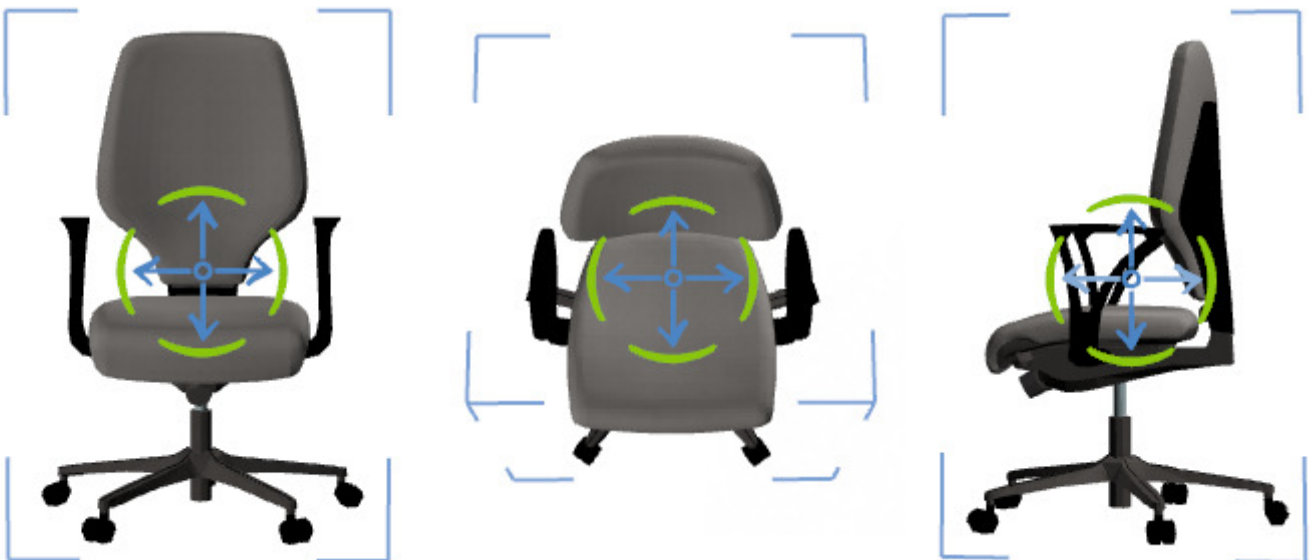
**Look around** - turns the view three-dimensionally at a static position



**Walkthrough** - allows to move forward, backward and sideways within one plane

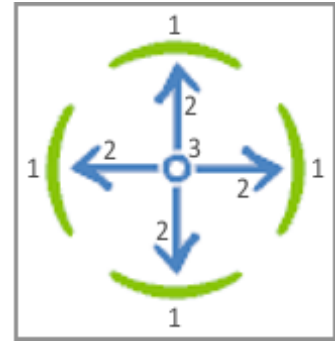
## 6. Move- and Rotate-Interactor

For a more comfortable usage of the rotating and the moving tool version 6.3 provides a new interactor. Now it is possible to rotate or move a selected object directly without activating a tool of the ribbon bar. This alternative manner of applying the tools also replaces the former double-click for rotating an object.



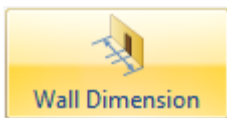
*The interactor aligns itself automatically according to the current view direction.*

1. One left mouse click on one of the **green arch** (#1 in the figure) activates the rotation tool. The starting position depends on the selected arch, the direction and the angle can be defined by dragging the mouse. A further mouse click stops the rotation.
2. A mouse click on one of the **blue arrows** (#2 in the figure) enables the move tool for the object. Now, objects can be moved along the corresponding axis by dragging the mouse. Another click stops this process.
3. By clicking the **circle** (#3 in the figure) in the mid of the interactor and dragging the mouse the object can be moved freely without limitation on the axis.



The second function of the **circle** is the relocation of the whole interactor. This can be used to set up a different rotation center or to define the base point every movement is related to. The relocation is done by clicking the center and holding the mouse button pressed, while moving the interactor to the desired position.

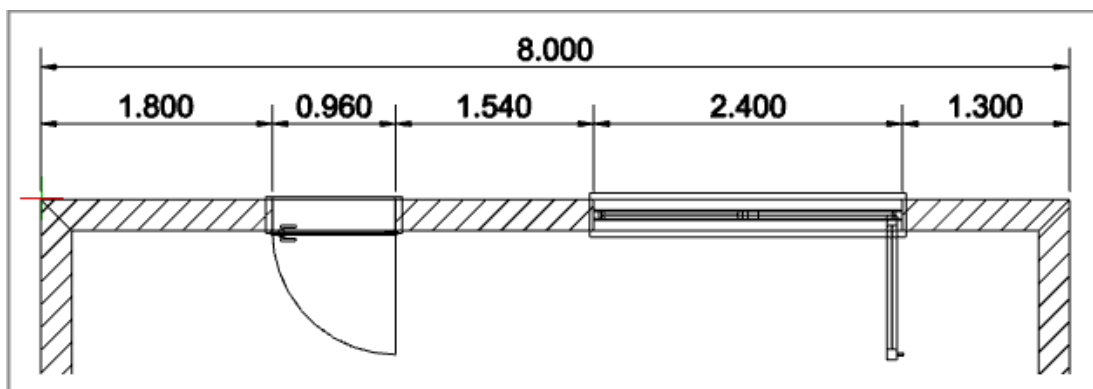
## 7. Automatic dimensioning of walls



Wall dimension button

The wall dimension tool can be found in the **Additional**s section of the **room elements**. After activation a wall and the side to be dimensioned has to be selected. After confirming the desired wall side the distance between the dimension and the wall can be defined.

1. Click on the button wall dimension to activate the tool.
2. If you move the mouse cursor along a wall, the nearest edge is highlighted with a blue line and indicates a possible position for the wall dimension. After confirming the desired position with a left mouse click, the distance between the wall and the dimension can be defined by moving the mouse.
3. The wall dimension will be created automatically, after finishing the process with another mouse click.



Example of a dimensioned wall including some wall elements.

## 8. Surface smoothing

pCon.planner 6.3 will incorporate an improved **edge smoothing** feature. This allows users to edit any round or organic surface to match their real-world counterparts. Consequently, they appear more realistic and provide a more harmonious impression to the viewer.

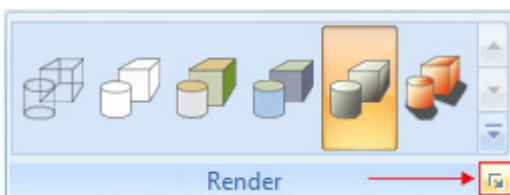


The images illustrate the difference: the left picture shows the original object, which has been modified with face smoothing in the right picture.



Soften edges button

The **face smoothing** setting is part of the **Soften Edges** dialog in the **Appearance** group located in the **Edit** tab. By using the slider a percentage value can be defined as smoothing factor. It will be applied to prior selected objects, which are composed of polygon meshes (e.g. 3D warehouse models). The option has no effect on objects made of solids.



Button to activate the extended rendering options

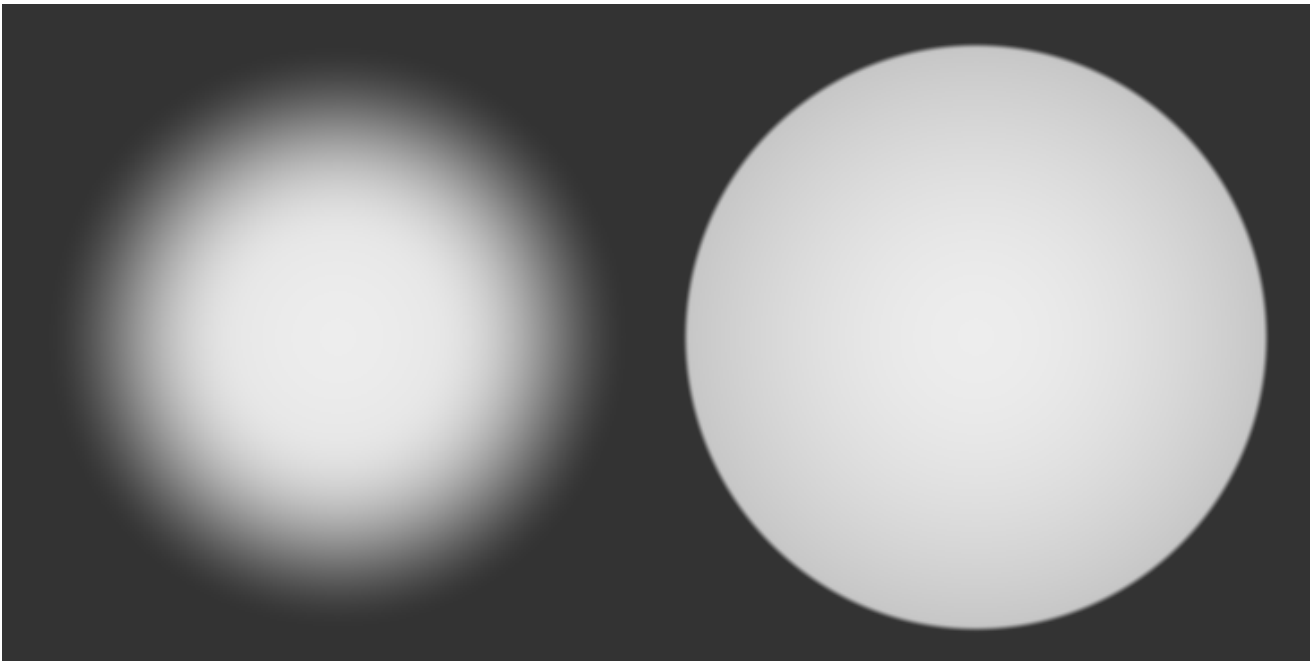
Beside the local **face smoothing** a global factor for the whole drawing can be defined. This option is located in the extended rendering options of the View tab. It will be automatically applied to all objects using polygon meshes in the planning.

## 9. Improved lighting elements

The characteristics of lighting elements have been modified in pCon.planner 6.3. The light sources are now compatible to AutoCAD light sources and they are optimized for the integrated render engine. Beside this, additional properties are available in the property editor to customize the lighting elements.



- **Type**: defines the type of a light source and offers the possibility to change it without deleting the existing light source and inserting another type again.
- **Intensity**: the unit of the value is now defined in candela (cd)
- **Opening and hotspot angle**: these two properties are only available for spotlights and they define the gradient of light intensity between the center of the light cone and its edge.
- **Realtime shadows**: shadows of this light source will be displayed in realistic mode
- **Shadows**: if activated, shadows created by this light will be considered by the raytracer
- **Size**: the size of the light source affects the softness of shadow edges in the raytracer (requires the option Shadows to be activated)



*Resulting light cones, when the hotspot angle is smaller than the opening angle (left) and when both angles are similar (right).*

## 10. Additional features

pCon.planner 6 contains many more useful functions and improvements. The following list offers a brief summary of the most important ones:

- Change to the **interaction behaviour**: Double-clicking on an object now opens the edit mode rather than the rotation. If more than one object is selected, the object you double-click will be opened for editing.
- Integration of new geometry exports in the **3DS format**.
- An **image** in a drawing is **replaced** as soon as a new image is dropped over it by Drag&Drop. The position and scale are retained. Moreover, images in conceptual, lit and realistic mode are no longer displayed with a frame.
- Selected objects are identified by a blue highlight at the corners of the **3D border frame**.
- The **purge command** also contains a function for checking drawings and removing errors. Purge results are displayed in a message once cleaning has been completed.
- Object **line styles** are taken into account and displayed accordingly in the representation in pCon.planner.
- The functions **Undo** and **Redo** now also take into account the hiding and showing of objects.
- **References to external drawings** (XREF) are shown and labelled in pCon.planner 6. They cannot be edited, moved or modified.