



ZALAKERÁMIA

SPACE MAGIC

Guide to the use of 3D program

INTRODUCTION OF ZALAKERÁMIA SPACE MAGIC DESIGNER PROGRAMME

Zalakerámia Space Magic is a space furnishing and view designer programme that simultaneously satisfies the demands of amateur users and professional designers. The programme is a combination of a simple, user-friendly approach and precise settings that are essential for the accuracy of engineering. The same device is capable of constructing the view of the bathroom in a few minutes or providing an overall space setting in great details. The software package contains the complete range of Zalakerámia tiles, floor-tiles and sanitary products in an easy-to-search, thematic database.

Installation

Technological background

Installation and removal of the application

Zalakerámia Space Magic may be installed or deleted by the help of the CD's installation program. Installation can be launched/started by the *Install* button of the opening screen. Zalakerámia Space Magic may be installed in several configurations.

Technological background

The suggested computer configuration for the running of the programme is the following. PII Celeron 300 MHz, 64 MB RAM, true color SVGA video card, 1024*768 resolution, 500 MB free disc space. The size of the required space and the number of inserted objects may demand the use of a more advanced computer.

The setting of the computer's virtual memory needs special consideration, as it may occasionally exceed 100 MB. In such cases there shall be a sufficient free disc space at disposal.

Creation of a new plan, loading of a saved plan

The program's beginning offers two possibilities: the creation of new plan, or the loading of a formerly saved plan.

Having chosen the adequate option, the program starts running after pressing the *Next* button.

The program may be stopped by the *Exit* button.

Ground Plan Setting

There are two eligible ways of constructing a new ground plan. You can simply create a quadrangle shaped ground plan, or it is possible to construct a polygonal plan by free-hand drawing.

After selecting the quadrangle shaped ground plan option, you have to click on the *Next* button in order to enter the screen where the width and length of the room and the height of the wall need be given in millimetres. If you wish to design an irregular shape locality, choose the second option. In this case you shall determine the size of the framing square in millimetres. Having given the precise data, the designer section of the space magic program can be started in both cases by pressing the *Next* button.

Free-hand Drawing

After clicking on the *New Polygon* button, the first vertex of the desired ground plan can be established by a mouse-click on the screen. In what follows, lines may be drawn from one vertex to the other in the desired angle with the help of the mouse. Vertexes can be fixed by clicking the mouse. The desired polygon can be 'closed' by clicking in the vicinity of the initial vertex. This method renders it possible to create any polygons proportionally.

During the drawing process the last vertex may be erased by pressing the *Escape* (Esc) button. Side-edges and vertexes are selected by clicking. Red colour indicates the already selected parts, whereas selection is shown by green colour while moving the mouse. Selected side-edges or vertexes may be removed by pressing the *Delete* button. Having selected a side-edge, a new vertex can be created in its middle by pressing the *Split* button. The *Side-edge Adjustment* button helps to adjust the selected edge to the horizontal or vertical direction. (Naturally, side-edges are always adjusted to the direction that lies closer to the actual

position of the edge.) The sizes of angles at the vertexes may be changed by grabbing a vertex (this is indicated by the appearance of a red dot at the given vertex) and moving the mouse while keeping its right-hand-side button pressed. If you select a side-edge, you can use the same method to modify the sizes of edges and the belonging angles.

The dimensioning of the ground plan can be followed on the left-hand-side and top section of the screen. In case of a polygonal plan the size of the framing quadrangle is indicated in millimetres. During the drawing process the length (in millimetres) of the individual side-edges is shown in the **Length** cubicle on the left-hand-side, this number may be changed on the keyboard.

Screen of Flat Forms

After the ground plan construction the next step in the process of space furnishing is the setting of wall-tiles. Two panels can be seen on the left-hand-side of the screen comprising **Wall** and **Tile** functions. The currently chosen surface is always presented on the right-hand-side of the screen. The screen of flat forms can be entered by pressing the **Flat** button.

The ground plan on a small scale appears in the bottom-left corner. Walls and the floor can be selected on this small-scale plan with the help of the mouse. The currently chosen wall and its possible layers appear on the right side. Each surface has a belonging background layer. In case of walls this layer stretches from the floor to the uppermost row of tiles (80% of the height of the wall), while it totally covers the floor. In case of walls the tiled layer may be modified, whereas in case of the floor it cannot be changed.

Also see:

[Layers](#)

[Wall Functions](#)

[Tile Functions](#)

[Space Furnishing](#)

Layers

Layers are closed polygonal configurations that are dealt with by the programme as distinct units. Each layer may be provided with a different tile pattern and the individual properties (setting, orientation, size and colour of joints etc.) can be set distinctly. In our program layers represent new surfaces on the walls or on the floor thus making it easier to fit in certain tile shapes and patterns. Layers do not form a 3D surface.

The walls and the floor have been provided with a default layer that cannot be proportioned (except for the height of tiling). Additional layers may be placed on these fundamental layers by using the Wall panel functions. It is possible to add further layers to the background layer by using the formerly introduced polygon-drawing function. Each layer can be modified, provided with patterns, moved and proportioned.

Also see:

Wall functions

Tile functions

Wall Functions

The *Surface* section of the left-hand-side green panel comprises the functions of wall setting. Certain functions concern the currently displayed wall or floor surfaces, while others affect the whole space in general.

Layer Functions

The *Length* value always indicates the size of the selected side-edge in millimetres. The length of the side-edge can be modified by rewriting the number.

The *Adjustment* button serves to adjust the selected edge to the vertical or horizontal direction.

Using the *Split* button, a new vertex can be added to the selected edge.

The *Delete* button helps to remove the selected edge or vertex.

Using the *New Quadrangle Layer* button, a new quadrangle shaped layer can be inserted in the surface in the determined millimetre size. The size may be modified after the insertion as well.

The *New Polygon Layer* button helps to draw a new polygon shaped layer according to the rules of free-hand drawing.

With the help of the *New Decor* button a new decor selected from the presented list shall be placed on a new, transparent layer.

The *Pattern Size Layer* button serves to adjust the size of the selected and patterned layer to the size of the pattern. This is a simple method for displaying special patterns on the surface.

Tiling Height can be set in two ways. The upper row of tiles can be moved vertically on each wall thus making it possible to find the desired height of tiles. The other possibility is the use of the *Tiling Height* function. It presents a dialogue box where you can determine the desired height in millimetres as well as decide whether to set all the walls similarly.

The *Utilised Tiles* function lists the types and number of tiles used on the given wall or in the whole space. The list may be printed or put on the clipboard for further use.

The *Colour of Joints* can be set distinctly at each wall. The size of joints shall be determined at the setting of patterns.

The *Colour of Wall* may be decided with the help of the colour selecting button that appears in this function. The selected colour shall be valid for all the un-tiled wall surfaces.

Also see:

Screen of Flat Forms

Tile Functions

Tile Functions

Functions in connection with tiling are located in the *Tile* section of the left-hand-side green panel. Functions concern the selected layer. Layers may be selected on the left-hand-side small-scale figure with the mouse; selection is indicated by a red frame.

The first group of functions regulates **display**. There are three options to be chosen, but it is also possible to combine them.

- The tiling of wall surfaces becomes visible when selecting the ***Tiles Visible*** option. Switching off this option accelerates the process of moving and inserting layers.
- The ***Objects Visible*** function makes the located objects visible. Each object appears in its appropriate surface. This option has the role of coordinating objects and patterns.
- ***Pattern Guide*** provides an inversed version of the tile pattern that shall be printed in order to serve as a guide at tiling.

Warning: This program has been designed to create visual effects, it only imitates reality, therefore the provided data shall only serve for information and may not cover the actual facts.

The **pattern orientation** of the selected layer – ***Tile Edge Alignment*** – can be set with the help of the icons that point in nine directions. These function buttons serve to establish the location from where the layer shall be patterned with the formerly set pattern. Setting the tile-arrangement renders it possible to locate the tiles of the adjacent walls.

In certain cases the **shifting** of tile patterns enables the designer to create such patterns that are impossible to make during the initial tile-patterning process.

Warning: Shifting always concerns the pattern and not necessarily the tiles, therefore in case of patterns that consist of several tiles shifting may remain visually ineffective.

Pattern shifting has the following options:

- The ***Horizontal Half Pattern*** function shifts the pattern in the horizontal direction by the length of half a pattern.
- The ***Vertical Half Pattern*** function shifts the pattern in the vertical direction by the height of half a pattern.

(In case of alignment to the centre these two functions serve to adjust whether to place tiles or joints in the central position.)

- The **Every Second Row** function shifts the second row of the set pattern by the length of half a pattern.
- The **Every Second Column** function shifts the second column of the set pattern.

If the pattern only comprises one tile, the pattern can be arranged in a stepped configuration.

Using the **All Walls** button it is possible to extend the setting of the actual wall to all the wall surfaces.

Also see:

[Screen of Flat Forms](#)

[Wall Functions](#)

Tile Patterns

Tiling of the floor, walls and wall surface layers takes place through the so-called tile pattern setting process. Patterns are tiles arranged in an optional way. Layers can be filled in by placing the pattern repeatedly.

Warning: The programme supports the arrangement of square and rhombus shaped patterns. In case of polygon shaped patterns the exact fitting/interlocking of patterns cannot be granted.

The screen for pattern setting shall appear after pressing the **Pattern** button.

Tiles to be used for pattern making shall be selected from the list on the left-hand-side of the screen. Moving the mouse over the tile names on the list, the picture of the required tile appears. After clicking on the picture the tile can be moved to any part of the screen by drag-and-drop technique. The fitting of tiles is always determined by the size of joints given on the left-hand-side. According to the size (in millimetres) the tiles shall be aligned.

The size of joint may be determined before the location of the first tile. In order to modify the size of joint the pattern needs to be deleted, the size of joint modified and the pattern setting restarted.

It is possible to reduce the list of tiles according to several searching aspects. After entering the first few characters/letters of the name of the required tile in the **Type code** field the programme automatically sets up the tile list of our demands. The aspects may be used collectively and independently as well. In case of simultaneous usage, aspects are carried out through AND logical operations.

The pattern making method has been developed to be quick and simple: a double mouse-click on the selected, magnified tile results in the duplication of its picture. The selected tiles may be rotated by 45 degrees by clicking the right button of the mouse thus rendering it possible to create diagonal patterns.

In the pattern setting area two rulers help the accurate pattern construction. The bottom-left corner of the tile is considered the initial point of the ruler. (The indicated values are related to this point.)

For the construction of larger size patterns the visible surface may be increased or decreased by the + and – buttons of the **Magnification** function. This function can be reached through the **View** icon of the left-hand-side field. The whole pattern can be moved on the plane with the help of the arrow buttons. Pressing the button moves the pattern by the value indicated on the millimetre scale above the buttons. Using the **Align to Origo** button the whole pattern may be aligned to the bottom-left corner of the screen.

The **Delete** button can be used to delete individual tiles, while the **Delete All** button serves to delete the whole pattern.

Using the **All Walls** function the pattern appears on all wall surfaces. Similarly, the **All Parapet Walls** function applies the pattern on all parapet wall surfaces that have been formerly established.

Warning: The *All Walls* and *All Parapet Walls* functions only render the recently set up patterns. After that it is possible to change the patterns individually so that the modification does not affect the other wall surfaces. The *All Walls* function does not concern the floor.

The *Save Picture* function helps to save the picture in bitmap format.

Insert Objects

Setting

Print

Panorama View

Insert Objects

As a result of clicking on the *New Object* button the groups of incorporable objects appear. After choosing the appropriate group, the incorporable elements of the group appear on the left-hand-side list. Having selected one of these objects, its picture appears on the right side. After pressing the *Insert* button, the place of the object needs to be determined in the 3D space. This shall be indicated by a mouse-click and may be located on the floor, on wall surfaces, parapet walls or even on the surface of another object.

If the surface of location is not plain, there are two methods of fixing the object. In the default mode the object shall be located perpendicularly to the surface of the framing quadrangle. However, the application of the *Perpendicular to Surface* function renders it possible to locate the object perpendicularly to the surface of another object. This function may be used when we want to place the object on a curved surface.

Certain objects, for instance parapets, mirrors may be provided with parameters. In such cases it is necessary to determine the referring sizes and other possible properties.

The programme supports the import of 3DS format files. The import function can be found on the *Group* list under the title *Imported Files*.

Objects in the space may be selected with the help of the left button of the mouse. Keeping this button pressed enables the user to move the object along the surface of location. The object may be moved on other surfaces as well by keeping the **Shift** button pressed. Permanent pressing of the right mouse button renders it possible to rotate the object around its axis that is perpendicular to the surface of location.

The programme has a clash preventing function, which prevents the user from locating objects into one another. The clash of objects is indicated by a flashing icon on the bottom-left part. Clash prevention may be temporarily eliminated by keeping the **Ctrl** button pressed, or it can be switched off at the Settings.

Also see:

Object Properties

Settings

Object Properties

Properties of the inserted objects shall be set in two ways. Firstly, it is possible to determine *Surface Properties*, secondly *Size, Location* may as well be defined.

After pressing the *Surface Properties* button a given surface of the given object must be selected. The result of settings can be immediately checked on the right-hand-side sphere.

Surface Properties are the following:

- Pigment
- Reflection
- Translucency

These properties may be determined in proportion to each other at a rate per cent. In order to achieve a natural impression the sum of percents need to equal to 100 %.

Angle and rate of light source reflection

Metal reflection

Relative refraction

- Colour of surface, or
- Bit picture setting

In case of bit picture application the proportion of the utilised picture to the object can be determined. Moreover, the pattern may be rotated and reflected in several ways.

Settings may be saved into imported files, and be reloaded as well.

The three dimensional coordinates of the object can be changed independently or relatively on the *Size, Location* panel. In addition to this, the object can be rotated with great accuracy with the help of the *Rotate* functions. During the setting of dimensioning and rotation, a blue axis indicates the appropriate dimension on the displayed object.

Settings

Parameters concerning the program and the whole of picture calculation may be set on the Settings panel.

The *Light Sensitivity* parameter coordinates the brightness of the generated picture. The default setting of the programme contains a scattered light omitting light source. Its colour and intensity may be calibrated on the panel.

Reflection sets the reflectional recursion of ray-tracing algorithm. The higher this value is set, the more beautiful the picture shall be, but it also results in the slowing down of the picture making process.

The *Translucency* parameter regulates the rate of translucency of transparent objects. The higher this value is set, the more refined the translucency becomes, but it also takes place to the detriment of speed.

Picture quality regulates the quality and elaboration of picture generation. The quickest solution is setting 1, but it generates a grainier picture than level 9, which is significantly slower but produces an elaborate picture.

Panorama view

Panorama pictures provide 360 degree, life-like representation of a furnished space. The panorama picture is developed from the current camera setting. The result of picture calculation is revealed in a dialogue box that becomes visible after pressing the **Panorama View** button. After clicking on the picture, the view can be rotated with the help of the mouse. The *Save* and *Load* functions enable the user to save or reload a given panorama picture.

Parapets

Parapets are special objects with such surfaces that can be tiled according to the wall-tiling process. Similarly to other objects, parapets may be inserted with the help of the *New Object* button.

The *Surface Properties* button enables the user to tile all sides of the parapet. After pressing the button, the surface to be tiled shall be selected with the help of the mouse. The pattern of the parapet can be evolved by the aids introduced and utilised during the course of wall tiling.

As parapets may have a large size, their location needs to be done cautiously.

Printing

The picture visible on the screen can be printed after pressing the *Print* button. The resolution of the picture on the screen is not identical with that of printing, therefore the printed picture maybe of lower quality.

In order to achieve higher quality printing it is necessary to click on the *High Quality Printing* button. In this case the programme regenerates the picture visible on the screen in a size four times bigger than the initial one. High quality printing requires more time (20-30 minutes, depending on how complicated the picture is).

In case of high quality printing, the calculation process can be terminated by pressing the *Cancel* button.

Saving/Reloading

Saving and reloading of spaces takes place through the functions of the File menu. Reloading of former plans may be initiated at starting the program.