Operation manual

Visualisation Materials

CAD Kitchens 8.0, CAD Decor 4.0, CAD Decor PRO 4.0

INTRODUCTION

This manual describes the process of printing your design from 2D environment.

We wish you a pleasant and fruitful work with our software!

CAD Projekt K&A team

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Visualization - applying and editing materials

1. Introductory remarks

It is best to start work in visualization by covering selected surfaces with finishing materials. Proper selection of textures and colours is crucial for a satisfying final result. In addition to the materials in the databases added to the program and any custom textures, when finishing a room, the user also has at his disposal paints and ceramic tiles, the use of which is discussed in separate instructions.

2. "Materials" tab

Textures are available in the **"Materials"** tab, which is the first tab of the left menu. It is divided into two tabs: **"Manufacturer"** and **"Standard"** (Illustration 1).

Under the **"Manufacturer"** tab, there are three lists:

- **„Paints" -** contains buttons with the names of manufacturers of paints and other coatings, when clicked on, which launches a specialized paint module, described in a separate manual;
- **„Various"** -there are buttons with the names of manufacturers of laminate panels, furniture fronts, kitchen countertops, edging, interior para-pets or decorative panels and others. After clicking on the button, the database of a given percentage opens, divided into collections. After selecting a collection, the bottom panel will display previews of the textures in it. To return to the list of all manufacturers, click on the arrow next to the manufacturer's logo;
- **„Kitchen base textures"** - contains a button with the name of the kitchen cabinet base used in the current project. Clicking on it takes the user to the material base provided by the manufacturer, divided, for example, into the following texture types: **"front"**, **"body"**, **"plinth"** ,**"worktop"**, **"worktop edge"**, **"worktop skirting board"** ,**"upper/lower cornices"** (Illustration 2). Selecting any of these items causes its contents to appear on the bottom panel (Illustration 3).

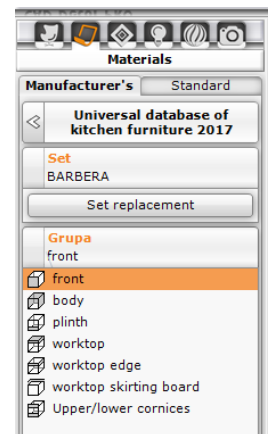*Illustration 1 „Materials" tab on the left menu, "Manufacturer" sub-tab*

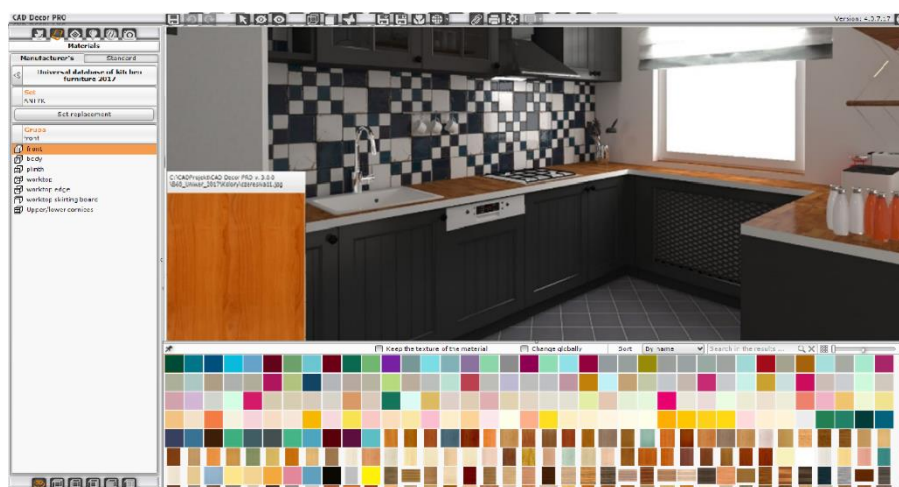*Illustration 2 List of textures in the kitchen base material database*

Illustration 3 Texture previews from the kitchen furniture base on the bottom panel

The **"Standard"** tab contains two lists:

- „**Standard Materials"**, where you will find bases of universal textures (such as plastic, textiles, leather, felt, metals, bricks, wood, stone, concrete, wallpaper, wicker and many others);
- „**User Materials"**, onto which you upload your own textures, downloaded from the Internet or prepared by yourself (how to do it, we describe in point 3 of this manual).

The texture previews on the bottom panel can be displayed in different ways. depending on the current demand (whether the user wants to see as large an image as possible, or whether it is convenient for him to view as many previews as possible at once to quickly search for the texture he needs), the previews can be enlarged or reduced. The bottom panel can also be stretched vertically and horizontally. When you point the cursor at any preview, its magnification along with the texture data (location and name) will appear above the bottom panel, in the lower left corner of the scene preview. Various configurations of the panel are shown in the following illustrations. The flexibility of the view allows you to conveniently and quickly find the right materials.

3. Adding custom textures

You can upload any of your own image files in JPG, BMP, PNG, GIF and TIFF formats (in high resolution, without shadows or glosses, and in perpendicular alignment) to the **"User Materials"** directory. The material cata-log tree is not limited in depth, which gives you the ability to reach subdirectories. With this-you can create detailed category divisions of your own materials. To upload your own image files, please:

- select the **"Materials"** tab in the left menu, then go to the **"Standard"** tab in the left menu and click the **"Add"** button;
- indicate the folder containing the files to be added;
- select the **"Ok"** button in the window **"Browse for folder"** (Illustration 4);
- all the files and subdirectories present in this directory will be do-done to the list "**User Materials"** in a new directory with the same name(Illustration 4);
    - images will be immediately available for use in the project;
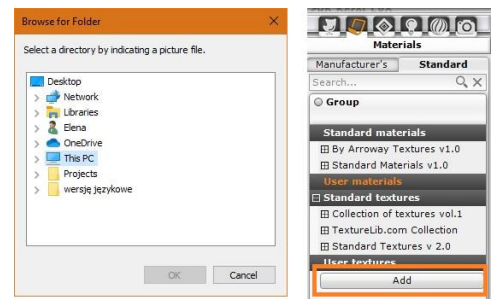   - any number of directories and files can be added.

Illustration 4 Adding custom textures, a new item in the list of user materials

To delete a subdirectory with its own textures, click on the cross next to its position. It is not possible to selectively delete subdirectories.

> **Note that all properties of PNG and GIF files are visible in CAD Decor PRO: backgrounds (PNG, GIF formats) and animations (GIF format) are not read, and colours in uploaded textures should not be defined in CMYK method.**

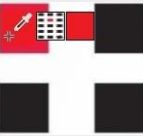## 4. Texture application

4.1. Using the item preview

Applying textures to selected objects and surfaces in a project is easy and fun. To apply the selected material to any surface, you need to:

- select a texture in the list of previews, click on it with the left mouse button and, holding down the button, point the cursor to the surface or object in the scene to which the texture is to be applied, and then release the button (drag-and-drop method);

- the material will be applied to the indicated object;
- if the same material is to be applied to all elements of the same type throughout the project, check the **"Change globally"** option, which is available on the top edge of the lower panel.

4.2. Use of material collection and application tools

In the right menu, under **"Material Properties"**, there are options that allow you to take any material or color from the scene and apply it to another object, without having to search for the texture in databases or trying to recreate the desired shade.

Icon	Function
Eyedropper tool *Illustration 5 Picking up texture or color with a pipette*	- is used to indicate a material, color or tile for use on another object; - after clicking on the icon, point the cursor at the selected material - two square previews will appear: the whole texture and the actual color of the indicated pixel (marked with a cross next to the pipette) (Illustration 5); - To download a texture, click with the left mouse button, and color - with the right; - a preview of the selected texture or shade will be displayed in the right panel; - not only textures or colors are downloaded, but also all previously assigned properties of copied materials (all values in the right menu will be set as they are on the downloaded material, and when the copied material is applied to a new object, it will have identical properties to the original material); - if you point the pipette outside the scene preview area, it is still possible to retrieve the color of the indicated pixel (e.g., from previews of previously saved views, tiles or textures, visible on the bottom panel).
Bucket tool – applying materials to objects **Bucket tool – applying materials to layers**	- the one-drop bucket icon applies a texture or color (with given properties), taken by a pipette, to the indicated object; - after selecting the icon, point to the object (or objects, one after the other), left-clicking; - you can change the application mode (not to a single object, but to all objects, lying on a given layer) by clicking on the arrow next to the icon; - The multi-drop bucket icon applies the pipetted material to all objects belonging to the same layer as the indicated object (operation like the function "**Change globally**"); - the object should be pointed out by clicking the left mouse button.

5. Editing applied textures

The textures used in the project can be edited. to do this, double-click on the object with the left mouse button. This will activate the options in the right panel, in the **"Material Properties"** tab, which allow you to:

- replace the texture with any color that can be indicated on the palette or using the numeric RGB values and the **"Color"**, **"Saturation"** and **"Brightness"**, sliders available in the **"Filling Type"** panel (Illustration 6);
- move the pattern on the object in the X or Y axis (**"Move"** button);
- Texture adjustment (stretching it over the entire surface of the object) (**"Adjust."**) (Illustration 7);
- change the dimensions of a single texture segment in the X or Y axis (in the **"Grout width" and "Height"** fields);
- arbitrary rotation of the texture (in the **"Angle of rotation"** field) ;
- in the above fields you can change the value using the buttons ⊖ and ⊕ or by typing it from the keyboard after double-clicking on it with the
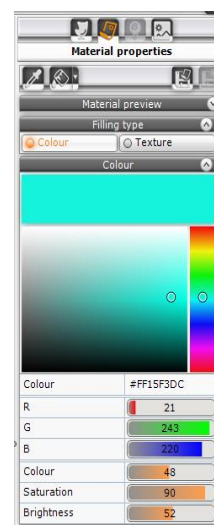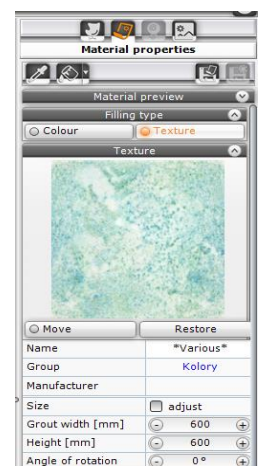

Illustration 6 Color selection

Illustration 7 Moving, dimension settings and texture rotation angle

left mouse button;

- assigning effects (sliders **"Gloss"**, **"Transparency"**, **"Reflections"**, **"Roughness"**) in the **"Element Properties"** panel (Illustration 8);
- assigning the properties of emitting light (**"Emission"** slider) or glowing with a white glow (**"Glow"** slider) in the **"Emission"** panel (Illustration 9);
- the emitted light can be given any color and enabled to be displayed in the rendered scene at any time - to do this, click in the **"Emission Color"** field (Illustration 9) indicate the hue on the palette or using the RGB values and sliders **"Colour"**, **"Saturation"**, **"Brightness"** (Illustration 10), and then confirm the selection with the **"Ok"** button;
- then during the calculation of **Radiosity** you can turn its visibility on and off at any time - the next time you refresh the effects of the calculation, the emission color will be taken into account and will be visible in the scene;
- giving the Bump mapping property (slider **"Bump effect"**), which is a way of texturing objects by imitating the irregularities of their surfaces to represent convex or concave patterns (in the **"Bump mapping"** panel) (Illustration 11);
- the values on all the above sliders can be changed in two ways - by clicking the left mouse button (changing the value in the range up to 100%) or by typing the value from the keyboard, after clicking on it with the right mouse button (in the case of emissions, it is possible to change more than 100%; the maximum value is 10000% - after typing a larger one, the program will set the maximum);
    - you can also change the properties of the selected layer, belonging to the selected object (in the panel **"Layer"** – Illustration 12);
    - Degree of vertex smoothing, which allows additional processing of models with rounded shapes (leveling sharp corners and edges in places that should be smooth and rounded) (slider **"Smoothing"**);
    - hide a particular layer or display it (option **"Visibility**.**"**);
    - cess, such as those obscured by other) (Illustration 12);
    - assign the layer to reflect light on both sides (option **"Two-sided material"**), so that the program reads both surfaces (front and back) as front (this can be important for correct light distribution in **Radiosity** calculations in the case of models, built from single surfaces, which are to be well rendered from both sides);
- selection of the layer to be edited is possible in the lower part of the right panel - that is, in the **"Selected"** tab (which can be freely collapsed and expanded vertically) (Illustration 13) (This makes it easy to edit layers that are more difficult to ac
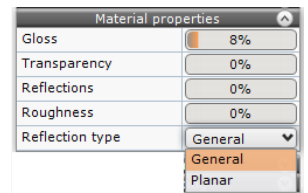
If multiple objects are selected, the right menu in place of the **"Fill Type"** panel will display the **"Various Fills"** panel, which will show previews of all textures, colors and tiles present on the selected objects.

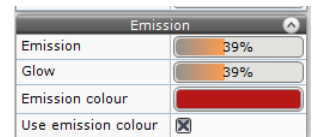*Illustration 8 Panel „Material properties*
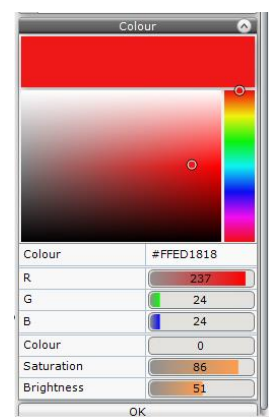

Illustration 9 Panel "Emissions"

Illustration 10 Selection of the color of light emitted

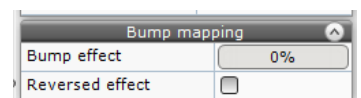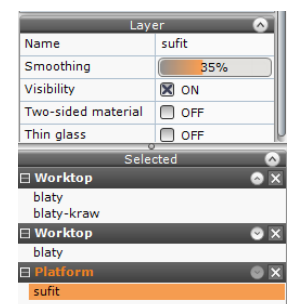*Illustration 11 Panel Bump mapping*

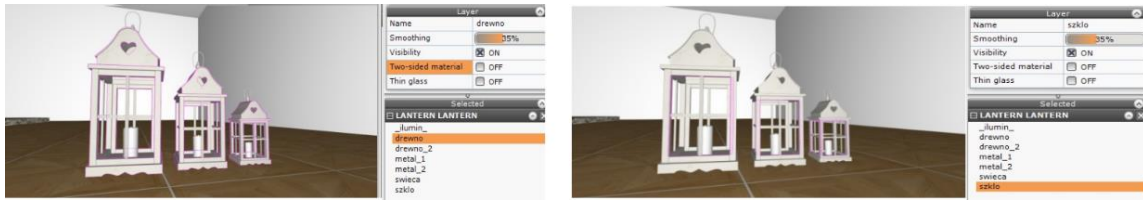*Illustration 12 „ Layer" and "Selection" panels*

Illustration 13 Selecting different layers of the indicated object

It is possible to select objects covered with textures, paints and tiles, but in the latter case it will be possible to select only one object (after double-clicking on another object covered with tiles, it will replace the previously selected one), as well as objects not covered with any material. After left-clicking on the preview, the user gains access to two options: **"Set selected material"** and **"Select objects with material"**. The former allows you to give the indicated material to all selected objects (it is not available if you select the preview tile) (Illustration 14).

The second icon removes the selection from objects with materials other than the indicated one (only the object covered with the material previewed will remain selected, and the previews of the other materials will disappear in the right panel) (Illustration 15).

> **Note: It is also possible to edit surfaces (e.g. walls, landings) that have not been textured and give them any properties (e.g. colour, gloss, transparency, reflection, emission, etc.).**
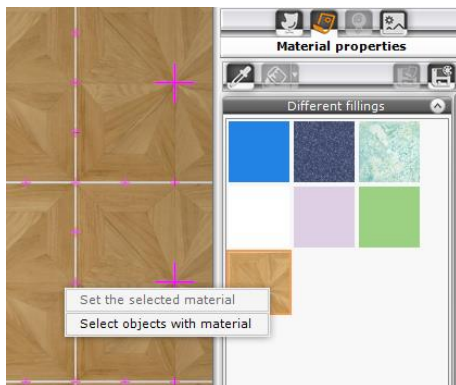

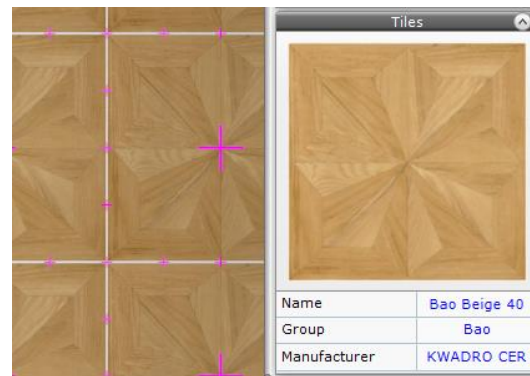*Illustration 14 "Select objects with material" option*

Illustration 15 Selection has been removed from the remaining objects, only the indicated material is edited

6. Applying textures to kitchen cabinet base elements

In CAD Kitchens and CAD Decor Pro, textures from the currently used kitchen cabinet base, provided by the manufacturer, are available. They are available in the left menu, under **"Kitchen base textures"**. Available here are groups of textures for fronts, cabinets, pedestals, etc. (when you click on a category, the available textures will be displayed on the bottom panel), as well as the **"Set replacement"** button, which opens the **"Colouring change"** window, where you can select a different set of cabinets and configure the colours of all its elements, changing the colours of the kitchen furniture directly in the visualization.

Additional information

1.   Instructional videos

- Playlist, Visualization | Render"
- Saving user materials
- Use of standard materials

2.   Shortcuts and commands

The document compares keyboard shortcuts in the .4CAD and visualization environments and lists the most frequently used commands in versions up to 3.Xi/7.X and version 4.X/8.X (both 34 and 64 bit versions of the environment). Find the document at: https://www.cadprojekt.com.pl/zasoby/pdf/opisy-techniczne/shortcuts-4-0-8-0-eng.pdf

This document provides an overview of keyboard shortcuts and commonly used commands in the .4CAD environment for visualization. The shortcuts and commands can be issued using either the mouse or keyboard. It can be accessed at: https://www.cadprojekt.com.pl/zasoby/pdf/opisy-techniczne/shortcuts-4-0-8-0-64bit-eng.pdf

In the above list, LPM and RMB stand for left and right mouse buttons, respectively. A command notation with a + sign (e.g. [Ctrl] + [Z]) indicates that both keys should be pressed simultaneously, while a notation with a >> symbol (e.g. [E] >> [Enter] or [Space]) means that you should first type E and then press [Enter] or the space bar.

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Contact form

We would like to inform you that we provide training in the use of our programs. For more information, please visit our website: https://www.en.cadprojekt.com.pl/trainings/

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