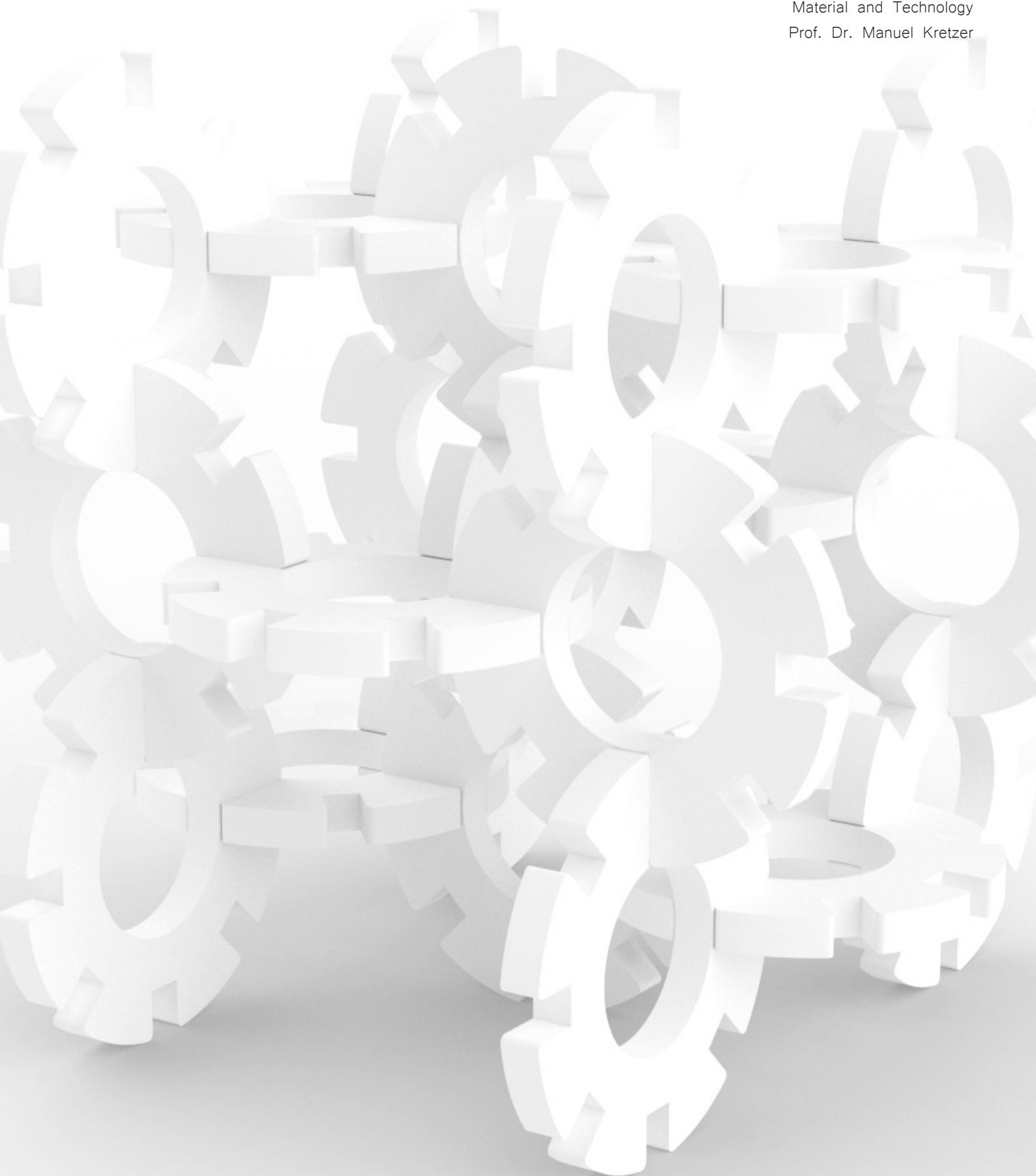


RHINO Intro:Rendering

Material and Technology
Prof. Dr. Manuel Kretzer



What you are about to learn:

1. Preview in the Viewport
2. The Render Dialog
3. Render Properties
4. The Render Window
5. Saving a Rendered Image

Further info and credits

Tutorial prepared by Karsten Schuhl

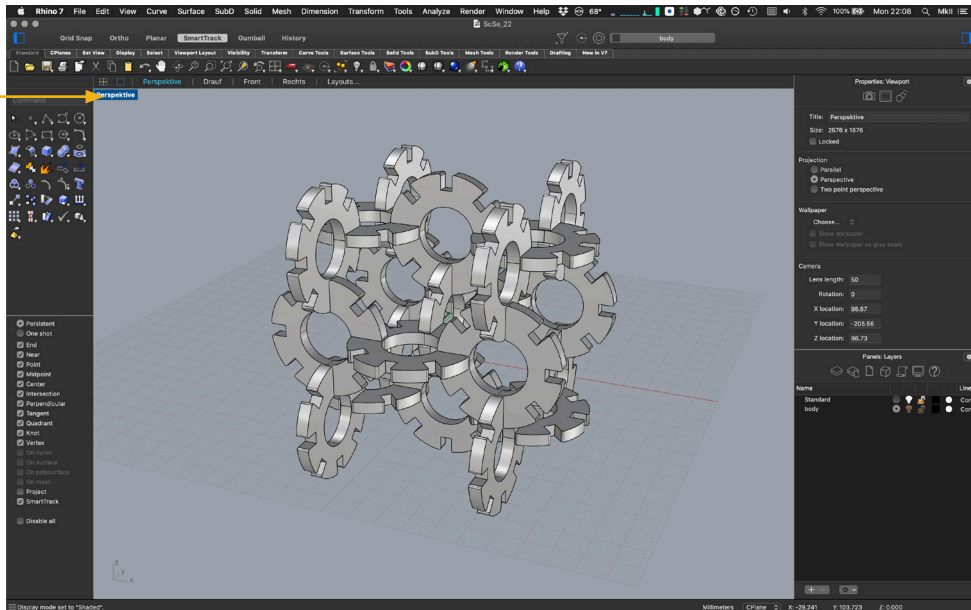
For more tutorials visit:

<https://www.rhino3d.com/learn/>

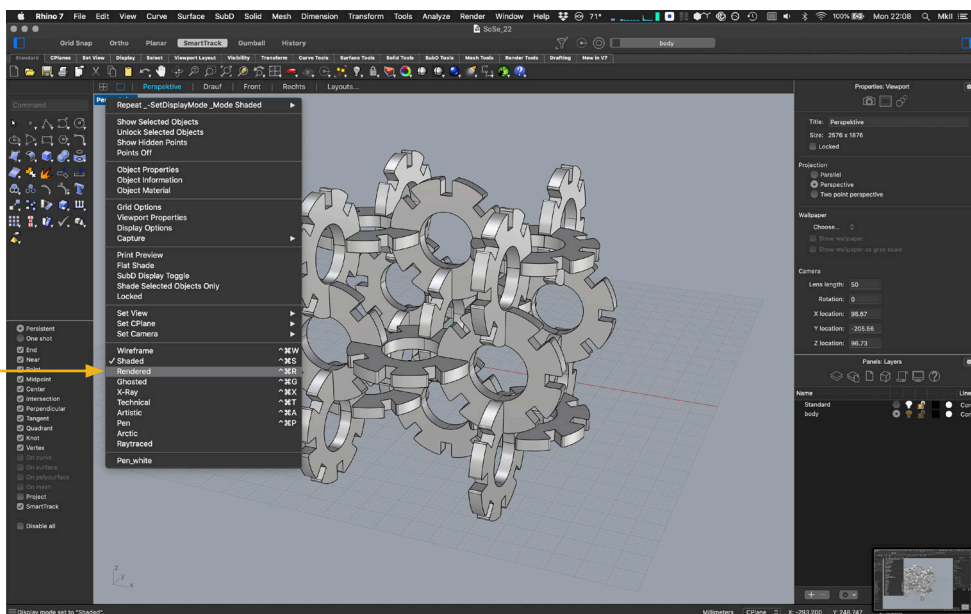
<https://www.rhino3dhelp.com/>

Youtube is also a great source for Rhino tutorials.

1. Preview in the Viewport

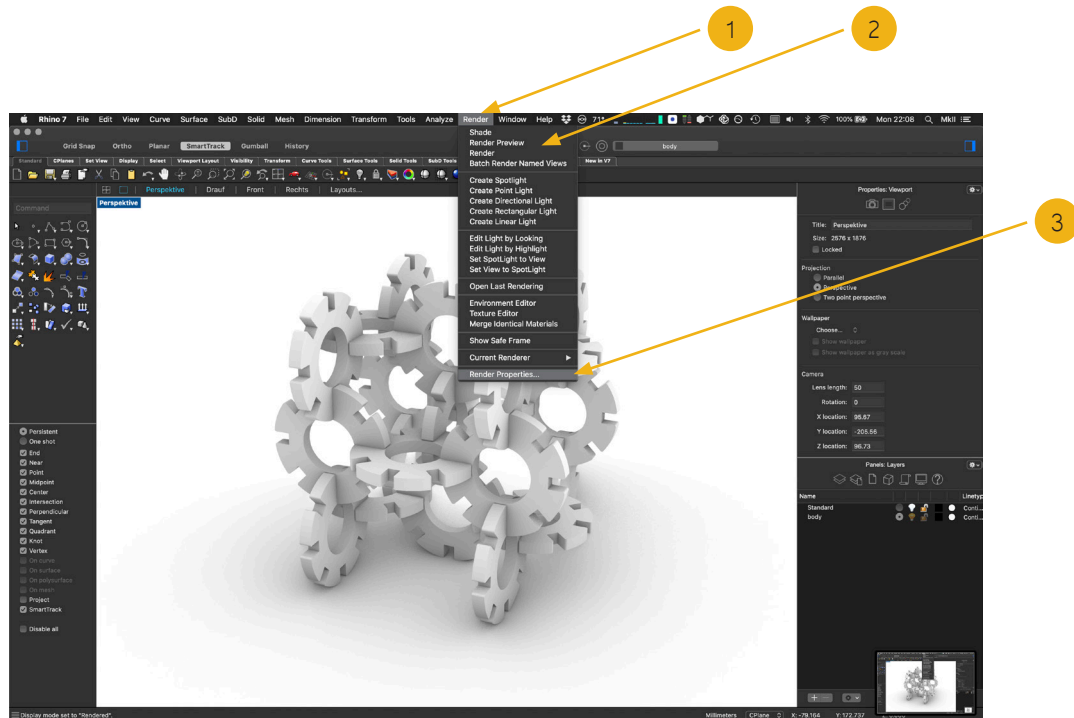


Once you have a 3D structure you'd like to render choose a perspective you'd like to show and right click the viewport selector. A number of options appear to, for example "Set View" or select a Display Mode.



For a low quality preview of the rendering select the display mode option "Rendered" (also possible via the command "SetDisplayMode").

2. The Render Dialog



Above you see a quick white shaded viewport render which can be dragged, rotated and positioned as usual in the perspective viewport.

Hints:

As long as no object or plane has been created to use as a surface for the object to stand on, Rhino will automatically generate a Ground Plane at the lowest point of any object in the viewport.

When no lights or render environment have been placed or set Rhino will try to automatically light the render scene as evenly as possible.

1 Render Tools

In the tool bar the “Render” selector will reveal a number of tools to set up a render scene.

2 Render Actions

At the top of the render tools are the main options for the view: Shade, Render Preview & Render.

“Shade” – sets the viewport Display Mode to “Shaded”.

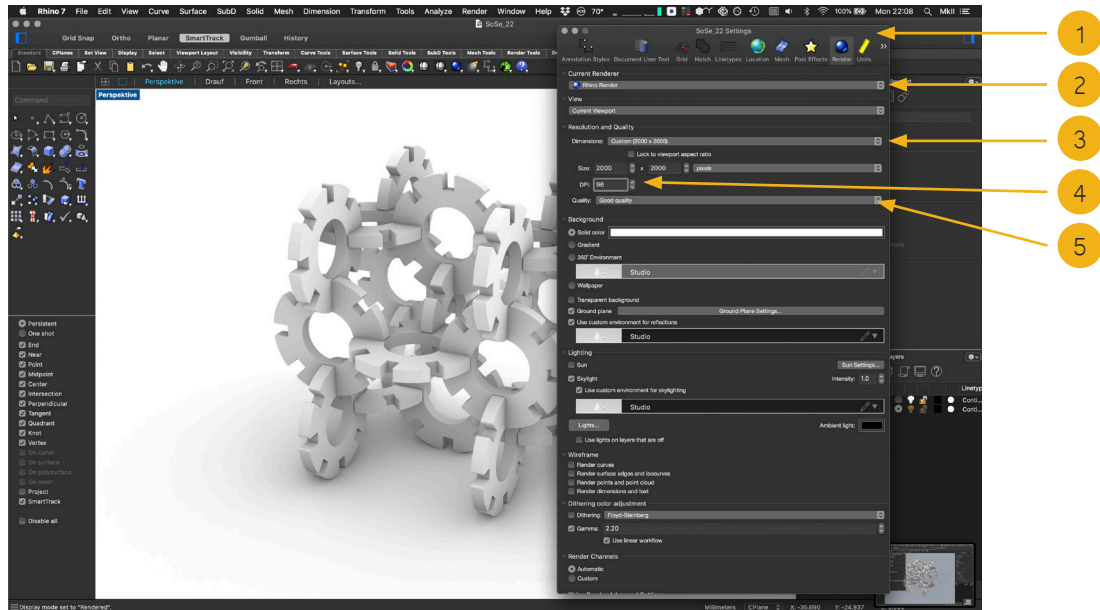
“Render Preview” – renders a low quality preview image. Useful to check size and position for the final image

“Render” – starts the renderer based on the “Render Properties”

2 Render Properties

Opens a dialog to set the size, quality and several other options for the final render output.

3. Render Properties



The Render Properties dialog is a floating window and part of the active Rhino file. It can also be opened via the “File > Settings...” dialog.

Attention: The render settings are specific to each Rhino file and will need to be set individually in each file.

1

Render Properties Dialog

Part of the file settings.

2

Renderer selector

Drop down menu to select the render to be used. Usually set to “Rhino Render”. If other render engines have been installed they will show up in this menu (i.e. V-Ray, etc.)

3

Dimensions Settings

A number of set dimensions can be selected. The “Custom” option allows to input custom sizes.

4

DPI Setting

Set the DPI of the render output.

5

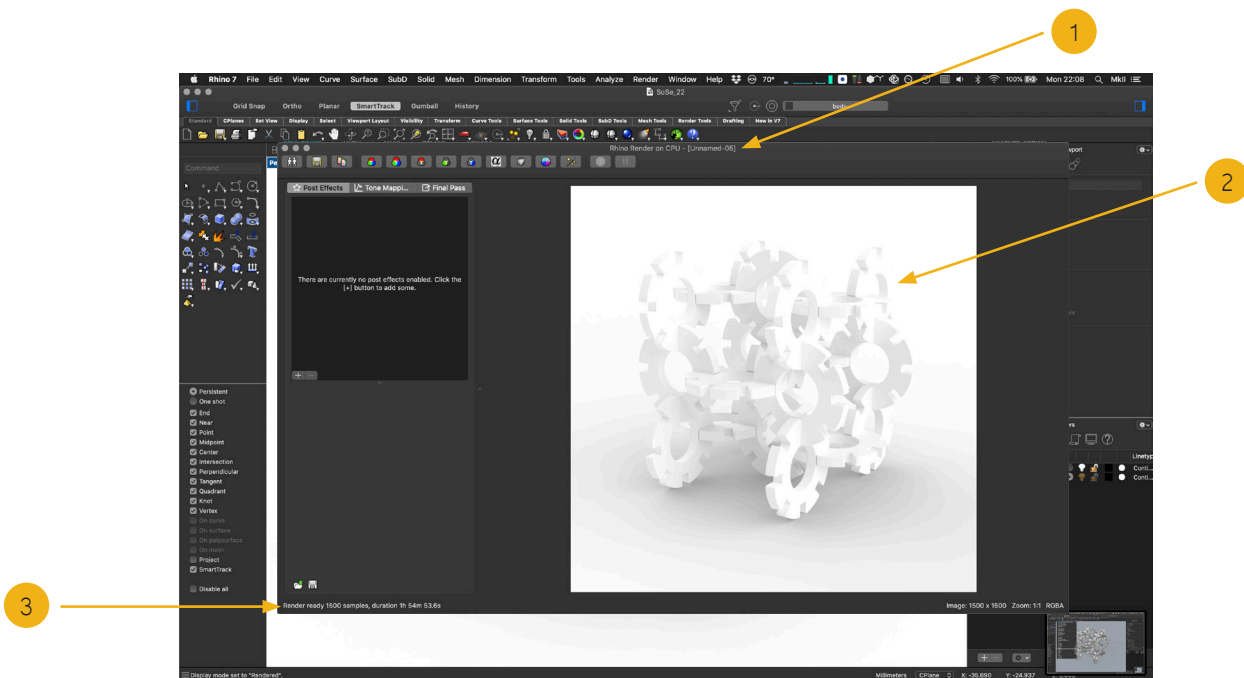
Quality Setting

Output quality of the rendered image. Options are “Low Quality”, “Draft Quality”, “Good Quality” and “Final Quality”.

This greatly affects the time it will take to complete the render.

HINT: Test the render settings and perspective in “Draft” or “Good Quality” before starting a rendering with the “Final Quality” setting.

4. The Render Window



Once a Preview Render or a higher quality Render is started the Render window will appear. The Rhino Renderer renders images on the CPU and will prioritise rendering. Until the image is done one will not be able to change any settings or perform actions in the viewport.

1

Render Window

This is where commands can be typed out. After the command has been selected, several prompts related to this action will be displayed, allowing for further setting selection.

2

Render View

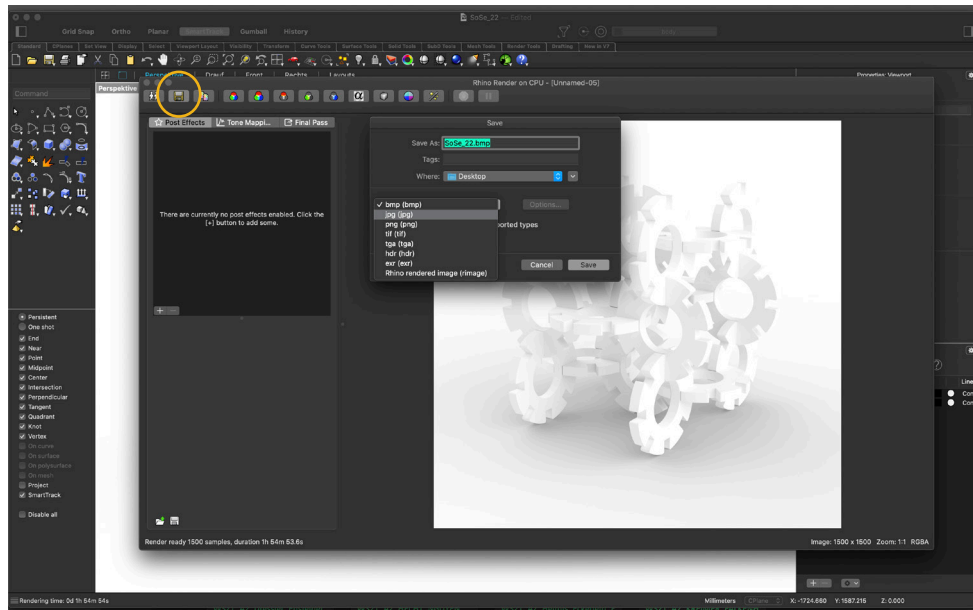
This is where commands can be typed out. After the command has been selected, several prompts related to this action will be displayed, allowing for further setting selection.

3

Render Status

Displays the status of the rendering. Info includes: Number of samples and the elapsed time.

5. Saving a Rendered Image



Once the rendering is done selecting the floppy disk icon will open a “Save” dialog.

Saving an image

The drop down menu in the “Save” dialog offers multiple file types as an output format.

Final output:

