# Custom Bump Maps in KeyShot and Showcase



### Prof. Tim Purdy





# **Topics Covered:**

- Creating normal maps from texture images (www.smart-page.net/smartnormal/)
- Using custom bump maps in KeyShot
- Using custom bump maps in Showcase
- Creating normal maps from photographs







have any lighting variations and that it can be seamlessly repeated without any visible edges. Save the image to your computer as this will be used to create a normal map in the next step.



SmartNormap 2.0

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Open www.smart-page.net/smartnormal/ in your browser. Click Load (1) in the upper right corner and navigate (2) to the texture file that you saved in the previous step.



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The loaded image is now shown as a normal map preview. Play with the Bias (1) slider in the upper right corner until the texture in the normal map is distinctly visible. Then click Save (2).







Right-click and save the normal map in the same location as the original texture.



# Applying custom normal maps in KeyShot



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Open KeyShot and apply basic smooth texture-less materials to the body of the object.



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Right-click on the material to which the normal map need to be applied and choose Edit Material. You can also double-click on the material to activate the Edit Material command.

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In the Material Properties panel, choose the Textures tab.





earlier.







The color of the material can be changed independent of the texture/bump map applied to it. This can be done in the Diffuse box under the Properties panel.

# Applying custom normal maps in Autodesk Showcase









Select: LMB to select. LMB drag to box select multiple objects. Shift+LMB to add, Ctrl+LMB to remove from selection.

To use custom bump maps in Showcase, start by applying basic materials to the object.

Autodesk Showcase 2015 - Student Version - c:\users\deepak\appdata\local\temp\Autodesk Showcas...\Watch.a3s\*



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Right-click on the material and select Material Properties from the drop down.

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Screenshot Added \* X A screenshot was added to your Dropbox.





In the Material Properties options box, scroll down to the Bump section.

Material Properties of currently selected objects

Name: Orange (4)

✓ Hide selection highlighting Disable anti-aliasing

Color

### Reflectivity & Highlight

- Clear Coat
- Transparency

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Turn on the Show bump for this material option (1) and click on the little folder icon (2) to bring up the Explorer window. Navigate and select (3) the normal map saved in the previous step.

Material Properties of currently selected objects

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The normal map is applied to the surface and the material now reflects the texture of the original image that was saved in the first step.

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Material Properties of currently selected objects

![](_page_18_Picture_7.jpeg)

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![](_page_19_Picture_2.jpeg)

The color of the material can be changed independent of the texture/bump map applied to it. This can be done in the Use Color box under the *Color* section in the *Material Properties* panel.

![](_page_19_Picture_4.jpeg)

✓ Hide selection highlighting Disable anti-aliasing Reload Ray Tracing Properties 300.00 cm More Less Reflectivity & Highlight RGB Show bump for this material D: \Dropbox \GT \Spring 2015 \ID 3104 GTA \Tut Reload Use settings for all textures Parametric (UV) ✓ U direction ✓ V direction 0.000 1.000 0.000 0 Move Texture Autofit Glue -0.000 4 0 -0.000 4 0 -0.000 4 0 1.000 0.000 4 0 -0.000 4 0 0.000 4 0 1.000 10-1.000

Material Properties of currently selected objects

![](_page_19_Picture_8.jpeg)

![](_page_19_Picture_9.jpeg)

# Creating normal maps from photographs

![](_page_20_Picture_2.jpeg)

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![](_page_20_Picture_4.jpeg)

![](_page_20_Picture_5.jpeg)

![](_page_21_Picture_2.jpeg)

Any material in the real world can be used as a texture in digital rendering. Identify interesting textures and photograph them to be used in KeyShot or Showcase.

1 - Alternation

![](_page_21_Picture_5.jpeg)

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![](_page_21_Picture_6.jpeg)

![](_page_22_Picture_0.jpeg)

Use an image editing program to crop the photograph down to a small portion, removing any unwanted shadows and objects, keeping only the texture.

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![](_page_23_Picture_4.jpeg)

Create a normal map from this cropped image file following the steps shown earlier.

![](_page_23_Picture_8.jpeg)

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![](_page_24_Picture_1.jpeg)

![](_page_24_Picture_2.jpeg)

Apply the normal map to the *Bump* section in KeyShot as shown earlier to use the texture with any basic color.

![](_page_24_Picture_6.jpeg)

![](_page_25_Picture_1.jpeg)

![](_page_25_Picture_2.jpeg)

![](_page_25_Picture_6.jpeg)

![](_page_26_Picture_2.jpeg)

In Showcase, the photograph can be added as the color in the Use image file option under the Color section of the Material Properties panel. Tweak the ambient shadow and color tint sliders to better match the original photograph.

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Disable an	iti-aliasing
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![](_page_26_Picture_8.jpeg)