

Modeling a Law Office

Step 09

Material and Texture

A model created in Blender needs at least one Material and one Texture.

A material defines the optical properties of an object: its color and whether it is dull or shiny, reflective or transparent. A texture defines the appearance of the material: whether it is smooth or bumpy or wrinkled. In Blender, textures influence materials in various ways, including altering their color. So, textures have to be attached to materials to affect the model's surface. You cannot apply a texture to a model that has not first had a material applied to it.

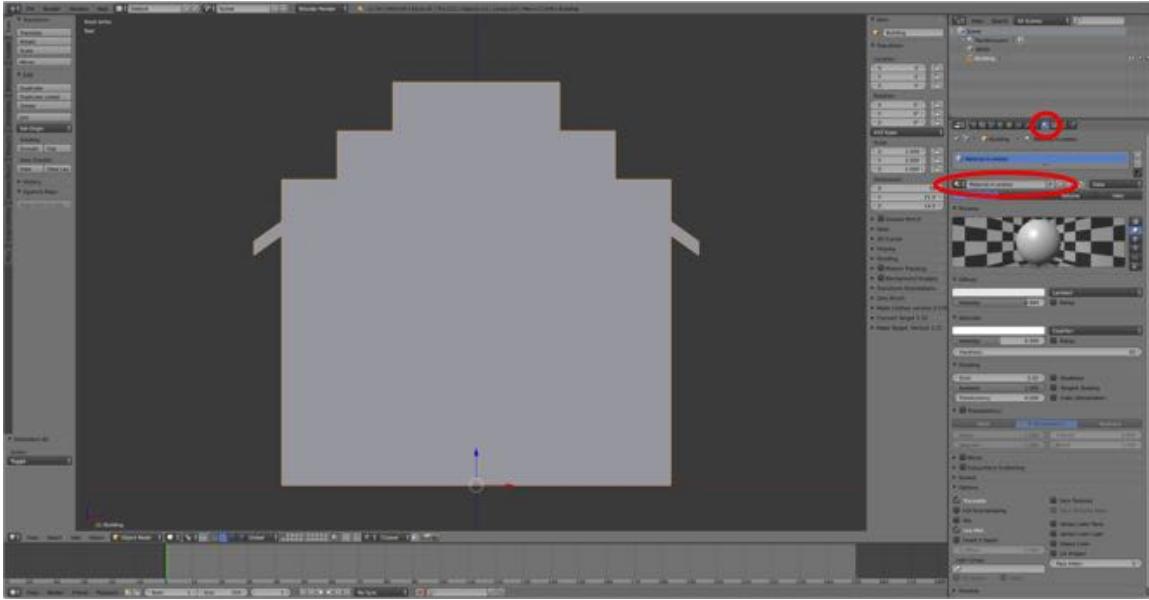
Blender is set up to create an image of your model that will be seen through a camera with the lighting applied within the Blender program. The process for viewing the final product is called "rendering". But we are going to export our models to Trainz where it will be seen under lighting conditions generated by the Trainz program. So rendering, cameras, lighting are all superfluous to using Blender to make Trainz assets. Indeed, you might as well delete the camera and light to clean up your scene when modeling. That isn't to say that we are not interested in how light plays off the surface of our models, only that it is different in Trainz from than that described for images viewed in Blender itself. This also means that lighting, cameras and rendering described on Blender's reference material, e.g., manuals, tutorials, etc., do not apply to using Blender to make Trainz assets. So, I'll discuss material and texture from the Trainz point of view.

Trainz Material Types

Trainz has it's own 7 Material Types (see website):

- m.notex
- m.onetex
- m.reflect
- m.gloss
- m.tbumpdex
- m.tbumpgloss
- m.tbumppenv

It is important that when materials are created in Blender for a Trainz assets that the name has one of these endings, e.g., name.m.onetex.



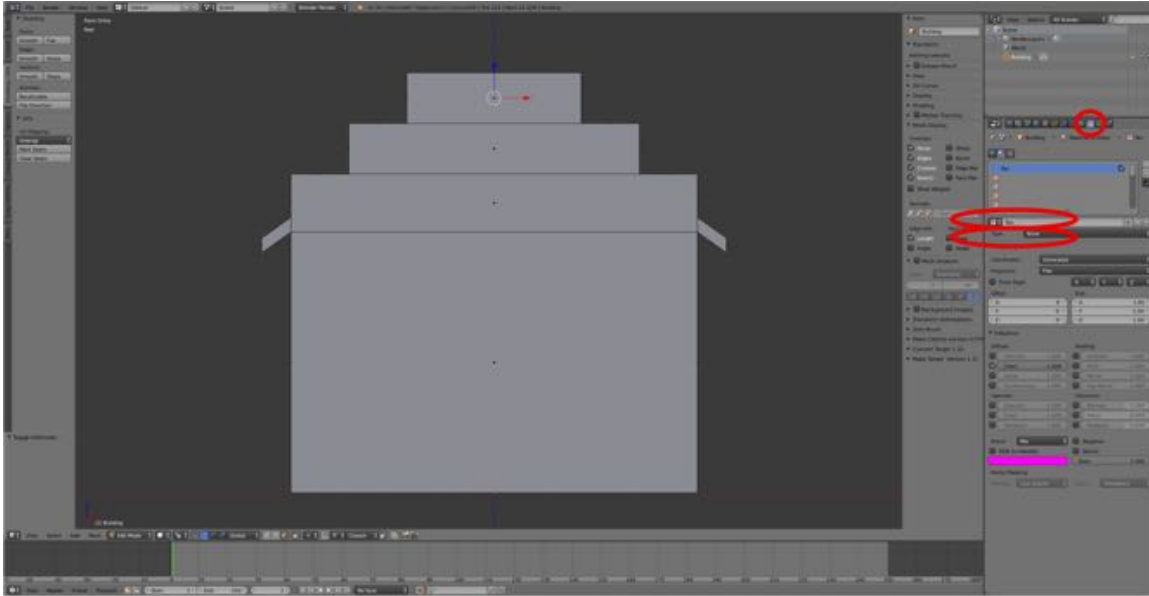
718

Note: A material was present when we opened the Material Pane because the model was constructed from the Default Cube, which has a material assigned by default. For all other Primitives and, indeed for additionally added cubes, a new material must be generated.

That's it. We have our material assigned and names.

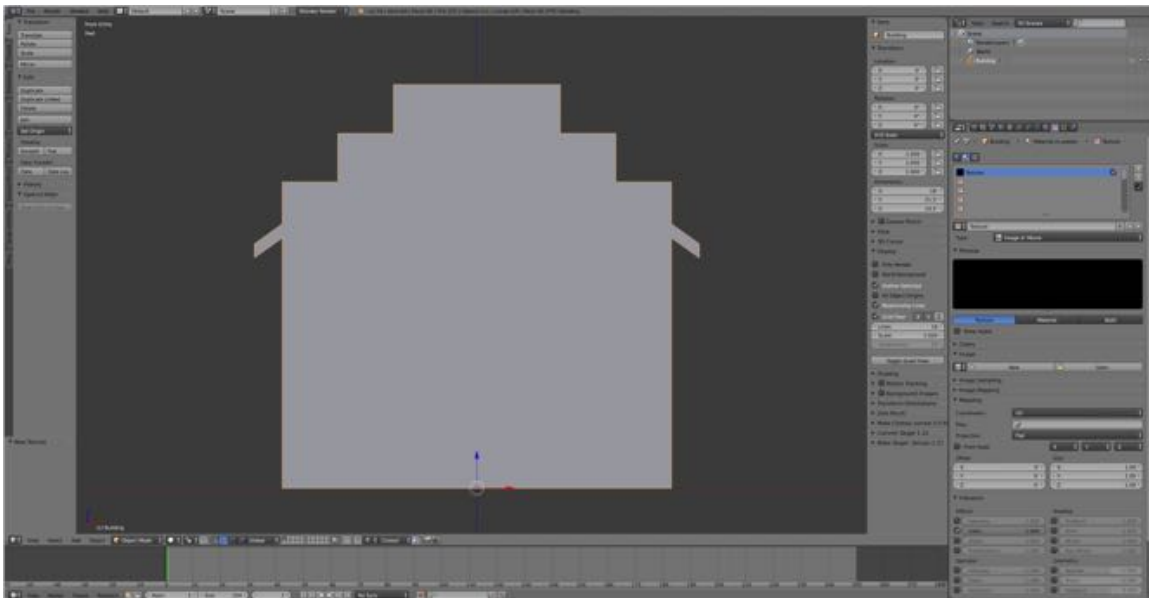
Texture

- In the **Properties Editor Header**, **LMB** click on the **Texture Icon** (a checkered square).
Note: You can leave the texture as "Tex" or rename to whatever you like.



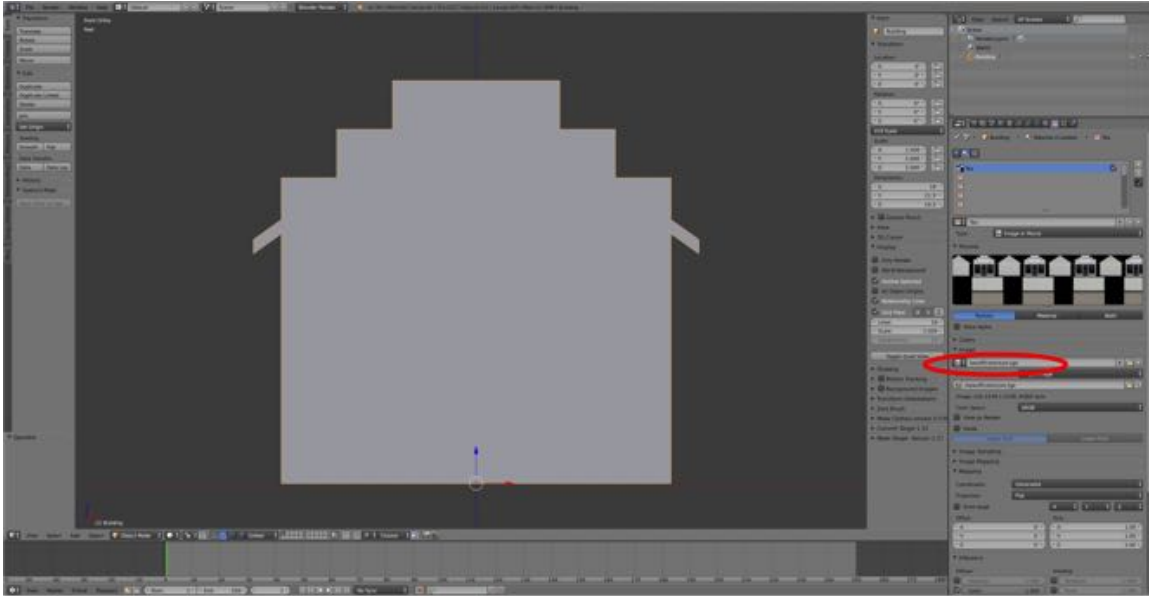
719

- **LMB** click on the **Type** and from the Popup Menu **select Image or Movie**.



720

- In the **Image Pane** **LMB** click on **New** and **select your texture file** (e.g., lawofficetexture.tga) from the folder containing it and your Blender files.



721

Time to save your file.

- **Press Save as (SHIFT + CMD + S-KEY).**
- **Press the NUMPAD-PLUS-KEY to increment the file number by 1 to LawOffice06.blend.**
(If you accidentally press the key twice, you can incrementally subtract from the file number by pressing the NUMPAD-MINUS-KEY.)
- **Press (LMB) Save as Blender File.**

Now we are ready to UV unwrap (UV map) our model to the texture file.