How to make the Textures

For this project, you will need to create 3 different types of maps. A Diffuse or color map, a Height or bump map, and a Specular map. Please remember to include your .PSD in your source images folder with your 3 textures.

DIFFUSE MAP

The first thing you'll want to do is search google for a wooden planks texture. Try to find planks kind of stacked on top of each other or lined up. Simple advice is to try to find one that is around 4k+ resolution. This will give you different looking pieces of wood to work with. Please make sure you use as many different ones (from the same image) as possible as this will create a wooden crate. It doesn't matter what style you go with so long as it looks like a wooden crate. You can use whatever image you want.

Now we just need to cut out individual pieces of wood using photoshop (or whatever you have). For this, you just want to cut out pieces of wood and place them into the UV snapshot that you took in Maya (in the UV Editor, Image>UVSnapshot). It will be placed in your images folder within the directory created when you started project by default.

When you open up the snapshot in Ps, name the layer "UVs". Next, create a new layer and move it under the UV layer and drop in a black background color using the paint bucket tool. This will let you see the UVs a lot easier. Now create a new layer and work within that layer. Generally, when you paste in the cutouts, it will create a new layer. I basically just used the marquee tool, cut out a rectangle from the wood image, then copy it and pasted it into the UV snapshot. You can use this method to build the crate piece by piece. There are a lot of them. Be sure to use different pieces for every piece of the crate. You should also use 4x4 top images, for the top and bottom in the corners.

Before you save out the JPG, make sure that you make the layer in Ps with your UVs on it not visible. Otherwise, you will be able to see the lines on your crate in Maya.

HEIGHT MAP

Your heightmap will act as a bump map. To create it, start with the diffuse map and turn it grayscale. This will make you merge your layers, so make sure it is saved as a .psd first. Then playing with the levels and brightness contrast in photoshop. (IMAGE>MODE>GRAYSCALE, IMAGE>ADJUSTMENTS>levels, and brightness and contrast)

The goal of this tinkering is to make your shadows pop. So, in this image, everything that is gray to black will show up deeper or further away, while everything that is white will be flat or closer to the camera. For this particular image, it should be close to white with little gray throughout. There should be black lines in between the boards in the middle sections. You can also paint in your own shadows using black or the burn tool in Ps.

SPECULAR MAP

The specular map will decide which portions of the crate are shiny. The whiter the pixel value, the shinier that piece will be. So for this map, I will be aiming for a mostly grayscale image. Same as with the heightmap. But, because we are making this out of wood, it doesn't need to be insanely shiny. Basically, do the same thing you did for the heightmap, but make it darker instead of lighter. This map should really end up being very gray with black portions throughout. Avoid making too much of it white as wood generally isn't shiny.

Creating the Material

To create the material, we will do the same thing we did for the planets. The only difference is that instead of creating a lambert, create a blinn. We do this because a blinn has a specular color channel. Apply the textures where they go in the property editor in the hypershade window. The diffuse/color map will go in the Color channel, the specular map will go in the Specular Color channel, and the height/bump map will go in the Bump/Normal Mapping channel.