# Anatomy of a Radiosity Scene



HDRI and floor texture setup test.
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Furniture & plants by metahumanity.com

After some requests about how I set up the lighting for this scene, I decided to make a small how to. There is not much of a secret to this therefor there is not enough for a in depth tutorial ;)

I made this rendering to test  a couple of things: the Planks PlugIn for the floor programmed by Denis Pontonnier(http://perso.wanadoo.fr/dpont/plugins/Textures.htm), HDRI lighting and how some free furniture and plants are, that I downloaded for free a couple of months ago from www.metahumanity.com

The only thing I modeled in this scene was the ground plane and one wall in the shape of a „L" with a door in it and 3 boxes for pictures on the wall.

What I also needed was a crossbar to simulate a window or a door where the sun shines in and floats the room. I placed the Image as a Projection Image for a Spotlight (Light Properties Panel – Basic – Projection Image).

I made this with Photoshop:
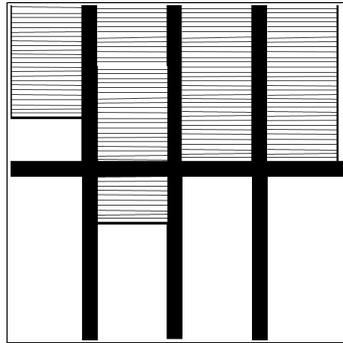


Here is how the scene setup looks like in Layout:
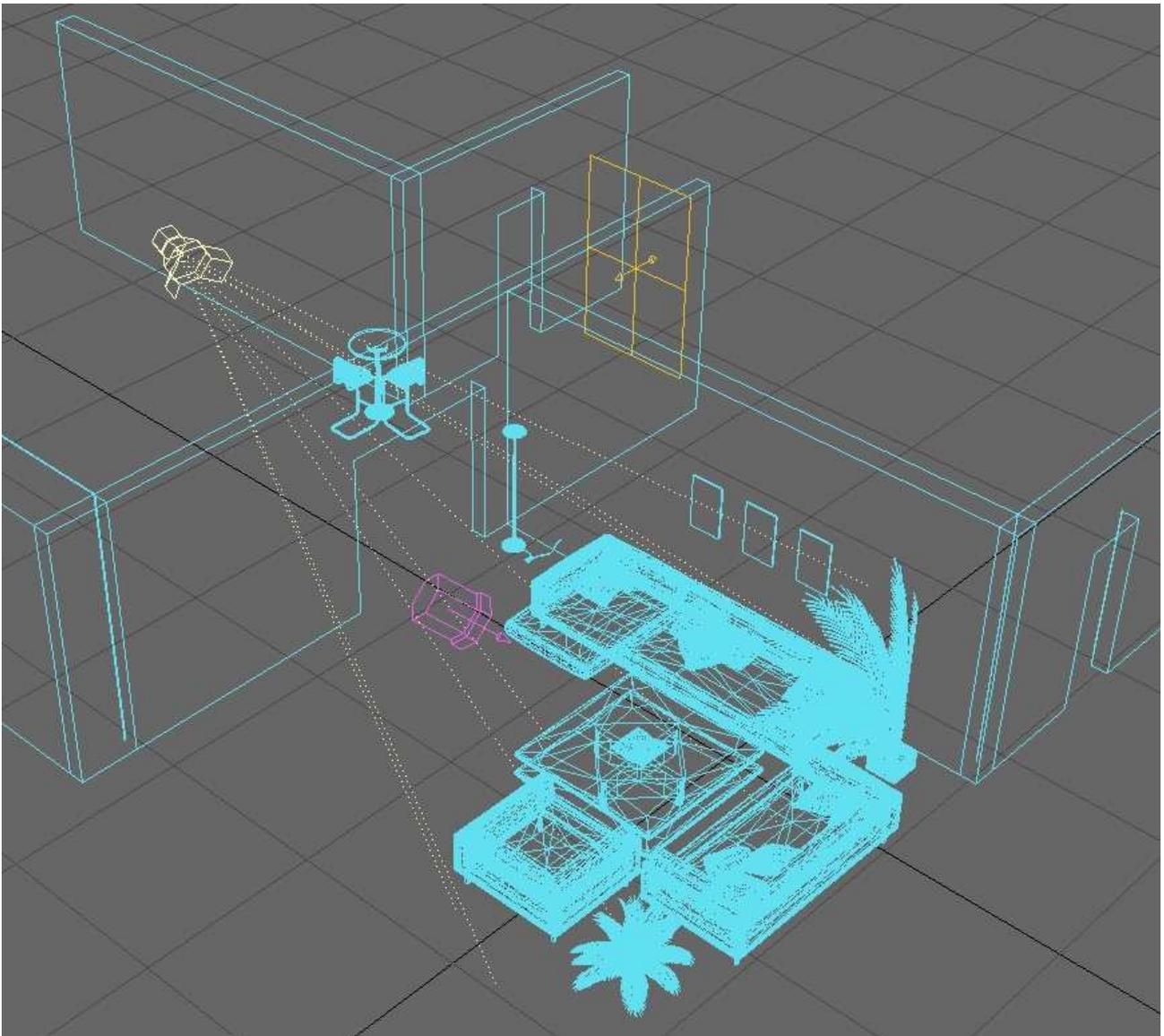
As for the HDRI lighting I used an Image form CGTechniques.com. It´s called „parlamenteingang.hdr". (I boosted up the gamma for this screen shot!)



After Loading the Image into Lightwave, FP Gamma ist set to 1.6 (Image Editor – Processing – Full Precision Gamma). The HDRI Image was used as an Image World (CTRL+F5: Backdrop – Add Environment – Image World) and turned it about 130° (Heading Offset) so the Light form the outside (on the image) came from the same direction where I placed the Spotlight with the Projection Image. Brightness is set to 300%.

One Area Light was placed in the Hallway to lighten up that area. But I think a Point Light with a falloff would be better for rendering speed.

Significant Light settings:

| | |
|---|---|
| Projection Image Light: | Spot Light |
| Light Intensity: | 250% |
| Shadow Type: | Shadow Map |
| | |
| Hallway Light: | Area Light |
| Light Intensity: | 10% |
| Fall Off: | Inverse Distance at about 2,5 m |
| Shadow Type: | Raytrace |
| | |
| Specular Light: | Distant Light |
| Light Intensity: | 100% |
| Affect Diffuse: | Off |
| Shadow Type: | Off |
| | |
| Ambient Intensity: | 50% |
| Ambient Color: | 158 197 255 |
| | |
| Enable Radiosity: | On / Monte Carlo |
| Intensity: | 130% |
| Indirect Bounce: | 2 |

I didn´t make any new textures. I used the textures that came with the furniture and plants. For the floor and the wall I used presets and only tweaked the size to fit the scene.

Some of the Objects were sized down to fit the scene too.

This scene can be adjusted further to gain more render speed (e.g using AmbOcc instead of Radiosity and placing some strategic lights to simulate light bouncing of surfaces). I don´t know how long it took to render because I forgot to look bevor I closed the render panel. It rendered over night, and I assume it took a couple of hours due to the high Ray per Evaluation settings that I used.

The textures can be dirtied down a bit to get more realism into of the image. Now things look much too clean :)

That´s it. Nothing fancy. I´m still fascinated how easy it is to set up such a scene compared to the time and effort that was needed a couple of years ago.

Have fun!