

The White Room – Cycles - Blender 2.62

By Jay Hardy 2012



Hi guys!

If you're reading this then you know that this is an attempt by me to do some kind of Archviz with Cycles. I know it doesn't compare to a Photon Map BLT or whatever ;) Cycles currently only does Path Tracing :(but I don't think the result is too bad. It's not "Photo-Realistic", but it's good enough for Clean Interiors with GI.

The room is padded out with objects here and there, it's a bit sparten and minimalistic, or very clean and tidy as I would say ;). It wasn't my intention to create a perfect scene, just to work out the settings for Cycles with an Interior render -Anyhu, I'm babbling.

The image was done over several weeks, due to lack of time etc. The thing that took the longest was getting Cycles set up to render reasonably quickly and to look nice without fireflies. I rendered this with my GPU on an **Nvidia GeForce GTX 560 Ti** (1GB) -great card by the way. The scene fits happily within the 1GB limit luckily - I was waiting for blender to stop rendering at some point and have to end up switching over to CPU but it didn't happen.

Blender Crash 2.62 with layers

I had an issue with trying to move some objects in a layer to another layer, every time I move them Blender crashes, I have no idea why, but just in case you are viewing this blend with 2.62 and try to move them you may get a crash, unless it's just at my end ;)

Rendering

Rendering this scene with GPU for say 2000 samples doesn't take that long, about 12 minutes. Obviously if you want a noise free render I would suggest upping that a fair bit (6000). Not bad considering If I'd have used Luxrender or Yafaray I'd be looking at checking it the day after probably.

If you're using just the CPU, it'll obviously take longer, but it's still very fast compared to other render engines with a scene like this.

Modelling

The modelling is pretty simple as I didn't want to run out of GFX memory as I just mentioned. Most, if not all items will stand up well to close-up shots. I've tried to stick to Preview Subsurf Modifier at "1" and for Rendering full at "2". Any more is probably unnecessary unless you're going to do an extreme close-up.

Lighting

The set-up for the lighting is pretty simple. I was in the midst of this scene when Blender Cookie's Archviz tutorial came out (Jonathan Williamson) – damn that was a lot of vids (Over 3GB)! curiosity got the better of me and I signed up for the month to see if there were any tips that would help out.

Luckily most of what I'd done seemed to work well and I was on the right track. The tutorial from Jonathan involved Render Layers and a fair amount of compositing, this I thought would create a lot of hassle for the end users as I had the intention of uploading this to Blend Swap when it was done to help anyone who was unsure of how to light such a scene. So if you've followed that tutorial, you may see some different methods here to get the same job done.

Lighting in the scene we have:

1 x Sun lamp

Internal Sky Background Texture

3 x Mesh Emitters for the visible windows (Camera Ray Visibility off)

1 x Mesh Emitter for the simple window behind the camera to add a bit of extra bounced light (Shadows off)

1 x Background Street Image set as an Emitter/Shadeless node material (lightened to appear over exposed as it would be if the shot was taken indoors with a camera).

Note: I avoided Area Lights as they cause too many Fireflies, it's amazing to see how bad they can be compared to Mesh Emitters. Area Lights created hundreds of them, Mesh Emitters created none.

Render Settings

To keep the speed up without losing too much quality I set Cycles Integrators to these settings:

Samples – Render: 6000 - Preview: 20

Bounces - Max : 8 - Min 8

Transparency - Max 8 - Min 8

Light Paths - Diffuse 2 - Glossy 2 - Transmission 2

Shadow on

Caustics off

Camera

I've set the Focal Length of the Camera to 20, this is essentially a wide angle lens befitting this kind of shot to get more into the view, there's not much distortion at this angle I chose luckily.

Textures

All the textures you can see in the rendered image are in a separate folder titled "Textures" as Blender in its current form with cycles (Blender 2.62) won't allow packed images. Not that it matters, I actually find this method handier. The only texture I have not included is the Wood Floor texture as I haven't a clue where I found it – even though I've modified it, I feel that someone must own it and I don't wish to upset them. It's extremely simple to add a new floor texture of your choice, so work away ;)

I tried to keep the file size down too, and most of the textures are Jpegs.

Cycles Materials/Shaders

Most of the materials are quite self explanatory, nothing unusual here – most shiny surfaces are Mix shaders with Diffuse and Glossy. The Transparent materials are a mix of Diffuse and Transparent.

For the Windows I didn't use the Glass pre-set as this can cause a lot of Fireflies, slow the render time down, not let enough light in and also look strange with the IOR values. Instead I used a Mix Shader with Glossy and Transparent. This works really well and unless you require caustics, it's great for windows and picture frame glass etc.

Models

I used the Bevel Modifier for many of the surfaces (including the walls) so they had more of a 3D look to them, I hate flat sharp corners!

Room - There's quite a few models in here, but none of them that special, mostly just to fill the scene a little. The room itself is based on an oldish English house with bay windows that have sashes fitted. I wanted the room to be a bit older than the usual modern renders you see on most sites, a touch of old with a touch of new.

Window frames - I saw these in a house and home magazine and thought they'd be fun to make. I discovered that afterwards I could have made them so much easier with the Shear tool (not the modifier one) CTRL+ALT+SHIFT+S - flip the Axis with Middle Mouse Button. The material is just a glossy mix to add a bit of variation between the wood and the walls.

Fireplace - Is based on a modern reworking of a Victorian fireplace - I didn't add any textures to this as I didn't have time. A little displacement/bump around the arch would have been nice, but not that visible.

Chairs/Sofa

Based on a 50's style that I've seen somewhere before, I liked the sloping arms. I went with an off-white leather look for the material, I didn't feel a leather texture would show up well and would have added a lot more time to creating the room so I didn't bother.

Coffee Table

I made several different versions, this one is based on a 70s style table but with curved edges to give it a modern twist. The material is very shiny, a bit like car paint, although no Fresnel.

Chest of Drawers - Nothing that special here, although the handles match the coffee table.

Radiator - Based on a Victorian radiator I thought it would add a bit more detail and look a lot nicer than an average modern rad.

Radio - I modelled this a while ago for a kitchen scene, it's based on an old Bush radio similar to the replicas you see all the time. No dial texture, but for close-ups you could add one.

Book Shelf - Nothing to see here, just a bog standard shelving unit.

Cushions - Various textures.

Teapot, Saucer and Cup - Models from one of my previous blends "Break Time"

Rug - I wanted to make it furry, but as Cycles can't do hair yet (2.62), I just went with a simple displacement bump map.

LCD TV - Extremely simple with two materials, one for the screen and one for the bevel.

Picture Frames - Various pic frames with the fake glass material applied for the glass.

Fruit bowl with Apples - A very quick set-up here, just good enough for a distant render.

Ceiling Lamp Shade - Based on the Japanese shades I have here at home, very simple with a little paper texture added to create some creases.

Upright Lamp - The most simple model ever, although the Shade has an inner and out section in case you wish to use it like a real lamp, although getting enough light to emit realistically in Cycles isn't that easy - you'll probably have to cheat, a light bulb Mesh emitter probably just won't do it ;)

Books - Some of my own collection, I would have done more if I had time – takes a while to scan the spines in as you can imagine and it generally needs two pairs of hands, one to hold the books in place and another to press “Scan” in the scanner window... doh!

3D Artist Magazine - Yeah I know it's not that visible, but I just couldn't resist doing my own cover for it! A bit of shameless self promotion ;)

Love Ornament - All the rage these days (apparently), words to decorate your shelves.

Post/Compositing - Very simple here, just a Bloom node set-up to give a bit of ambience, a slight Vignette to darken the corners and a little colour correcting to taste.

Of course you can do whatever you like with this scene, models, textures and materials, with this license, just give me a mention if you re-use anything obvious ;)

I guess that's it, if you've any questions, please ask away. I hope this scene helps and benefits you in some way. I look forward to seeing more interior renders with Cycles!

L&rz, Jay. ;)

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