
Subject: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Aircraftkiller](#) on Mon, 19 Dec 2005 05:10:52 GMT

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Since Reborn refuses to show how simple their technique was, even though it was blatantly obvious (Texture baking in Max, press the zero key and you're almost at their skill level!), I've decided to make this tutorial so that everyone can use lightmaps in their creations if you feel it's worth the ridiculous amount of time necessary to do so.

You're going to need 3D Studio Max, any version that natively supports texture baking via the zero key will suffice. You will also need the BFF Export plugin. You can find the BFF Export plugin at FileFront's download service:

<http://www.filefront.com/?filepath=/renalert/BFFExporter.zip>

Okay, now that you have the necessary files (ignore the MultiUnwrap plugin), now you need to know how to install them! Drag and drop the BFF script into your Max viewport. Once you've done that, select the Customize menu and select the Customize UI option. Click the Menu tab and select the "Bobo_s Tools" category. Click the plus sign next to the File menu to open it, and drag the "BFF_Exporter" item below the Export item. You're all done setting up your scripts, congratulations!

This step can be slightly tricky, so if you need help please feel free to e-mail me at aircraftkiller@cncgames.com if you have any questions.

Now to start helping you set up the faked lightmaps:

Load your Max file. For example, if you're making a building interior with lightmapping applied, be sure to load said building interior so you can begin work with it. Make sure your scene's geometry is complete. Set up all your lights the way you want them to look in-game, and make sure you've got a Shadow Map applied for your lights, or Ray Traced Shadows. Either will produce great results for the purpose we're using them for. Once all your lights are set up, select your main piece of geometry (For reason's sake, the largest piece so it's easier to work with) and attach all the scene's geometry to it. Before you do that, though, be absolutely sure to save your work before doing the attachment so you don't have to worry about having a single instanced piece of geometry if you wanted to have separate smaller pieces to work with. Add the Unwrap UVW modifier and set it to UV channel 3.

Select the Mapping menu after you've brought up the UV vertex editing menu. Select the Flatten Mapping option and leave the settings at default, press enter to allow Max to chug away for however long it will take. On a 2.8 GHz machine, my Refinery interior (About 4,000 polygons) takes about two seconds to finish. A slight delay is to be expected with any complicated scene, so heads up if you have a slower system.

After you've run that, select the Tools menu and select the Pack UVs option. Change the packing type to Recursive, change the spacing to 0.01, and check all the options beneath the spacing spinner. Allow Max to restructure your UV coordinates to optimize map space (Since this is really pointless to do yourself unless you're the masochistic type) and then convert everything to an

editable poly object or an editable mesh object. Either one is irrelevant, just make sure not to convert it to an editable patch object.

Once you've done that, keep the object selected and press zero on your keyboard's number strip. When the Render to Texture (Texture bake menu) opens, make sure to tell Max the UV coordinate your lightmaps are working off. Generally the number would be 2 or 3, depending on which you used earlier. You tell Max how to bake the scene's radiosity into a texture by selecting the Use Existing Channel option and setting it accordingly. On the output menu, click the Add button and add the LightingMap option. Set the texture size at whatever you feel appropriate. 256 to 512 is more than enough for a building. 1024 is pushing it in any case.

Next to where your new lightmap's filename is, a button with three periods inside needs to be clicked to set up your export path for the lightmap. Set it to some easy to find location, since the default Max location is C:\YourMaxPath\Images.

Select the Render option and let Max chug away. Once you've done that, select File > BFF_Exporter and uncheck everything but Geometry, Materials, and Progress Report. Export this file to your workspace folder and close Max, or do whatever you want with it at that point. Load RenX; the output will be a *.ms file. This MaxScript file can be read in gMax by using the MaxScript > Run Script menu option. This saves your extra texture channel, allowing the lightmaps to exist in the engine without having to remap everything in gMax to your lightmap's UV coordinates (Again, unless you're the masochistic type, this really isn't recommended.).

Set up your textures in RenX as usual, but this time go to the Vertex Material tab. Set the detail texture's UV channel to whatever your lightmap channel is. On the Shader tab, set the Detail Color to Scale. On the Textures tab, set your Stage 1 (Detail Texture) to the lightmap's filename. The Pass Hint should be set at Emissive Lightmap so the engine code knows exactly why it's there, in case anyone decides to do a WDump analysis of your soon to be W3D file. Export to W3D and check out your newly lightmapped building!

There's more work than this once you get it into LevelEdit, but I'll let you figure that out on your own. I hope this helps everyone since Reborn seems to think that they're slick with an obvious texture baking technique.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Goztow](#) on Mon, 19 Dec 2005 07:45:02 GMT

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It's not nice to be jealous, ACK... Even if it's not hard to do, it still needs to be done.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Chronojam](#) on Mon, 19 Dec 2005 07:57:30 GMT

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It **needs** to be done? Why hasn't anybody bothered or really cared publicly since just about 3

years ago then?

And this is that attitude that's going to basically require us to do it now. Everybody now thinks it "Needs" to be done, so we're going to need to go ahead and do it now. Renardin says we're stupid and lazy if we don't now too; we'll ignore that a few seconds later he said it's sad that we had to "copy", ya know? What the hell do people want: us to do it, or us to not do it? There's no jealousy here, just serving the fans.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [Goztow](#) on Mon, 19 Dec 2005 12:38:25 GMT

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Ah come on, read between the lines, man...

I don't say YOU need to do it, i say even if it isn't all that difficult, they still are doing it and therefor can get credit for it.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [Daze](#) on Mon, 19 Dec 2005 12:55:53 GMT

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Whether or not it's a pretty obvious and/or simple technique (that takes a while nevertheless), the point is it makes Reborn's stuff look good.

Besides Aircraftkiller, wasn't it you who went and traded something like 4 (around that range) unreleased Renegade models or something, in exchange for a modified Dazzle.ini, which involved copying and pasting a bit of code here and there, in order to make some goofy looking blood spatters and vehicle lights show up in Renegade?

For simply moving some code around in a small ini file, making lights work and stuff is pretty good anyways though. Shows how some small simple stuff can still make for some pretty bloody cool results.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [Fabian](#) on Mon, 19 Dec 2005 14:06:27 GMT

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If it were really that simple and obvious, the process wouldn't take you that long to describe.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [Titan1x77](#) on Mon, 19 Dec 2005 14:51:42 GMT

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First of all there isn't much left to do in LE. Secondly there is quite a few steps you mentioned that isn't necessary.

Seeing you never helped me out I'll let you figure it out on your own.

Reborn will be releasing a proper tutorial shortly after the release of the mod.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [sloth4urluv](#) on Mon, 19 Dec 2005 15:09:50 GMT

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ACK I suggest you spend your time more wisely and work on your own mod instead of wasting your time trying to bash our mod. When are you gonna realize that this is not a competition. Besides leeching information from one of our exmembers im sure you knew I used texture baking which isnt a big secret

The process involves more than youve dumbed it down to. Of course you could merge all your objects together into a single mesh and then unwrap, but then you have to break that merged mesh back into its original pieces and if you used a good amount of textures on your model that becomes a pain in the ass.

And what if you already have your building fully textured and rigged in gmax? Are you giong to export to max, merge, unwrap, bake texture, break into original pieces, export to gmax, and fully retexture again?

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [Aircraftkiller](#) on Mon, 19 Dec 2005 15:44:48 GMT

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Oh, but you made it out to be a "big secret" since you and Retardin claimed it wasn't texture baking. I've never really seen a bunch of pathological liars like members of the Reborn team. You claimed it was a secret technique that didn't involve texture baking, now once you're exp0sed; you claim that it was what I said it was all along.

No, you don't have to break anything up. If you idiots knew much of anything about the W3D engine this would be obvious. A building interior can be comprised of a single object and it's completely able to run well in the game, with or without visibility rendering.

Quote:And what if you already have your building fully textured and rigged in gmax? Are you giong to export to max, merge, unwrap, bake texture, break into original pieces, export to gmax, and fully retexture again?

Not really, since Silent Kane's Max to W3D exporter circumvents that.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [sloth4urluv](#) on Mon, 19 Dec 2005 16:03:30 GMT

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Never once said it wasnt texture baking, might have said it wasnt just texture baking.

And if you have such great love for the community and dont keep stuff from the community like reborn then you should have no problem sharing silent kanes max plugin with everyone.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Aircraftkiller](#) on Mon, 19 Dec 2005 16:06:00 GMT

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I'd rather not; Reborn members really don't have the faculties to use it.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Sir Kane](#) on Mon, 19 Dec 2005 16:51:01 GMT

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Sidenote: I was too lazy to make it hide/show pass options based on the current passcount.

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [sloth4urluv](#) on Mon, 19 Dec 2005 17:42:22 GMT

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Thats cool, never doubted that you didnt have it, just that you would never give it out

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial

Posted by [Renx](#) on Mon, 19 Dec 2005 20:29:36 GMT

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sloth4urluv wrote on Mon, 19 December 2005 12:03And if you have such great love for the community and dont keep stuff from the community like reborn then you should have no problem sharing silent kanes max plugin with everyone.

I believe that's up to SK, not Ack...

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [SuperFlyingEngi](#) on Mon, 19 Dec 2005 23:04:47 GMT
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So ACK, if this is such an obvious technique why didn't you use it for RenAlert?

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [rm5248](#) on Tue, 20 Dec 2005 00:08:05 GMT
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omg ack dats liek such a gud tutorial i will uz it 4 reborn

Subject: Re: Faked "Lightmap" Creation in 3D Studio Max - A Tutorial
Posted by [YSLMuffins](#) on Tue, 20 Dec 2005 01:59:48 GMT
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This is a great tutorial, but I do not wish to see the inevitable arguing that may ensue. I'll bump this in a few days, maybe.
