Level Editor - Outdoor Environments

Outdoor Environments Tutorial

Note: This tutorial assumes you have some experience with the HPL Level Editor.

Hello fellow modders, I thought I'd just give a few tips on one of Amnesia's most touchy subjects - outdoor environments. Amnesia is somewhat limited in this area, as the game is mostly meant for dark indoor environments. However, including a breathtaking outdoor area can serve as a contrast to your scary inner-dungeons, making those dark areas all the more terrifying and the outdoor areas all the more peaceful.

Step 1:

The Skybox

Perhaps the most important thing in distinguishing an area as being outdoors is the skybox. Fortunately, this is a pretty easy thing to add, but hard to get completely right.

Open Level Settings. Skybox should be the first menu already selected, so no need to go anywhere else. First, click "Active." This will color the sky whatever the default color is. That doesn't look very good, however, so we need to actually include a giant CubeMap (.dds) texture to serve as the actual skybox. A .dds file is essentially a JPEG (or whatever other format) that is cut into different sections, that when folded together, makes a cube.

To make a .dds format file, you will need a Photo editing program. Adobe Photoshop is preferred, but the free "GIMP" can be used as well. For either program, you will need a special program that can convert normal pictures to .dds files.

Photoshop .dds Plugin
GIMP .dds Plugin

Advanced modders can now create their own skyboxes by cutting an image into the appropriate shapes and saving it as a .dds. For those less experienced, you can download a LOT of Skybox textures at http://www.cgtextures.com.

Here is a link to pre-made sky CubeMaps. Pick any sky you would like to see in-game.

Be sure to select the CubeMap file and not the normal .JPEG . Select the largest size you can download for highest resolution. Next, open the CubeMap .jpg you just downloaded in Photoshop or GIMP. Change the image size so that both Height and Width are multiples of 2. (8192×1024 is a good size. Don't worry that the quality shrinks when you enlarge it, it will be shrunk back down in game). Next, save the file as .dds. Pictured is the Photoshop plugin .dds exporter. For the GIMP you can view this video tutorial to learn what needs to be done to save to a .dds file compatible with Amnesia. For

convenience you can use the [cubemap layers generator](#) script for the GIMP to do most of the work for you.

Make sure the settings match mine.

Assuming you have created a custom_story folder, save your .dds in (custom_stories/your game/textures/). Then, go back to your SkyBox settings in the Level Settings menu, and simply select the .dds file you have created. The sky should display in-game now.

Step 2:

Making the Sky Realistic

Just because you stuck a pretty sky in the area doesn't mean your actual area will now look good.

Creating the Sun (or the Moon)
To make a direct source of your area's light, make a Billboard with the White Halo as the texture.

Change the settings of the Billboard to "Point", and then scale the size of it upwards to however large you would like the Sun or the Moon to look. Change the color to a yellow-ish tint if you want the Sun to, well, look like the Sun.

Place the newly created Billboard at the brighest spot in your Skybox texture. This actually creates a pretty realistic looking sun.

Next, to simulate the actual light coming from the Sun, create a Spot Light near the sun, shining in the direction it should be shining. Enable Shadow Casting for realism. Tint the light to whatever color the Sun or the Moon is.

[i]There are more things you can do to enhance the quality of the light source, but you will figure them out through experimentation.

Step 3:

Terrain

Terrain is undoubetdly the HPL Level editor's weak point. Making terrain requires a bit of creativity with already-existing static objects in the editor, notably the the dirt_mould_pile model from the dungeonbase set.

You can see in the picture that the obvious gigantic scale of the dirt pile has blurred the textures alot. However, once you enable realistic lighting, much of the detail becomes hidden and thus, not relevant.

Mountains

For distant mountains, use the dirt_mould_pile model in Static Objects under "dungeonbase". Set the scale of the model to be extremely random, simulating natural mountains. Additionally, create some HUGE mountains extremely far away from the camera. This creates the illusion of the grand scale of the outdoors.

Note how the giant mountain in the back looks as if it is connected to the foreground. In reality, it is extremely far back, but just scaled three times as large, to give the illusion of extremely far away but gigantic mountains without losing texture quality.

Trees

Using the pine tree model under the "outdoor" base, follow the same suggestions with the mountains.

Step 4:

Structures / Grass

Again, simulating gigantic outdoor architecture involves similar tricks. You must remember that the player can only see what you allow them to see. By creating vistas as shown in the picture, you can fool them into thinking they are in a gigantic wide open outdoor area.

As for actually creating outdoor structures, I have no advice. I literally just stuck a bunch of walls and pillars next to each other and ended up with a pretty cool looking courtyard. Remember you don't really need a ceiling to most of your outdoor buildings, as the player is never going to gain the power of flight to see up there.

To transition to an indoor area, simply put a doorway and then a lower ceiling inside. The player won't see the ugly space in between outside and inside, so there won't be a problem.

Grass

In the "outdoor" set of Static Objects there are a few low-poly grass models. Set some random scale, and place away. Do not be afraid to put a LOT of grass everywhere - the model is very low poly and then engine can run perfectly fine with a lot of grass on screen. Occasionally throw a bush or a shrub in to even out things. Remember, nature is very random.

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