

Occlusion, Height, and Emission Maps

Occlusion Maps

Next up are occlusion maps. These maps contain ambient shadows - the cracks and crevices that are normally too small for light to reach unless it's shone directly into them.

For single models like props and characters, you can bake these using Blender, but the results depend on your model's scale and UV mapping. For repeating textures like brick walls, or floor tiles, or even just some mud, you can generate these from a normal or height map.

In Standard, the green channel is used for occlusion maps.

Height Maps

Height maps are used in Unity to provide a "parallax occlusion" effect. They shift the texture according to the height map texture and your perspective. Unity uses a fairly cheap implementation of this effect that can fall apart from the wrong angles, so be careful and don't turn it up too high.

In Standard, the red channel is used for height maps.

Emission Maps

Emission maps are for areas of a model that emit light, or glow. If you were making a material for a lamp, the light would be emissive. But an emission map has to be specially made - in particular, the unlit parts must be black! Setting up emission wrong can result in your models looking really weird. Emission maps are multiplied by the emission colour of the material. **Tip:** For a glow-in-the-dark effect, use an emission strength of 1.0. For a bright glow, use an emission strength of 5.0 or so.