

Detail Mask and Details Maps

Detail Mask

Next up is the detail mask, which controls how the detail map in the next section is applied. Where the detail mask is black, the detail map won't be applied. This lets you have a detail map that affects some parts of your mesh, but not others.

In Standard, the blue channel is used for the detail mask.

Detail Maps

Detail map is a texture Unity combines with the base albedo. This is handy, because you can specify a different tiling factor for it, letting you overlay a pattern over a less detailed texture to make it look more detailed. This seems like a good idea in practise, but actually using it well is pretty hard.

By default, detail maps in Standard are applied by multiplying the albedo by the detail map and doubling the result. In simpler terms, a middle-grey detail map will have no effect, a white one will brighten the albedo, and a black one will darken it.

Detail normal maps work like detail maps, but for the normals. One example is to apply a pattern over a wall to make it look rougher at a different scale from the rest of the material to give it more variance. Or to add depth to a feature added through the detail map!

An important option to note for detail maps is the ability to set their UV channel. Just as meshes have UVs to tell them where the textures go, Standard supports using a second UV map specifically to put details on the mesh. This allows you to, for example, have a piece of clothing with a main texture consisting of just cloth, and then a detail texture with just a logo. Using the logo as a detail texture, and with the secondary UV channel mapped to the logo texture, you can combine the two textures and have a crisp logo over your model's material.

For more detail on detail maps, check the Unity documentation.

Revision #3

Created 27 January 2022 06:48:41 by Silent

Updated 17 April 2024 02:47:46 by Silent