OOTP23 Uniform Maker

The files in this .zip are for use with OOTP 23 (and higher) and – with the exception of the cap – are not backwards compatible with previous versions of OOTP.

OOTP23 introduces a new player model and more advanced 3D lighting and rendering techniques, and three of the files in this .zip are intended for use with the new engine:

1) jersey_<team name>_><home/away/etc>_d.png

   This is what is known as a "diffuse map" file. You'll notice that the jersey in this file does not have a texture applied to it, even though it was appearing in the application. This is normal.

2) jersey_<team name>_><home/away/etc>_h.png
3) jersey_<team name>_><home/away/etc>_n.png

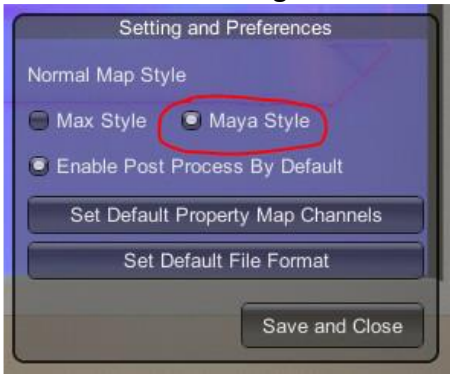
   The file ending in "_h.png" is what is known as a "height map" file. It is basically just a grayscale version of the finished jersey where lighter colors indicate "higher" elements and dark colors are "lower". A height map of a mountain for example, would be lighter towards the peak. The height map, however, isn't used directly in-game. I'll explain that in more detail below.

The "height map" file is included to assist you in creating what is known as a "normal map" file. This is the file used by OOTP23 to determine the shading on the jersey. Unfortunately, I have not yet been able to programmatically generate a normal map file. For the time being, the finished zip file includes a generic normal map (file #3 listed above) which will provide basic shading.

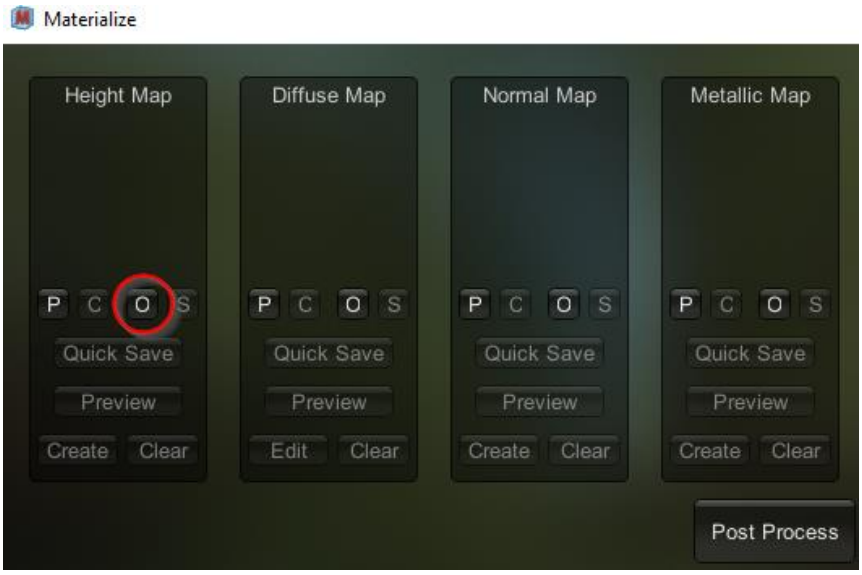
To generate a jersey-specific normal map, you will need to rely on a third-party program. The one currently recommended by OOTP Developments is Materialize with the normal map style set to "Maya style."

Choosing the Maya style is important since normal maps can be of different formats which all might look correct to the untrained eye but will look wrong in-game when using the wrong format. Buttons for example will then look as if they are popping in instead of popping out or it will look as if the light is coming from the wrong direction.

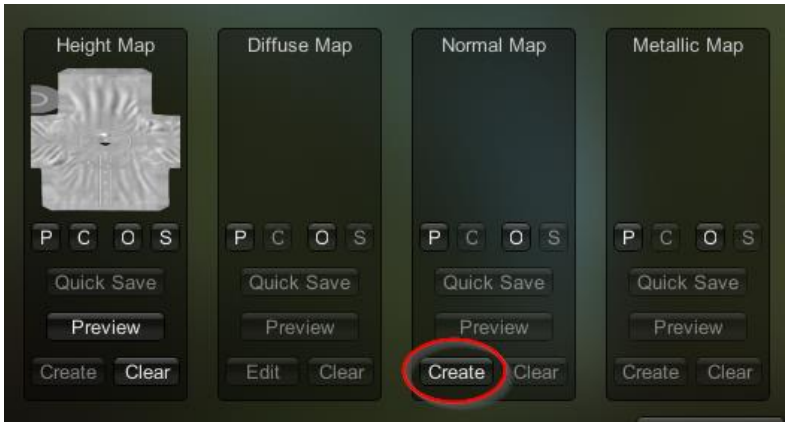
After starting it, first set the file format to PNG and click on "Settings" to choose the Maya style:

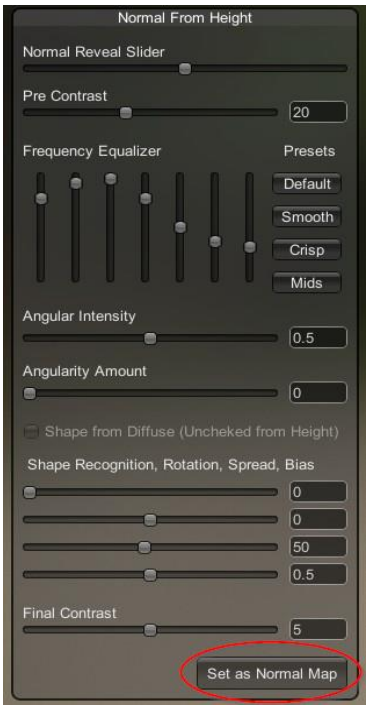


Then click on the "O" on the height map element on the top left of the app screen to open your created height map:

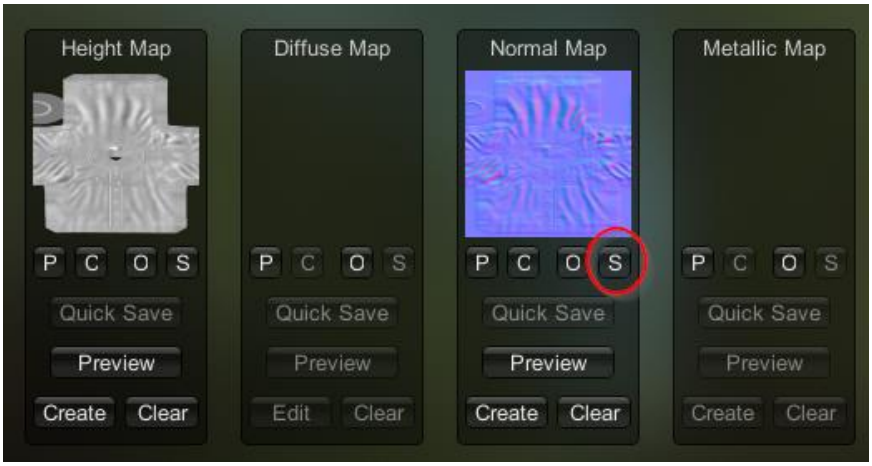


Then click on the "Create" button of the normal map section and setup the settings as shown (these should be the default settings out of the gate):

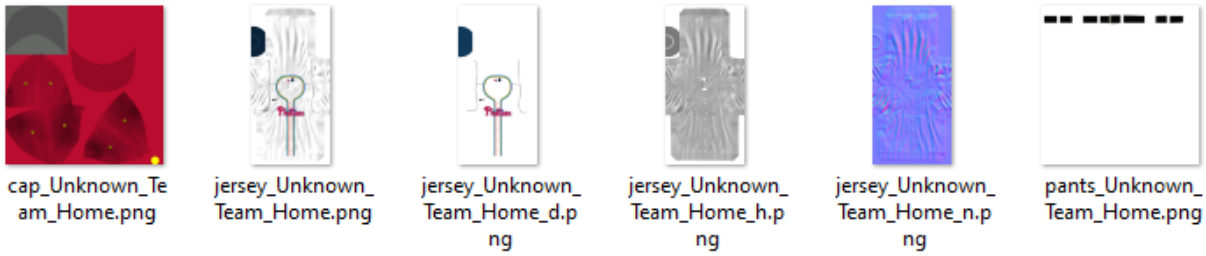




Then click on "Set as normal map". Now you can click on the "S" button on the normal map element. The normal map should be saved in the same folder as the diffuse map (_d.png) file and named the same but with _n instead of _d.



So if your height map is “jersey_Unknown_Team_Home_d.png”, the normal map has to be named “jersey_ Unknown_Team_Home_n.png” So you should end up with the following files:



While it is entirely possible to skip the normal map and import *just* the diffuse map into OOTP, it will not provide the dynamic shading. See the two images below for an example of a jersey *without* a normal map (left) and one *with* a normal map:

The “jersey_Unknown_Team_Home.png” file in the folder already has the texture “baked in” and can also be used although it may not provide optimal results and I cannot guarantee that it will work in future versions of OOTP. It is provided as a convenience only.

You will notice that the pants_ file *also* doesn't have any texture to it – OOTP uses a common normal map for all the pants, so you do not need to generate a height map or a normal map, the game handles that automatically.

Unfortunately, Materialize is Windows only, although there are a number of free programs for Mac and Linux that can generate normal maps, as well as an online tool at https://cpetry.github.io/NormalMap-Online/. Materialize is the only tool that I know will generate normal maps that work properly with OOTP, although to be honest you probably won't notice much of a difference. At least, not yet. As OOTP's 3D capabilities expand in the future, it may well become noticeable.

So that's great and all, but what's with the .uni file? You never explained what that does!

I'm glad you asked! The .uni file is actually just a .json file which can be loaded back into the Uniform Maker. It's not perfect, but I'm working on that. 😜