

Convert Frostbite to MW12 Textures

By PolySoupList

Source: [Moving Frostbite to Physically Based Rendering 2.0](#)

Work in Progress™

Tools and knowledge required

Use of GIMP or any other image editing software.

It's worth noting that the Frostbite engine uses a lot of channeled textures.

1. Need for Speed Rivals

CS_Badges_High material is composed of four textures:

- T_Diffuse
- T_Material
- T_Normal_map
- TD_Damage_Effects_Masks

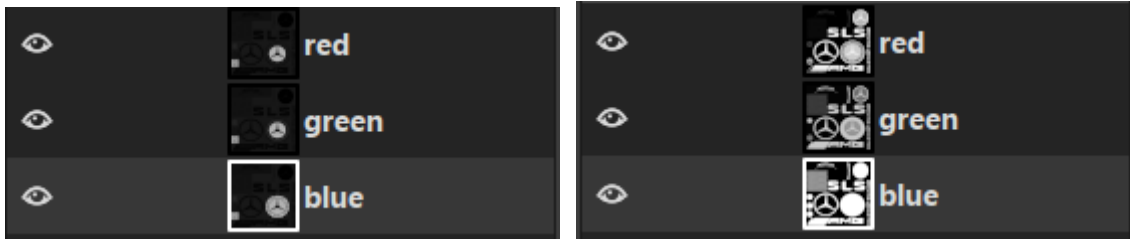
For MW12 conversion only the first three textures are needed, I will use Mercedes-Benz SLS AMG COUPE BLACK SERIES as an example:



The diffuse texture noticeably lacks alpha channel, and that is because it is stored in T_Material's blue channel. MW12 badging material needs to have alpha in the diffuse texture. Another thing is the difference in texture resolutions. This makes it problematic to simply insert T_Material's blue channel into T_Diffuse's alpha.

1. Option is to scale the T_Material texture.
2. Option is to use a mipmap of T_Diffuse.

Decompose the `T_Diffuse` and `T_Material` textures from `Rivals Colors > Components > Decompose...`



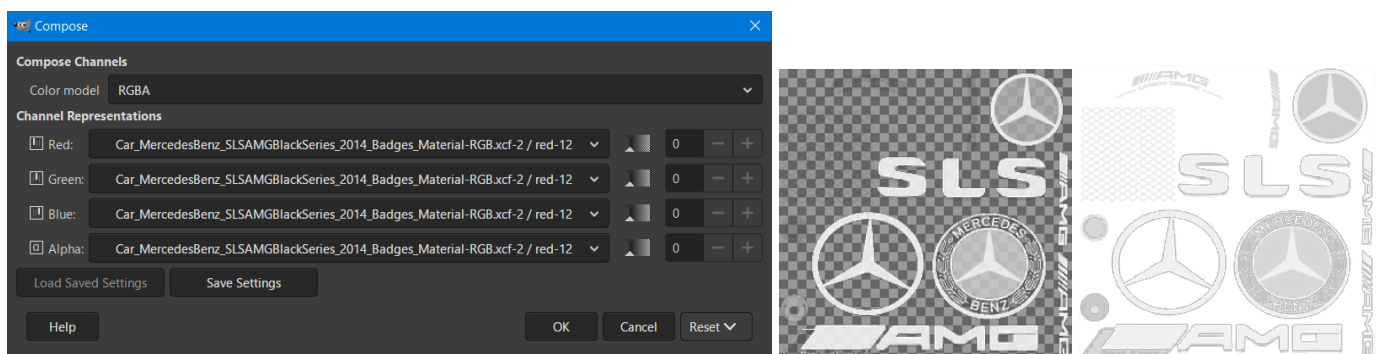
Now, place the **blue** layer from `T_Material` below blue layer and name it *alpha*, and compose `Colors > Components > Compose...` remember to set Color model to RGBA:



For `NormalTextureSampler` get the **green** channel from `T_Material` and add as an alpha to decomposed `T_Normal_map`:



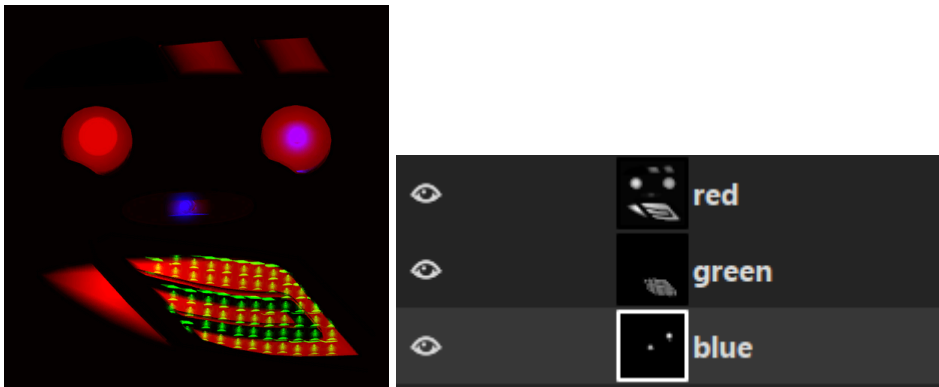
To make a `SpecularTextureSampler` out of `T_Material` composing a texture with **red** channel for RGBA seems to make a good enough result to retail textures:



CS_LightRefracted_High material is made up of 5 textures:

- T_Color_overlay
- T_Emissive
- T_External_Normal
- T_InternalNormalMap
- T_SSAD

Converting will need to be done on T_Emissive and T_SSAD, since the rest is already MW12 compatible. The T_Emissive lacks alpha channel which is stored in T_SSAD (texture from Mercedes-Benz McLaren SLR 722 Edition):

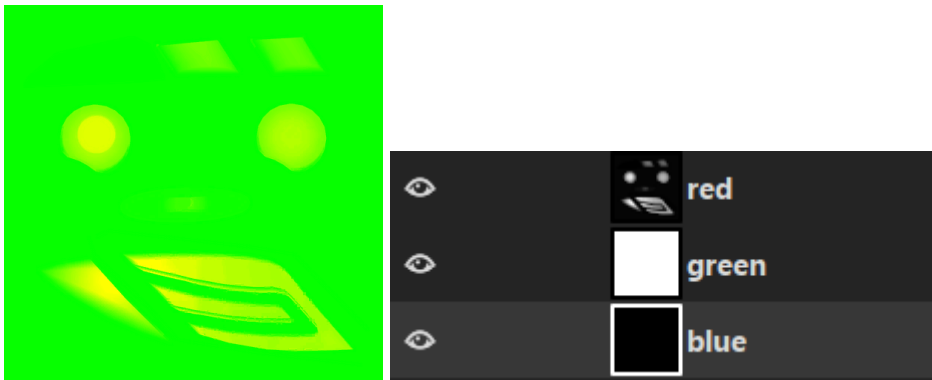


Red is the displacement factor needed in MW12 texture.

Green is the alpha channel for our T_Emissive conversion to EmissiveTextureSampler.

Blue would be for blinkers which unfortunately we don't have in MW12.

To make a DisplacementSampler we make the green channel white and the blue channel black.



For EmissiveTextureSampler we take the green channel from T_SSAD as alpha to T_Emissive :

