

- ZERIN LABS -

Shader Pack #03

Amazing Matcaps shader pack

Welcome!

...and thanks for buying this outstanding shader pack :)

On this small guide you will find all the necessary details to configure the shaders and prepare your meshes to create amazing videogame graphics.

For any doubt feel free to contact us at: zerinlabs@gmail.com

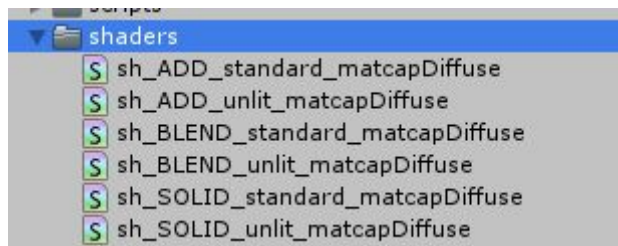
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PREPARING YOUR MESHES

There is no special action required in order to configure your meshes in order to be compliant with the Matcap Shader Pack, however, there are some features that would be visible only if your mesh has those properties set (for instance, vertex colour shading or custom mapping coordinates)

SHADERS

There are 6 shaders in total inside this pack. subdivided in 2 big categories: Standard and Unlit.



Standard shaders

Standard Matcap shaders are a variant of the “default” PBR standard shader from unity. This means that all the lighting the features from the original standard shader are available on this version too.

These shaders are:

- sh_SOLID_standard_matcapDiffuse
 - meant for solid objects and surfaces (without transparency)
- sh_BLEND_standard_matcapDiffuse (aka transparent / alpha blended)
 - meant for transparent objects and surfaces
- sh_ADD_standard_matcapDiffuse
 - meant for additive objects and surfaces

Unlit shaders

Unlit Matcap shaders are shaders not affected by any realtime lighting. Therefore It's shading is dependant of the Matcap probe texture you set on the material only.

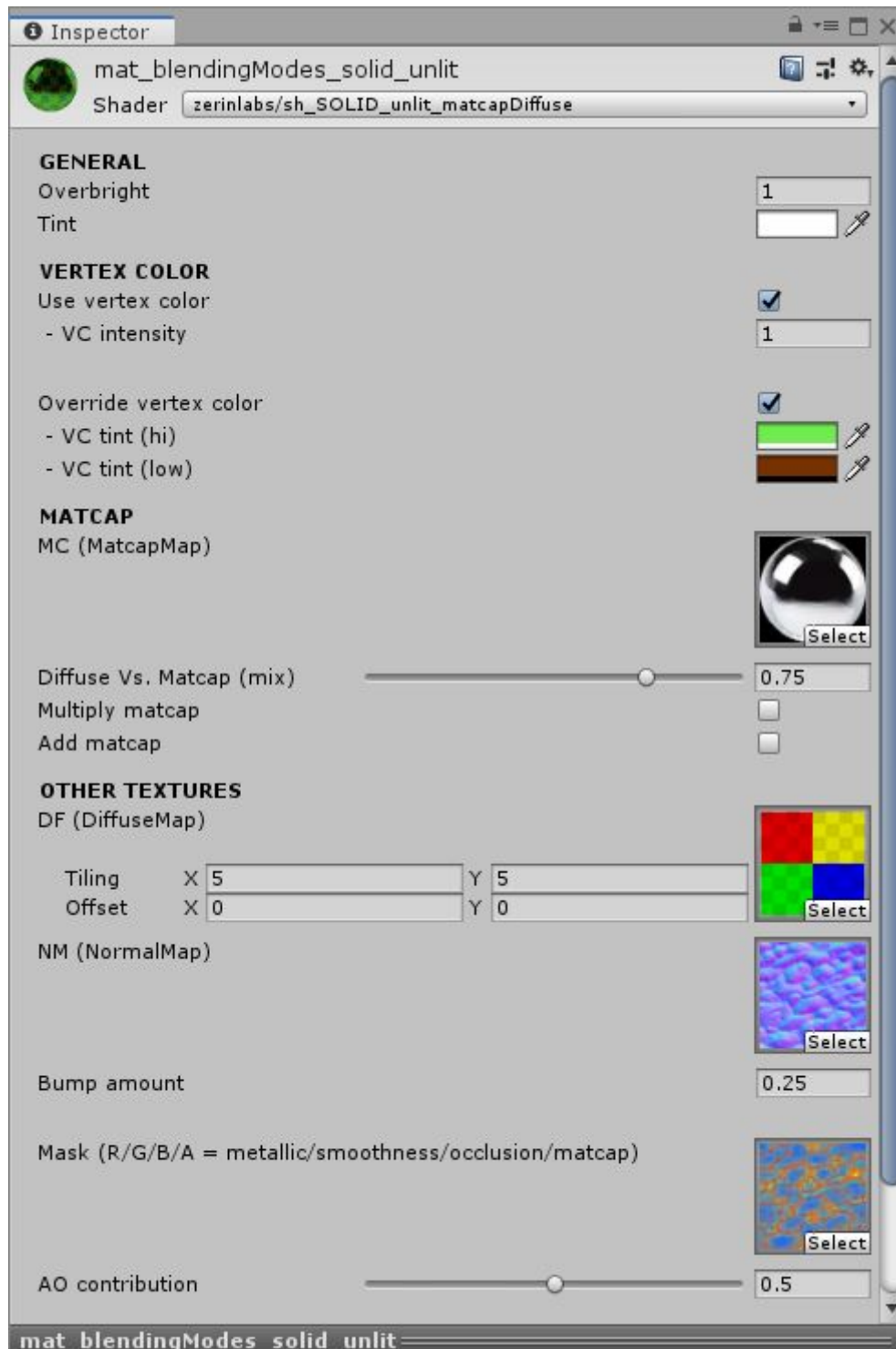
These shaders are:

- sh_SOLID_unlit_matcapDiffuse
 - meant for solid objects and surfaces (without transparency)
- sh_BLEND_unlit_matcapDiffuse (aka transparent / alpha blended)
 - meant for transparent objects and surfaces
- sh_ADD_unlit_matcapDiffuse
 - meant for additive objects and surfaces

SHADER PROPERTIES

Even if the shaders have different lighting properties (Standard / Unlit) and several blending modes (Solid / Add / Blend / ...).

They all almost share the same set of properties. (so, they can be configured in the same way)



Properties: General section



Overbright

- Float that can increase the overall brightness of the shader.
- Very usefull if you want the material to “irradiate” or you’re using a “bloom” postfx

Tint

- Global tint color for the matcap
- **Note:** If you “mask” the matcap with a texture (see “Mask texture” on this same guide) only the visible matcap will be tinted.

Alpha amount (ADD + BLEND modes only)

- Controls the amount of “blending” (or alpha) of the overall matcap

Properties: Vertex color section



Use vertex color (toggle)

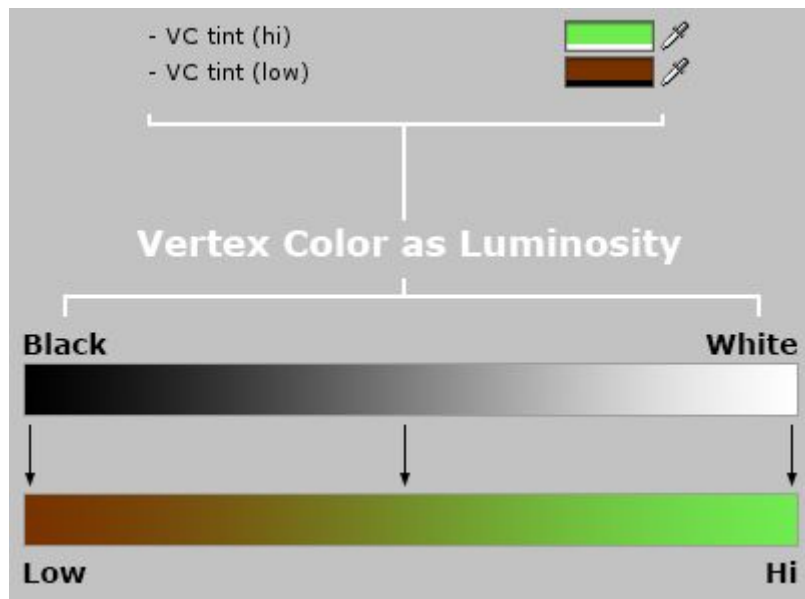
- This toggle enables/disables the usage of “vertex colour blending” on the shader.
- **Note:** Unless you prepared the vertex colour of your object meshes this property will have no real use.

VC intensity

- This value controls the “brightness” of the “vertex colour” shading in a similar way like the previously described “overbright” property does.

Override vertex color

- This toggle enables/disables the replacement of the objects vertex colors with a gradient ramp based on the “luminosity” of the vertex colors.
- **Note:** Unless you prepared the vertex colour of your object meshes this property will have no real use.



VC tint (hi)

- Top colour of the vertex color shading “color ramp”

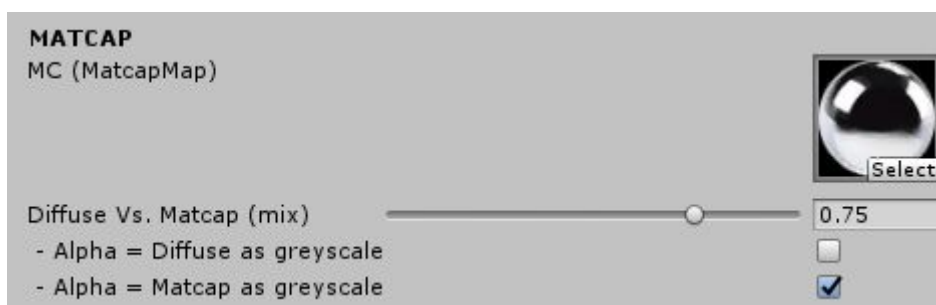
VC tint (Low)

- Low colour of the vertex color shading “color ramp”

Properties: Matcap section



- Solid (no blending) version -



- Additive or Alpha blending version -

MC (MatcapMap)

- Matcap texture probe
- Texture representing the spherical reflection or lighting sphere that will appear on the shaded object

Diffuse Vs. Matcap (mix)

- Interpolation (mix) between the default albedo or diffuse texture and the current Matcap texture
 - A value of 0 will show 100% the diffuse
 - A value of 100 will show 100 the Matcap texture

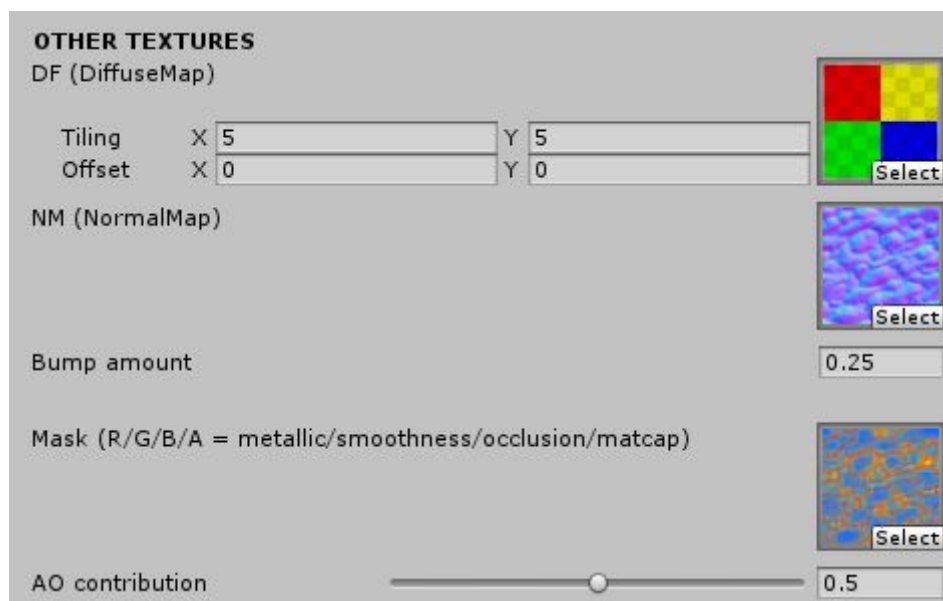
Multiply / Add matcap (toggles)

- Multiplies (or adds) the current matcap texture over the diffuse texture.
- Quite useful if you want to simulate “complex lighting systems” combined with the “standard PBR” lighting system. For instance you can “add” an extra rimlight (with a matcap) to the standard lighting of the material.

Alpha = Diffuse/Matcap as grayscale (toggles)

- Transform the Diffuse (or matcap) texture in to black and white and uses the result as if it was the “alpha channel” of the current setup.

Properties: Other textures section



DF (DiffuseMap)

- Diffuse or albedo texture of the material
- Note: The tiling and offset applied here will be applied to the rest of textures too (with the exception of the matcap texture)

NM (NormalMap)

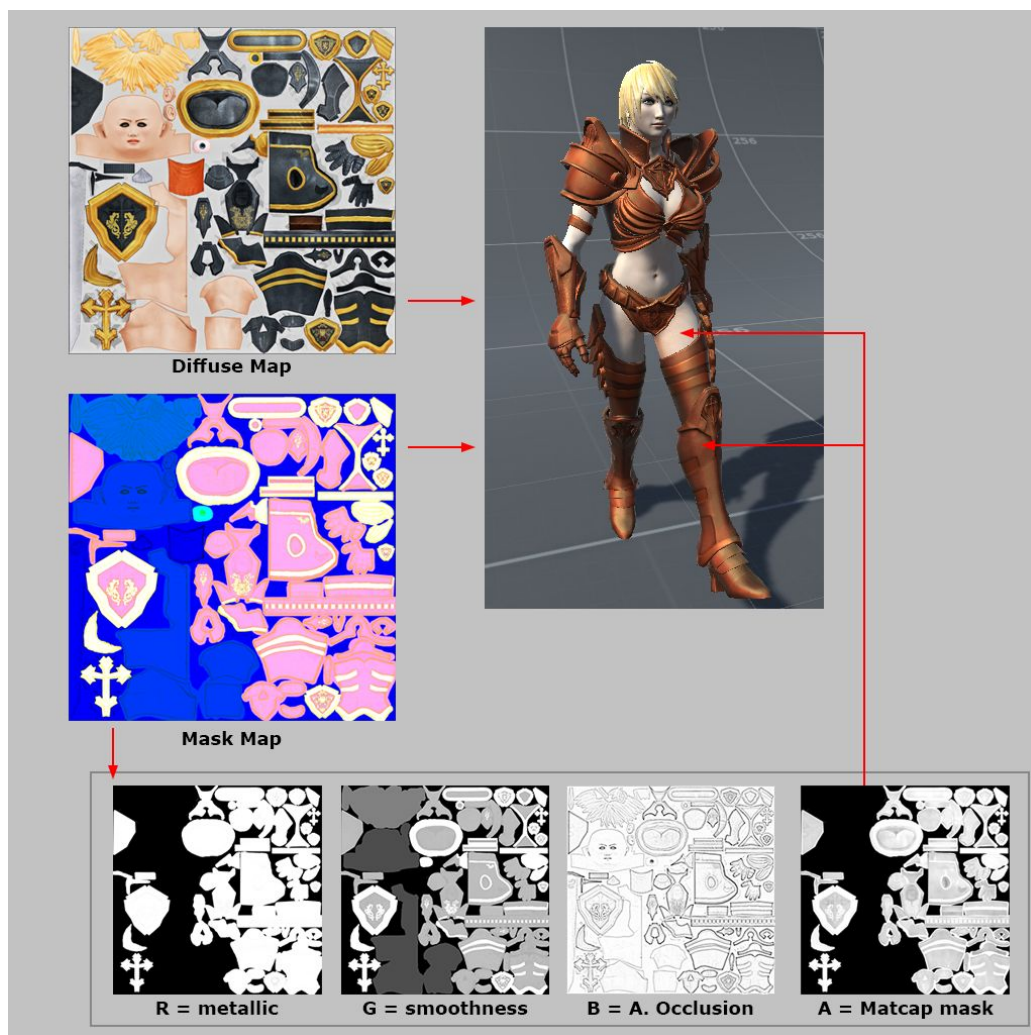
- Normal texture of the material

Bump amount

- Increases or decreases the affectation of the bumpmap over the whole material (matcap & lighting, in case you're using a standard version of the shader)

Mask (R/G/B/A = metallic/smoothness/occlusion/matcap)

- This mask texture compiles several of the different map textures that are needed for the PBR lighting system (like the metallic, smoothness or ambient occlusion maps...). alternatively, you can use this texture to "mask" the areas that are affected (white) and not affected by the matcap texture (black)
- The RGBA texture channels have the following functionalities:
 - R = Metallic (PBR lighting metallic parameter)
 - G = Smoothness (PBR lighting metallic parameter)
 - B = Ambient Occlusion (PBR lighting metallic parameter)
 - A = Matcap mask
 - Black = diffuse
 - White = matcap



AO contribution

- Modulates the amount of ambient occlusion (based on the Mask texture) applied on the model.
- **Note:** if the mask texture slot is empty this parameter has no real use.

HOW TO USE THE SHADERS INSIDE UNITY

For more detailed information about the shaders usage inside unity, please, check this video tutorials:

How to MATCAP like a boss!

<https://www.youtube.com/watch?v=0UI1LUnwxnM>

CONTACT

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