

MK Glass

Reference



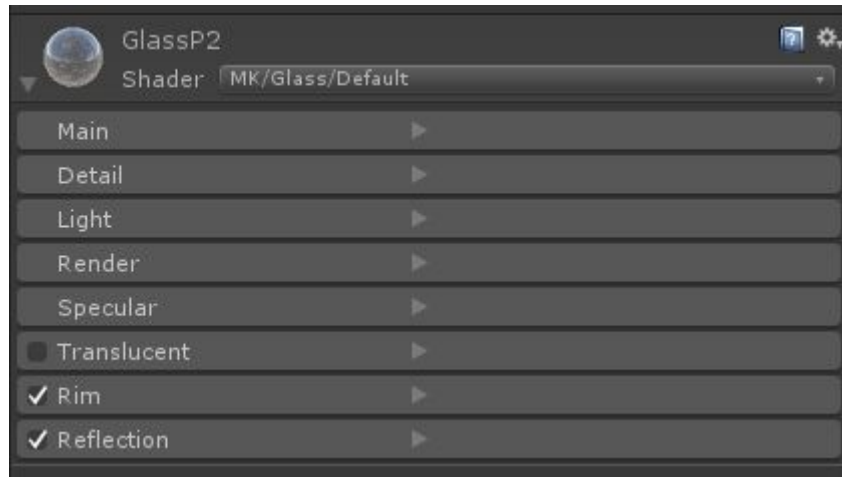
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1.0 Setup

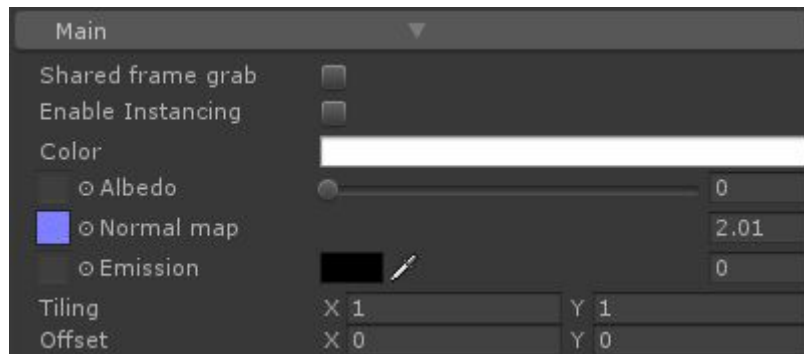
To set up MK Glass you just have to select a material and change the shader to “MK/Glass/Default”. That simply it is.

2.0 Configuration



There are many parameters you can adjust to get the best out of your glass. To adjust the material click on one behavior to toggle the menu.

2.1 Main



Adjustment	Description
Shared Frame Grab	It is very recommend to enable it. This option will share the refraction texture between all glasses which increase your performance dramatically.
Enable Instancing	Enable unity's build in instancing feature
Color	The main tint of the albedo color.
Albedo (RGBA)	Main albedo texture. If no albedo texture is set the vertex colors will be used. You can also adjust the tint of the albedo. A higher value reduces the refraction visibility.
Normal map	Here you set up your normal map and the scale of it. A normal map is very recommend to get a nice looking refraction.
Emission	Simply set up your emission like in the unity standard shader. Optionally you set a mask texture.
Tiling & Offset	The tiling and offset will be used for the albedo, normal map and all other mask textures.

2.2 Detail



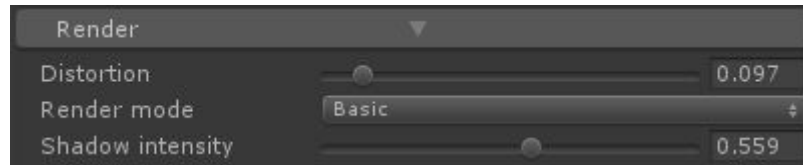
Adjustment	Description
Color	The tint of the detail albedo.
Detail	Detail albedo texture. You can also increase the tint of it. The detail map will be multiplied on your albedo.
Normal map	Here you can set up a detail normal map and the bumpscale of it.
tiling & offset	The tiling and offset influences only the detail maps

2.3 Light



Adjustment	Description
Lightmodel	Set up your lighting model. You can choose between: <ul style="list-style-type: none">- Unlit- Lambert- Phong- Blinn Phong
Occlusion	Apply an occlusion map to your glass and the strength of it

2.4 Render



Adjustment	Description
Distortion	The amount of distortion for the refraction and reflection
Render mode	Basic: Default glass rendering Double Sided: Front + back faces will be rendered and blend together (doubles the draw calls) Double Sided Alpha: Front + back faces will be rendered and merged together by alpha blending
Shadow intensity	The intensity of the casted shadow. Dithering will be used which requires shader model 3.0. On lower platforms shadows will be skipped.

2.5 Specular

This option is only available with “Phong” or “Blinn Phong” light model.



Adjustment	Description
Color	The color tint of the specular.
Shininess	Influences the size of the specular
Intensity	Controls the intensity of the specular. Optionally you can set a mask texture. R is used for the specular intensity, G is used for the gloss.

2.6 Translucent

This option is only available with “Blinn Phong” light model.



Adjustment	Description
Color	The color tint of the translucent light.
Shininess	Influences the size of the translucent light
Intensity	Controls the intensity of the specular. Optionally you can set a mask texture. R is used for the translucent intensity, G is used for the gloss.

2.7 Rim

This option is usable for all lighting models except “Unlit”.



Adjustment	Description
Color	Color tint of the rim effect
Size	This increase or decrease the amount of rim on the surface
Intensity	This controls the intensity of the rim effect

2.8 Reflection

Reflection is usable for all lighting models except “Unlit”.

Note: For the basic setup to make the surface reflective is to add a Reflection probe component to your object. If no reflection probe is used the ambient source will be used for reflection. Don't forget to bake your lightmaps.



Adjustment	Description
Fresnel effect	Enable or disable the fresnel effect for the reflection
Fresnel factor	Influences the fresnel effect. A higher value makes the surface more reflective from a high angle.
Color	Color tint of the reflection
Intensity	Controls the intensity of the reflection. Optionally you can set a mask texture. R is used for the reflection intensity.

3.0 Scripting

To make your variables change during runtime there are a few helper functions to make it easy to change them.

To use these function you need to include the helper class by *“using MK.Glass”*. All functions are stored in the *“MKGlassMaterialHelper”* class.

4.0 Bug reporting / questions / feature requests

Should there be any questions regarding the MK Glass shader or you discovered a bug, you can contact me at any time. Just send me an e-mail: support@michaelkremmel.de and I will reply as soon as possible.

Are you missing a feature or do you have great ideas to improve the shader? Feel free to contact me.