

Flowmap Shaders

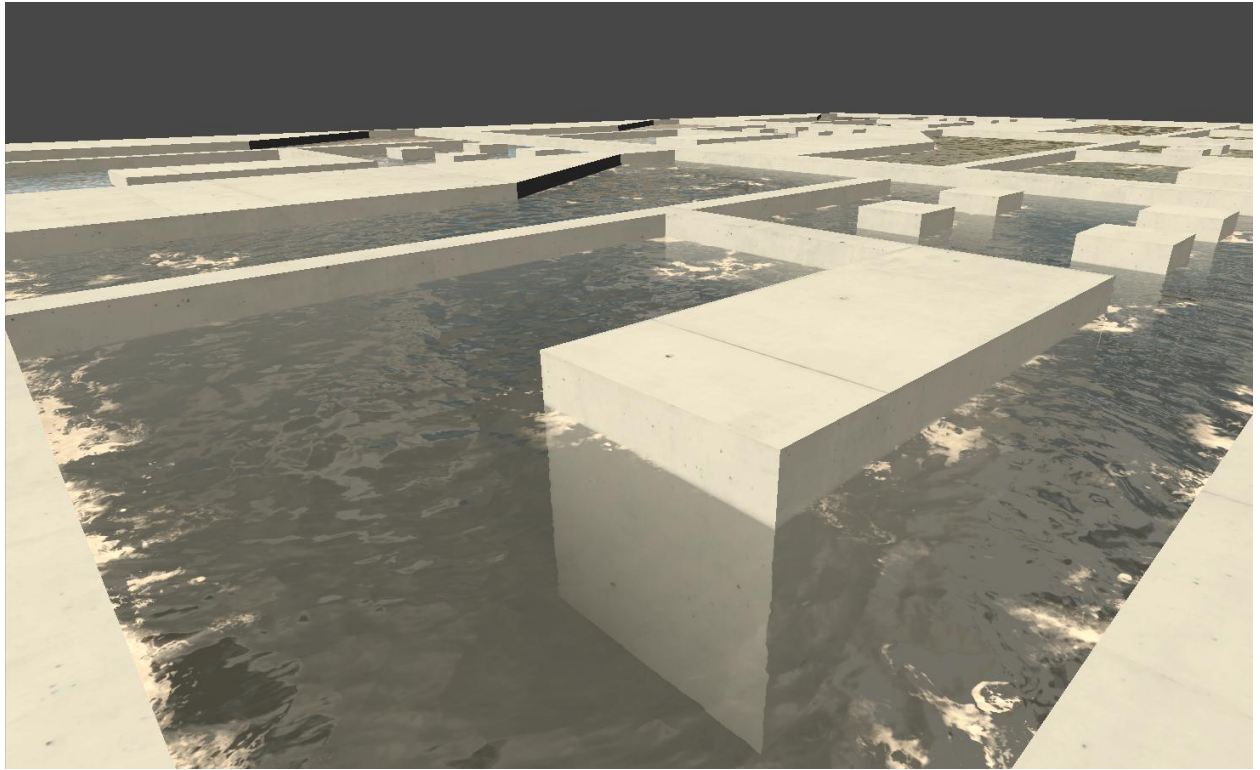
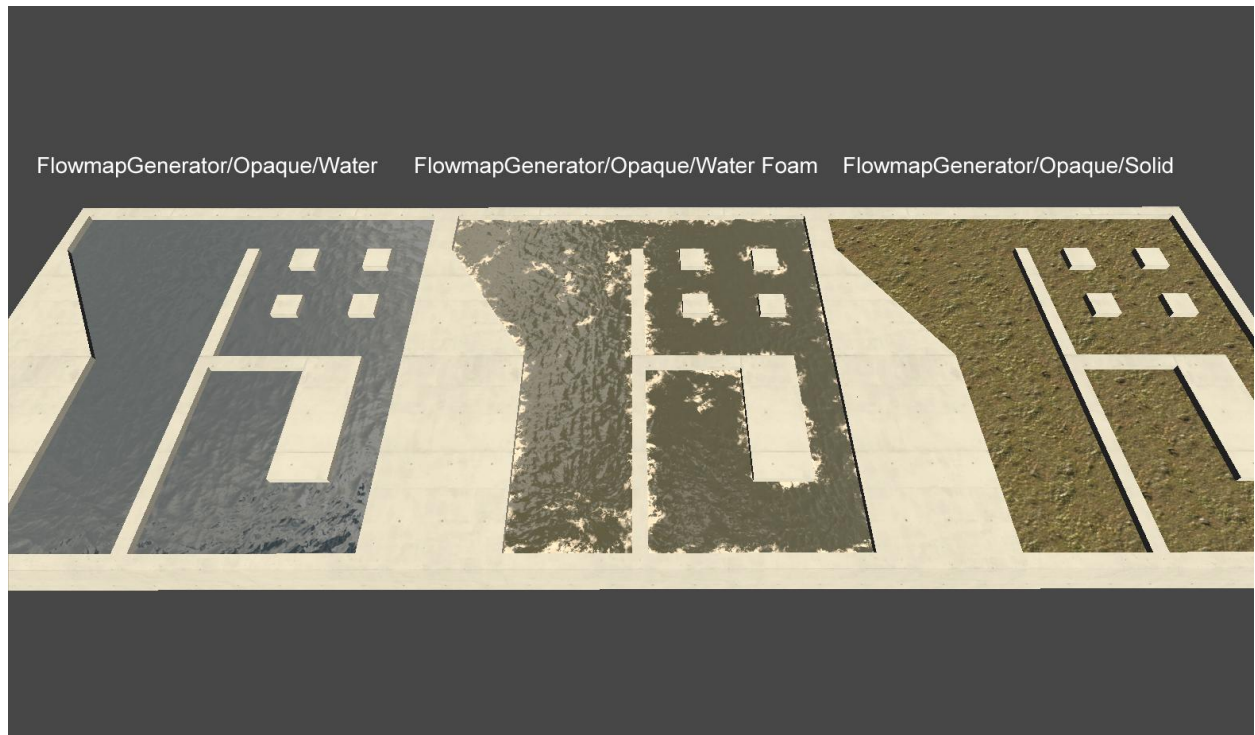


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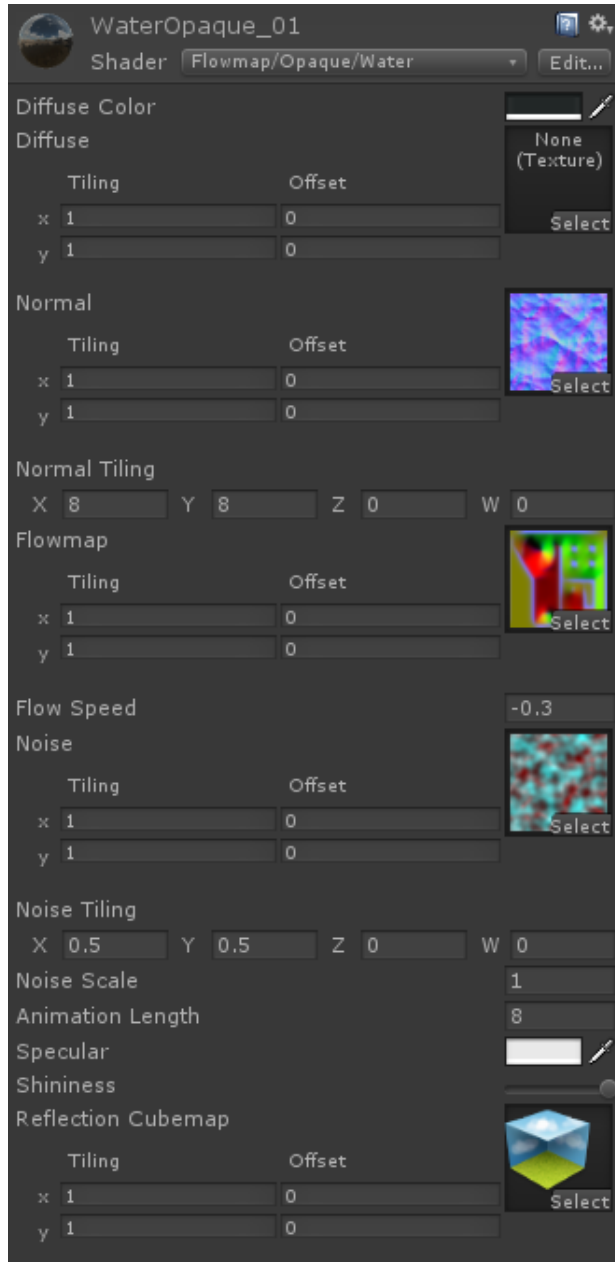
Opaque

The opaque flowmap shaders are the least computationally expensive. They can be used when you need an optimized shader and don't need to see objects that are below the surface.



FlowmapGenerator/Opaque/Water

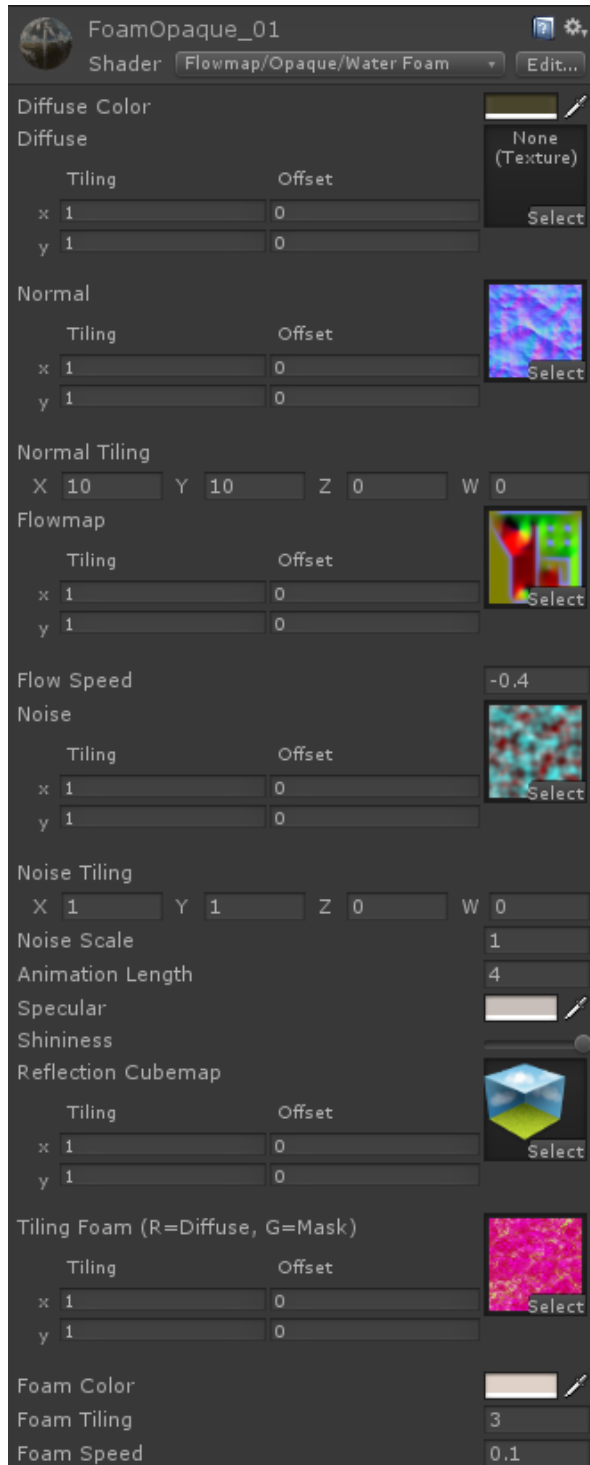
The simplest flowmap shader. It has support for a flowing normal map. It uses the mesh's UV coordinates for the Flowmap and Diffuse textures. The Normal and Noise textures multiply Normal Tiling and Noise Tiling with the mesh's UV coordinates.



Parameter	Info
Diffuse Color	The surface diffuse color.
Diffuse	A texture multiplied with the diffuse color.
Normal	A normal map that is affected by the flowmap.
Normal Tiling	Controls the UV tiling for the Normal texture.
Flowmap	The flowmap created by Flowmap Generator.
Flow Speed	Controls the speed of the flowmap. Negative values reverse the flow direction.
Noise	A noise texture used to offset the flowmap phase. The green channel is used.
Noise Tiling	Controls the UV tiling for the Noise texture.
Noise Scale	Controls the phase offset strength. Large values create extra distortion.
Animation Length	The length of time in seconds between phase changes. Use smaller values when using a faster Flow Speed.
Specular	Specular color.
Shininess	Specular highlight size.
Reflection Cubemap	A cubemap for reflections. Multiplied with specular color.

FlowmapGenerator /Opaque/Water Foam

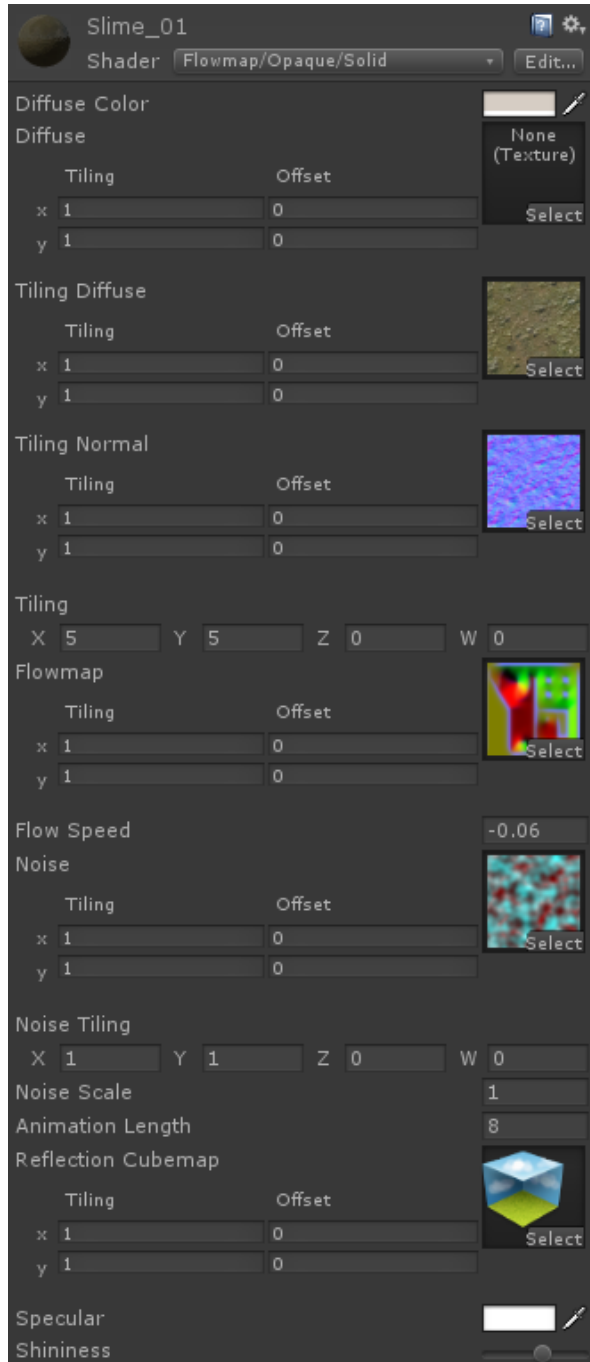
Almost exactly the same as the basic water shader, with the addition of foam. The blue channel of the flowmap texture is used as a mask for the foam.



Parameter	Info
Diffuse Color	The surface diffuse color.
Diffuse	A texture multiplied with the diffuse color.
Normal	A normal map that is affected by the flowmap.
Normal Tiling	Controls the UV tiling for the Normal texture.
Flowmap	The flowmap created by Flowmap Generator. The blue channel is used as a mask for the foam.
Flow Speed	Controls the speed of the flowmap. Negative values reverse the flow direction.
Noise	A noise texture used to offset the flowmap phase. The green channel is used.
Noise Tiling	Controls the UV tiling for the Noise texture.
Noise Scale	Controls the phase offset strength. Large values create extra distortion.
Animation Length	The length of time in seconds between phase changes. Use smaller values when using a faster Flow Speed.
Specular	Specular color.
Shininess	Specular highlight size.
Reflection Cubemap	A cubemap for reflections. Multiplied with specular color.
Foam	The green channel is the mask, with the red channel adding extra detail to the foam's diffuse.
Foam Color	Controls both the foam's diffuse and alpha mask.
Foam Tiling	The foam texture's UV tiling.
Foam Speed	The speed that the foam mask flows, multiplied with the Flow Speed.

FlowmapGenerator /Opaque/Solid

This shader shares quite a few parameters with the water shader, but it also includes a tiling diffuse texture that matches the flowing normal map. This shader can be used for thicker flowing materials, such as slime.

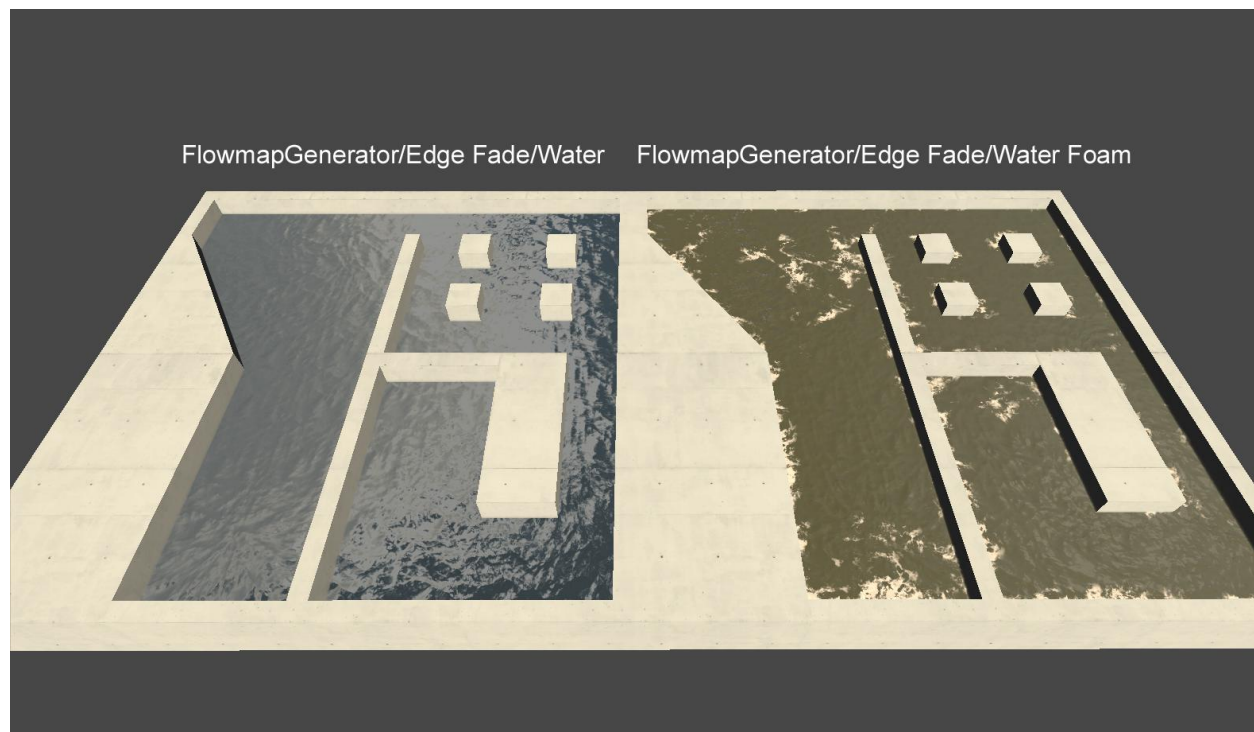


Parameter	Info
Diffuse Color	The surface diffuse color.
Diffuse	A texture multiplied with the diffuse color and tiling diffuse texture.
Diffuse Tiling	A diffuse texture that is affected by the flowmap.
Normal Tiling	A normal map that is affected by the flowmap.
Tiling	Controls the UV tiling for the tiling Diffuse and Normal textures.
Flowmap	The flowmap created by Flowmap Generator.
Flow Speed	Controls the speed of the flowmap. Negative values reverse the flow direction.
Noise	A noise texture used to offset the flowmap phase. The green channel is used.
Noise Tiling	Controls the UV tiling for the Noise texture.
Noise Scale	Controls the phase offset strength. Large values create extra distortion.
Animation Length	The length of time in seconds between phase changes. Use smaller values when using a faster Flow Speed.
Specular	Specular color.
Shininess	Specular highlight size.

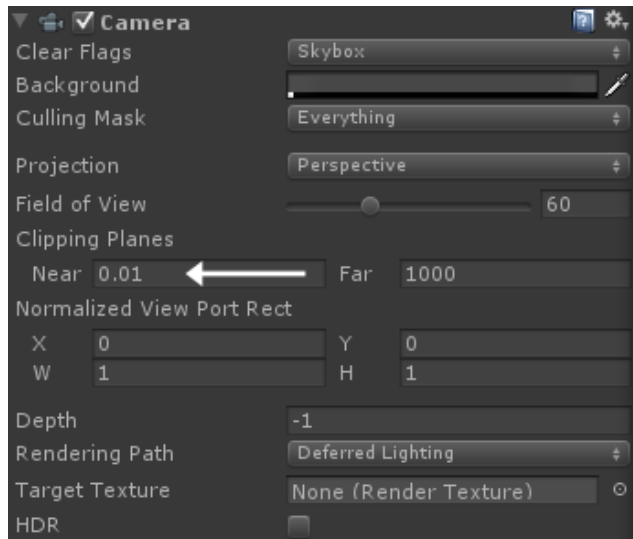
Edge Fade

These shaders use the camera's depth texture to softly fade intersections with other meshes.

These are transparent shaders using alpha blending and are a bit more expensive than the opaque shaders. Other than the edge fade, they are copies of the opaque versions of the same name.



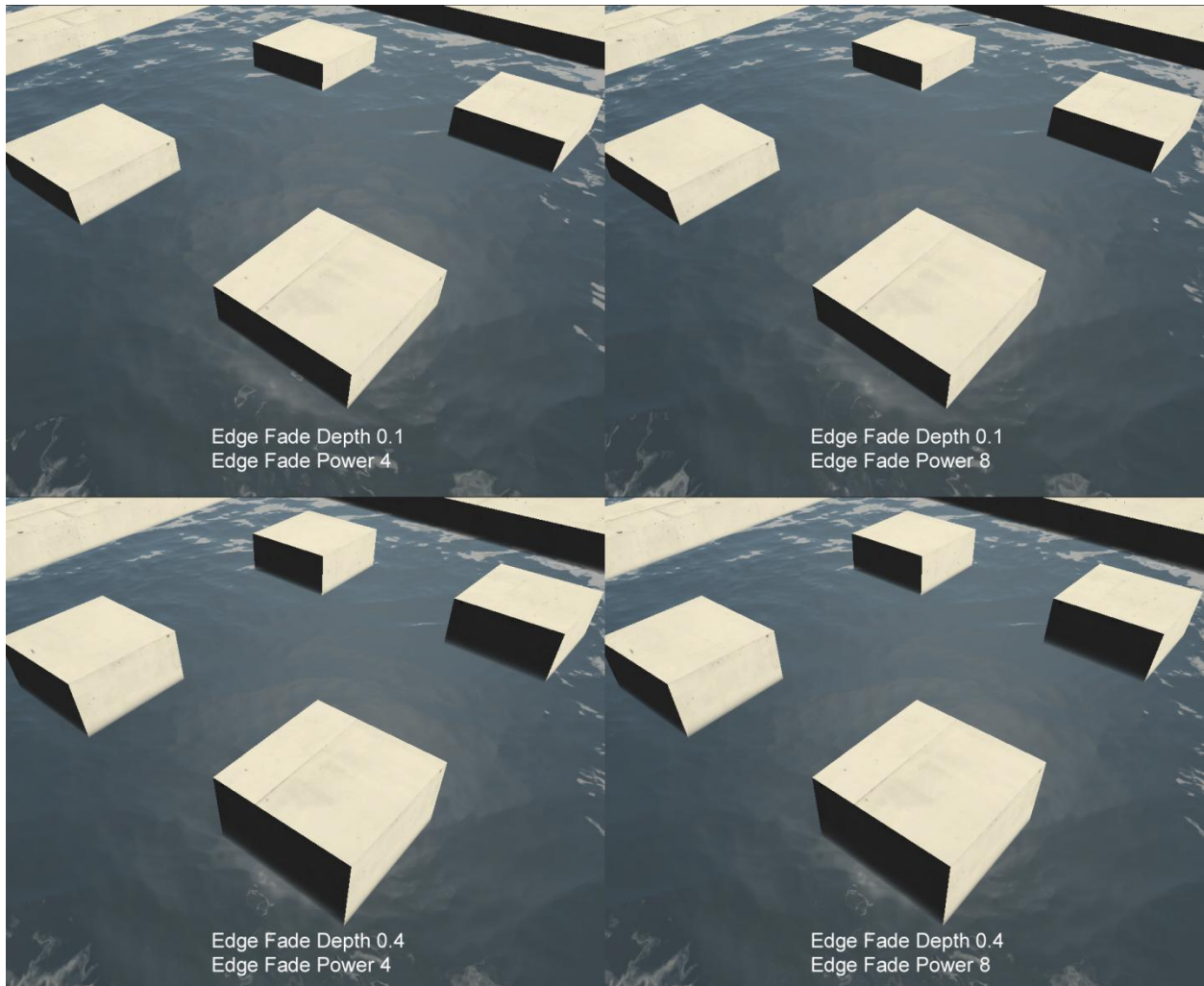
As these shaders use the camera depth texture, there are a few things to keep in mind. You may need to decrease the camera's near clipping plane, otherwise small Edge Fade Depth settings will have no effect. A value of 0.01 should work in most cases.



You camera also needs to have the [DepthTextureMode](#) set to either Depth or DepthNormals. When using Deferred Lighting this should be set automatically. If the shader doesn't render at all, try attaching the SetCameraDepth script included with Flowmap Generator to your camera and choose Depth as the Depth Mode. This also applies to the Depth Fog shaders.



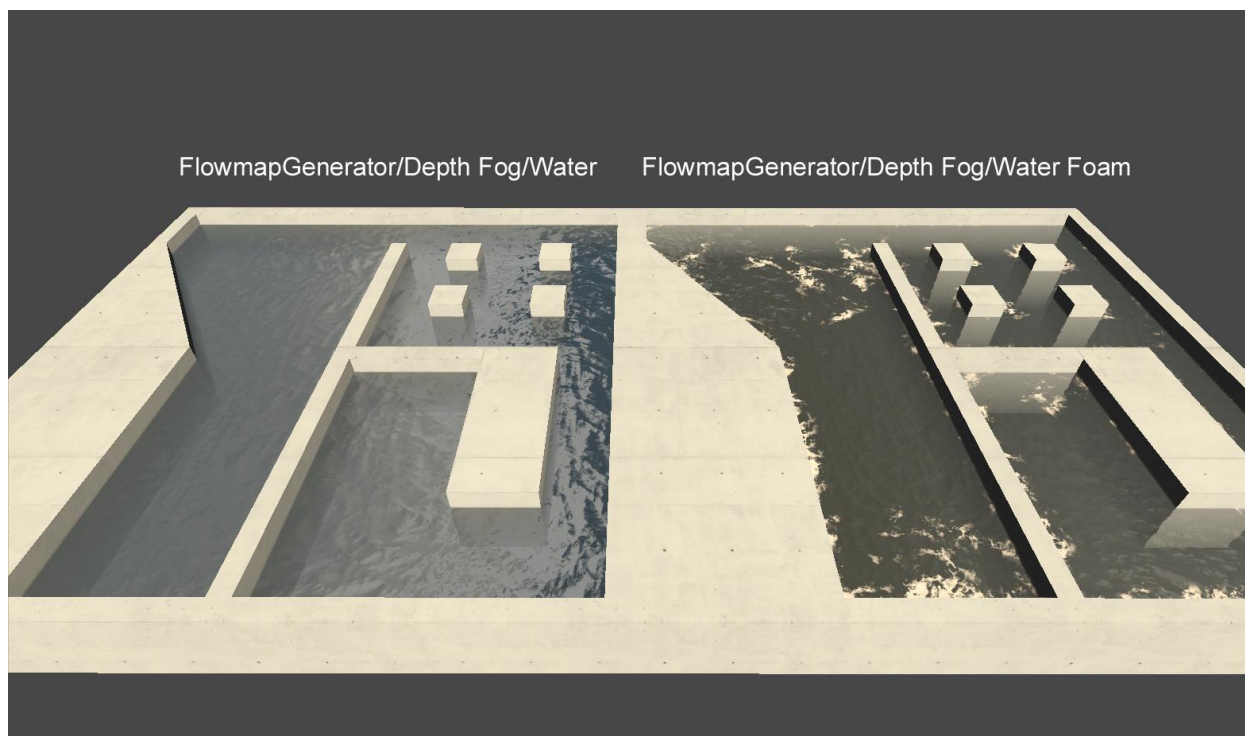
The edge fade shaders share settings with the opaque shaders, except for the addition of Edge Fade Depth which controls the maximum distance of the edge fade in world units, and Edge Fade Power which controls the sharpness of the fade.



You might need to zoom in a bit to see the difference.

Depth Fog

The depth fog shaders are an extension of the edge fade shaders. They are rendered as Opaque, without writing to the Zbuffer. They use a GrabPass to sample the framebuffer, and apply fog and distortion to the framebuffer. The result of all of this is that you can see objects below the surface.



The parameters are the same as the edge fade shaders, with a few additions.



Parameter	Info
Fog Start	The distance from the water surface where the Fog has 0% opacity. If this value is negative, the fog will start with an opacity larger than 0%.
Fog End	The distance where the fog is at 100%.
Fog Color	The color of the fog.
Refraction Distortion	Controls how much the tiling normal map distorts objects under the surface.