Stylized Water Shader
Blasph

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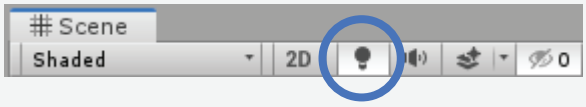
Quick Set Up

- Make sure that your Scene Light is set on active



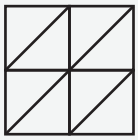
- Create a new unity plane and if you want set it's position in (0,0,0)
- Create a new Material
- Set the material Shader: Shader: Unlit / WaterToon

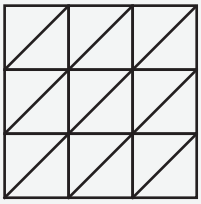
- Assign the material to the plane
- If you click on the created plane on Scene Editor or if you click Play you can see it starting waving
- Add the script "turnOnDepthBuffer.cs" to your camera (just drag and drop on it on inspector. You can find the script under Assets/Scripts/turnOnDepthBuffer.cs. This ensures the depth and intersection effects work.
- Then you can start to play with the shader. This guide will help you to better understand every parameters of the shader

N.B.

- The Isometric perspective view is not supported by the shader, so if you are in Iso view on Editor mode the depth buffer would not work properly
- If you export a custom plane from 3DSmax / Blender ecc. make sure to create a plane with base 2 dimensions (for exemple 10 x 10 quods, 20 x 20 quods, 12 x 12 quods)(13 x 13 quods for exemple doesnt work if you duplicate your plane on Unity)

Yes





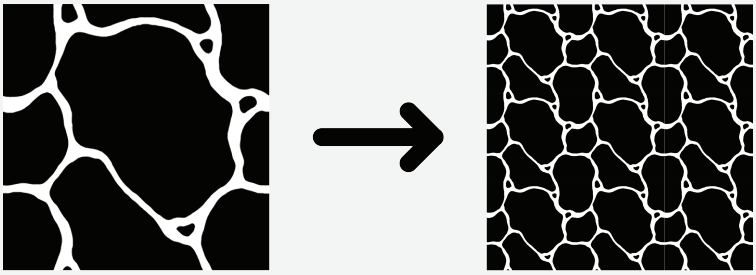
No

Water Shader

These are the main parameters for render the water. With these parameters you can set the main alpha texture, it's color, it's alpha channel and move it's UV over time

_Alpha Texture

This is the main texture, you have to use a black/white texture. The black parts are colored with the color just under the texture. I suggest you to use a modular texture and then Tiling it



Modular Texture Tiled Texture

_Color

This is the the color of the Alpha Texture, so it's the main color of the water. This parameter change the dark parts of the texture

_Texture Alpha

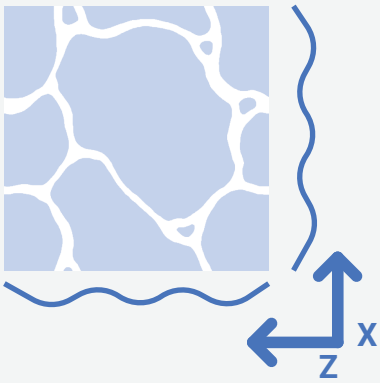
This is the the Alpha channel of Alpha Texture. It makes the black parts of Alpha Texture transparent

_Speed Offset X

This is the the movement of the Alpha Texture UV offset X on world X axis. In the shader I used a _Time parameter that change the position of UV over time

_Speed Offset Y

This is the the movement of the Alpha Texture UV offset Y on world Z axis. In the shader I used a _Time parameter that change the position of UV over time

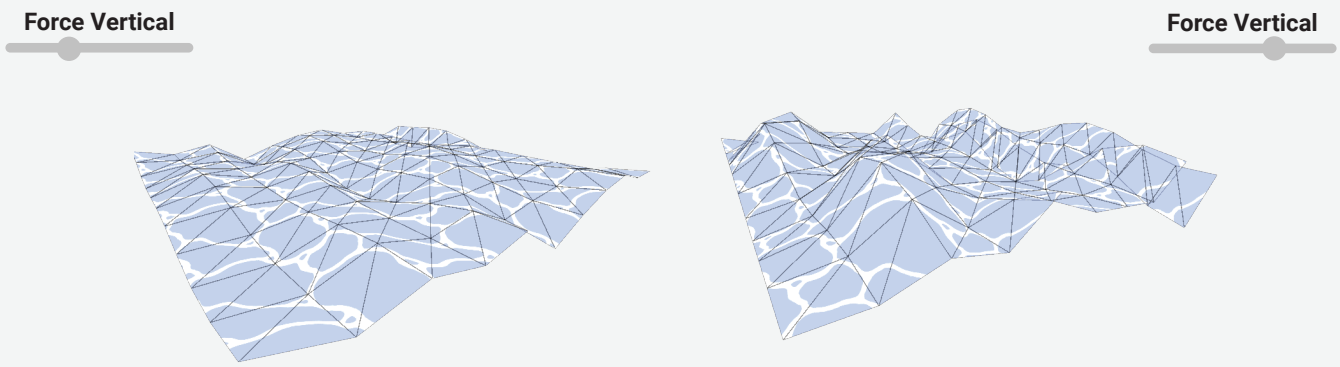


Wave

These are the parameters to set waves speed on X and Z world axis and height on Y world axis. For set the direction of water you have to rotate the main object. In this way you can create a flowing and sloping effect maintaining the waves Y height and X Z speed.

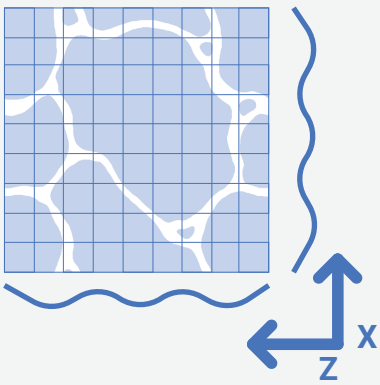
_Force Vertical

This is the parameter to set the waves height on Y world axis. It's on unity unit measure, so if you set the Force Vertical = 1 waves will be 1 unit height as a unity cube 1 unit height



_Wave Speed

This is the wave speed on X and Z world axis based on the Water rotation. If you rotate the main object the waves will be set and rotate accordingly



Gradient Texture

These parameters allow you to crate a dark/light effect on water

_Gradient Texture

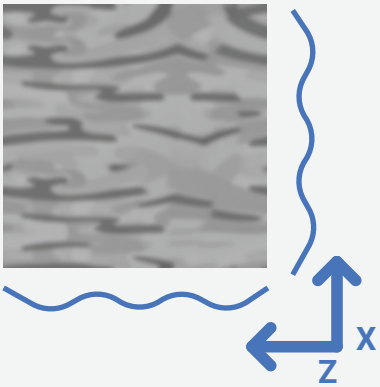
This is a texture that allows you to create a dark/light effect on water. It changes the main Alpha Texture adding this map

_Speed Offset X

This is the the movement of the Gradient Texture UV offset X on world X axis. In the shader I used a _Time parameter that change the position of UV over time

_Speed Offset Y

This is the the movement of the Gradient Texture UV offset Y on world Z axis. In the shader I used a _Time parameter that change the position of UV over time

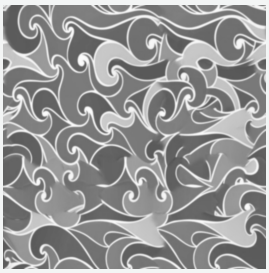


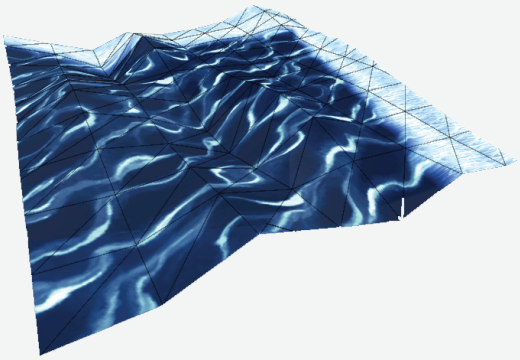
Foam

These parameters allow you to set the foam when water intersects other object. The foam is a generated by a sine function with height, width and frequencty of a single wave. You can set every parameter to obtain a different effect.

_Foam Alpha Texture

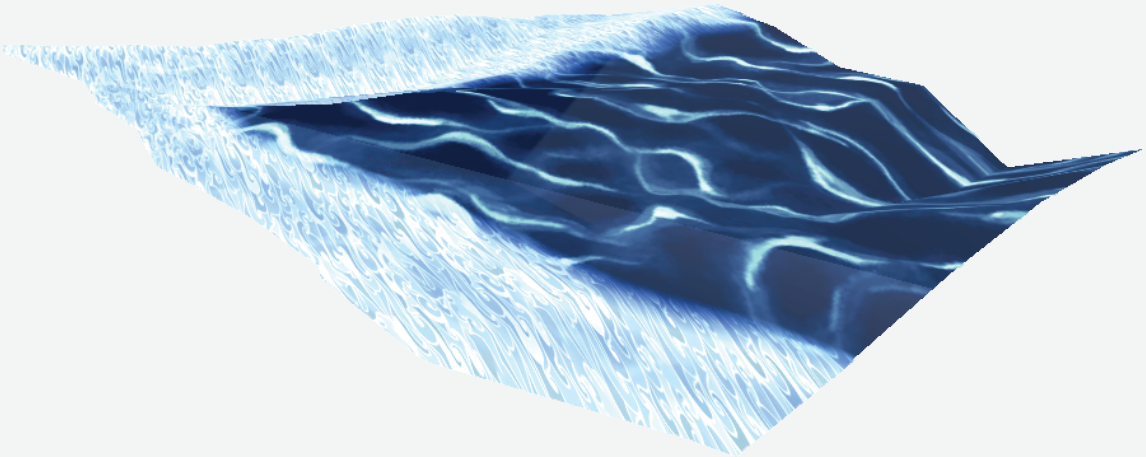
This is the foam texture. The darker parts are colored with the color just under the texture. I suggest you to use a modular texture and then Tiling it





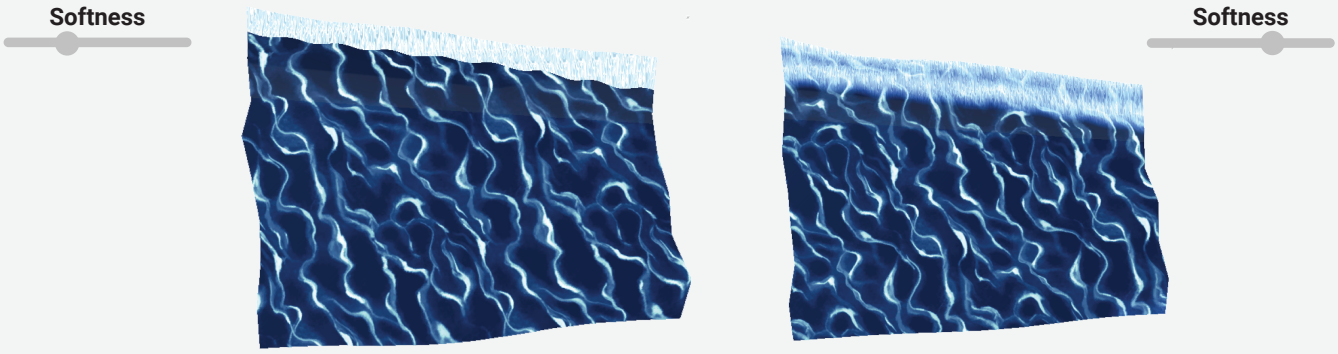
_Color

This is the the color of the Foam Alpha Texture, so it's the main color of the foam. This parameter change the dark parts of the texture



_Softness

This parameter allows you to change the gradient of the foam. The smaller it is the sharper the foam become .



_Frequency

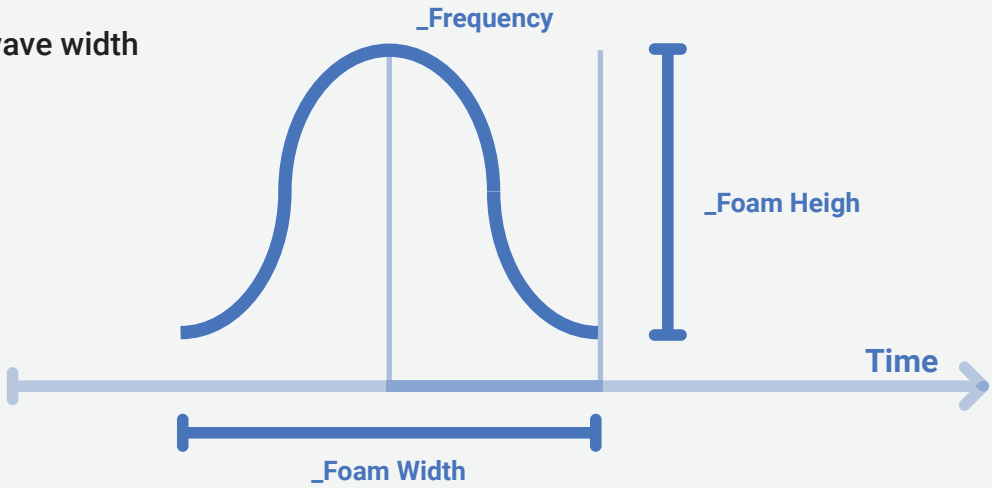
This is the foam wave frequency, how many time you have a peak of a wave per second

_Foam Heigh

This is the foam wave height

_Foam Width

This is the foam wave width

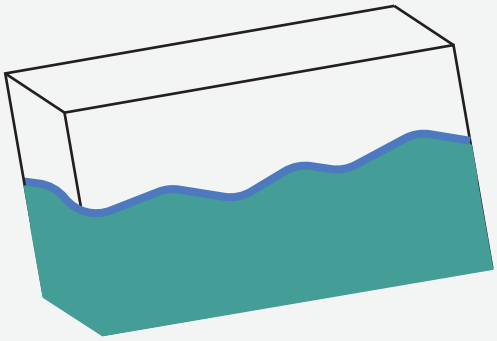


_Shadow

This is the shadow color of underwater parts and a parameter to set the depth of it

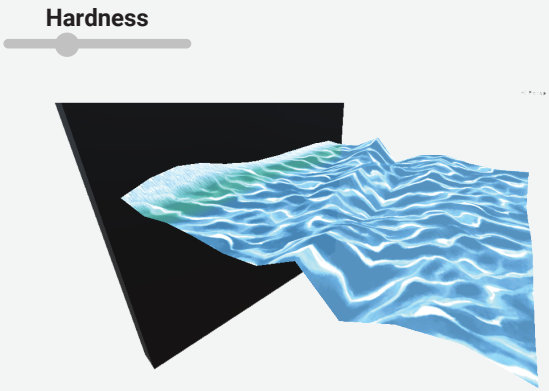
_Shadow Color

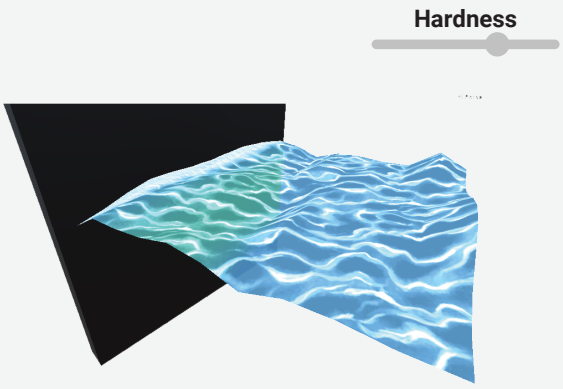
This is the color of underwater parts. This is a gradient color according on underwater objects depth



_Hardness

This is the dimension of the visible underwater parts.



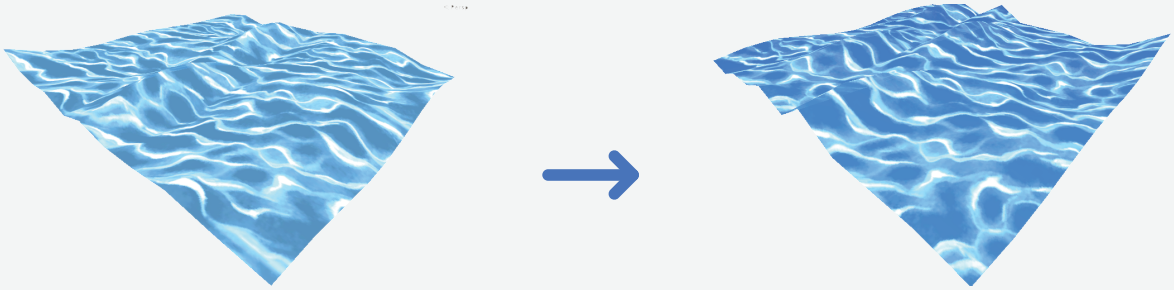


Dark effect based on camera distance

This is an ON / OFF effect that allow you to get a dark/light effect based on camera position. The further the camera is from the vertex position the darker it gets and vice versa.

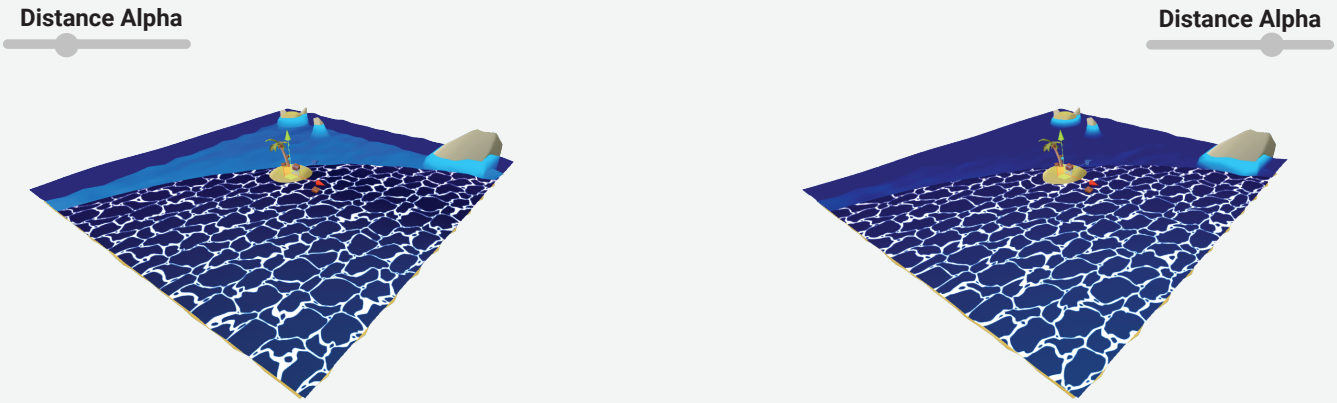
_Color

This is the darker color you get further you go with the camera position



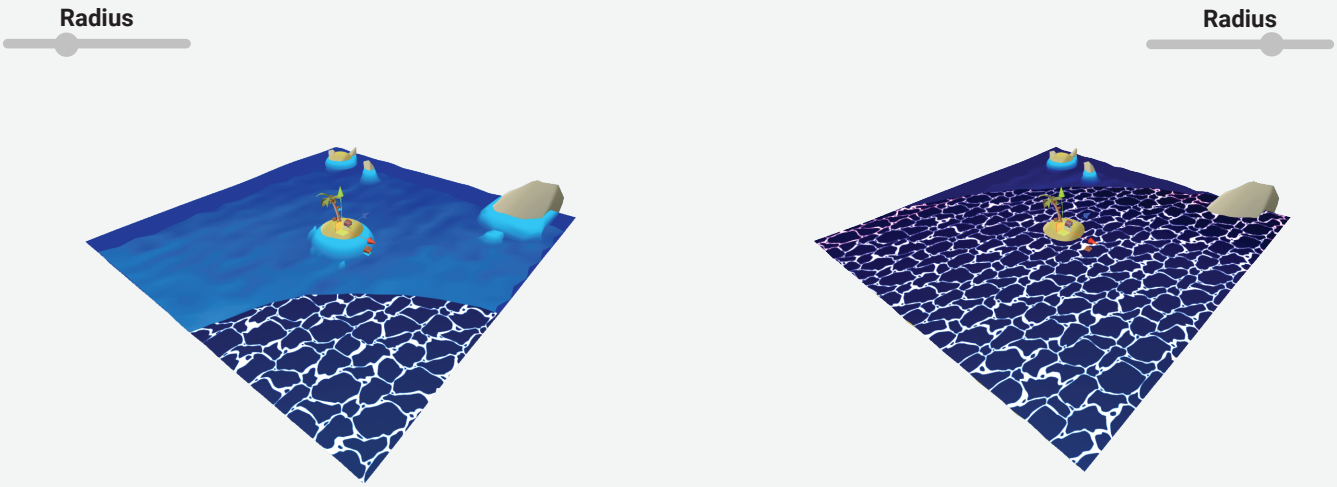
_DistanceAlpha

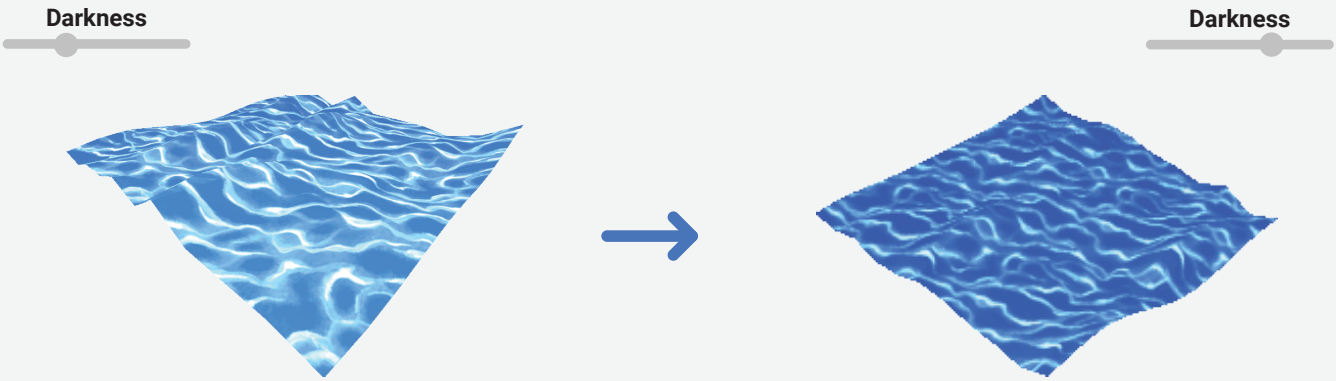
This parameter allows you to change the transparency of the darkest and the farthest water. In this way you can see farther parts underwater



_Radius

This parameter allow you to change the radius and so the distance at which the farther dark color begin



_Darkness

This is how dark the color is. So the bigger it's the darker the color become with the same camera position