BOXOPHOBIC

LOWPOLY WATER SHADERS

V2

LOWPOLY WATER SHADERS V2

Description

Stylized lowpoly water for desktop and mobile, with reflection and refraction based on fresnel, depth control, light absorption, stylized foam and water motion.

*VR is not supported when Mirror Reflection is used.

Features

- NEW Redesigned uber shaders with feature toggles for easier usage
- NEW Reduced shader number to 2: Advanced and Simple
- NEW Better performance
- NEW Moved most of the calculations per vertex
- NEW Moved light calculation per vertex
- NEW Added Light absorption
- NEW Removed edge fade

- Customize your shaders with **Amplify Shader Editor** (v1.0.0.010) !
- Reflection based on Mirror Reflection or Unity's Reflection Probe
- Grabb Pass distortion or Transparency
- 2 poligonal tileable water surface patterns
- Surface polygonal smoothing
- Fresnel control for reflection/refraction and depth control
- Stylized foam at object intersection
- Cheap per vertex water motion

Extras

- 20+ stylized low poly nature assets (trees, fir trees, rocks, fences ...)
- 2 stylized skybox textures
- 2 demo scenes included (day / night setup)
- Animated height based gradient shader
- Animated stylized fire shader

SHADER DESCRIPTION

The package contains 2 shaders, Advanced and Simple, located under BOXOPHOBIC /
LowPolyWater V2 category. Both has toggles to enable / disable different features. The
shader_feature directive is used to generate multiple shader variants, but once you build
the game, only the variant that is used will be included in the build.
All the old shaders are still in the project for backwards compatibility, but I highly
recommend to switch to the new ones.

When using the Advanced shader, Unity's built-in Reflection Probe can be used instead
of Mirror Reflection. Please note that the shader needs a reflection probe in the scene,
the global reflection probe won't be displayed correctly. Also blurry reflections and
blend reflection probes are not supported.

Every aspect of the shaders can be modified to your needs, using **Amplify Shader
Editor**! All nodes are organized and named properly for ease of use.
Since Amplify does not yet support Header Attributes, I slightly modified the shaders to
group the parameters.

You can manually add back the Headers like this:

```
                      _WaterColor("Water Color", Color) = (0,0.5,1,1)

[Header(Surface Control)] _WaterColor("Water Color", Color) = (0,0.5,1,1)
```
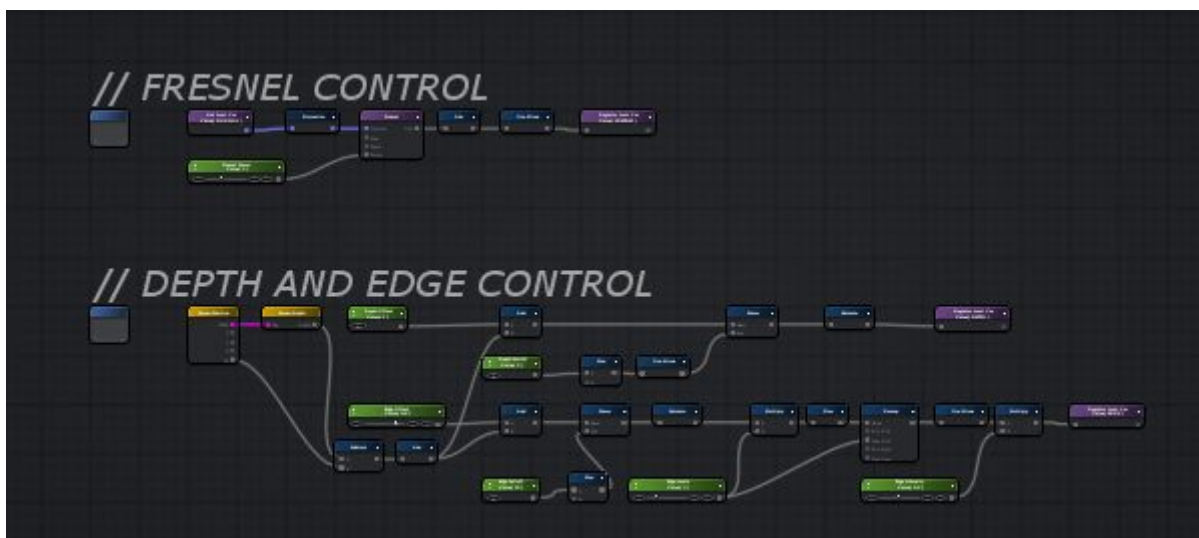
HOW TO

Mirror Reflection

1. Drag and drop one of the LowPoly_Water prefab in the scene. Keep in mind that by default, the water will reflect everything, so the scene will be rendered twice.
2. For performance optimizations, select the props that are near the water or those that you want to be reflected (preferable the big noticeable ones) and add them to a new Layer (let's say Reflection).
3. In the MirrorReflectionHDR script, in the Layer dropdown list, select only the Reflection layer. Set the Resolution to a higher value for crisper reflections.
4. Bigger water surfaces can be created by snapping together more water planes. IMPORTANT! In this case, make sure only one of the water plane has the mirror script activated !
5. In order to access the depth rendering in forward renderer, attach the EnableCamDepthInForward script to your camera.
6. Enjoy !

Unity's Reflection Probe

1. Drag and drop one of the LowPoly_Water prefab in the scene. Activate the Use Reflection Probe in the shader. The MirrorReflectionHDR script can be deactivated.
2. Create a Reflection Probe and place it on the middle of the water surface. Make sure Box Projection is checked.
3. In the Culling Mask drop down list uncheck the Water layer.
4. Set the Resolution to a higher value for crisper reflections.
5. Bigger water surfaces can be created by snapping together more water planes. In this case, make sure the reflection probe's bounding box intersects the water surfaces.
6. In order to access the depth rendering in forward renderer, attach the EnableCamDepthInForward script to your camera.
7. Enjoy !

PARAMETERS

Optimisations

- Per Vertex Specular
- Disable Reflections

Surface Control

- Water Color
- Water Specular
- Water Gloss
- Smooth Normals

Reflection and Refraction

- Use Reflection Probe
- Fresnel Power
- Depth Offset
- Depth Falloff
- Absorption Color
- Absorption Intensity
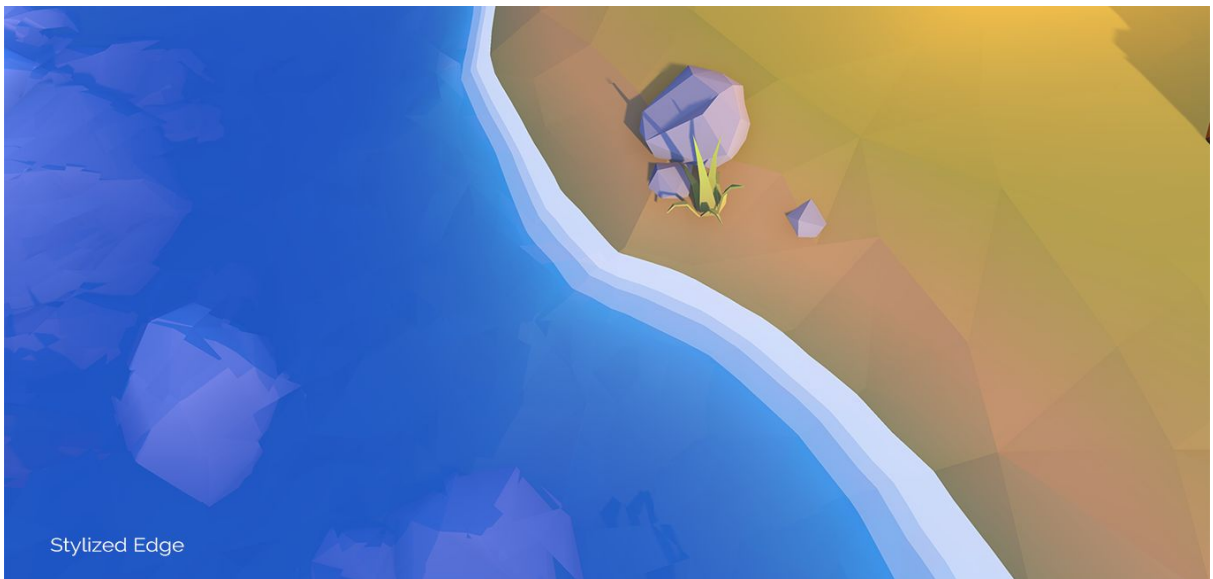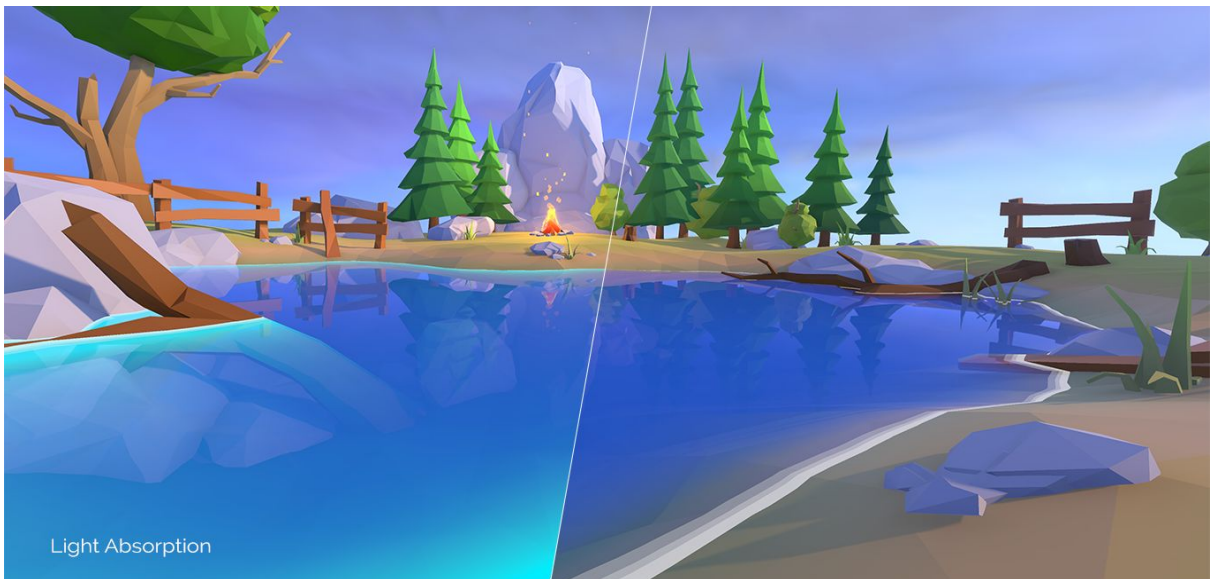
Edge Control

- Edge Color
- Edge Intensity
- Edge Offset
- Edge Falloff
- Edge Levels

Wave Control

- Wave Height
- Wave Cycles
- Wave Speed
- Wave Direction Z-X

Water Color

Smooth Normals

Fresnel Control

Depth Control

Light Absorption

Stylized Edge

SIMPLE / ADVANCED SHADER COMPARISON

SHADER	Advanced	Simple
Shader Model	SM3	SM2
Lighting	Per Vertex	Per Vertex
Specular	Per Vertex / Per Pixel	Per Vertex / Per Pixel
Light Support	All types	Directional
Smooth Normals	●	●
Reflections	Disabled / Mirror / Cubemap	Disabled / Mirror
Refraction	Grabb Pass	Transparency
Fresnel Control	●	●
Depth Control	●	●
Light Absorption	●	●
Stylized edge	Complex	Simple
Wave Motion	●	●

ISSUES / LIMITATIONS

- Edge blending and depth control is not working when orthographic camera is used.
- HDR Camera will render the refraction (Grabpass) incorrectly when HIGH shaders are used and the HDR mode is set to R11G11B10 (Graphics Settings).
- VR rendering is not yet supported when Mirror Reflection shaders are used. Cubemap Reflection shaders are working in VR with multi-pass rendering.

LINKS
CONTACT

[Unity Asset Store](#)
[Unity Connect](#)
[Boxophobic](#)
[Facebook](#)
[Artstation](#)

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