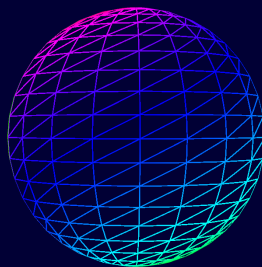


UCLA WIREFRAME SHADER



Unity Wireframe Shader Overview

The Unity Wireframe shader allows the user to create materials that will draw lines on every edge of the rendered mesh.

<http://games.ucla.edu/resource/wireframe-shader/>

Chapters

1. Requirements
2. Use Cases
3. Where to get Unity Wireframe Shaders
4. Contents
5. Tutorial
6. Credits

1. Requirements

There are few requirements for Unity Wireframe shader that is important to note. Below are things you need:

Unity Pro (Shaders cannot be used in Unity Free).

Windows Operating System.

DirectX11 (Geometry shaders are required).

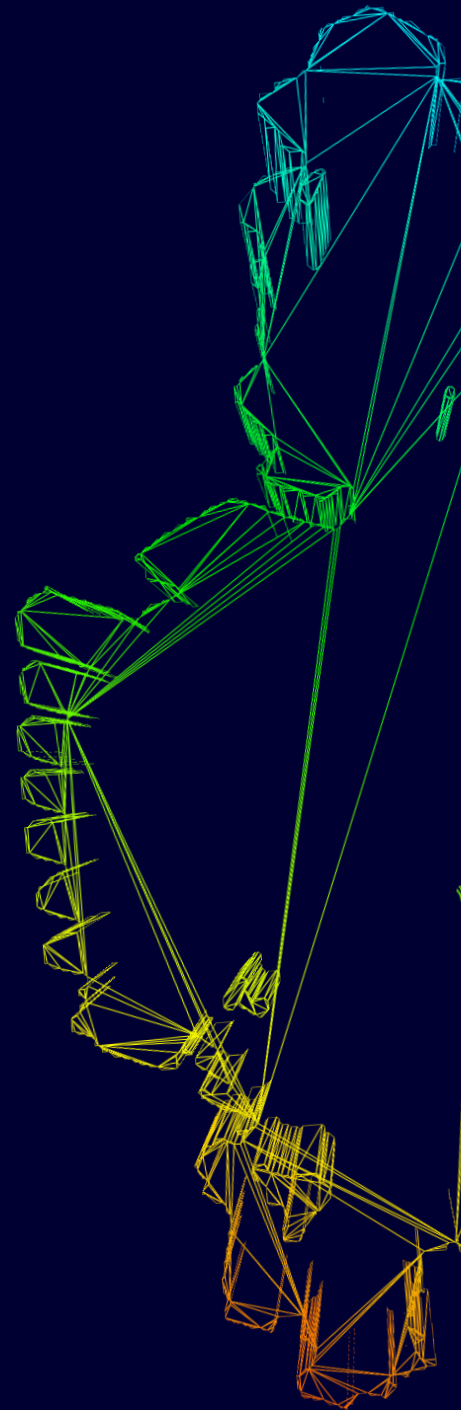
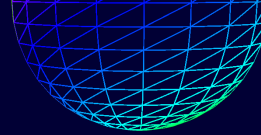
UV maps are required for Textures to work.

2. Use Cases

A couple of use cases for the wireframe shader include:

Achieving a techno or TRON-like art aesthetic.

Signifying a selection, as the Unity Editor does.



3. Where to Get Unity Wireframe Shader

Unity Wireframe shader is available on the Unity Asset store and also on Github here: <https://github.com/uclagamelab/Wireframe-Shader>

Just download the zip file for the project and open up the example scene found at [Assets/UCLAGameLab/WireframeShader/Scenes/WireframeTest.unity](#)

4. Contents

Wireframe Shader

Double-Sided Wireframe Shader

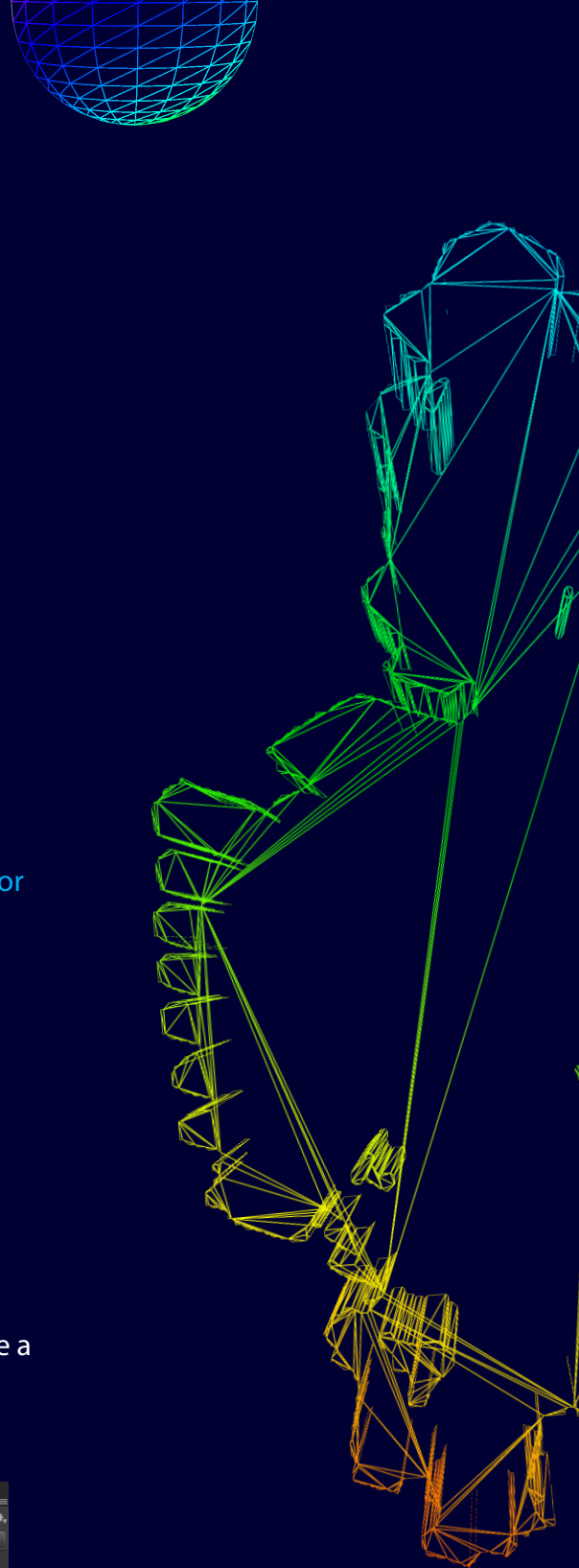
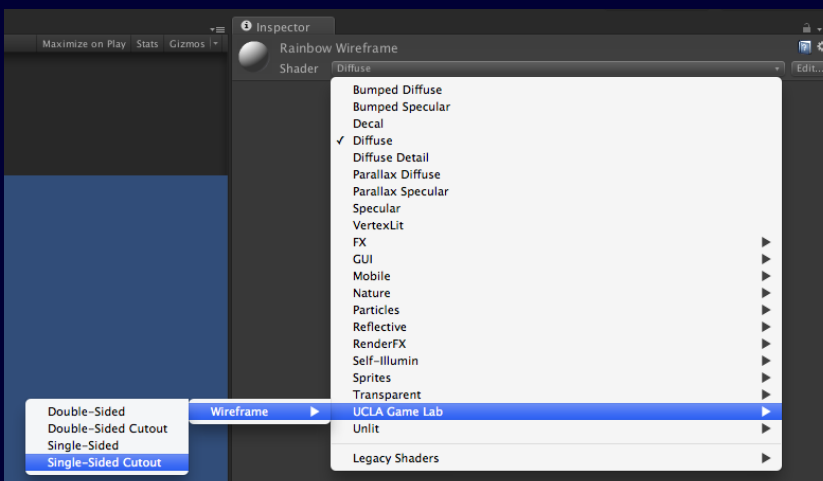
Cutout Wireframe Shader

Double-Sided Cutout Wireframe Shader

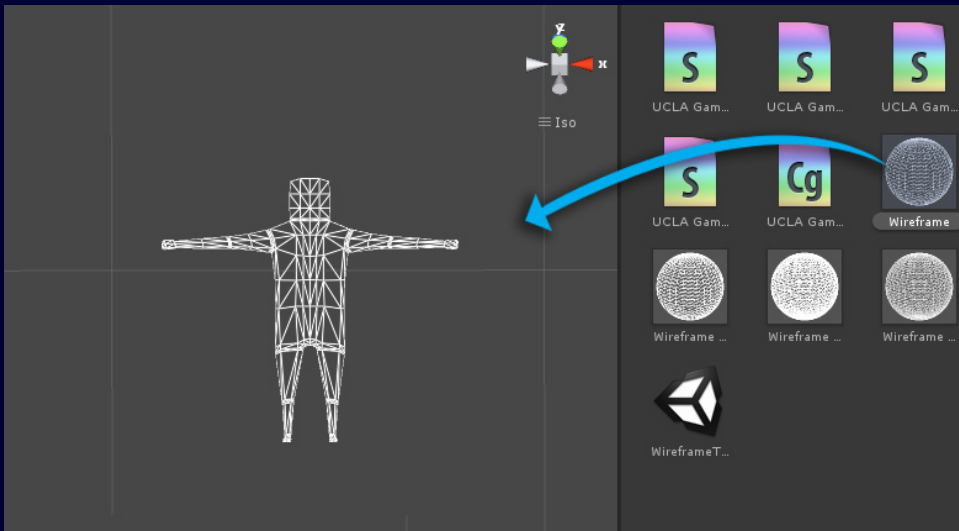
*Note Cutout shaders will often have jagged edges if you are looking for a smoother look use the non-cutout shaders.

5. Unity Wireframe Shader Workflow

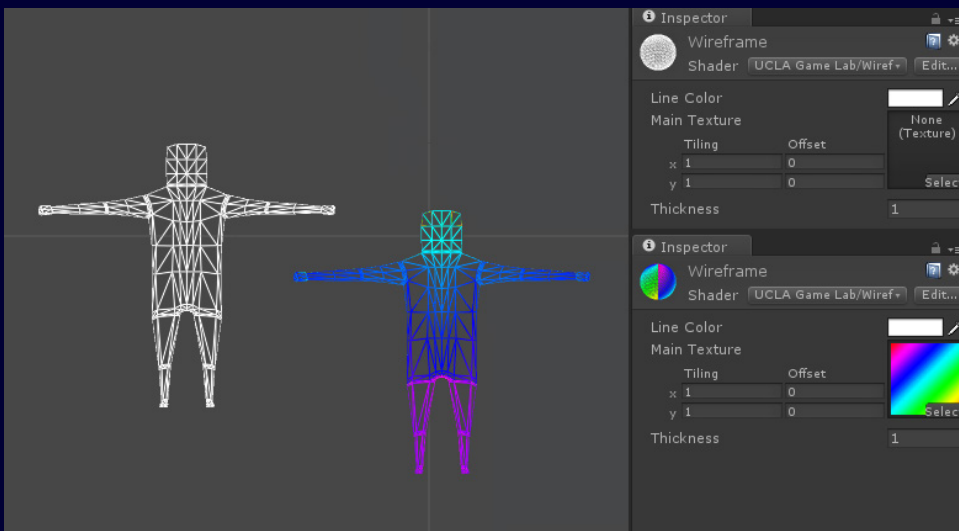
1. Create new material:
 - a. Choose from the top menu
Assets -> Create -> Material
2. Name your material (We named ours "Wireframe")
3. Now go to your Inspector next to the word Shader you will see a drop down.
Select UCLA Game Lab -> Wireframe -> Single-Sided Cutout



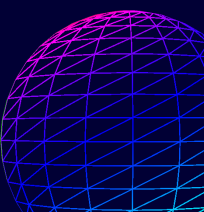
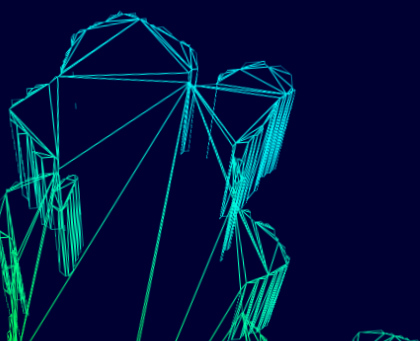
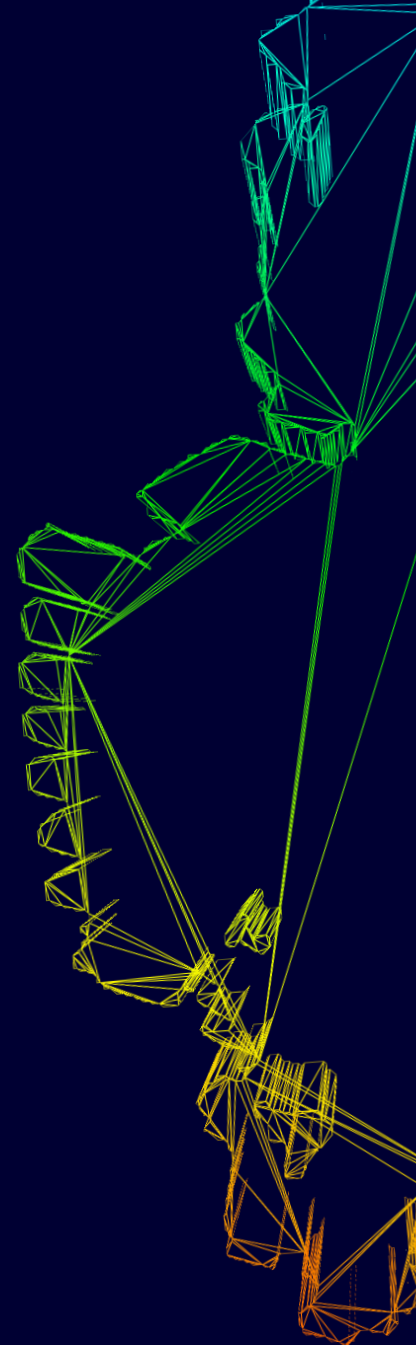
4. Just Drag you newly created Material onto your model!



5. Add your own texture through the Inspector. Click the material that you just created, you will see an empty box saying "None (Texture)". Click the "select" button in the bottom right hand corner of the box and select your own image.



6. Thats it! Have fun and enjoy!



Credits

The Unity Wireframe Shader was developed by Garrett Johnson during his time at the UCLA Game Lab. Some of the techniques used in the shader were from the paper "Shader-Based Wireframe Drawing": <https://web.archive.org/web/20130322011415/http://cgg-journal.com/2008-2/06/index.html>

