Wireframe Shader Effect Manual

This wireframe shader is efficient, beautifull and easy to use.

Features:

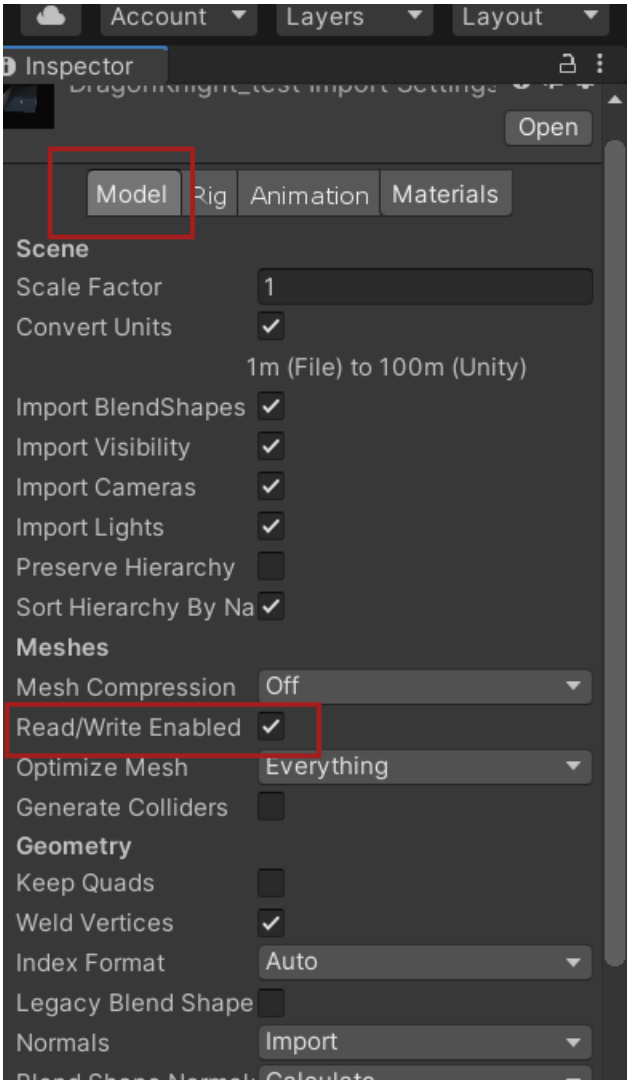
- Compatible with all render pipelines: Built-in, URP, HDRP
- Compatible with all platforms: PC, Console, Mac, iOS, Android, WebGL, VR, AR
- Compatible with any version of DirecX, OpenGL, OpenGL ES, Metal
- Can be used by any type of meshes. Simple meshes and Skinned(Animated) meshes
- No need for converting and baking your mesh. It generates required meshes automatically.
- Can be used by any 3D model from low-poly to very high density meshes with more than 2 billion vertices!

How to use it?

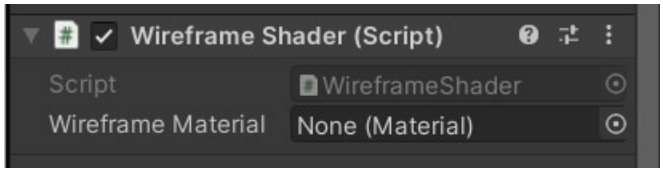
To use this effect on your 3D model, you need to do the following steps:

1. Import the package into your project.

2. Find your 3D model in your project window and select it. Go to the inspector and under the Model tab find the "Read/Write Enabled" and make sure it is checked.

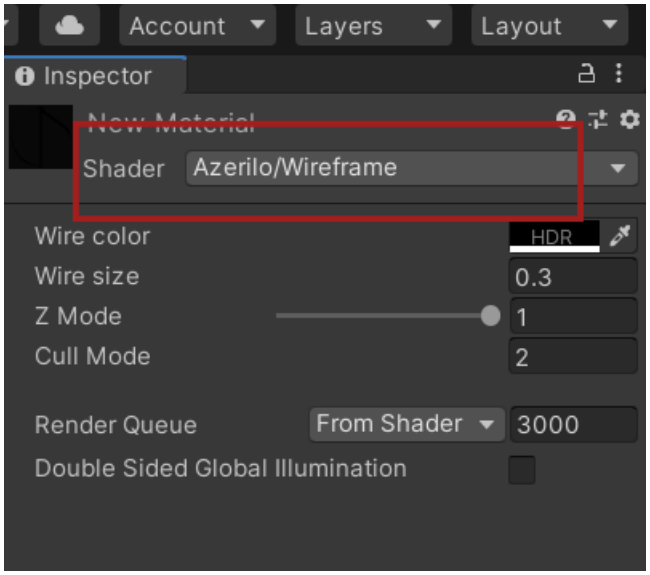


3. Find your 3D model on the hierarchy and make sure that you have selected a part of your mesh that has a "Mesh Renderer" or "Skinned Mesh Renderer" component on it.
4. Click on the Add Component button and start typing the "wireframe shader" phrase. It should automatically show up. Click on it and add it to your 3D mesh. You should see the Wireframe Shader component like the picture below:

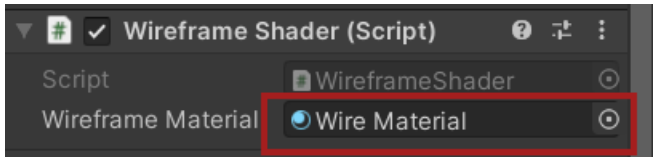


There is a slot for the wireframe material. In the next step we will create a special material for it.

5. Now you need to create a material for it. Create a new material. Then select it and in the inspector go to the Shader field and choose Azerilo/Wireframe. See the picture below:



6. Now that you have made the material, drag it to the "Wireframe Material" field on the "Wireframe Shader" component.



The Wireframe Shader Parameters:

- **Wire Color**

  By using the color picker you can set the wireframe color.

- **Wire Size**

  Here you can change the thickness of the wires.

- **Z Mode**

  This is the most important parameter. It should be set to 1 or -1. On some platforms like WebGL when you run your project you may not see the wireframe effect but in the Unity editor you could see it without any issue. In this kind of cicumstances if you are using the value 1 for the Z Mode you should change it to -1 and then built it again. If it is -1 change it to 1 and build it again. This happens because the implementation of the Z buffer is different in some platforms. By switching the "Z Mode" between -1 and 1 you can find the correct value for your target platform by trial and error.

- **Cull Mode**

  The cull mode parameter can be 0, 1 or 2.

  - **Cull Mode = 0**

    It means that both sides of the mesh will be rendered in wireframe.
  - **Cull Mode = 1**

    It means that only the back side of the mesh will be rendered in wireframe.
  - **Cull Mode = 2**

    It means that only the front side of the mesh will be rendered in wireframe.

What does happen when you go in play mode?

1. A copy of the mesh will be created automatically. It has some important information baked into it. The wireframe shader will use this information to render the wireframe effect.
2. A new child game object will be added to the mesh. The baked mesh from the previous step will be added to this new game object.

3. This new mesh will be rendered on top of the main mesh but with the wireframe effect. By default both meshes will be rendered (The main mesh and the wireframe on top of it) but if you want only the wireframe to be displayed you can disable the Mesh Renderer or Skinned Mesh Renderer component of the main mesh.

In the video below, I have shown all the steps above. Be sure to watch this video:

Watch it on Youtube

If you need more help you can contact me:

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