Lowpoly Shader

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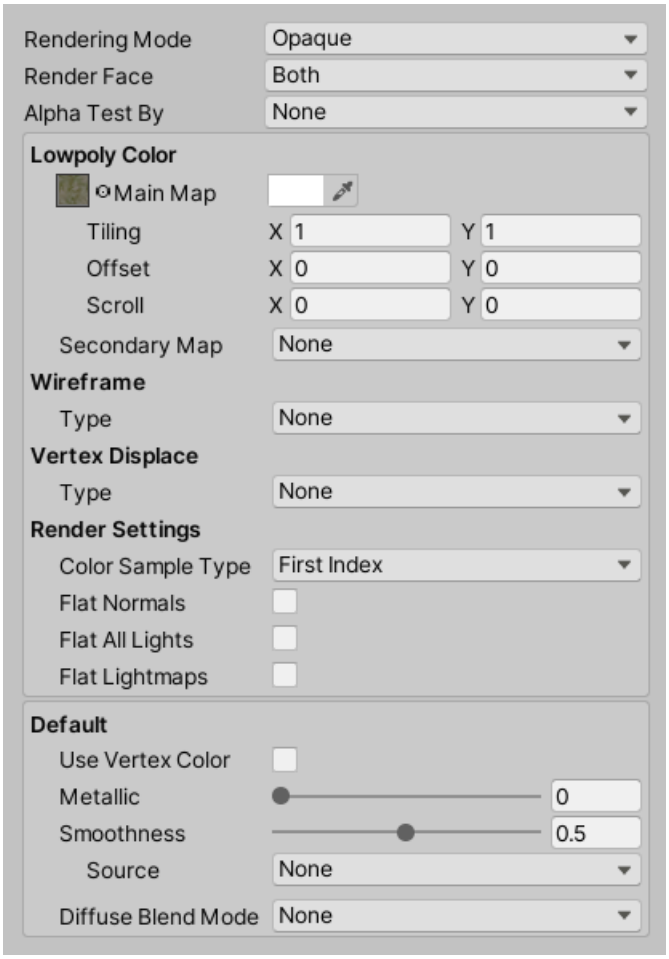
Lowpoly Shader renders mesh in lowpoly style (also known as flat-shaded) without adjusting or modifying mesh vertices and triangles.

Note, Lowpoly Shader requires device with **GeometryShaders** support and currently supports only **Built-in** render pipeline.



Render Mode – Allows to choose Opaque or Transparent render modes.

Render Face – Triangle face render mode: Front, Back or Both.

Alpha Test By – (Available only with Opaque render mode) Performs alpha cutout based on Lowpoly color's alpha value or Diffuse texture's alpha value.

Fade By – (Available only with Transparent render mode) Transparency is calculated based on Lowpoly color's alpha value or Diffuse texture's alpha value.

Lowpoly Color – Main texture used for calculating per-vertex lowpoly color.

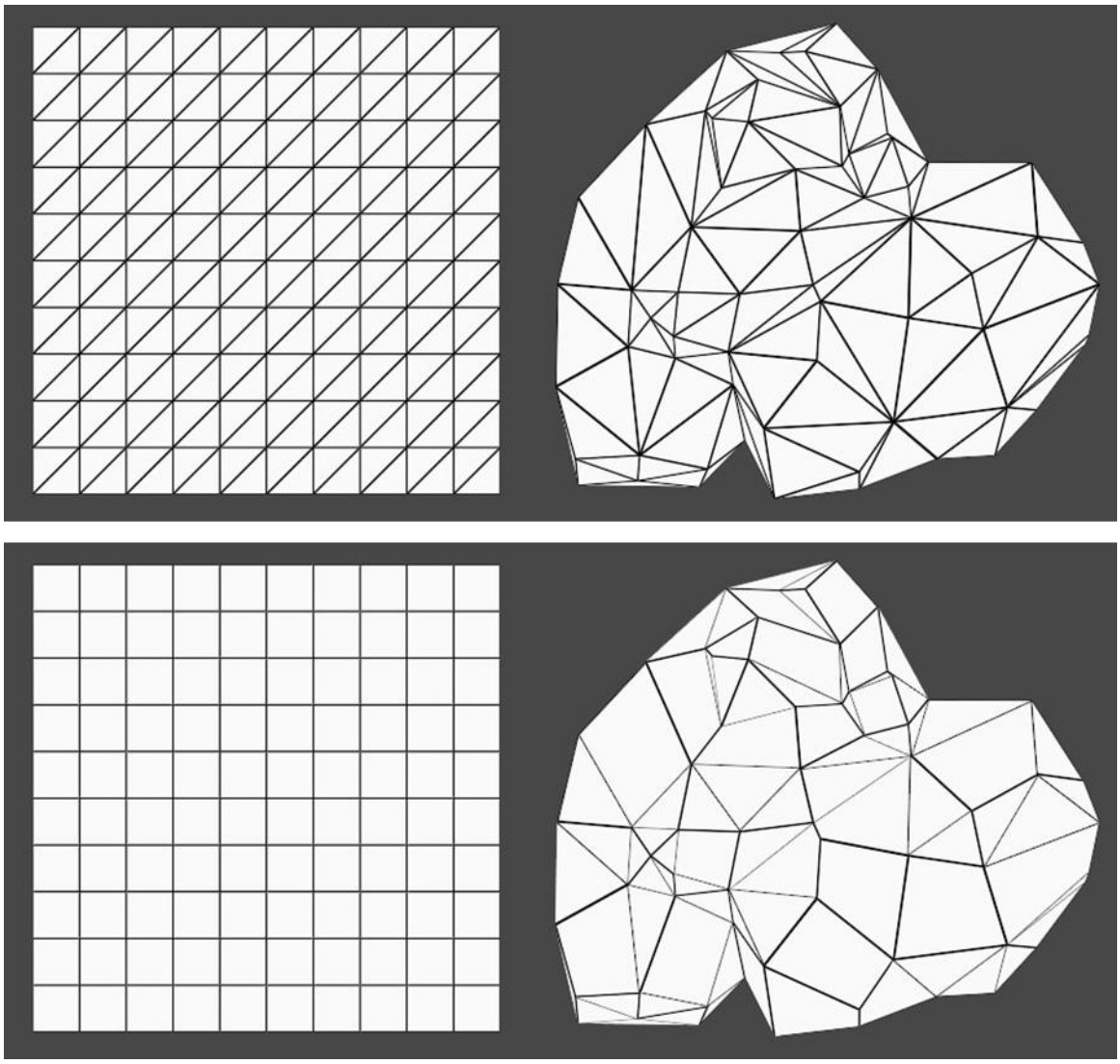
Secondary Map – Allows to use one additional texture for calculating lowpoly color and defines how it is blend with the main lowpoly texture.

Wireframe – Renders wireframe effect.

Thickness, Smoothness, Diameter – Options for controlling wireframe rendering.

Normalize Edges – Wireframe algorithm will try to render all edges of a triangle with equal width.

Try Quads - Wireframe rendering in quad style is pure approximation and it depends on a mesh vertex/triangle layout. Images below demonstrate Triangle and Quad wireframe style rendering for Unity built-in Plane mesh (with good vertex/triangle layout) and custom mesh.



Vertex Displace – Creates vertex displace effect using parametric equation or common 2D texture.

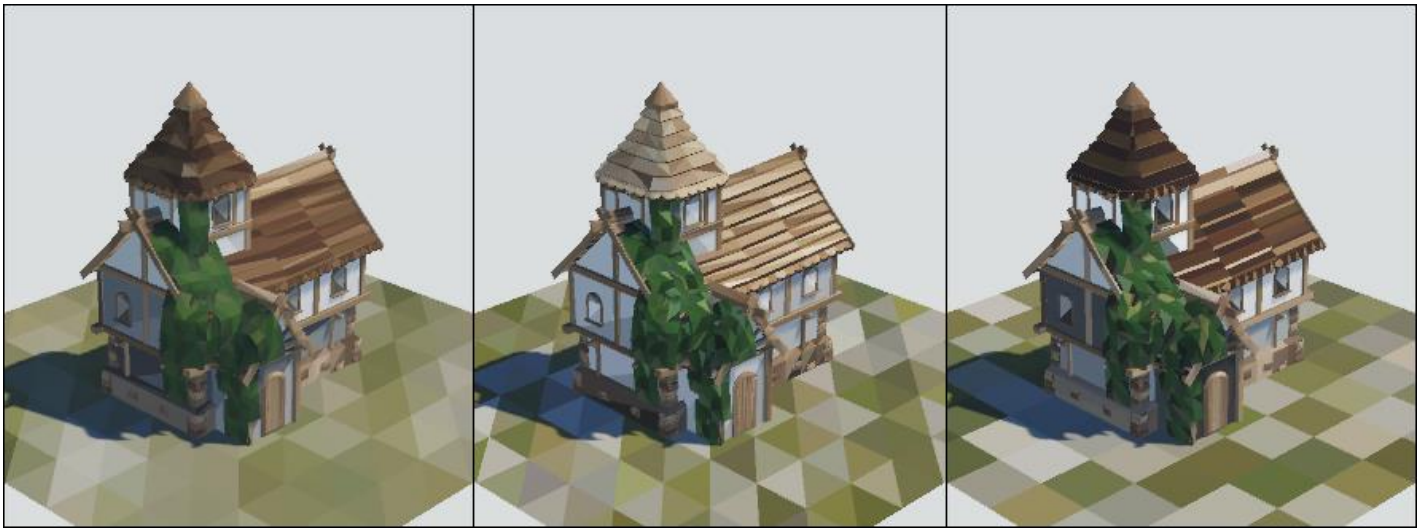
Update From Script – (Available only with Parametric displace type) Updates material's displace properties from script and synchronizes them with CPU. Used in **Vertex Displace (Water Paper Craft)** example scene to make ***Boat*** gameobject to have the same displace value as ***Water*** vertices.

Color Sample Type – Style of calculating lowpoly color:

Average Color – Lowpoly color is calculated by averaging all 3 vertex colors of a triangle.

Middle UV – Lowpoly color is read from triangle's middle point.

First Index – Color of the first vertex of a triangle is used as lowpoly color. Based on vertex/triangle layout can create ***quad*** rendering style.



Average Color | Middle UV | First Index

Flat Normals – Flattens mesh face normals and defines how it interacts with scene lights.

Flat All Lights – Activates shader's Forward rendering mode where all lights, reflections, specular and smoothness properties are calculated using Flat Normals. This is demonstrated in **Vertex Displace (Water Smooth vs Flat)** example scene.

Flat Lightmaps – Baked lightmaps are rendered in lowpoly style.

Default – Settings in this group allows to use standard Diffuse & Normal maps and choose how they blend with per-vertex lowpoly color.