

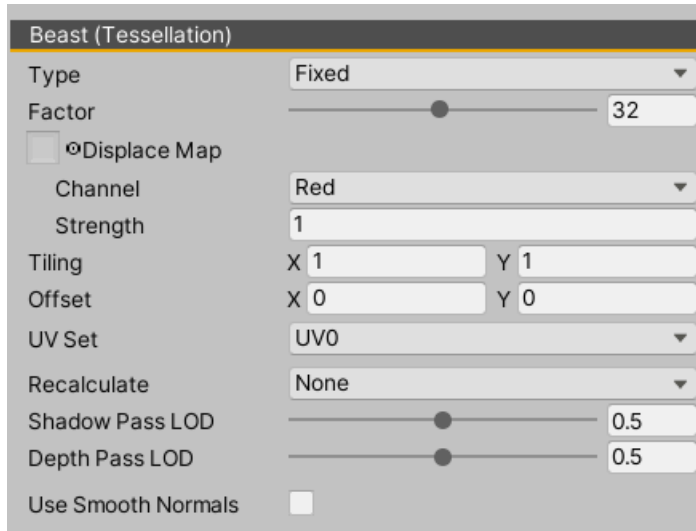
Beast

Advanced tessellation shader for Unity

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Beast tessellation is integrated directly into Unity's **Standard** (for Built-in RP) and **Lit** (for Universal RP) shaders and is available from the **Amazing Assets/Beast** menu of the material editor.



Type – Beast offers 4 type of tessellation: Fixed, Distance Based, Edge Length and Phong.

Factor – Tessellation factor in the range of [1, 64].

Displace Map – Texture file used for vertex displace calculation.

Channel – Reads displace map channel.

Strength – Vertex displace strength.

UV Set – Displace map texture can be read using default UV0 coordinate or UV1.

Recalculate – Shader can recalculate displaced vertex normal and tangent.

Shadow/Depth Path LOD – Reduces tessellation factor in shadow and depth paths. Lower values increase shader performance.

Use Smooth Normals – Vertex displace is calculated based on its *normal* vector. For meshes with hard edges (for example Cube) this will create 'cracks' on the edges, as *normal* direction for each vertex here is different. If this option is enabled, shader reads smoothed *normals* saved inside mesh UV4 buffer, which noticeably reduces 'cracks' artifacts.

Smooth normal can be calculated and saved inside a mesh using editor tool (**Unity Menu/Windows/Amazing Assets/Beast**) or in script by `using AmazingAssets.Beast;` directive, that adds **GenerateSmoothNormals** extension method to the Unity `mesh` class and returns copy of the original mesh with smooth normals saved inside UV4 buffer.