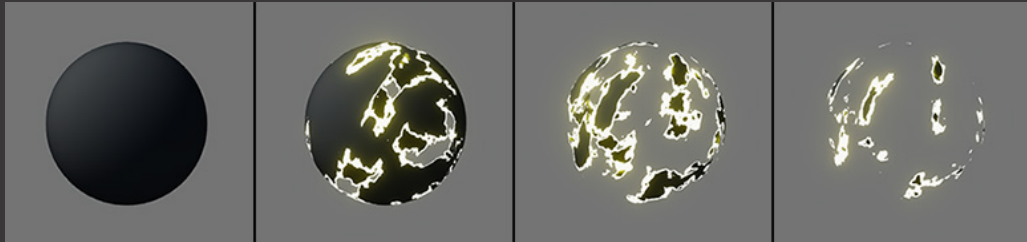


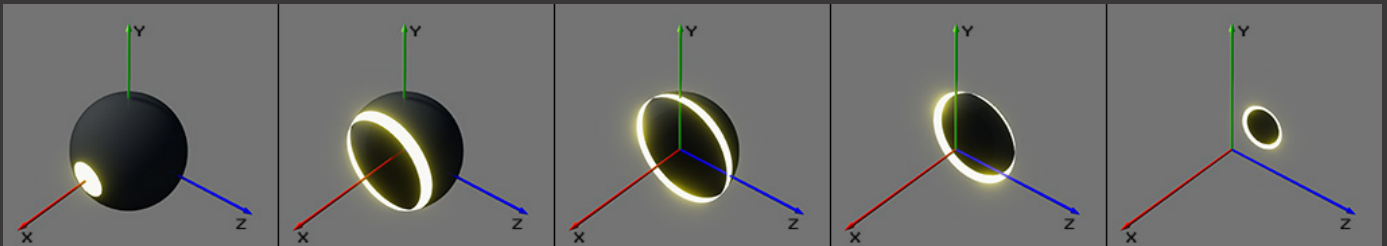
Advanced Dissolve shader options

Mask

1. None – Dissolve effect is controlled by standard **Alpha Cutoff** slider. The same way as all Unity Cutout shaders. Alpha value is read from the Main or custom textures alpha channel.

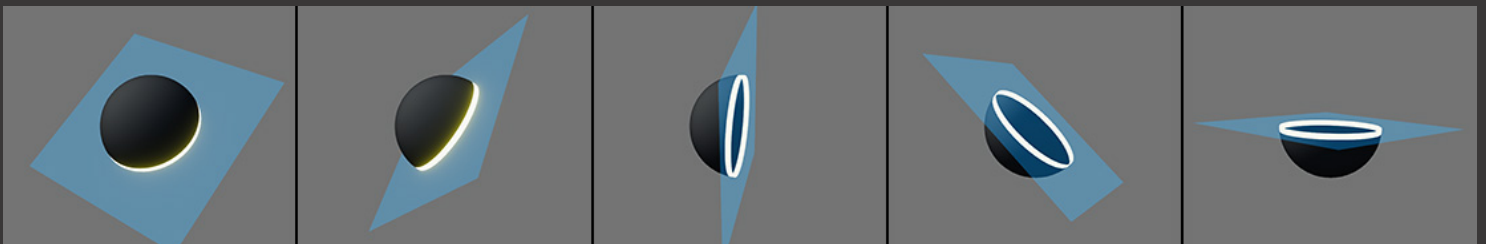


2. Axis Local – Mask is applied along local X, Y or Z axis of the mesh. World position of the mesh has no effect.
 - Offset – Offset value along axis
 - Invert – Inverts dissolve effect



3. Axis Global – Mask is applied along world X, Y or Z axis. World position of the mesh does matter.
(Check **2. Local and Global XYZ Axis Mask** example scene).
4. Plane – Mask is determined by [Plane](#) equation. Plane **Position** and **Normal** variables are not displayed inside material editor and must be controlled from script using [Material.SetVector](#) method.

Plane **Position** and **Normal** variable names are **`_DissolveMaskPosition`** and **`_DissolveMaskPlaneNormal`**.

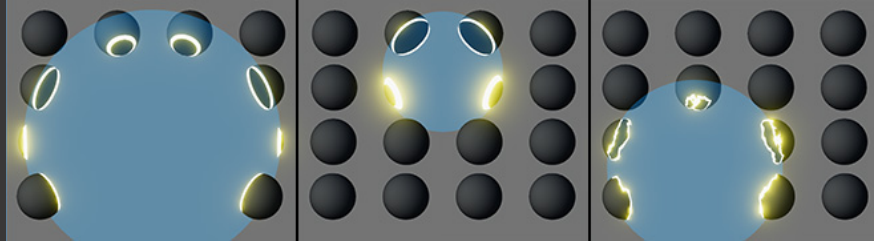


Plane mask supports up to 4 planes for object mask, each one must be controlled from script: **Position** and **Normal** variable names for:

- *Second plane* - **`_DissolveMask2Position`** and **`_DissolveMask2PlaneNormal`**.
- *Third plane* - **`_DissolveMask3Position`** and **`_DissolveMask3PlaneNormal`**.

- Fourth plane - **`_DissolveMask4Position`** and **`_DissolveMask4PlaneNormal`**.

5. Sphere - Mask is determined by [Sphere](#) equation. Position and Radius variables are not displayed inside material editor and must be controlled from script using [Material.SetVector](#)



and [Material.SetFloat](#) methods.

Sphere **Position** and **Radius** variable names are **`_DissolveMaskPosition`** and **`__DissolveMaskSphereRadius`**.

(Check **3. Plane and Sphere Mask** example scene).

Up to four sphere objects can be used simultaneously form masking, each one must be controlled from script.

Position and **Radius** variable names for:

- Second sphere - **`_DissolveMask2Position`** and **`__DissolveMask2SphereRadius`**.
- Third sphere - **`_DissolveMask3Position`** and **`__DissolveMask3SphereRadius`**.
- Fourth sphere - **`_DissolveMask4Position`** and **`__DissolveMask4SphereRadius`**.

(Check **6. Multiple Sphere Mask** example scene).

6. Box – Mask is determined by the simplest Box equation where all 3 transforms (position, scale and rotation) have effect on dissolve. Mask needs three variables to be updated from script:
 - Box's bounding box min and max vales **`_DissolveMaskBoxBoundsMin`** and **`_DissolveMaskBoxBoundsMax`** (those variables describe box's dimensions).
 - Box's world space TRS matrix (transform, rotation, scale) **`_DissolveMaskBoxTRS`**.

(Check **4. Box Mask** example scene).

Alpha Source

1. Main Map Alpha – Alpha value for cutout is taken from the Main Map texture alpha value. If using any of **Mask** options, Alpha Source adds Noise to a mask value.
2. Custom Map (Two, Three) – Using custom textures alpha values for performing cutout. Multiple custom textures can be blend by **Texture Blend** options by multiplying there alpha values or combining (Add).

(Check **1. Default Mask** example scene).

Edge

1. Edge Size
2. Edge Color – Emissive HDR color and Ramp texture.
Ramp textures alpha value defines edge color transparency.
Ramp texture's wrap mode should be set to the Clamp inside [TextureImporter](#).

Global Illumination

GI Strength (Meta) – Edge color multiplier inside Meta pass of the shader. Has effect only with Unity GI system (object marked as Static and baked with lightmaps).

If animating shader properties effecting GI, object's world space position must be sent to the shader using [Material.SetVector](#) method.

Objects world space position variable name is **_Dissolve_ObjectWorldPos**.

(Check **1. Default Mask** example scene and **AnimateCutout** script used there).

Global Controller

Material properties will be updated from script using Unity API [SetGlobalFloat](#) and [SetGlobalVector](#) methods. Useful when updating multiple materials simultaneously.

Modifying parameters that are under global control inside material editor has no effect.

Available 3 global controller options:

1. Mask Only – All parameters inside **Mask** tab are controlled from the script:
 - Dissolve amount - **_DissolveCutoff_Global**
 - Axis ID (for Local and Global) - **_DissolveCutoffAxis_Global**
 - Offset - **_DissolveMaskOffset_Global**
 - Invert - **_DissolveAxisInvert_Global**
 - Plane and Sphere mask position - **_DissolveMaskPosition_Global**
 - Plane mask normal - **_DissolveMaskPlaneNormal_Global**
 - Sphere mask radius - **_DissolveMaskSphereRadius_Global**
2. Mask And Edge:
 - All **Mask** parameters.
 - Edge size - **_DissolveEdgeSize_Global**
 - Edge color - **_DissolveEdgeColor_Global**
3. All:
 - All shader options are modified using script. **AdvancedDissolve.cginc** file contains names of all shader parameters.

Several options that cannot be changed from the script and must be modified directly inside material editor are: **Mask** type, **Alpha Source** type and **Triplane** (checkbox) options.

(Check **5. Global Controller** example scene and **GlobalController** script used there).

Post Processing

Dissolve shaders are using custom RenderType described inside “**Advanced Dissolve/Shaders/Internal/ Internal-DepthNormalsTexture.shader**” file.

To make Dissolve shaders work with Unity Post Processing and Image effects use above shader instead of Unity’s built-in shader in [Graphics Settings](#).

