

GIMME Disintegration

Manual



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1 Dependencies

In order for the package to work, the following dependencies need to be installed either manually or via the package manager:

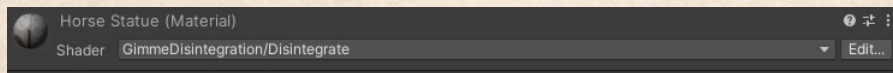
- **Post Processing 3.2.2** or above



A geometry shader is used to pulverize objects, which means this package can NOT be used with platforms that use Metal (MacOS)

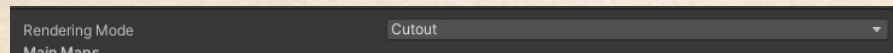
2 Setup

The setup is very easy. First replace the shader of the object you want to send into oblivion with "GimmeDisintegration/Disintegrate". Make sure the mesh has **Read/Write** enabled in the importer settings (required to find out how many vertices the mesh has).



That shader behaves exactly in the same way as the Standard Unity Shader and the disintegration part is just an extension of it.

In order to dissolve the object you must set the Rendering Mode to "Cutout". If not, the object will still turn to confetti, but more in a triangle-shape.



Then, somewhere in the scene, attach a **DisintegrateBehaviour** component to a GameObject (preferably the object you want to snuff out of existence)

Fill out all the fields accordingly (see next section) and then call either **Disintegrate()** or **Construct()**, both methods of the **DisintegrateBehaviour**, from code somewhere (you can look at **ShowroomGUI.cs** too).

That is all!

2.1 URP

To work with URP, unpack the **URP.unitypackage** file in the package. Now you should be able to use the DisintegrateURP Shader! The setup and the parameters are exactly the same as in the builtin pipeline. The first supported version of URP is **12.0.0**.



Known Issue: Depth Priming Mode must be disabled for this shader to work properly. I am not quite sure yet how to solve this issue or if it is solvable at all.

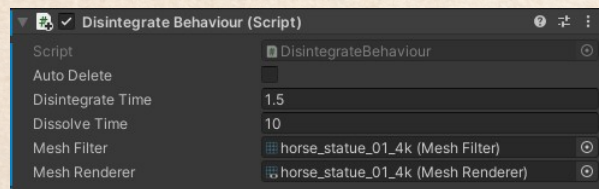
2.2 HDRP

To work with HDRP, unpack the **HDRP.unitypackage** file in the asset. Now you should be able to use the DisintegrateHDRP Shader! The setup and the parameters are exactly the same as in the builtin pipeline.

Due to incompatibilities over time, there are multiple shader versions for different HDRP versions. This also means that depending on the version you use, the sample scenes might not display correctly. In that case, you can replace the shader of the materials in the scene with the one that is supported with your **HDRP version**. The first HDRP version supported is **12.0.0** (LTS 2021.3).

3 Behaviour

Disintegrate Behaviour



- **Auto Delete:** Automatically deletes the GameObject this component is attached to, once the disintegration is complete (it will not delete the object if the object was constructed instead)
- **Disintegrate Time:** The time that has to pass before each triangle of the mesh starts to disintegrate
- **Dissolve Time:** Time it takes before the alpha cutoff is equal to 1 i.e. the mesh is completely invisible
- **Mesh Filter:** Mesh that should be dissolved (necessary to figure out how many triangles need to be dissolved in total)
- **Mesh Renderer:** Mesh Renderer that uses a disintegrate-shader material (internally a MaterialPropertyBlock is used)

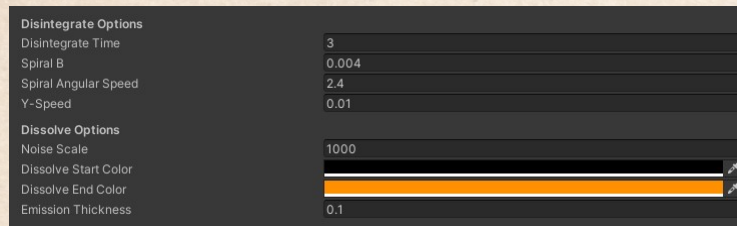
The component has two methods (of interest):

- **Disintegrate():** Disintegrates the referenced object
- **Construct():** Reverses the flow of time, which looks like constructing objects out of thin air

Internally, both methods will start coroutines that set some material properties.

Skinned Mesh Renderer There is also a component called **DisintegrateSkinnedBehaviour**, taking a Skinned Mesh Renderer instead of a regular one for animated models! The parameters and methods are the same.

Disintegrate Shader



Disintegrate Options:

- **Disintegrate Time:** How long does each individual triangle take to disintegrate (once it has started)
- **Spiral B:** Start Radius of spiral movement in the XZ-Plane
- **Spiral Angular Speed:** How quickly is the spiral rotated outwards
- **Y-Speed:** The movement of each triangle along the Y-Axis
- **Enable Thickness:** Enables extrusion of faces to make the object appear less flat on the inside
- **Thickness:** The amount of extrusion relative to the triangle size. A thickness of one, means one triangle size inwards / outwards (used instead of world units so different amounts of detail in the mesh do not prevent the usage of the feature)



Activating thickness, increases the amount of triangles drawn for the mesh by a factor of eight! It is still possible for most meshes, but it is something you should be aware of.

Dissolve Options:

- **Noise Scale:** Scale of the value-noise. Higher values = more confetti
- **Dissolve Start Color:** Emissive Color at the start
- **Dissolve End Color:** Emissive Color when the dissolving ends
- **Emission Thickness:** The thickness of the emissive color around the cutout

4 Contact

For any questions or suggestions, you can reach me anytime by the following email-adress:

blenderfan@gmx.at

There is also a discord server, which is usually the fastest way to reach me:

[Parable Games - Discord](#)

Alternatively, you can also find some social media links and contact information on my website:

<https://parable-games.com>

5 Future Plans

Some additional features I plan to implement in the near future:

- Optional Tessellation
- Domain Warping the dissolve noise (could look cool)

Thank You!

Your purchase of **Gimme Disintegration** enables me to continue developing code and techniques for game-development in an independent way!

