

Documentation

Poly Planet Creator

v1.0

[Check online for a possible newer version](#)

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Introduction

Poly Planet Creator is a Unity asset that is meant to help create low poly planets. It can be used with 2D or 3D projects. The asset contains custom made geometry shaders, designed to work with special meshes. I also provide powerful yet simple to use generation scripts for both 2D and 3D projects. Material instantiating is only available in play-mode and build. Thanks to scriptable objects, data changes are also saved in play-mode.

Provided Scripts

PPC_Planet.cs

This script loads and renders planets. Needs a planet data scriptable object asset.

PPC_PlanetData.cs

This script creates scriptable objects that contain the necessary data for generation and a few functions that take care of injecting data into materials. The asset is created from the *create* menu in the *inspector*, under *PPC*. You can use this asset as a data container for a single planet/moon/asteroid/gas planet/sun or any other spherical object.

PPC_PlanetManager.cs

This script creates a scriptable object instance of the same name. The created asset holds references to two materials and their shader settings. The asset needs to be in the base of a folder named "Resources", otherwise it will create a new scriptable object asset and leave you with unneeded duplicates.

PPC_PlanetMeshBuilder.cs

This script was not designed to be used in build. Contains multiple brushes and functions for mesh manipulation and coloring. Each brush has a primary (left mouse) and secondary (right mouse) function:

- *Modify*
 1. Increase vertex height (expand)
 2. Decrease vertex height (erode)
- *Smooth*
 1. Slowly smooth center vertex
 2. Fully smooth center vertex
- *Level*
 1. Level terrain (plateau)
 2. Set terrain level height to center vertex height
- *Color*
 1. Color vertex/vertices
 2. Get color of center vertex

You can switch between modes using the alpha number keys.

You can also toggle *singular mode* on/off by pressing *Left Control* (default) or *Middle Mouse*. In *singular mode*, only the center vertex is manipulated. The smooth brush is always in singular mode. This script also takes care of saving changes to the provided data objects in *PPC_Planet.cs* (it also depends on *PPC_Planet.cs* to work correctly).

PPC_IcosahedronGeneratorNoUV.cs

Contains functions for icosahedron-based sphere generation.

Contact

Please do not hesitate to contact me at tadej.slivnik@outlook.com if you have any questions, requests, suggestions or bugs to report. Feedback is welcome!