Low Poly Randomizer - Documentation

V1.0

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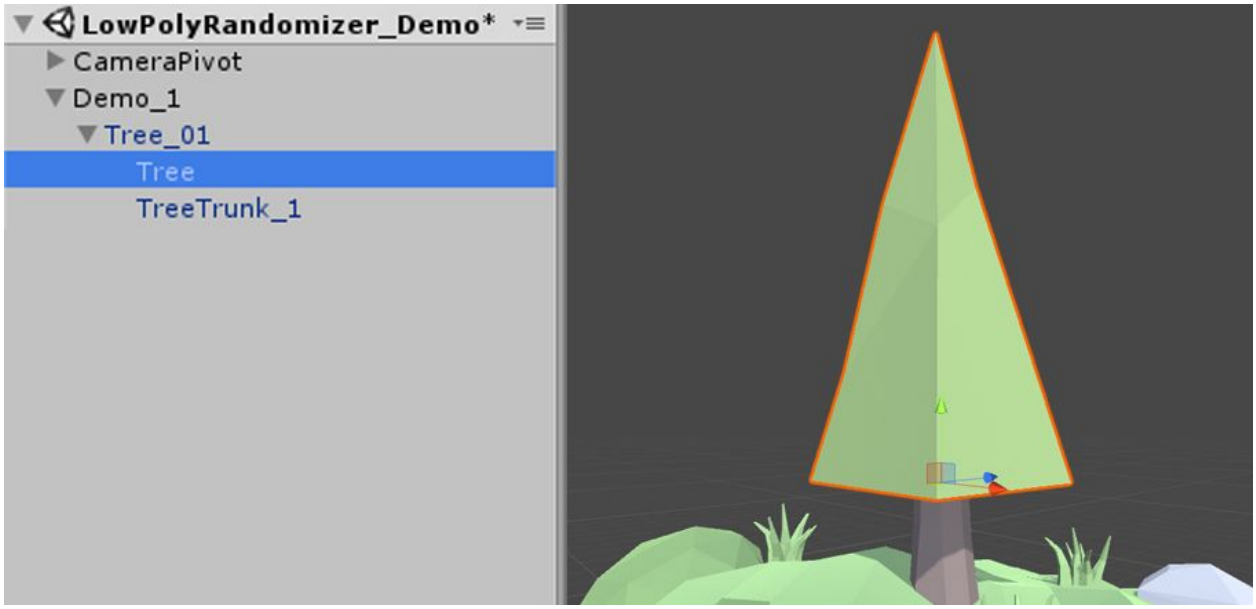
Low Poly Randomizer - Overview

Low Poly Randomizer is a tool that allows you to quickly create variants of existing low poly meshes. It is perfect for adding variety to a forest of low poly trees by randomly moving the vertices of selected trees following a number of constraints set by the user. Following the documentation below, you will be able to use the tool to add variety to your low poly game assets quickly and easily.

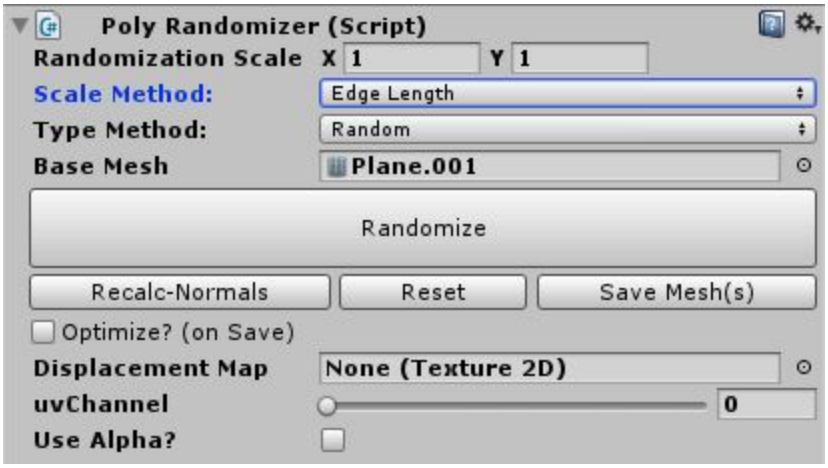
How to use Low Poly Randomizer - first time users

1. Once you have imported the LowPolyRandomizer tool from the asset store or local directory select the low poly mesh that you wish to randomize in the project hierarchy. For example, see the ‘Tree’ mesh in the image below.



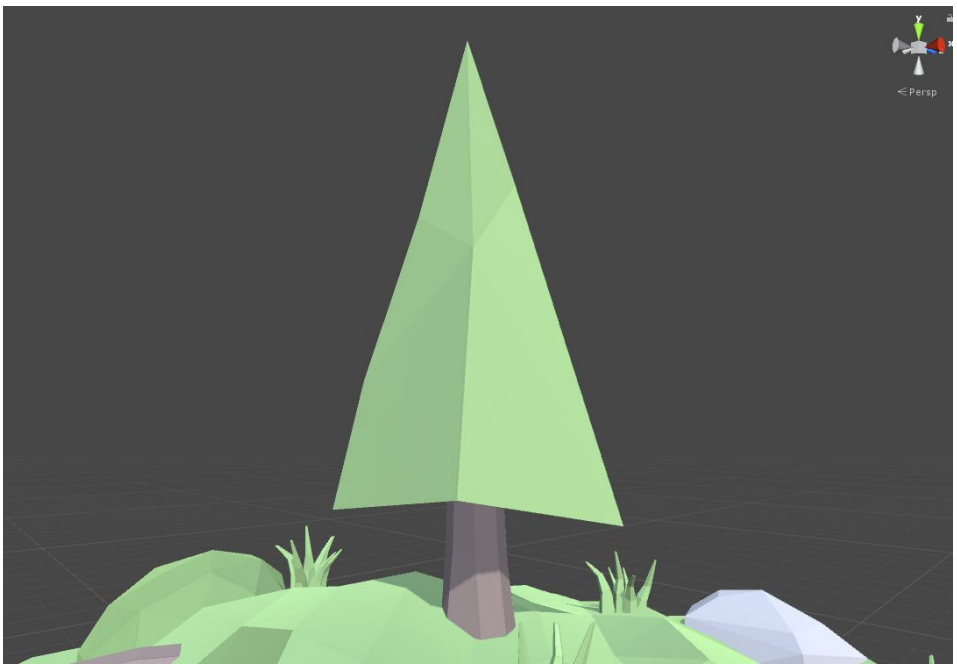
2. Once you have selected the mesh, add the script called ‘PolyRandomizer’ either via drag and drop or through the ‘add component’ button in the inspector. You will find the script in the Assets/2Ginge/LowPolyRandomizer/Scripts folder.

3. Once it is attached, you will see a number of variables that can be changed in relation to the randomization of the object.\



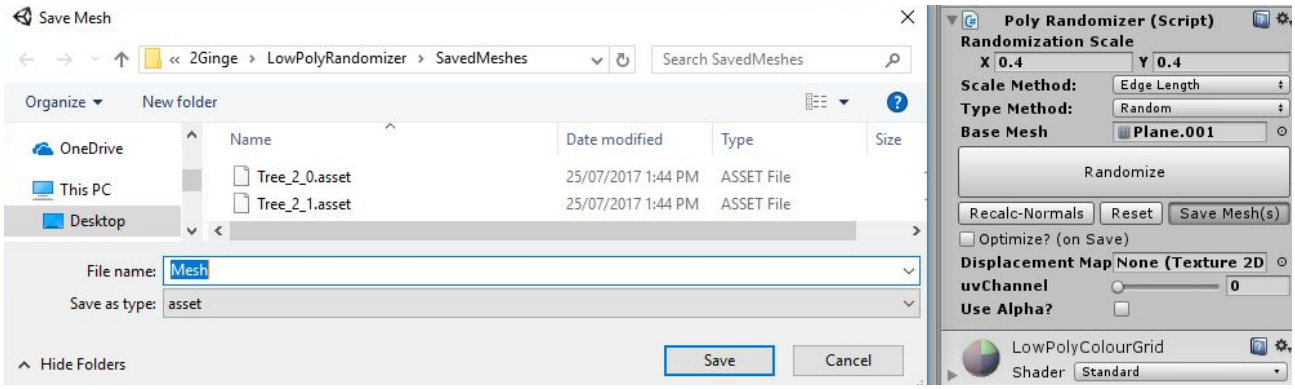
For a more detailed breakdown of what these variables do, please see the ‘script breakdown’ section below. For now, feel free to change the variables as you see fit in order to achieve a visually pleasing result. Depending on the scale of the object your results will vary, so it is best to go by eye when choosing your randomization settings.

For this example we will set the randomization scale to (.4,.4), the scale method to ‘Edge Length’ and the type method to ‘Random’. Below is the result.



4. If there is any visual artifacting try pressing ‘recalc-normals’. Visual artifacts should only be an issue where the randomization scale is very high or the object's vertex density is very high. In most cases the normals will be fine and you will not need to recalculate.

5. If you wish to save the randomized instance of the object, simply select one (or more) of the objects you wish to save, and click ‘save meshes’ below the randomize button in the inspector. Once you have pressed this button a save dialogue will display. Using this you will be able to select a destination WITHIN the project ‘assets’ folder to save the randomized mesh.



Once you have saved the randomized mesh, you will be able to import it into your scene whenever you like, add the material and you’ve got a variant of the first

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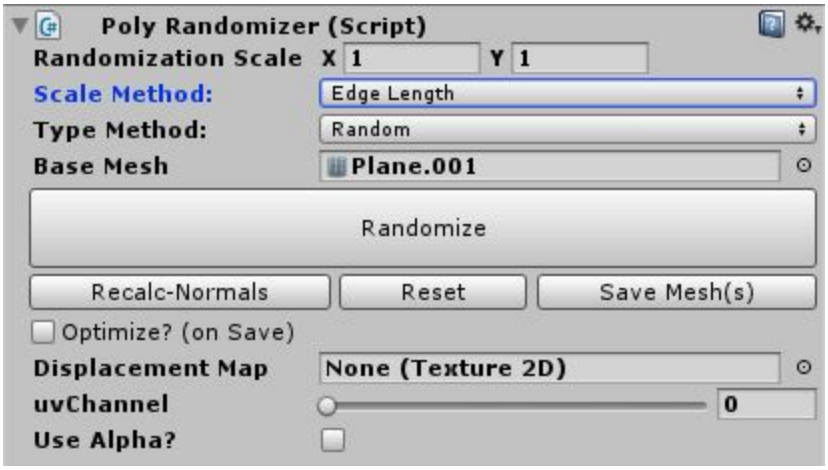
6. Once you have saved your randomized mesh, click the reset button on the selected object, then remove the ‘Poly Randomizer’ script as it is no longer being used.

7. You can now navigate to where you saved your randomized mesh, import it, add a material and save it as a prefab for easy retrieval later.

This will be your process each time you wish to create a new randomized version of a provided asset, drastically speeding up the turnaround time of creating asset variants for your scenes. Please look over the script overview section below and if anything is unclear or you require further support, you can reference our demonstration videos via the Unity Asset Store page or our Youtube channel. Failing that, please use the contact links below to get in touch!

Script Overview



Randomization Scale
How intense the randomization is (min and max).

Scale Method
The scalar of the randomization (essentially the constraints), 'Edge Length' means that the shortest edge is 2 times the amount the vertex can move (preserves the hull as much as possible).

Type Method
Changes how the randomization affects the mesh random, random along the current normal.

Base Mesh
Access to the base mesh to reset to (just incase the object gets polluted).

Randomize Button
Clicking randomizes the selected object using the settings provided by the user.

Recalc Normals
Recalculates the normals based on the topology of the mesh.

Reset
Resets the current meshes vertices / normals to the original (or previously SAVED) mesh.

Save Mesh(s)
Save meshes out so that they can be used with prefabs and other optimisations.

Optimize (on save)
Makes the mesh easier to load into memory for Unity

Displacement Map
A texture that can act as a scalar upon each vertex cluster (will average out each vertex/uv channel pair and scale the randomness by it.

uvChannel
Which uv channel does the sampling take place (0,1,2,3)

Use Alpha
Use the alpha channel of the texture instead of the linear RGB values

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Additional Help/ Contact

Feel free to contact us with any issues you may be having via any channel. We are always happy to support our customers and will address bug fixes as soon as possible. Please do not hesitate to contact us with feature requests either! We'd love to continue to make our tools and assets better wherever possible.

Email: contact@2ginge.com
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If you'd like to hear about our other projects and tools, please find our newsletter signup form at www.2ginge.com or check out our Unity Asset Store developer profile.