

**User Manual** 

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## Getting started

eTerrain requires no particular setup. All you need for the tool to function is the "eTerrain" script anywhere within your assets folder and the "eTerrainEditor" script within any folder called "Editor" within your assets folder. After importing the package all you need to do is add the "eTerrain" script component to any of your Unity terrains and it's ready to work.

eTerrain requires 0 scripting from the users end. All the controls are visually presented within the eTerrain interface in the inspector. The tool comes with prompts, warnings and tooltips to help you understand all of the controls thoroughly. The asset package also comes with example assets that you can use to quickly prototype the different tools included with eTerrain. This manual explains all of the tools in detail so you can reference it in case the tooltips and the built in "Help" guide does not answer your questions.

tldr; just drag and drop eTerrain script to your terrain and start experimenting.

### eSmooth

eSmooth calculates the averages between adjacent heights in the x and z directions and then applies the new height values to all samples simultaneously. It leaves the single edge samples untouched to prevent from altering the seam areas between adjacent terrains.

Just attach the eTerrain script to your Unity terrain, set the amount of iterations you wish to use for the smoothing algorithm and press "Smooth". You can also reiterate by just pressing "Smooth" as many times as you want until you're satisfied with the results.

### eSplat

eSplat automatically assigns textures from your terrain Textures to your Unity terrain when you press "Splat". Input the texture indices to corresponding slots within the script interface. For an example if you wish to apply grass to your terrain ground at- and above baselevel and you have your grass texture in your terrain textures in the first slot; enter "0" in the "Flat Ground Tex No" slot. Remember that indexing starts from 0 so the first texture in your Terrain textures is Texture number 0, the second one is number 1 and so forth...

The "Baselevel Height" slider is used for finding the base ground level of your terrain, below which everything is considered "below baselevel" (underground in other words) and above which everything is considered "above baselevel".

The "Steepness Factor" slider is used to either attenuate or to accentuate slope texture weights. This allows you to adjust the texture emphasis on slopes. Lower values make for transparent slope textures and high values make the texture weights more prominent in slope areas.

#### eLevel

eLevel allows you to alter the heightmap weights of your terrain using existing texture weight values as the defining factor. This allows you to create texture based stuff like ditches, bumps, contours and many types of irregularities.

The re-leveling sliders correspond with the terrain texture indices, meaning that if you have grass texture as the first texture in your terrain then the first slider "Tex 0 Re Level" will allow you to either depress or elevate all the areas in your terrain covered with that grass texture. This same logic applies for Tex 1, 2, and 3 aswell.

eLevel also allows you to generate random height noise to your terrain to make desired areas uneven and less artificial. For an example if you wish to have your grassy ground uneven but your roads flat and smooth, you can select to add noise to the index corresponding with your grass texture while keeping the one corresponding with your road texture un-selected. eLevel is additive and does not overwrite your existing heightmaps so you can use it together with regular heightmaps.

### eStitch

eStitch is a simple yet very effective tool which does exactly what you'd expect it to do. It stitches adjacent terrains together with a single click of a button. Just insert the terrain you wish to stitch with in the corresponding slot and press "Stitch". eStitch automatically recognizes the relative position of the assigned partner terrain and makes sure it's right beside your current terrain before calculating the seam between them.

eStitch uses an averaging algorithm to smoothen out the transition between the adjacent terrains. If the gaps between the terrains are not very significant you will not notice where one terrain ends and where the next one begins after using eStitch.

You can also fine tune the settings depending on the scenario by increasing the smoothing distance around the seam area and the amount of smoothing iterations.

If you're using a premade heightmap divided between several terrains; the default settings will yield very good results.

### eUtilities

eTerrain comes with a few utilities which make your workflow more intuitive. You can reset any existing splatmaps on your terrain with a single click. You can also reset all of the existing height-values to either "Min" "Average" or "Max" values.

"Min" is the default "0" height of your terrain which means that you can elevate the terrain up to as many units as your terrain allows you to, depending on the height settings within the Terrain Settings. The downside is that you cannot depress the terrain at all. This is the Unity default.

"Average" is the height value that's exactly 50% of the max height of your terrain. So if your terrain max height is 100; then flattening your terrain to "Average" will reset all of the terrain height values to 50. This is good for handcrafted terrains that need depressions aswell as elevated areas.

"Max" is the exact opposite of "Min". It flattens the terrain to the absolute max height values of the terrain. At "Max" height you cannot elevate your terrain at all.



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