

## Other Guides

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## **Tileable Terrain Maker**

This is an edge matching tool designed to stitch multiple terrains, or a single terrain (or group) with itself (to make an endless terrain).

This is a component script that should be attached to the first terrain in your terrain group (\_1\_1, or the terrain with the smallest x and z position values).

Enter the number of columns and rows in your terrain groups, which will automatically create columns\*rows fields for your terrains. Fill these fields in manually, or use the “Auto Fill Terrains” button instead. In order to use the auto fill button and the rest of the script on a terrain group with empty locations, you must check the “Empty Locations Exist” button. Empty locations are only allowed if the following criteria are met:

1. Every terrain in your terrain group follows the naming convention “baseName\_row\_column.” For instance, your first terrain might be Terrain\_1\_1, while your second on the same row is Terrain\_1\_2.
2. You must be tiling only the outer edges of the outer terrains in your terrain group (in order to make a tileable endless world). Check the “Only Tile Outer Edges” checkbox if this is the case.
3. All of your outer terrains must not be empty. This means the empty locations can only exist in the inner terrains.

If you don’t have empty locations, you can also choose to only tile the inner edges of your terrain group. This will stitch these terrains together so neighboring heightmaps/alphamaps blend together nicely, but it won’t alter the outer edges of your terrain group (so your world will not be endless).

Regardless of whether you have empty locations, you also choose to only tile the outer edges (useful after slicing a terrain, since the inner edges don’t need to be adjusted – they already match). Tiling the outer edges will make your world tileable so it can be repeated endlessly.

**Smooth Edges:** If you check this option, the edges of each terrain height map will be smoothed over, which will usually result in better transition from one terrain to another. If you don’t like this effect, you can manually smooth the edges and retile the heightmap.

**Automatically Tile AlphaMap:** If you check this option, the tiler will automatically tile the alphamaps when you press the “Make HeightMap(s) Tileable” button. You can leave this unchecked and tile the alphamaps at a later time using the appropriate button if you wish.

**A note about Undo:** You can undo the heightmap tiling/smoothing by using Ctrl-z or Edit->Undo, however, the alphamap tiling cannot be undone this way (because registering the terrain alphamaps is broken at the moment). When you tile the alphamap, a button will appear below the “Make AlphaMap(s) Tileable” button, which when clicked, will undo the last change to the terrain alphamap(s). Remember, it only works for the **last** change, and if you exit Unity, you will no longer be able to undo the changes.

## **Cut Out Terrain Tool**

**Detail Resolution Per Patch:** You must manually enter this value for the terrain you want to cut, since (as far as I can tell) it's impossible to retrieve this value via code.

**Copy All Trees/Detail Meshes:** Checking these two options will copy every tree/detail mesh to the new cut out terrain, regardless of whether the cut out terrain actually contains the tree/detail mesh. This doesn't mean they will show up on the terrain (unless they're supposed to), but it does mean you'll find them under the "Trees/Detail Meshes" section of the Terrain inspector .

**Store Terrain Data @:** Where do you want to store the terrain data for the cut? This is in relation to the Assets folder (meaning you can leave 'Assets' out of the name). For example, "/" will store the data in the Assets folder, while "/Folder" will store the data in Assets/Folder.

**Increase/Decrease Cut Size:** Increase or decrease the cut size. The size cycles through specific values based on the terrain you are cutting. The largest cut size is always  $\frac{1}{2}$  the width x  $\frac{1}{2}$  the length of your base terrain, while the smallest size is dependent on the various resolutions of your base terrain. Generally speaking, the larger your resolutions, the more cut sizes you will be able to choose from.

**Recalculate Data:** Use this button if you change the size or resolution data of your terrain after adding the cutting tool to it.

**Snap to Common Point:** You can move the cutting region anywhere within the bounds of the terrain, but whatever positions you set it to will not be 100% accurate. This is because the resolutions of your terrain may vary, which effects the final cutting positions. Basically each resolution produces different points at which we can cut, so before cutting, you should use this button to move the cutting region to a point common to all resolutions, which will be 100% accurate.

## **Draw Detail Map & Terrain Slicer Preview Tool**

Adjust the height field to move the map up and down on the y axis. You can change the color of the lines, though white will probably work best.

Both of these tools are best used with a top down orthographical camera.

## **Duplicate Terrain**

This tool can be used on multiple terrains at once. The newly created terrains will be named similar to the original terrain, but will be appended with "\_Duplicate uniqueNumber" , while the terrain data for the duplication will be named 'originalTerrainName\_Data\_Duplicate uniqueNumber'. The duplicated terrain is completely independent of the original terrain. Editing it will not affect the original terrain.