

Tutorial 3- Texture:

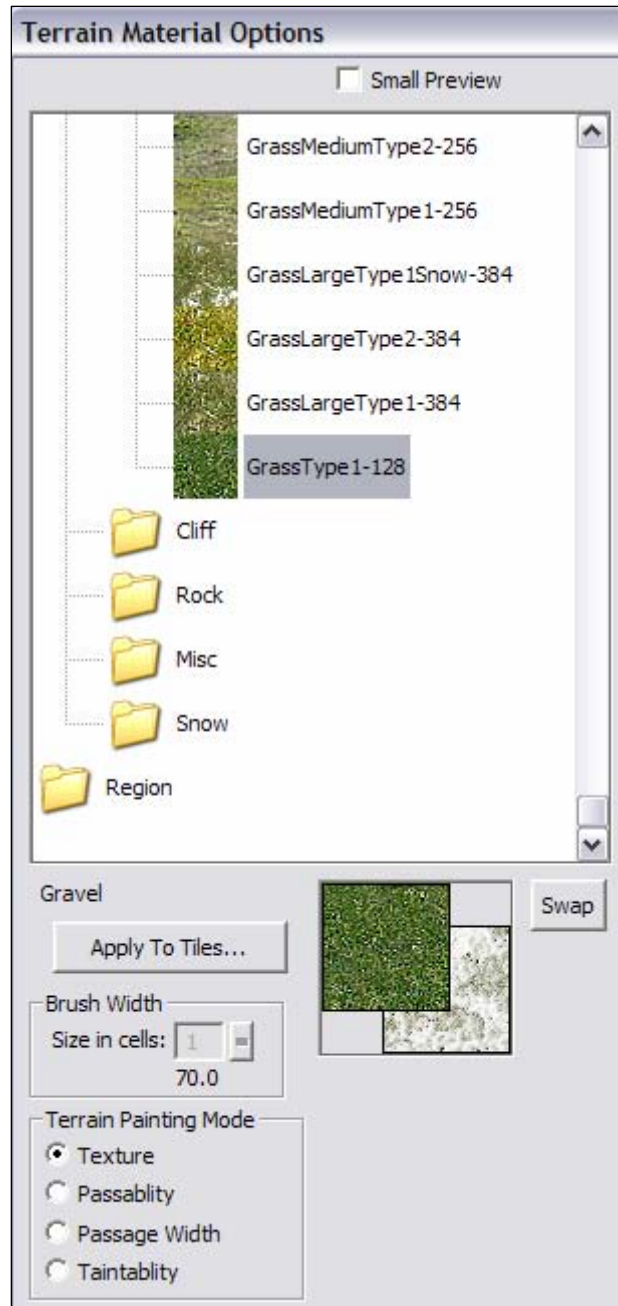
- ♦ First, you will learn how to paint textures using the Single Tile and Large Tile tools

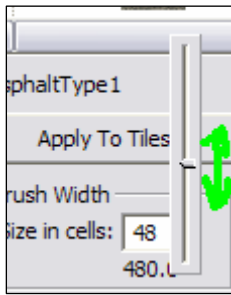
In Worldbuilder, the “terrain” is the ground. In these tutorials, terrain refers to the shape of the ground, and **texture** refers to the look of the ground, or the “texture of the terrain”. The basic way to change texture is to



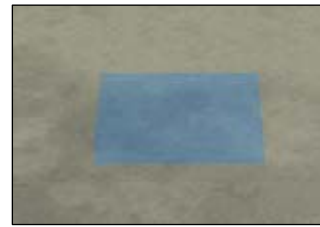
paint the texture. To paint the texture, select the single tile icon. When you do, a small blue square appears on the ground, and the **Terrain Material Options** window appears. This window has all the options you will need to paint textures. The textures are arranged in folders by Type and Region. When a texture is selected, its preview appears in the box below the folders. If you wish to switch back and forth between textures, the “swap” can help. This button toggles between the two selected textures, so you don’t have to go looking through the folders for that other texture. Also, the preview pane next to the swap button allows for you to compare two textures side by side.

To paint the selected texture, click and drag the blue square. There will be a line of the texture. But this is not very practical for painting the entire map, and the **Brush Width** option is disabled in the texture options window. To make the blue square bigger and paint more texture faster, you will need to use the **Large Tile** tool.





This is the **Large Tile** icon. Click it to bring up the Large Tile tool. With this tool, the blue square is bigger, meaning you can paint more texture, and paint faster. Click and drag the blue square to paint terrain.



To make the blue square bigger or small, move the slider found in the texture options window.

◆ How do I use the eyedropper tool?

The **Eyedropper Tool** is useful if you are using a large amount of different textures on a map. This tool allows you to immediately select a texture right from the map, instead of looking through the texture folders for it. To use the eyedropper tool, click the eyedropper icon, and click the terrain. The terrain that you've clicked will now be selected in the texture folders, saving you the time of finding it yourself. If you are making a map with three textures, like this one, this tool is invaluable.



◆ How do I use the fill tool?



The fill tool can be used to change one area of texture to another. Click the **Fill Tool** icon and select the new texture in the texture folders that you want on your map. Then, click the area of texture that you want to replace. For example, look at the picture with three textures in the section above. If I wanted to change the dark green terrain to a bluish rocky one, I could use the fill tool after selecting my new terrain in the terrain folders.



♦ **How do I make the terrain look realistic?**

At first, most people may find that their terrain does not look realistic, or like other maps in the game. Here is an example of some grass, a path, and a ridge with trees. Good-looking terrain like this takes time and experience.

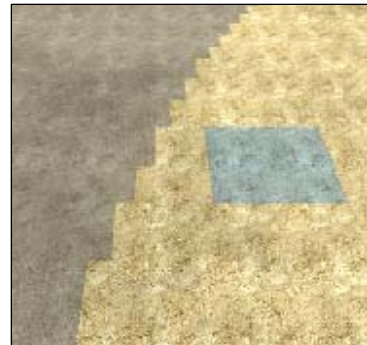


When making textures look realistic, there are two key ideas to always remember:

1. Make sure the edges between the textures are smooth. Use the terrain smoothing tools for this (mentioned below). There should be no reason to leave ANY un-smoothed textures in a multiplayer/skirmish style map.
2. Make sure that you **use a variety of textures** in your map. Using only 2 or 3 textures looks quite bad and unrealistic. To see how to vary terrain and make it look realistic, download and look at high-quality maps. Or even better, look at the maps made by EA. The number of different textures should be 20-25 in a high-quality map. It should not take more than this to make a good-looking map, but beginning mappers should start lower and work up to this amount as they gain mapping experience.

♦ **How do I smooth the edges between textures?**

To smooth the edges between areas of textures, use the **Auto-Edge-Out** tool or the **Auto-Edge-In** tool. Click the icon of the tool you want to use (shown above, respectively), and click an area of terrain you wish to smooth. Shown to the right is an edge of two textures that is very blocky. I've selected auto-edge-out and click the yellow texture. As you can see, the edge between them is now smooth and not so blocky.



These tools should always be used. As I said above, there should be no reason to leave un-smoothed textures in a multiplayer/skirmish style map.

Generally, you can use auto-edge-out for all of your smoothing, but if you find that it doesn't do what you want, undo the smoothing, and try it with the auto-edge-in.

♦ **How do I fix texture squares that aren't smooth?**

Sometimes, you may find that the “auto” tools for smoothing sometimes leave behind texture squares that are not smooth and are very blocky. An easy way to fix this is to repaint the textures so that there are no textures that are very skinny. Another way is to manually blend two texture tiles together at a time.

To do this, click the **Blend Single Edge** icon. Then click and drag any texture square to another one. Worldbuilder will take the texture from the first square you clicked, and blend it into the square you dragged onto.



It blends the texture on the same side or on the same corner as the direction of the first texture square. To fix blocky textures, go through all of the blocky squares one by one and blend them with the squares they are next to. One square may often stick out from where you want it, so you should use the “Single Tile” tool to repaint the square what you want and try reblending it.

In the example to the left, I've used the blend single edge tool to add a stony corner to a tile of snow. To do this, I've clicked the circled tile, and dragged it to the tile I've pointed to. This example should give you a clearer picture of what this tool does.



Now, I will show you an example of how easy it is to make a great looking area of terrain. Let's say I want to make an area of grass on my map. The first thing to do is to find two textures that are very similar (The preview pane below the texture folders is very useful for this). I've drawn in patches of dark green onto the light green. This is the first step to combine textures together.



The next thing I've done is mixed the two textures together more.



In this picture I've added a third texture onto the map. As you can see on the top right of this picture, it is very helpful if you paint the textures you wish to use at the side of the map to see what they look like compared to each other on the map.



After blending the textures together, here is an up-close shot of a part of the terrain. Some areas of terrain may not look as good as others, but keep trying and mixing the textures together.

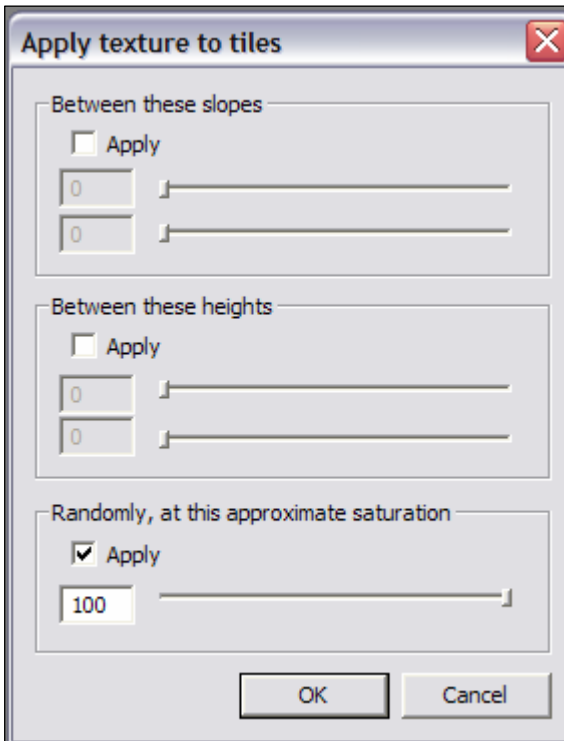


Often times, it is a good idea to add a path through your map. It can make your map seem like a real place. When making a sand path, use a few different textures and smooth them together to make the path realistic.

♦ How do I apply textures to tiles based on height, slope, or do it randomly?



When making a map, it can be very time consuming to paint all of a map one texture, or painting textures to terrain at a certain height. Lucky, there is an automatic tool to paint textures in Worldbuilder. To use this tool, click on the **Apply to Tiles...** button below the texture folders in the texture options window.



This opens the **Apply texture to tiles** window. This window includes tools to help you paint your map's textures faster. The tool most used here is the one that applies textures randomly. It will take the texture you've selected in the textures options window and paint it randomly around the map. One useful application of this is its ability to paint the entire map one texture. Simply click the bottom **Apply** box and move the bar until it reaches 100. The texture will be painted over the entire map.

When starting a map, it can be very helpful to paint a background texture scheme over the entire map, so you only need to paint in areas that are *not* the background texture.

To paint a combination of 2 (or more) textures as your background texture, choose the two textures you want. With the first one selected, paint it to the entire map. Then, paint the other texture randomly at 50% saturation. Be careful if you do this though, because you should only choose two textures that are very similar. Choosing two contrasting textures leads to a pattern where you can easily see the individual texture squares (an example is on the left).



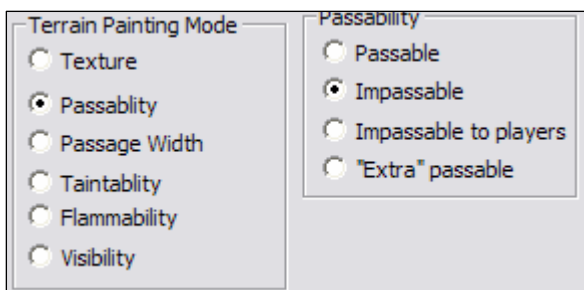


Here is an example of two textures I've blended together as my background texture using the method I described above. The most important thing to remember is to make sure that the two textures you choose look alike. And if they don't look very good, you can always try it with two other textures.

TIP: Blending together textures one by one can take quite some time. To save time, use the “Global Blend” tool. Use this tool by holding “SHIFT” and using the auto-edge- in/out tools. Worldbuilder blends all of the textures that are alike to the one you clicked in or out, depending on which tool you used. This tool is very important, so make sure you use it when you can.

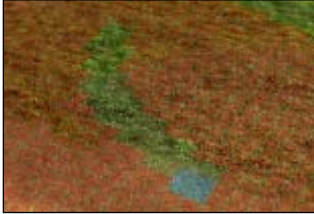
◆ How do I change other properties of the terrain, like passability?

Passability is whether or not units can walk on the terrain. It doesn't make sense for units to walk over mountains or across deep rivers, so you have to tell the game to not allow units to walk on certain areas. For example, to the right is a picture of a mountain. If I don't want units to be able to walk across the mountain, I can use texture paints to make some areas of terrain impassible.

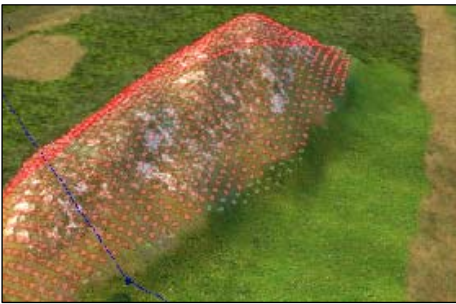


Under **Terrain Painting Mode**, select **Passability**. This brings up the passability options. Select **Impassable** to paint areas impassible. There should be no reason for you to select **Impassable to players** or **“Extra” passable**.

Selecting a different painting mode will allow you to see impassable areas. The red areas are impassable, as shown to the right. Simply paint with the large or single tile tool and the impassable areas will be painted onto the map.



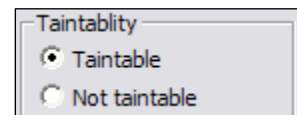
You can paint terrain passable just as easily. Select **Passable** in the right box, and you can paint terrain back to passable.



Worldbuilder will automatically make terrain that is steep impassable, but you should manually make mountains impassable. It is also important to fill in the holes so there is no “Island” of passable terrain in a sea of impassable terrain. It may be helpful to switch to a down point-of-view. This is explained in Tutorial 1.

Taintability is very much like passability. Taintability determines if a player can taint the terrain using a special power, such as Elven Wood. Taintability also affects whether a player can use *any* special powers on the terrain, such as a summon.

Paint taintability by selecting the bottom choice in the left box, then select the type of terrain you want in the right box. In general, all terrain that you paint as impassable should also be painted as untaintable. Failing to do this means that a player can summon units on an area, but those units can't move.



The **Passage Width** option should never be used in a multiplayer/skirmish style map, so beginner mappers should stay away from this painting mode.



Flamability mode allows you to paint an area to be able to set on fire. You should put flammable areas in strategic locations, like a forest, to give players a clue that the area is flammable. And try not to put a fortress near a flammable area.



You also can use **Visibility** mode to make terrain invisible. Use this on special maps only, not on skirmish/multiplayer maps.

♦ How do I paint terrain or passability in a straight line?

If you remember back to the last tutorial, you learned how to use the **Lock Angle** tool to shape terrain in a straight line. You can use the same tool when painting textures. When this button is selected, you paint textures and passability in 8 straight lines away from where you click.



TIP: You should always paint a line or two of unpassable terrain around the border of your map. This prevents units from “leaving” the map during a game, which may happen if you don’t paint this strip of unpassable terrain around your map.





To progress to the next tutorial:

- ✓ Create a new map named “Tutorial 3” and make the map 200x150 ft.
- ✓ Make a background texture for the map using a combination of two textures (bottom of page 6). It must look realistic!
- ✓ Using your terrain skills, make a mountain on the map, and paint it with a combination of three or more textures. You must also paint the mountain impassable and untaintable.
- ✓ Using a contrasting color, write your name/nickname next to the mountain using the single tile tool.

- ✓ Open your “Tutorial 2 Map 1” map and “Save As” it as “Tutorial 3 Map 1”. Repeat this with your “Tutorial 2 Map 2” map, renaming it “Tutorial 3 Map 2”. Remember to use **Save As!**
- ✓ First with your Map 1, paint the entire texture for that map. Remember to use at least 10 different textures and to paint passability/taintability as well.
- ✓ Do the same with your Map 2. You should refer back to the “Idea Bucket” to make sure both maps are being made like they should be, and the maps must look realistic (see page 3).

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