

# Making Your Own Tile Set

## By SlowHandd

So you're tired of using the same ol' tile sets for TA, and want to make your own. Well this tutorial will show you how, and its easier than you think.

### What You'll Need

You'll need at least the following software tools to make your set.

- Photoshop or Paintshop Pro
- Annihilator v 1.5

Of course you'll need a graphics editor, and the above two are extremely popular and versatile. You'll also need Annihilator because TAE just doesn't cut it. If you've never used Annihilator, get it from the Resources page here at Tamec. You'll never use TAE again!

You are also going to need TA's palette. TA uses a custom palette of 256 colors and all the images you make need to use this palette. You will edit your image in 24 bit mode, but when you save it, you must apply the TA palette first.

### How to Make your TA Palette

Making the palette is very easy. Perform the following steps to create it.

1. Launch Annihilator
2. Choose any tile from any set in the tiles window.
3. Right click on the image, and then choose Export Bitmap from the pop up menu. Name the bitmap anything you want, and save it in your TA\Bitmaps directory.
4. Launch your graphics editor.
5. Load the exported image into your editor.

PaintShop Pro users:

6. Color/Save Palette from the menu bar.
7. Save the palette using the name "TA.pal" in your Paintshop\Palettes directory

PhotoShop users:

6. Choose Image/Mode/Color Table/Save
7. Save the palette as TA.act in your TA\Bitmaps directory.

You're done.

### How to Apply the Palette to Your Final Image

Before you save your work done in the graphics editor, you must first apply the TA pallette file. Here's how.

PaintShop Pro users

1. Choose Color/Load Palette from the main menu bar
2. Select the TA palette

3. Choose the option button, Error Diffusion Dithering
4. Click Okay

#### PhotoShop users

1. Choose Image/Mode/Indexed Color. A dialog window will appear.
2. On the dialog window, Select Custom in the top drop down list.
3. Click the Load button, and select your TA.act file.
4. Click OK. Another dialog window appears.
5. In the Options pane, select Dither from the drop down list.
6. Select the option button titled Best.
7. Click Okay.

The palette is now applied, and you are ready to save your image. Save it as a bmp file.

#### The Basic Steps to Creating a New Tile

Here are the basic steps you need to take to create a new tile and save it in a new tile set.

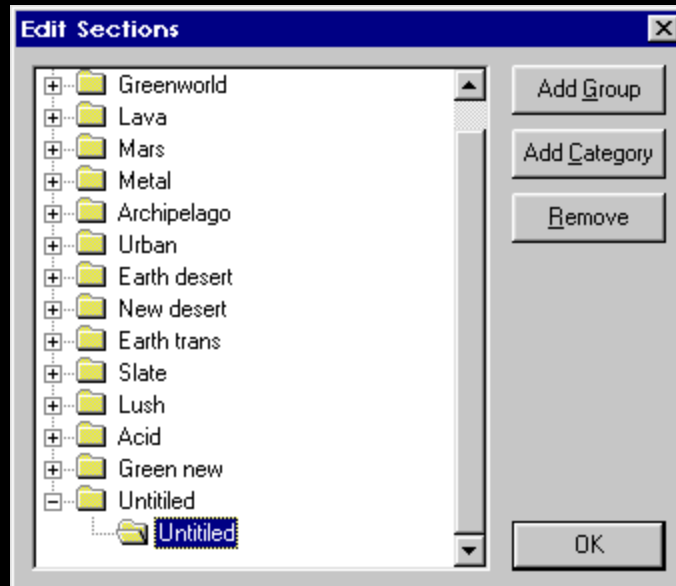
1. Create your image(s) in your graphics editor.
2. Apply the TA palette, and save the image(s) as .bmp file.
3. Launch Annihilator.
4. Create a new map, and make it's dimensions large enough to accommodate all the tiles you made.

Now you'll create a temporary group and category to load your bitmaps into.

5. In Annihilator, select Sections\Edit Section Groups.



6. Click the Add Group button - you don't need to name it. Leave it "Untitled"
7. Click the Add Category button - you don't need to name this either



Your result

8. Click Okay

Now you import the bitmaps

9. Select the Group in the section palette (where the sections are displayed). It will be blank.

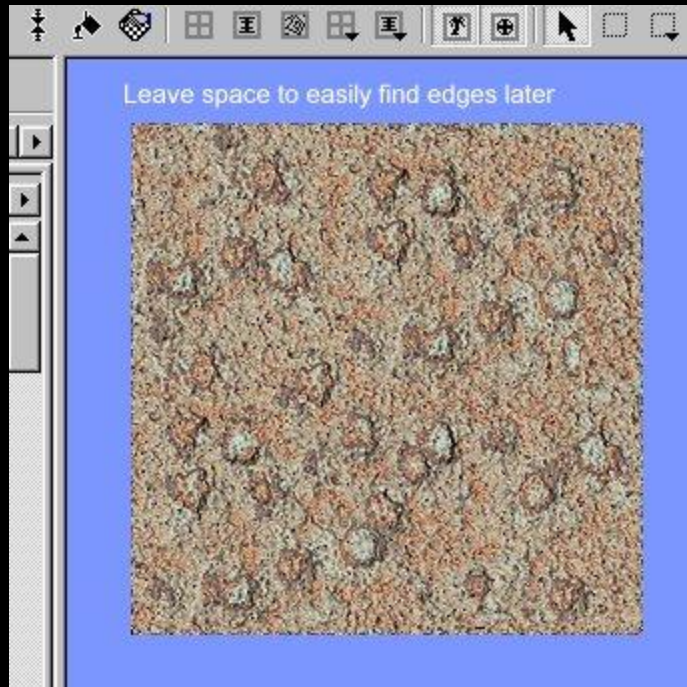
10. Select Sections\Import Bitmap from the menu bar



11. Find your image, then click Okay.

At this point, your image will be in the new group you made. There is no height info in the loaded bitmap. You need to edit the underlying mesh, and then copy the tile into another, final group.

12. Place the image on your map. Leave a border of void space at least one tic (sixteen pixels) around the placed tile.



13. With the section still selected, choose Section/Set Height offset, and enter the number for the base height.
14. Unselect the section, then choose Sections/Set Height offset, and enter 0. If you need to select your tile again, you don't want to apply the offset again.
15. Choose Show Grid mode and work the mesh until you have it match your tile fairly accurately.
16. Click the Show Contours button, and refine your mesh so that the contours match the image.

The next step may have already been performed if you are adding to an existing group. Here's where you create the final group

17. Select Sections/Edit Section Groups, and create a new group and category. This time be sure to name the group and the category to what you are creating. Example: Jupiter/Cliffs
18. Find the group you made and choose the appropriate category.
19. Select your section on the map (make sure height offset is zero)
20. Press CTRL+P to add the tile to the group.

Now you are ready to save the tileset.

21. Select Sections/Save HPI Tile set.



22. Name the set the same name as the group for easy reference.

23. Click Okay.

You are done! You have saved your first tile in your custom tile set. More tiles can be added to the set anytime you want to work on the set.

**Important!** Always import your bitmaps into a temporary group and category. It will save you a lot of grief if you make a mistake and put down a tile without height info. Your temporary group and category need not be saved. You only need to save the group (tile set) that you are making.

Okay, so far so good. It's simple, isn't it? Nothing to it. You now know how to make a tile set. The following is stuff beyond the basics.

### Editing or Creating Your Image in Your Graphics Editor

You'll do all or most of your editing in 24 bit mode in your graphics editor. This is the only mode that allows dodging, burning, pattern filling, and most of the other goodies the editor allows. You need to master all these tools, and though I can't really help you there, I can't think of a better way to learn than making tile sets. Its fun! And its rewarding!

The tools you'll find most useful are

- Paint bucket (for pattern filling)
- The Lasso and Magic Wand
- The Clone Brush
- The Dodge and Burn tools
- Texturing Filters

The first thing you'll want to make is the basic background. If you are making a grassy set, make your grass flats first. Likewise, if you are making a desert set, make your desert flats first, and save these! You can then add stuff to these tiles, and save as another tile. You can also use these tiles as the fill pattern to go around hills or mountains, or craters or water

**There is a right way and a wrong way to make your flats.** Memory requirements of your map are very important, and the right way will save you a lot of memory when making a map from your set. Here is the right way.

Make your first flat 256x256. This tile will be broken down into 16x16 textures in Annihilator. If you copy and paste the 256x256 tile into a 512x512 image 4 times (or fill the new image with the pattern of the 256x256 tile), the number of textures that will be

parsed by Annihilator will still be the same number as if your 512x512 tile was only 256x256. This saves a lot of memory! Water is also a flat. Do the same with your water. Then when you fill around a mountain or hill, fill with the same pattern as the flat. Some of the 16x16 sections that get parsed will be the same as your original flat. You save memory again!

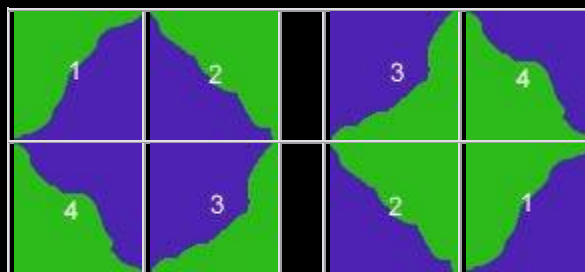
If you are making blending tiles, such as Greenworld to Lush, make your flats first, then create a new document and fill with one of the patterns. Then use the lasso tool, and fill the selection with the other. The result, of course, will be a hard edge between the two textures. You can smooth that hard edge with the Clone Brush, and again there is a right way and wrong way to do this. The right way will not only save you memory. It will also make the task a lot easier.

### **The right way to feather the edges the Clone Brush**

Always choose 'Aligned' for the cloning method. This means that as you move the brush, the source location will be offset from the original point used for cloning from. Use the exact center of the source image and the exact center of the destination image. Click once on the destination image, then lift the pen and clone along the edge of the two textures. Use 100% opacity, and set the brush spacing to 25% (or more), a soft edged brush, and a step value that will allow the underlying colors to show through. This provides a soft edge, and uses the original colors, which will make rendering better when you load the palette for saving your image. If a color is not in the palette, it will be created by dithering, and dithering can sometimes destroy all the hard work you went to if you use an opacity less than 100%. It can even end up looking really awful due to the extra graininess caused by dithering.

### **The Right Way to Make Blending Tiles**

All too often, people choose the wrong method for making blending tiles. They use edge centers. They'll use the top and bottom edge, or right and left edge. This limits the amount of shapes that can be made with these sections. The right way is to use the corners of the tiles. Use the bottom left corner and the top right corner where the two textures meet. This allows the tileset user to create nearly any shape he wants on his map. Take a look at the following images to see what I mean. You get two blending options for one. Corner to corner is a lot more versatile, and requires fewer tiles which saves you work!



### **Burning and Dodging**

These two tools are used mainly to give the impression of height. The main thing to remember is to be consistent.

Light comes from generally one direction, as if a sun were shining. Dodge on the side that the sun comes from. Burn on the opposite side. Be consistent from hill to hill! Notice that the trees in TA cast shadows roughly 45 degrees to the NE. Cast your shadows on hill about the same to maintain a realistic look throughout your map. Below is a sample picture that used only dodging and burning to create a hill.



### **Fine Detail Work**

When you want truly fine detail work, use the TA palette colors to avoid dithering that might destroy the detail. The palette is always available, and should be put to use or your entire set will lack detail here and there. This detail makes all the difference in the world. Use these palette colors to add interest to grass or rock, or any time you need fine lines that cannot be dithered.

### **A Real Time Saving Tip - Make the Whole Set at Once**

Lay all your tiles out on a temporary map, and be sure to separate them with void space so that you can easily select them. Save this map so that you can come back to it if you need to make changes, or add tiles. After all your sections are meshed and double checked for height, then create the final group and categories and copy them to their appropriate categories in an order that makes sense. For example, you'll want to copy to palette all your east facing coasts, then the west coasts, then north, then south. If you are making hills, copy to palette all your 256x256 sections, then your 512x512s. It keeps the set nice and orderly.

If you are making coastal tiles, be sure to make at LEAST 3 of each tile. In other words, 3 east coasts, 3 north, etc.. And corners too. You'll want variety.

If you are making hills that can be climbed from one side, make hills that can be climbed from the other side too. Make it possible to provide equal opportunities to all players.

### **One Final Word**

You can avoid a 'tiled look' on your map if your tiles are various sizes. Don't limit yourself to 256x256 tiles or 512x512 tiles. Make tiles that are 256x512, 1024x512, or 512x768. Don't just make square tiles! Make them irregular shaped. And the larger the section the better. Your maps will be more convincing if your sections are all different sizes. But be sure to stay with multiples of 256 for either dimension of a section. This makes it a lot easier to fit the tiles together.

### **Now Go to Work!**


You can modify existing tilesets, or create a brand new look. Make mountains, hills, coasts, ridges, depressions... make it all! The more geographical features your set has, the better. You can do it! It only takes time and patience, and the rewards are great!

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### **A Bonus Tip - Graphically Editing an Existing Map**

Have you ever made a so-so map that with just a little graphical work, a certain area of the map would look super fantastic? You can do it! Here's how.

1. Make your map.
2. Create a temp Group and category underneath, then select the Group.

3. Select the area you want to paint on, then press CTRL+P to copy it to the palette. (Nearly any size can be picked up - use big ones!)
4. Right click on the temp tile, and export as bitmap.
5. Load your bitmap into your graphic editor, and make the changes you want. Save the tile (remember to use the TA color palette).
6. Back in Annihilator, Import the bitmap (choose Sections\Import Bitmap)  
**DO NOT PLACE THE TILE YET! You must empty the brush first, so right click on your map to empty the mouse pointer**
7. Click on the Selection Option button , and uncheck the height option.
8. Now, select the section in the palette, and place your imported tile over the exact same place you picked it up from. The underlying mesh will match perfectly, unless you added/alterd hills.

Voila! A custom map that doesn't need meshing!

Try it! Pick up three or four unequal sized large areas and change the look of your map almost effortlessly. You won't get a tile set this way, but you'll probably get a very nice map!