

-Creating Custom Textures

This tutorial will cover the steps needed in creating a custom texture and inserting it into a .pk3 file so that it can be used in your maps.

What you will need before you begin:

*Pakscape (Or some other way to manage .pk3 files)
Paintshop/Photoshop*

****For this tutorial, we're going to use filepaths and names that I made up, for simplicity. Later on, you can change them to whatever you'd like.****

Step 1: (Choosing and prepping the texture)

Find a texture you want to use that's not included in the game. Edit or resize it as you see fit. When you choose to save it, there are two file formats available for you to choose from- .jpg or .tga. The difference between the two is that .tga's are of a much higher quality, but are also bigger in size. So, if you're going to include a lot of custom textures, you need to keep an eye on how big the files are because it will dramatically impact the size of your .pk3 file. For the sake of this tutorial, name your texture axion_1 and save it. Make a folder on your desktop called axion and place your texture inside.

Step 2: (Creating a shader for your texture)

Shaders are short text scripts that define the properties of a surface as it appears and functions in a game world (or compatible editing tool). The properties of your custom texture will depend on what type of texture it is. If you have a concrete texture, you're going to have to designate surface properties for it that would fit its description. So, let's say you have a concrete texture. Well, let's dig through the .pk3 files that came with Mohaa and find a shader for a concrete texture:

****NOTES ARE IN BOLD****

textures/general_structure/concwall_hall1 (This is the path to where the actual picture is stored)

```
{
  qer_keyword concrete (This is a keyword for the texture-type)
  qer_keyword wall (This is a keyword for the texture-type)
  surfaceparm stone (This dictates the actual properties that the texture will have in the game)
  {
    map textures/general_structure/concwall_hall1.tga
    rgbGen identity
    depthWrite
  }
  {
    map $lightmap
    blendFunc GL_DST_COLOR GL_ZERO
    rgbGen identity
    depthFunc equal
  }
}
```

You can look at other shader files and see how they are written to give you ideas for how shaders are written for different types of textures. For a more in-depth explanation of shader components and their explanations, refer to the Quake 3 Shader Manual (http://www.qeradiant.com/manual/Q3AShader_Manual/).

Remember how I said at the very beginning of this tutorial that we're going to use filepaths and names that I made up? Well, make sure you change these lines in your shader (The keywords and surfaceparm values are the only other things that should be changed, and those are going to depend on what your texture is of):

```

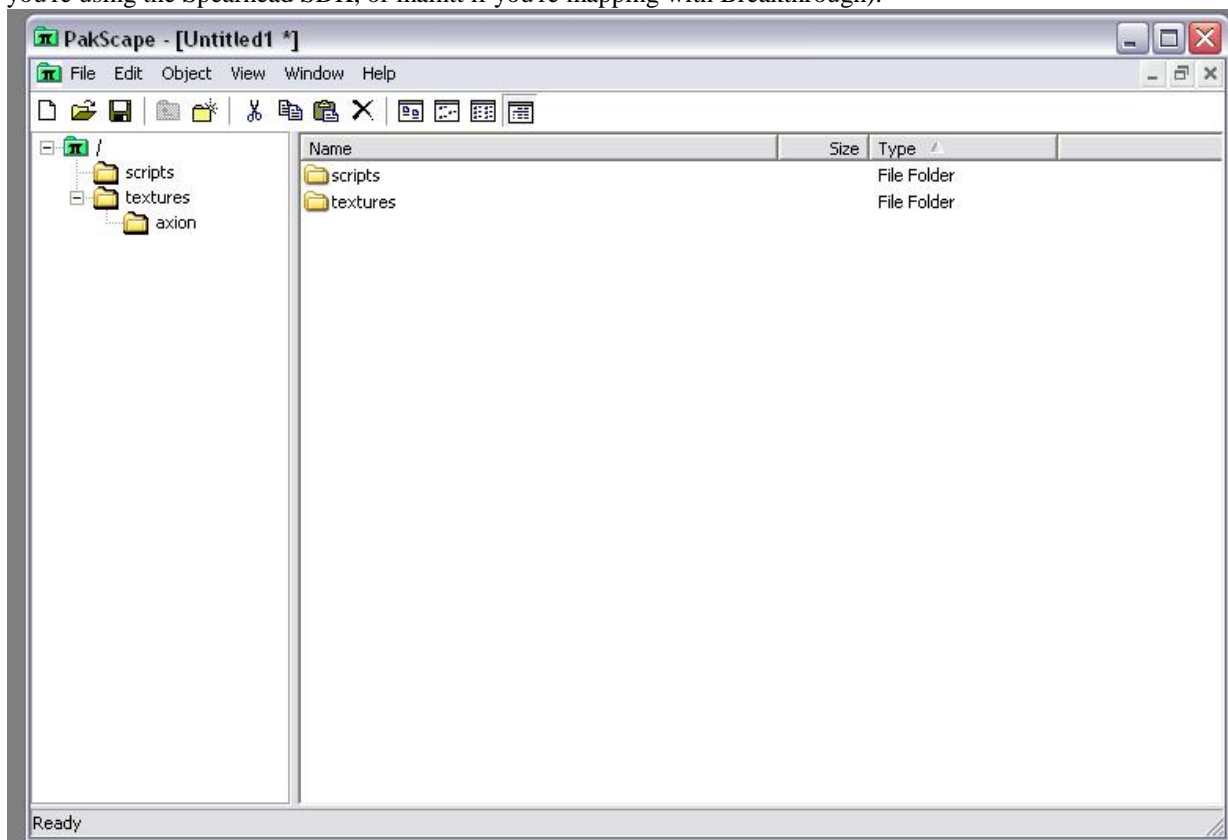
textures/general_structure/concwall_hall1 -----> textures/axion/axion_1
{
    qer_keyword concrete
    qer_keyword wall
    surfaceparm stone
    {
        map textures/general_structure/concwall_hall1.tga ---->textures/axion/axion_1.tga (or .jpg if that's what
you saved the texture as)
        rgbGen identity
        depthWrite
    }
    {
        map $lightmap
        blendFunc GL_DST_COLOR GL_ZERO
        rgbGen identity
        depthFunc equal
    }
}

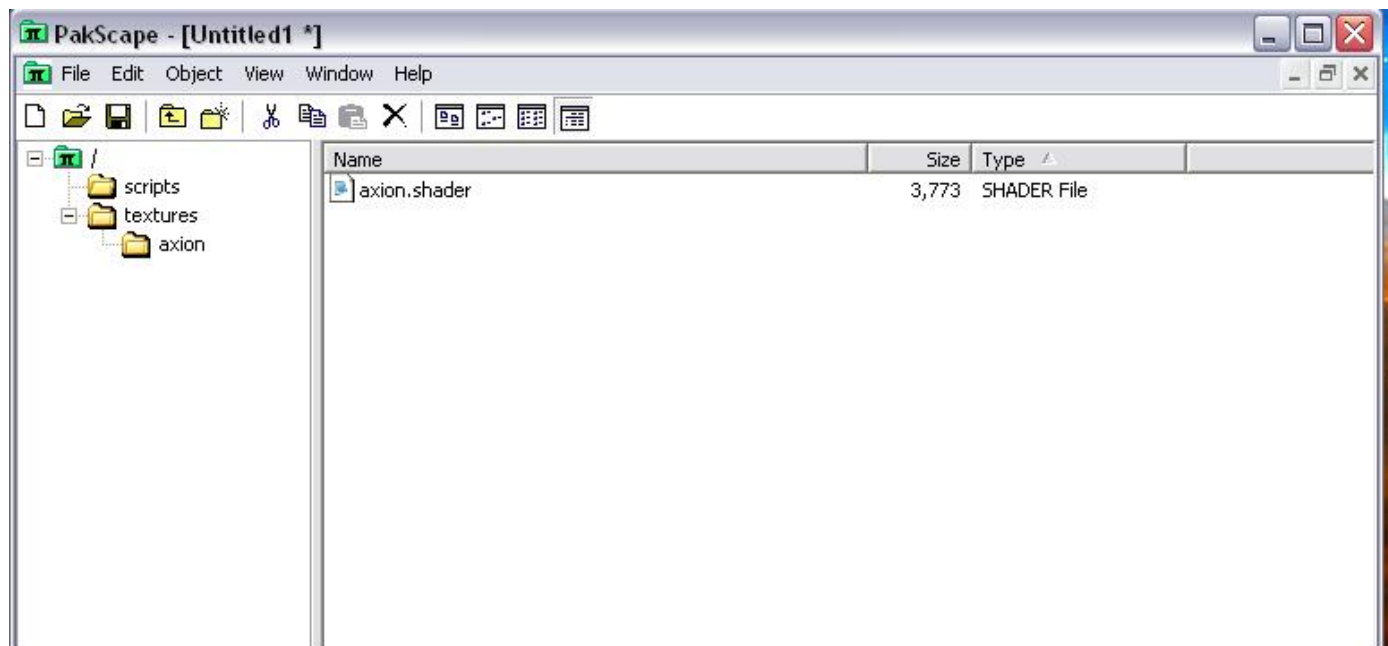
```

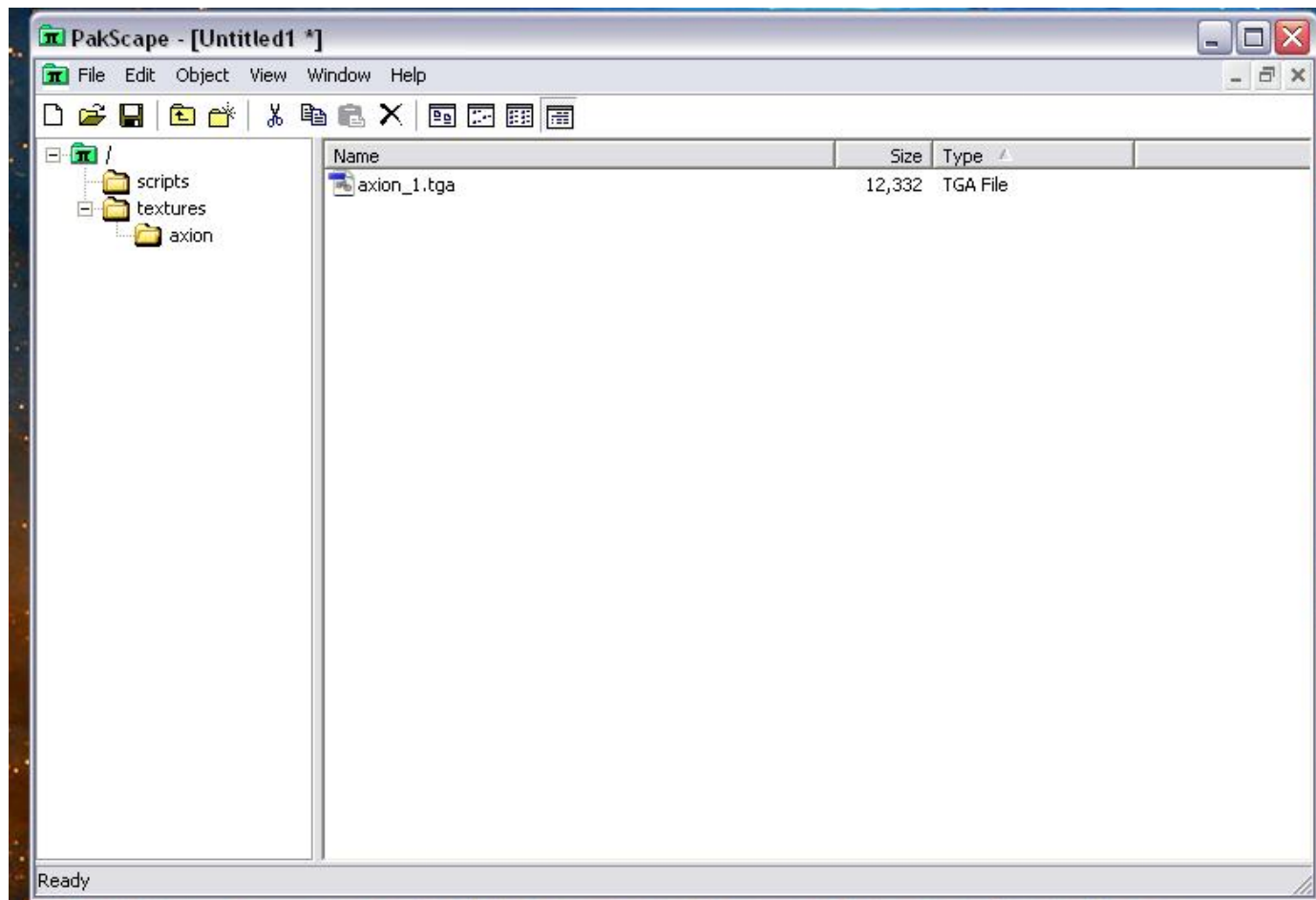
Once you've gotten a good idea for how to write a shader, creating one is easy. Just open up Note Pad and write your shader. When you're done, go to 'save as', and make sure that in the 'save as type:' box, you switch it from *.txt to 'all files'. Then, just name your file axion.shader, and it will save the file as a shader file. Now, create a folder on your desktop, name it scripts, and place your shader inside.

Step 3: (An explanation of the file sytem/Putting it all together)

Now you have to put your folders that contain your texture and shader into a .pk3 file so that you can load your texture into radiant. Using pakscape, create a folder named textures, and then place the folder named axion (which should contain your texture, named axion_1)inside. Now go back to the main pakscape directory, and place your scripts folder. Now save your .pk3 as user-axion.pk3 and place it into your main directory (mainta if you're using the Spearhead SDK, or maintt if you're mapping with Breakthrough).







We're almost done!

Now open MOHRadiant and go to textures ----> Axion and select it, and your custom texture should appear for you to use. Hooray!