

WHAT YOU NEED:

- knowledge of exporting vtf files using vtex.exe
- creating displacements in the hammer editor

1. MOTIVATION

Years before the Source engine was released games used separate textures to blend materials. If you wanted to blend a rock into grass you created a third texture for the blending. That was yesterday!

Today you can utilize a simple blendmaterial with a vertexcolor to linearly blend two materials. This is a 100% dynamic feature so you don't need any special or additional textures but it looks kinda crappy too, because your fine details get soft blended and „blur“ out. This effect is frustrating.

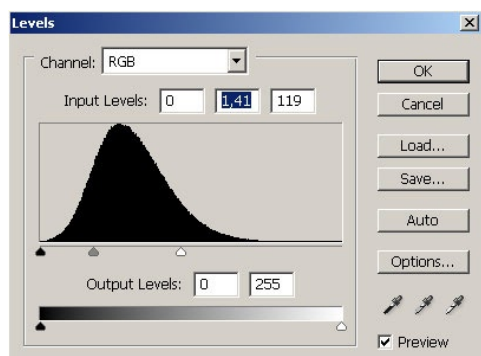
Using a blendmaterial with a blendtexture (or a blendmask) you can keep your fine details while blending from one material to another!

2. CREATING THE BLENDTEXTURE

First you need two textures you want to blend together. I took a rock and a grass material for this tutorial. Please forgive me that I was too lazy to make my textures tileable ;)



You should pick one material that will be masked („will the grass cover the rock or will the rock cover the grass“). I took the second phrase. Open your rock texture in Photoshop and desaturate it.



Then open the „Levels“ editor and move the white slider to the left until your image gets pretty bright. Don't give it a high contrast! Select the whole image and copy it to the clipboard.



Blend textures in Half-Life 2

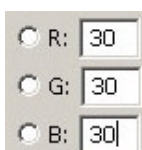
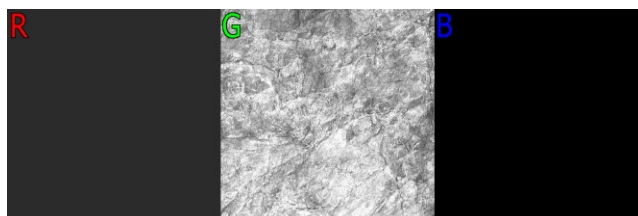
Tutorial by Thomas Heß

www.thomashess.net



Create a new file (RGB!!!) and flatten it while giving it a black background color.

Go to the channels window and paste your clipboard to the green color channel. White areas will be drawn as rock in your blending material.



Switch to the red channel and fill it with a dark grey. I pick [30 30 30]. The red channel is balancing the blendtexture to the standard vertexcolor linear blending.



A white red channel means: don't use any blendtexture effect. Only create a linear blend. (this would be senseless usage of a blendtexture)



A grey will be a mix of blendtexture and linear interpolation.



A black channel would be 100% blendtexture effect (doesn't look that good at all).



3. WRITING A BLENDING MATERIAL

Save all your textures as tga files in the materialsrc folder of your mod. convert them to vtf files using vtex.exe.

Switch to you materials folder and create a new vmt file with notepad or wordpad (or any other texteditor).

Paste and modify this content:

```
„WorldVertexTransition“
```

```
{
```

```
    „$basetexture“ „blendtutorial/rock“ // the first textures name. I did choose rock in step 2
```

```
    „$basetexture2“ „blendtutorial/grass“ // the second texture
```

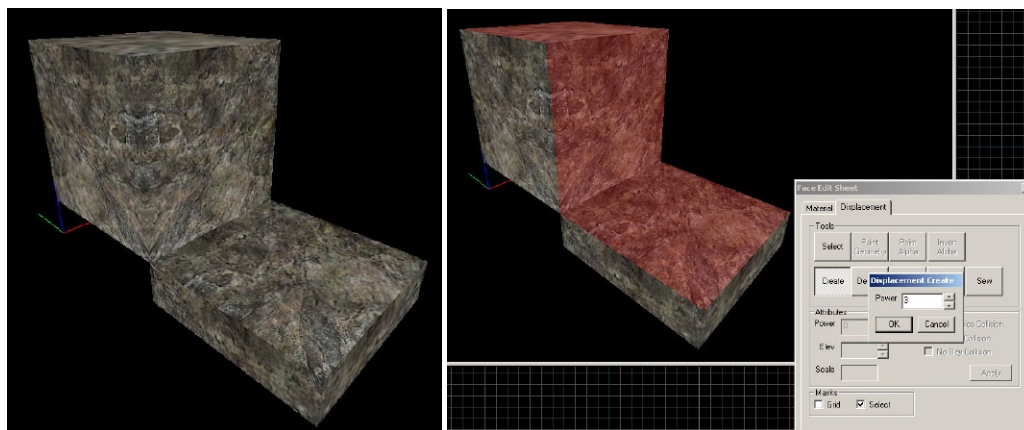
```
    „$blendmodulatetexture“ „blendtutorial/rock_blendtexture“ // the blendtexture
```

```
}
```

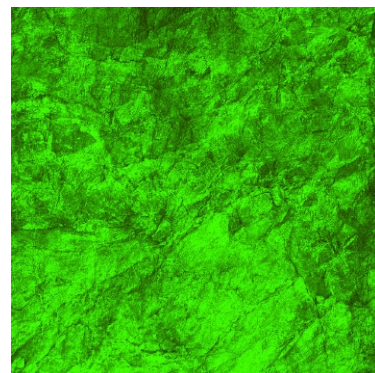
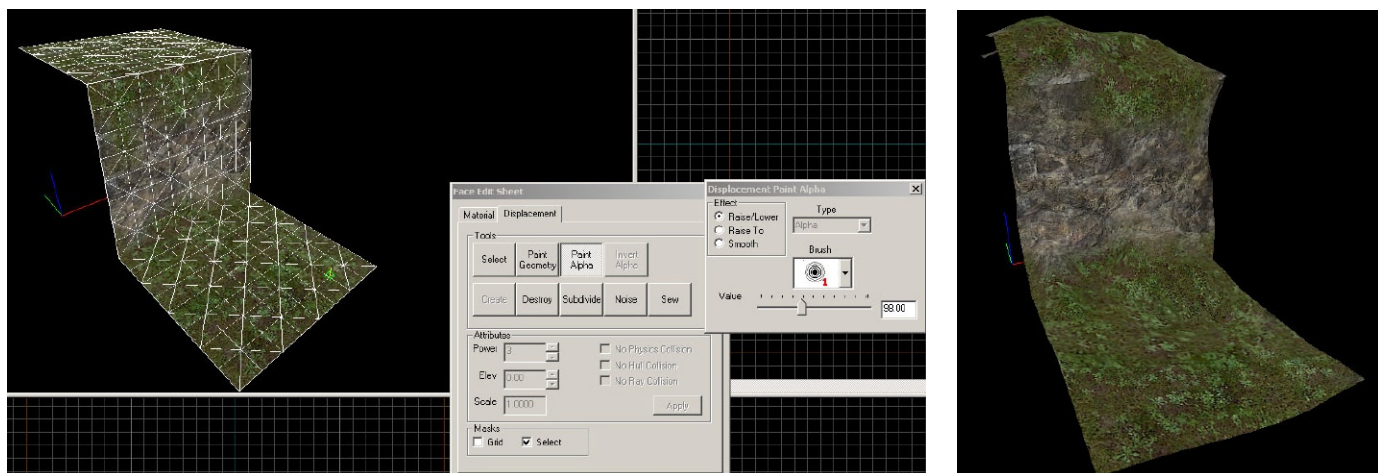
As you can see I wrote rock always as first because I made a rock_blendtexture. So please be consequent and name your vmt „blend_rock_grass“ and not „blend_grass_rock“ to keep your code clean.

4. APPLIEING THE MATERIAL

Open your hammer editor and create two brushes. Assign your material on them. Now select all the faces you want to simulate a grass -> rock -> grass surface.



Pick paint alpha to paint your grass on the displacement. Then use the „paint geometry“ mode to add a more natural shape to your displacement.

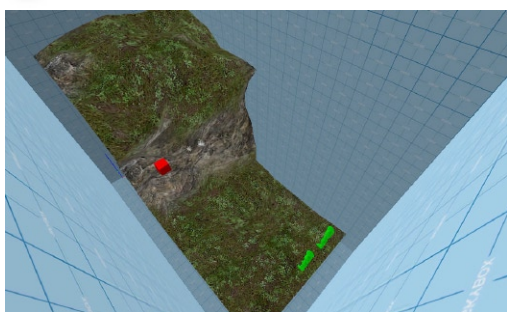




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Add a sky and some spawnpoints, save and compile now :D

