

Creating normalmaps for 2D characters

by André Santee

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This small tutorial will show you how to make normal maps for simple 2D RPG characters that were not originally made using a 3D modeling tool, like the one below:



Notice that the result may not look as good with other character sprites, and will work most of the times only with sprites that are similar to this one.

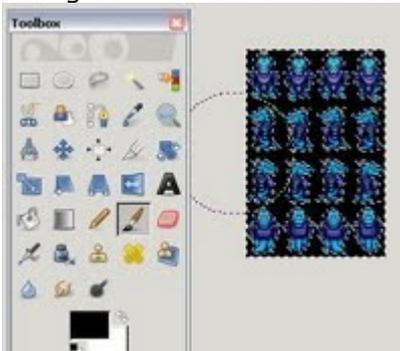
This tutorial assumes that you have basic knowledge on any image edition tool such as Photoshop or Paint Shop Pro. Since the basic image editing tools are pretty much the same from software to another, it assumes you can find out how to perform basic operations by yourself.

Programs I'll use:

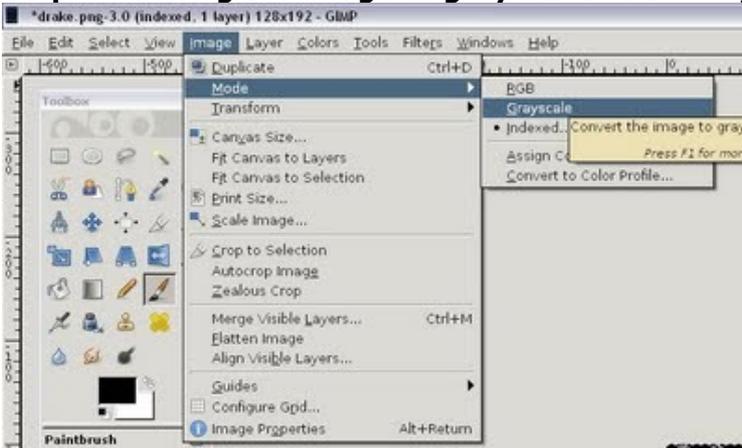
- [Gimp](#)
- [Gimp normalmap plug-in](#)

Download and install both Gimp and its normal map plug-in before proceeding.

Step 1 - painting background to black: open your drake.png file with Gimp, and paint it's background black to make sure it won't have any unexpected bump:

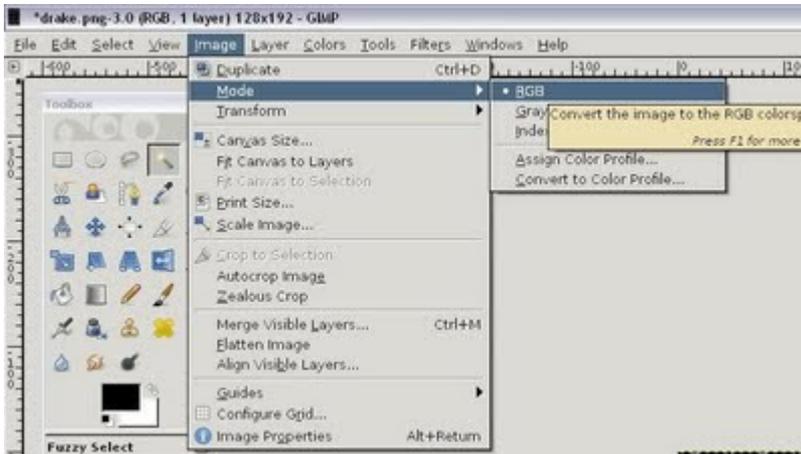


Step 2 - setting the image to gray scale: click Image->Mode->Grayscale.

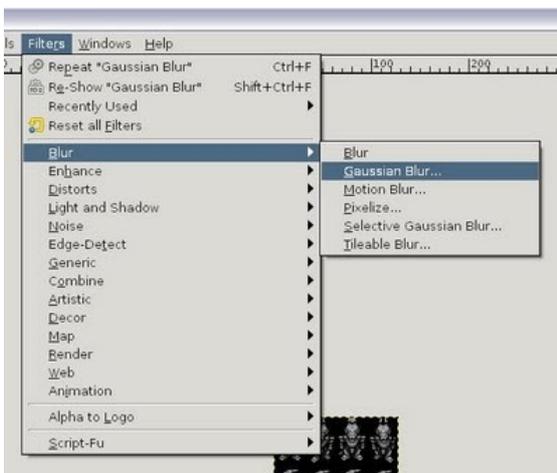


That will turn our bitmap into a grayscale image. This is important so that we can see what parts of the image are becoming bumps.

Now click Image->Mode->RGB to go back to colored mode. If we don't do that, our normal map plug-in won't work:



Step 3 - blurring the image: now we are going to apply some blurring for a better visual effect. Click Blur->Gaussian Blur...

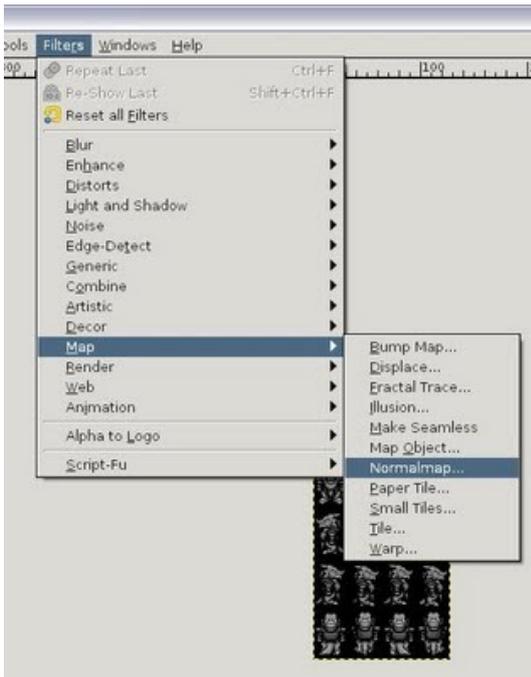


1.0 for both horizontal and vertical blur is a good value, but you can try other intensities. Be careful not to blur it too much:

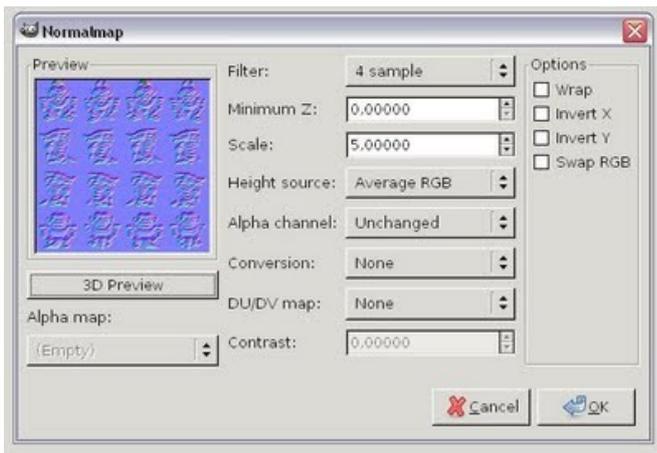


Click OK.

Step 4 - Generate normal map: Choose Filters->Map->Normalmap...

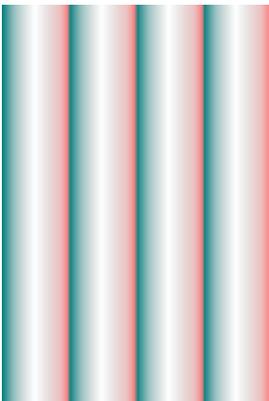


Set the same parameters as the image below shows. 5.0 is a good number for scale, but you can test what fits better for your sprite.



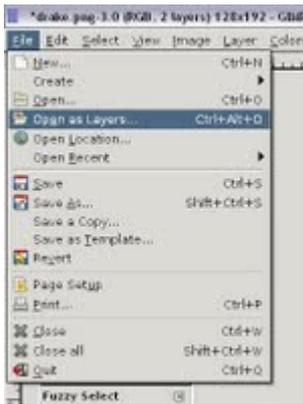
After setting all the parameters, click OK.

Step 5 - applying the normal layer: download the image below and save it to your hard drive. You will need to combine it to your normal map.

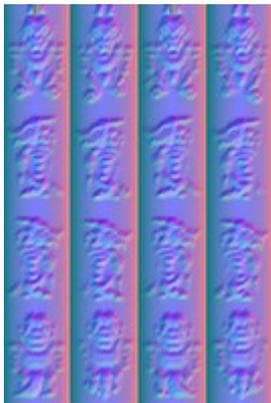


http://www.asantee.net/ethanon/normalmap_tutorial/char_normal.png

Then click File->Open as layers...



and choose the PNG file you has just downloaded. The result must look like this:



If everything happened as expected, your entity will look as pretty as this:

