A pathtutorial for Zoo Tycoon 2

by Doooot

This is a tutorial for making paths for zt2. This tutorial is based on the files included in the zip file. The files are made so you only need to copy, replace words and zip up. I hope this helps you, I tried to make it as easy as possible with illustrations, but please let me know if something is unclear or you have other errors, and I'll have a look at it.

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Programs needed:

The first step is to be sure you have the right programs needed.

- Texteditor: notepad is good enough for this or just use any texteditor you have.

- **Graphics program:** any graphics program will do, depending on what designs you want to make. I use paint for something but mostly I use GIMP, which can be downloaded free here: http://gimp-win.sourceforge.net/stable.html (install the GTK+2 first), for a tutorial you can look here: http://www.gimp.org/tutorials/ (several tutorials) and the official GIMP handbook can be found here: ftp://ftp.gimp.org/pub/gimp/docs/.

- DDS converter: some graphics programs can open and convert dds files. Adobe Photoshop needs a plugin called NVIDIA, but not something I use so haven't tested it, but many use this. There is also something called **directx SDK** and can be downloaded here: directx SDK and you need the update, but haven't tested it myself but many use this. I use a program called **dxtbmp** and can be downloaded free here dxtbmp (in the botton of the page there is a little download link). This is a little program, but it still lets you do a lot, edit files and you can save in different pixel formats, which is what we need. So if you use another dds converter, just be sure it lets you choose the pixel format.

- Hexeditor: any hexeditor will work, since the files I put in the zip are no longer writeprotected. I use winhex and flexhex (only 30 days trial). Since my flexhex trial ran out I have found another program, which also allows you so save larger files then winhex does. The program is called xvi32.

- Zip program: any zip program will do, I use winzip (although it's just a trial you can keep using it) but you can also use winrar, which is also free.

Step 1: Making folders and copying files

Making folders

First you need to make to folders at for example your desktop (or just were you want to be working). Name one folder **mypaths** and the other **paths_extracted** (you can call them whatever you want, this is just an example and just so we have some folders to work in, the actual folders won't be just in the end).

Copying files

Copy the folder **example01** and the file **example01.dl** into the new folder you called **mypaths**.

Next copy the folders **entities, lang** and **ui** into the folder you called **paths_extracted**. So just to be sure, it should look like this:

- mypaths\example01

- mypaths\example01.dl

- paths_extracted\entities

- paths_extracted\lang

- paths_extracted\ui

Step 2: Recoloring and dds converting

Open **paths_extracted\entities\objects\paths\example01** and here you see 10 files. For now we are concerned about the dds files. The files are **path_example01_256.dds** (the path), **example01x.dds** (the curb) and **path_example01_icon.dds** (the icon). I have made these files blank, so you can use these and just draw on these. We need to open these files, depending on which program you have there are different ways to do this. I'll describe 3 different ways and illustrate for 2 of them (method for those of you who don't have a graphics program that can open dds files).

Photoshop

If you have installed the plugin all you have to do is open the files, recolor and save. The right pixel formats for these are: **8r8g8b8** for the **example01x.dds** and the **path_example01_256.dds**. For the icon (**path_example01_icon.dds**)you need to save it as **a4r4g4b4**.

DXTBmp (method 1 – using paint, GIMP or anything else)

First you open the files one by one with DXTBmp. Now you can do something smart if you want to use paint (you can chose another program by doing **Prefs → Select Editor** and find the .exe file for your program (for GIMP you need to find **GIMP-2.0\bin\gimp-2.2.exe**) and you can always reselect MsPaint or the previous editor).

When you have a file open then press the botton I have marked with **1** in the picture below and this will open paint or the editor you chose. Now just recolor and save. If you use GIMP and working on the icon, see in the next method where it says **GIMP**. Then switch to DXTBmp again and click the

botton I have marked with **2** in the picture below, this will upload the changes you made and then just save the file, and it has the right pixel format.
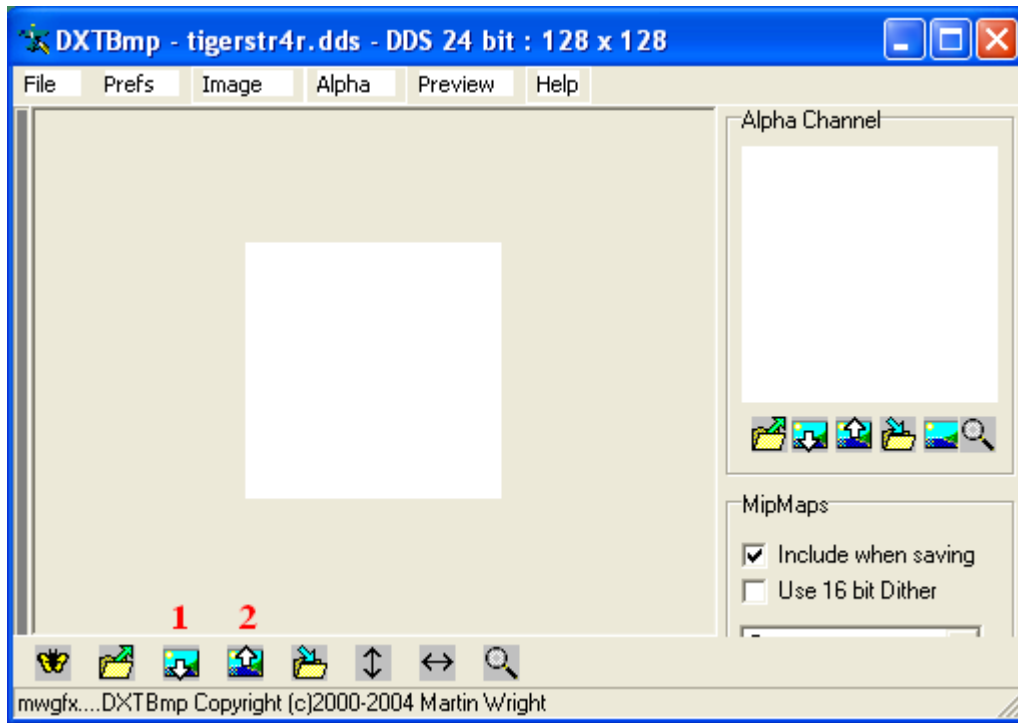
DXTBmp (method 2 – using GIMP, but for other programs it's similary)

You open the files with the program (and you can select always open with). You need to save the files as BMP files so you can edit them in paint, GIMP or any other program, which doesn't already open dds files.

You save your files one my one by clicking **File → Save as → 24 bit BMP Image** and then just save them in the **example01** folder or another place so you don't get confused. See picture below on how to save.
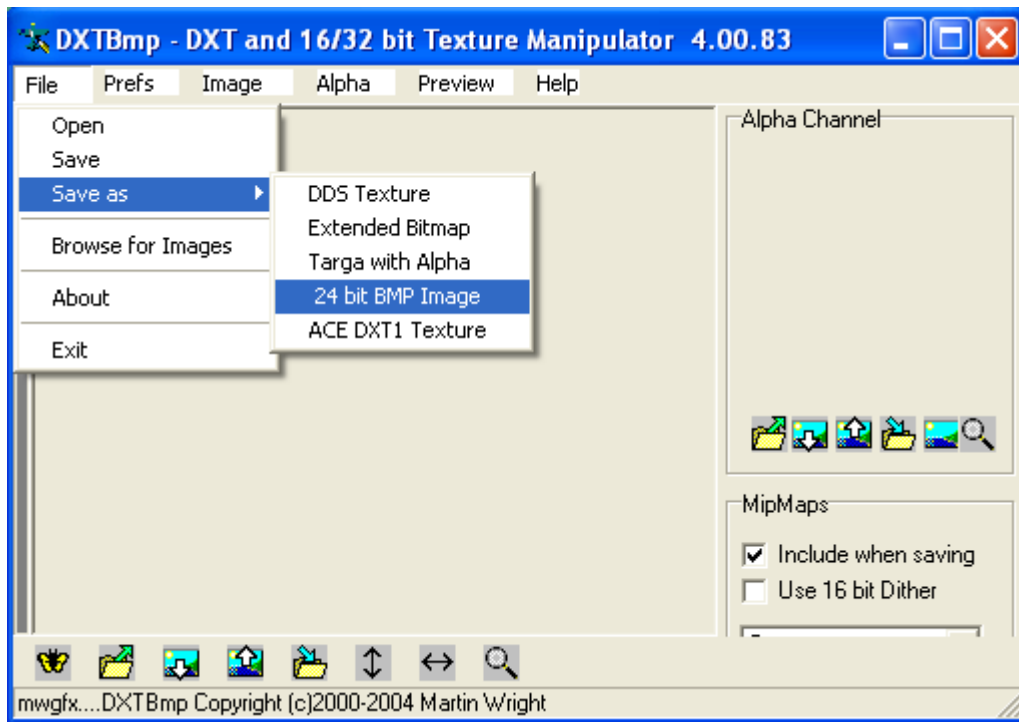
Now that you have done this. Open the files which are now called **example01x.bmp**, **path_example01_256.bmp** and **path_example01_icon.bmp** with your graphics program and recolor.

If you use **GIMP**, then you can for the icon save a copy of the image you want to use as a pattern file, and this is how you do it. Open the image in GIMP (make sure it's not so big) and chose **File → Save as** and call it something. Next chose the file type, click the little + to open a list of types and scroll down to GIMP Pattern (.pat files) and click. Next chose the location click the + above the file type and find where you saved GIMP, and then go to **GIMP-2.0\share\gimp\2.0\patterns** and save your file here. See the picture below. If it asks you to convert to RGB or something just chose yes. It will ask you for a name on the pattern just type something.
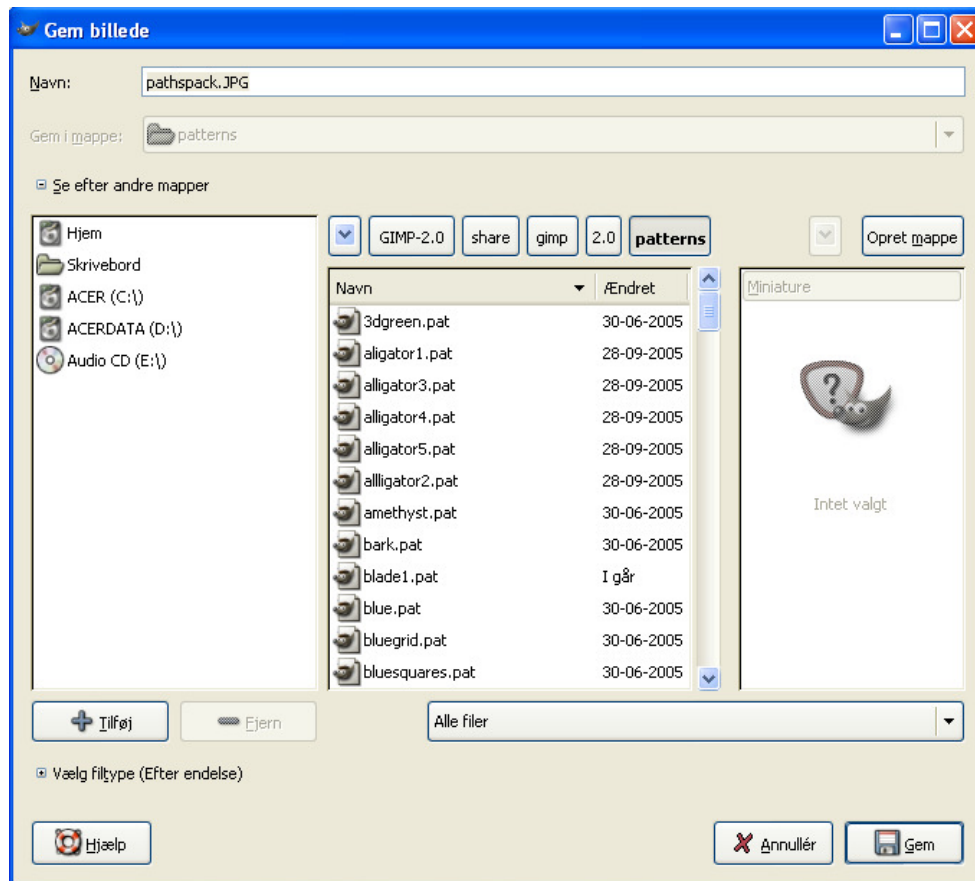
Now look at the icon you opened and the chose **Select → by color** or press **shift + O**, see picture.
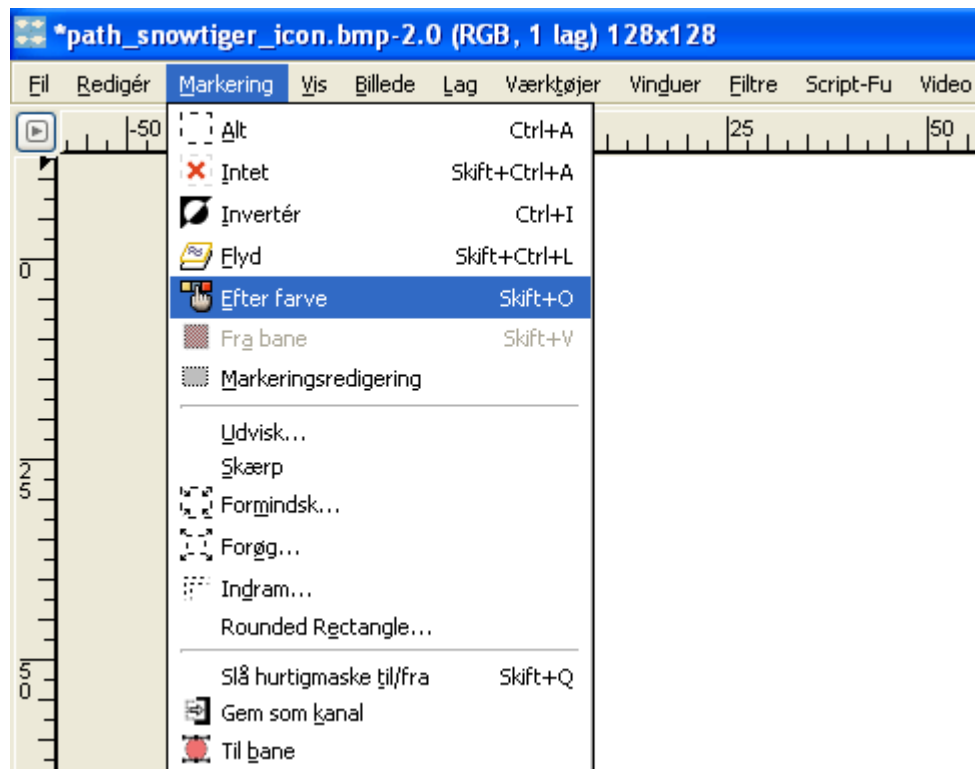
Then click on the white of the icon (the color you want to change). Next in the popup beside you image, see picture below.
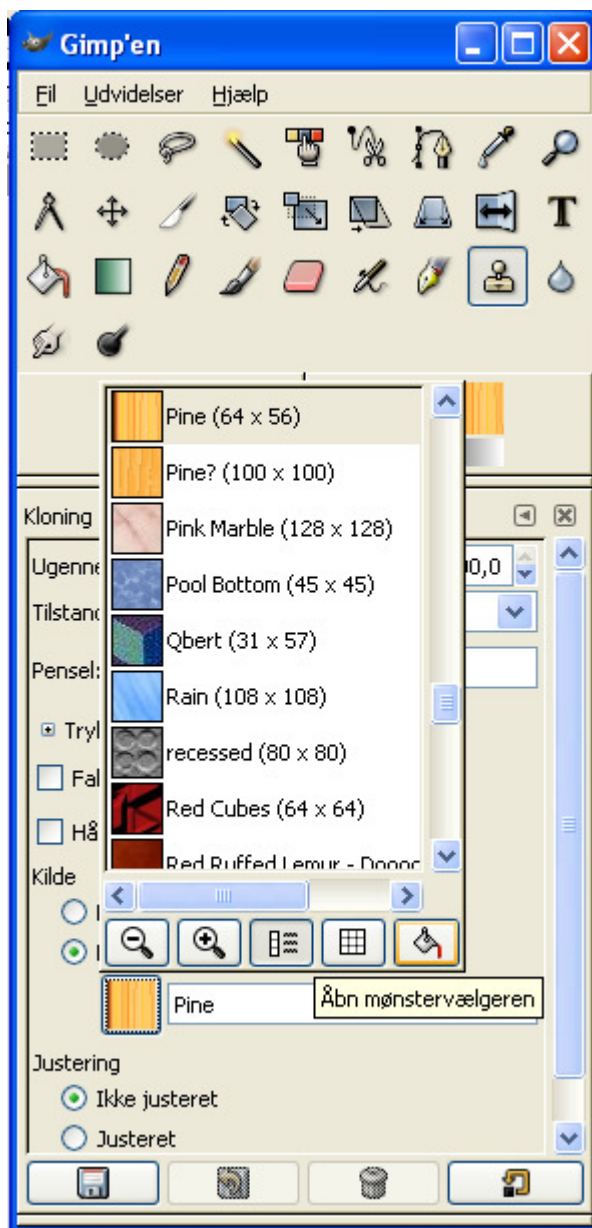
Here you select the stampler (the one selected in the picture above). Next you press the little image where it says Pine and from here you click the bucket (pattern chooser). A popup appears, here you can chose you pattern, but since you just added a new press the botton with the to arrows to refresh and your new pattern will appear between them in alphabetic order. Choose your pattern by clicking on it. Now we are ready to color, just hold down the left mouse botton and color over your selected area. If you don't like it. Just recolor over again till you are satisfied and save your image and just close GIMP.

Now right click your icon images and choose **open with** and find **dxtbmp**. Now you have to save it as DDS with the right pixel format, it is **DDS DXT3** and save it and say yes to overwrite the **path_example01_icon.dds** you have in the **example01** folder. As for the other two files, **path_example01_256.dds** and **example01x.dds**, the pixel format is **DDS 888 24 bit**. See the pictue below.
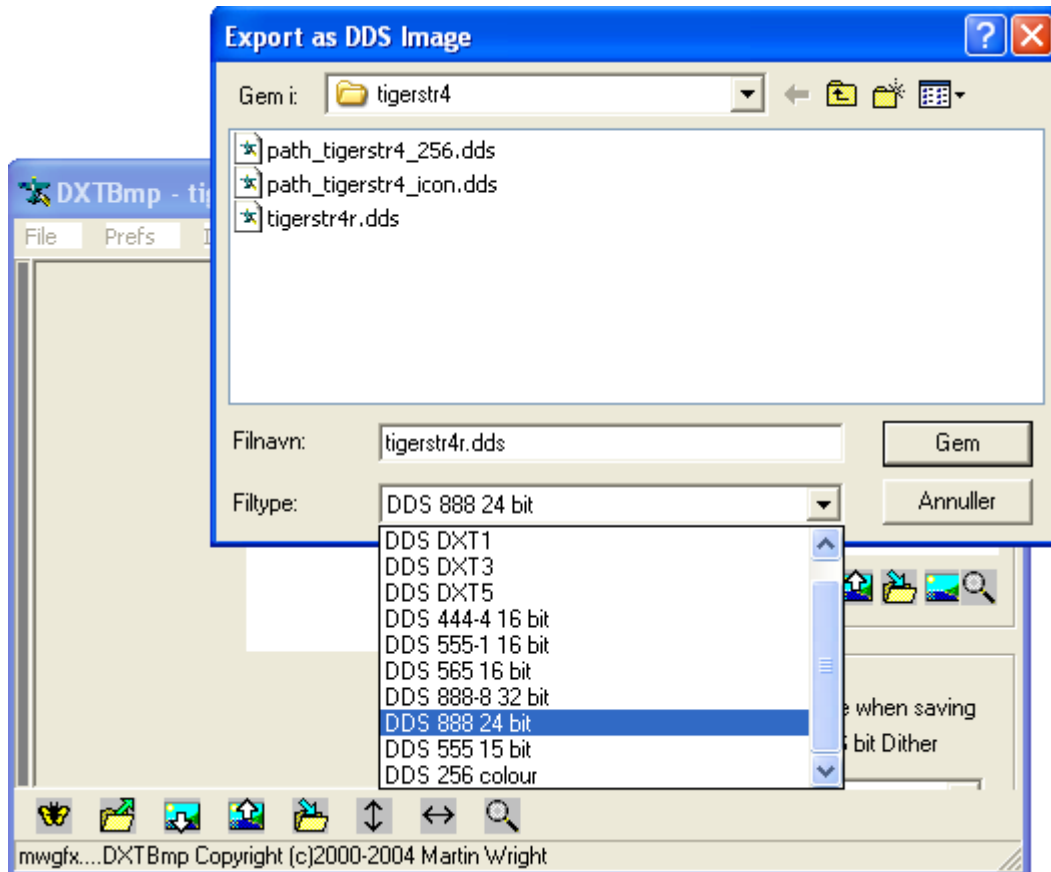

Lowresolution files

Some user can't have their game at the high resolution, so they need to have it on low (or just lower). So they can use these paths too, there is one dds file that needs to be made. You have to resize your **path_example01_256.dds** file so it is size 128 x 128 and not 256 x 256, which is the size for the high resolution. After you have done this open the folder **paths_extracted\entities\objects\paths\lowres**. In here is one folder called **example01** (the same as your original folder for your path) so open this. You are now in **paths_extracted\entities\objects\paths\lowres\example01** and in here should be one dds file called the same as the one for the high resolution, **path_example01_256.dds**. Open this file

(doubleclick). Now we need to replace this image with the one you just resized and save it in the pixelformat **DDS 888 24 bit**. This can be done using the same methods as for the other images.

Invisible background for the icon

This depends on what kind of method you used for saving the icon. When you open up my icon file, in the right top corner of your DXTBMP, you can see there is a black and white image, the alpha channel, see **1** in the picture below. This is how the structure of the object is. And we need to copy this to our own icon, so the background goes invisible.
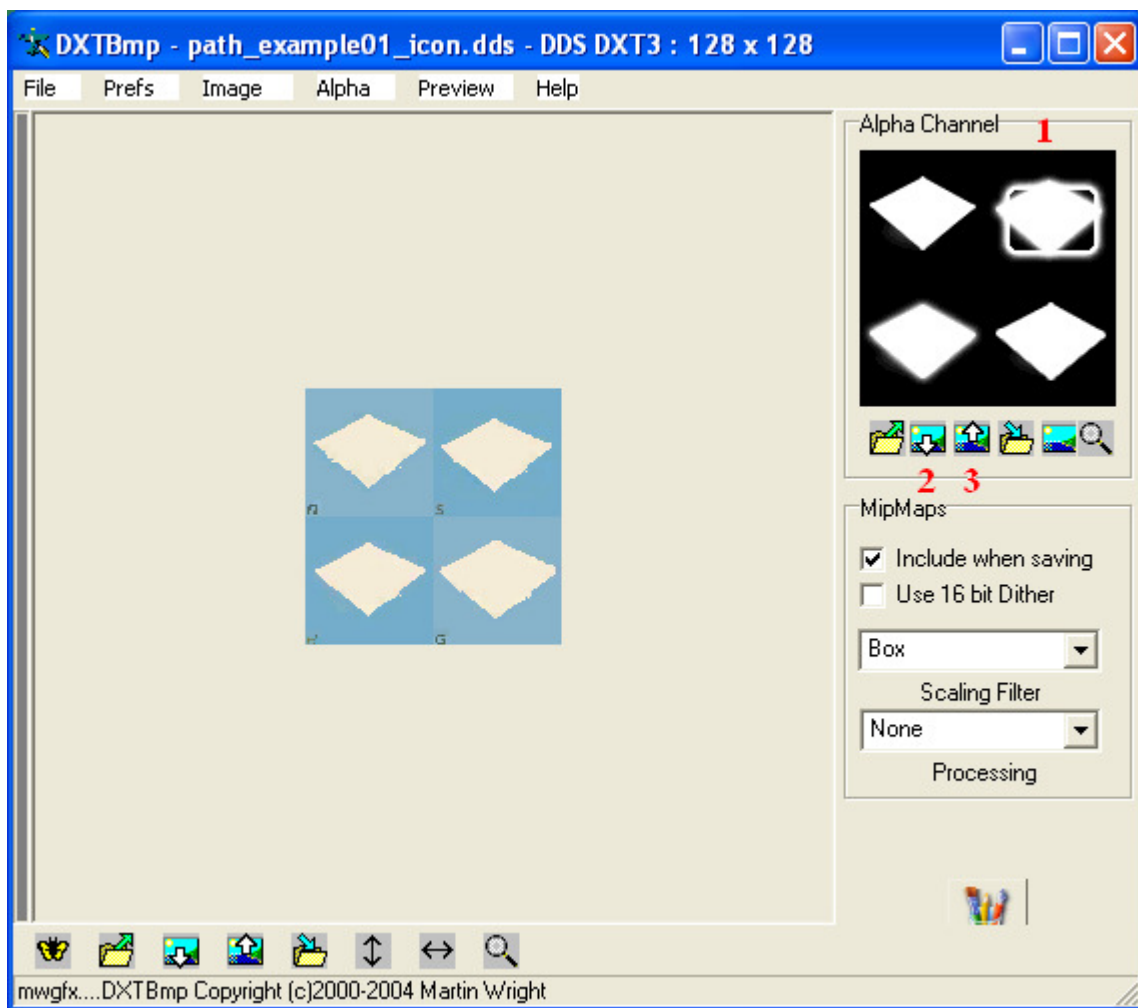
If you use my icon file and use **DXTBmp - method 1**, the alphachannel should be there. If not or you use another method, this is how you get the alphachannel back.
Open my **path_example01_icon.dds**, and look press the botton marked with **2** in the picture above. This opens paint, or another program if you have set it as the editor. Press **ctrl + A** to select it all and then press **ctrl + C** to copy it. Now you have the copy of the alphachannel, open up your icon

file and press the botton marked with **2** in the picture above. This again opens paint. Now you press **ctrl + V** to paste the alphachannel from before. Now save in paint, and you can close the paint program. Now press the botton marked with **3** in the picture above. Now you should see a black and white image here again. Save your dds files and you are done.

If you ever need to but an alpha channel on some other object, you just go and copy the alpha channel, as I explained above, from the original file and paste it to your own.

Step 3: Renaming files

This may take a while, since there are many files to rename, but it's not hard.

entities

Again open **paths_extracted\entities\objects\paths\example01** and only replace the word **example01** by something else, preferable same length. Do this for every files, also the dds files. For the **example01x.dds** leave the x, it is easier if it has the same length (1 character longer). Also for the lowres files open **paths_extracted\entities\objects\paths\lowres** and rename the folder **example01** to be the same as you called the folder you just renamed under **paths_extracted\entities\objects\paths\example01**.

ai

Open **paths_extracted\entities\objects\paths\ai** and rename the 2 xml files. Again only replace the word **example01** by the name you choose, it must be exactly the same word.

lang

Open **paths_extracted\lang\1033** and again replace the word **example01** by the word you chose, the xml file.

ui

Open **paths_extracted\ui\zoopedia\entries** and replace the word **example01** by the word you chose, the xml file.

Pathfolder and dl file

Open **mypaths** and replace the word **example01** by the word you chose. Do this for both files.

Step 4: Coding

This also takes some times as you need to open up almost every file and change the content, but again with this tutorial it shouldn't be hard. We start again with the entities, since they require the most time.

entities

Again open **paths_extracted\entities\objects\paths\example01**. Now you see 10 objects, but the 3 dds files are finished, and all of your files should have the same word instead of **example01**. We just start from the first file (nif) **curb_example01_curve90.nif** (you have another word instead of **example01**) with your hexeditor. For FlexHex and WinHex press **Ctrl + H**, which opens an replace with popup. Just type **example01** as the word (first line) you want to replace and **your word** as the word you're replacing it with. For WinHex just press enter. For FlexHex you need to choose ANSI Text, see picture below, and press **Replace All**.
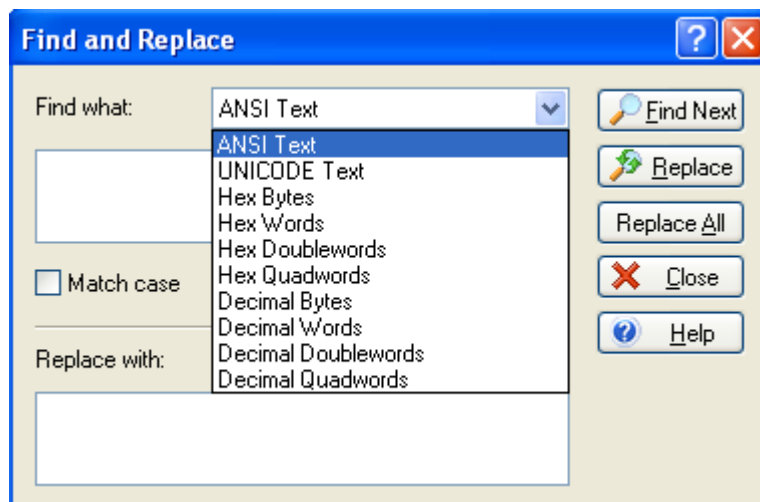
Then just save the file and you're finished with this one. Do the same for all the other nif files. And this folder is finished.

ai

Open **paths_extracted\entities\objects\paths\ai**. In here you have 2 xml files, these must be opened with notepad (just choose open with click always open with) in order to edit them. Again

press **Ctrl + H** and write **example01** as the word (first line) you want to replace and **your word** as the word you're replacing it with. Press **Replace all**. Save the file and you're done. Do this for both files and this folder is done too.

lang

Open **paths_extracted\lang\1033** and here is only one xml file. Open this one with notepad. Again press **Ctrl + H**. This time we need to replace 2 things. As our name for the path is only 9 characters long, it's not always the name we want, so now write **example01 path** as the word you want to replace and write **your path name** as the word you're replacing it with, just remember that it's better to call it something with the **path** at the end. And press **Replace all**.
Next press **Ctrl + H** again and this time write **example01** as the word (first line) you want to replace and **your word** as the word you're replacing it with. Press **Replace all**. Save the file and you're done in here.

ui

Last open **paths_extracted\ui\zoopedia\entries** and open the xml in notepad. Just press **Ctrl + H** again and this time write **example01** as the word (first line) you want to replace and **your word** as the word you're replacing it with. Press **Replace all** (although it only occurs 1 time). Save the file and the folder is done.

dl file

Open **mypaths**. Here you find a dl file (that you renamed earlier) open this in notepad. Just replace the **example-packname** with the name you want the paths to be called, if it's a pack you're making, then here is the place to name it. Also replace **example-creatorname** with the creators name (your name and maybe people that helped you). Save the file.

Now the renaming is done.

Step 5: Zipping
We need to zip to times.

Zipping the z2f file

Open **paths_extracted** and select the 3 folders, **entities**, **lang** and **ui**.You press and hold the **Ctrl** button and **left click** on the 3 folders. Then **right click → WinZip → Add to zip file** and just called it **something.z2f** and press enter. If you forgot to write **z2f** when you zipped them, just change the **.zip** to **.z2f** after you're done zipping.

Copy this file and place it in **mypaths\example01** (what you have called it).

Final zipping

Open **mypaths** press and hold the **Ctrl** and **left click** on the folder **example01** (what you have called it) and the file **example01.dl** and **right click → WinZip → Add to zip file**. Just call it something, like **creator's path pack** or something.

Step 6: Finishing touches

Now you are done. It's time to test you hard work. If you have done everything exactly likw I wrote it should work perfectly, but it happens that you forget or make type errors. This is way testing the things you make is a good thing.

Place the zip file you made at the end in your **download** folder, where your game is. And start zt2. Try placing the paths, check the tooltip and the zoopedia. If something is wrong, you need to look at the coding. See the next section for some possible errors and answers.

Errors and solutions

The game crashes

There is something totally wrong. Although I haven't experienced this myself, it's usually something simply. An type error either for the file names or in the files. The only way to solve this is to go though this tutorial and your files again.

The path isn't showing, neither in the downloads list or in the inventory

You probably didn't zip correctly. Remember the zip file you put into the game must contain to items: the folder with the path name (in my tutorial it's **example01**) and the dl file with matching name as the folder (in my tutorial it's **example01.dl**). The folder must contain a **z2f** file (a zip file where the end name is changed to z2f). This **z2f** file contains the 3 folders **entities**, **lang** and **ui**.

The icon isn't showing, it's just white

This can be caused by a lot of things. First the pixel format of your icon file, **path_example01_icon.dds**, isn't the right one. Go back to Step 2: Recoloring and dds converting and check the formats of your dds files. If you misspelled the codename somewhere, like a folder or a file, this could also be the problem. Also check that the icon file has the right structure as **path_example01_icon.dds** and length. Check the xml file in the ai folder, somewhere you could have made a misspell.

The background of the icon isn't invisible

Go back and check your icon file, it has to have an black and white alphachannel, se Step 2: Recoloring and dds converting and the section about invisible background for help.

The path is invisible

One possibility is your images. They probably don't have the right pixel format, see Step 2: Recoloring and dds converting. If this isn't the problem they maybe you forgot to replace or rename something, either the file name or the content of the files, so the reference isn't correct. Maybe you forgot some files, or accidentally deleted something.

The tooltip isn't showing

There is something wrong with the xml file in the **lang\1033**. Check that you have replaced the correct things and that you didn't delete an string, check that everything that begins ends, or just copy the file from my tutorial zip file and start over.

The zoopedia isn't showing

Again something is wrong with either the xml file in **lang\1033** or in **ui\zoopedia\entries**. Check that you have replaced the right words and that the files have the right names.

Wrong colored curbs

Sometimes you are unlucky and get either red curbs when you wanted something with blue or blue curbs when you wanted something with red. Well you got the wrong color. A way to fix this is to change the color in the **example01x.dds**. Either change it so one color, black white or something, or

just select negavtive colors. Sometimes you just have to fidle around with the colors, trying a different shade of something.