DIASPORA NAMEPLATE CREATION HANDBOOK

v1.0

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The purpose of this handbook...

...is to provide easy instructions on how to create nameplates for Diaspora's ships that support them. As time goes by and we add in more ships (or modify existing ones to support nameplates), this handbook will be getting updated as needed. Please note that this handbook assumes basic knowledge of Photoshop or Gimp.

You may, of course, use any application of your choice that is capable of doing the job. This handbook will describe some ways of creating nameplates; it is by no means the only way of building them but we can only provide support on the methods outlined below.

Also note that team Diaspora does not condone software piracy; if you do not own Photoshop there are free alternatives you can use, such as The Gimp.

What you will need...

- blank nameplate textures provided with this tutorial. You will need to open, combine, and manipulate them in your applications of choice to create the final nameplates.

- an image editing package of some sort; this tutorial assumes basic profficiency in Adobe Photoshop or The Gimp.

- The Compressonator, a free dds conversion app from AMD, which you can download from the following link:

http://developer.amd.com/tools/compressonator/Pages/default.aspx

- Nvidia Texture Tools for Adobe Photoshop (if using Phototoshop); this free plugin from nvidia will allow you to open, edit and save dds textures in Photoshop.

http://developer.nvidia.com/nvidia-texture-tools-adobe-photoshop

What we will not provide...

- As mentioned before, Team Diaspora does not condone software piracy and will not help you with illegally obtaining pirated software. Please do not contact us to ask where you can download an illegal version of an application.

- Tutorials on how to use the neccessary applications. While this tutorial will cover the usage of needed applications to some extent, it assumes basic profficiency in said applications. There are plenty of tutorials online if you need help getting to grips with your applications of choice.

- Fonts. In some cases, you'll be able to find free suitable fonts; in others, the fonts you will need will be either unavailable or only available for purchase. In any case, we won't be able to provide you with the fonts you will need; you will either have to obtain them for yourself (rules about Diaspora not supporting software piracy apply!) or simply trace the needed text in a vector drawing package.

Why are naming standards important?

You will notice that, throughout the following tutorials, we suggest how certain files should be named. While you are free to name your files (particularly your work files) anything you want, it would be best if you followed Diaspora's naming standards for the final .dds textures. There is a reason Diaspora uses naming standards, and that reason becomes evident when you have lots of ships with multiple maps each; without a naming standard identifying each map would become a needless chore. If you want your mod / campaign to be included in future Diaspora downloads, you can avoid a lot of renaming work if you just name your files according to our naming standards.

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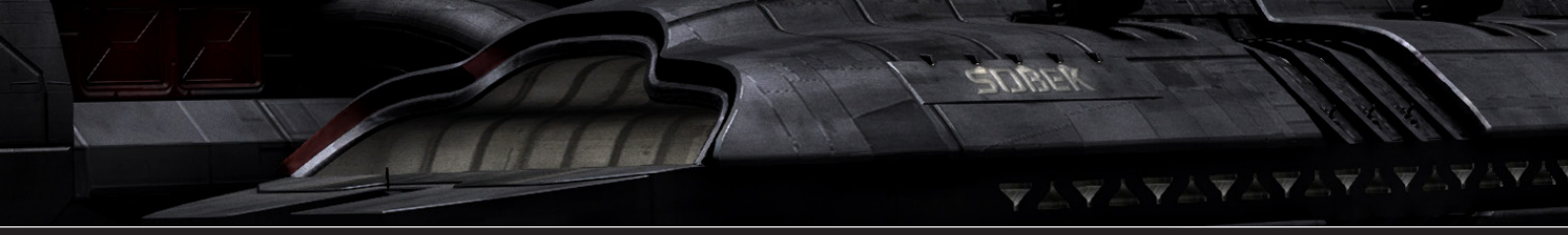
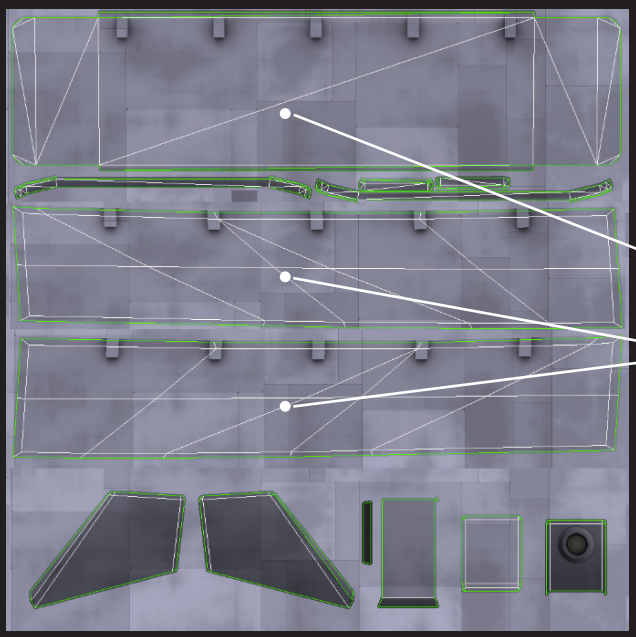


01. *Sobek-Class Battlestar*

For the Sobek, we will need to generate a set of four maps per nameplate: color/diffuse, shine, normal, and glow maps all need to be done together. You will need to download the tga files provided before you proceed. For the purposes of this tutorial, we will create the maps for a Sobek-class battlestar named “Neleus”.
First, you will need to extract the “sobek_nameplate_files.zip” archive into your work folder.

Color / diffuse map

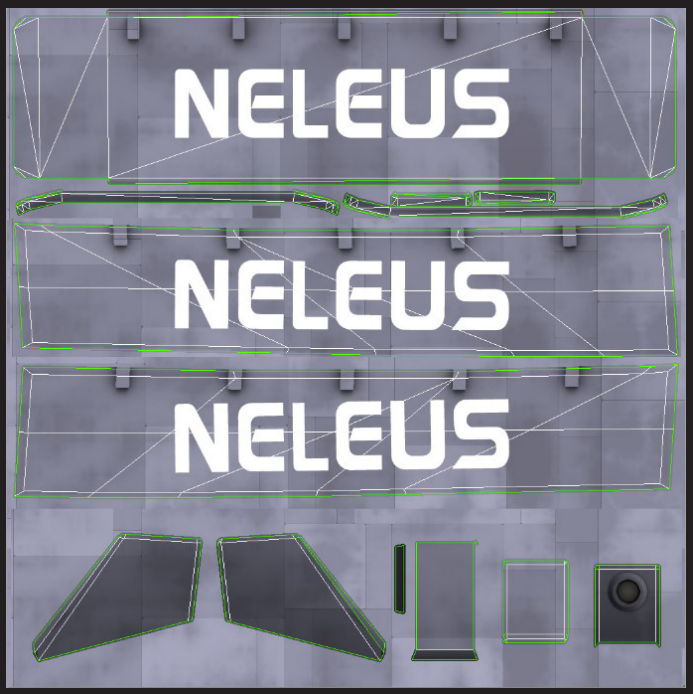
Open the file “Col_BS_Sobek_blank.tga”. Open the file “sobek_nameplates_uvw.png”, and with it selected, use the “select all” command (Ctrl+A). Now copy everything (Ctrl+C), close this file, switch back over to “Col_BS_Sobek_blank.tga” and paste (Ctrl+V). This will create a new layer on top of the background; name it “UVW” and keep it on top of everything else at all times.



Save this new document as “Col_BS_Sobek_Nel.psd”. Now let’s take a look at the layout; the Sobek class has three actual nameplates; one goes on the “back” just aft of the “head”, and the other two go on each flight pod, respectively. The large top UVW area is the neck nameplate, while the two smaller ones below it belong to the pods.

Now it is time to actually come up with the text. I’ve found that the BSG fleet ship’s hull text doesn’t correspond with any font available online, which is why I’ve used a vector drawing program to actually draw the letters to correspond more closely to what we saw in the show. If you’ve found a suitable font, however, do let us know.

The font that comes closest is “Viper squadron solid”, available for free online, but I’ve found it’s not similar enough. If you do use it, make it 148 pt. large. Whichever way you use to come up with the actual letters, position it like you see in the screenshot to the right; make sure you get the positions *and* angles to more or less correspond to the existing nameplates.



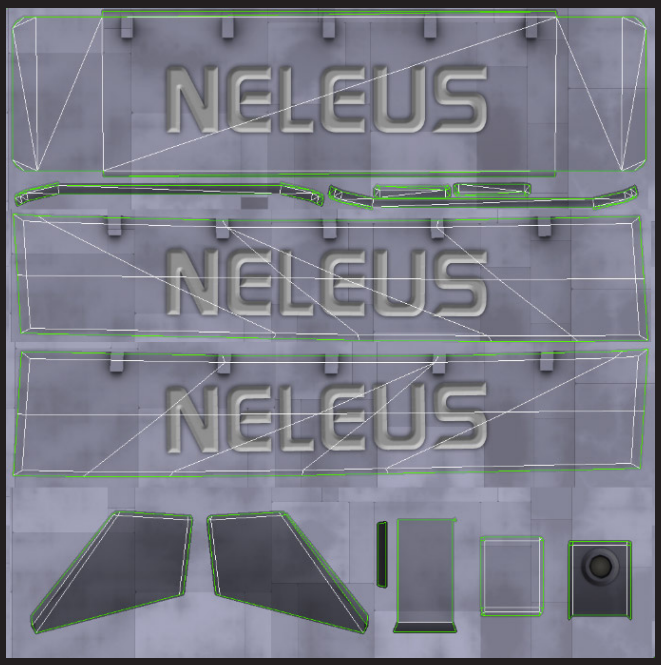
Next, we need to get that 3D look for the letters right now they're just plain white, which won't do. We will use layer styles to achieve this effect, use the following styles and settings:

- Drop Shadow: Opacity 75%, Angle 30, Distance 0, Spread 0, Size 9;

- Bevel and Emboss: Style - Inner Bevel, Technique - Chisel Hard, Depth: 100%, Direction: Up, Size: 6, Soften: 2, Angle (uncheck "Use Global Light"): -58, Altitude: 42, Highlight Opacity: 75%, Shadow Opacity: 78%

- Color Overlay: Set RGB value to 144,144,144.

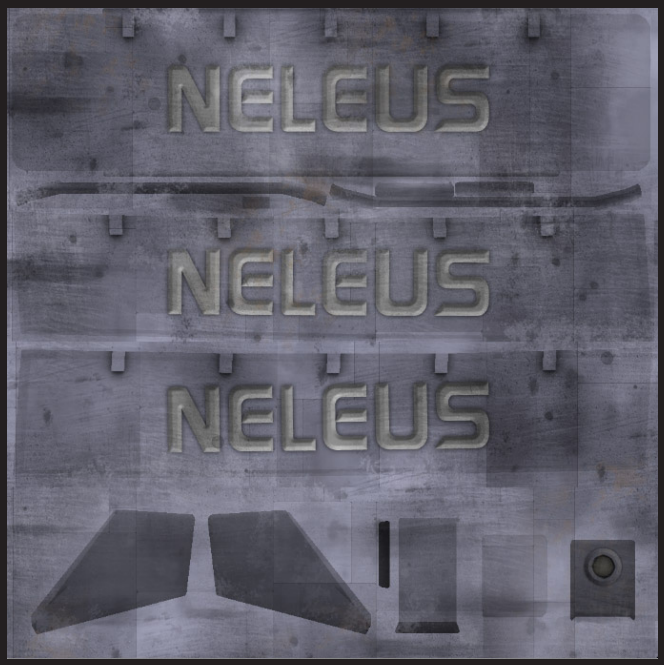
Your text should now look like in the screenshot below:



That's more like it. Now we need to apply the weathering pattern. To make things simpler, I've exported the weathering into a single file, that you can just copy over everything.

To begin, open "sobek_weathering_diff.png". We will now do the same thing like with the uvw map png - with the "sobek_weathering_diff.png", hit "select all" (Ctrl+A), then copy everything (Ctrl+C). Now close "sobek_weathering_diff.png" and switch back to the PSD we're working in. Now just paste (Ctrl+V), this will create a new layer which you should rename "diffuse weathering" or something like that so you can easily identify it later on. Make sure this layer is above everything (except the UVW layer).

Make the UVW layer invisible and save, because we're done! The final image should look like the one on the lower left. The last thing to do is to get it to a proper.dds format. For this, we will use a combination of Photoshop and "The Compressonator".



First, make sure that your final image does look like the one on the left. Then, save it to a 24-bit .tga image.

Open this .tga in "The Compressonator". Generate mip-maps down to the 8x8 level. Hit "Compress" and select "DXT1" compression, then choose the option "save compressed.." and save the file as "Col_BS_Sobek_Nel.dds"

Alternatively, you can use the nvidia plugin for photoshop, command line tools, or whatever tool you like to get it to the DXT1 dds format. Either way, our diffuse map is done, and it's time to move on to the shine map.

Shine map

Now that we've done the diffuse map, the shine map will be much easier; most of the ground work has already been done. First, open the psd you've worked on so far (if you've followed instructions that closely, it should be named "Col_BS_Sobek_Nel.psd". Now do a "Save as.." and save it as "Col_BS_Sobek_Nel-shine.psd" - we don't want to overwrite the diffuse map psd. Now open "Col_BS_Sobek_blank-shine.tga", hit "select all", "copy", then close it and paste the contents to your psd. Get rid of the old background and make this layer your new background (it should be the layer at the absolute bottom).

Next, select the layer that contains the letters "NELEUS" - it should have a bunch of layer styles we did earlier applied to it. In the layers palette, with this layer slected, double click the "color overlay" style we applied earlier and set it's RGB values to 70,70,70. Now click on the "Bevel and Emboss" style, also applied earlier. Set it's Highlight Opacity to 12%. This will make our letters nice and dark.

Next, delete the layer that contains the weathering (or just hide it). Open "sobek_weathering_shine.png", again select all, copy paste everything over to your PSD. Name it "shine_weathering" or whatever you like, and make sure it's on top of everything (except the UVW layer).

Finally, go to the "Channels" palette and create a new (alpha) channel (use the "new channel" button on the bottom of the palette). Since Photoshop won't save a purely black channel we need for the game, go to any corner of the image (absolute corner) and make a single white pixel (or at least, not black). Click back on "RGB" in the channels palette in order to switch your view back to the normal RGB view.

Your final image should look something like the one on the right. Turn off your UVW layer if you haven't done so already. Save your image as a 32-bit tga (important - this will preserve the alpha channel). Open this .tga up in the Compressonator, generate mips down to the 8x8 level, and compress it in DXT5 mode. Save compressed as "Col_BS_Sobek_Nel-shine.dds". Alternatively, use the nvidia photoshop plugin or command line tools to conver the .tga to .dds format.

Glow map

To create the impression of nicely lit nameplates, we need to generate the glow maps. Again, open up your diffuse map PSD ("Col_BS_Sobek_Nel.psd"), do a Save as.. and save it as "Col_BS_Sobek_Nel-glow.psd".

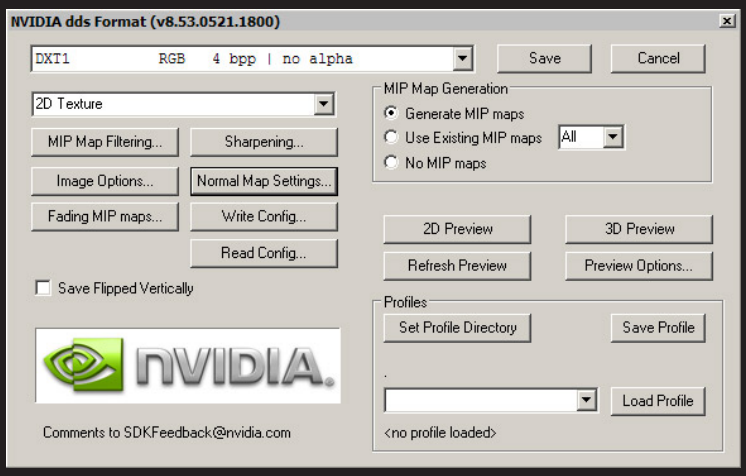
We already have the glows ready and waiting to be applied to the texture; in fact, we have two versions. For longer names, like, say, if you wanted to name a ship "Archimedes", we have a 5-light version that would cover the entire name; for our purposes, however, there is a 3-light version for shorter names which willl work much better in this case.. Open up "Col_BS_Sobek_blank-glow3.tga", select all, and copy it over to our working psd.

Name the layer "glow", put it on top of everything else, and set it's blending mode to "multiply". Next, open up "sobek_lightsource.png", again select all, and copy-paste it's contents over. Put it above the light layer we've just created and leave it as it is. That is it! Save it as a DXT1 mode dds using the same settings we've used before (8x8 final level of mip maps), using The Compressonator or another tool of your choice. Your final texture should look like the one on the bottom right.

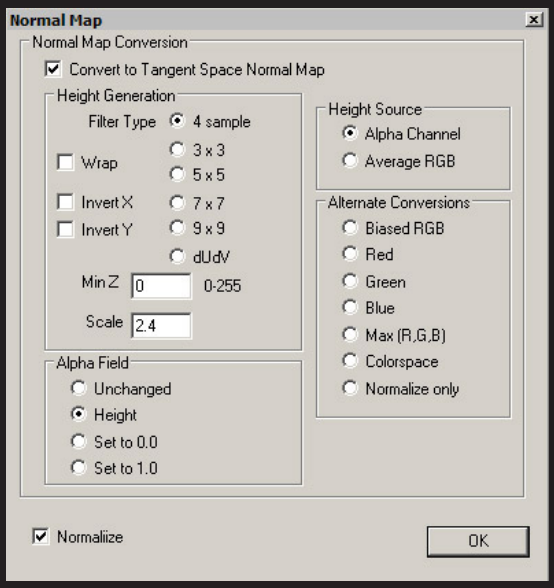
Normal map

For the normal map, first we need to create the regular blue normal map and then convert it to the DXT5_NM one. First, open up your diffuse map psd. Do a Save as.. and name the file “Col_BS_Sobek_Nel-bump.psd”. Now kill all layers except the background(plating stuff) and your actual text layer (the one that says “Neleus”.

On the text layer, kill all layer effects so it remains completely white.
Duplicate the layer and apply an inner shadow effect with the following settings: Opacity: 45%; Choke: 30%; size: 12px. Apply this layer effect (quick way to do this: add an empty layer beneath this one and merge them). Load selection on this layer (Ctrl+click it’s icon in the layer palette) and contract selection by 7 pixels. With the layer still selected, hit delete.
Save, and save again as a 24-bit tga. Open up this .tga in Photoshop, hit “Save as...” again, select your format as “dds” (I suggest naming it Col_BS_Sobek_Nel-normal.dds). This will bring up a dialog box like the one on the right:



Hit “Normal Map Settings...” which will bring up another dialog. Set your options like they are on the picture below, and hit OK:

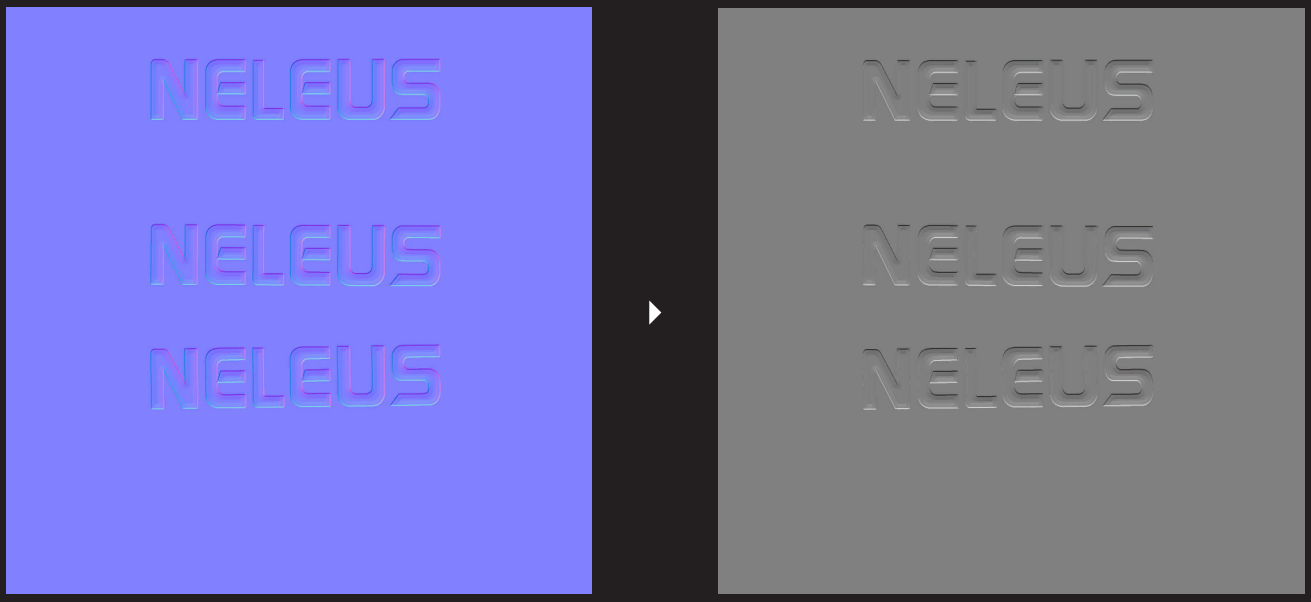


This will return you to the previous dialog box. Just hit “Save”, and “OK” if it throws a warning about losing alpha information.

This should generate a blue alpha map in .dds format. What we need, however, is an alpha map in the dxt5_nm format. So, open up your new blue normal map, it should look a bit like the picture on the bottom left.

Do another “Save as..”, again select the dds format and the same name (overwrite). Hit “Normal map settings” again and make sure you uncheck the “Convert to Tangent Space Normal Map” option. This should automatically uncheck the “Normalize” option on the bottom, as well. With these two options off, hit “OK”. Back in the first dialog box, set your dds mode to “DXT5_NM” and hit “Save”.

You’re done! Your final normal map should look like on the picture on the bottom right.

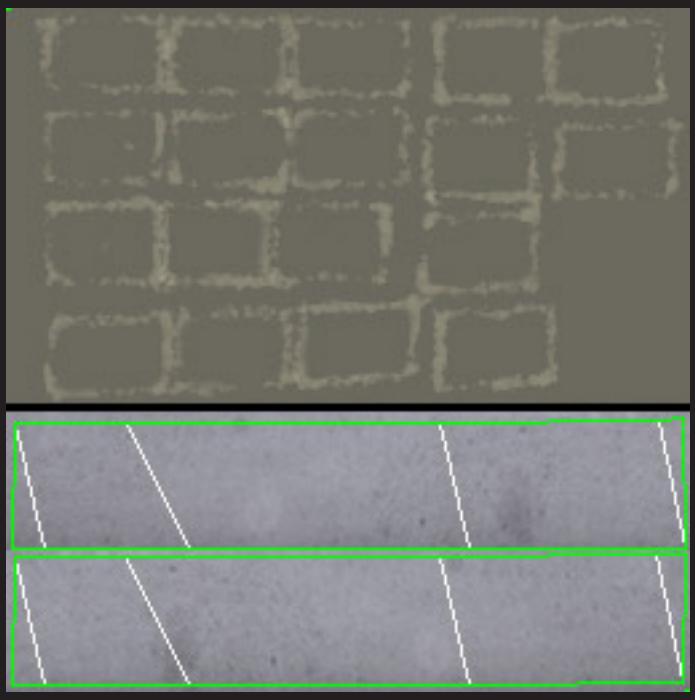


02. *Colonial Shuttle Mk.I*

The Mk.I Shuttle only needs two maps for each nameplate set, a color/diffuse map and a shine map. The nameplate also contains the alpha channel for the windows, so it's important to make sure that the alpha channel is preserved. Before you begin, you will need to extract the "mk1shuttle_nameplate_files.zip" archive into your work folder. For the purposes of this tutorial, we'll be making a nameplate for a shuttle that belongs to the Batlestar Neleus, the NEL 022.

Color / Diffuse Map

First, open up "col_shu1_blank.tga" and "mk1_shuttle_uvw.png". With "mk1_shuttle_uvw.png" selected, do a select all, copy and close the image. Switch back to "col_shu1_blank.tga", and paste. Name this new layer "UVW", it's here just for reference; keep it above all other layers as we go. Save this as "Col_Shuttle_MK1_N022.psd". You should now have an image that looks like the one below:

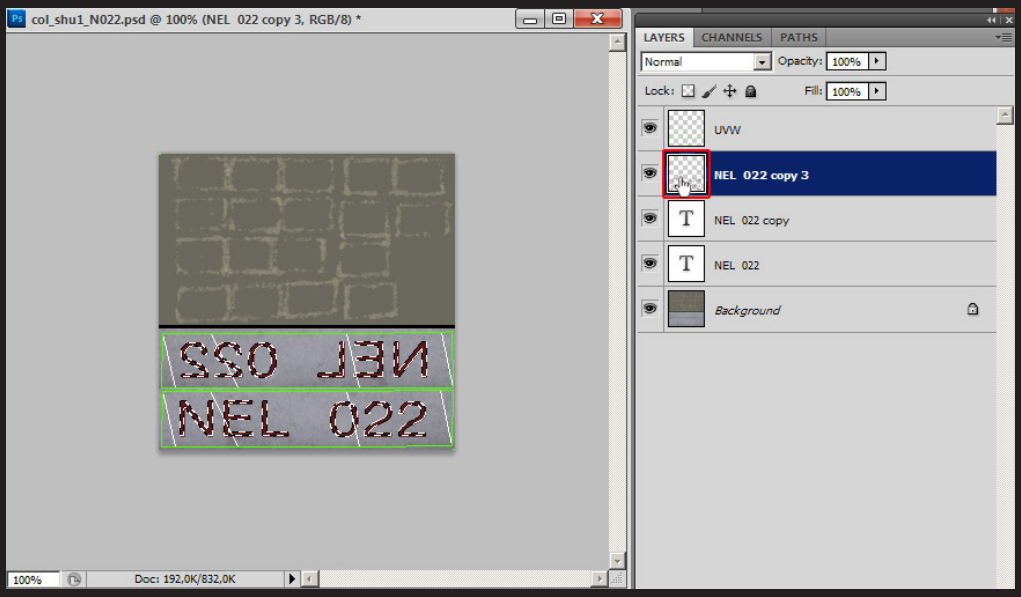


First off, a word about the layout. Only the areas on the bottom, marked with green, are relevant to the text. The rest contains the windows diffuse and alpha information and shouldn't be tampered with. Also note the upper green area has to be done in reverse - the UVW layout of this particular ship has been done that way.

You will now need to come up with the text. Out of free fonts, Arial is a pretty close match, though I find it's letters are a tad too thick. Feel free to hunt for a more suitable font.

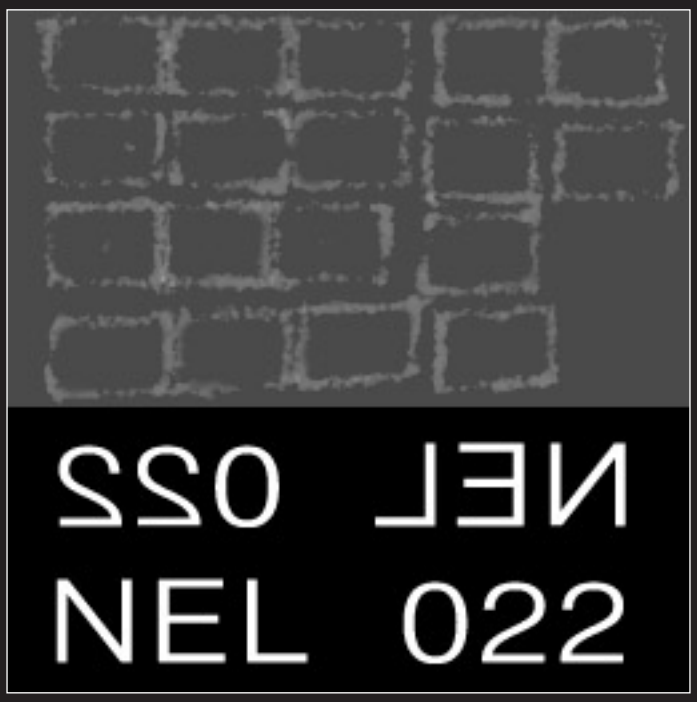
First do the bottom text, then copy the layer, move it up, and reverse it. In the windows versions of PS, select the upper text layer, hit "Ctrl+T", this should bring up several input fields on the top of the screen. The one that says "W:100%" controls width; just add a "-" in front of 100% so it says "-100%", and it will reverse it horizontally, just like we need it. The end result should look like the picture to the left.

Almost there, just need to modify the alpha channel a bit. Select both of your text layers, duplicate them (right click -> duplicate), then merge them (select them both in the layers palette and hit Ctrl+E).



Now we need to load selection of our new layer. To do that, hold Ctrl and and click the layer icon in the layer palette - the one marked with a red rectangle in the picture.

With the selection still active, switch to your channels pallete and select the channel named “Alpha 1” (no, it’s not a FreeSpace reference). Just fill your selection white, so it looks like on the picture to the right. Once you’re done, switch back to the RGB channel view (just click on “RGB” in the channel pallette), then go back to your layer view.



Hide the “UVW” layer and delete the layer you created to get that selection (the one we created by duplicating the two text layers, merging them, then Ctrl-clicking it to get our selection); we only needed this layer to get the selection for both our texts. We’re done, we just need to save this as a 32-bit tga, then open it up in The Compressonator.

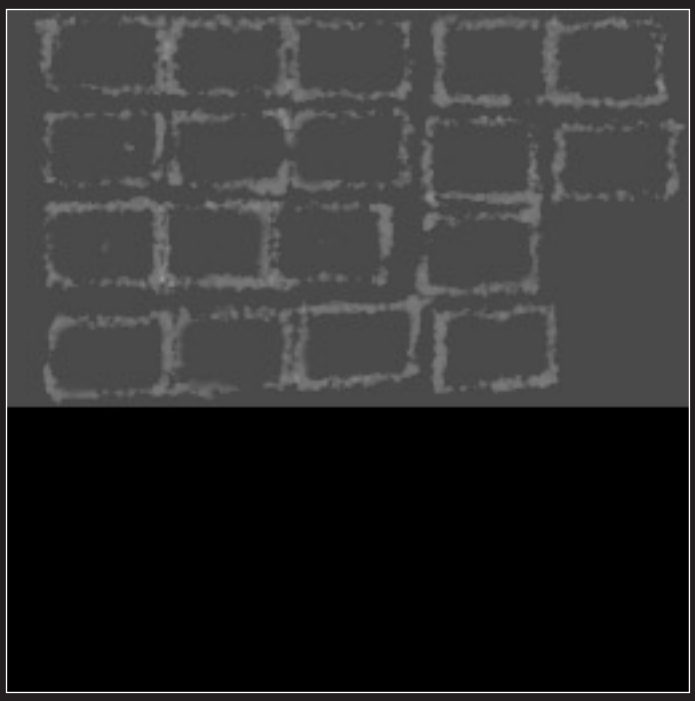
In the Compressonator, add mip maps to the 8x8 level, compress in DXT5 mode (this will preserve the alpha channel).

Name the final dds texture “Col_Shuttle_MK1_N022.dds”, and make sure your psd file is saved as well; we’ll need it to create the shine map.

Shine Map

Open up your color/diffuse map psd, and then open “col_shu1_blank-shine.tga”. With this tga selected, select all, and copy-paste it’s contents over to the psd. Make sure the new layer is directly above the background. Once it is, feel fre to merge it with the background (Ctrl+E); just be careful not to merge it with anything else.
Save this as “Col_Shuttle_MK1_N022.psd “.

Now make both of your letter layers (the NEL 022) text darker; it’s RGB value should be 33,24,24. Switch to the alpha channel again. It should contain the white NEL 022 letters we added when creating the diffuse map. We need these gone for the shine map, so just make the letters go away by painting that area black. When you’re done, your alpha channel should look like on the picture below:



Now switch back to the regular RGB view, and go back to the layers. Make sure your UVW layer is turned off (hidden or deleted) before you proceed.

Your final result should look like the picture on the left. Save it as a 32-bit tga, open it up in the Compressonator, add mip maps down to the 8x8 level, compress to DXT5 and save the compressed result as

“Col_Shuttle_MK1_N022-shine.dds”

Since the shuttle only needs a diffuse and shine map, and has no need for glows or normals here, you’re all done!

03. Colonial Viper Mk.VIIE

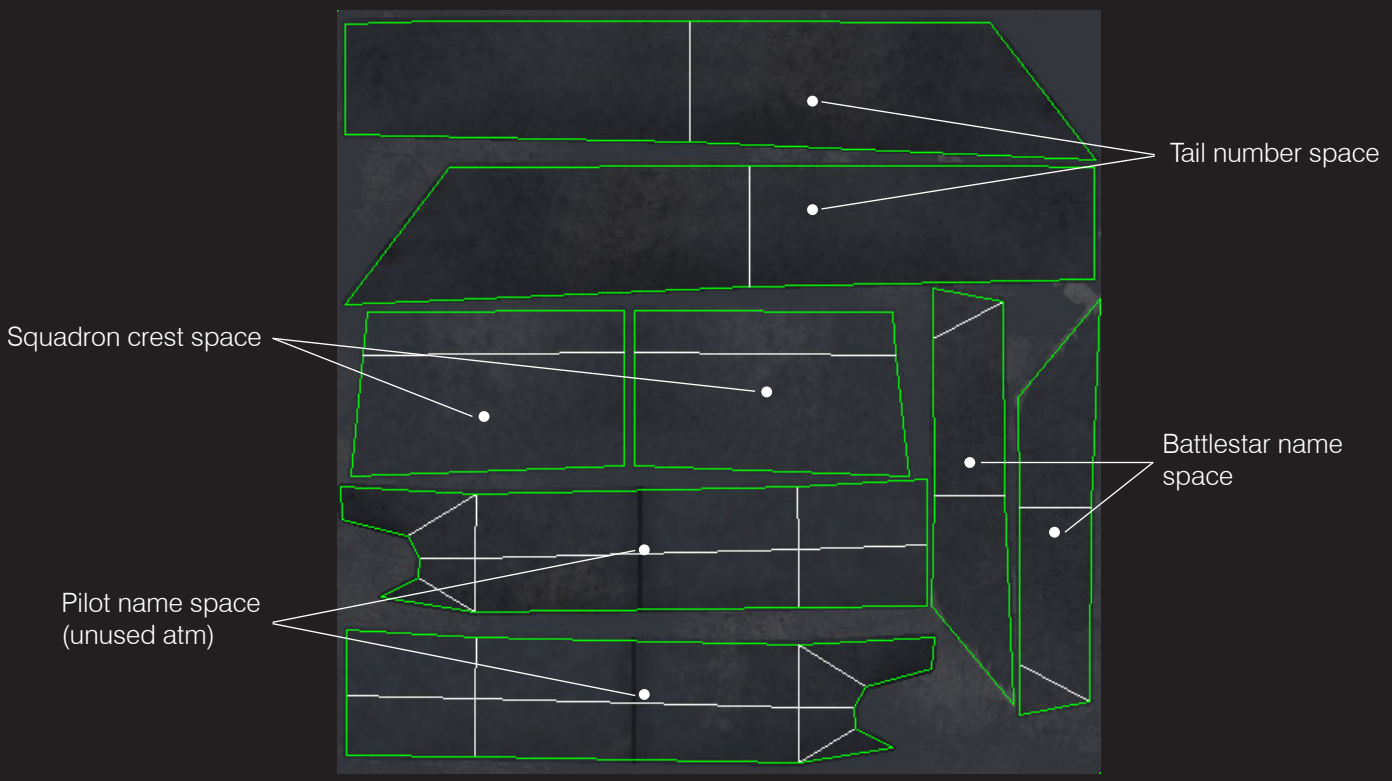
The VIIE's nameplates support adding tail numbers, squadron crests, a battlestar name (to which the fighter belongs to), and optionally adding the pilot name. We haven't used this last option for the main Diaspora campaign, mainly because adding pilot names for every single fighter in the game would result in a FRED-ing mess and we'd end up with a ton of extra maps to keep track of. However, it can be a cool option if someone wants their own name and callsign added. We won't be adding a pilot name here, but I will point out where on the map it goes if someone wants to do it. The procedure is the same, you handle that text like all the others. The VIIE nameplates will need a color / diffuse and a shine map for each set.

For the purposes of this tutorial, we will be creating a fighter that belongs to the 47th Viper Wing, the "Rising Stars", based on the Battlestar Neleus.

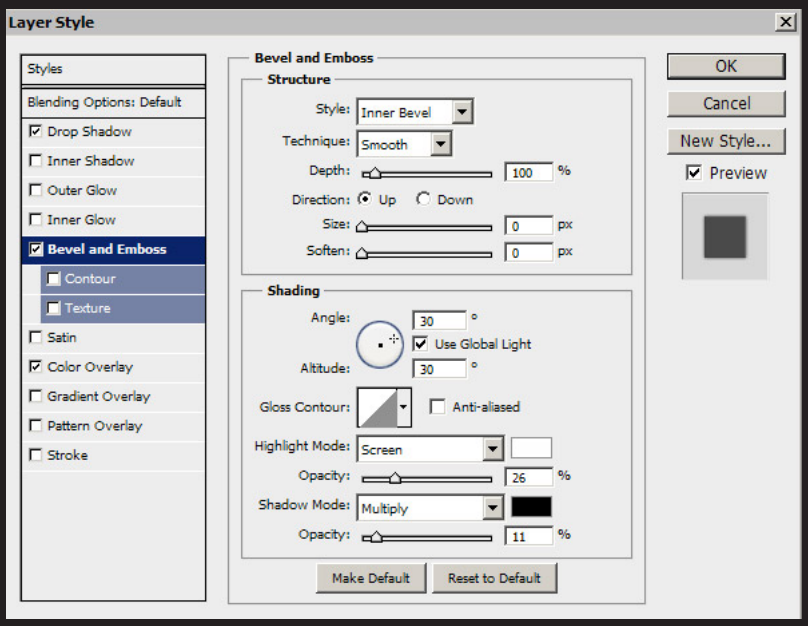
Before we begin, you will need to extract the "viper_mk7e_nameplate_files.zip" archive into your work folder.

Color / Diffuse Map

Open up "Col_Viper_Mk7e_blank.tga" and "vipermk7e_nameplates_uvw.png". With the "vipermk7e_nameplates_uvw.png" selected, select all, copy, close, and paste it's contents over to the tga you should still have opened. Name this layer "UVW" and move it to the top, over everything. Save as "Col_Viper_Mk7e_Ne01.psd".
The result should look like the picture below, so let's go over the layout:



Now it is time to come up with the texts themselves - again, pick a font, trace it on your own, whatever you like. Place them like on the screenshot on the bottom of this page; you can also look up the existing VIIE nameplates to see how the texts should be positioned. After you've placed the tail numbers and the battlestar names, merge them all in a single layer. Apply a "color overlay" layer style and give it RGB values of 74,74,74. Apply "Drop Shadow", leave the angle settings as they are, set opacity to 75%, size to 3px, distance and spread to 0. Finally, apply a "Bevel and Emboss" layer style, and use the settings as seen in the screenshot below:



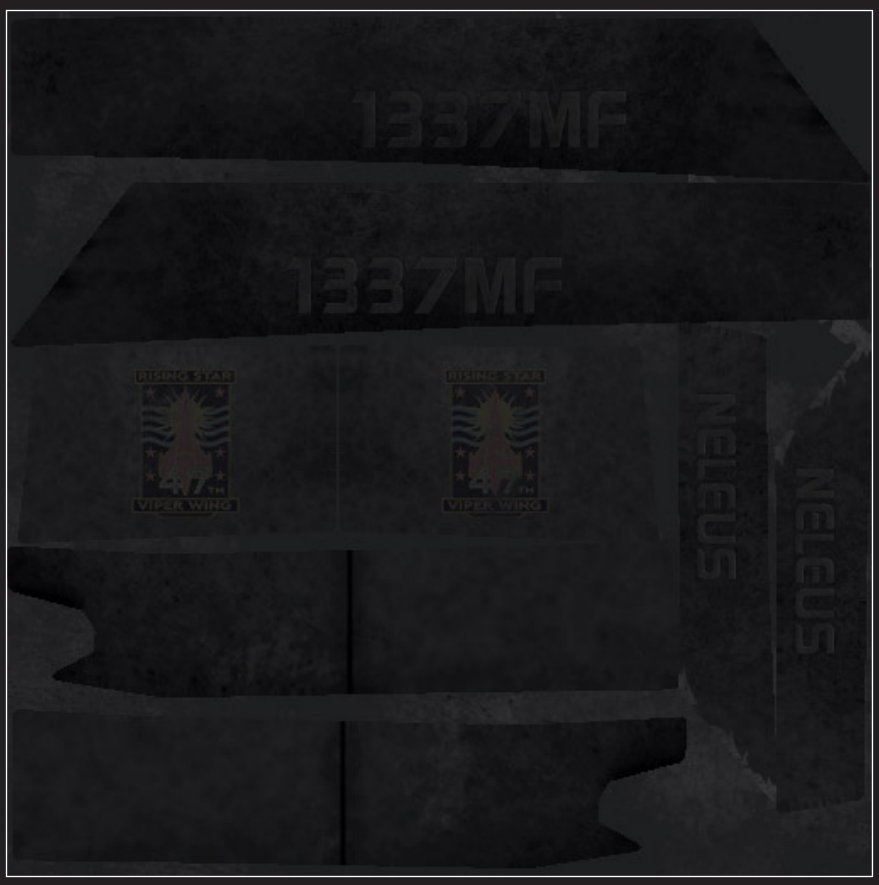
Now open up "risingstar_squad.png", and copy-paste it's contents over to the psd. You will need to duplicate it, and position both logos like in the screenshot below. Optionally, feel free to use custom brushes, layer masks, additional layers, etc. to make the text and logo look worn. Turn off the UVW layer. Your final result should look something like in the shot below.

The only thing left is to export it to .dds. Save your psd, then save this to a 24-bit tga and open the result in The Compressonator. Create mipmaps down to 8x8, compress to dxt1, and save compressed to a file named "Col_Viper_Mk7e_Ne01.dds".

The color / diffuse map is now done.

Shine Map

Open the diffuse map PSD you just created, and save it as “Col_Viper_Mk7e_Ne01-shine.psd”. Now open “Col_Viper_Mk7e_blank-shine.tga”, select all, and copy paste it’s contents over to the psd. Position the new layer just above the background one and merge it so it effectively replaces the background. Select your texts layer (if you have more than one, merge them all together), bring up the hue/saturation options (Ctrl+U), and set the text brightness down to -55. Do the same for your squadron logos, except this time also drop their saturation to -80. Switch to your channels palette, and add an alpha channel. Make a single white pixel in any of the corners. Switch back to the regular RGB view, and go back to your layers palette. Make sure the UVW layer is off.
You should have something like in the picture below:



That’s it! Just save this as a 32-bit .tga, open that tga up in The Compressonator, create mipmaps down to 8x8, compress it as dxt5, and save compressed as “Col_Viper_Mk7e_Ne01-shine.dds”. Another set of nameplates all done. You can now use your PSDs to easily create as many individual vipers belonging to as many squadrons or battlestars as you like.

04 . Prometheus

The Prometheus requires color / diffuse, shine and glow maps. Before you begin, you will need to extract the archive “Prometheus_nameplatefiles.zip” into your work folder. For the purposes of this tutorial, we will be making a nameplate for the *Vagabond,* another ship of the class. If you want to use the same font as the *Prometheus* uses in Diaspora, you will need to download and install a font called “XScale” - it is free and available on http://www.dafont.com/

Color / diffuse map

First, open up “RTF_Prometheus_blank.tga”, do a “Save as..” and save it as “RTF_Prometheus_Vgb.psd”. Select your font and type in “VAGABOND” just below the flag - if you’ve opted to use “XScale”, make the font size 38 pt. Of course, you could do something else - replace the flag with another colony’s flag, or with some sort of pin-up nose art - but that is beyond the scope of this tutorial, so we’ll just stick to making another nameplate. Once you’ve typed in the name, you should be close to done, but a too clean name doesn’t blend all that great with the overall worn look of the ship. This is why I use a layer mask and some custom brushes to make parts of the text look worn. This part will depend greatly upon your own preferences, but I tend to make parts of the sign look worn to blend it better with it’s surroundings.

To use a layer mask, select the text layer in the layers palette, and use one of the bottom buttons on the palette to add a white layer mask. Take some sort of an irregular brush, set size and opacity to desired levels, foreground color to black, and apply some chipping to the mask. What’s great about a layer mask is that it’s a non-destructive method of removing parts of the picture; while the color black will make the pixels disappear, applying white to the same area will bring them back, and applying any sort of gray will make the pixels there semi-transparent, amount of transparency depending on the % of black. Once done, you should have something similar to the picture below:

That’s it for the color / diffuse. Save it to .dds using either the Photoshop plugin or The Compressonator; I prefer using The Compressonator because it allows me more control over mip maps and how the compression will end up looking. Use DXT1 compression mode and, if using Compressonator, create mip-maps down to the 8x8 level.

Name the final texture “RTF_Prometheus_Vgb.dds”, and also save the psd file, we’ll need it.

Shine Map

Next, open “RTF_Prometheus_blank-shine.tga”, select all, and copy it’s contents. Open your diffuse map psd file again, and paste the contents you just copied over to it (and save it as another psd). Make sure the new layer it creates is just above the backround, and merge it with the background. Now select your “VAGABOND” text and change it’s color to black.

Switch to the channels palette, and create a new channel. It should create a new black channel called “Alpha 1”. Create a single white pixel in any of the corners - just make sure it’s completely in a corner. Once done, switch back to the regular RGB view and go back to the layers palette. Your final result should look like the picture on the right. Save this as a 32-bit tga, open up in The Compressonator, set mipmaps to 8x8, and compress in DXT5 mode as ““RTF_Prometheus_Vgb-shine.dds”. Done!

Glow Map

Open your diffuse map psd file again, then open “RTF_Prometheus_blank-glow.tga” and copy over it’s contents back to the psd file, set the layer over the background and merge it with the background again. Save this file as “RTF_Prometheus_Vgb-glow.psd”.

Now open “prometheus_glowspot.png”, and again copy over it’s contents to the PSD, this time making sure this layer is above everything else. You should end up with something like in the picture below:

Save this as a 24-bit tga, open it up in The Compressonator, generate mipmaps to 8x8 again, compress as a DXT1 texture and save as “RTF_Prometheus_Vgb-glow.dds”. That’s it, you’re done.