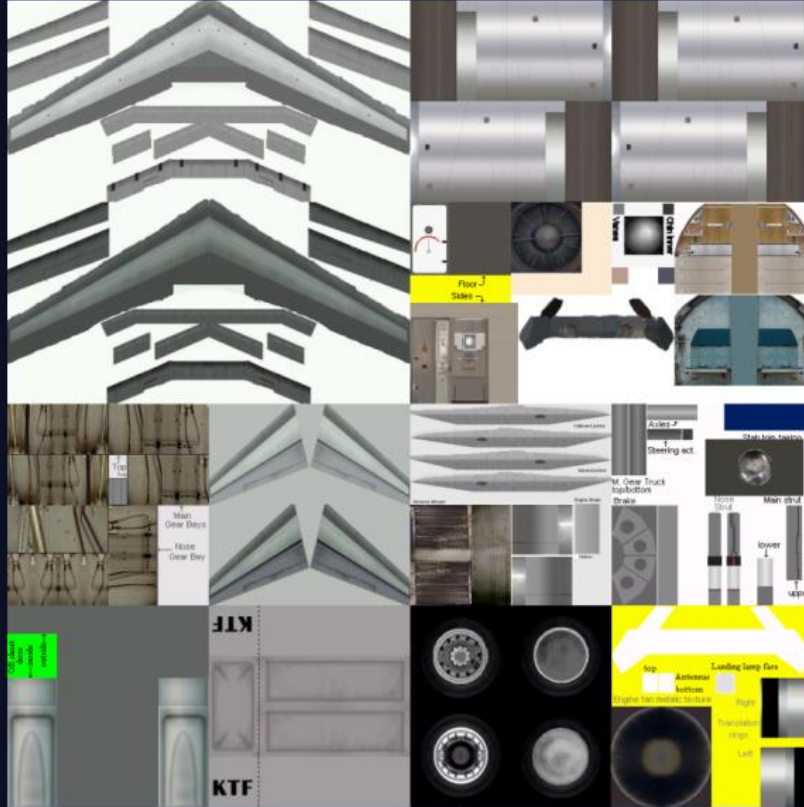




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## Converting HJG standard HJG DC-8 textures for use on the HJG AI DC-8 series. Version1.0

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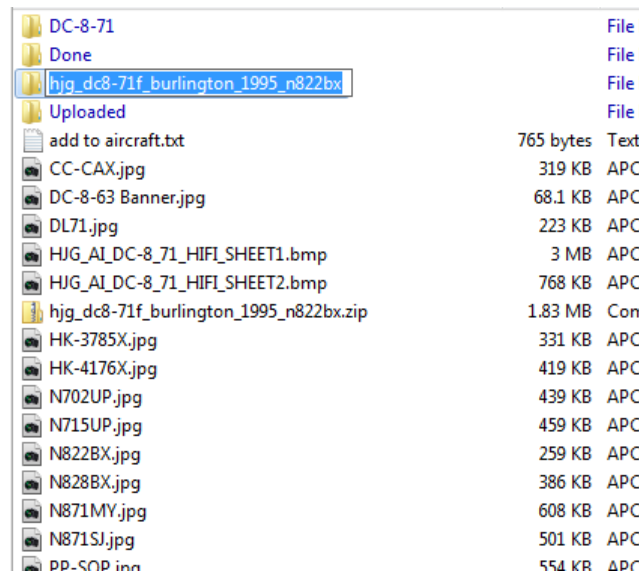
This guide will take you through converting standard HJG UI DC-8 texture sets for use on the AI DC-8 series. You will need to know how to use a paint package like PSP or Photoshop and Image tool or DXTbmp.

I use DXTbmp and PSP, and for this example, I will use PSP9.

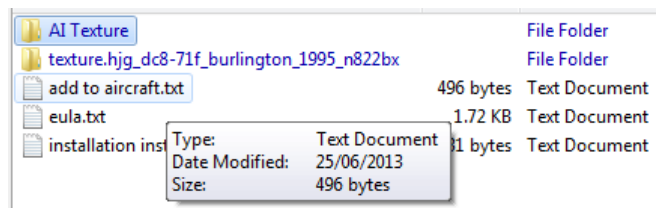
The first thing that you need to do is download a texture set. For this example, I will be using recently uploaded BAX 1995 DC-8-71F.

The first thing to do is unzip the texture set.

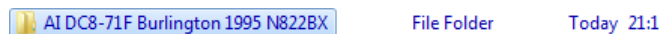
Once this is done, I copy the directory name for using as the new archive name with a few changes.



I then change to the directory when the extracted files are, and make the following sub directories.



Change to the new AI texture directory and make another sub directory, using the copied archive name as a basis for the AI archive.



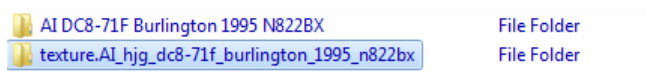
As you can see, there is a subtle change from the UI archive name to what the AI texture archive will be called. It's basically the same name, but now can't be confused with the UI texture set.

hjq\_dc8-71f\_burlington\_1995\_n822bx becomes AI DC8-71F Burlington 1995 N822BX.

This will be the new archive name for uploading, just zip this directory up when complete or storing your personal textures when completed.

We now need to make one more directory here.

To do this we go back one level to copy the texture set name for use on this directory, again with a little change to distinguish it from its UI counterpart.



In this case, all I have done is to put AI\_ in front of the texture name.

texture.hjq\_dc8-71f\_burlington\_1995\_n822bx becomes

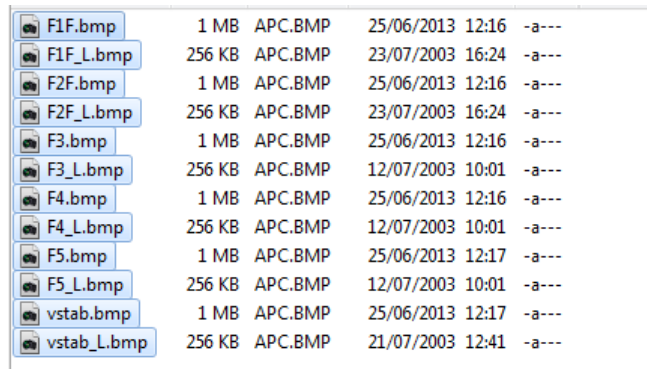
texture.AI\_hjg\_dc8-71f\_burlington\_1995\_n822bx

This is our new texture directory that we will use on the model.

We now need to copy some files from the UI texture directory to the new AI texture directory.

All we need are the fuselage and tail textures along with their night lighting counterparts.

These are the files copied to the Ai texture directory.



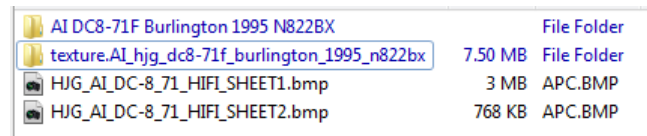
|             |        |         |            |       |       |
|-------------|--------|---------|------------|-------|-------|
| F1F.bmp     | 1 MB   | APC.BMP | 25/06/2013 | 12:16 | -a--- |
| F1F_L.bmp   | 256 KB | APC.BMP | 23/07/2003 | 16:24 | -a--- |
| F2F.bmp     | 1 MB   | APC.BMP | 25/06/2013 | 12:16 | -a--- |
| F2F_L.bmp   | 256 KB | APC.BMP | 23/07/2003 | 16:24 | -a--- |
| F3.bmp      | 1 MB   | APC.BMP | 25/06/2013 | 12:16 | -a--- |
| F3_L.bmp    | 256 KB | APC.BMP | 12/07/2003 | 10:01 | -a--- |
| F4.bmp      | 1 MB   | APC.BMP | 25/06/2013 | 12:16 | -a--- |
| F4_L.bmp    | 256 KB | APC.BMP | 12/07/2003 | 10:01 | -a--- |
| F5.bmp      | 1 MB   | APC.BMP | 25/06/2013 | 12:17 | -a--- |
| F5_L.bmp    | 256 KB | APC.BMP | 12/07/2003 | 10:01 | -a--- |
| vstab.bmp   | 1 MB   | APC.BMP | 25/06/2013 | 12:17 | -a--- |
| vstab_L.bmp | 256 KB | APC.BMP | 21/07/2003 | 12:41 | -a--- |

All five fuselage textures and the tail (vstab).

The only other files needed will be the base BMPs that hold the rest of the textures, and the replacement alpha channel. These are available from the AI DC-8 page. We will need the 71 versions.

The main difference between versions is the engine textures, and for the earlier pre supers, the engine mount texture. Copy the two "L" textures to this directory, and the main BMPs to the directory above.

The directory above will now look like this.



|                                               |         |             |
|-----------------------------------------------|---------|-------------|
| AI DC8-71F Burlington 1995 N822BX             |         | File Folder |
| texture.AI_hjg_dc8-71f_burlington_1995_n822bx | 7.50 MB | File Folder |
| HJG_AI_DC-8_71_HIFI_SHEET1.bmp                | 3 MB    | APC.BMP     |
| HJG_AI_DC-8_71_HIFI_SHEET2.bmp                | 768 KB  | APC.BMP     |

The reason for putting the master textures here is to show that they have not been modified for use with the texture set.

Once that is completed, they are dropped into the Ai texture directory.

OK, time to use DXTbmp to export the textures that we need to add to the main Ai textures.

Sheet 1 holds all the textures except for the starboard engines and the cargo interior.

The files in the UI directory that we are interested in are:-

CFM\_ENG1.bmp           The engines might have decals or painted. The base files engines are metallic. Also check all the others in case they are not the same as this one.

ng\_doors.bmp           The nose gear doors will normally have the reg or fleet number, and the colour to match the repaint.

wind\_frm.bmp           The window frame is always changing between texture sets, and the aerals are also here, and they also sometimes are coloured.

Other ones to look at are the top and bottom wing textures, both left and right.

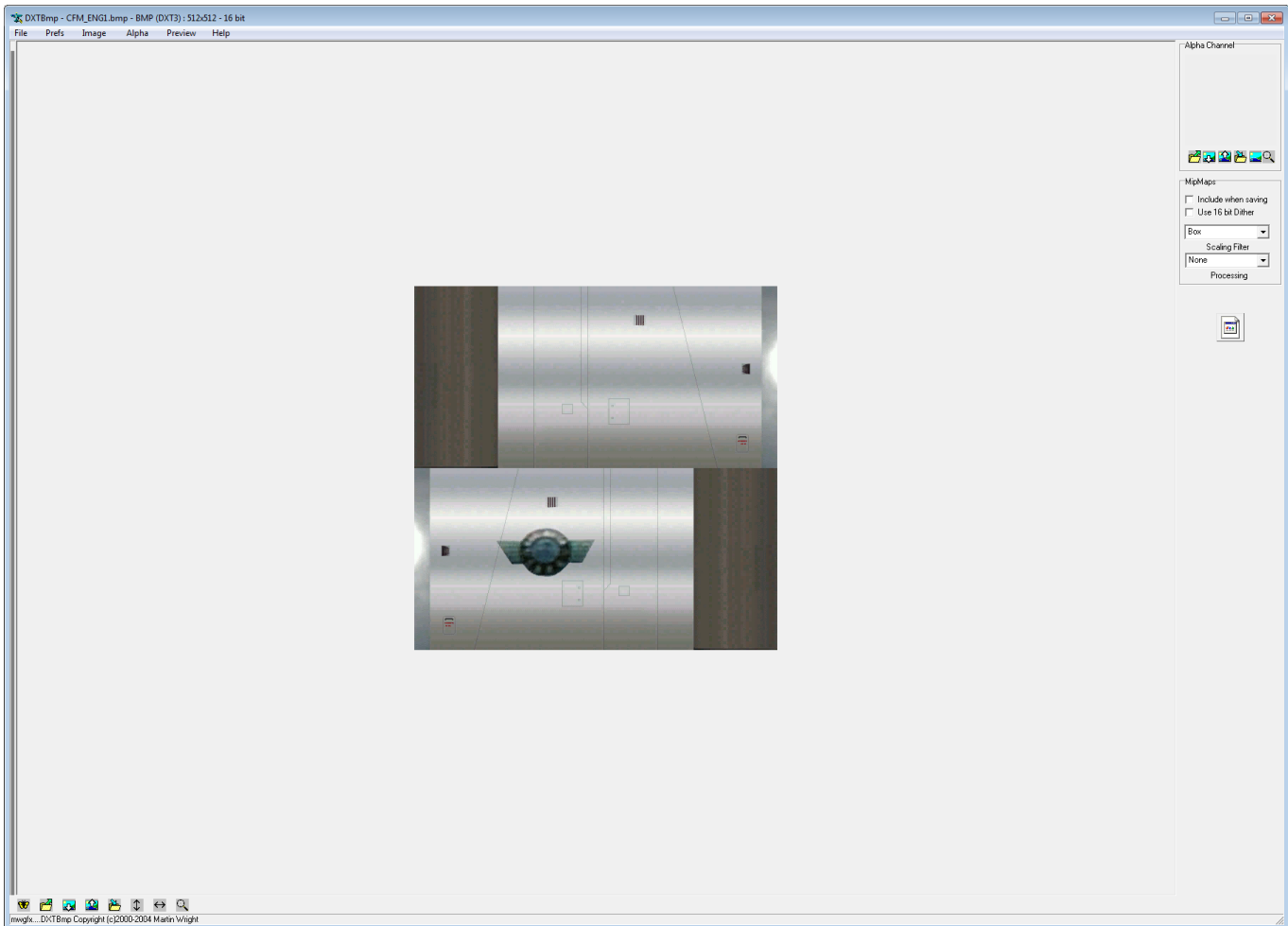
Not required for this repaint, but there is often registrations or airline names on the wings, and in the case of Braniff, coloured wings.

OK, time to make a start on the conversion work.

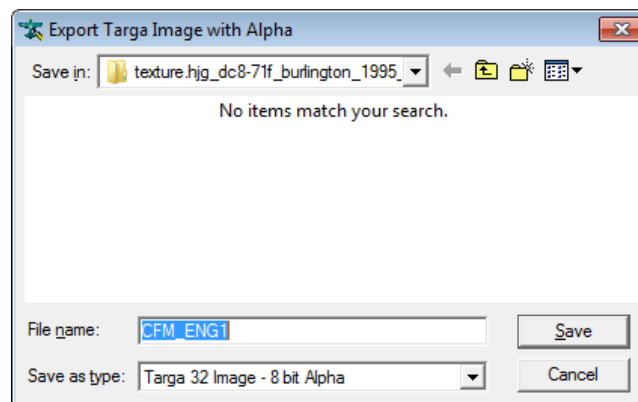
Open DXTbmp.

Navigate to the texture.hjg\_dc8-71f\_burlington\_1995\_n822bx directory.

Open up CFM\_ENG1.bmp. This has a large logo on the texture so we will need to ass this to our main textures.



Save as a TGA 32 image.



Now check CFM\_ENG2 to 4. If they are the same, do nothing, if they are different, save those as TGA's as well.

In this example, we only need to save CFM\_ENG4, as this is the only other one with a logo, and it's on the top texture this time as it's on the right of the engine nacelle.

Repeat this process for all the mentioned files above.

We now have the textures that we need to add to the master BMP's.

Now unzip the ALPHA bmp into a master location.

I use the route of the main project working directory. We will need this file every time a texture is converted for AI use.

This is the very easy part, changing the alpha channel on the fuselage and tail textures.

The DC-8 and all my AI models have the dynamic shine built into the model material, so need a white alpha channel. If the textures are used as is, the fuselage and tail will be transparent.



Its not so evident on this small picture, and will vary depending on who did the repaint how transparent the model is, but if you look closely, you can see the cargo containers inside the front fuselage behind the cockpit, and the engines are bleeding through the fuselage. This is the sign that the alpha channel has not been changed.

One of the common mistakes made is to miss one fuselage section, but this shows up as a darker texture from the rest, and close up it looks like the above example.

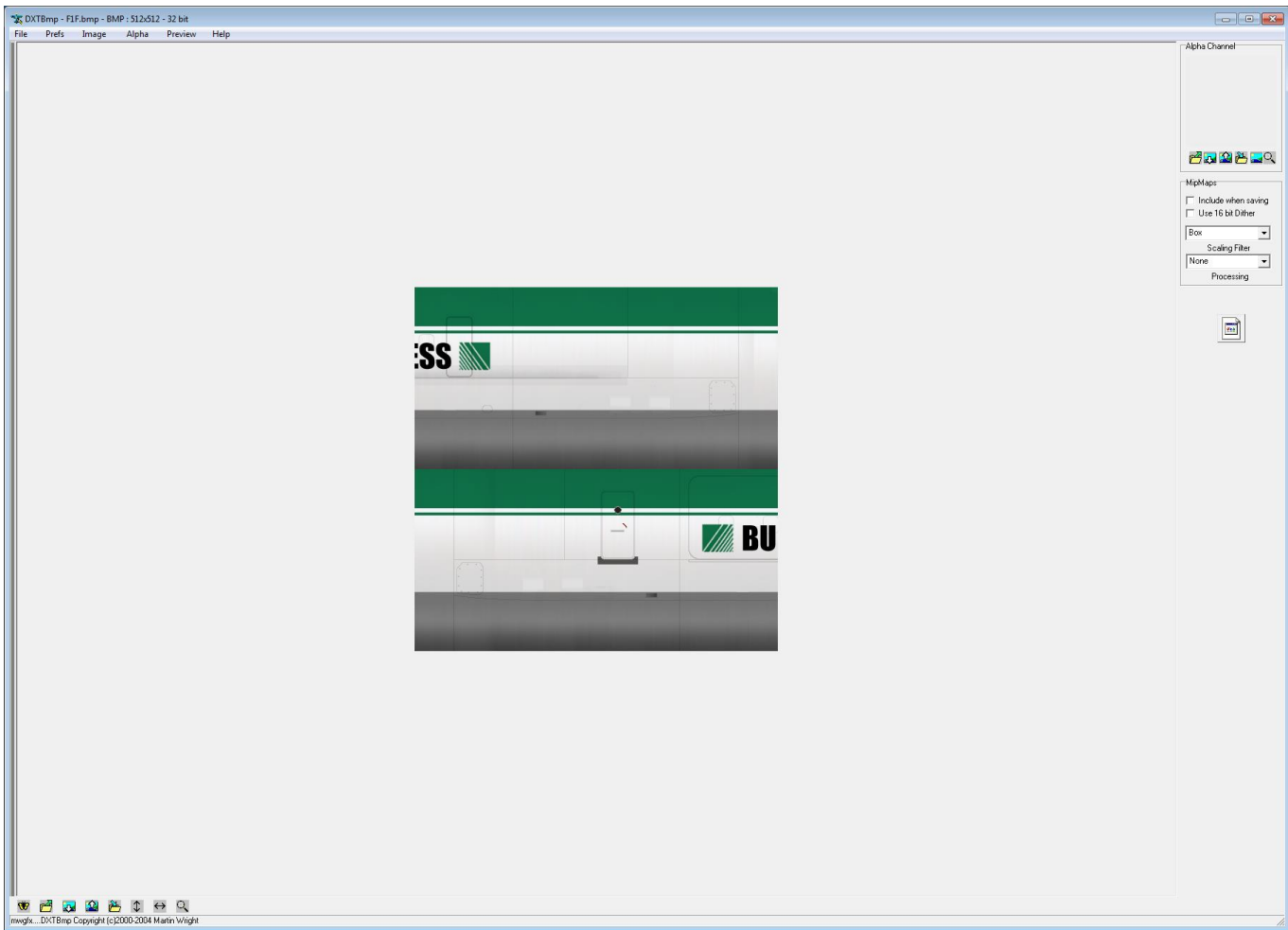
OK, time to do the conversion.

Change the directory to the new AI texture directory that we made earlier.

Now open up F1F.bmp. Ignore all the files ending with an "L". These are the night lighting textures, and we won't be touching them.

We now have the screen below.

As you can see from the top right, it has a grey alpha channel, nice if you want a see through plane.

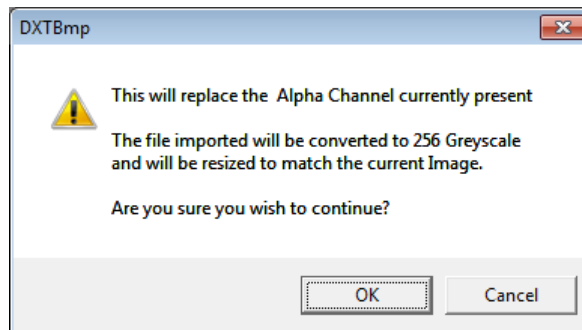


We will now change this to a white alpha using the file that we have just added.

Click on Alpha on the main tool bar.

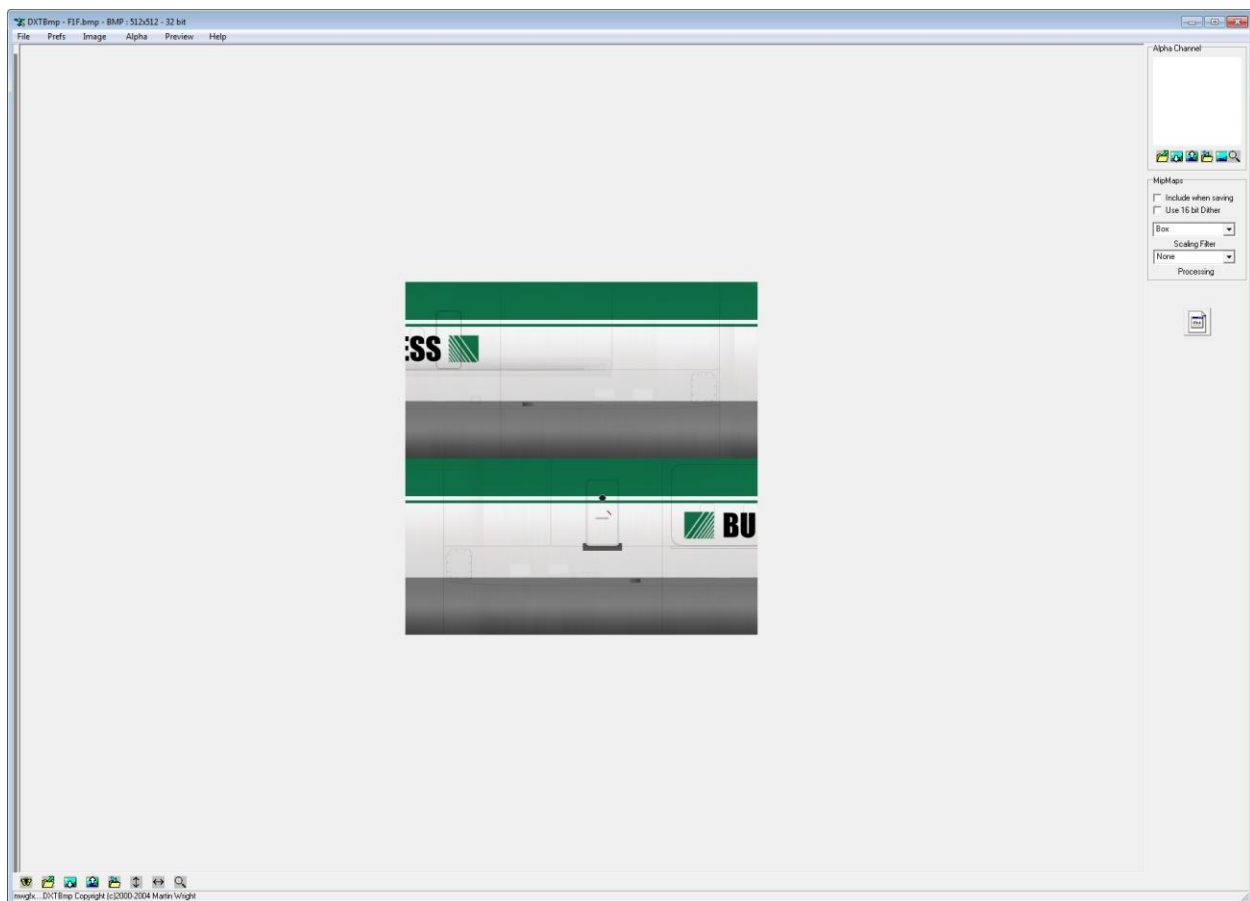
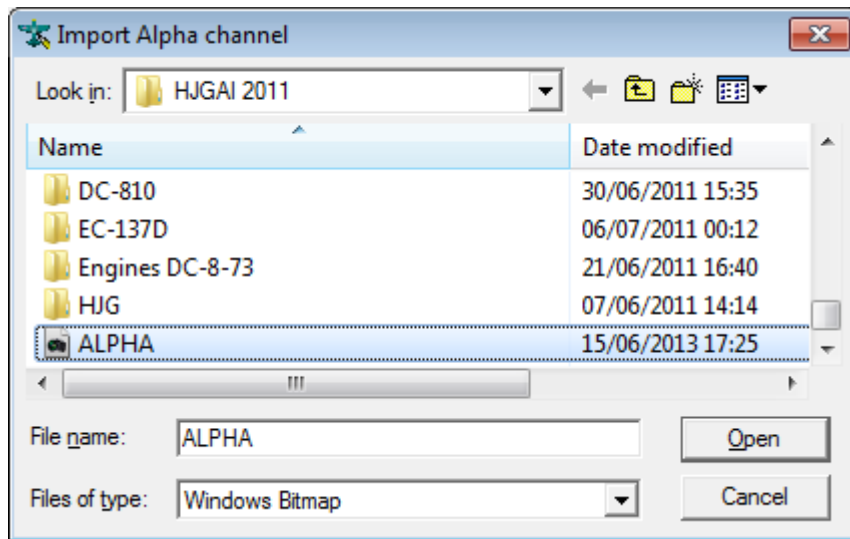
From the drop down menu, select Import Alpha Channel.

The following warning will come, click OK to continue.



Navigate to where you extracted the alpha bmp, and select it.

Click open.



The alpha channel on the top right has now changed to white.

Under the alpha channel box, make sure that you don't save with MipMaps. Remove the ticks in the box's if present.

MipMaps work well for some people, but not for others. My ATI graphics card hates them and give you a bad case of "the blurries" if used.

If this texture is for your own personal use, and your graphics card handles MipMaps correctly, then please feel free to use them.

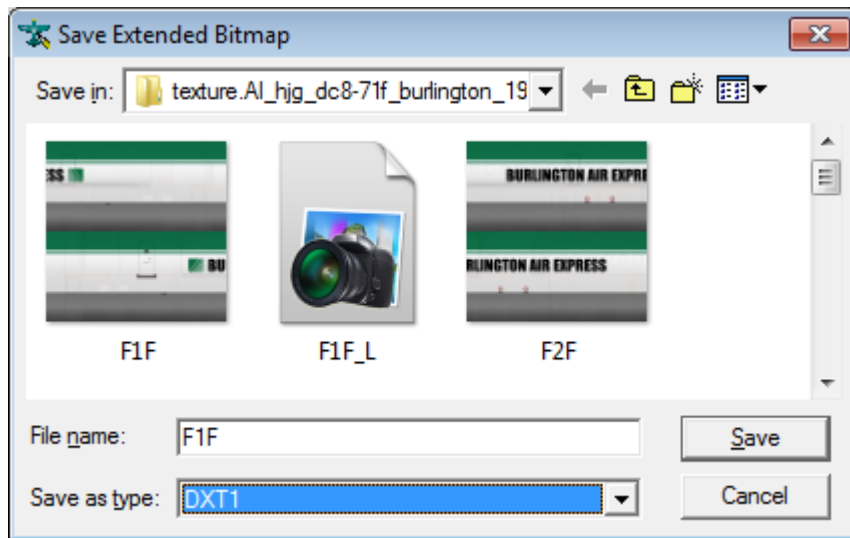
For general use, it's best not to include them.

Now it's time to save the texture.

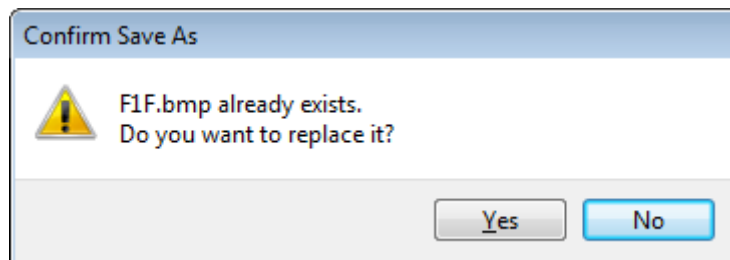
For general release, I convert them to DXT1 with alpha. This gives a good resolution.

If these are for your own use, you can keep them at DXT3, or 32bit if you have a powerful computer with lots of graphic ram.

Save as a DXT1 with alpha.



Click yes at the warning dialog.



Job done!

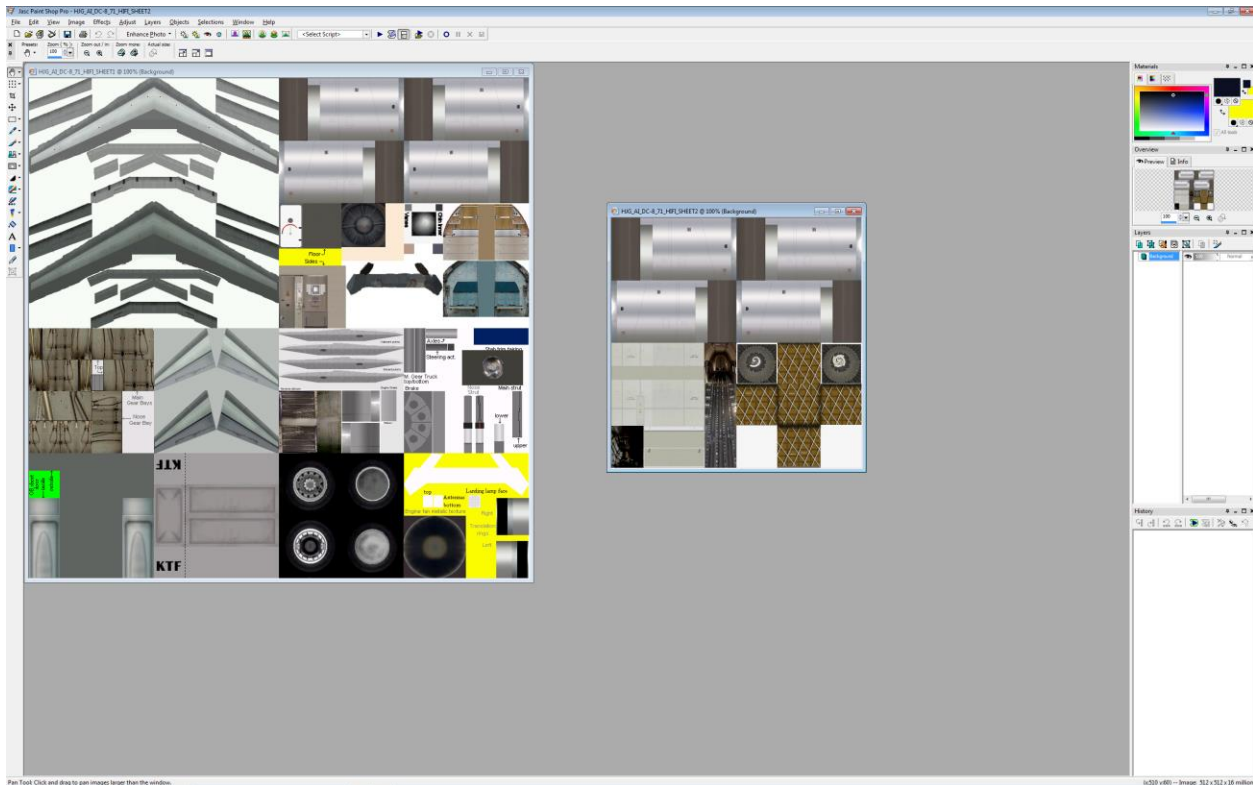
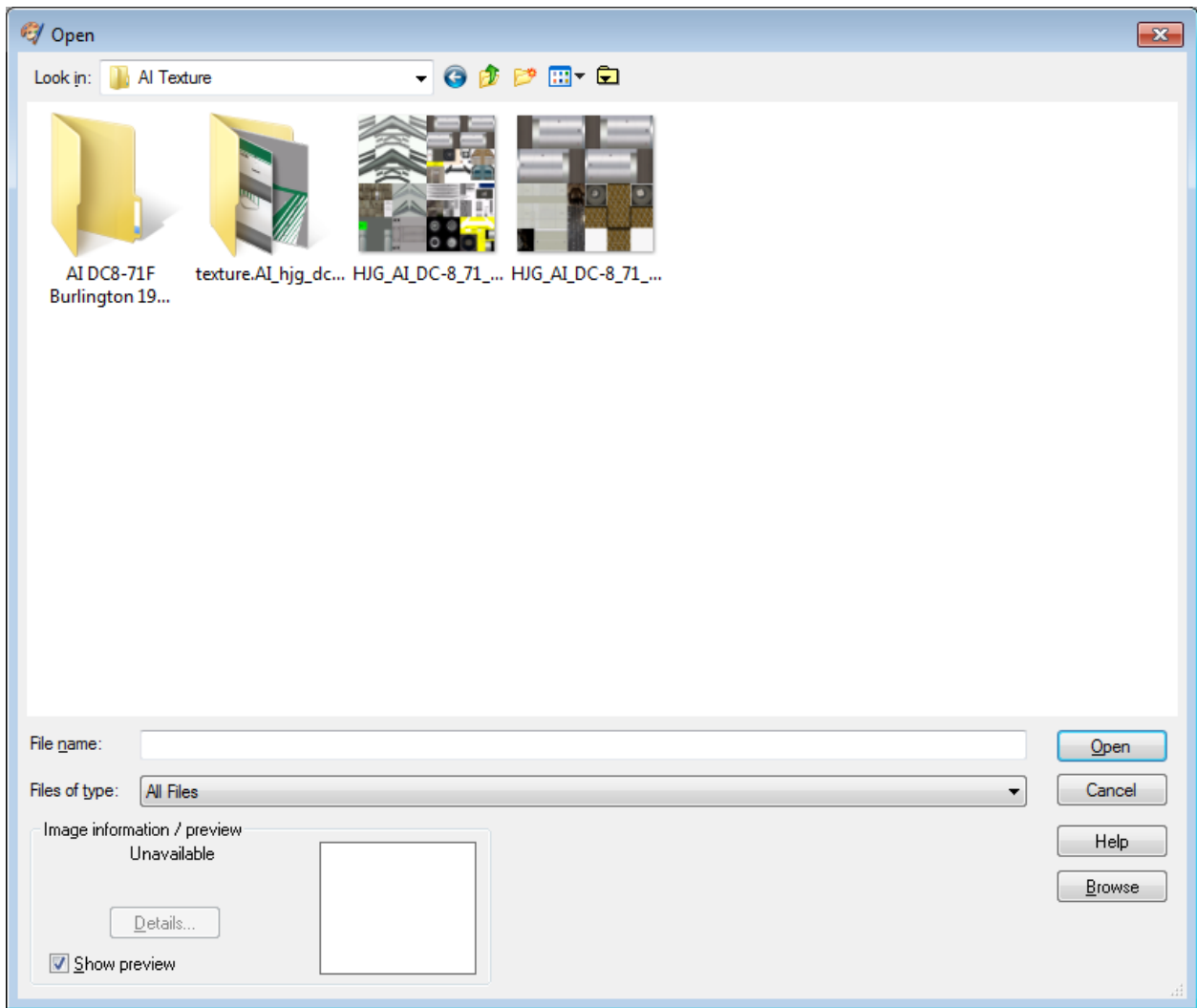
Now repeat the above process for the rest of the fuselage textures and the tail (vstab).

Congratulations! We now have an AI compatible fuselage and tail texture set. Now we must change the engine, nose gear and window frame textures on the master BMPs.

Open PSP.

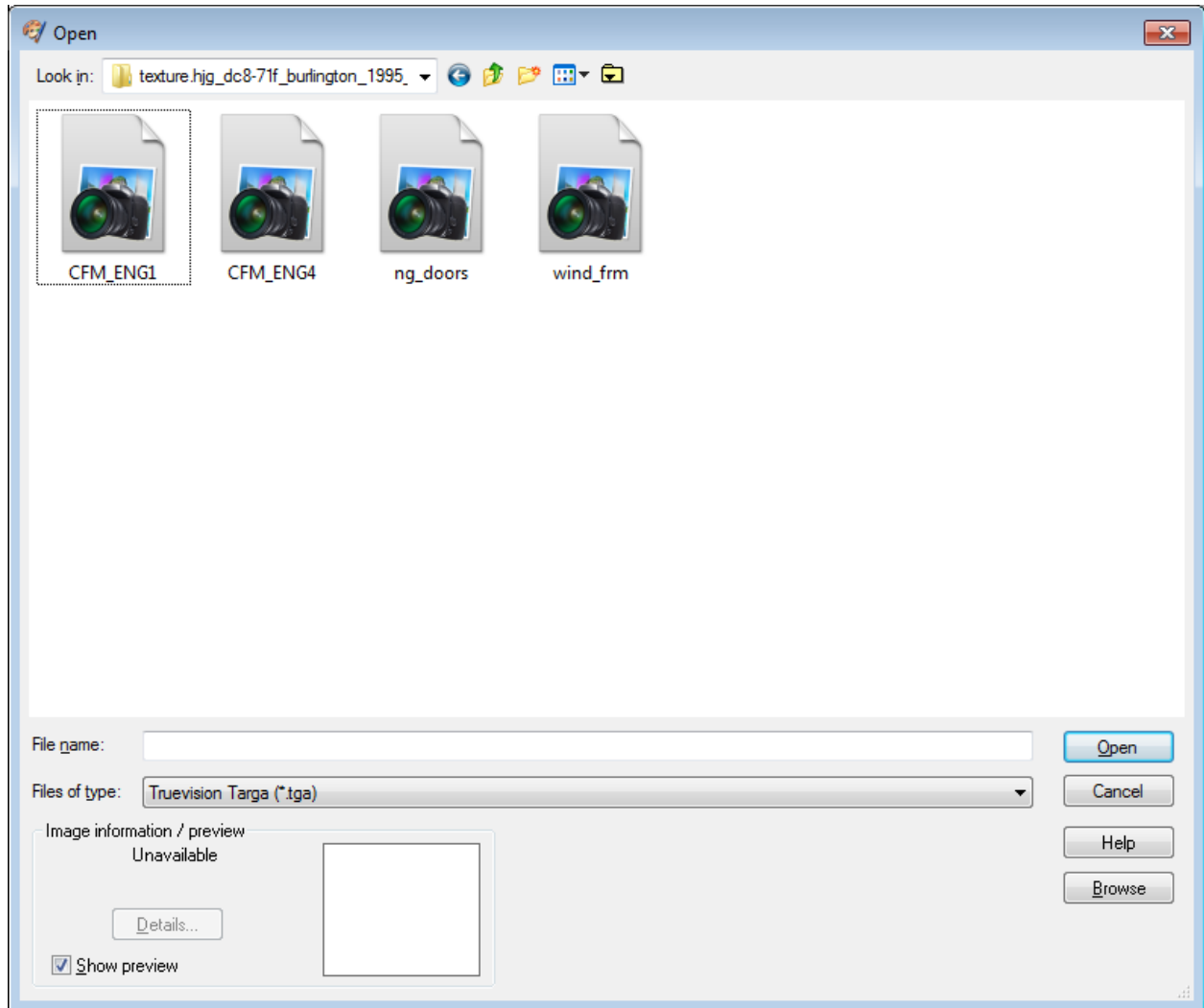
Navigate to the directory where the master BMPs were unzipped, and load both of them into PSP.



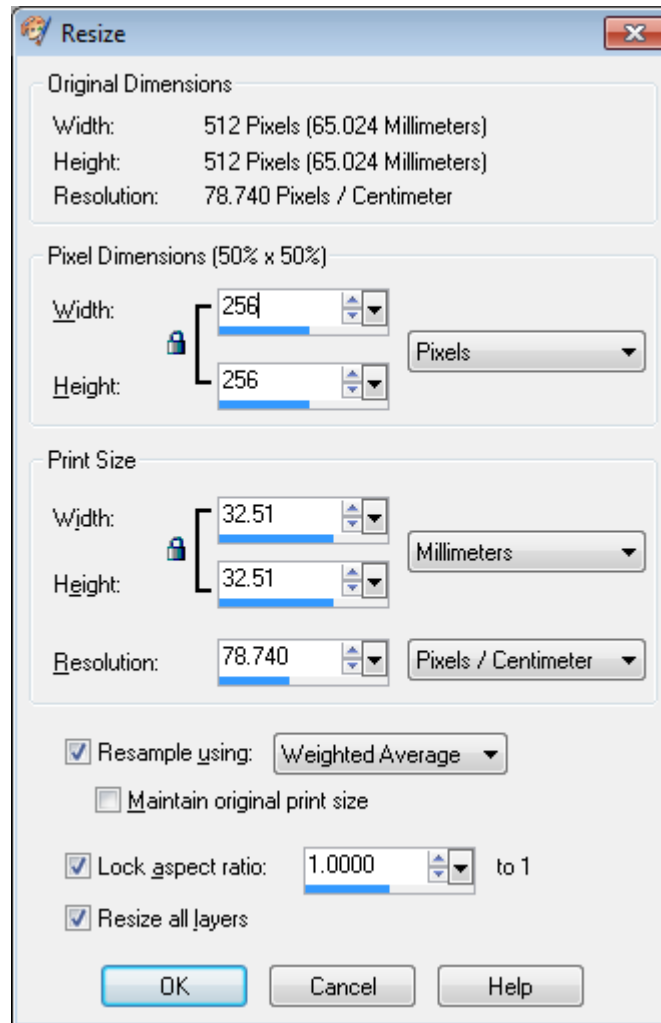


The two engine textures on the larger sheet 1, are for the port engines. Outer on the left, inner on the right. Sheet 2 has the starborad engines, the outer is on the right, and the inner on the left.

Now we need to open the TGA's that we made ealier. Firstly, the port outer CFM\_ENG1.



This will be replacing the port outer nacelle texture. This texture is 512x512 pixels in size, so needs to be reduced in size to 256x256 pixels.



Now copy and paste this to the port outer engine position (left hand texture).

I can now see that the metallic paint is different to the base set, so we will need to convert CMF\_ENG2 to a TGA to replace the inner nacelle texture. Do that now.

Reduce this in size and paste to the right hand nacelle texture.

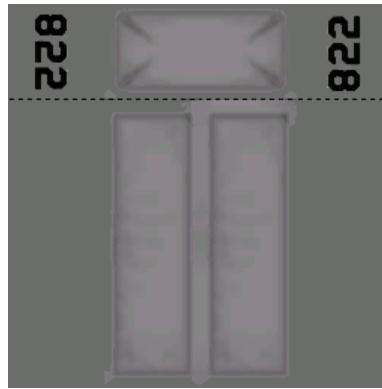
Now we have the port side nacelles re-textured.

Repeat this for sheet 2, using CFM-ENG4 on the outer (right hand) texture.

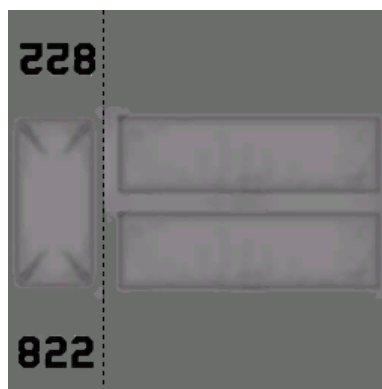
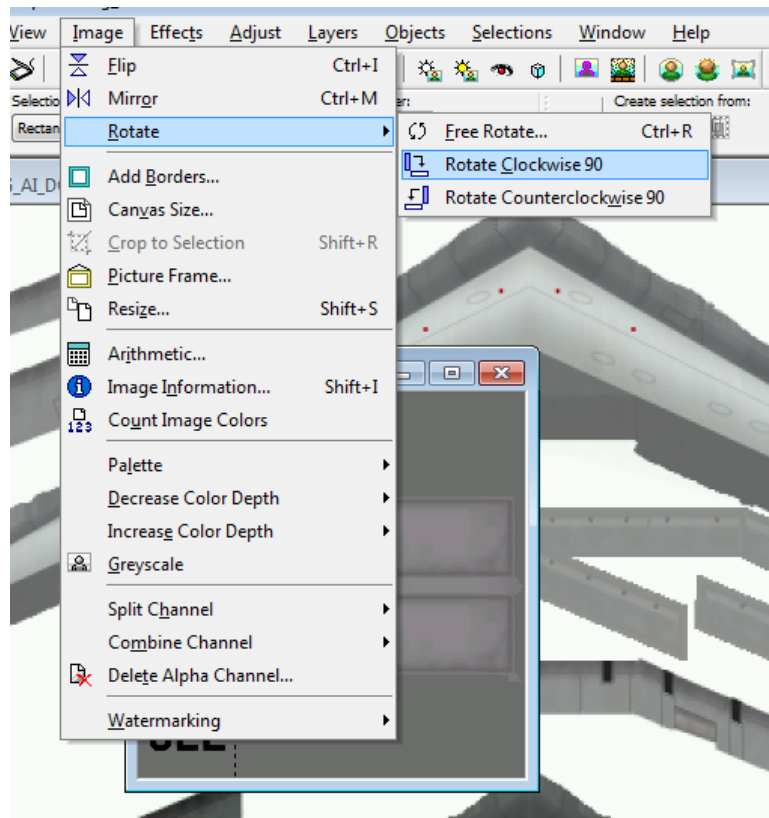
Now close down the CFM-ENGx TGA's, we have finished with them.

Open the nose gear door texture (ng\_doors.tga).

This texture is the correct size, but rotated 90 degrees to the left, for our use, it needs rotating to the right.



From the image menu, select Rotate Clockwise 90.



That's what we need. Replace the existing nose gear door texture with the newly rotated texture. This is the second texture on Sheet 1 bottom left under the horizontal stabilizers.



Now that is completed, the only thing left to do is add the window frame texture.

Close the nose gear door texture, and open the window frame texture (wind\_frm.tga).

This texture also needs reducing in size to 256x256, so go-ahead and do that.

As the base texture set uses its own fan texture, we are only interested in the window frame.

If the aerials had been coloured, we could have copied this part as well, but on this set they are white, the same as the master textures.

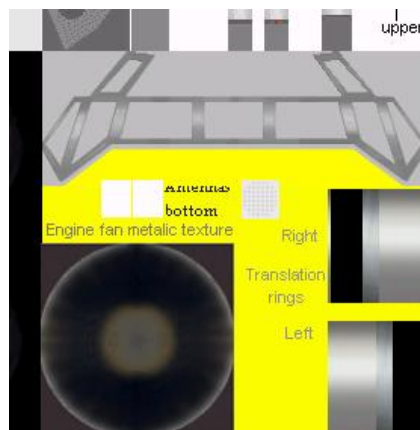
Copy only the window frames to paste over the originals on Sheet 1 bottom right.



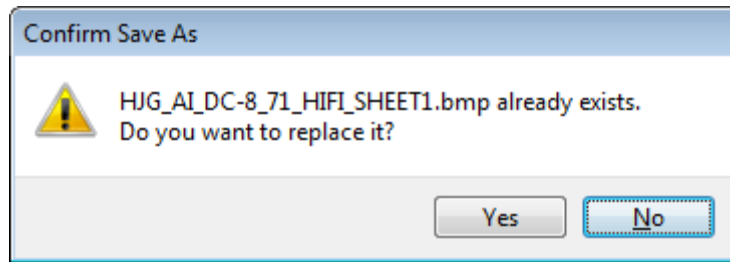
Due to me making a 1 pixel error on the original texture, this is pasted 1 pixel to the left over the wheel texture, which we will touch up afterwards.

This is not a problem as the models window frames are mapped to the misplaced texture.

I did not find this out until I was making the 62 texture. Not worth going back and changing the mapping and all the 63 textures, as the end result would not change. A one pixel touch up of the wheel black is all that is required.



Now we can save these over the ones in the AI directory.



Confirm the save and replace.

When both files are saved, you can close PSP as we have now finished with it.

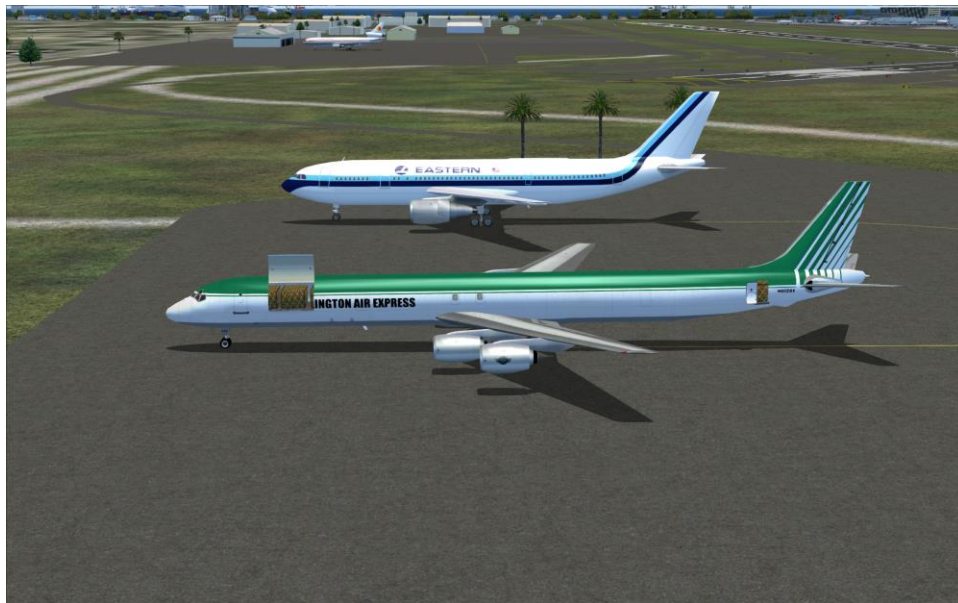
The last thing we have to do has already been covered earlier.

Change the alpha's of these two textures to the white alpha, and save as a DXT1 with alpha.

Now just drag them into the main AI texture directory, and the set is complete.

To see how they look in the sim, drop the Ai textures into the AI DC-8-71F folder, and add an entry to the aircraft.cfg file. Assign a flight plane and go AI spotting.

Making the add to config file, testing and preparing the file for uploading will be covered in another tutorial.



The results of our labour in FS2004

For any questions regarding HJG aircraft or installation problems, visit the HJG website at:  
<http://www.simviation.com/hjg/>

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