

Porting a ship from Bridge Commander to Legacy...

A tutorial by gdata

Hello guys and girls (if there are some in the community). I created this tutorial as a response to a weekly poll at Legacy Files. So thank IKS Yo Mama for making this poll...otherwise I would not have known that so many people want to mod, but cannot. First of all you need these tools and programs:

- [Milkshape 3D](#)
- [Mad3D Exporter for Milkshape by Moonraker](#)
- [Milkshape Tools](#)
- [Photoshop](#)
- [Photoshop DDS Plugins](#)

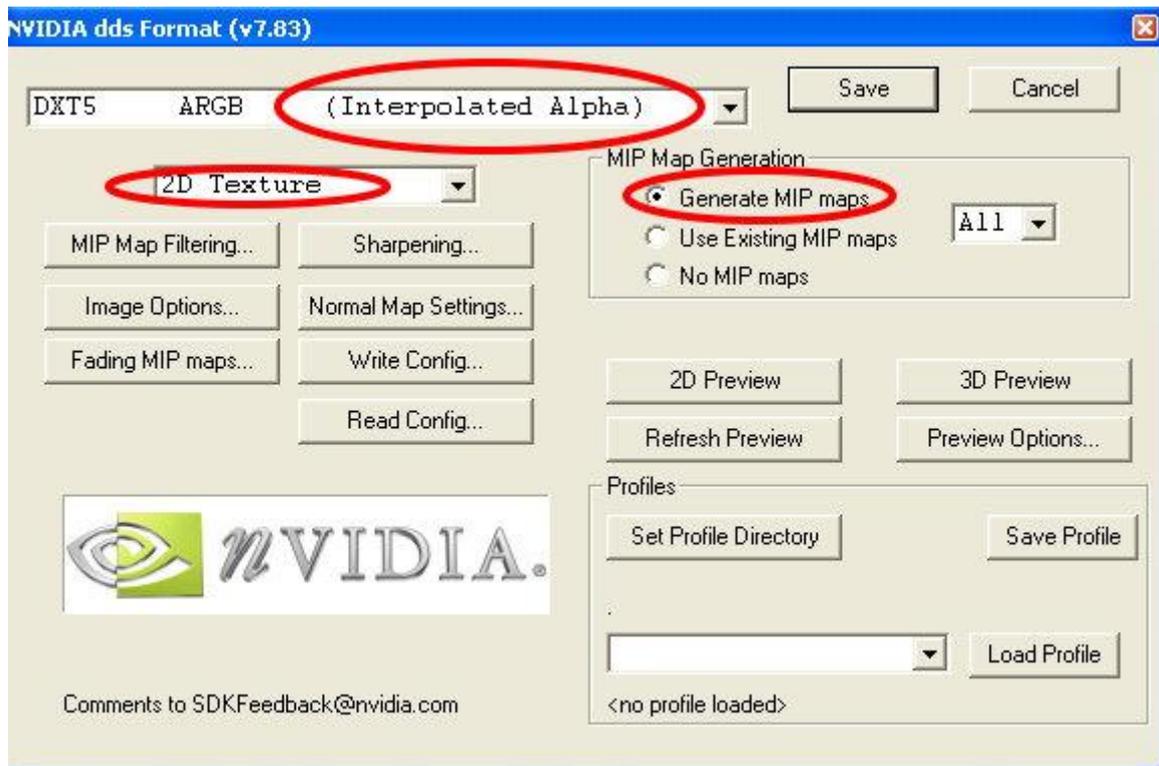
You should have some basic Photoshop and ODF experience before you try to do this...if you do not have you might find it difficult to use it....but you never can be too old to learn it (There is a crash course in ODF editing in this tutorial, but it won't explain everything!!!!)

If you found a BC ship you would like to port, ask the author for permission, unless you want to port the ship only for personal usage. There are several sites where you can find BC mods (for example: [Bridge Commander Files](#)).

If you have downloaded the mod, open the texture Files with Photoshop (or Paint.NET). They should be in the following folder (there might be a subfolder HIGH, LOW or MEDIUM and then the textures are in this folder):

[BC Directory/ or the folder where you unzipped the files]data\models\ships[shipname]

Now save all files as *.dds with the following setting:



I suggest naming all files like I did with the Courageous from Queball:

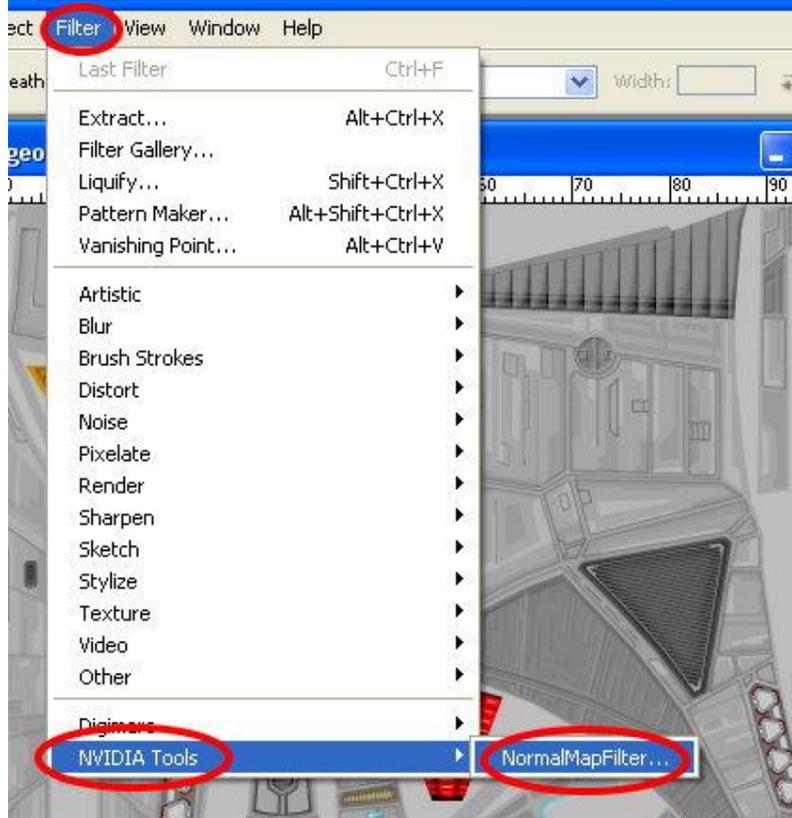
F_Courageous_A.dds (This is just an example!!!! You need to name it for your own ship!)

F_Courageous_B.dds

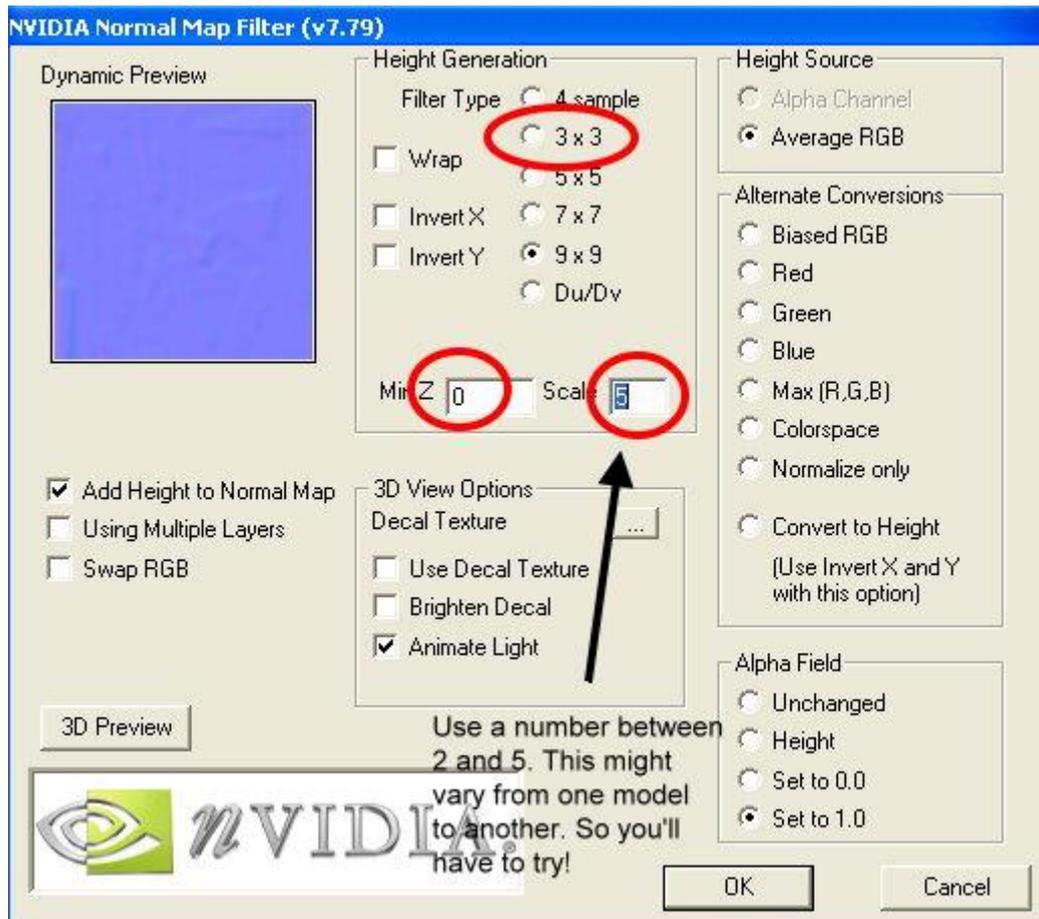
I also suggest not naming the files bridge.dds, because there might be another mod that uses the same texture file!!

-----Optional: Speculars and Bumpmaps 1, START-----

If you have saved all texture files as *.dds open them again. Then use the Normal Map Filter:



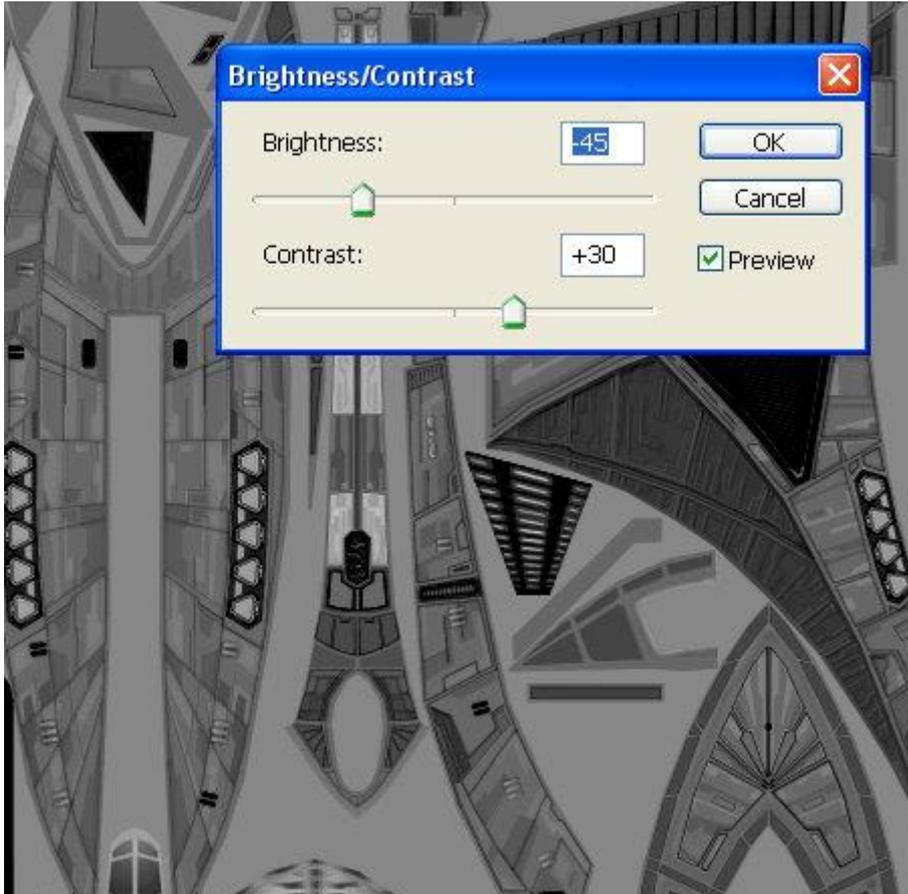
I suggest using the following setting:



Then save the files as *.DDS with a filename like:
F_Courageous_A_Bump.dds

After you have created bumpmaps for every texture file open them again (not the bumps!)
Then press **Ctrl+U** and set the **saturation to -100**.
After that go to: **Image -> Adjustments -> Brightness/Contrast**
Then **reduce the lightness** and set the **contrast to a higher level**.

Now it should look like that:



Save all files again as *.dds and this time with the name:
F_Courageous_A_Spec.dds

-----*Optional: Speculars and Bumpmaps 1, END*-----

-----*Optional: Registries for Photoshop/Milkshape freaks only Part 1, START*-----

1. Remove all registries from the original texture files
2. Create a new file called **F_Courageous_Logo_1.dds**
3. Make the **RGB Channel Black** and **create an Alpha Channel**
4. **Add the letters/numbers** the registries shall have to the **Alpha Channel**
5. Save and do this for a second (third/fourth) ship. Then with the filenames **F_Courageous_Logo_2(3/4).dds**

-----*Optional: Registries for Photoshop/Milkshape freaks only Part 1, END*-----

Then open Milkshape and import the *.NIF file from the following directory:

[BC Directory/ or the folder where you unzipped the files]data\models\ships[shipname]

Then go to **materials** and make sure you have the following (or similar) settings for every material:

Specular: light grey

Emissive: dark grey

Ambient: black

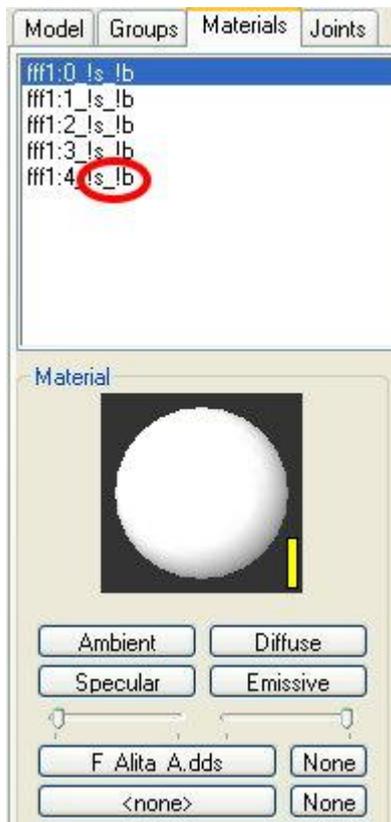
Diffuse: grey (I think Moonraker said the Exporter would not use it, but I have this setting for every port I made...just to be sure)

If you changed the texture name then make sure that you assign the new one!!! (eg: from **bridge.tga** to **F_Courageous_a.dds**: click **bridge.tga** and browse to the **F_Courageous_A.dds** and select it!)

-----**Optional: Speculars and Bumpmaps 2, START**-----

Add to every materials this **_!s_!b!**

It should look like that:



-----**Optional: Speculars and Bumpmaps, 2 END**-----

-----**Optional: Registries for Photoshop/Milkshape freaks only Part 2, START**-----

1. Create a group where the registry shall be later. Make sure it is on the top of the model
2. Name it **stlogo**
3. Create a material that uses the first file you created in Part 1. (In my case: F_Courageous_Logo1.dds)
4. Assign this material to the group **stlogo** and name the material **stlogo**, too
5. Then adjust the texture coordinates

-----**Optional: Registries for Photoshop/Milkshape freaks only Part 2, END**-----

-----**Optional: Damage mesh, START**-----

1. Create a mesh inside the ship and name it **IN_F_Shipname**
2. assign the material **IN_F_Shipname** with the texture file **damageinterior.dds** from you legacy directory

-----**Optional: Damage mesh, END**-----

Now you need to hardpoint the ship...this is the most difficult part of the port...if you have some difficulties with it feel free to visit our [Website with Forum!](#)

Go to Tools -> **Assimsoft Hardpoints Tool** and open the file **Joints** with the extension SOD. The file is in the tutorials ZIP!

Go to Joints. There are Joints called **m_1**, **m_2**, ...

Replace the **1** with the name of the first group, the **2** with the name of the second group and so on. If you have done that delete all remaining joints with **m_****

Then select the joint **h_hardpoints** and create a joint where a weapon shall fire from (eg: a phaser strip or photon launcher). Move the joint to the right place and name it **h_hp01**. Then select this joint and make a new one that points into the direction the weapon shall fire. Do not rename this joint! Then select again **h_hardpoints** and do the whole thing again (**h_hp01** is now **h_hp02**, ...) until you have for every phaser strip, etc. a joint.

Then export the model with the M3D exporter (File -> Export -> Star Trek Legacy M3D)

Crash Course in ODF – Editing:

Now open a *.odf file in the Legacy directory (**odf\ships**) with Notepad. Choose an *.odf file of a similar ship to that ship you want to port. If you named the M3D File for example **F_Courageous.M3D** name the *.odf file **F_Courageous.odf** or what you choose as shipname!

This is the stock Defiant's *.odf file, I marked everything you might need to change for another ship:

```
#include "F_tngclass_destroyer.odf"
#include "Repair_tnglate.odf"

//*****
//  GENERAL STUFF...
//*****
// Name of Ship class in Ship Display window & in edit mode & tooltip
unitName = "Defiant class" change the Class name

// Tooltips
tooltip = "defiantclass"
verboseTooltip = "defiantclass_v"

// Race which can build ship & starting race of ship
race = "federation"

// Determines whether or not a craft has the capability of getting a
targeting boost. -tmob
hasTargetingBoost = 1

//Energy per shot
energyPerPulsePhaser = 0.12

//*****
//SHIP SYSTEM INFORMATION
//*****

// global WEAPON values
photonReplenishRate      = 1.4           // how fast can i restore my
photons
weaponsEnergyReplenishRate = 0.45       // how fast can i restore my
weapons energy pool
```

```

weaponPoolDiminishRate      = 1.6      // how slowly does my weapons pool
diminish
energyPerPhoton           = 0.2      // how much energy expended when
firing a photon torpedo
shieldRechargeRateModifier = 1.2      // how fast the shields charge

// General (upgradeable) values the Player sees for each system
hullLevel      = 1300 these and the following settings have to be adjusted
for every single ship!
weaponsLevel = 1450
sensorsLevel = 1300

enginesLevel = 1365
shieldsLevel = 1400

// WEAPON values
numberOfPhaserBeams = 4
numberOfForePhotons = 3
photonSpread = 1
//forePhotonSpread = 1
numberOfAftPhotons = 2
//aftPhotonSpread = 0

// COMMAND POINT COST
commandPointCost = 15000 change to make it balanced
startYear = 2370 here you can define in which era the ship will be
selectable
endYear      = 2400

//*****
// SHIP NAMES
//*****
possibleCraftNames =
    "USS Defiant" "USS São Paulo" "USS Moscow" "USS Horizon" "USS
Valiant" change to names to names of the ship you ported
// "USS MacGoohan" "USS Portmeirion" "USS Drake" "USS Harmony"
// "USS Grainer" "USS Sao Paulo" "USS Valiant" "USS Avenger"

logoFileNames = "F_Defiant_Logo_1" "F_Defiant_Logo_2" "F_Defiant_Logo_3"
"F_Defiant_Logo_4" "F_Defiant_Logo_5" change if you made logo files

//*****
// ART PARAMETERS & WEAPON NAMES
//*****

// Defiant's pulse phasers
weapon1 = "fed_tng_defiant_pulse" change to a weapon odf you want the ship
to use
weaponHardpoints1 = "hp01" "hp02" "hp03" "hp04" change to a hardpoint that
you assigned earlier with milkshake to the model

// Regular Phasers
weapon2 = "fed_tng_phaser_1beam"
weaponHardpoints2 = "hp08" "hp09" "hp26" "hp23"

//*****torpedoes*****

// fore Photon Torpedo
weapon3 = "fed_tng_photon_quantum"
weaponHardpoints3 = "hp05"

```

```

// fore Photon Torpedo
weapon4 = "fed_tng_photon_quantum"
weaponHardpoints4 = "hp06"

//Aft Photon Torpedos
weapon5 = "fed_tng_photon_battleship"
weaponHardpoints5 = "hp07"

// Warp
weapon6 = "gwarp"
weaponHardpoints6 = "hp15"

// tractor beam
weapon7 = "f_tractor_bm"
weaponHardpoints7 = "hp16" "hp25" "hp17" "hp18"

//Self Destruct
weapon8 = "gselfdes"
weaponHardpoints8 = "hp16" "hp25"

// Cloaking remove if it is a ship without cloak! Be sure to adjust all
weapon numbers after this if you delete this entry. (eg.: The long range
sensors are now weapon 9 not 10!!)
weapon9 = "gkcloak"
weaponHardpoints9 = "hp19"

// long range sensor
weapon10 = "long_range_sensor"
weaponHardpoints10 = "hp17"

// Hardpoints to hit for various systems and other locations.
EngineTargetHardpoints = "hp12" "hp13" "hp14"
WeaponTargetHardpoints = "hp20"
ShieldTargetHardpoints = "hp19"
SensorTargetHardpoints = "hp17" "hp18"

// Sub-System Destruction Effects
EngineDestructionHardpoints = "hp12" "hp13" "hp14"
WeaponDestructionHardpoints = "hp20"
ShieldDestructionHardpoints = "hp19"
SensorDestructionHardpoints = "hp17" "hp18"

//*****
//  CHANGE THE SCALE
//*****
realLength = 150 this scales to models ingame!!! I think it is metres!

//*****
//  SHIELDS AND DAMAGE
//*****

hasHull = 1;
hasShield = 1; set to zero if you have an ENT era federation ship
hasWeapons = 1;
hasEngines = 1;
hasSensors = 1;

selfDestructRadius = 650; // this applies when our ship is destroyed - sls
selfDestructDamage = 1300; // the damage applied when we blow up - sls

//*****
//  PHYSICS PARAMETERS

```

```

//*****
// physics file for star trekky physics behavior
PhysicsFile = "f_defiant_physics.odf" if you have a bigger/smaller ship you
have to adjust this. Otherwise you will have a battle cruiser that moves
like a scout!

//*****
// Captain Specific VO
//*****
specificCaptain = "Sisko" remove if you do not have a defiant with Sisko
on-board

cameraRadiusScale = 1.8 this adjusts the radius between the camera and the
ship

```

Now your ship is ready for Legacy! If you're an experienced Photoshop user make the following two steps, too! They are not necessary...but will make the ship a bit more stock looking!!!

After you made the odf you need to create glow files. These files define where the ship shall glow if it activates its engines. Open the DDS Files (eg.: F_Courageous_A.dds, ...) and make everything black that shall not glow! Then save it as F_Courageous_A_Glow.dds.

Now the ship needs a button:

1. Render a wireframe pic in MS3D, Top view
2. Then open it with Photoshop and make the background black.
3. Copy the wireframe with the black background in a document with the size of 64*64 px and create an alpha channel. Copy the wireframe also in the Alpha channel and make sure to place it as you did in the RGB channel.
4. Merge all Layers
5. Save as HI_Shipname.dds (eg.: HI_F_Courageous.dds)

Now you port is ready for usage in Legacy! I hope I could help the community with this....

But do not forget to ask for permission and provide credits in your readme, before you release a ship!

If something is not good enough explained I apology...it is difficult to explain this in German...but in English it is much more difficult...If you have a question visit our forum (www.new-gen-mods.net.ms -> Forum)!

gdata

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