

FFG – Forward From Gmax

by Tom Faulds and Manfred Jahn

FFG is a suite of three program modules which exports selected Gmax objects or whole scenes to a MaxScript file which can be run in 3ds Max. The modules were written with mainly Flight Simulator (Microsoft, Prepar3D) developers in mind, but can be used for other applications as well.

Polygon, mesh, and spline objects can be transferred without loss of detail, preserving standard materials, pivots, modifiers, UVW mapping, editable poly and editable mesh. Gmax primitives (cube, cylinder etc) also transfer. Animations and FSX materials do **NOT** transfer well and generally have to be redone manually.

FFG version 0.1.4 is based on BFF MaxScript beta 0.4.3 by Borislav 'Bobo' Petrov, adapted for 3ds Max 9 by Raúl Ortega Palacios and modified for Gmax export by Tom Faulds, with permission. We especially want to thank Borislav Petrov for his permission to modify the script.

INSTALLATION

Three modules have to be installed: (1) the FFG Exporter script, (2) the "Grabber", and (3) the FFG Post-processor.

Optionally, if you don't have it already, you may want to install Bobo's original BFF script, for a possible re-transfer - after Max editing (UVW mapping, texture baking) - back to Gmax (for compiling to .mdl). (See section E, below.)

A. Installing the FFG Exporter script in Gmax.

What it does. The FFG script converts a gmax scene into a pure text file displayed in Gmax's Maxscript > Listener window.

- (1) Extract the download zip to a temporary folder or open it in Windows Explorer (or some other file browser).
- (2) Copy folder "**FFG**" to a "scripts" folder of your Gmax installation. As a result, "**FFG**" should be present as a subfolder within that "*scripts*" folder.

(There may actually be several "scripts" folders in Gmax. You would aim at
\\Gmax\\gamepacks\\FSX_GmaxGamePack\\scripts\\ for a Flight Simulator X setup, or
\\Gmax\\gamepacks\\fs2004\\scripts\\ for Flight Simulator 9/2004. Or something else entirely for use with another application.)

- (3) Start Gmax. Click Maxscript > Run Script. Navigate to folder "**FFG**". Pick script "**FFG 0_1_4.ms**" and run it. There will be no feedback and (hopefully) no error messages either.

(This step creates the macro which does most of the work later.)

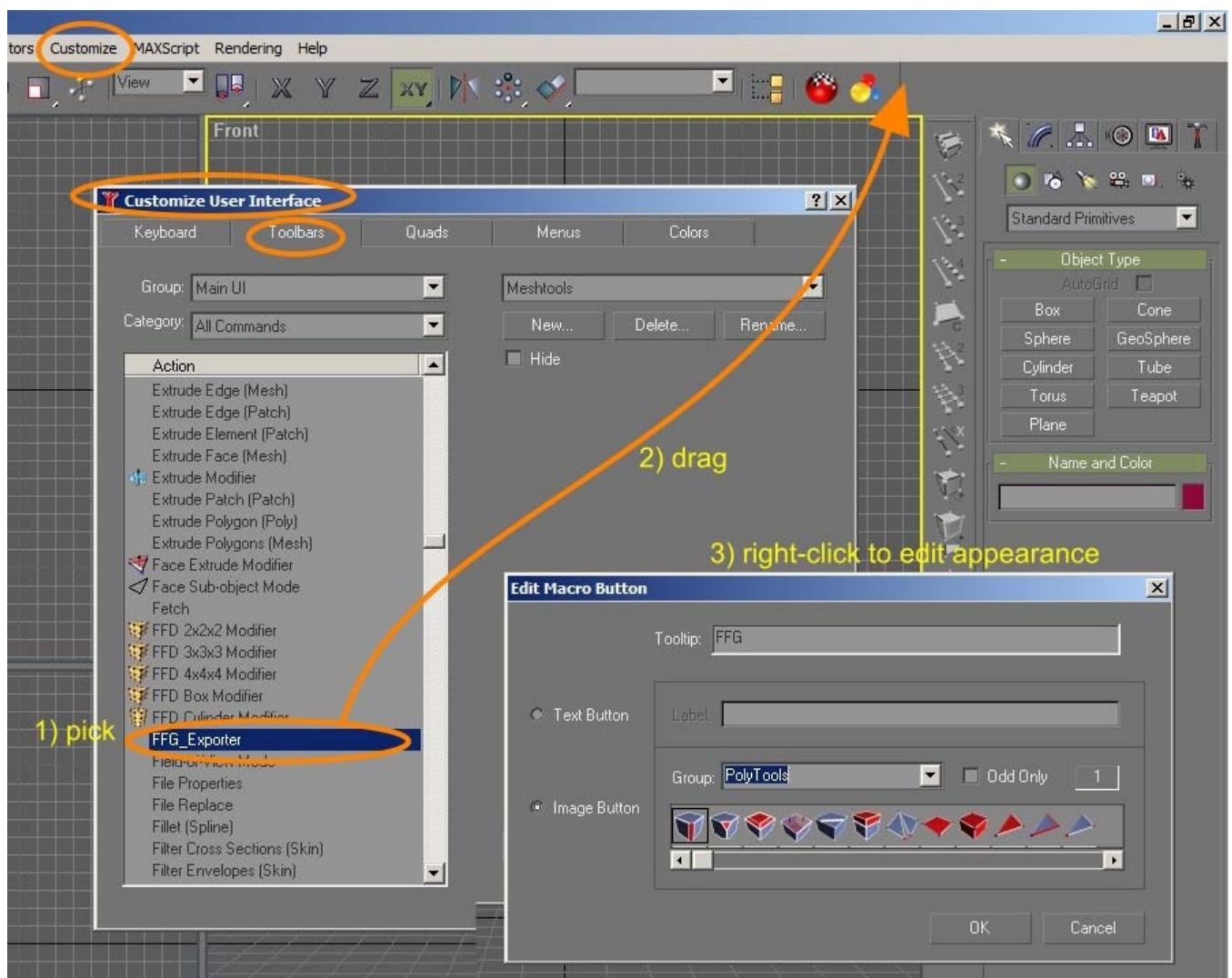
We now need a hotkey and/or mouse button to trigger the FFG macro in Gmax.

(4) Click Customize > Customize User Interface.

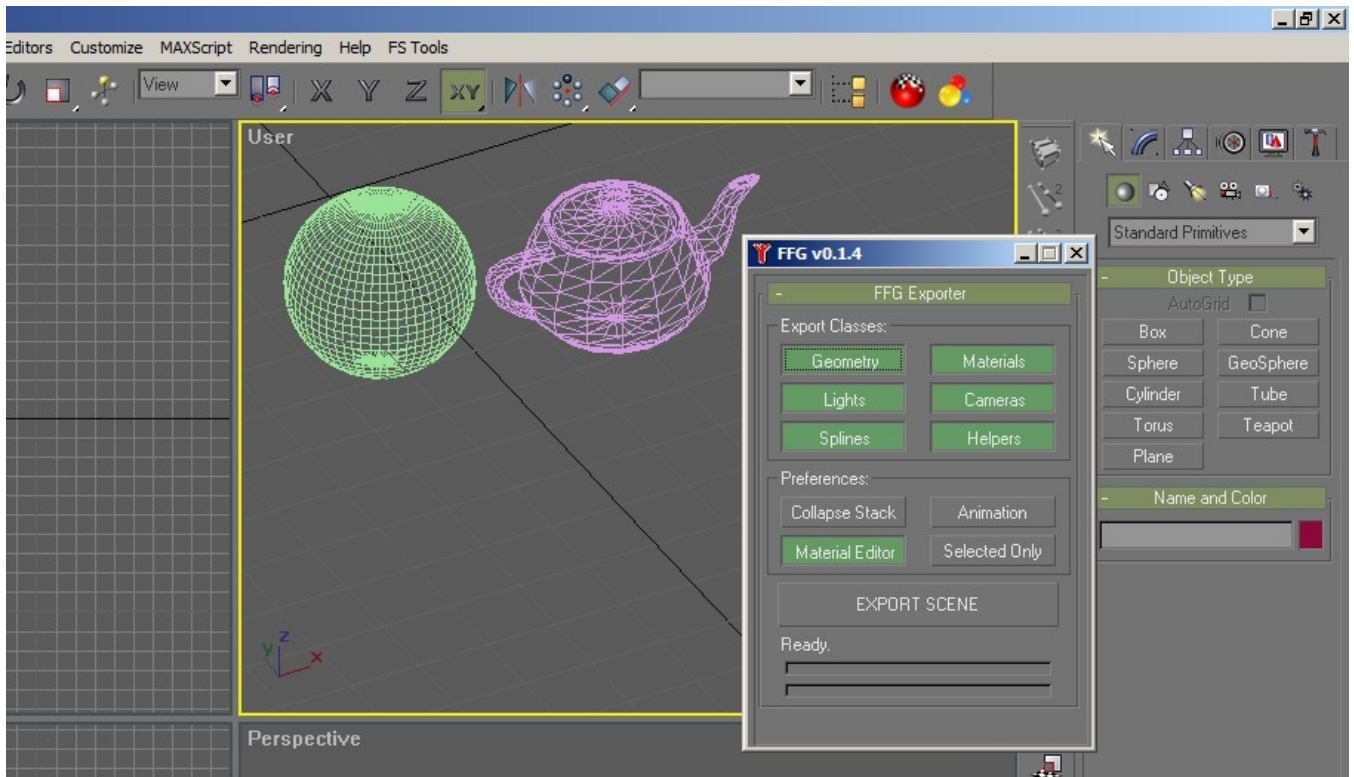
- a. Keyboard Tab: Find "FFG_Exporter" in the Action list. Select it, go to Hotkey and press a hotkey such as, say, Control-Y (which is unassigned in most setups).

and/or:

- b. Toolbars Tab: With "FFG_Exporter" selected drag it to one of your active toolbars. Gmax will indicate where it is permissible to drop it. Right-click the new button and pick "Edit button appearance" - this will allow you to assign a nice-looking icon from a list.



(5) Test the integrity of your setup by creating a sphere or other object. Convert to editable poly and hit the FFG hotkey or click the FFG button. This is what it should look like:



- (6) When the FFG window comes up click Export Scene and watch the progress bars. So far this is only a test of the installation. Close the window, and exit Gmax for now.

B. Installing the Grabber and the Post-processor

What they do. The Grabber saves the contents of Gmax's Listener Window to a text file. The Post-processor launders the .txt file into a 3ds Max-compatible format and saves it in a location easily accessible from within Max.

- (1) Windows Explorer: in Gmax folder "*FFG*" go to subfolder "*FFG Post-processor*" and find the file ***FFG_pp.bat***. Right-click > Create Shortcut.
- (2) Drag this shortcut to a suitable location on your desktop.
- (3) In Windows Explorer, move one level back up to folder *FFG* and enter subfolder "*Grabber*". You will see a program called *GMaxSLGRAB.exe*. Right-click it and select Create Shortcut.
- (4) Drag this shortcut to your desktop and place it next to the *FFG_pp.bat* shortcut created in step B-1. This is the Grabber referred to from now on.
- (5) On your desktop, right-click the Grabber shortcut and open Properties > Shortcut > Target. At the end of the Target line add **-s** so that the whole line reads:-

"c:\Gmax\gamepacks\FSX_GmaxGamePack\scripts\FFG\GMaxSLGRAB.exe" **-s**

(Drive/path etc may be different in your own setup.)

- (6) Click OK to make the change permanent.
- (7) Test the Grabber shortcut by clicking it. A window should open saying "Can't find Listener window". That's fine; OK to exit. If you see a small window with a "Grab" button instead, you haven't successfully executed step B-5, above. (However, this Grabber mode will also work.)
- (8) Now prime the Post-processor for a 3ds Max target folder. This should ideally be a folder close to the "scripts" folder **within Max**, which in a default installation is here:

`c:\Program Files (x86)\Autodesk\3ds Max 2011\Scripts\`

In Windows Explorer navigate to this folder and create a subfolder "*My FFG scripts*" (or whatever, as long as you remember name and location).

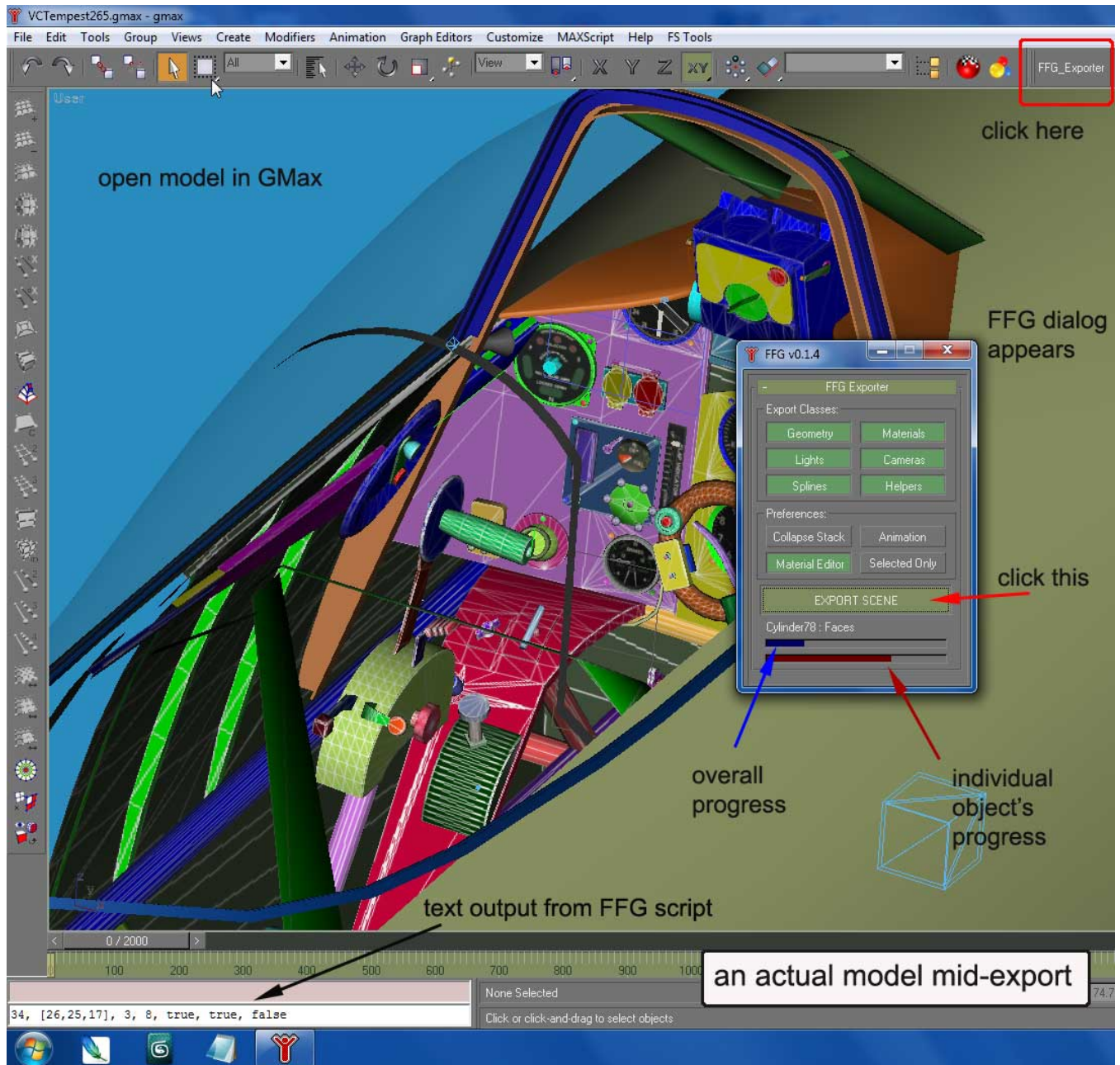
- (9) In Windows Explorer drag "*My FFG scripts*" onto the FFG_pp shortcut. FFG_pp will acknowledge your choice by reporting back the full path. It will remember this path until re-primed otherwise. Clicking the FFG_pp shortcut on its own will produce the current target setting.

This is the end of the installation process. You are now ready for your first test export.

OPERATION

C. Exporting a Scene from Gmax

- (1) Start Gmax and load a scene. Start with a small scene or create a small scene specifically for testing.
- (2) In Gmax, press the FFG hotkey or click the FFG button (as per A-4).
- (3) When the FFG window pops up, select which objects and features you want to export (leave as is for testing). Click EXPORT SCENE or EXPORT SELECTED as appropriate. Watch the progress bar and wait until it gets to "Export finished" status.



If you check the Gmax Listener window (F11) at this point you will see that it has filled up with many lines of code. These now need to be saved to a .txt file. To do this ..

- (4) Minimize Gmax (but do **not** exit).
- (5) Click the Grabber desktop shortcut. In the pop-up file window, navigate to folder FFG. Enter a file name such as "test" -- the Grabber will add a .txt extension automatically.
Caution: Do not use file names with spaces.
- (6) **Wait until the Grabber reports "Done".**

This is a crucial and at times disconcerting moment. The larger the scene, the (exponentially?) longer the Grabber takes to do the job. It is plainly a memory issue and will differ from setup to setup. Unfortunately, the Grabber displays no progress report at all. For very large exports it may appear to hang (even if it rarely actually does). As a matter of fact, it is often a good idea to export selected chunks of a scene rather than do it all in one go. You have to find the ideal size of the chunks yourself -- we suggest you start out with chunks of 5,000 to 10,000 polys and work your way up to more when you can safely predict the Grabber's "rhythm". You may also try to free memory such as closing open applications, using simple materials, reducing texture sizes, cleaning up the material editor, loading a selected-parts save, etc.

- (7) If you do several "chunked" exports (recommended), repeat steps (3) to (6), each time giving the Grabber a new file name.

Warning. Avoid using existing names and clean out old .txt files regularly.

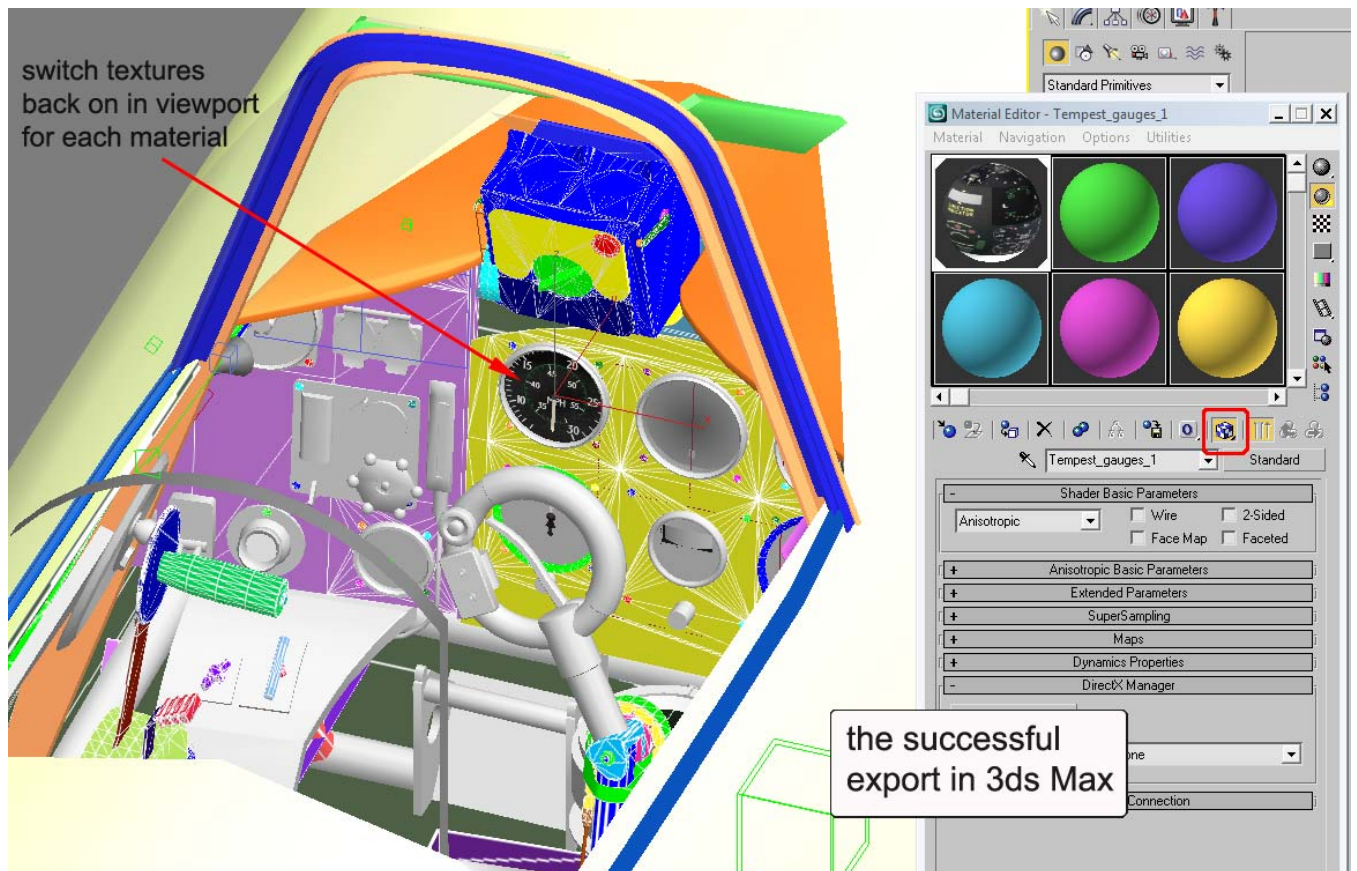
- (8) Once the Grabber reports "Done" re-maximize Gmax and close it.

"*test.txt*" now needs to be laundered into a Max-compatible format (in this case, a regular maxscript file.)

- (9) In Windows Explorer navigate to "*test.txt*" (in folder "*FFG*" within Gmax "*scripts*").
- (10) Select "*test.txt*" and drop it onto the FFG_pp shortcut. The post-processor will create a file named "*test.ms*" plus a folder "*test*" in the target folder "My FFG scripts" (B-8).
- (11) If the post-processor finds that that destination file and folder already exist it will say **"Warning: Folder already present. Using it."** In this case it is actually a good idea to redo the post-processing step on a renamed file or to clean out the old export data from the target folder.

D. Importing a Scene into 3ds Max

- (1) Open Max on a new scene (**not** an existing one).
- (2) Maxscript menu > Run. Navigate to *My FFG scripts\test.ms* and run it.
- (3) On the prompt "Reset scene?" click OK.
- (4) Click View Extents All (bottom right - or hit **Z**) to see your Gmax scene in Max.
- (5) Adjust animations and materials as needed.
- (6) If the scene has been exported from Gmax in chunks, import each chunk in turn into Max and save it as a *.max* file. With one chunk open, Merge each additional chunk in turn to assemble the complete scene.



E. Exporting a Scene from 3ds Max to Gmax

In the zip folder "*FFG\BFF Max to Gmax*" we are including the tutorial "Converting 3DSMax models to GMax for use with Flight Simulator X" (2008) by Phil Taylor, John Walton and Chuck Jodry and the 3ds Max 9-compatible version of Bobo's original BFF script, version 0.4.3, 2007. Phil's well-written text contains detailed instructions for setting up and running a BFF export from Max including hints and trouble-shooting tips.

NOTES AND CREDITS

BFF, "Back From Five" a.k.a. "Bobo's File Format" by Borislav (Bobo) Petrov, adapted for 3DSMAX 9 by Raúl Ortega Palacios. "Converting 3DSMax models to GMax for use with Flight Simulator X" (2008) by Phil Taylor, John Walton and Chuck Jodry.

FFG version 0.1.4 is based on BFF MaxScript Beta 0.4.3 by Borislav (Bobo) Petrov. Modified for Gmax export by Tom Faulds March 2013, with permission.

FFG_pp is based on Ralph Griswold's Icon Programming Language as implemented and distributed by the University of Arizona (<http://www.cs.arizona.edu/icon/>). By Manfred Jahn.

GMaxSLGRAB, also known as YAGG (Yet Another Gmax Grabber) is a program for saving output from the Gmax MaxScript Listener window. Author unknown. YAGG is open source distributed under zlib licence. This copy has been modified to save as **.txt** by default.

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