

## Mandatory installation

- coreshaders.mas

These shaders from rFactor2 (ModDev/Shared) have to be placed in the 3DSMax/hardwareshaders folder.

- gMotor tools

> Converter.dlu

>Material.dlu

>Texture.dlu

These files have to be placed in the 3DSMax/plugins folder.

- Nvidia dds tools (for Photoshop)

- Notepad++

## Setting up workspace

You will be working directly in the vehicles/car folder, sources and loose files will be removed at the end of the process.

As long as you haven't finished building the car, all graphical assets won't be packed in the car.mas archive.

### ***Recommended setup for you car's folder :***

1 - Create a new folder in Vehicles directory (we'll use "test\_car" as example here)

2 - open the rTrainer main folder and copy all files

3 - paste files in your test\_car main folder.

4 - Replace "rtrainer" part in all files name with "test\_car"

5 - Open "teams" folder and do the same (just keep car #1 files)

Now add 4 new folders in your test\_car main dir :

1 - resources (all car reference as blueprints and pictures go there)

2 - max (for 3DSMax files)

3 - psd (for photoshop / paintshop textures source images)

4 - maps (for car graphical assets used by the car in game as textures and meshes)

- Unpack the test\_car.mas archive into the maps folder (drag archive onto MAS2.exe then select all, right-click, extract)

- Click "Create a new MAS file" top left button from MAS2.exe

- Open your test\_car/mas folder

- drag "black.dds" file onto MAS2.exe window

- Save as test\_car.mas (replace previous archive) in your test\_car main folder.

This way you know your car will use assets from "maps" folder, and not the ones packed in your .mas file.

### ***Setting up all paths and links***

As seen in Introduction 02, you have to edit files that refer to each other and get sure you are using the correct naming everywhere a file is mentioned.

Edit files in this order :

> team folder

1 - open test\_car\_01.veh with Notepad++

2 - replace all instances of "rtrainer" with "test\_car", save.

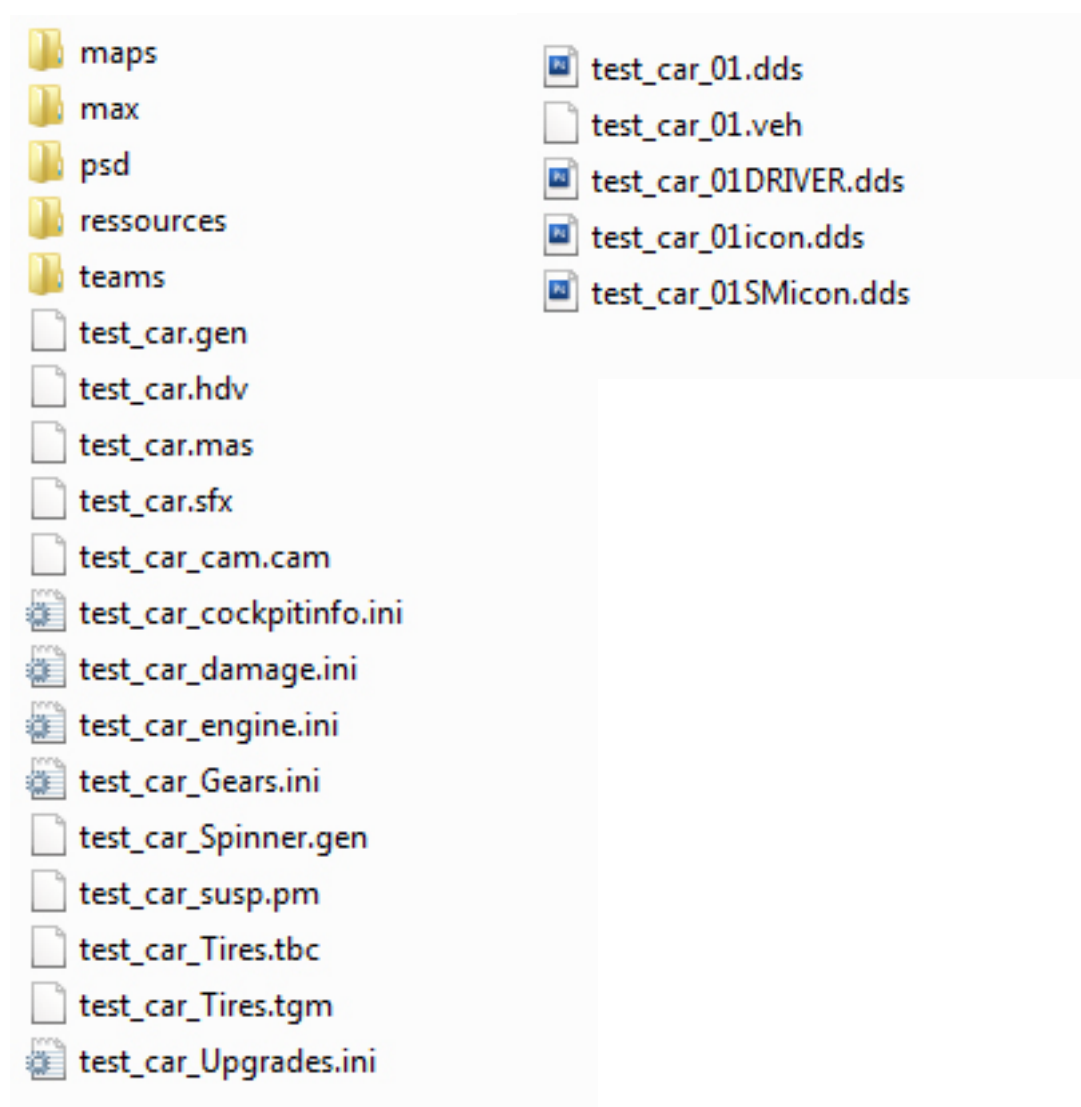
> main test\_car folder

1 - open test\_car.hdv

2 - replace all instances of "rtrainer" with "test\_car", save.

3 - open test\_car\_Tires.tbc

2 - replace "TGM=rTrainer\_Tires" with "TGM=test\_car\_Tires" at lines 85 and 124, save.



> main test\_car folder  
1 - open test\_car.gen  
2 - locate these lines :  
*SearchPath=<VEHDIR>*

*SearchPath=rtrainer*  
*SearchPath=<VEHDIR>rtrainer\maps*  
*SearchPath=<VEHDIR>cmaps\_maps*  
*SearchPath=rtrainer\maps*  
*MASFile=rtrainer\rtrainer.mas*  
*MASFile=cmaps.mas*

3 - replace with your current dir paths like this :  
*SearchPath=<VEHDIR>*

*SearchPath=test\_car*  
*SearchPath=<VEHDIR>test\_car\maps*  
*SearchPath=<VEHDIR>cmaps\_maps*  
*SearchPath=test\_car\maps*  
*MASFile=test\_car\test\_car.mas*  
*MASFile=cmaps.mas*

Repeat the same operation for test\_car\_Spinner.gen file.

Now, the new car should now be visible in game.  
Launch rF2 in ModDev mode, and check everything is working.  
You have a new test\_car #1 available in car picker, of course it is still using rtrainer visual assets.

Note that the showroom scene (test\_car\_Spinner.gen) allows you to show objects without loading physics. It means that there is no mandatory instance here, you can load what you want.  
This way you can make a very minimal scene just to get the process of exporting from 3DSMax working.

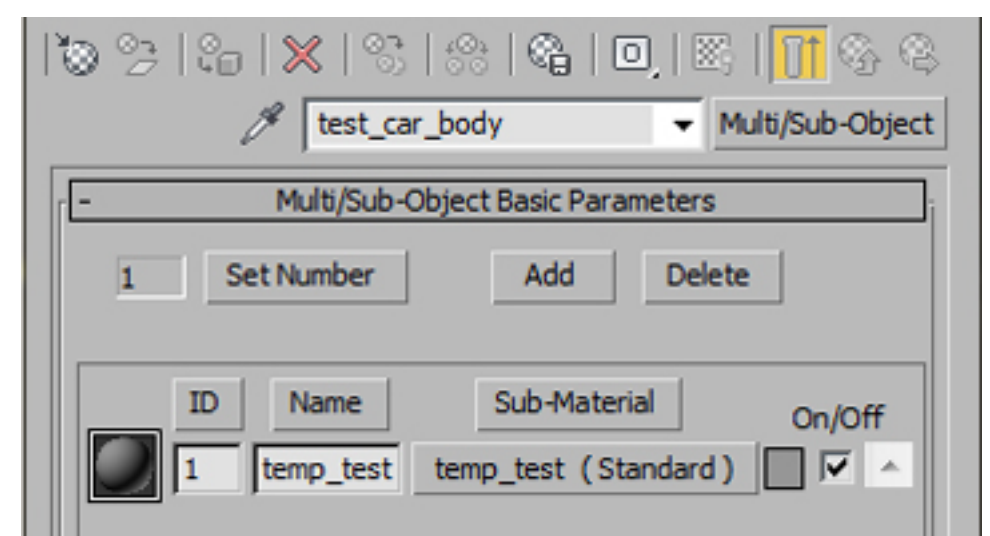
## Getting your first mesh in showroom - setting up 3DSMax exporter and gMat

- Open the test\_car/mas folder
- select all gmt files and delete them

- Launch 3DSMax

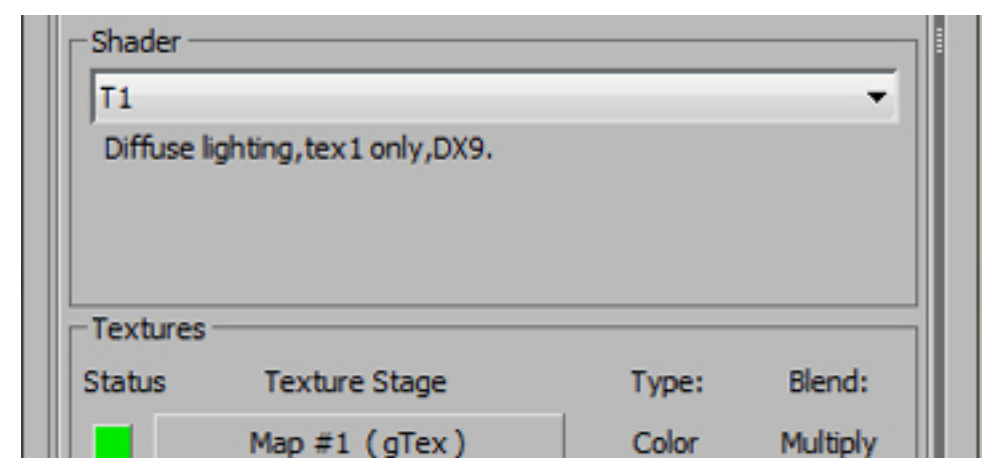
### • **Materials**

- You must use a Multi/Sub material as a container for gMats
- Hit “M” key to open Material Editor
- Click on Standard button, and select Multi/Sub-object material
- delete sub materials from 2 to 9, just keep first one.
- replace main name “01 - Default” with “test\_car\_body”
- fill “Name” and “Sub-Material” fields with “temp\_test”



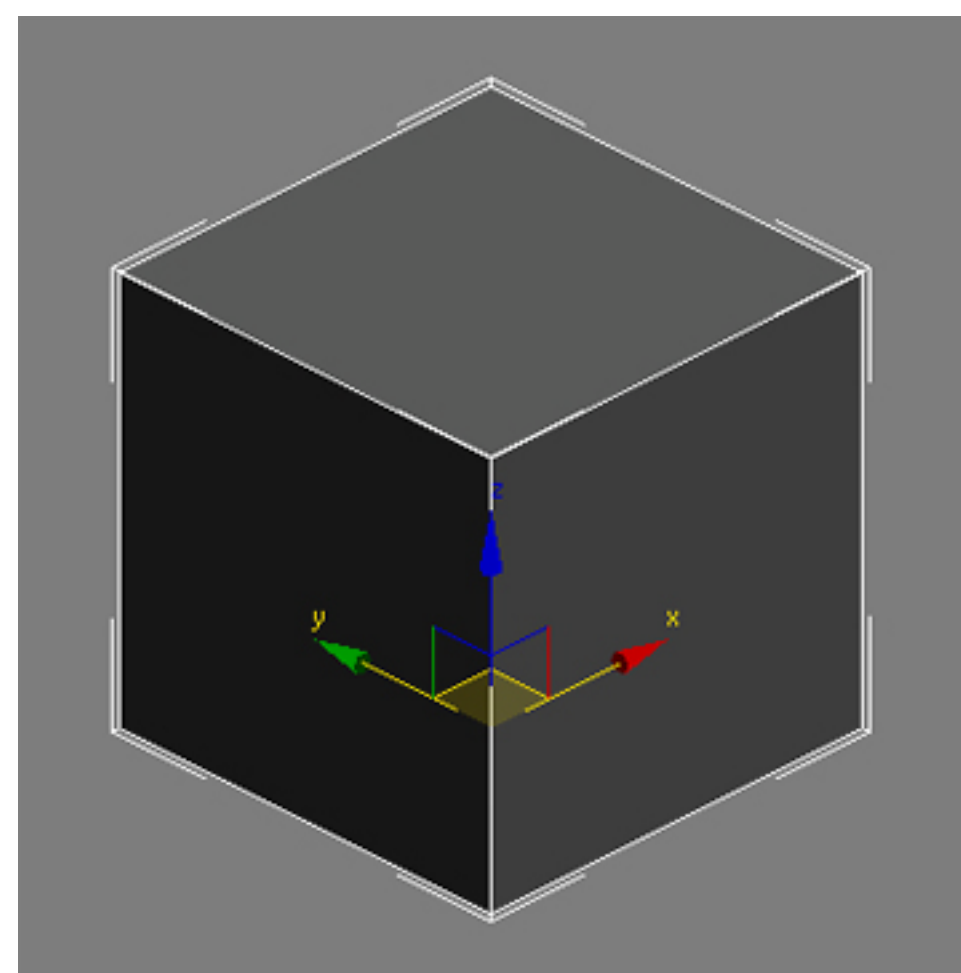
- Click on “temp\_test ( Standard )” button, then click on “Standard” and select gMotorMaterial on the list. T1 gMat is showing by default.
- Click on “Map#1 (gTex)”
- Browse to the test\_car/maps folder and select “GREY00.DDS” map.

The red dot on the left (Status column) is now green, showing that the texture is loaded.



## • Building first mesh

- Create a 2mx2mx2m box at 0.0.0.
- Convert it to Editable Poly
- Drag “test\_car\_body” material onto it
- Rename the object to “test\_cube”

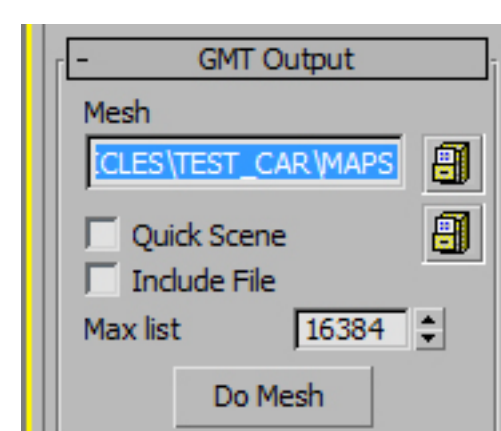


## • Exporting

- On “Utilities” panel select “More...”, select “GMT Converter v2.xxx” on the list.

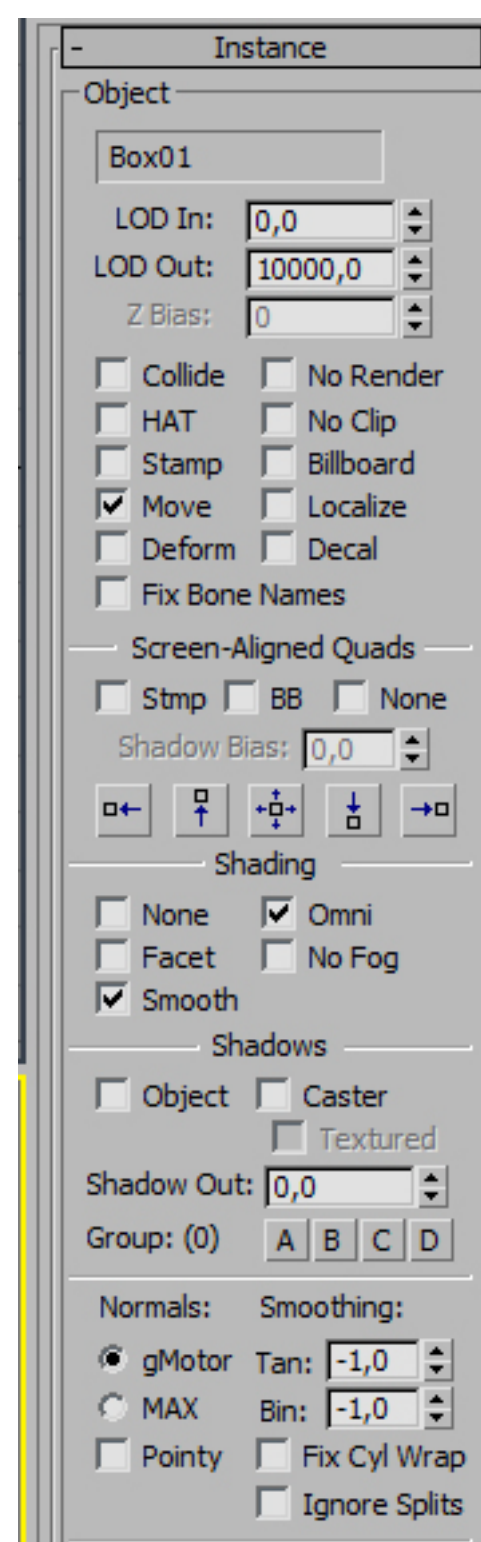
Setting up destination folder :

- > Expand “GMT Output” sub-menu
- > Click the icon at the right of the Mesh field
- > Browse to the test\_car/maps folder



Now you have to set up the parameters of the exported object :

- > Select the “test\_cube” object and expand the “Instance” sub-menu
- > Use settings shown on the image on the right



These are the basic settings for most car parts.

Back to the “GMT Output” tab :

- > Click “Do Mesh” button to export the object.

## • Editing Spinner.gen file

We will delete all rtrainer objects showing on showroom, and replace the main body instance with our test\_cube object.

- Open “test\_car\_Spinner.gen” file
- Delete everything under the Actor=VEHICLE line except for } at the last line.
- replace MeshFile=rter\_body\_max.gmt with MeshFile=test\_cube.gmt

Your test\_car\_Spinner.gen file should show this :

```

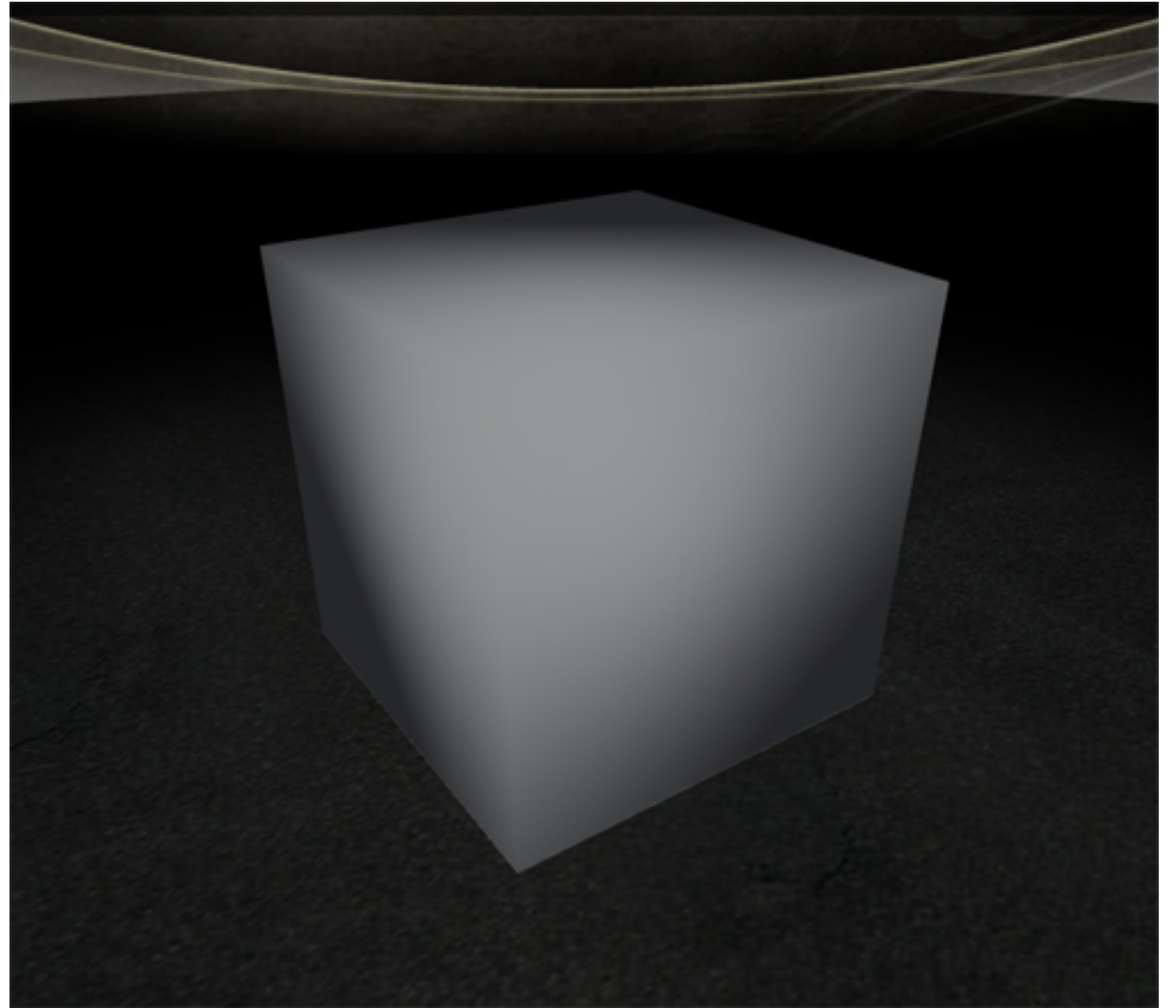
29 Instance=SL0T<ID>
30 {
31     Moveable=True
32     MeshFile=test_cube.gmt CollTarget=False HATTTarget=False LODIn=(0.0) LODOut=(15.0) ShadowCaster=(Dynamic, Solid, 256, 256) Reflect=True
33
34     Actor=VEHICLE
35
36 }
```



- ***Checking object in game***

- Launch rF2 in ModDev mode

The showroom scene of the test\_car should show the cube.



Now you have correctly setup your workspace.

You are able to quickly export then load and check your meshes in rFactor2 showroom, that is enough to start the process of building a complete car.

- ***Notes***

In order to quick check objects on track, you have to fill at least these test\_car.gen instances with one object :

Instance=SLOT<ID>

Instance=COCKPIT

Instance=LFTIRE

Instance=RFTIRE

Instance=LRTIRE

Instance=RRTIRE

Tire instances meshes have to be tire-shaped cyclindrical polys.

SLOT<ID> and COCKPIT meshes must have a 0,0,0 centered pivot point.

xxTIRE instances must have a centered to object pivot point.