

From maya to Sandbox

Version_1.2_e

September 15, 2004

1. Introduction	S. 01
2. Plug-in installation	S. 02
3. Scale	S.02
4. Far Clip Plane	S.04
5. CrySector	S. 05
6. Shaders and textures	S. 08
7. Materials and physics	S. 12
8. Bump Mapping	S. 15
9. Export	S. 19
10. <i>Sandbox</i>	S. 20

1. Introduction

This tutorial is a guide that shows how to get objects from *maya* into *Sandbox*. Some points like the installation aren't described in detail. For more information take a look at the "CryExporter document" which comes with the SDK.

This tutorial is not completed yet, it needs a real error correction because it is not my native language. The objects don't have a collision yet but I'm trying to figure this out and will add a solution as soon as i find one. As well i will write a German version. So check for new versions from time to time.

<http://fs.cravils-design.com/download.html>

for questions visit:

<irc://irc.quakenet.eu.org/fls>

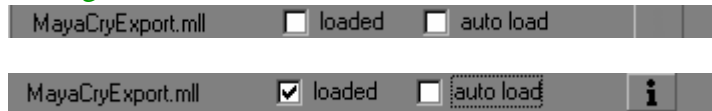
I hope this guide will help you to get your own objects into *Sandbox*.

2. Plug-in installation

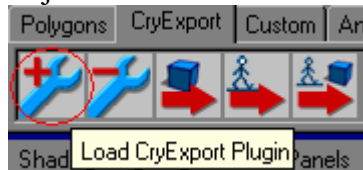
- Copy **MayaCryExport.mll** to Maya\bin\plug-ins
- Copy **scripts** and **prefs** to MyDocuments\maya\#\scripts
MyDocuments\maya\#\prefs

with its whole directory structure.

- Execute *maya* and start the exporter with: **Window->Setting/Preferences->Plug-in Manager**

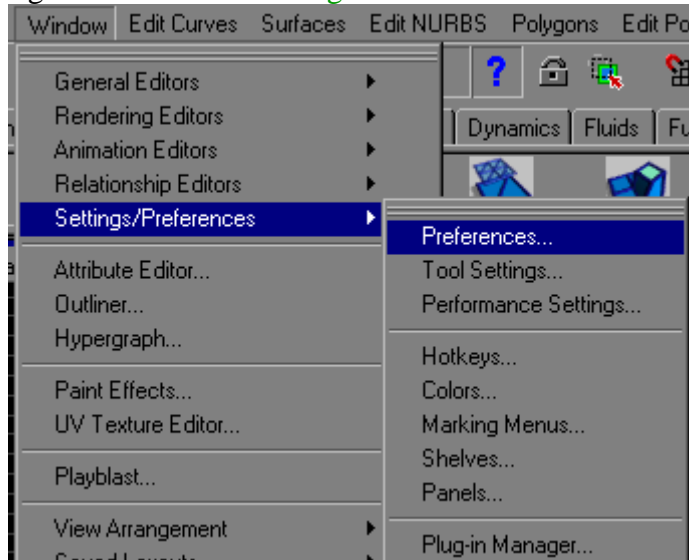


or just load it over the shelves

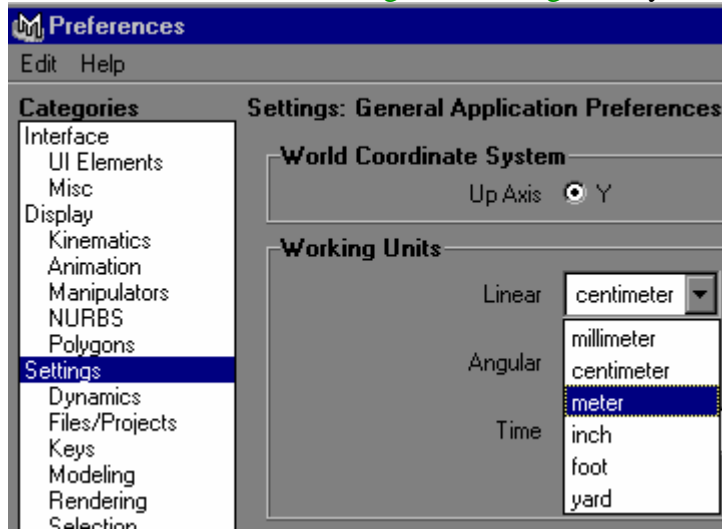


3. Scale

- set the Working Units
- go to **Windows->Settings/ Preferences->Preferences.**



- In this window under **Settings-> Working Units** you set "Linear" to "Meters".

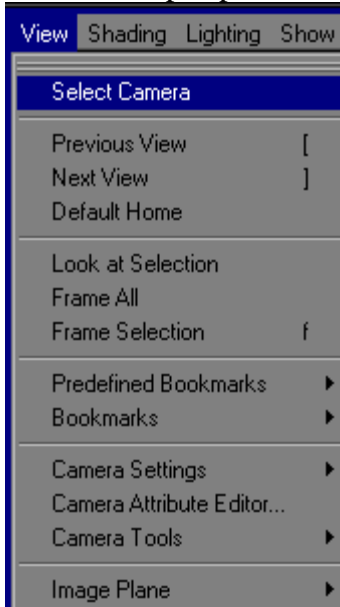


- If you create a cube now, it has the size 1m/1m/1m (X/Y/Z). This will be translated into a 1m³ cube in the *Sandbox-engine*.
- If you set "Linear" to "centimeters" and you create a cube, it will be 1cm/1cm/1cm. This will translate it into a 1cm³ cube in the *Sandbox-engine*. In order to have it 1 meter, you have to scale it up.
- It depends on your initial settings in Maya.
- The *CryTeam* set everything to centimeters in Max and work with that for the whole game (in Max changing the Unit Setup will rescale the objects to the new units. there is less confusion).

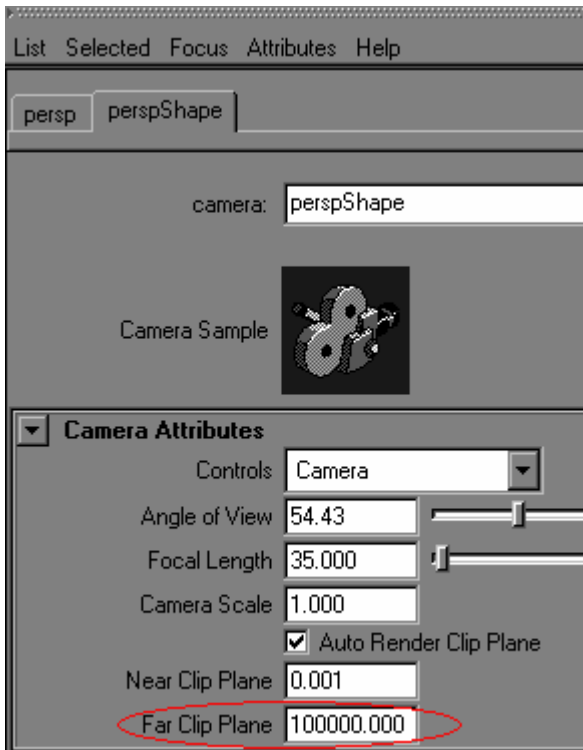
Special thx to evilmil for those informations ;)

4. Far Clip Plane

- If you have the problem that your objects disappear if you zoom out, you should change the settings of your **far Clip Plane**.
- Select the perspective, front, side or top view and go to **View->Select Camera**



- change the **Camera Attributes** to 100'000 in perspective view and in the others to 1'000'000'000

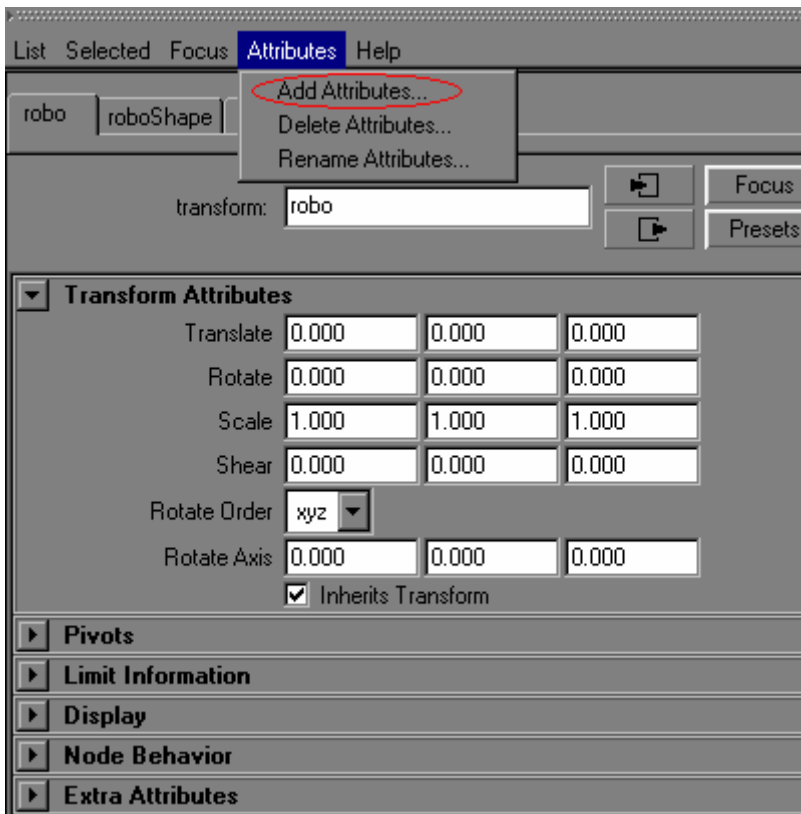


- you can create a shelf for the farClipPlane with those attributes
`setAttr "perspShape.farClipPlane" 100000;`
`setAttr "frontShape.farClipPlane" 1000000000;`
`setAttr "topShape.farClipPlane" 1000000000;`
`setAttr "sideShape.farClipPlane" 1000000000;`

If you have any questions how to create shelves I will add some more information in the next version.

5. crySector

- Create a polygon object
- Open the Attribute Editor (Ctrl+A)
- Select your **object**
- Choose **Attributes->Add Attributes...**



- Type Attribute Name: **crySector**
- Select Data Type: **Integer**
- Press the **Add** Button

The image shows a dialog box titled "Add Attribute: |robo". It has a "Help" button and three tabs: "New", "Particle", and "Control". The "Attribute Name" field contains the text "crySector". Below this is a checked checkbox labeled "Make Attribute Keyable". The "Data Type" section contains six radio buttons: "Vector", "Integer" (which is selected and circled in red), "String", "Float", "Boolean", and "Enum". The "Attribute Type" section contains three options: "Scalar" (selected), "Per Particle (Array)", and "Add Initial State Attribute" (unchecked). Below these are three input fields for "Numeric Attribute Properties": "Minimum", "Maximum", and "Default". The "Enum Names" section contains a large empty text area and a "New Name" input field. At the bottom of the dialog are three buttons: "OK", "Add" (circled in red), and "Cancel".

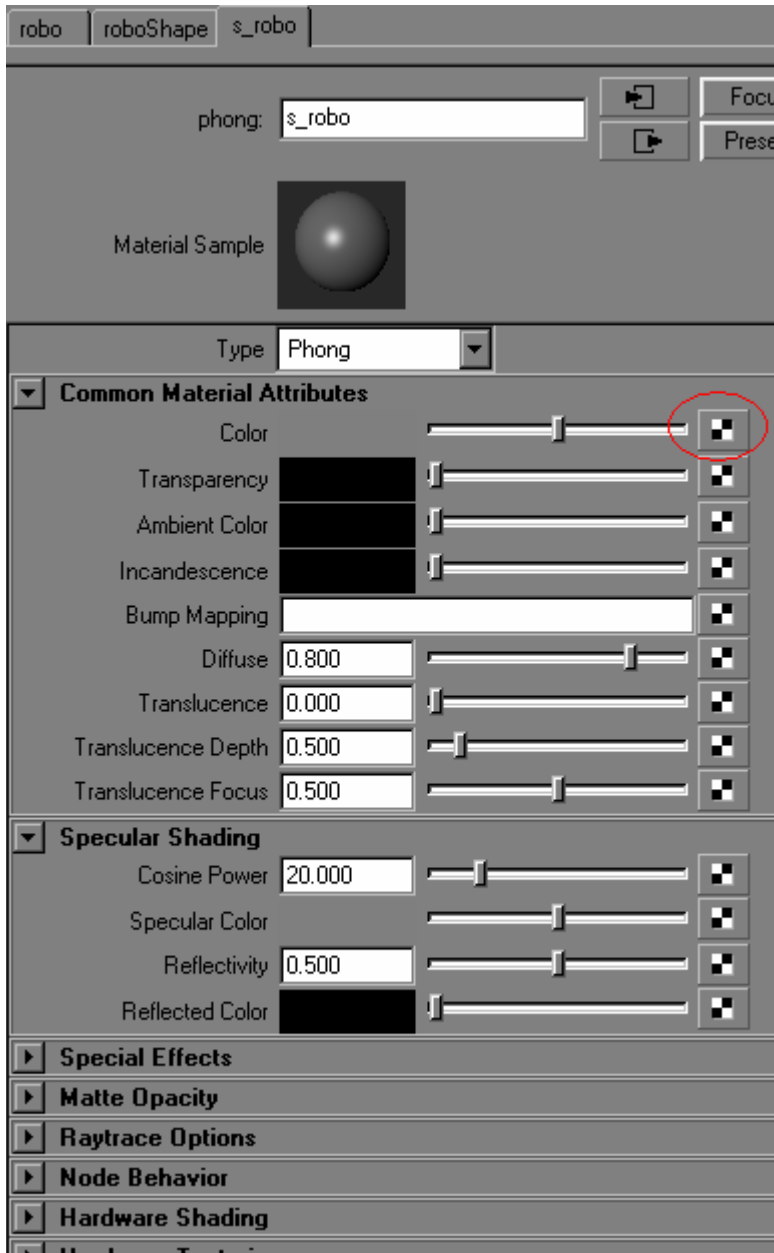
- In the Attribute Editor open **Extra Attributes** and replace 0 with 1

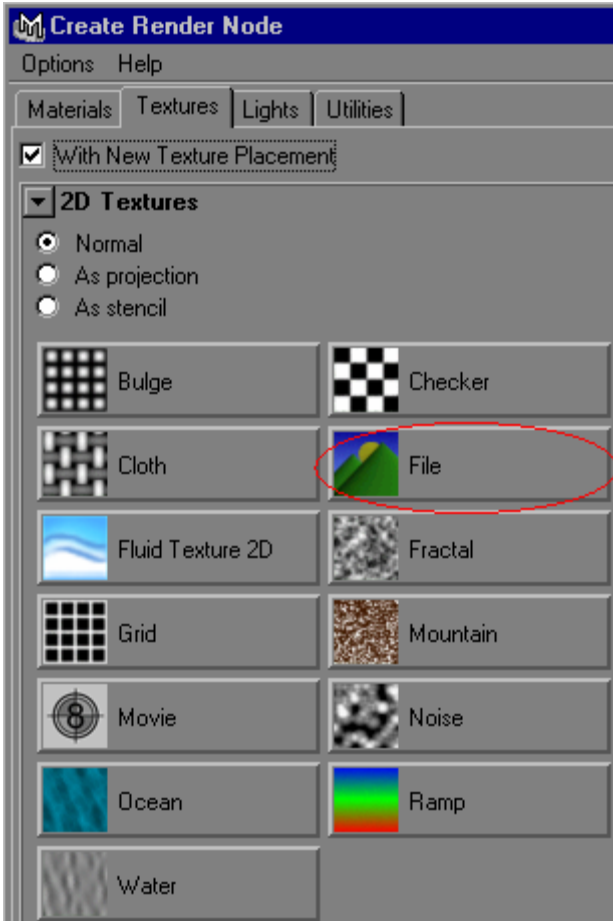
The screenshot shows the Attribute Editor interface with the following elements:

- Menu bar: List Selected Focus Attributes Help
- Object selection: robo | roboShape | s_rob
- transform: robo (with Focus and Presets buttons)
- Transform Attributes** section:
 - Translate: 0.000, 0.000, 0.000
 - Rotate: 0.000, 0.000, 0.000
 - Scale: 1.000, 1.000, 1.000
 - Shear: 0.000, 0.000, 0.000
 - Rotate Order: xyz
 - Rotate Axis: 0.000, 0.000, 0.000
 - Inherits Transform
- Pivots** section
- Limit Information** section
- Display** section
- Node Behavior** section
- Extra Attributes** section:
 - Cty Sector: 1 (circled in red)

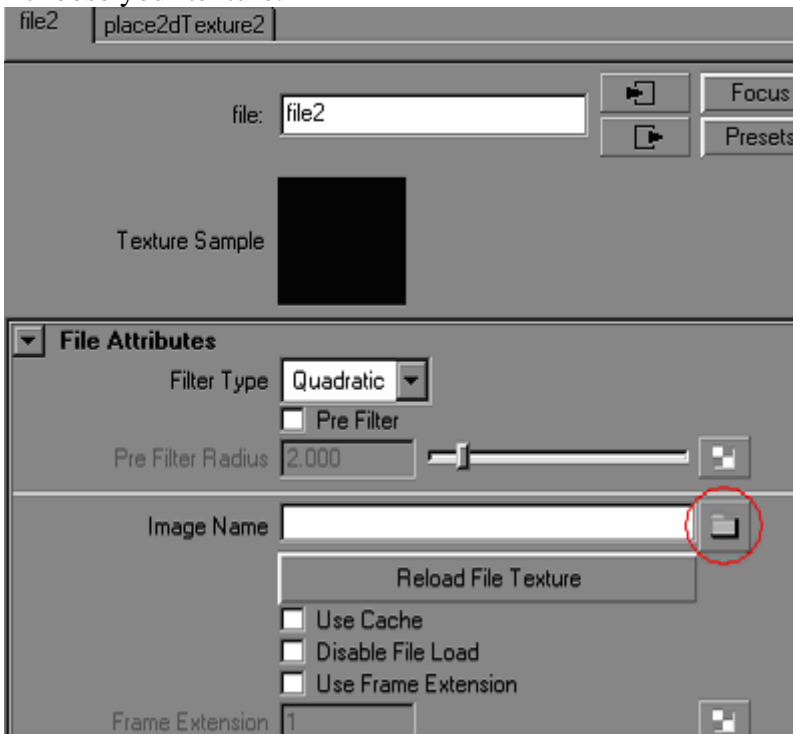
6. Shaders and texture

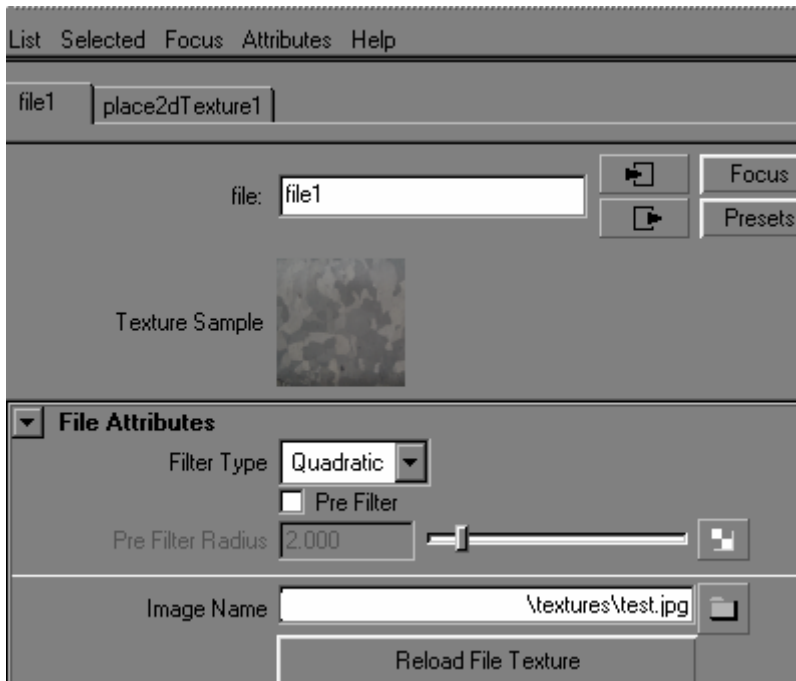
- choose a shader for your object
- select the object and open the [Attribute Editor](#)
- Give it a texture from a File



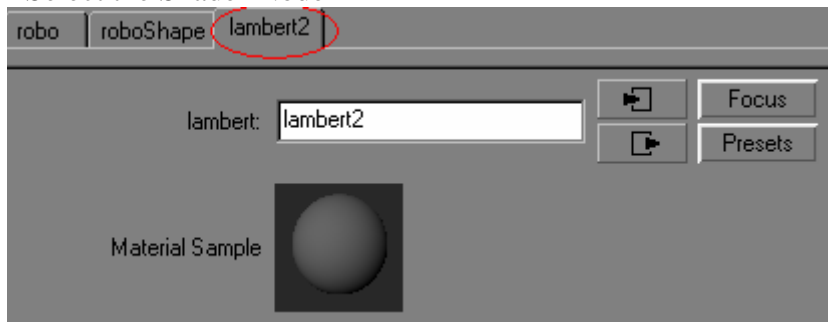


- choose your texture:

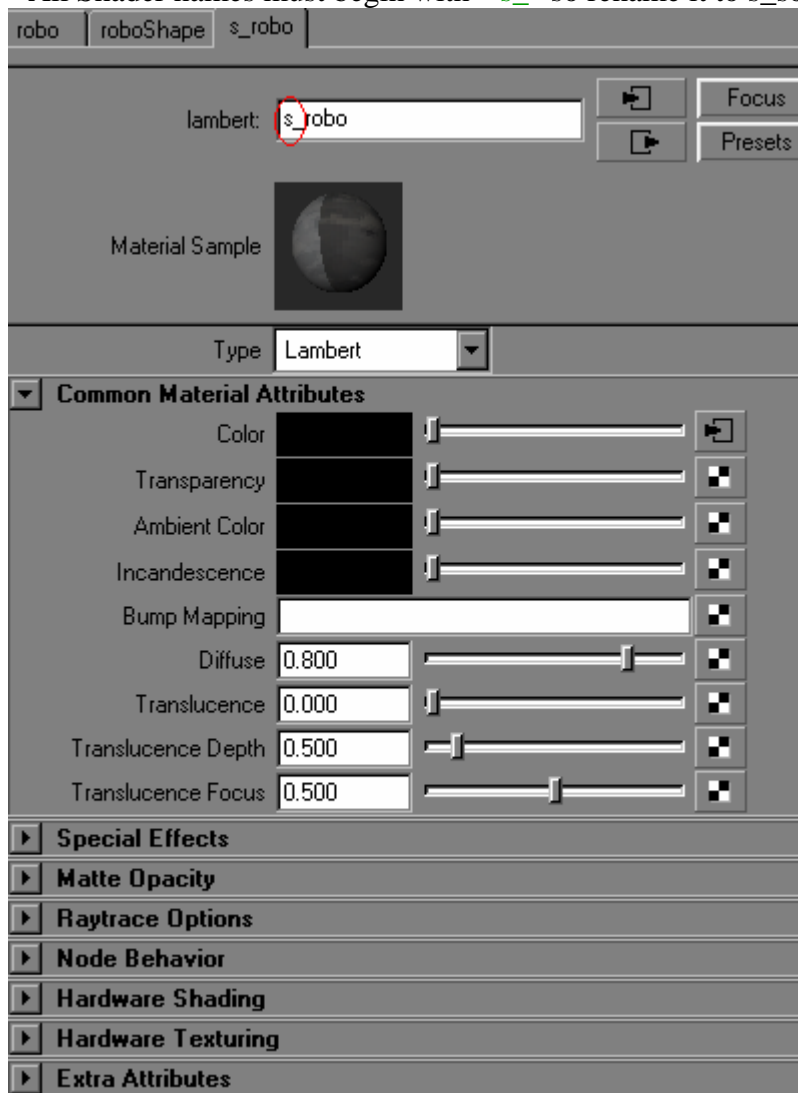




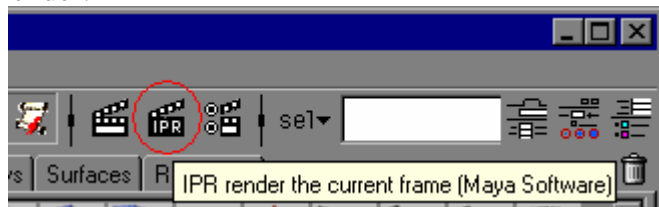
• Select the Shader Node



- All Shader names must begin with “s_“ so rename it to s_something



- To view your texture, select the perspective view and press key “6” or make a IPR render.



7. Materials and Physics

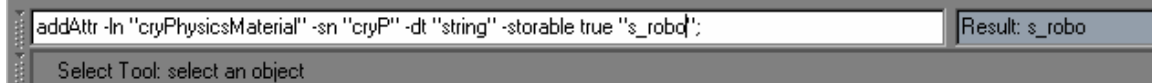
I had to add the shader attributes to the command line otherwise they end up as „Transfer Node Attributes“.

- select your shader and type in the command line:

```
addAttr -ln "cryTemplate" -sn "CryT" -dt "string" -storable true "s_shadername";
```



```
addAttr -ln "cryPhysicsMaterial" -sn "cryP" -dt "string" -storable true "s_shadername";
```

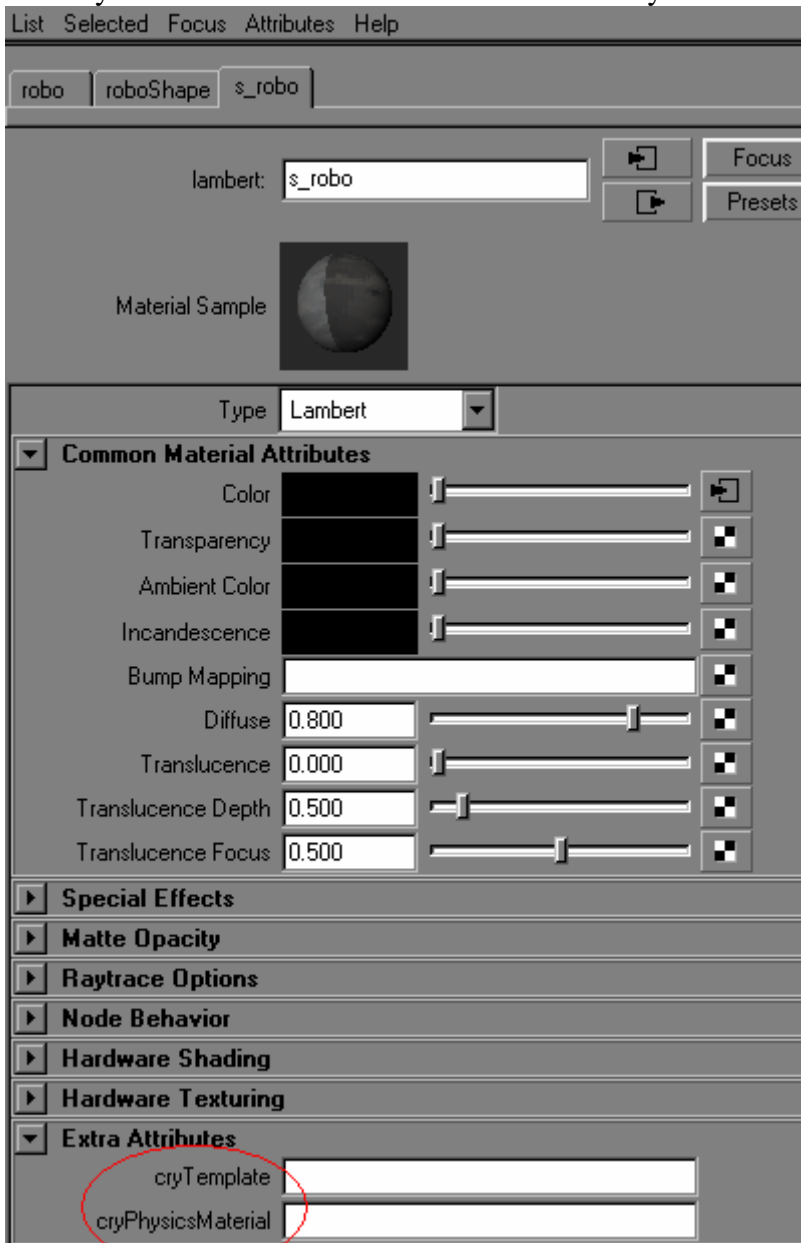


I saved the commands as shelves so I didn't have to enter the whole thing every time. If you make this be sure you gave the "Shader" the same name you entered in the shelfe command.

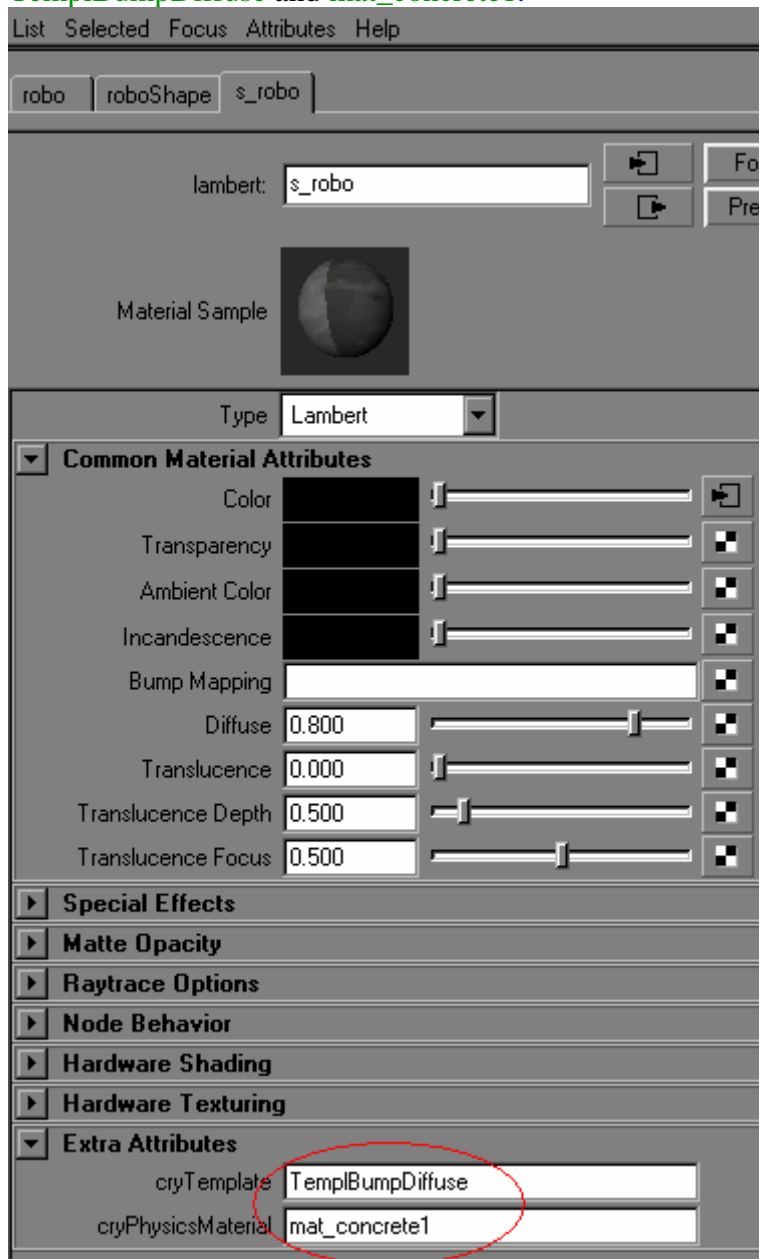


- To save them to the Shelfe, you can catch the commands with your middle mouse Button and drop them in your custom shelfe bar.

- Now you should have some Extra Attributes for your Shader



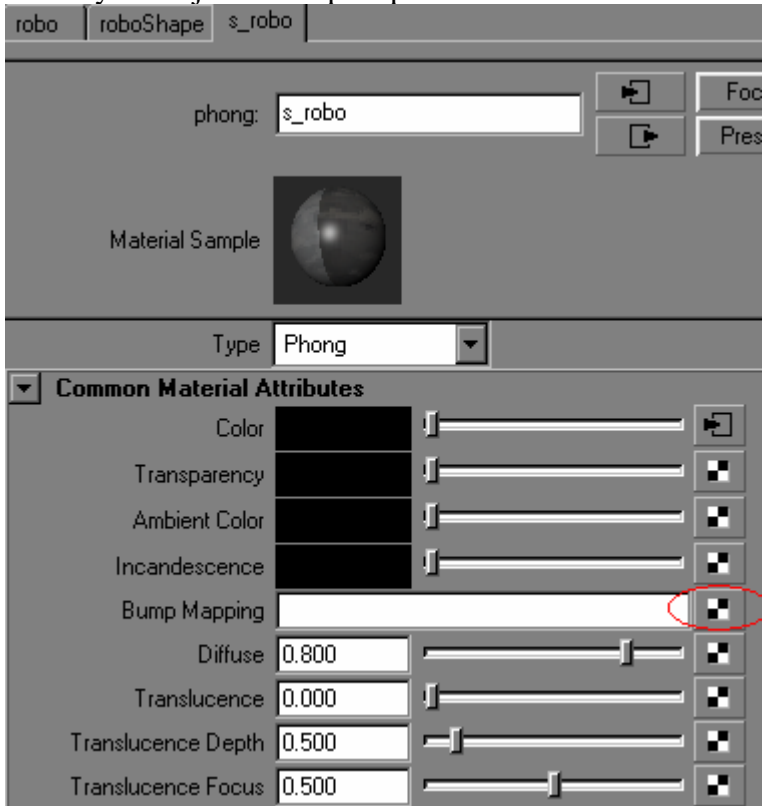
- For my first try I took the options from the CryExporter document: [TemplBumpDiffuse](#) and [mat_concrete1](#).

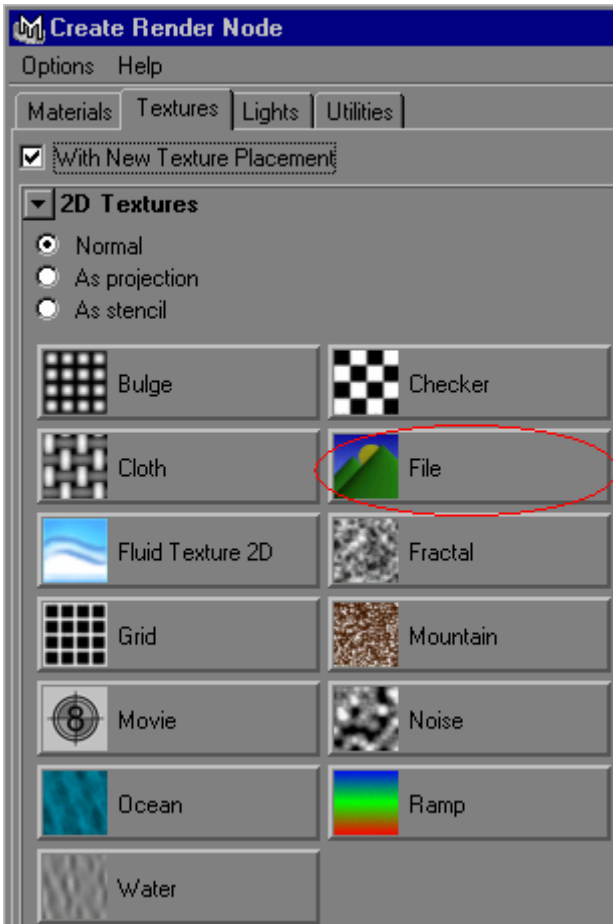


- You can also make shelves for those:
`setAttr -type "string" s_ shadename.cryTemplate "TempleBumpDiffuse";`
`setAttr -type "string" s_ shadename.cryPhysicsMaterial "mat_concrete1";`

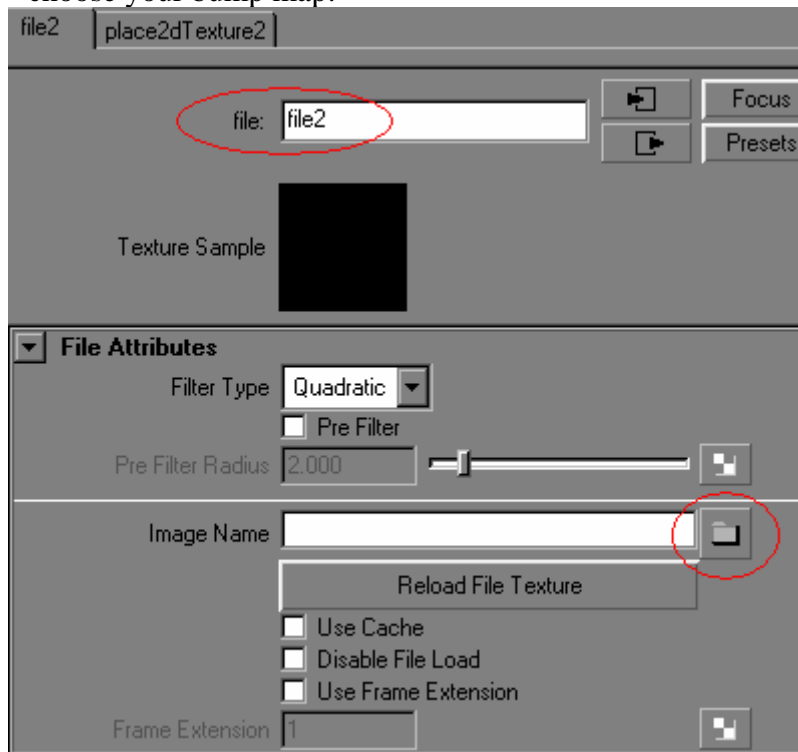
8. Bump Mapping

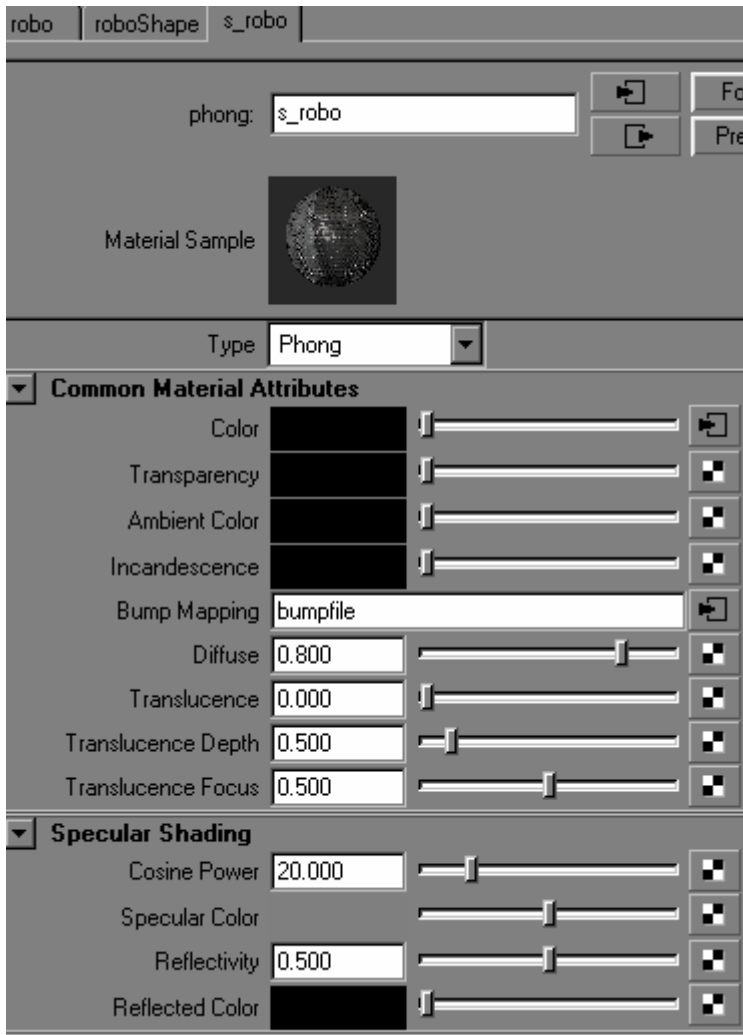
- Give your object a bump map from a File



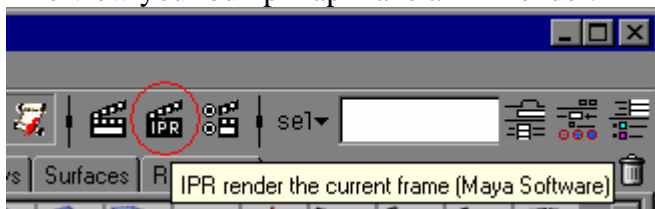


- You don't have to rename the bump map, it will work as it is.
- choose your bump map:





- To view your bump map make a IPR render.

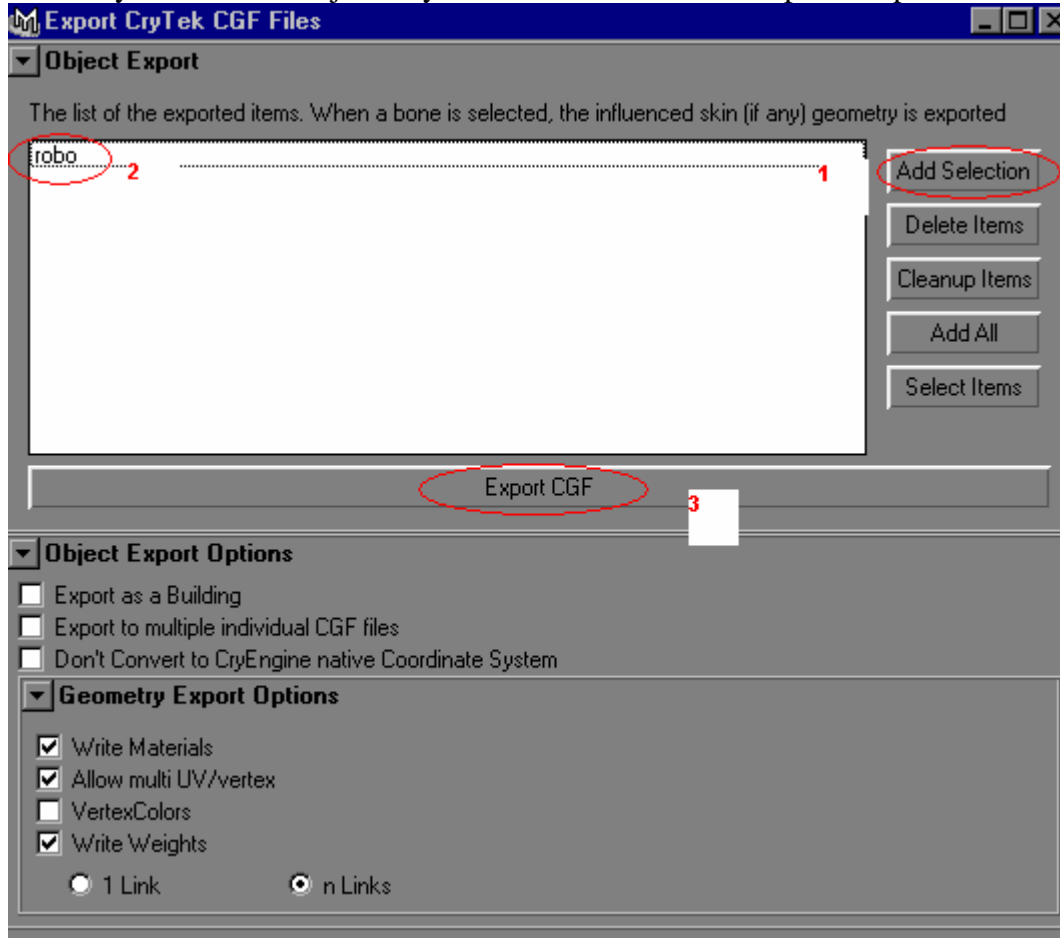


9. Export

- Make sure your Object has the correct scale
- Now the Object is ready for export, press the **Geometry Export UI**



















- **1** Add your selected Object so you have it listed like **2** and press Export CGF **3**



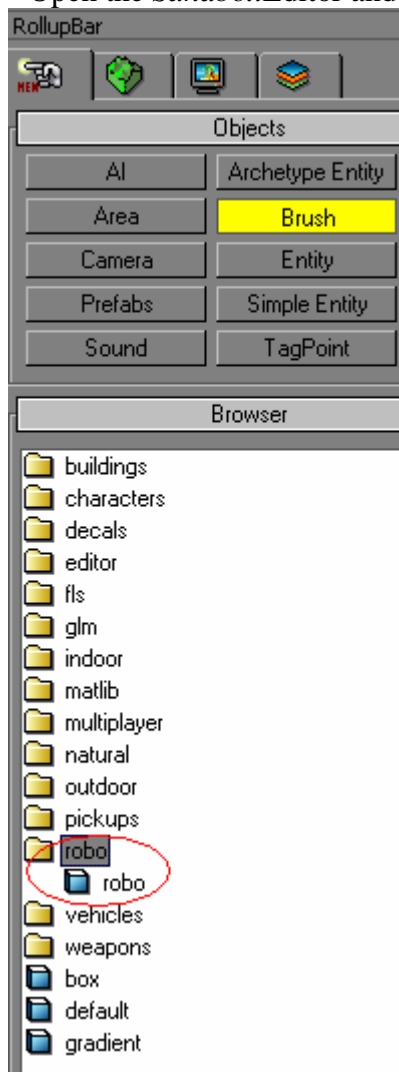
10. Sandbox

- Create a new Folder named “Objects“ in your “FCData“ Folder and copy the created *.cgf and your Texture in this Folder.
- Create a new zip-Archive named “My_Objects“ and copy the Objects Folder into it, then rename the **My_Objects.zip** to **My_Objects.pak**

Address  C:\Games\Far Cry\FCDData

Name ^	Size	Type
 Localized		File Folder
 Objects		File Folder
 CCGF_CACHE.PAK	11'185 KB	PAK File
 effects.pak	27 KB	PAK File
 FLS_Objects.pak	32'326 KB	PAK File
 Music.pak	465'987 KB	PAK File
 Objects1.pak	750 KB	PAK File
 Objects.pak	283'198 KB	PAK File
 Scripts1.pak	1'118 KB	PAK File
 Scripts.pak	1'118 KB	PAK File
 Shaders1.pak	6'171 KB	PAK File
 Shaders.pak	1'987 KB	PAK File
 Sounds.pak	237'773 KB	PAK File
 textures1.pak	33 KB	PAK File
 Textures.pak	232'952 KB	PAK File

- Open the *SandboxEditor* and check the “Brushes/ Simple Entities” for your new Object



- If your object is very small check out chapter "4. Far Clip Plane".



Here we go... rescaled and pivot placed
run jack run^^



And here an other with bump map.



written by SpiderdaN