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BA COMPUTER GAMES DESIGN

ENVIRONMENT DESIGN

Importing Texture maps into Maya



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Importing Texture maps into Maya

Importing texture maps into Maya

Introduction

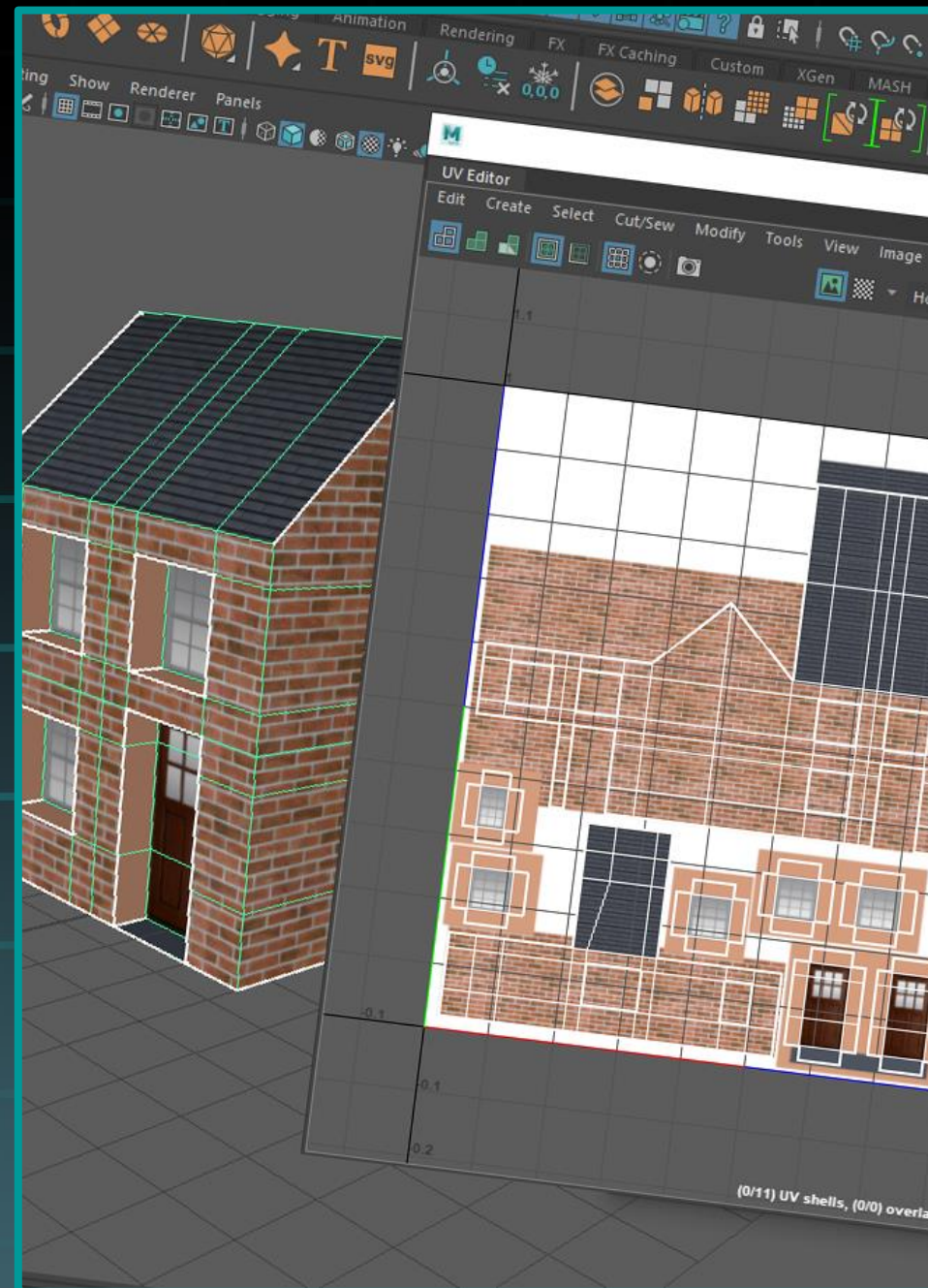
Creating New Materials

The Hypershade window

Linking texture files to Materials

Apply Materials to objects

Exporting objects as .FBX Files





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Introduction: Importing texture maps into Maya

In order to see if your texture is working, you should 'test' it in Maya **before** exporting to a game engine.

In order for your texture to be applied to a 3D model, a **Material** needs to be created, which will contain a link to your texture file.

A similar process will have to be followed when setting up textures in game engines.



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Importing Texture maps into Maya

Importing Texture Maps: Creating Materials



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Importing Texture maps into Maya

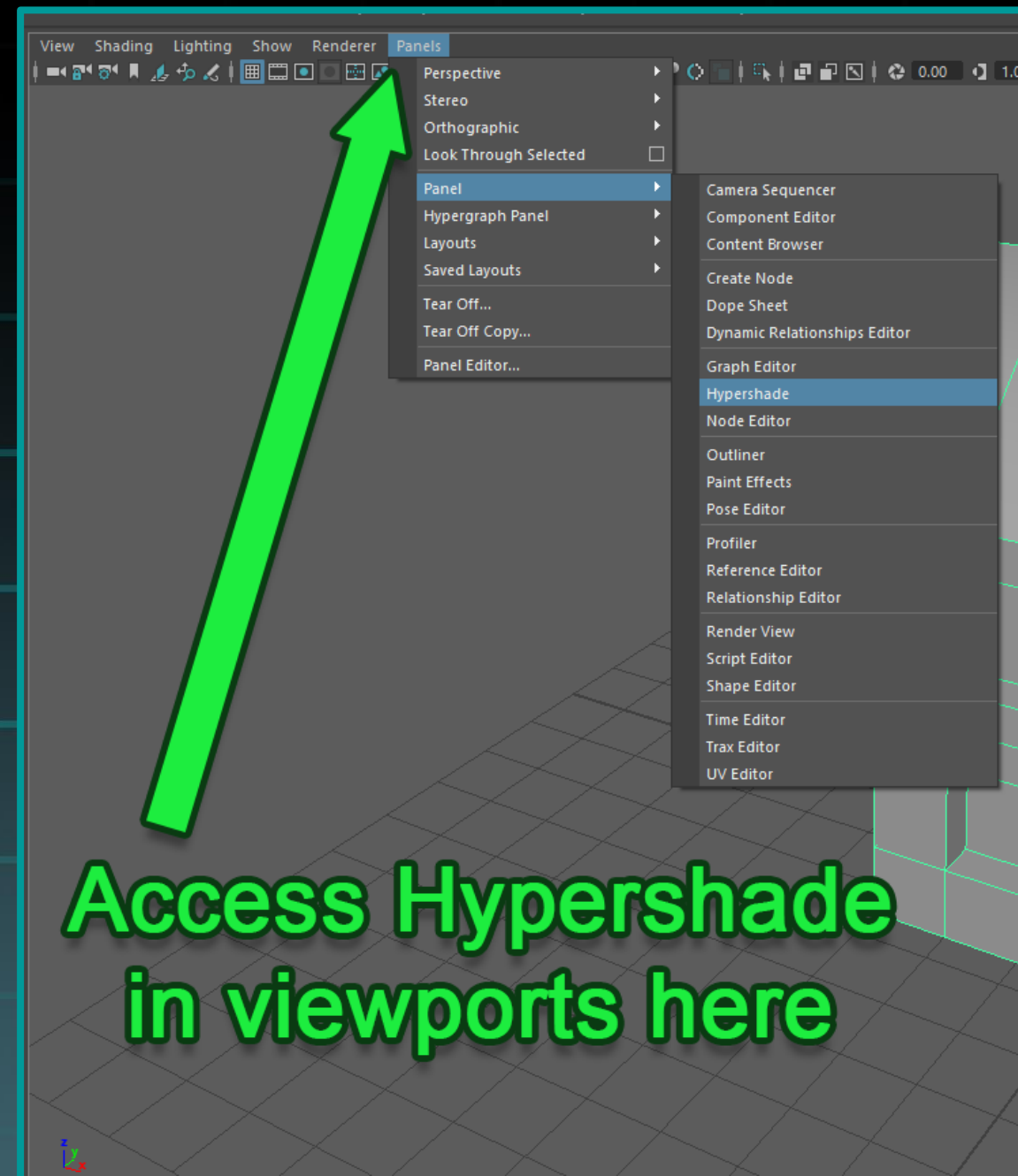
1a. The Hypershade Window

In any of your main viewports, select:

Panels > Panel > Hypershade

This will open up the **Hypershade** window.

You will create a new **material** and apply your UV Screenshot (texture maps) in the Hypershade.





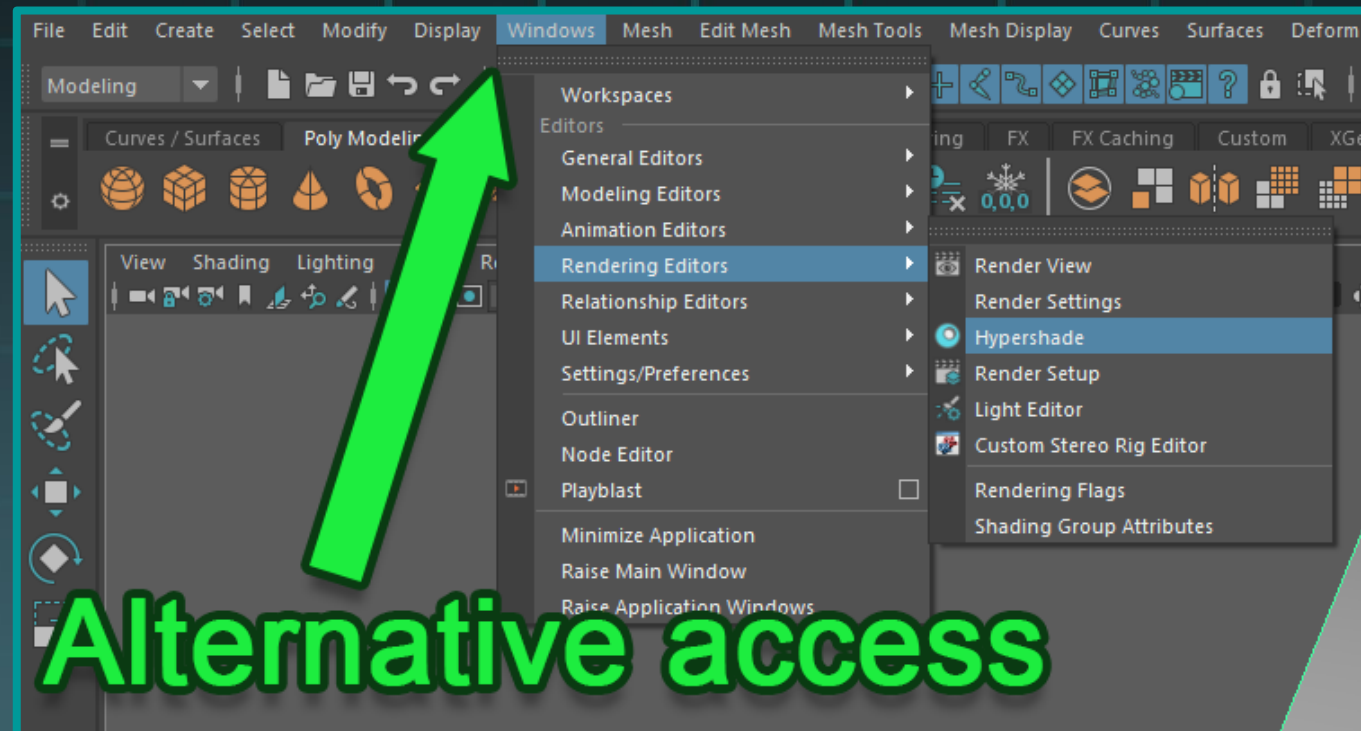
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1b. The Hypershade Window

An alternative approach is to use the following:

Windows > Rendering Editors > Hypershade



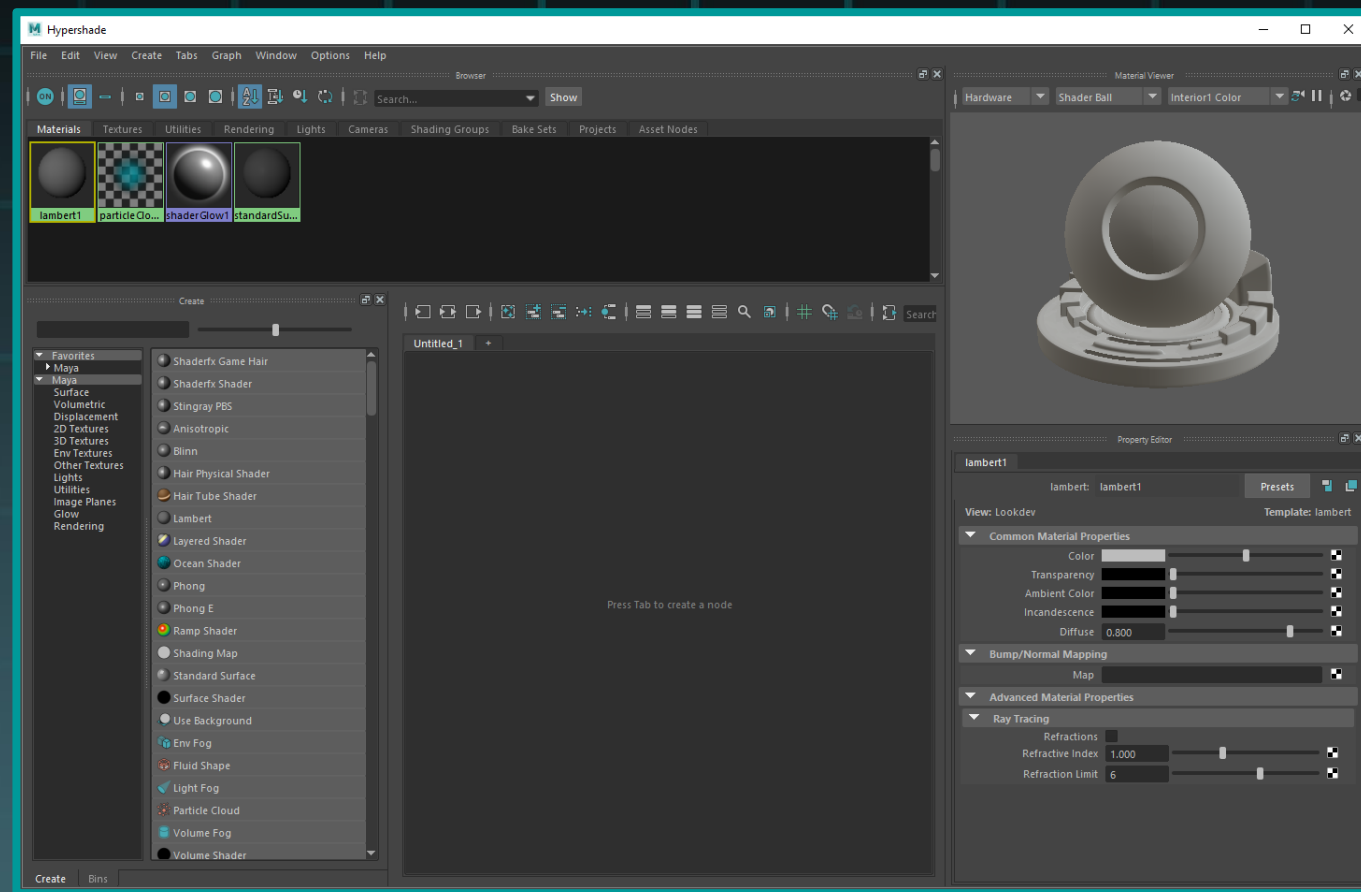


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1c. The Hypershade Window

The **Hypershade** looks intimidating but we'll only be using a small part of it!





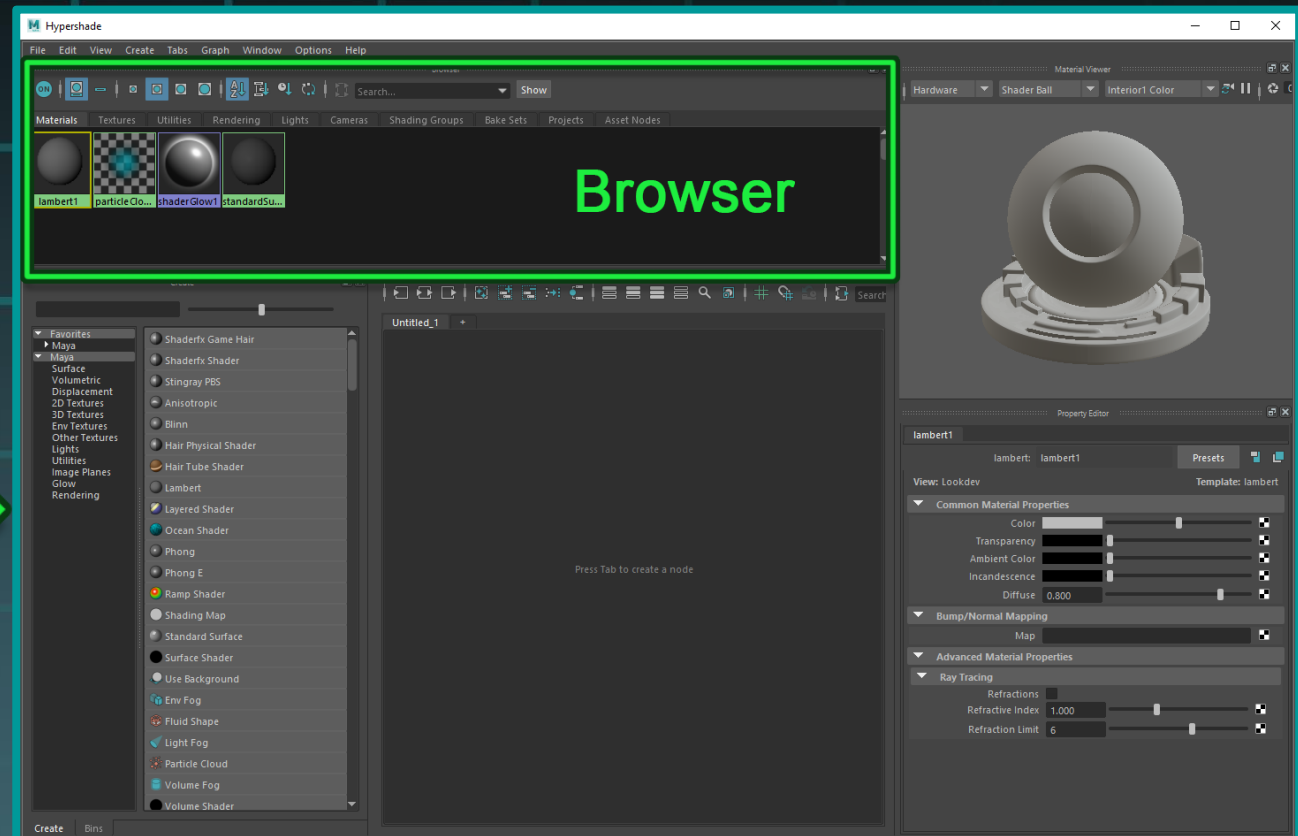
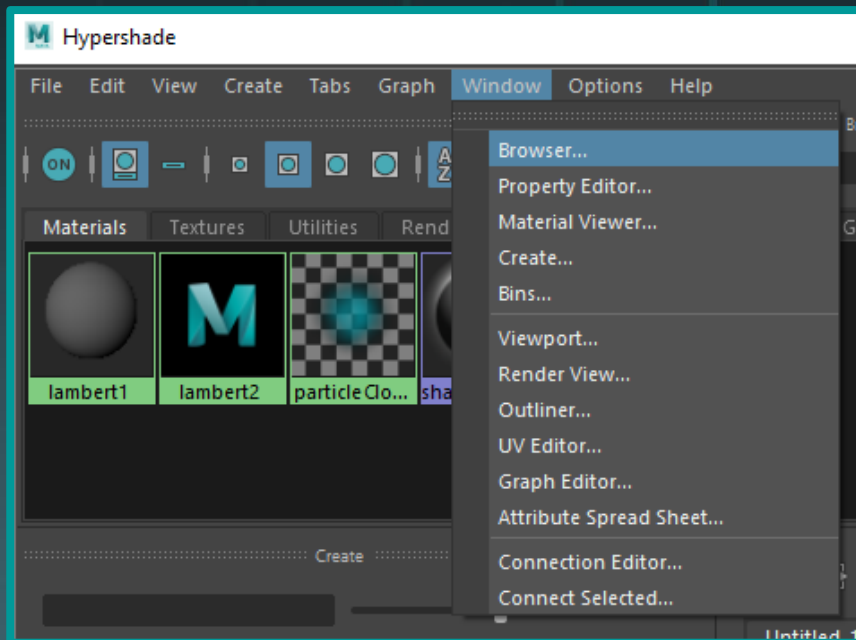
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1d. The Hypershade Window

If your Hypershade window is missing options/looks different – these are the settings you need to switch on:

Window > Browser...





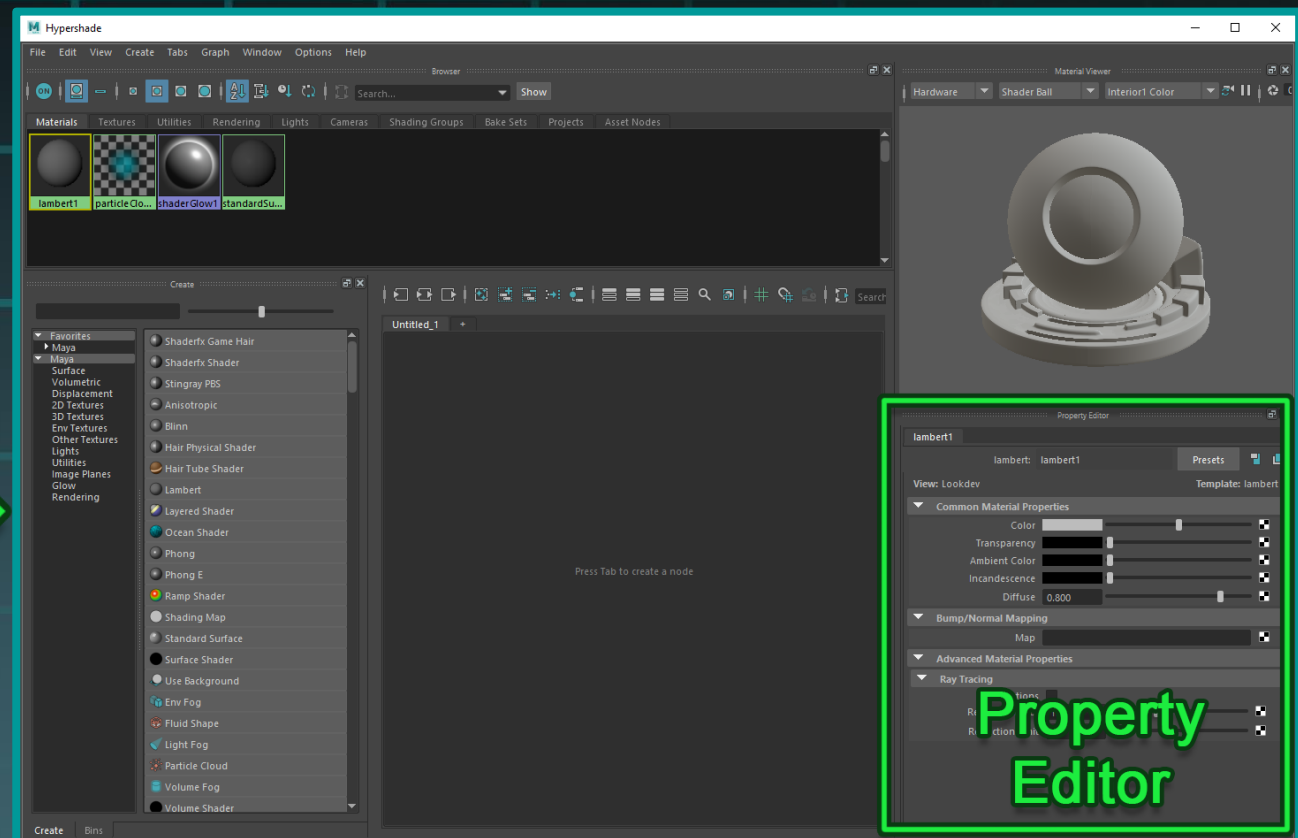
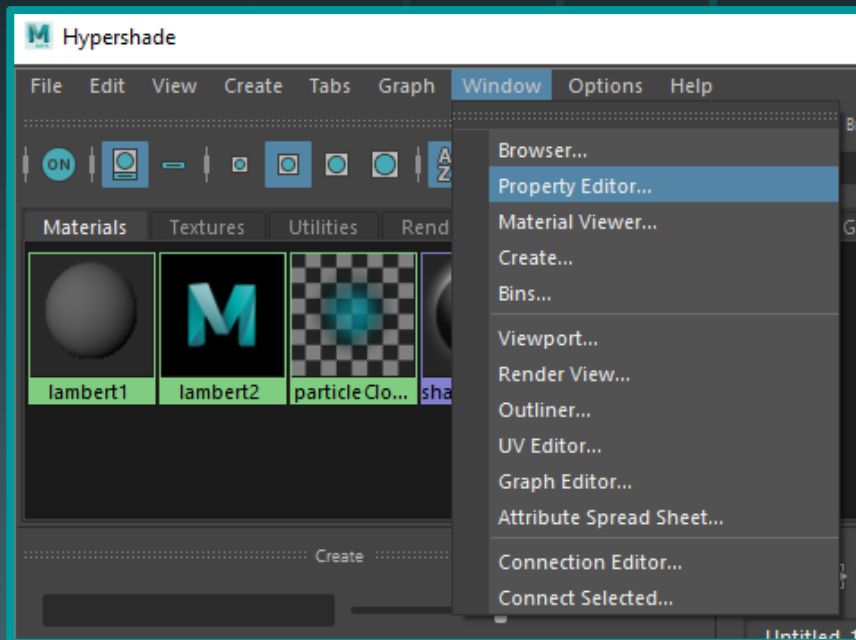
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1d. The Hypershade Window

If your Hypershade window is missing options/looks different – these are the settings you need to switch on:

Window > Property Editor...





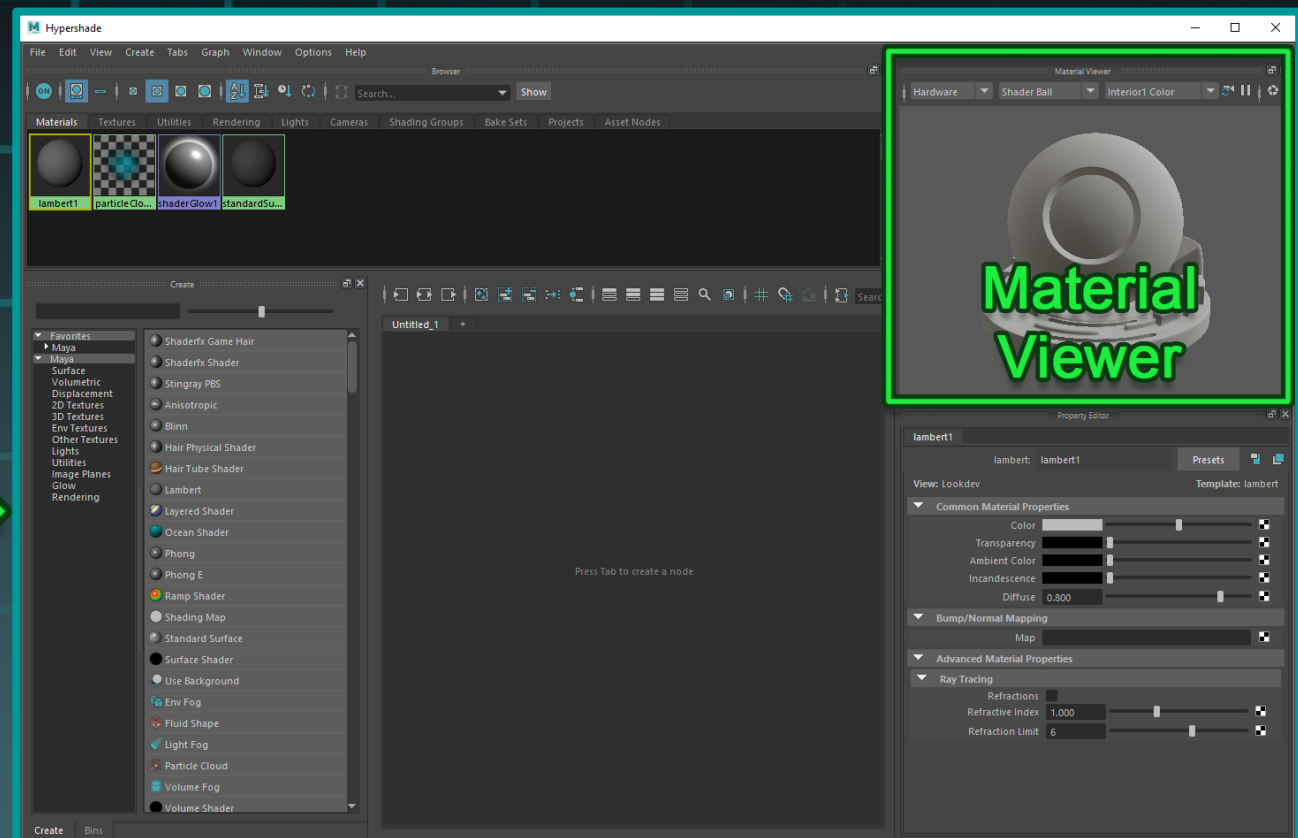
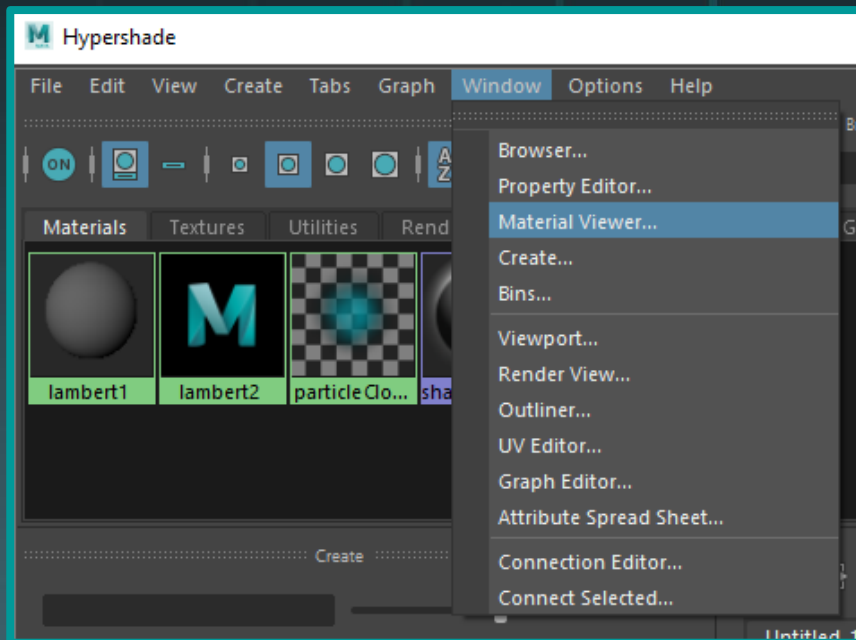
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1d. The Hypershade Window

If your Hypershade window is missing options/looks different – these are the settings you need to switch on:

Window > Material Viewer...





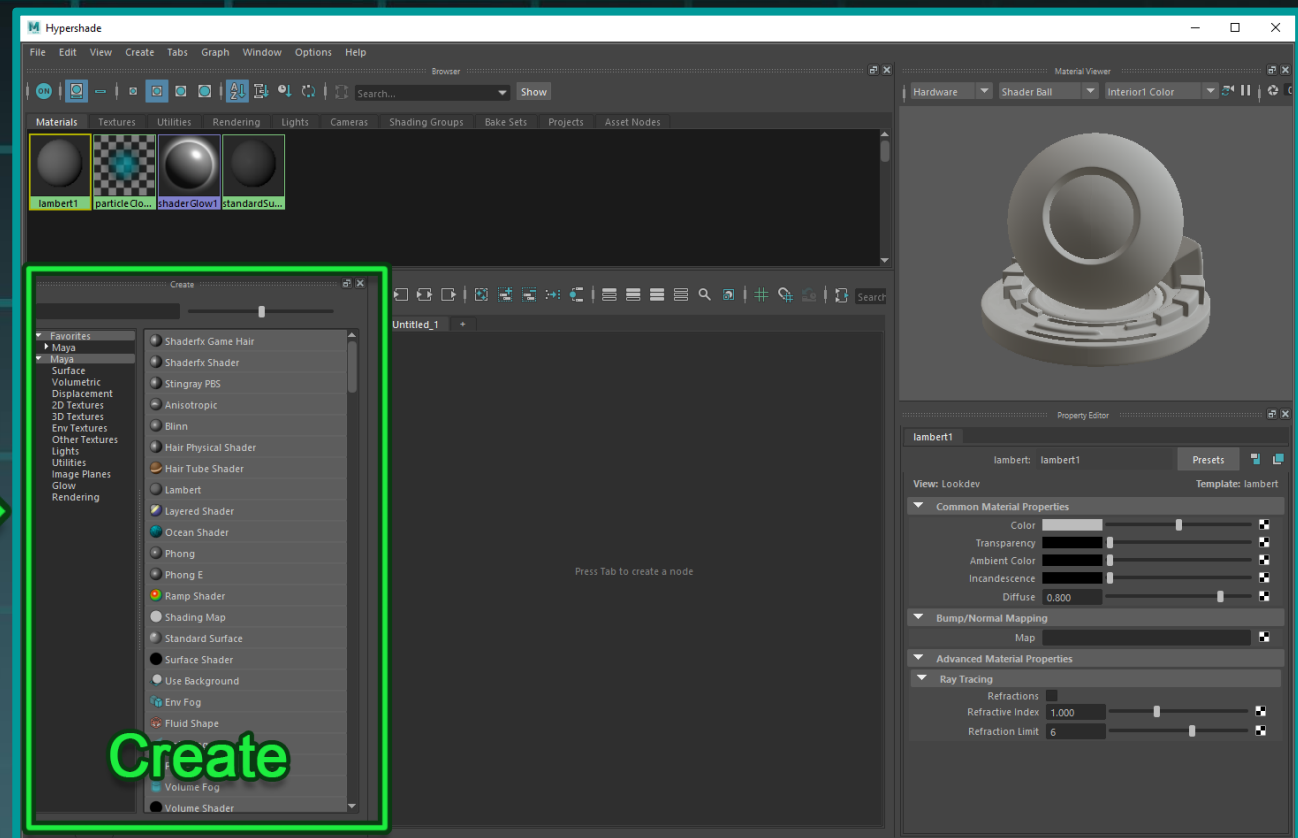
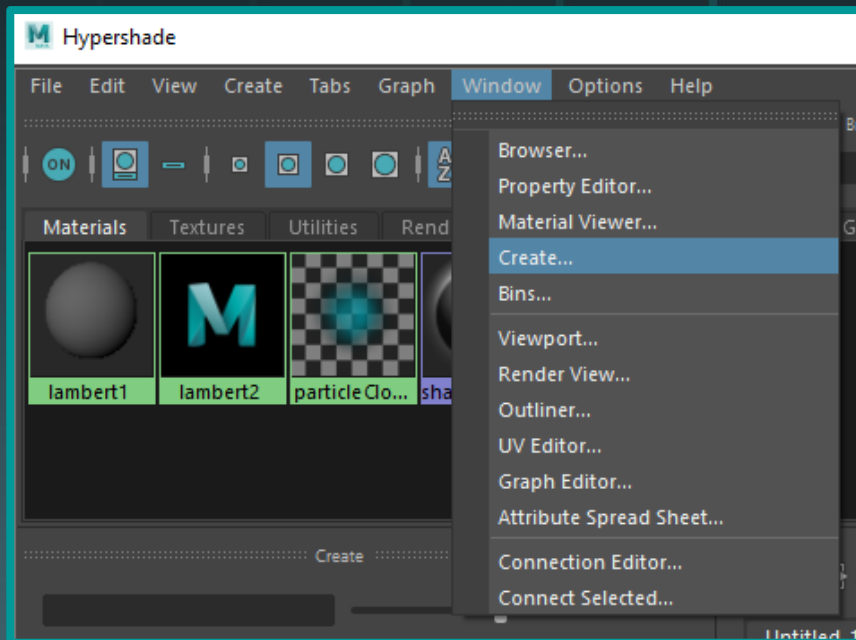
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1d. The Hypershade Window

If your Hypershade window is missing options/looks different – these are the settings you need to switch on:

Window > Create...





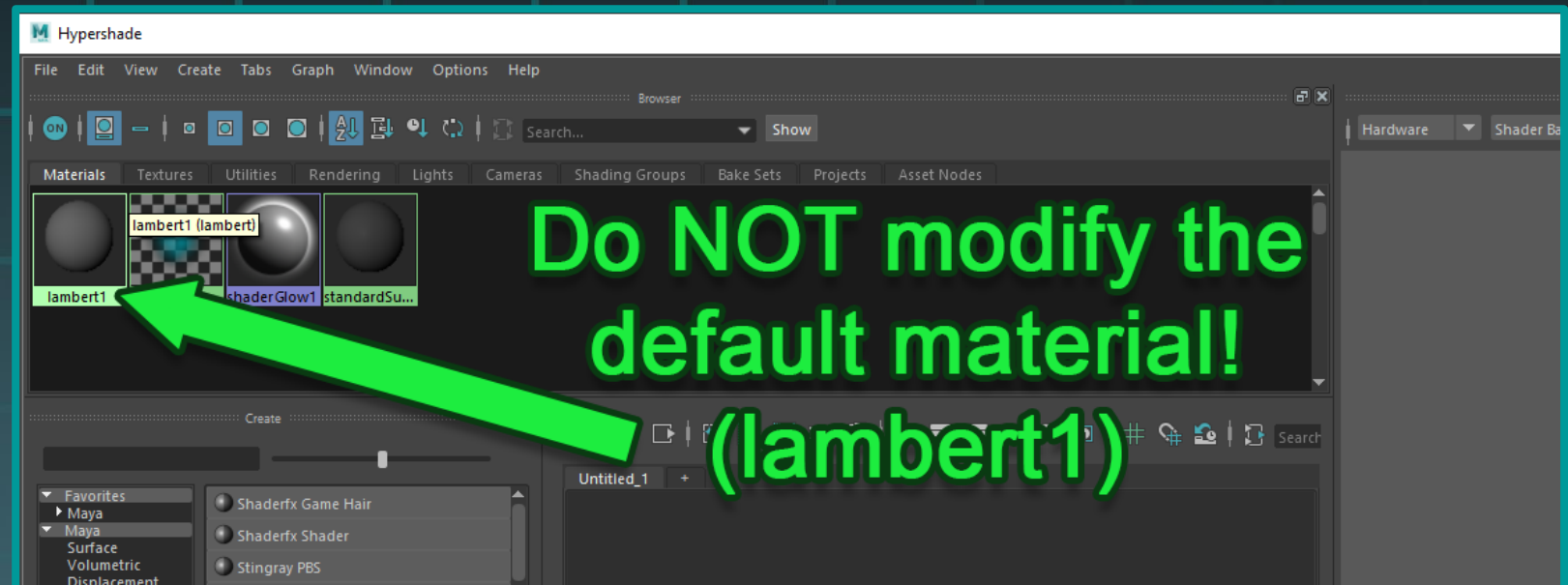
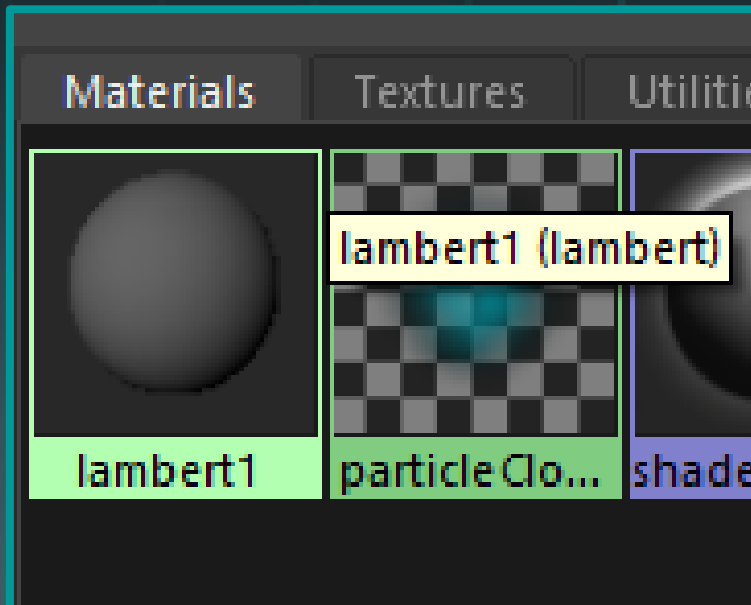
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2b. Leave the Lambert1 Alone!

Notice there is a material called '**lamBERT1**' in the Hypershade **Browser**.

NEVER modify or delete this. This is Maya's default shader – the grey effect on models we always see.



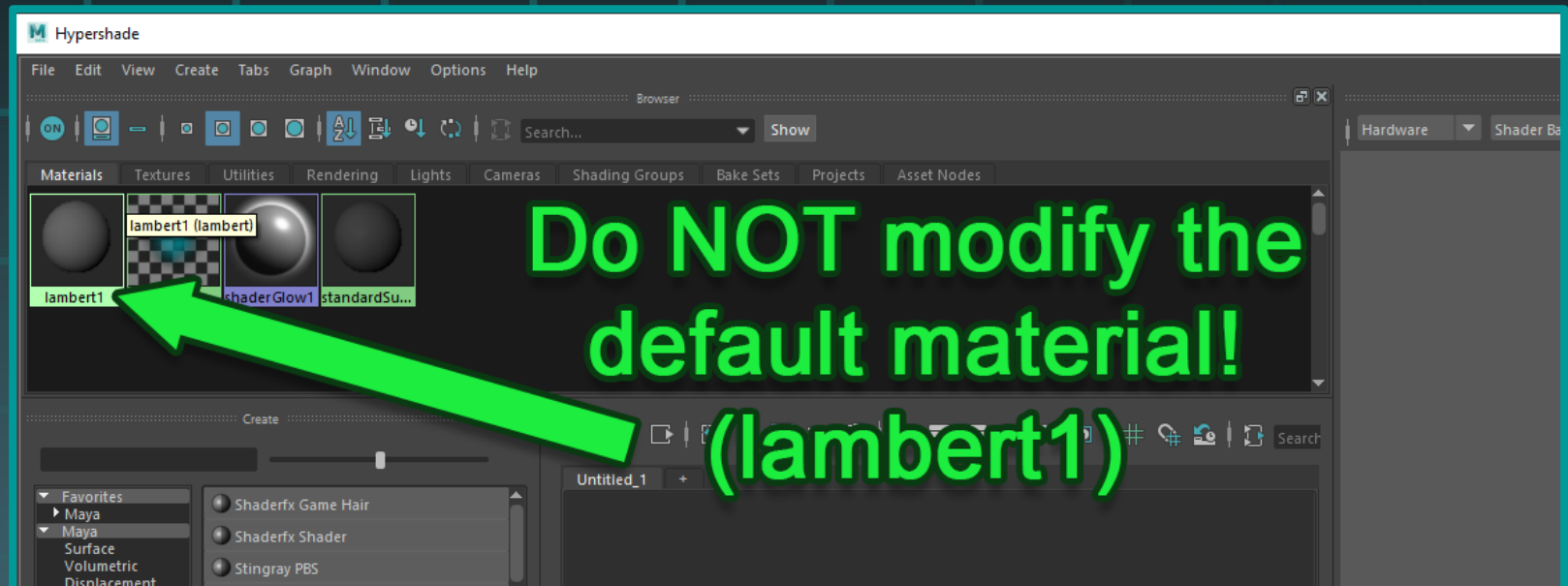
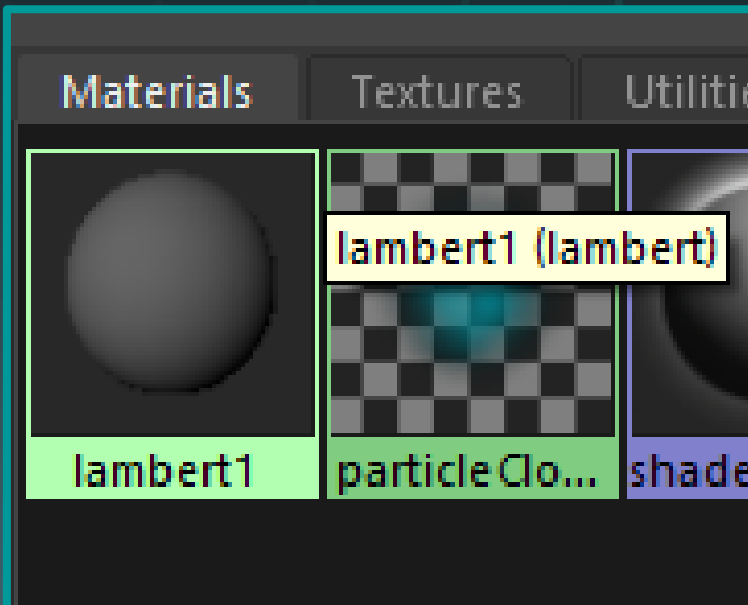


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2b. Leave the Lambert1 Alone!

Changing this will modify the default for **all models in Maya** from this point onwards!





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Once again:

NEVER MODIFY THE LAMBERT1 MATERIAL!

(Use the ctrl-z Undo function if you do)



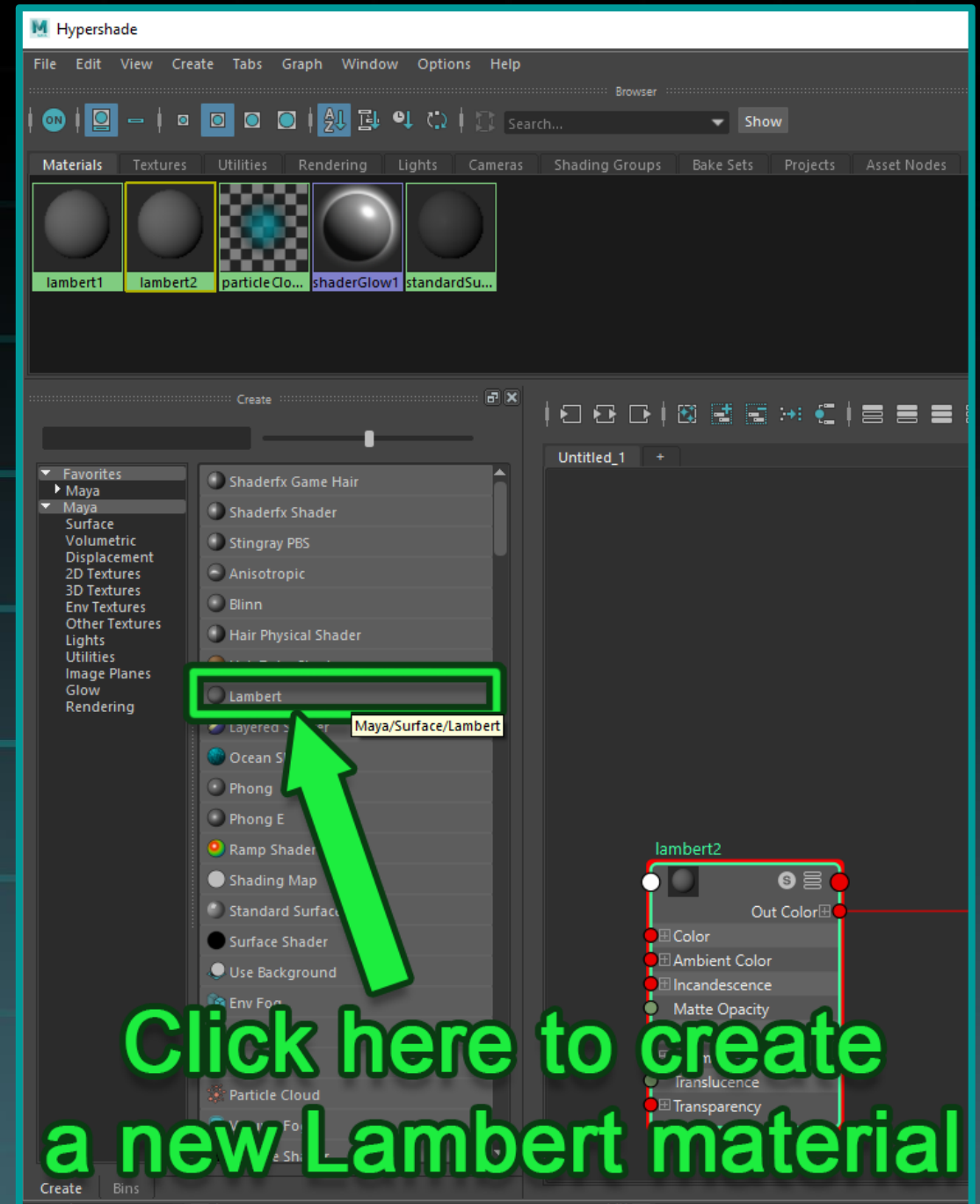
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3. Create New Material

In the 'Create' section of the Hypershade, find 'Lambert' in the list and click on it to create a new Lambert Material.

It is this new material that we will modify to link our UV Snapshot / Texture map to.



Click here to create a new Lambert material



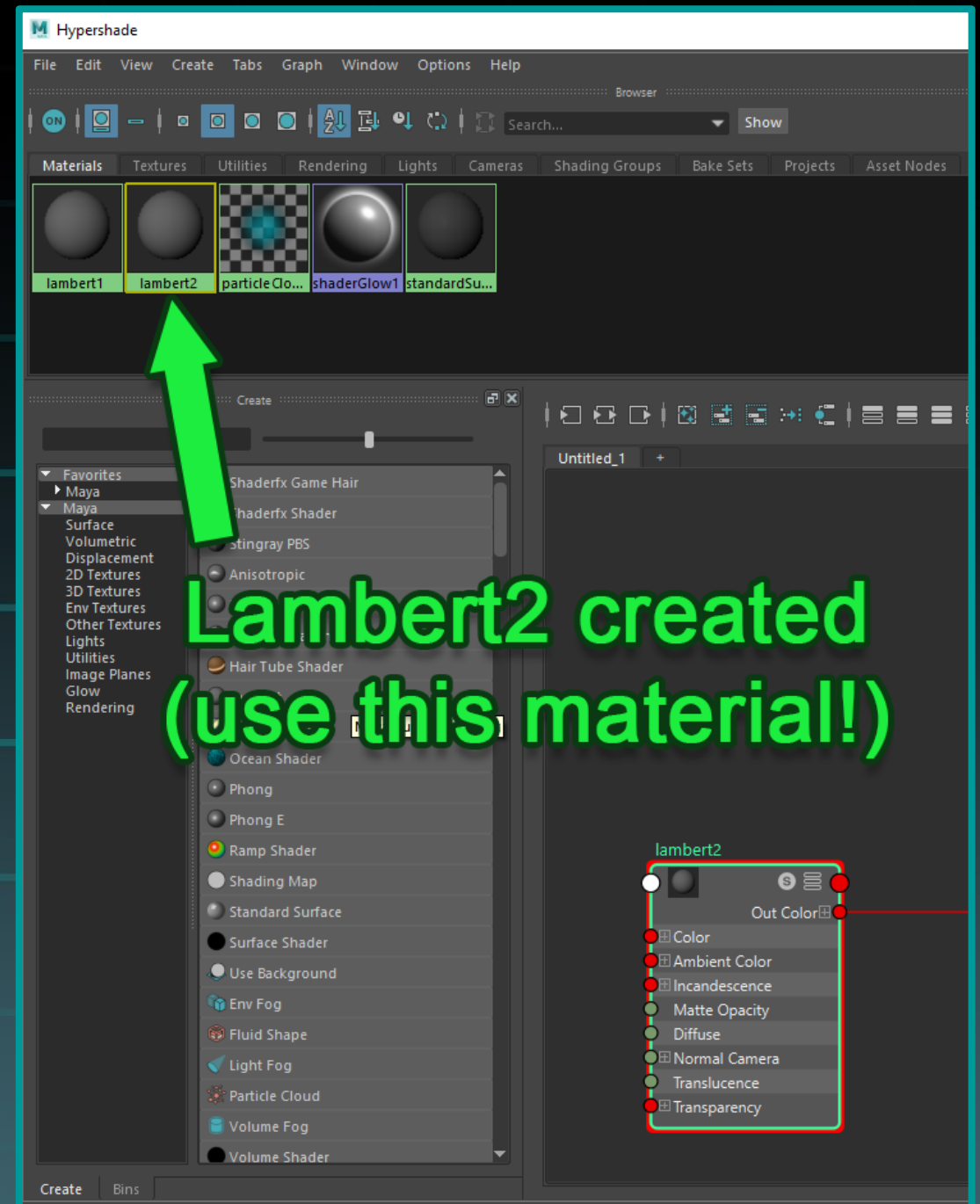
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3. Create New Material

A new Lambert (with the default name **Lambert2**) will appear in the Browser.

Select this in the Browser before we go any further.





4a. Link a texture file to Material

[illegible]



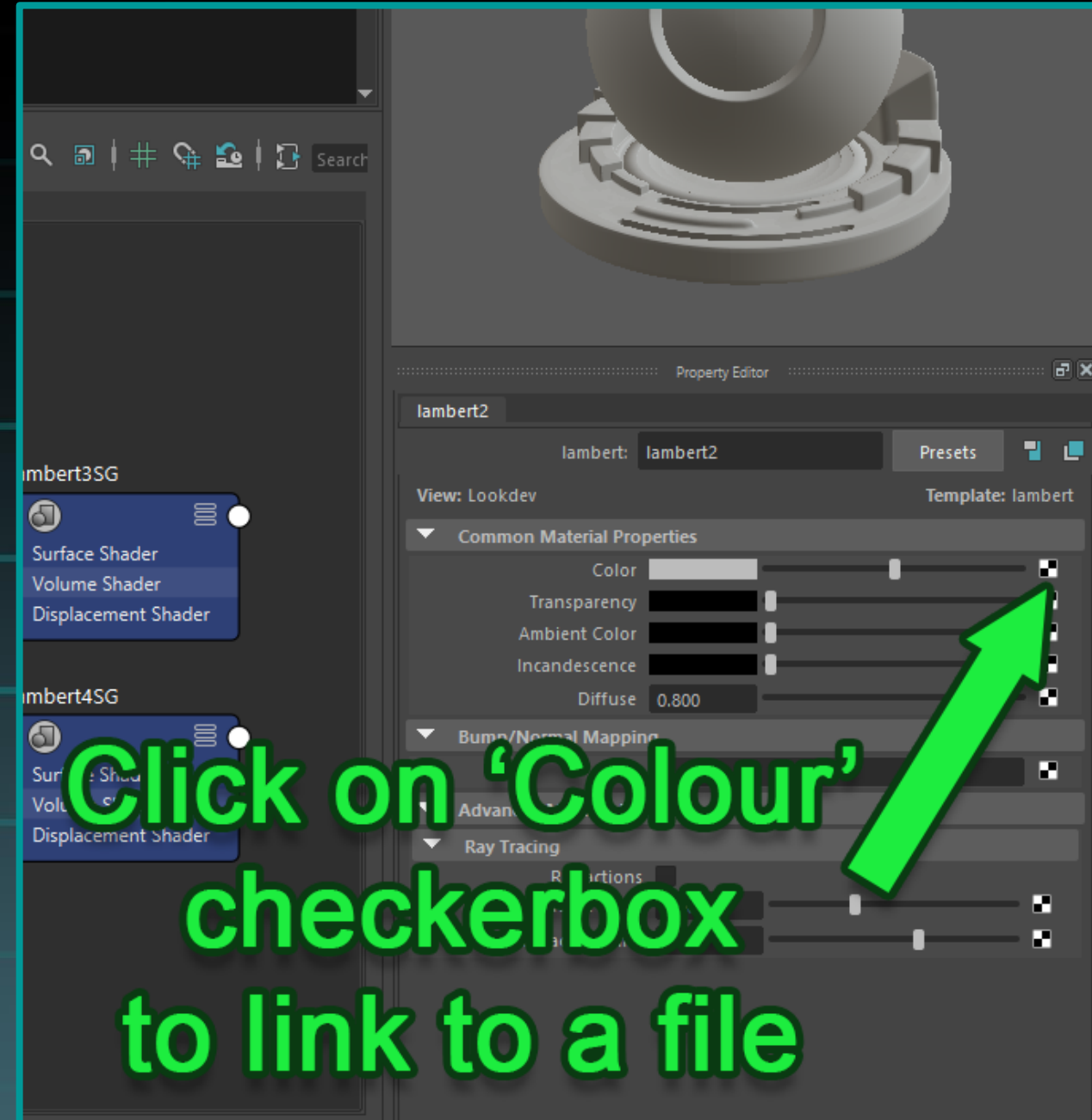
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4b. Link a texture file to Material

Click on the **checkbox** of the **Color** value.

In a similar fashion to the white square representing 'extras' on various Maya tools, the **checkbox** allows you to go into certain functions and add more nodes.





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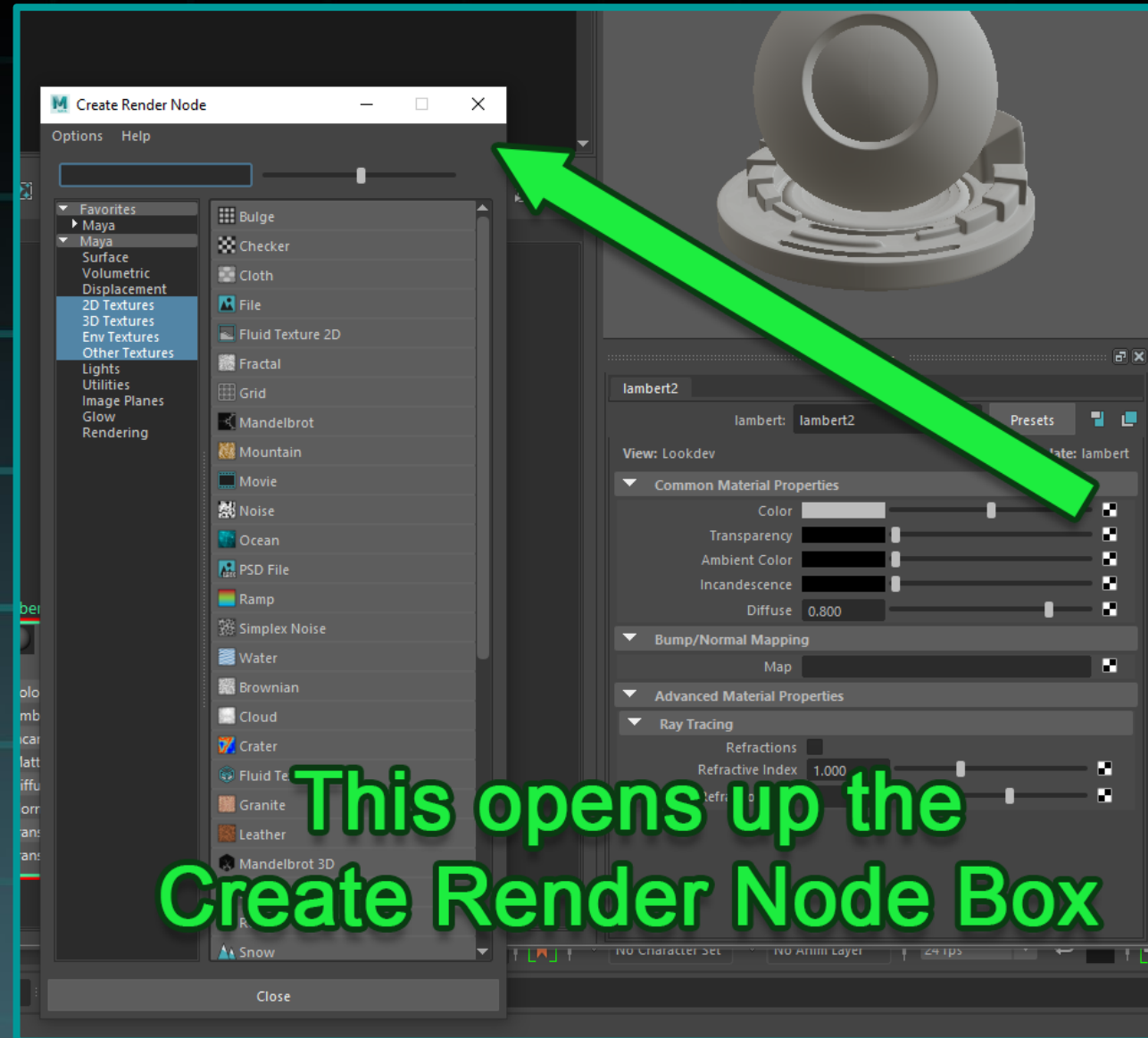
4c. Link a texture file to Material

Click on the checkbox of the **Color** value.

This will bring up the **Create Render Node** box.

There are many options for files here but we only ever really deal with **File** or **Checker**.

We want to create a texture node from an existing file.





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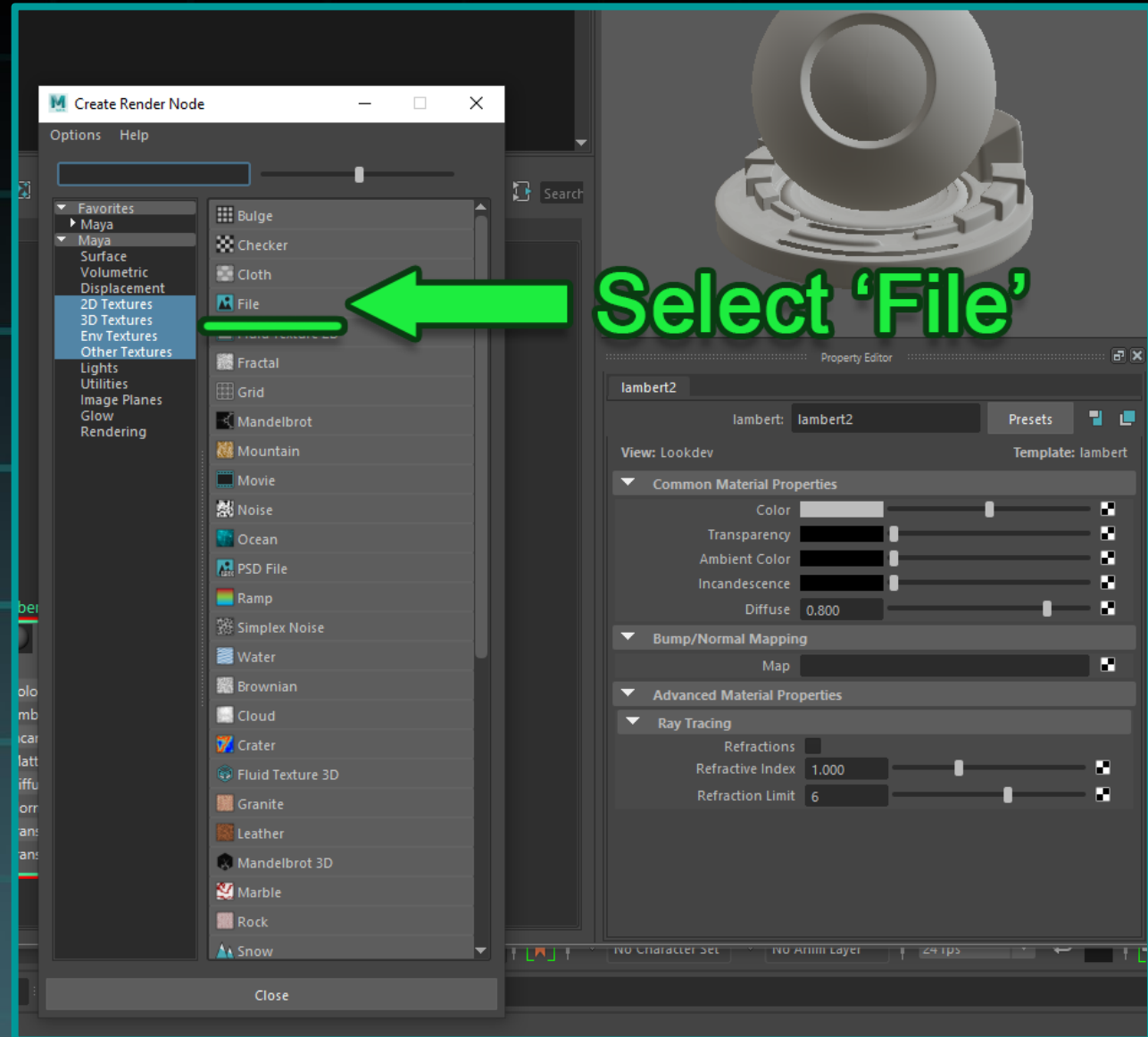
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4d. Link a texture file to Material

Select **File** in the Create Render Node box.

This will create a node for our texture – we will have to provide a source file for this to show up.

The source file will be your **UV Snapshot / texture file**.





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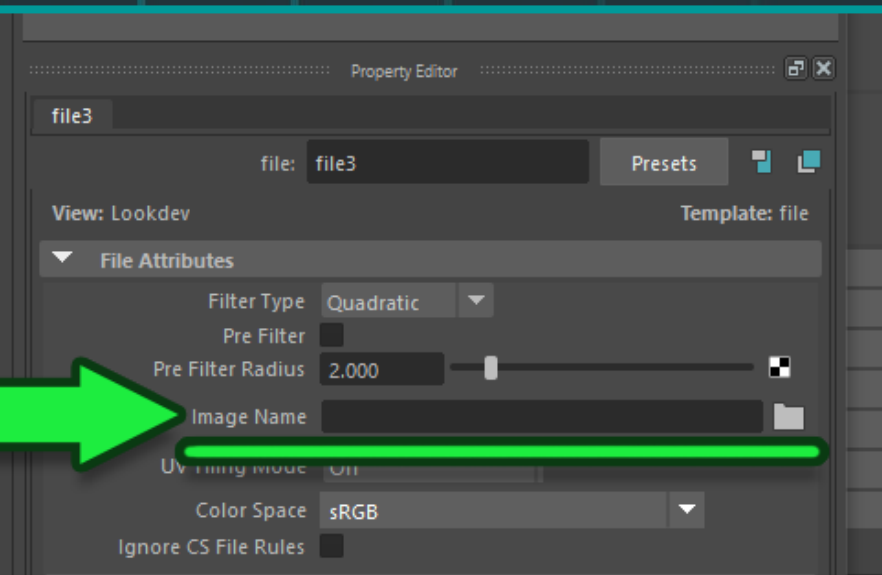
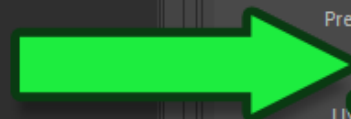
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4e. Link a texture file to Material

In the **Property Editor**, you should now see '**File Attributes**'. Next to **Image Name** there is a blank field and a directory.

Click on the directory and navigate to where your texture file is located on your hard drive.

Link to your
texture here





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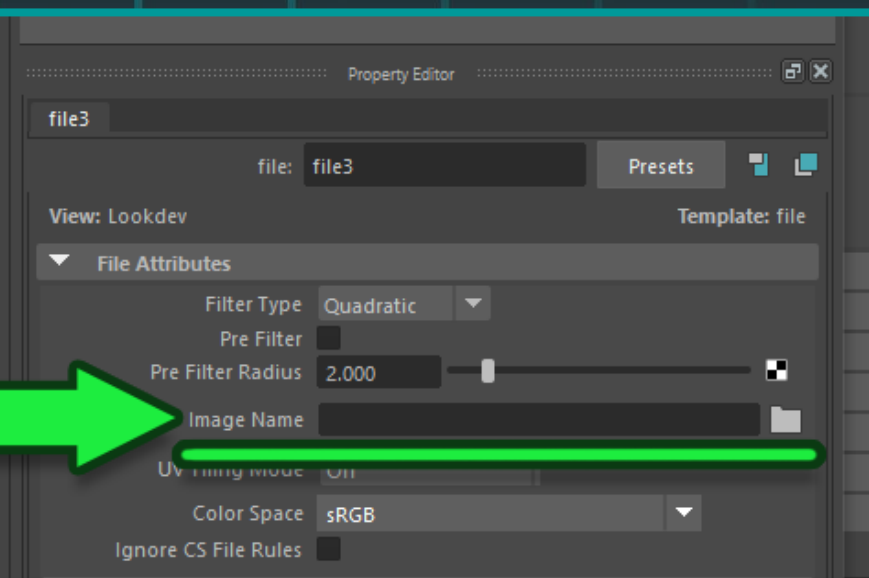
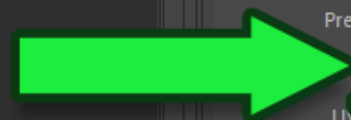
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4e. Link a texture file to Material

Note: It is a good idea to put finished texture files in '**Sourceimages**' in your **Maya project setup**.

By doing this you can move your project around and it will be self contained – transferring the project will not break any texture links.

Link to your
texture here





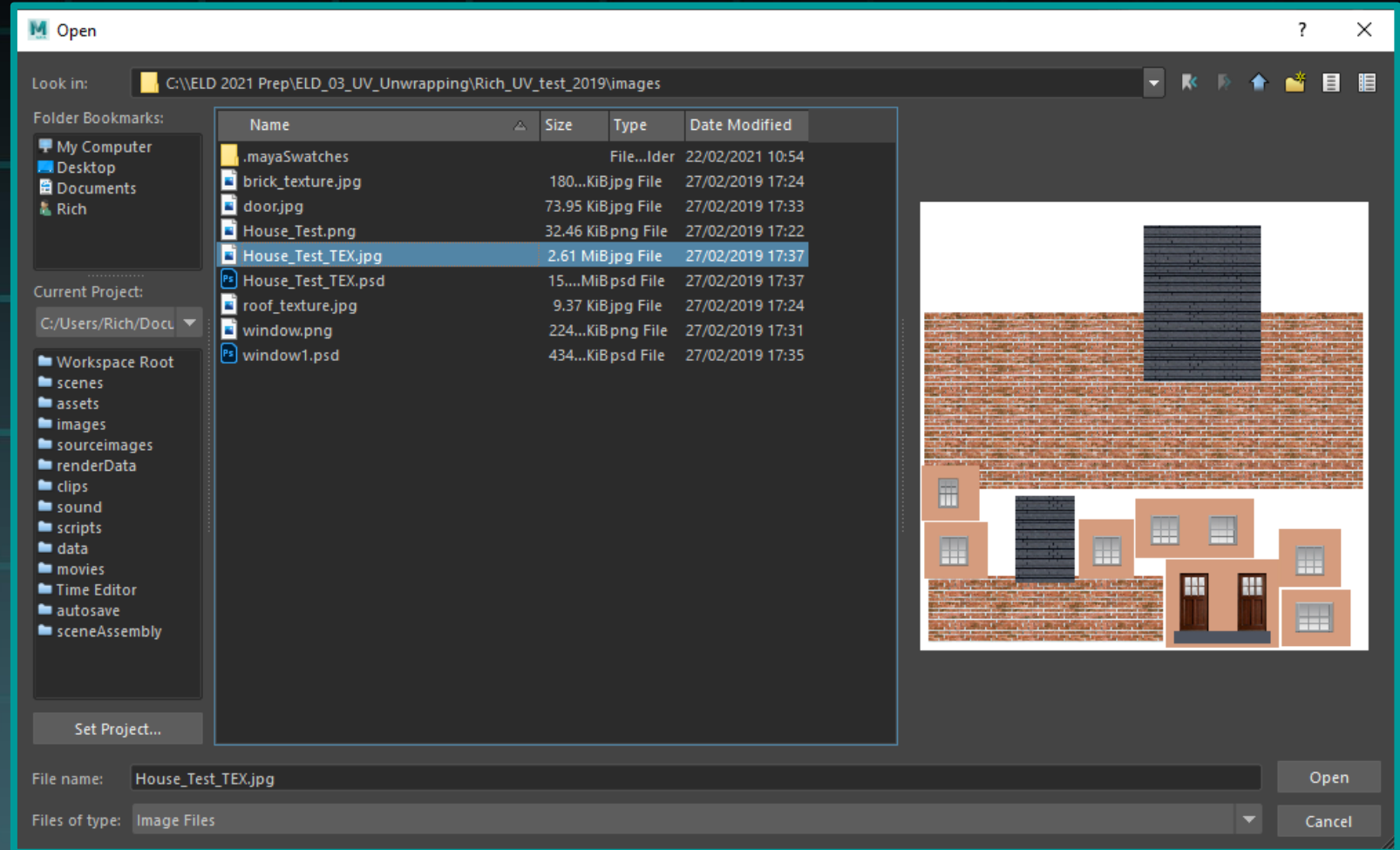
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4f. Link a texture file to Material

Locate your texture.

Select 'Open'.





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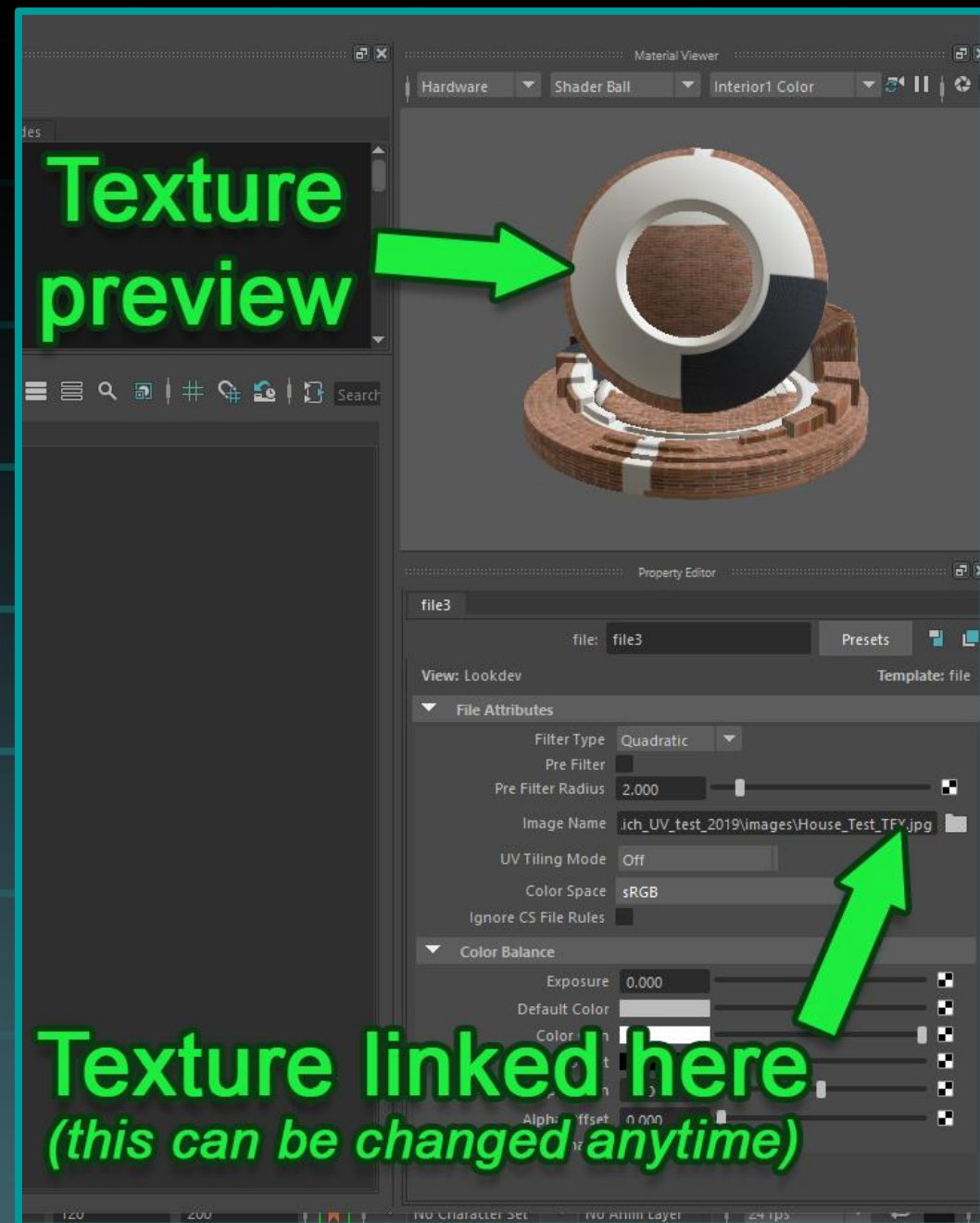
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4f. Link a texture file to Material

Your texture file will appear on the **Texture Preview** in the **Material Viewer**.

You can update the texture link by selecting the Image Name field at any point.

The texture preview **won't look right** – but it is an indicator that the texture is applied to the material.





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Importing Texture Maps: Applying Materials to Objects



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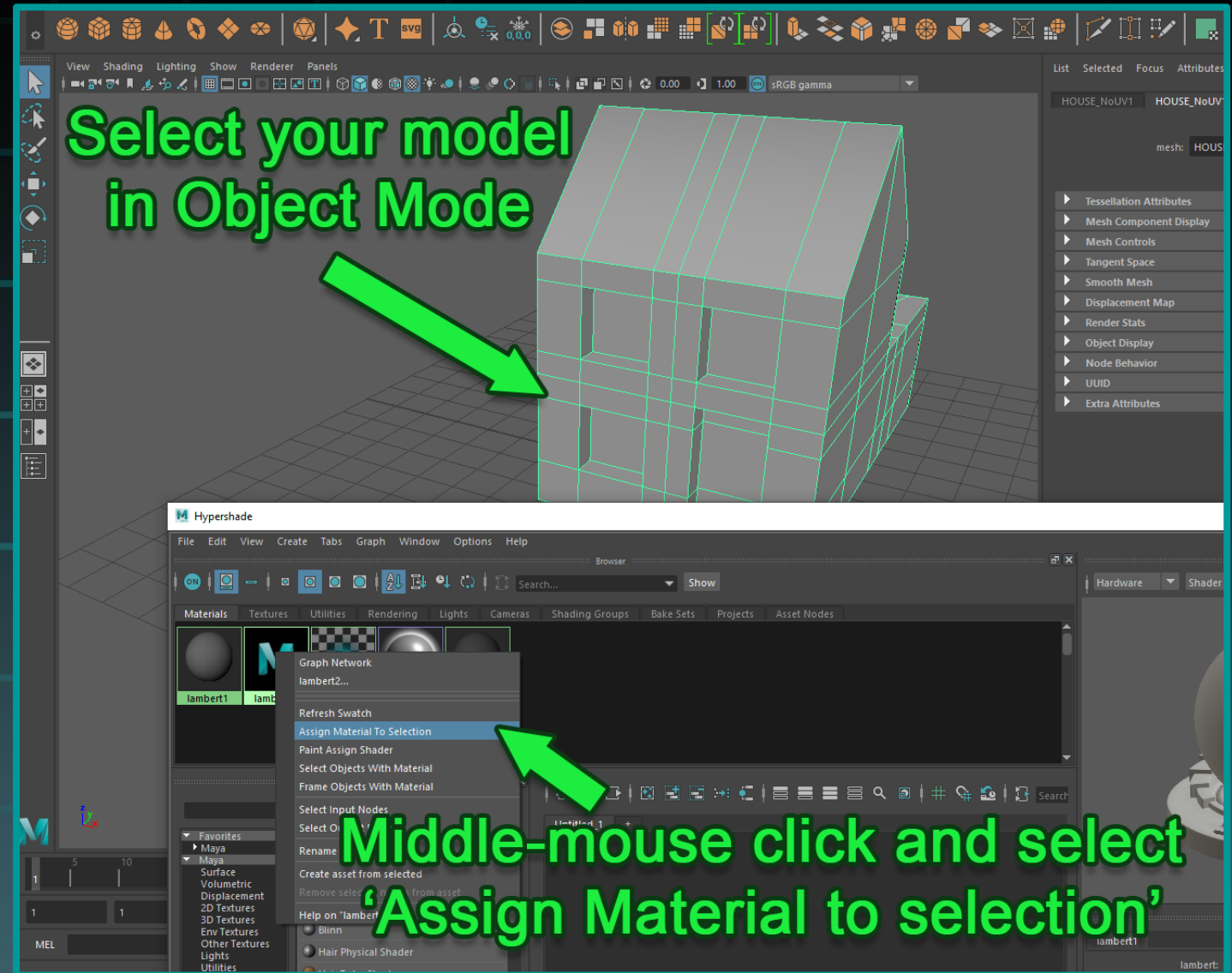
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1. Apply the Material

In the main viewport, select your model (make sure you are in **Object Mode**).

Middle-mouse click on **lambert2** and select '**Assign Material to Selection**'

This should apply the material to the selected model.





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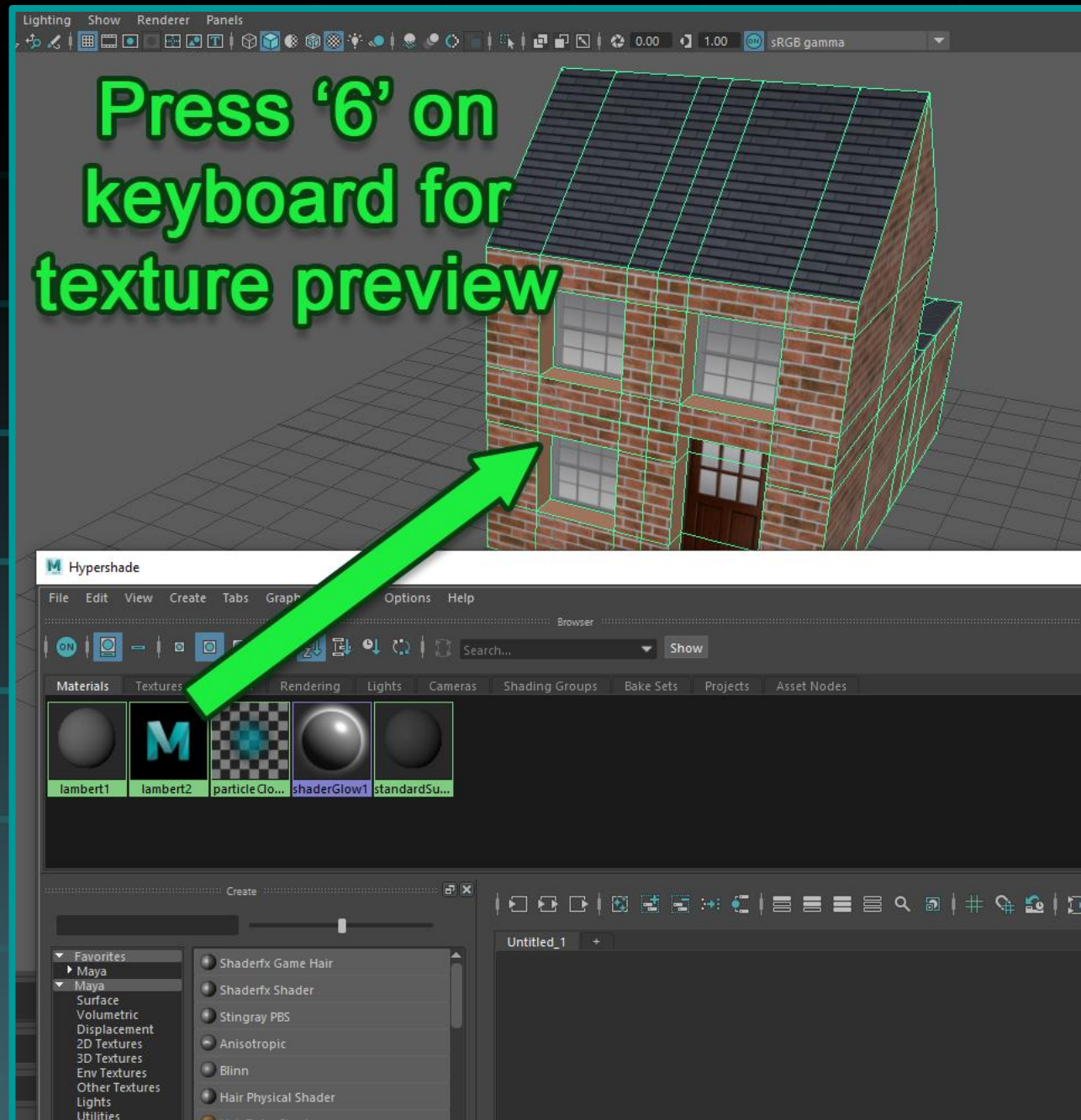
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2. Preview the Material

If nothing happens, **don't panic!**

It is likely that you need to enable the **texture preview** in your viewport.

In the main Maya window, press the '**6**' key on the keyboard – this should show you an **unshaded preview** of you texture applied to the model.

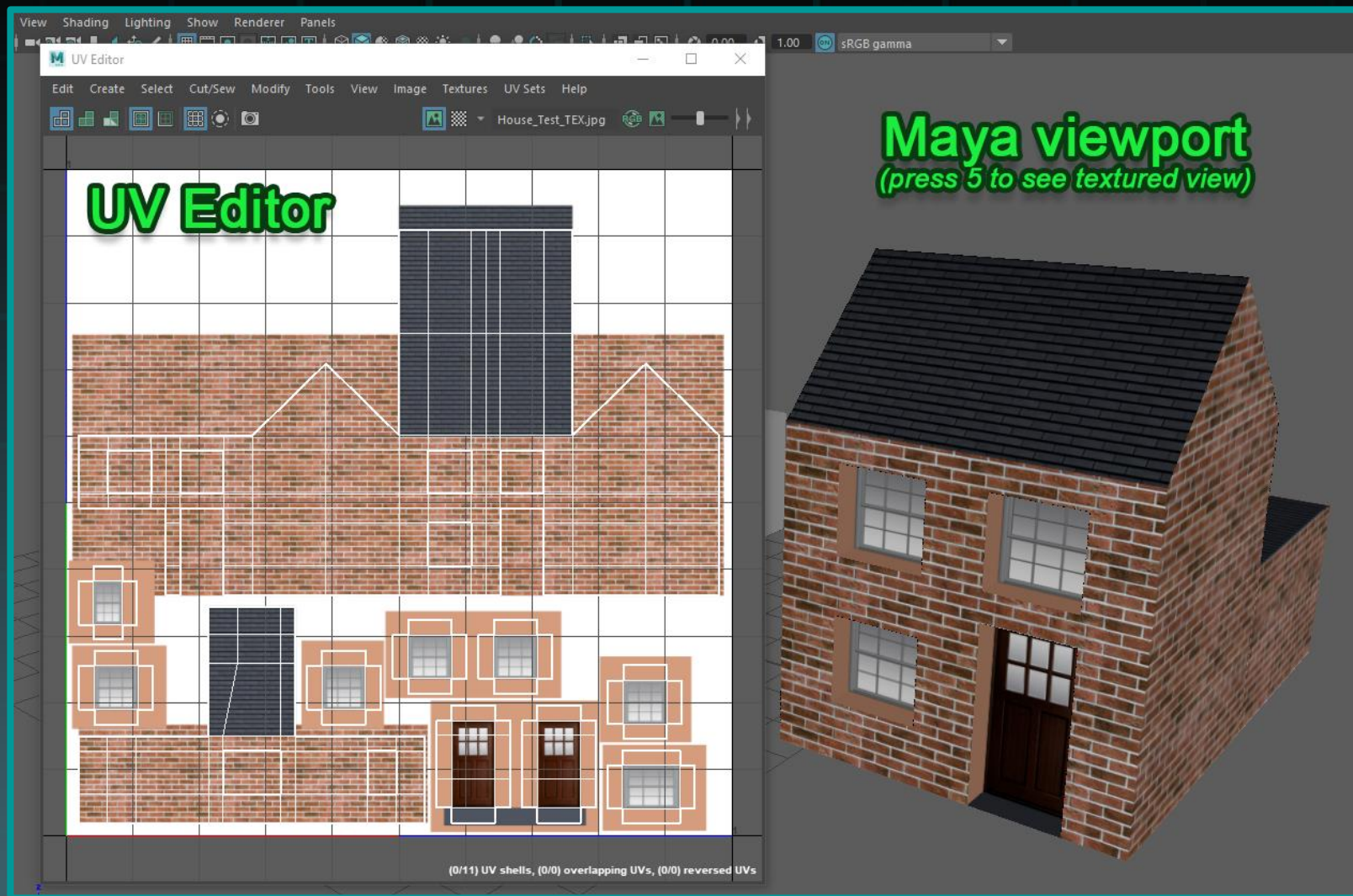




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Successful UV Unwrap – Texture View





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Importing Texture maps into Maya

Importing Texture Maps: Export Objects as .FBX files



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Importing Texture maps into Maya

Exporting objects from Maya as .FBX files

After previewing textures in Maya successfully you will need to export your models so they can be imported into a game engine.

The .FBX file format is currently commonly used for most game assets. FBX files retain UV texture and animation data (though materials will have to be recreated and reapplied in a game engine).

This is a simple process, but totally necessary if you are to transfer your models into a game environment.



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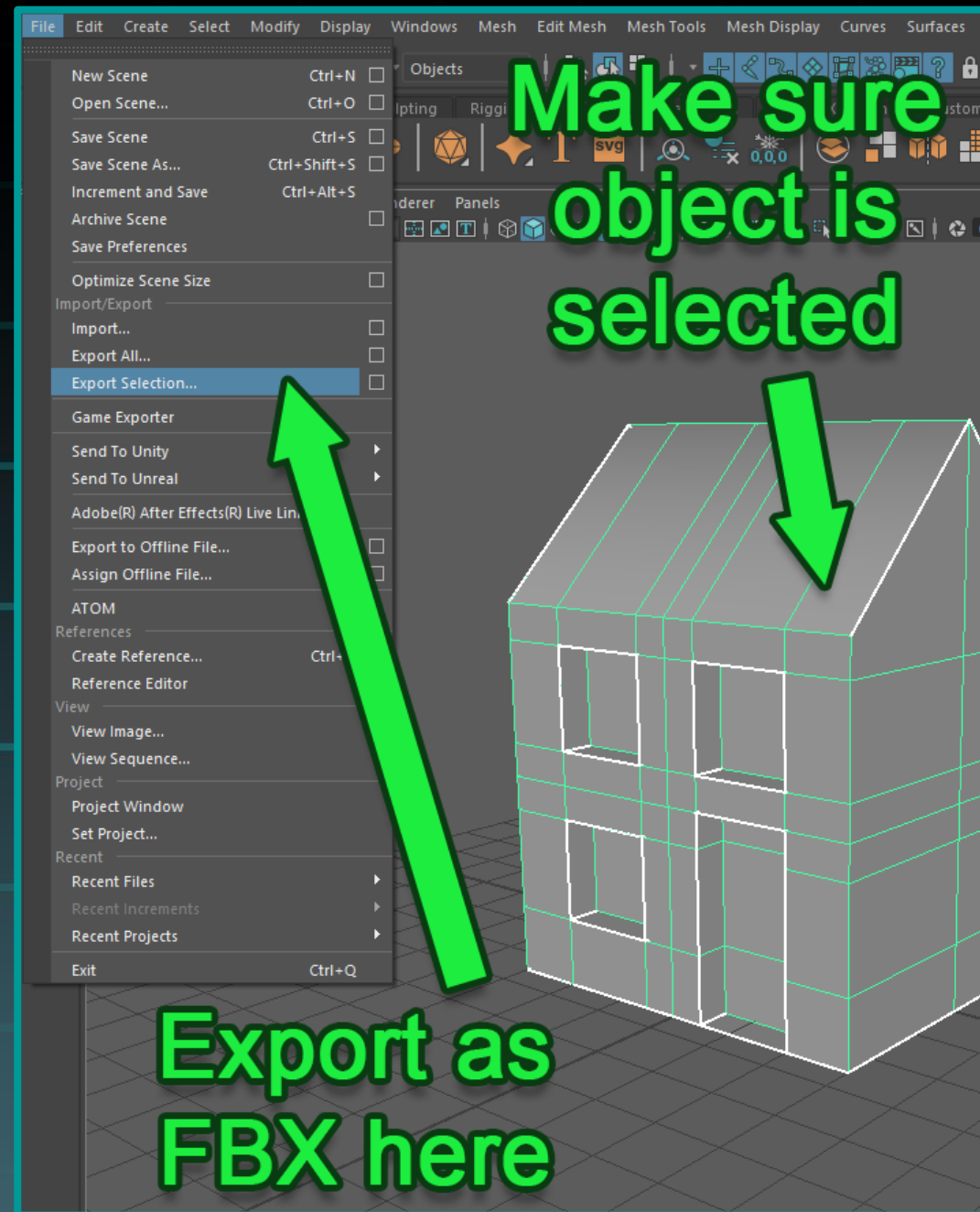
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1. Export Selection

Make sure you have the model you wish to export selected in **Object Mode**.

Maya will export everything you have selected as a single FBX file – make sure you only export what you actually want!

File > Export Selection





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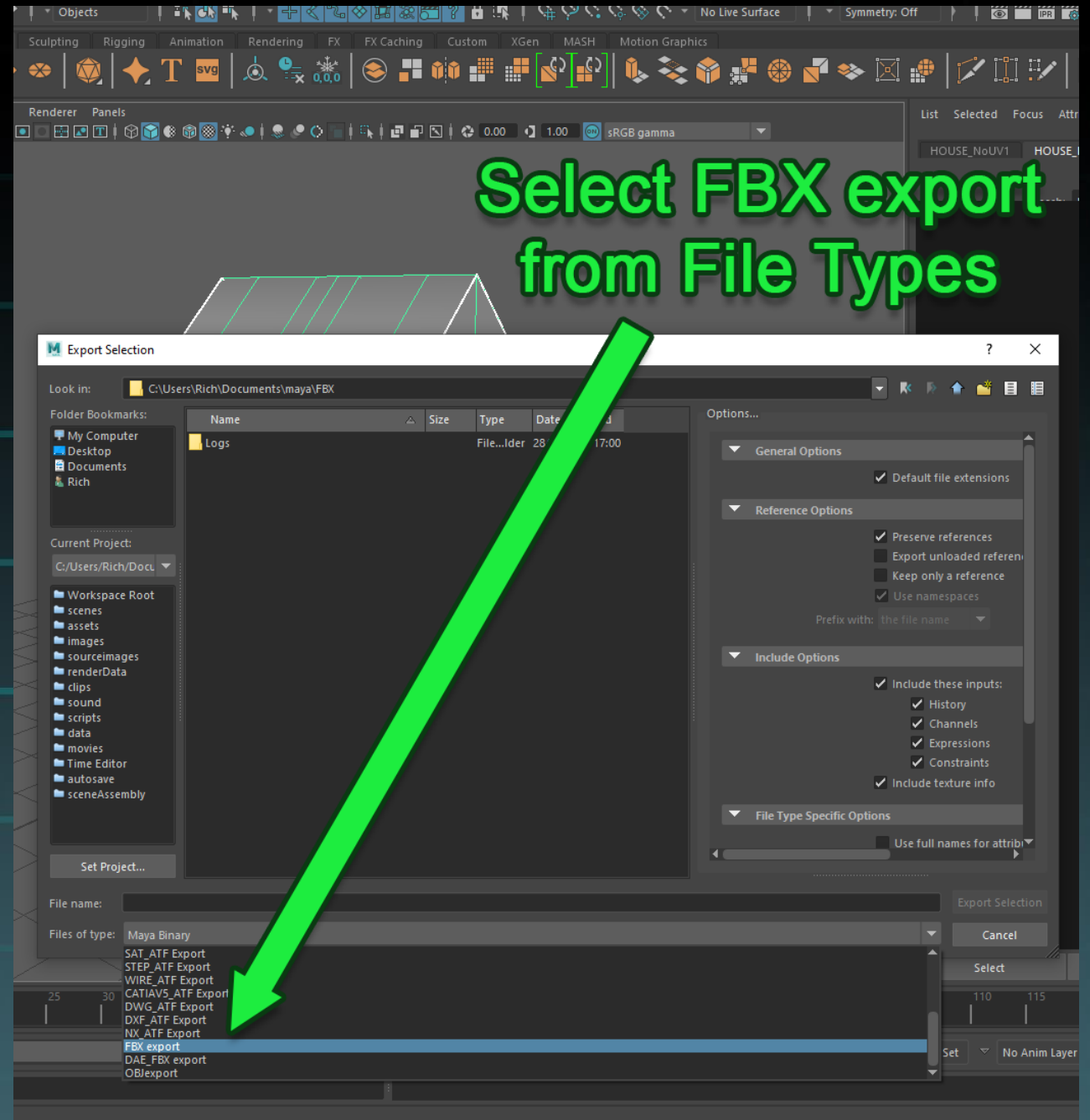
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2. Choose File Type

The **Export Selection** box will then appear.

No settings need to be changed here aside from the name (remember the need for good naming conventions) and the file format.

Before exporting, select the file format to **FBX Export**.





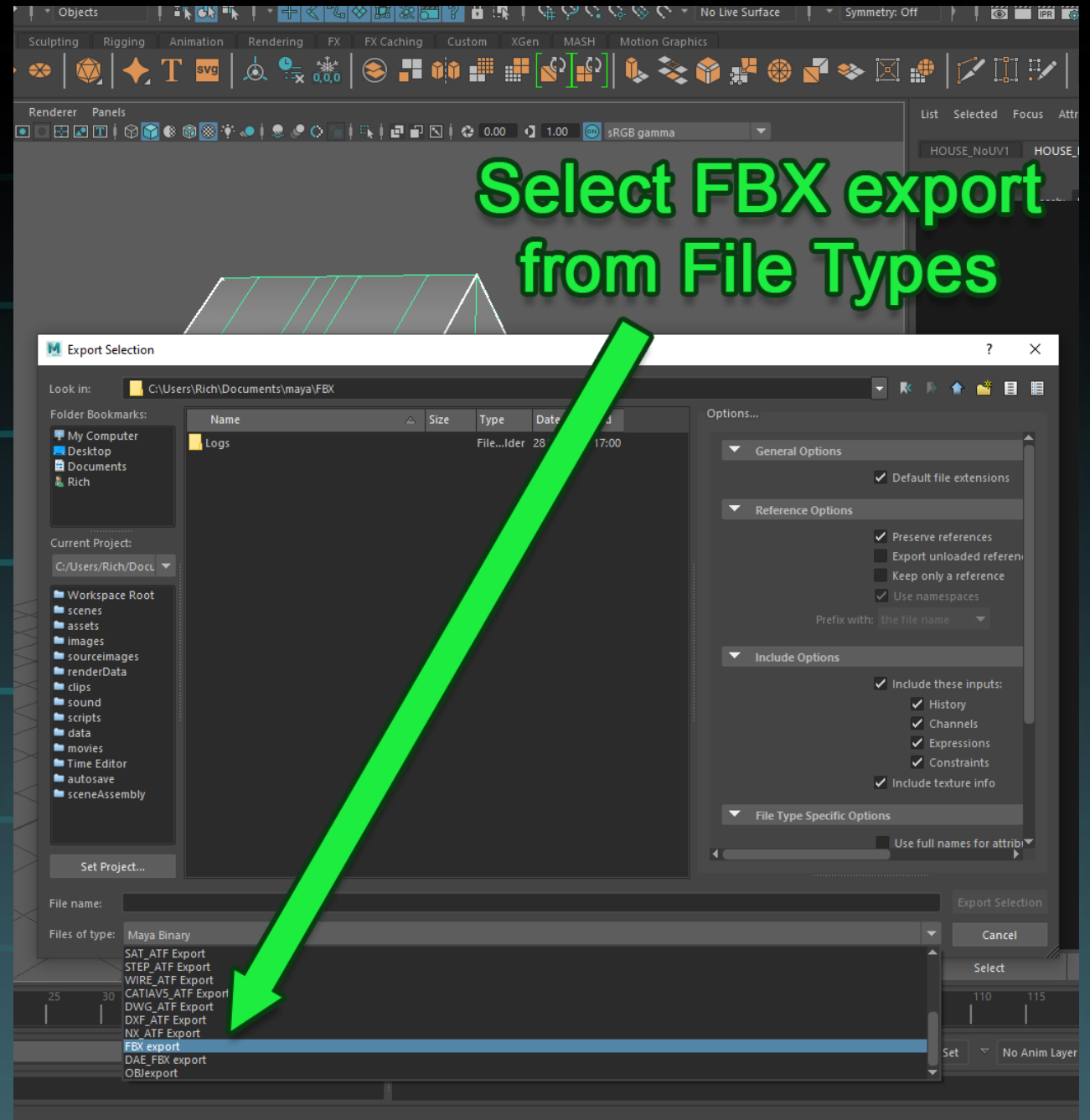
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2. Choose File Type

You can export the FBX anywhere you want, though you may wish to **create a new Folder in your Maya Project** called '**FBX Exports**' or similar, so that you keep all related assets together in a single Maya project.

This is common sense, so of course it is recommended to follow this advice!





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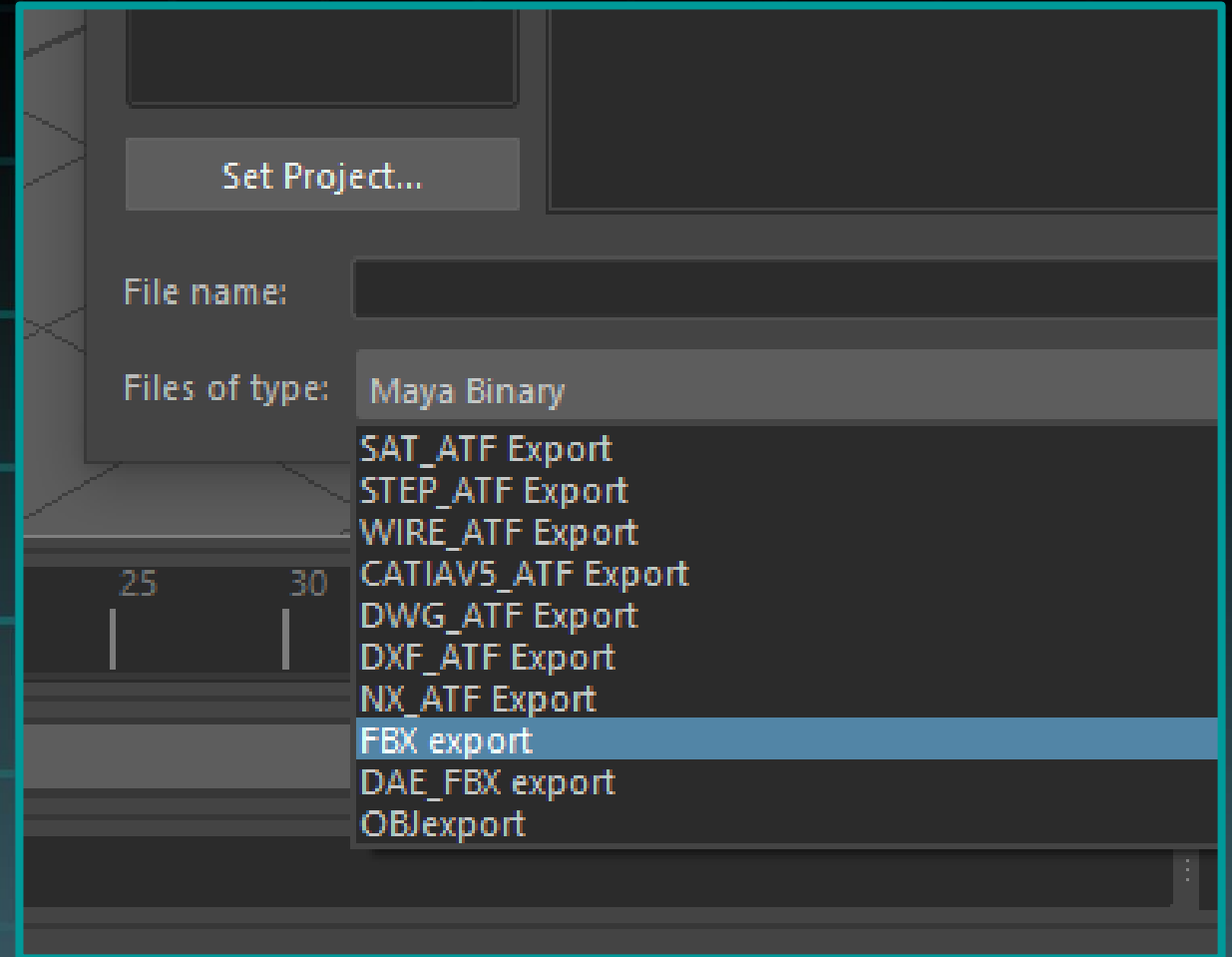
2. Choose File Type

FBX export – closer view

This is the file format that we will be using throughout your studies.

Note that you will still have to save your Maya scenes! The FBX is just an **exported version** of your model ready for game engines.

Keep your Maya scenes – these can often be useful in future!



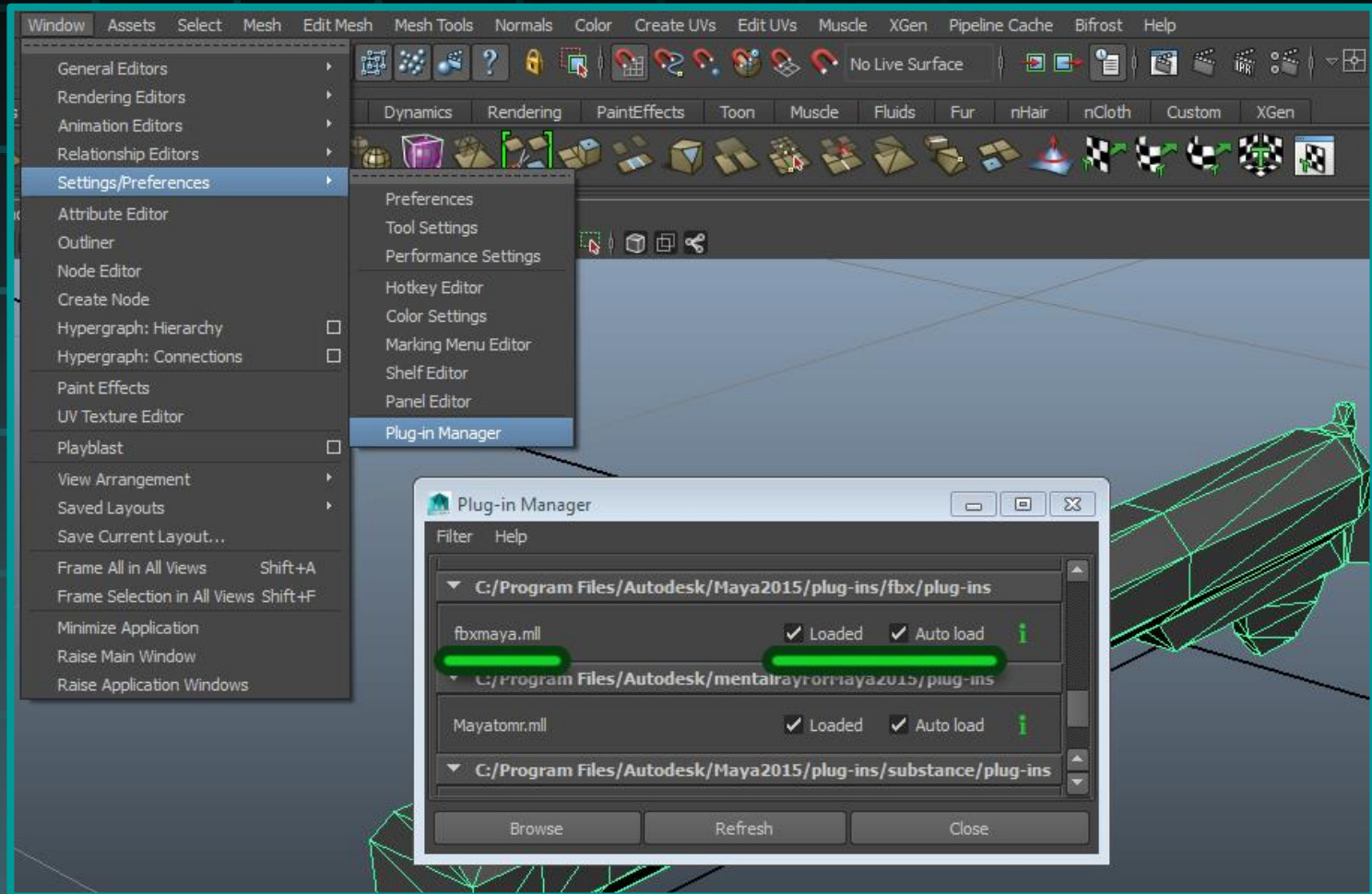


Troubleshooting FBX Exports: Plug-In Manager (FBX)

Try loading **fbxmaya.mll**
If you cannot find FBX as
An option.

This can be found here:

**Settings/Preferences >
Plug-in Manager**





Exporting objects from Maya as .FBX files

Don't forget to also '**clean up**' your models before exporting – tasks such as the following are part of the process for good workflow:

- Translate to centre of Maya scene
- Centre pivots
- Check for Tris and Nsided polys
- Freeze Transforms
- Delete Object History

More information on how to perform the above tasks are in the notes for the **Model Cleanup (Gun exercise)** from this module.



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Remember:

**SAVE YOUR WORK
AND SAVE IT OFTEN!**



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