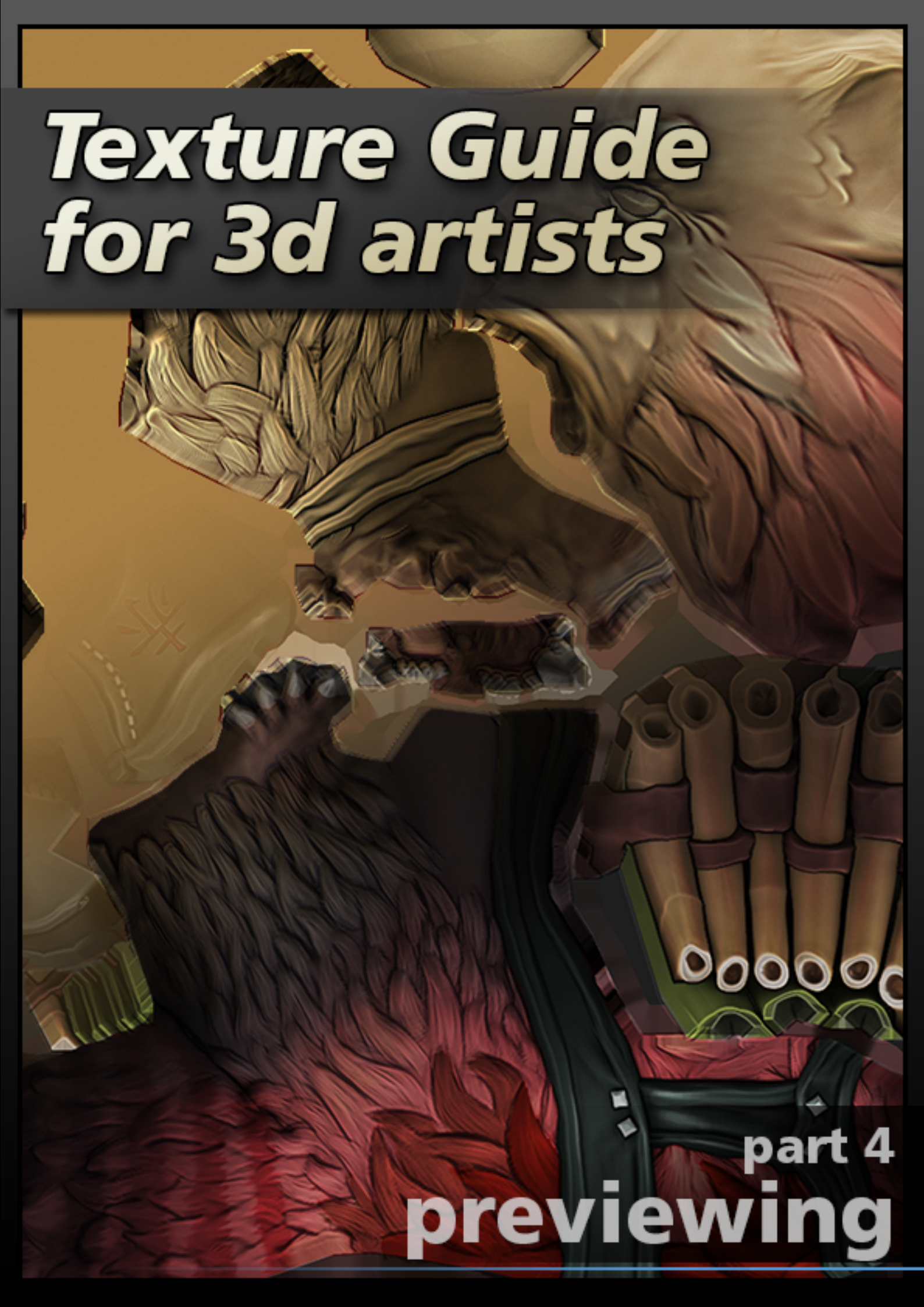
Texture Guide for 3d artists



part 4
previewing

INTRODUCTION

This part of the tutorial is not going to be a straight forward reading, each chapter is going to be a separated discussion about each solution.

Maya / 3DMax Dota 2 shader

This is a shader to be used inside Maya or 3d Max and is intended to give you an instant feedback of your texture inside the viewport.

It may increase the processing on your computer but it worth

These are some screenshot made by the creators. it can be found at this *polycount thread* [www.polycount.com]

Where to find

At this *polycount thread* [www.polycount.com]

Created by Drew Watts (Drew++) and Luigi Kavijian (Ace-Angel).

How to

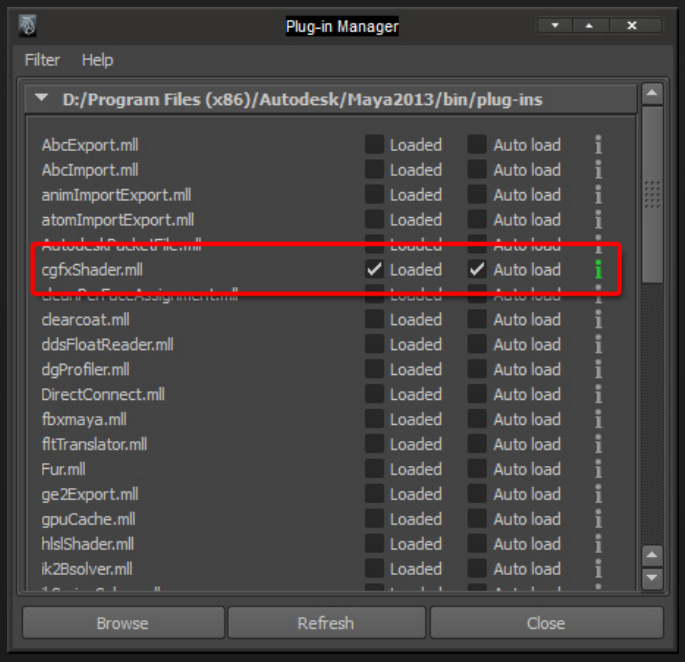
After downloading the files I suggest to place them somewhere near your projects but not inside.

In every new project you will need to address where the shader is and that way you will find it easily.

Do not put inside your actual project, or on the next one you will need to find it and with time it may get confusing.

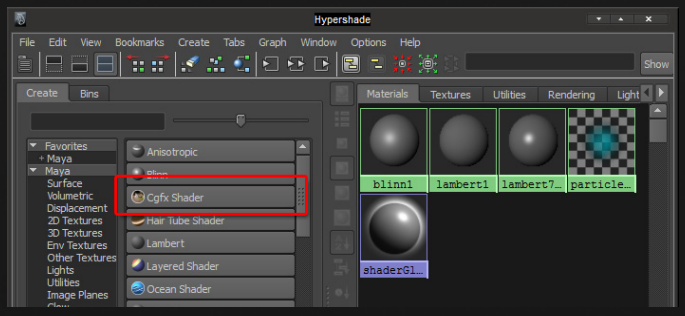
Enabling the cgfx shader in Maya

go to Windows > Settings/Preferences > Plug-in Manager and mark is as loaded

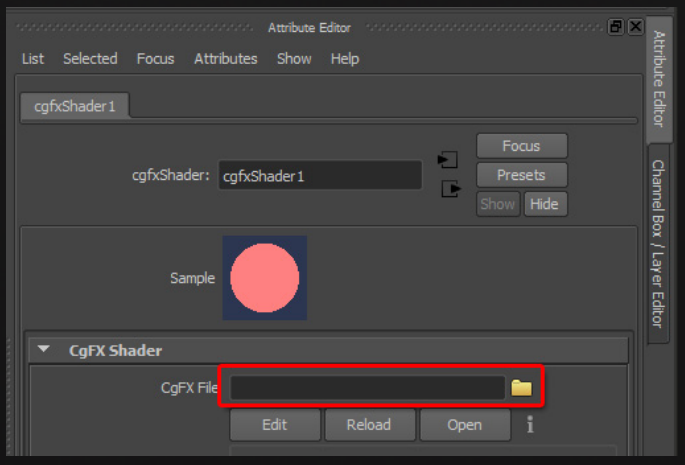


Loading the material

If you did it correctly you are going to have new material on your Hypershader



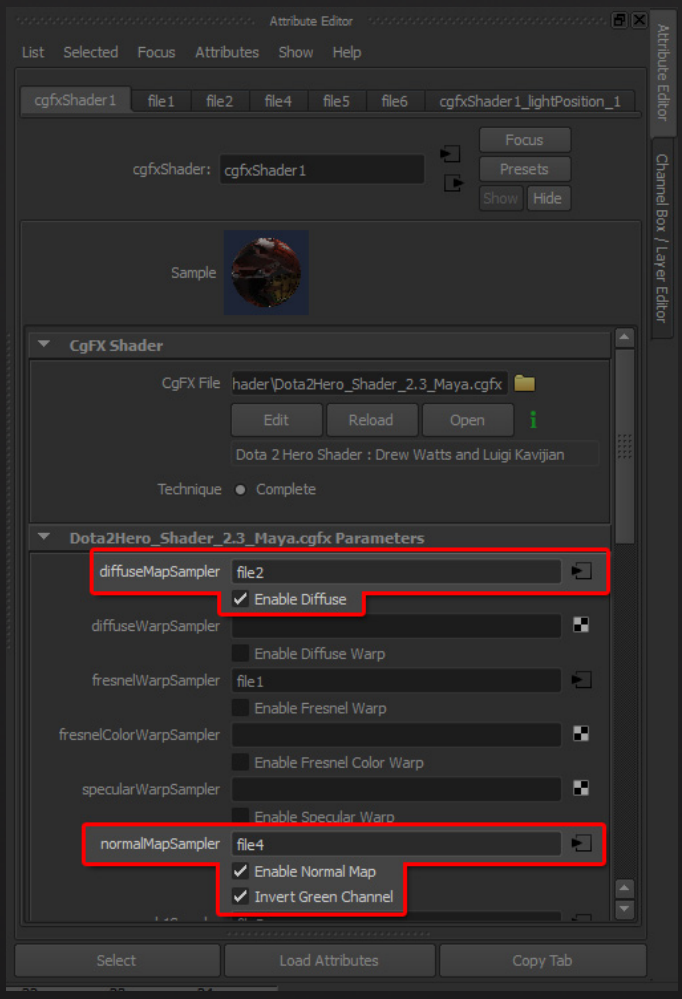
And by clicking twice on the new material created or selection and going to the attribute editor you will find the place where you extracted earlier.



Setting up the shader

First you will need to set your viewport to display the textures, you can do that by pressing 6

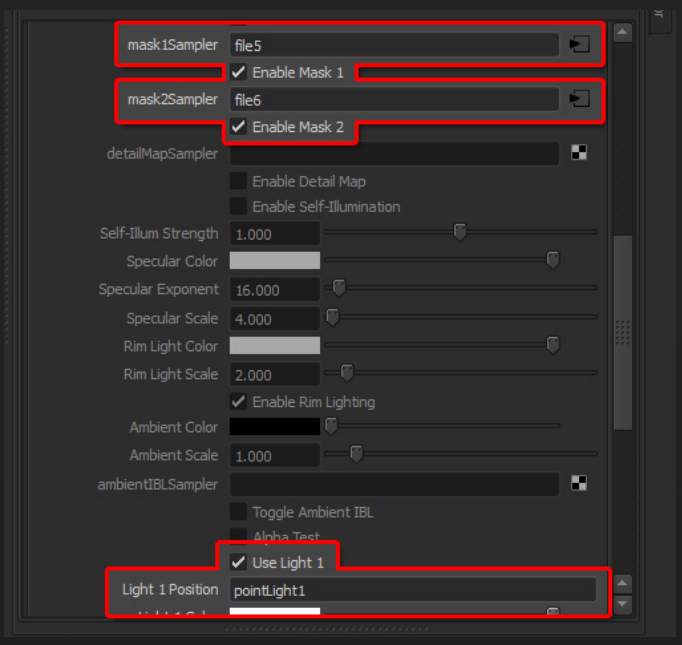
Now you need to provide the places where your maps are stored and tick the box to enable it on the shader as showed on the image at the right.



First result

I doesn't look as we expected but it is because of the light placement.

Do you remember the light from the last tutorial about baking the light on the texture?



We are going to use that light to direct the one on the shader

On the field called Light 1 Position you should write the name of your light, in my case it was pointLight1

Results

Pros and cons

PROS

- Easy setup
- Almost real time update, I use an small script that update my textures, so everytime I update it i click on my script and I see it in Maya
- You can turn on/off the maps, which is really useful to check then separated
- light for the computer processing

CONS

- For me the normalmap never worked. Not sure if it is an issue with Maya, my graphic card or my lack of knowledge.

Setup Time

Less then 10 minutes

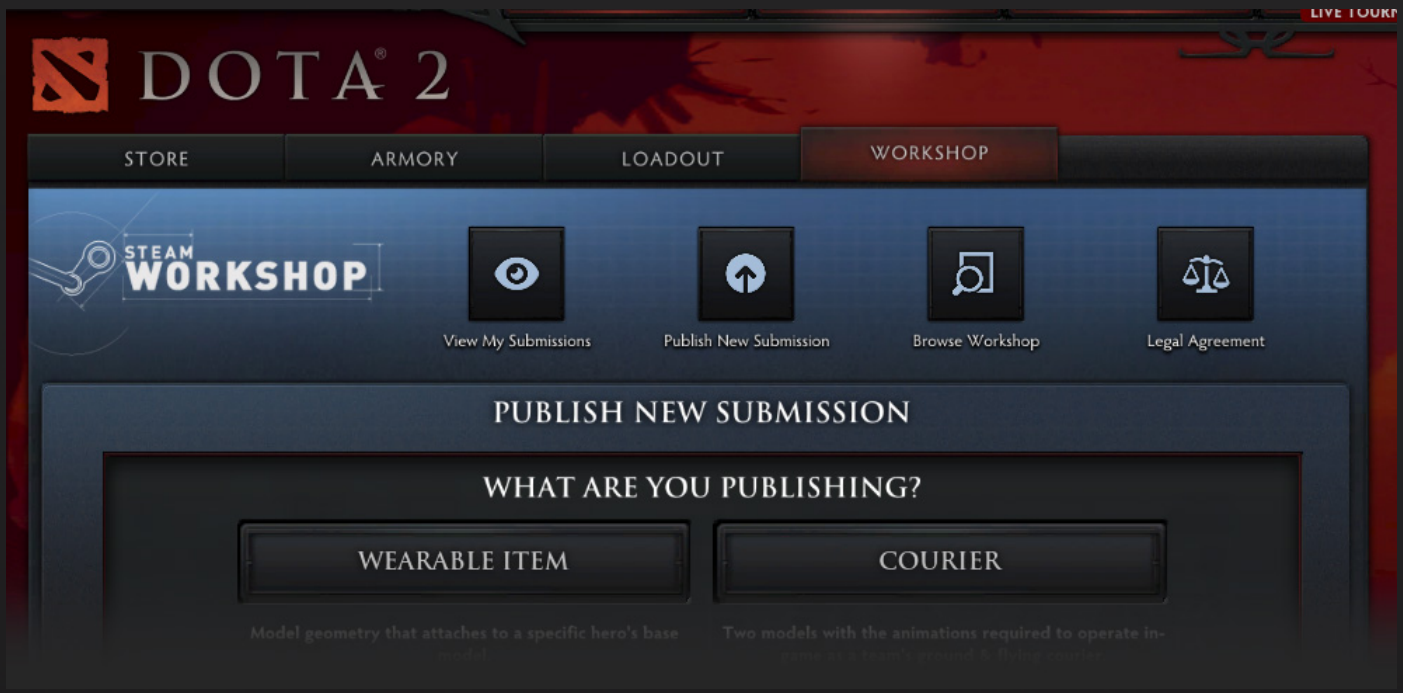
Reload Time

A couple of seconds

Difficulty

Easy

DOTA 2 COMPILER



Introduction

The in game compiler closed a huge gap between creating an item and making it work in game.

Before its release was required some knowledge of the engine and a basic coding knowledge, which used to take a lot of time for people not used to things other then polygons and pixels.

It was also delaying Valve to implement the items, because they had much more work to implement an asset from a contributor.

Now that the process is more automatic, it creates a more straightforward workflow and allows more items to be added to the game.

The tool is amazing and is one of the reasons more people are joining the workshop nowadays.

Where to find

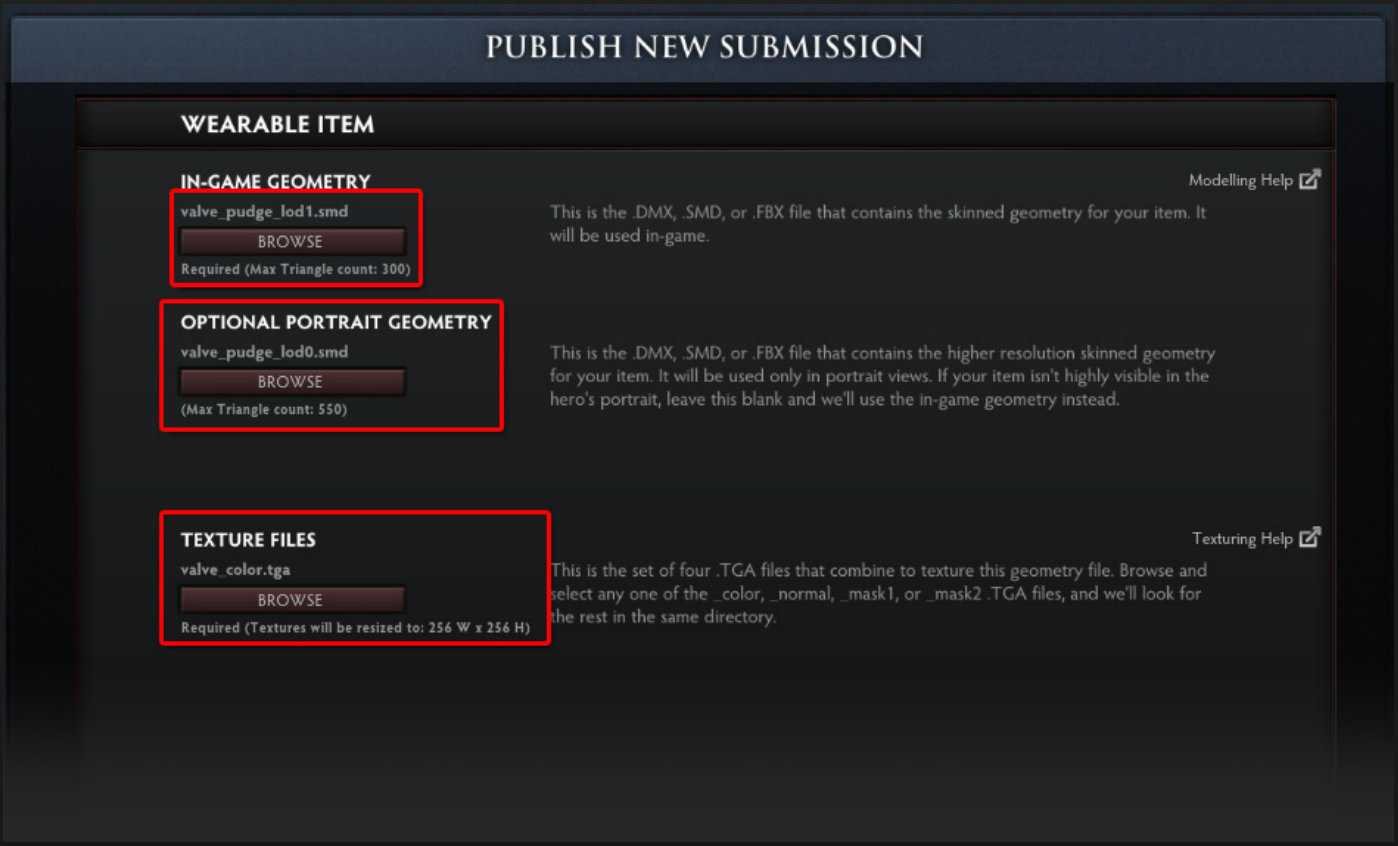
Inside Dota 2, just click on the Store tab and the Workshop

How to

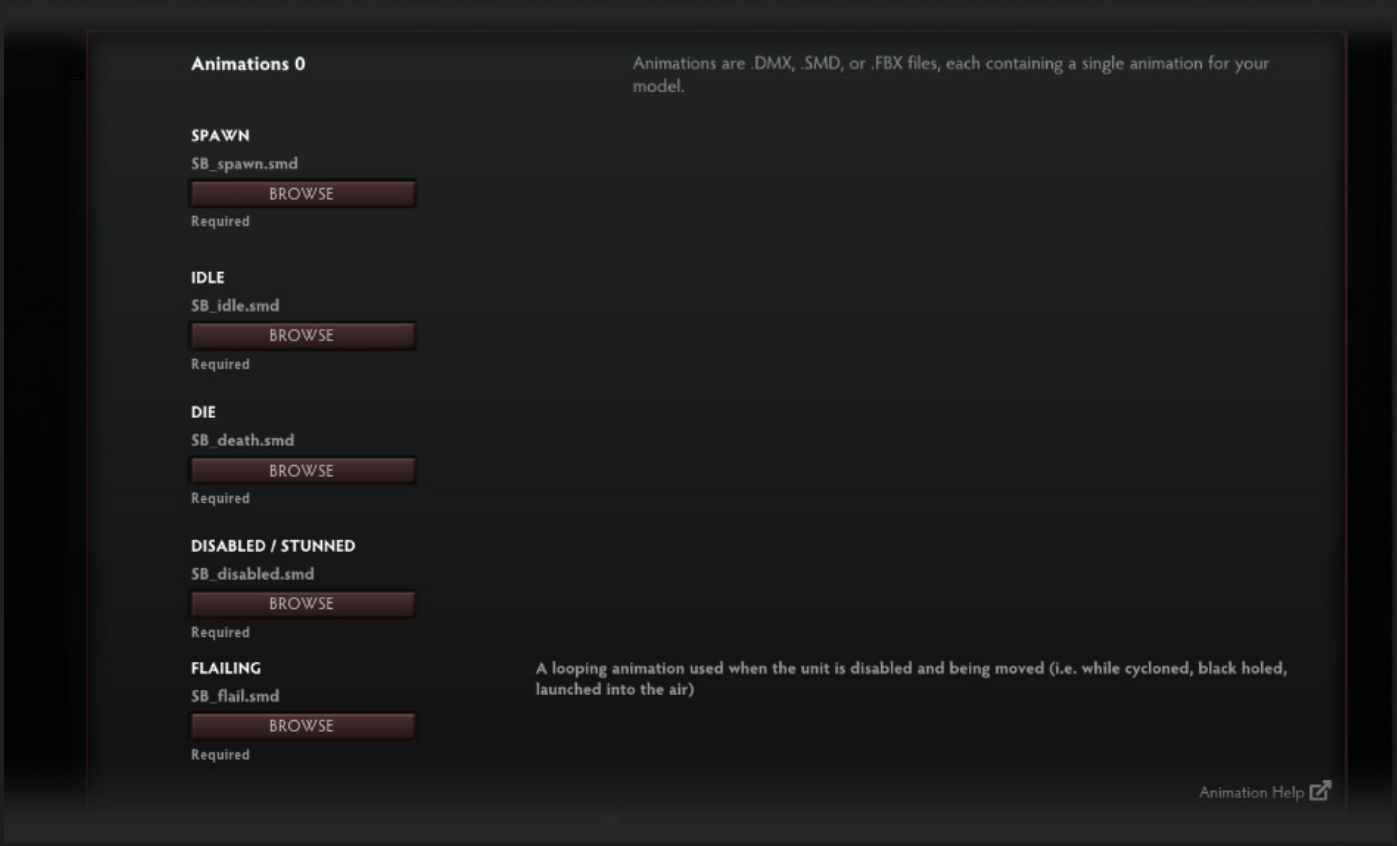
You will need at least one of the Lowpoly versions, preferably the lod0 and all the textures.

Even if you don't have all the textures you will need at least a place holder. Or else the compiler will return an error message when compiling.

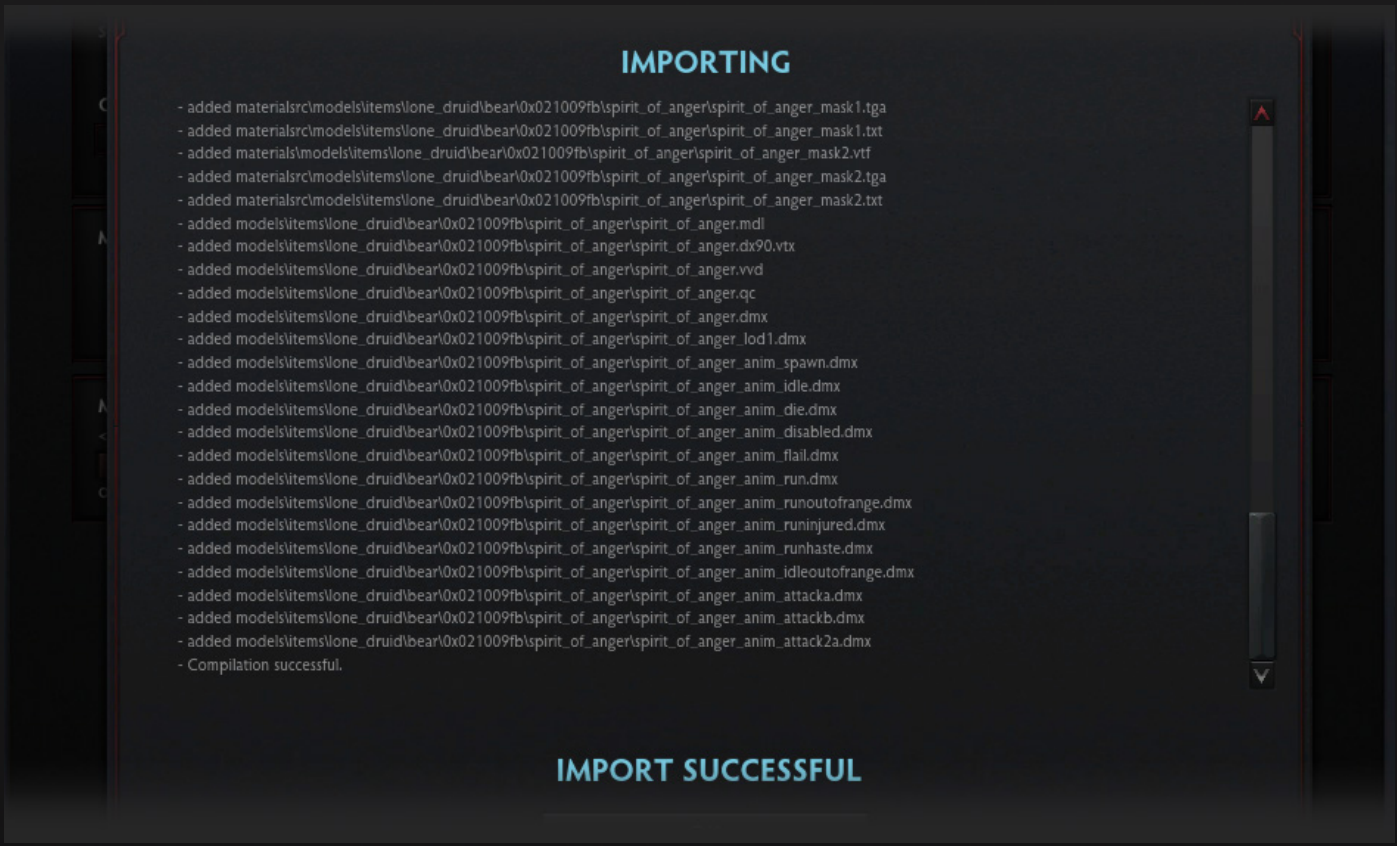
On the Lowpoly models, if you have just the lod0 you will also need a placeholder using the same material as the lod0. I usually create a cube, skin it to the root bone and name it as myasset_lod1



Depending on the model you want to test, it may require other things like animation, which are a lot time consuming.



After compiling it will give you a log where you can see what the compiler did. If any problem occur you can find where is the issue by checking this log.



Results

As you may noticed, it is a little purple, more than the original texture.

That is because the in game compiler preview have a purple light for unknown reasons, and it gives you a false result compared to what you are going to see in game.

There is also a button to show the model at the day light and night light, but in game there will be more lights affecting you model. The best way to test it using this method is by launching the game and loading your model there.

This is the ultimate test, the one that you should always go before considering it finished. But it takes some time to launch the map everytime you want to test.

If you want to update your textures you can recompile with a new name (if you don't change the name it will not replace the files) or you can go manually and update the vtf files. Which in the end will take more time then just recompiling everything.

Pros and cons

PROS

- When testing by loading the map gives the perfect feedback of your textures
- You can check your texture working with the animations. Great to see the deformations

CONS

- Purple light on the first preview
- Take some time to test in game.
- Requires a semi finished model or some placeholders to test

Setup Time

10 to 20 minutes

Reload Time

more then a minute

Difficulty

medium

MARMOSET TOOLBAG 2

Introduction

Marmoset Toolbag is a great program to visualize models in real time and make some nice renders with not much setup time. Recently they added a Dota 2 Shader inside its engine.

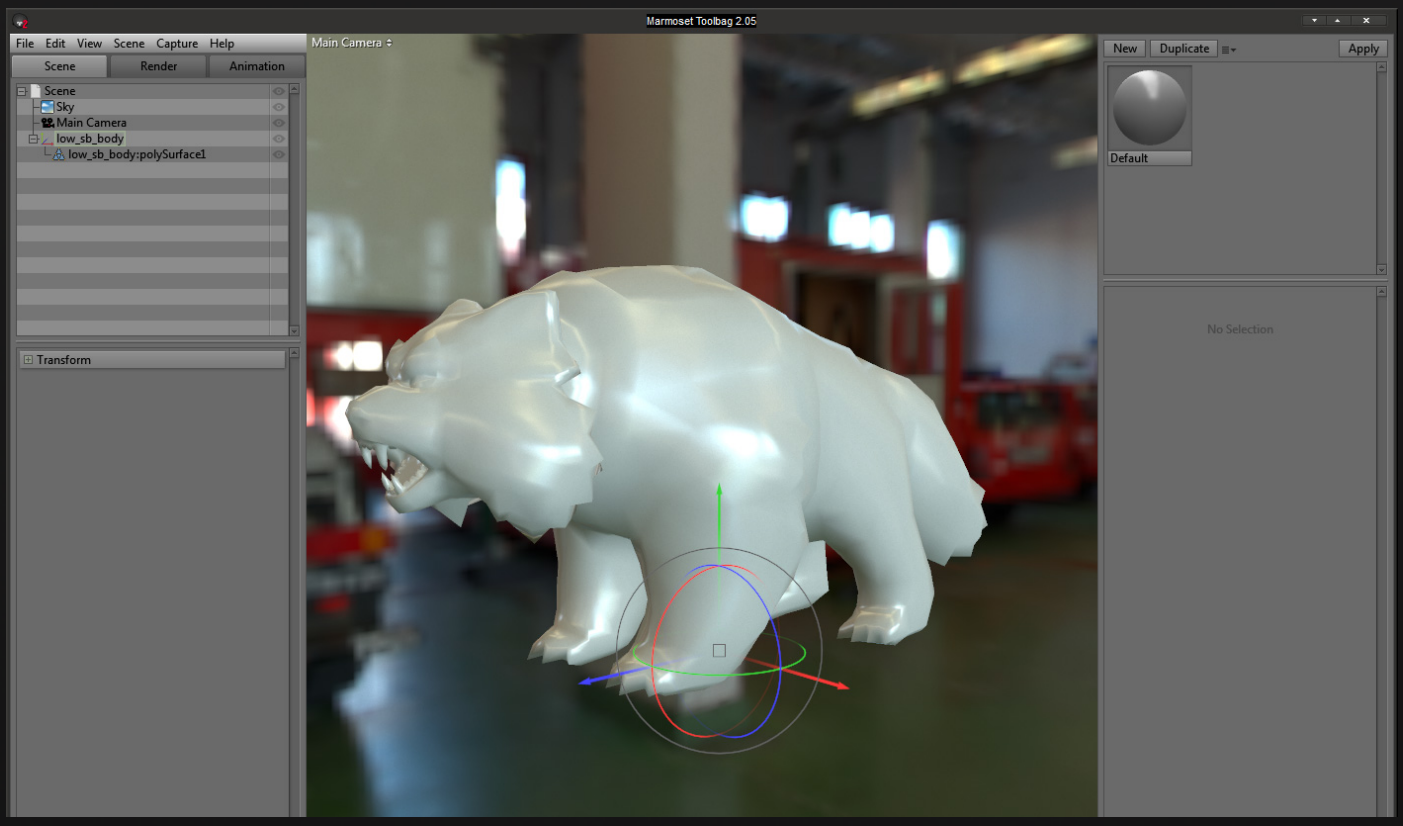
Where to find

You can find the program at the *Official Site* [www.marmoset.co]

It costs $129 but you can use the trial for 30 days! and 30 days is more then enough to convince you.

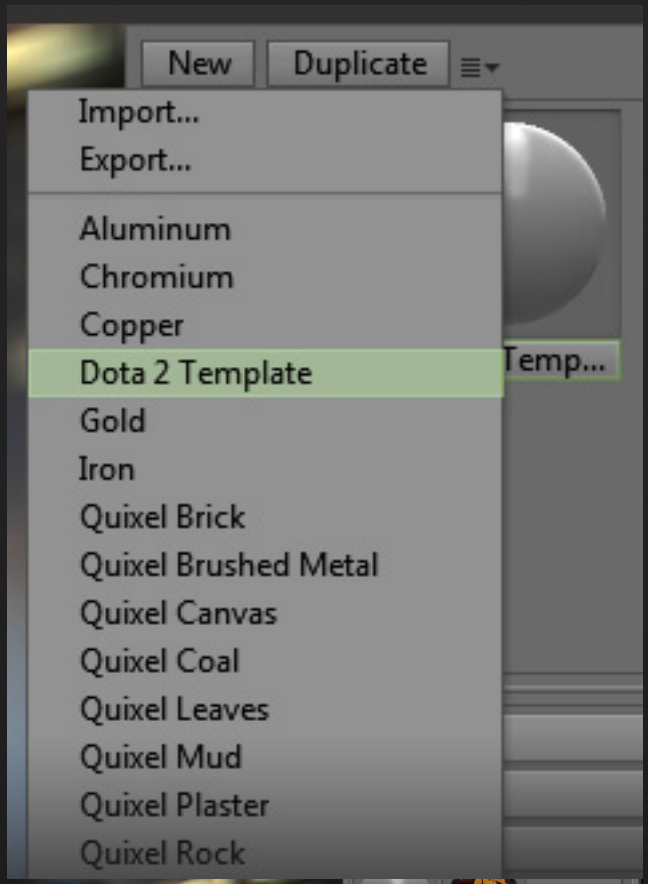
How to

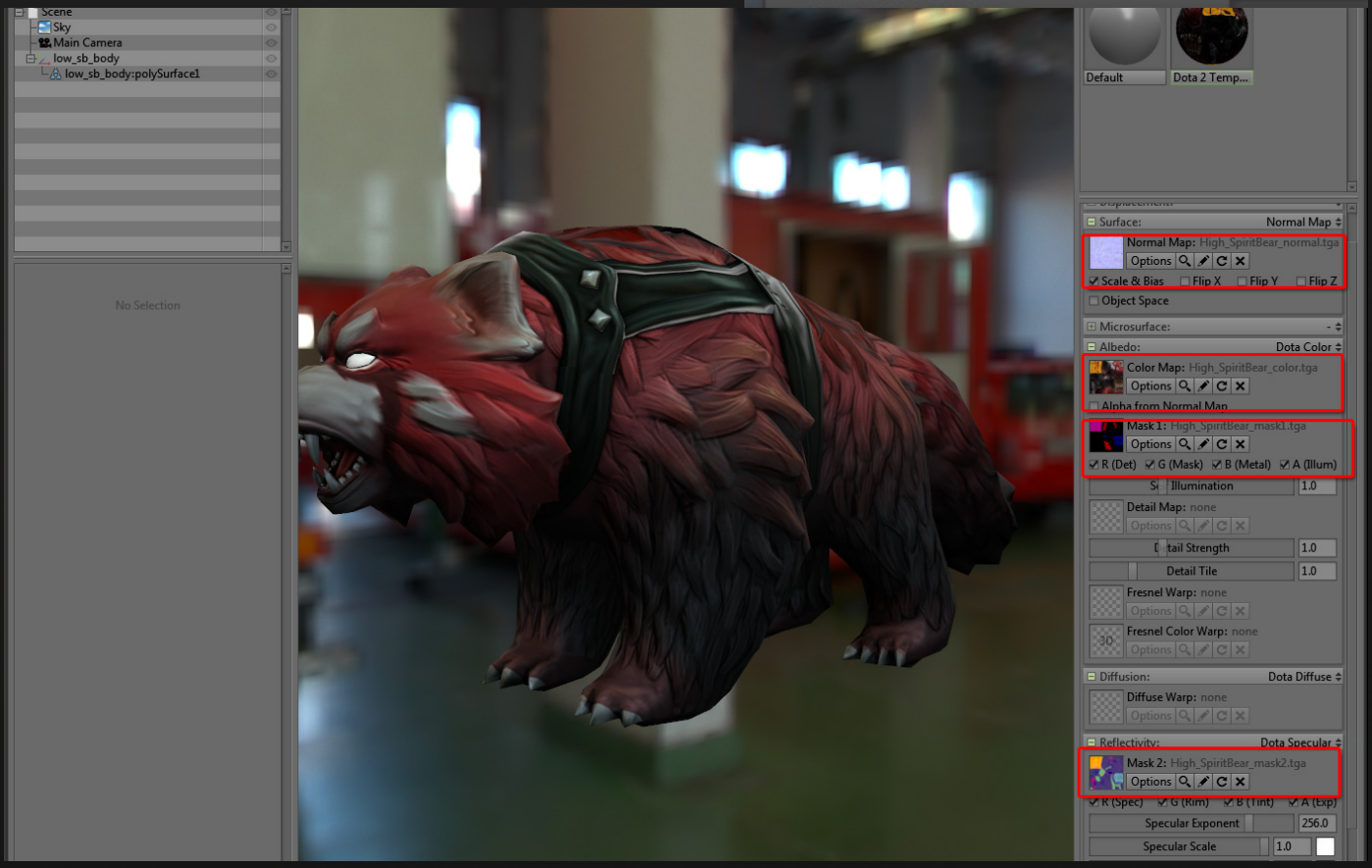
To use the program you just need to load your lowpoly model inside it by pressing ctrl+b or going to file > Import Mesh



After you will need to setup the shader.

Just load the Dota 2 template and drag it to your model





As you may see, it is a little dark and the background is a little too distracting

I usually go to my Sky parameters and crank up the brightness to 3 and the Backdrop brightness to zero.

Results

The great feature of the image above is that it have transparency. When compositing an artwork later to advertise your item, having a selection mask over your model will save you a lot of time.

The Marmoset Toolbar 2 is a must have program for me now, it saves so much time and gives a really good feedback on the shader that in the end by having it I am saving more than the price

Pros and cons

PROS

- Easy setup
- you can turn on and off each mask to study the impact of each one
- you can use high quality textures to compose your artwork later
- can export the image with transparency
- can export high resolution images
- updates your textures automatically

CONS

- it is not free after 30 days

Setup Time

Less then 10 minutes

Reload Time

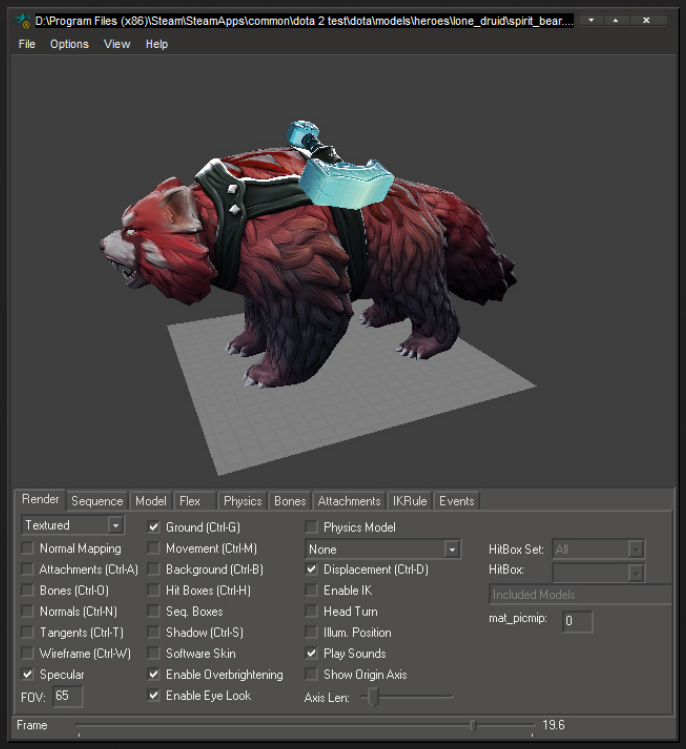
Instantaneous, you just need to focus on the program

Dificulty

Easy

DOTA TEST MODEL VIEWER

Introduction



The model viewer is a great and light program to check your models without the need to launch the game itself

With the model viewer you can rotate your model, test the animations, control the speed of the animations, see the bones, change light color and also see your model on the default dota 2 camera.

This is a powerful tool to visualize your texture but it requires some extra work depending on what you want to do.

You will need to compile your model to make it work inside the model viewer, you can compile by using the Dota 2 in game compiler (explained on the previous tutorial)

Where to find

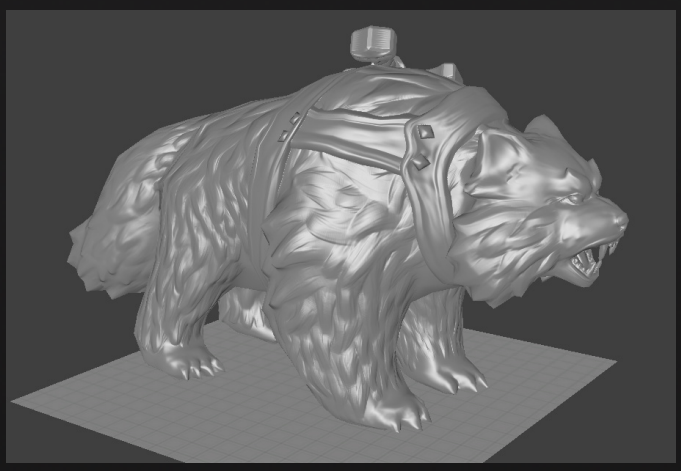
First you need to download Dota 2 test.

At your Dota 2 test folder, go to dota/bin and open the hlmv.exe

How to

There is some great tutorials about it, you can find more info on this guide created by *Wykrm* or this one by *Cyborgmatt* [www.cyborgmatt.com]

Results



On the examples above I showed the full textured model and some features of the model viewer like showing just the Normal map or the Values in black and white.

Pros and cons

PROS

- gives a great feedback, almost as good as testing in game
- can play animations in diferent frame rates
- other representation like normalmap and values
- can show you compiled bones and attachments

CONS

- Not easy to setup
- Needs a compiled model
- Not easy to update the textures, you need to compile them again
- It will crash if your dota test updates, everytime it updates you will need to get rid of the main .vpk file

Setup Time

30 to 60 minutes

Reload Time

1 minute to export all the maps on the right places

Difficulty

Hard

CONCLUSION

There is no correct answer to which is the best method, all of them have pros and cons and it is up to you to decide.

I use almost all of them depending on the stage of the project I am.

Keeping your workflow open to changes is really good to improve it. Everytime you start a new project I suggest you to try something new; it may slow you down but it also may suit your work much better than what you had before.

Get used to step out of the confort zone, that is the best place to learn.

Contact

The Original guide can be found at the *Steam Guide Page*

Other projects can be found at my website or at the Facebook fanpage

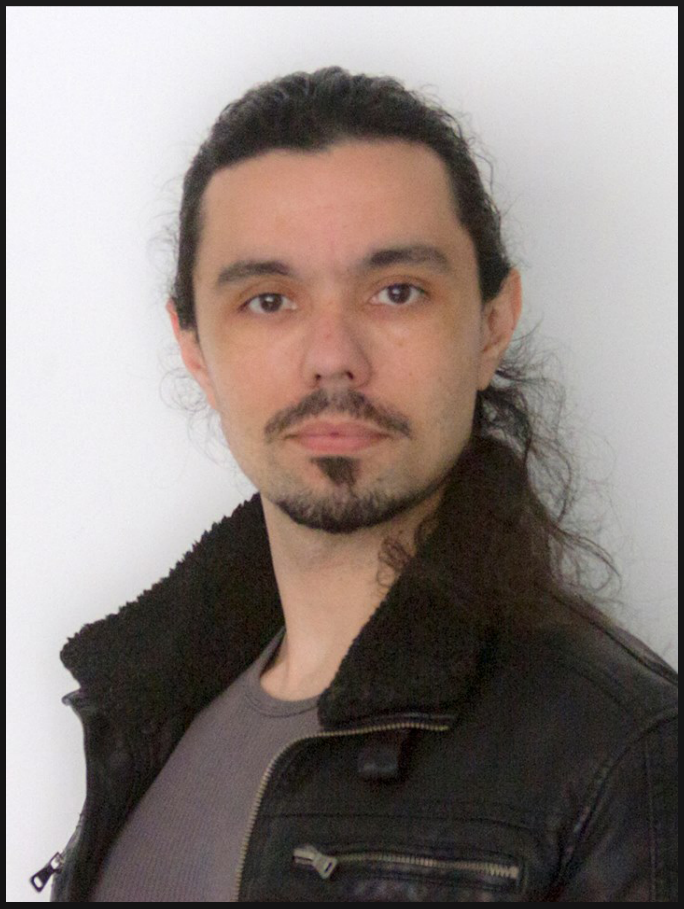
www.tvidotto.com

Facebook Page

About the autor

My name is Thiago Vidotto, I am a freelancer Character Artist and Animator.

I graduted as Architect and Urban Planner at the University of São Paulo and Character Animator at the Animation Mentor´s course.

I usually stream my work with Dota 2 characters at Twitch, feel free to pass and say hi at
www.twitch.tv/tvidotto

Current location: Paris – France
Nationality: Brazilian
Spoken languages: English, French and Portuguese
Education: Degree in Architecture and Animation