Bitmap2Material
User Guide

1. Overview

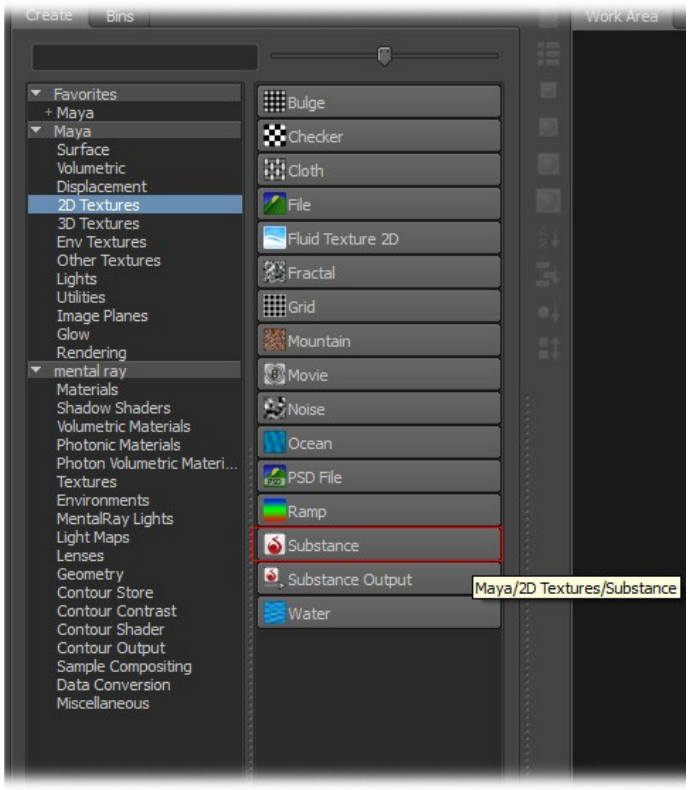
The Bitmap2Material Substance filter is a new way of creating quickly and efficiently full production-ready materials from raw bitmaps and photographs. It can be used with any Substance enabled solution including Maya and 3D Studio Max starting from versions 2012, but can also be launched as a standalone tool with the Substance Player.

For support, forums, news and more information on Substance and Allegorithmic's other products, please visit Allegorithmic.com !

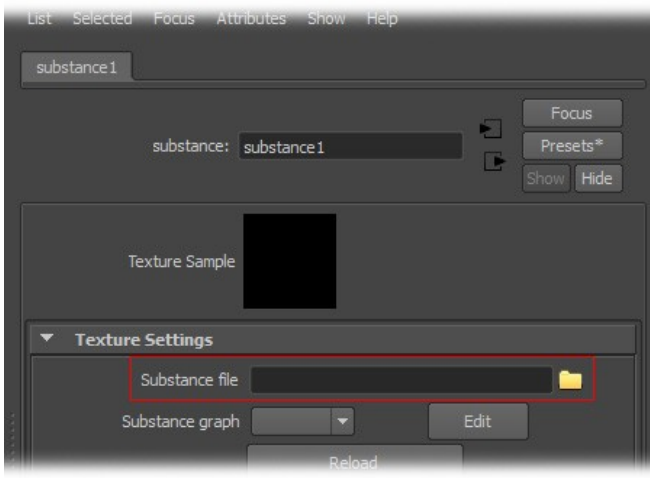
2.1 Maya 2012 Users

Workflow:

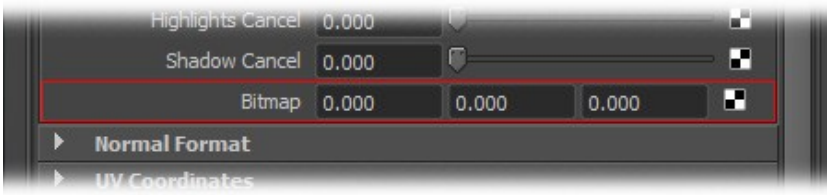
1. You will find the Substance node under the 2D Textures tab in Hypershade.



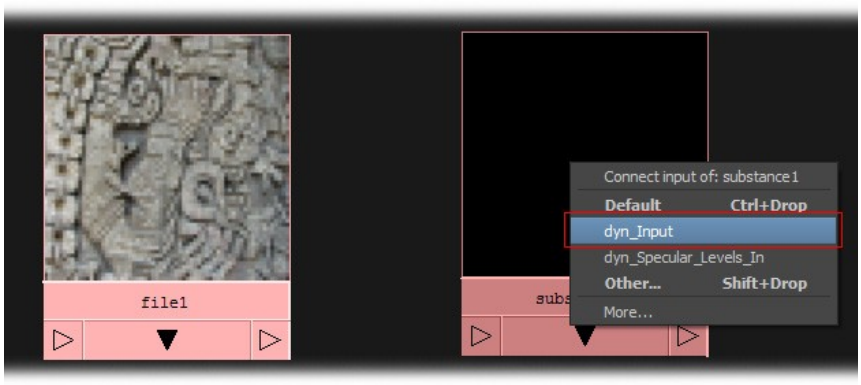
2. Select the Substance node and click on the load icon within Attribute Editor and browse to your Bitmap2Material.sbsar file.



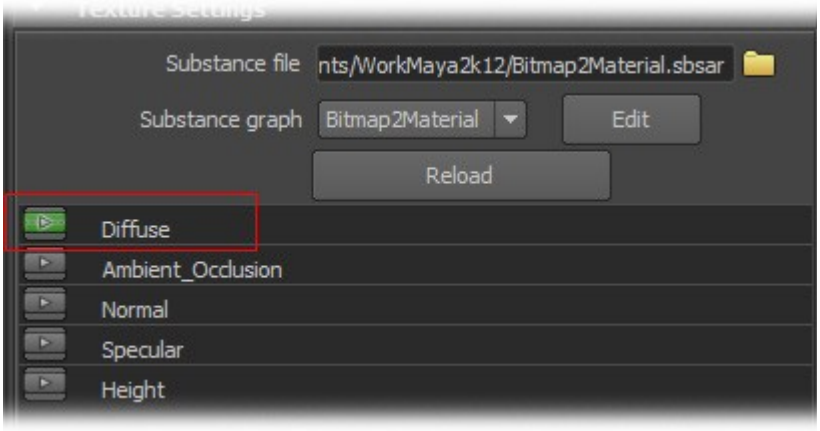
3. You can now create a file node, load your bitmap texture and plug it as an input to your Bitmap2Material by either drag and drop your input image to the “Bitmap” input in AE,



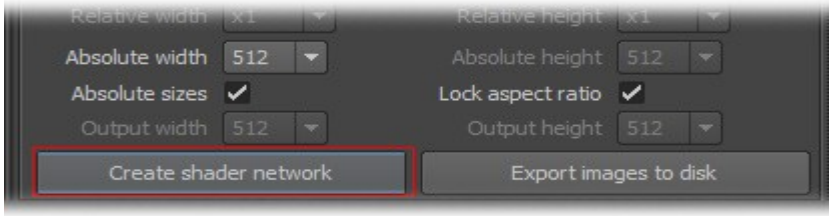
Or by using the MMB and plug it to the “dyn_Input” called attribute directly within Hypershade.



4. You can now create your shader network by either choosing the desired outputs in the TreeView,

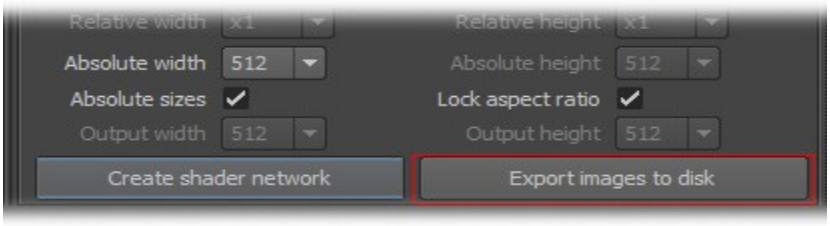


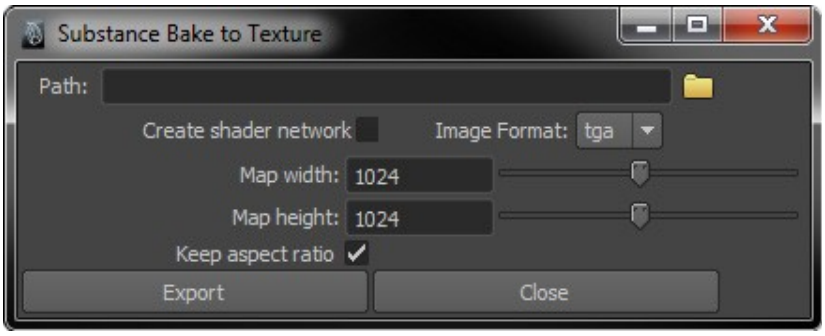
Or by hitting the “Create shader network” button in the Attribute Editor to quickly create a basic material with a Diffuse, Specular and Normal map.



5. The Substance parameters allow you to fine tune the results. Report to page 12 for a description for each of these parameters.

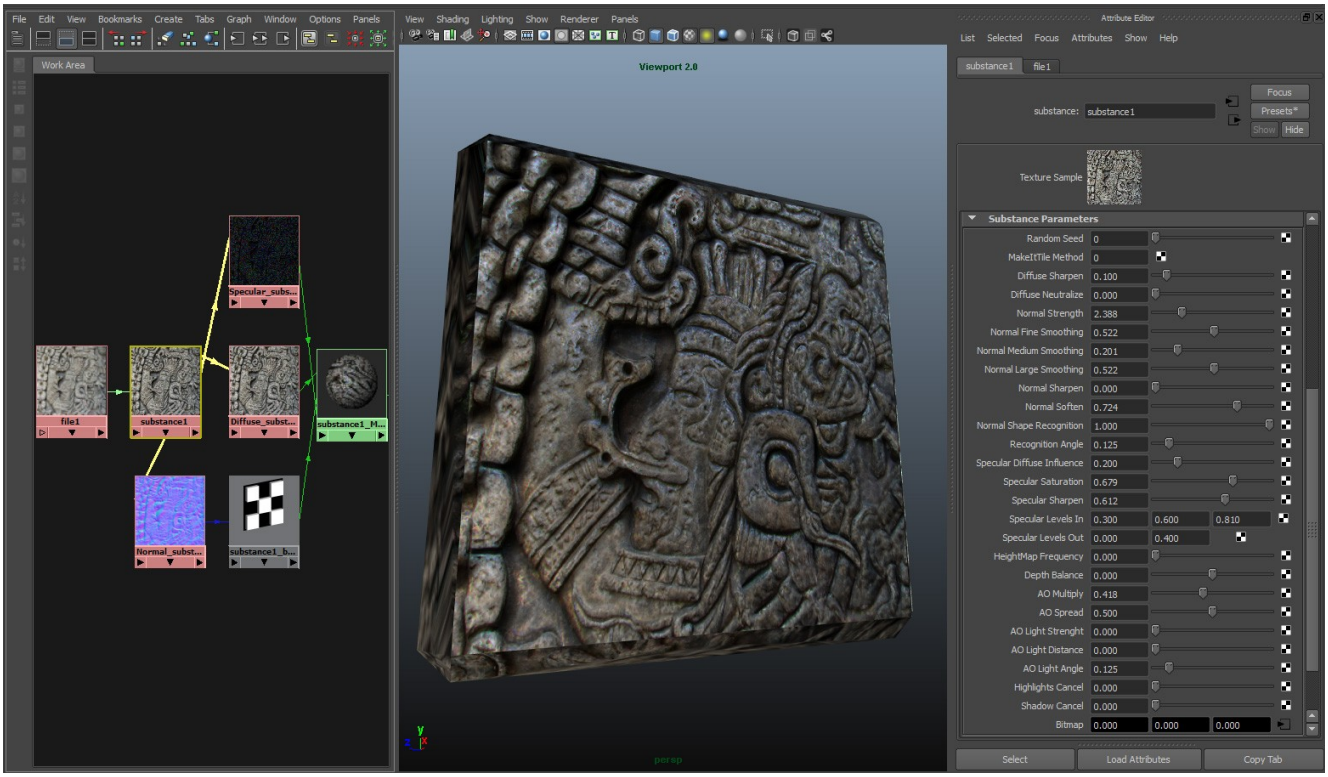
6. Once you are happy with the results, you can either bake your outputs to bitmap files by using the “Export images to disk”,





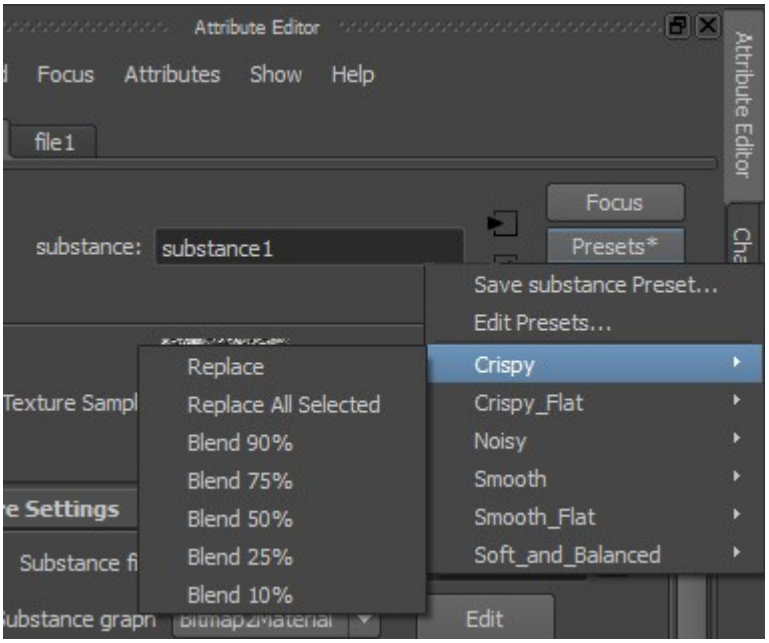
Note: You can also check the “create shader network” function, when defining a directory path the plug-in will automatically bake all the outputs and recreate the same shader network within Hypershade.

Or embed the Substance with your mesh in a .FBX file if your engine supports it.



Presets:

1. You can load Substance Presets in Maya created in the Substance Player. The Bitmap2Material comes by default with six presets files that you can copy into Maya's “attrPresets” directory.



2.2 3DS Max 2012 Users

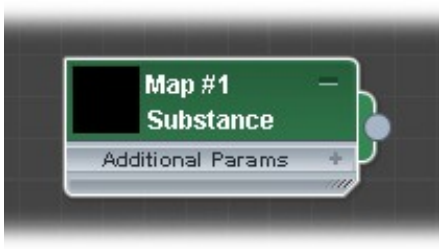
Notes:

- It is recommended to use the new Slate Material Editor since Substance inputs are not supported by the Compact Material Editor.
- You can hide the intermediary outputs of the substance by setting “Hide Single Map Output Selectors” to true in the Options > Preferences menu.
- In the Global Substance Settings rollout in 3ds max, the Preview Resolution setting is currently unsupported by the B2M and has no effect on the resolution.

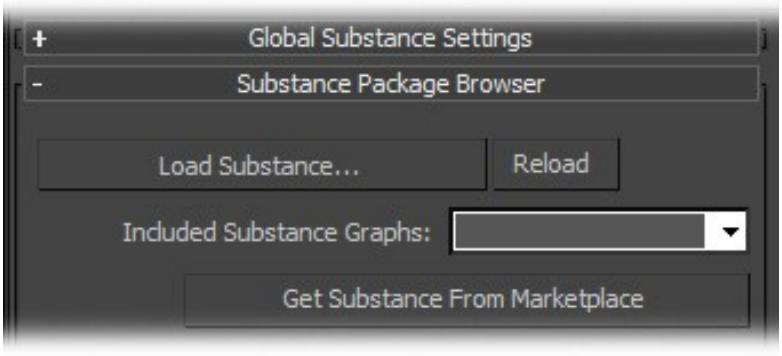
Workflow:

1. You will find the Substance node in the Map browser under the “Standard” group.

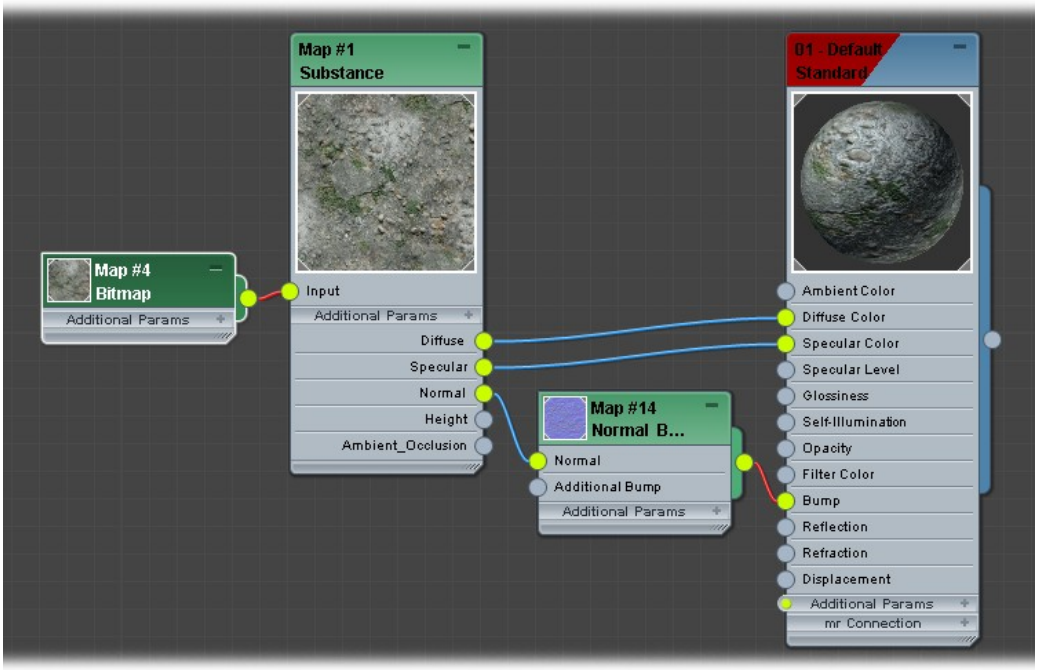
2. Drag and drop it in the Slate canvas and double click on your new node.



3. Click on the Load Substance button and browse to your Bitmap2Material.sbsar file.

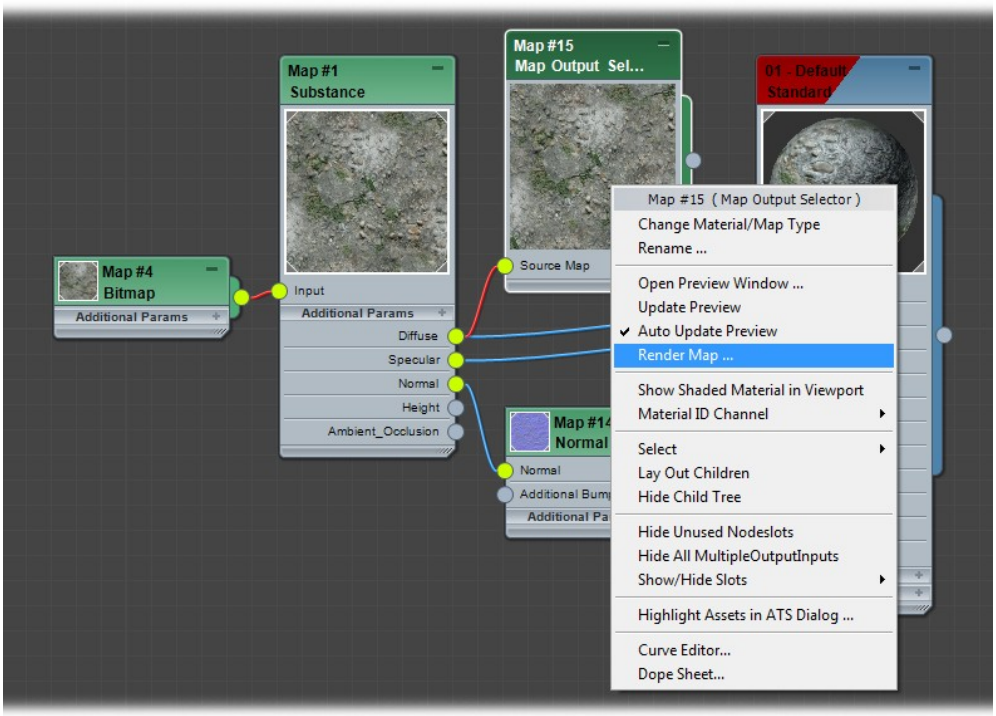


4. You can now plug your bitmap in the only input of the substance and plug all needed outputs in your material inputs.



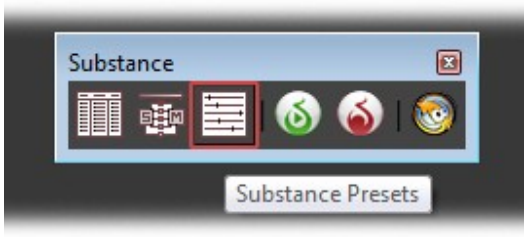
5. The Substance parameters allow you to fine tune the results. Report to page 12 for a description for each of these parameters.

6. Once you are happy with the results, you can either render your outputs through the “Render Map” feature in 3ds max or embed the Substance with your mesh in a .FBX file if your engine supports it.

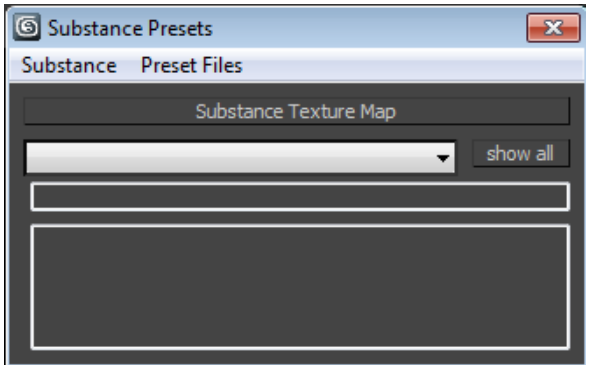


Presets:

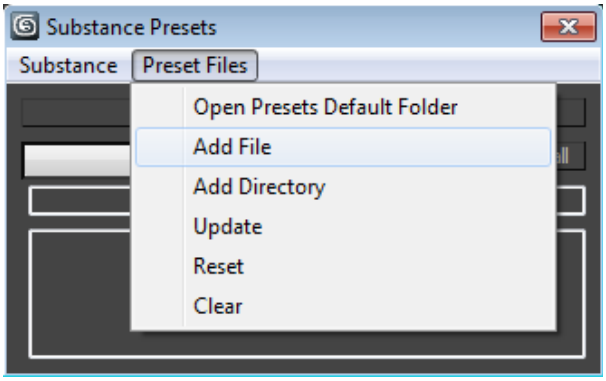
1. You can load presets in 3DS Max 2012 through the Substance Bonus Tools included with the 3dsmax installer or available on our website.



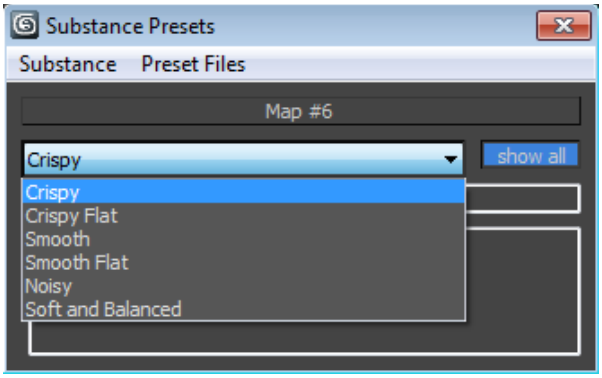
2. Start by selecting your B2M Substance by clicking on the Substance Texture Map button



3. Then use the Preset Files menu to go get your preset file.



4. Click on “show all” and you will be able to choose and apply any preset on your Substance.



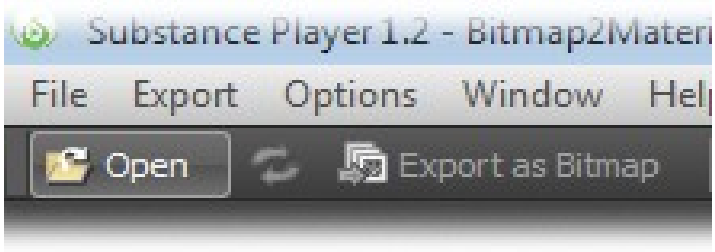
2.3 Substance Player

Note:

- The Player allows you to save “presets” that you can use in any Substance compatible application.

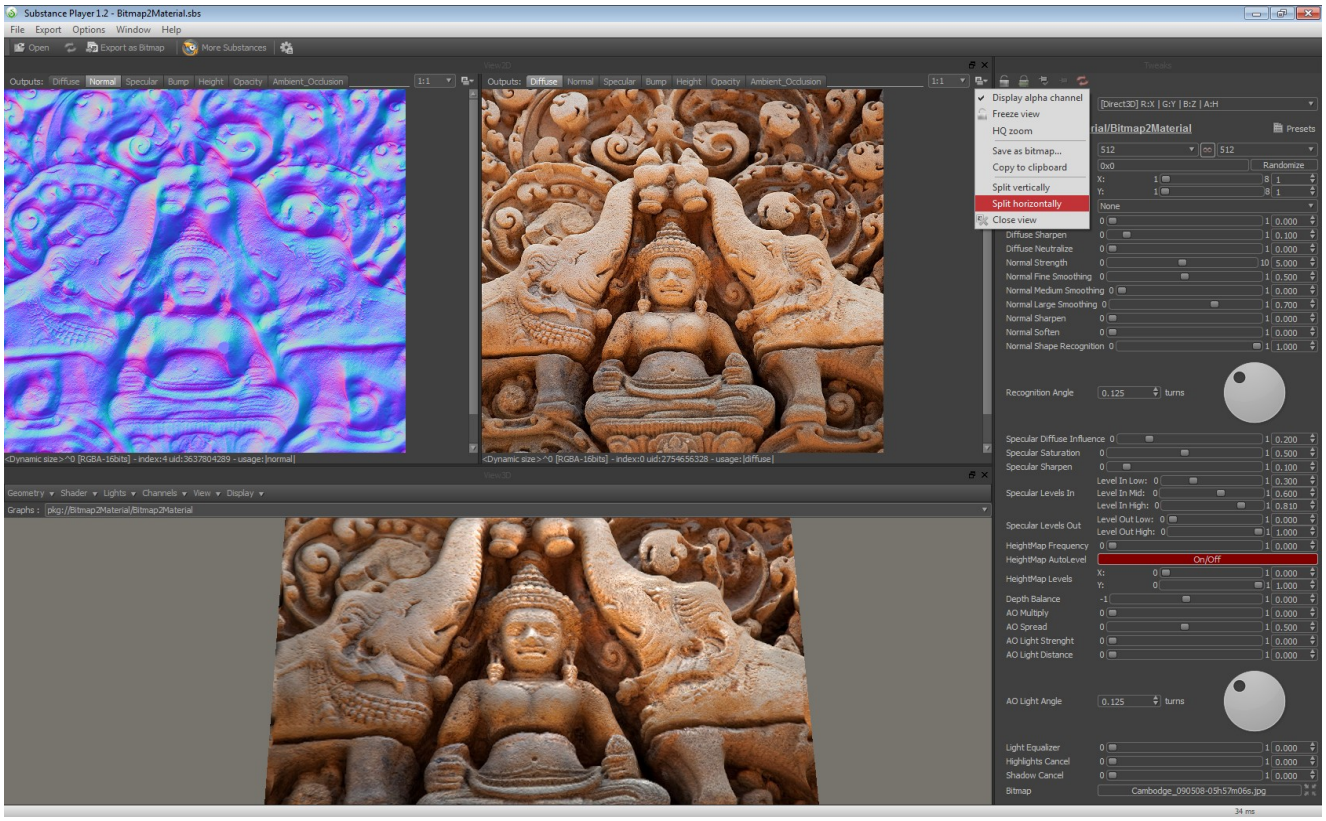
Workflow:

1. Drag and drop your .sbsar file in the playr or click on File > Open... and browse for your Bitmap2Material.sbsar file.

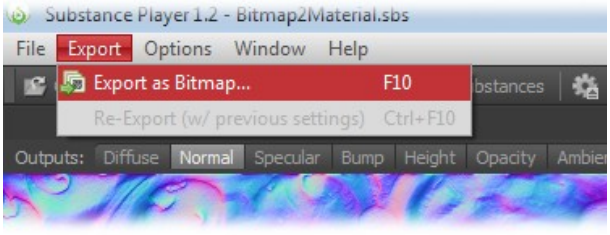


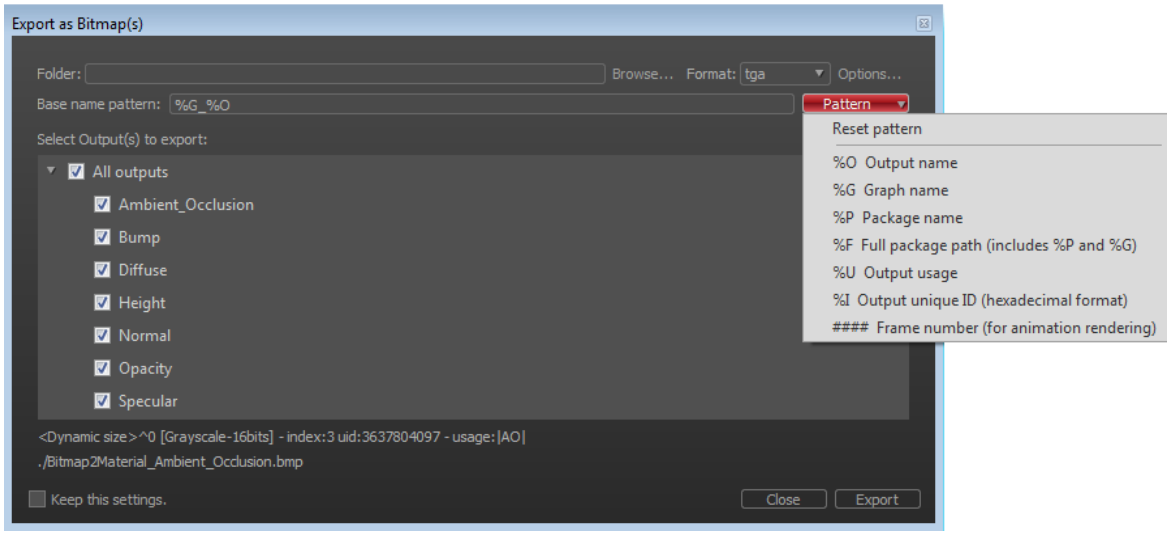
2. Then Drag and drop your source Bitmap in the 2D View or find the Bitmap parameter at the bottom of the parameters panel and browse for your texture.

3. You can easily preview multiple outputs at once by splitting the 2d View through the top right menu.



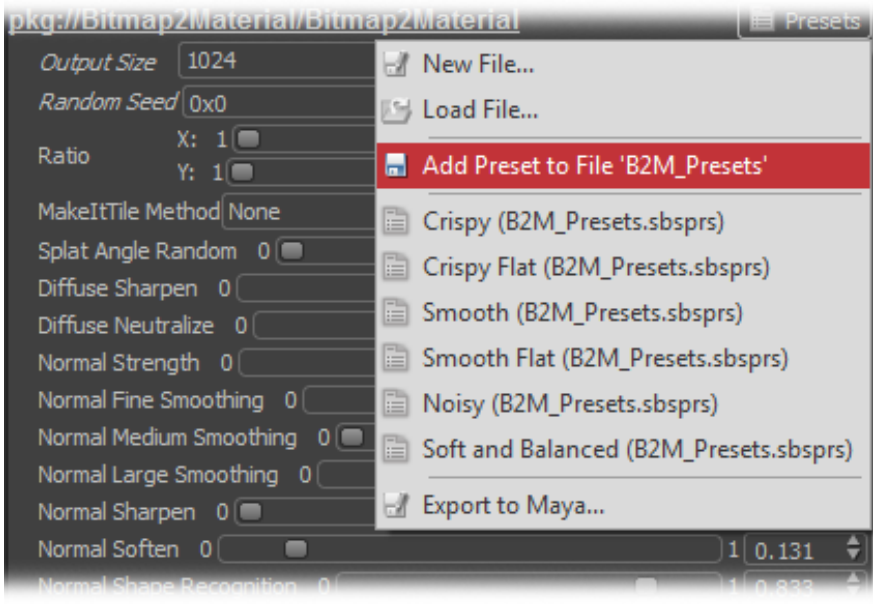
4. You can then render all your textures at once in any format through the Export menu. Choose a naming pattern and select which outputs you want to save and hit Export !



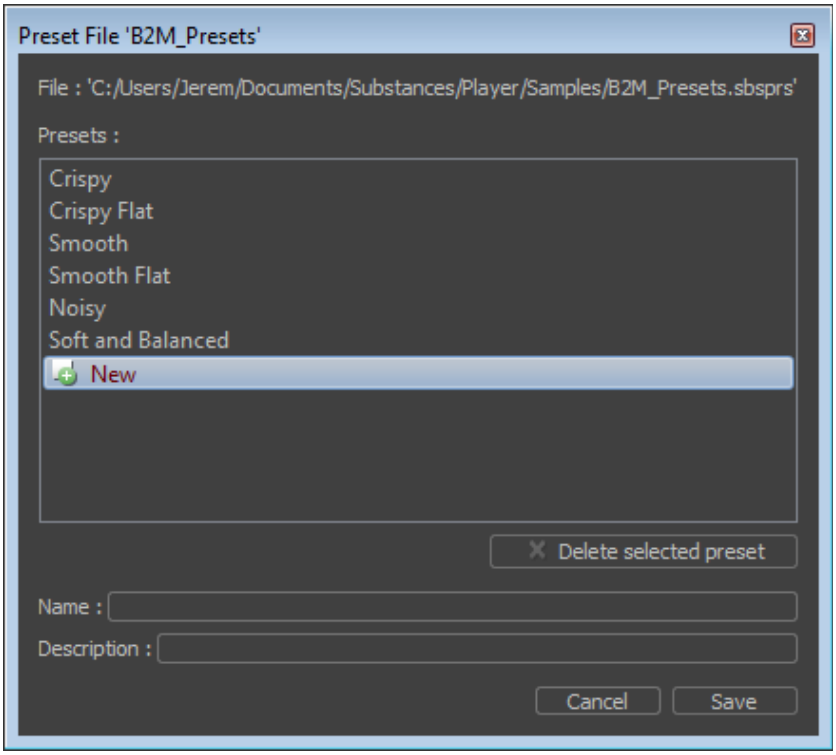


Presets:

1. In the player, you can create, load and modify preset files. To add your own presets or modify those shipped with the Bitmap2Material, open the file using the Load File button. It will display a list of all the available presets.



2. Click on Add Preset to file … to open the presets dialog. Here you can save new preset, delete or overwrite existing ones. Just click on an item, write its name and description if needed and click Save.



3. Parameters Guide

Ratio

This parameter allows you to tell Substance about the ratio of your texture, like 2,1 for a 1024*512 texture or 1,4 for a 128*512 texture.

Random Seed

Randomizes the position of the patches when using the Splat tiling method.

MakeItTile Method

Makes the texture tile seamlessly and lets you choose between 3 different settings for this purpose:
.No tiling, the bitmap will stay as is.
.Offset will make the texture seamless using an offset method, typically as you would do in other painting tools.
.Splat will make the texture seamless by randomly splatting patches of the original texture.

Splat Angle Random

Randomizes the angle of each texture patch if you are using the Splat tiling method

Diffuse Sharpen

Sharpens the diffuse output.

Diffuse Neutralize

Corrects the diffuse color to achieve a more neutral tint.

Normal Strength

Controls the strength of the normal output.

Normal Fine Smoothing

Slightly smooths the normal and height maps while keeping the medium and large details sharp. It's also pretty good at removing noise.

Normal Medium smoothing

Smooths the normal and height maps while keeping small frequency details.

Normal Large Smoothing

Smooths strongly the normal and height maps to strengthen the lower frequency details.

Normal Sharpen

Sharpens the normal map and height map.

Normal Soften

Blurs the normal map and height map.

Normal Shape Recognition

Crates low frequency shapes on top of the existing normal map and adds a lot more depth to it. This will only affect the normal output.

Recognition angle

Sets the dominant angle driving the Shape Recognition effect.

Specular Diffuse Influence

Sets how the diffuse color and luminosity affects the Specular output.

Specular Saturation

Controls the saturation of the specular output.

Specular Sharpen

Sharpens the specular output.

Specular Levels In & Out

Controls the specular map levels. The 3 first values correspond to the min, mid and max of the “in” range. The 2 last correspond to the min and max of the “out” range.

HeightMap Balance

Sets the frequencies balance between the Bump and Displacement map (does not change the Normal map or Height map).

Height Map AutoLevel

Performs an auto level on the height map before it's blended with the shape recognition pass. Setting this parameter to True will override the Height Map Levels parameter.

Height Map Levels

Allows to manually set the levels of the height map before it's blended with the shape recognition pass.

Depth Balance

Warps the texture inside or outside the height map bumps.

AO Multiply

Blends the Ambient Occlusion output with tin the Diffuse output.

AO Spread

Sets the spread distance of the ambient occlusion.

AO Light Strength

Sets a virtual light that transforms AO into shadows from a directional light.

AO Light Distance

Sets the distance of the virtual light.

AO Light Angle

Sets the angle where the virtual light comes from.

Light Equalizer

Equalize the low frequency luminosity changes across the texture.

Highlights Cancel

Softens the highlights on the diffuse map.

Shadow Cancel

Increases the brightness of the dark shadows on the diffuse map.

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