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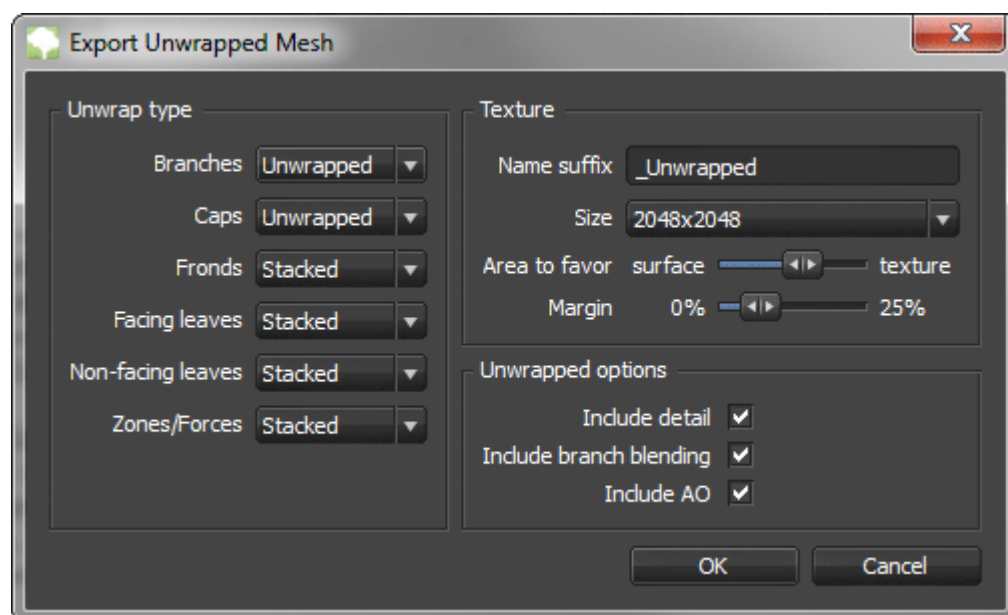
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User Interface > Exporting Unwrapped Meshes

Tree models can have their textures unwrapped and exported as meshes and corresponding textures for use outside of the SpeedTree real-time rendering pipeline.

Overview



Unwrapped meshes are needed for some 3D applications that don't allow tiling texture coordinates. In some cases, even unique UVs for every vertex are needed, such as for sculpting or 3D painting applications. Exporting an unwrapped mesh can fulfill these needs. New textures (diffuse, normal, and specular) will be created and filled with separated texture spaces for all of the different pieces of geometry in the tree.

The geometry UVs will then reference this new texture instead of the separate textures as used in the Modeler.

Exporting An Unwrapped Mesh and Textures

To export an unwrapped mesh, select either menu item **File→Export unwrapped mesh...** or menu item **File→Export Selected as unwrapped mesh**. The options shown in the resulting dialog are described below. After accepting that dialog, the usual steps for mesh exporting are followed.

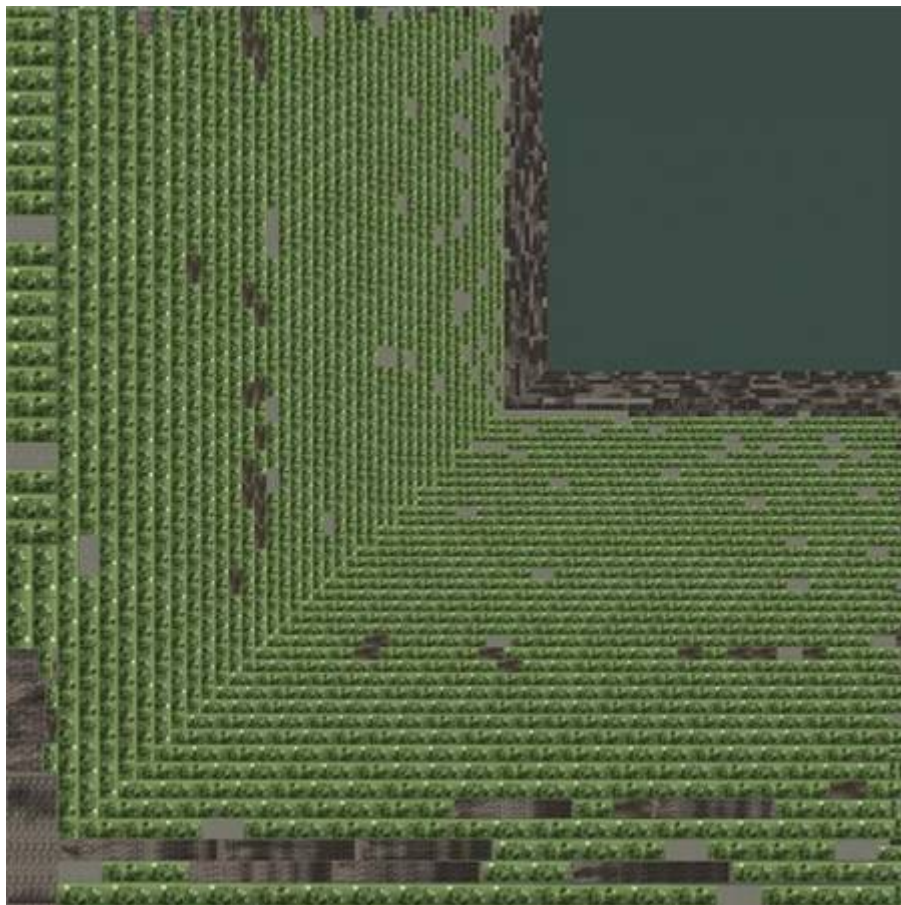
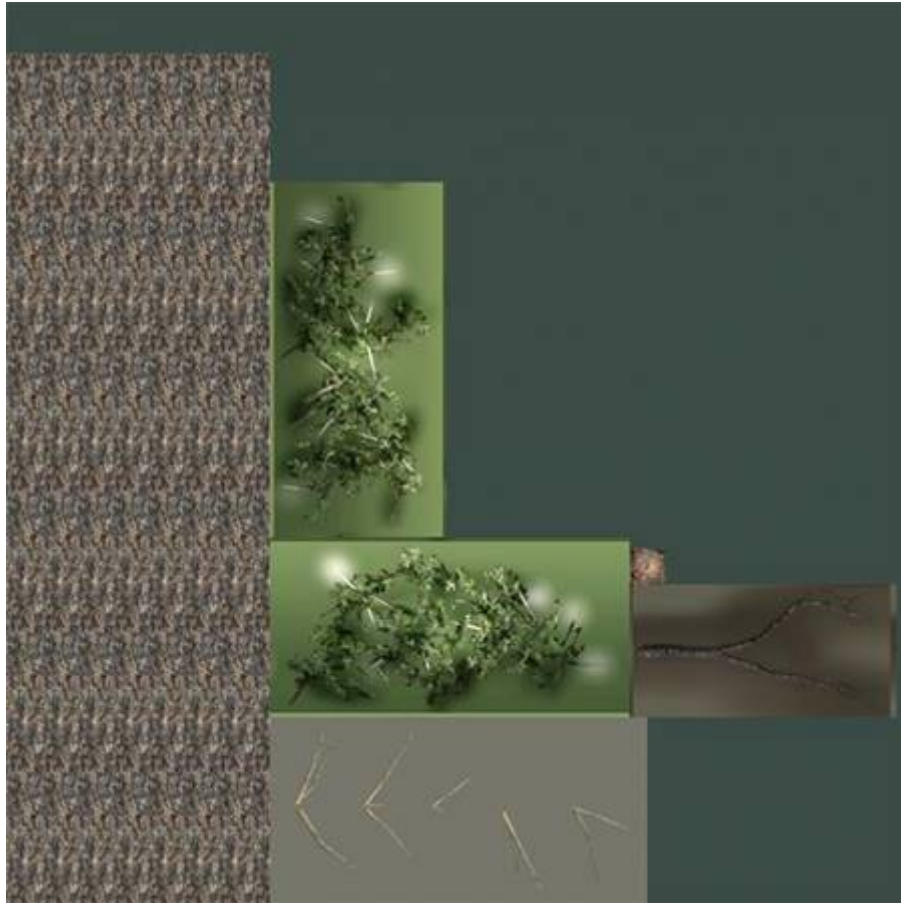
Options

Unwrap type

For each geometry type, the unwrapping can be set to one of the following styles:

- 1. Don't unwrap** - No effect on the geometry (same as regular mesh exporting). The geometry will not be included in the unwrapped texture.
- 2. Stacked** - Each piece of geometry, per material, will share the same texture space in the new unwrapped texture map. This space may include the texture wrapped a number of times to cover the entire UV space needed.

Since these UVs are likely to overlap, this may be suitable for rendering in 3D applications that don't allow coordinates outside of 0 and 1, but will not work in 3D painting applications that require completely unique UVs.
- 3. Unwrapped** - Each face in this geometry type will have its own separate texture space in the new unwrapped texture map. This geometry will have unique UVs for every vertex. This also allows extra information to be stored in the texture map, such as AO and detail layers, eliminating the need for separate texture layers in other 3D applications.



(left) “stacked” branches, leaves and fronds, (right) unwrapped branches, leaves, and fronds.

Texture

Name suffix

This string will be appended to the filename of the texture, so output files will following the naming convention “<tree name><name suffix>.tga”.

Size

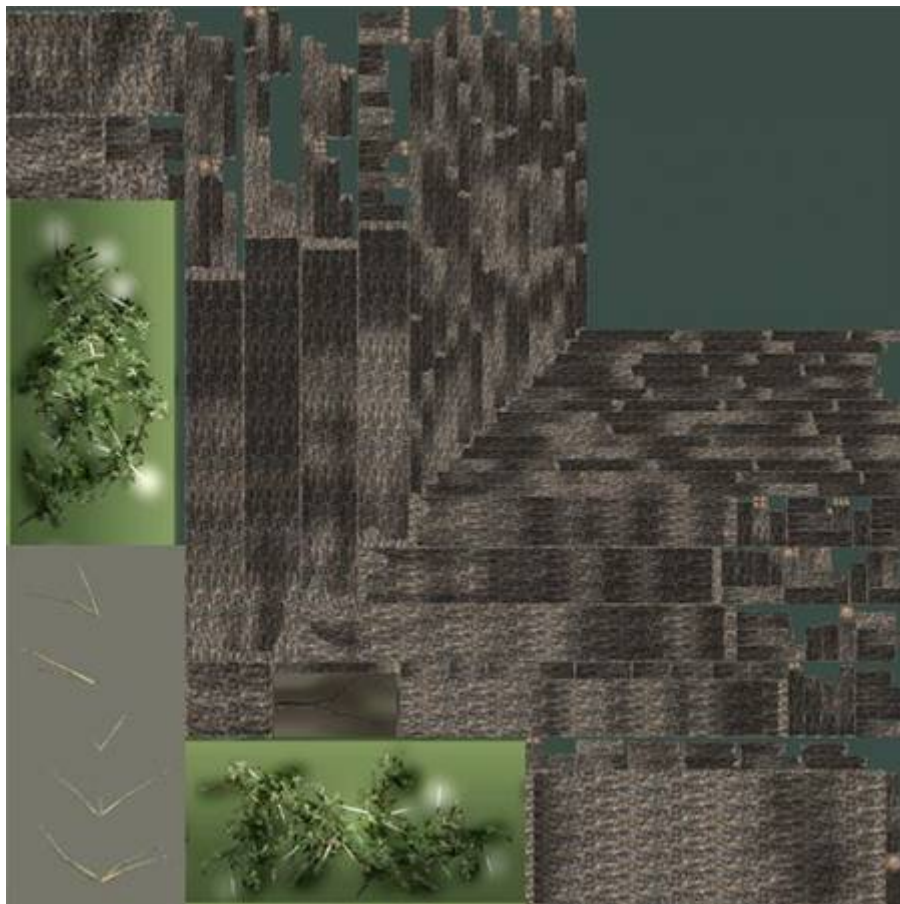
Sets the size of the final unwrapped texture.

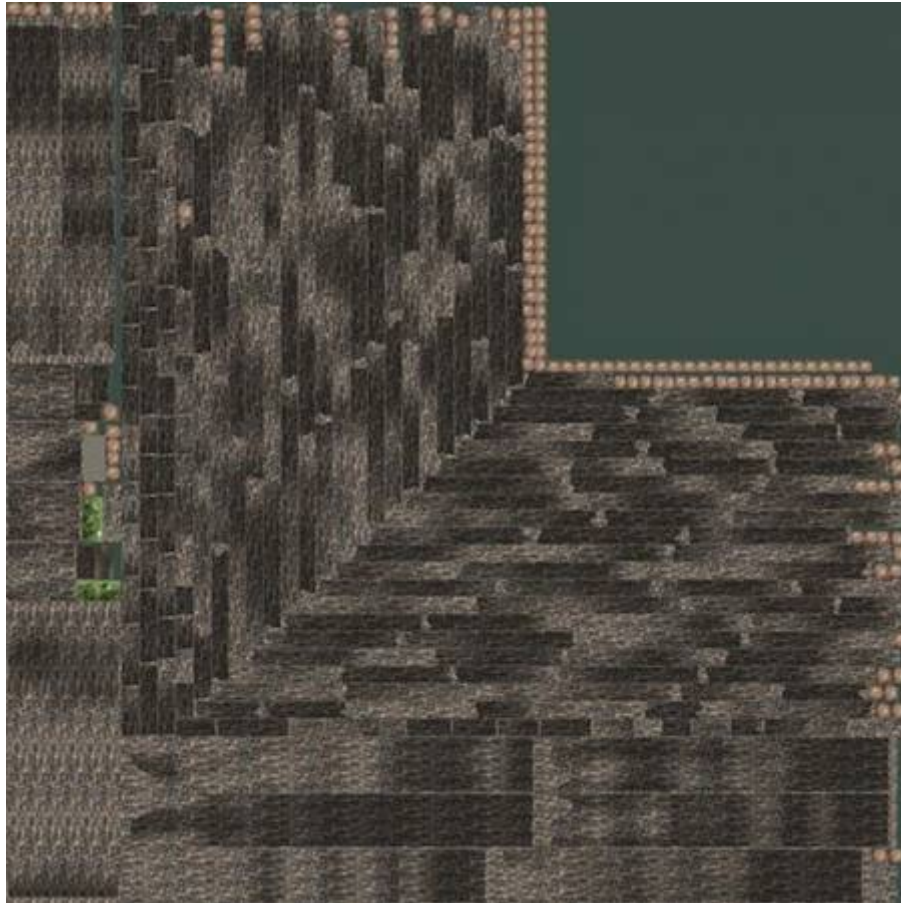
Area to favor

When laying out the multiple pieces of the unwrapped texture, this option sets whether more texture space should be given to geometry types that use more surface area or more texture area (computed from used uv space multiplied by texture size).

Margin

Sets the extra space allotted around each texture to avoid texture bleeding.





(left) favor surface area, (right) favor texture space

Unwrapped options

These options only apply to geometry that is being unwrapped (not stacked), since each piece will have it's own space in the texture.

- **Include detail:** The texture will include any detail maps, if in use.
- **Include branch blending:** The texture will include any branch blending, if in use.
- **Include AO:** The texture will include ambient occlusion.

Texture scaling

On a per-material basis, each material has a property called **Unwrapped→Scale** on the 'Material Assets' tab. Changing this value will increase or decrease the final size of that material as it is unwrapped into the texture map.

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