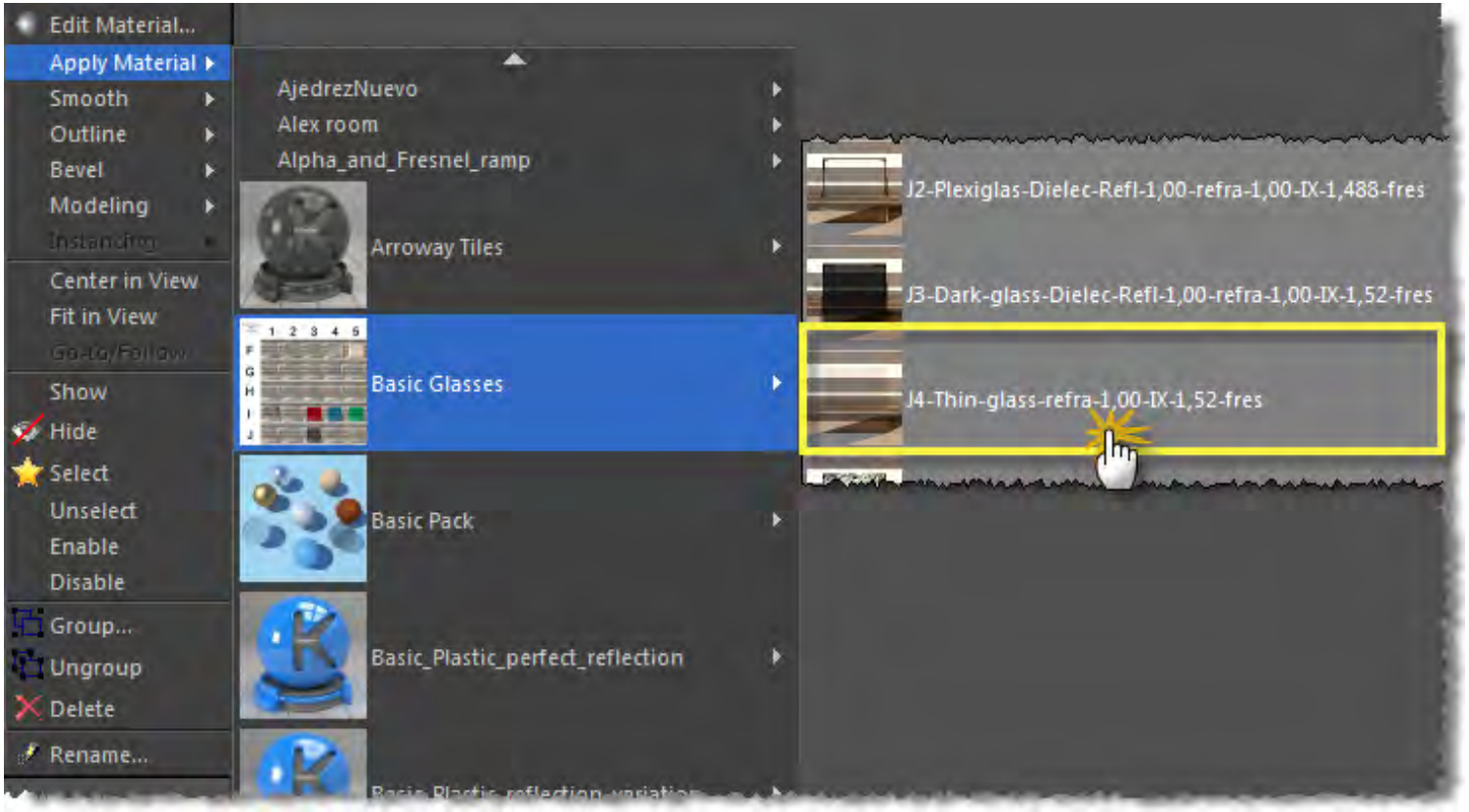
Creating a layered thin glass to receive shadows.

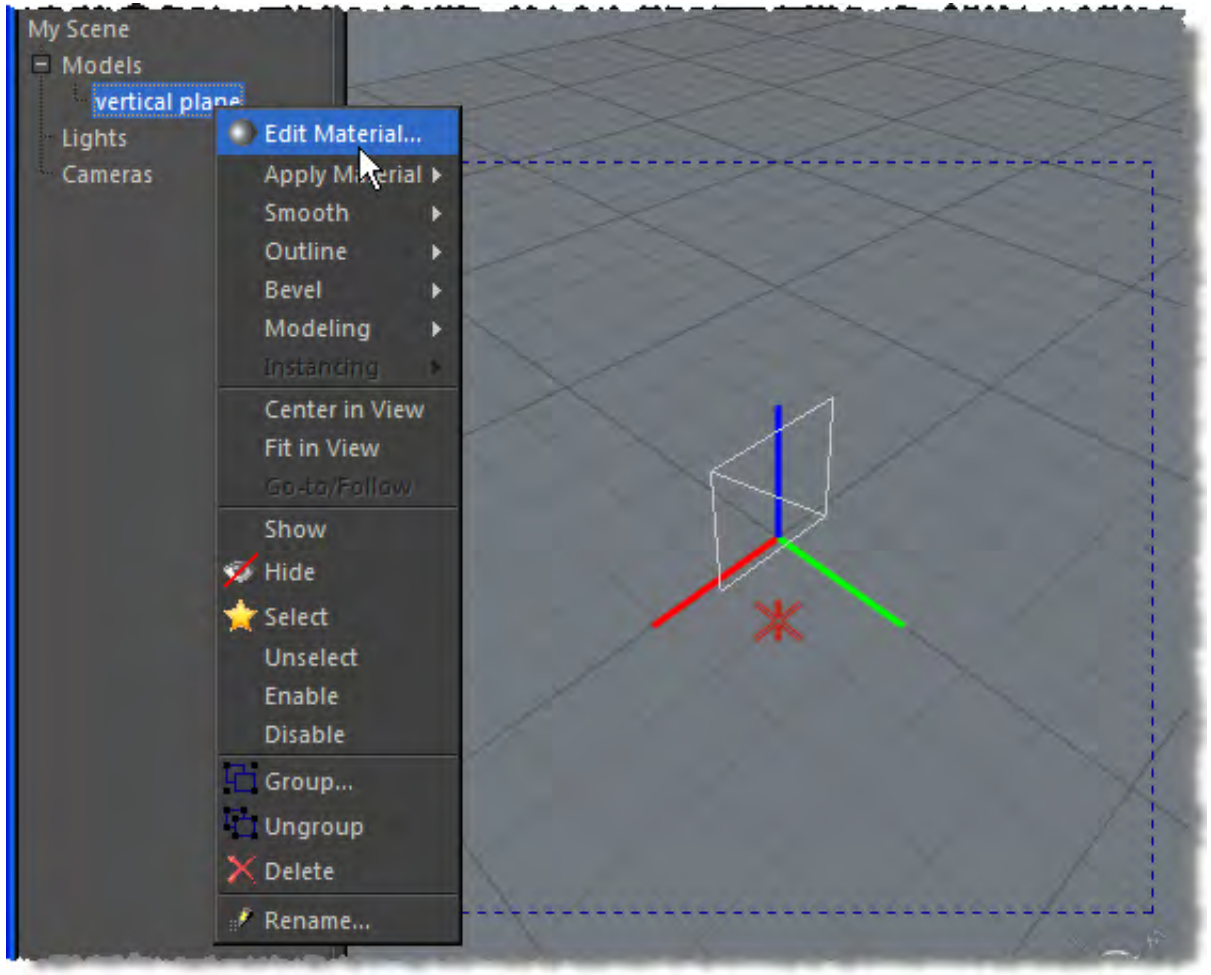
This tutorial explains how to create a Layered thin glass material to take shadows.

Apply the basic material



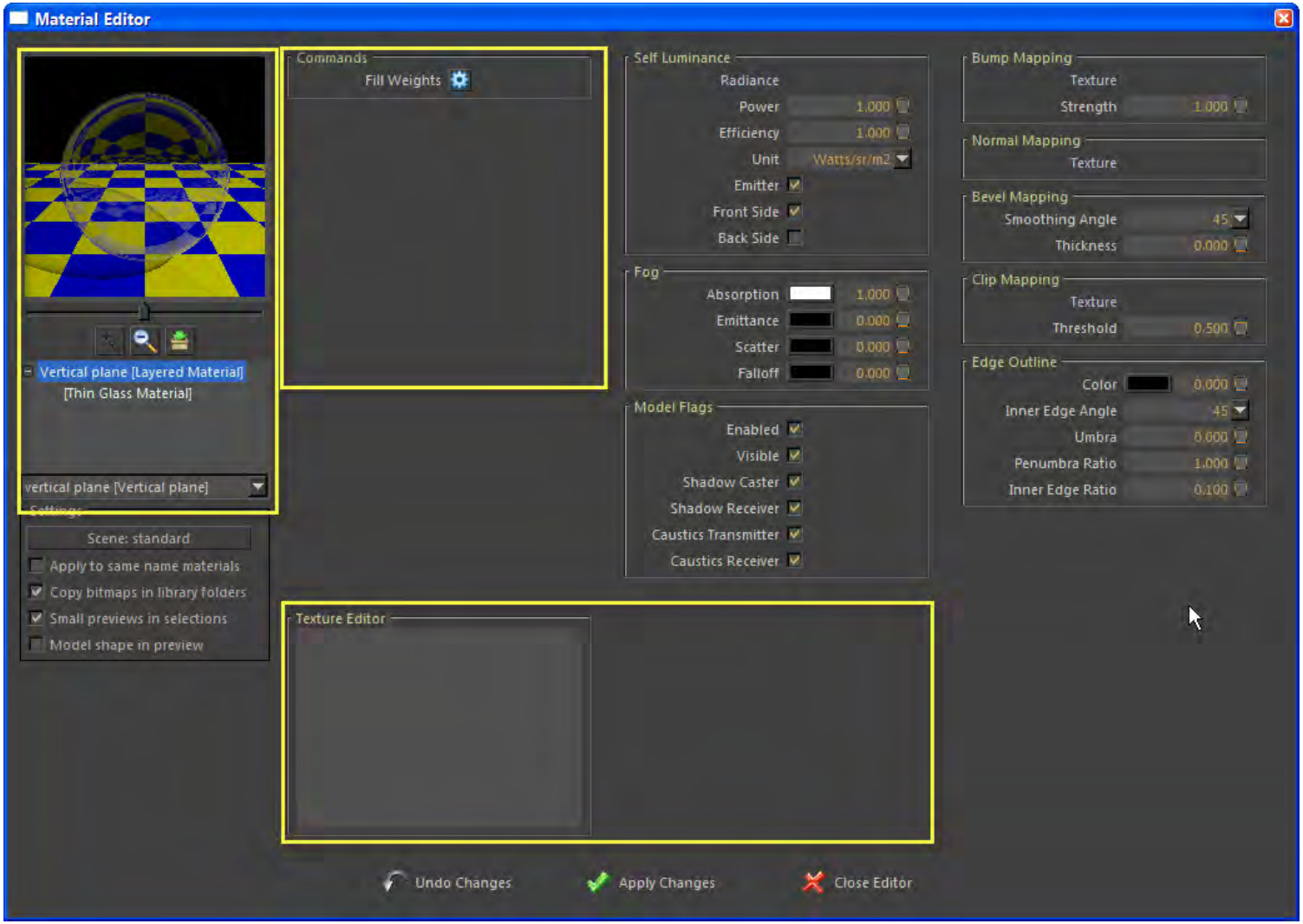
Select the material you want to change in the Models section of the side-bar and right click on it.
Click Apply Material and select the Basics Glasses library. (There is also a thin glass in the Basic Pack but it's not as simple to change.)
Scroll through and select the Thin Glass material

Edit the material



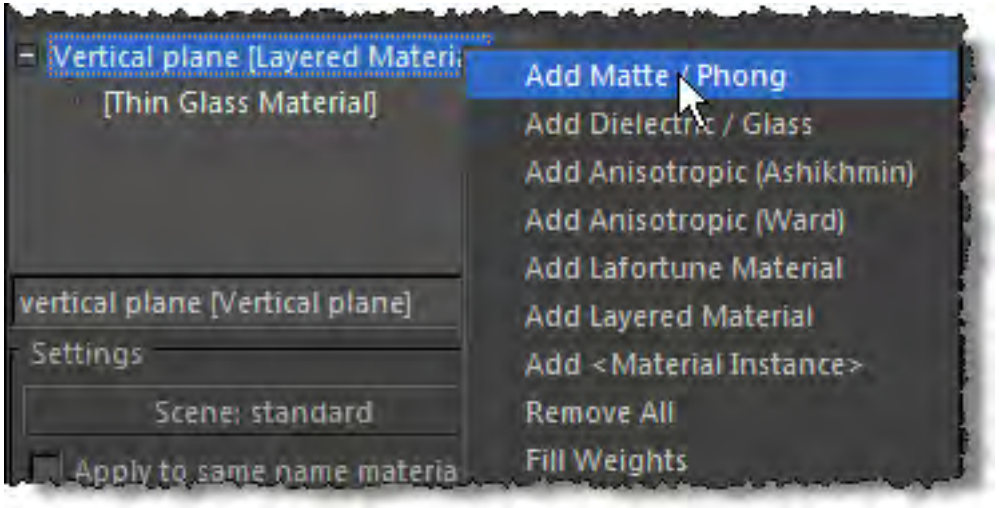
Right click on the material again and this time select Edit Material. . .

Using the Material Editor



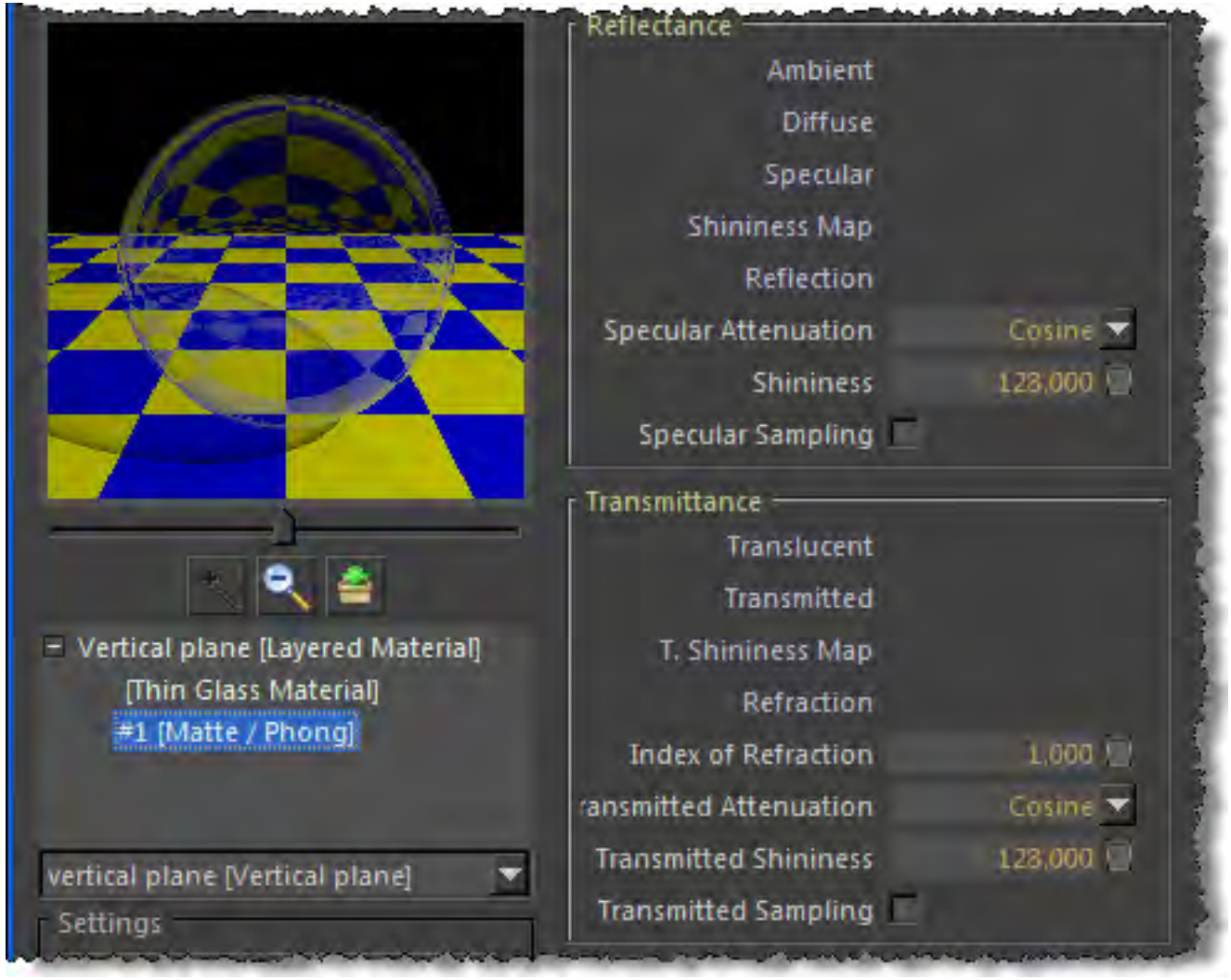
The Materials Editor is a complex screen but we are only going to use the three areas outlined in yellow.

Add a new Layer



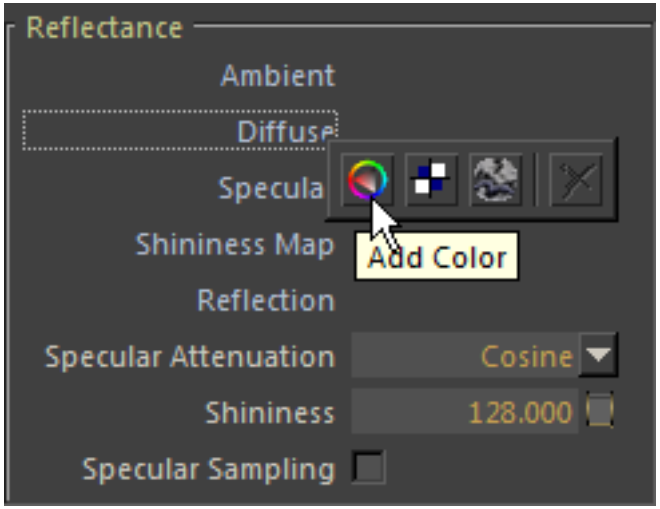
Just under the sample window you'll see . . . [Layered Material] (the . . . will be your material name), and under that [Thin Glass Material].
This tells us that this is already a Layered Material with just one layer.
We want to add a second layer so right click on the first line and select Add Matte / Phong.

A new layer



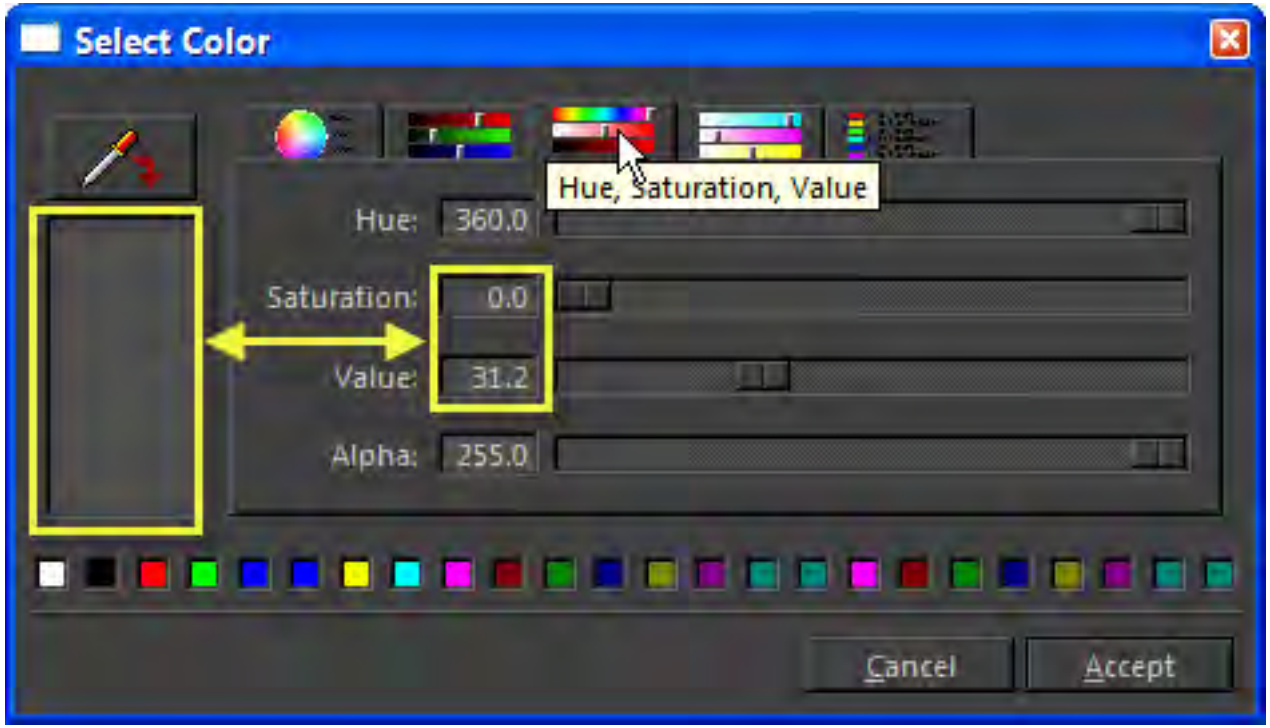
The new Layer appears in the Layer window and, when you select it, two new dialogues open to the right.

Add a Diffuse color



In the Reflectance Dialogue, right click the word Diffuse and select the first icon from the toolbar that opens - Add Color.

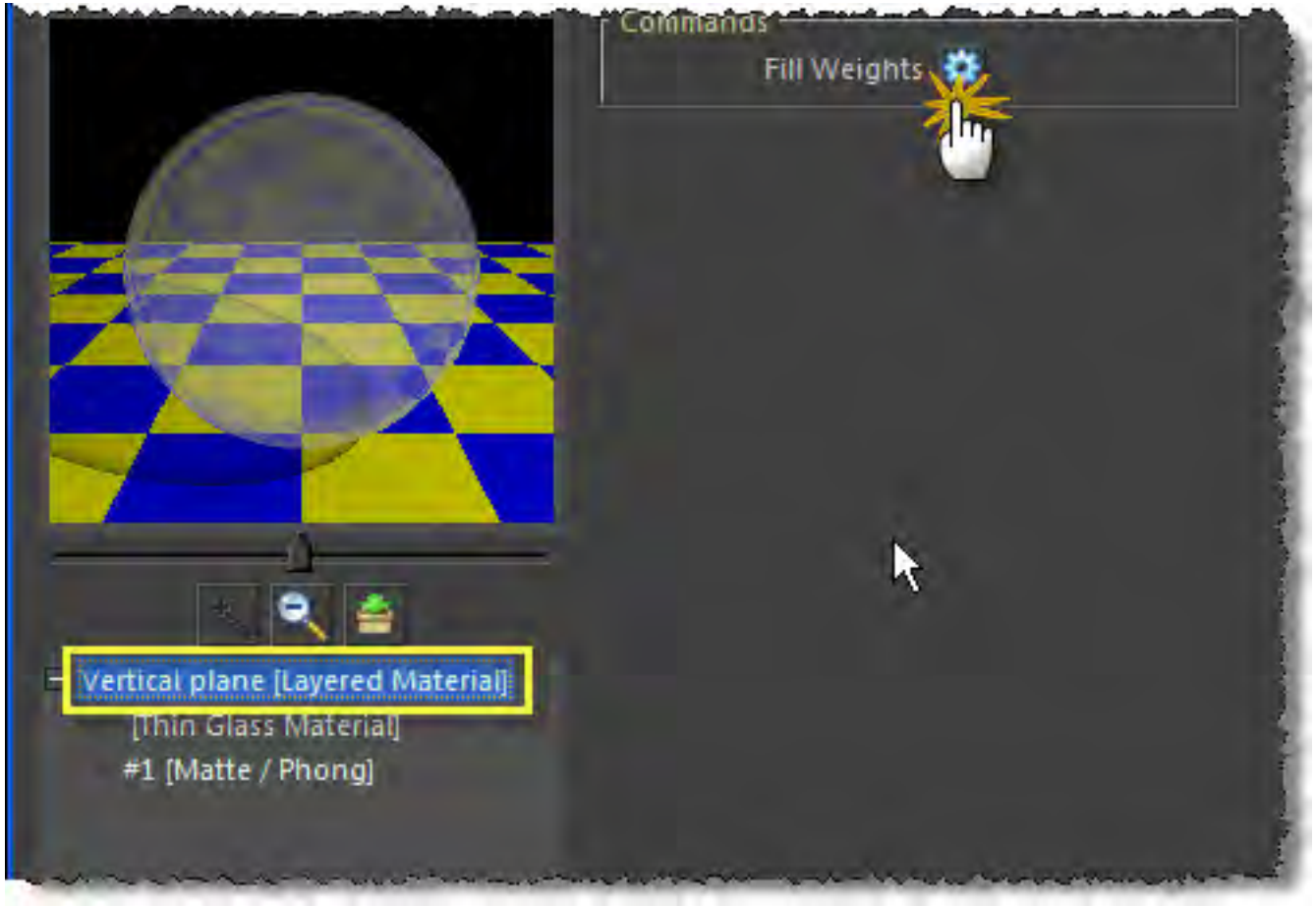
Setting the Color



When the color dialogue opens select the third tab - Hue, Saturation, Value - leave Hue unchanged, and set Saturation to 0.0 and Value to around 30-40%.

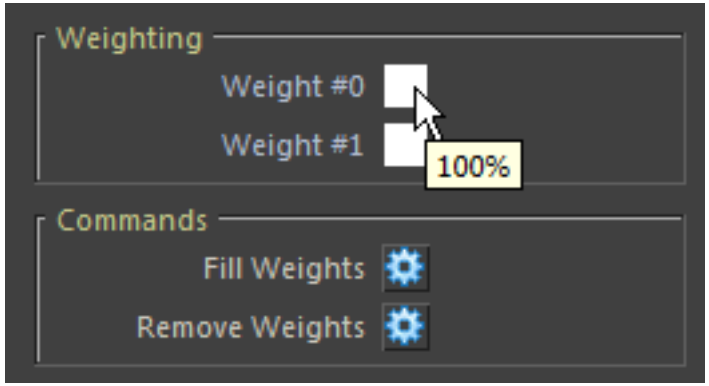
Click Accept to close the dialogue.

Set the layer weights 1



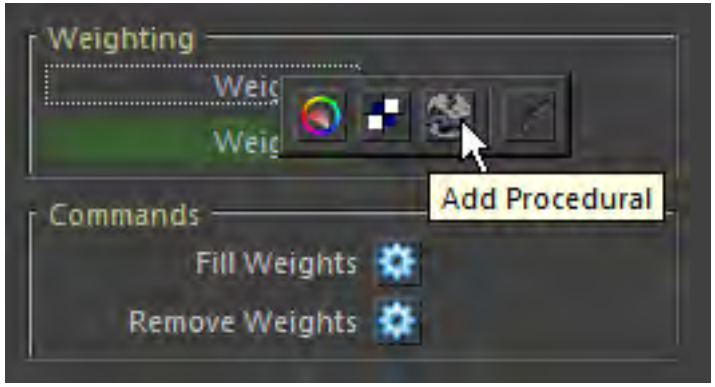
You'll see that the sample image has changed. The problem with adding a second layer is that the two effects are additive so our window is both transmitting all the light and reflecting some which makes it slightly luminous. To adjust this we need to set the Layer or Fill Weights
Select the [Layered Material] entry under the sample window, the Fill Weights icon will be displayed and you can click it.

Set the layer weights 2



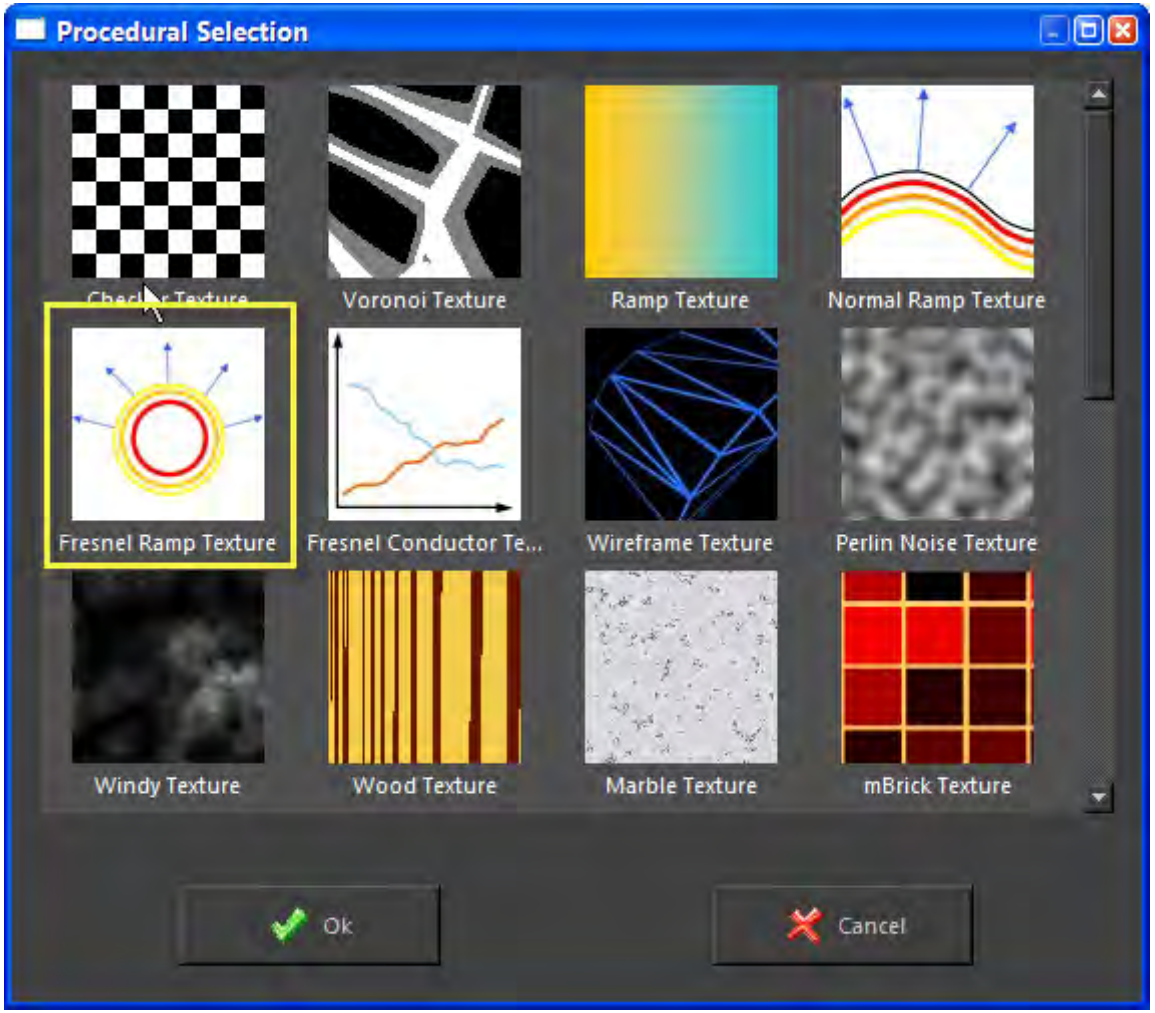
When the weight dialogue opens you can see that both weights are 100% (represented by a white swatch i.e. Value = 100% in the HSV dialogue we opened earlier).
We want the total of the two weights to be 100% - you can do this by changing the Values but an easier way is to use Fresnel Ramp Procedural weights instead.
Right click on the Color swatch and a Delete icon will appear, click it, repeat for the second swatch.

Set the layer weights 3



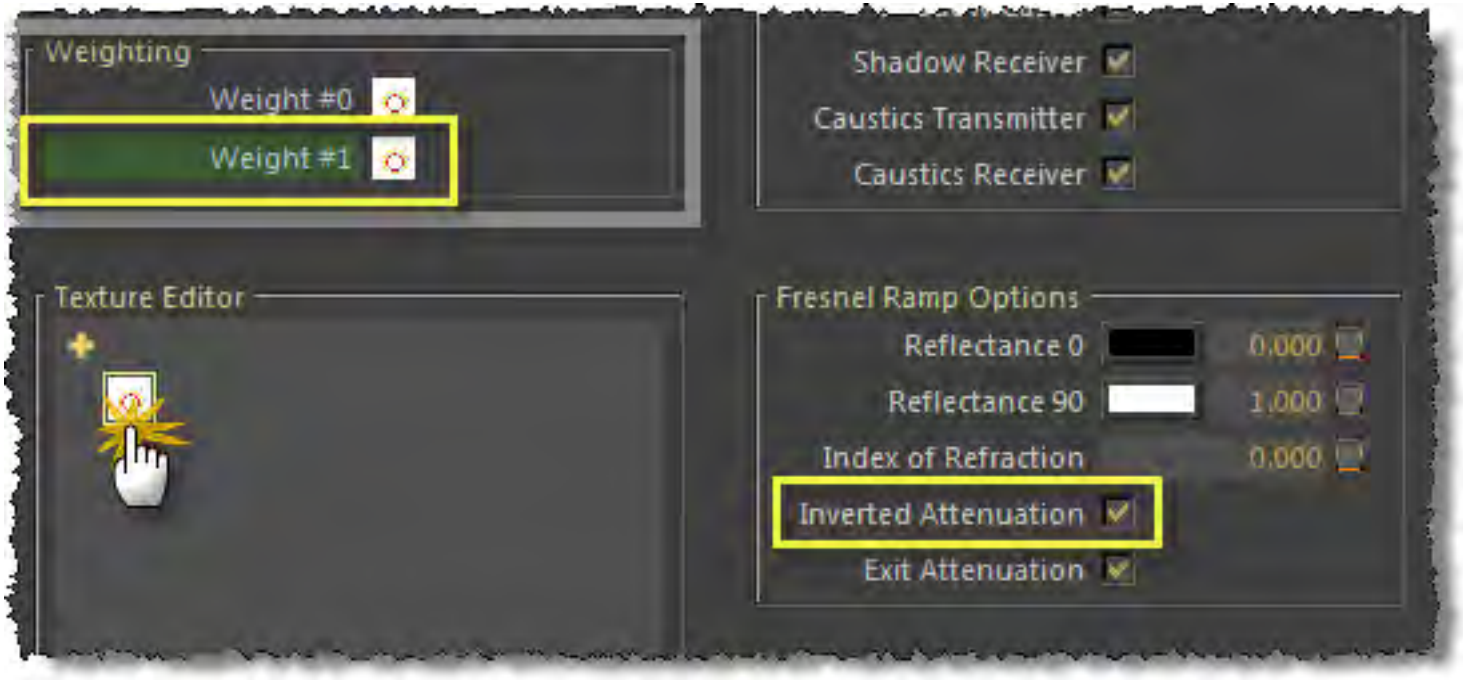
Right click on the words Weight #0 and this time select the third icon - Add Procedural

Set the layer weights 4



In the Procedural Selection dialogue, click on Fresnel Ramp Texture, and click OK.
Do the same for Weight #1.

Set the layer weights 5



Finally, select Weight #1 in the Weighting dialogue and the Fresnel Ramp icon will show in the Texture Editor lower down.
Click the icon in the Texture Editor to select it and you'll see the Frenel Ramp Options dialogue.
Click Inverted Attenuation.

Save the material

Finally click Apply Changes, then Close Editor to save the modified material.

Note: this only saves this material in the current model.
You need to save it separately to a Material Library if you want to use it elsewhere.