

# Paint Shop Pro Tutorial

## Shadow Maps

**Author: Burt Abreu**

**Email: [info@stormvisions.com](mailto:info@stormvisions.com)**

**Friday, December 23, 2005**

# Creating Shadow Maps


It is sometimes useful in 3D modeling, especially in low polygon modeling, to 'fake' some 3D features with the graphics to save some polygons; you may also find this useful for your 2D art to increase the feeling of depth. What follows is an explanation of one way to create wall textures with a 3D appearance. I wasn't sure if there is an official name for this technique but shadow maps seemed like a good one.



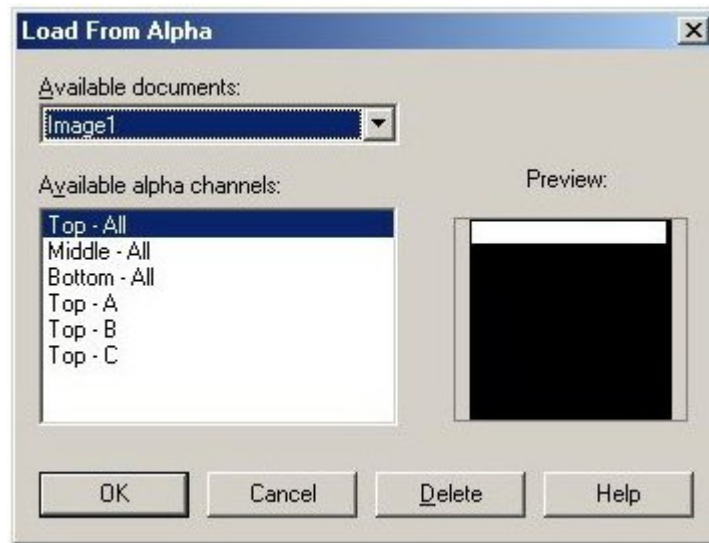
This image uses a shadow layer for the ridges at the top and bottom.

## Shadow Map


The first thing I do is create a new image with a white background, mine is 512 x 512. Then I go about creating selections of the main 3D features I want -for example 'Top Moulding' 'Middle Wall' 'Bottom Moulding' -in PSP 7 you simple go to 'Selections/Save to Alpha Channel' to save the selection area with an appropriate name.

 Please note that this technique does not use an alpha channel per se; it just so happens that in PSP7 this was a convenient way to save the selection. Newer versions of PSP and other graphics packages may have other ways to save a selection.

If you like then you can break down the areas further. For example you may create selections within the 'Top Moulding' such as 'Top Moulding -A' 'Top Moulding - B' so that you can use these selection areas to create inset panels, cutouts and shadows to increase the 3D appearance.



By using inner and outer bevel, drop shadow, burn, darken or the paint push and blur you can then create a 'shadow map' of sorts which when combined with a color layer will give the appearance of 3D.

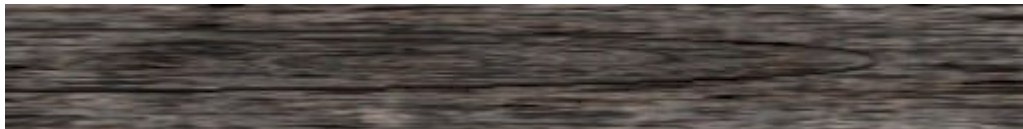
 If you have a 3d program and know how to use it you can also build a simple 3d wall shape which will allow you to create realistic shadows and then use this as the shadow map layer.



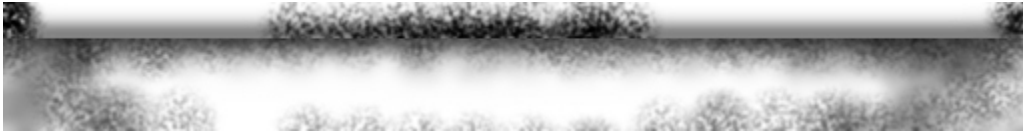
Here is the resultant shadow texture I made. I added this as a layer to the plaster on the previous page, set the blend mode to Multiply and adjusted the opacity. That is all there is to this technique.

Other Blend Modes may produce better results for certain images. Don't be afraid to experiment. You can also tweak the shadow layer once it is in place, and the blend mode set, by selecting the burn, darken, lighten or dodge brushes to touch up areas to increase or decrease the shadow effect.

Here is another quick example. This next image is a wood plank I want to use to make some wooden steps. Rather than add a lot of blocks to make the overhang I just take this texture ....



then create a shadow map that will show the dirty and shadow areas ....



and then we use it as a layer and play with the blend modes. Here is the resultant texture applied to simple blocks in [3D Game Studio](#).

