

The Complete Texture Mapping Tutorial for Poser 3

This tutorial has been made available again here for Poser 3 by courtesy of Dan Nichols, the author. This was originally the "read me" text of the "Texture Map Survival Kit for Poser3" by Dan Nichols, which is now no longer available. Dan has a new version of this tutorial for Poser 4 on his own site http://poseworks.8m.com/z_tu_tmskguide.html . If you have any questions regarding this tutorial, please contact Dan himself.

I have updated the links for Poser 3 textures, since the old ones Dan gave are way outdated. Please bear in mind, that this is only the tutorial without the special additions like Dan's "Descriptive Grid Templates" and the textures mentioned in # XIII. of the tutorial. I have added some "colored by groups" texture templates for you to download. Please check the download section of the site. The colored groups make it a bit easier to paint the texture onto the map.

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I. HOW TO USE TEMPLATES\TEXTURE MAPS

Templates are blank texture maps included with the Poser 3 program. They look like strangely shaped grids, unraveled versions of wireframes. You load a template into any paint or draw program like Adobe PhotoShop/PhotoDeluxe, PaintShopPro, Painter, Dabbler, or Corel Draw. (see also: III) Use these programs to draw onto the shapes. Each shape on a template represents a different view of the figure or one of the figure's USEMTL areas. USEMTL is coding in a 3D file that allows areas on the same model to be colored differently than another area on the model. Coloring the Lips on a figure differently than the skin of that figure is an example of USEMTL statements in an OBJ file. The Poser 3 Nude Figure USEMTL statements are for the Lips, Eye-whites, Irises, Pupils, Eyelashes, Eyebrows, Fingernails, Nipples, Toenails, and Skin. The P3 Business Figure USEMTL statements include all of the nude figure statements (except for toenails and nipples) plus Jacket, Tie, Shoe Tops, Shoe Laces, Shoe Soles, Shirt, Cuffs, Buttons, and Pants. P3 Casual Figure USEMTL statements include all of the USEMTL statements in the nude figures (except for Toenails and Nipples) plus Shoes, Shoe Soles, Shirt, and Pants. Each of these USEMTL areas are represented on the templates. It is important to know that only what you place inside of the template shapes will be used on the final texture map.

Texture Maps are colored-in templates which are applied to figures in Poser (see also: II). Texture Maps are displayed on the figure in Poser either when you render or when you turn the Element Display Style to 'Texture Shaded' (DISPLAY>ELEMENT STYLE>TEXTURE SHADED, DISPLAY>DOCUMENT STYLE>TEXTURE SHADED) (CTRL+9, CMMD+9). Using the texture shaded display mode, you can see how your map looks draped on the figure. Keep in mind that your texture map will look pixely and choppy in this display mode but it will not look that way when rendered (see also: X)!

II. LOADING TEXTURE MAPS INTO POSER

To load a Texture Map into Poser, simply choose RENDER>SURFACE MATERIAL. In

the lower left hand corner of the menu that pops-up, you should see a bar with a

percent bar on it and a button above it that is attached to a pull-down menu.

Click browse to load a texture map you have saved in a file (either Bitmap (*.bmp, must be 24 bit or greater) or Tag Image File Format (*.tif, may include

an alpha channel) can be recognized by Poser). You can also use the pull-down

menu to load textures, however, you can only load texture maps that have already

passed through Poser while it's been running. If you want to switch back to the

default texture map, you can simply use the pull-down menu and choose the name

that matches the figure's name.

To remove a texture map, click on the pull-down menu and choose 'None'.

To change the opacity of a texture map, use the bar below the pull-down menu.

100% is the opaque texture map except for white (see also: VIII), 1% is a basically clear texture map. Note that these opacity settings will not be seen

in Texture Shaded mode; the texture will instead show at 100%.

III. MAKING YOUR OWN TEXTURE MAPS

To make your own texture maps, you first need a paint or draw program. I highly recommend PhotoShop or PhotoDeluxe. Painter 3D and PaintShop Pro come

with high recommendation from friends. Painter 3D is a program which allows you

to draw directly onto 3D objects, generating texture maps along the way. It's

unique from most other programs (a possible exception being 4D Paint) and is

noteworthy because of that. Painter 3D is made by MetaCreations (the makers of

Poser, Bryce, and Raydream) but it has a fairly high price tag. PhotoShop is

also quite pricey, but worth it for the special effects and compatability.

PhotoDeluxe is a toned down PhotoShop and much cheaper.

When you make a Texture Map, be sure to leave out anything that deals with lighting more than color and detail (see also: IX). Texture Maps for Poser shouldn't include any gloss or other lighting effects except in very specialized situations. Bump maps will help in taking care of any wrinkle problems you might have and are excellent for adding seams in clothing (see also: IV). A texture map should include: (1) Separate areas of color, (2) Any object attached to the figure's clothing [not props that you attach to a figure, but things like grenades and belts on an army officer's clothing], (3) Detail shading (see also: IX), and (4) Areas that relate to attached props and other accessories.

3-1: Separated areas

There need to be definitive sections for the figure, such that a character's suit does not blend into his skin or that his gloves do not blend into his suit. Use feathered lines sparingly unless working with a texture map that is for a character's skin. Gradients also fall along these lines. One reason for this is to maintain a sharper, less pixelated image. A map you create in 72 ppi (pixels per inch) will be stretched over a figure that is larger than the map. Gradients and feathered edges do not translate as well when zoomed in on.

Another important part of keeping distinct zones on your figure is to keep the image less confusing. The figure cannot blur together especially when posed.

Portions of the arms and legs that are in front of the posed figure should be easily recognizable from the skin and costume of a character or that image will not be as sharp.

Skin maps make up the exceptions to the separated areas rule. Skin should have feathered edges and gradients used unless you are looking to create a Frankenstein's monster or zombie that would have patches of different skins. In general though, the skin needs to blend together to be recognized as skin.

3-2: Objects on the figure

Belts are an excellent example of an object that should be on the figure's texture map instead of attached as a prop. The objects should be ones that

are nearly flat, small, and not extremely important to the image, but important to the general look of the character. A figure with a wet suit map needs to have a zipper tab included on the texture map. Why? Not because the tab is of any consequence to the image, but because the figure would look wrong without the tab on their zipper and because it would be a larger pain than it would be worth to create a zipper tab and attach it to the figure. The zipper may need to be raised from the figure, but for that, we use bump maps (see next chapter).

3-3: Detail shading

Detail shading is a darkening of an area that better defines aspects of a figure's character and personality. Detail shading may be darker areas on the texture map right around where the pectoral muscle outlines are to show that a character is strong, shading on the sides of the thighs to show how smooth a character's legs are, and dark spot under the eyes to showcase how tired a character is. We use detail shading on the texture map rather than on the bump map because these areas of the character are not actually raised or lowered, but used for artistic and emotional impact. Detail shading also be done for anything too delicate for the lights to catch, but still noteworthy on the figure.

3-4: Relation to accessories\other figures

One important part of making a texture map is knowing what other figures will be in the same scene and how props will interact with the character. You need to decide what type of hair (if any) the figure will have, where attached props like guns and wings will be, and where the other figures will be in relation to the character. Plan for props by making sure that the prop will have enough contrast with the figure, making sure that the prop won't obscure any important parts of the texture map, and planning how the character will be clothed (ie., a falconer will have a thick leather glove where his bird will land, and a street

thug might have cuts and calluses on his knuckles which he's been punching with). Plan for other figures by deciding how detailed the map should be (depending on the character's distance from the other figure and camera), what kind of relationship the two figures have (enemies would be more likely to have detail shaded eyes and muscles because of the stress of being around each other whereas friends should be fairly absent of detail shading because of a lack of emotional tension). Hair needs to be recognized by deciding how much hair the figure has and what color the hair prop (if used) will be. If the character has a lot of hair, draw stray strands of hair (only a few) on the character's face, neck, and back. If the character has little hair, consider just putting the hair is the texture map instead of using a hair prop. If the character has no hair, forget about it. Just be sure that all texture map hair matches the color of all prop hair.

IV. HOW TO USE BUMP MAPS

Bump Maps are shaded templates which are applied to figures in Poser (see also: V). Bump Maps are displayed on the figure in Poser only when you render with bump maps checked in the render options (it's checked by default). Bump Maps alter the way light hits the figures so they are excellent for supplying effects for wrinkles and stitches. Bump maps work on the gray scale for elevation, white being highest, black being lowest.

V. LOADING BUMP MAPS INTO POSER

Bump maps can be loaded from Bump Map Files (*.bum), TIFF files (*.tif), Bitmaps (*.bmp), and Picture files (*.pict, mac only) in the Surface Materials menu much like texture maps can. The pull-down menu that allows you to load bump maps is located near the top of the Surface Materials menu. Just press the load button and choose a file. When you load a TIFF, Bitmap, or Picture file, a

window will appear that asks you to convert the file to a *.BUM file. You need to say yes. This will NOT replace your bump map, but create a file of the same name.

****IMPORTANT****

Unlike texture maps, bump maps do NOT load at 100%; they load at 0%. You need to adjust the percentage in the bar below the load button.

VI. MAKING YOUR OWN BUMP MAPS

Bump maps can be made in any sort of image editor that can make Bitmaps or TIFF files. Poser is, as far as I know, the only program that uses *.bum files and the only program that can make them. Bump maps run on grayscale so you need to be sure that whatever program you use has a wide variation of grays and can use soft brushes.

Bump maps should follow all of the rules for texture maps except for the ones on luminosity and color. When you make your bump maps, you should work in a grayscale mode (if possible). This helps you to see differences in lightness between areas. When you work on a bump map in a color mode, you may miss certain colors such as red and green that have the same brightness. Bump maps do need to be more focused on brightness and darkness values than texture maps. Don't forget about keep a high amount of contrast between areas on your map. Poser does not have as wide a range of variation in bump map elevation as you might think. The blacks on your map will only appear about a quarter of an inch below the surface, and whites will only appear about a quarter of an inch above the surface. Needless to say, if you don't have enough contrast, the final rendering won't look much different than a plain figure. Be sure that you always have at least one patch of white and one patch of black on your map to

ensure contrast. Gray to a different shade of gray fades may be useful in making cloth-like wrinkles. To get an embossed effect, use white with black feathered around the edges or vice versa. Remember, 3D shading will not work on bump maps because it uses both black and white edges; this causes one edge to pop-out and the other to indent.

One important thing to know about bump maps is that they will look wrong when they are completed. Don't change them to look right asthetically. Test your bump map on the figure while keeping your image editor open for quick alterations. Poser cannot load two bump maps of the same name, so use a set of characters to define your maps. I use the map's name followed by a 1, 2, 3, etc. for all of the maps I'm testing and then the map's name followed by _ for the final map. It's then fairly easy to go through and delete all of your drafts.

VII. USING THE DGTEMPLATES

7-1: About Descriptive Grid Templates (All Series)

I designed the DGTemplates for the Poser 3 nude people and a DTemplate for the Poser 3 business man. DGTemplates stands for "Descriptive Grid Templates"; DTemplate stands for "Descriptive Template". The DTemplates have images of the figure on each corresponding part. DTemplates were originally created to give users a better idea of where to place things on their maps. Later, the DTemplates were modified to include grids that show you exactly where the seams joined. These became known as the DGT Templates. The DGT Templates are included in the first Texture Map Survival Kit. Unfortunately, the grids were not exact. As of the time I write this; I'm revising them to include perfect grids. These new exact templates are the DGTemplate series. Currently, the only one that is perfected is the Nude Male, with the female in final production. You'll find the DGTman included in this kit.

7-2: How to Use the DGT Templates (first series)

Use these just as you would a normal template. Draw on them as you please.

The grid may be useful as a guide, but is not perfect. The backs of these templates are about two pixels off from the front.

7-3: How to Use the DGTemplates (second series)

Use these too as normal maps. The fronts and backs have been grided exactly for the precise map maker. There are guide bars of color and registration marks to help in this process. Blue bars of color signify a vertical column. Red signifies a horizontal row. Yellow signifies a column that is oddly shaped or distorted, and green signifies a row that is oddly shaped or distorted. Since these maps use exact locations, areas such as the female's chest and any figure's chin/jaw will cause a distorted grid.

VIII. WORKING WITH COLOR ON MAPS

It is important that you know that white on texture maps is treated as transparent and the color of the USEMTL (see also: I) will show right through it. Light colors also have this problem and dark colors will commonly turn black over a colored figure. For this reason, I suggest you turn the figure all white before applying your map.

Also keep in mind the lighting you'll be using when you make a texture map.

Colored lights can have an odd impact on any figure (see also: IX). Make the

colors as bright or as dark as you want to help set the mood of a scene.

Blues

and grays tend to give the scene a more mysterious or mystical; whereas, reds

and yellows give off an energetic feel.

If you were to do a storyline that took a character to multiple scenes; you may

want to make multiple maps for each of those scenes where only colors were different.

IX. WORKING WITH LUMINOSITY ON MAPS

Texture maps only use shadow and shine in situations where you're either (a)

Trying to make a certain type of material that you cannot get using other commands such as Highlight or a bump map, or (b) Trying to accent a certain

feature of a character. Both are uncommon circumstances but nonetheless important to making maps. To use shine and shadow to accent a feature, make

sure that you follow along with whatever lights you decide to add to your final

scene. Gloss and shine should always be on the side going toward your light;

shadow should always be on the side opposite the light. Shadows may gain certain color properties depending on your scene. Winter will often have dark

blue shadows, closed in areas will have solid black shadows. Only use shadows

on your texture maps when trying to make something appear more massive. Use a

gloss or shine to give the polished, leather, or plastic look to a figure. None of those effects can be properly created using the Highlight effect and are difficult to do in post-production (work done on the image in another program

after you're done with it in Poser). Gloss should be a general coating or a lighter color applied over the entire area. Shine is a small streak of light across part of the figure.

Texture maps may accent muscles or wrinkles on your figure. Use a darkened

outline around the shallow areas of the figure for this effect. This is a powerful way of emphasizing how strong or decrepid a character is.

Bump maps are entirely luminosity. There is nothing to say here that hasn't be

covered in IV, V, or VI. Just remember, bump maps don't take shadows; they create them.

X. RESOLUTION\DETAIL

Resolution (pixels per inch of your map) does not matter as much as the size of your map. Resolution should remain at 72 to 77 pixels per inch to help keep file size and loading time down. The size of your map (the physical dimensions not bytes) is very important to determining the level of detail and sharpness in your map. For the sharpest results on up-close camera angles, inflate the template to about three times it's normal size. If you don't mind blurriness on up-close shots, use a normal template size. The template's normal size will render crisply in a normal view, but increasing the size of the map will help to sharpen in any view. In Texture Shaded Display mode, your template may not appear as crisp as you'd like it to be. Don't worry, once you render the image, it will be fine.

XI. POST-PRODUCTION

Poser models often "break" in certain places when you pose them. Many post-production programs like PhotoShop, Paint Shop Pro, and Painter can fix this with tools that smudge or repeat areas that aren't broken. Another way to fix this is to not only smudge the spot away, but to cut out the piece of the texture map that covered the broken area, and then apply the texture to it again for a more accurate picture. Be sure to take lighting into account when you use this method.

In Poser, a channel is automatically generated in the shape of your figure if you export as a TIFF. Many times, I will use this channel to cut out the figure and add to an image from another program. Be sure to adjust your figure's brightness when you make these compound images. Maps may also be very useful in incorporating a figure into another scene. Use a texture map to give the figure a look suitable to their environment.

Many times, a special effect could be done in post-production better than it could be done on a map. Don't include special effects into your map. Try playing around with making new effects to add to your scene. You may even get a new idea for the image while you experiment with it.

XII. TEXTURE DEPOTS

The following are among the best places on the internet to get free Poser 3 textures from.

Strike a Pose Textures - Poser 3

- <http://www.spaceports.com/~helend/Textures/index.html>

Greg Carter

- http://www.cyberpiggy.com/poser_text.html

Happy World Land

- <http://www.happyworldland.org/poser.html>

WinScape 2010 Poser Pages

- <http://www.fortunecity.com/tatooine/darkknight/369/poser.htm>

Confusius Poser 3+4 Resources

- <http://home.t-online.de/home/confusius/poser.htm>

The Saucier Pages! - TextureTemplateMaps

- <http://www.saucier-pages.com/poser/index.html>

XIII. CONTENTS OF THIS KIT

Jeans Textures for Poser 3 Nudes (cjeans.tif, mjeans.tif, wjeans.tif):

Cut-out using the included channel and paste on your template.

Collosus Texture Tile and Bump Tile (collosus.tif, collosus-bum.tif):

A metal bump pattern that you can repeat over your texture map.

Fabric (fabric.tif, fabricbump.tif):

A patchwork cloth pattern that you can tile over your texture map.

DGTemplate for P3 Nudeman (DGTnudeman.TIF)

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