Subject: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Tue, 06 Sep 2011 16:20:24 GMT
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Noob here: so, I'm trying to find a good way to map images to the surface of models. I know you can use UV mapping, but this has a certain learning curve (and I have complex models with many edges, internal cavities, etc).

I've been trying out lots of program demos, and 3D-Coat had a "per pixel" painting mode that made what I want to do very easy: essentially import your model, import you JPG, use a Photoshop like paint bucket and "Fill" the thing. Looked great for many of the images I imported.

However, I don't know if this is something Shapeways can work with. It's a demo, so I can't write anything out, and can't find any info on color printing and 3D-coat.

Anyone have answers?

Thanks!

t3s

ps Sculptris almost did the job with automating UV mapping etc, but on many of my models (flutes) the program hangs when going into paint mode, and I've trued a HOST of things recommended on line to fix that, but can't.

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Tue, 06 Sep 2011 16:48:15 GMT
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In running through the process of importing a model etc into 3D-Coat, it seems that it can (and what I have been doing) is automatically creating a UV map. So, in theory, this is what "Fill" is painting onto, and therefore I can (if I buy the full version), export the UV map and bundle all this for Shapeways?

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Wed, 07 Sep 2011 01:13:03 GMT
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OK, figuring this out, I think. I went ahead and bought the program, and exported OBJ, and there

are UV maps, so it seems to have worked. Next I'll text how Shapeways handles these files.

One thing next: can one "emboss" to the model surface a mapped image? There are some patterns that would be cool to have as slightly raised elements on a 3D print....

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Wed, 07 Sep 2011 01:24:54 GMT
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OK, first issue for uploading: after going through meshlab and 3D coat, in netfabb, the dimensions are off. Now I could just scale those in netfabb, but will this mess up the UV map?

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by stop4stuff on Wed, 07 Sep 2011 09:36:08 GMT
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You should be able to scale ok. I just tried a model in Accutrans3D, both model and map scaled ok.

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by bartv on Wed, 07 Sep 2011 10:10:34 GMT
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Our printers will ignore any maps other than UV color maps. So if you'd like to use a bump or displacement map, be sure to 'bake' it into your geometry!

Bart

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Wed, 07 Sep 2011 11:22:55 GMT
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Thanks very much, Bart. I'm very new to this, so the bump map aspect had me confused for a bit.

DIscovered last night that 3D-Coat lets you scale the obj on output. 25.4 for the inches to mm conversion. Now I need to find a program that can read in texture maps to verify independently of 3D-Coat that the map looks ok!

Accutrans3D: looks like a great program, but I'm on a Mac! I'm hoping between netfabb, meshlab, and blender, all free, I can do what I need to do.

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by bartv on Wed, 07 Sep 2011 11:26:03 GMT
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I recommend using MeshLab - it's great for quickly previewing a 3D file. I like Blender a lot too, but as a new user it would just take you longer to view a file.

Cheers,

Bart

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Wed, 07 Sep 2011 14:56:58 GMT
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Yes, I just got done working out the bugs to see it in meshlab! At first it couldn't deal with the .mtl from 3D-Coat, but looking at the files (they are text files so it's easy to open them and fiddle, thank goodness not binary!), and I saw that 3D-Coat had used absolute file location designations (bad in general if I send this to shapeways) and also realized that I use mac type naming with spaces in directory names etc (which not all programs handle). So I changed those and it looked good in meshlab. That was comforting! I'll try uploading to shapeways next.

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by type3secretion on Wed, 07 Sep 2011 18:16:16 GMT
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OK, got my model up (not for sale or viewing, just my own testing at this stage). I exported as X3D, zipped the files, uploaded, got errors back about size, figured out the hardwired defaults in the programs, needed to output from 3D-Coat with a scale of 0.0254 to OBJ, and then everything works scale-wise. Colors look good on the screen (of course, real test is printed...).

Price is high! $ 122.45 colored sandstone. I wish 3D printing were not so much. But it's a fully functional double flute in the key of high C (octave above middle C), now with decorations! Well, it was functional as a prototype printed on a non-color 3D printer of Zcorp, but it should be the same on the color one from Shapeways.

I will test some other flutes and costs and so forth - I have a lot of designs!

Now I also need to figure out the finishing and "food" safety (placing flute in mouth to play).

I wonder if Shapeways could offer polU or shellac or somekind of food safe finish....

Subject: Re: 3D-coat, per pixel painting, uv maps
Posted by bartv on Wed, 07 Sep 2011 19:44:17 GMT
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A flute! Do sent us some pictures or a video when you've received the model, I'd love to see it.

I'm not sure about our plans for foodsafe finished, but I'll forward the suggestion to Nancy, our product lead.

Cheers,

Bart