Subject: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 12:10:41 GMT
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Is it just me or did something change in the way .wrl files for color prints are checked?

I did quite some color prints in the past and thought I had my workflow down.

However I had quite some difficulty when I tried to upload a color model the last few attempts. The error emails do not specify what the problem is however only that I need to give my model a bit of extra love.

I took the existing grandpa model and made a 'sinterklaas' version of it (hope the family will be amused next december

I kept the triangles well under 500.000 did all kinds of error checks... Also I opened the wrl in notepad to make sure the texture name and path check out.

Below are 2 exports of exactly the same source. One is a .STL without color. The other is a .WRL with texture.

imageafter.com/temp/tristan/SinterOpa3STL.zip
imageafter.com/temp/tristan/SinterOpa3WRLcolor.zip

The STL uploads perfectly however the .WRL 'needs more love'

Anyone an idea what is wrong?

Does the server check wall thickness when uploading an .WRL? If so that could be the problem since the wall thickness of colored sandstone is 3mm and the white strong and flexible is 0.7 but I guess if that is checked it would be easy to mention in the error email right?

Subject: Re: Printing Grandpa is giving issues
Posted by virtox on Mon, 29 Oct 2012 12:22:51 GMT
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Strange..

I'll take a look.

Any luck with uploading one of your old models?

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 12:25:40 GMT
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oeh! good idea! See if the old models give the same probs!

Subject: Re: Printing Grandpa is giving issues
Posted by virtox on Mon, 29 Oct 2012 12:30:24 GMT
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Initial inspection of your model did not show anything strange, except for a very funky dressed grandpa awesome model variation!

Also the guidelines for sandstone have been updated and 2mm walls are also possible now:
 http://www.shapeways.com/materials/sandstone-design-guidelin es
And the polygon limit has been upped to 1 million

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 12:38:36 GMT
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woot! thats amazing to hear.. so thats probably not the issue...

btw here is a link to the succesfully uploaded stl file: http://shpws.me/lPPX

I had another 3D print issue a few months back that was solved by reducing the triangles to 300.000 instead of 450.000 which was my original size. apparently a memory issue.

I've downloaded en re-uploaded this model of the less funky grandpa: http://shpws.me/lnKA

I've yet to receive confirmation but that seems to be a good sign. The error of sinteropa where

very quick after uploading...

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 12:41:03 GMT
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mmh I've just read that the minimum bounding box is x+y+zâ‰¥75mm My print is +- 35 high... is that the issue? or am I reading it wrong? in any case the normal grandpa was 4cm high

Subject: Re: Printing Grandpa is giving issues
Posted by virtox on Mon, 29 Oct 2012 12:49:05 GMT
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Hmm, that is quite small!
Sounds like that might be it, but the email should just say that if that is the case
Should be easy enough to test though, scale it up and see

Oh and in my experience, old models that do not adhere to the rules may or may not be rejected on ordering
Likely depends on the actual repeat printability.

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 12:54:28 GMT
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ah the old model uploaded perfectly... how weird!

Subject: Re: Printing Grandpa is giving issues
Posted by virtox on Mon, 29 Oct 2012 13:01:42 GMT
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Hmm, curious...

See if you can find any differences between the files.
I have limited pc access atm.

But perhaps, spaces/newlines/dos/unix filetype or format issues?

Subject: Re: Printing Grandpa is giving issues
Posted by virtox on Mon, 29 Oct 2012 13:10:10 GMT
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Perhaps try this, I just opened and saved it with Meshlab, wrl file is several MB smaller, not sure why.

File Attachments

1) Opa.zip, downloaded 53 times

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Mon, 29 Oct 2012 13:27:48 GMT
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Ah too bad the meshlab version gives the same problem:

Quote:Hi Tristan,

Uh oh! Seems like your model needs a bit more love before our robots can work their magic.

The 3D model Opa via meshlab you recently uploaded didn't pass all our automated checks, so it's not yet ready for 3D printing.

Our tutorials and FAQ can be super helpful for more detailed information, or you can always ask the community a specific question on our forum

If you're stuck or have any questions, don't hesitate to reach out at service@shapeways.com. Please include the file attached to the email, as well as any notes on your design, so we can help you solve your problem as quickly as possible.

Kind regards,

Subject: Re: Printing Grandpa is giving issues
Posted by Fredd on Mon, 29 Oct 2012 19:41:25 GMT
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Tristan I opened up the model. It showed some non manifold errors. Basically several loose verts along the surface. I guess in the stl upload SW thought you wanted them booleaned, but were so small, it deleted them, but printed. The loose verts made it non manifold in the wrl. Its a easy fix anyway.
Keith

The floating loose verts were the culprits. Dimensions and volume remain the same with the wrl fixed.

Subject: Re: Printing Grandpa is giving issues
Posted by tristan_bethe on Thu, 08 Nov 2012 07:33:00 GMT
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Fredd,

Thanks so much for checking it out. Just read your reply since for some reason I am not getting alerts on new posts anymore

May I ask what software you used to check and how you fixed it eventually?

Also do I understand correctly that the SW upload does automatic booleans with intersecting meshes? That would help me understand/visualize the SW upload a bit better!

*just discovered you have to check 'Post Notification' at each post -do'h

Subject: Re: Printing Grandpa is giving issues
Posted by Fredd on Thu, 08 Nov 2012 21:14:21 GMT
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I know that SW will boolean union stls where you have several manifold objects with intersecting volumes(as long as they are not too small). No idea about vmrl2 for colored models. Beware a

boolean operation, you might have to unwrap the mesh again.

I opened the file in Blender, nice little free program. For the uses would would need of it, would be simple to learn about 5 techniques.
By the way, I loved Pope Pawpaw.
Keith

Subject: Re: Printing Grandpa is giving issues
Posted by bartv on Mon, 12 Nov 2012 14:57:19 GMT
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The Mesh Medic boolean operation often has a hard time with vrml2 models with UV texturemaps - once it corrects a mesh problem it does not know how to re-map the textures. In these cases, it's better to fix the model by hand..

Bart

Subject: Re: Printing Grandpa is giving issues
Posted by Fredd on Mon, 12 Nov 2012 16:29:56 GMT
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Barty that is so true. About anytime you boolean objects with uv maps, you normally wind up remapping the joined object. Another example of why you should properly create a model for 3D printing from the start, learn how to check for errors and fix them, instead o being lazy and depending on mesh medic/ netfabb basic to fix them all the time.

Keith

Subject: Re: Printing Grandpa is giving issues
Posted by bartv on Tue, 13 Nov 2012 11:58:07 GMT
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There's nothing wrong with being lazy of course But yeah, in general it's better to know what you're doing and create valid geometry from the start.

Cheers,

Bart