
Subject: Checking models offline - Possible?
Posted by [Largo](#) on Sat, 09 Jun 2012 03:27:22 GMT
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I uploaded my first test model, and realised it would take 10 minutes just to check a simple model!
What! Sometimes, I just don't have that sort of time.

I was wondering if anyone had managed to create an offline model checker for shapeways, so we can do it on our computers instead of their very busy servers. Or why can't Shapeways just port their algorithm onto the desktop?

Or am I being stupid and selfish?

Anyway, your opinion...

Would you want an offline model checker for Shapeways?
(total votes: 2)

Yes! 2/(100%)

No... 0/(0%)

Why? 0/(0%)

Subject: Re: Checking models offline - Possible?
Posted by [stop4stuff](#) on Sat, 09 Jun 2012 05:59:47 GMT
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This is something that I would use, especially for larger chainmaille pieces as Shapeways software times out, however for just the basic integrity and measurement checks, NetFabb Basic can be used before uploading - not that it makes any difference to how Shapeways software works, but at least there won't be any surprise rejections.

Subject: Re: Checking models offline - Possible?
Posted by [Largo](#) on Sat, 09 Jun 2012 08:16:47 GMT
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Oh! Well, it's not automatic, but it is good enough. But can't Shapeways just give us their code they use to check stuff? If it has all those other stuff about the pricing and such like too, it would be nice.

Subject: Re: Checking models offline - Possible?
Posted by [bdickason](#) on Sat, 09 Jun 2012 11:49:37 GMT
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Largo wrote on Sat, 09 June 2012 08:16Oh! Well, it's not automatic, but it is good enough. But can't Shapeways just give us their code they use to check stuff? If it has all those other stuff about the pricing and such like too, it would be nice.

Hey Largo,

Thanks for making the poll, I think the idea is really interesting!

Model checking is really tough. And I don't mean the actual science/code behind it, because that part is REALLY tough

Our goal is to get you feedback as quickly as possible so you don't sit around waiting 10 minutes, or days, before finding out that your model can't be printed.

We've been looking into rejections lately and trying to figure out how to improve the experience overall. Let me first explain a bit about the process:

- 1) When you upload a model we run a small set of checks and reparations for things like known bounding box limits of materials, leaks in the mesh, and now the overall wall thickness of your models. These can each take between 15 seconds and 5 minutes depending on the size and complexity of the model.
- 2) Once SOME of these checks pass (we don't wait for all of them), the model is placed in your 'My Models'and you can modify/order it.
- 3) Once all of the automated tests pass, it's sent to a planning queue where either Shapeways production or an external manufacturer follows our design rules and does a quick (1-3 mins) check in Netfabb for any commonly occurring issues.
- 4) Once the manual checks pass, we pass it off for printing.

Are there ways we can optimize this for speed? Hell yeah! Are we working on that this very moment? Hell yeah!!

Will moving it over to your local machine make it any faster? I'm really not sure.

I'll pose the idea to our tech team this week. The core question is - are our servers busy? Or does it just take a long time to run

We truly understand the frustration around uploading a model and waiting. It's the internet, noone should have to wait for anything any more

Subject: Re: Checking models offline - Possible?
Posted by [Dragoman](#) on Sat, 09 Jun 2012 14:14:26 GMT
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To me the most frustrating part is not the time it takes for the basic tests after upload, but the risk that a piece that passes the initial tests will be rejected once I order it for a test print.

Typically, I don't order a test print right away, but wait until I have enough items together to make a worthwhile order (given the significant postage, I don't want to order single items).

Is there a way to run the actual pre-print tests if a modeler requests them and then make sure the item will be printed if the test is OK? I don't care if this is online or offline or if it takes one minute or one hour. Indeed, one day would still be faster than the feedback cycle from failed test prints

Greetings
Karl Heinz

Subject: Re: Checking models offline - Possible?
Posted by [stonysmith](#) on Sat, 09 Jun 2012 14:45:05 GMT
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Check these two threads:

http://www.shapeways.com/forum/index.php?t=msg&goto=44365&&srch=request+thin+walls+check#msg_44365

http://www.shapeways.com/forum/index.php?t=msg&goto=33431&&srch=request+thin+walls+check#msg_33431

Subject: Re: Checking models offline - Possible?
Posted by [stop4stuff](#) on Sat, 09 Jun 2012 18:25:02 GMT
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The answer to the 'How long does it take?' question is the timeout set for Mesh Medic. For example, upload a file with 700 interlaced rings with a total of 300k triangles (a small patch of chain maille) and the software will take around 20 minutes to figure everything out. Upload a file

with 1500 interlaced rings with 600k triangles and the software will time out.

So, just what does this mean?

FOC have a Eurpeaon 4 in 1 chainmaille placemat that can never be made with Shapeways without compromising size or quality, and yes I have tried - the closest I got was my Squaremaille Place Mat - and that was after asking for the timeout limit to be upped.

So upshot is, that if Shapeways are in a position to be able to license out 'the software' to individual users then all is good, however what is the cost to users?

Personally, if my models could be 'authorised' locally for upload then I would welcome that as I know the limits, however for non-interlaced, uncomplicated models as things stand right now is just fine.

For the integrity and measurement checks, anyone can download and use NetFabb Studio Basic for free - that's just a time and effort thing.

Subject: Re: Checking models offline - Possible?
Posted by [Largo](#) on Sun, 10 Jun 2012 04:44:41 GMT
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Dragoman has come up with a very pressing issue that I have only thought of infrequently. Things might be fine in your software, but maybe not in real-life. I live in New Zealand, and the shipping isn't the sort of thing I'd pay just to fool around. I would probably just stay with the safest design. You don't know if certain things might turn out to be weaker than you originally thought, or maybe it might be a bit too weak for shipping. That's a problem for a foreigner like me.

I guess I can check the models with NetFabb, but what about real-world issues? If a design came out in two pieces out of the printer, is it automatically sent to me (I get sad), reprinted until it doesn't break (a waste), or am I notified? (Well, I wouldn't really be happy if I had to pay for something I didn't get, but at least I won't have to pay for shipping would I?)

Subject: Re: Checking models offline - Possible?
Posted by [stop4stuff](#) on Sun, 10 Jun 2012 05:36:38 GMT
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For print feasibility, you can ask Shapeways Customer Services for an answer.

Generally, if a model complies with the material design rules it will print just fine. The risk of breakage is during the packing process, and if that happens the model is replaced by Shapeways.
