
Subject: Model Dimensions

Posted by [AmLachDesigns](#) on Sat, 12 Jan 2013 11:04:03 GMT

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Hi,

I was looking at my model Roudé Leiw Detailed pendant circle frame and the displayed dimensions appear to be incorrect.

The model is essentially a disc with a loop attached and yet the dimensions suggest that it is round. I suppose that if one were to rotate it, it would fit into a box of the dimensions described, and this might be useful info for printing purposes, but is not useful to customers, I believe.

Now I think of it I recall @bathsheba saying something similar in another post, but I cannot find it, sorry.

Thanks in advance

Subject: Re: Model Dimensions

Posted by [stannum](#) on Sun, 13 Jan 2013 00:44:31 GMT

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Yes, it has been reported many times. Production bounding box is shown instead of uploaded file one.

Subject: Re: Model Dimensions

Posted by [NimlothCQ](#) on Mon, 14 Jan 2013 19:05:19 GMT

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Stannum is correct; what you are seeing are numbers based on a re-oriented production calculation (OBB - Oriented Bounding Box) rather than the expected model bounding box and measurements (AABB - Axis Aligned Bounding Box). We understand that this issue is causing confusion and are working on a solution to display the right numbers to the right people, along with better communication on how things are calculated during the upload process.

Subject: Re: Model Dimensions

Posted by [AmLachDesigns](#) on Thu, 24 Jan 2013 13:23:53 GMT

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Hi,

I am in the situation of being careful what I wish for - the dimensions are now shown as I would expect on the public model page, which is good, but I think something else has possibly changed.

I have a model heron inc base thicker legs hollow which is shown as cm: 10.454 w x 6.662 d x 14.898 h i.e. should print in pwsf. These are also the dimensions in Blender. However, I cannot select pwsf because the model exceeds the 150 mm dimension, apparently. If I go into edit mode for the model, there I get the Oriented Bounds box which is Cm: 6.66 w x 6.556 d x 15.752 h.

Fair enough, I suppose (if I'm feeling charitable), but it is very irritating that I will only be able to get the right dimensions by:

1. Adjusting my model;
2. Uploading;
3. Waiting...
4. Checking the model in Edit Mode;
5. Repeating until correct or I lose interest and do something else.

If this is not new, but just because of the shape of my model, I apologise.

Subject: Re: Model Dimensions
Posted by [NimlothCQ](#) on Thu, 24 Jan 2013 18:32:48 GMT
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Hi all,

I wanted to let you know that the model edit page now displays both the original bounds, and the calculated oriented bounds (used for printability), as shown on the picture attached.

Cheers,

Christopher

File Attachments

1) [orientedbounds.jpg](#), downloaded 194 times

Subject: Re: Model Dimensions
Posted by [AmLachDesigns](#) on Thu, 24 Jan 2013 19:05:33 GMT
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Yes, if you read my post, I referred to that.

I did not know if this is new or not - I thought so.

My point was that this information does not relate directly to anything in Blender, so getting something to be the max size for a given bounding box in the materials spec is a tedious process of trial and error. I suppose I could use Netfabb, but since I do not know the algorithm for creating a printing BB this would still not be sufficient.

Subject: Re: Model Dimensions
Posted by [stop4stuff](#) on Thu, 24 Jan 2013 21:10:01 GMT
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All good, but why does the text need to be so big... I'm pretty sure most people who use the site are capable of reading the text no matter the size - personally, I feel that large text size is the same as the books used for young school children and is not needed for the extra scrolling involved because the text is so big, and to be blunt is quite demeaning for average adults.

Paul

Subject: Re: Model Dimensions
Posted by [mkroeker](#) on Fri, 25 Jan 2013 08:32:50 GMT
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So an object that has an AABB within the limits of a given material/printer will be rejected when the shapeways software finds some oblique OBB, e.g. oriented along the longest diagonal of the AABB, of smaller volume that violates the limits ?

Sounds more like a bug to me (missing constraints in the OBB minimizer). Has it always been that way ?? (Granted that it may only hurt in a few fringe cases where the AABB is barely within the limits and AABB and OBB volume are probably very similar, but it is certainly counter-intuitive and I do not think we get to see the OBB limits in netfabb et al.)

(Then an alternative solution for that poor heron might be not to scale him down, but to add some

silly sprue that sticks out
from his belly to derail the OBB calculation. Additional cost - a few cents, additional benefit - find
out who realizes that a bird
is not supposed to have a bellybutton)

Subject: Re: Model Dimensions
Posted by [AmLachDesigns](#) on Fri, 25 Jan 2013 13:00:28 GMT
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Good idea about the belly button! I was trying to find a pun, something about a heron not being a
naval bird, but to my great egret I could not find anything to fit the bill...

Subject: Re: Model Dimensions
Posted by [mkroeker](#) on Fri, 25 Jan 2013 13:36:46 GMT
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Another idea - develop that hero(n)ic statue along the lines of the old "never give up" cartoon

Subject: Re: Model Dimensions
Posted by [AmLachDesigns](#) on Fri, 08 Feb 2013 15:01:56 GMT
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Update: I got my heron done and printed in pwsf. Very pleased with the result. I originally intended
it for ceramic, but misread the materials requirements. Ho hum...

Back on the Bounding box topic, I have this model <http://www.shapeways.com/model/883954>

Original Bounds: Cm: 8.9 w x 0.5 d x 9.9 h

Oriented Bounds (used for determining printability): Cm: 8.4 w x 0.5 d x 10.0 h

The major surfaces are all horizontal or vertical depending on the orientation in the printer, but my
latest print had stepping on it which I could not understand, and certainly could not get explained
to me. However I have just realised that the extra width provided by the hanging loop gives scope
for tilting the whole piece in the printer some tiny amount, and judging by the above
measurements rotating it a bit.

Clever maths/algorithm, I suppose, but is it really necessary in this case, especially when it leaves me open to the dreaded stepping? Once again, has it always been this way or did the changes come in at the same time as the above noted changes?

So, back to your belly button idea, mkroeker - if you want surfaces of your model to be treated as true horizontals or verticals, it may be necessary to game this process by the judicious addition of ... extra bits.

Subject: Re: Model Dimensions
Posted by [mkroeker](#) on Fri, 08 Feb 2013 15:17:25 GMT
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Quote:I originally intended it for ceramic, but misread the materials requirements
You could try using a pwsf model to make a plaster mold for slipcasting (provided you find a place to do the firing of the greenware piece for you).

I do not think that the change in displayed bounding boxes within the customer-facing system is directly related to any changes in batch processing software behind the scenes, but there is probably an incentive to using automated software for closest packing, and automagic tilting of one of the objects in the build by just a few degrees may have been missed by the operator who checked the computed solution for plausibility

(EDIT: had not noticed the context switch from heron to heraldry - as it is about the red lion standard that is covered in at least two other threads already, no need to suggest contacting CS)

Subject: Re: Model Dimensions
Posted by [AmLachDesigns](#) on Fri, 08 Feb 2013 16:11:04 GMT
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You are right I have already let CS know about my concerns...

But in my defence I posted in this thread purely about the BB, in the Prints One Day ... thread to offer what I hoped was a constructive idea (ok I went off topic later) it was only in the Am I Being

too Picky that I was really whingeing uncontrollably.

I'll take the hint and turn down the volume.
