Subject: Scale issues from LightWave
Posted by philnolan3d on Mon, 10 Dec 2012 06:39:28 GMT
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LightWave uses real world scale, not units or something like some apps. So I made model model to be 7 inches tall and export as OBJ since Shapeways doesn't accept LWO for some reason. When I upload it Shapeways tells me that it's like 0.2" tall. I tried scaling it up by 1000% and uploaded again. Shapeways says it's 1.2" tall. How do I scale it so that it's the correct size? Thanks.

Subject: Re: Scale issues from LightWave
Posted by bartv on Mon, 10 Dec 2012 09:09:49 GMT
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Hi philnolan3d,

after selecting an .obj file, you can select the unit of measure (mm/cm/inch). From what I read in your description, you may have selected different size units when you uploaded?

Bart

File Attachments
1) Schermafbeelding 2012-12-10 om 10.08.47.png, downloaded 116 times

Subject: Re: Scale issues from LightWave
Posted by stop4stuff on Mon, 10 Dec 2012 12:01:35 GMT
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For checking measurements, wall thicknesses, volume etc, grab yourself a free copy of NetFabb Studio Basic - NetFabb is also good for error checking and repair.

Within NetFabb, you can convert units mm to in & back, you can also specifiy the measurements units as mm or in, Once you have your model in NetFabb and noted the measurements, scaling can be performed to get your model to the size you want.

Paul

Subject: Re: Scale issues from LightWave
Posted by philnolan3d on Mon, 10 Dec 2012 19:23:24 GMT
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Thanks for the tips, it had nothing to do with the drop down box I chose inches in the box. Each time that I tried. I finally got it close enough (I hope) by using another program first. I really shouldn't have to do that though.

Subject: Re: Scale issues from LightWave
Posted by Fredd on Mon, 10 Dec 2012 20:37:04 GMT
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When you uploaded you did not set an upload value so the Sw's default mm was used. So SW's printed the dimensions in mm. 7mm =..275 . Attach a simple test model in a post in lwo. I should be able to tell at a glance the workflow you need to get it ready to print. That odd result of your scaling by 1000 is worrisome.
If you ever upload one of the file formats that do not support scene data, you have to determine the true dimensions in basic units of the model. Netfabb is good for determining this, as Paul mentioned. Besides stl, it can open .obj files also.What Netfabb does is display model dimensions in basic units, besides other uses.

Here is a recent problem posted here, similar to yours posted similar to your problem.
A friend made a ring using scene data in mm . Wanted the outer diameter be 2.3cm(23mm) . So with all the measurements correct, he uploaded as a stl
set units to mm at SW. He never looked at the model's diameter dimension in basic , which was 2.3. So SW tried to print it at 2.3mm in diameter. Phail.

Several formats ignore scene data . The meshes basic unit dimensions are stored in the file which when you upload , you have to set the length of the basic unit for to get it printed the required size. bu 4x5x6 uploaded at Inches would result in a Inch 4 x 5 6 model getting printed.

In the case above, he fixed it by scaling the object by 10, getting a diameter of 23. Setting at upload the units to mm, result was a 23mm diameter ring which is the end result he wanted.

Subject: Re: Scale issues from LightWave

Posted by Volvofiel on Fri, 04 Jan 2013 09:52:51 GMT
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Hi, I use LightWave 7 and when I import using the scale of meters, it is exactly the size I made it in in LightWave.

Subject: Re: Scale issues from LightWave
Posted by philnolan3d on Fri, 04 Jan 2013 10:57:48 GMT
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Maybe it's time to dig up my old copy of LW. That's the version I started on back in 2002.

I actually have to scale the model by 4000%. Even that's slightly bigger but is close enough, it's probably more like 3998% or something. There are several of programs that don't read scale correctly from LightWave. 3ds max for example as well as some game engines. Blender and others read it fine though.

Subject: Re: Scale issues from LightWave
Posted by Fredd on Sat, 05 Jan 2013 02:51:38 GMT
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I have seen that scale value before. 1 meter = 39.37 inches.Try uploading at Meter next time.
I am guessing when you wrote you "Set height at 7inch ". LW set the value at at whatever percentage 7 inch is of a meter Which is pretty small.
If you want a cure, attach an object file in a post, include dimensions you designed/set. Just a primitive mesh will work, not a top secret design. That done, will get you excellent help.
Keith

Subject: Re: Scale issues from LightWave
Posted by philnolan3d on Sat, 05 Jan 2013 10:51:18 GMT
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Hmm. All I know is the CAD tools in LightWave say the model is (currently) 8.5002" tall. Everything LightWave does uses real world scale in English, Metric, or SI. Being American I have it set to English usually. If I switch to SI it's about 216mm.

Subject: Re: Scale issues from LightWave
Posted by Fredd on Sat, 05 Jan 2013 20:17:13 GMT
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Ok, 8.5002" = .21590 m. So the basic unit value is .21590. If you set unit measurement at INCH at upload, you get.a object printed at .2159". if you had set it to mm result is .2159 mm. Now set it to Meter. result is .2159 m = 8.502 " = 215.90mm/21.5cm.
Basic Unit Value is the key. In LW from your post buv is in meters.When you set up for Imperial units(a variable), the buv values are displayed in imperial units for precise modelling. If your file format doesn't contain scene data when you upload to SW, that is why you have to select what type of unit measure you want your buvs assigned for printing. A buv is just a numeral. When you assign an unit measurement at upload, its just multiplying it by the variable (distance per buv)
That is what is so useful about netfabb and meshlab. You can see the actual dimensions in buv values, and when at upload select the unit measurement type that corresponds to the measurements that your design was modeled.
The 39.37inch/m value multiplied by .21590m does result in 8.5002 inches

That is enough math for the day.:(

Keith

Subject: Re: Scale issues from LightWave
Posted by philnolan3d on Sat, 05 Jan 2013 23:31:51 GMT
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Huh. I've never heard of this basic unit value. I haven't seen it anywhere on the site. So basically set it to meters. I'm not sure I'd ever get why, but it sounds like that what I should be doing.

So I tested it. I uploaded a cube object that is 6.25" in LightWave and set Shapeways as Meters. Sure enough the object in Shapeways is 6.25". The prices still blow me away though, 6.25" cube with 1.1mm walls (and a big hole in one side) comes out to $192 for WSF.
http://www.shapeways.com/model/856765/6-25-quot-cube-test.ht ml

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