

---

Subject: Blender 2.5 - 1 unit = 100 cm?

Posted by [quano](#) on Sat, 29 Jan 2011 13:10:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I tried exporting a cube to x3d and then upload. The cube was the normal size of 2 blender units in all directions. The validation denied the model though, saying it was too large (200 cm).

This would suggest that 1 blender unit equals 100 cm, and not 1 mm, which the documentation says.

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?

Posted by [virtox](#) on Sat, 29 Jan 2011 13:51:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Looks like it, for x3d as far as I can tell, 1 unit is 1 meter.

The documentation deals with an example file using an STL which is in itself dimension less. Here I expect, units are copied one to one from blender to the file.

Only for STL does the upload interface require you to set units, in that case millimeters, as assumed for designing in blender to shapeways/stl.

Found x3d mentioned here too :

<http://blenderartists.org/forum/showthread.php?t=161100&page=1>

Cheers,

Stijn

Ps. this post is just to clarify and for any future searchers.

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?

Posted by [bartv](#) on Wed, 02 Feb 2011 09:15:39 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Stijn is right: X3D and VRML treat 1 unit as 1 meter. If you use monochrome models, I find it much easier to export to STL and use 1 unit as 1 millimeter.

You'll also avoid some spurious upload errors in this way: in rare cases the numerical accuracy will 'weld' close-by vertices together on models that use meters as their site unit.

Bart

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?  
Posted by [speedyexe](#) on Wed, 09 Nov 2011 20:27:09 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

one units of blender in program is in scale?

x: 1,000

y: 1,000

z: 1,000

or one unit is 0,001 ???

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?  
Posted by [pfeiffer stylez](#) on Thu, 10 Nov 2011 00:06:51 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

speedyexe wrote on Wed, 09 November 2011 20:27:one units of blender in program is in scale?  
(...)

Scale is scale.

1 "blender unit" & a scale of 2.000 = 2 "blender units"

5 "blender units" & a scale of 2.000 = 10 "blender units"

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?  
Posted by [christopherlowe](#) on Thu, 10 Nov 2011 06:12:47 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

2.5 and above you can set the units to whatever you want...this is in the scene tab. what i do is set it to metric and the scale to 1- then scale the object to whatever i am making it to... but you have to remember to "apply scale" to all of the objects before exporting. then when i am uploading at SW i use stl and set it to meters... works from the get go.

---

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?

---

Posted by [speedyexe](#) on Thu, 10 Nov 2011 07:29:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

sory for maybe obvious question but after seting up to metric how i can mesure for ex. my box i want to make box in about 5mm of every edge... and i have no idea how to scale the metrics leave it 1.000 or make it 0.001 ?

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?

Posted by [Fredd](#) on Sun, 27 Nov 2011 04:26:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Leave it in blender units. when you export to STL set as mm. That tells the program you are exporting it to the dimensions of a basic length of a grids edge length. So just create a cube of width 5,length 5, and height 5 in blender units.

When you export as mm, dimensions will be 5mmx5mmx5mm.

---

Subject: Re: Blender 2.5 - 1 unit = 100 cm?

Posted by [christopherlowe](#) on Sun, 27 Nov 2011 05:25:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

if you are going with what i said then you want it at 1.0. to figure out the size of an object in blender, after you have set the proper scale, blender will tell you on the information panel... if you are looking in at the 3d there will be a plus sign in the top right corner of the 3d area... hit that and a panel will appear telling you what you are looking for... including scale factor of the part selected and rotation and translation... there is other things as well but this is what you are looking for.

---