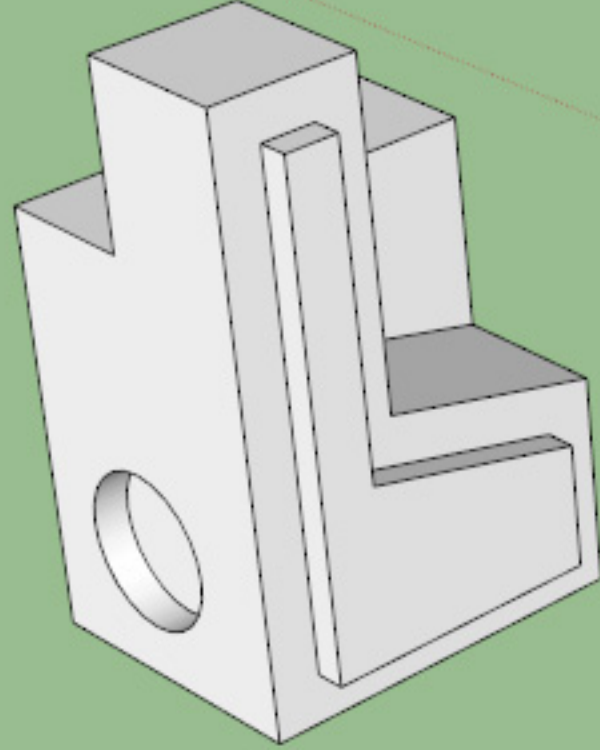


1. create your model



Entity Info

No Selection

Soften Edges

Angle between normals:

20.0 degrees

☒ Smooth normals ☐ Soften coplanar

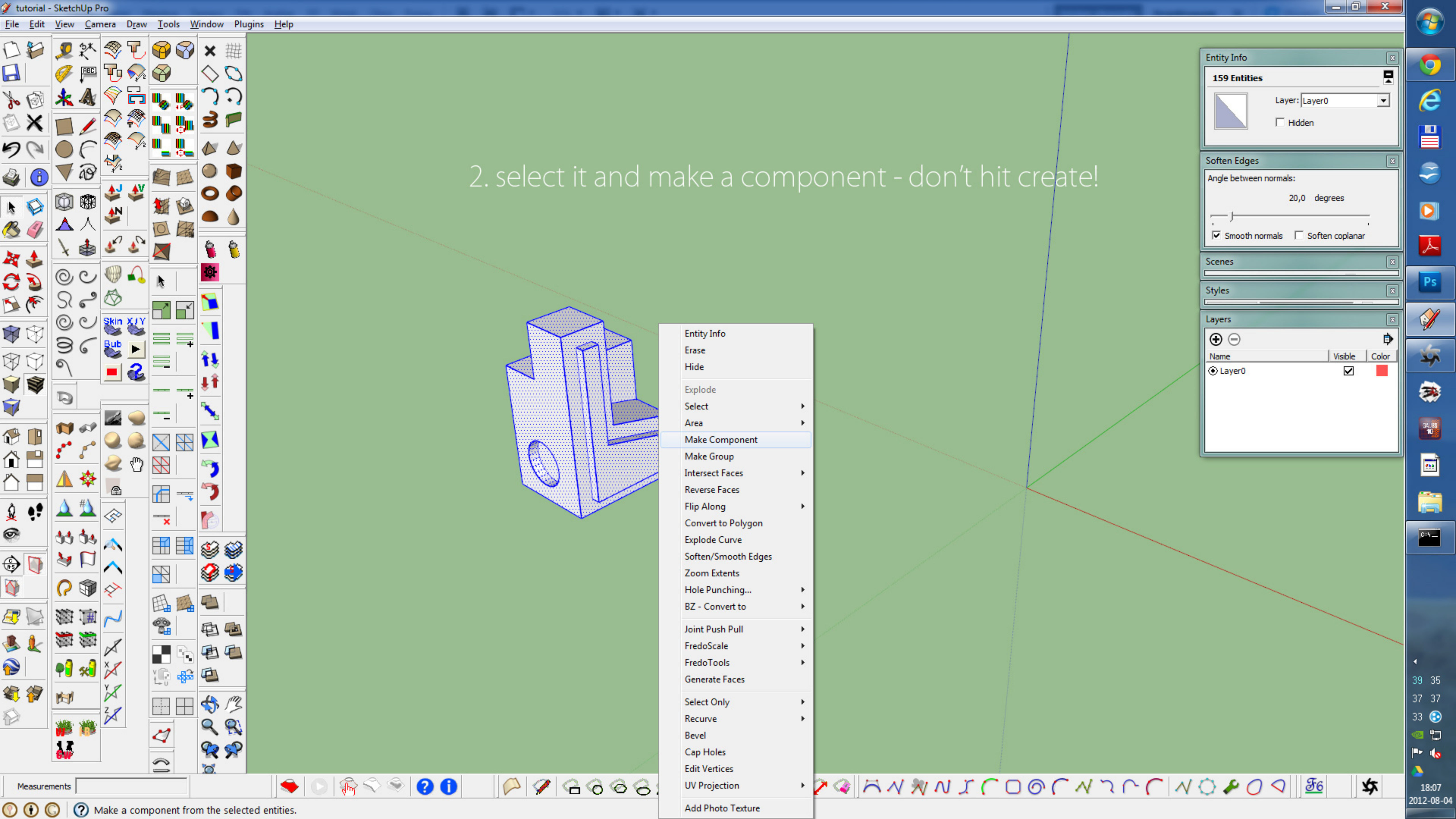
Scenes

Styles

Layers

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	Red






2. select it and make a component - don't hit create!

- Entity Info
- Erase
- Hide
- Explode
- Select
- Area
- Make Component
- Make Group
- Intersect Faces
- Reverse Faces
- Flip Along
- Convert to Polygon
- Explode Curve
- Soften/Smooth Edges
- Zoom Extents
- Hole Punching...
- BZ - Convert to
- Joint Push Pull
- FredoScale
- FredoTools
- Generate Faces
- Select Only
- Recurve
- Bevel
- Cap Holes
- Edit Vertices
- UV Projection
- Add Photo Texture

**Entity Info**

159 Entities

 Layer: Layer0

☐ Hidden

**Soften Edges**

Angle between normals:

20,0 degrees

☒ Smooth normals ☐ Soften coplanar

**Scenes**

**Styles**

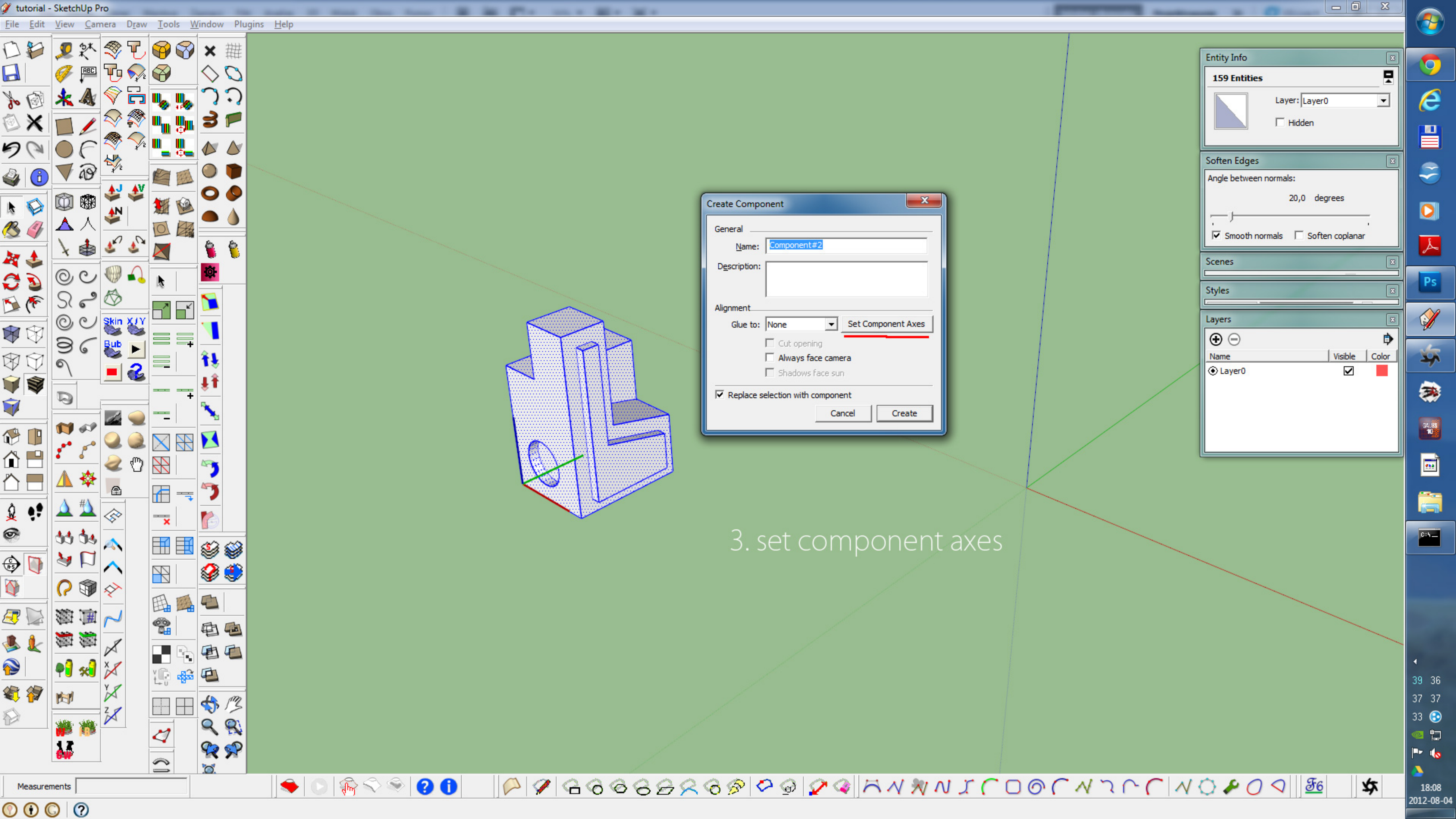
**Layers**

+

-

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	<div></div>





Create Component

General

Name:

Description:

Alignment

Glue to:

☐ Cut opening

☐ Always face camera

☐ Shadows face sun

☒ Replace selection with component

Entity Info

159 Entities

Layer:

☐ Hidden

Soften Edges

Angle between normals:

20,0 degrees

☒ Smooth normals ☐ Soften coplanar

Scenes

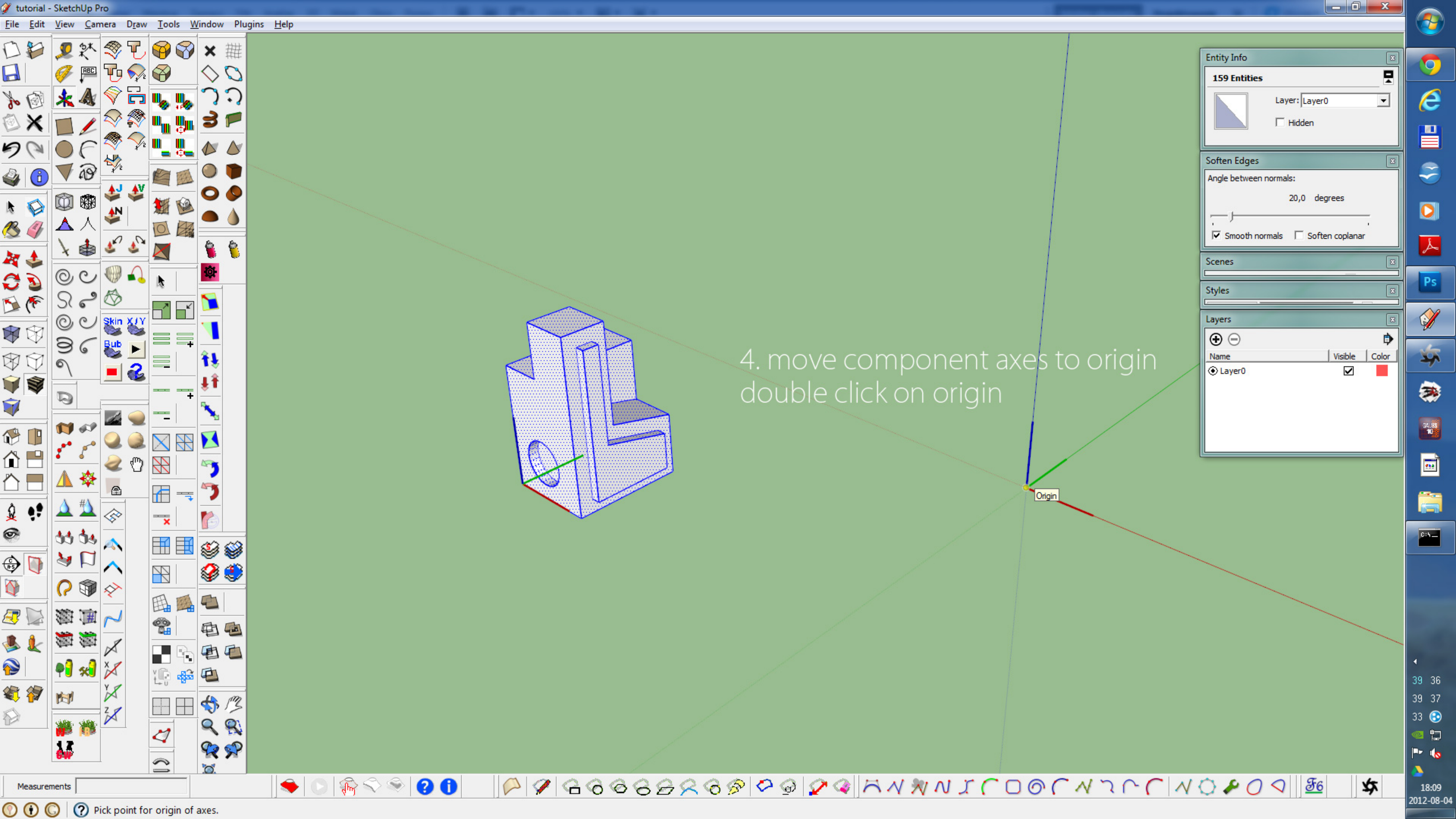
Styles

Layers

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	<input type="text" value="Red"/>

3. set component axes





4. move component axes to origin  
double click on origin

Entity Info

159 Entities

Layer: Layer0

☐ Hidden

Soften Edges

Angle between normals:

20,0 degrees

☒ Smooth normals ☐ Soften coplanar

Scenes

Styles

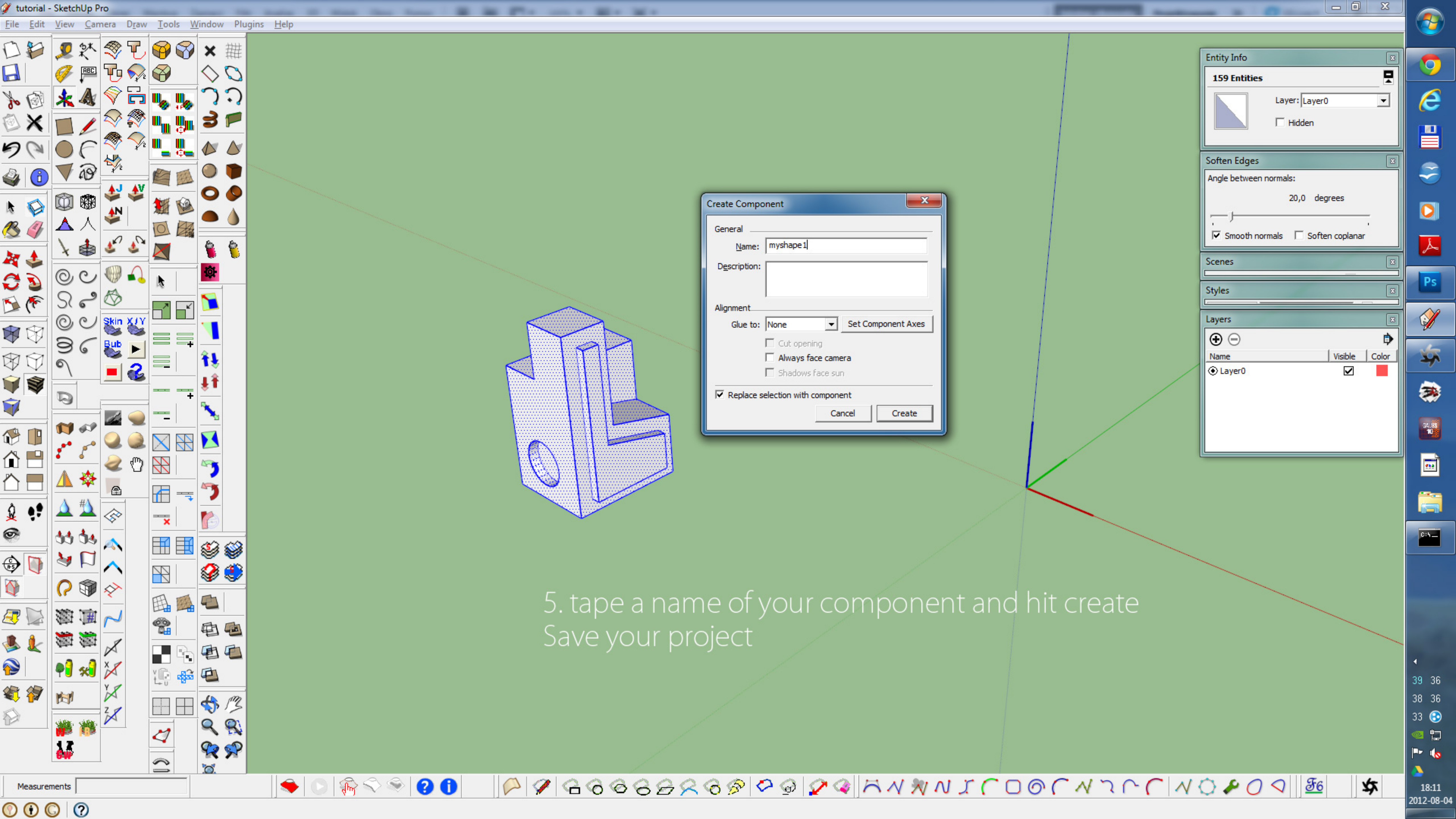
Layers

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	<div></div>

Measurements

Pick point for origin of axes.





Create Component

General

Name: myshape1

Description:

Alignment

Glue to: None Set Component Axes

☐ Cut opening

☐ Always face camera

☐ Shadows face sun

☒ Replace selection with component

Cancel Create

Entity Info

159 Entities

Layer: Layer0

☐ Hidden

Soften Edges

Angle between normals:

20,0 degrees

☒ Smooth normals ☐ Soften coplanar

Scenes

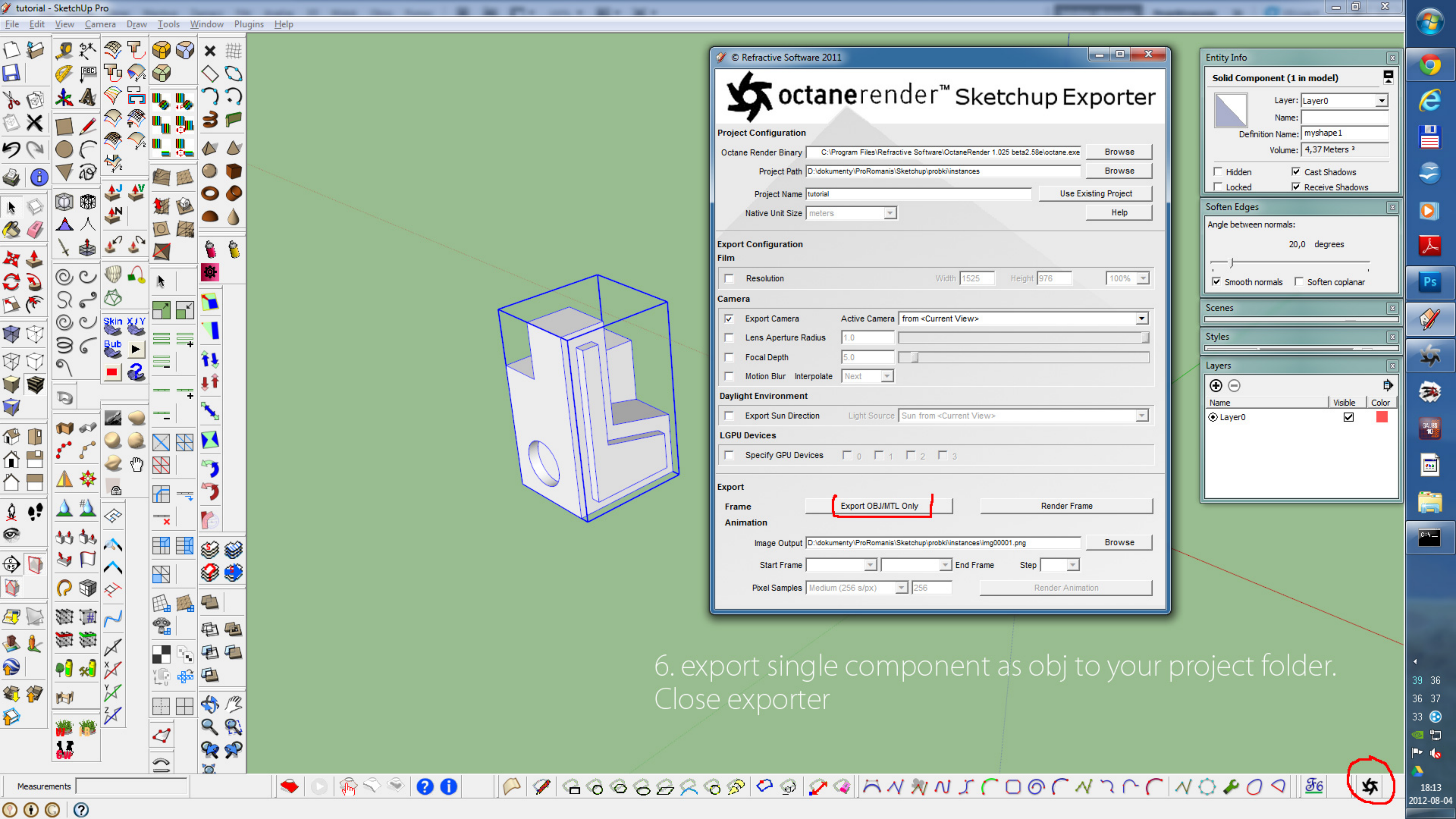
Styles

Layers

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	Red

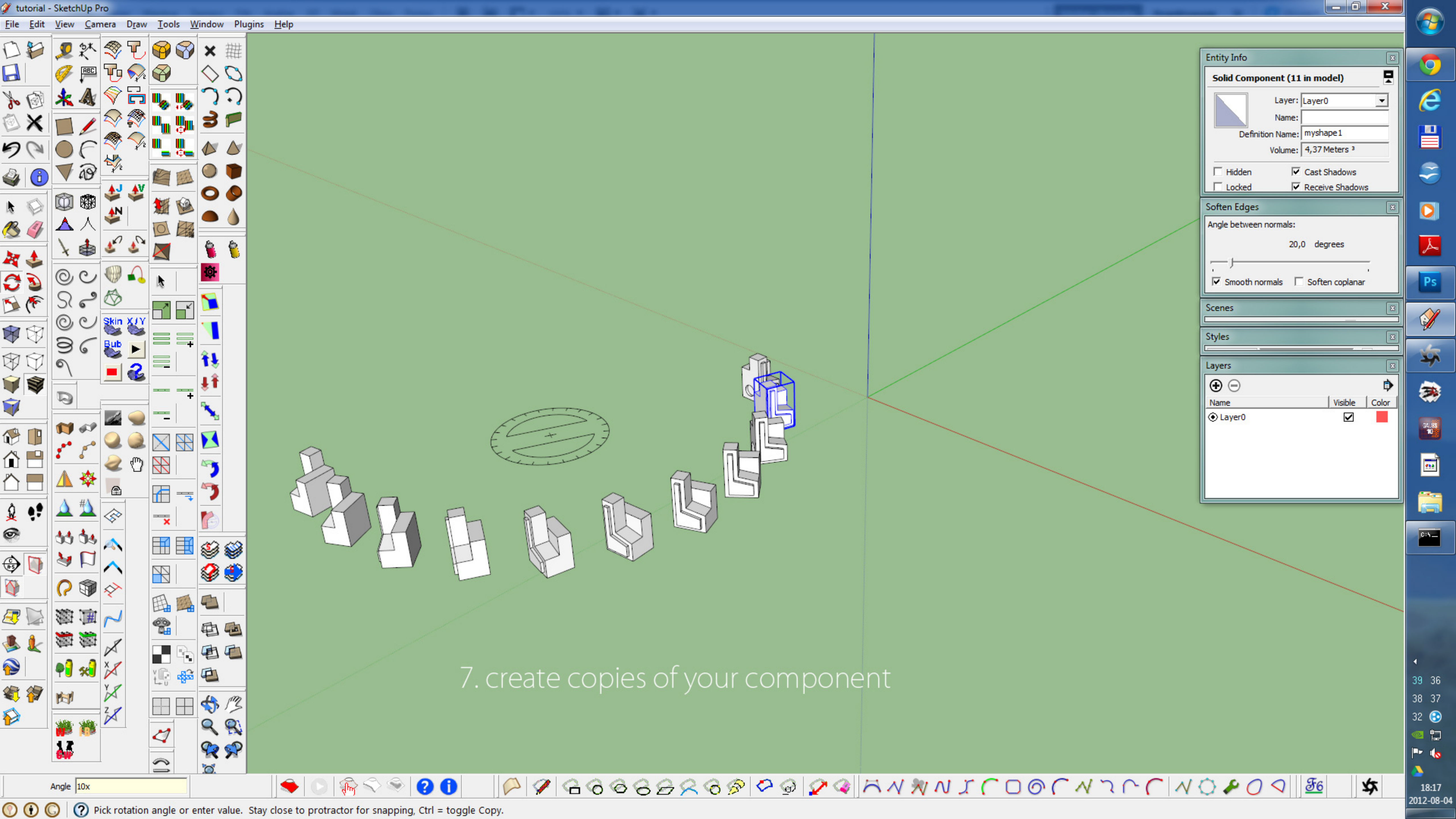
5. tape a name of your component and hit create  
Save your project





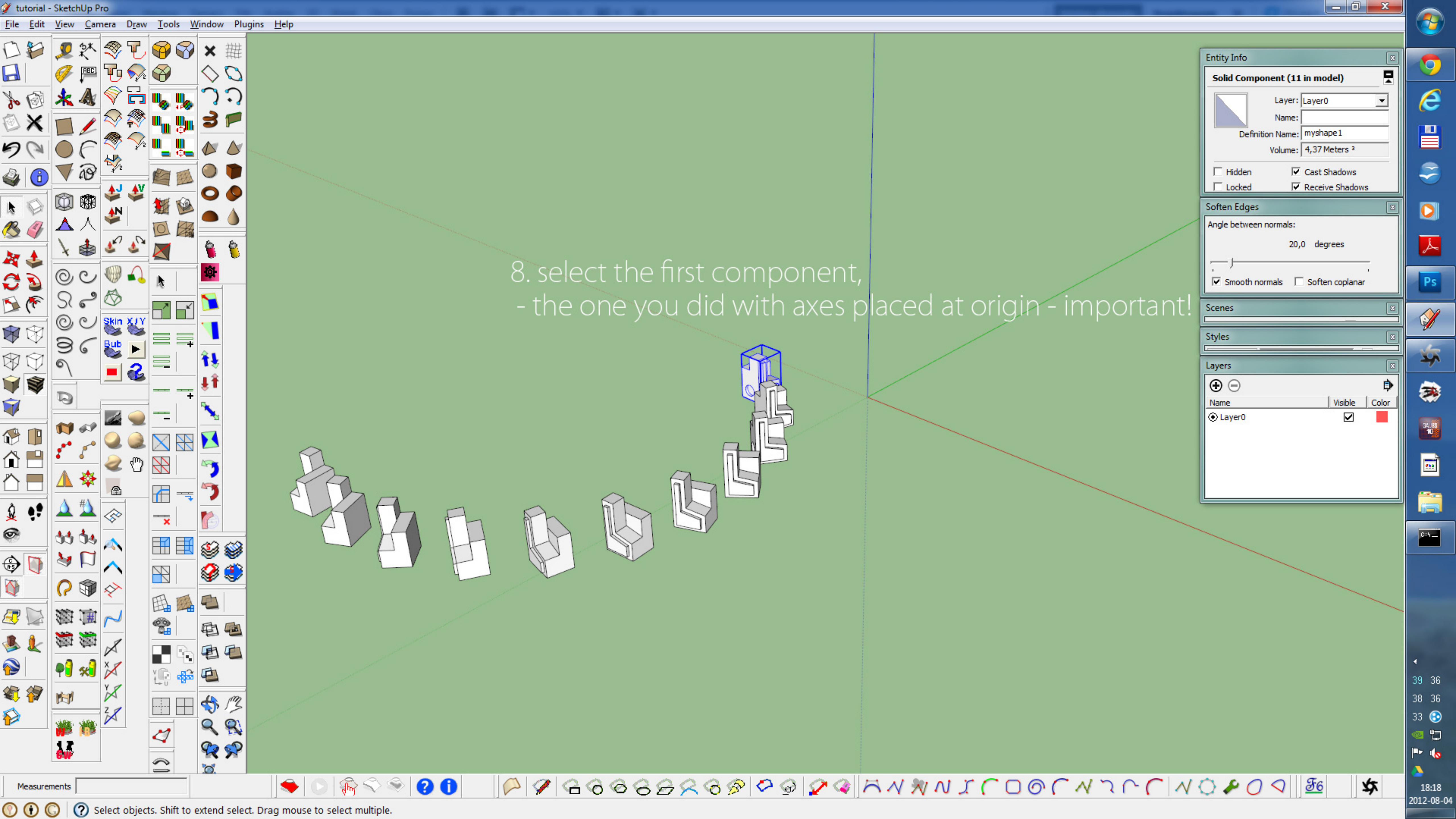
6. export single component as obj to your project folder.  
Close exporter





7. create copies of your component



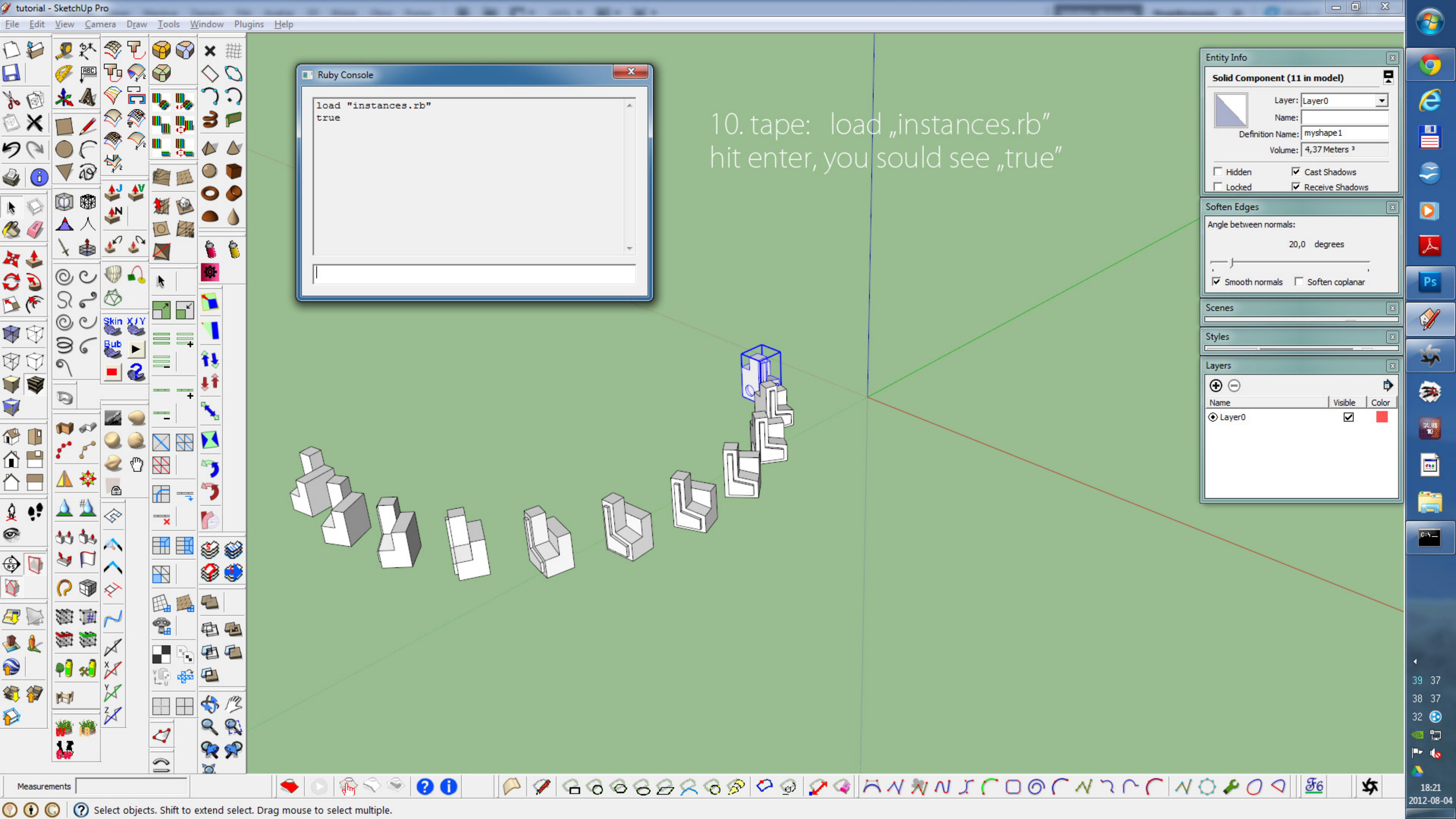


8. select the first component,  
- the one you did with axes placed at origin - important!









```
load "instances.rb"
true
```

10. tape: load „instances.rb“  
hit enter, you could see „true“

**Entity Info**

**Solid Component (11 in model)**

Layer: Layer0  
Name:   
Definition Name: myshape1  
Volume: 4,37 Meters³

☐ Hidden ☒ Cast Shadows  
☐ Locked ☒ Receive Shadows

**Soften Edges**

Angle between normals:  
20,0 degrees  
☒ Smooth normals ☐ Soften coplanar

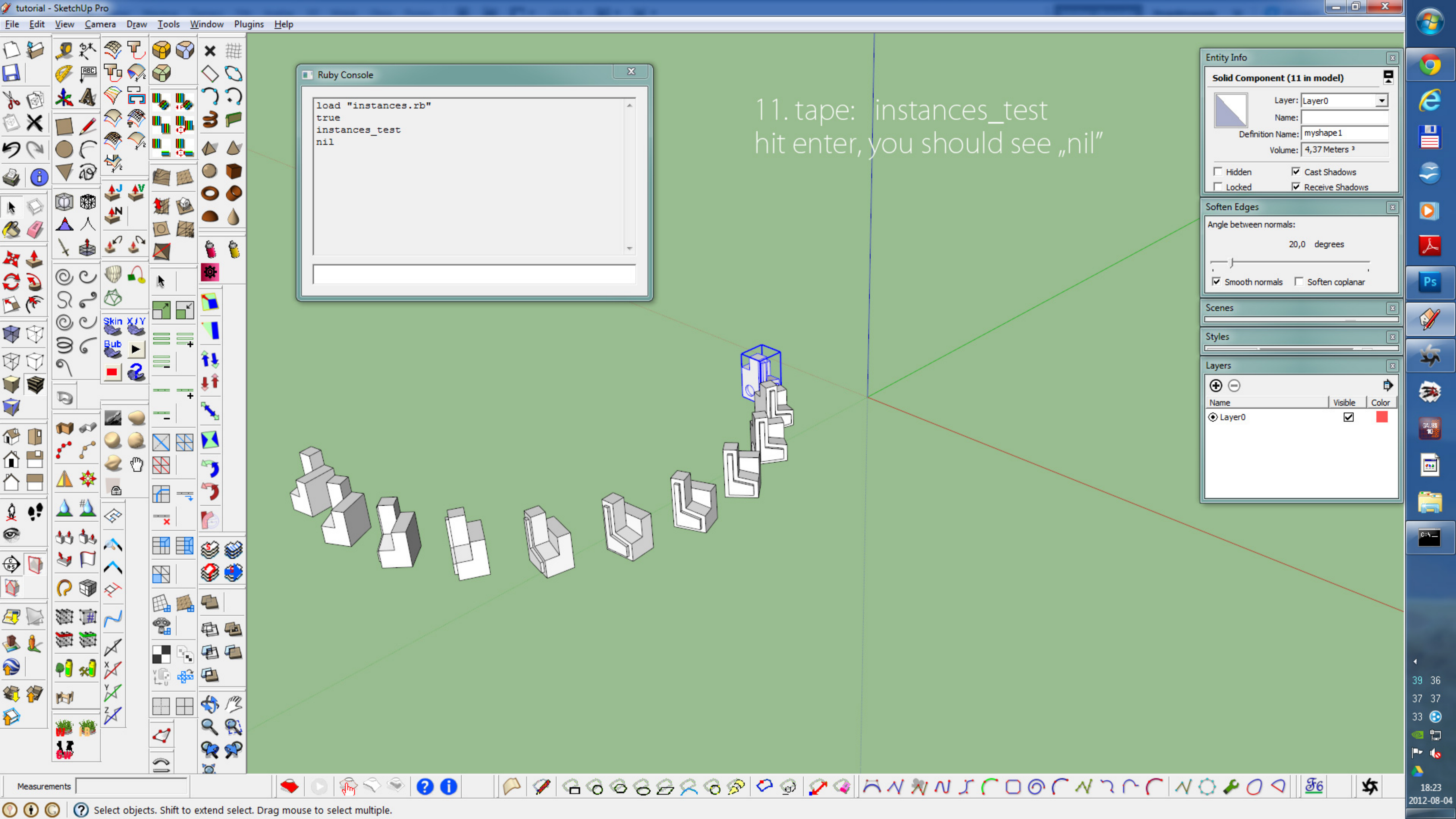
**Scenes**

**Styles**

**Layers**

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	<div></div>





```
load "instances.rb"
true
instances_test
nil
```

11. tape: instances\_test  
hit enter, you should see „nil“

**Entity Info**

**Solid Component (11 in model)**

Layer: Layer0  
Name:   
Definition Name: myshape1  
Volume: 4,37 Meters³

☐ Hidden ☒ Cast Shadows  
☐ Locked ☒ Receive Shadows

**Soften Edges**

Angle between normals:  
20,0 degrees  
☒ Smooth normals ☐ Soften coplanar

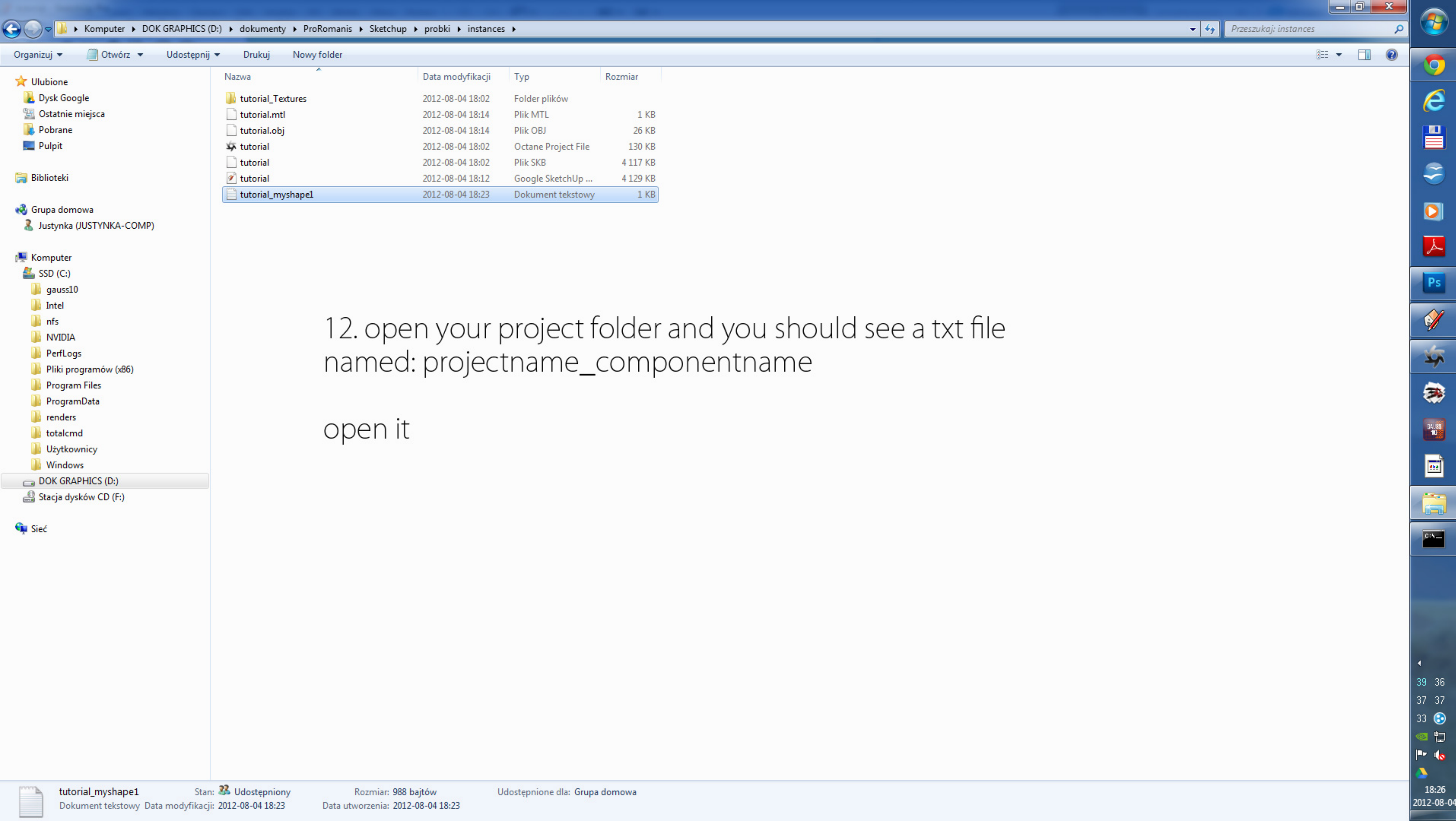
**Scenes**

**Styles**

**Layers**

Name	Visible	Color
Layer0	<input checked="" type="checkbox"/>	<div></div>





12. open your project folder and you should see a txt file  
named: projectname\_componentname

open it

tutorial\_myshape1

Dokument tekstowy Data modyfikacji: 2012-08-04 18:23

Stan: Udostępniony

Rozmiar: 988 bajtów

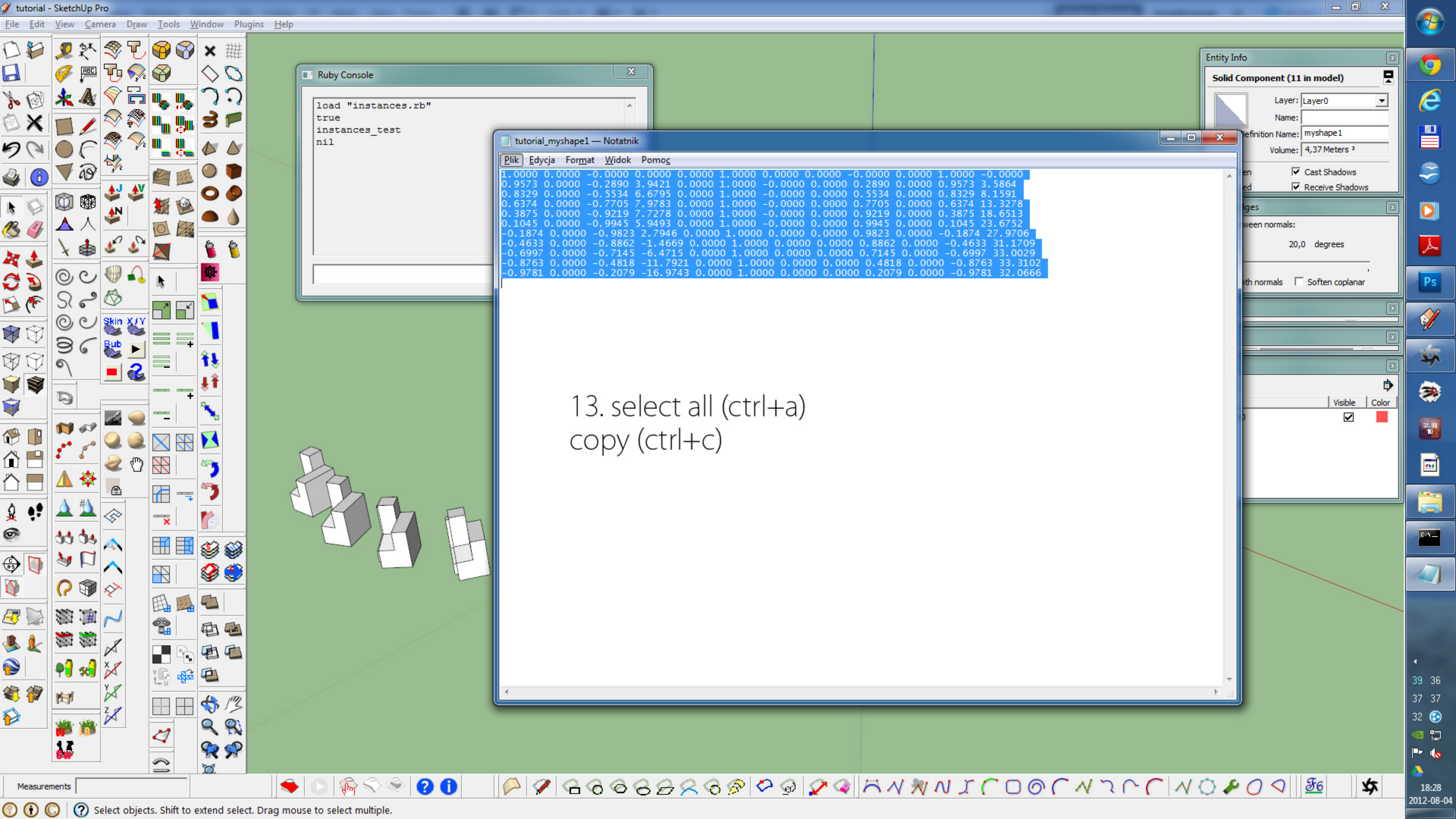
Data utworzenia: 2012-08-04 18:23

Udostępnione dla: Grupa domowa

18:26

2012-08-04



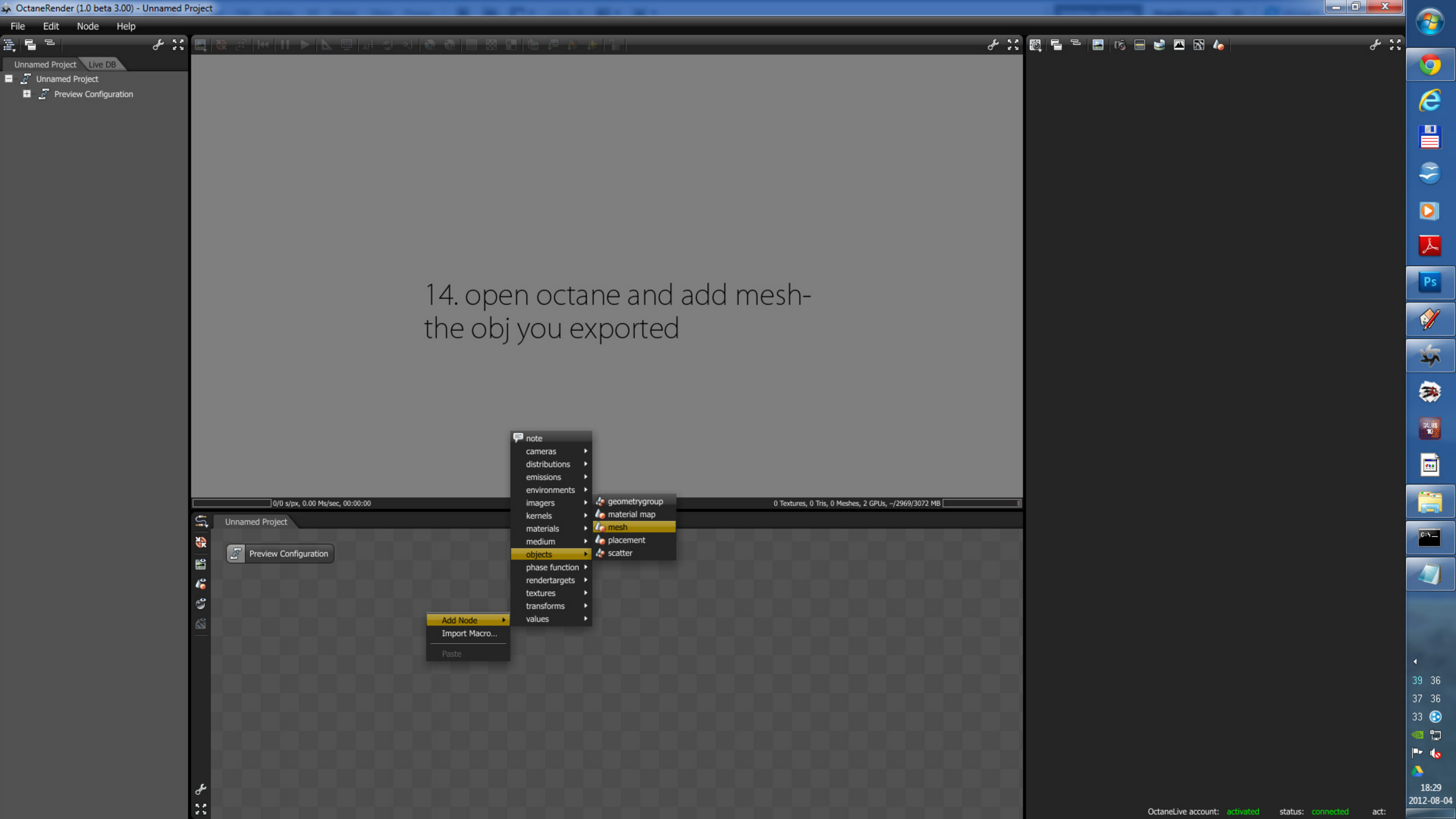


```
load "instances.rb"
true
instances_test
nil
```

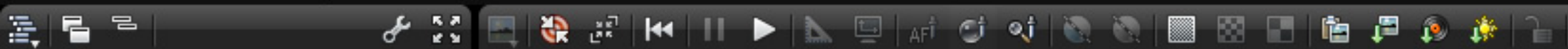
13. select all (ctrl+a)  
copy (ctrl+c)

1.0000	0.0000	-0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	-0.0000	0.0000	1.0000	-0.0000
0.9573	0.0000	-0.2890	3.9421	0.0000	1.0000	-0.0000	0.0000	0.2890	0.0000	0.9573	3.5864
0.8329	0.0000	-0.5534	6.6795	0.0000	1.0000	-0.0000	0.0000	0.5534	0.0000	0.8329	8.1591
0.6374	0.0000	-0.7705	7.9783	0.0000	1.0000	-0.0000	0.0000	0.7705	0.0000	0.6374	13.3278
0.3875	0.0000	-0.9219	7.7278	0.0000	1.0000	-0.0000	0.0000	0.9219	0.0000	0.3875	18.6513
0.1045	0.0000	-0.9945	5.9493	0.0000	1.0000	-0.0000	0.0000	0.9945	0.0000	0.1045	23.6752
-0.1874	0.0000	-0.9823	2.7946	0.0000	1.0000	0.0000	0.0000	0.9823	0.0000	-0.1874	27.9706
-0.4633	0.0000	-0.8862	-1.4669	0.0000	1.0000	0.0000	0.0000	0.8862	0.0000	-0.4633	31.1709
-0.6997	0.0000	-0.7145	-6.4715	0.0000	1.0000	0.0000	0.0000	0.7145	0.0000	-0.6997	33.0029
-0.8763	0.0000	-0.4818	-11.7921	0.0000	1.0000	0.0000	0.0000	0.4818	0.0000	-0.8763	33.3102
-0.9781	0.0000	-0.2079	-16.9743	0.0000	1.0000	0.0000	0.0000	0.2079	0.0000	-0.9781	32.0666



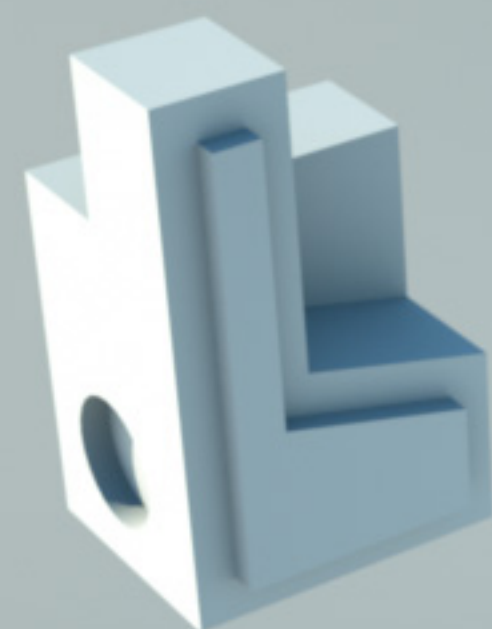






Unnamed Project Live DB

- Unnamed Project
- Preview Configuration
- tutorial.obj



15. add scatter node

3907/16000 s/px, 218.27 Ms/sec, 00:00:14/00:00:57

Unnamed Project

Preview Configuration

tutorial.obj

- note
- cameras
- distributions
- emissions
- environments
- imagers
- kernels
- materials
- medium
- objects
  - geometrygroup
  - material map
  - mesh
  - placement
  - scatter
- phase function
- rendertargets
- textures
- transforms
- values

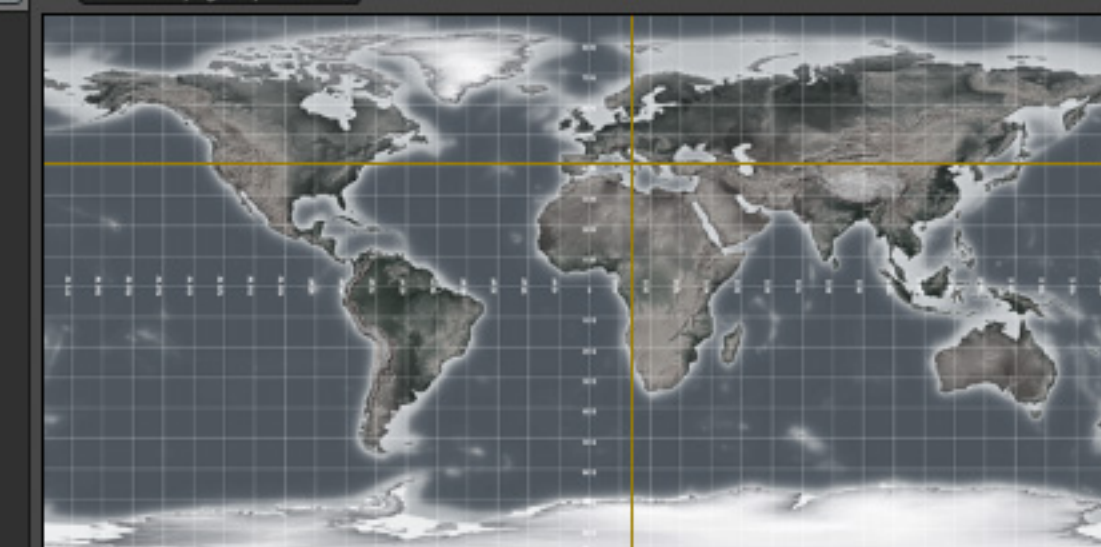
- Add Node
- Import Macro...
- Paste

0 Textures, 149 Tris, 1 Meshes, 2 GPUs, 15.0/2512/3072 MB



daylight Mesh Preview Environment

float3daylightsystem sundir



- float longitude 14.0488
- float latitude 40.5882
- int day 1
- int month 3
- int gmtoffset 0
- float hour 14.5000
- float turbidity 2.2000
- float power 1.0000
- float northoffset 0.0000

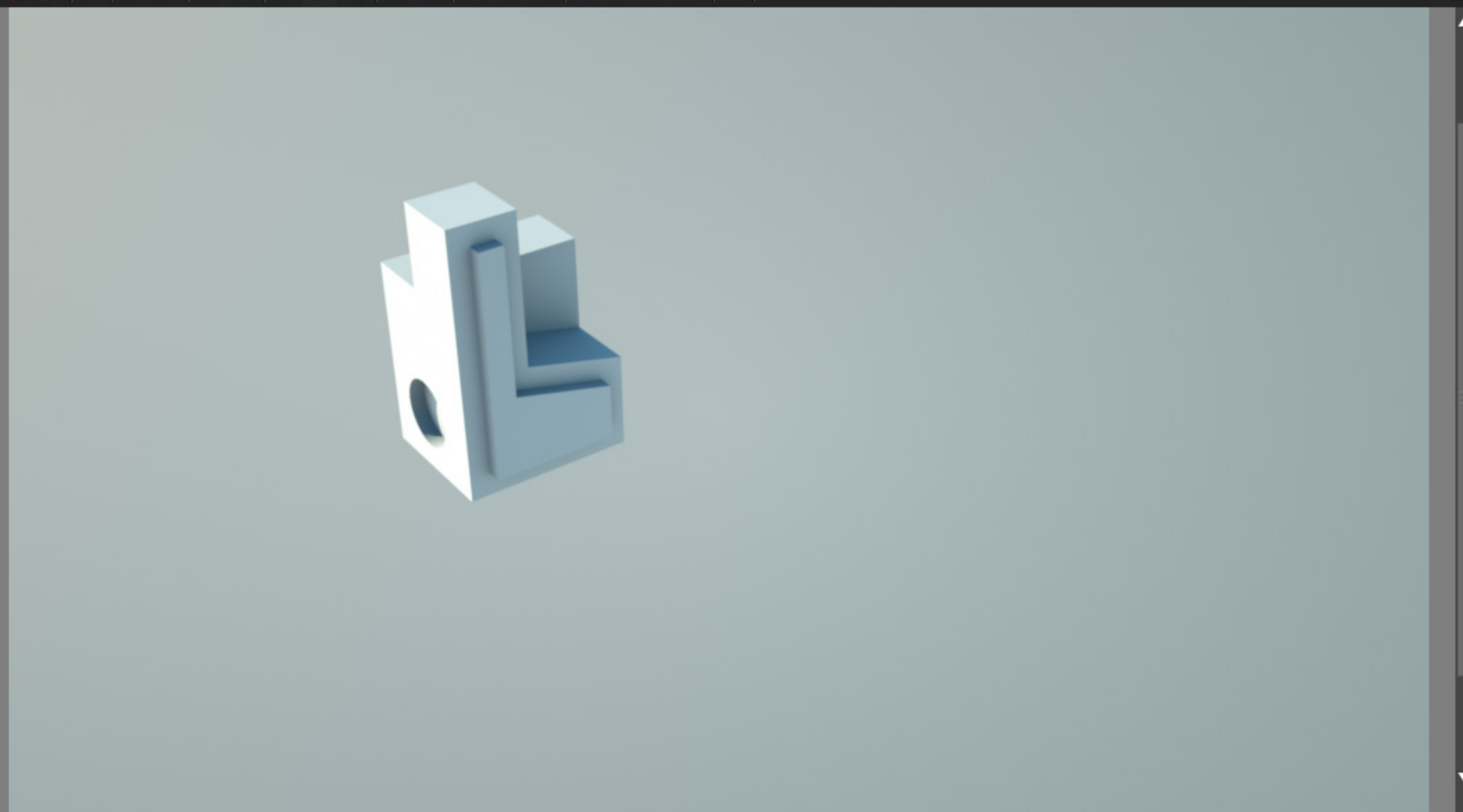






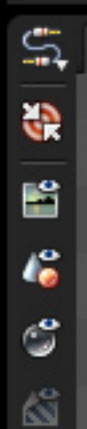
Unnamed Project Live DB

- Unnamed Project
  - Preview Configuration
  - tutorial.obj
  - Scatter



14201/16000 s/px, 218.99 Ms/sec, 00:00:51/00:00:57

0 Textures, 149 Tris, 1 Meshes, 2 GPUs, 15.0/2513/3072 MB



Unnamed Project

Preview Configuration

tutorial.obj

Scatter



scatter Scatter

No file.

```
1.0000 0.0000 -0.0000 0.0000 0.0000 1.0000 0.0000 0.0000 -0.0000 0.0000
1.0000 -0.0000
0.9573 0.0000 -0.2890 3.9421 0.0000 1.0000 -0.0000 0.0000 0.2890 0.0000
0.9573 3.5864
0.8329 0.0000 -0.5534 6.6795 0.0000 1.0000 -0.0000 0.0000 0.5534 0.0000
0.8329 8.1591
0.6374 0.0000 -0.7705 7.9783 0.0000 1.0000 -0.0000 0.0000 0.7705 0.0000
0.6374 13.3278
```

Update

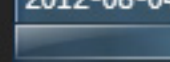
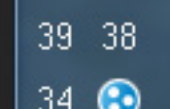
0 transforms



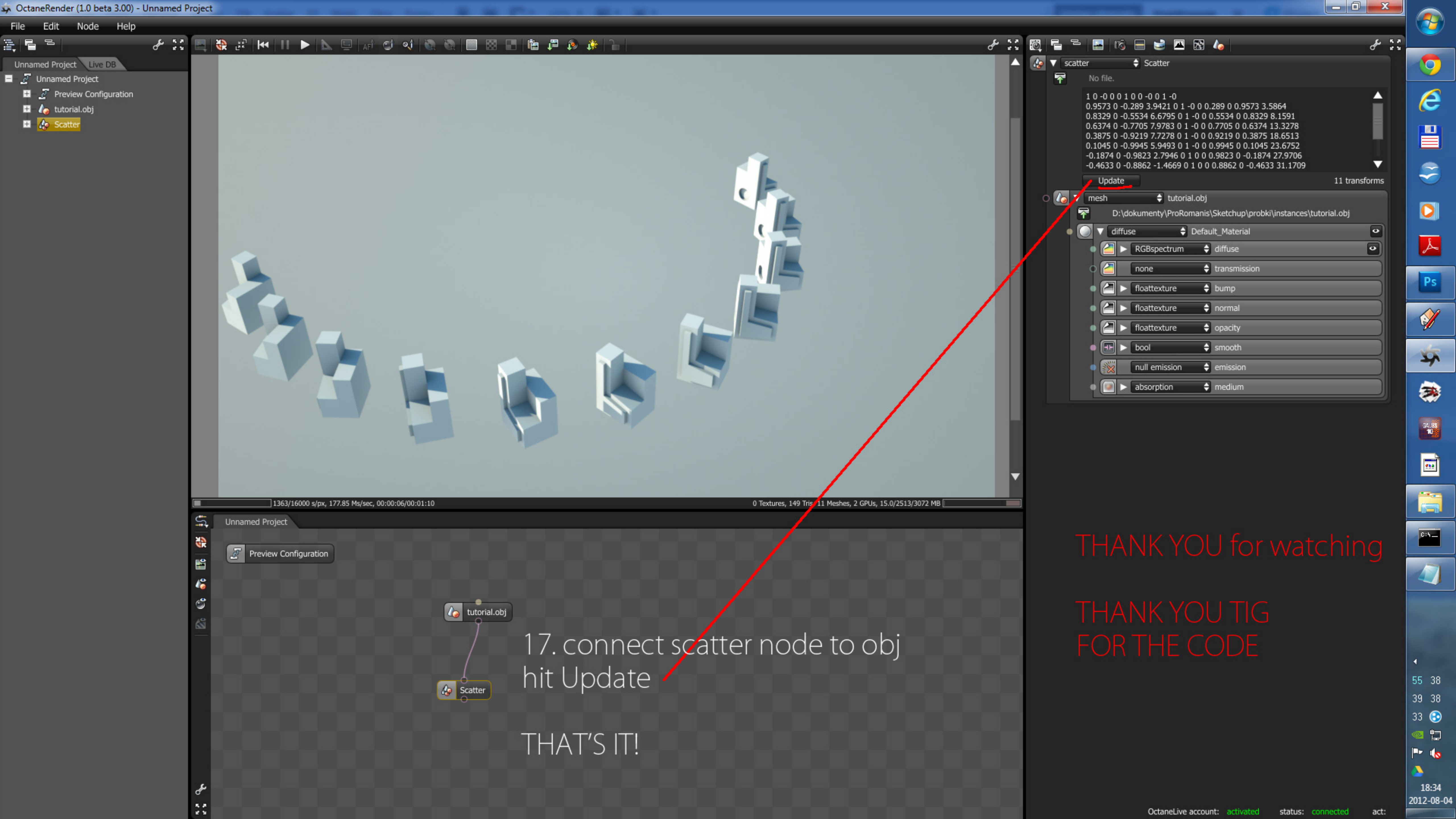
none

geometry

16. paste (ctrl+v) values  
from txt file into  
scatter window







THANK YOU for watching

THANK YOU TIG  
FOR THE CODE

17. connect scatter node to obj  
hit Update

THAT'S IT!