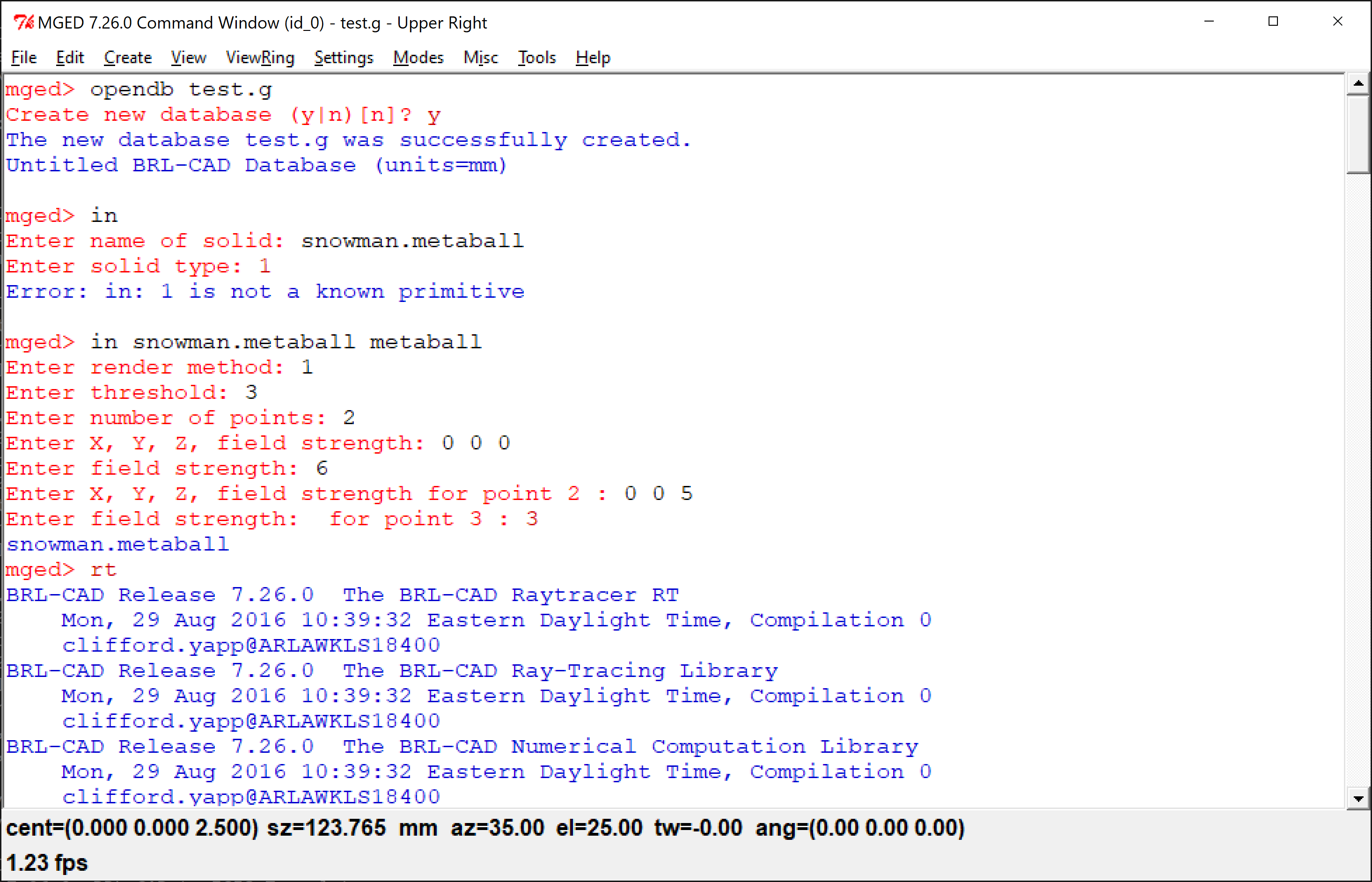
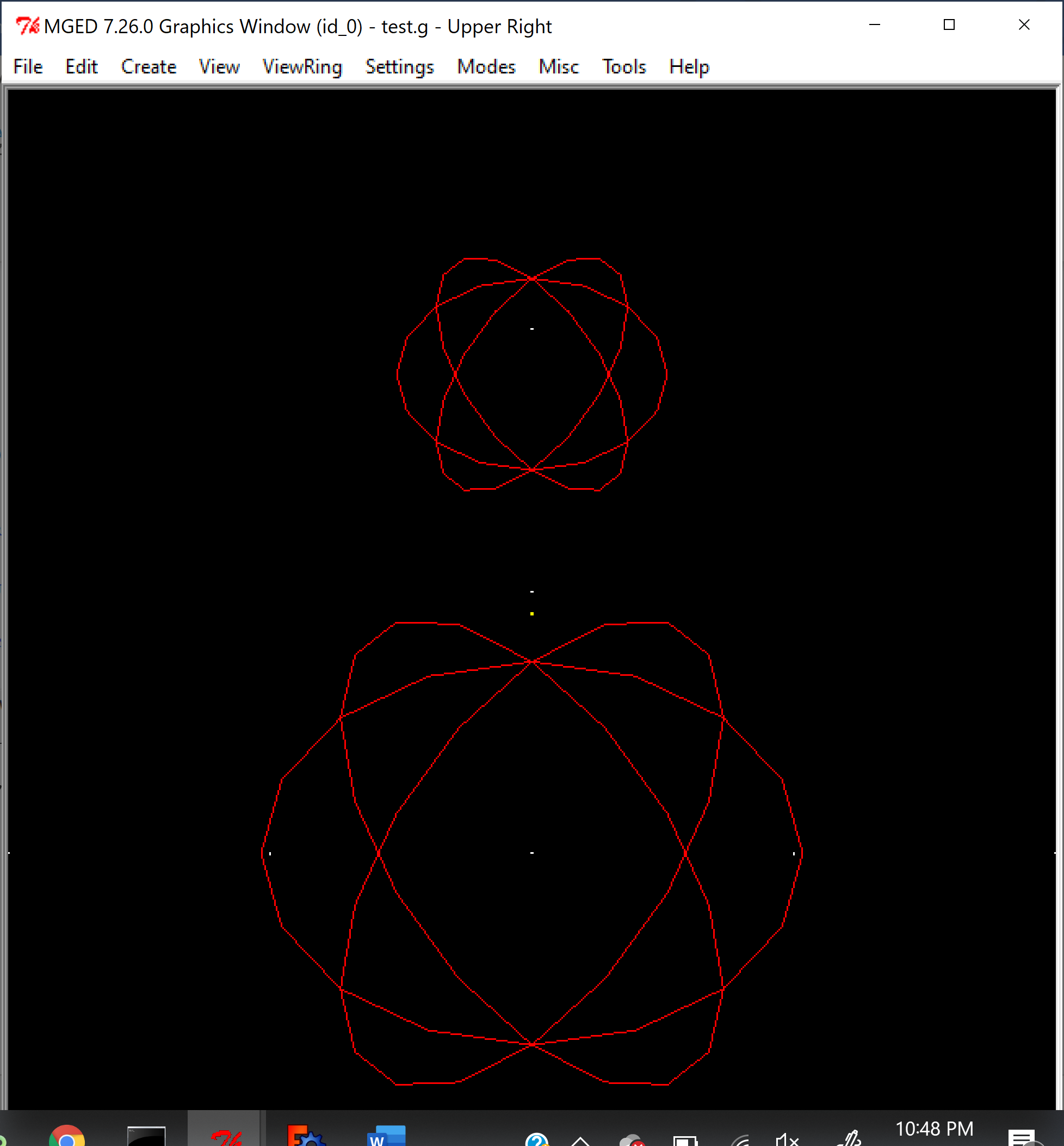
# **Tutorial: Import BRL-CAD model to FreeCAD**

**Step 1:** Open BRL-CAD by clicking on MGED. In command window, create a database by using the command ***opendb test.g***. Choose default value of Y when asked to confirm if you want to create a new database.

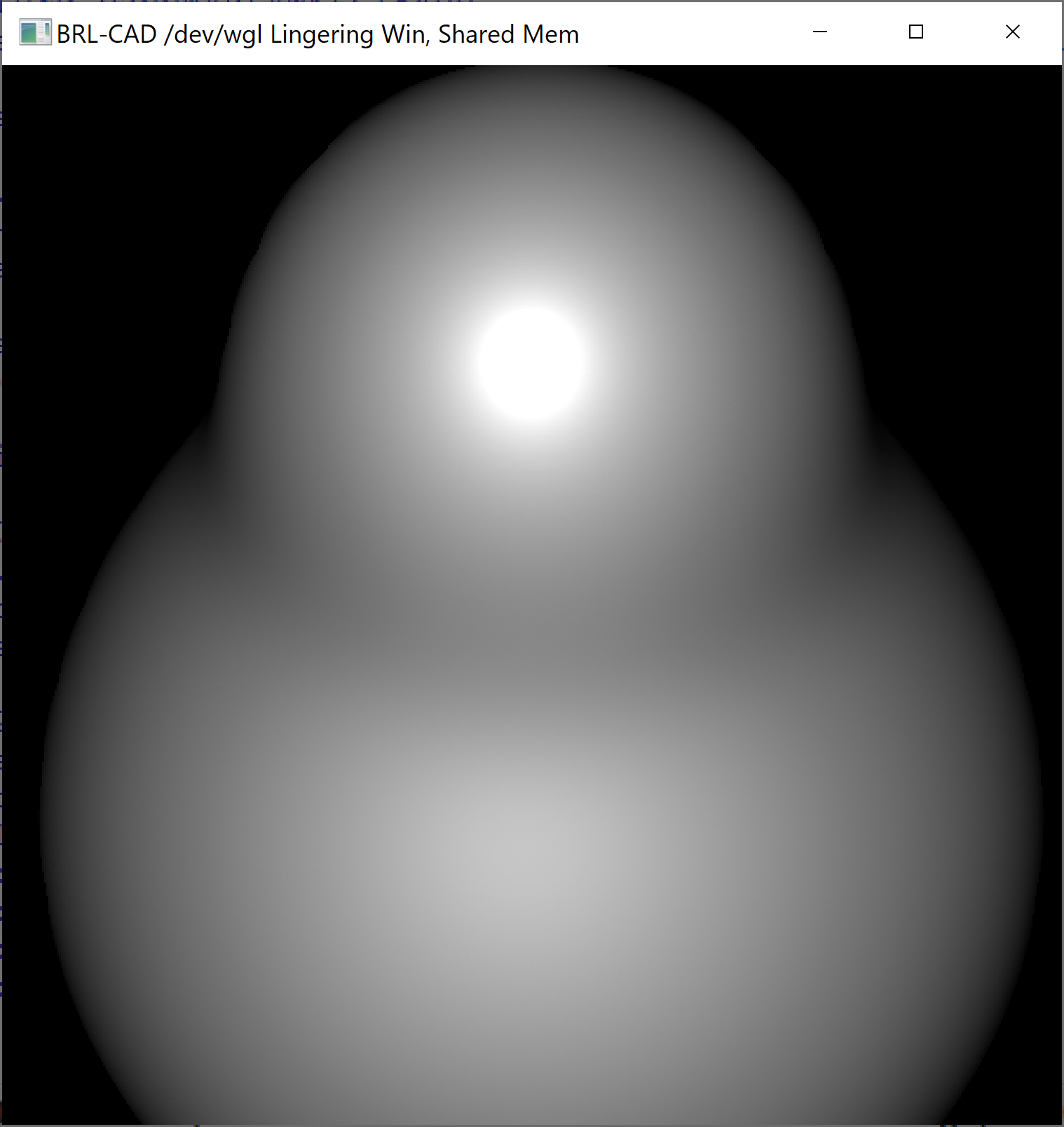
**Step 2:** To create a model, please enter ***in*** and enter. MGED will ask for type of object and its attributes interactively. For this tutorial, I would use one of the primitive types called ***metaball***. I would name my object to be ***snowman.metaball***. Then entered type render method (1 for Isopotential rendering), number of points (2 for number of balls in meatball), coordinates for two balls ((0 0 0), (0 0 5)), and field strength for each of balls in meatball (6, 3), and threshold value (of 3). This will generate a snowman figure with two balls (one for head and larger one for body).



**Snowman.metaball** model is rendered in MGED Graphics Window as shown below:



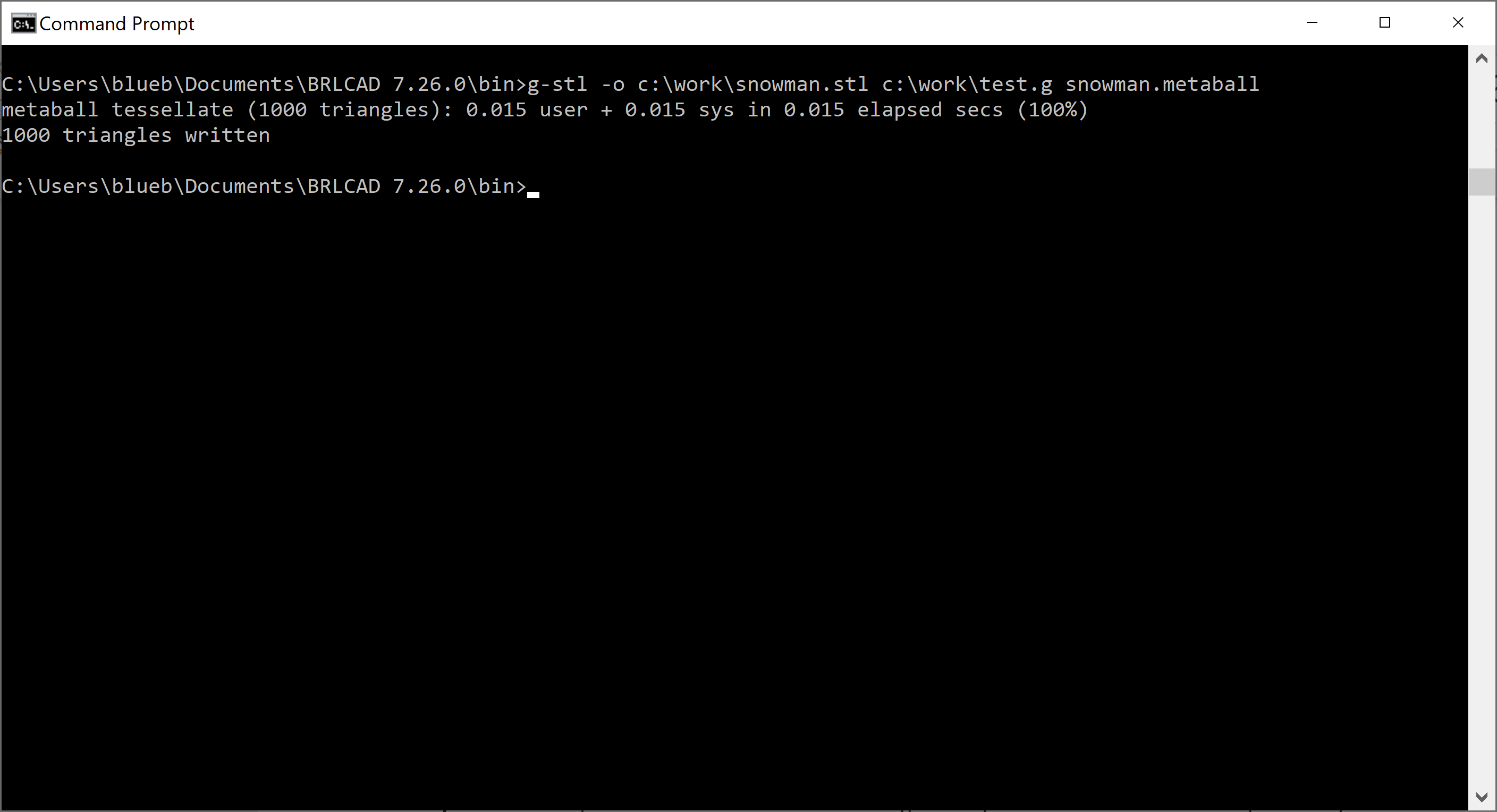
**Step 3:** Once model ***snowman.metaball*** is created, please enter ***rt*** to raytrace the model. ***Snowman.metaball*** is displayed as shown below:



**Step 4:** Now to export the model into a format recognized by AutoCAD. AutoCAD can import many formats and I have tried with STL format. I had entered the following command to convert into STL format:

*> g-stl -o c:\work\snowman.stl c:\work\test.g snowman.metaball*

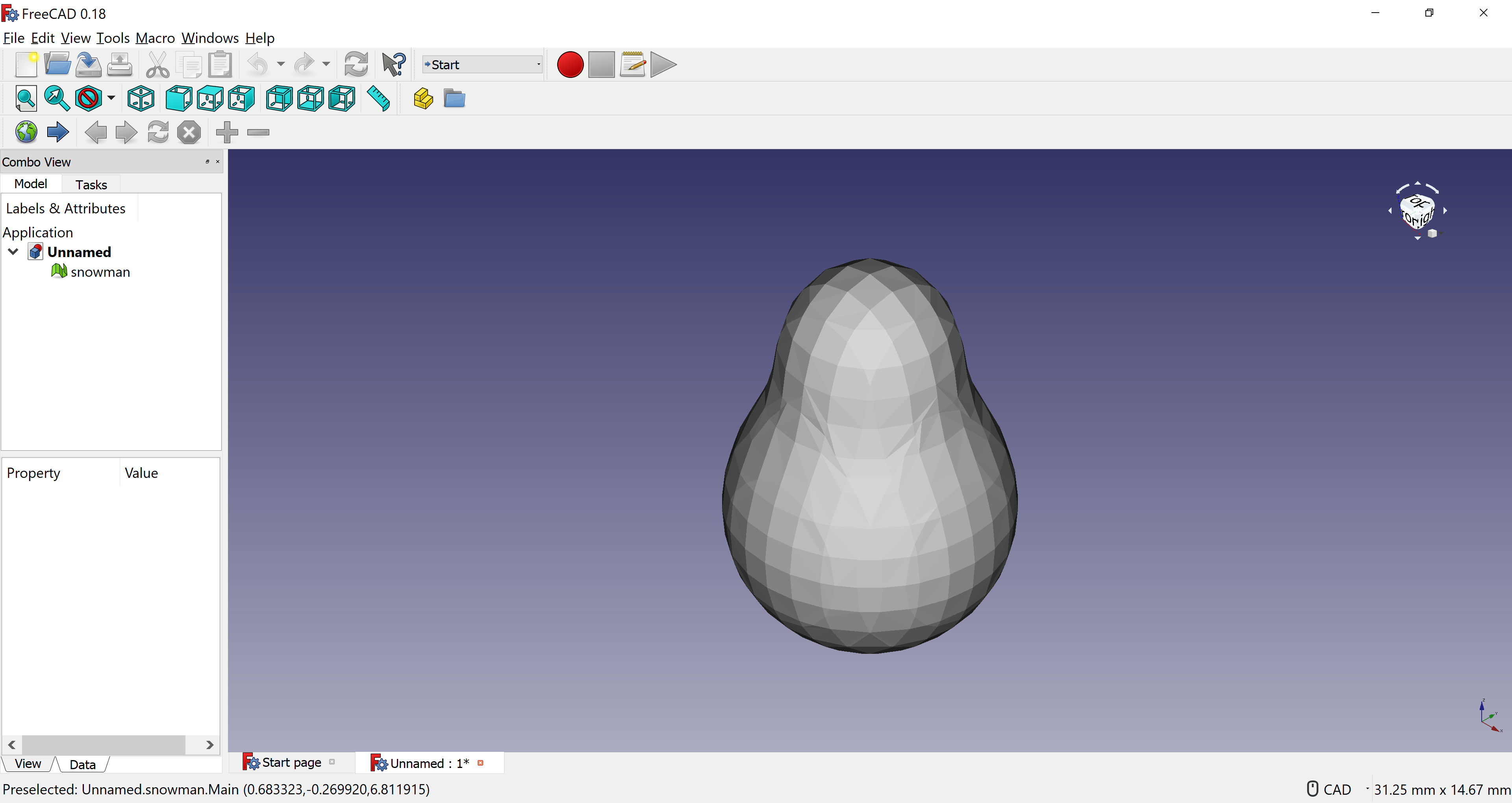
|  |  |
| --- | --- |
| g-stl | This application is needed for converting BRL-CAD model into STL format |
| -O | To specify output parameters |
| C:\work\snowman.stl | Name and path where converted model to be stored. I had given ***snowman.stl*** . |
| *c:\work\test.g* | Name and path where input model is stored. I had stored test.g in c: drive and work directory |
| *snowman.metaball* | Name of the BRL-cad model. In my case, it is ***snowman.metaball***. |



When command is entered, it gives the confirmation that conversion is done in 0.015 sec and 1000 triangles are written.

**Step 5:**  Import converted model (in stl format) into FreeCAD.

Open FreeCAD and select ***File -> Import…***option. In the popup choose converted model (in stl format) and click OK. This will import the STL model into FreeCAD.



Our snowman figure is now successfully imported into FreeCAD.