Sharp Shape

not just any shape

AOMS TOT sr - Convert PLY to OBJ or STL

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The AOMS TOT sr app is meant to be used with the AOMS systems for making foot orthotics. Our AOMS systems will take the XYZ files generated from the app. If you are the owner of your AOMS system, you can contact us for information regarding how to utilize the XYZ files.

If you use the AOMS TOT sr app for general purpose, you may consider converting the PLY files. You can convert the PLY files to OBJ files or STL files or other common 3D file formats. We are introducing a way to convert the PLY files here, but this is not the only way.

We will be using MeshLab. MeshLab can be found online free of charge (check their terms). You can google MeshLab and download it. Here we will be using a PC version. You can also get a Mac version. Below, we will illustrate how to use the MeshLab to convert the PLY files. Notes and comments are listed below each screenshot. Please read them carefully.

Figure 1: Launch MeshLab. The version we are using is shown above. You may have different version.
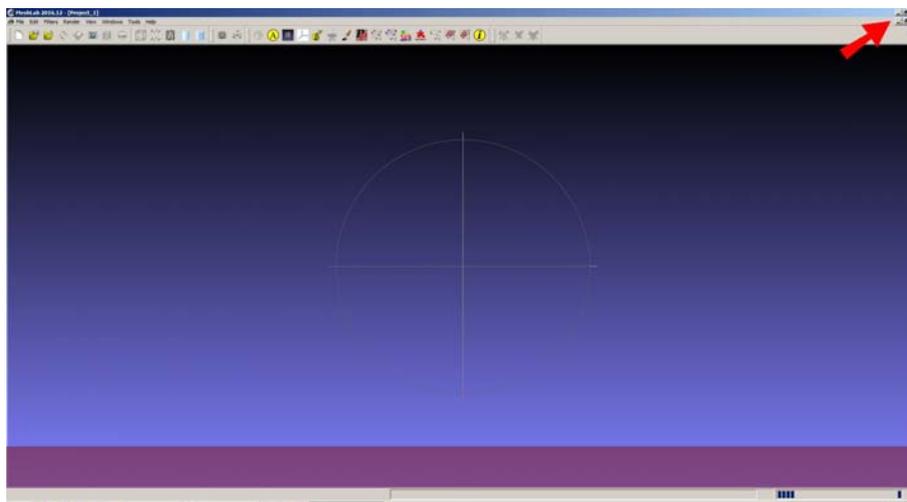

Figure 2: MeshLab always opens as maximized. If you do not like it, click the Maximize button (the one in the middle) on the upper-right hand corner, as shown above.
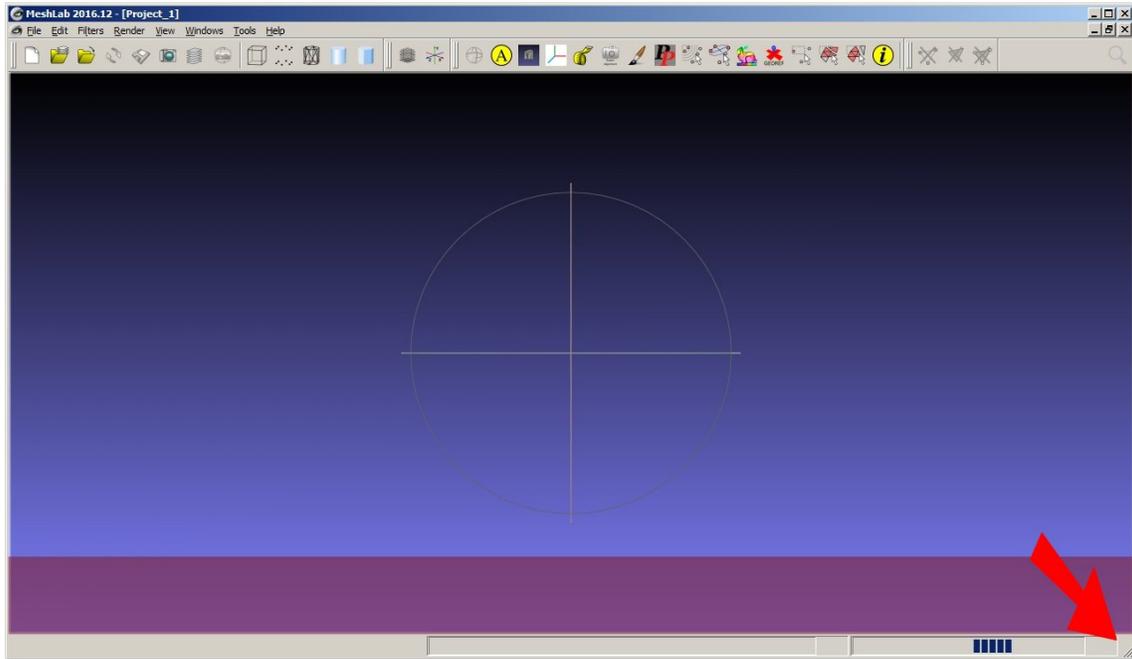
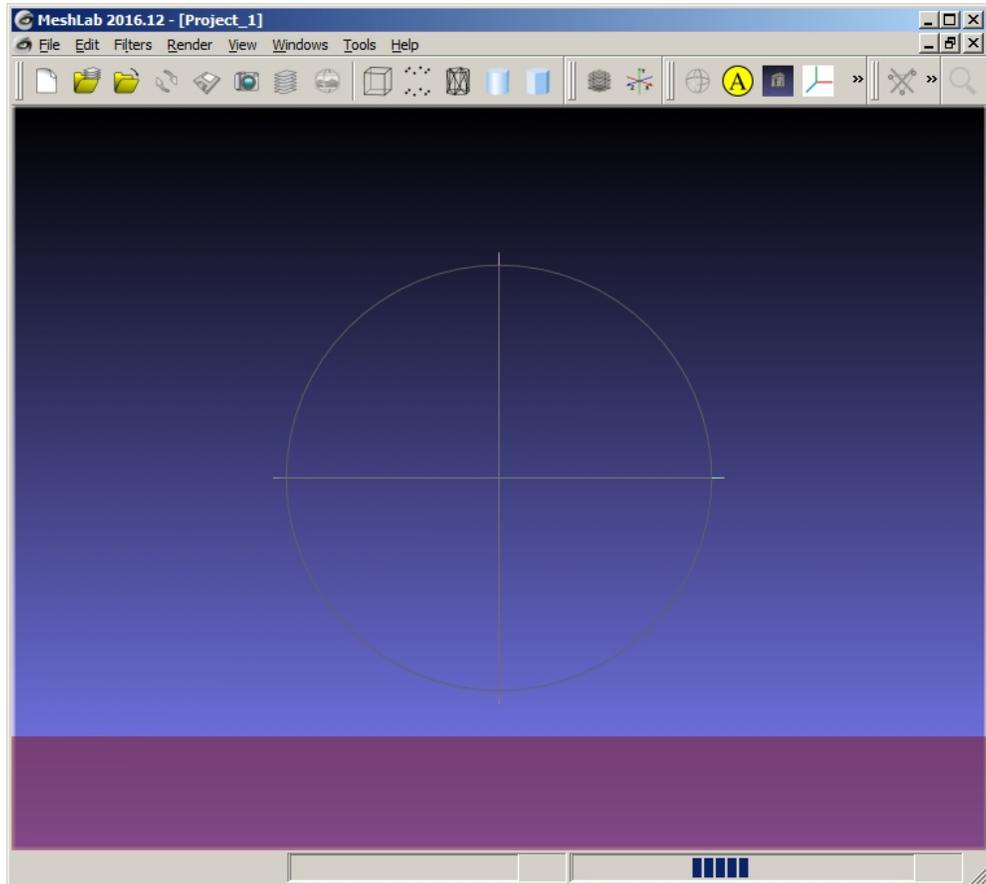Figure 3: Then you can drag the lower-right hand corner to reduce the view size.

Figure 4: You will see a smaller sized view area, but it is easier to operate.
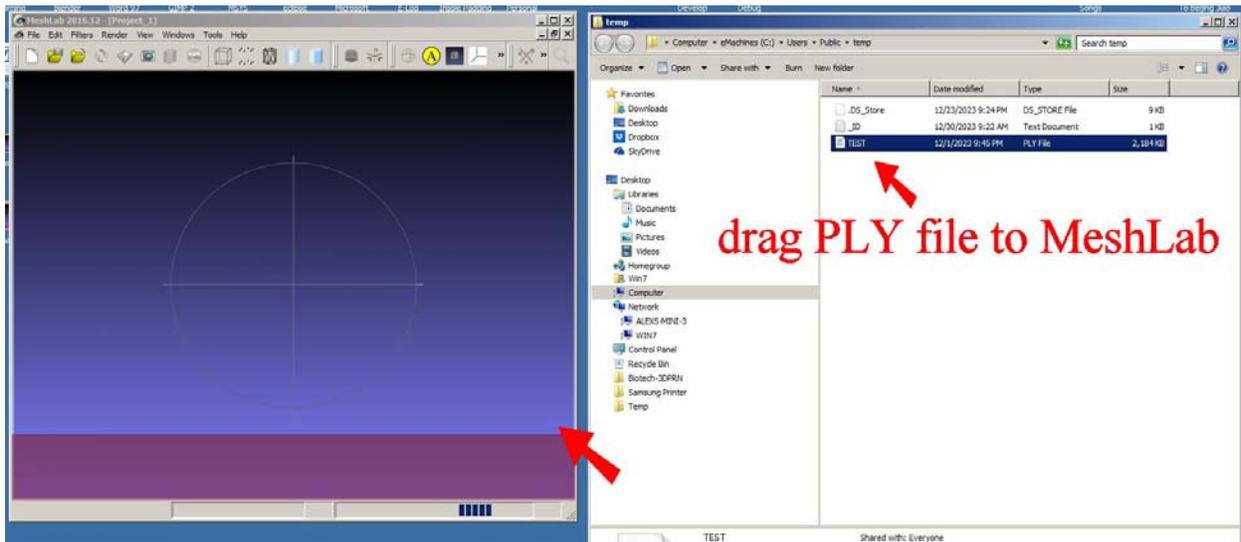
Figure 5: Drag the PLY file you want to convert to the MeshLab as shown. 'Drag' means: click the file and hold the mouse button and move it over and then release the mouse button. You do not have to use 'dragging' to open the file. You can click 'File' on the menu bar, and then click 'Import Mesh' to load your PLY file. In this case, you need to know where your PLY is located and navigate to it.
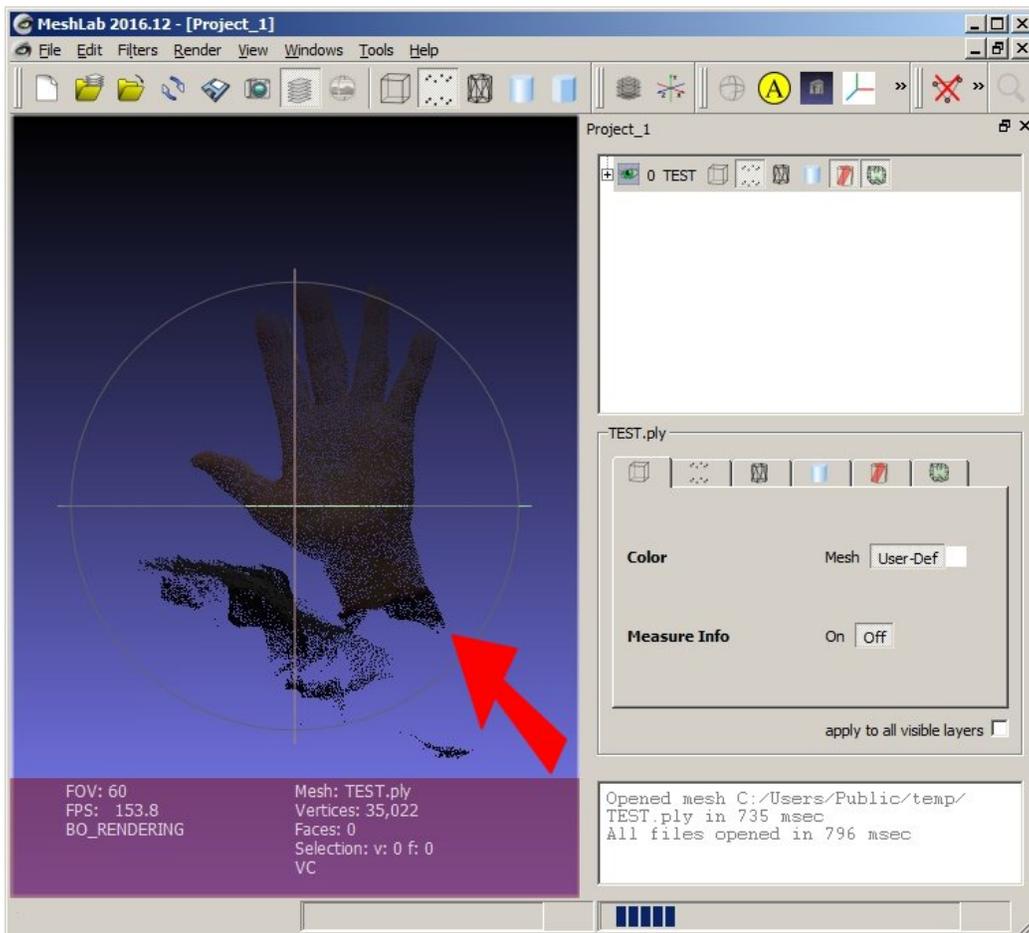

Figure 6: Once the PLY is loaded, it looks like this. It is an image of a hand in our case. Actually, the hand is facing away from you. You need to rotate it and let it facing you. You do this by dragging the area pointed by the red arrow as shown.
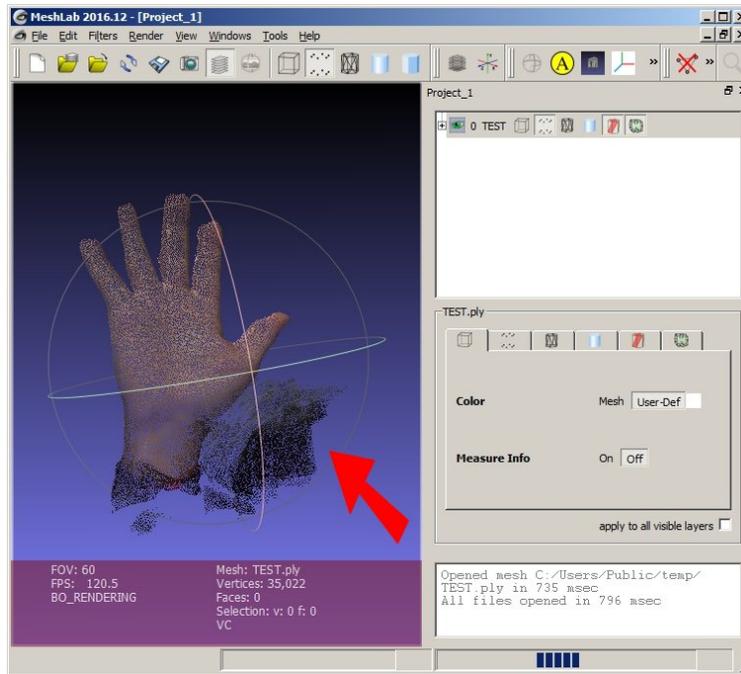
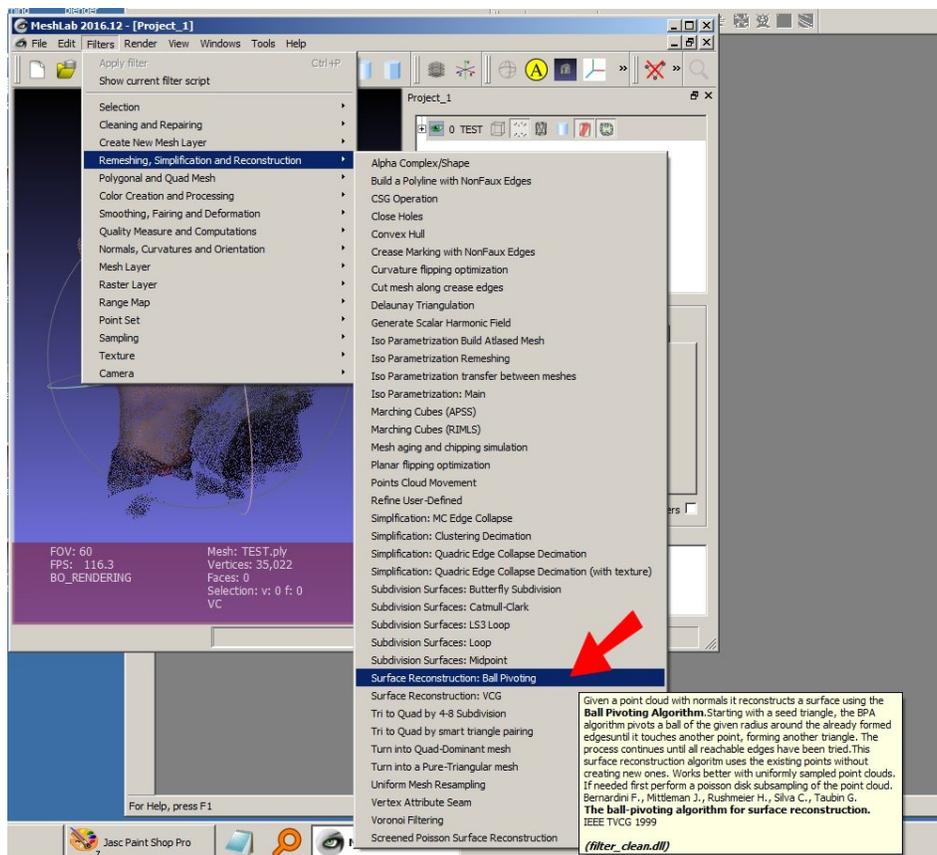Figure 7: Once the image is rotated and facing you, the color becomes more natural.

Figure 8: Now we are doing part of the conversion. On the menu bar, click Filter \ Remeshing, Simplification and Reconstruction \ Surface Reconstruction: Ball Pivoting, as shown above.
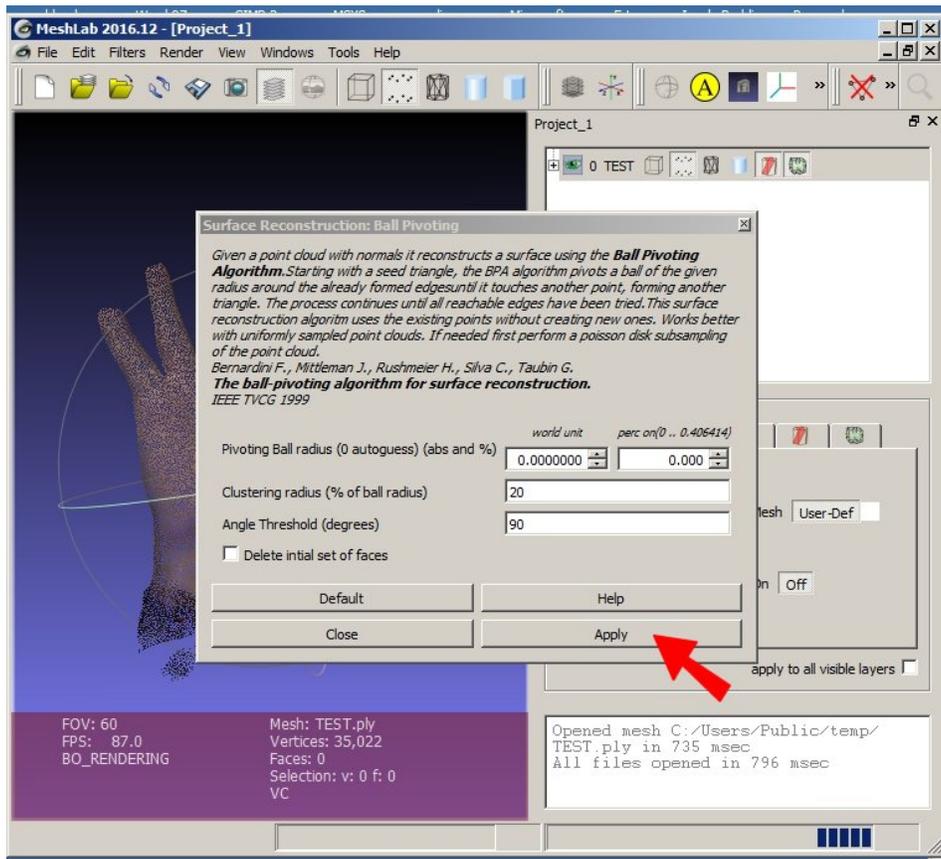
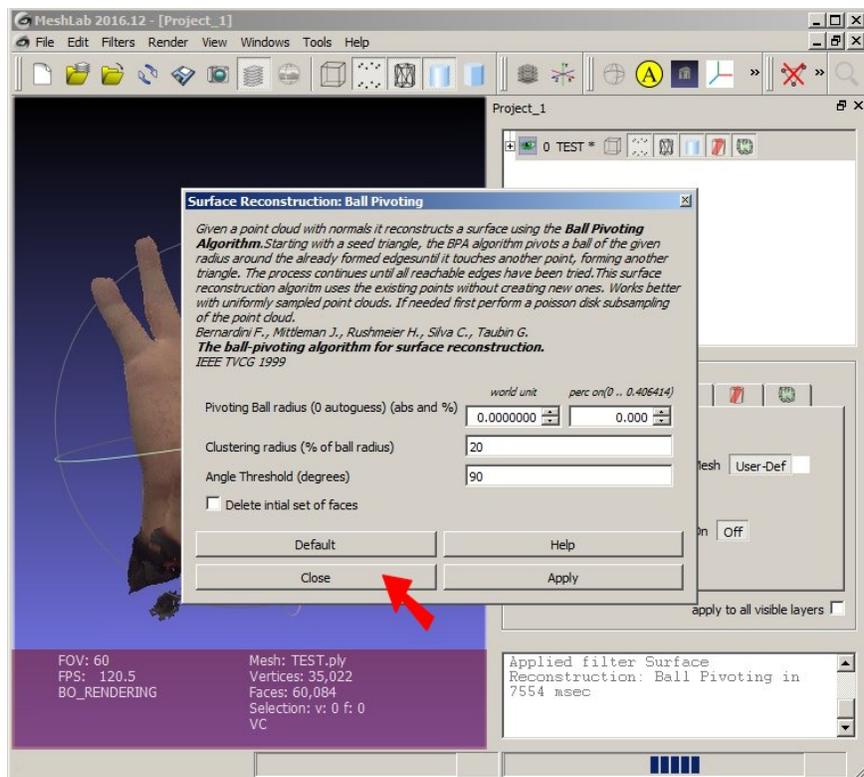Figure 9: A dialogue menu comes out. Just simply click 'Apply'.

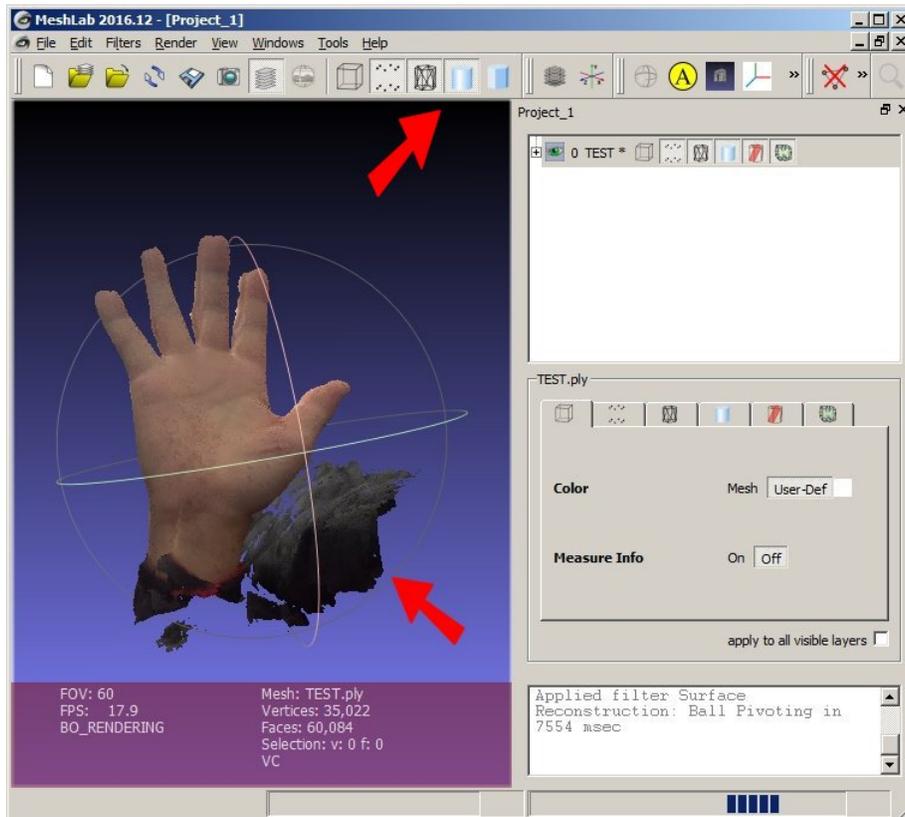Figure 10: The surface has been reconstructed. Then click 'Close'.

Figure 11: You can review the object (hand) by rotating it (refer to the lower red arrow), or by using the visualization tools (refer to the upper red arrow). Or you do not have to do anything here.
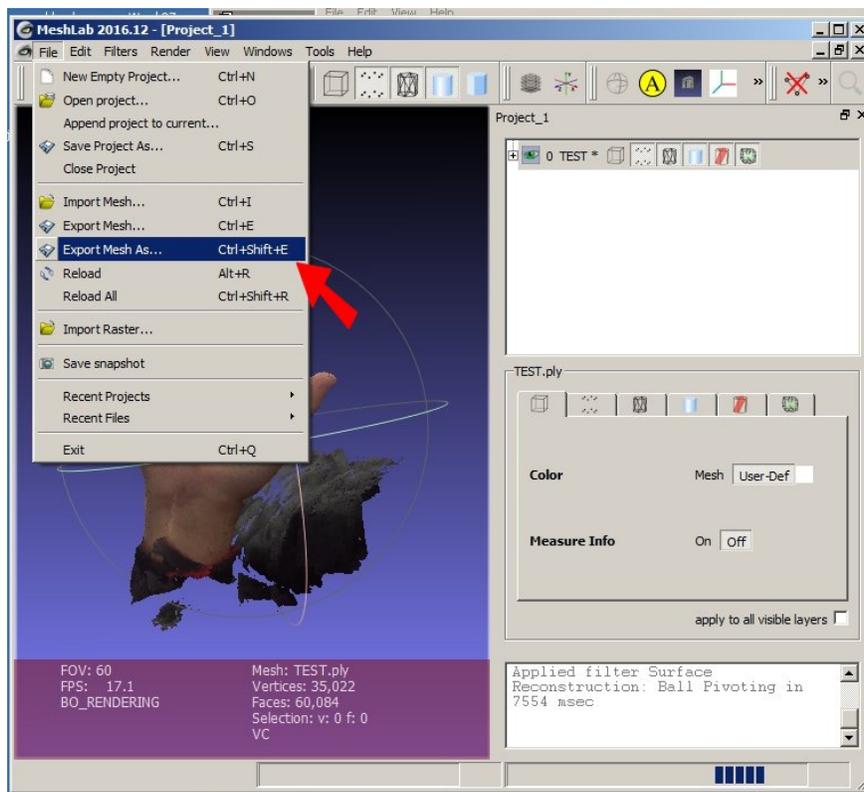

Figure 12: Now you can export the file to the file format you want. On the menu bar, just click File \ Export Mesh As…
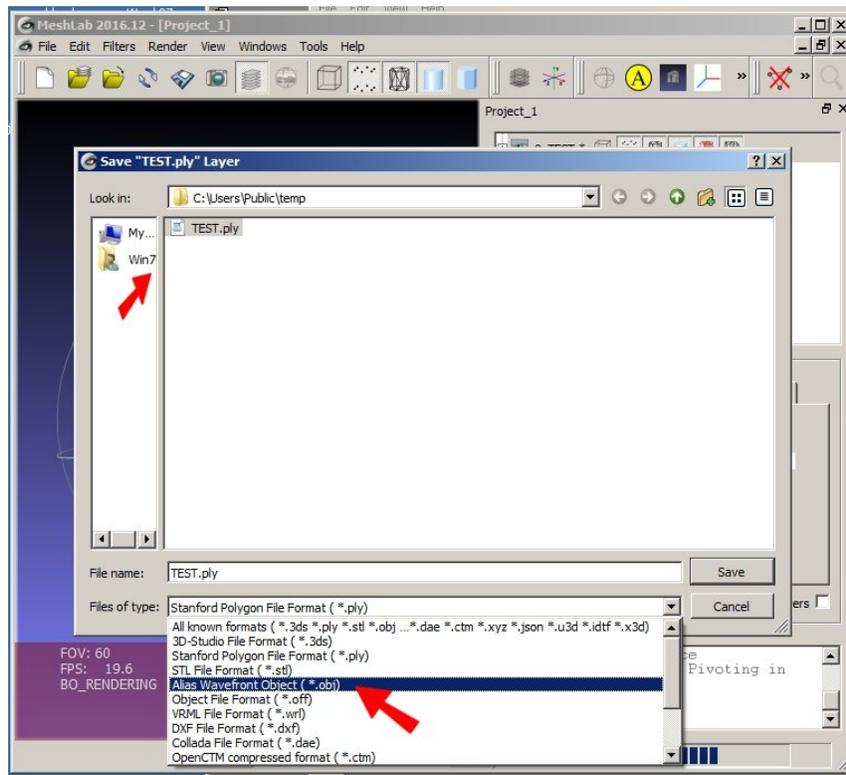
Figure 13: Here you need to choose the file format you want to save (refer to the lower red arrow) and navigate to the location you know (refer to the upper red arrow). In our case, we choose the 'OBJ' file to export.
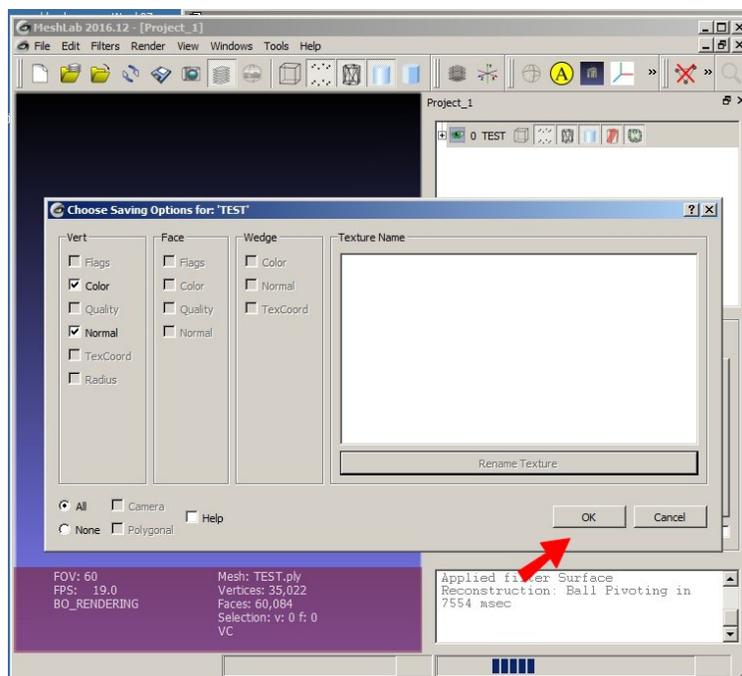

Figure 14: A dialogue menu comes out. Just click 'OK'. Now you get the file you want. Find the file from the location where you saved the file. You can open your exported file with a CAD/CAM program you use.

By providing this document, we do not warrant anything. If you have questions, please contact us at sharpshape@comcast.net. *- End of File -*