

3D Scan Cleanup Guide

Occasionally 3D scans created with the Kinect or Structure sensors have errors that require post-production cleanup. This guide will walk you through some common steps you can take to fix these errors.

Instructions

Reduce .stl filesize with Meshlab

Meshlab is a free open-source software that is available on all Art and Design lab computers. You can download your own copy at:

<http://meshlab.sourceforge.net/>

- 1 Open Meshlab
- 2 File -> Import Mesh to open your .stl file. Leave "Unify Duplicated Vertices" checked and click OK
- 3 Filters -> Remeshing, Simplification and Reconstruction -> Quadric Edge Collapse Decimation
- 4 Leaving everything else the same, set Percentage Reduction to .75 (or .50 if you would like to reduce even more) and click Apply
- 5 Click Close to exit the filter window
- 6 File -> Export Mesh As – to save a new copy of your (now smaller) file (be sure to select .stl as file format, it defaults to .ply)
- 7 Leave all "Saving Options" the same and click OK

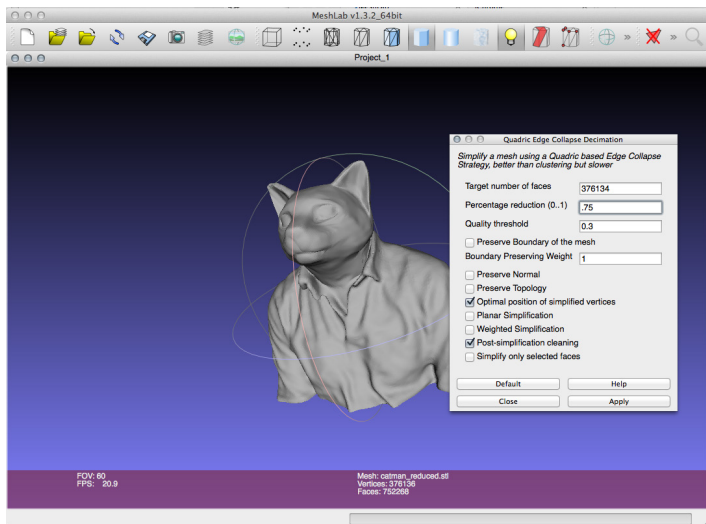


Fig 1 - Reduce Filesize in Meshlab

Repair broken files in Netfabb Studio

Netfabb Studio is a free open-source software that is available on all Art and Design lab computers. You can download your own copy at:

<http://www.netfabb.com/basic.php>

- 1 Open Netfabb Studio basic
- 2 Project -> Add Part to open your .stl file
- 3 With the part selected (it will be highlighted green) click the red first aid symbol in the upper right to go into "Repair" mode
- 4 Click Automatic Repair (button in the lower right)
- 5 Click Default Repair and click Execute
- 6 Click Apply Repair and click Yes to "Remove Old Part?"
- 7 Part -> Export Part -> As STL to save out the fixed .stl file

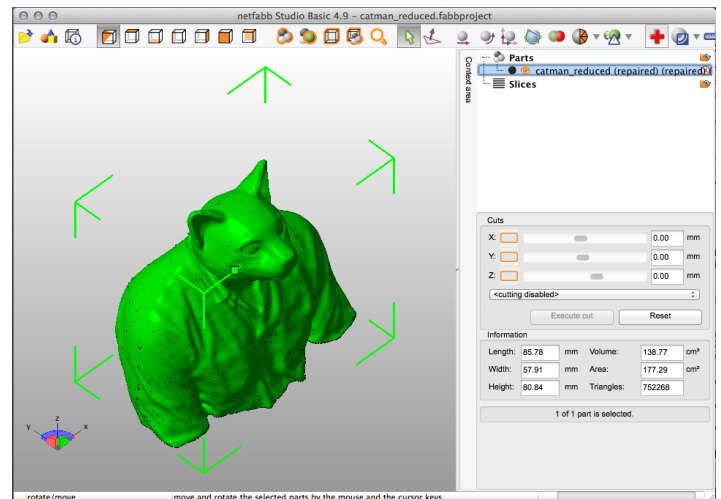


Fig 2 - Repair file in Netfabb Studio