

Skaneet 3D Scanning Quickstart Guide

Note: Skaneet is only available at the Skaneet Workstation in the Digital Output Lab in A+D 235A

Instructions

1 Open Skaneet. You should start at the Prepare tab in the upper-left.

2* Select License. Fill in the registration information with:

email: arnold18@illinois.edu
key: SKN100-MMYMFNNA-C4QKN54T

* Registration only needs to be done the first time you log in to Skaneet. The information will be saved for your login after that.

3 Select New. Set the size of your scan area by using the Scene and the Bounding box. If you would like your scan area to be longer instead of a cube, you can select the Aspect ratio of Height x 2.

Click Start.

4 You are now in the Record tab. Adjust the position of the Kinect scanner and/or your object to place the object roughly in the center of the scan area.

Click the red Record button.

5 Complete the scan of your object. You may do this either by leaving the Kinect stationary and slowly rotating your object (manually or by slowly spinning in your chair, etc.) or by leaving the object stationary and slowly moving around it with the Kinect.

During this process, be sure not to move too fast, or you may receive a "Not Enough Geometry" or "Camera Moved to Fast" error and need to restart your scan.

Green surfaces on your scan mean that the information is in focus and being properly gathered.

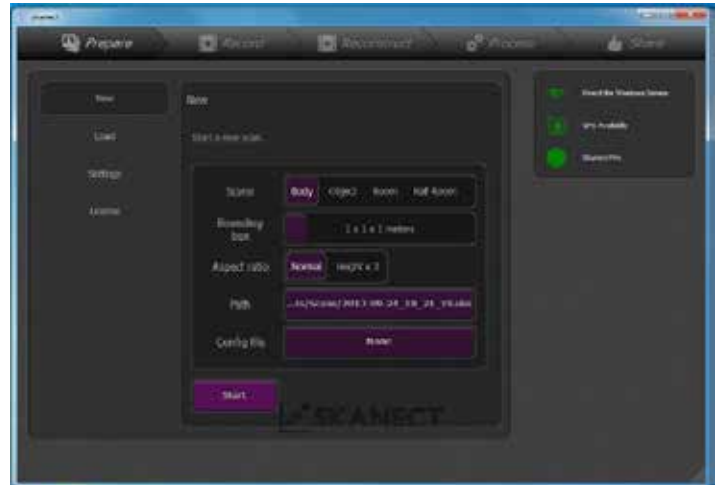


Fig 1 - Prepare tab - Start a new scan

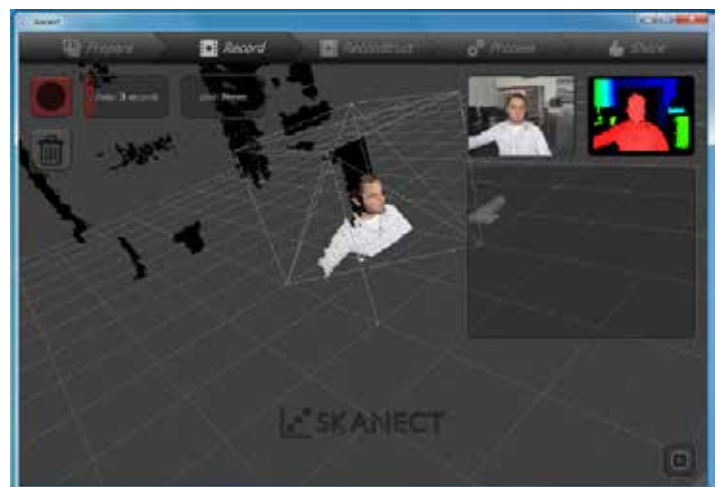


Fig 2 - Record tab - Align object within scan area

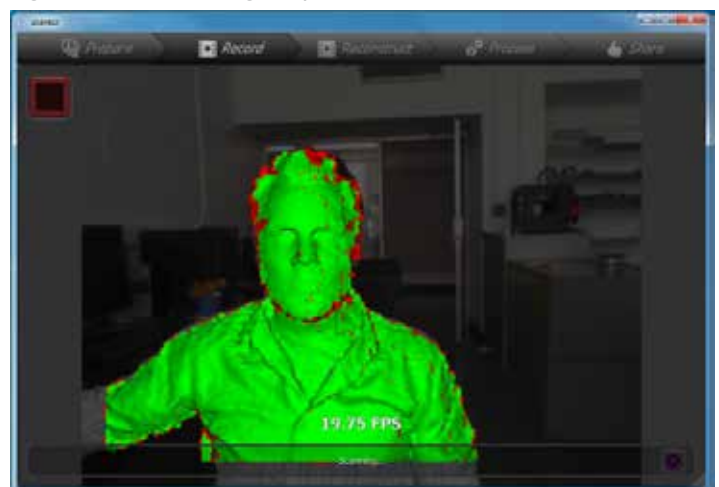


Fig 3 - Record tab - Complete scan

Instructions

When you have obtained full coverage of your object, click the red Stop button.

6 In the Reconstruct tab select Fusion. Select GPU for the Processor and High for Fidelity for the best quality.

Click Run. Skanect will reconstruct your scan at full quality now (the live scan renders at less than full quality for speed reasons).

Note: To navigate around your model: left click and drag to rotate, right click and drag to zoom, and center click and drag to reposition.

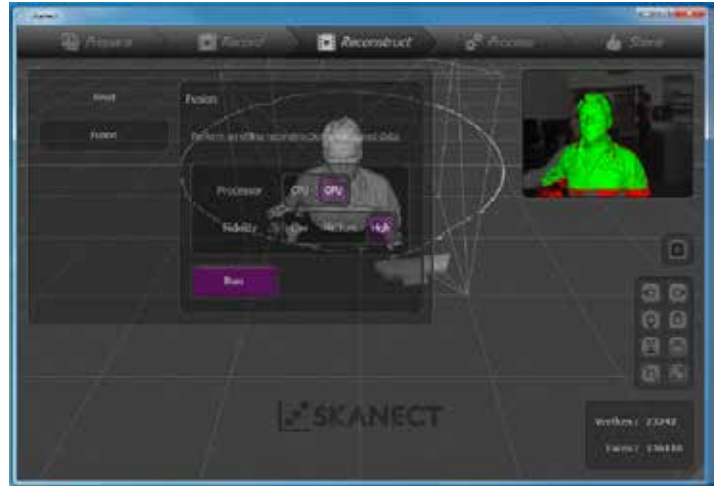


Fig 4 - Reconstruct tab

7 Now proceed to the Process tab to edit/refine your model.

Note: Skanect provides some basic editing tools. Enough to often get your model to a watertight, printable STL file. If you are familiar with other 3D modeling software or need more advanced editing capabilities, skip ahead to exporting your model as an STL file and continue editing in a program of your choice.

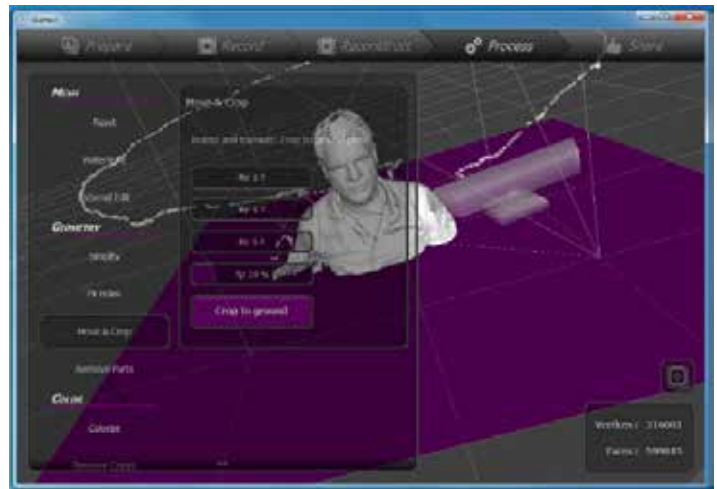


Fig 5 - Process tab - Move & Crop

Move & Crop Allows you to rotate your model on X, Y, or Z axis. Also allows you to adjust the base plane and crop to it. This is useful if you are trying to make a flat base for your model for 3D printing.

Fill Holes Will attempt to close any gaps in your model. Adjusting Smoothing settings will make the modifications more or less detailed. Adjusting Limit settings will tell the software to ignore holes over a certain size and only fill smaller holes. The best Strategy for 3D printing models is Watertight.

Note: If you still end up with holes in your model after running Fill Holes. Try editing in another piece of software to manually fill the holes, or rescan to get greater coverage.

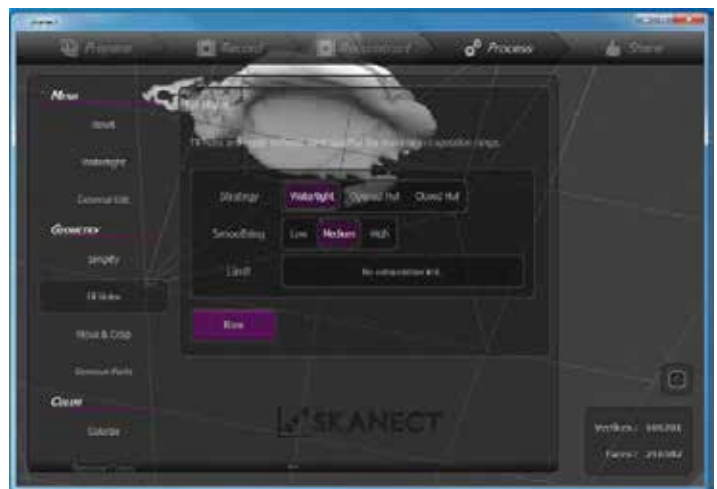


Fig 6 - Process tab - Fill Holes

Instructions

Colorize Will paint in recorded color from your scan. This does not have any effect on the 3D printed model, but can be interesting and helpful to look at on screen.

For more details regarding other editing options, see Skanect's video tutorials at <http://skanect.manctl.com/support>

Note: For my demo model, I first cropped off the ragged excess data along the bottom of my model. Then I used the Fill Holes function set to Watertight, and Smoothing of Medium. Then I cropped up a second time until I had a flat base suitable for printing. To get a perfectly flat base, crop up until you cannot see any of the purple cropping plane from underneath your model. Finally, I colorized my model.

8 The final step is to move to the Share tab to save and/or export your model.

The Save function allows you to reopen your project in Skanect later for further editing.

The Export Model function allows you to save your model out for 3D printing or editing in another piece of 3D modeling software. Saving as an STL file will allow you to open your model in most 3D modeling software including Makerware or Catalyst (used for 3D printing).

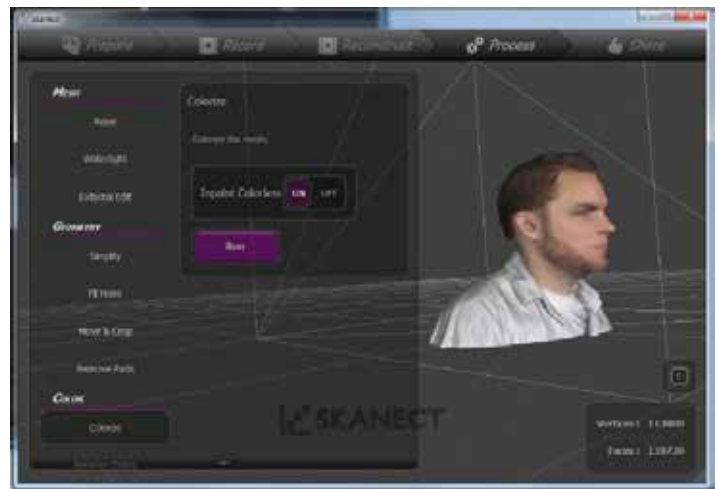


Fig 7 - Process tab - Colorize



Fig 8 - Process tab - Cropping to a flat base

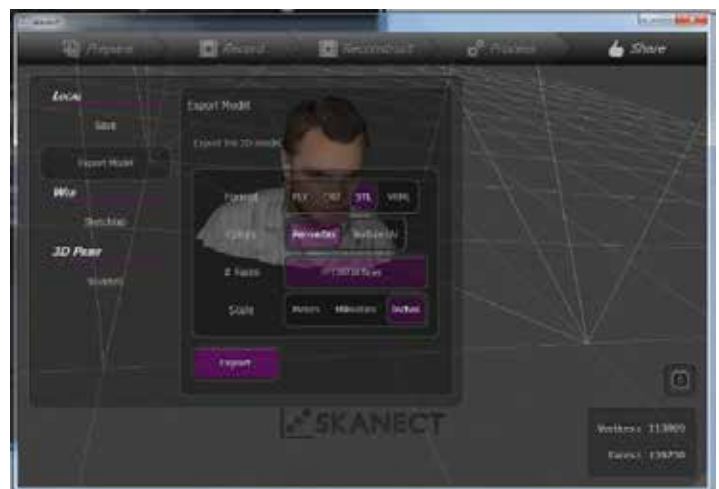


Fig 9 - Share tab - Export model