

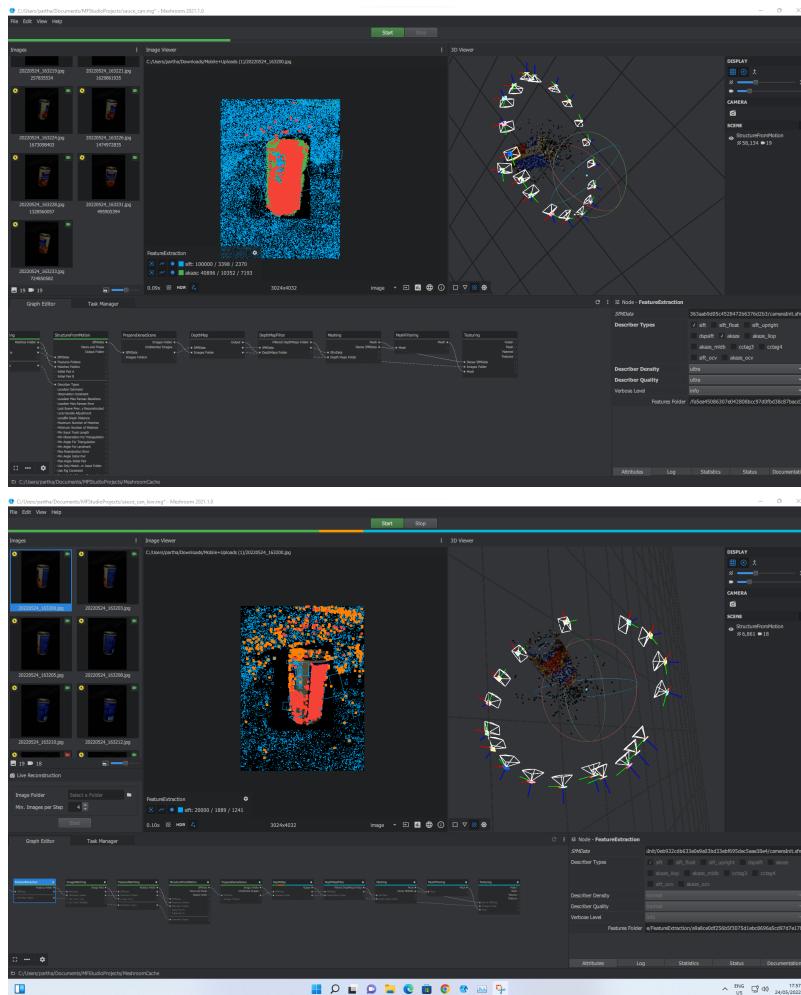
Scanning Setup

Meshroom Software

[<https://alicevision.org/>]

Photogrammetric Reconstruction Framework

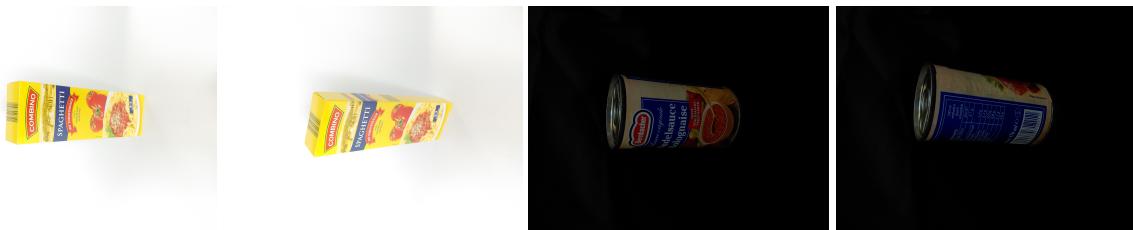
1. Get familiar with full pipeline and node editing setup [<https://meshroom-manual.readthedocs.io/en/latest/tutorials/sketchfab/sketchfab.html#>]
2. Review step 8 in above document if mesh quality is low
 - Work iteratively.
 - Use the [structure from motion node] to evaluate whether your cameras poses have been correctly calculated
 - Increase describer density and describer quality in increments [feature extractor node]
 - Check *akaze* feature extractor alongside *sift* [feature extractor node]
 - Verify feature extraction performance with increased settings. [SFM node results]
 - follow through with prepare dense scene and depth map after SFM module gives satisfactory results as these are computationally most expensive



Tips and Tricks

- Tape Over Barcodes

- Check Image whether background has strong noise or color variation
 - Change camera settings to ensure as smooth a background as possible
 - Low iso and shutter speed to remove details on a black background, vice versa for white
- Ensure steady hand for non blurry images
- Rotate Objects in increments
 - Recall 60% overlap mentioned in read the docs
- For Objects with sharp corners, ie. boxes consider taking pictures from further. [this may be a trade off against trying to maximise picture area, but consider we are taking pictures with fairly high resolution cameras]
- Use black screen or chartpaper background with light diffuser made available in hardware lab



[obj file in meshes folder]

Other Options

- <https://github.com/ETH3D/badslam>
- <https://scaniverse.com/>
- <https://poly.cam/>

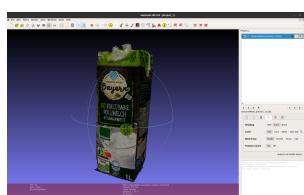
Mesh Visualization and Post-Processing

In order to visualize and process meshes you could use

- <https://www.meshlab.net/>
- <https://www.danielgm.net/cc/>

Meshlab

You could open the **.obj** file with MeshLab.



More about Meshlab could be found [here](#)