

Simplification and remeshing of STL parts

Tools

Simplification (mesh reduction) of 3d models can be used to approximate or repair the geometry. It allows to make easy STL unwrappings (flattenings) for example by:

- [fogleman/simplify](#)
- [AutoDesk MeshMixer](#)
- [meshlab](#)
- [GeometryCollective/fieldgen](#)
- [Blender](#)
- [songrun/SeamAwareDecimate](#)
- [Fast-Quadric-Mesh-Simplification](#)
- [3dless.com](#) (github.com/ipepe/3dless-com)

fogleman/simplify

```
go get -u github.com/fogleman/simplify/cmd/simplify
mv ~/go/bin/simplify /bin/

#run simplify
simplify ... #only works for binary
```

Python libraries

- [numpy-stl](#)
- [trimesh](#)
- [pymesh](#)
- [open3d](#)
- [zmesh](#)
- [OpenMesh](#)

trimesh library

Linux

```
sudo apt-get install -y python3-rtree  
pip3 install trimesh[easy]
```

Windows

```
https://www.lfd.uci.edu/~gohlke/pythonlibs/#rtree  
pip install Rtree-0.9.4-cp38-cp38-win_amd64.whl  
pip install trimesh[easy]
```

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