Y. Wang

Project 2: Loop subdivision

Due: 9:00 am, Oct. 12, 2023

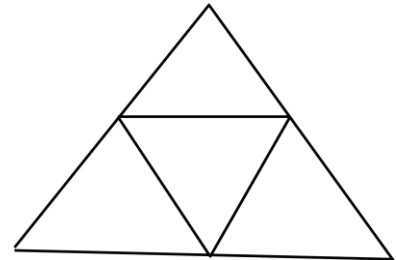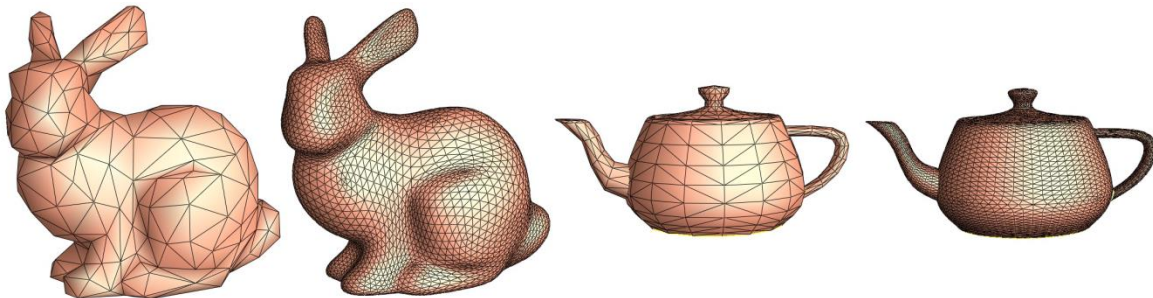Implement binary Loop subdivision surfaces (shown in Figure 1).

Figure 1. Binary Loop triangle subdivision.

Testing data:

1) Utah's teapot model
2) Stanford's bunny model

Software library:

- A C++ halfedge data structure software library is provided and encouraged to use in the project.
- A Python halfedge data structure software library. Test.py is a good starting point.
- Mesh format is .m, obj, and off format. A free obj/off file viewer can be downloaded from http://meshlab.sourceforge.net/. .m files can be visualized by G3DOGL.

Hand in:

1) Loop subdivision implementation whole source code compilable package;
2) Subdivision surface results (in obj format) after one iteration;
3) Subdivision surface results (in obj format) after two iterations.

Bells and Whistles (20 points):

Try to implement a subdivision scheme which works on a single mesh dynamically.