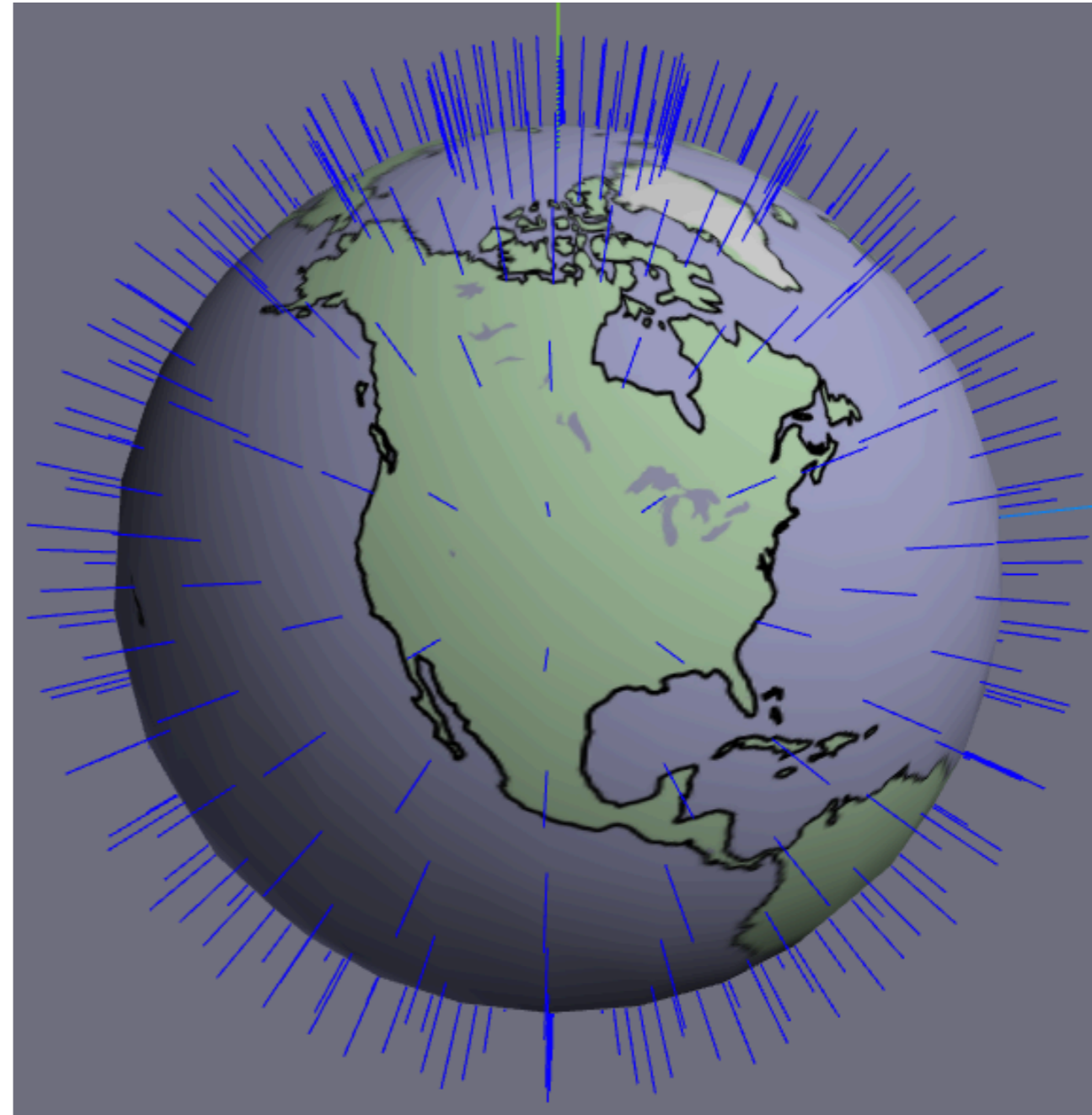# Computer Graphics

Lecture 5 (LIVE)

Implicit and Parametric Representations
Triangle Meshes: Texture Coordinates

Announcements

- HW0 due tonight

- A0 code due **Monday!**

  - Code is due Monday night - push to github and fill out the A0 Survey.

  - Submit your **artifact** to the A0 assignment on Canvas by Tuesday night

Goals

- Understand the distinction between implicit and parametric representations of geometric objects.

- Understand how texture mapping can be used to establish correspondence between a 2D texture and a 3D shape.

- Know how texture coordinates are interpreted in meshes and represented OBJ format.

Logistics

- Same groups as last class (to the extent possible)

- If you didn't finish the L04 problems, start with those, then move onto the L05 problems.

- Same submission logistics as last time. One group member submits to Canvas:

  - The obj file for your textured pyramid

  - a photo/scan of solutions for P05 #1-2 on the sheet with (present) group members' names.

L03 Problems 3-4

Triangle Strip:

```
0       2       4       6
```
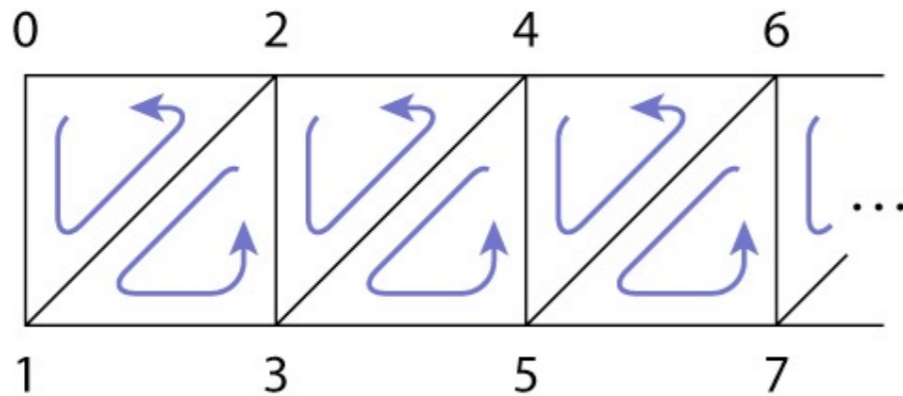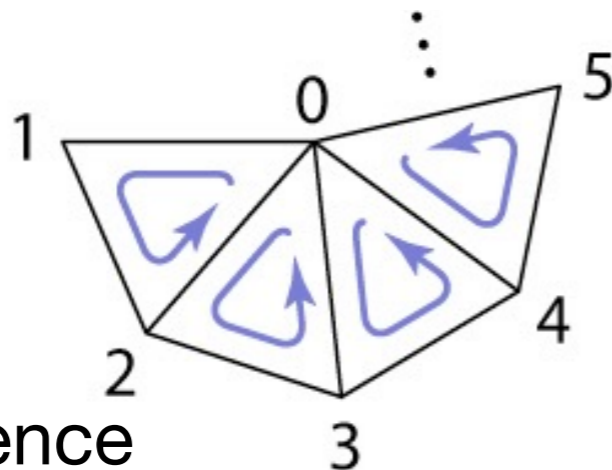
Vertex sequence

0, 1, 2, 3, 4, 5, 6, 7, …

leads to triangle sequence:

(0 1 2), (2 1 3), (2 3 4), (4 3 5), …

Triangle Fan:

Vertex sequence

0, 1, 2, 3, 4, 5, ...

leads to triangle sequence:

(0 1 2), (0 2 3), (0 3 4), (0 4 5), …

(0,1,0)

(-1,0,0)   (0,0,0)   (1,0,0)

(0,-2,0)