

CSCI-4961/6961: 3D Computer Graphics

Class 17: October 26, 2006

Surfaces

Today's Class

We will first complete our discussion of b-spline curves, including rational splines and NURBS curves.

We will then begin our discussion of surfaces by looking at spline surfaces, and continue on to other popular surface representations.

1. Spline surfaces
 - (a) Bezier surfaces
 - (b) Bezier surfaces case study: Utah teapot
 - (c) B-spline and NURBS surfaces
2. Polygon mesh surfaces
3. Quadric and superquadric surfaces

Reading

Chapters 8.11, 8.13, and 8.18, and 8.1–8.6 of Hearn and Baker.

Chapter 12 of the OpenGL red book.

The Origins of the Teapot by Frank Crow, and *What, Teapots Again?* by Jim Blinn.

Activity

See www.sjbaker.org/teapot/ for more info on the Utah teapot

Next Class

Texture mapping.