

CMP205: Computer Graphics



Lecture 0: Introduction

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Agenda

- What is Computer Graphics?
- Areas
- Applications
- Topics
- Course

Computer Graphics

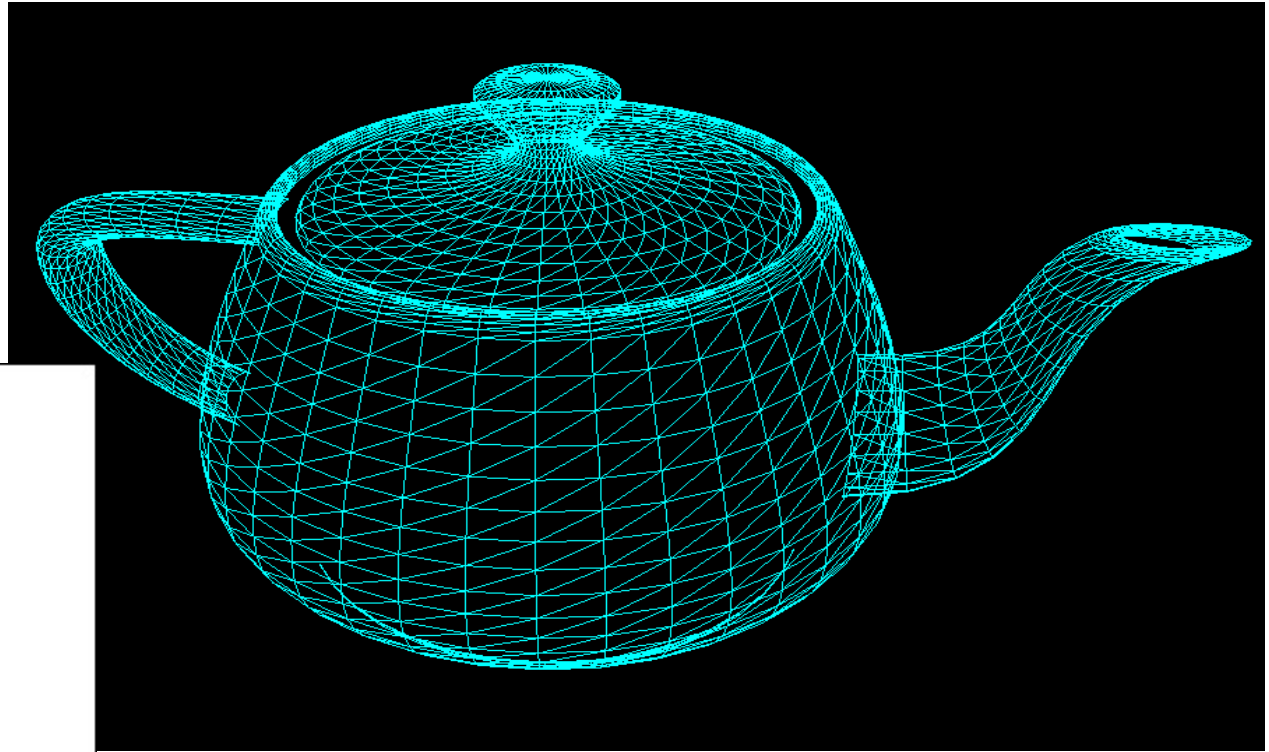
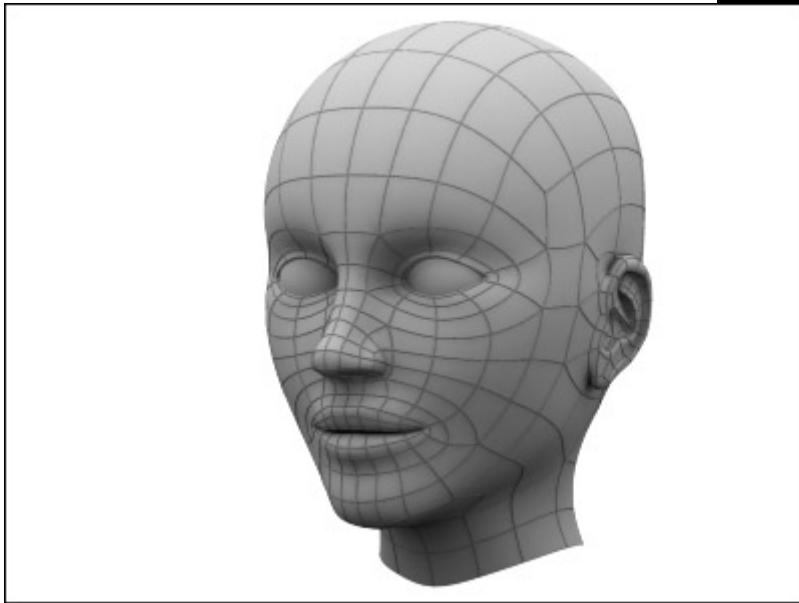
The study of creating, manipulating, and using images on the computer

Areas

- Modeling
- Rendering
- Animation

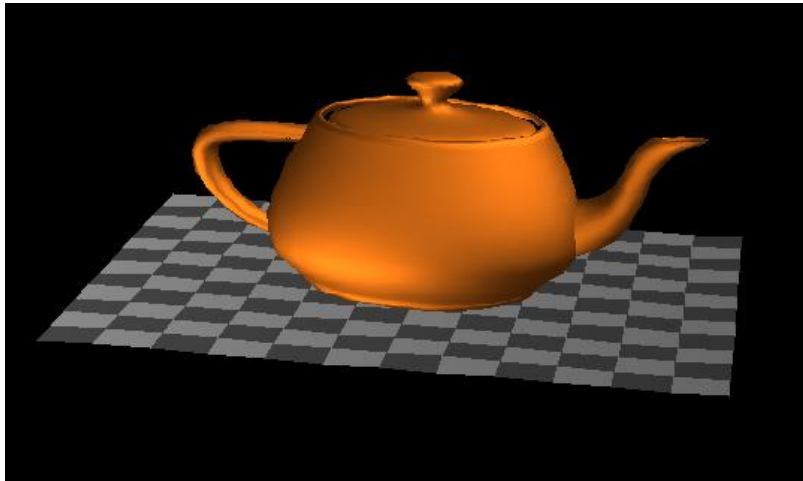
Areas

- Modeling



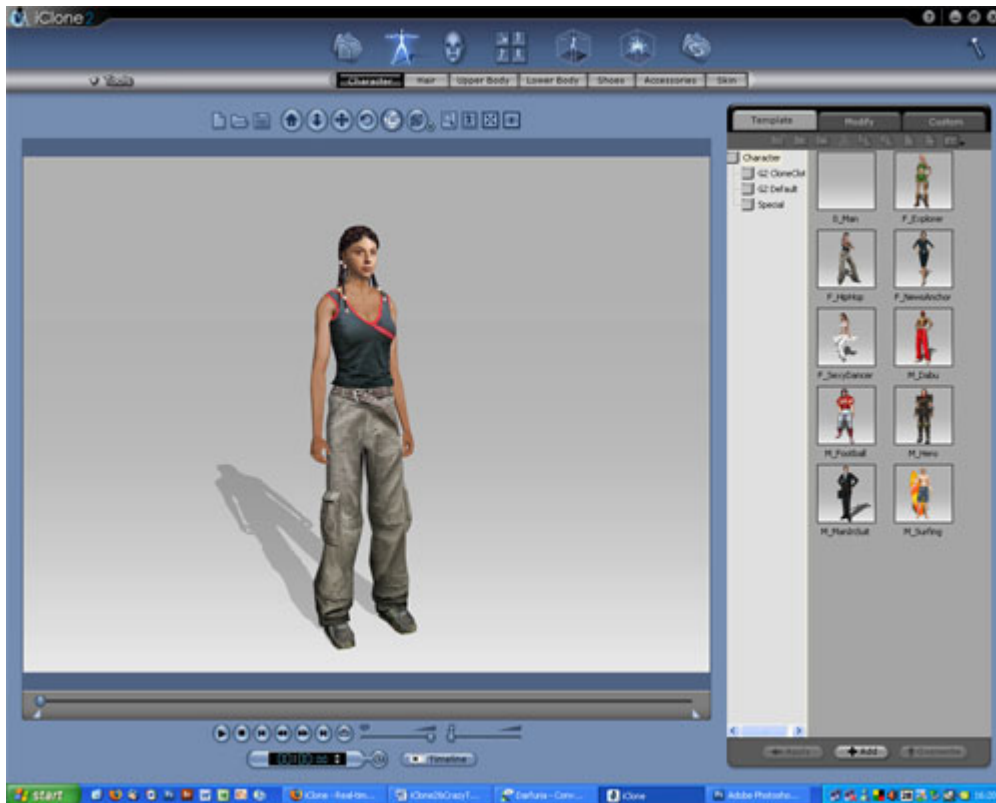
Areas

- Rendering



Areas

- Animation



Applications

- Entertainment
- Science and Engineering
- Training and Simulation

Applications

- Entertainment



Pixar—Ratatouille (2007)

Applications

- Entertainment



Applications

- Entertainment



id Software—Quake 4 (screenshot: Planet Quake)

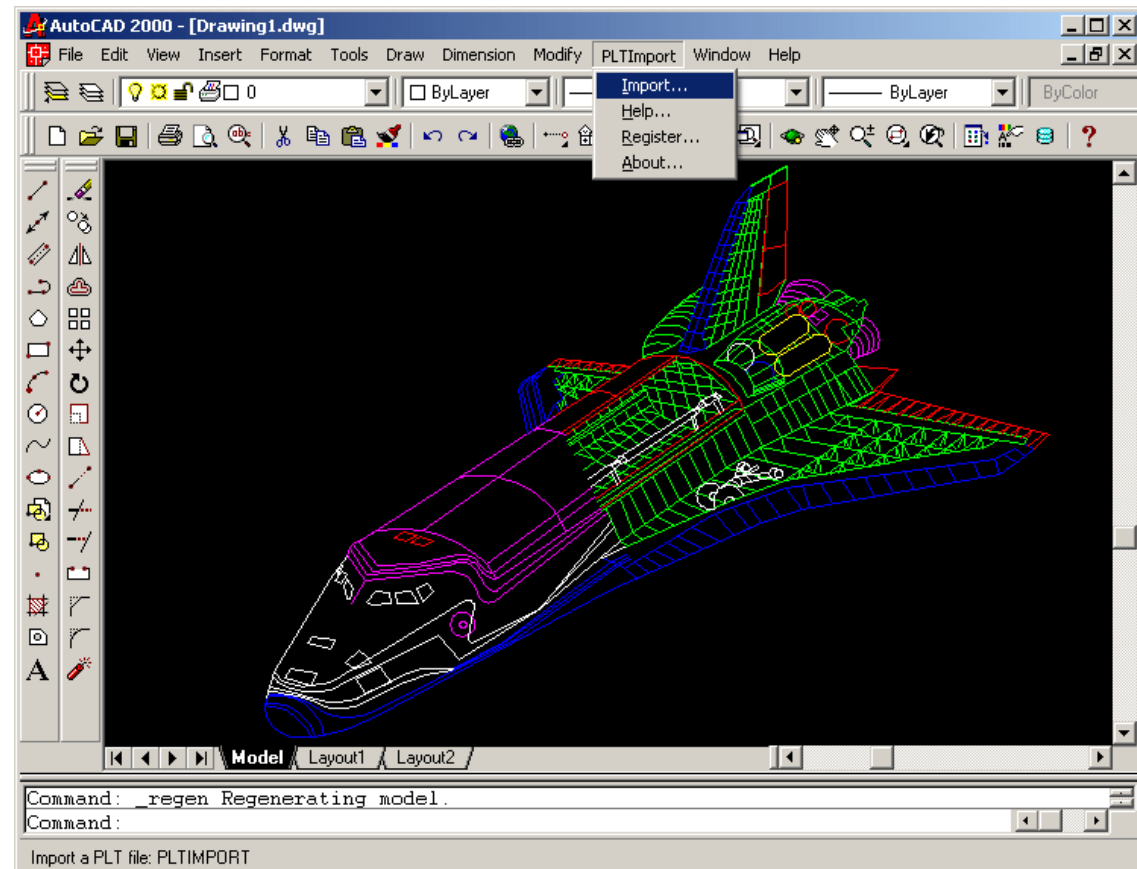
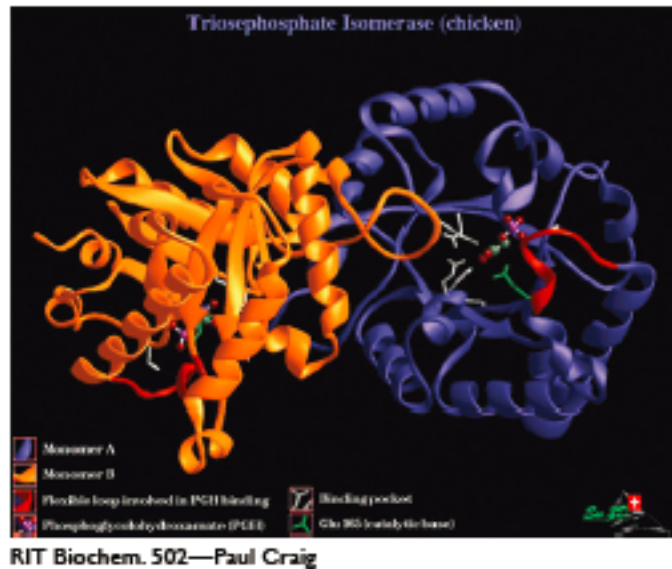
Applications

- Entertainment



Applications

- Science and Engineering



Applications

- Training and Simulation



Topics

- Line and Triangle Rasterization
 - Transformations
 - Graphics Pipeline
 - Shading
 - Texture Mapping
 - Ray Tracing
 - Animation (?)
-
- Textbook: Fundamentals of Computer Graphics 3rd Edition, Peter Shirley