Art 384: Introduction to 3D Animation

Neal McDonald, M.S., M.F.A.

mcdo@umbc.edu

Schedule

- Roll
- Review: animation, graph editor
- More graph editor
- Clintonville

Review

- Make the bouncing ball yet again
- Looping forever
- Moving sets of keyframes

The outliner

- Menu: Window -> outliner
- Seeing what is really in the scene
  - invisible things, very tiny things
  - things that are soooooo far away
  - cameras
- Examining group hierarchies
- A different way of selecting
- Get used to multiple views!

Clintonville

- Clint Eastwood’s mule is feeling real bad.
  - http://www.youtube.com/watch?v=2ldZxQ3Md70
- Cinematography
  - Photo composition
  - A character in the scene
  - A way to tell a story
  - Add stories, reactions

Clintonville in the outliner

- the outliner: yet another important interface
  - Organization of the scene
  - Naming things
  - Selection in the outliner
    - Can’t reposition
  - Grouping! Control-g
    - As simplification/organization
    - As boxing for portability
    - As classification

Grouping

- Many programs allow "grouping"
- Like putting a collection of stuff in an invisible box
- Grouping is the foundation concept of rigging in Maya and other animation systems.
  - make the object, rig it, animate it

Selection in the outliner

- Clicking
- Shift-clicking
- Control-clicking
- Pick-walking
- Middle-mouse dragging
  - rearranging
  - moving things into and out of groups
  - Make the outliner help you!

Animating the Camera

- The camera is in a group; animate that, and the camera is just another object
- Selecting the camera:
  - from the view menu
  - from the outliner

Intention, action, engineering

- Intention: Set the scene
  - The goal, independent of means, independent of the form:
- Action: Establishing shot
  - What you do in a specific medium
- Engineering: Position the camera
  - How you accomplish your action

Intention/Action/Engineering?

- My attempt to formalize how we have to more back and forth between concept and mouse wiggling.
- Enables you to change focus
- Adds thoroughness to critique
  - I will critique your cinematography as well as your outliner setup.
- Failure can come from anywhere

Clintonville: setting the scene

- A camera animation project

- Establishing shot
- Transition shots
- Jump shots – step tangents
- Try rotation– I dare you!
  - Rotation axes
  - Rotation animation gotchas

About camera animation

- Try to stick with translation, and avoid rotation
- Scale has no effect?
- Consider step-tangents
  - looks like jump cuts
- Students tend to overanimate the camera
  - esp. rotations-- bleah
  - makes the scene harder to read

Goals for Camera Animation

- Use one camera for the whole scene
  - interface complexity otherwise is crazy
- Depict the scene
  - Show where things are relative to each other
- Show the geometry of the scene
  - where important corners and obstacles are
- Avoid looking at crappy stuff. Really!

Level of Detail

- Close, Middle, Far Away
  - Classify everything you make this way
- Don't do more work than you must
- Especially with scenery!

Let's work with Clintonville

- Animate just the camera!
- Distance shot, then move in
- Really: use jump cuts, don't rotate!