Computer Animation II

Assignment 1

The purpose of this assignment is to get everyone back up to speed with where they left off in Computer Animation I. For anyone who did not take CA I in Maya, this assignment is to make sure that your prior experience adequately qualifies as a pre-requisite for this class.

You are to produce a rendered loopable shot containing an old-style, pendulum-driven clock (or metronome, or other pendulum-driven apparatus of your choice). You need only animate and render one cycle of the sequence - just make sure that when looped in QuickTime Player it transitions seamlessly[1] from the last frame to the first.

Requirements:

- **No areas of black background**. Model the clock/apparatus and enough objects to fill the scene.
- **Make materials**. Set appropriate surface and material properties for your objects.
- **Use a static camera**. No moving cameras, please.
- **Animate.** Animate the swinging pendulum cycle (what should the curve(s) look like in the graph editor to make believable pendulum motion?).
- **Light with shadows**. Use at least one light and make sure it casts shadows. Make sure the shadows are FREE OF ARTIFACTS. Add other lights if you like and have time.
- **Render, with motion blur**. Render TO INDIVIDUAL TIFF FILES (see below) with a size of 640x480. Whichever renderer you use, make sure you turn motion blur on! Confirm it by looking for blurry moving objects in the rendered images, of course.
- **Make a self-contained H.264 movie that plays.** After the render is completed, load the individual TIFFs as an image sequence in QuickTime Pro and Export the movie as a QuickTime movie with the H.264 codec (best quality). Make sure the movie plays appropriately with QuickTime Player in the classroom.
- **Post your movie to Helga.** Helga? What's Helga? To do this step, direct your browser to http://anim.hampshire.edu. Log in with username ca2. The password are the letters cs followed by the course number 266, no spaces. Click on the icon for "prereq" (the first assignment), and in the page that follows you will be able to add a comment. Your comment should be your name and you should attach your H.264 movie. Once it's uploaded, make sure it plays as you want it to play through the browser.
- **Stick your project folder onto the group shared folder**. See notes below on that.

Notes/Reminders:

- I recommend working with your designs and layout on paper before jumping into Maya (you are strongly encouraged to try and evoke a particular visual style or mood with your designs, composition, etc).
- To render to individual frames, go to the **Common** tab in the **Render Global Settings** window. Under **Frame/Animation Ext** choose **name.#.ext** (this will name your frames something like myShot.002.tif). Choose **Tiff** as the **Image Format**.
- To export a standalone QuickTime movie with the H.264 codec, run QuickTime player and go to **File->Open Image Sequence…** Select your first rendered frame on disk and choose 24 frames per second when prompted. When the movie is loaded, go to **File->Export…** Give your movie a name and choose **Movie to QuickTime Movie**, **Default Settings** (for now). Then click the **Options…** button to change the default settings and choose a new codec. You only want to export video and you want to select **Settings…** to get you to the codec window. Choose **H.264**, **Best Quality**. Click your way out of the nested windows and, when done, you should have a 24fps QuickTime movie on disk. Check it and make sure!
- The group shared folder is accessed from the classroom by going to "Go->connect to server," picking urza, logging in as cs266 with the password being 266 followed by cs. Make yourself a folder in "group shared" and copy your project folder into there when you're done for the day.
- Do not try to overdo any part of this assignment. All I want is for everyone to hand in a clean, complete, motion blurred sequence on time that meets the many listed requirements.

---

1 By "seamlessly" I mean without distracting pops in the motion. What does this requirement imply about your keyframes and how they are interpolated?