

Assignment 2: bouncing balls

DUE Monday September 25th at the beginning of class.

This assignment is intended to get you using the graph editor in concert with the principles of animation (squash/stretch, slow in/slow out, and exaggeration) to help create good-looking object motions.

At a minimum, you need to animate two different and roughly ball-shaped objects bouncing for 3 seconds. They've each got to bounce at least 3 times. The two different objects should bounce **differently**, that is, one could bounce very purely and return to the height from which it was dropped while the other could lose a lot of energy during the contact with the floor and not bounce as high as the first. They should also bounce at different rates.

Like every assignment to follow this one, you should feel free to do more. Use many objects. Put the objects that they're bouncing on into your scene. Or, if something other than bouncing balls strikes you as particularly interesting (and seems to fit with the goals of the assignment) – pitch it to me and I'll likely give you clearance to do it. Just keep in mind that I'm looking to see you use the graph editor (and interpolation, tangent handles, etc) combined with some of the principles of animation to create good motions.

Once you like what you've created, render a **SMALL** preview movie and save it in your name in the proper folder just like last time.

Note there is a small reading assignment from the packet: Halas pp. 32-39. Along with the bouncing ball discussion from Lasseter, this reading should help you out!

Recall from class: if you like your preview movie but only when it's playing at a different speed from 30 frames per second (fps), you'll have to go back to the graph editor and scale your keyframes to match the speed you like. For instance, if you like your motion at 15 fps, go back to the graph editor and scale all the keyframes from frame 0 so that the frame they land on doubles (a key at frame 10 becomes a key at frame 20). The chapter on Keyframing gives you the tools to do this.

Remember everything from the last assignment about content directories, saving your work to your Zip disk, and saving your movies to the Desktop so you can preview them in real time.

Concepts

This assignment is trying to familiarize you with a number of (possibly new) concepts. Think about these when you're doing the assignment and make sure you're understanding them as you go! If not, please bring questions to Monday's class.

1. Detailed control of channel values over time by using different interpolation types and the auxiliary controls they provide (such as tangent handles). AKA: **how** to edit motion.
2. How the principles of squash and stretch, slow in/slow out, and exaggeration help guide your fine-tuning of the channel values. AKA: **why** to edit motion.