Computer Animation I

Assignment 3: 2D bouncing ball with tail

This assignment is intended to give you experience with:
- animating hierarchies
- the principles of anticipation, follow-through/overlapping action, and secondary action

Your goal is to animate a bouncing ball (with a tail!) starting at rest on the ground, jumping up in the air, and coming back to rest after landing.

Like the last assignment, the scene file you are starting with has the ball ready to go in the "side" view again. Please keep the ball on-screen through the entire animation and do not animate the camera. The ball has two translation channels for moving it around and one scaling control to squash and stretch it, as before. It also has a single rotation channel. Each of the 3 tail nodes has a single rotation channel only.

Step 0: get everything you need to do the assignment, run Maya, load the scene file
- The project folder on the shared disk is called "assignment_03"
- Follow the instructions from previous assignments to copy this folder to your local machine's desktop, rename it, run Maya, set the project appropriately, and load the scene. You should see the new ball sitting on a simple ground plane, waiting to move.

Step 1: planning
- Figure out what you want to do on paper before you start animating the ball. How will the ball muster the force to get off the ground? How will the tail respond? Why? Where will you put your keyframes? What should the interpolated curves look like?

Step 2: animate
- Start with the ball first. Get that motion down, then move on to the tail.
- Be sure to explore overlapping action, namely, shifting the keys of the hierarchical tail relative to each other in time so that the tip moves out of phase with the base.
- Make sure you're considering not only timing and squash/stretch, but also anticipation and follow-through. The jump, after all, should have a pre-jump (anticipation), the jump itself, and a post-jump (follow-through).
- Save your work often!! And don't forget incremental saving (see previous assignment sheet).
- If you want to change the duration of your scene from 24 frames to accommodate your animation, please go ahead.

Step 3: hand in your scene file and playblast
- Name your playblast and scene file using our conventions (**PerryA3.mov, PerryA3.mb**) and hand them in to the shared disk.

DUE Wednesday September 27th at the beginning of class