CompSci 94
Classwork: Saving Objects, Repetition
October 8, 2024

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1) Setting up the scene

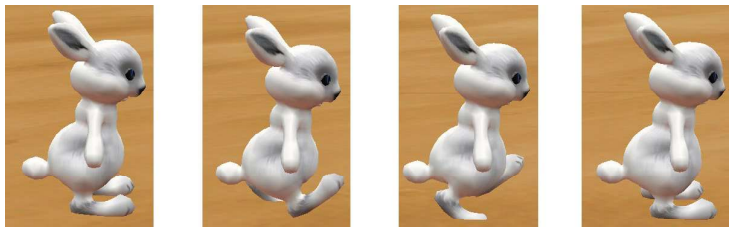
- Add in any ground cover with sand
- Drag in these objects so they are in positions similar to the picture
  - Biped: bunny
  - Quadruped: TWO dalmatians

Overview of Story

- The bunny will walk across the screen and off the screen. Then the dalmatians will repeatedly jump over each other to the other side of the scene. Then they jump over each other repeatedly the other direction across the screen again. Then they will turn to face the front. The bunny will then walk over to the dalmatians, stopping in front of them. One of the dalmatians says "The End"
- **Follow the steps** to build this story, including writing procedures

2) Write the **bunny walk** procedure

- There are NO parameters.
- The walk procedure should only be TWO steps (right hip forward with left hip back, then left hip forward with right hip back)
- The bunny should turn its **hips** at the same time in walking like this (there are three movements for this one step):



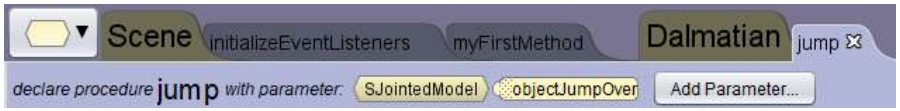
- For those two steps, the bunny should also move forward **one unit total** at the same time.
- The **duration should be fast**, so the walk is natural.

3) Add code in myFirstMethod for the bunny to walk

- Put in a do in order in myFirstMethod.
- The bunny should walk repeatedly until it is off screen. Use a count loop and guess how many times to walk.

4) Write the dalmatian jump procedure

- There should be ONE parameter of type **SJointedModel** named **objectJumpOver** for the object for the dalmation to jump over.

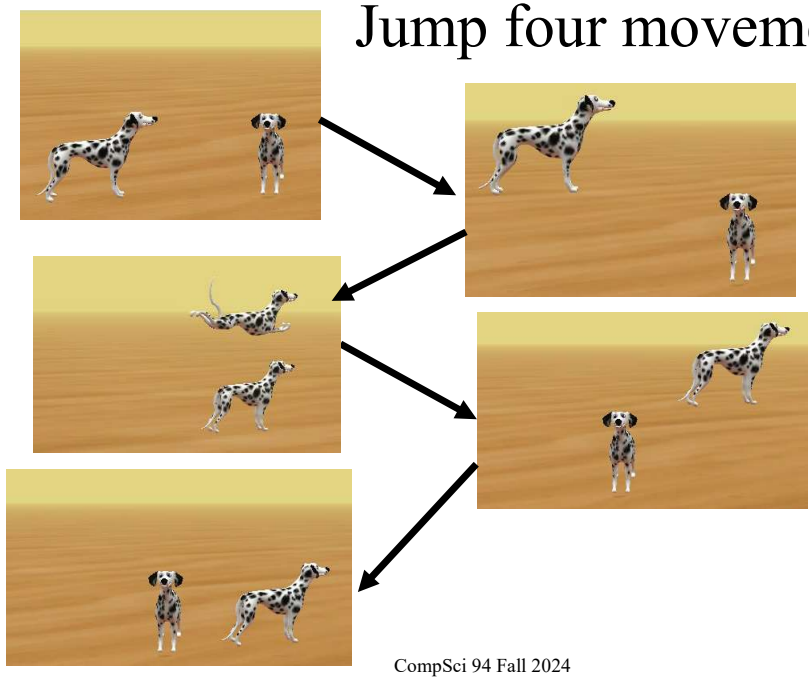


- In the jump the dalmatian should stretch its legs out (shoulders and hips) and jump over an object. **Also turn the tail!**
- It should first turn to face the object. Then there are four movements shown next.

Things to think about

- Four movements – see next slide
- Calculate half the distance to move and store it in a constant variable. Then move half way while turning the legs, then move the other halfway while turning the legs back.
- Use small durations to make it look more realistic

Jump four movements



5) Finish the story in myFirstMethod

- After the bunny walks across and off screen add in the following:
- Have the dalmatians take turns jumping over each other moving across the screen to the other side, each jumping two times. (use one count loop)
- Then have them jump over each other two times each going the opposite direction, back across the screen.
- Have both dalmatians turn to the front.

5) Finish the story in myFirstMethod (cont)

- Have the bunny (who is offscreen) turn to face the dalmatian
- Use a count loop with a function to have the bunny walk over to the dalmations stopping in front of them
- Then one of the dalmatians say “The End”

6) Put the bunny and dalmatian in a new project

- Save both the bunny and dalmatian as .a3c class files
- Save your project. Then start a new project with a different ground. Put the bunny and dalmatian in it and show their procedures work. Have the bunny walk and have the dalmatian jump over the bunny.
- **Show both projects for checkoff!**