Arrays

- What is an array?
  - A group of similar objects
  - Examples: All flyers, all decimalNumbers, all SJointedModel

- Why create an array?
  - Can have just one instruction for every item in the array
  - Less code

- Can an object be in more than one array?
  - Yes!

How and Where does one create an array?
How and Where does one create an array?

• Create as a Scene Property

[Image: Create Scene Property]

• Go to bottom of page and add there.

[Image: Add Scene Property]

Example – Build array of Flyers

• Be sure to check box by “is array”

[Image: Create Array of Flyers]

• Must add Objects into the array

Result

[Image: Result]

What is the order the birds do something here?

• Move their wings in this order: Phoenix, chicken, flamingo, penguin, ostrich, then same order again

[Image: Birds Action]

[Image: Code for Action]
What is the order the birds do something here?

- Move their wings in this order: Phoenix, chicken, flamingo, penguin, ostrich, then same order again

What does this code do?

- The birds turn red one at a time. Then at the same time they all turn blue.

What does this code do?

- Phoenix says greetings one at a time
- Then Penguin says the greetings all at once
What does this code do?

- Each bird in the array lotsOfBirds, one at a time, says the phrases in the array greetings, one at a time.
What does this error mean?

- This name already exists. You must use a different name for each loop!

BE CAREFUL!

- When naming loop variable
  - Don’t use the name of anything else in your program.
    - Don’t use penguin, etc.
    - Use someBird, someBird2, someBird3
  - Don’t CUT and PASTE ARRAY LOOP code
    - This can lead to using a variable from the wrong loop. Your Alice code will freeze!

Announcements

- RQ13 and Videos for next time
Class Today

• Iterating through Arrays