Announcements

• Assignment 3 storyboards due today!
• Assignment 3 worlds due Thursday
  – Turn worlds in on Blackboard
  – Name textfile “README” or README.txt
  – Upload all three files individually
  – OR Put all three files in a folder and submit a zipped folder
• Check classwork grades on Blackboard as they are put up, late penalty for late classwork

What we will do today

• Chapter 4 Sec 2 – Parameters
• Classwork
• Read for Next time Chap 4, Sec 3
• Reading quiz

Overview

• The need for more flexible methods
• Creating methods with parameters
• Passing arguments to methods
• Demo
  – Using Alice – methods with parameters
A Beetle Band

• Create an animation for a bug band as an ad for their next concert
• Each band member will perform a short solo

Storyboards

• Each bug member will perform a solo

Code for georgeBeetle

• We will need four versions of the code, one for each band member
• This code will only work for georgeBeetle

A Better Solution

• Four versions of similar code is tedious.
• The things that change are
  – The beetle
  – The music the beetle plays

• Better Solution: write a more flexible method

Note: instruments are already vehicled to the band member playing them.
Parameters

• Built-in methods provide flexibility by providing parameters such as distance and duration
• Parameters allow you to pass in values
  – The values are arguments
• Example:

What are the parameters?
What are the arguments?
How many of each?

The Storyboard

• Write one method and use parameters for
  – Which bandmember to perform
  – Which music to play

Solo:
Parameters: bandMember, music
Do together
  Do in order
    bandMember move up
    bandMember move down
    play music

Creating a Method Named Solo

• Can be used for any band member
• Will need
  – An Object parameter – which band member is to play a solo
  – A Sound parameter – which music should be played
World.solo with parameters

Calling the solo method

A Number Parameter
- Add a number parameter for `height` the `bandMember` jumps up and down

Classwork Today
- Create worlds
  - Beetle band duet
  - Escape from Snake

• Note that in each call, arguments must be given for both parameters