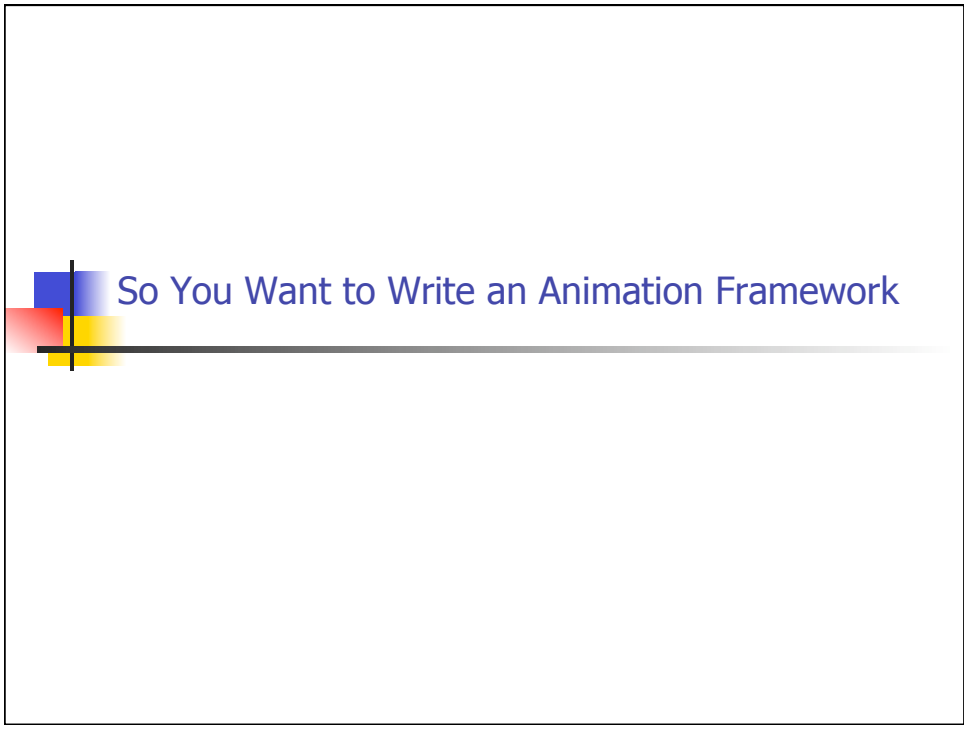
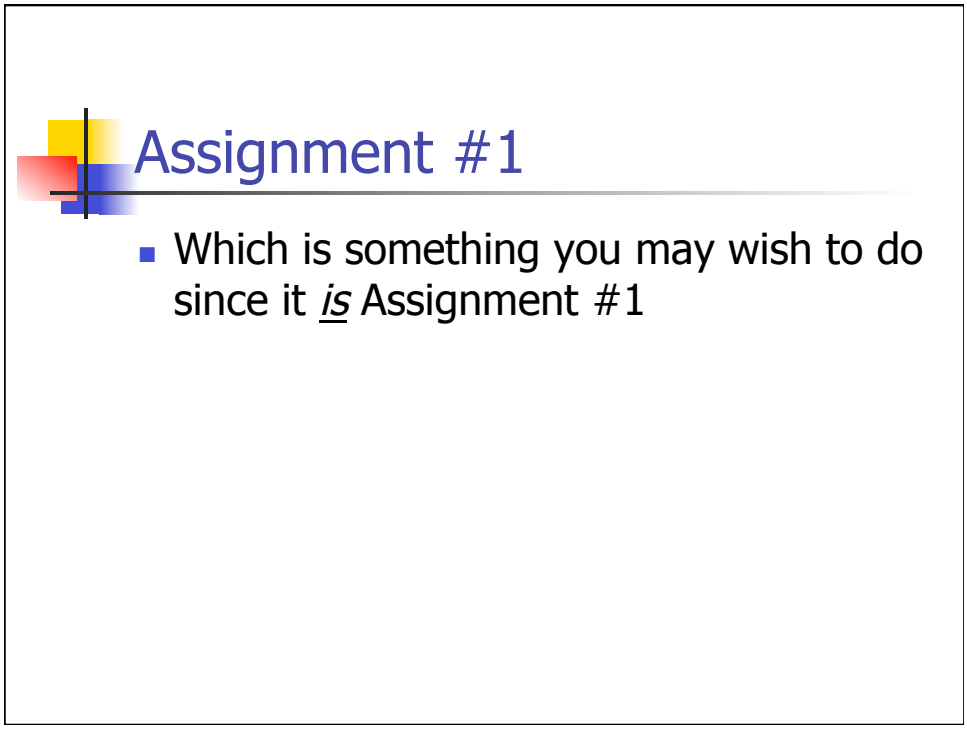

So You Want to Write an Animation Framework


Assignment #1
Which is something you may wish to do since it is Assignment #1

Assignment #1

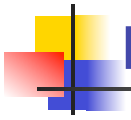
- Goal:
  - Create the framework and testbed for the animation techniques to be explored during the quarter.
  - In short:
    - The basics for creating an animation

Assignment #1

- Program may be:
  - Interactive – show the animation in window on the screen
  - Batch – create an app that will produce a set of input files for a renderer.

Assignment #1

- Assignment:
  - Animate a simple object (I.e. cube or teapot) using a mathematical expression to describe motion.
  - 20 second animation
    - X position = 5t (t is time in sec)
    - Y position = 5t (t is time in sec)
    - Z position = constant
    - Rotation around Y axis = 2t (t is time in sec)
    - Rotation around X and Z axis = 0.



Note on real time animation

- t represents actual time NOT number of display loops generated.
- For real time applications
  - Simulate a constant frame rate
  - Calculate time past since last "update" to determine t.

Questions?

Assignments

- Grading
  - Each assignment is worth 20 points:
    - 5 points – for something that compiles
    - 15 points – for something that runs incorrectly
    - 20 points – for something that runs correctly
    - No bonus for first assignment.

Assignment #1

- Important to get this one right
  - It will be the basis for the remaining assignments!

Due dates

- Due
  - Friday, December 19th (yes, that's before break)
- Submission
  - posted on mycourses (dropbox framework)
  - Please include documentation on
    - how to run your app
    - How to build your app
      - Makefile
      - Visual Studio (.dws, and .dsp files)
      - Mac (Xcode files)
    - Renderer used if batch
    - Platform (sun/Windows/Mac)

Questions?

- Next time:
  - Principles of Animation
  - More on orientation (quaternions)