Instructions

This is a lab for unit IV, Nuts & Bolts, and does not need to be submitted.

The purpose of this lab is to give you a chance to create a simple script and interface it with a Processing program.

Instructions

1. Download the sample sketch called **scripting0.zip** from the class web page (under the "syllabus" section for the last class, November 16).

2. This is the example that we built in class.

   Note the following clarification: The code now contains the correct way to handle converting from a `String` to a hexadecimal integer. The Processing function `unhex()` will take a `String` variable and convert it to a hexadecimal integer. For example:

   ```
   String tmp = "ff99ffaa";
   color mycolor = color( unhex( tmp ));
   ```

   Note that the `tmp` variable is a color definition with 4 components instead of 3 like we've been using. The `color()` function expects this, so pre-pend the value `ff` to your RGB string, like this:

   ```
   String tmp = "330099";
   color mycolor = color( unhex( "ff" + tmp ));
   ```

3. Test the code to make sure it works for you. The code should draw a circle with a black outline, filled in magenta.

4. Modify the script to change the color of the object drawn. The script is stored in the file called `myscript.txt`. This file is in the folder `scripting0`. Try running the code again after you modify the color in the script. Your object should be a different color.

5. Modify the script and the Processing code so that the script contains the following values, and the Processing code uses those values instead of the ones that are hard-coded in the code given to you (`scripting0.pde`):
   - the width of the display window
   - the height of the display window
   - the initial x value of the origin of the object drawn
   - the initial y value of the origin of the object drawn
   - the width of the bounding box of the object drawn
   - the height of the bounding box of the object drawn
   - the shape of the object drawn (e.g., circle or square)

6. Modify the Processing code to animate the object. Make the object move either vertically or horizontally, depending on settings read from the script. In the script file, use a conditional statement (IF-ELSE) to indicate which direction the object should move. If the object shape is a circle, then the object should move vertically, heading north. If the object shape is a square, then the object should move horizontally, heading east.