CSC 120 Introduction to Creative Graphical Coding, Fall 2017

Dr. Dale E. Parson, Assignment 4, Using JPG and/or PNG files as paintbrushes.

This assignment is due via D2L Dropbox <u>Assignment 4 PhotoArchitecture</u> by 11:59 PM on Friday April 20. When using Processing on the Kutztown campus Windows computers, make sure to start out <u>every time</u> by setting your Processing Preferences -> Sketchbook Location to U:\Processing. The U:\ drive is a networked drive that will save your work and make it accessible across campus. If you save it to your desktop or the lab PC you are using, you will lose your work when you log out. You must save it to the U:\ drive. If you do not have a folder called Processing under U:\, you must create one using the Windows Explorer. Processing Preferences is under the File menu on Windows.

P Preferences
Skatchback location
U:\Processing Browse
Editor and Console font Source Code Pro
Editor font size: 12 Console font size: 12
☑ Use smooth text in editor window
Enable complex text input (i.e. Japanese, requires restart of Processing)
✓ Increase maximum available memory to 256 MB
Delete previous application folder on export
Hide tab/toolbar background image (requires restart)
Check for updates on startup
Run sketches on display
Automatically associate .pde files with Processing
More preferences can be edited directly in the file C:\Users\parson\AppData\Roaming\Processing\preferences.txt (edit only when Processing is not running)
OK Cancel

1. Copy my starting code here <u>http://faculty.kutztown.edu/parson/spring2018/PhotoArchitecture2018.txt</u> into Processing and SAVE AS SKETCH **PhotoArchitecture**.

NOTE: My draw() function translates 0,0 to the middle of the display, so the bounds of the display are -width/2, -height/2 TO width/2, height/2.

2. Collect your 10 to 15 .jpg and/or .png image files and store them in the sketch directory. **15% of project**. Constraints:

Must be architectural images with regular geometries, typically indoors. Outdoors OK, but no skies, vegetation, or organic geometries.

Prepare around 10 to 15 such files to be used as paintbrushes.

The idea is to paint architectural superstructures, using architectural substructures as paintbrushes.

Have most differ in colors at the sides so you get different textured trails. Have some with black edges for etching paths.

3. Do <u>ALL</u> of the following steps in function MobileImage.changeSpeed(char key). I have done others the others listed in the handout comments. **30% of project**.

* 'r' increases clockwise rotation (more negative rotationspeed speed).

- * 'R' increases counterclockwise rotation (more positive rotationspeed speed).
- * 'S' increases scale speed (more positive scale speed in degrees).
- * 's' decreases scale speed (more negative scale speed in degrees).
- * 'H' increases shear speed (more positive shear speed in degrees).
- * 'h' decreases shear speed (more negative shear speed in degrees).
- * 'z' zeroes all of the above speeds, disaligns rotation.
- * 'a' toggle align rotation with slope "- speedy / speedx", minus sign because y=0 is at top.

4. Add at least 4 additional capabilities, such as those suggested after this comment, or your own. **40% of project**.

* BELOW ARE SOME IDEAS FOR STUDENT EXTENSIONS TO THESE COMPOSITIONAL IDEAS.

5. Put your name at the top of the file, and add comments near the top telling me what commands you implemented for step 4. If I cannot find documentation comments for your additions, I will deduct 15%. I will be running 54 programs, and I need to be able to find out what you added without digging through the code. **15% of project**.

PLEASE ZIP YOUR ENTIRE SKETCH DIRECTORY INTO A STANDAD .zip FILE AND DROP THAT INTO D2L. Do not send other compressed file formats. If you don't send me your .jpg and .png files, I won't be able to run your sketch.

Here is an illustration of zipping a folder on Mac (control-click in the Finder):



Drop avatarClass.pde into D2L Assignment Dropbox <u>Assignment 4 PhotoArchitecture</u> by 11:59 PM on Friday April 20.

I will attempt to record my 4/3 class presentation on D2L -> Communications -> Collaborate Ultra so you can watch it. Instructions are here; please note step 7:

http://faculty.kutztown.edu/parson/RTVCParsonStudent.html