UML/Sequence Diagram

0. At this first step the constructor which creates the GUI is created when the main method of the Final class is executed.

1. This step prompts the GUI to appear on the user's screen. Here they will have access to the file choosers, sliders, and the run button. After configuring their settings the user will click the run button.

2. When the run button is pressed, an instance of the profile class is created. This object holds the user's settings, i.e. input/output strings, and cluster amounts/sizes.

3. This represents the passing of control from the GUI class, Final to the Process class. The method Create() uses the Profile object created in step 2 as an argument. The manipulations which follow in the Processes class use the data from this object as parameters.

4. Before the Processes class can take control in step 6, the Process class first creates an instance of the File class. The path of this file is identified by calling on the inputPath attribute of the Profile object.

5. The create method of the Process class then creates an instance of the BufferedImage class. This object is then passed as workingImage though the Processes methods.

6. In this step control is switched between both the Process and Processes classes. The workingImage object is passed from the ProcessNegative method to the ProcessGreyscale and so on and so fourth, until reaching the ProcessBlue method.

7. After ProcessBlue runs the workingImage is then rendered as the output file. The path of this file is sourced from the outputPath in the Profile object. The user then locates the file here