Decoupling the Controller

Required Files

- Controller
  - CollageController
    - Since we are testing if the controller compiles we need the controller files
  - RGBACollageController
    - Since we are testing if the controller compiles we need the controller files
  - RGBAGUICollageController
    - Since we are testing if the controller compiles we need the controller files
  - RGBAController
    - This abstract class reduces code duplication from RGBACollageController and RGBAGUICollageController, meaning it contains methods that RGBACollageController and RGBAGUICollageController need to compile, otherwise all of the methods from the CollageController interface would not be implemented by these classes.
  - ImageUtil
    - This helper class manages the file I/O for the controller, and the methods defined within RGBAController require the use of ImageUtil, meaning that it is necessary to compile the implementations of our controller.
- Model
  - Collager
    - This is the interface that defines the general model for a collager program, meaning that it is needed since the controller needs the information from the model in order to run the program.
  - Layer
    - The Collager interface has a method to return the layers in it, which is needed for saving the project to file, meaning that the layers interface is necessary.
  - Image
    - The Collager needs to be able to combine images and layers, which is done with our special Image interface. Thus, the Image interface is necessary to include.

- ○ Pixel
  - ■ The Image needs to be able to combine each pixel together when trying to combine images together, which is done using our special Pixel interface. Thus, the Pixel interface is necessary to include.
- ○ Filter
  - ■ This interface defines how filters should be applied to Layers/Images (and therefore Pixels). Since the collager program specification requires that filters are available to add to layers/images, this interface is necessary.
- ○ TwoFilter
  - ■ This interface defines how filters should be applied when they need to be applied with two Layers/Images. Since the collager program specification requires the use of filters that apply over two images/layers, this interface is necessary.
- ● View
  - ○ CollagerView
    - ■ This interface defines the general behavior for any view for the collager program. This interface is used by the controller to render messages for the text-based collager program.
  - ○ GUIView
    - ■ This interface defines the behavior for a view that uses GUI for the collager program. This interface is used by the GUI controller, the controller adds itself to the view to allow the processing of GUI commands from the user. Because the GUI controller must let the view handle the GUI visuals and inputs, the GUIView interface is necessary.