



Main game loop is referring to MainController.java

- It is the single entry point of the program.
- Calls the FileLoader.java class to read in a text file, and create the Rail, Switch, Station, and Train Objects.
- Connects all of pieces together and stores them in a graph structure labeled root.
- Places the train on the root Station.
- GUI is created and images are loaded from the resources directory.
- Mouse input is received by the GUI and begins the train's logic.

- Trigger for the GUI loop is rendered by extending AnimationTimer.

Train Object

- Has a reference to the Rail it is currently on and is able to track its state (traveling or not).
- Threaded logic that uses a LinkedList<Message> inbox to trigger actions for the train.

Rail object

- Threaded object that has reference to the train, and any adjacent neighbors it might have.
- Has an inbox logic similar to what the train uses to process messages and find valid paths for the train to travel on.

Switch and Station Objects

- Extend Rail
- Have slightly different variables than Rail but for the most part perform the same functions.
- Stations have the ability to receive mouse input and create the different types of Messages to be used by the rail system.
- Switches are just rails that align at an angle.