



Comments / Assumptions

- a. Access modifiers, getters, setters omitted.
- b. Constructors assumed.

Changes from implementation of Assignment 5

- a. Removed Passenger from class diagram as we are only concerned with their count and not individual objects.
- b. Removed displayInfo() from Bus and Stop since it is out of scope for current requirement. Removed sortEvents and popEvent methods in EventQueue since not needed.

Changes due to new requirements

Stop class

- a. Added low & high boundaries for passenger exchange distribution values.
- b. Added methods to calculate Rider count for Arrive, Off, On and Depart based on above boundaries.

SimulationEngine class

- a. Added moveBus and calculateSystemEfficiency methods to handle client commands.
- b. Added properties for efficiency coefficients.
- c. Added initFromFile to initialize engine from input file.
- e. Added eventHistoryItemList to store a string of comma separated values representing state of bus and stop before an event is processed.
- f. Added rewindEvents(n) to handle client request for rewind of n events using the information from eventHistoryItemList
- g. Added changeBusSpeed, changeBusCapacity and changeBusRoute methods to accept user input for these actions

Bus Class

- a. Added riderCount and changeRoute.
- b. Removed updateDestination since stopIndex setters suffice
- c. Added a HashMap to store pending Bus Changes. Stored as <changeType, changeDetail> where changeType is speed, capacity or route and detail is a string with associated details of change
- d. Added addChange and clearChanges methods to add and clear above HashMap

EventQueue

- a. Added updateEvent to update time on an existing event. This is needed because a rewind will need to rewrite time on existing event