

ControlTower generates an initial group of Passengers with destinations in a given range to mimic a morning rush

ControlTower checks for available Elevators, which are Elevators currently on the ground floor.

Based on the destinations of the Passengers and the number of elevators available, a range is decided for each elevator, so that each Elevator's range is **at most one away from any other Elevator's range**

Passengers are placed into the Elevator whose range corresponds to the Passenger's destination. Their waitTime is set to the time they spent waiting to be placed into an elevator.

Elevators calculate their timeToEnd(), using the Passengers' data

timeToDestination() is calculated for every Passenger by using available information about other Passengers and the floors that will be visited prior to each Passenger

Once $\text{currentTime} - \text{birthTime} == \text{timeToEnd}()$, which is mentioned above, the Elevator becomes available for more Passengers and **reassigning of its zone**

ControlTower continues sending passengers as the workday continues

Information for every Passenger is written to log.csv. This includes destination, waitTime, travelTime, and totalTime. A stat.csv file is also generated, which contains frequencies for each destination, and mean and median fields for the time variables.