

Iteration 1

Workflow:

Main class starts threads -> FireIncidentSubsystem, DroneSubsystem, Scheduler. Number of Drone threads is dependent on how many drones we want.

Scheduler

- Responsible for keeping track of incidents and telling drones to put them out
- Will hold a queue of Incidents.
- Will contain synchronized methods to add incidents to the queue and remove incidents from the queue (drone put out a fire). These functions will be referenced in the Fire Incident Subsystem and Drone Subsystem

Fire Incident Subsystem

- Member variables would include a scheduler etc.
- Responsible for notifying the scheduler that an incident has occurred
- Will read each row from the csv or take user input (extra)
- With information collected from user input or csv, it will create an Incident object
- Will add the incident to the scheduler using the synchronized method

Drone Subsystem

- Member variables would include a scheduler and droneID
- Responsible for receiving requests from scheduler and then putting out the fire
- Will remove an incident from the incident queue
- Will sleep for X amount of time where X represents the total elapsed time to put out a fire
- Will send success message to scheduler

Incident Object

- Takes Time, Zone, ID, Event type, Severity
- Create object, make any getters if needed