```mermaid
flowchart TD
    Start([Start Simulation])
    Start -->|Check if first vehicle is ready| EventList[/Event list/]
    EventList --> Decision{Event list is empty}
    Decision -->|Yes| Stop([Stop Simulation])
    Decision -->|No| Pop[Pop first event]
    Pop --> Process[Process event]
    Process --> Decision
```

Start Simulation

Check if first vehicle is ready

Event list

Event list is empty

Yes → **Stop Simulation**

No → **Pop first event**

Process event

Event process

Vehicle

Passenger

Start optimization

Release — Optimize → Optimizing — Optimize → Release

Idle

Assigned

update the environment

if route has been modified
Notify vehicle

passenger ready

For each passenger to board

Idle → Boarding → Ready

If no passenger to board
and has next stop

Vehicle Boarded

If connection

En route

vehicle
Arrival

If no passenger to alight
(Stop alighting)

Alighting — For each passenger to alight (Passenger Alight) → On board

Complete

If no connection

Complete