# Progress report

Date:2019-05-05

- Filter suitable cars
- Simulator environment
- Division of the task

~~1.arrange 10 random cars in the more concise map~~

~~2.compute the minimum distance between the sender and the ten cars~~

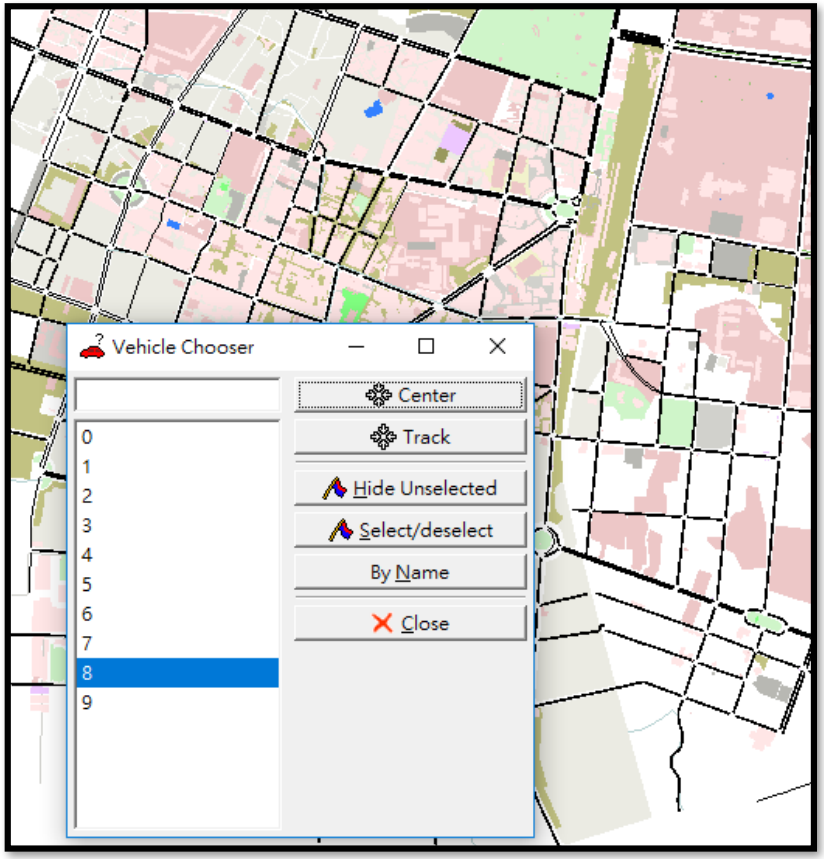
~~3.Dispatch the selected car to the sender~~

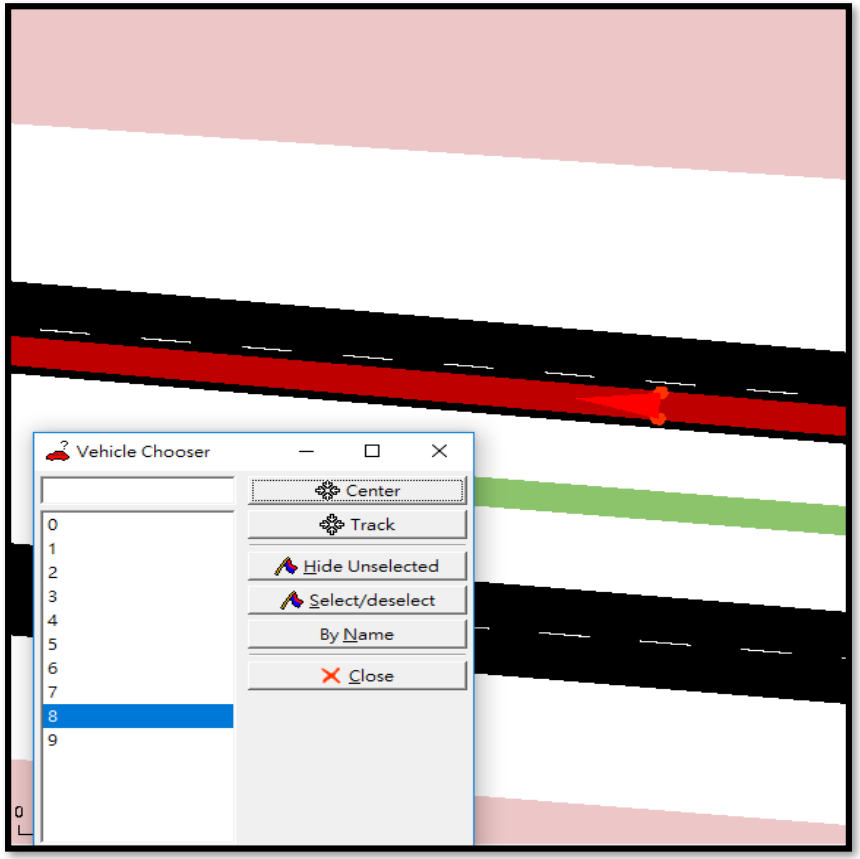
~~4.Add **travel-time estimation** function~~ and notification to the user connecting the Android

5.Try to receive the geo-position from user's request and save it in a appropriate  datatype (ex. arrayList)

6.Report the related data to the webserver (eg. the geo-position of the car)

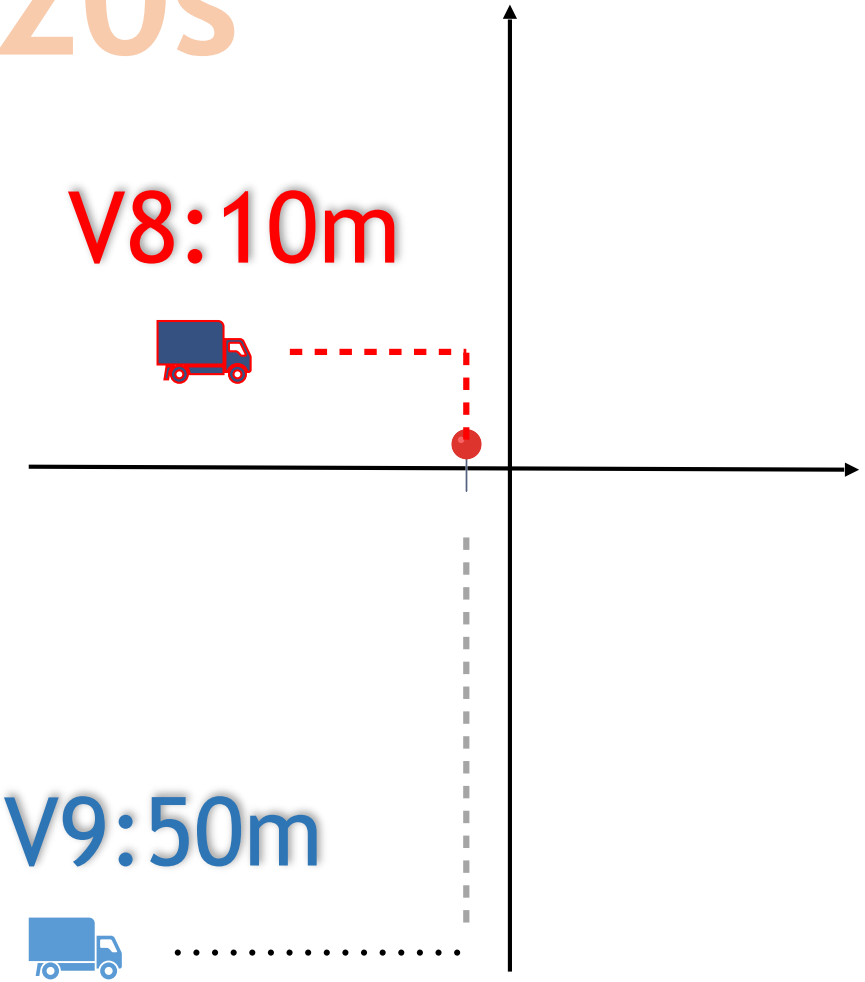
# 1.arrange 10 random cars in the more concise map



20s

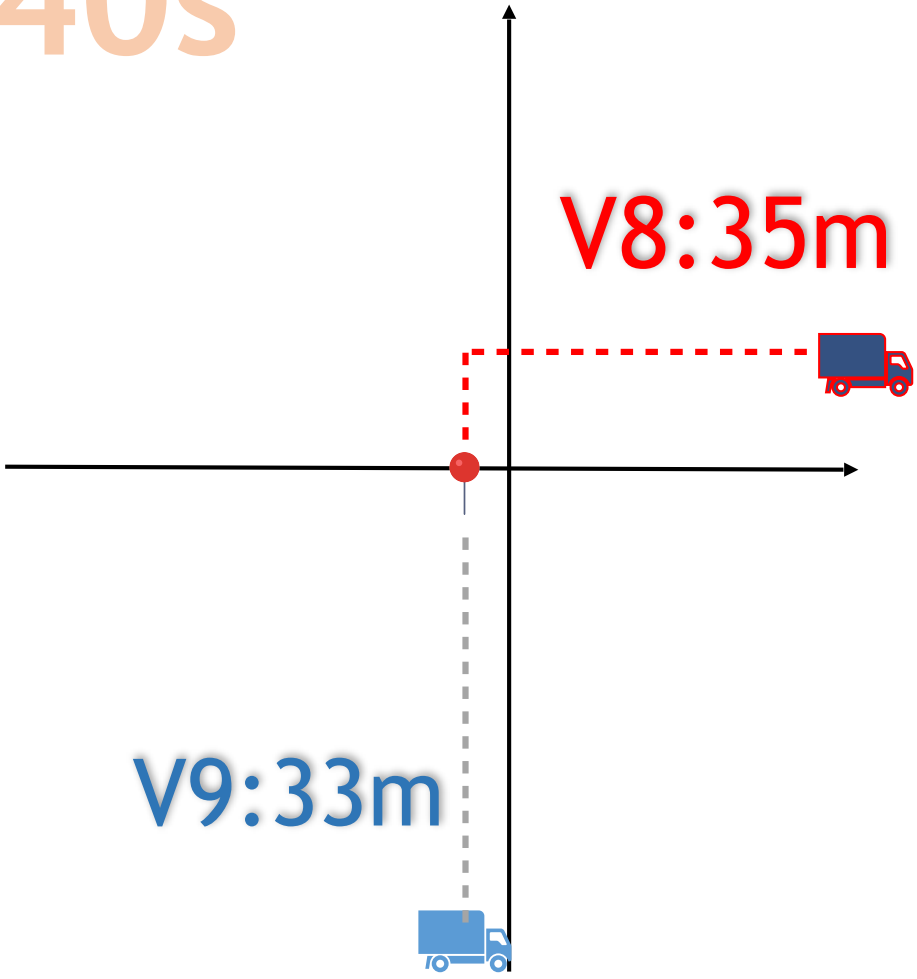
V8:10m



V9:50m

40s

V8:35m



V9:33m

# 1s

- current v8_edgeID is: 313194185#3
- current v8_position x: 4522.27833916253 y: 1920.8552667432366
- current distance between v8 to sender is:5075.269336728843
- current distance between v9 to sender is:4736.283500394948

# 2s

- current v8_edgeID is: 313194185#3
- current v8_position x: 4519.158030583849 y: 1921.896613339231
- current distance between v8 to sender is:5073.342501706793
- current distance between v9 to sender is:4739.520232601273

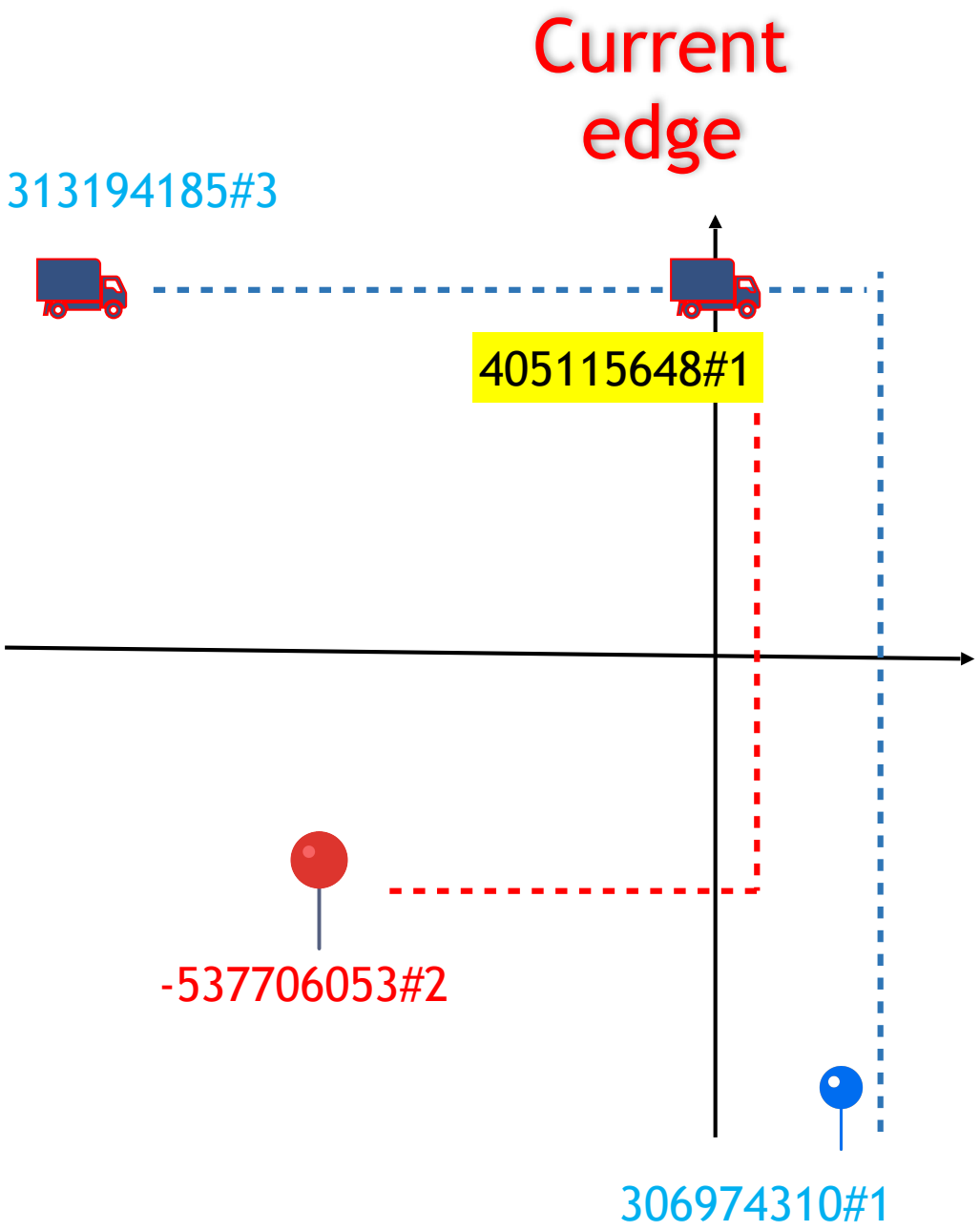
# 3s

- current v8_edgeID is: 313194185#3
- current v8_position x: 4514.207321846696 y: 1923.548822907995
- current distance between v8 to sender is: 5070.288245151509
- current distance between v9 to sender is: 4744.725440100539

# Received the request of the sender at 60.0s

- if((v9toSenderDistance< v8toSenderDistance) && timeSeconds==60.0 ) {
- System.out.println("we dispath v9 to the sender address!");}

- else if(v9toSenderDistance > v8toSenderDistance && (timeSeconds==60.0))
- {System.out.println("we dispath v8 to the sender address!");}




**defaultRouteList:**[313194185#3, 313194185#6, 313194185#11, 313194185#14, 496257370#0, 405115648#1, 313194390#0, 675775398, 496257372, -315702598#2, -228022792#6, -228022792#2, 72871344, 72871329#2, 72871329#3, 27067581, 228022808#0, 228022808#2, 228022808#4, 228022808#6, 306974310#0, 306974310#1]

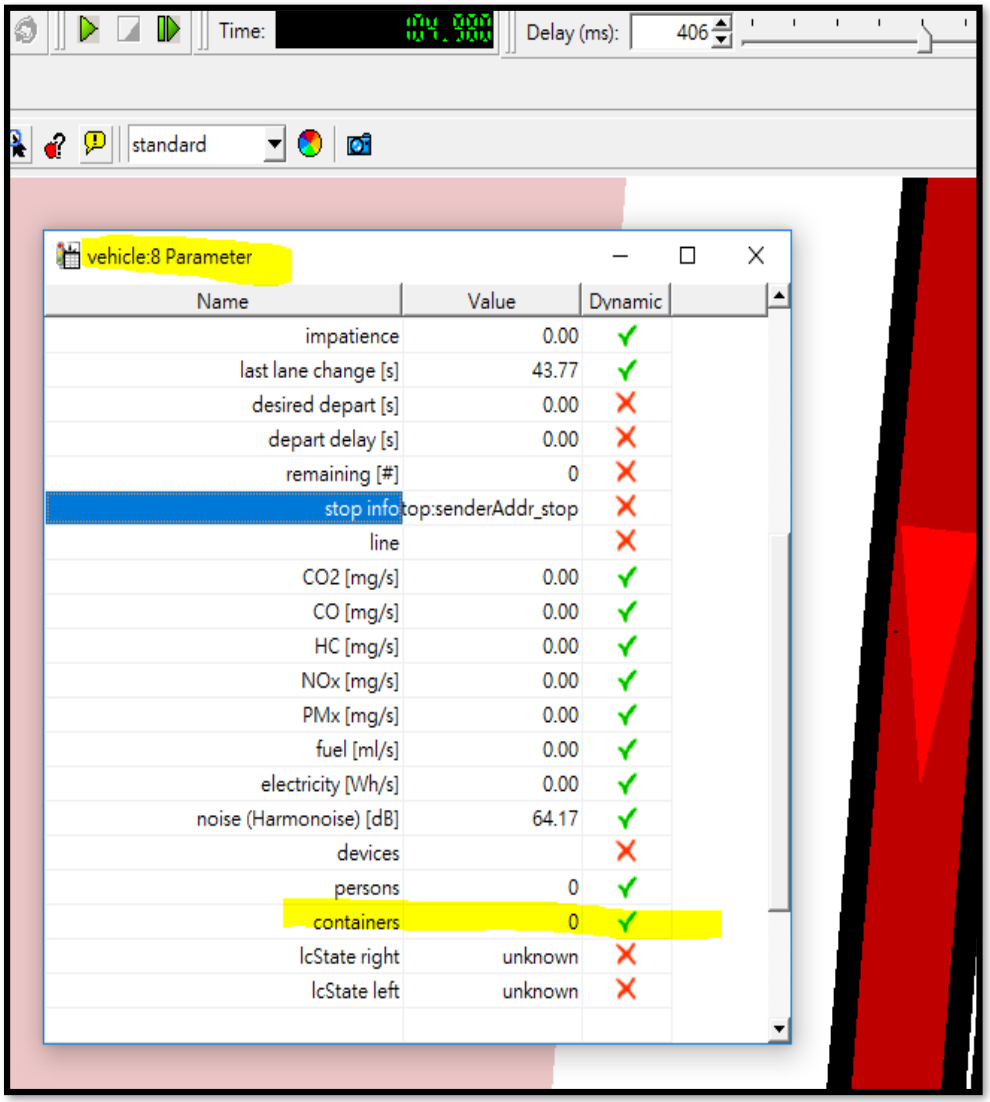
**changedRouteList:**[313194185#3, 313194185#6, 313194185#11, 313194185#14, 496257370#0, 405115648#1, -307096543#5, -537706053#4, -537706053#2]

We need 75.56 s from current edge to sender address (Vmax=20 m/s)

# The condition to filter the suitable cars

1.shortest distance

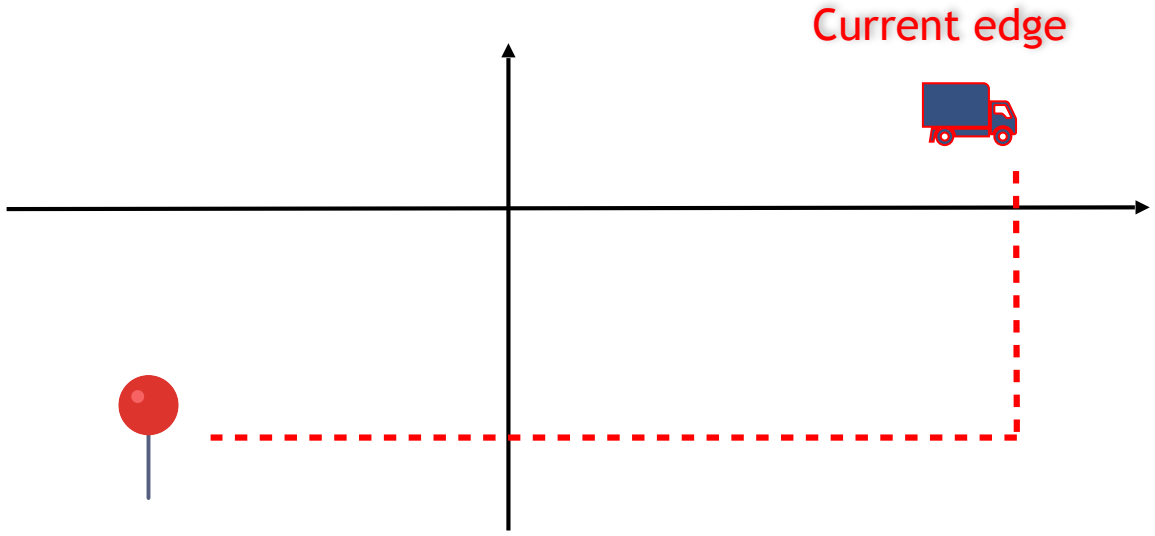
2.containers number (Transporting? Lower than container capacity?)
3.the selection of time Interval

# The selection of time Interval

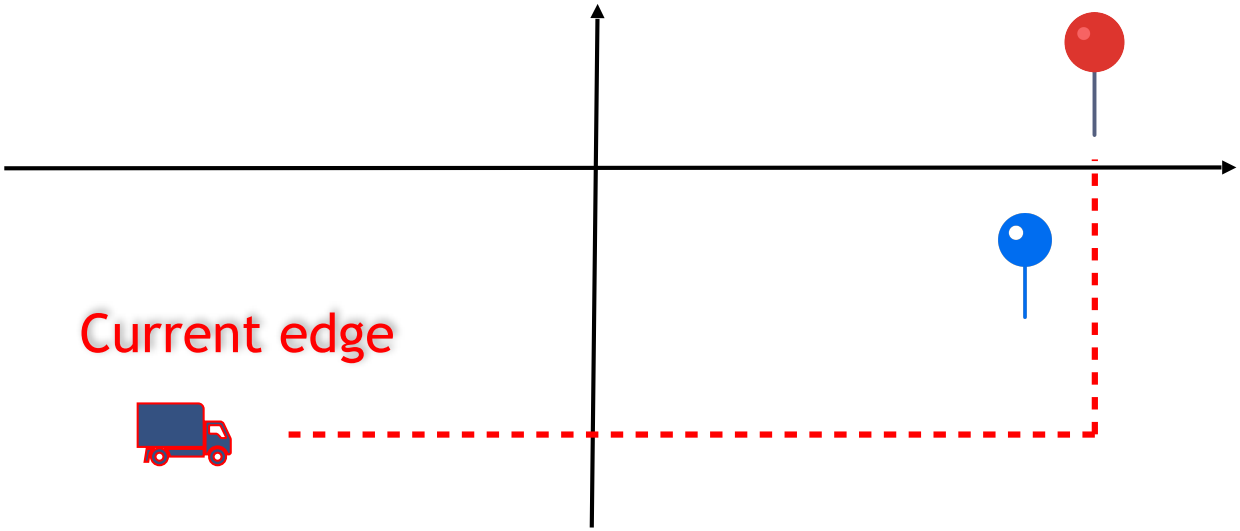

12:00~14:59
- (vmax=20)
- lower bound:1hr58mins (1*60+58)*60*Vmax=141600 [m]
- upper bound:4hr57min (4*60+57)*60*Vmax=356400 [m]

141600 < The distance < 356400

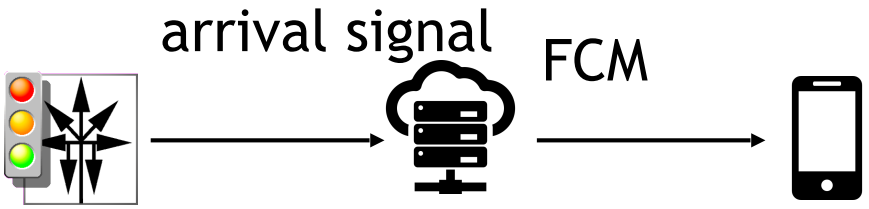


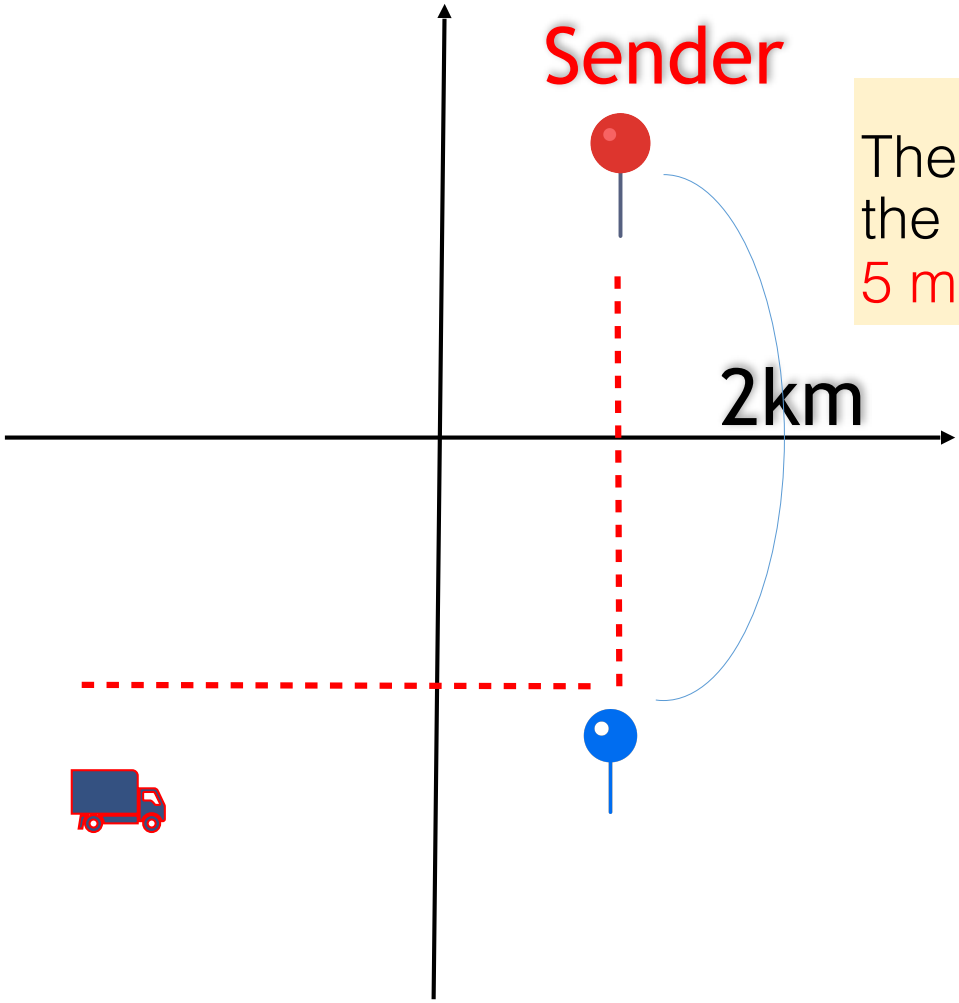
# Waiting time


- Current time:10:02
- The sender selected 18:00~20:59
- If we assume the car would arrive to the sender's address at 15:00,
- we would make the car waiting at the place nearby the destination from 15:00~18:00

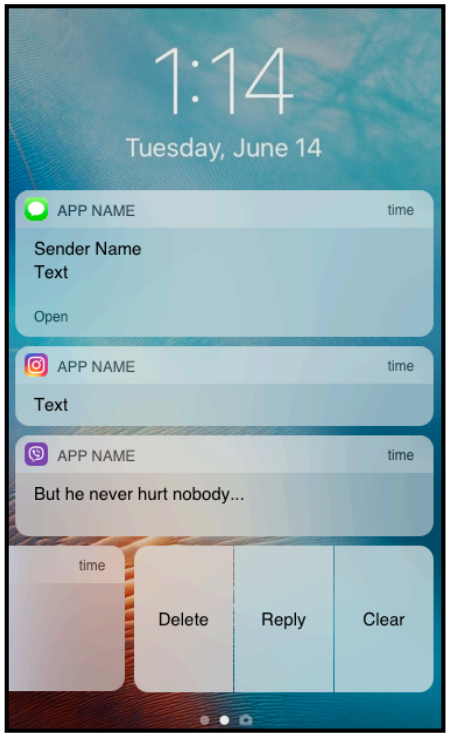


# Notification to the sender with 2km



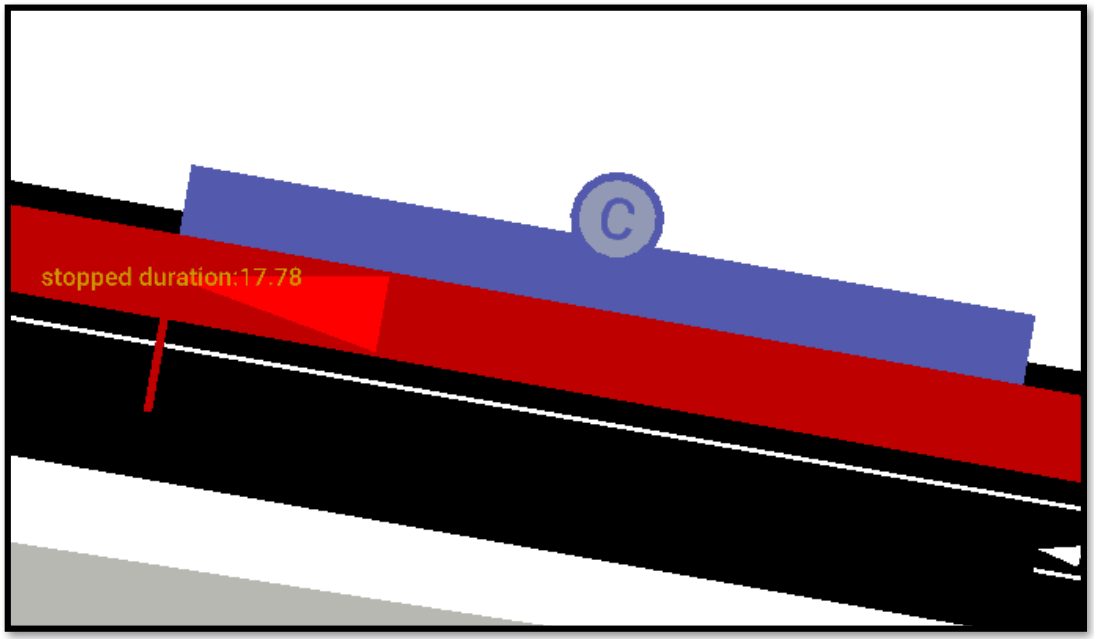




The sender would receive the message that the car would arrive to the destination within 5 minutes (or position)



# Arrive to the sender

1.到點通知，以廣告推播型式




# Arrive to the sender (2)

2.SUMO-server發訊息給receiver確認收貨時間

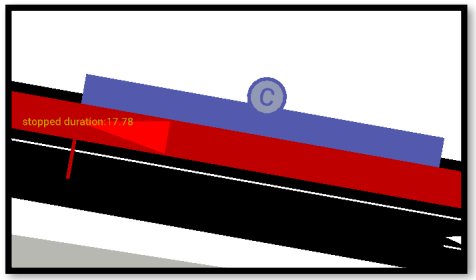
(讓sender有預設時間or最短時間)

3.SUMO安排路徑與設置在receiver地點停下

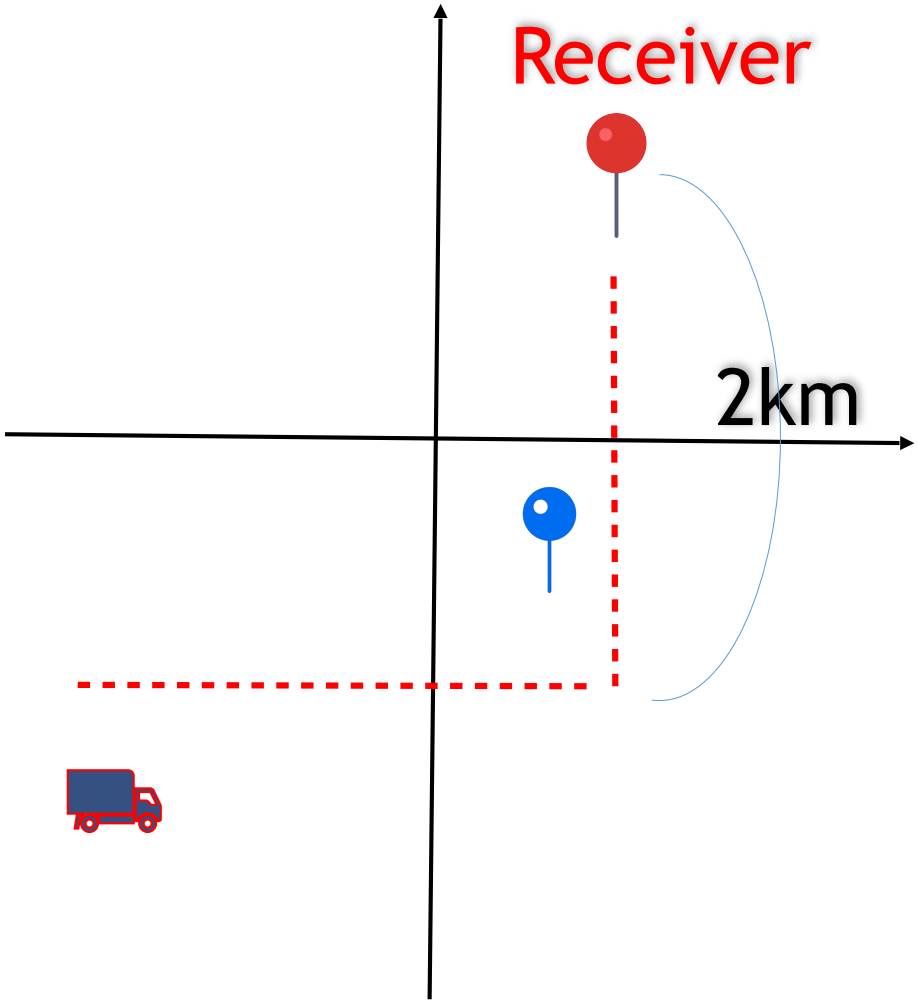
3.等待sender按下trigger鍵，以確認上貨完畢

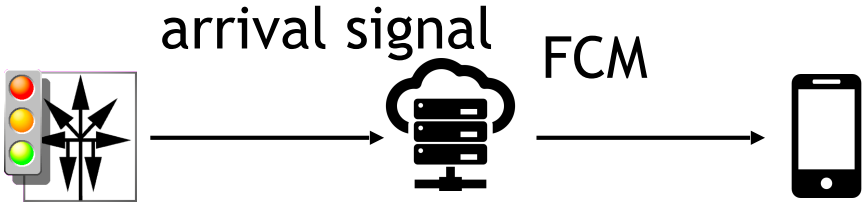
4.結束目前stop stage

5.車子從sender出發，前往receiver

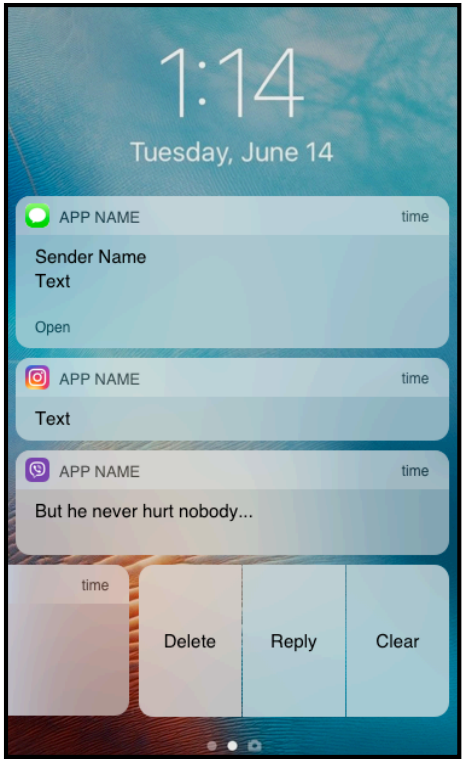



## Notification to the receiver within 2km




The receiver would receive the message that the car would arrive to the destination within **5 minutes**



## Arrive to the receiver’s address

1.到點通知，以廣告推播型式

2.等待receiver按下trigger鍵，確認收貨

3.結束目前stop Stage

4.車子從receiver離開，前往火車站

# 分工部分

**布**

- 推播通知
- 手機訂單查詢
- Android UI
- webserver
- 連線功能

**慷**

- 車輛派遣
- 路線規劃
- 上下卸貨
- SUMO-API撰寫
- 地圖資料處理