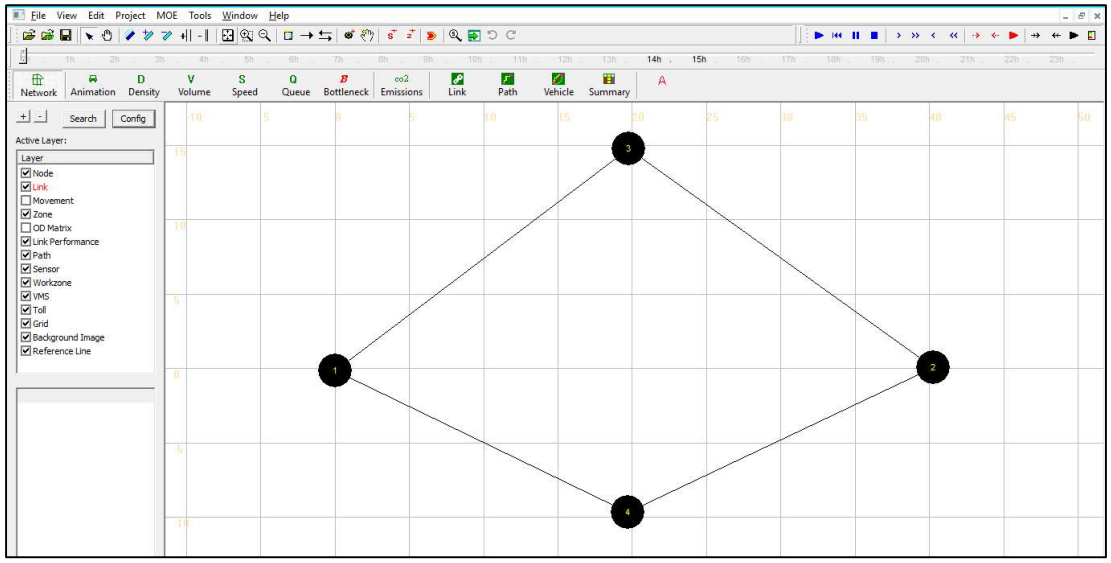
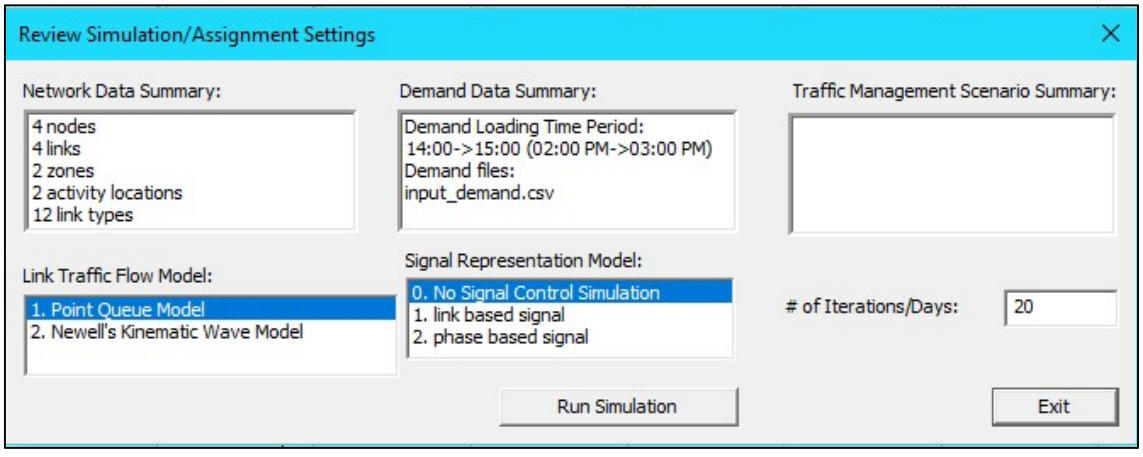
TRAFFIC SIMULATION AND MODELLING
ASSIGNMENT-6

DEEPAK SHANKAR
1214689567

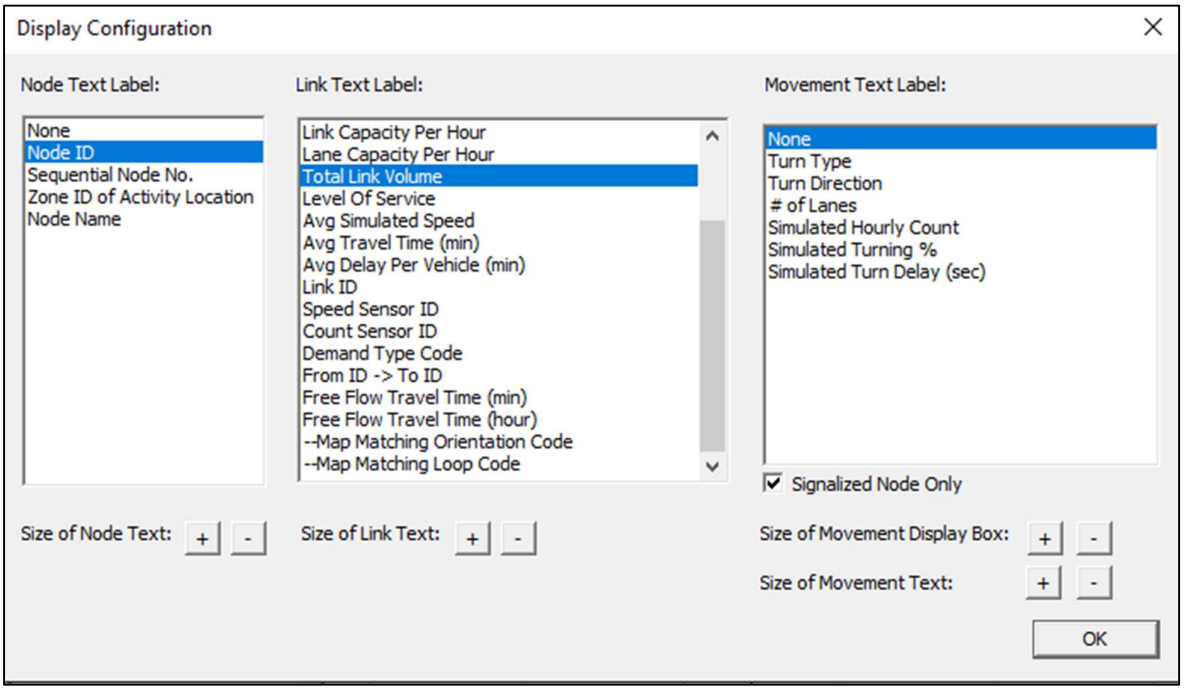
Task 1: Building the network

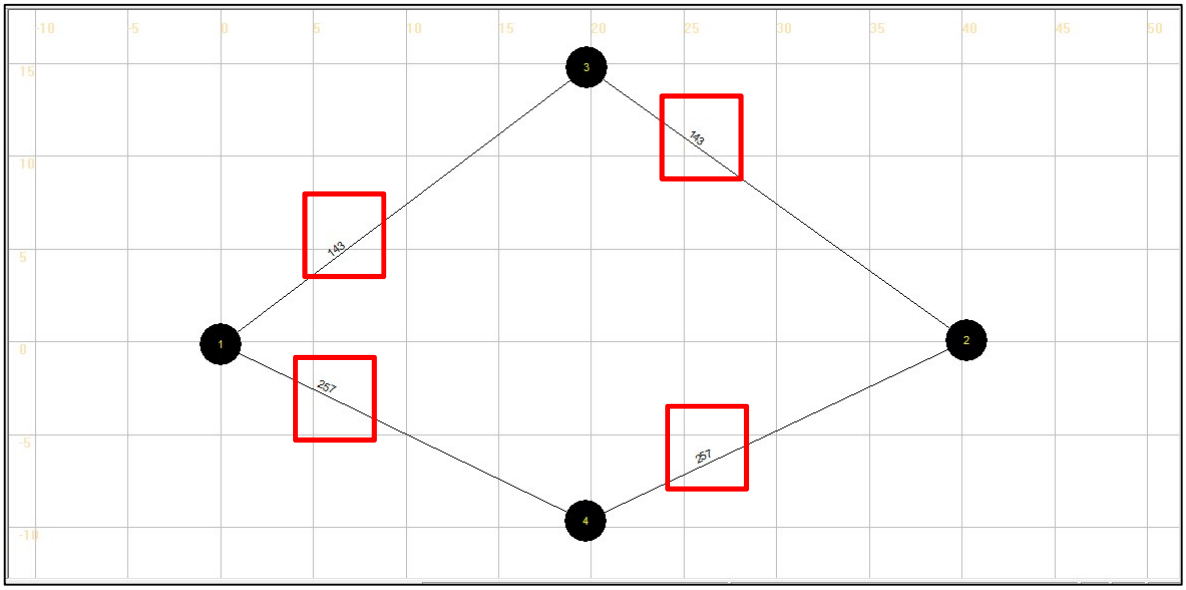


Task 2: Run the simulation considering number of iterations as 20



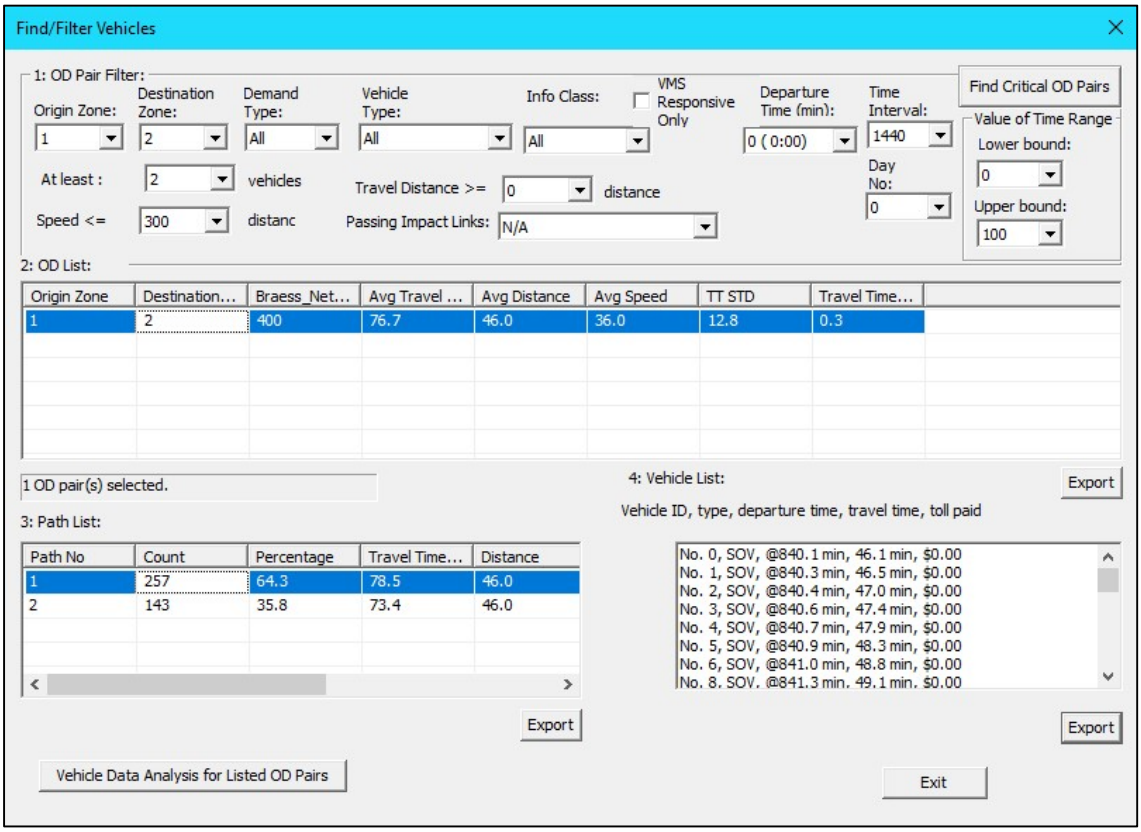
Task 3: Display Total link volume



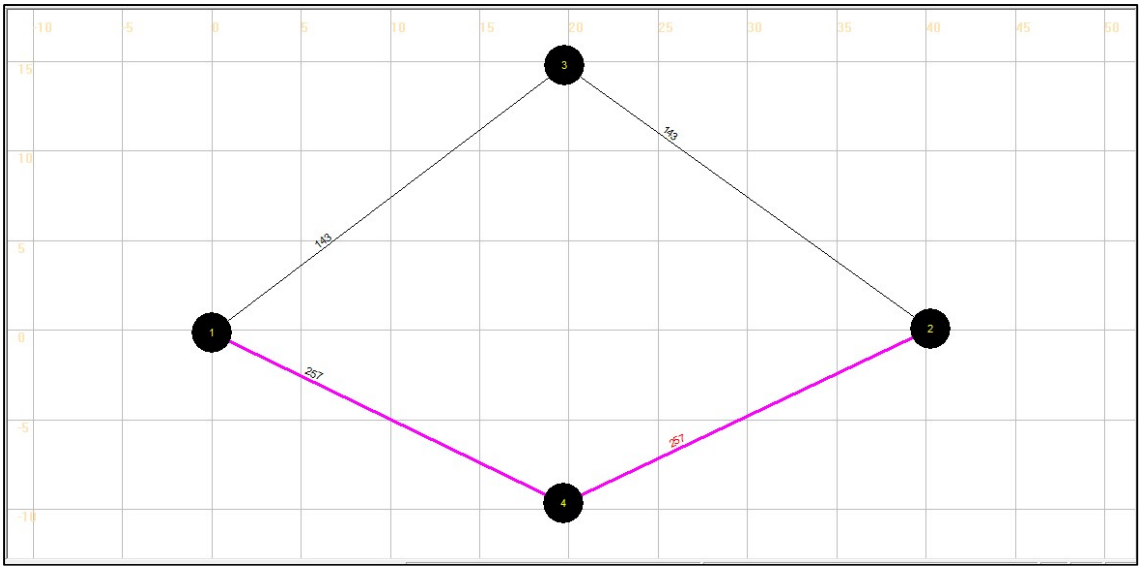


Task 4: Prepare statistics for the base case scenario.

Origin zone-1, Destination zone-2

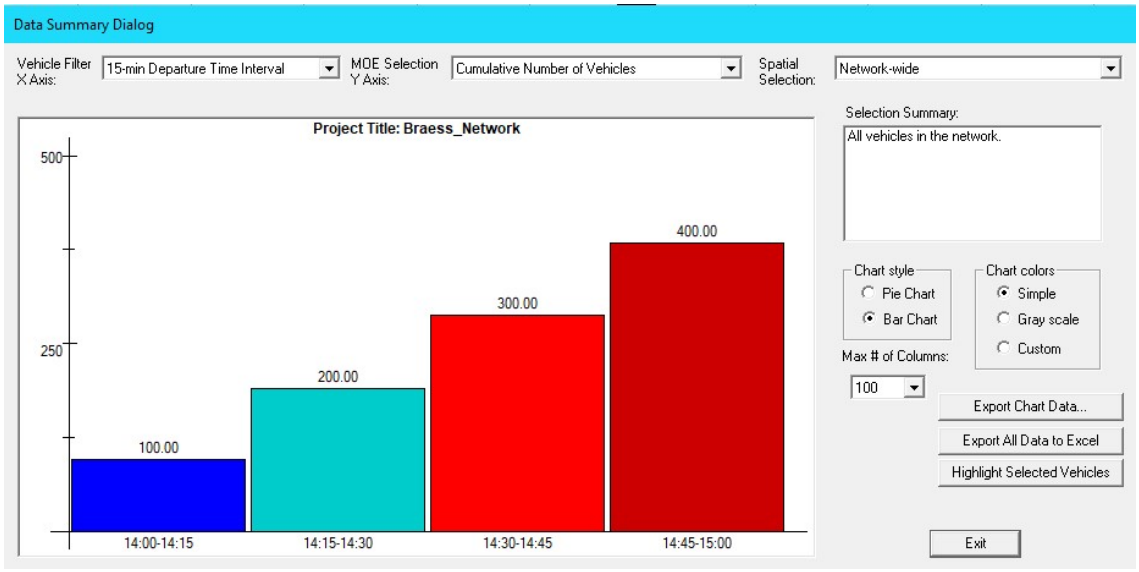


In the above find/filter vehicle dialog box **Path-1** (1-4-2) is selected. Below figure shows path-1 is highlighted

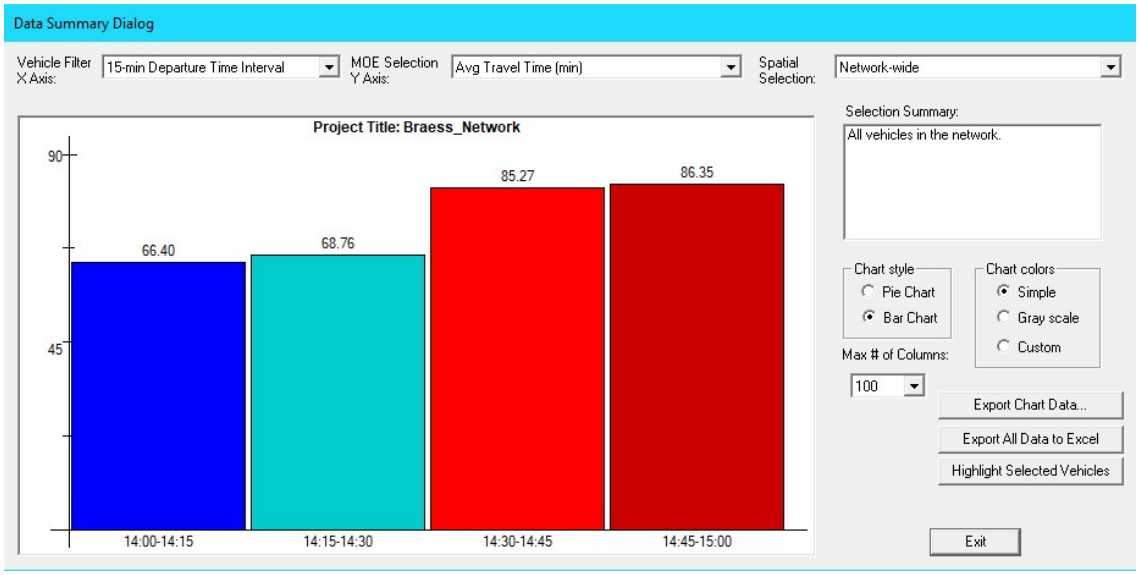


Task 5: Overall network performance – summary

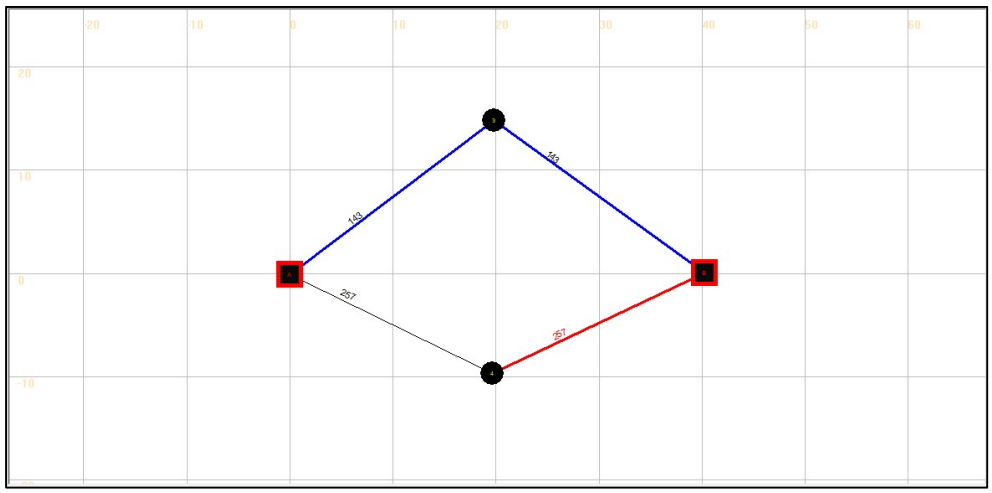
X-axis – 15 min departure time interval
Y-axis – Cumulative number of vehicles



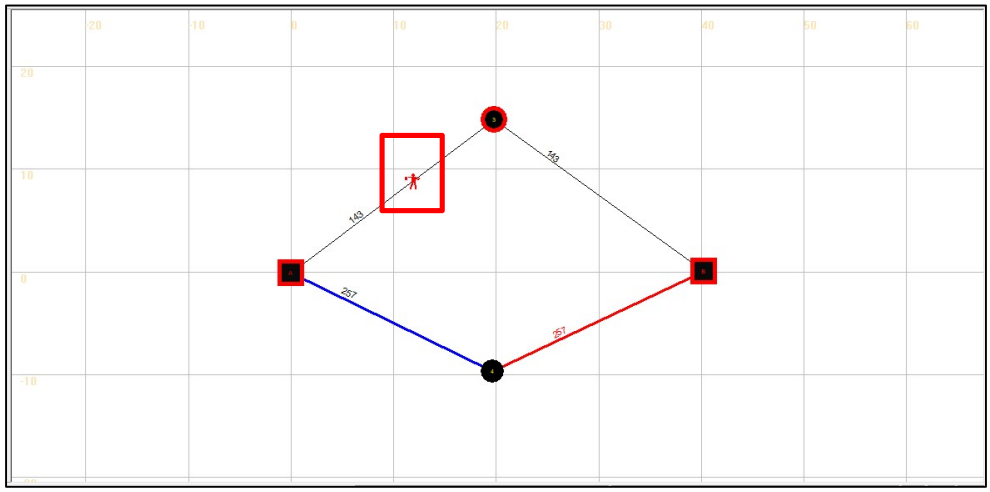
X-axis – 15 min departure time interval
Y-axis – Average travel time



Task 6: Find the shortest path

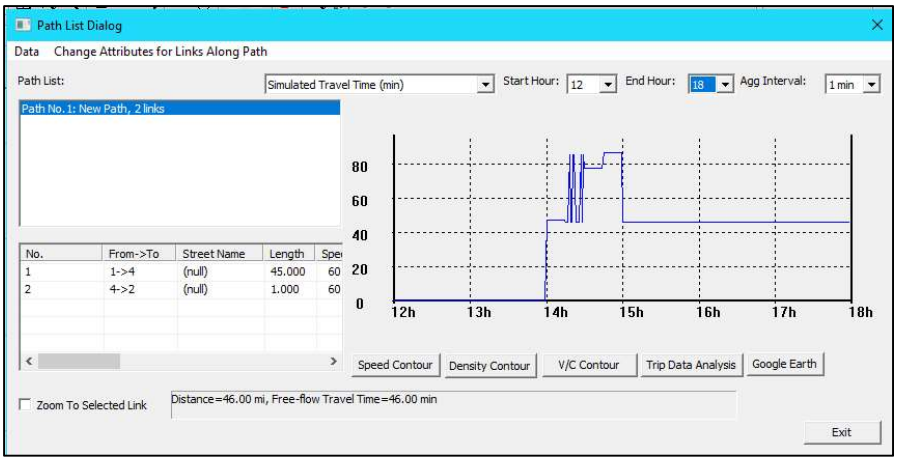


The links highlighted in blue shows the shortest path from node-1 to node-2. The shortest path is 1-3-2.

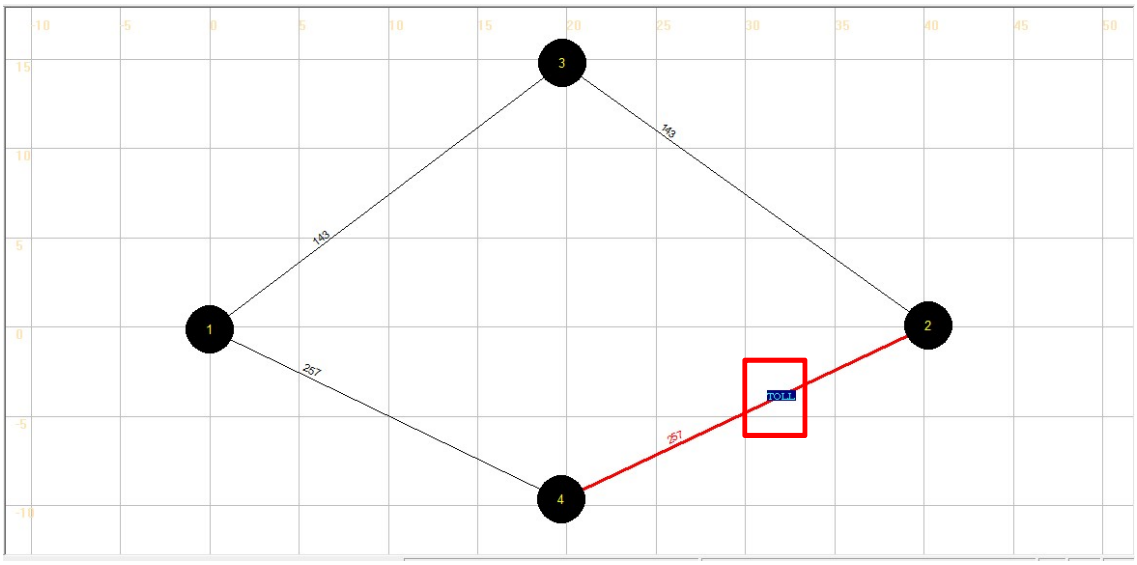


For illustration, lets considered node-3 is avoided. Now the shortest path is 1-4-2

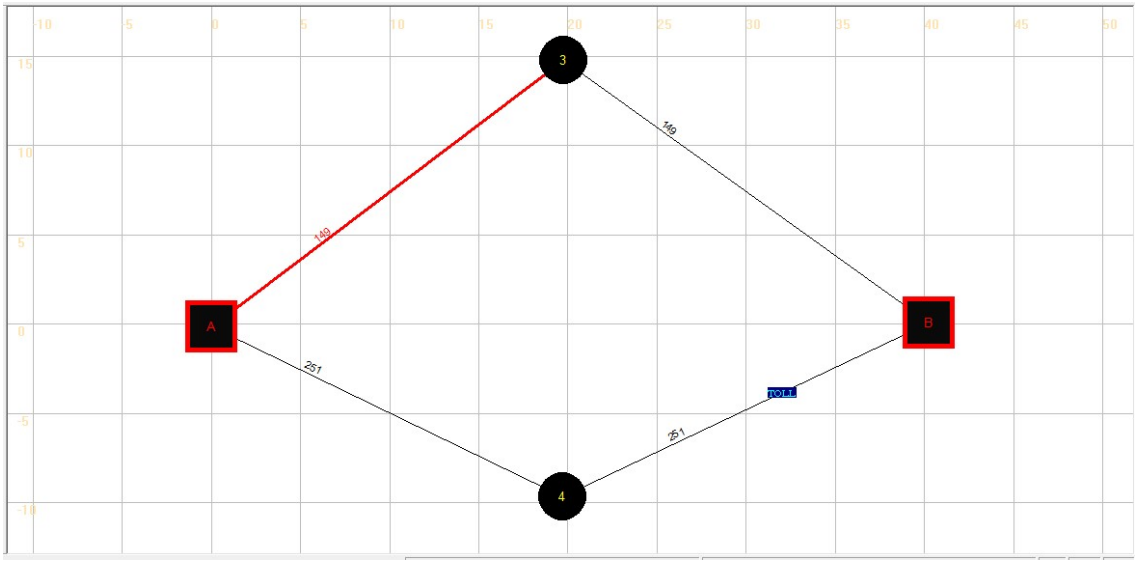
Path list dialog box



Task 7: Adding link toll and running the simulation



Toll is added to the link from node-4 to node-2.



After running the simulation, the vehicle volumes on the link 1-4 and 4-2 have reduced and corresponding vehicle volumes 1-3 and 3-2 have increased. This change is because of the addition of toll to link 4-2.