KALIBRASI DAN VALIDASI

- Merubah parameter tertentu pada perilaku pengemudi (Driving Behaviour).
- Parameter tersebut adalah:

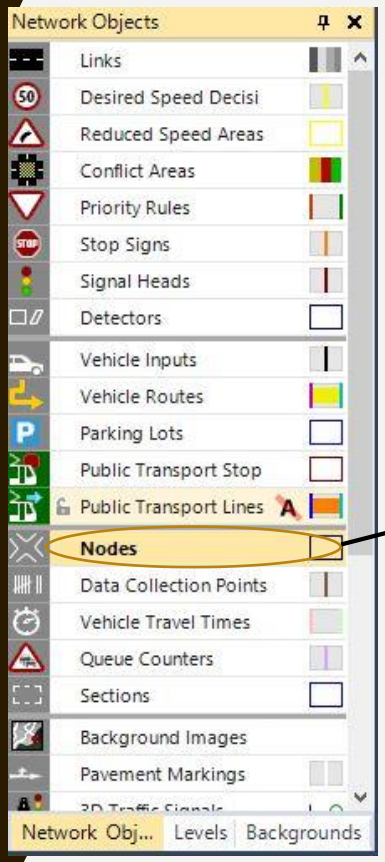
1. Desired Position at Free Flow : posisi kendaraan kendaraan yang dikehendaki saat arus bebas.
2. Overtake on Same Lane : pengaturan perilaku pengemudi pada saat menyiap kendaraan di depannya. Dengan mengatur jarak minimum terhadap kendaraan yang akan disiap
3. Distance Standing : nilai minimum dari jarak pengemudi saat memberhentikan kendaraan terhadap kendaraan lain.
4. Distance Driving : pengaturan jarak aman kendaraan saat melaju dengan kecepatan 50 km/jam
5. Average Standstill Distance : pengaturan jarak rata-rata kendaraan terhadap kendaraan lain
6. Additive Part of Safety Distance : jarak aman tambahan saat kondisi normal, seperti pengemudi melakukan rem secara mendadak
7. Multiplicative Part of Safety Distance : jarak aman tambahan untuk kondisi tidak normal saat mengemudi

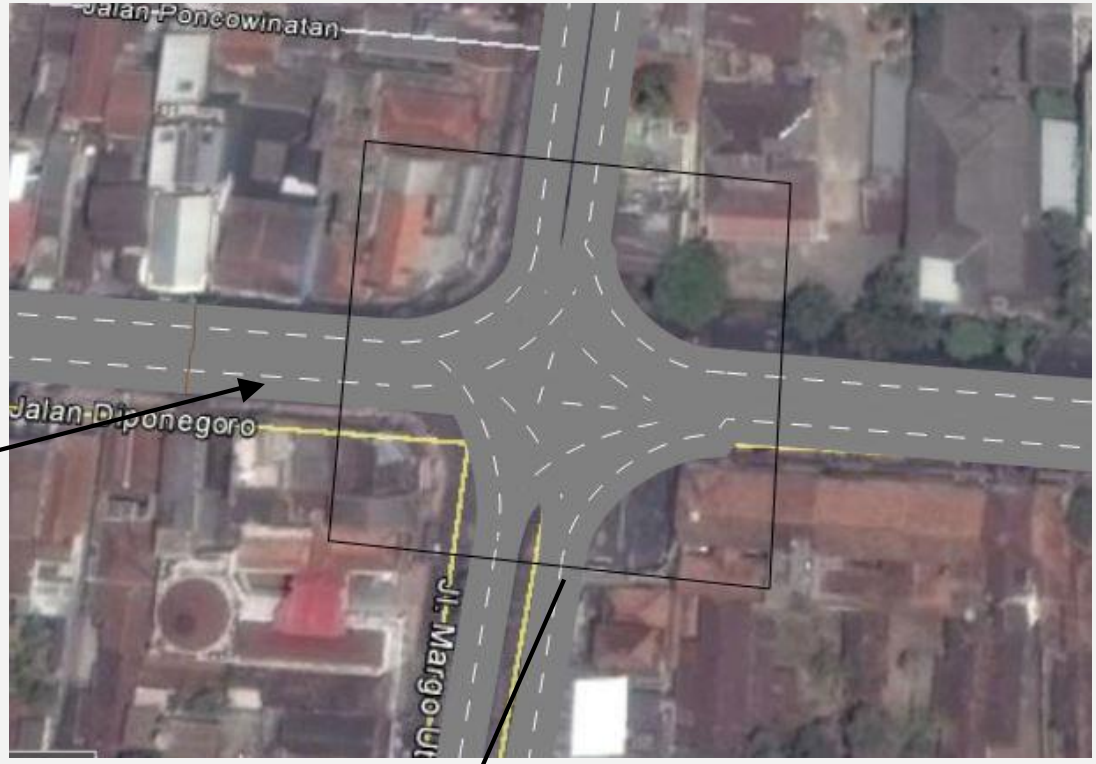
Kondisi Default pada Software Vissim

No.	Paremeter	Nilai
1	Desired position at free flow	Middle of lane
2	Overtake on same line	off
3	Distance standing	1
4	Distance driving	1
5	Average standstill distance	2
6	Additive part of safety distance	2
7	Multiplicative part of safety distance	3

HASIL SIMULASI (VOLUME KENDARAAN)

1. Node Result (kotak dibuat diluar connector)





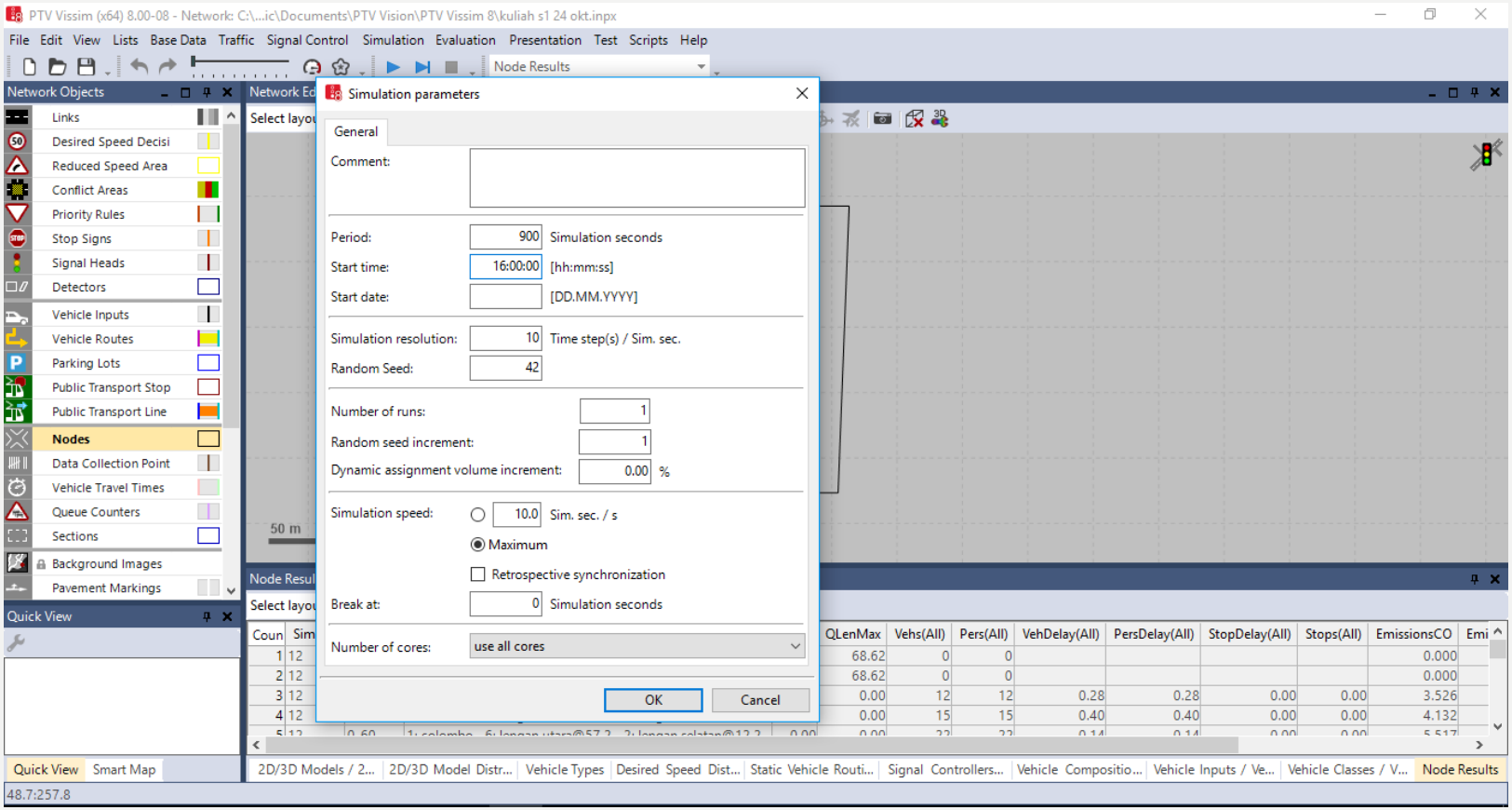
Node Results

Select layout... <Single List>

Count: 78	SimRun	TimeInt	Movement	QLen	QLenMax	Vehs(All)	Pers(All)	VehDelay(All)	PersDelay(All)	StopDelay(All)	Stops(All)	E
1	1	0-3600	1: Simpang Tugu Jogja - 1: jl. diponegoro@120.4 - 3: Jl. AM Sangaji@15.	0.00	0.00	122	122	0.69	0.69	0.00	0.00	
2	1	0-3600	1: Simpang Tugu Jogja - 1: jl. diponegoro@120.4 - 5: Jl. sudirman@11.3	0.00	0.00	75	75	0.73	0.73	0.00	0.00	
3	1	0-3600	1: Simpang Tugu Jogja - 1: jl. diponegoro@120.4 - 7: Jl. Margo Utomo@	0.00	0.00	23	23	0.35	0.35	0.00	0.00	
4	1	0-3600	1: Simpang Tugu Jogja - 1: jl. diponegoro@120.4 - 8: Jl. Margo Utomo@	0.00	0.00	23	23	0.23	0.23	0.00	0.00	
5	1	0-3600	1: Simpang Tugu Jogja - 4: Jl. AM Sangaji@93.1 - 2: jl. diponegoro@11.3	0.00	0.00	68	68	0.36	0.36	0.00	0.00	
6	1	0-3600	1: Simpang Tugu Jogja - 4: Jl. AM Sangaji@93.1 - 5: Jl. sudirman@11.3	0.00	0.00	74	74	0.37	0.37	0.00	0.00	
7	1	0-3600	1: Simpang Tugu Jogja - 4: Jl. AM Sangaji@93.1 - 7: Jl. Margo Utomo@4.	0.00	0.00	29	29	0.17	0.17	0.00	0.00	
8	1	0-3600	1: Simpang Tugu Jogja - 4: Jl. AM Sangaji@93.1 - 8: Jl. Margo Utomo@4.	0.00	0.00	21	21	0.10	0.10	0.00	0.00	
9	1	0-3600	1: Simpang Tugu Jogja - 6: Jl. sudirman@80.1 - 2: jl. diponegoro@11.3	0.00	0.00	115	115	0.97	0.97	0.00	0.00	
10	1	0-3600	1: Simpang Tugu Jogja - 6: Jl. sudirman@80.1 - 3: Jl. AM Sangaji@15.2	0.00	0.00	71	71	0.79	0.79	0.00	0.00	

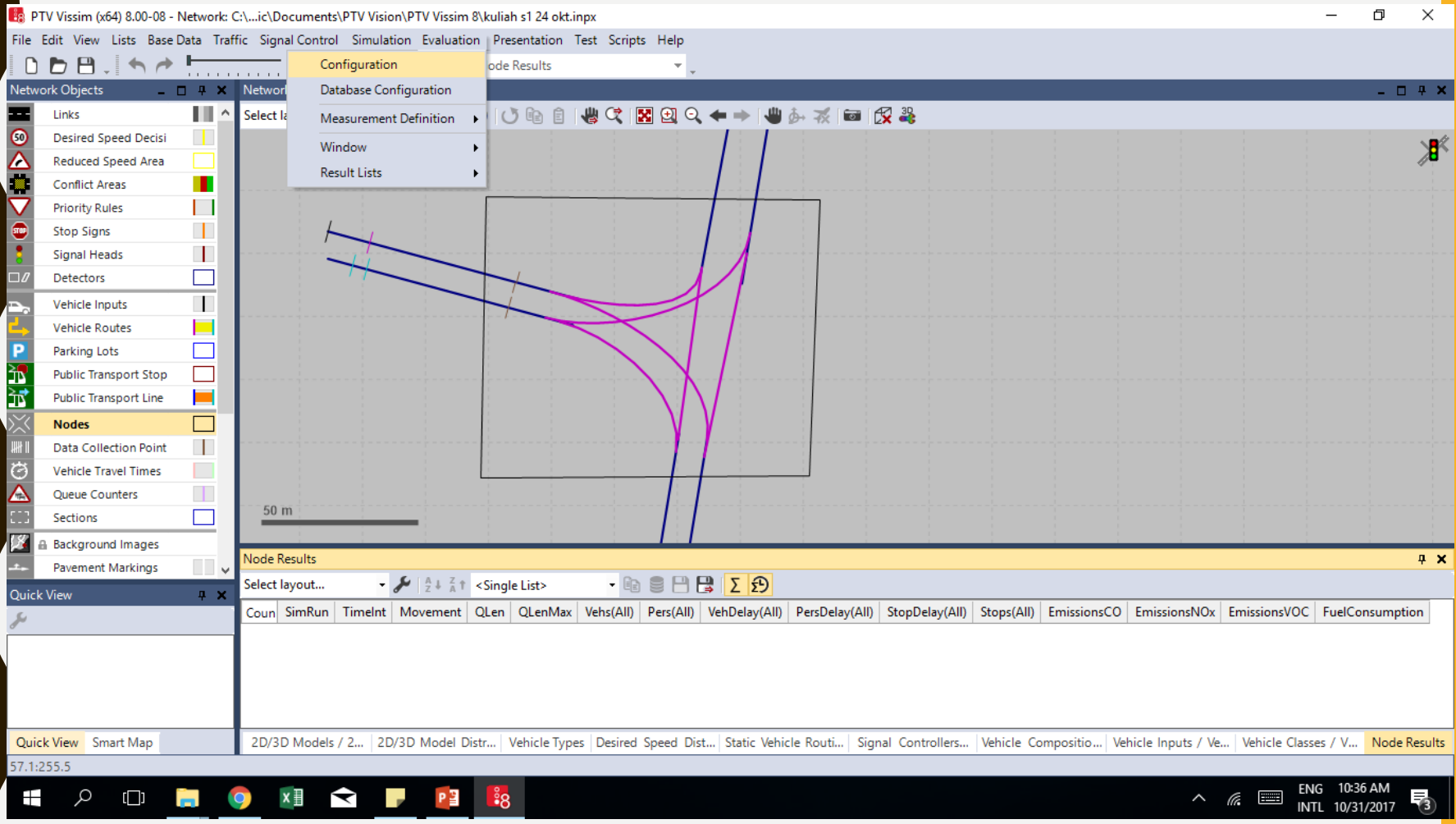
Simulation Parameter

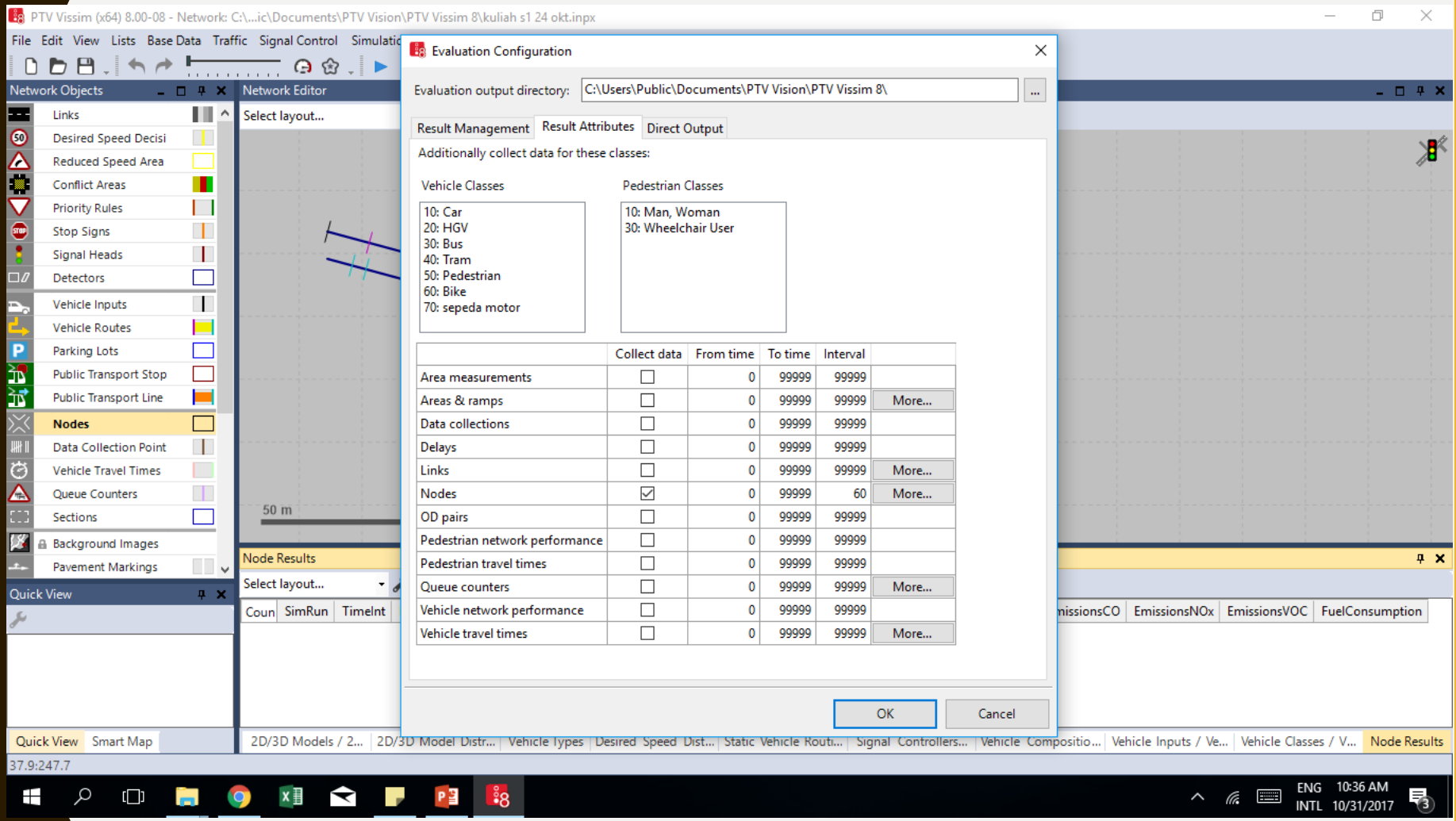
- Digunakan untuk menentukan periode waktu survei



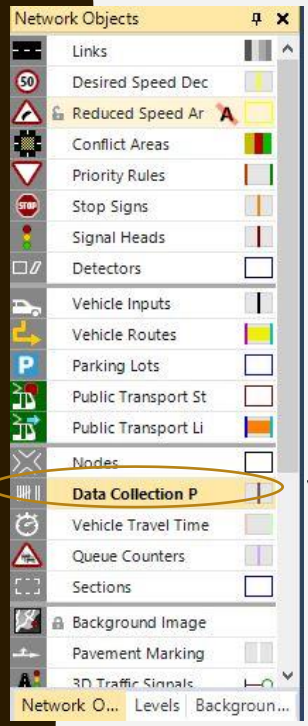
Evaluation Configuration

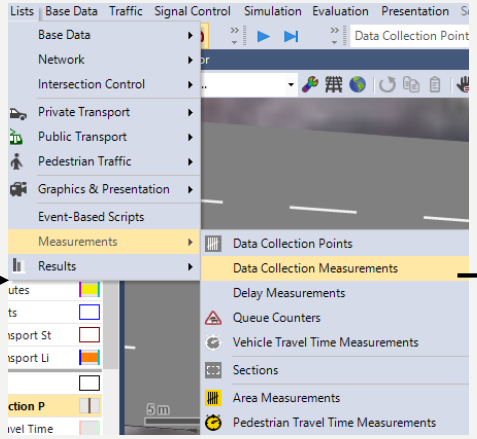
- Digunakan untuk menunjukkan hasil apa yang diinginkan
- Juga untuk menunjukkan interval waktu yang mau ditunjukkan setiap berapa detik sekali?




PTV Vissim (x64) 8.00-08 - Network: C:\...ic\Documents\PTV Vision\PTV Vissim 8\kuliah s1 24 okt.inpx
File Edit View Lists Base Data Traffic Signal Control Simulatio
Network Objects
Links
Desired Speed Decisi
Reduced Speed Area
Conflict Areas
Priority Rules
Stop Signs
Signal Heads
Detectors
Vehicle Inputs
Vehicle Routes
Parking Lots
Public Transport Stop
Public Transport Line
Nodes
Data Collection Point
Vehicle Travel Times
Queue Counters
Sections
Background Images
Pavement Markings
Network Editor
Select layout...
50 m
Evaluation Configuration
Evaluation output directory: C:\Users\Public\Documents\PTV Vision\PTV Vissim 8\
Result Management
Result Attributes
Direct Output
Additionally collect data for these classes:
Vehicle Classes
10: Car
20: HGV
30: Bus
40: Tram
50: Pedestrian
60: Bike
70: sepeda motor
Pedestrian Classes
10: Man, Woman
30: Wheelchair User
Collect data
From time
To time
Interval
Area measurements 0 99999 99999
Areas & ramps 0 99999 99999 More...
Data collections 0 99999 99999
Delays 0 99999 99999
Links 0 99999 99999 More...
Nodes 0 99999 60 More...
OD pairs 0 99999 99999
Pedestrian network performance 0 99999 99999
Pedestrian travel times 0 99999 99999
Queue counters 0 99999 99999 More...
Vehicle network performance 0 99999 99999
Vehicle travel times 0 99999 99999 More...
OK
Cancel
Node Results
Select layout...
Coun
SimRun
TimeInt
EmissionsCO
EmissionsNOx
EmissionsVOC
FuelConsumption
Quick View
Quick View
Smart Map
2D/3D Models / 2...
2D/3D Model Distr...
Vehicle Types
Desired Speed Dist...
Static Vehicle Routi...
Signal Controllers...
Vehicle Compositio...
Vehicle Inputs / Ve...
Vehicle Classes / V...
Node Results
37.9:247.7
ENG
INTL
10:36 AM
10/31/2017

1. Data Collection (bedanya dengan node adalah kinerja bisa dilihat per lajur)





Data Collection Points

Select layout...

Count: 4	No	Name	Lane	Pos
1	1	Barat in	1: jl. diponegoro - 1	96.489
2	2	Barat in	1: jl. diponegoro - 2	96.493
3	3	Barat out	2: jl. diponegoro - 1	35.089
4	4	Barat out	2: jl. diponegoro - 2	35.078

Data Collection Measurements

Select layout...

Count: 2	No	Name	DataCollectionPoints
1	1	Barat	1,2
2	2	Barat o	3,4

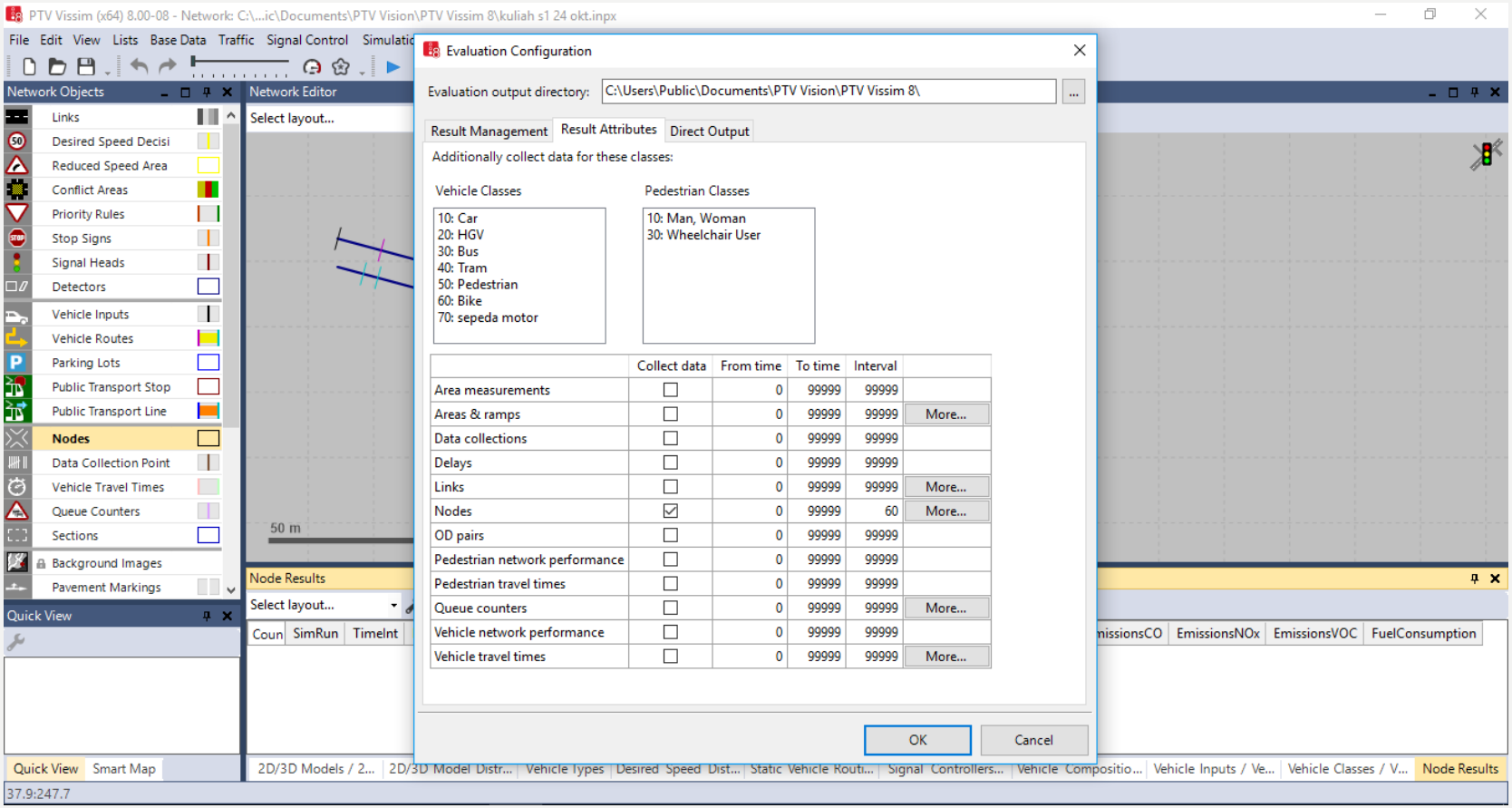
Data Collection Results

Select layout... <Single List>

Count: 2	SimRun	TimeInt	DataCollectionMeasurement	Acceleration(All)	Dist(All)	Length(All)	Vehs(All)	Pers(All)	QueueDelay(All)	Speed(All)
1	3	0-3600	1: Barat	0.02	97.66	2.37	244	244	0.00	44.88
2	3	0-3600	2: Barat out	0.01	175.80	2.70	184	184	0.00	43.67

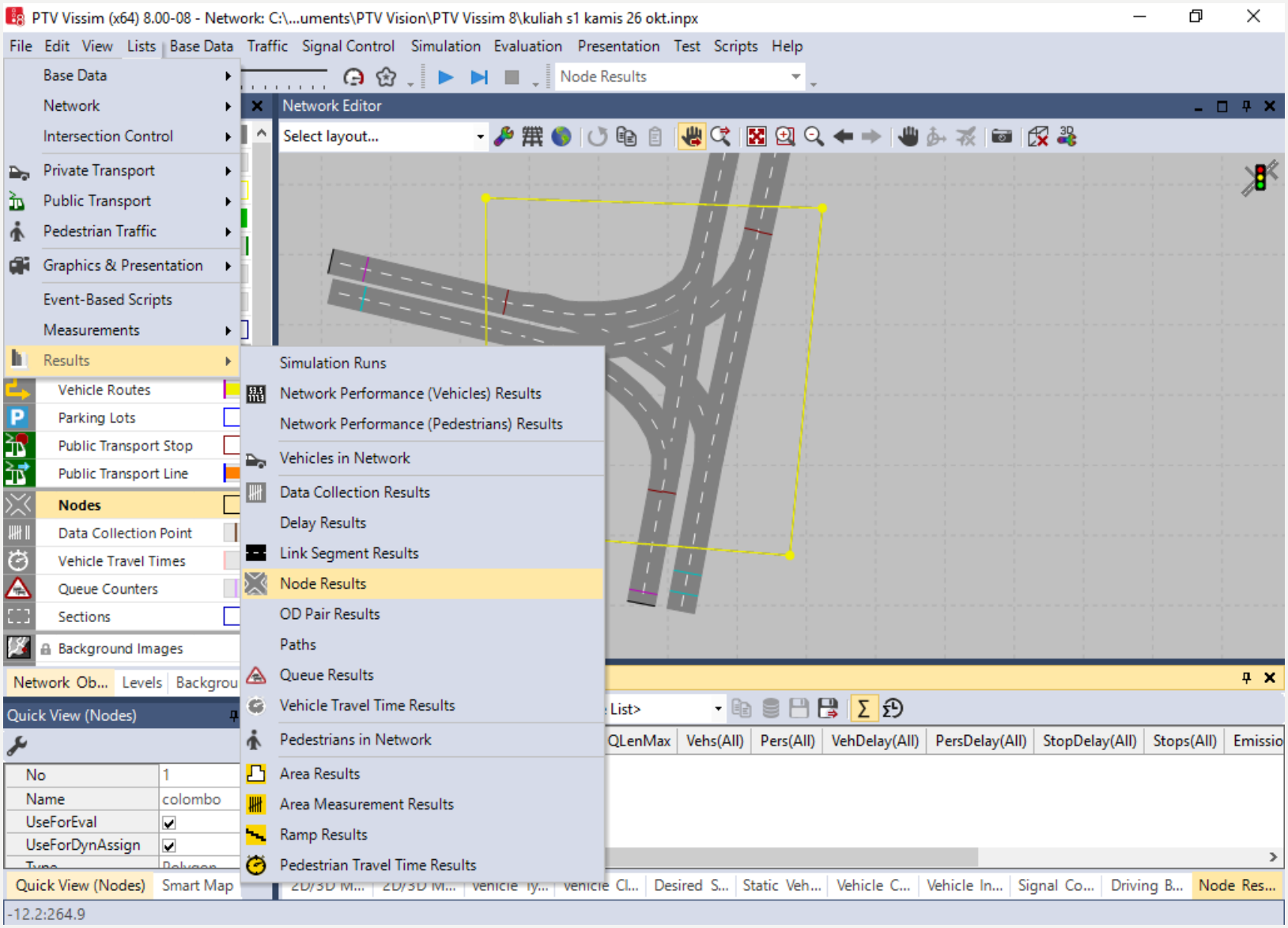
Evaluation Configuration

- Juga harus disetting dahulu.



Result

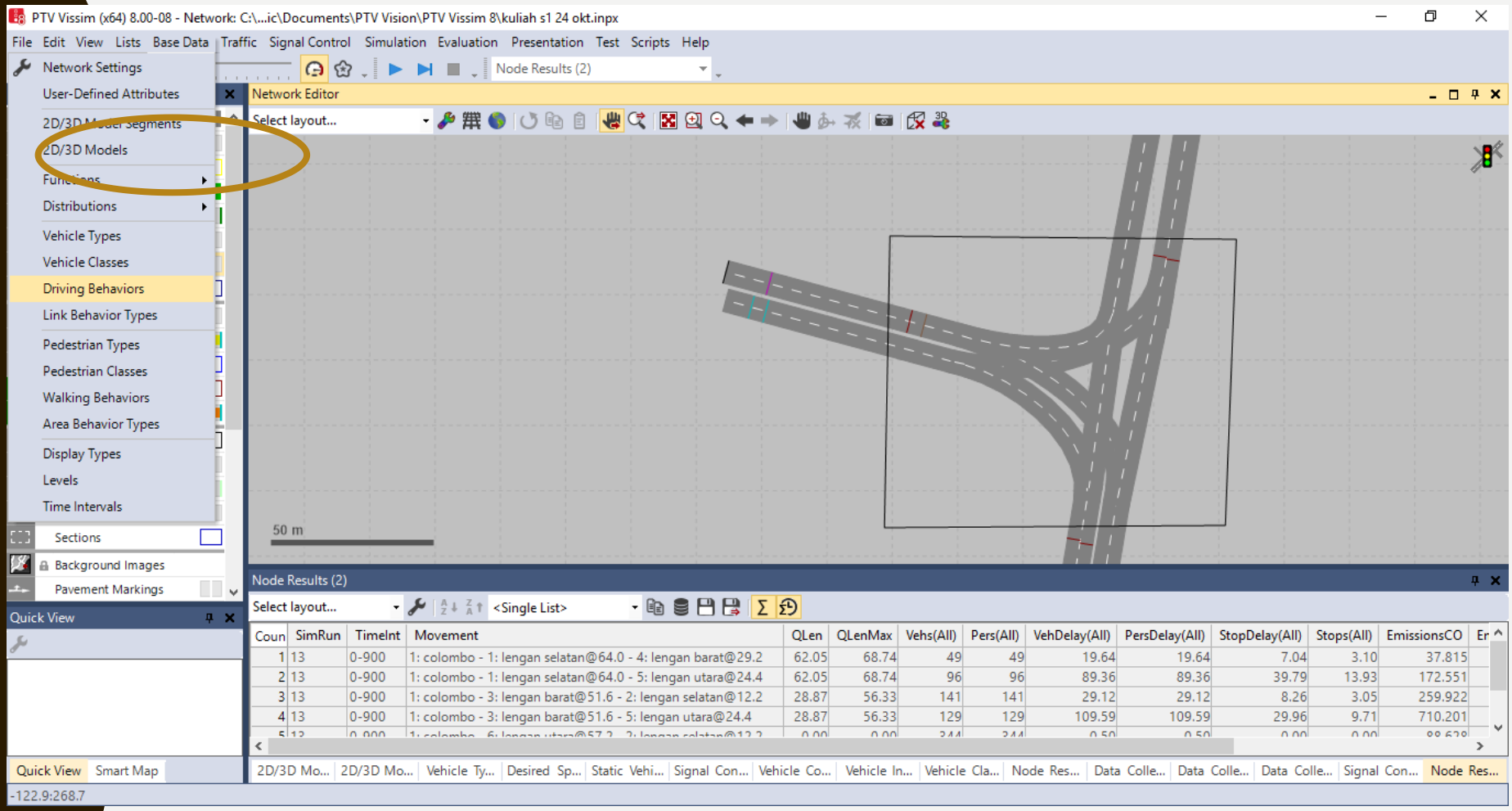
- List - Node result

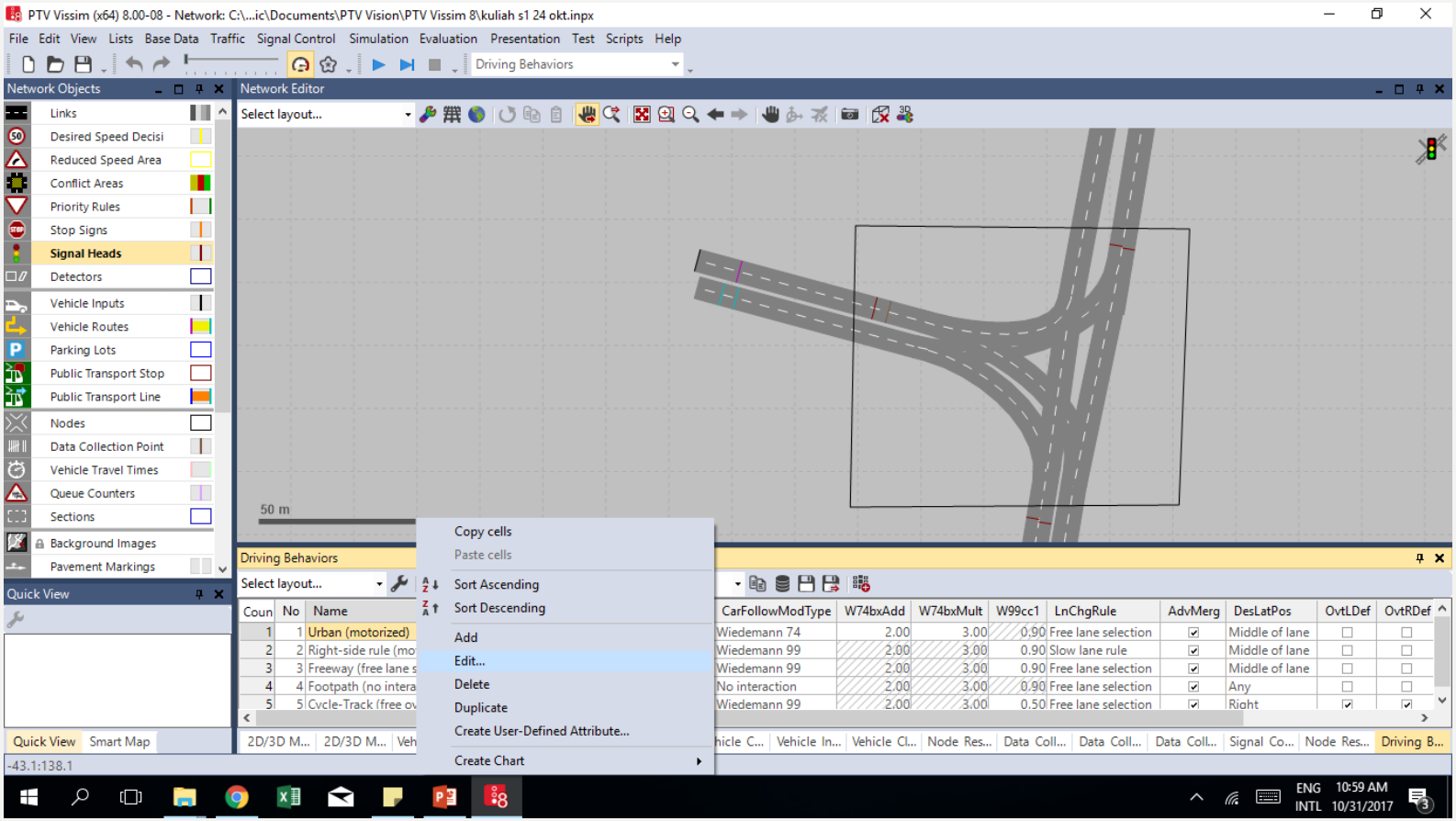


Contoh dalam melakukan trial and error kalibrasi dan validasi

No.	Parameter	default	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8
1	Desired position at free flow	Middle of lane	Any	Any	Any	Any	Any	Any	Any	Any
2	Overtake on same line	off	on	on	on	on	on	On	On	On
3	Distance standing	1	1	0,1	0,1	0,2	0,2	0,2	0,2	0,2
4	Distance driving	1	1	0,1	0,3	0,3	0,4	0,4	0,4	0,4
5	Average standstill distance	2	2	2	1	0,8	0,7	0,4	0,6	0,55
6	Additive part of safety distance	2	2	2	1	0,8	0,8	0,5	0,6	0,55
7	Multiplicative part of safety distance	3	3	3	3	3	2	1	1	1
	Nilai R^2	0,13	0,298	0,304	0,428	0,530	0,672	0,726	0,814	0,876

DRIVING BEHAVIOR




PTV Vissim (x64) 8.00-08 - Network: C:\...ic\Documents\PTV Vision\PTV Vissim 8\kuliah s1 24 okt.inpx
File Edit View Lists Base Data Traffic Signal Control Simulation Evaluation Presentation Test Scripts Help
Driving Behaviors
Network Objects
Links
Desired Speed Decisi
Reduced Speed Area
Conflict Areas
Priority Rules
Stop Signs
Signal Heads
Detectors
Vehicle Inputs
Vehicle Routes
Parking Lots
Public Transport Stop
Public Transport Line
Nodes
Data Collection Point
Vehicle Travel Times
Queue Counters
Sections
Background Images
Pavement Markings
Network Editor
Select layout...
50 m
Quick View
Quick View
Smart Map
Driving Behaviors
Select layout...
Copy cells
Paste cells
Sort Ascending
Sort Descending
Add
Edit...
Delete
Duplicate
Create User-Defined Attribute...
Create Chart
Coun
No
Name
CarFollowModType
W74bxAdd
W74bxMult
W99cc1
LnChgRule
AdvMerg
DesLatPos
OvtLDef
OvtRDef
1 1 Urban (motorized) Wiedemann 74 2.00 3.00 0.90 Free lane selection Middle of lane
2 2 Right-side rule (mo Wiedemann 99 2.00 3.00 0.90 Slow lane rule Middle of lane
3 3 Freeway (free lane s Wiedemann 99 2.00 3.00 0.90 Free lane selection Middle of lane
4 4 Footpath (no intera No interaction 2.00 3.00 0.90 Free lane selection Any
5 5 Cycle-Track (free ov Wiedemann 99 2.00 3.00 0.50 Free lane selection Right
2D/3D M...
2D/3D M...
Vehicle In...
Vehicle Cl...
Node Res...
Data Coll...
Data Coll...
Data Coll...
Signal Co...
Node Res...
Driving B...
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ENG INTL
10:59 AM 10/31/2017