

KALIBRASI DAN VALIDASI

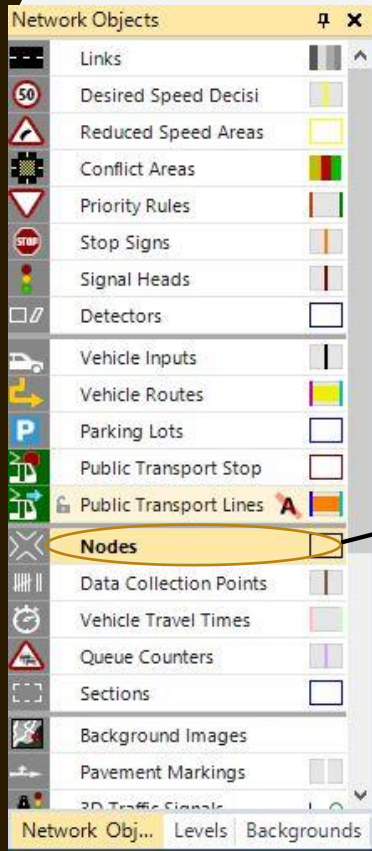
- Merubah parameter tertentu pada perilaku pengemudi (Driving Behaviour).
- Parameter tersebut adalah:
 1. Desired Position at Free Flow : posisi kendaraan kendaraan yang dikehendaki saat arus bebas.
 2. Overtake on Same Lane : pengaturan perilaku pengemudi pada saat menyiap kendaraan di depannya. Dengan 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)

I. Node Result (kotak dibuat diluar connector)



Count	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

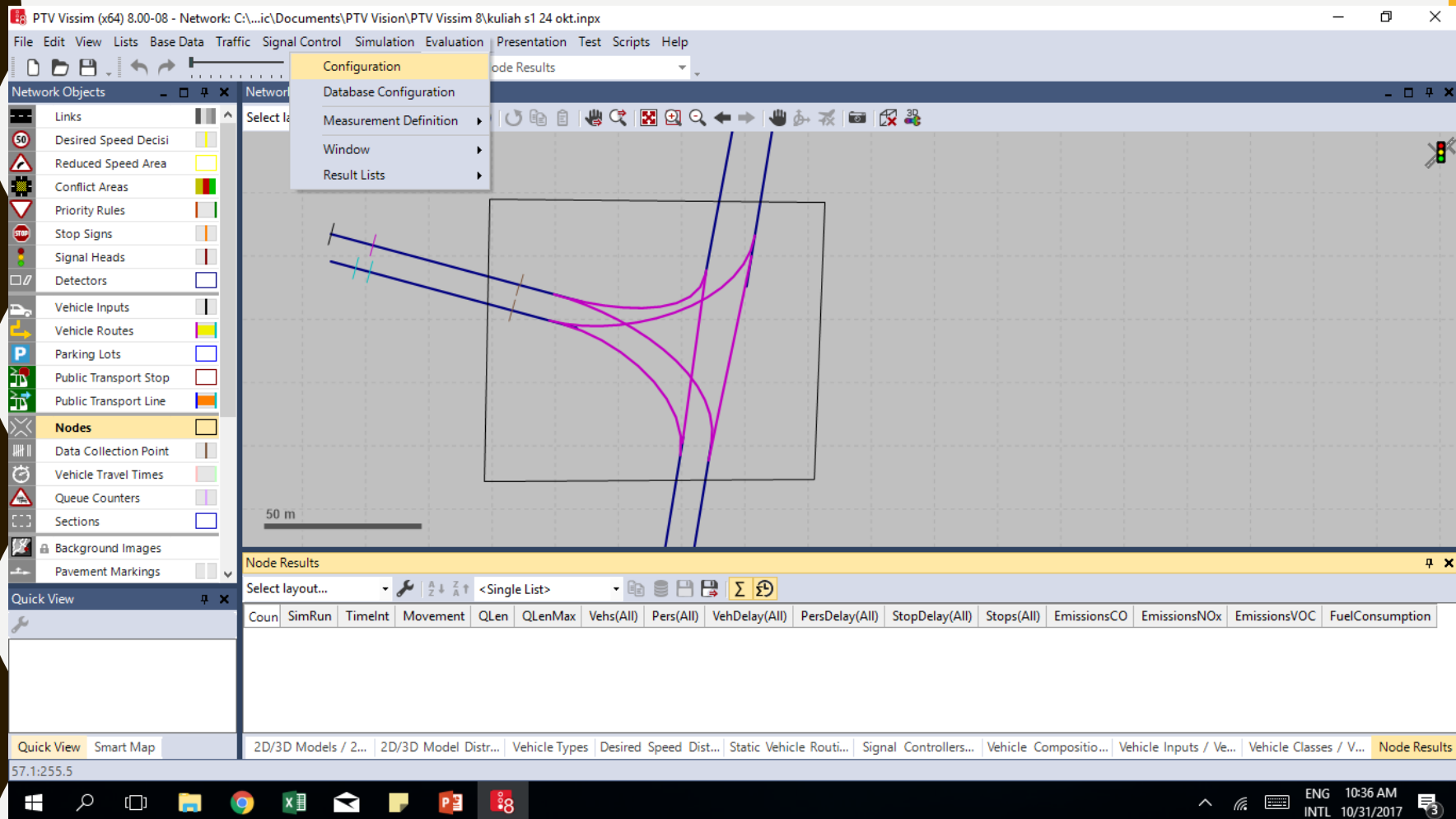
The screenshot shows the PTV Vissim software interface. A 'Simulation parameters' dialog box is open, displaying various settings for a simulation. The 'General' tab is active, showing fields for Comment, Period (900 Simulation seconds), Start time (16:00:00 [hh:mm:ss]), Start date ([DD.MM.YYYY]), Simulation resolution (10 Time step(s) / Sim. sec.), Random Seed (42), Number of runs (1), Random seed increment (1), Dynamic assignment volume increment (0.00 %), Simulation speed (Maximum selected), Retrospective synchronization (unchecked), Break at (0 Simulation seconds), and Number of cores (use all cores). The 'OK' button is highlighted.

At the bottom right, a table displays simulation results for various parameters:

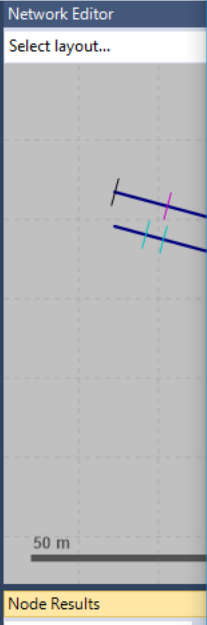
	QLenMax	Vehs(All)	Pers(All)	VehDelay(All)	PersDelay(All)	StopDelay(All)	Stops(All)	EmissionsCO	Emi
1	68.62	0	0					0.000	
2	68.62	0	0					0.000	
3	0.00	12	12	0.28	0.28	0.00	0.00	3.526	
4	0.00	15	15	0.40	0.40	0.00	0.00	4.132	
5	0.00	22	22	0.14	0.14	0.00	0.00	5.517	

Evaluation Configuration

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



- 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



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	<input type="checkbox"/>	0	99999	99999	
Areas & ramps	<input type="checkbox"/>	0	99999	99999	More...
Data collections	<input type="checkbox"/>	0	99999	99999	
Delays	<input type="checkbox"/>	0	99999	99999	
Links	<input type="checkbox"/>	0	99999	99999	More...
Nodes	<input checked="" type="checkbox"/>	0	99999	60	More...
OD pairs	<input type="checkbox"/>	0	99999	99999	
Pedestrian network performance	<input type="checkbox"/>	0	99999	99999	
Pedestrian travel times	<input type="checkbox"/>	0	99999	99999	
Queue counters	<input type="checkbox"/>	0	99999	99999	More...
Vehicle network performance	<input type="checkbox"/>	0	99999	99999	
Vehicle travel times	<input type="checkbox"/>	0	99999	99999	More...

OK Cancel

Quick View

Coun SimRun TimeInt

Select layout...

Coun	SimRun	TimeInt

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

Network Objects

- Links
- Desired Speed Dec
- Reduced Speed Ar
- Conflict Areas
- Priority Rules
- Stop Signs
- Signal Heads
- Detectors
- Vehicle Inputs
- Vehicle Routes
- Parking Lots
- Public Transport St
- Public Transport Li
- Nodes
- Data Collection P**
- Vehicle Travel Time
- Queue Counters
- Sections
- Background Image
- Pavement Marking
- 3D Traffic Signals

Network O... Levels Backgroun...



Lists | Base Data | Traffic | Signal Control | Simulation | Evaluation | Presentation | S...

- Base Data
- Network
- Intersection Control
- Private Transport
- Public Transport
- Pedestrian Traffic
- Graphics & Presentation
- Event-Based Scripts
- Measurements
 - Data Collection Points
 - Data Collection Measurements**
 - Delay Measurements
 - Queue Counters
 - Vehicle Travel Time Measurements
 - Sections
 - Area Measurements
 - Pedestrian Travel Time Measurements
- Results

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

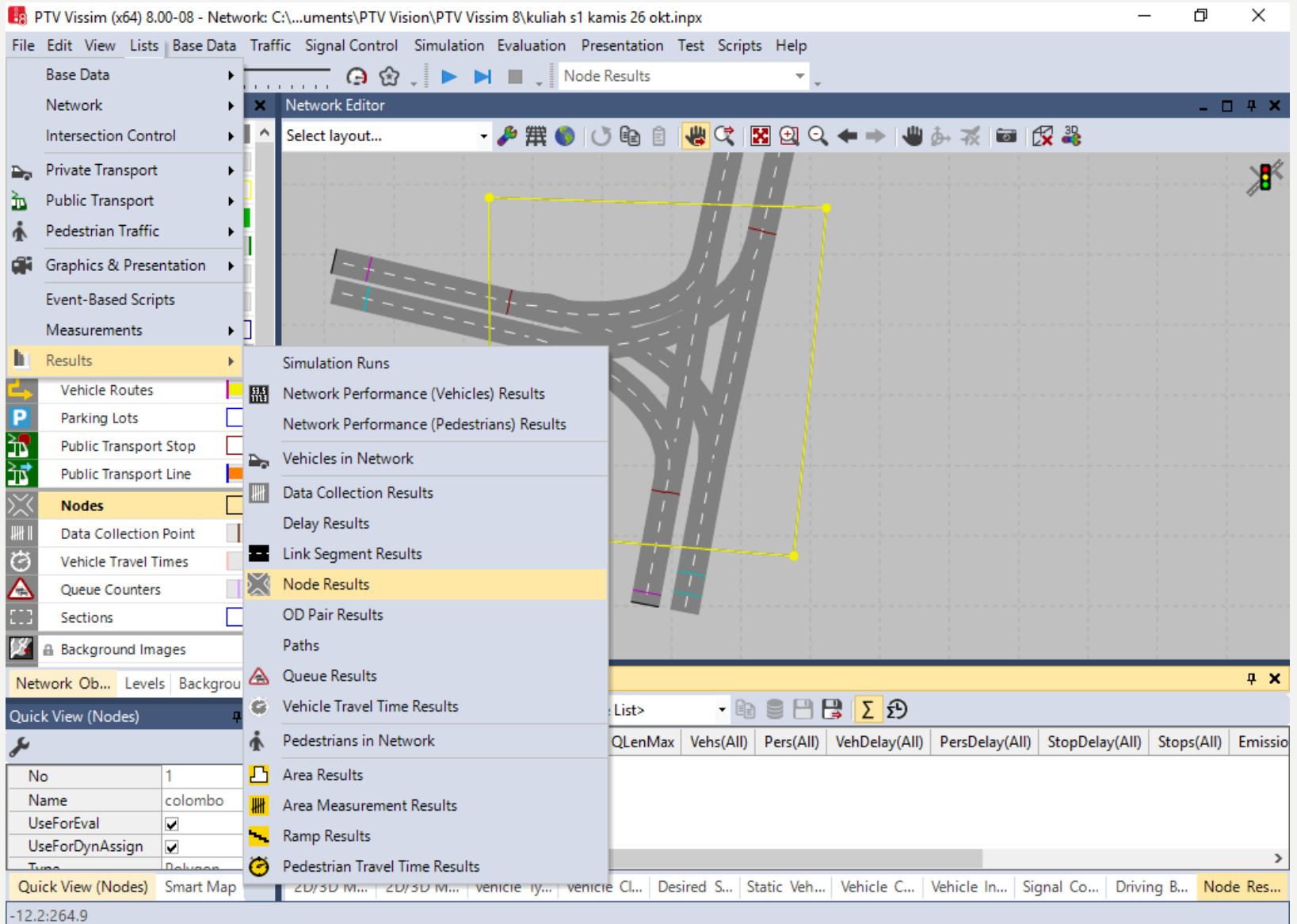
Data Collection Results

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

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

Network Settings
 User-Defined Attributes
 2D/3D Model Segments
 2D/3D Models
 Functions
 Distributions
 Vehicle Types
 Vehicle Classes
 Driving Behaviors
 Link Behavior Types
 Pedestrian Types
 Pedestrian Classes
 Walking Behaviors
 Area Behavior Types
 Display Types
 Levels
 Time Intervals

Network Editor
 Select layout...
 50 m

Node Results (2)
 Select layout... <Single List>

Coun	SimRun	TimeInt	Movement	QLen	QLenMax	Vehs(All)	Pers(All)	VehDelay(All)	PersDelay(All)	StopDelay(All)	Stops(All)	EmissionsCO	Er
1	13	0-900	1: colombo - 1: lengan selatan@64.0 - 4: lengan barat@29.2	62.05	68.74	49	49	19.64	19.64	7.04	3.10	37.815	
2	13	0-900	1: colombo - 1: lengan selatan@64.0 - 5: lengan utara@24.4	62.05	68.74	96	96	89.36	89.36	39.79	13.93	172.551	
3	13	0-900	1: colombo - 3: lengan barat@51.6 - 2: lengan selatan@12.2	28.87	56.33	141	141	29.12	29.12	8.26	3.05	259.922	
4	13	0-900	1: colombo - 3: lengan barat@51.6 - 5: lengan utara@24.4	28.87	56.33	129	129	109.59	109.59	29.96	9.71	710.201	
5	13	0-900	1: colombo - 5: lengan utara@57.2 - 2: lengan selatan@12.2	0.00	0.00	244	244	0.50	0.50	0.00	0.00	99.679	

Quick View Smart Map
 2D/3D Mo... 2D/3D Mo... Vehicle Ty... Desired Sp... Static Vehi... Signal Con... Vehicle Co... Vehicle In... Vehicle Cla... Node Res... Data Colle... Data Colle... Data Colle... Signal Con... Node Res...

-122.9:268.7

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
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- Vehicle Travel Times
- Queue Counters
- Sections
- Background Images
- Pavement Markings

Select layout...

50 m

Driving Behaviors

Select layout...

Count	No	Name
1	1	Urban (motorized)
2	2	Right-side rule (mo
3	3	Freeway (free lane s
4	4	Footpath (no intera
5	5	Cvycle-Track (free ov

Copy cells
Paste cells
Sort Ascending
Sort Descending
Add
Edit...
Delete
Duplicate
Create User-Defined Attribute...
Create Chart

CarFollowModType	W74bxAdd	W74bxMult	W99cc1	LnChgRule	AdvMerg	DesLatPos	OvtLDef	OvtRDef
Wiedemann 74	2.00	3.00	0.90	Free lane selection	<input checked="" type="checkbox"/>	Middle of lane	<input type="checkbox"/>	<input type="checkbox"/>
Wiedemann 99	2.00	3.00	0.90	Slow lane rule	<input checked="" type="checkbox"/>	Middle of lane	<input type="checkbox"/>	<input type="checkbox"/>
Wiedemann 99	2.00	3.00	0.90	Free lane selection	<input checked="" type="checkbox"/>	Middle of lane	<input type="checkbox"/>	<input type="checkbox"/>
No interaction	2.00	3.00	0.90	Free lane selection	<input checked="" type="checkbox"/>	Any	<input type="checkbox"/>	<input type="checkbox"/>
Wiedemann 99	2.00	3.00	0.50	Free lane selection	<input checked="" type="checkbox"/>	Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Quick View Smart Map

2D/3D M... 2D/3D M... Veh

-43.1:138.1

ENG 10:59 AM
INTL 10/31/2017