

Vehicle Input in Vissim

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EV팀 / 이혜안

목차

- Vissim Hierarchy

Vissim Hierarchy

Hierarchy

- ❑ **Vehicle Input**
 - Link 당 한 개
 - Vehicle Composition을 하나 선택해야 함
- ❑ **Vehicle Composition**
 - 원하는 Vehicle Distribution들을 고르고 비율 설정
 - ex) Car 90%, HGV 10%
- ❑ **Vehicle Distribution (우리가 말하는 차량 class)**
 - 여러 Vehicle Model들을 하나의 Distribution으로 묶어야 함
 - ex) Car, HGV, Bus, ...
- ❑ **Vehicle Model**
 - ex) 포르쉐 911, 폭스바겐 비틀, ...

Vehicle Input






- ❑ Link
- ❑ Number of vehicles per hour
 - time interval마다 다르게 설정 가능
 - Stochastic / Exact 선택 가능
- ❑ Vehicle Composition
 - time interval마다 다르게 설정 가능


Vehicle Inputs / Vehicle Volumes By Time Interval					
Select layout...					
Count	No	Name	Link	Volume(0)	VehComp(0)
1	1		1	55.0	1: Default

Count	Cont	TimeInt	Volume	VehComp	VolType
1	<input type="checkbox"/>	0-900	55.0	1: Default	Stochastic
2	<input type="checkbox"/>	900-1800	60.0	1: Default	Exact
3	<input type="checkbox"/>	1800-2700	70.0	1: Default	Stochastic
4	<input type="checkbox"/>	2700-MAX	80.0	1: Default	Exact

Vehicle Composition

- ❑ Vehicle Type
 - 원하는 Vehicle Distribution을 고름
- ❑ DesSpeedDistr
- ❑ RelFlow
 - 비율 설정

Vehicle Compositions / Relative Flows			
Select layout...     			
Count	No	Name	
1	1	Default	

Count	VehType	DesSpeedDistr	RelFlow
1	100: Car	50: 50 km/h 	0.980
2	200: HGV	50: 50 km/h	0.020

Vehicle Distribution

- Vissim에서 기본으로 설정된 차량 class는 아래 왼쪽과 같이 10가지임.
- 얼마든지 추가 / 삭제 가능.
- 각 class 당 세부 차종과 그 비율을 설정해야 함.

2D/3D Model Distributions / Elements

Select layout...

Count:	1	No	Name
	1	10	Car
	2	20	HGV
	3	30	Bus
	4	40	Tram
	5	61	Bike Man
	6	62	Bike Woman
	7	100	Man
	8	200	Woman
	9	250	Woman & Child
	10	300	Wheelchair




Count:	Share	Model2D3D
1	0.240	1: Car - Volkswagen Golf
2	0.180	2: Car - Audi A4
3	0.160	3: Car - Mercedes CLK
4	0.160	4: Car - Peugeot 607
5	0.140	5: Car - Volkswagen Beetl
6	0.020	6: Car - Porsche Cayman
7	0.100	7: Car - Toyota Yaris

Vehicle Model

- Vissim에서 기본으로 제공하는 차량 모델은 아래와 같다.
 - 총 36종

models.xlsx - Excel

파일 홈 삽입 페이지 레이아웃 수식 데이터 검토 보기 팀

A1 :    Car

	A	B	C	D	E	F	G	H
1	Car	Audi A4 (2005) Hatchback		HGV	EU 01		Bike	Cycle Man 01
2		Honda Accord (2003)			EU 02			Cycle Woman
3		Mercedes CLK500 (2006)			EU 03			E-Bike Man
4		Nissan Altima (2005)			EU 04			E-Bike Woman
5		Nissan Quest (1995)			EU 05			Motorbike 01
6		Peugeot 607 (2006)			US AASHTO WB-50			Scooter 01
7		Plymouth Voyager (1999)		US AASHTO WB-67D		SUV	Ford Explorer (2008)	
8		Porsche 911 (198x)		US Flatbed			GMC Yukon XL (2008)	
9		Porsche Cayman (2008)		Chevrolet Silverado (2008)		Bus	Jeep Grand Cherokee (2002)	
10		Toyota Avensis (2006)	LtTruck	Ford F150 (2009)			C2 Standard 2-doors	
11		Toyota Yaris (2006)		Toyota Tundra (2008)			EU Standard	
12		Volkswagen Beetle (2005)						
13		Volkswagen Golf (1991)						
14		Volkswagen Golf (2007)						
15								

Sheet1

준비

90 %

Vehicle Model

- **Bike**

- Motorbike 01



- Scooter 01

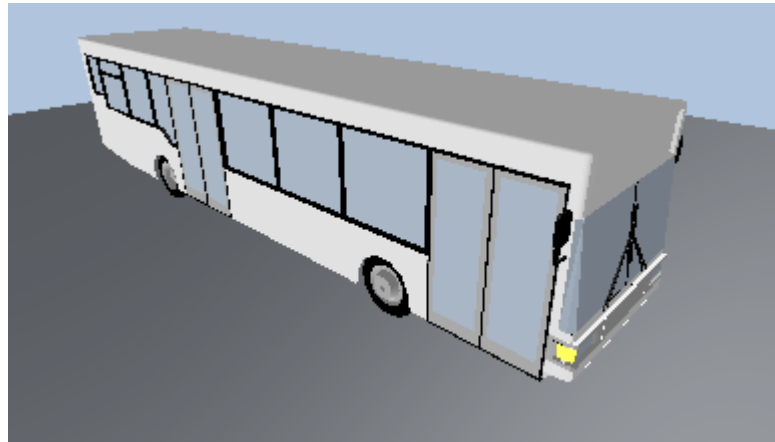


Vehicle Model

- **Bus**
 - C2 Standard 2-doors



- EU Standard



Vehicle Model

- HGV
 - EU 01 ~ 05



Vehicle Model

- **HGV**
 - US AASHTO WB-50



- US AASHTO WB-67D



- US Flatbed



Vehicle Model

□ LtTruck

- Chevrolet Silverado (2008)
 - Length, Width, Height
 - 6.671m, 2.598m, 2.173m
- Ford F150 (2009)
- Toyota Tundra (2008)



Class 분류

현재 라벨링 정책

□ 데이터 작업 가이드 20201008.docx

대분류	Class
사람	Pedestrian (0)
차량	Vehicle(1), Small Truck(2), Large Truck(3), Small Bus(4), Large Bus(5), Bike(6), Motor Cycle(7), Ambulance(8), Fire Truck(9), Police Car(10), Special Car(11), Wheel Chair(12), Smart Mobility(13)

현재 라벨링 정책

□ 데이터 작업 가이드 20201008.docx

- - Small Truck과 Large Truck : 2.5톤을 기준으로 그보다 작으면 Small로 2.5톤을 포함하여 그 보다 크면 Large로 분류한다. 또한, 트럭이 잘려서 짐칸만 보여 Small Truck, Large Truck 인지 구분이 어려울 때와 같이 Small Truck, Large Truck 구분이 헷갈릴 경우에도 Small Truck으로 분류한다.



Small Truck 예: 1 톤 트럭, 택배 차량, 2 톤 차량 등

(2 톤 트럭 : 대형 트럭과 유사하나 차량의 길이가 짧고 크기가 작음)



Large Truck 예: 2.5톤 이상 트럭

- Small Bus, Large Bus : 17인승 기준으로 분류한다.
- Special Car : 포크레인 등
- Bike와 Motorcycle : 명확하게 자전거로 판단되는 것만 Bike로 분류한다. 모호한 것은 모두 Motorcycle로 분류한다.

Class 변환

Class	Vissim Distribution
Vehicle (1)	Car SUV
Small Truck (2) Small Bus (4)	LtTruck
Large Truck (3)	HGV
Ambulance (8)	SUV
Large Bus (5)	Bus
Bike (6)	Bike
Motor Cycle (7)	Motorbike Scooter
Fire Truck (9)	HGV (EU 01 ~ 03)
Police Car (10)	Car
Wheel Chair (12)	Wheel Chair
Smart Mobility (13)	Scooter
Special Car (11)	-

Class 변환

- ❑ **Special Car**
 - 포크레인을 기준으로 새로운 object 생성?
 - Length : 3.472
 - Width : 2.32
 - Height: 2.81

Class 변환 : 안양시 기준

Class		Vissim Distribution
승용차	Vehicle	Car SUV
소형트럭	Small Truck	LtTruck
대형트럭	Large Truck	HGV
특수차	Special Car	HGV
버스	Bus	Bus
오토바이	Motor Cycle	Bike

2D/3D Models 변환 후

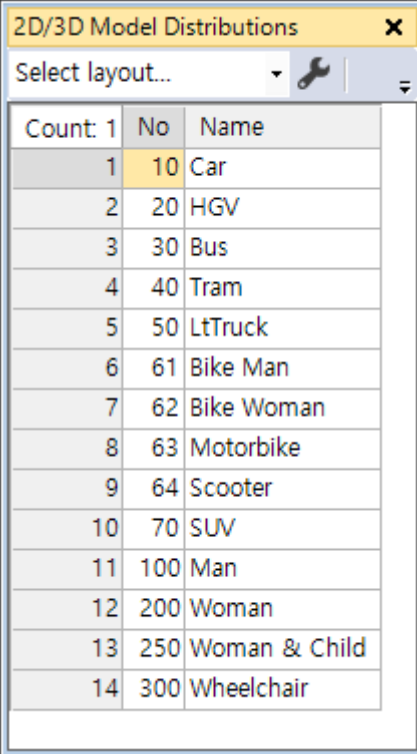
- 삭제
 - Bus – C2 G Articulated
- 추가
 - 5n. LtTruck
 - 63. Motorbike
 - 64. Scooter
 - 7n. SUV
 - 추후 더 추가할 type은 80, 90번대에.

Count: 3	No	Name	Length
1	1	Car - Volkswagen Golf	4.211
2	2	Car - Audi A4	4.610
3	3	Car - Mercedes CLK	4.644
4	4	Car - Peugeot 607	4.760
5	5	Car - Volkswagen Beetl	4.012
6	6	Car - Porsche Cayman	4.359
7	7	Car - Toyota Yaris	3.749
8	21	HGV - EU 04	10.215
9	31	Bus - C2 Standard	12.400
10	41	Tram - GT8-2S	37.650
11	51	LtTruck - Chevrolet Silv	6.671
12	52	LtTruck - Ford F150 (20	5.411
13	53	LtTruck - Toyota Tundra	4.941
14	61	Bike - Cycle Man	1.775
15	62	Bike - Cycle Woman	1.775
16	63	Bike - Motorbike 01	2.000
17	64	Bike - Scooter 01	1.800
18	71	SUV - Ford Explorer (20	4.891
19	72	SUV - GMC Yukon XL (5.435
20	73	SUV - Jeep Grand Cher	4.641
21	101	Ped - Man 01	0.456
22	102	Ped - Man 02	0.409
23	103	Ped - Man 03	0.442
24	104	Ped - Man 04	0.435
25	201	Ped - Woman 01	0.360
26	202	Ped - Woman 02	0.342
27	203	Ped - Woman 03	0.397
28	204	Ped - Woman 04	0.310
29	251	Ped - Woman & Child	0.357
30	301	Ped - Wheelchair	1.236

2D/3D Model Distributions 변환 후

□ 추가

- 50. LtTruck
 - model : 51, 52, 53
- 63. Motorbike
 - model : 63
- 64. Scooter
 - model : 64
- 70. SUV
 - model : 71, 72, 73
- 추후 더 추가할 type은 80, 90번에.



The screenshot shows a window titled "2D/3D Model Distributions" with a close button (X) in the top right corner. Below the title bar is a "Select layout..." dropdown menu and a gear icon. The main content is a table with three columns: "Count", "No", and "Name". The table lists 14 items, with the first item (Count: 1, No: 10, Name: Car) highlighted in yellow.

Count	No	Name
1	10	Car
2	20	HGV
3	30	Bus
4	40	Tram
5	50	LtTruck
6	61	Bike Man
7	62	Bike Woman
8	63	Motorbike
9	64	Scooter
10	70	SUV
11	100	Man
12	200	Woman
13	250	Woman & Child
14	300	Wheelchair

감사합니다