

PTV VISSIM - BASE

Introduction to microscopic traffic simulation with PTV Vissim

SHORT DESCRIPTION

You will learn modeling of transport network and demand microscopically. In addition to private traffic flow, we will model a public transport line with PTV Vissim and also a fixed time traffic signal. We will talk about the driving behavior models of PTV Vissim. We will use the PTV Vissim Scenario manager to illustrate how to construct a base scenario and multiple mitigating scenarios and how to work with these scenarios. Finally we will produce useful tabular and graphical outputs of traffic simulation with PTV Vissim and will make a 3D animation with it.

This course serves as the basis for any PTV Vissim application and further training courses. Participation in this training course is required for future use of the Technical PTV Vissim support service due to the maintenance contract.

TARGET GROUP

PTV Vissim beginners as well as traffic engineers from the cities and engineering firms who want to work on their projects at state of the art level and efficiently.

PREREQUISITES

You are familiar with the standard Office software tools (MS-Excel, MS-Word, OpenOffice.org, LibreOffice) that run with the operating system MS-Windows. You are able to use a conventional text editor (Notepad, Editor, TextPad, Notepad ++, etc.) for data editing.

PRICE: ####,- DHS plus VAT

DURATION: 4 days

CONTENTS

Day 1:

- ▶ Use cases of PTV Vissim
- ▶ Introduction to the Graphical User Interface (GUI) of PTV Vissim
- ▶ Working with Lists in PTV Vissim
- ▶ Background input
- ▶ Modeling of the supply side
- ▶ Modeling of traffic demand
- ▶ Running a simulation

Day 2:

- ▶ Modeling of the supply side
- ▶ Modeling of traffic demand
- ▶ Modeling side parking
- ▶ Modeling managed lanes
- ▶ User Defined Attributes (UDA) in PTV Vissim

Day 3:

- ▶ Modeling a public transport line supply and demand
- ▶ Modeling a fixed time signal
- ▶ Using Scenario manager
- ▶ Modeling overtaking in opposing lane
- ▶ Modelling of smooth lane reduction/addition

Day 4:

- ▶ Driving behavior models (Following, Lane changing, Lateral behavior & Signal behavior)
- ▶ Useful evaluations
 - ▶ Tabular outputs
 - ▶ Graphical outputs: coloring links, link bars, vehicles
 - ▶ Charts
- ▶ Making 3D animation with PTV Vissim

PTV VISSIM - DYNAMIC ASSIGNMENT

Dynamic assignment in PTV Vissim

SHORT DESCRIPTION

If you want to study large networks with micro/meso simulation methods; because the number of the routes is too high, it is impossible to enter them manually. Moreover the route choice depends on many factors and it is not the same for all the situations.

In this course you will learn to handle such projects with Dynamic Assignment efficiently. We will acquaint you with the preparation of the network for DA and parameters of this method. You will learn about further fields of application based on examples.

PREREQUISITES

PTV Vissim training course "PTV Vissim Base (Introduction to microscopic traffic simulation with PTV Vissim)", you preferably have a basic knowledge of traffic assignment methods.

PRICE: ####,- DHS plus VAT

DURATION: 1 day

CONTENTS

Day 1:

- ▶ Typical fields of application for dynamic assignment
- ▶ Preparation of the simulation network, including parking lots, nodes and edges
- ▶ Preparation of the matrices
- ▶ DA parameters and choice models
- ▶ DA specific evaluations
- ▶ Route closure
- ▶ Equipping specific vehicles with navigation devices
- ▶ Dynamic routes
- ▶ Exchange file with Visum

TARGET GROUP

PTV Vissim users, traffic engineers from the cities and engineering firms who want to work on their big micro/meso simulation projects at state of the art level and efficiently.

PTV VISSIM - PEDESTRIAN SIMULATION

Realistic pedestrian simulation with PTV Vissim (PTV Viswalk)

SHORT DESCRIPTION

Do you want to integrate pedestrians in your simulations and use PTV Viswalk, the tool for the realistic simulation of pedestrians? The purpose of this course is to show you how to develop a pedestrian simulation model and define the interactions of pedestrians with traffic and public transport vehicles.

TARGET GROUP

Traffic engineers from the public or private sector who would like to simulate pedestrians and their interactions with vehicles realistically in their models, planners of public transport stations and stops that want to simulate the behavior of the passengers in a realistic way.

PREREQUISITES

PTV Vissim training course "PTV Vissim Base (Introduction to microscopic traffic simulation with PTV Vissim)"

PRICE: ####, - DHS plus VAT

DURATION: 1 day

CONTENTS

Day 1:

- Introduction and use cases of PTV Viswalk
- Modeling the network for pedestrians
- Modeling stairs and escalators
- Modeling elevators
- Modeling the interaction between passengers and public transport vehicles
- Modeling the interaction between the pedestrians and traffic at intersections
- Evaluations of pedestrian simulation

PTV VISTRO - BASE

Traffic study, Impact analysis and Signal optimization with PTV Vistro

SHORT DESCRIPTION

You will learn how to setup the network and intersection control, conduct traffic studies, evaluate impact of new developments and optimize signals with PTV Vistro.

This course serves as the basis for any PTV Vistro application and further training courses. Participation in this training course is required for future use of the Technical PTV Vistro support service due to the maintenance contract.

PREREQUISITES

A basic understanding of signal timing concepts is helpful.

PRICE: ####,- DHS plus VAT

DURATION: 1 day

CONTENTS

Day 1:

- Introduction and use cases of PTV Vistro
- Network setup
- Signal timing development
- Traffic demand input
- Traffic study (LOS analysis)
- Signal warrants analysis
- Scenario management with PTV Vistro
- Signal optimization and coordination
- Traffic impact analysis
- Creation of the report
- Exchange file with Visum, Vissim and Synchro

TARGET GROUP

Traffic engineers and planners from the public or private sector who would like to carry out their traffic engineering projects efficiently and in compliance with the latest standards.

PTV VISUM - BASE

Introduction to macroscopic network modelling with PTV Visum

SHORT DESCRIPTION

You will learn how to handle the objects of both private and public transport network and the processing of demand matrices. Moreover, operating various graphical analyses and evaluations is in the focus. We will acquaint you with the details of two private transport static equilibrium assignments as well as two public transport assignments. We will use the PTV Visum Scenario manager to illustrate how to construct a base scenario and multiple planning scenarios and how to work with these scenarios.

This course serves as the basis for any PTV Visum application and further training courses. Participation in this training course is required for future use of the Technical PTV Visum support service due to the maintenance contract.

TARGET GROUP

The PTV Visum Base course addresses to transport planners with academic professional knowledge in the fields of transport planning and engineering or with practical experience in traffic and transport expertise. This training course makes the engineers ready for efficient processing and evaluation of traffic studies by means of a standard tool.

PREREQUISITES

You are familiar with the standard Office software tools (MS-Excel, MS-Word, OpenOffice.org, LibreOffice) that run with the operating system MS-Windows. You are able to use a conventional text editor (Notepad, Editor, TextPad, Notepad ++, etc.) for data editing. According to your professional background or due to your practical experience you are well-grounded in the field of transport planning.

PRICE: ####,- DHS plus VAT

DURATION: 4 days

CONTENTS

Day 1:

- ▶ Use cases of PTV Visum
- ▶ Introduction to the Graphical User Interface (GUI) of PTV Visum
- ▶ The structure of the transport network model in PTV Visum. Explanation of Private Transport (PrT) network objects and correlation of basic elements
- ▶ Working with demand matrices in PTV Visum
- ▶ PrT network check of PTV Visum
- ▶ Procedures sequence and executing of an assignment
- ▶ Working with Lists in PTV Visum
- ▶ User Defined Attributes (UDA) in PTV Visum
- ▶ Select matrix by properties

Day 2:

- ▶ Explanation of Public Transport (PuT) network objects and correlation of basic elements:
 - ▶ Stops hierarchy
 - ▶ Lines hierarchy
 - ▶ Journeys hierarchy
- ▶ Time-table editor (tabular & graphical)
- ▶ PuT network check of PTV Visum
- ▶ Graphical visualization of the assignment results as
 - ▶ Flow bundles
 - ▶ Isochrones
 - ▶ Turn volumes

Day 3:

- ▶ Graphic parameters of PTV Visum for adjusting layout of the map and graphical presentation of the results
- ▶ Working with context menus
- ▶ Matrix editor of the PTV Visum
- ▶ Filtering of network objects based on different criteria
- ▶ Spatial selection of the network objects
- ▶ Working with Junction editor of the PTV Visum (signal timing is not included)

Day 4:

- ▶ Volume-Delay Function (VDF)
- ▶ Impedance function
- ▶ PrT assignment procedures in detail:
 - ▶ Incremental assignment
 - ▶ Equilibrium assignment
 - ▶ Equilibrium assignment LUCE
- ▶ PrT skim matrices (results)
- ▶ PuT assignment procedures in detail:
 - ▶ TSys-based assignment
 - ▶ Headway-based assignment
- ▶ PuT skim matrices (results)
- ▶ Scenario management (project definition)
 - ▶ Definition of the base application case
 - ▶ Generation of scenarios and description of the dependencies
 - ▶ Comparing of the results

PTV VISUM - 4-STEP DEMAND MODELING

Creating a macroscopic 4 step transport model with PTV Visum

SHORT DESCRIPTION

Macroscopic modelling of traffic demand is a core application of PTV Visum. PTV Visum therefore offers all the functions needed to build a macroscopic traffic model.

The implementation of a 4-step transport model in PTV Visum is explained and you will practice with a training model.

Beside that you will learn the Updating of the run time and dwell times of PuT based on PrT, Accounting for the effect of PuT vehicles on PrT traffic, modelling Park and Ride, correcting matrix with TFlowFuzzy, Estimating gravitation parameters with KALIBRI and Other important procedures for demand modeling in PTV Visum.

TARGET GROUP

This course is designed for employees in traffic planning offices, authorities and transport service companies that want to build and apply transport models.

PREREQUISITES

PTV Visum training course "PTV Visum Base (Introduction to macroscopic network modelling with PTV Visum)", you preferably have a basic knowledge of macroscopic demand modelling or project experience.

PRICE: #####,- DHS plus VAT

DURATION: 1 day

CONTENTS

Day 1:

- Introduction to 4-step demand modelling
- Creating a demand model in PTV Visum
- Trip generation
- Trip distribution
- Mode choice
- Nested mode choice
- Feedback and convergence
- Updating the run time and dwell times of PuT based on PrT
- Accounting for the effect of PuT vehicles on PrT traffic
- Park and Ride modelling
- Matrix correction with TFlowFuzzy
- Estimating gravitation parameters with KALIBRI
- Creating and calling matrices by properties
- Other important procedures for demand modelling