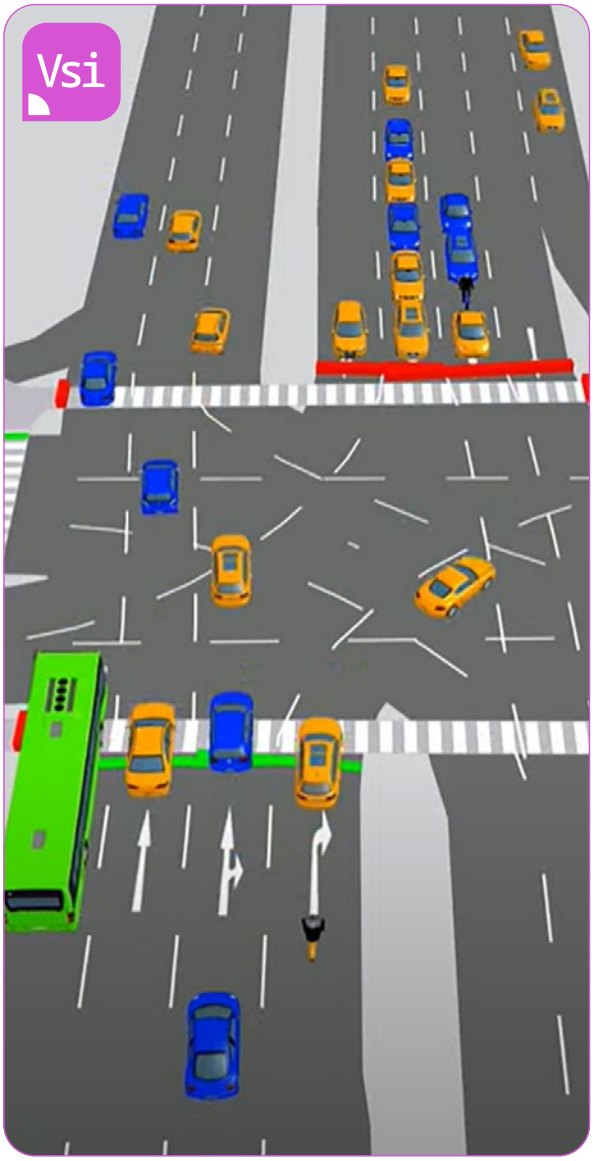
PTV Vissim

Simulate
multimodal traffic

PTV GROUP
part of Umovity

PTV Vissim: Microscopic simulation of multimodal traffic including pedestrians



The world's leading traffic simulation software PTV Vissim digitally reproduces the traffic patterns of all road users on a microscopic scale.

With the help of scientifically based simulations and scenario management, you can evaluate and optimize the performance of transport infrastructure, make data-based planning decisions, and proactively tackle challenges such as congestion, emissions, and the fair distribution of road space for different modes.

Your benefits:

30+ years of proven success

Decades of research and continuous development with customers

Simulate multimodal traffic

Microscopic, mesoscopic or hybrid simulation of all road users

Sophisticated motion models

Extensive parameterization and calibration options for worldwide applicability (including non-lane-based traffic)

Flexible and seamless integration

APIs and interfaces to external software

Intuitive graphical user interface

Easy to use with option for powerful enhancements and automation through scripting

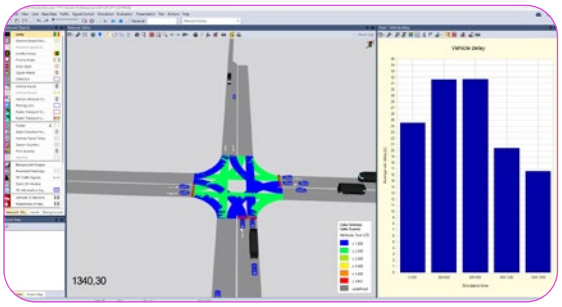
Convincing data visualization

Realistic simulation and comprehensive 3D visualizations

PTV Vissim use cases:

Evaluation and proof of traffic performance

Check the traffic performance of transport infrastructure and measures even before they are implemented. This helps you to identify the best design and avoid costly mistakes. PTV Vissim can realistically represent any form of road, bicycle, or public transport infrastructure (including rail) as well as footpaths in 3D. Parking lots, airports, train stations, large buildings or temporary measures can also be simulated and evaluated.



Evaluation of traffic technologies

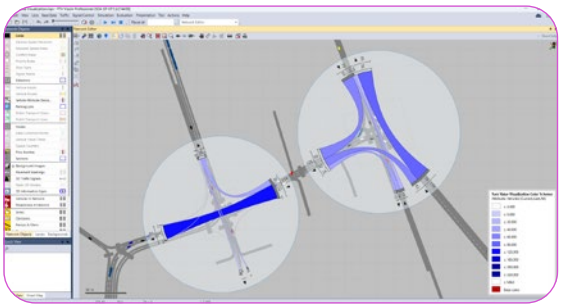
With PTV Vissim, you can investigate and realistically simulate the driving behavior of connected and autonomous vehicles and their effects on traffic flow. Intelligent traffic management measures, such as public transport prioritization, variable speed limits or ramp metering, can also be evaluated in the virtual test environment. PTV Vissim is further used in the planning and optimization of traffic signals.

Simulation of pedestrians

PTV Vissim and PTV Viswalk depict pedestrians and their individual interaction with each other. City and traffic planners, fire safety officers, station, airport, and event managers - all of them rely on micro-simulation to ensure safety and comfort for pedestrians, simulating evacuation scenarios, and checking e.g. passage widths, installation areas, travel times, and waiting times.

Environmental assessment of traffic

Check how traffic engineering measures such as adapted traffic light control, intelligent traffic systems or different vehicle fleet compositions affect the traffic related emissions of pollutants and greenhouse gases and thus determine efficient options for optimizing traffic impact on air quality and the climate.



A selection of PTV Vissim customers:

STADT.
CITY.
VILLE.
BONN.

aurecon

NISSAN

HATCH

AECOM

Are you interested in a free trial of PTV Vissim?

Our experts will be happy to provide you with a free demo version and answer all your questions.

Automotive development with PTV Vissim:

Virtual test drive

- Complement the virtual test driving with realistic surrounding traffic
- The behavior model-based actions and reactions of the surrounding traffic generate a continuous interaction with the system under test

Integration

- Interfaces to software solutions of the industry, e.g. IPG CarMaker, DSpace ASM, Siemens Simcenter Prescan and Hexagon Virtual Test Drive
- PTV Vissim Kernel is a headless calculation engine, which can be used for highly parallelized simulations and runs in Linux and Windows environments

Test and validation of ADAS

- PTV Vissim can generate realistic traffic, in which the automated driving functions are both tested for errors and optimized

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