

“Sustainable Mobility“ for the future

The PTV Group provides cutting-edge software technology and consulting to enable customers to meet their mobility needs. It helps people plan and manage traffic and transportation, provides them with the latest traffic reports and assists them in optimising their long-term resource allocation. Since 1979, our independent corporate group has been a leading provider of products and solutions for travel, traffic and transportation planning.

Strong international demand has fuelled dynamic growth: We currently have over 700 employees worldwide crafting innovative solutions for our customers. Our Karlsruhe headquarters acts as a development and innovation centre with tight links to research and educational institutions. We additionally maintain shareholdings and subsidiaries in Germany, Europe and every continent in the world.

In the Traffic Software, Transport Consulting and Logistics Software business fields, PTV technology forms the foundation of a host of brand-name products and our own leading map&guide and PTV Vision product lines.

PTV. The transportation experts.

Traffic Software Business Field

Software for analysing, simulating, and optimizing traffic flows, as well as professional services for transportation planning and traffic forecasts.

Whether road or rail, private or public transport – our services stretch from transportation planning and traffic engineering as well as signal control planning for towns and cities, regions and countries to consulting for public transport operators and public agencies and the targeted use of powerful software systems in telematics systems, traffic management centres and mobility portals.

PTV Vision

The software suite for transportation planning and traffic engineering with the following core components: VISUM and VISSIM as well as TrafficOffice, the traffic engineering workstation.

Transportation planning and traffic engineering

VISUM – the software system for transportation planning and travel demand modelling

Graphical network editing, traffic network analysis and evaluation, assignment, optimisation, forecasting and impact calculations for traffic planning measures in private and public transport. Travel demand modelling for all transport modes based on a 4-stage algorithm or on activity chains. Traffic generation, distribution and allocation. Calculation of scenarios and analysis of transport services.

VISSIM – the simulation tool

The microscopic simulation program for multi-modal traffic flow modelling. It accurately simulates urban and highway traffic, including pedestrians, cyclists and motorized vehicles. Plus, 3D animation and modelling of vehicle-actuated signal controls.

TrafficOffice – the traffic engineering workstation

The traffic engineering workstation is an advanced Windows® application that emulates MICROSOFT Explorer® for the shortest possible learning curve. It is jointly marketed by PTV and Siemens (manufacturer).

Public Transport

PTV Vision Public Transport

The public transport solution that fully integrates the intermodal aspects of traffic demand, traffic planning, operational planning or production planning and analysis. Network editing, service analysis, measure modelling, demand surveys and evaluation, connection analysis and planning, line costing and revenue calculation, matrix projection.

Road Safety

Software solutions for improving public safety and supporting road safety experts.

Electronic Accident Analysis System EUSKA

Traffic safety software package: a modern survey and analysis system for road accidents based on georeferenced accident data.

Intelligent Transport Systems

Count data analysis with PTV TrafficCountManagement

The TrafficCountManagement (TCM) software allows users to import, process and evaluate count data from different providers. Count data and key values collected by permanent traffic counters can be validated and evaluated, and the results from short-term counts can be managed and extrapolated. TCM's key features include flexible import options, plausibility checks and a central database. A user-friendly data control work station and a key data administration tool complete the software program. Additionally, users can quickly and easily generate complex analyses or reports based on Microsoft Excel.

Traffic analysis and forecast with PTV TrafficPlatform

PTV TrafficPlatform is based on a modular architecture and provides intelligent methods for traffic analyses and forecasts. Therefore, it builds the basis for various applications in the field of advanced, integrated and effective transportation management. Users benefit from precise modelling of current and expected traffic conditions based on real-time data. Traffic management centres and traffic information services have now access to all static and dynamic traffic data and reports in real time. Data from different sources, such as detectors, traffic updates or floating car data, can be imported and intelligently combined by means of PTV TrafficPlatform.

PTV MobilityPlatform - Intelligent routing and mapping services

PTV MobilityPlatform is a central development platform for map displays and route calculations on the Internet. Standardised web services allow users to quickly and easily implement applications, such as address verifications, customer-specific POI management services and display of dynamic traffic information. For example, complex mobility portals and store locators or route planners are typical applications that rely on PTV MobilityPlatform.

Traffic Information Services (TIS)

PTV Traffic Information Services is a traffic information service hosted by PTV. It collects data from different sources and processes traffic information, such as traffic updates, traffic conditions, forecasts and journey time. Customers have access to the data by using PTV MobilityPlatform, PTV Logistics products or another direct access.

PTV RoadRunner – Software module for telematics applications

PTV RoadRunner is a software library with client-side software components for telematics applications, such as GPS-based road toll or data collection and processing for mileage-based insurance models (Pay-As-You-Drive). Each component is optimised for embedded applications and can be used separately. PTV RoadRunner features a revolutionary data technology that enables incremental map updates via mobile communication.

RushHour – Enjoy travelling with realistic journey times

PTV RushHour builds the basis for the calculation of realistic journey times (e.g. for web applications, traffic management centres or mobile navigation systems). The current traffic condition (level of services - LOS) is displayed by using the journey time graphs. PTV's VALIDATE traffic model that covers the German road network provides the data basis for PTV RushHour.

Transport Consulting Business Field

PTV's Transport Consulting business field provides a wide range of consulting services in order to develop solutions for long-term planning and optimisation as well as daily operation and control of all transportation systems.

PTV supports public authorities, public transport operators and traffic infrastructure providers as well as an increasing number of private investors and business customers. The company always strives to support its customers by sharing its knowledge and expertise in the field of traffic and transportation covering all transport modes - from the development of strategic concepts for traffic systems (master plans) and transport operations (traffic management - intelligent transport systems) to single intersection planning, public transport line planning and risk analysis for tunnels - combined with economic analyses and evaluations, if required.

Transportation planning

For detailed traffic and transportation planning it is essential to obtain precise information about the current traffic situation and the development of traffic and mobility in the specific region. Together with our customers we develop and assess complex solutions that are usually based on software-supported analyses of traffic and transportation, including impact analysis and traffic forecasts. The different applications range from local, small-scale analyses to national master plans covering all modes of transport.

ITS and Traffic management

The consulting services in the field of traffic management include the design of traffic signal control including advanced vehicle-actuated control strategies for public transport priority schemes and network-adaptive control. Performance and impact analyses can also be based on microscopic traffic simulation, if required.

PTV also provides solutions for planning dynamic traffic control systems by means of variable traffic signs and for traffic management centres, including solutions for operational and organizational processes as well as preventive and operational software maintenance. Additionally, the company develops concepts and solutions for integrated traffic control, including strategy management methods. The range of services also includes planning of video systems for (automated) incident detection, and digital video networks as well as superordinate video management systems. Moreover, PTV supports planning of street tunnel equipment and carries out risk analyses for tunnels (with simulation tools, if desired).

Public transport planning

Planning and operation of public transport systems are demanding optimisation tasks and a balancing act between attractive services and economic operation. PTV has extensive experience in the field of strategic planning and optimisation of line networks, timetables and vehicle scheduling. PTV provides important information on which to base decisions relating to the foundation of transportation associations or invitations to tender according to legislation requirements.

Consulting services for public transport planning include updates of local transport plans, line network planning, service and resource planning, business-related performance studies, preparation and updates of demand data, evaluation of fare concepts, line bundling and tendering.

Transport economics

Transport economics evaluates traffic on both microeconomic and macroeconomic levels covering all modes of transport. This also includes measures for the improvement of infrastructure. The range of consulting services covers regional, economic and ecological aspects as well as the connection between spatial planning and traffic infrastructure. PTV provides advice on specific issues in the field of PPP funding (Public Private Partnership) and optimisation of maintenance costs. PTV uses standardised assessment guidelines. However, it also develops tailor-made assessment methods.

Traffic surveys

The Traffic Survey division conducts both public transport and private transport surveys. For more than 20 years, PTV has been carrying out passenger surveys and counts to obtain reliable information about travel demand and to determine key values for the distribution of revenues. PTV's transportation experts provide the whole range of survey services - from planning, implementation, data preparation to extrapolation and calculation of results. Additionally, they verify and develop revenue distribution methods and support the customers during the entire implementation process.

Private transport surveys encompass conventional cross-section surveys and surveys of node flows, parking space and licence plates as well as classification of vehicle types based on video recording at count cross sections. Innovative mobile devices (e.g. handhelds for traffic counts) and, if required, methods adapted to PTV's software solutions, are used for all surveys.

Road and highway design

PTV offers also special services in terms of road and highway design. Beside the usual design tasks, especially used to support traffic engineering and urban design solutions

there is specific experience in designing the road and public space related to intermodal facilities connecting different modes (road, rail, air). Our success is based on innovative and efficient engineering services combined with high quality teamwork and projects implemented on schedule. In addition to the design of streets and areas the team of transportation experts plans also creates and implements concepts on complex routing systems and conducts parking studies.

Logistics Software Business Field

Software products and consulting services for transport logistics and geomangement.

The Logistics Software business field provides products and solutions that help customers in industry and trade to optimally organise and manage logistic processes, freight transports and sales trips – from medium to long term strategic planning to daily scheduling and from central dispatcher solutions to in-vehicle navigation systems.

Route planning

map&guide professional

Professional route planner for multifunctional enterprise use

map&guide base

Professional internet-based route planner available in downloadable modules, ideal for fleets with up to ten vehicles

map&guide intranet

Client-Server-based route planner for corporate intranet use

map&guide calculate

Route planner specifically designed to calculate transport costs

map&guide call center

Efficient claims management for road assistance providers and car insurance companies

Navigation

map&guide fleet navigator

Mobile navigation for vehicle fleets

map&guide truck navigator

Mobile navigation with lorry-specific route data

Navigation SDK

Developer tool for companies that want to add a navigation solution to their own application

Professional trip planning and scheduling

PTV Intertour

High-end planning system for break-bulk transports and for scheduling depot-related transport orders and orders that involve loading and unloading (A/B orders). A rich set of functions and a wide range of configuration options for customised processes allow planners to optimally use their transport resources. The software makes costs transparent and helps cut costs in logistics.

PTV Intertour/Dispatch

The software includes all PTV Intertour functions for trip planning plus functions for continuous vehicle scheduling.

PTV Intertour Compact

Depot-related trip and route planning for day-to-day scheduling, including master data management. Ideal solution for companies with a fleet of up to 25 vehicles.

PTV Intertour/Strategy

The tool helps to generate cost-effective master trip plans for regularly occurring or strongly varying deliveries with an evenly used vehicle fleet.

Geomanagement for sales, marketing and sales force organisations

PTV Map&Market

Geographic planning and information system for sales, marketing and sales force organisations with a modular design and cross-industry capabilities. Includes all the planning tools you could ever want: from manual and automatic planning of locations or sales territories to sales call scheduling. A special version supports publishers, postal delivery firms and distributors of advertising materials in planning circulation, distribution and supplement territories.

Software components and developer products

PTV xServers

PTV xServers are powerful and scalable basic components for telematics key features, such as routing, geocoding, mapping or map matching. They are also ideal tools for planning and optimising logistic tasks, such as delivery sequence optimisation. They are especially designed to meet the needs of transport companies or logistics service providers that have their own IT infrastructure and want to add geographic and logistic functions to their applications and system architecture.

PTV MobilityPlatform

Access to hosted geographic functions via standardised web service technology, and thus the geographic backend for comprehensive SOA strategies including a user-related business model.

map&guide map server

Comprehensive, flexible software development kit for the development of geographic desktop solutions.

map&guide distance server

Server-based route planner that provides data in any software format.

Individual consulting and software projects

PTV customises the software for specific business processes or according to the client's requirements. PTV's team of experts helps customers to find the solution that best suits their needs with the help of PTV products. The spectrum stretches from the implementation of internet-based customer relationship systems to sales optimisation and solutions for complex logistic tasks.

Research and Innovation

PTV AG is involved in numerous national and international research projects and projects of the European Union.

Research activities in transportation planning and ITS

Our research department aims at efficiently using and maintaining the existing traffic infrastructure. The knowledge gained from research is applied to applications in traffic and transportation. Customers benefit from our comprehensive product portfolio, from traffic and transportation planning to operation and short-term traffic forecasts.

- ▶ Transport Economics
- ▶ Maintenance Planning
- ▶ Intelligent Transport Systems
- ▶ Strategic Simulation/Traffic Planning
- ▶ Mobility Patterns
- ▶ Traffic Management
- ▶ Traffic Information
- ▶ Floating Car Data (FCD)
- ▶ Cooperative Systems
- ▶ Mobility Services

Research activities in transport logistics

Our aim is to ensure that our customers benefit from the latest technological development and find the ideal PTV tool for their application despite changing market conditions. We develop and test the latest solutions as prototypes - the basis for the early development of future products.

- ▶ Intermodal transport
- ▶ Trip planning, planning tools
- ▶ Urban freight transport
- ▶ Information and communication technology in freight transport
- ▶ Traffic information in logistics