

ON FOCUS:

Always on the Ball

GREATER PLANNING SECURITY

Well Prepared for Major Soccer Events

SAFER TRANSPORT

Truck Navigation with New Features

IMPROVED TRAFFIC MANAGEMENT

Strategic Routing as Technological Milestone



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Contact

If you would like to contact us with any queries or comments, please send an e-mail to

Transportation planning / traffic engineering:
ptvvision@ptv.de

Traffic management / ITS:
its@ptv.de

Transport consulting:
consulting@ptv.de

Transport logistics:
logistics@ptv.de

Geomangement:
geomangement@ptv.de

General inquiries:
public.relations@ptv.de

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PTV Planung Transport Verkehr AG
Stumpfstr. 1, 76131 Karlsruhe, Germany
Tel: +49 721 9651-0, Fax: +49 721 9651-699
www.ptvag.com

Editorial Team

Mandy Ehnert-Zubor
Kristina Stifter: Responsible for the content according to the German press law
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"Being on the ball for our customers"

Dear Readers,

For 30 years we have been on the ball with innovative traffic and software solutions. And it has also been of utmost importance to us to stay in close contact with you, our customers. We develop products and technologies with the main aim of providing the best support for you to solve your tasks, to fulfil your concrete and your "secret" wishes and at the same time, to provide long-term mobility.

To make this possible, we keep in touch with you through our Users Group Meetings, we invest in research, for example in the project CVIS (Cooperative Vehicle-Infrastructure Systems), and we award scientific projects which help to improve our applications with the PTV Scientific Award. Together we find solutions which set new standards and which, above all, are sustainable.

This is demonstrated in particular when preparing for major sporting events, such as football championships. Whether we are developing long-term strategies using macroscopic traffic simulation models in Lemburg or finely tuning bus timetables using microscopic pedestrian simulations in Mainz – at the end of the day, exact planning not only ensures customer satisfaction but also a good feeling amongst fans. Read more about this in our cover story.

We provide tailored routes especially for your truck navigation. The current versions of the map&guide software families contain helpful innovations. For example, these include the possibility of transferring exact routes or individually edited truck restrictions. The new features are described in more detail inside this issue.

We can provide more planning security, so that you can remain in the game in times of financial difficulties. And we can help you save by optimising your operating processes. The new service packages for precombined trip planning provide you with a clear picture of your precombined trips, vehicle assignments, locations and, above all, your transportation costs. More information on this can be found in this edition.

For us, staying on the ball means always giving our best, so that you will always be able to put your trust in us. Together we will be well prepared for the future!

I would like to take this opportunity to wish you a successful end to the year and all the best for 2010!

Best wishes



Hans Hubschneider
Chairman of the Board of Directors of PTV AG



Always on the Ball



Enthusiasm, drama, happiness and tears – no other sport evokes such deep emotions like soccer. Whether regional league or world championship – the supporters do not hesitate to travel long distances, stand in line for the tickets or to fall into each other's arms at public viewing events. Thousands of people flock to the stadiums to watch the leather ball be chased. But how can these crowds be guided or transported to the venues? And how can planners know whether their visions of a new stadium or shuttle service will function? Or whether footpaths and buses have the capacity to accommodate the masses of people? The simulation software VISSIM provides planning security and, ultimately, creates a good atmosphere for the games and fans.

Germany 2009 – After the match is before the match

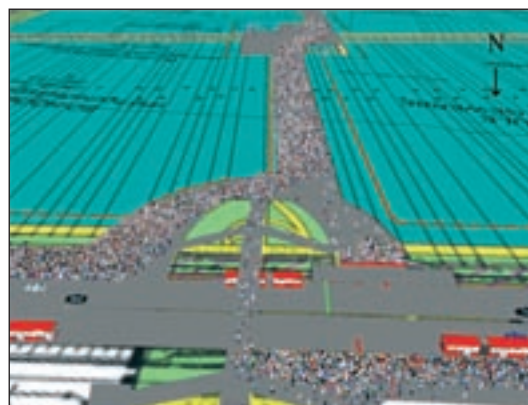
Many stadiums were enlarged and transformed into prestigious venues for the 2006 Soccer World Cup in Germany. The focus has now shifted to small and medium-sized stadiums which are supposed to be renovated, such as the Bruchweg Stadium in Mainz. Since 1929, Bruchweg Stadium has undergone many renovations and upgrades. However, it no longer meets today's requirements regarding security and equipment. Situated close to residential and mixed use areas, it is very difficult to enlarge this stadium in order to turn it into a spacious, modern venue. In particular the consideration of noise pollution guidelines and the lack of additional space have led to the decision to build a new stadium at another location with fewer area-related restrictions.

During the planning phase of the new Coface Arena, the City of Mainz analysed whether the future footpath network and shuttle bus system will be able to accommodate the large number of spectators. The total time between the end of the match and the transport of fans via shuttle and standard services was supposed to be less than 90 minutes.

"Comprehensive planning projects, like the Coface-Arena, require a high level of planning security, which means that they have to be proven beyond any doubt," explains Armin Schroeders, Stadtplanungsamt Mainz (city planning authority). "Despite the fact that we had first results on the capacity of the footpath network and the operation of the shuttle bus system, we

wanted to verify them in order to better rate previous results. Using pedestrian simulation seemed to be the appropriate solution for optimising the planning results. In particular two bottlenecks on the route between the stadium and the shuttle bus stop gave us a real headache. It was absolutely necessary to test this route in terms of capacity. Another important aspect included the verification of bus headways in order to ensure transfer within the scheduled time."

The analysis was based on a worst-case scenario. So the initial situation was a soccer match taking place in a fully booked stadium in the early evening of a business day. Within an hour after the match, 29,950 spectators had to be guided along the planned footpath to the stops of the shuttle and standard buses located at Saar Street and to the parking facilities of the Johannes Gutenberg University. The study also included 800 cyclists. The cycle parking facilities are located on the east side of the stadium.



New stadium takes security aspects and technology into consideration. And it offers more space.

Route from the stadium to the bus stop – the bus shuttle on the left-hand side and the standard buses on the right-hand side and on the other side of the road.

Click www.ptv.de/vissim_avi to view the animation.



Computer graphics of the planned Coface Arena

Pilot project with great impact

The use of a microscopic pedestrian simulation for the Coface Arena construction project is the world's first-of-its-kind application with VISSIM. This software tool has already been used in various projects for visualising evacuation scenarios. The project in Mainz extends VISSIM's range of practical applications:

- ▶ Simulation of different groups of pedestrians taking the same footpaths with different starting points and destinations
- ▶ Interaction between pedestrians with spatial obstacles
- ▶ Evaluation and assessment of the level of service (LOS) for the pedestrians on the footpaths
- ▶ Integrated verification of the performance of the shuttle bus system required to handle the large amount of spectators

"This project offered us the great opportunity to extensively check our software in practice and to find out to what extent it meets our customer's requirements and what aspects could be improved," says Andreas Schomborg, project manager at PTV Germany.

Only the use of the pedestrian simulation software allowed us to visualise spatial and time-related overlapping of routes taken by different user groups. Both passengers taking the shuttle or standard buses and those heading towards the car or cycle parking facilities on the University campus had to be taken into consideration. Their interaction with spatial obstacles or a separation of transport modes at the bus stop could not have been visualised without the pedestrian simulation tool.

The first simulations quickly demonstrated that the path width of the first planning layout would not be sufficient. So it was optimised based on the current property boundaries.

Moreover, a powerful shuttle bus system was developed on the basis of the simulation results: it is able to take 20,000 spectators from the central station to the stadium within approx. 80 minutes. The pedestrian simulation system determined the headways required to offer transport services for another 4,000 passengers who take the standard lines operated by the local public transport company. It turned out that shorter headways were required for the line going out of town. The simulation model included nearly 30,000 spectators.

**Additional applications
for pedestrian simulation**

*"Pedestrian simulation helps us to improve planning security and identify optimisation potential," says **Andreas Schomborg**, PTV project manager of the Transportation and Traffic Planning department, TED Traffic Engineering Düsseldorf*



Facts about the new Coface-Arena

Client: Städtische Grundstücksverwaltungsgesellschaft GVG (City Property Management)

Name giver: Coface Germany is the leading provider of claims management solutions. Its head office is located in Mainz.

Concept: GVG, the city council and the local soccer club 1.FSV Mainz 05 jointly developed the new multifunctional stadium concept with a particular emphasis on soccer.

Location: At the western outskirts of Mainz, approx. 800 m south of L419 Saar Street / close to Europakreisel, connecting downtown to the western motorway junction Mainz/Wiesbaden with the BAB60 motorway.

Capacity: 35,000 spectators.

Budget: € 60m (€ 40 million are spent on the stadium construction)

City development objective: Transforming the Saar Street location with its neighbouring areas belonging to the Johannes Gutenberg University, the extended university site and the Kisselberg service centre into a prominent entrance into town.

PTV was contractor of the City of Mainz and acted as reviewer

Looking forward to a happy fan zone

The results of this project were immediately transferred to the planning and building regulation documents and revealed the benefits of microscopic simulation performed at an early stage of the planning phase. Optimisation potential can be identified before starting the implementation process. VISSIM's multimodal approach, which takes different transport modes into consideration, is important for holistic transportation planning concepts. The pilot application in Mainz proved that pedestrian simulation and its multi-level approach significantly improves planning security, in particular for major projects.

A pass from Mainz to the 2010 Soccer World Cup in South Africa

The project's effects reached far beyond the German borders. PTV AG worked as a consultant for the engineering group BKS which is involved in the preparation of the Soccer World Cup 2010 in South Africa. Similar to Mainz, PTV had to provide a microscopic simulation of pedestrian flows from and to the Greenpoint Stadium, including a performance analysis of the shuttle bus system. Additionally, a capacity analysis of the security and ticket control facilities was performed by the German transportation experts. Capetown will host a semifinal and therefore expects a great number of visitors.

2012 European Championships in Lviv – Kick-off for a sustainable transportation network

Ukraine will also host a major soccer event. Lviv, one of the host cities during the UEFA Euro 2012, is currently putting in place the necessary infrastructure to

cope with the hundreds of thousands of fans expected to flock to the event. The city's current situation cannot be compared to Germany's good infrastructure. Most of the vehicles belonging to the city's public transport system are very old, and for ecological reasons they are not suitable to solve the transportation problems of Ukraine's major metropolitan city with its 800,000 inhabitants. Additionally, a lot of private motorised traffic jams the streets of the beautiful historic city centre.

A comprehensive project of the international climate protection initiative of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) is an important milestone in the transportation modernisation process. PTV's transportation experts are in charge of the overall project management (cf. box). In addition to the analysis of Lviv's current traffic situation the project included a forecast of the traffic volume expected during the UEFA Euro 2012 and up to 2030. The analysis and forecast results allowed the planners to submit recommendations for strategic transportation planning and to develop concrete investment measures.

The most important basic tool is a multimodal transportation model developed by PTV's transportation experts using the software solution PTV Vision and its modules VISUM for transportation planning and simulation and VISEVA for travel demand. Since this model covers all transport modes, it displays both traffic bottlenecks and appropriate measures to avoid them. Planned projects, such as the extension of a tram line from the central station to the stadium, are optimised by means of a feasibility study. The modernisation project also takes road renovation and construction into consideration. The staff of the city council were trained in the use of VISUM enabling them to work with the tool after the project.

Preparations at the Cape of Good Hope

Long-term planning



It is planned to extend Lviv's public transport network and thus reduce emissions in the historic city centre.

Lviv breathes easily

Not only will the soccer fans benefit from the recently started project but intelligent traffic and transportation planning and efficient investments will also help to reduce both traffic and CO₂ emissions within the historic city centre. Additionally, this will have a positive effect on Lviv's business and tourism development.

Klaus Reinhardt, project manager at PTV Germany, emphasises: "The aim of the project 'Lviv – urban

transport strategy' is to effectively contribute to the reduction of emissions and to sustainably improve the public transport infrastructure, of course also as part of the preparations for the European Soccer Championship 2012. Both BMU and the KfW bank attach great importance to the development of innovative solution approaches whose impact goes beyond the individual project. With our extensive experience and expertise in traffic and transportation optimisation we can contribute to project success." 🇩🇪

Reduced CO₂ emissions

Project as part of BMU's international climate protection initiative

Project title: Strategy for the Urban Traffic in the City of Lviv

Customer: LVIV City Council

Contractor: PTV Planung Transport Verkehr AG, VCDB VerkehrsConsult Dresden-Berlin GmbH

Subcontractor: DREBERIS GmbH Dresden, National City Planning Institute "Mistoproekt" Lviv, Lvivdiprokomunbud Lviv, National University "Lviver Politechnika"

Funding: KfW Development bank, Frankfurt am Main

Your contact for questions on pedestrian simulation for Mainz:
Andreas Schomborg
+49 211-938858-12
andreas.schomborg@ptv.de

Your contact for questions on Transport Consulting for Lviv:
Klaus Reinhardt
+49 351-40909-12
klaus.reinhardt@ptv.de

Election of New Supervisory Board Member

Karlsruhe-based PTV Planung Transport Verkehr AG had good news to report at its Annual General Meeting. With an order backlog at record high and a comprehensive market portfolio encompassing software and consulting services for optimised traffic and transportation, the company is well positioned, even in times of economic crisis. Dr. Frank-Jürgen Weise, the Chairman of the Board of Directors of the Federal Employment Agency, Nuremberg, was elected as Chairman of PTV's Supervisory Board.

Dr.-Ing. Hans Hubschneider, Chairman of the Board of Directors, presented a positive balance sheet to the stockholders at the company's Annual General Meeting. PTV achieved slightly improved results for the financial year which ended on March 31, 2009.

The current budget year shows different trends and developments: PTV's business unit Traffic has still numerous orders from the public sector. However, logistics continues to cope with the economic slowdown in the transport sector and, consequently, a lower willingness to invest.

Hans Hubschneider says: "The demand for our products has increased significantly which clearly confirms the current upward trend. Thanks to our broad product portfolio we are better prepared than our competitors.

We are therefore confident that our market position will come out stronger after the economic crisis."

Prominent executive named to the Supervisory Board

Dr. Frank-Jürgen Weise, Chairman of the Board of Directors of the Federal Employment Agency, Nuremberg, was appointed to the Supervisory Board at the Annual General Meeting. At the Supervisory Board Meeting, which took place immediately after the AGM, he was also elected to chair the control committee. Dr. Frank-Jürgen Weise succeeds the former chairman Dr. Volkmar Mair who retired from the supervisory board after many years in office.

The new Supervisory Board Chairman explains why he wants to support the transportation experts from Karlsruhe: "Maintaining close ties to German SMEs is very important to me. Working for PTV will be challenging and exciting because the company provides a comprehensive range of products and services for traffic, transportation and logistics – issues of particular relevance to the future." During his career, Frank-Jürgen Weise founded a logistics company and was member of the management board of well-known organisations, also renowned automotive companies, so he has gained extensive experience in this field. 🇩🇪



Dr. Frank-Jürgen Weise, well-known as Chairman of the Board of Directors of the German Federal Employment Agency supports PTV AG.

Your contact:

Kristina Stifter

+49-721-9651-565

kristina.stifter@ptv.de

Technological Milestone: Strategic Routing

Good news for local residents. New routing procedures clear the way for alternative route recommendations, without routing traffic through residential areas. The PTV AG transportation experts from Karlsruhe developed the trendsetting technology as part of the **CVIS (Cooperative Vehicle-Infrastructure Systems)** research project. It is being presented to the public today with live driving demonstrations on the Dortmund test area.

In a final presentation, Siemens, the **City of Dortmund**, **Ertico** and PTV will show their results on "cooperative" systems. They concern the interaction between vehicle, infrastructure and traffic management centres. The implemented procedure is a technological milestone for cities, counties and regions. For the first time, public authorities are able use PTV's new technologies and stored transportation strategies to influence route

Avoiding routing through residential areas



Strategic routing



Trip in CVIS test vehicle

recommendations. Traffic flows freely through specified routes, avoiding congestion. For example, navigation systems will no longer guide the driver through residential areas – meaning that congested city centres could soon be a thing of the past.

"The major advantage of strategic routing is the prompt availability of route information," explains Dr. Michael Ortgiese, who is responsible for research at PTV. Until now, dynamic routing has been working with time delays, as it only comes into action after disruptions have occurred. The strategic version informs the driver in advance and traffic can be controlled as required. Ortgiese is convinced "This will create immense added value for traffic control, not only in city centres, but also in surrounding areas for roadworks or major events".


How does strategic routing work?

The crucial question here is: How can traffic and transportation strategies be managed and communicated in the future? The answer is: using a specially developed strategy workplace. PTV has now laid the necessary groundwork.

The central strategic routing installation sends the client requesting the route (end device) a dynamically strategic alternative route. The driver also receives information on the disruption which activated the strategy.

The information flow occurs mutually between vehicle and control centre. Information is provided on traffic situations which lead to pre-defined strategies being triggered. Examples of these are "Congestion", "Tailback dispersed" or "Slippery roads". These are sent by the individual vehicles as message to the control centre and are visualised there. The strategies planned by experts are available in the control centre. They are activated and sent to the vehicle depending on the traffic situation or as planned traffic control scenario, for example during bridge work.

The CVIS project

The aim of the research project is to use cooperative systems to improve traffic flow, increase safety and to minimise the negative effects of traffic on the environment. CVIS is sponsored by the European Union and runs from 2007 to 2010. Over 60 international partners from diverse industries are working on many sub-projects. Technology for cooperative traffic and transportation management in inner-city areas was developed and tested as part of the sub-projects COMO (Cooperative Monitoring) and CURB (Cooperative Urban Applications). More information is available at www.cvisprojekt.org. 

Prompt availability of route information

Partners involved in the Dortmund presentation:

PTV Planung Transport Verkehr AG, Karlsruhe: New routing procedure, strategic routing, development of groundwork for traffic control strategy workplace

Siemens AG: Priority application, dynamic priority placement for public authority vehicles such as police or ambulances.

City of Dortmund: Traffic management centre and infrastructure for the Dortmund field test.

Ertico: European network for Intelligent Transportation Systems (ITS)

Definition of traffic and transportation strategy: Bundle of measures for individual (routing) and collective (variable message and direction signs, signal control optimisation) traffic control

Your contact:

Dr. Michael Ortgiese

+49-721-9651-172

michael.ortgiese@ptv.de

Improved Environmental Assessments – Emission Calculation

In a world of dwindling resources and changing climate transportation planning can no longer be a simple exercise of matching supply to demand. Intelligent solutions to today's traffic problems need to demonstrate that they are environmentally sound in addition to providing the desired mobility. Recent legislation and the findings from environmental research define a framework against which the sustainability of a given planning scenario can be measured as quantitatively as the capacity from the traffic engineering perspective.

Among different measures of effectiveness, the traffic-related emissions and immissions of various greenhouse gases and other pollutants remain the focus of environmental assessments. In practical terms planners take the traffic volumes predicted by a demand model and compute first emissions per network link, then aggregate in space or feed the emissions into a second model for immissions.

The approach

The basic approach for emission calculation follows a very straightforward equation:

$$\text{Emission} = \text{Traffic Volume} * \text{Emission factor}$$

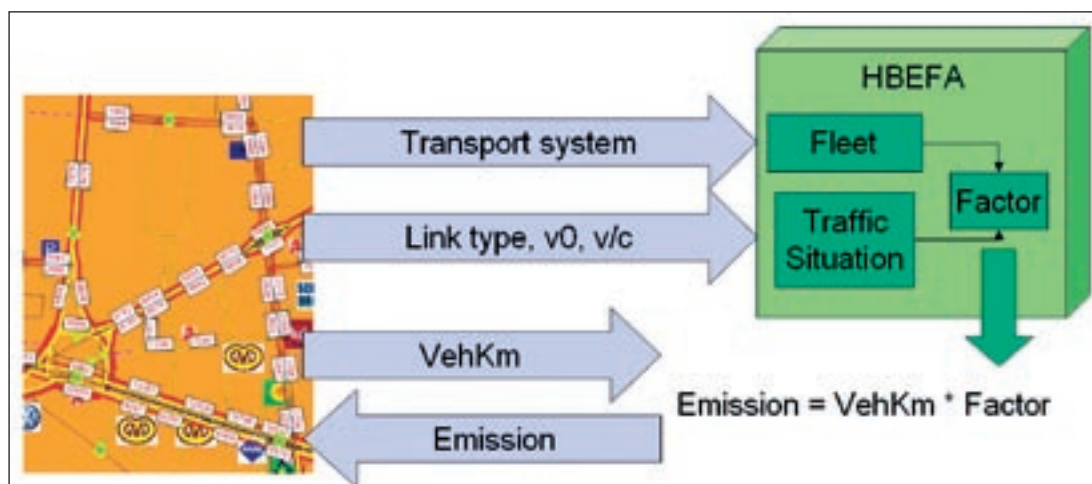
In this equation "Emission" stands for the total mass of a pollutant species such as CO₂ or NO_x emitted by the vehicles on a network link during a given time inter-

val. The traffic volume is the number of vehicles which traverse the link within that time interval. Demand models, like those developed in VISUM, yield traffic volumes, either as totals or disaggregated by vehicle type (e.g. cars, light trucks, heavy trucks). These volumes are then multiplied by emission factors, the "unit costs" in emission modelling. Obviously, emission factors are not constants, but functions of several factors. Speed, link type (e.g. motorway vs. city street), engine type, gradient, and even temperature have a significant impact. The functional relationship is determined through a vast amount of empirical work, measuring actual emissions in the field and in the lab taking a wide variety of driving patterns into consideration.

Why HBEFA 3.1?

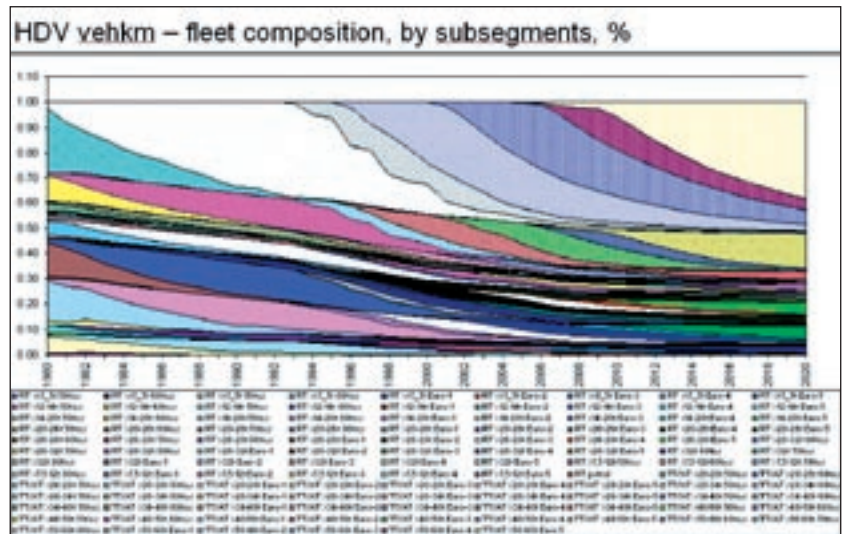
The effort for such a research project is so great that it favours a supranational approach. More than ten years ago the environmental agencies of Germany, Switzerland and Austria pooled their resources to compile a comprehensive emission factors database. The result was published as the Handbuch Emissionsfaktoren (HBEFA). After several revisions the HBEFA faces the next major revision. Not only will the emission factors be updated to take into account new engine concepts and emission standards, but the project partners will also include the findings from the EU-funded ARTEMIS research project on Transport Emission Models and Inventory Systems. ARTEMIS proposes a new set of

Comprehensive emission modelling



Data flow between VISUM and the emission factors database HBEFA

Example of changes of the fleet composition in Sweden. Each colour represents a HBEFA vehicle type. The HBEFA database includes shares of the entire fleet for each year between 1990 and 2020



systematic descriptors for traffic situations which simplifies mapping from transportation models to emission models. The HBEFA consortium also took on board several other European countries: among others Sweden, the UK and France are joining, so that the revised HBEFA is on its way to become a truly European standard for emission factors. With those recent developments in mind the VISUM development faced an easy choice when picking an emission model for integration with VISUM: the next release of HBEFA fits the bill perfectly.

Mapping the fleet

How does the VISUM – HBEFA 3.1 link simplify life for the transportation planner? The first step is mapping the vehicle types used in the demand model to those used in HBEFA. Demand models typically distinguish only a very small number of different vehicle types (aka transportation systems), often only cars and trucks. This is much too aggregate for emission calculations. In fact, each transportation system represents a mix of many vehicle types which behave similarly in terms of demand modelling, but have very different emission factors. Fortunately, the providers of HBEFA take this aspect into consideration and offer ready-made mixed fleets for different countries and years as part of the database. For a national model of a region in Austria, the planner might then map the VISUM transportation system “Car” to the HBEFA standard fleet mix “Car Austria 2015”, actually composed of dozens of specific vehicle types. For applications in countries not covered by HBEFA or for specific technology scenarios users can take a standard fleet mix as a starting point and then modify the shares of the vehicle types.

Mapping traffic situations

Emission factors depend not only on the vehicle type, but also on the traffic situation in which the vehicle is operating. In terms of emissions coasting at 100 km/h on a motorway is dramatically different from stop and go in front of a traffic signal on an urban arterial. HBEFA captures these differences by the traffic situation descriptors recommended by ARTEMIS. Each traffic situation is defined by four descriptors, three of which relate to facility type and location (urban / rural, functional road class, free-flow speed). These three descriptors have an immediate counterpart in a VISUM model, as they are attributes of links (or link types). The fourth descriptor (LOS) is a qualitative four-step scale describing the traffic flow state from free to traffic

jam. Finding a proxy for it in a demand model is less straightforward, but a classification of volume-capacity (v/c) ratio or of actual to free-flow speed ratio are natural choices. Guidance on threshold values for the four LOS classes is the subject of ongoing research, and users will be able to customise the relationship.

With the two mappings in place, emission calculation becomes a very easy post-processing of an assignment result from the demand model: for each network link VISUM disaggregates the volume to the HBEFA fleet mix, looks up the traffic situation and its emission factor, corrects for gradient, and multiplies the result.

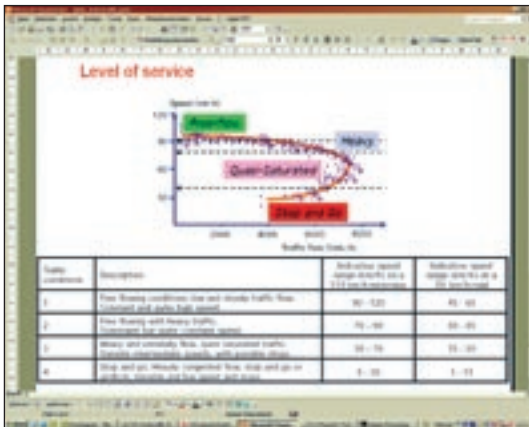
Cold start emissions

All of the above relates to warm emissions and ignores one particularly important part of total emissions: those on the first few kilometres. Cold start emissions are often neglected or explained away, because ordinary traffic counts can be disaggregated by vehicle type, but obviously not by time since engine start. The picture changes completely if traffic volumes are taken from a demand model. Modern software packages such as VISUM store the full trajectory for each assigned trip, so by inverting this information it is indeed possible to tell which fraction of the volume on a given network link corresponds to vehicles within the first few hundred metres of their trip. After adjusting for cordoning effects near the boundary of the model, this information can be used to calculate from the model, instead of guess-timate, cold-start emissions – which may alter the total emission distribution significantly.

Calculating instead of guessing cold-start emissions

Link to immissions

Emissions are often not the end of the processing pipeline. In order to compare the environmental impact with



Comments on LOS descriptors for traffic situations and recommendation on threshold values

thresholds imposed by legislation, they have to be converted to immissions first. This conversion, taking into account dispersal around detailed 3D topography and air chemistry, is the realm of specialised software outside the transportation planning suites. The good news is that due to open GIS standards interoperability is not a problem, and in packages like VISUM it is a snap to export emissions per link such as [ESRI Shapefiles](#) to any GIS-enabled immission model.

Release plan

The VISUM development team is now preparing the software for the integration of HBEFA and PTV is proud to announce that the link will be available very shortly after the official release of HBEFA 3.1.

PTV's traffic count management system is another advanced solution which allows transportation planners and traffic engineers to compare traffic and environmental data for evaluation purposes.

Traffic count data management

Traffic count data is a vital component for traffic and transportation planning. It provides the basis for the design of road infrastructure and pavement management systems. Moreover, it assists in calibrating and updating traffic models and supports decision-making processes in the field of urban construction.

There is an enormous amount of count data from traffic count sites using state-of-the-art sensing instruments. Past experience has shown that handling these extremely large data volumes is often very time-consuming. However, data quality assessment is essential for traffic planning and control.

The [PTV TrafficCountManagement](#) software system can cope with the ever increasing amounts of data and delivers current and historical values and key reports within seconds. The visualisation of the mea-

sured traffic counts ensures a complete overview of the traffic situation and increases its quality by additional automatic plausibility checks and manual adjustment options. Its centralised database and state-of-the-art graphic user interface provide easy access to all data. Several systems are productive in Europe and North America – some with more than a billion count values stored in the database.

Complete overview of the traffic situation

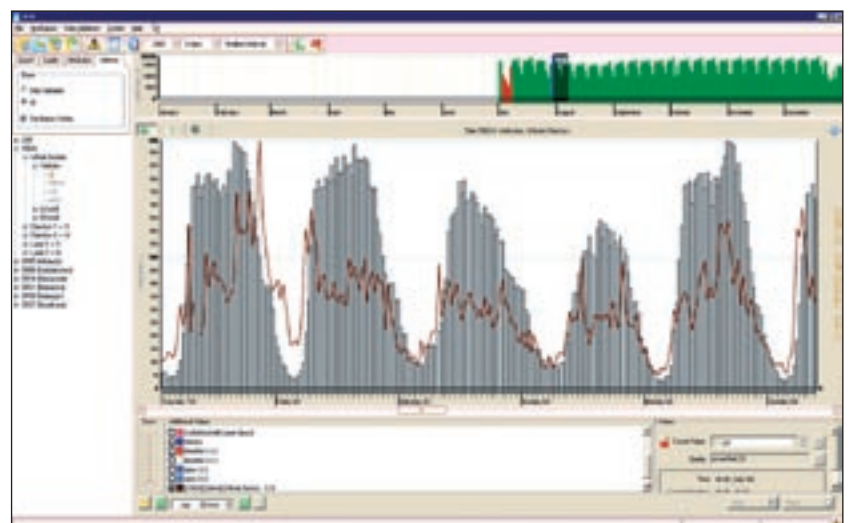
The great variety of information provided by the PTV TrafficCountManagement system is based upon individual raw data supplied by the detector. It ranges from classic regular time series for separate lanes, directions or cross sections as well as different vehicle classes and speed or weight bins to complex reports of peak traffic volumes per vehicle type and day of the week, for example.

Both data import and export of reports follow an automatic workflow which means that the system minimises the time needed to process and summarise the data. Moreover, it enhances data quality of the results, which leads to a more reliable base of the entire transportation planning process.

Faster data processing

Comparing traffic data and environmental data

The scope of data types supported by PTV TrafficCountManagement includes both primary traffic count data



PTV TrafficCountManagement offers a flexible and comprehensive visualisation of traffic count data in combination with environmental data.

and environmental data. Pollution values for air pollutants such as nitrogen oxide (NO_x), carbon monoxide (CO) or particulate matter emissions can be imported into the PTV TrafficCountManagement database for further evaluation. In particular the visualisation of the environmental data together with traffic volumes or speed characteristics enables users to evaluate relationships between the following two factors: the amount and speed of traffic usually have a direct impact on the occurrence of certain environmental pollutants at a certain location.

The PTV TrafficCountManagement software therefore helps to assess not only the traffic implications but

also the environmental effects of traffic management measures such as:

- ▶ driving restrictions or speed limits
- ▶ temporary or permanent adjustments
- ▶ regulations for all vehicles or specific vehicle types
- ▶ and even stationary traffic regulations.

In recent years and even more so in the upcoming decade, the effectiveness of traffic management efforts will not only be judged by its impact on traffic flow but also its contribution to the reduction of the environmental footprint of traffic. PTV TrafficCountManagement acts as a comprehensive system for quantifying these effects. 🟢

Your contact:

For HBEFA in VISUM:

Dr. Klaus Nökel

+49-721-9651-328

klaus.noekel@ptv.de

For TrafficCountManagement:

Timo Hoffmann

+49-721-9651-7250

timo.hoffmann@ptv.de

Annual Users Group Meeting and Award Ceremony



This year's annual international PTV Vision Users Group Meeting was held in Vienna and attracted nearly 70 visitors from over 21 countries. The 2nd Scientific Award ceremony, which honoured outstanding research projects involving the use of the PTV Vision software modules VISSIM and VISUM, was the highlight and the final event of the annual meeting.

The program covered applications ranging from private and public to intermodal transportation. The speakers presented examples of applications in Japan, Hungary, China, Russia, Denmark and Great Britain, clearly demonstrating that the software is used worldwide for the development of traffic solutions.

The workshops provided valuable tips and tricks on how to use PTV Vision. From 3D designs in VISSIM and new assignment planning features in VISUM to the visualisation of park&ride facilities in a demand model – UGM 2009 offered attendees plenty of useful information. Attendees also had the opportunity to discover Vienna by joining several guided tours after the sessions. In the evening, they met at a nice restaurant to relax and review the day, whilst enjoying a glass of famous Austrian wine and excellent food.

2nd PTV Scientific Award

PTV AG invited scientists from all over the world to submit their innovative contributions for the second

PTV Vision Scientific Award. From the 14 entries involving the use of the PTV Vision modules VISUM or VISSIM for innovative research projects, the three best were rewarded.

This year's winner of the EUR 2,500 prize is Professor Guido Gentile from the University of Rome. He developed the new algorithm LUCE (Linear User Cost Equilibrium) which revolutionised the earlier traffic assignment procedures by improving the runtime, convergence and path proportionality. This means that transportation planners can now perform the most-used modelling calculations in practice more quickly and efficiently.

The second place was given to Denis Zenkov from the Transport and Telecommunication Institute in Riga with the development of a procedure for automatically calibrating simulation parameters. With his work on the variability of simulation results, Zeeshan Raza Abdy, postgraduate at the University of Waterloo in Canada, was able to gain third place. Guohoi Zhang from the University of Texas at Austin also won third prize. He analysed the impact of dynamic tolling for special lanes using an add-on module for VISSIM which he also developed for this research project.

Dr.-Ing. Peter Vortisch, coordinator of the prize at PTV, said of the entries: "It was particularly important for us that we reward entries that not only contain a purely scientific quality, but also display a real effect in practice." 🟢

Vienna Hofburg (Imperial Palace)



Prof. Dr. Guido Gentile wins first prize



Dr. Klaus Nökel outlines the latest developments in VISUM

Your contact:

Dr. Peter Vortisch

+49-721-9651-305

peter.vortisch@ptv.de

Seconded VISUM Modellers – A New Form of Customer Relationship

Transport modelling has always been one of the core competences of PTV. PTV's experience and quality standards in this area have also been recognised abroad and the number of modelling projects has significantly increased in the UK, Italy, China and the Middle East region in recent years. The outstanding complexity of a full VISUM transport model often requires close cooperation with the customer during the process of model development, application and maintenance. In this context a growing number of customers very much appreciate personal on-site assistance and guidance for a longer period of time. In order to facilitate knowledge transfer and to guide customers through the process, the temporary secondment of PTV professionals has turned out to be highly beneficial for both sides.

One of the projects where this approach could be adopted is the maintenance and upgrade of Qatar's Transport Master Plan. Miliss Mansour, who is currently working as PTV modelling expert at and for Qatar's Urban Planning and Development Authority in Doha for a period of eight months, confirms the advantages: "Rather than simply delivering a complex transport model and expecting the customer to be able to operate it immediately, the secondment allows a longer period of handover. The customer's staff are being familiarised with and trained in the use of the

model. Contrary to the norm where delays are almost always experienced with the delivery of large projects, the secondment enables us to work continuously. In a highly dynamic and active environment such as Qatar, the ability to perform day-to-day work uninterrupted is vitally important to the client".

Volkmar Kurze, another PTV modeller who has been delegated to the City of Luxembourg for a period of two years, agrees: "The customer gets assistance from a PTV professional who provides the qualification and experience required for the demanding work with VISUM. Training expenses do not arise. The customers work together with a skilled engineer who provides full-time support by focussing on local tasks. Additionally, they can benefit from the expertise and service offered by the entire PTV modelling team."

As the seconded PTV expert is always a highly trained and experienced transport planner or modeller, their presence also provides a significant boost to the technical expertise of the respective department, resulting in transfer of modelling technology as well as other aspects of transport and traffic engineering. Another advantage is the transparency of work that comes along with this form of cooperation. The customer gains deep insight into the work which leads to better understanding and acceptance. 📍

On-site assistance facilitates knowledge transfer

Your contact:
Udo Heidl
 +49-721-9651-330
udo.heidl@ptv.de



Volkmar Kurze from PTV (right), and Fernand Reckinger from the City of Luxembourg, discussing modelling issues. "Through the permanent on-site collaboration it is possible to react immediately to our needs such as short-term model changes. And this has finally resulted in a more flexible, effective and close cooperation between PTV and ourselves," says Fernand Reckinger.

Section of the underground lines suggested by PTV for the city of Doha taken from the final report for the Transport Master Plan for Qatar



Excerpt from PTV's Transport Master Plan for Qatar: Suggestion for the national road and rail-linked network for public transportation

German Transportation Planning is Export Hit

A country with a population of over one million people without public bus and rail transport? This is beyond our imagination, but is – still – reality in the desert state of Qatar. Both population and economy are growing fast there, and so too is the demand on public transport. They have no expertise on how an integrated transportation concept for local and long-distance transportation can be created. This is why the Qatari government is relying on experts from Germany. PTV is on the team. They are responsible for creating the strategic concept for future transportation as a so-called Transport Master Plan for Qatar.

Tom Schwerdtfeger, Member of the Board of Directors at PTV AG, is pleased: "Together with the Deutsche Bahn we have been able to export our German expertise on long-term transportation solutions to Qatar. This is a major success for the German economy. We are certain that this fruitful cooperation will continue. For example in the planning and design of the railway stations which are still to be built. With our offices in Doha and Dubai we are in the best position for further projects in the Middle East."

The challenge lies in the very dynamic development and motorisation of the population in the region, which requires a flexible and extremely strong transportation system. The Urban Planning and Development Authority placed the order with PTV to develop the basis for an integrated transportation system from 2006 to 2008. This included not only the forecast of economic development and population growth, but also the design of a traffic model to estimate the effects of strategies and measures as well as the planning of transportation networks in road, public and rail transportation.

As part of the master plan, the transportation experts from Karlsruhe developed an underground railway network for the capital city, Doha. After completion, the network is planned to consist of six tube lines running underground through the centre of the city. A fundamental part of the plan is a regional public rail transportation system. The railway lines link the developmental focal points along the east coast: airport, Doha city centre, west bay and the towns along the coast. It also creates synergies for transporting from the gas focal point Ras Laffan in the north and the processing refineries in the south of the country.

Together with the engineering office Vössing from Düsseldorf, PTV also worked on the rail connection for the new international airport in Doha. A high-speed rail line is planned there. It will run from the airport to the city centre and over the Friendship Bridge to Bahrain. And in the future, the transportation of goods between Qatar and the border crossing to Saudi Arabia will be performed by the Doha-Express rail.

This network planning with navigation of underground and rail lines, the location of the stations and the connection points formed the basis of work for Deutsche Bahn, whose "daughter company" DB International helped PTV to finalise and develop the plans. These challenging tasks were made possible, were detailed and displayed in pictures using the software PTV Vision and its modules VISUM for transportation planning and modelling and VISEM for traffic demand modelling. Qatar can now use these planning results to make the right decisions together with Deutsche Bahn on developing the regional and long-distance transportation network. ☺

PTV's Transport Master Plan for Qatar forms the basis for Deutsche Bahn's major project

Your contact:
Rainer Schwarzmann
 +49-721-9651-356
rainer.schwarzmann@ptv.de

PTV is Developing Transport Models for Entire U.A.E.

The **United Arab Emirates (UAE)** has faced unprecedented economic and population growth over the past decade. Current comparison of transport performance and sustainability against the committed and planned road transport infrastructure has shown inadequacy of the entire transport system to cope with projected travel demand in the future. Therefore, the **National Transport Authority (NTA)** decided to undertake the study titled **"Development of National Transport Plan for the United Arab Emirates"**.

The main objective of this study is to develop a long-term transport plan that would not only provide the infrastructure planning framework for projected demographic and socio-economic growth and prosperity of the country, but would also ensure efficiency and safety for all modes of transport combined into one integrated system.

PTV partnered up with **ATKINS** to develop the national transport plan which is aimed at providing a policy framework that shall achieve strategic transport objectives at the national level.

The study has been divided into 4 phases:

- ▶ Phase 1: Study inception and status quo analysis
- ▶ Phase 2: Traffic projections and demand modelling
- ▶ Phase 3: Establishment and evaluation of transport scenarios
- ▶ Phase 4: White paper, infrastructure plan, and implementation plan.

PTV was commissioned by NTA and ATKINS to develop strategic transport models for passengers and freight. The passenger transport model was developed as an activity-based model in **VISUM 11** with the level of details of the strategic transport network as shown in figure 1. The freight model was developed for 38 commodities separated into 9 groups with peak hour

matrices of freight flows being the main output. These transport models were designed to assess the existing state of the transportation system and to incorporate the projected population and economic activity in the UAE in order to predict the growth in future travel demand for both passengers and freight.

In close cooperation with ATKINS, our study team implemented strategic transport planning objectives into the transport models in the form of future socio-economic, land use, and demographic factors from one side and the planned national transport network, concepts, measures, and elements from the other. A number of different options/scenarios were tested in order to assess their viability and effectiveness in addressing the transport issues of tomorrow. The results of transport model runs were used to develop a transport policy and infrastructure interventions schemes, which would be required to achieve key transportation objectives for the whole country.

As of the end of October 2009, phases 3 and 4 of the study are currently underway with PTV finalising and fine-tuning the testing of preferred transportation options and evaluation of both passenger and freight scenarios. The study is scheduled to be finished by February 2010. 📍

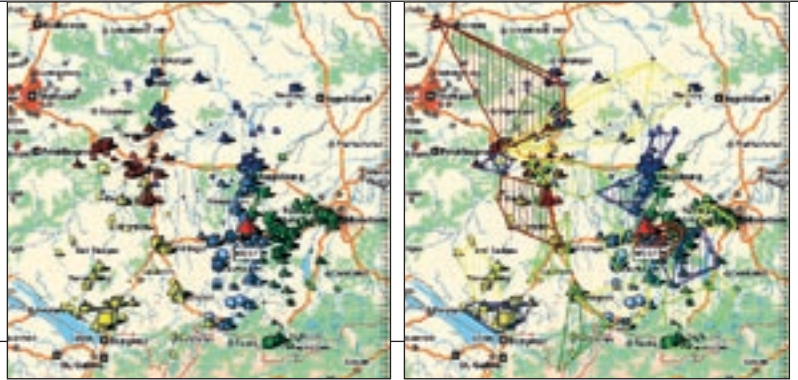
Addressing future transport issues

Your contact:
Slavenco Cugalj
slavenco.cugalj@ptvme.ae
www.ptvme.ae



Development of National Transport Plan for the U.A.E (United Arab Emirates).

Precombined Trip Planning as Service



Even though precombined trip plans need to last a long time, they still need to be regularly optimised. Particularly if they have been steadily growing over the years, the trip structure needs to be fitted to the current circumstances. For example, if customers and delivery areas are added or deleted, or if changes are made to the fleet, locations or order volumes. However many customers shy away from the costs and effort involved in introducing a professional software for planning. For this reason, PTV now provides its software and expertise in the form of service packages.

Manually fitting the precombined trip plans, which have grown over the years, to the current structures involves a great amount of time and effort on the part of the planners which is then missing in different areas. In this case, an update of the precombined trips is long overdue. But you don't have to do everything yourselves – simply delegate the planning to professionals!

With the services provided by PTV, logistics companies profit from the use of the trip planning software [PTV](#)

Sales call planning, before and after: Optimised precombined trips with PTV Intertour

[Intertour](#). The PTV consultants plan directly using the company's data, include all relevant restrictions in the precombined trips and develop alternative trip plans upon request. This provides the company with a concrete basis for strategic decisions and the information required to quickly find approaches to improving operative trip procedures.

This service has several advantages for logistics companies: They only pay for the range of services individually specified for them. Costs are saved for licences, installation and training as well as the time and effort saved for their own employees. They gain clarity over precombined trips, vehicle assignments and locations – and, above all, over their transport costs. The improved precombined trips are immediately available for use, trips are cost-effective again and fleets are evenly utilised. 📍

Delegating trip planning to the professionals

Your contact:

Andreas Petillon

+ 49 (0)72-9651-524

logistics@ptv.de

Exact Costs and Emissions on Steep Hills

A truck which is driving up a steep hill produces more carbon emissions than a truck driving down a hill. For this reason, the route planning software [map&guide professional](#) now includes European altitude data. This means that the calculation results for costs and emissions are much more exact.

The calculation of emissions for road transport has been clearly improved with the new map&guide service pack. As the software now includes European altitude data, CO₂ and other emissions and pollutants are calculated more accurately on the basis of uphill and downhill inclines. This makes the calculation results much more

exact. Even the costs (diesel consumption) can be more reliably specified when precalculating transportation services.

As basis for calculating the inclines the software uses a grid, which is exact to 50 metres, as well as emission values available in the HBEFA (Handbook Emission Factors for Road Transport) for trips with different longitudinal gradients (in 0.5% intervals).

The new feature is part of the Service Pack 2 for map&guide professional and is now available from the producer, PTV. 📍

Your contact:

Stephan Ruppert

+49-721-9651-8546

stephan.ruppert@ptv.de

Truck Navigation with New Features

Bridges too narrow or tunnels too low for trucks? These problems are stressful for truck drivers and costly to businesses. This is where software specifically designed for truck navigation comes to the rescue: [map&guide truck navigator](#) for truck navigation, [map&guide fleet navigator](#) for vehicle fleets and the development components [map&guide navigation SDK](#). To make it even safer, PTV has again implemented numerous fresh ideas for the new versions, for example, routing transfer using Guided Navigation and the possibility of transferring individually edited truck road blocks for navigation.

Guided Navigation can be interesting for transports for which a specific route is desired. The external server will then transmit navigation data to the mobile device – allowing the transport to be more easily planned, optimised and monitored. The new feature opens up a wide range of applications, particularly in the field of route optimisation, geofencing and transport security.

Users who require a greater coverage of truck attributes than those provided by the system can edit them and block road segments for trucks with the Road Editor in [map&guide professional](#) or [map&guide calculate](#). Road closures can be applied to the truck navigation system using the add-on module RoadEditor2RRY. RRY is a typical data format which can be read by navigation devices.

The Text2Speech application for text recognition for navigation devices can turn text stored in the system into spoken word. Compared to "now turn right", the sat nav now tells the driver the name of every road, such as "now turn right onto Queen Street", which is far more precise. Audio messages provide directions on motorways, traffic reports and the driver is informed of the estimated time of arrival.



Avoiding a road blocked for trucks

The user can add individual address data to the navigation: the POI-Importer converts geocoded CSV address data and the GeoDB-Importer is particularly suitable for the integration of addresses using map&guide desktop software.

Precise navigation

New features include a speed alert for trucks and a radar warning which is available as an optional extra. Due to differing laws in different European countries, radar warning is available for France, Spain, Great Britain, Austria, Andorra, Belgium, Finland, Italy, the Netherlands, Norway, Sweden, Slovenia and Poland.

Address integration

Another new feature allows users to enter coordinates for the navigation process instead of street names. They can now also search for all available POIs as opposed to the previous option with a limited search radius around a city. PTV has completely revised the documentation for the RI programming interface designed for navigation control at the control centre. The remote interface is particularly advantageous for applications with additional stop-off points which have to be transferred from the server to the mobile device during the trip. 📍

More extras

Your contact:

Michael Hubschneider

+49-721-9651-8234

michael.hubschneider@ptv.de

PTV Loxane France

The First PTV Loxane Integration Trophy

PTV Loxane has taken advantage of its new, more spacious and convivial premises for hosting its Developer Day. This event, organised annually over the past four years, brings together the company's integrator and developer partners for a day of technical collaboration. An innovation is the newly introduced Integration Trophy which rewards 2 integrators: one for the Innovative Integration Prize, the other for the Integration Project Prize.

For the fourth year running, PTV Loxane has invited its integrator and developer partners to meet for a day of technical collaboration in the context of a "technicians' get-together". All those involved would be able to explore and consolidate their pooled knowledge about the tools and components proposed by PTV Loxane via presentations of concrete case studies, integration examples, etc. The "Developer Day" represents a unique opportunity for each participant to benefit from free, possibly even personalised advice specific to his or her project.

Newly introduced for this year's event: as an addition to this year's Developer Day, PTV Loxane organised the inaugural Integration Trophy with two categories:

- ▶ Innovative Integration Prize, to reward the best application.
- ▶ Integration Project Prize, to reward the best integration project.

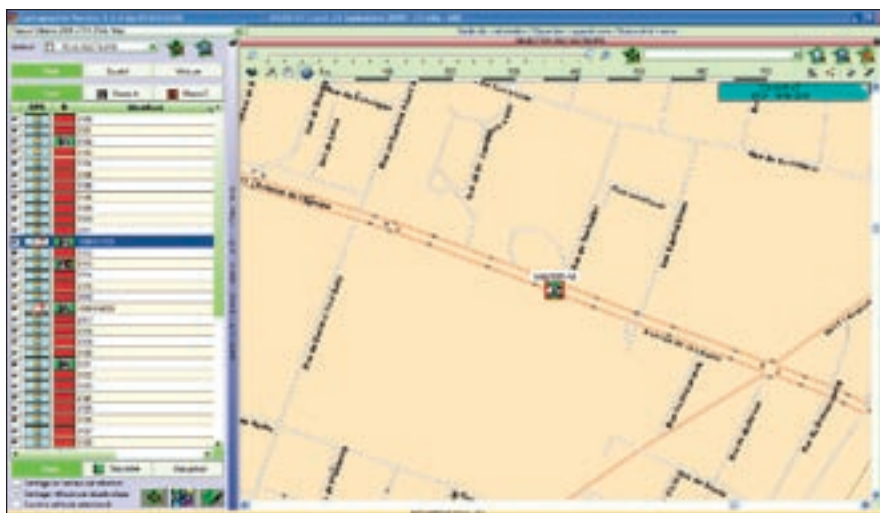
This Trophy is designed to reward and turn the spotlight on the application or project of a partner that best integrates one or more components of PTV Loxane's range of products. It is therefore open to all partners, IT engineering service companies, integrators and software vendors who include any PTV Loxane integration component or software in their application or project. All participants had to submit their application between May 1 and September 15, 2009.

The results were unveiled on the occasion of the Developer Day, where both Integration Trophy winners presented their winning solutions.

Lomaco and Adelante, winners of the PTV Loxane Integration Trophy

In addition to a symbolic Trophy, the two winners received three days of personalised support and a lump sum amounting to € 3,000 for their next license acquisition.

Lomaco picked up the Integration Project Prize. Lomaco, who has been a partner of PTV Loxane over the past 10 years, specialises in onboard geolocation and IT systems for ambulances. Lomaco has developed the THELIS project, a geolocation unit installed in emergency vehicles. This enables direct exchange of information between the emergency services hub and the ambulances. The hub can thus assign a vehicle for a call-out on the basis of the geographical information



LOMACO: real-time tracking of call-outs using cartography

supplied by the LOXANE X component. This component enables the user to geolocate the nearest (proximity search) and most suitably equipped emergency vehicle for any call-out.

Benefits:

- ▶ Time savings on call-outs, with calls being directly managed by the system
- ▶ Cost savings, with fewer instances of alerting the fire brigade or other auxiliary emergency services

The strengths highlighted by the jury:

- ▶ The public service provided
- ▶ A solution that is not presented as a profit centre
- ▶ A complex yet perfectly managed technical context

Adelante, an independent consultancy dedicated to providing supply chain and retail information systems walked away with the Innovative Integration Prize. To address the growing demands of the ERP market, Adelante has implemented xServer components and engines in SAP:

- ▶ xLocate for geocoding addresses
- ▶ xRoute for distance calculation
- ▶ xMap for cartographic display
- ▶ xSequence for delivery round sequencing

The strengths highlighted by the jury:

- ▶ Innovative solution
- ▶ Major practical applications
- ▶ Complex technical platform

The jury was made up of five persons who studied the papers and determined the winners:

- ▶ Didier Scellier, Technical Director, PTV Loxane
- ▶ Sébastien Beolet, Kernel and Component Development Manager, PTV Loxane
- ▶ Renaud Chasle, journalist specialising in technologies, having worked in particular for Transport Info Hebdo and Supply Chain
- ▶ Pascal Boyeau, Enterprise Marketing Manager, Navteq
- ▶ Laurent Denet, IT Manager, CCI Val d'Oise-Yvelines, Chairman of the Jury

The results of this year's event were once again highly encouraging: 89% of the participants stated that they were satisfied or very satisfied with the quality of the presentations and the information provided during the Developer Day. All participants listened attentively to the presentations of the two prize winners and they get ready to compete for the PTV Loxane Integration Trophy in 2010! 🏆

Your contact:

Delphine Gaudin
dgaudin@ptvloxane.com
www.ptvloxane.com

PTV Benelux

Qualcomm Integrates PTV's Professional Navigation Software

Qualcomm has decided to equip their latest generation board computer, the MCP200, with truck navigation software made by PTV. The fleet and truck navigator software has already been integrated into the current Omni One and Omni Express solutions.

This new generation board computer can turn every car into a mobile workstation in no time at all. The MCP200 is equipped with a large colour display and touch screen. Moreover, it includes a sliding keyboard and supports 15 languages and text to speech options. The new mobile Qualcomm board computer is more user-friendly and easily manageable by the truck drivers. The truck navigator has a special routing feature that automatically avoids residential areas. It also considers truck-specific attributes such as maximum axle loads, bridge heights, ADR limits, lorry bans etc. Due to the interface between the navigation system and the

Qualcomm software, the drivers do not have to assign the destination themselves. This is a great advantage because no extra proceedings are required and typing errors are avoided.

About Qualcomm

Qualcomm Incorporated is the world market leader in electronics (e.g. chip sets and displays) and software for mobile communication. Among its other achievements, the company did the foundation work for the CDMA technology that allowed wireless communication to take an enormous step forward. Qualcomm provides comprehensive wireless solutions and services, including two-way data communications systems, productivity-enhancing applications, managed network services and enterprise-level consulting. 🏆



Your contact:

Wesley Bish
info@ptvbenelux.com
www.ptvbenelux.com

Field Service Calls

When working in the sales force, too much working time falls by the wayside, employees concentrate on top customers and there is often not enough time to develop new potential? Typical symptoms of a frequent illness caused by manual planning. As soon as more than ten employees are working in field service, who are visiting more than three customers every day, the best remedy for this illness is software for optimising sales calls.

The sales force spends on average a third of their working hours in the car. A software solution, which considers all relevant sales call planning requirements, such as the time restrictions for each customer, can save 50 to 100 hours a year for each employee.

[PTV Map&Market/Premium](#) is a module-based system, which fulfils the complex requirements of central planning as well as providing operative trip planning using

additional components. These can be easily operated by the sales force on their laptops. The planner is supported in strategic and tactical location, area and workload planning. Digital maps provide an overview of target groups, markets, potential and sales force structures. The sales force then use the local CRM-integrated software to organise the best sequence for their trips.

Any known side-effects? Previous studies have shown that the amount of driving time can be reduced by around 10 percent or more – with the same level of call efficiency. This means that there is more time for calls every day, which increases the sales force efficiency. 📍

Overview and transparency using digital maps with PTV Map&Market: Allocation of sales force employees to their customers

Recipe for success

Your contact:

Thorsten Frerk

+49-721-9651-468

thorsten.frerik@ptv.de



XXXL-sized Trip Planning

Hitting the big time: The second largest furniture dealer in the world, XXXLutz GmbH, has asked PTV AG to develop its trip planning.

Additional logistic locations in the whole of Europe, which plan with fleets of at least ten vehicles, will now also be profiting from the successful experiences that XXXLutz has had using the software [PTV Intertour](#). The 20 additional locations will be optimising their trips using the planning program from Autumn 2009.

PTV software has already been planning trips at six of the furniture dealer's logistic locations for the last ten years. "This large amount of orders cannot be imagined without PTV Intertour. The planning program has helped us to make lots of savings and has given us a greater level of transparency over our processes. It also helps us to adhere to restrictions, to calculate driv-

ing and handling times and to improve customer service. For example the arrival time at customers can be exactly determined. All of this data is returned to our ERP system – information which is of great importance to us. This increases our level of customer satisfaction even more and our trips become even more economic," Udo Gündermann, project manager at XXXLutz is delighted to say. 📍



The second largest furniture dealer in the world plans with PTV Intertour

XXXLutz plans with PTV Intertour

Your contact:

Walter Burk

+49-721-9651-8518

walter.burk@ptv.de

Traffic Software / ITS

Exciting ITS Autumn Trade Fairs

Two top-class events provided a wealth of new information and great networking opportunities: the [ITS World Congress](#) in Stockholm in September and PTV'S ITS Conference in Munich in November. ☺



[PTV ITS Conference](#) at Bayerischer Hof in Munich brought together over 80 participants from various industries, as well as government and academia. The focus of this year's international event was on "Optimum use of road and traffic data".

Your contact:

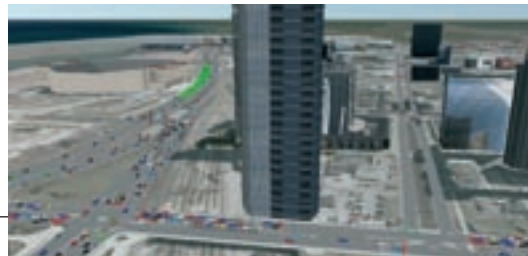
Markus Falk

+49-721-9651-646

markus.falk@ptv.de

PTV's exhibition stand in Stockholm attracted plenty of visitors from around the globe. Main discussion topics: the new, fast planning method [LUCE](#) for [VISUM](#) and the [CVIS](#) research project.

Hands-on Traffic Management



PTV will be showcasing a current ITS application at the **89th TRB Annual Meeting (Transportation Research Board)** held in Washington, January 10 - 14, 2010.

For its customer Mygistics, transportation specialists from [PTV Germany](#) and [PTV America](#) are currently developing a comprehensive transportation model for Greater Chicago. The [PTV TrafficPlatform](#) uses this model combined with online data for the calculation of traffic flows and forecasts. This solution thus helps us to avoid traffic jams, to take alternative routes and to protect our environment.

The experience gained from the [Validate](#) traffic model implemented in Germany will now be applied to a transportation network in North America. Another novelty is the use of the simulation software [VISSIM](#) as traffic management laboratory. [VISSIM](#) generates traffic data which is normally provided by a traffic computer. In this way, it is possible to provide online processes with

genuine input data for data completion and forecast, and to analyse all kinds of traffic scenarios. The results of the procedure are immediately compared with the simulation data calculated in [VISSIM](#). The traffic management laboratory significantly contributes to quality assurance of existing and new procedures.

An important section of Chicago's network will be selected for the showcase. The dynamic development of Chicago's traffic flow at different times of day and the impact of traffic control on the traffic flow will be displayed on the screen of the traffic management laboratory. So, TRB attendees will have the unique opportunity to experience the added value of the model-based approach.

Meet us at TRB – our transportation experts are already looking forward to showing you the latest product developments. ☺

Comprehensive transportation model for Greater Chicago

Your contact:

Peter Möhl

+49-721-9651-351

peter.moehl@ptv.de



Logistics Software


For Developers: Domino Day at PTV

The developers enjoyed the activity-filled evening. With much creativity and enthusiasm they arranged the dominoes on the tables.

How can applications easily be extended with PTV software components? The answer to this question was given at this year's PTV MapWare Conference – the forum for all users working with PTV's developer components, such as xServers, MapServers, iNET Servers or mobile navigation software. The principle is the same as in dominoes: the most successful solution will be the one using connecting pieces that perfectly fit.

Software companies that integrate geographical, logistical or navigation components into their software systems attend PTV's MapWare Conference every year

to stay up-to-date on the latest technology trends and practical applications. Attendees have the opportunity to share their knowledge with PTV's logistics experts in numerous workshops which focus on practice-related tips and tricks regarding the integration of PTV components, and in particular on all questions attendees might have.

All those interested in the event should already mark their calendar for next year's conference which will take place on November 16 -17, 2010. For more information visit www.mapwareconference.de. 



More than 100 participants listened attentively and enjoyed the interesting presentations held during the MapWare Conference.

Your contact:

Sylvia Koopmann

+49-721-9651-8281

sylvia.koopmann@ptv.de

ITE Young Consultants Award

Each year ITE sponsors an awards program to honor outstanding achievement in transportation engineering and distinguished service to ITE. The awards bestow international recognition upon the recipients and increase the public's awareness of the role and responsibilities of the transportation professional.

Karen L. Giese, PTV America Inc., Vancouver, BC, Canada, received the Young Consultant's Award at the Institute of Transportation Engineers (ITE) 2009 Annual Meeting and Exhibit, held in San Antonio, USA, in recognition of her paper entitled "Downtown Vancouver Transportation an Emergency Management System."

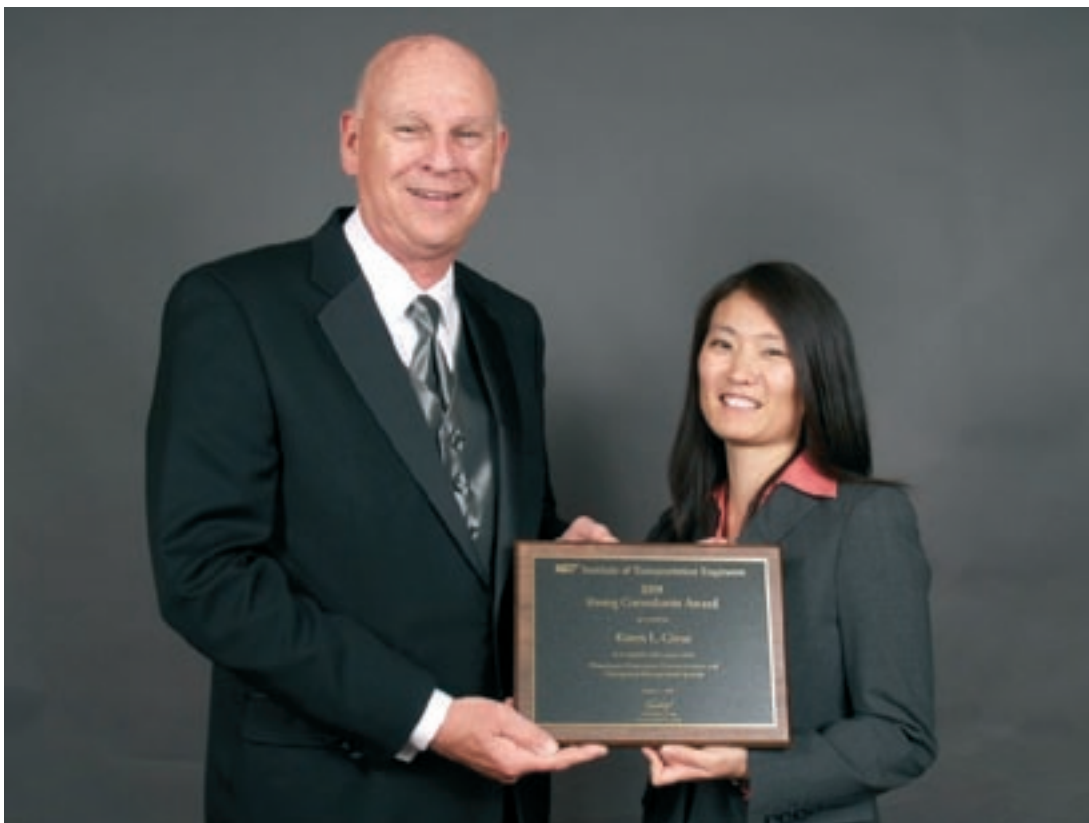
The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs. ITE facilitates the application of technology and scientific principles to research, planning, functional design, implementation,

operation, policy development and management for any mode of ground transportation. Through its products and services, ITE promotes professional development of its members, supports and encourages education, stimulates research, develops public awareness programs and serves as a conduit for the exchange of professional information.

Kean Lew Memorial Student Paper Prize

The Institute of Transportation Engineers (ITE) Manitoba section has changed the title of their Annual ITE student paper competition to the "Kean Lew Memorial Student Paper Prize." This prize is awarded every spring and is associated with a scholarship for the winning student. Kean Lew began his career with PTV America in October, 2002 and served as a principal and Canadian Regional Manager before his death in April, 2009. 🇨🇦

Award honours outstanding achievement in transportation engineering



Karen L. Giese, PTV America, receives young consultant's award

Your contact:

Joey Pless

jpless@ptvamerica.com

www.ptvamerica.com



Miscellaneous

PTV Supports "Gifts from the Heart"

Christmas is the time for giving gifts – however, many people in Europe and around the world do not have the means. Since 1979, the team of [humedica e.V.](#) has therefore been helping children around the globe who may be suffering or living in poverty. The Christmas campaign "Gifts from the heart" is an essential part of their aid programme. PTV supports the organisation with its route planning software [map&guide](#). It enables humedica to improve the process of picking up the gift-filled boxes at the collection points and to plan cost-efficient routes. This year, humedica collected nearly 38,000 boxes full of gifts which will bring joy to so many children who will perhaps get a present for the first time in their lives. Our entire company joins in wishing everyone a happy and healthy New Year!



Meet PTV at these International Events

10.01.-14.01.2010	TRB	Washington DC
24.02.-26.02.2010	IT-Trans	Karlsruhe
02.03.-04.03.2010	LogiMAT	Stuttgart
23.03.-26.03.2010	Intertraffic	Amsterdam
20.04.-22.04.2010	PTV Vision UGM	London
22.04.-23.04.2010	PTV Vision UGM	Seattle
26.05.-28.05.2010	Intertraffic China	Beijing
08.06.-09.06.2010	Fit for Profit	Baden-Baden
Juni 2010	TMF (Transport Modelling Forum)	London

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PTV AG
 Stumpfstraße 1
 76131 Karlsruhe/Germany
 +49-721-9651-0
public.relations@ptv.de
www.ptvag.com

