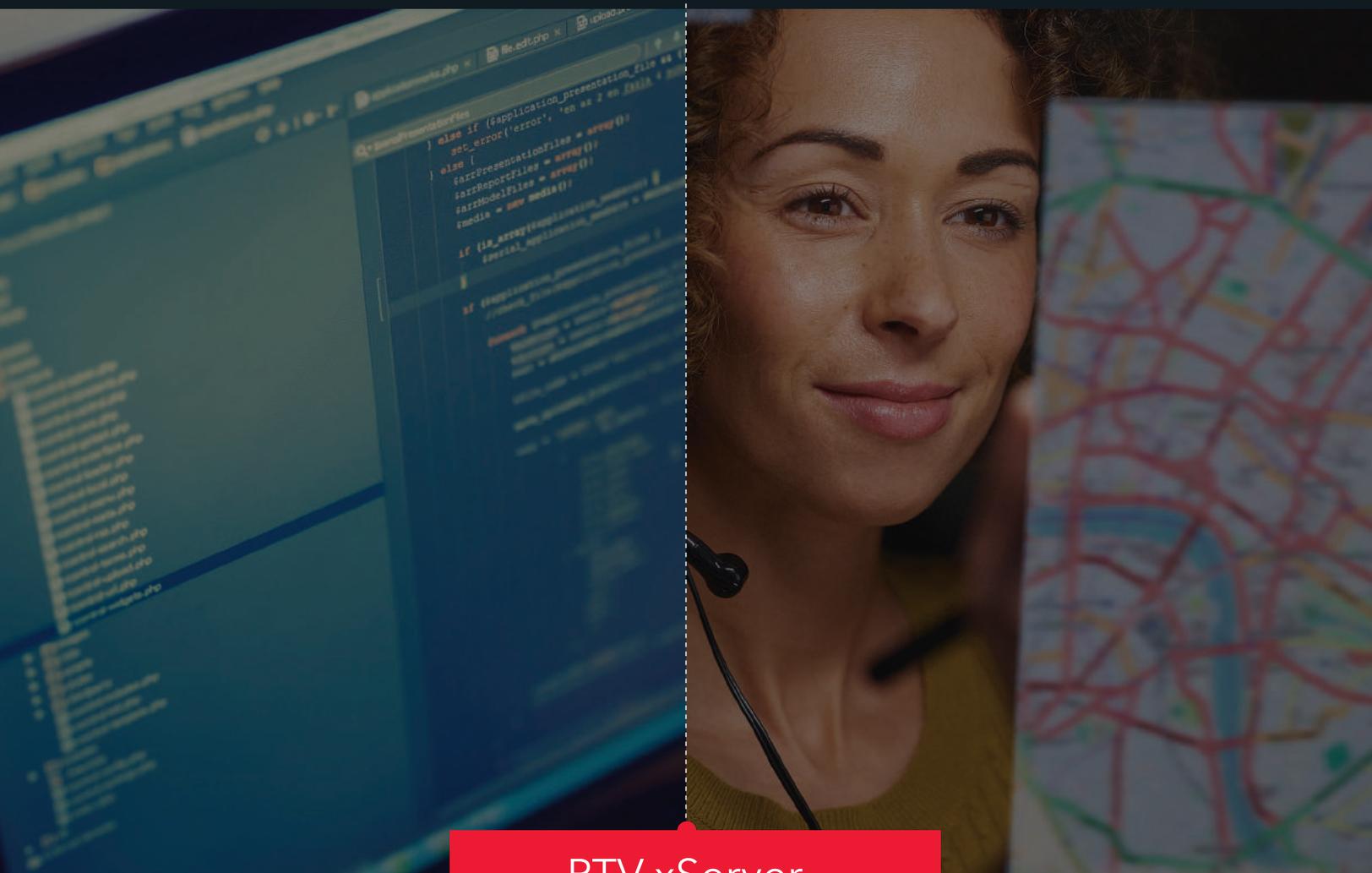


Integrate mapping, routing and optimisation software



PTV xServer

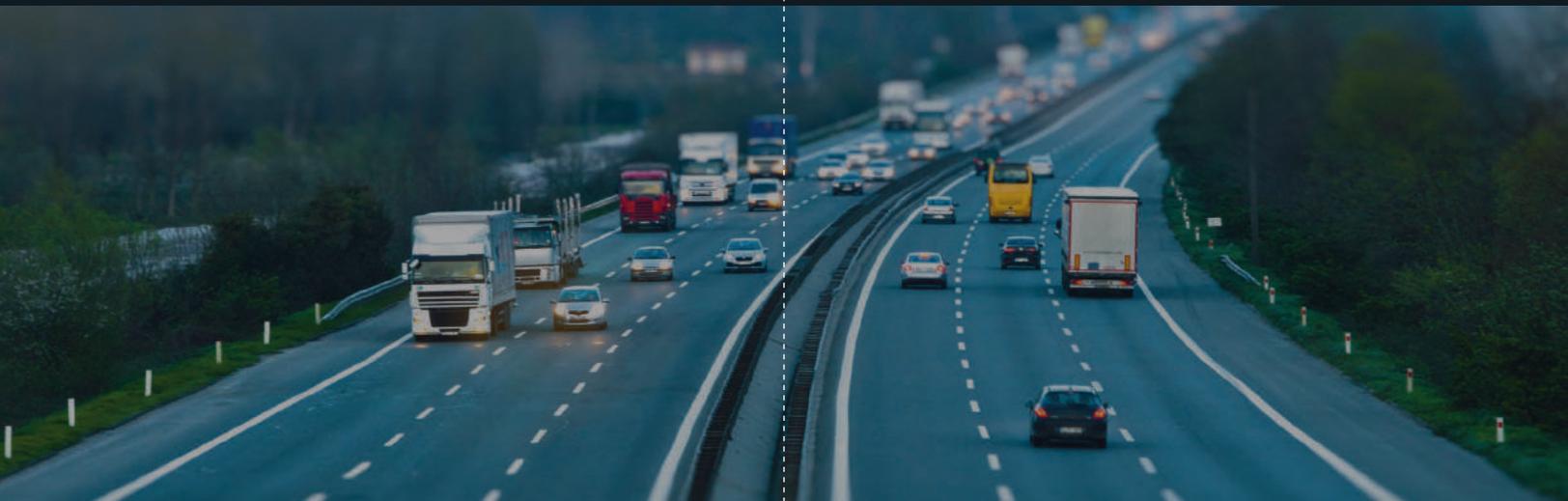
Enrich your software with PTV xServer

Whether you're scheduling deliveries or managing an entire fleet, PTV xServer will assist you in:

- Mapping
- Address validation
- Routing
- Toll costs calculation
- Traffic information
- Emissions calculation
- Map matching
- Radius search
- Geofencing
- Optimisation

Our components are used to build new solutions or expand existing systems with new functionalities. Our customers and partners include:

- Software developers
- System integrators
- IT consulting firms
- In-house IT departments



ABOUT THE PTV GROUP

Leading software in the areas of digital geography, transport and traffic planning: This is the focus of the PTV Group. The company headquartered in Karlsruhe, Germany employs 700 people. It invests continuously in research and development to maintain its over 30-year track record of success. PTV's software is the product of extensive real-life experience, including countless consulting projects in transport planning or sales force optimisation. PTV xServer distil all of PTV's know-how and expertise into high-quality products.



the mind of movement

10 good reasons for using PTV xServer

YOUR BENEFITS

No need for your own extensive development

Integrate digital maps, address geocoding, route calculation and optimisation algorithms from PTV in your application and get ahead of your competition. Save costly in-house development and benefit from our more than thirty years of experience in planning.

Long-term investment

We build on long-term customer and partner relations. Continuous further developments, new ideas and close proximity to the market guarantee products which are excellent in technology and quality.

Simple integration

PTV xServer features standard interfaces (XML / SOAP or JSON). This makes it easy to integrate with other systems and applications. Our interface offers complete backwards compatibility. Extensive documentation and code samples guide you through your first steps.

Extensive service and support

We provide integration assistance as well as skilled, personal support throughout your entire contract.

Extendable

PTV xServers are modular by design: each component handles one function. That frees you up to only choose the components you really need. Then, if you need more functions later on, you simply license the corresponding component.

Reliable standard technology

The use of standard technologies and formats guarantees simple and reliable processing of results.

Scalability

Software as a Service (SaaS) is gaining popularity in the market, especially when deployed on the basis of a service-oriented architecture (SOA). PTV xServers are scalable and can be used in the cluster. This ensures performance is guaranteed - no matter how much your business is growing.

The latest maps and data

We work closely with leading vendors of maps and data. PTV's own data department always guarantees the latest and most detailed maps available. Additional data such as Truck Attributes, toll data, geomarketing data and dynamic traffic flow data is also available on request.

Individual settings

Adapt the PTV solution to your needs: The map design, fault tolerance for geocoding and the preference of certain road classes in the route calculation are just some examples from the wide range of settings that are available.

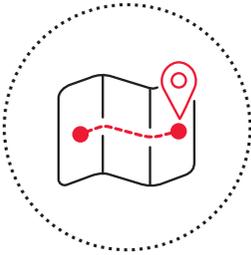
Editable road network

You can use the RoadEditor to block or release road segments for certain classes of vehicles (lorries, for example). That way, you decide which roads are included in route calculations.

Use cases at a glance

MORE VALUE FOR YOUR SOFTWARE

With PTV xServer, you can integrate geographical, routing and scheduling functions into your software. You can pick and choose the functions you need for your specific use case. No more and no less - thanks to the modular design.



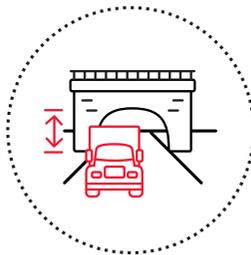
Mapping

Representation of local information such as locations, customer addresses, sales territories or routes on the map. Up-to-date worldwide map data – right down to the house numbers in many countries. The look and feel of maps can easily be customised as desired (colours, icons, level of detail, etc.).



Address validation

Address geocoding down to the exact house number. Rapid geocoding of large address databases (batch geocoding). Identifying the mailing address for a geocoordinate (reverse geocoding). Autocomplete and suggest addresses so users will save time during their planning.



Routing

Route calculation between two or more stop-off points. Fastest or shortest route. Calculation of distance and travel time. Lorry routing that utilises Truck Attributes (e. g. weight or height restrictions, lorry blocks) as well as driving times and rest periods. Control of the route calculation based on individual blockage or release of road segments with the RoadEditor.



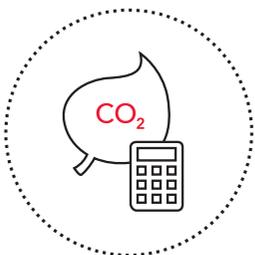
Toll costs calculation

Calculate the costs of tolled roads with updated toll cost data to create accurate cost proposals and forecasts. Available for many countries in the world. Toll scenarios with increased toll charges are already announced in the planning of future routes and calculations. Users will have the possibility of avoiding toll roads in the route planning.



Traffic information

Display real-time traffic information (congestion and road closures) and historical traffic information (speed profiles for specific road sections at certain times) and inclusion of this information in the route planning.



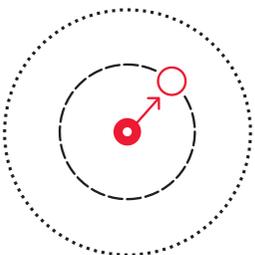
Emissions calculation

Emission calculation for HBEFA (Handbook Emission Factors for Road Transport), CEN standards (European Committee for Standardisation). Inclusion of actual road mileage travelled, vehicle or emission class, load as well as other influencing factors, such as the respective uphill and downhill inclines.



Map matching

Validation or correction of received GPS coordinates (tracks) based on the underlying map. The corrected data provide exact route courses as required, for example, for tolls and subcontractor invoicing, target-performance comparisons, and controlling of driving behaviour, retrieving speed limit data, etc.



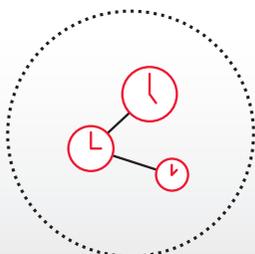
Radius search

Radius search / search for next based on direct distance, travel time or road distance. Corridor search (POI search along a route. Example: "Which customers are located near the planned route?").



Geofencing

Virtual fencing of GPS-tracked object in specified areas (Geofencing) or routes (Corridor Fencing). Automatic action as soon as the virtual fence is transgressed.



Optimisation

Planning of transportation and field services on the basis of exact road distance and driving time. Sequence optimisation considers numerous restrictions such as customer time limits, depot opening hours, driving times and rest periods, skills and equipment of engineers, vehicle capacity and parameters.

PTV xServer as a service

The PTV xServer software solutions provide the technology behind the PTV products. With simple integration, you can add numerous route optimisation and geographical functions.

Optimise your operations with efficient software components. You can extend the range of the functions you are offering. The PTV xServer's are modular by design. This means you only use the modules you actually need.

xServer Internet (SaaS)

Hosted in Windows Azure™, PTV xServer Internet combine the full range of functionality with the advantages of one of the leading suppliers of cloud services. The advantages of using our PTV xServer Internet platform are:

- World detailed map
- No own servers required
- Always up-to-date
- High performance
- Data safety



Local

Would you like to host PTV xServer on-site? PTV offers the possibility to host xServer within your own organization allowing you to control and maintain the environment yourself. The advantages of using the PTV xServer local environment are:

- No internet connection needed
- Editable road network
- Maintain own responsibility on PTV data integration



Integrate mapping, routing, planning and scheduling functions into your software. **Contact us!** We will be happy to advise you.



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