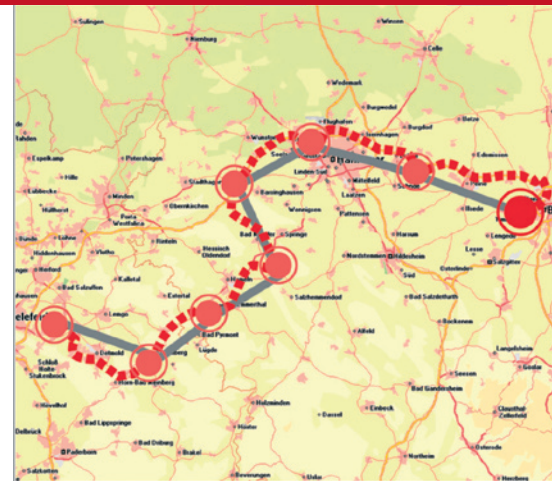


PTV xMapMatch Server

Tracking Premium

The PTV xMapMatch Server validates and corrects a string of received GPS coordinates (tracks) using the underlying street map. This refined data can be processed with other applications, for example with the PTV xRoute Server. When interacting like this, the PTV xMapMatch Server forms the basis of performance and compliance measurement.



Functions

- Correction of inaccurate GPS signals (tracks)
- Inclusion of map data (tunnels, bans, etc.)
- Two modes with many options:
 - Local: Map comparison of each individual GPS point without considering previous positions
 - Global: Comparison while considering historical data
- Plausibility check (History / Crawler)
- Recognition of standstill
- Dense (second intervals) and sparse signals (minute intervals) processable

Technology

The PTV xMapMatch Server verifies external position details (normally GPS tracks) and cleans up GPS inaccuracies. The actually driven routes are returned in a format relevant to the digital map. This data is the basis for a number of transport-related variance analyses in a data warehouse context in **combination** with PTV xRoute Server and PTV xMap Server:

- Detailed check of toll calculations and subcontractor invoicing
- Later calculation of actually caused emissions
- Analysis of routes taken and driver behaviour (fuel consumption, speeding, break times etc.)

PTV xMapMatch Server also enables evaluation of the extent to which the actually driven transport movements differ from the original planning (e.g. with PTV xRoute or PTV xTour Server). It forms an important element in „pay-as-you-drive“ scenarios (toll, insurance, taxes) and can – with a sufficient amount of input data - form the basis of speed line graphs. With the PTV xMapMatch Server it is also possible to process the driven routes which will be exchanged between the users of navigation communities.

Integration

Integration with other systems is performed over standardised web service interfaces (XML, SOAP). PTV xMap-Match Server is scalable and actively supports multi-processor systems.

Data basis

PTV xMapMatch Server uses PTV's standard maps. PTV offers a wide range of regularly updated maps. For decades, PTV has worked closely with NAVTEQ, Tele Atlas and AND - all leading suppliers of map data.

Hardware requirements

- At least 1 GB RAM (for each CPU used)
- Pentium 4 (1 GHz) or higher
- Hard drive space: depends on map in use. Example - Europe map: 10 GB.

Operating System

The PTV xMapMatch Server runs on the following platforms:

- Windows 2000
- Windows 2003
- Windows XP
- Windows Vista (Administrator rights)
- Windows 7
- Windows Server 2008 R2
- Linux

PTV xMapMatch Server at a glance:

- ▶ Examination and correction of raw GPS data
 - ▶ Unique referencing of tracks on the digital map
 - ▶ Basis for transport data warehouse applications, transport compliance measurement and „pay-as-you-drive“ scenarios
 - ▶ Basis for gaining traffic data from mobile units (Floating Car Data) and community applications concerning navigation
 - ▶ Easy integration of the component using standardised interfaces (XML/SOAP)
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