



Speed Profiles

Enabling the most accurate estimation of arrival time when planning ahead

Overview

With congested roadways and ever-increasing travel times, commuters and business drivers are seeking better ways to travel efficiently, predict travel times and find the optimal routes to their destinations. Whether it is for commuting, logistics, food delivery or mobility services, predicting accurate travel times is crucial to user satisfaction.

Based on trillions of anonymous GPS measurements, TomTom Speed Profiles offers typical driving speed patterns, enabling

navigation and routing algorithms to find the fastest routes in complex road networks, predict travel times accurately and suggest alternative routes or time to travel.

Speed Profiles can be used by routing & navigation applications to accurately predict travel times:

- in the future, for transportation planning and logistics
- as a complement to real time traffic for more reliability

TomTom Speed Profiles

Derived from probe data from over 600 million connected devices, TomTom Speed Profiles provides average speeds observed on every road element, in both traffic directions, for different times of the day and days of the week.

TomTom Speed Profiles are delivered as convenient datasets, with consistent coverage of the road network in over 80 countries and matched to high quality TomTom maps.

Features

Typical speed values observed per time of day and day of week, on every road element for every direction of traffic

Based on extensive probe data volumes, with billions of anonymous GPS traces are received every day

Consistent coverage of highways, urban and rural areas, and secondary roads in over 80 countries

Multiple data formats available

Benefits

Enables optimal route calculation based on actual predicted traffic patterns

Realistic typical travel speeds, enabling accurate Estimated Travel Time calculations

Easy and quick deployment to multiple markets

Easy integration in navigation applications, online routing algorithms and geospatial applications



Formats available

To enable easy ingestion, TomTom Speed Profiles come in different formats optimized for on board and online routing algorithms, navigation applications and geospatial applications.

Speed Profiles

- Optimized for use in offline, on device applications with compact data footprint
- Average measured speeds matched to typical speed profiles
- Compressed format with low data footprint

The following formats are available:

MultiNet

- Txt for GDF
- Shapefile

MultiNet-R

- Apache Avro
- PostgreSQL
- SQLite
- Microsoft SQL Server

Navigation Data Standard (NDS)

Speed Profiles Extended

- Optimized for online and hosted routing algorithms with full data granularity
- Unique speed profile for every road element, more closely reflecting the actual measured speeds and best representing unusual traffic patterns
- Extensive data with high granularity

The following formats are available:

MultiNet-R

- Apache Avro
- PostgreSQL
- SQLite
- Microsoft SQL Server

Speed Profiles Extended OpenLR

- Can be integrated into any 3rd party vendor's map
- Uses the OpenLR method to reference navigable map elements

