



On-Street Parking

Replacing luck in the search for on-street parking

Overview

Parking is the final hurdle for a driver in their mission to reach a destination, but it is one that often has a large influence on a trip's success. Parking can make or break a driver's day and is one that many drivers leave to fate.

Before a driver departs for their trip or even as they approach their destination they are often unsure how long they will be searching for a parking space and the length of their walk to their final destination once they have parked. There are many unknowns, which leave drivers stressed, losing valuable time, wasting gas, and having negative impacts on traffic congestion and the environment.

By taking sensor data from more than a half-billion connected devices, TomTom's On-Street Parking service can provide historically validated probabilities of finding an open parking spot on a street-by-street basis. This data provides critical insight into what drivers can find at their destination in advance of their departure, enabling them to plan ahead with sufficient time to park their car, pack their walking shoes, or to consider seeking an off-street parking solution instead.

As they approach their destination, this service supports parking-optimized routing to take drivers on a path where their chances of success are going to be the greatest. And, all along the way, the arrival time – of parking and walking – can be integrated.

Features

Available in cities across Europe and in Australia; will be extended to include major U.S. cities in 2018

Uses trillions of probes from years' worth of data, along with advanced machine learning

Probability values and average search times numerically stored per road element

Data detail of an hourly granularity for every day of the week and each hour of the day

Benefits

Provides scalable, global coverage

Enables extremely reliable parking profiles

Supports consistency of services launched globally

Provides a basis for calculating best driver paths and related expected arrival time details

Built from insights into all phases of parking: searching for parking, accessing parking, and leaving parking

Allows for highly detailed predictions and analysis



End-user benefits

On-Street Parking provides accurate parking search times and probability information, allowing drivers to:

- Avoid stress and extra driving while looking for a spot
- Enable advanced planning – know search times and parking difficulty levels before leaving the house
- Informs decision making, such as knowing when to avoid on-street parking and aim for off-street parking options in advance
- Follow optimized routes that lead to streets where real-time opportunities for parking are expected to occur
- Minimize the overall door-to-door travel times by making parking a part of the travel plan and not an afterthought

Product formats

- Transmission of content via TPEG2-PKI protocol
- Bulk-feed API accessed via TomTom's Developer Portal

Sample applications

With the wealth of information provided through TomTom's On-Street Parking service, there are a wide variety of possible applications. Several examples include:

- Cities and road authorities can better identify areas with low-parking availability and high congestion; decreasing the number of slow-moving drivers searching for a spot can alleviate traffic congestion
- Businesses can make smarter choices about locations on the basis of parking options for their customers
- Drivers can research the parking landscape minutes or even months ahead of their trips, determining what parking option they'll pursue
- Providing drivers with routing in the vicinity of their destination to locations where their parking chances are greatest, continuously expanding their route until they succeed in securing a parking spot
- Navigation systems can proactively warn drivers of on-street parking challenges around their destinations, suggesting that drivers plan ahead for the on-street search or seek off-street parking options or public transportation

