O/D Analysis

Trip dynamics

Overview

Since the 1950s different survey methods and mathematical formulas have been developed to quantify and create models to provide a better view of trip distribution in a certain area. Applying questionnaires using varied approaches and delivery methods, such as roadside interviews, traffic light questions, license plate surveys, as well as other telephone, internet and mail surveys are all examples of high-effort, low-quality origin-destination methodologies. Until recently, many of these old-school methods were still being applied in different parts of the world.

With all the location data available today, these methods have evolved to complex algorithms analyzing incredibly huge amounts of Floating Car Data (FCD) and identifying trip dynamics. TomTom O/D Analysis combines highly advanced technology and great data visualization, all powered by a 10-year big data archive. Trillions of probe points coming from different source providers are being sourced continuously to create the database that is the foundation of TomTom’s origin-destination solution.

With an increase in location-based targeted advertising, location data has become essential to tailor messages according to people’s behavior. Being able to understand the patterns of everyday movement is demanded by various business segments including Smart City programs, urban infrastructure organizations, and marketing companies. TomTom O/D Analysis provides valuable insights for urban planning, geo-marketing, targeted advertising, store location identification, and more.

Features

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<tr>
<th>Features</th>
<th>Benefits</th>
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<td>Extensive coverage</td>
<td>Enables analysis on a global scale</td>
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<td>Comprehensive data</td>
<td>Provides confidence that results are credible</td>
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<td>Access via web app or API</td>
<td>Allows users to quickly and easily conduct analysis</td>
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<td>Multiple output options</td>
<td>Enables user to choose the output results that match their needs</td>
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Sample applications

- **Geomarketing projects:** Examples include store locations, retail attractions, focused location advertisements, and billboard locations.
- **Tourism studies:** Access to information to help you understand popular points of interest and seasonal distribution.
- **Urban planning:** Examples include the most used routes, and studies of flow or tourism dynamics between popular points of interest.
- **Smart city programs:** Contributing as an input for mobility studies.

Product formats

TomTom O/D Analysis can be accessed via:

- A web based application @ [https://move.tomtom.com/](https://move.tomtom.com/)
- An API @ [https://developer.tomtom.com/](https://developer.tomtom.com/)

O/D Analysis output

**Map Flows:** Map visualizations of the origin-destination enables users to easily see preferred routes, trip behavior trends, and determine which regions might be attractive for targeted advertisement or a new retail location.

**MATRIX:** The visualization and downloadable file of the origin-destination matrix, customers can check the total number of trips between all regions, select between regions, and export it as an excel file.

**Sankey Diagram:** The visualization of the same output data, but using the concept of the Sankey Diagram where the width of the bands proportionally represents the intensity of the results being analyzed.

**Spatial Sankey:** Map visualization of trips’ percentile distribution.

*Only available as output via the web app.*