TomTom Traffic Index congestion level data

What is congestion level?

Congestion level represents extra travel time drivers are experiencing on average compared to baseline uncongested conditions.

A 53% congestion level in Bangkok, for example, means that a 30-minute trip will take 53% more time than it would during Bangkok's baseline uncongested conditions. We calculate the baseline per city by analyzing free-flow travel times of all vehicles on the entire road network – recorded 24/7, 365 days a year.

You can turn this 53% into travel time through simple calculations.
First: 0.53 x 30 mins = 15.9 mins extra average travel time.
Second: 30 mins + 15.9 mins = 45.9 mins total average travel time.

How do we define city boundaries?

We define our own urban areas, using the same methodology for all cities indexed around the world. We did it ourselves to increase accuracy, as municipal and statistical boundaries are not internationally uniform in their size and coverage of urban areas.

Hourly congestion level data

Contains hourly live congestion levels along with 2018 and 2019 average congestion levels for corresponding hour and day of the week.

Example CSV

```
Date;Hour;Live Congestion Level [%];Average congestion level in 2019 [%];Average congestion level in 2018 [%]
2020-01-01;00:00;3;10;1
```

Columns explanation:

Date - date in the following format YYYY-MM-DD (year-month-day).
Hour - start time of the measurement in the following format HH:MM (24h). For example 16:00 represents one hour between 4 PM and 5 PM.
Congestion Level [%] - contains live congestion level value. It is based on live congestion level values archived every 15 minutes. For each hour, we choose the maximum value within that hour. We choose maximum and not average because we have no way of calculating the weighted average. Maximum value better represents the traffic situation in most cases.
For example Monday 8:00 represents maximum congestion level value registered between 8:00 and 9:00 on that specific day.

Average congestion level in 2019 [%] - this is an average congestion level across all year for that day of the week and that specific hour. For example Monday 8:00 represents weighted average congestion level of all Mondays in 2019 between 8:00 and 9:00.
Average congestion 2018 [%] - is the weighted average calculated the same way as above but based on 2018 data.

Daily maximum congestion level data

Contains maximum live congestion level value reached on each day.

Example CSV

```
Date;Max congestion level [%]
2020-01-01;26
```

Columns explanation:
Date - date in the following format YYYY-MM-DD (year-month-day).
Max congestion level [%] - maximum live congestion level registered on that specific day.

Data sources

Our data is anonymized, collected from hundreds of millions of navigation devices, in-dash systems and smartphones.

The figures you see are based on measurements from TomTom's historical traffic database. To ensure our statistics best represent the driving experience on the road, we measure individual road segments as well as entire road networks. Then we weight busier, more important roads to calculate an accurate overall congestion level.
TomTom Traffic is powered by nearly 600m drivers globally.

About TomTom:

TomTom is the leading independent location technology specialist, shaping mobility with highly accurate maps, navigation software, real-time traffic information and services.

To achieve our vision of a safer world, free of congestion and emissions, we create innovative technologies that keep the world moving. By combining our extensive experience with leading business and technology partners, we power connected vehicles, smart mobility and, ultimately, autonomous driving.

Headquartered in Amsterdam with offices in 30 countries, TomTom’s technologies are trusted by hundreds of millions of people worldwide.

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