



## UnCrowdTPG

# Everything you need to ride public transport in comfort!

If you are a type of a person who likes to have a control over your daily life, we have a service designed for you! UnCrowdTPG is transforming the way you will experience public transport in Geneva. By combining public transport data with live inputs from the crowd, the App gives commuters like you a complete real-time snapshot of what their trip will be like and suggests the most comfortable and less crowded way to travel. You are in charge of your trip!

### Avoid overcrowding during the ride

- The App gives you real-time information about the situation on board such that you can plan your travel in less crowded vehicles

### Contribute & join the benefits

- Your opinion counts! Contribute via the App with your crowd assessment, it only takes one click!
- The more people contribute the more accurate the crowd estimation results become.

### Personalized experience

- The App learns your favorite stops, the buses & trams you use most and customizes your experience. You are in charge of your trip!

### Public transport options near you!

- The App detects your location and displays the nearest bus & tram stops on a live map

### Save time - no more waiting in vain

- The App tracks arriving buses & trams based on real time information

### SMS Ticket

- The App enables you to buy your UNIRESO tickets with just a few clicks!



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## 1. SPECIFICATION AND TECHNICAL REQUIREMENTS

- The UnCrowdTPG application runs on **Android OS** smartphones version **4.0** or higher.
- The App requires an Internet connection.
- It is recommended to enable GPS on the smartphone device when using the app.
- The App is available in French and English (depending on the phone's language).

### a. INSTALLING UnCrowdTPG FOR ANDROID OS

- The App is available for free on Google Play Store.
- To install, open the Google Play Store on your phone and search for “UnCrowdTPG”.
- Alternatively, you can click here:  
<https://play.google.com/store/apps/details?id=ch.unige.tpgcrowd>

### b. Uninstalling UnCrowdTPG FOR ANDROID

- Visit your device's Settings menu > Apps or Application manager (this may differ depending on your device).
- Select the app UnCrowdTPG.
- Select Uninstall.



## 2. INTRODUCTION TO UnCrowdTPG

### a. Crowd Estimation

The UnCrowdTPG App relies on the subjective estimation of crowd given by commuters on board vehicles (Bus, Tram) and/or at the public transport stops throughout Geneva city and its region. By combining these live inputs from the crowd together with the public transport data, the App gives a real-time prediction of the crowd on board a given vehicle. The more people contribute about their crowd estimation the more accurate the predictions become!

The following crowd indicators are defined in UnCrowdTPG :



**No crowd information available at this time.**



**Environment not crowded.**



**Environment slightly crowded.**



**Environment overcrowded.**

For the real-time crowd prediction, UnCrowdTPG indicates the probability that a vehicle is “not crowded”, “slightly crowded” or “overcrowded”. Each prediction is associated with a “**confidence level**”, indicated by a scale of 0-5. The more people contribute with their subjective crowd estimations, the higher the prediction confidence values become. If there are no real estimations about the crowd, then the prediction is based on historical data.

The following example confidence level indicators are defined in UnCrowdTPG – for values 1 and 5:





## **b. User Contribution**

The ultimate aim of UnCrowdTPG is to build a strong community of users who use the App frequently and are motivated to contribute to collect the reliable information which is needed to generate accurate crowd estimations. The community members collectively empower each other to make better transportation choices improving the overall experience aboard. The more people contribute the more accurate the crowd estimation results become! More details about how you can contribute are described in Section 3.

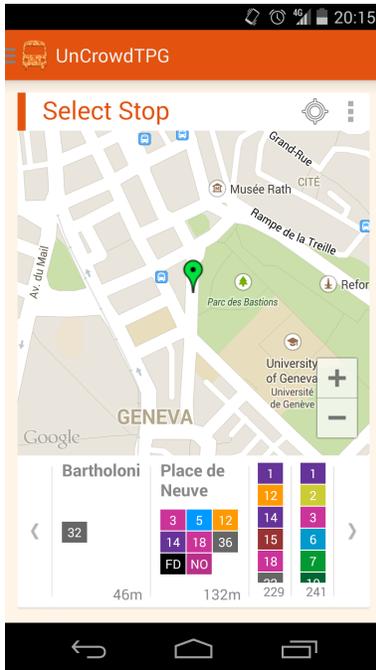


### 3. USER GUIDE AND MAIN FEATURES

**Public transport options near you!**  
 UnCrowdTPG detects your location and displays the nearest bus & tram stops on a live map

#### "Current Location - Map view"

Move on the map and long click on it to display the bus & tram stops nearby a selected location.



The blue icon shows the current location of the user on the map.



The green icon shows the location selected by the user with a click on the map.



Tap on the control buttons to zoom in and out on the map.

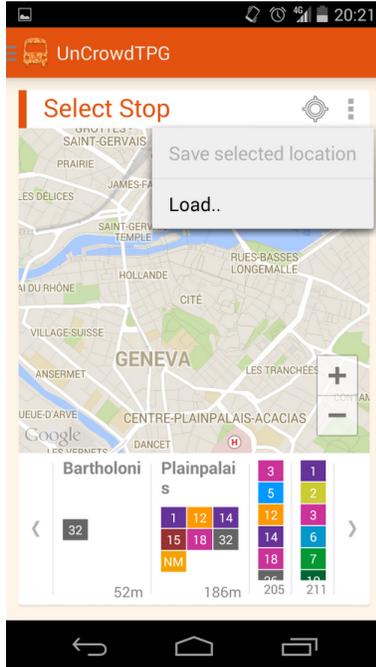


Tap on the icon to return the map to your current location (GPS based).

To improve the accuracy of the localization, it is recommended to enable GPS on your device.



The menu on the top right side offers a set of options for the Map. You can save your favorite locations in your profile and easily re-load them at any time.



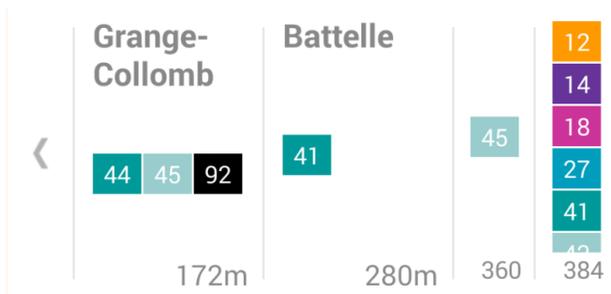
**Tap on “Save selected location” to store the selected location in your profile. Give a name for this location in the popup window.**

**Tap on “Load...” to see the list of all the locations stored in your profile. Select one to load it on the map.**

You can manage the list of stored “Locations” in the “Profile” page (Main Menu)

**“Display Nearby Stops”**

After selecting a location on the map, the nearest stops are loaded. For each stop you can see the distance (meters) from the selected location and the corresponding Bus & Tram lines.



**Scroll along the nearby stops.**

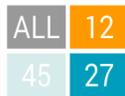
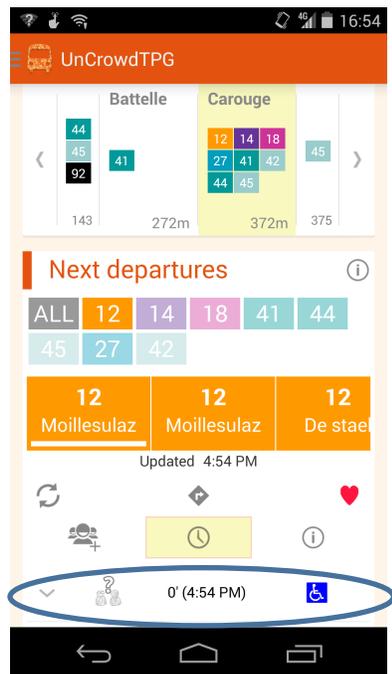
**Tap on your preferred one to display real-time information about the next departures (bus & tram).**



**Save time- No more waiting in vain**  
**Track arriving buses & trams based on real time information**

**“Next Departures”**

UnCrowdTPG offers real time information about the Buses & Trams at a given stop including the departure time, estimated crowd on board, and other useful information (i.e., accessibility, incidents). By having this information, commuters can better prepare for what to expect and can choose to wait for the next bus or take a different line if it will be more comfortable.



**Tap on the line filters to select one or more lines you want to see in detail. The application remembers your choices and applies them automatically the next time you choose this stop.**



**Tap on a specific line direction to get information about the next departures.**



**Tap to add/remove the selected line and direction in “Favorites”.**



**Tap to update real time information about next departures.**



**Estimated crowd on board the vehicle.**



**Next departure time.**



**Tap to see additional information (i.e., accessibility, incidents)**



**Tap to see directions on how to reach this stop from your current location (Google maps).**

Select one option from the list of next departures to see additional information!

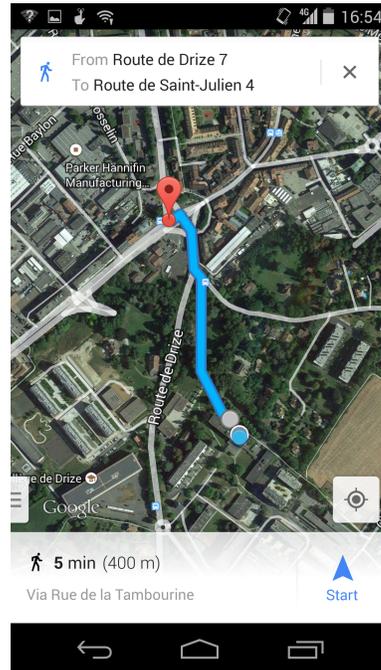
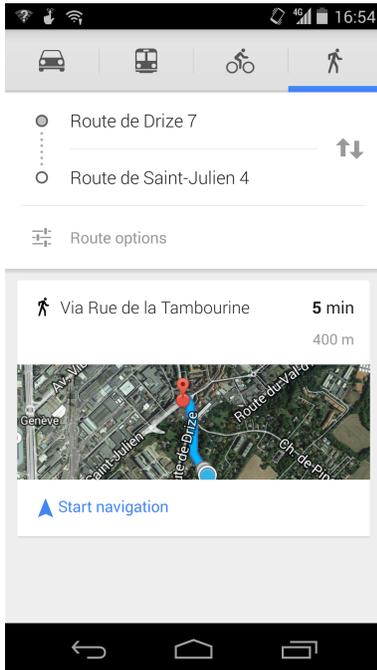
**You can manage your “Favorites” in the “Profile” page (Main Menu)**



## “Google Maps” Directions

The App connects you to Google maps, and automatically loads your current location (GPS-based) and the location of the selected stop (“Next Departures” screen above).

You can change the different settings; see a map and directions on how to reach a stop.



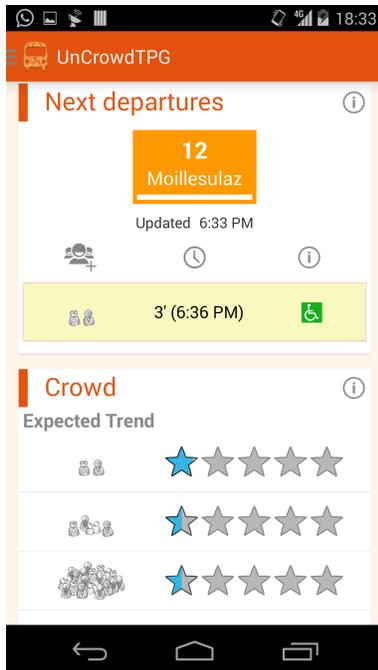


## Avoid overcrowding during the ride

Real time information to plan your travel in less crowded vehicles

### “Next Departures vs. Crowd”

After selecting a specific departure option, you see information about the next departures: crowd on board, departure time from your current stop, accessibility information.



Accessibility information, for passengers travelling with wheelchair, child push cart or bulky equipment, based on vehicle information and estimated crowd on board:



Highly recommended



Recommended



Not recommended for passengers



No information available

### “Crowd on Board”

UnCrowdTPG indicates the probability that a given vehicle is “not crowded”, “slightly crowded” or “overcrowded”. Each prediction is associated with a “confidence level”, indicated by a scale of 0-5. The more people contribute with their subjective crowd estimations the higher the prediction confidence values become. If there are no real estimations about the crowd, then the prediction is based on historical data. The following confidence level indicators are defined in UnCrowdTPG:

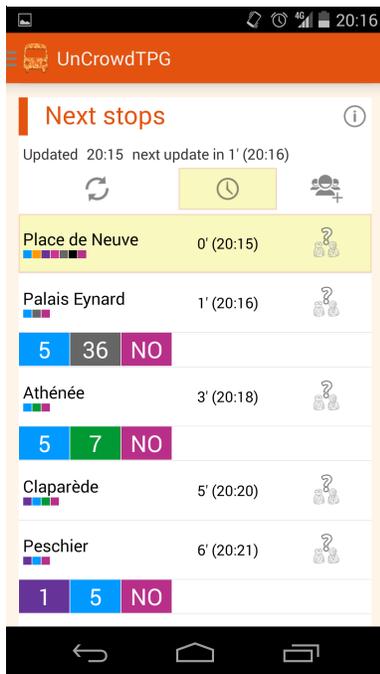




Scroll down the screen showing the “Next departure” and “Crowd information” to see the “Next Stops”.

**“Next Stops”**

UnCrowdTPG offers real time information about the location of a selected vehicle. The “Next Stops” screen shows information about the estimated time of arrival at each stop, the connections available there and the estimated crowd waiting to board at each stop. All the information is dynamically updated as the vehicle moves.



**Tap to update information about the next departures.**



**Display the estimated crowd waiting to board the vehicle at a given stop.**



**Display estimated time of arrival at a given stop.**

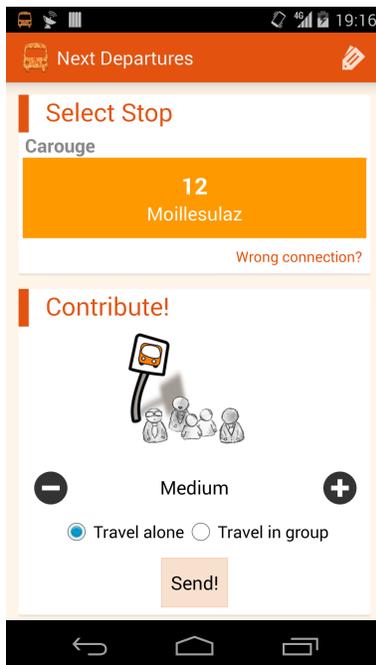


## Contribute & join the benefits

**Your opinion counts! Take a few minutes to contribute to improve the crowd assessment!**

While waiting for a bus or tram or while sitting comfortably in your seat on board a bus or tram, take a few seconds to give your advice about the crowd around you. With this simple gesture you contribute to improve the public transportation experience for you and other fellow passengers!

You can contribute in two situations, using the screens presented below:



**Crowd Estimation at Stop**



**Crowd Estimation on Board**

### “Crowd Estimation” at Stop

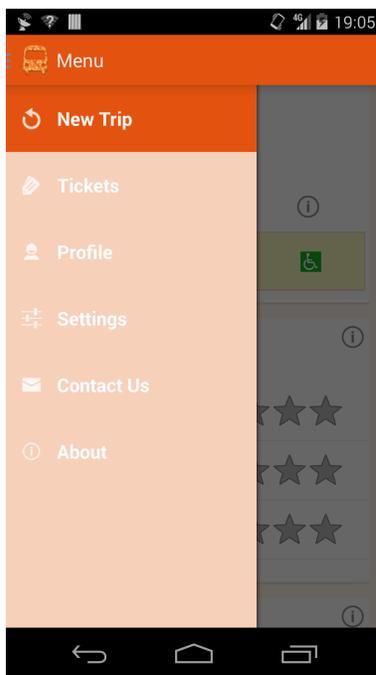
- **Contribute to improve this estimation by giving your personal feeling about how many passengers are waiting to board at this moment.**
- **Indicate if you are alone or in a group for this trip.**
- **Tap on “Send” to contribute!**



### “Crowd Estimation” on Board

- **UnCrowdTPG detects which vehicle you are using and estimates the expected crowd on board.**
- **Contribute to improve this estimation by giving your personal feeling about how crowded the vehicle is at this moment.**
- **Indicate if you are sitting down or standing up in the vehicle at this moment.**
- **Tap on “Send” to contribute!**

### **UnCrowdTPG Menu** All the options of the App!



Tap on **“New Trip”** to initiate a new trip plan.

Tap on **“Home”** to return to the “Map View” and see all the information about the current trip.

Tap on **“Tickets”** to purchase Bus/Tram tickets through an SMS service (UNIRESO).

Tap on **“Profile”** to manage personal information (e.g., locations, favorites).

Tap on **“Settings”** to update your personal preferences (e.g., notification properties).

Tap on **“Contact Us”** to get in touch with our development team.

Tap on **“About”** to find out more about this App.

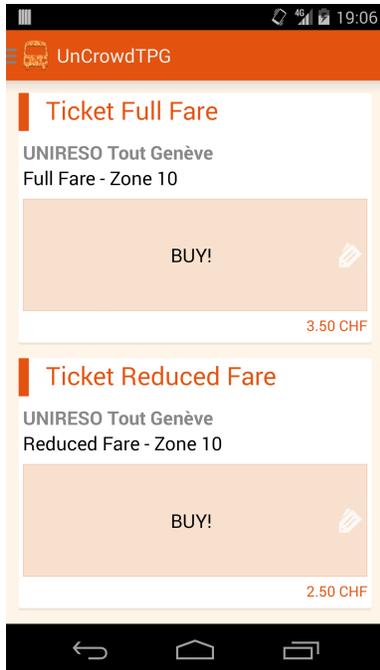


## SMS Ticket

Buy your UNIRESO tickets with just a few clicks!

### “SMS Ticket”

UnCrowdTPG offers an SMS service to purchase a Bus/Tram ticket. The corresponding cost will be charged on your telecom operator bill.



Select between full/half fare and tap on your option.

Follow the indications in the next screen to send the SMS message.

Wait for the arrival of a confirmation SMS including the details of your ticket.

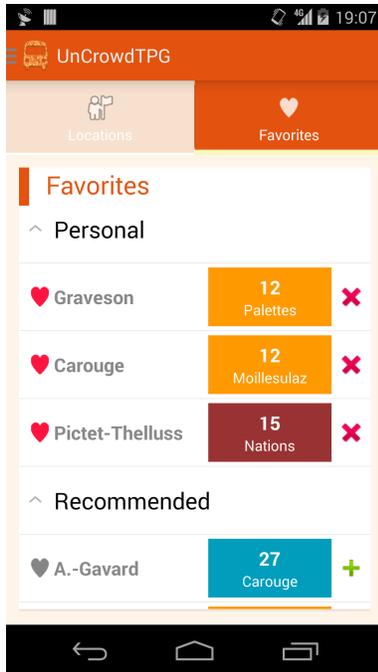
Please note that additional costs apply to this Service! UnCrowdTPG is not the official provider and is not to be held responsible for any costs caused by the usage of this feature.

## Personalized experience

UnCrowdTPG learns your favorite stops, buses & trams and customizes your experience!

### “Profile” – Favorites

Manage favorite lines of Bus/Tram. On the “Next Departures” screen you can add or remove favorite lines by tapping on the heart icons. Once a given line is defined as a “Favorite”, it is given priority and it is displayed first in a list of multiple options. This makes it easier and faster to get information. This screen displays a list of all the “Favorite” lines stored in your personal profile.



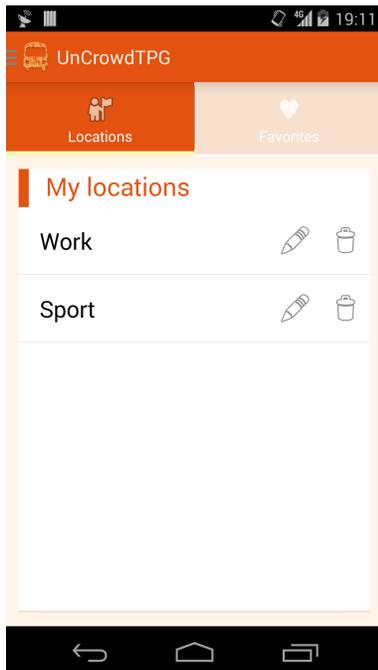
**“Personal”:** Favorite lines defined by you. Tap on a given line to remove it.

**“Recommended”:** Lines frequently selected by you while interacting with the App. These are most likely to be added as a favorite line. Tap on a given line to add it as a “Personal” favorite.

**“Old”:** Once a line is removed from “Personal” favorites, it remains in the “Old” section. Tap on a given line to add it again as a “Personal” favorite.

### “Profile” -Locations

Manage favorite locations associated with public transport Bus/Tram stops. On the “Map View” screen you can store locations you visit frequently. Each location is given with a name and can easily be loaded on the map. This screen displays a list of all the locations stored in your profile.



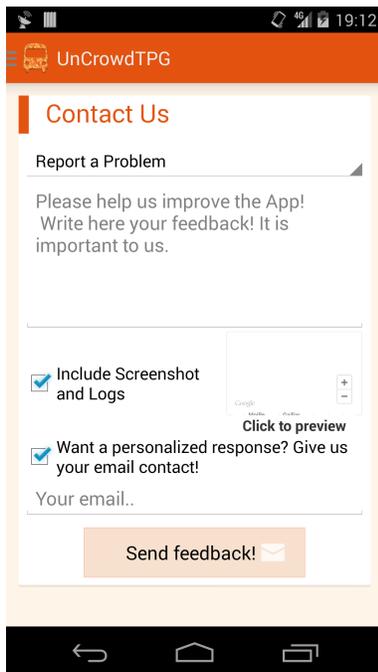


**Questions? Problems? Suggestions? Contact us.**  
**Our support team wants to hear from you!**

**“Contact Us”**

Get in touch with the UnCrowdTPG development team. Your opinion is important for us!

If you would like to receive personalized feedback from the development team insert your email address (optional). Thank you for your support!



**Report a problem, we'll look for solutions.**

To help us understand your feedback better you may additionally choose to include a screenshot and logs of the related screen. The last screen that was active before clicking on the “Contact Us” option will be attached to your message.

**Ask a question - we'll look for answers.**

**Share an idea - we will improve your experience.**

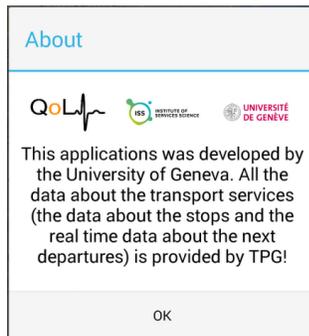
**Say Thank you - share the love!**

**The UnCrowdTPG development team**  
**Our research objectives**

The UnCrowdTPG application is developed and provided by the “Quality of Life technologies” (QoL) group at the University of Geneva, Institute of Services Science, being passionate about how technology can improve the quality of life of persons like you. Along your application usage we collect information that enables us to improve your experience: we make the application fast, accurate and secure. Additionally, along our research we are interested in answering the questions related to for example, human mobility and commuting patterns as well as how well individuals are connected to a mobile network when travelling in a tram or bus. We may leverage the application usage information in an aggregated, collective way for answering these research questions. We do not collect any identifiable information from you!



## “About”



If you have any questions about this app and/or our research you should feel free to ask them by contacting the QoL team at:

University of Geneva  
Institute of Services Science  
Quality of Life  
Battelle bâtiment A-205  
7, route de Drize  
CH-1227 Carouge  
Switzerland  
Tel.: +41 22 379 02 42  
qol.unige@gmail.com

**Happy travels!**

*UnCrowdTPG team*