BrickHouse Phone Tracker: Android

User's Guide

The BrickHouse Phone Tracker Mobile app is an application providing you with the basics of tracking via your smartphone device. The BrickHouse Locate GPS Mobile app is available for both Android (smartphone) and iOS (smartphones, and computer) platforms. This is an Android User's Guide.

The BrickHouse Phone Tracker application is used for tracking unit's location. The BrickHouse Phone Tracker can be installed on Android based mobile devices. Location is tracked mainly using GPS, therefore the device will need to have an active data plan.

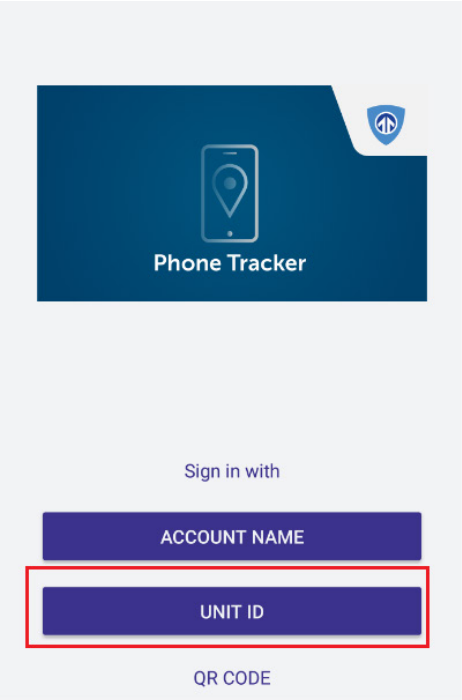
Position data is sent from the mobile device to the locate.brickhousesecurity cloud to be stored. Besides position data (coordinates, course, speed. etc.), images, alarm messages, and custom statuses can also be sent to the server. Data received from a mobile device can be processed by a tracking system and presented in different forms such as tracks of traveled routes on the map, notifications, etc.

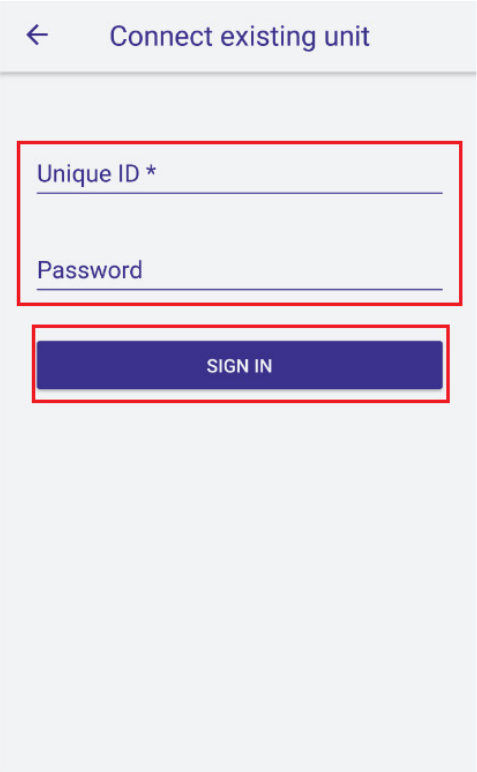
Getting Started

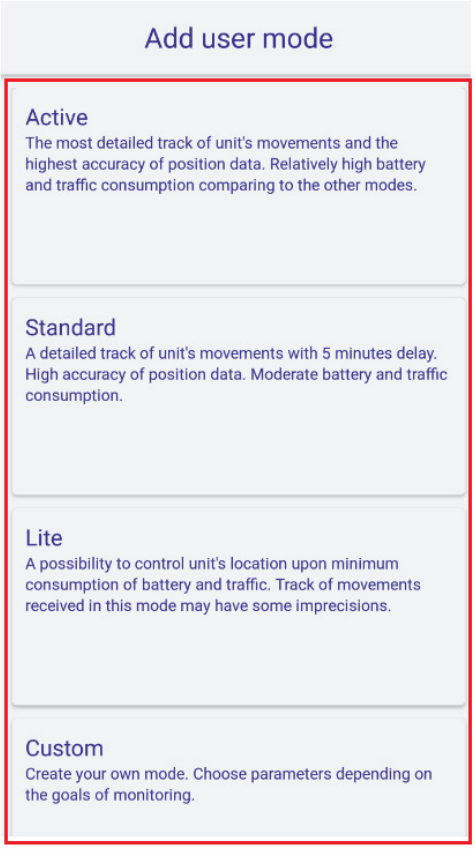
Starting Application and Choosing the Mode

You should have received an email with your Unique ID and Temporary Password. This information is required to gain access to the Brickhouse House Phone Tracker application functions.

On the BrickHouse Phone Tracker application choose a UNIT ID in order to launch. Fill in the fields Unique ID and Temporary Password.







Choosing User Mode

After connecting to the BrickHouse Phone Tracker it is necessary to choose a user mode: Active, Standard, Lite, or custom one. Each mode has its own parameters of data collecting and sending data.

Active

This mode provides you with a possibility to receive the most detailed track of unit's movements and ensures the highest accuracy of position data.
This mode provides relatively high battery and traffic consumption comparing to the other modes.

- Data collection: continuous.
- Data sending: continuous.
- Maximum accuracy value: 30 meters.

Standard

This mode provides you with a possibility to receive a detailed track of unit's movements with 5 minutes delay and ensures relatively high accuracy of position data.
Moderate battery and traffic consumption is considered to be an advantage of the mode.

- Data collection: smart mode.
- Data sending: by timeout (5 minutes).
- Maximum accuracy value: 50 meters.

Lite

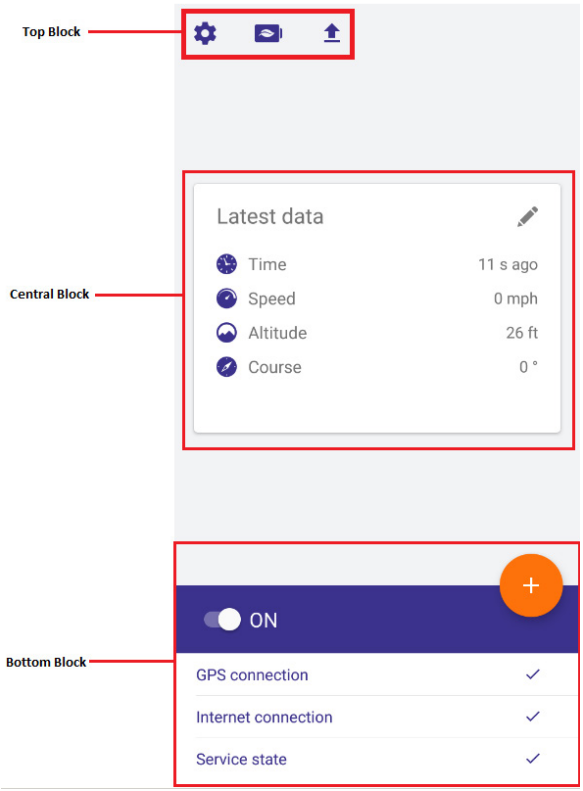
This mode provides you with a possibility to control unit's location upon minimum consumption of battery and traffic.
Note that track of movements received in this mode may have some imprecisions.

- Data collection: by timeout (5 minutes).
- Data sending: by timeout (5 minutes).
- Maximum accuracy value: 1000 meters.

Custom

This is a mode where all parameters should be set individually according to the goals of tracking. Initially all the parameters have standard values.

Mobile App Main Screen



The main screen interface of the BrickHouse Phone Tracker is divided into 3 blocks:

Top, Central, and Bottom.

Top Block

The top block contains 3 buttons:

- Arrow — unloads messages from the black box. Red indicator is shown upon the availability of messages in the box;
- Battery — turns on the power save mode upon tapping it;
- Gear — transfers to the application settings menu.

Central Block

Central part of the screen is occupied by the block where you can view the unit's latest data or (upon indicating the corresponding settings) send unit's current status (use a horizontal slide to switch from latest data viewing to current state sending). Latest data receiving and current status sending requires availability of GPS and Internet connection as well as starting unit's location determination service.

Bottom Block

Upon the first launch of the application a unit's location determination service is stopped. To start it, tap the corresponding button at the top of the block. The further activity of the application depends on the settings used, availability of GPS connection (to generate location messages) as well as connection with Internet and server (to send messages from clipboard or black box). State of data collecting and sending parameters is shown in the bottom block:

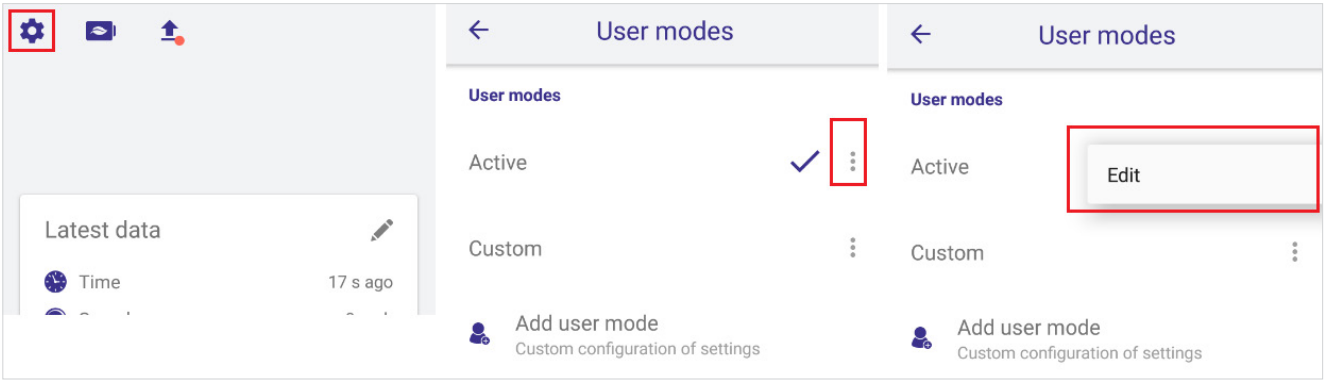
- GPS Connection: Shows the availability of GPS connection
- Internet Connection: Shows the availability of Internet connection.
- Service Status: Shows whether location determination service is started or stopped.

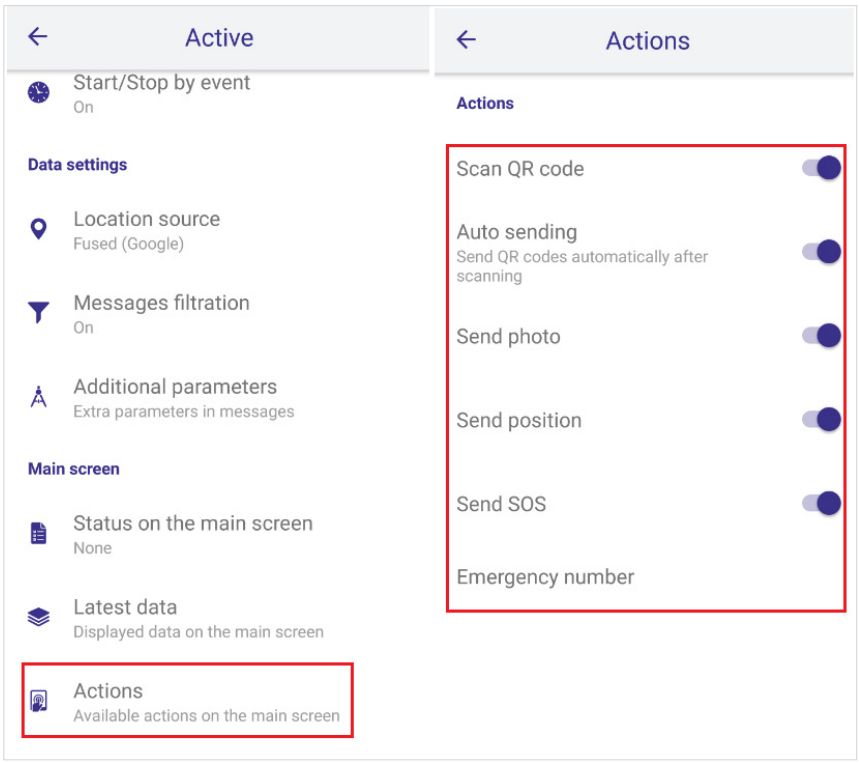
Other

Tap the '+' button in the bottom block in order to open the actions menu.
Note that implementation of any action from this menu requires the availability of Internet connection.

Actions Menu

Accessible though User mode option This menu contains a list of actions available for a chosen user mode:





Scan QR code

The scanner provides the possibility to work with either QR codes or bar codes. Note that in the 'Actions' settings you can choose whether to preview a scanned code or send it automatically. After scanning a QR code (barcode), the message containing 'qr' parameter is sent to the server. Parameter's value is saved in the system's database and afterwards can be used for the monitoring purposes.

Auto Sending

Enable/disable automatic sending of a QR code scanned. **Note** that implementation of any action from this menu requires the availability of Internet connection.

Send Photo

An image sent to the server is saved in the database of the system and afterwards can be used for the monitoring purposes. Note that unit's location info is send to the server along with the image. Before sending a photo it is recommended to indicate image quality.

- Sending from camera: Choose this item in order to take a picture and send it.

- Sending from the library: Choose this item in order to send an image stored in the memory of your mobile device.

Send Position

Position sent to the server is saved in the database of the system and afterwards can be used for the monitoring purposes.

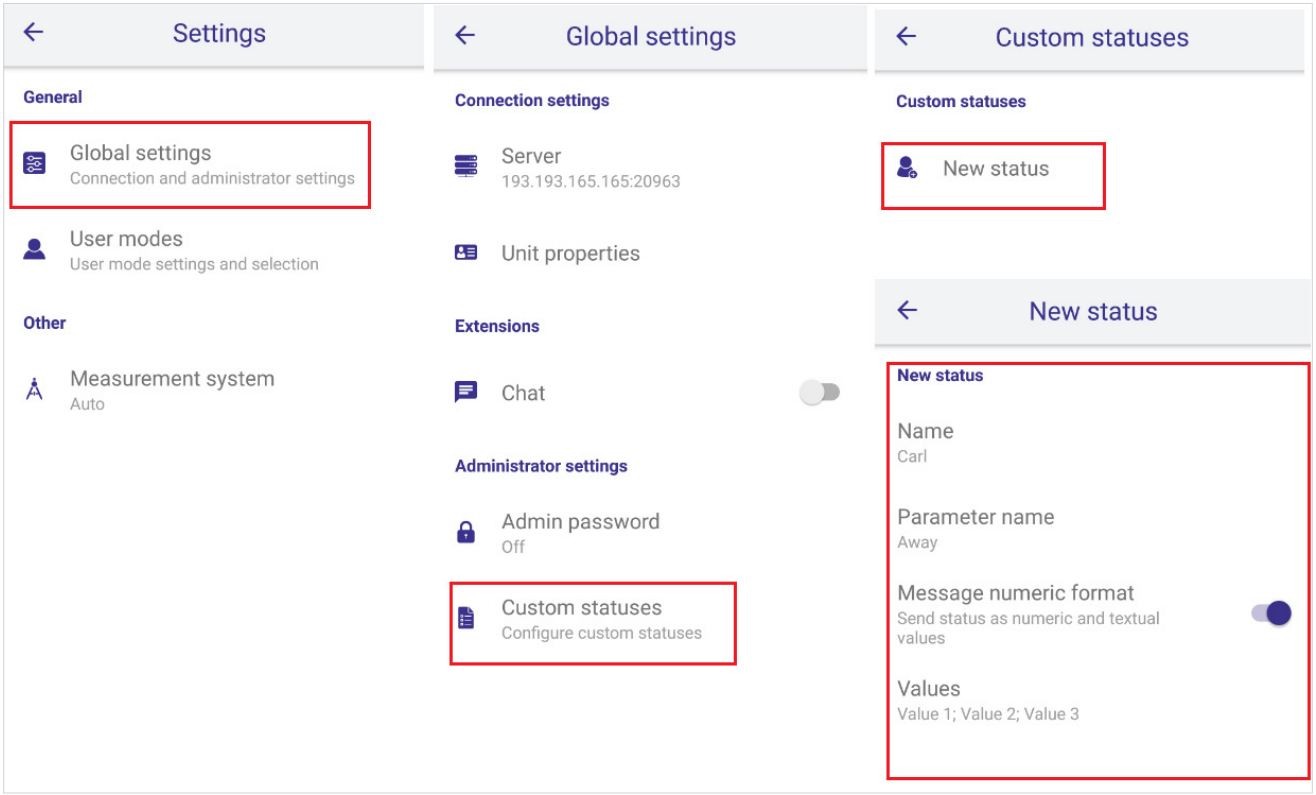
Send SOS

Alarm message (SOS) can be sent in case a critical situation occurs. In the monitoring system's data message it has the following view: 'alarm=1'. Note that unit's location info is send to the server along with the alarm message. Unit's location is detected by the system at the moment of SOS sending. In case of failure to detect current location, the last known location will be sent.

Emergency Number: Enter a telephone number where the alarm messages (SOS) can be sent to.

Custom Statuses

The BrickHouse Phone Tracker supports creating and sending of custom statuses. A user can create any number of custom statuses templates, for example, 'Template 1' can obtain such values as 'Free', 'Busy', 'Away', and 'Template 2' — 'Private', 'Business', 'Unified', etc. Template creating is done in the corresponding section of the application settings. Template sending is done on the main screen of the application.



Template Creating

To create custom statuses template, go to the application settings (main screen > top block > gear button). Afterwards, choose 'Custom statuses' item in the 'Administrative settings' section. To create template, tap the corresponding button and fill in parameters:

- Name — indicate template name;
- Parameter name — indicate parameter name;
- Message numeric format — enable/disable sending of index numbers in message parameters;
- Values — add the necessary number of values and give a name for each of them.

Status Sending

Sending custom statuses from created templates is implemented in the central block of the main screen. Using the horizontal slide switch to the necessary template and tap a status to be sent.

Custom statuses appear in the tracking system as data messages containing parameter's name and value.

Custom statuses are usually sent along with coordinates. If there is no access to 'fresh' position data at the moment, then the last known coordinates are used.

Sent statuses can be used in the monitoring system to adjust notifications (notification type should be 'Message parameter control').

Sent parameters (both alarms and custom statuses) can be used in the tracking system to adjust notifications (notification type should be 'Message parameter control'). You can be notified on receiving custom statuses by e-mail, SMS, online popup message. Moreover, you can register received statuses in unit's database and generate reports on them.

Template Deleting

To delete a template, go to the Settings > Administrative settings > Custom statuses, choose a template you would like to delete, tap the corresponding button in the bottom, and confirm your action in the appeared dialog.

Administrator Settings Menu

User settings menu serves to configure parameters influencing the work of both the application and the location determination service. A number of settings available to a user is indicated in the 'Visible settings' item of the 'Administrative settings' section.

Attention
Access to the settings can be restricted by the password of administrator.

Choose Gear on the Main Screen

Global Settings

In this field you will be able to access the following:

Connection Settings: This is the connection to the locate.brickhousesecurity.com cloud Platform.

DO NOT DELETE OR CHANGE SETTINGS: removing or changing these settings will prevent the application from reporting to the server that monitors the BrickHouse Phone Tracker.

Unit Properties

Unique ID - Unit's unique ID is an identification code used to recognize your mobile device in the tracking system.

Password - Indicate a password if it should be used for a unit access. Note that an indicated password should be duplicated in the interface of a monitoring system (corresponding field of a unit properties dialog), otherwise unit's data will not be registered on the server.

Note: You will need to contact support@brickhousesecurity.com to update request.

Bind unit

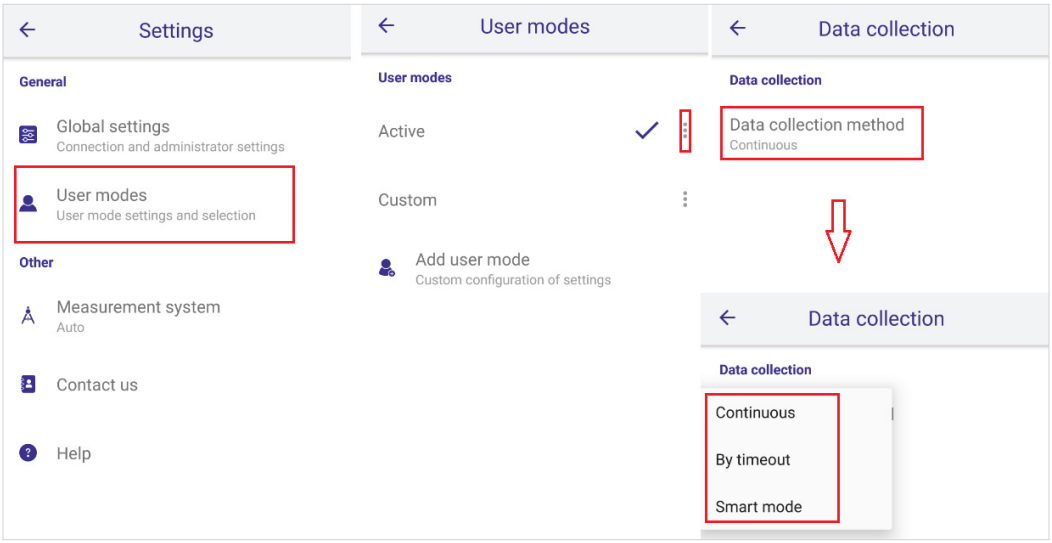
Here choose a unit to bind your application to.

User modes

Active Custom Operations Mode: This mode defaults to the settings listed below, with option to edit.
Choose Gear on the Main Screen under User Mode settings you can choose and change the following,
- Active Mode Data Collection Defaults to Continuous
- Custom Mode Data Collection Defaults to Smart Mode
- By touching the field you can select to edit settings.

Supports:

- Continuous — location data is collected constantly, collected data can be characterized by a high accuracy. The negative side is higher consumption of battery and traffic.
- By timeout — location data is collected regularly over a certain period of time. This period of time (timeout) should be indicated in the corresponding field (5 minutes by default). Note that the less timeout is, the more accurate data you collect. Using this method traffic and battery consumption depends on a timeout indicated.
- Smart mode — the key feature of the method is that data collection takes place only upon unit's movement (Motion). If a unit stays still for more than 5 minutes, then location determination service is stopped, and the application switched to motion detection. The location determination service will be automatically started upon detecting any motion.



Continuous

('Continuous' option), location data is sent to the server constantly (upon arriving to the black box and upon the Internet availability). The battery is consumed actively using this method, therefore it is recommended to use it if you have the possibility to charge your battery any time

Timeout

(Timeout' option), location data is sent to the server regularly (once in the indicated time) and afterwards a mobile device returns to the sleeping mode.

Motion Detection

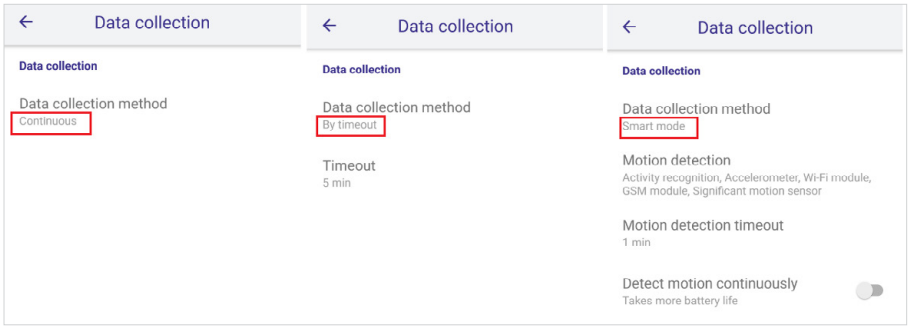
If smart mode has been chosen, then it is necessary to indicate motion detection parameters. Further there are some recommendations on their usage:

Activity recognition — can be used on devices having the corresponding configuration. That is why the efficiency of this method should be tested for each device individually.

Accelerometer — can be applicable for those who travel by foot.The negative side is that the beginning of motion can be often detected upon shaking device while standing still.

Wi-Fi — can be applicable for those who uses Wi-Fi upon reaching any checkpoint. The algorithm is the following: Wi-Fi connection is available — a unit stands still, Wi-Fi is not available — a unit is on the move. This method is not considered to be a high accuracy one because of the large amount of Wi-Fi networks in a city's infrastructure.

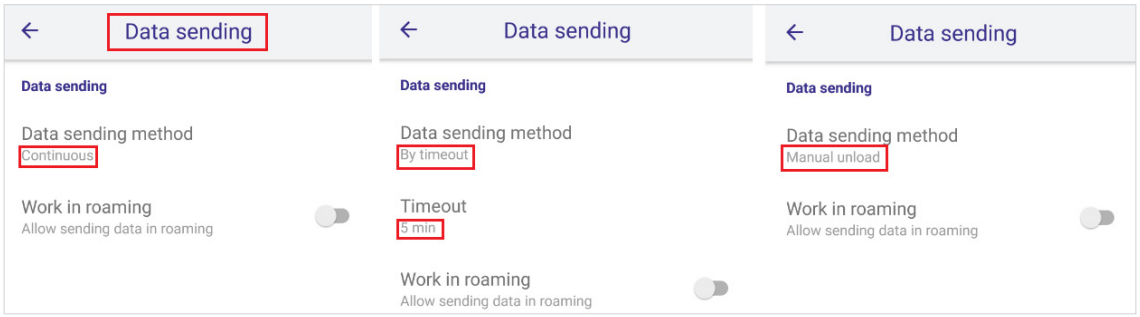
GSM — in this case a motion is detected considering location of cellular base stations. The algorithm is the following: a device determines location of cellular base stations and repeats the action after a period of time. If location of cellular base stations is changed, then motion is detected. Note that some imprecision can take place upon determining base stations location. Therefore it is not considered to be a high accuracy method. The efficiency of this method should be tested for each device individually.



Data Sending Method

Data can be sent continuously, by timeout, or manually. Timeout value should be no less than 5 minutes.

Work in Roaming Depending on this checkbox state, the mobile device sends data in roaming or not.



Start Stop by Event

Auto Startup

Mark this checkbox to automatically launch WiaTag after your mobile device has been rebooted.

Work While Charging

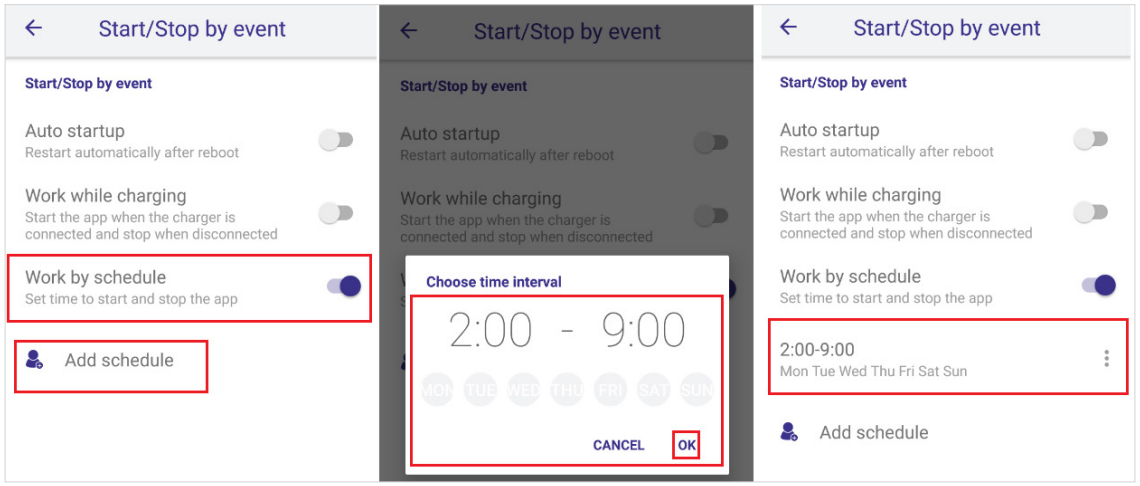
Automatically launch WiaTag service when the charger is connected and stop it when the charger is disconnected.

Work by Schedule

The service can be automatically started or stopped according to a schedule. Created schedule intervals are displayed only upon choosing this option. Schedules can be edited or deleted. Further, there is a guide on how to create a schedule.

Add Schedule

Schedule creation becomes available only if the 'Work by schedule' flag has been chosen above. Tap 'Add schedule' button, indicate time interval and days of the week for starting/stopping the service.



Data Settings

Location Source
This option allows to choose the method for determining unit location. It can be Google Fused (default), GPS, Wi- Fi and mobile networks, or GPS+Wi- Fi+mobile networks. Note that the corresponding options should be enabled in the settings of the mobile device itself.

Messages Filtration
If you activate this option, parameters listed below will be applied to messages prepared for sending to the server. This filtration can be applied only to the messages generated by GPS, because if wireless technology is used, such data as speed, course, satellites count, etc. is unknown, and accuracy can exceed 2000 meters. The conditions of filtration are listed below. The 'logical OR' operation is applied to them, in other words, a new message is generated if any of the mentioned conditions is met. This is not applicable to the Max accuracy and Max speed parameters as they are intended to exclude messages with improbably high values (potentially invalid messages).

Max Accuracy: Maximum accuracy value. If exceeded, such message is considered invalid and will not be sent to the server. This parameter is utilized constantly (regardless to the state of messages filtration option).

Min Time Interval: Minimum time interval between messages sent to the server (in seconds). In other words, a new message is generated when the indicated time since previous message has passed.

Min Distance: Minimum distance between messages. In other words, a new message is generated if the unit has traveled the indicated distance since the previous message.

Change in Course: Indicate an angle on which a course will be changed (i.e., a motion direction) for new message sending (in degrees).

Change in Speed: Indicate a speed change (difference between the previous and current messages) which is sufficient for sending a new message.

Additional Parameters

Choose the additional parameters you would like observe in data messages:

LBS Data
If this option is chosen, then sent messages contain information on the nearest base cell stations (for example, cell tower ID).

Provider name
If this option is chosen, then sent messages contain parameter 'p' showing a source of location data.

Accuracy
If this option is chosen, then sent messages contain parameter 'a' showing information about accuracy of a detected location (in meters).

Battery Level
If this option is chosen, then sent messages contain parameter 'b' showing a battery level (percentage).

Last Status
If this option is chosen, then sent messages contain the last indicated unit status.