First download program «Mobile GPS for Mobile phone/smartphone ver. 1.0.0004 in jar archive» and install it on phone/smartphone.

Below the instruction on configuration:

MobileGPS for mobile phone, actions before use of the program.

- \* Register on a server of monitoring GPS-Trace, if you first time using program.
- \* Enter with your login on server of monitoring GPS-Trace Orange.

\* Create object of monitoring: in «Options» select tab«Device», without fail choose type: Mobile GPS, unique ID: 6 symbols.

- \* Adapt GPRS connection on your mobile phone.
- \* Connect GPS receiver to your mobile phone.
- \* Run program MobileGPS.

Main program menu include next points:

- **Connect to GPS Device** Searching and connection to Bluetooth GPS devices (look at p. 1).
- **Stored Records** Work with stored records (look at p. 3).
- **Options** Application settings (look at p. 5).
- **Exit** Quit application.

# 1. Connection to GPS-receiver.

When you select Connect to GPS Device application will automatically search for available Bluetooth devices and will allow you to select desired one from list. Address of selected device will be stored in memory and next time application will directly ask about this device, to miss not very short device search.

After successful connection to device application will move into Monitoring state (loot at p. 2).

# 2. Monitoring state.

## Application screenshot in monitoring state.

In monitoring state application display current status of GPS and GPRS channels, state of GPSdevice, and information about last received GPS message.

Possible GPRS and GPS statuses:

- **Ok** GPRS-connection was established.
- **Connecting** GPRS-connection is being established.
- Error Connection can't be established.
- **Offline** Connection is turned off.

Information lines on display:

- **Time/Date** Time and date of last GPS message.
- **Pos** Geographical coordinates (latitude и longitude).

- **Speed** Current speed (in km/h).
- Messages received How many messages received in current session.
- Satellites count Currently visible number of satellites for GPS receiver.
- Last address Postal address, or other location information about you current position.

Possible commands:

- Settings Monitoring state options (loot at p. 4.2).
- **Exit** Close current session. All received messages are stored on **List of stored records** (loot at p. 3).

If there are not enough satellites to correctly determine the position, display will containing only text "No messages received yet!". In that case try to wait a minute or reposition GPS receiver, so that it will see more satellites.

## 3. List of stored tracks.

## Application window, that shows list of stored tracks.

Messages received during each successful connection session are stored in phone memory, as track for next send to server <u>Wialon</u>. GPRS states are described in p. 2. For each tracks in inactive state are display time first message and number of messages in track. For active (selected) state also show time of last received GPS message. The lowest line display sequence number current page and general number of pages. Possible actions:

- Send Send selected track to server. Possible send not more than one message.
- **Delete** Delete selected track from memory. Will be request validation.
- Clear All Delete all tracks from memory. Will be request validation.
- **Exit** Exit to main menu.

In case of absence saved tracks will be show text "No stored records found" and all command, except Exit, will be будут disable.

## 4. Application options.

After selecting **Options** you may select exactly what options you would like to change:

- **Connection** GPRS-connection tuning (look at p. 4.1).
- **Online** Monitoring tuning (look at p. 4.2).
- **Filter** Messages filtration tuning (look at p. 4.3).

In all items you will use next command:

- **Save** Exit with save all changes.
- **Exit** Exit without all changes.

#### 4.1. GPRS-connection tuning.

You may select:

- **Server address** Wialon communication server address (default *socket://gpsgsm.org:20113*).
- Your User Id ID of your monitoring unit (by default 6 random characters).

# 4.2. Monitoring tuning.

Here you may choose (enable/disable):

- **Transmit messages online** Online mode: transmit all received messages immediately on server.
- Ask server for current address Ask server for postal address, or other location information about you current position.
- Filter messages Filter messages from GPS receiver (look at p. 4.3).

All options are enabled by default.

Changes will be activated immediately if you are in monitoring state (look at p. 2).

## 4.3. Messages filtration tuning.

You may choose:

- Straight move period (sec) How often you straight movement will be stored (in seconds). In the event, when receiver moving with constant (deviation less 15 degrees) course, messages will stored in specified period (by default 5 sec.).
- **Stop period (sec)** How often your stay will be stored (in seconds). In the event, when speed receiver less than minimal, messages will stored in specified period (by default 60 sec.).
- **Minimal nove speed (kmh)** Minimal speed that application thinks you are started moving (in km/h). Threshold value of speed for detection moving state receiver: If speed receiver less, than current value, that receiver is stay (by default 4 m/s).

Correct tuning of messages filtering will allow you to economize GPRS traffic and use less phone memory for tracks.