



# User's guide

## Overview

FoxyTag is a free, legal and collaborative system to signal speed cameras on mobile phones. Fixed and mobile cameras will launch an alarm 15 seconds before the critical point. If you participate by signaling new cameras or by confirming existing ones, you create trust links with the other users and benefit from more reliable information. This collaborative model makes that FoxyTag is today the most complete and up to date speed camera database in the world.

## Summary

**IMPORTANT:** To avoid to be excluded from the system because of misusing the application, please learn the following points:

- Press "1" to tag or confirm a fixed speed camera, "2" for a mobile speed camera, and "0" to cancel a tag. Press twice the button to tag for the opposite direction and three times for both directions.
- A speed camera must be tagged or confirmed when the user is as close as possible to it (not already when he sees it). Otherwise there will be a second tag for the same camera and other users will decrease his trust links.
- A camera inside a tunnel or close to a tunnel exit (typically less than 10 seconds after the exit) must be tagged at the tunnel entry.
- It is useless to confirm several times the same speed camera. In some particular situations this can even be bad for the user's trust links.
- In case of a doubt (is there a camera?) it is better not to tag than tagging wrong.
- If there can be a doubt whether a camera can flash in both directions or not, it is better to tag for both directions.
- A traffic light camera should be tagged and treated like a speed camera.

## Quick start

### Bluetooth GPS

- Turn on your GPS and wait until you get a fix.
- Start Bluetooth on your mobile and launch the application.
- Choose the language "English".
- Select "GPS", then "Connect", then follow the instructions on the screen. After authorizing the connection, the application should show you the UTC date ("Date"), the



UTC time ("Time"), the position ("Lat" and "Lon"), your speed ("Speed (km/h)"), your heading ("Heading",  $0^\circ$  = North,  $90^\circ$  = East,  $180^\circ$  = South and  $270^\circ$  = West), your altitude ("Alt"), the quality of reception ("Quality", 0 = no reception, 1 = normal reception, 2 = differential mode), and the number of tracked satellites ("Num sat"). Quit with the "Back" menu.

- Enter in the "FoxyTag" menu and authorize the connection with the server.
- Use the "Alarm (test)" menu to check that the volume of the alarm is sufficient. You are ready! Next time you launch FoxyTag, the application will try to connect automatically to the same GPS.

### **Integrated GPS**

- Launch the application and select the language "English".
- The application saves your choice and quits.
- Re-launch it and authorize the connection to the server.
- Use the "Alarm (test)" menu to check that the volume of the alarm is sufficient. You are ready!

## **Parameters**

- If you do not enter a password, you are in the test mode. See below for information about the test mode.
- "Flash delay" and "Flash duration" avoid that your screen goes stand-by, which could block your application. Change them if your screen goes stand-by, blinks, or behaves strangely. For instance, most Sony-Ericsson phones work well with (10, 10), most Nokia phones work well with (1, 100) or (1, 99999999), Motorola or phones where you can deactivate the stand-by mode (0, 0). If it doesn't work, try to update the firmware of your phone. Technically the application asks the screen to blink every "Flash delay" seconds during "Flash duration" milliseconds.
- "Vertical space" specifies the number of pixels between two printed lines.
- "Unit system" allow you to choose between the metric and the Imperial unit systems. The speed is therefore either given in km/h or in mph.
- "Delta direction": To become visible on the screen, and therefore be able to launch an alarm, the tag must be in this angle. A small value reduces the number of false alarms but reduces also the warning delay when the tag is posted in a sharp curve. The default value is  $45^\circ$ .
- "Radius" is the radius of the biggest circle on the main screen. Taking a higher value allows you to be warned earlier but you will also have more false alarms. The default value is 600 meters.
- "Alarm volume" is the volume of the alarm, to combine with the volume setting of the device.
- "Alarm delay" is the number of seconds between the alarm and the tag. Remember that only the tags that are visible on the screen can launch an alarm. The default value is 15 seconds.

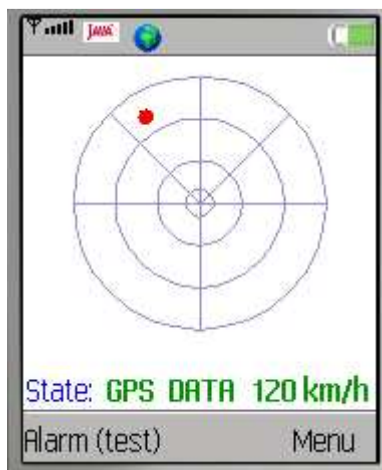


- "Ghost alarm" defines how ghosts launch alarms. The default value, "if > 15 sec.", means that when a ghost launches an alarm, then during the next following 15 seconds only fixed or mobile speed cameras can launch a second alarm. See below for information about ghosts.

## Profiles

Your parameters can be saved in five different profiles. For instance, you could define one profile for cities (with "Delta direction" = 45° and "Radius" = 300 meters) and another for highways (with "Delta direction" = 30° and "Radius" = 600 meters). When you choose "Parameters" in the main menu, the current profile is automatically selected.

## Main screen



The circles in the main screen indicate the distance. The radius of the biggest one is defined in the parameters, the radius of the second one worth 2/3 of the first one, and the radius of the third one worth 1/3 of the first one. The smallest circle has a radius of 75 meters. When you press "0" (ask to delete a tag), only the tags where the center is inside this 75-meter circle are concerned. A fixed speed camera is represented by a red circle, a mobile speed camera by a red circle with a black point, and a ghost by a red circle with a white point.

The line called "State" indicates the state of the application:

- "GPS" is green when the application got recent values from the GPS and red otherwise. In this later case, tags and speed indication disappear from the screen.
- "DATA" is green if the last connection to the server was successful and red otherwise. In this later case, data is not up-to-date anymore.
- The speed is green if the user drives faster than 20 km/h and red otherwise. To guaranty a precise heading, it is not possible to post tags if the speed is less than 20 km/h.

The tags disappear from the screen if the speed is less than 5 km/h, since the heading is not precise enough to show them correctly.



## Ghosts

When a mobile speed camera tag disappears, it becomes a ghost. If there are often mobile speed cameras at a specific place or in its neighbourhood, the ghosts stay active (and are sent to you) in order to signal that you are in a risky zone. Ghosts communicate between them, so it is possible that you see a ghost a few hundreds meters before the actual position of the mobile speed camera (since this later is not always exactly at the same position).

## Tips

- In the FoxyTag screen, press twice "0" to quit the application.
- In the FoxyTag screen, press "8" to change your current profile.
- In the FoxyTag screen, press "9" to activate/deactivate the night mode.
- In the FoxyTag screen, press "\*" to freeze/unfreeze the GPS data. This can be useful if you need time to decide what action you want to undertake, for example if you are not sure about an observation. Technically, it will stop acquiring fresh data from the GPS.
- To avoid that the application always asks you the authorization to connect to your GPS or the network, browse to your application without launching it and select the menu "Authorizations" (or another word, it depends on the manufacturer).

## Connections to the server

In order to limit the amount of communications with the server, your application downloads only the tags you are susceptible to cross during the next five minutes. However, if you quit the zone computed by your application before 5 minutes, a new connection is made to the server. Even if you do not move, a connection is done every 5 minutes in order to guaranty that your data is up-to-date.

If the connection to the server (in order to download a new series of tags) fails, the word "DATA" will be written in red. Your data are therefore not up-to-date anymore. It is however still possible to signal a speed camera (or to delete one); the application memorizes the data and will send the messages as soon as the connection works again. The application indicates how many messages are pending, with an "Unsent: n" message on the top of the screen, n being the number of pending messages.

## Test mode

If you leave empty the password field (in the parameters), your application runs in the test mode and the word "TEST" appears on your screen. This mode allows you to test the FoxyTag application by posting as many tags as you want, without modifying the trust relations you have with other drivers. Indeed, tags posted in this mode are only saved temporarily and are only visible by other users in test mode.



This mode allows you to train yourself in order to feel comfortable with the FoxyTag application before you get your username and your password, but it also allows you to make demonstrations to your friends. Typically, you can post a few tags on imaginary cameras and come back 5 minutes later (time needed to update the data by the server) to observe how FoxyTag behaves close to cameras.

## **FAQ (Frequently Asked Questions)**

Visit the FAQ section of <http://www.foxytag.com> to have more information about how to increase your trust and benefit more reliable information in return.

**Motivate your friends to use FoxyTag: the more users, the less chance that it is YOU that pay the price of a new speed camera discovery!**

**<http://www.foxytag.com>**