Stefan Zankl Software Development

# TripTracker

Manual

Stefan Zankl 3-10-2017

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## Intro

TripTracker provides complete and correct data collection. The integrity of your mileage logbook is ensured by various hash and encryption algorithm. Each entry has its own checksum to guarantee that it isn't changed afterwards or outside of TripTracker. Also, the generated PDF can be signed by one of our servers to ensure that it can't be modified.

## Installation

#### Versions

TripTracker is available in two versions

#### Free

https://play.google.com/store/apps/details?id=com.sourcecastle.freelogbook

This version of TripTracker has everything you need to track your trips. The following plugins are available optionally:

- Remove ads
- Documents & Reports (Excel, PDF, WISO.xml, INtex.csv, OBDII.csv and Gps.kml
- OBDII Displays (OBDII tracking is free but you can't view your data)
- Journeys
- -Sync

You can either buy it from the list of plugins (Stopwatch -> Menu-> Plugins) or when you try using them.

#### Pro

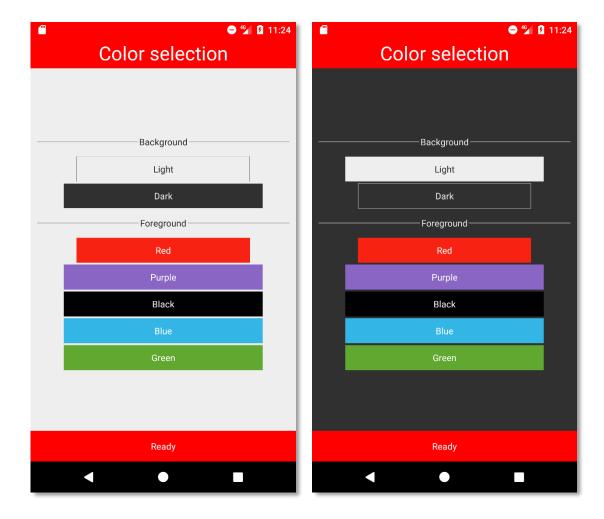
https://play.google.com/store/apps/details?id=com.sourcecastle.logbook

This version has everything included except the <u>Sync-Plugin</u>, which is optionally. This fee is required since the required server also have to be paid monthly.

## Setup

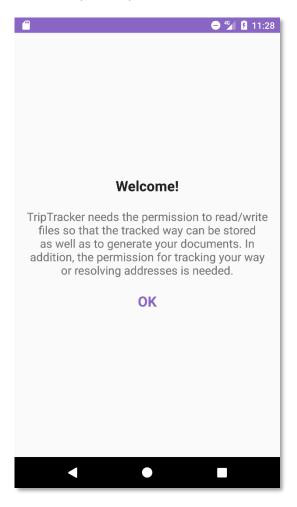
## Color selection

The first step is the color selection. You can choose between a light or dark background and five foreground colors. Beside your personal preferences, a dark background brings you also some advantages when using your cell phone in the night since it does not enlighten your environment unnecessarily.



#### **Permissions**

In the next step, you need to give TripTracker it's required permissions. Without that it would not be possible to generate documents, track your way or resolve addresses.



In contrary to most other systems all the collected data of your mileage logbook is your property. It is not stored somewhere abroad on a Server or a Cloud. The data is on your phone in a local high performance SQL database.

TripTracker does not sell or analyze your data (like all social media companies do)!!

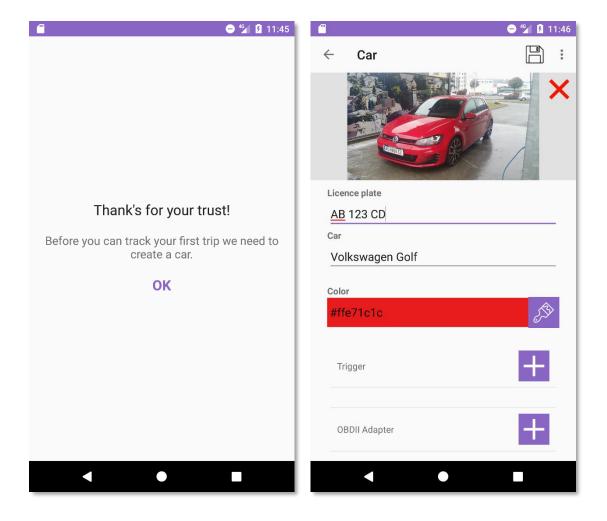
## Create a car

Next you need to create a car. Since all entries are assigned to a car there must be at least one.

There are input fields for: License plate, Brand/Type, Color or an Image.

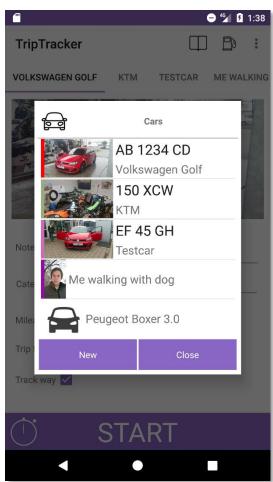
The configuration for the trigger can be found in chapter "Trigger".

The setup instructions for the OBDII-Adapter can be found in chapter "OBDII-Adapter".



The list of all cars can be opened over the stopwatch menu. Doing so you can also make changes or create new cars.

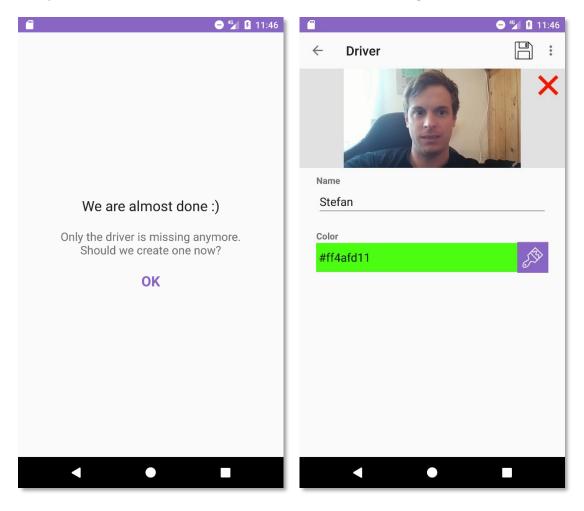




## Create a driver

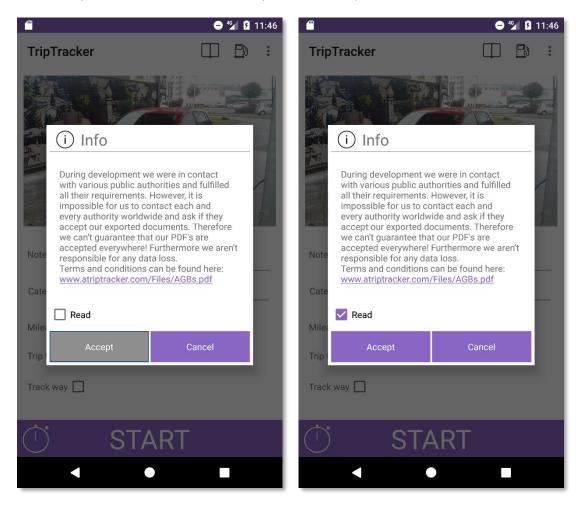
In the last step, you will create the driver. Without that you can't track any trips.

Here you can set the name of the driver as well as a color or an image



#### License

The setup is now complete! Before you can start using TripTracker you have to accept the license. Therefore, you have to check "Read "and press the "Accept "button.



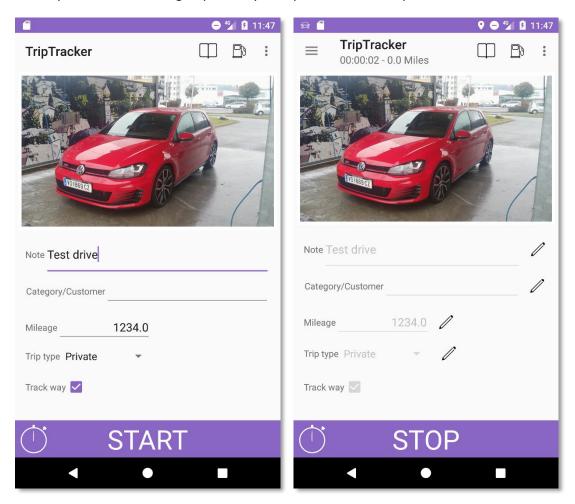
## Stopwatch

The stopwatch can be started manually or automatically by a trigger.

TripTracker is designed as automatic mileage logbook. This means that you can set a Bluetooth device or OBDII Adapter as trigger and your trips are started and stopped automatically. Detailed information about the <u>Trigger</u> or <u>OBDII-Adapter</u> can be found in separate chapters.

Even thou there may be scenarios where trips can't be tracked automatically. This may be the case when your cars radio has no Bluetooth interface or you just want to track a short walk with your dog and want to know how long the distance was...

Usability for manual tracking is quite easy: Just push the Start/Stop button...



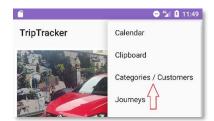
The following inputs can be made before as well as during tracking:

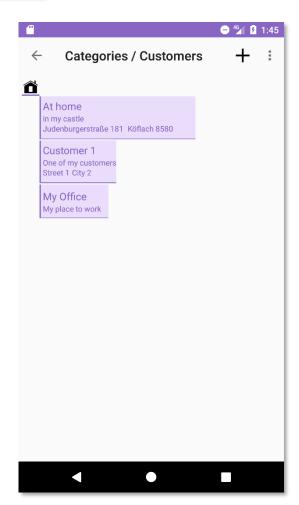
- Note
- Category/Customer (more information about that can be found in "Categories")
- Mileage
- Trip type (this list contains all relevant types for public authorities). A customization of this list is not possible since therefore are the <u>Categories</u>.
- Track way (Location services need to be enabled for this)

To change data while the stopwatch is running just click the pen icon beside the desired input field.

# Categories

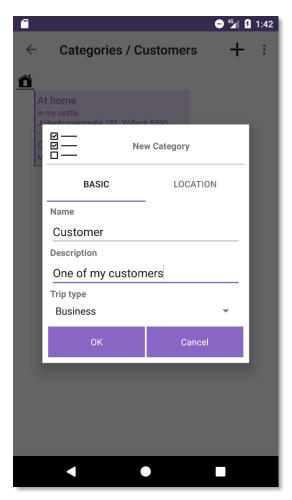
In categories, you can define known targets like customers or places. If you add an address TripTracker will be able to detect it automatically as soon as you arrive or leave a category.





## Show/Edit a category

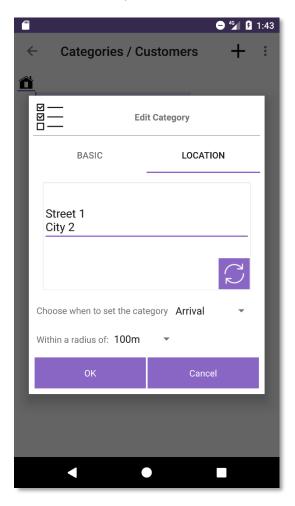
By pressing an entry of the list, it opens the mask for editing.



Name and Description will be put to the "Description" field when you create a PDF-Document.

If you select a "Trip type" it will be set to the trip when you assign this category.

On the second tab you can add add informations for automatic category detection

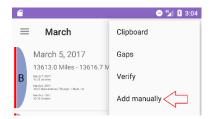


You can enter the adress manually if you are not on the desired place right now. Otherwise you just have to touch the button with the two cureved pits.

In addition you can define when to set this category. You can choose between "Departuere" and "Arrival".

# Add trips manually

You can either create entries manually over the logbook menu or by pressing empty space in the calendar.



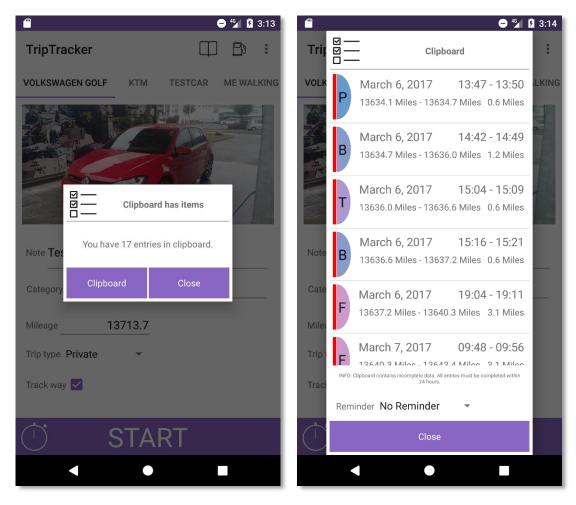
If an entry is backdated more than 24 hours, it will get the creation date added automatically (similar to entries which are completed after 24 hours from <a href="Clipboard">Clipboard</a>)

Creating trips manually is not recommended since in case of any doubts from public authorities you don't have any extra data (GPS or OBDII) to prove your trips.

As another drawback, it is the most time consuming method you can use to collect your data.

## Clipboard





A mileage logbook needs to be written in time. This means that you should complete entries from clipboard within 24 hours. Otherwise they will be extended by the information of the original creation date.

To not exceed this period you have the possibility to set a reminder. This can be found on the bottom of the clipboard above the "Close" button or in settings.

Trips can only be completed if they have the following information:

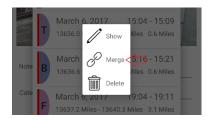
- Departure mileage
- Arrival mileage
- Distance
- Trip type

As an option, you can set if the departure- and arrival-mileage have to be set in settings.

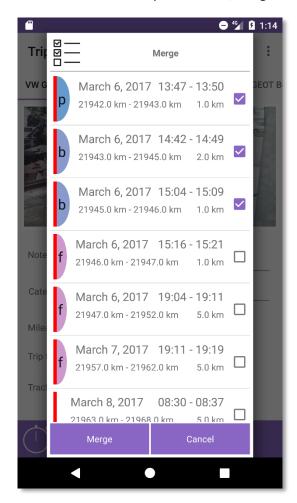
By touching an entry in the list the trip details will be opened.

## Merge

As long as trips are in clipboard they can be merged. Just long-touch one entry of the list until the context menu appears



In the middle of the list you will find "Merge"



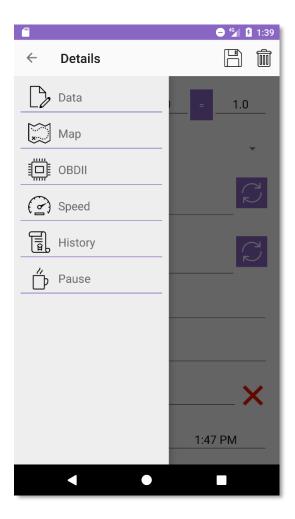
# Trip Details

Each trip can have additional information like the route traveled, the OBDII data from your car's engine control unit, speed diagram, pauses or previous version the entry. To view this, you first have to open the menu by touching the three stripes in the upper left corner.



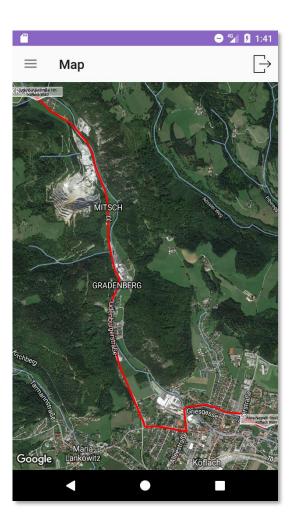
Then you find your options listed vertically.

By default the "Data" view will be shown.



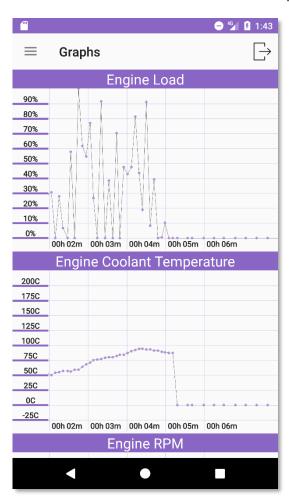
## Мар

Here you find the route traveled. The map type can be changed in settings (Stopwatch -> Menu -> Settings)



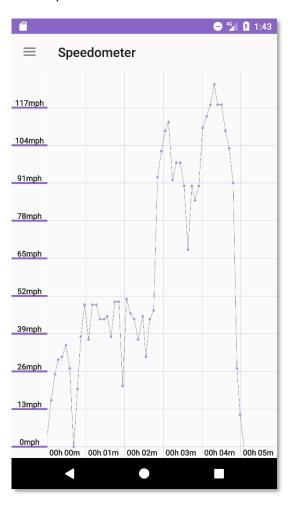
## OBDII

Here you find all OBDII data which have been recorded for the selected trip.



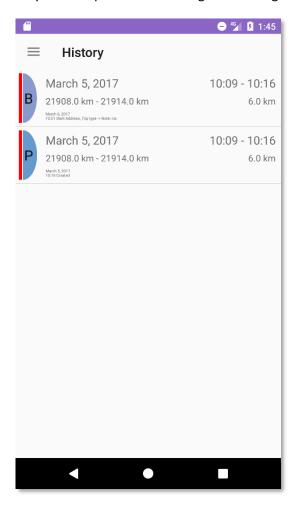
# Speed

Here you see the speed diagram for the selected trip. Data comes either from tracked GPS-Coordinates or from queried OBDII prams.



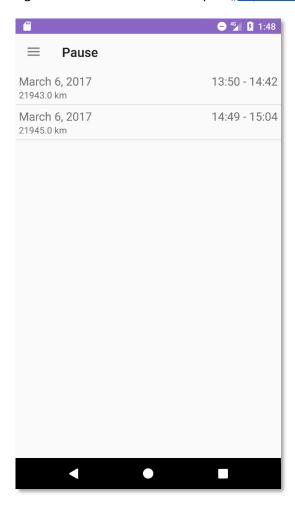
## History

Here you find all previous version of the selected trip. By long touching an entry in the list you can show the context menu. There you find options for showing or restoring.



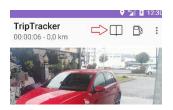
## Pauses

Pauses are created automatically when you merge two trips and there are more than two minutes separating them. How to merge entries can be found in chapter "Clipboard".

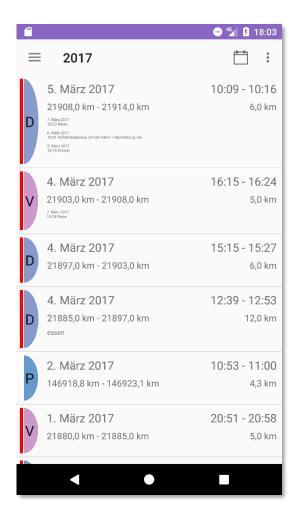


# The logbook

The logbook can be opened by touching the book icon in the upper right corner.



It contains all completed trips.



By touching one entry of the list the <u>Trip details</u> will be opened.

## Navigation

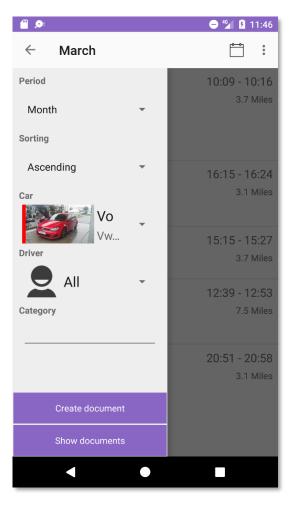
In the logbook, you can navigate forward or backwards by simply swiping from left to right or vice versa.

#### Menu

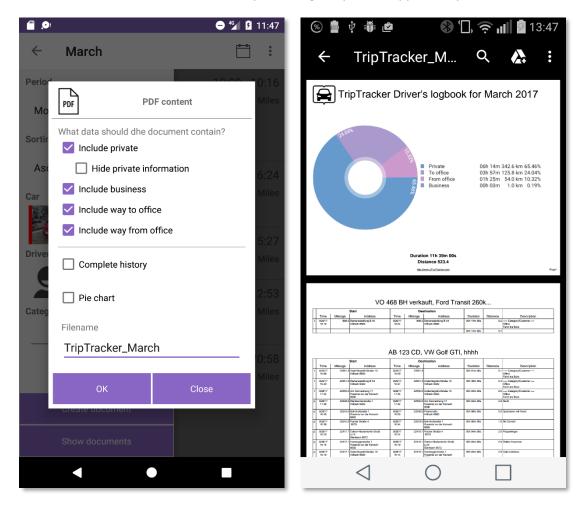
By touching the icon with the three stripes the menu will be opened. Now you can filter the logbook by: Period, Car, Driver or categories as well as changing the sort direction.

## Create a document

On the bottom of the logbook menu the "Create document" button can be found. After pushing it a popup will appear where you can select the filter options.



Before the document will be created TripTracker gives you the opportunity to filter them.



## Hide private data

This option will remove the description and the addresses from private trips

## **Complete History**

This option adds all previous versions of an entry as well as all deleted items to the document. To identify them the history of a trip is simple stroked thru and the deleted ones become stroked thru twice.



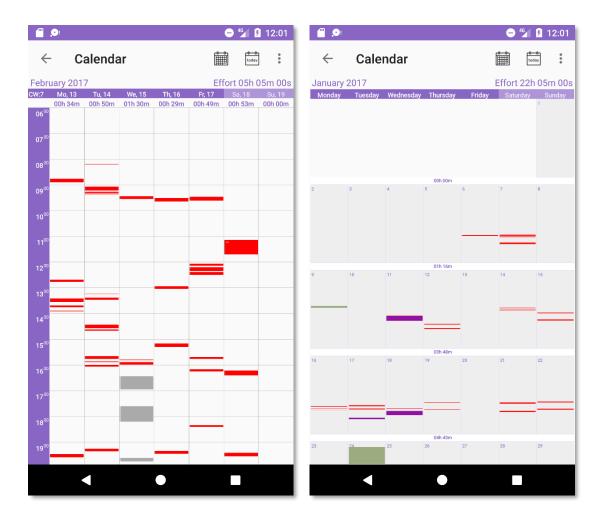
## Pie chart

This option creates a pie chart instead of the bar chart. It is a good option if you don't print your document since this would require more paint.

## Calendar

To get a better overview there is a calendar where you can see when you traveled. It can be opened by the calendar symbol in the upper right corner





You can switch between week and month representation by the calendar symbol in the upper right corner



## Navigation

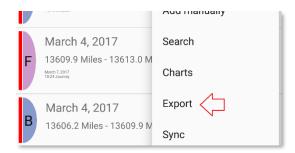
In the calendar, you can navigate forward or backwards by simply swiping from left to right or vice versa.

## **Export**

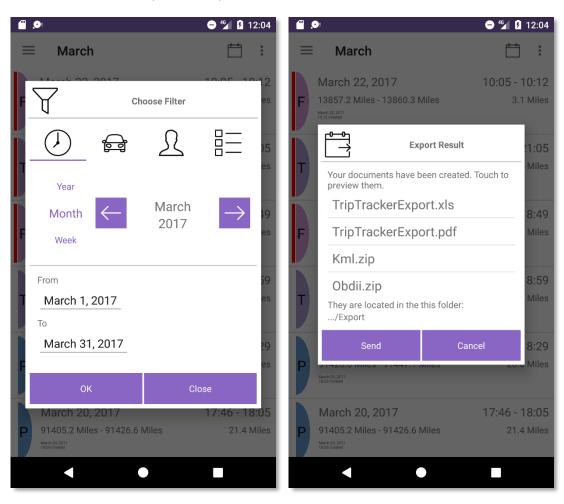
#### **Important:**

The exported document are not backup! You can't import them again! Use <u>Backup</u>- or <u>Sync</u>-feature instead

The export function can be found in the menu of the logbook:

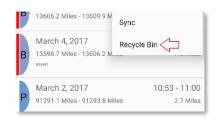


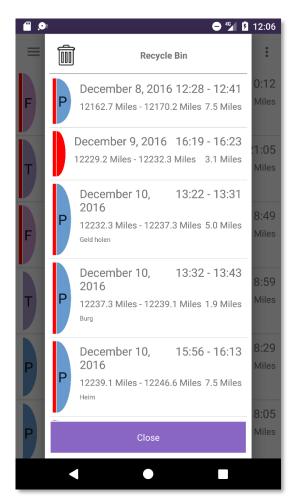
It provides additional filter options compared to "Create document"



# Recycle bin

The recycle bin can be opened over the logbook menu:

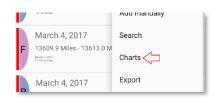


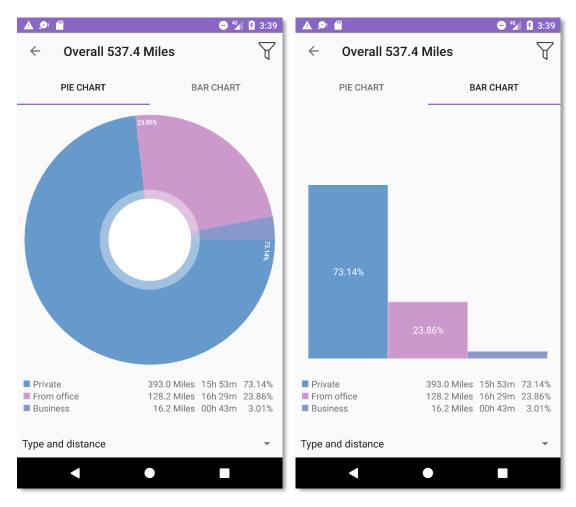


There is no option to empty the recycle bin because it is not allowed that data disappears from a mileage logbook!

## Charts

In the menu of the logbook you find the option "Charts"

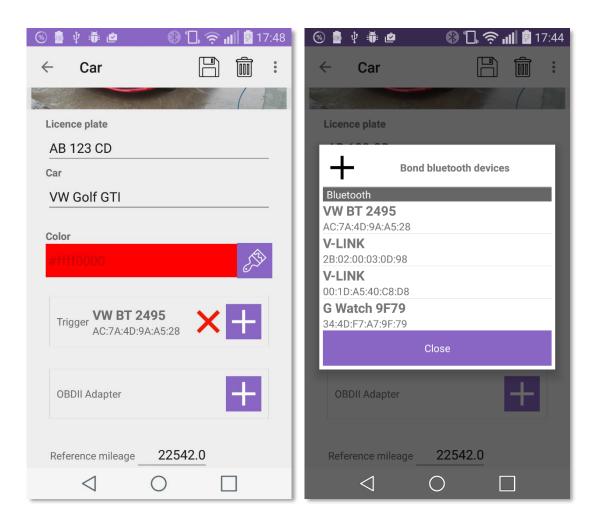




# Trigger for automatic tracking

TripTracker is designed as automatic mileage logbook. This means that you can set a Bluetooth device or OBDII Adapter as trigger and your trips are started and stopped automatically.

All you need to do is to select the desired Bluetooth device, which should act as trigger, from the list that appears after you pressed the "+" button.



## **OBDII-Adapter**

TripTracker is able to connect directly to your car so that it can read the odometer and calculate the distance traveled. In addition, various parameters and the trouble codes can be displayed.

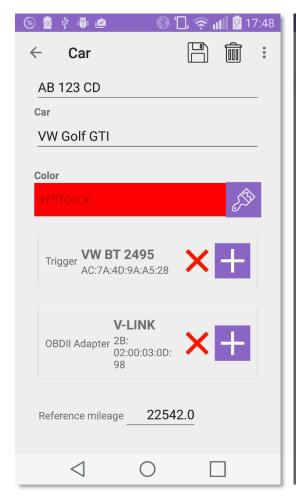
To use this feature, you don't need to modify your car! You just require a Bluetooth adapter which is plugged in to the cars OBDII interface. Installation is very easy since in most modern cars the OBDII interface is directly beneath the steering wheel.

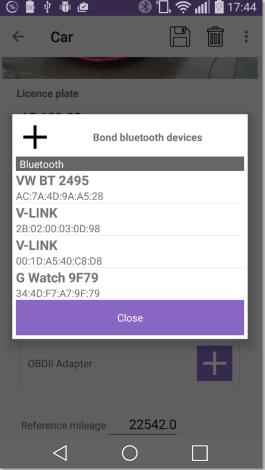
## Setup

In the first step, you have to plug in the adapter into the OBDII interface which can be found in in most modern cars beneath the searing wheel.

In the next step, you have to pair the OBDII-Adapter with you cell phone (same as you have to do with any other Bluetooth device). The password for my optimized OBDII Adapter is "1234"

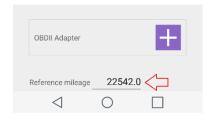
In the last step, you have to tell TripTracker to which car the adapter belongs. This can be accomplished by pressing the "+" button which shows you the list of all bond Bluetooth devices. To assign an adapter to a car just click it.





## Note1:

Since you can't read the absolute mileage with OBDII you have to enter your cars current mileage once in the field "Reference mileage"

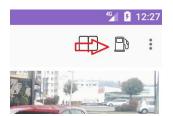


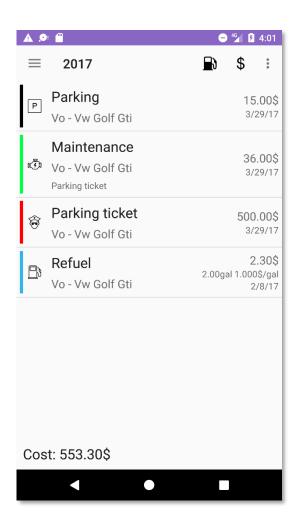
## Note2:

Other OBDII apps (like Torque) may prevent TripTracker from working properly since they may block or interrupt the connection to the adapter.

## Cost management

To switch to the cost management utility, you just have to touch petrol nozzle symbol in the upper right corner of the stopwatch screen





New costs can be added by touching the dollar symbol in the upper right corner and new refuel cost by touching the petrol nozzle.

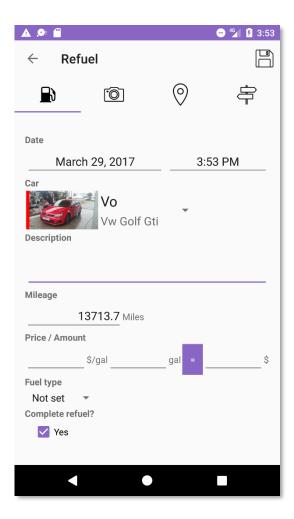
## Refuel

By touching the petrol nozzle symbol the mask for inputting data will appear.



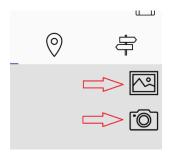
## Data

By default, the tab for data input will be presented to you.

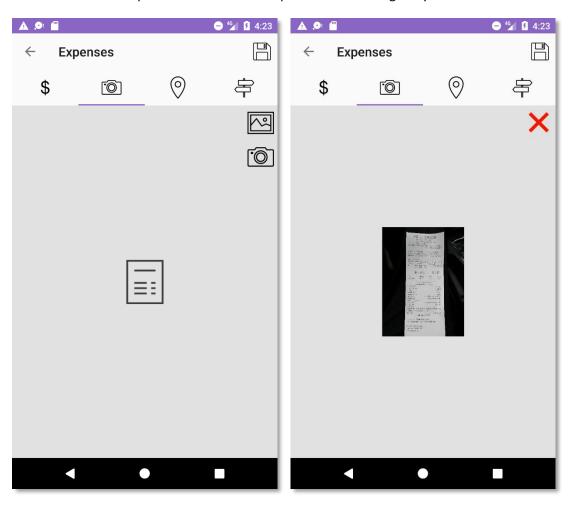


### Bill

On the second tab, you can add a picture of the bill.

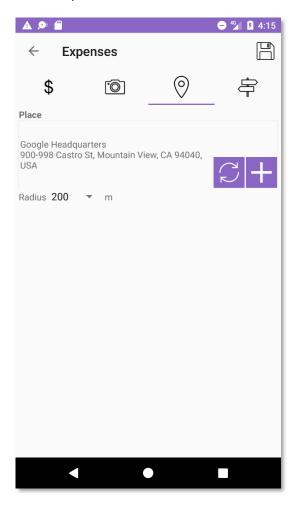


You can either take a picture with the cam or pick one from the gallery



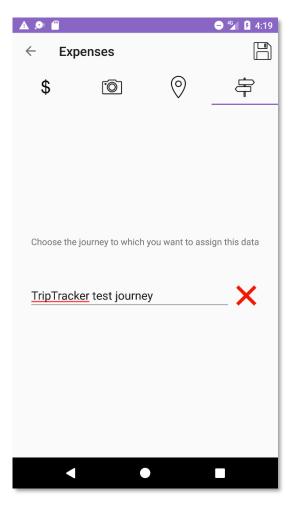
### Place

On the third tab, you can add the place where you have been. You can either use the button with the two curved arrows if you are currently at that location or use the "+" button to do this manually.



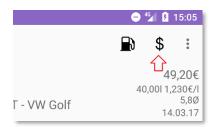
# Journeys

On the last tab, you can add the journey. If the journey is already started this will already be assigned for you.

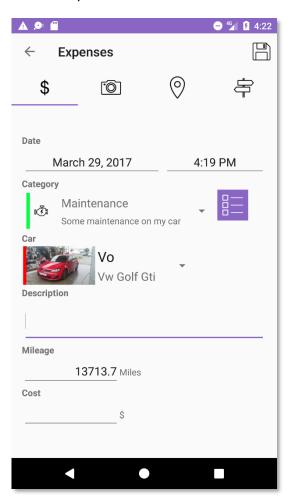


## **Expenses**

By touching the dollar sign the mask for other costs will appear.

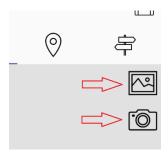


Here you can collect all other costs for your vehicle.

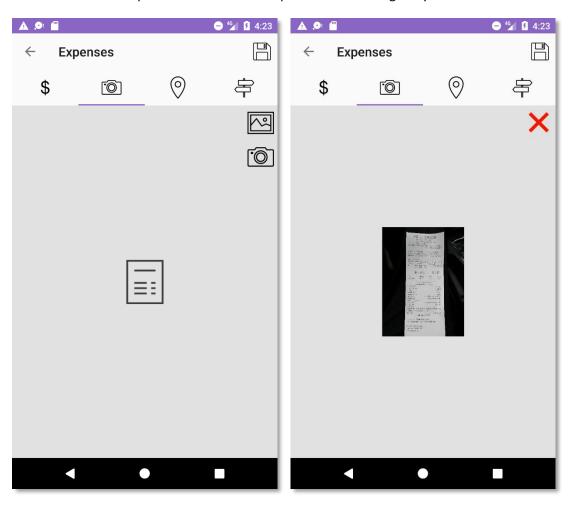


### Bill

On the second tab, you can add a picture of the bill.

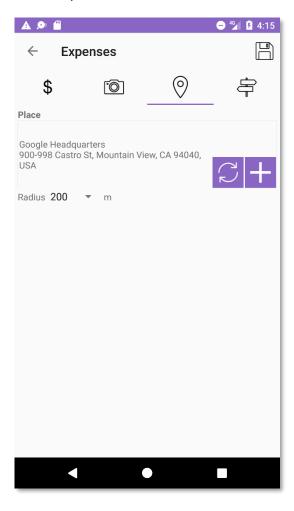


You can either take a picture with the cam or pick one from the gallery



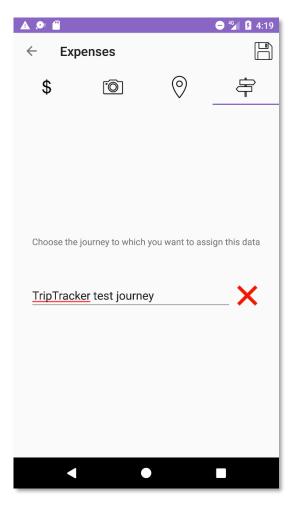
### Place

On the third tab, you can add the place where you have been. You can either use the button with the two curved arrows if you are currently at that location or use the "+" button to do this manually.



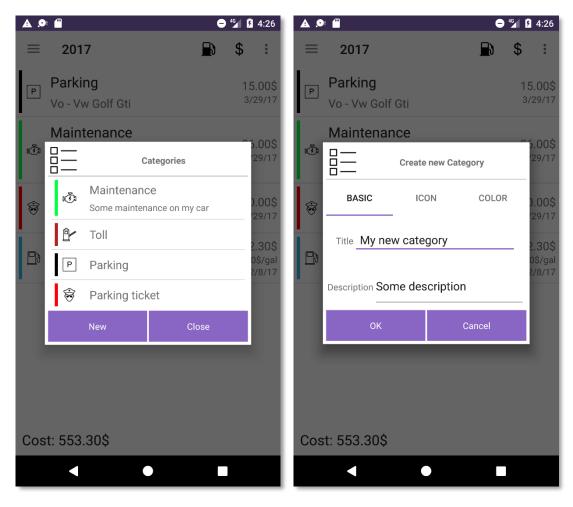
# Journeys

On the last tab, you can add the journey. If the journey is already started this will already be assigned for you.



#### Cost categories

By default, TripTracker will create seven most common categories for you on installation. If this is not sufficient for your needs, you can add additional ones.

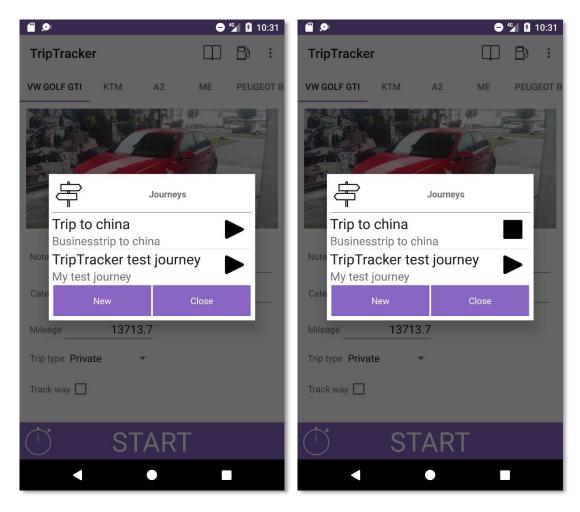


# Journeys

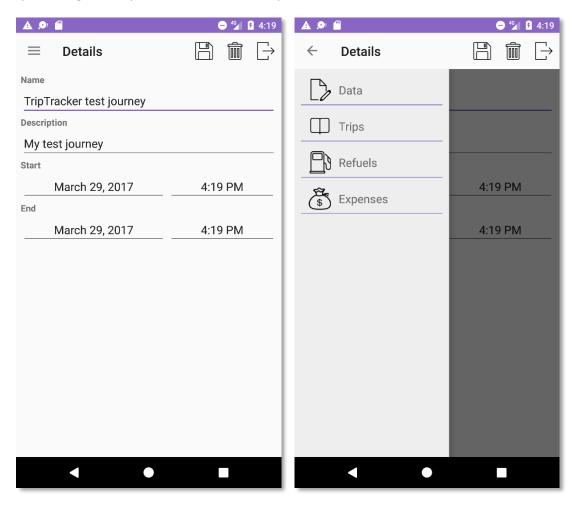
Journeys act as container for trips and costs. You can show the list of journyes by pressing "Journeys" in the stopwatch menu



A journey can be started by pressing the "play"-button beside. After it has been pressed it will transform to a "stop"-button and all data you collect (trips and costs) will be assigned automatically to it.

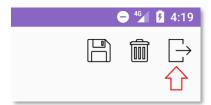


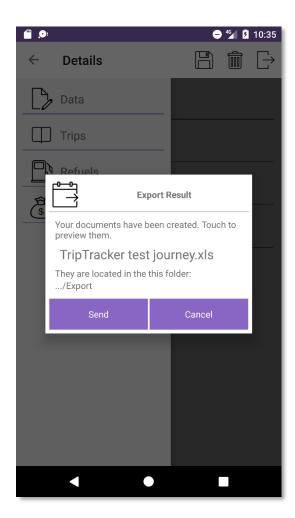
By touching an entry form the list it will be opened.



The menu can be opened by touching the three stripes in the upper left corner. There you find options to view the collected data.

Documents can be created by touching the last icon in the title bar.

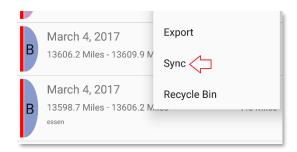




## Sync

TripTracker has a powerful synchronization mechanism that allows you to collect and edit your data across multiple devices. There is also a web interface which allows you to analyze your mileage logbook on a PC or Mac.

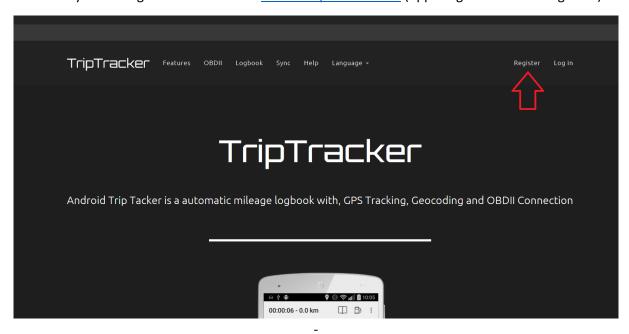
On your cell phone this feature can be found in menu of the logbook



#### Setup

First you have to buy the sync plugin. In free version you can do this in the list of plugins (stopwatch - > menu -> Plugins) or simply by trying to use this feature.

After that you can register an account on <a href="www.aTripTracker.com">www.aTripTracker.com</a> (upper right corner -> "Register").



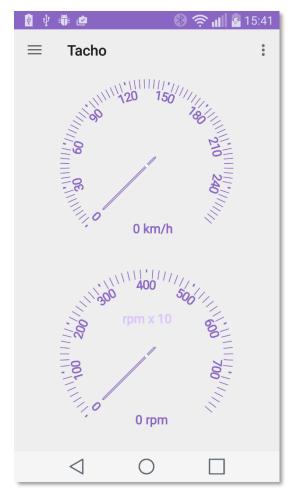
Use this login data on all devices which should collect data for a collective mileage logbook. This can be entered in settings or, if there is no account registered, you will be asked to input this information when trying to use sync.

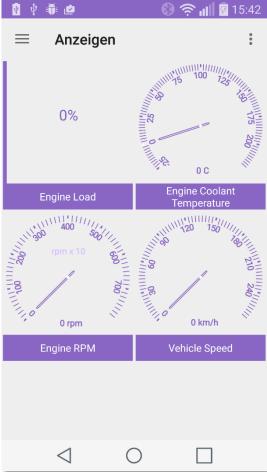
To view your data online you have to come back to <a href="www.aTripTracker.com">www.aTripTracker.com</a> and click "Login" in the upper right corner.

# **OBDII** Monitor

TripTracker allows you to view the data of your car's engine control unit in time. Therefore you just have to open the OBDII Monitor which can be done in menu of stopwatch.

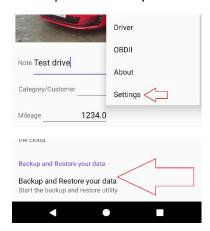






# Backup & Restore

The Backup & Restore utility can be opened when you open the settings in stopwatch and use "Backup and Restore your data" on the bottom of the list.





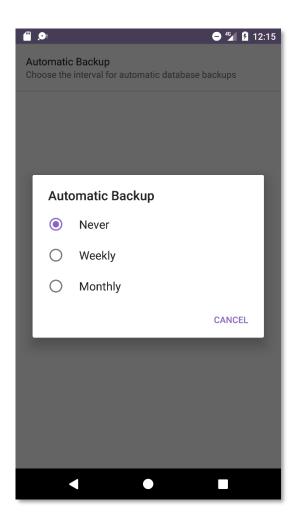
Now choose "Restore" or "Backup"

## Automatic backup

In the menu, you find the option for automatic backup.

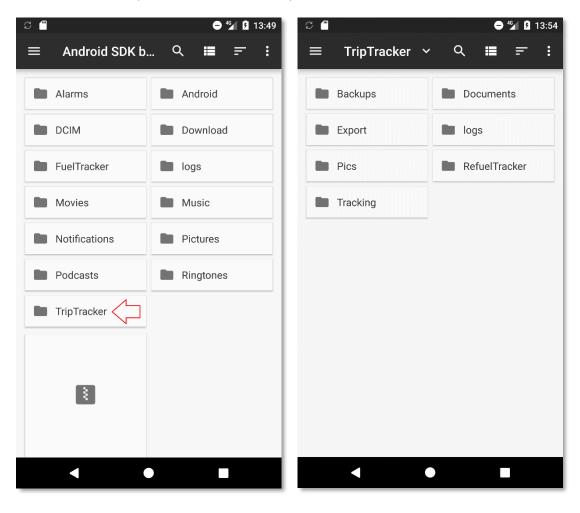
<u>Info:</u> To not lose your data if your cell phone gets stolen or damaged it is highly recommended that you don't' save your backups only on your device. A simple solution would be to add the backup directory to the synced folders of Dropbox or Google Drive.





# Files and Directories

The root folder of TripTracker can be found in your Android home folder.



# Troubleshooting

#### **GPS Tracking**

Battery saving feature of Android 6 or Android 7 are preventing TripTracker from tracking your way. Change battery saving settings to normal, and be sure to add TripTracker as a "protected app".

If the solution above does not work, try the following:

- Turn phone off/on
- Turn GPS off/on

Be sure TripTracker is allowed to use your location. Settings -> Apps -> TripTracker -> Permissions

Check that your location settings are set to High accuracy. Settings -> Location -> Set to High Accuracy

Perform an "AGPS reset": Install the App GPS Status & Toolbox, then in that app, go to Menu > Tools > Manage A-GPS State > Reset

### Manufacturer-specific settings

- HTC
  - Access your phone settings > battery > power saving mode -> battery optimization -> select TripTracker > don't optimize > save
- Samsung
   Access Battery settings -> App Power Saving -> Details -> TripTracker > Disabled
- Huawei

Turn Energy Settings to Normal and add TripTracker to "Protected Apps"