



# StatBike

## Mobile and pervasive systems

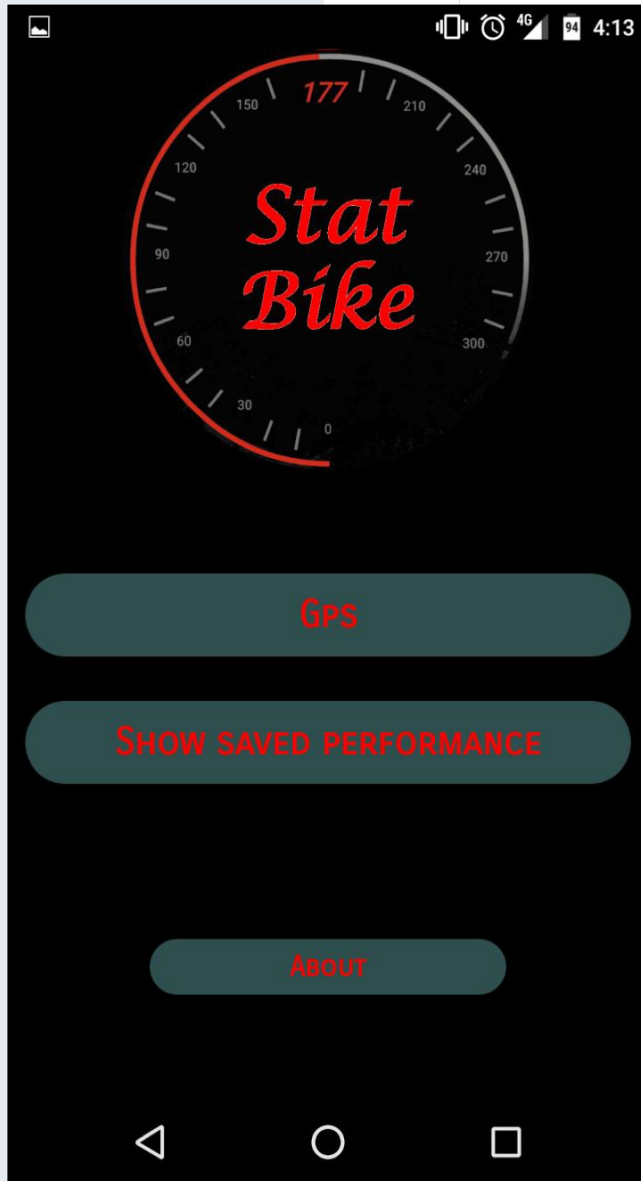


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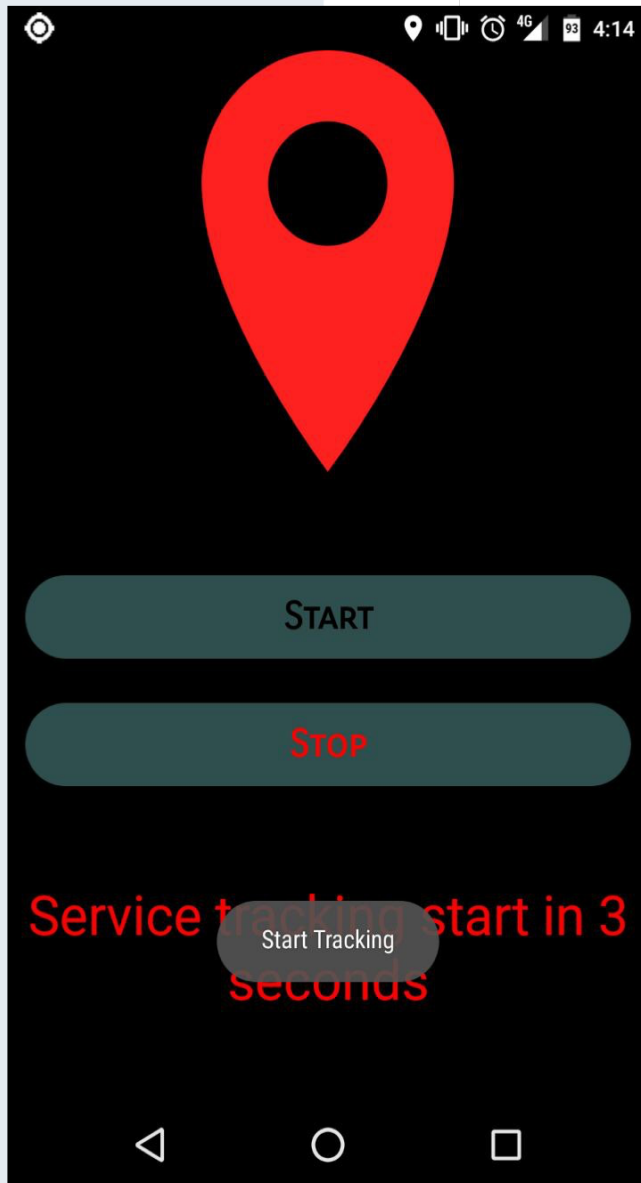
# StatBike: main activity



- Gps tracking & show path on maps
- Very intuitive app!
- No unnecessary title bar!
- Gps: start the tracking
- Show saved performance
- About: license and some info



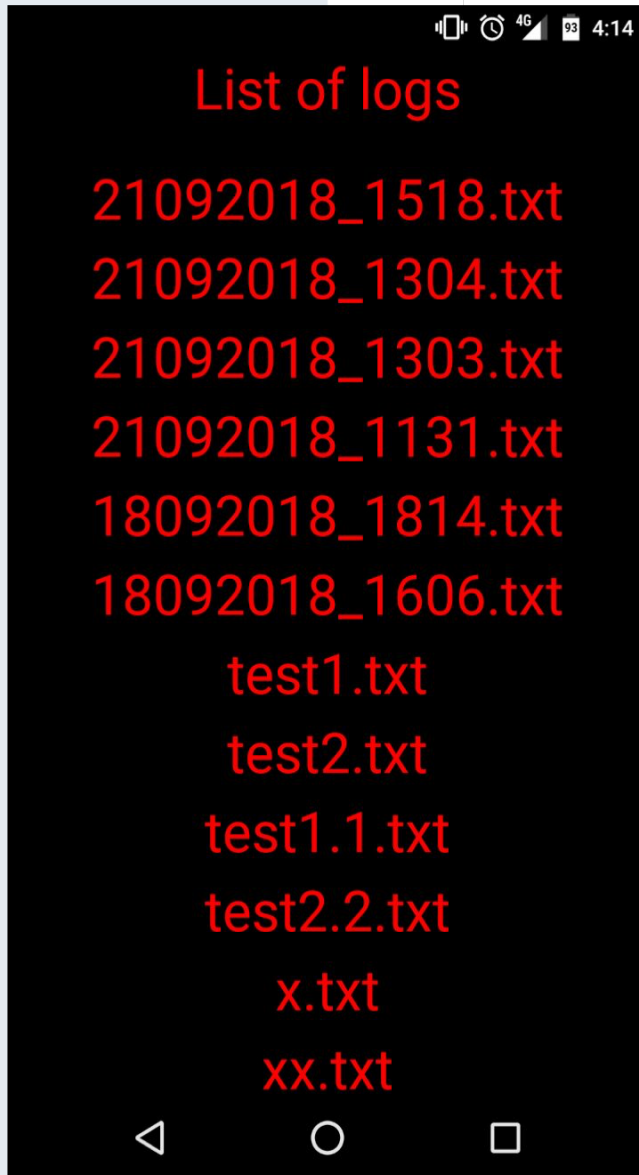
# StatBike: tracking activity



- Accessible via “Gps” button
- **Start button:** start a background service that perform tracking with GPS (start delayed of 3 seconds)
- Location update 1 meter and each 100 ms
- **Stop button:** stop the tracking
- **Persistent notify:** remember to the user that tracking is on!
- Toast show start/stop tracking msg



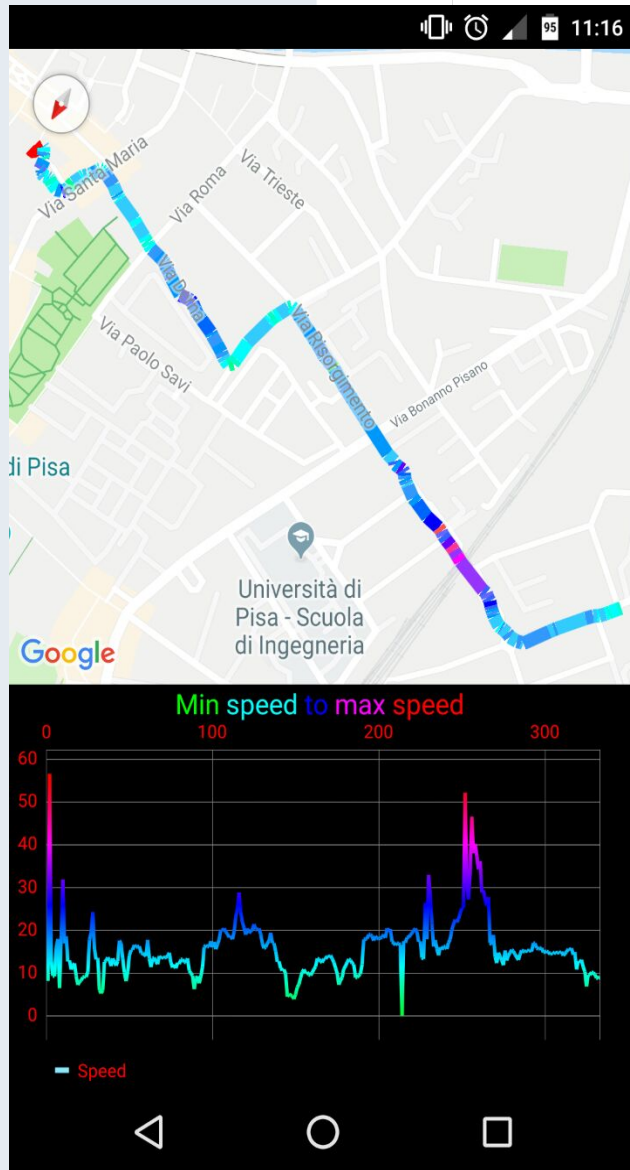
## StatBike: list view activity



- Accessible via “Show saved performance” button
- Show a list of logs
- **Tap on** for show more details
- Give index position to the next activity with ad intent



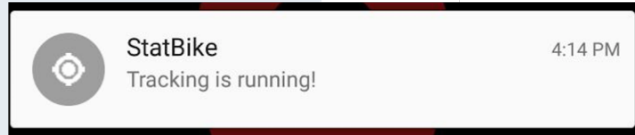
# StatBike: maps and graph activity



- A thread read the data
- Draw a route on maps
- **Twenty color** speed indication
  - One color assigned to range of 5%
  - Distribution of color:
    - Green: 0 to 20% of max speed
    - Cyan: 20% to 40% of max speed
    - Blue: 40% to 60% of max speed
    - Magenta: 60% to 80% of max speed
    - Red: 80% to 100% of max speed
- Speed **graph**
  - Powered by



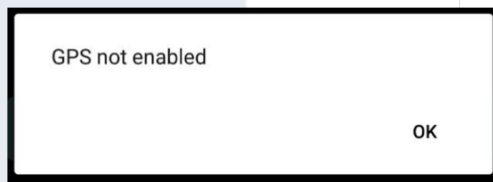
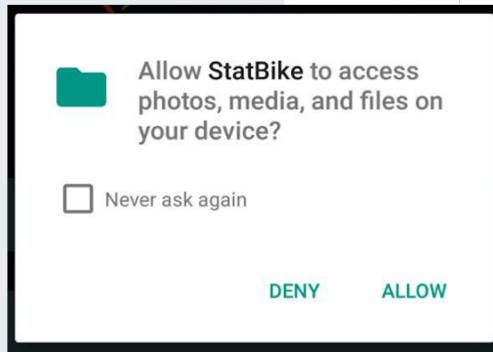
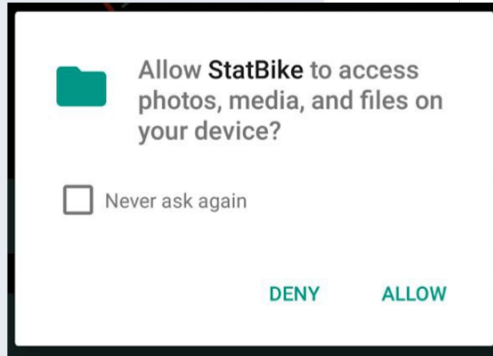
# StatBike: drawback



- Gps use a lot of energy:
- Persistent notify until tracking is performed
- **Accuracy:** necessary use high accuracy with Wi-Fi and Bluetooth scanning
- Do not put the device in your pocket!
- Velocity calculated by position: **inaccurate position lead inaccurate speed!**
- Some infinite speed value substituted by 0 value (due to two samples at the same time)



# StatBike: permission



- **Request App permission:**
  - Read/write external storage
  - Access to fine/granted location
- **Warning message** in case of Gps is off
- **Open Gps settings**

Tested on Android 6.0.1 (Nexus 5)



# StatBike



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# Thank you