Smart Phone Applications: "Pacelogger" and "RouteScout"

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Smart Phone Applications

Two different Smart Phone Applications:

Pacelogger

➤ "Pacelogger" – freeware software used in development; first version

ROUTE SCOUT

➤ "RouteScout" – developed by NuStats; next version

"Pacelogger"

➤ Used for the Oregon State Project (Portland Project)

➤ iPhone and Android versions

➤ Statistics for the Portland project:
  - **872** respondents used the "Pacelogger"
  application, with **308** person's data being deliverable
  - **1173** trips were collected using the "Pacelogger" application
  - One issue that occurred was the incorrect entry of personal information which caused the failure of person identifications to be matched with the other data collected

Summary of Pacelogger

➢ The "PaceLogger" application was developed as a demonstration as a specific proof-of-concept

  1) recruited household travel study participants would be willing and able to collect GPS data via SmartPhone during their travel date

  2) this GPS data could be successfully linked back to travel diaries to provide additional analysis and modeling value.

➢ "PaceLogger" successfully captured detailed GPS trip data for over 870 study participants, demonstrating that SmartPhone applications could serve as an inexpensive, easily deployable means of gathering accurate supplemental trip level GPS data for adding value to traditional household travel study trip data

Summary of Pacelogger – part 2

➢ From a development standpoint, PTV NuStats chose to modify an existing freeware (license free) SmartPhone application originally designed to capture bicyclist travel patterns for the purpose of advocating for bicycle infrastructure improvements.

➢ This application, CycleTracks (see summary below or access software at http://itunes.apple.com/us/app/cycletracks/id338203326?mt=8) was developed with support from the San Francisco County Transportation Authority, but is no longer in active use.

➢ PTV NuStats adapted the program by building an interface for capturing traveler information so that the record of GPS traces could be easily tied to participant recruitment and retrieval data.

➢ PTV NuStats did provide a $10 per household member incentive for using the PTV PaceLogger application, recruitment staff felt that this incentive was not the primary driver of respondent participation, but rather that curiosity, novelty, and respect for technological efficiency underscored the effort
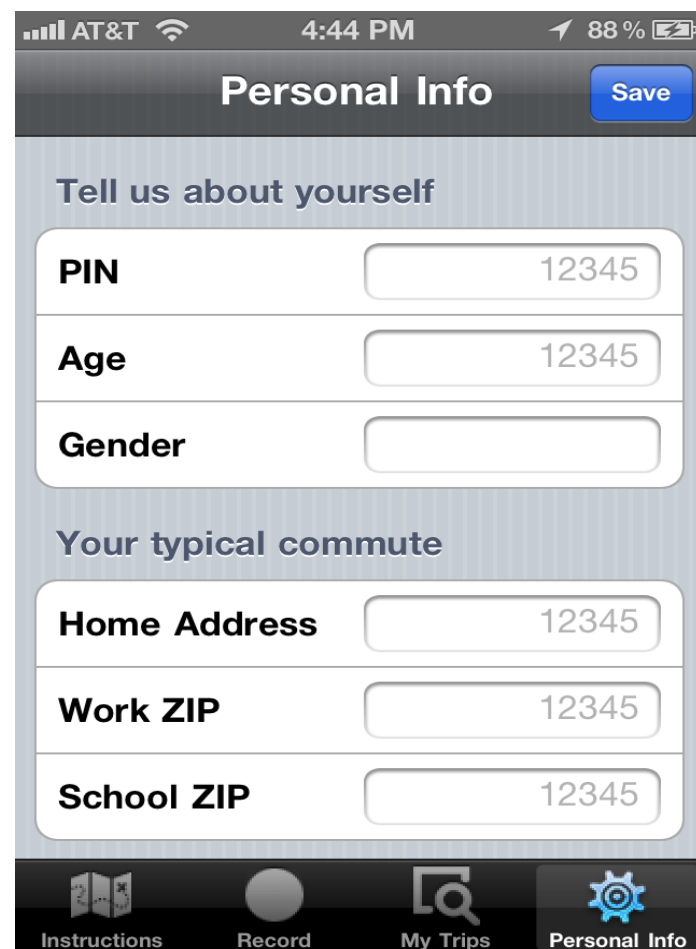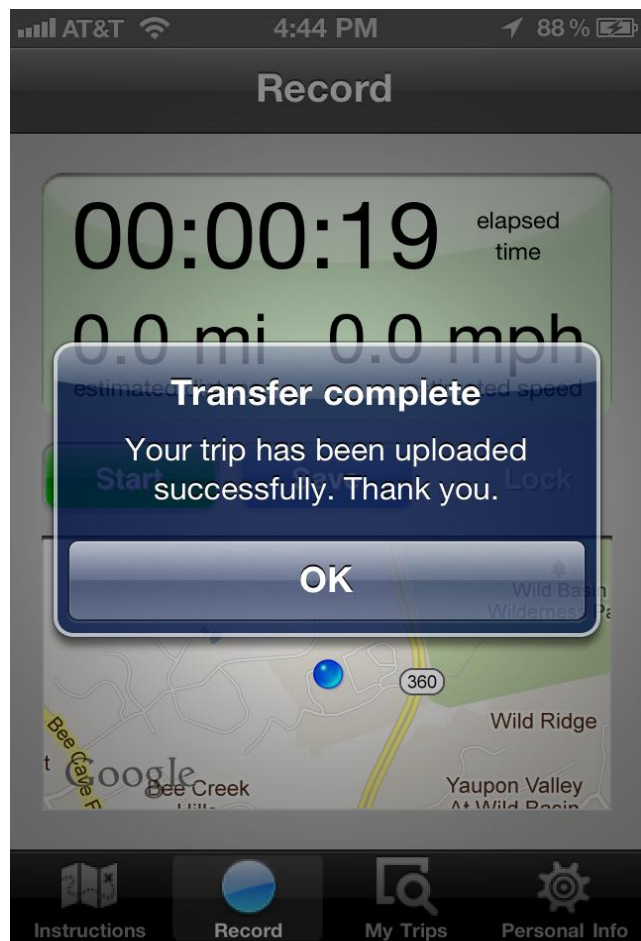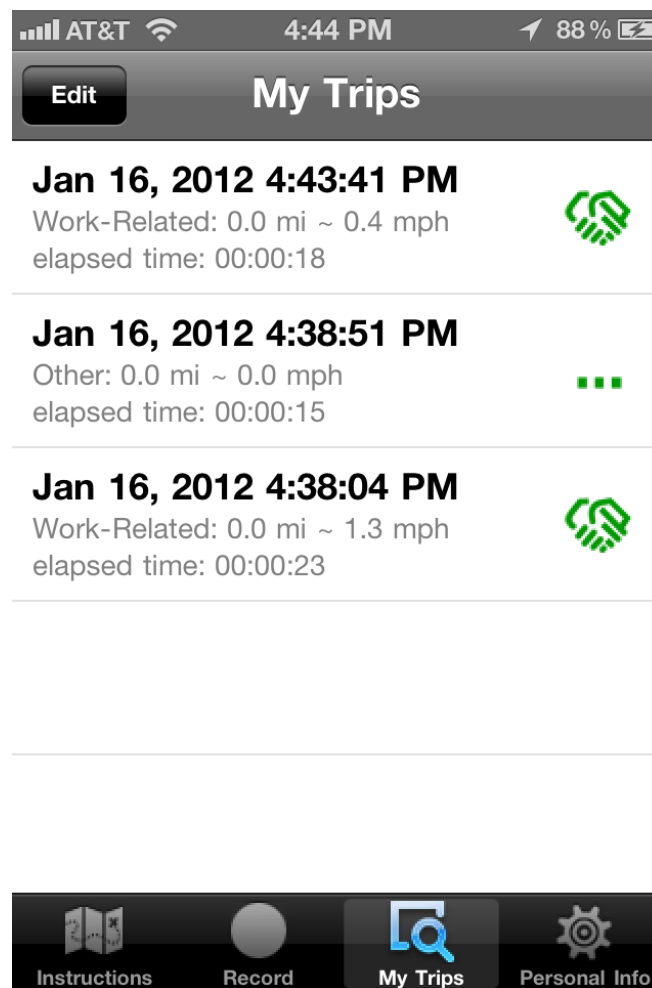
To Start trip and Save location
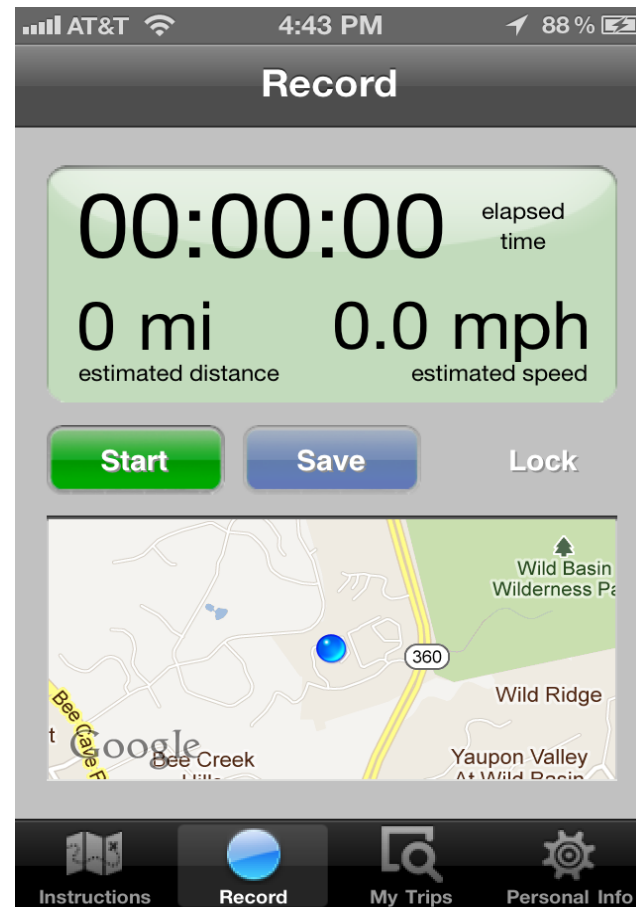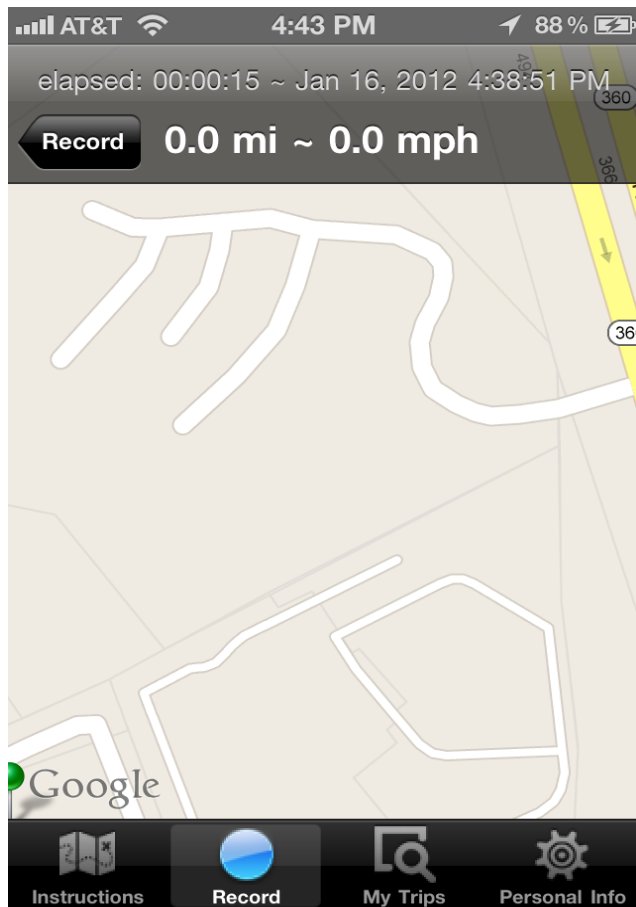
Shows elapsed time and trip purpose
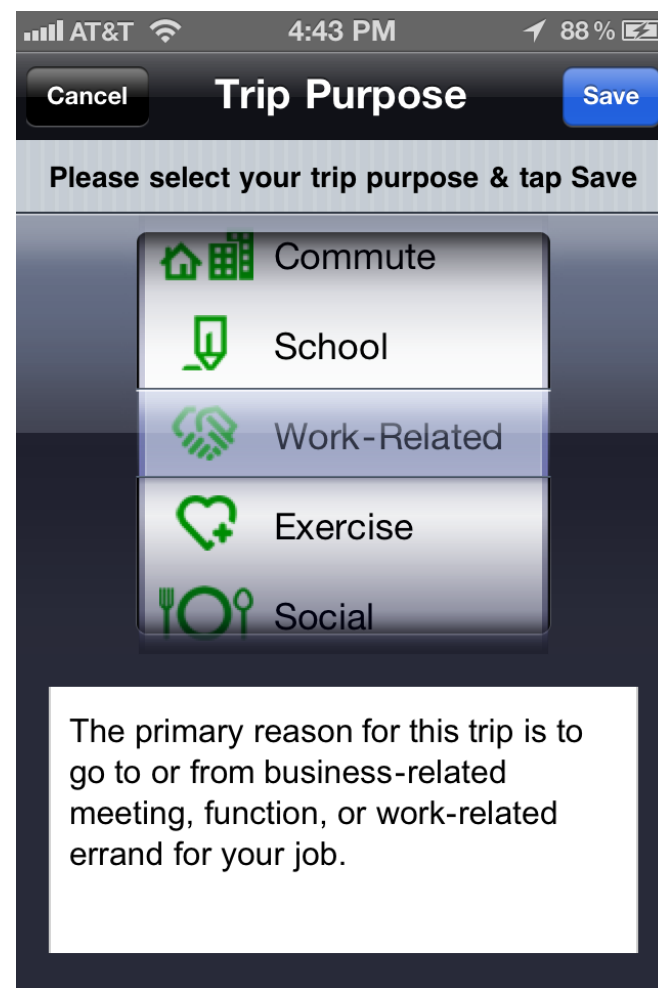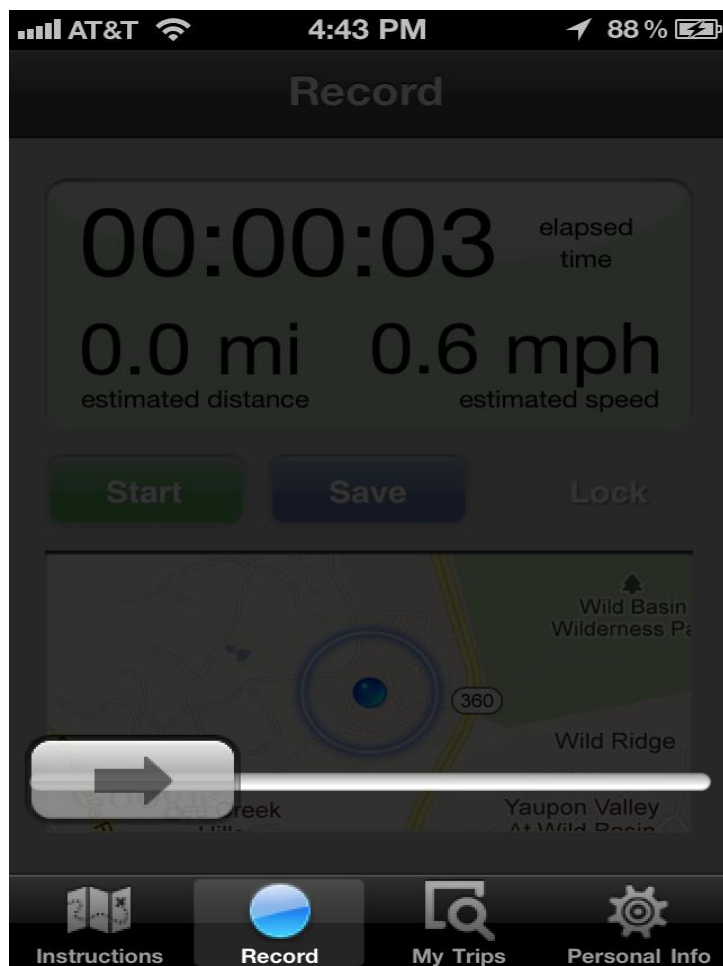
Data is uploaded and Personal info verified

History of trips made for quick summary of data collected

"RouteScout"

➢ Next version for Smart Phone Application for Data collection and GPS

➢ Real-Time GPS and Activity Logging for Travel Surveys

➢ Additional mode available for data collection

➢ Quicker data access

➢ Supports modern data modeling methodologies by collecting relevant data efficiently

"RouteScout"

➢ Ease of Use

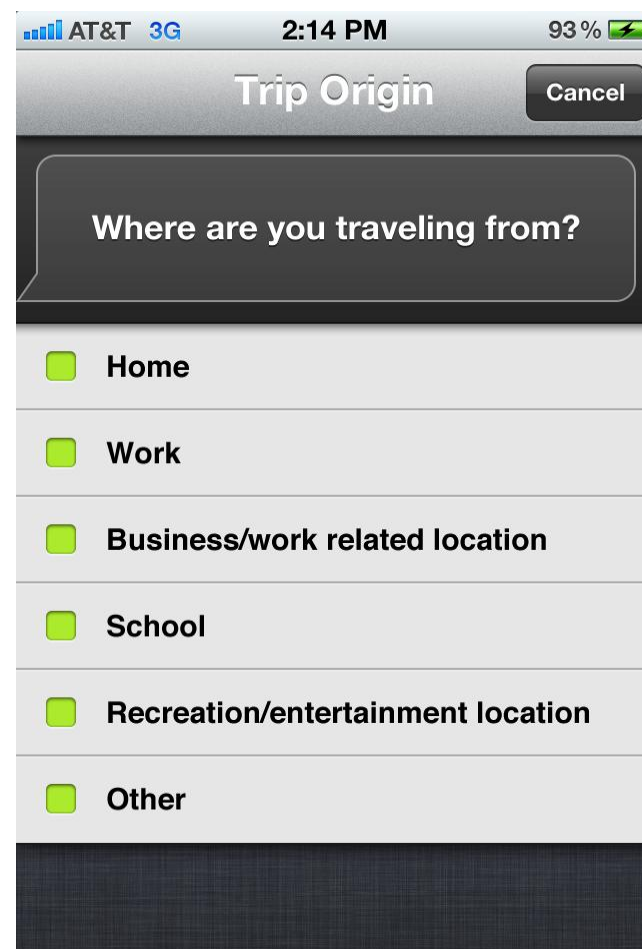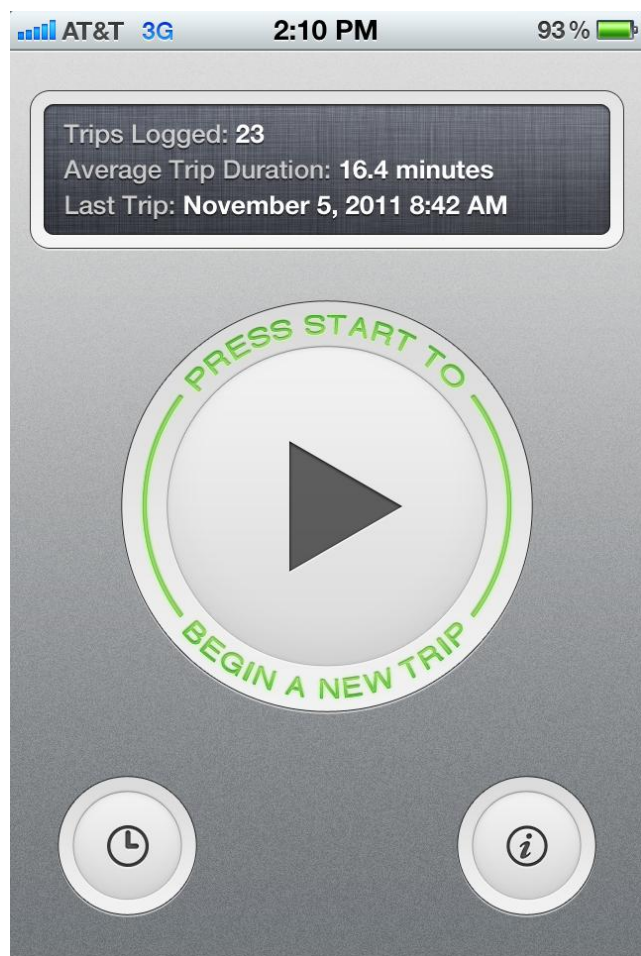   ➢ Unintrusive and Easy

➢ Improved Trip Diary Accuracy

    ➢ Real-time collection of activity information as the respondent makes the trip

➢ Lower Operational Costs

    ➢ Stand-alone GPS data loggers incur costs to purchase, maintain, deliver, and recover

"RouteScout" Start and Location

Trip Purpose and Mode

End Trip and Stop Recording
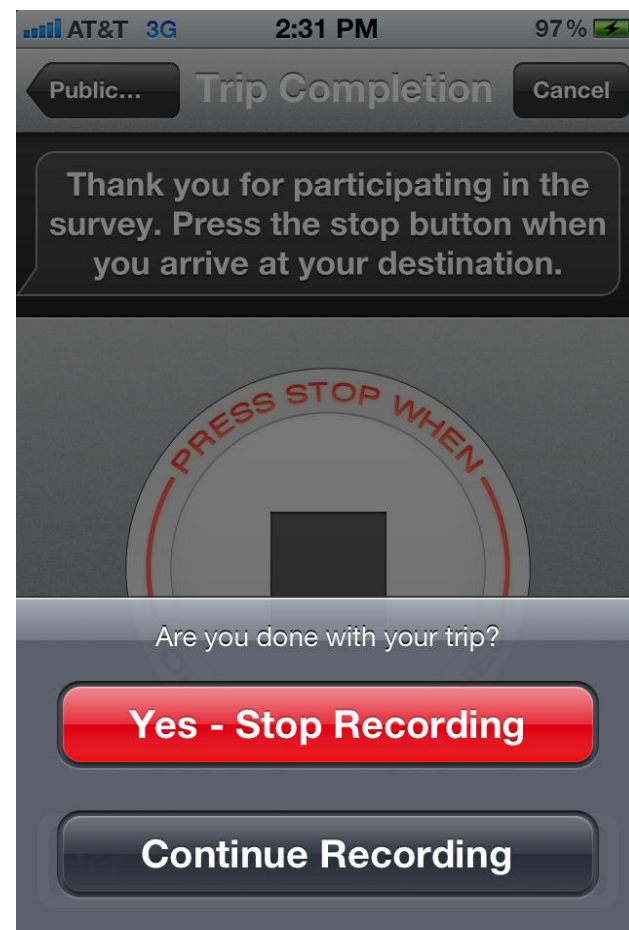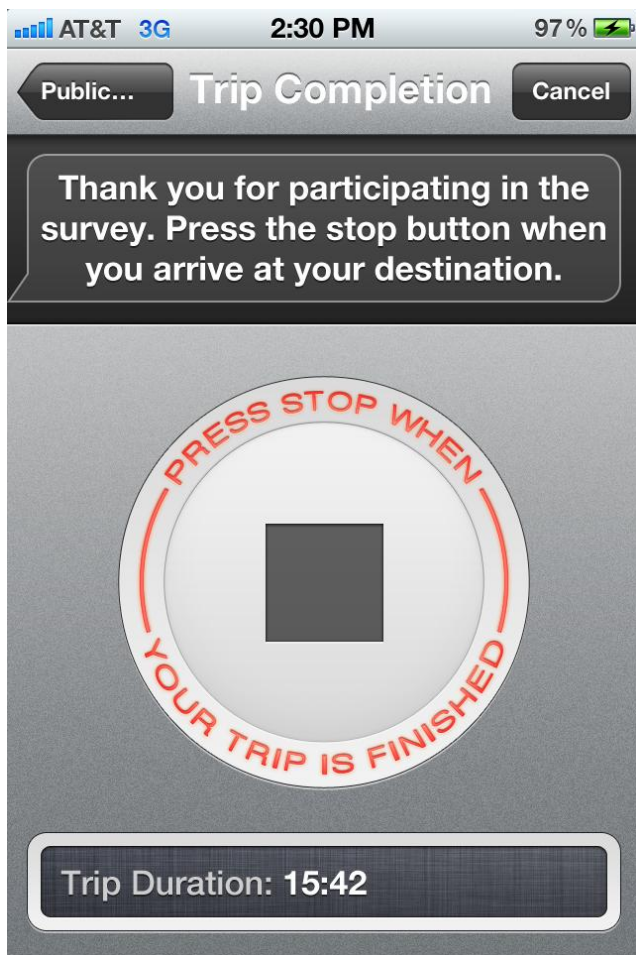
Summary

Pacelogger

- ➤ "Pacelogger" successfully used for the Portland project
- ➤ Reduces the hardware costs
- ➤ Latest version is "RouteScout", provides Real-Time GPS and Activity Logging for Travel Surveys
- ➤ Battery drainage
    - ➤ Guidelines for Respondents to minimize battery drainage:
        - ➤ Avoid running power wasting applications such as your music player, <u>video</u> player, Internet browser and gaming applications.
        - ➤ Turn off your 3G and Wi-Fi receiver or Bluetooth if you are not using them
        - ➤ Decrease your phone's back light or screen brightness
        - ➤ Run the battery charge as low as possible before recharging
        - ➤ Disable ring tones, message alert tones, key tones and other superfluous noises
        - ➤ Respondents using their own Smartphone are used to charging their devices on a regular basis

Questions and Answers