



Florida Department of Transportation Research

Smart Phone Application to Influence Travel Behavior (TRAC-IT Phase 3)
BD549-35

This project marks the third and final phase of a study on the use of personal electronic devices to influence travel behavior. In Phase 1 (BD549-02), researchers developed an application called “TRAC-IT,” which uses global positioning (GPS) to track individual travel routes. In Phase 2 (BD549-24), they enhanced TRAC-IT to record trip data over long periods, analyze the data, and provide feedback to users to help them identify more efficient travel choices.



GPS and travel path predictor tool help travelers choose most efficient routes.

The objectives of Phase 3 were to adapt TRAC-IT for use with GPS-enabled cell phones and enhance it to be able to record data from

travel using different modes (car, bus, bike, etc.). The cell phone system selected for testing had to be easily available, inexpensive, and widely used.

The GPS functionality allows TRAC-IT to obtain data respective to the traveler’s location. It also records the duration and speed of each trip. TRAC-IT can send the data to a central server for rapid analysis and return feedback to the user. TRAC-IT provides visual feedback of the completed travel route in the form of a map on the phone screen, along with suggestions for making similar future trips more efficient. TRAC-IT also includes a path predictor that can anticipate a probable route to a frequent destination based on the traveler’s past choices. Using the GPS capability, the predictor analyzes the likely route in real time, locates traffic events on the route, and alerts the traveler so an alternative can be selected.

Currently, TRAC-IT can only be used with Sprint-Nextel’s CDMA and iDEN networks. However, the researchers anticipate that it will be able to be used on other provider networks during 2009. When fully developed, TRAC-IT may include a link to Florida’s 511 traffic information system. In the future, TRAC-IT may be able to significantly affect travel behavior by offering more efficient travel choices, including alternative transit modes. The resulting cost and time savings would benefit travelers and contribute to the overall efficiency of the state transportation system.