USC CSci546: Intelligent Embedded Systems (Spring 2010)

Assignment 3: USC Tour Guide

1 Objective

- Combine Assignment 1 and Assignment 2 to make it a complete USC guide application and add features like categories, event information, text-to-speech.

2 The assignment tasks

- Use the buildings file and parse it as in assignment 1. In addition to the older fields, extract 'type (eg. Dining) information. Display a menu of building types such that choosing a type displays a list of buildings of that type, sorted by distance from current location. Choosing a building from this list should compute the shortest route as in assignment 2. For this step, you can ignore copies of buildings (as in assignment 2).

- Provide an option to add new buildings (or landmarks). Use current GPS location and a name, type, and description provided by the user. Create an additional field for the closest building from the database based on distance. This will be used when the user wants to route to these new locations. For example, if one can add 'Gate 6' as a landmark with type 'entrance' and the application could pick KAP as the closest building. When the user wants to route to Gate 6, the application simply routes to KAP and then to Gate 6.

- Go to www.usc.edu/calendar, click on "Todays events" link. Show information about these events by fetching and parsing the data from this link. If given, find out location information for the event from parsed data and provide route guidance from current location to event locations when clicked on a particular event.

- Provide an option for audio directions. Use text to speech library in Android for this.

3 Submission instructions

- Assignment is due on March 12 11:59pm

- This is a group Assignment. One submission per group is required

- Email a .zip file of your project directory from Eclipse workspace to nimkar@usc.edu

- Code will be evaluated on Android SDK version 1.6

4 Resources

- Using Text-to-Speech in Android

- Android Discussion Groups: http://code.google.com/android/groups.html

- CS 546 Mailing List: cs546usc-s10@googlegroups.com