WifiGeolocator

Jonathan Mellor, Craig Weir

The WifiGeolocator is an application designed to be used by anyone. It has many functions including searching for access points, and analyzing the access points around the user.

Technologies:

* The main framework is using Cordova 2.2.0, JQuery, JQuery UI, and JQuery Mobile.
* To scan for networks, a plugin for Cordova written in Java is being implemented.
* HTML5 local storage is used for storing user settings.
* PHP and MySql are being used server side for long term data storage and data validation.

Summery of work accomplished (programmer, time):

* Cordova Wifi scanner plugin (Jonathan, 8 hours)
* Data Storage (Jonathan, 6 hours)
* Google Maps and Markers (Jonathan, 4 hours)
* Analyze Screen (Jonathan, Craig, 8 hours)
* General UI (Craig, 3-4)
* Settings Page and Storage (Craig, 4)
* Misc. (Jonathan, Craig, 4 hours)

Work reserved to version 2

* Search for access points
* Locally store access points with one bulk upload at a later time
* Connect to networks from analyze screen
* Improved navigation on Google maps
* Additional settings for new functions
* Fix performance issues

Changes as a result of difficulties

* A version for iOS has been pushed back because as of iOS 5, wifi scanning is not allowed.
* A Search screen was put off until a later version due to performance problems, It crashes every device we’ve tried
* Many of the work reserved for version 2 were pushed back from version 1 due to time constraints

General Problems and Bugs

* The map appears differently on different devices
* The map has large performance issues. Even on the newest, most powerful devices it can take ~10seconds to load
* Loading the application is slow. Old devices can take ~20 seconds
* Having issues with adding progress bars to the analyze screen, need to insert into the analyzeNativePluginSuccessHandler and switch out the signal strength with the bar, however it crashes the app.