Catalyst Mobile Bird App

For Android, iOS, and Windows Phone

## A Bench Project Proposal By Paul Wroe

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## Purpose

The Catalyst Mobile Bird App is a bench project that can provide some focus for skills in the area of field data collection. Users should be able to go to parks and other nature areas to collect relevant data on birds for their personal enjoyment. They should also have the ability to share their data with others. Additionally, users should be able to extract their data from their mobile device and generate reports.

## Product Goal

The product goal is to produce a useable, friendly mobile application that has desirable features that showcase Catalysts' abilities in the mobile market.

## Training Goal

The training goal is to develop mastery of the various mobile platforms by way of feature implementation in an agile environment.

## Product Features

* Camera access - user can pre-configure camera settings and store the settings locally so that when the camera is engaged, it will be ready to go with minimal hassle.
* Geo-tagged pictures - pictures taken will be encoded with their GPS location.
* Localization - program is written so that other languages can be integrated and then selected.
* Data Storage - collected data will be stored locally in a lightweight SQL database.
* Data Export - data can be exported from the SQL database to either a CSV or PDF.
* KML/KMZ export - spatial data can be exported in KML or KMZ format so that it can be viewed in Google Earth.
* Voice notes - user can record audio notes and have them automatically associated with a location.
* Voice Digitization - Voice notes are transcribed into text or may be entered manually.
* 3rd party web services - Application connects to online bird database.
* Social Media - Bird observations, after being entered, can be uploaded to Facebook or other social media with little effort or configuration.

## Discussion of the Project

The Catalyst Bird App can be a showcase for our skills in the area of field data collection. It is possible that gaining skills in mobile data collection could open up opportunities in governmentally run natural resource departments.

Microsoft dropped support for [Windows Mobile](http://en.wikipedia.org/wiki/Windows_Mobile) and created a gap for operating systems and software related to field data collection. ESRI, a front runner in Geospatial Information Systems, has finally come out with an Android version of their mobile mapping software but many other applications are still frozen in the now deprecated Windows Mobile platform.

Although we would not be creating an application as full featured as ArcPad with regards to GIS data collection, we could make an application that could be used to demonstrate the companies’ prowess. This could create some opportunities making task specific software.