



## **Firehouse Grid Search iPad App**

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Proposal for Colorado School of Mines EECS Field Session, Summer 2013

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### **Company Background**

Double Encore is a premier mobile app developer in Denver, CO headquartered on the historic 16th Street Mall. Double Encore recently merged with Xcellent Creations, Inc. another leading app developer in Denver who has hired many Mines graduates over the past 2 years actively engaging in the various career fair activities at Colorado School of Mines. The combined entity offers engineering services to customers on web, iOS, and Android platforms.

### **Project Background**

The Golden Fire Department is looking for a faster and more efficient way to search through maps in order to navigate to an emergency. Traditionally fire trucks have a 3 ring binder with pages of maps that show the city. The main city map is split into a grid that the firemen can then use to drill down to a more specific map of that area of the city. For example, area AH30 could be the upper left corner of the city and AH31 is the area directly to the right of that. In order to find a route to the grid section with the emergency a firefighter has to go back and forth between maps that show the specific grid section to the main map of the city in order to find the surrounding grid number (for example AH31) and navigate using the map. The issue with using recent technology is that GPS devices are not accurate enough to ensure that firefighters make it to the correct house in case of an emergency.

The primary objective is to create an iPad app that displays the pdf maps, pulled from a specific filesystem on Dropbox, and allows the firefighters to drill down into the grid sections to find the location of the emergency. In order to make it more useful, the app will need to have the ability to easily navigate between surrounding area maps. For example, if the AH30 map is currently displayed swiping to the right would switch to the city section to the right of the current (AH31). As a secondary objective, the firefighters will need to have the ability to add notes and symbols to the pdf maps and automatically push them back to Dropbox so that the whole force has the updated version.

### **Objectives**

1. Develop an iOS application that downloads and stores pdf city maps from Dropbox using

a specific file structure.

2. Allow the user to navigate between and drill down into more specific maps in the application.
3. Provide an in-app search that allows the user to find specific grid section names and display them.
4. If time permits, give the user the ability to add notes and symbols to the map and push the updated map pdf back to Dropbox.

### **Requirements**

1. Knowledge of mobile development in iOS (Objective-C) preferred.
2. Access to an iOS development preferred, but not required

### **Work Environment**

We anticipate a few face to face meetings at our office on a weekly basis.