**Find A Golfer – Android Release/Deployment Documentation**

Developing and deploying Android applications using Eclipse is simple and easy, however, it does not support custom build steps, build configurations, or the incorporation of code obfuscation and shrinkage steps that are necessary to ready an Android application for release. In order to create a custom single-command release build process, we will use Apache Ant, a Java library and command line tool for build process automation.

1. Download Apache Ant: <http://ant.apache.org/bindownload.cgi>
2. Install Apache Ant: <http://ant.apache.org/manual/install.html>
3. The Ant build script, build.xml, is located in the root DSC Mobile project directory. It is currently working for SDK 7 (2.1).
4. Test your Ant installation by navigating to your root project directory and typing “ant” at the command prompt. You should see ant help.

If this is the first time you have attempted a build, then please note:

1. Open build.xml, which is in the root project directory. If you are receiving warnings similar to: “taskdef class com.android.ant.SetupTask cannot be found”, then perform the following:
   1. Open up a command window
   2. Execute the command “android update project –p “FULL PATH TO THE DIRECTORY CONTAINING YOUR build.xml FILE”
   3. This should create a local.properties file inside your project and link the build.xml file to your project.
   4. Open up local.properties and add the following: proguard.dir = /Directory/WhereYouInstalledProguard.

For code obfuscation and shrinkage, we are using ProGuard, as recommended by Google. The ProGuard JAR is currently under source control in the root/’proguard’ directory. The ‘config.txt’ file is where ProGuard configurations are stored. Verbose output from ProGuard may be dumped into the other text files located within that directory.

Before creating a release package, ensure that there are no obfuscated .class files in your /bin\_release/classes folder, and make sure you remove everything contained in the /bin\_release/classes/classes directory. To create a release package, open a command prompt and navigate to your root project directory (…\Android\DSCMobile). Execute the following command:

> ant release

If the build was successful, you will see the message ‘BUILD SUCCESSFUL’ at the end of the ant output. If not, please take note of the error and report it to your project leader. Upon a successful build, your obfuscated, signed, and optimized .apk can be found in the ‘bin\_release’ folder under your root project directory.