

RaiderNAV Platform Document

Description of Platform

RaiderNAV operates on the following platform:

- Android version $\geq 4.0.3$ (android-15 with ABI armeabi-v7a) to support approximately 100% of Android devices.

IDE

The following IDEs are used for convenience, but are not strictly necessary for development.

- Android Studio version $\geq 3.1.0$

Frameworks

The RaiderNAV application uses the following frameworks:

- Google Maps API $\leq 9.2.0$. No later version will work properly on Android 4.0.3

Non-original Artifacts and Changes Made

The RaiderNAV application uses the following libraries:

- Google Gson 2.8.2 is used to store/retrieve schedule objects in JSON format.
- GoogleDirectionLibrary 1.0.4 is used to facilitate generating map directions; It is available at <https://github.com/akexorcist/Android-GoogleDirectionLibrary>; Some later versions do not work properly with Android 4.0.3 and expect higher versions of Google Maps API than 9.2.0.

Installation Instructions

To install RaiderNAV on an Android device or emulator, proceed as follows:

1. Download release APK file from <https://github.com/aluminiumi/RaiderNAV/tree/master/app/release/app-release.apk> to Android device or emulator.
2. Open app-release.apk file from within Android device or emulator.

If a menu is presented asking with which tool you would like to open the APK file, choose the package installer.
3. Confirm choice to install, if confirmation is required.

Configuration and Compile Instructions

Compilation and dependency management is handled by Gradle version $\geq 3.1.0$. In Android Studio, all compile tasks are done automatically as files are updated.

Compiling Without Android Studio

To compile without using Android Studio, proceed as follows. Instructions assume a Linux environment; adapt as appropriate for Windows and Mac OS X environments.

1. Download the repository if necessary

```
cd /place/to/save/code  
git clone https://github.com/aluminiumi/RaiderNAV.git
```
2. Build

```
cd RaiderNAV  
./gradlew assembleRelease
```

Resulting app will be found at:
RaiderNAV/app/build/outputs/apk/release/app-release-unsigned.apk

Running Instructions

In order to run the RaiderNAV application after it has been installed, proceed as follows:

1. On Android device or emulator, navigate to installed application listing.
2. Select RaiderNAV entry on screen.

Username/Passwords Needed

Google Maps API Keys

Google Maps API requires that applications have unique keys.

The Google Maps key for this application is:

AizaSyAoEB-siN9KvZrDYHwhCQnd8ixgS5SG3as

The Google Maps Directions key for this application is:

AIzaSyBPv46SlN7xdVRr62stX4roZi_2Afb65u0

The keys are stored in:

RaiderNAV/app/src/debug/res/values/google_maps_api.xml

RaiderNAV/app/src/release/res/values/google_maps_api.xml

In the event that the key no longer works and must be updated, navigate to <https://console.developers.google.com/apis/credentials> and follow the instructions to create a new private keystore and a new key tied to a Google account. Insert the key into the above-listed files.

Testing Instructions

Unit testing is easily accomplished in Android Studio. To perform unit testing in Android Studio, expand the project side view (generally a tab on the left side) according to the following tree:

```
app →  
    java →  
        com.deaftone.tableware.raidernav (test) →
```

You may either right click on com.deaftone.tableware.raidernav (test) and select

```
Run «Tests in «raidernav»»
```

to run all available unit tests, or right click on any of the unit test files under this directory and select Run to run only the selected unit tests.

The testing results will appear in the Run side view (generally located on the bottom).

Testing Without Android Studio

Testing can be performed without Android Studio. To perform tests without Android Studio, navigate to the root directory of the project and run

```
./gradlew test
```

Unlike in Android Studio, the results will not indicate which tests were passed (only how many). It will, however, report all tests which failed.