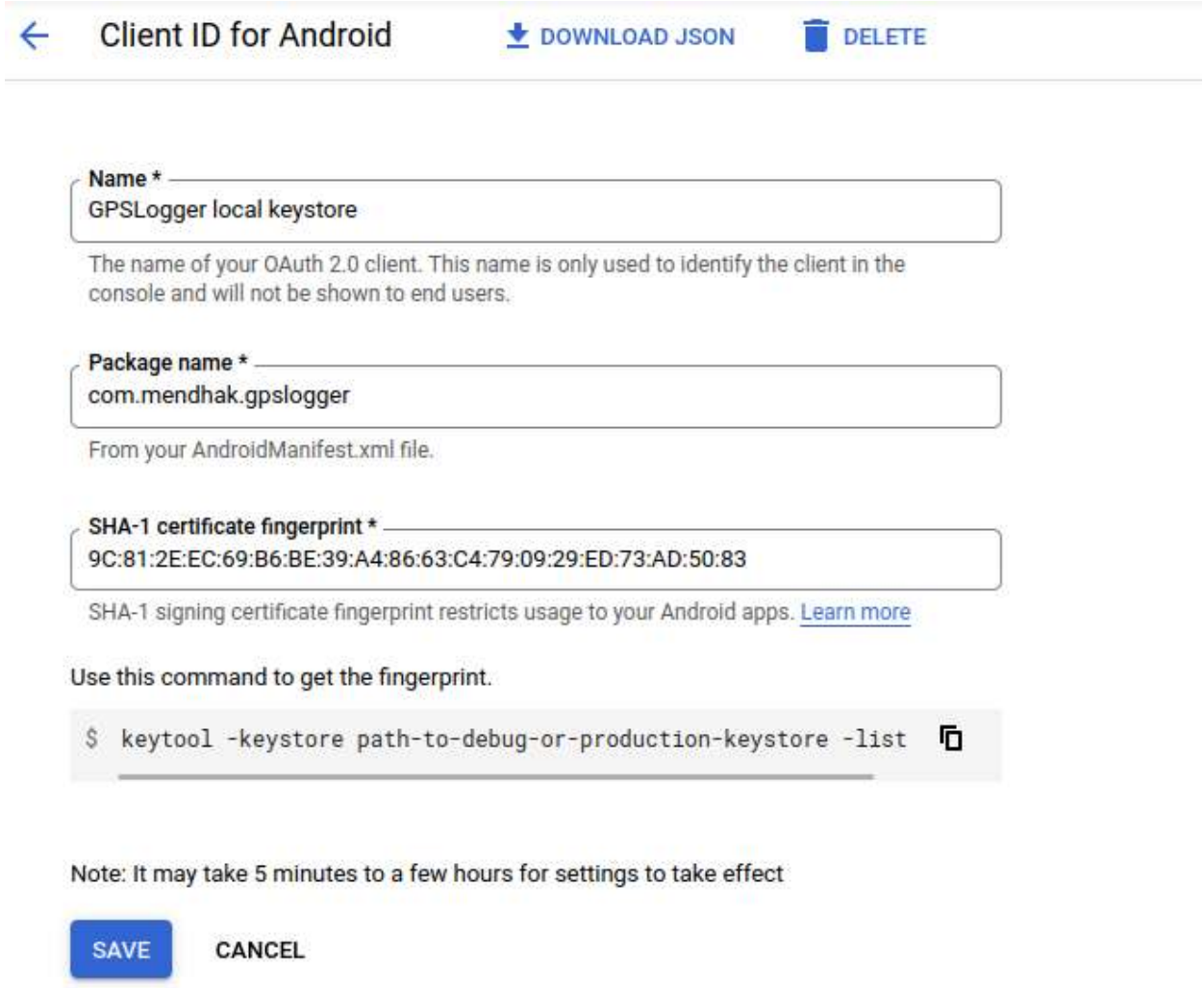
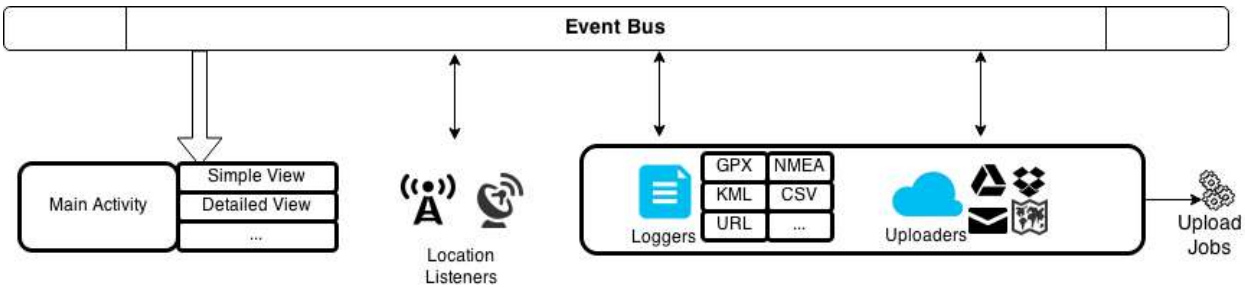


Overview

GPSLogger is composed of a few main components;



Event Bus

The Event Bus is where all the cross communication happens. Various components raise their events on the Event Bus, and other parts of the application listen for those events. The most important one is when a location is obtained, it is placed on the event bus and consumed by many fragments.

GPS Logging Service

GPSLoggingService is where all the work happens. This service talks to the location providers (network and satellite). It sets up timers and alarms for the next GPS point to be requested. It passes location info to the various loggers so that they can write files. It also invokes the auto-uploaders so that they may send their files to DropBox, OSM, etc.

It also passes information to the Event Bus.

GPS Main Activity

This is the main visible form in the app. It consists of several 'fragments' - the simple view, detailed view and big view.

It takes care of the main screen, the menus and toolbars.

The fragments listen to the Event Bus for location changes and display it in their own way.

Session and AppSettings

Floating about are two other objects. `Session` contains various pieces of information related to the current GPSLogger run, such as current file name, the last known location, satellite count, and any other information which isn't static but is needed for the current run of GPSLogger.

`AppSettings` is a representation of the user's preferences.

These objects are visible throughout the application and can be accessed directly by any class, service, activity or fragment.

Assembling the APK for Github release

The 'assemble' Gradle task will build, and it also looks for a GPG key to sign the APK with. It needs some setup first:

Create `~/.gradle/gradle.properties` which contains the release store and its key details, as well as the GPG key details

```
RELEASE_STORE_FILE=/path/to/the.keystore
RELEASE_STORE_PASSWORD=xxxxxxxxxxxxxxxxx
RELEASE_KEY_ALIAS=gpsloggerkey
RELEASE_KEY_PASSWORD=xxxxxxxxxxxxxxxxx
signing.gnupg.keyName=xxxxxxxxxxxxxxxxx
signing.gnupg.passphrase=xxxxxxxxxxxxxxxxx
```

Ensure that gpg2 is installed

```
sudo apt install gnupg2
```

And ensure that the above gnupg.keyname is in the gpg keystore, have a look using `gpg2 --list-secret-keys`

Once these pieces are in place, the 'assemble' task should build the APK, sign it, and create a checksum too.
If it doesn't appear in the gpslogger folder, run 'copyFinalAPK' so that it copies the APK, ASC and SHA256 files to the gpslogger folder.
Finally upload to Github Releases.

F-Droid release

F-Droid watches the Github repository for tags, and will build those tags, and sign it using its own key. So, there isn't too much to do.

Ensure that gpslogger/build.gradle `versionCode` and `versionName` contains the latest version number to be released.

Finally tag the commit,

```
git tag -s v128
git push origin master --tags
```

Working notes for F-Droid

Use the fdroidserver docker image. Clone the fdroid metadata repo and make changes to the com.mendhak.gpslogger.yml file.

```
git clone https://gitlab.com/fdroid/fdroiddata.git
cd fdroiddata

# https://f-droid.org/en/docs/Submitting_to_F-Droid_Quick_Start_Guide/
# initialize the metadata repo
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master init -v

# lint your metadata yml
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master lint
com.mendhak.gpslogger -v
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
```

```
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master
readmeta

# see if the latest tag will get picked up.
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master
checkupdates --auto com.mendhak.gpslogger
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master
rewritemeta com.mendhak.gpslogger

# build
docker run --rm -v /home/mendhak/Android/Sdk:/opt/android-sdk -v
$(pwd):/repo -e ANDROID_HOME:/opt/android-sdk
registry.gitlab.com/fdroid/docker-executable-fdroidserver:master build -
v -l com.mendhak.gpslogger
```