4.3 Navigation Applications

Overview

Several mobile applications exist to assist with field navigation using OpenStreetMap as a baselayer and functioning offline for low-connection environments. Options include OSMAnd [1] and Maps.me [2].

While navigation tools are not *required* for data collection, they can be extremely useful for data collection teams in navigating to field locations, as well as for supervisors and project managers to understand where their teams have been.

Additional benefits of navigation applications include:

- **Collecting GPX tracks**: GPX tracks can be used to record field movement as well as recording highway and road routes for later digitization and upload to OSM.
- **Adding KML files**: Adding point layers to a navigation map can help field mappers navigate to specific locations or survey blocks that are not in OSM.

Which navigation application should I use?

I want to…	Maps.me	OSMAnd
Use OSM data to find my location	☒	☒
Find my location offline	☒	☒
Add kml files for navigation guidance	☒	☒
Record GPX tracks*	×	☒
Add data to OSM within app	☒	×

Presentation Introduction to Navigation Applications Introduction to Navigation Applications [3]

OSMAnd

OSMAnd is a global mobile map viewing and navigation app for online and offline OSM Maps. It is used for recording tracks as well as mapping features. It provides easy way to record and submit information in the field.

Skills and Technology Needed

- Internet Connection (for application download)
- Mobile devices (see Hardware for specifications.)
- Android

Resources

- LearnOSM: https://learnosm.org/en/mobile-mapping/osmand/
- OSM Wiki: https://wiki.openstreetmap.org/wiki/OsmAnd

Download

- Google Play: https://play.google.com/store/apps/details?id=net.osmand&hl=en_US

Maps.Me

Maps.me is a navigation application that uses OpenStreetMap data, and can be used offline. It is suitable for collection Point of Interest (POI) information, as far as these fit within the types of data that Maps.me shows you on the map.

Skills and Technology Needed

- Internet Connection (for application download)
- Mobile devices (see Hardware for specifications.)
- Android or iOS device

Resources

- Maps.me: https://maps.me
- OSM Wiki: https://wiki.openstreetmap.org/wiki/MAPS.ME

Download

- Google Play: https://play.google.com/store/apps/details?id=com.mapswithme.maps.pro&hl=en_US

Considerations for downloading and use by large numbers of individuals

- Download the apk files prior to installation. These are offline files that can be shared between users and allow for offline installation.
- For Maps.Me, share basemaps with an offline file rather than requiring each user to download an entire basemap (i.e. Liberia, northern Botswana) on data or wifi. To get an offline map file, you will need to download the map to one device. Plug the device into a computer and navigate to the file folder. The basemap file in this folder can be copied and pasted to the appropriate file in other devices.

Linked Resources

1. https://osmand.net/
2. https://maps.me/
3. https://docs.google.com/presentation/d/1pio6SeVv93IVWl2_UM6tg2CR-AJE1SfqEKUJZM90o0g/edit?usp=sharin