



Beebook: light field mapping app

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In the last decade the mobile systems for field digital mapping were developed (see Wikipedia for “Digital geologic mapping”), also against many skeptic traditional geologists.

Until now, hardware was often heavy (tablet PC) and software sometime difficult also for expert GIS users. At present, the advent of light tablet and applications makes things easier, but we are far to find a whole solution for a complex survey like the geological one where you have to manage complexities such information, hypothesis, data, interpretation.

Beebook is a new app for Android devices, has been developed for fast and easy mapping work in the field trying to try to solve this problem. The main features are:

- off-line raster management, GeoTIFF and other raster format using;
- on-line map visualisation (Google Maps, OSM, WMS, WFS);
- SR management and conversion using PROJ.4;
- vector file mash-up (KML and SQLite format);
- editing of vector data on the map (lines, points, polygons);
- augmented reality using “Mixare” platform;
- export of vector data in KML, CSV, SQLite (Spatialite) format;
- note: GPS or manual point inserting linked to other application files (pictures, spreadsheet, etc.);
- form: creation, edition and filling of customized form;
- GPS: status control, tracker and positioning on map;
- sharing: synchronization and sharing of data, forms, positioning and other information can be done among users.

The input methods are different from digital keyboard to fingers touch, from voice recording to stylus. In particular the most efficient way of inserting information is the stylus (or pen): field geologists are familiar with annotation and sketches. Therefore we suggest the use of devices with stylus.

The main point is that Beebook is the first “transparent” mobile GIS for tablet and smartphone deriving from previous experience as traditional mapping and different previous digital mapping software ideation and development (MapIT, BeeGIS, Geopaparazzi). Deriving from those experiences, we developed a tool which is easy to use and applicable not only for geology but also to every field survey.