



SuperSurv (For iOS) Specification

Overview

SuperSurv, the mobile survey system, is designed for field data collection, which integrates GIS and GPS technologies and works on iOS platform. The main functions include data collection, real-time positioning, map display and guidance. With GPS signal and hand drawing function, point, line and polygon data can be collected quickly. Moreover, the waypoint and track can be recorded and managed while manipulating. The most important is that the system supports global coordinate system, and the collected data can be saved in SHP and GEO format for further use.

Function and Specification

I. Manipulating and settings

1. Support to pan and zoom map to full extent; map can be easily zoomed in/out by multi-touch.
2. Thematic function menu is provided with integrated toolbars, which makes effective use of the screen.
3. Use SPP project file to save the settings of features, layers and preferences.
4. The previous project environment can be set as system default settings.
5. Support to switch the basemaps. STC cached map (pre-generated map file) is supported; and support to connect to access the map services published by SuperGIS Server.
6. Guidance status bar and GPS status bar are supported. They can be set as shown or hidden.
7. Users are allowed to set the tolerance of map manipulation to more easily select the features or functions they need.
8. Support to apply Online Map, like Open Street Map, as the basemap for data collection.

II. GPS and Positioning

1. Signals of GPS and e-compass can be received and displayed in real-time with GPS icons and view angle on the map.
2. GPS track and the precision range can be displayed on the map.



3. As GPS is turned on, the current GPS position of mobile device can be transferred to coordinates and corresponded to the coordinate system of the base map. In addition, the current GPS position can be panned to the center of screen.
4. GPS status bar shows the dynamic GPS info, including latitude, longitude, altitude, speed and time. It can be set as shown or hidden.
5. Support to display e-compass to help users recognize the direction the user is heading.

III. Track

1. When GPS is on, the system can display the mobile device's track on the map.
2. Users can record, pause and stop recording track as they need.
3. The track can be saved in SHP and KML format.
4. "Reference Track" can be activated for surveyor's reference. The supported file formats are SHP and KML.

IV. Adding, managing waypoints and guidance

1. The waypoints can be added by GPS signal or manually; the waypoint name is displayed on the map as well.
2. Allow editing and removing waypoints as well as panning the specific waypoint to the center of the map.
3. Allow to set waypoint as destination, and show the direction guidance as well as the shortest distance to real-time GPS position.
4. Waypoints can be exported and imported as TXT, CSV and KML file.
5. When GPS is on, the real-time guidance info will be shown, including waypoints, distance and direction. Users can set the guidance status bar as shown or hidden.
6. Support to show the direction and the straight distance between the current position and the waypoint.

V. Data collecting

1. Point, line and polygon data can be collected and saved as SHP and GEO format.
2. With quick data collecting toolbar, the data of point, line and polygon features can be collected and drawn by GPS and hand drawing; the collected data can be saved into the corresponding layer.
3. Allow undoing and redoing when collecting features; support to pan,



move, edit and remove features and edit attributes.

4. Users can set the anchor to rotate the feature.
5. The attribute table which is used to enter data can be set whether to pop-up automatically after a feature is created.
6. Support to set the time interval to receive GPS signal for collecting data.
7. Customizing attribute table enables users to customize the form of attribute table to quickly enter attributes while collecting data. The supported field formats of table are text, numeric, menu, date, time, GPS and photo.
8. The real-time GPS position value can be recorded and saved in the EXIF after taking a picture. The value can be adjusted manually.
9. Users can set the tolerance for snapping; if there is a vertex within the tolerance range, SuperSurv can help users snap to the vertex.

VI. Layer Management

1. Allow to set the project layers to display and adjust the overlay order as well as layer transparency.
2. Allow to set the color, style and size of feature.

VII. Query

1. Support to query by filtering conditions or query by tapping map. Allow to specify the layer to query and specify query fields
2. Querying by tapping map supports querying multiple layers at once. Users can tap the map to query, and the result would be shown dynamically.
3. Users are allowed to query a single layer by filtering conditions. The corresponding filtering condition page will be shown according to the field formats, and the result would be shown dynamically.

VIII. Measure

1. Allow to draw a line or a polygon to measure the distance or area.
2. The units of distance are kilometer, meter, foot, and mile; units of area are square kilometer, hectare, square meter, square foot, square mile, and acre.
The displayed distance is in kilometer or meter; the displayed area is in square kilometer, hectare or square meter.
3. Feature Measurement is supported; SuperSurv can show the XY



coordinate of point feature, length of line feature, perimeter and area of polygon feature when users tap the map with the tool.

IX. User interface and language

1. User interfaces are available in traditional Chinese and English.

x. Required operating system of mobile device: iOS 6 or higher

XI. Supported Formats

- The data format of point, line and polygon: GEO, SHP
- Raster format: Cached Map in STC format
- GPS track format: SHP, KML
- Waypoint format: TXT, CSV, KML