



## What's New Summary - V2.1

### 📶 Communications

New drivers for more GNSS receiver brands and models.

View [relationship of supported brands and models](#).

### 📶 Installation and activation

The new TcpGPS update comes with new and improved features that you can have at your disposal immediately if you have automatic app updates enabled on your device or by accessing the Google Play Store page on <https://play.google.com/store/apps/details?id=com.aplitop.tcpgps>. All existing data will be retained.

#### Permissions

The new version requires only the following permissions during installation:

- Storage for accessing files and saving results.
- Microphone for recording voice notes.
- Location to get the GPS location of the mobile device.
- Camera to take pictures and use augmented reality.

In some cases, the application may ask for these additional permissions:

- Bluetooth to connect to external GNSS receivers.
- Internet for downloading ESRI maps, syncing with Google Drive and connecting to NTRIP, WMTS and WMS services.

If more permissions are required depending on the Android version, they will be prompted when you run the corresponding option in the app.

### 📶 User Interface

#### Languages

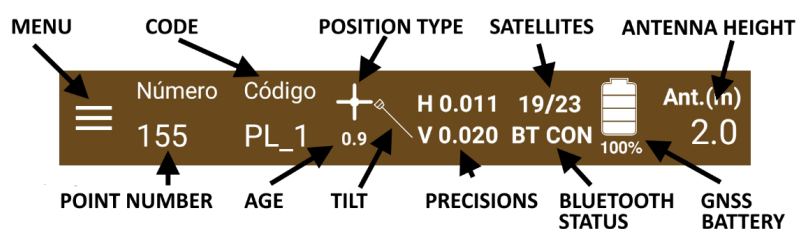
The application is available in Spanish, English, French, Portuguese (traditional and Brazilian).

#### Voice measurement

Instead of pressing a button, you can measure or stake out points using a configurable voice command, such as "measure".

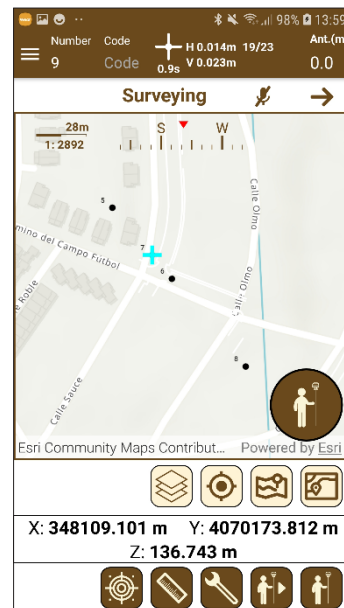
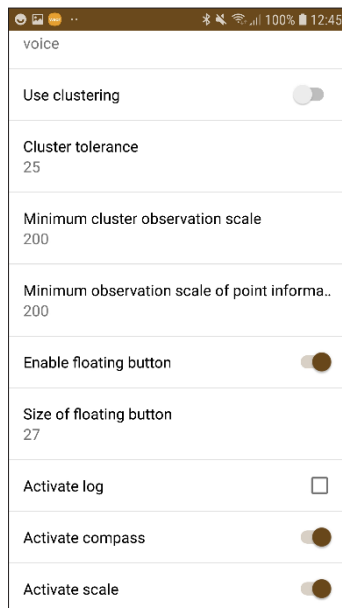
#### New status bar

Added more icons for receivers with IMU and battery status.



## Customizable floating button

It allows to use in survey and stake out a floating button with customizable size, that can be located anywhere on the screen to perform the measurements.



## User Manual

From the application you can access the latest version of the user manual in PDF format.

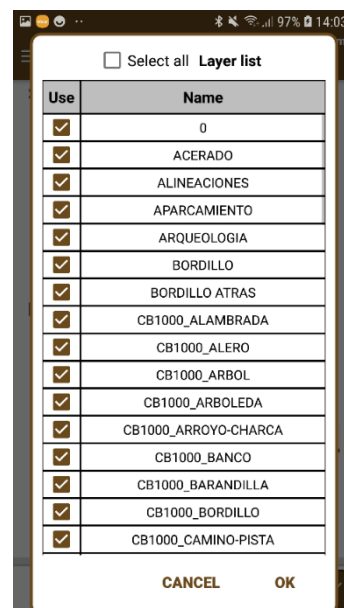
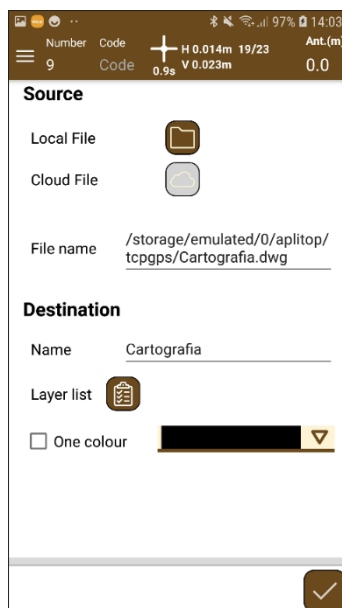
## Suggestions and bugs

Suggestions or bug reporting can now be made from the menu itself.

## 🎯 Maps

### Managing DXF and DWG file layers

In DXF or DWG files, you can select the layers to display. You can also choose whether to render features with their original colors or apply an unique color for the entire drawing.



## KMZ file support

In addition to DXF, DWG, KML, GML, and shape files, files with KMZ extension can now be added as layers.

## Charging speed optimization

The load of mapping layers has been greatly improved, particularly when switching from survey to stake out and vice versa.

# 🎯 Projects

## Coordinate system management

You can now set the default coordinate system, as well as delete those that are not needed.

## Updating coordinate systems

The application allows you to update the supported geoid files and coordinate systems by connecting to a web service.

# 🎯 Survey

## GIS User Data

This new version allows you to add user data of types: text, integer, real, or date to survey layers. Such data can be filled in on a form that is displayed at the end of the feature collection or edited later.

The screenshot shows a mobile application interface for a 'StreetLight' feature. At the top, there is a status bar with the time '13:30' and various icons. Below the status bar, there is a header bar with the following information: 'Number 6', 'Code SL', a plus sign icon, 'H 0.014m 19/23', and 'Ant.(m) 1.5'. The main content area is divided into two sections. On the left, there is a table with the following data: 'Type Points', 'Entities 1', and 'Codes SL'. On the right, there is a table with the following data: 'Name', 'Type', and 'Length'. The 'Name' column contains the following entries: 'Type', 'Height', 'Luminaire', and 'PowerW'. The 'Type' column contains the following entries: 'text', 'real', 'text', and 'integer'. The 'Length' column contains the following entries: '10', '0', '20', and '0'. To the right of the 'Name' column, there are four icons: a document with a cross, a trash can, a plus sign, and a document with a checkmark.

Name	Type	Length
Type	text	10
Height	real	0
Luminaire	text	20
PowerW	integer	0

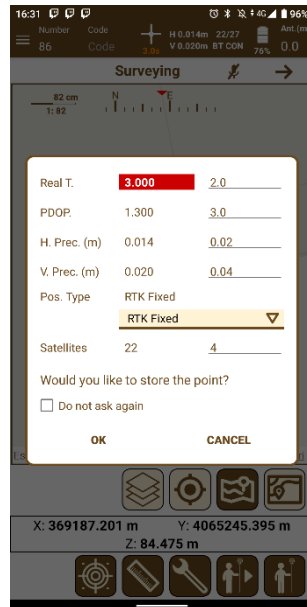
## Inclined measurement

For those compatible receivers that have an inertial sensor (IMU) and this feature has been implemented in TcpGPS driver, the application makes tilting measurement possible, showing on the current status bar of the sensor and reporting if it is out of bounds, needs calibration, etc.



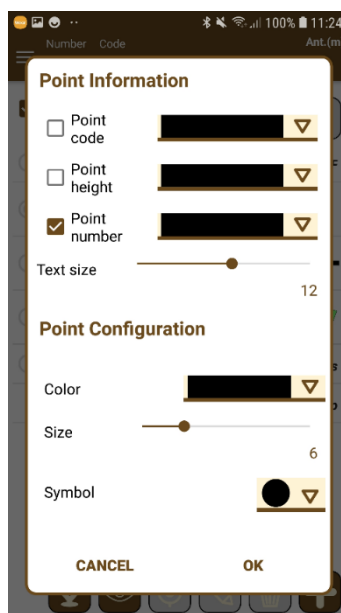
## Real-time age

In addition to controls on valid position types, minimum number of satellites, horizontal and vertical accuracy and PDOP, the maximum permissible age of corrections in seconds can also be controlled.



## Point attributes

In addition to controlling the visibility of the numbers, elevation, and code of the points, you can specify the size of the text, the symbol, and its size as well as the colors of each element.



## Continuous survey

Continuous survey with distance, time, or elevation intervals can be applied to collect point features, for example for fill points.

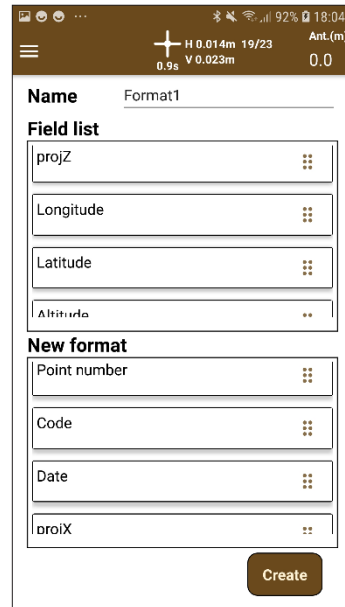
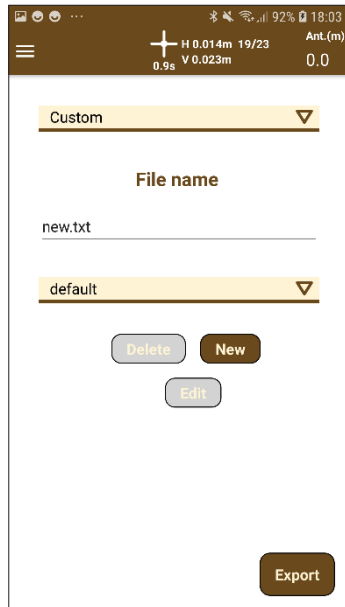
## Deleting observations in survey with epochs

Observations with epochs highlight observations with insufficient precision, with the possibility of removing them.

# 📍 Data Management

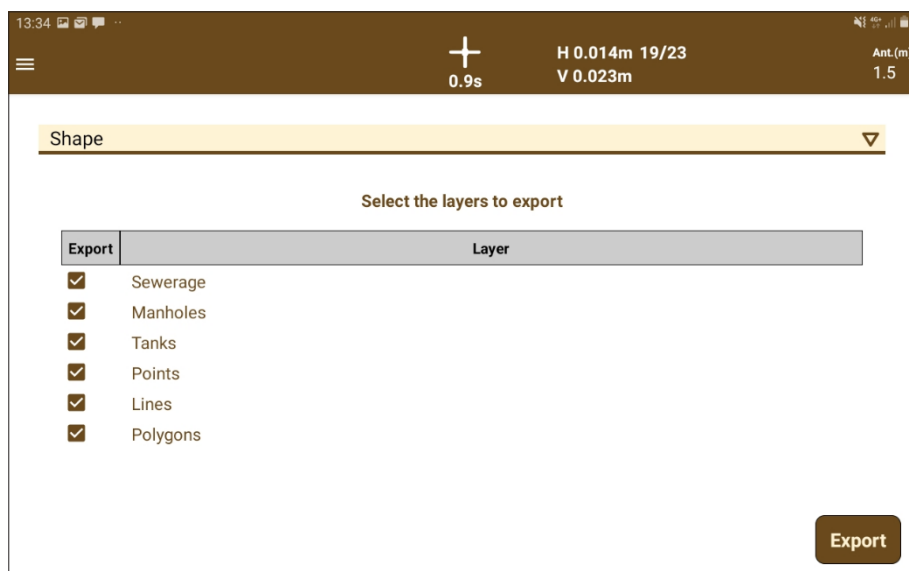
## Export to custom format

Using a wizard, you can create custom export formats, including basic data and raw data. They can also include projected, geocentric or geographic coordinates with various possibilities.



### Exporting attributes to shape format

Exporting features to shape format allows you to select the layers to export, creating separate files with the appropriate geometry type. Each also includes the attributes that have been defined for each layer.



### Export to DXF and DWG formats

When exporting to this format, you can choose the scale and size of texts, to improve the representation of the points.

### Managing repeated points in import

Importing a point file offers several options that allow you to replace them if their numbering matches, add them by ignoring it, or mixing them, adding only those that do not previously exist in the project.

### Raw data

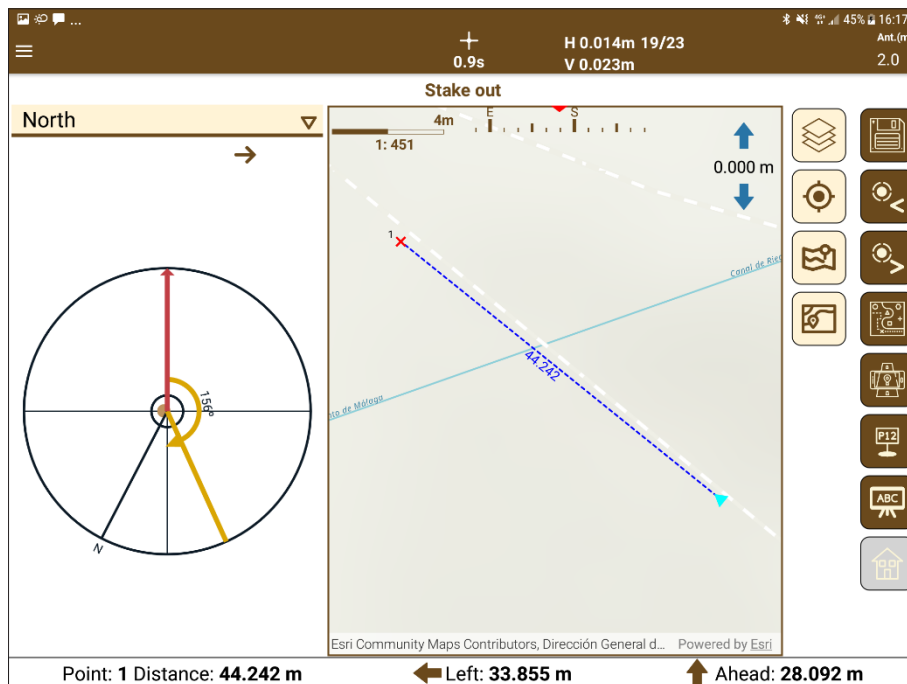
Added distance to base and tilt.

If points have been taken with epochs, exporting the raw data creates one with the detailed data and one with the average.

## 🎯 Stake out

### New design of indications

User prompts are displayed with larger font size, more visible, and optimized by device type.

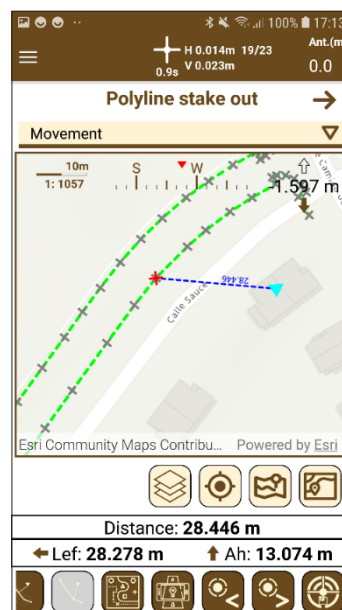
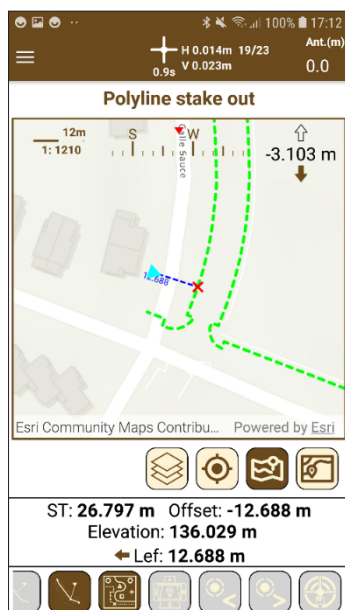


### Layer control

All layers in the project are now rendered on the map.

### New polylines stake out

New options have been implemented that allow you to stake out the vertices or the polyline itself as if it were a road alignment.



### Stake out of mapping points

In this release, you can also stake out points imported from mapping layers.