



TcpGPS for Android

Unit 2. Connection to Receiver



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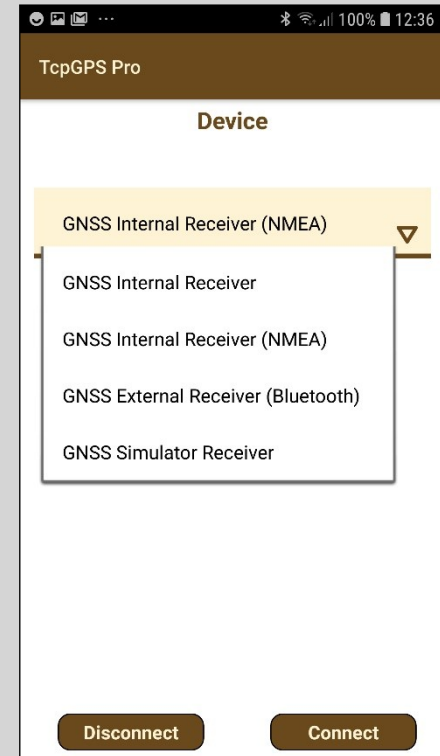
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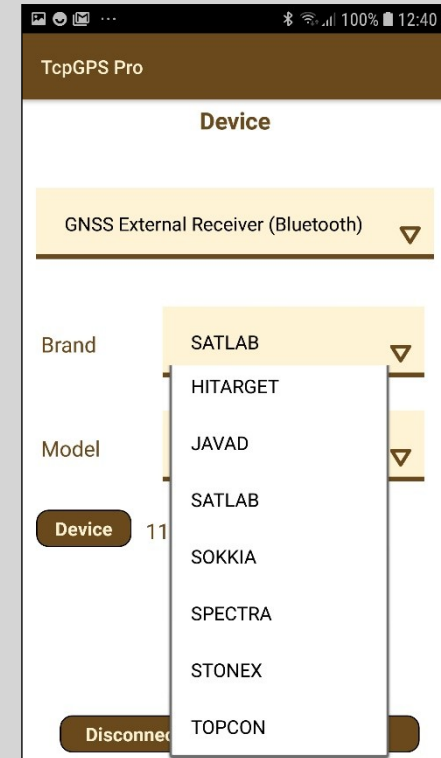
Connection Types

- Internal Receiver
- Internal Receiver (NMEA)
- External Receiver
- Simulator



Selection of brand and model

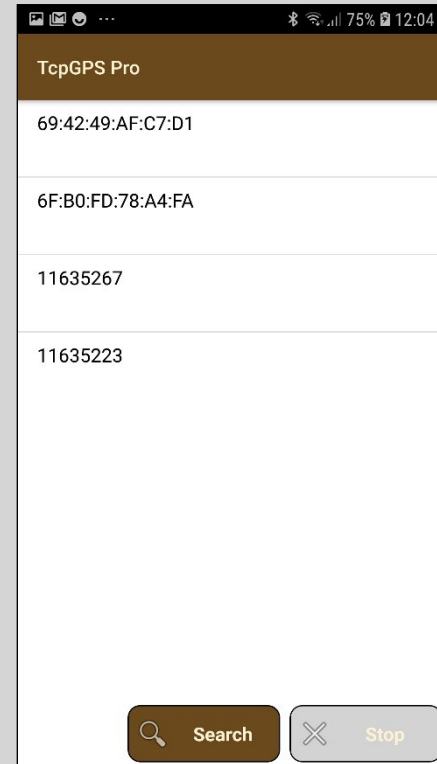
- Generic or specific brands
- Model



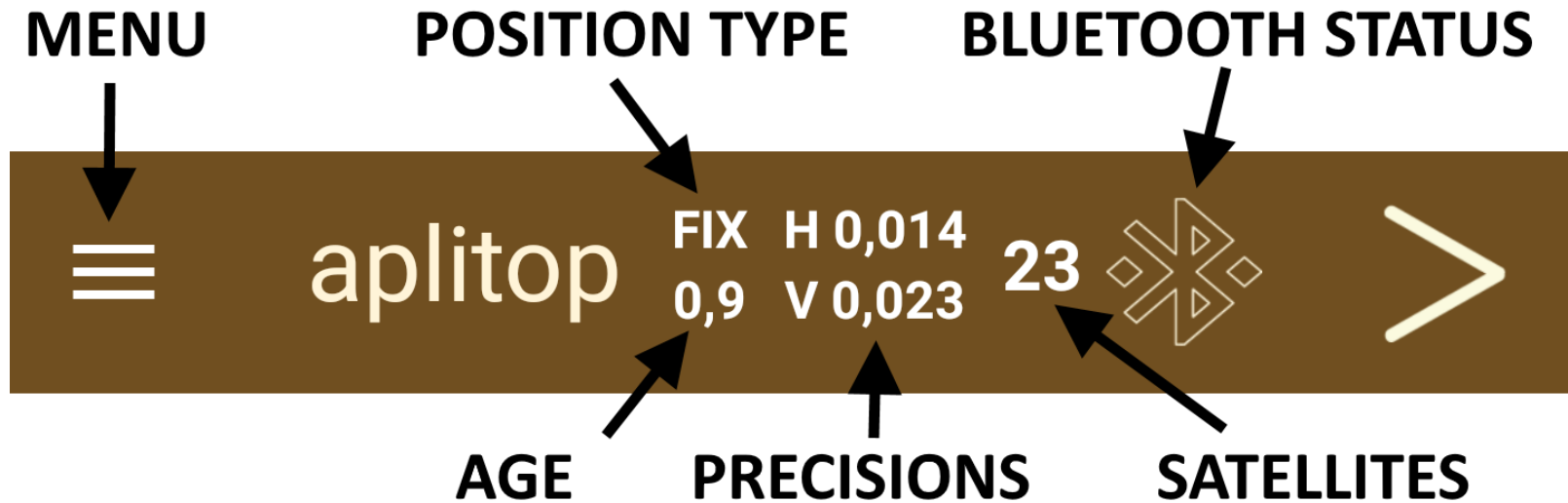
Connection to External Receiver

- Bluetooth ID or network MAC

Video 

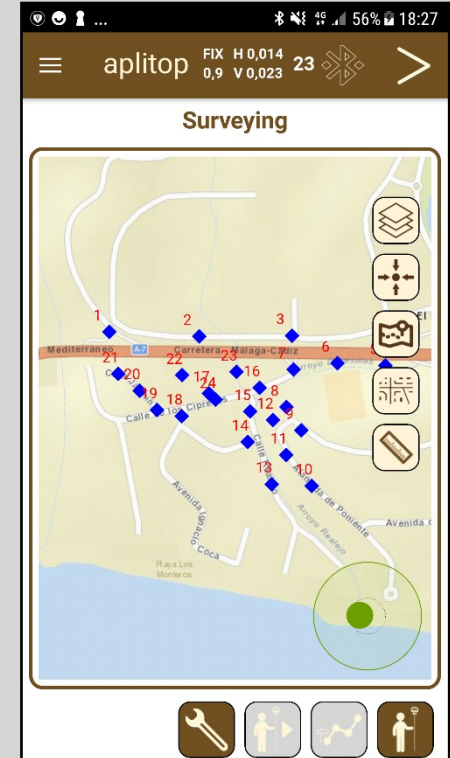
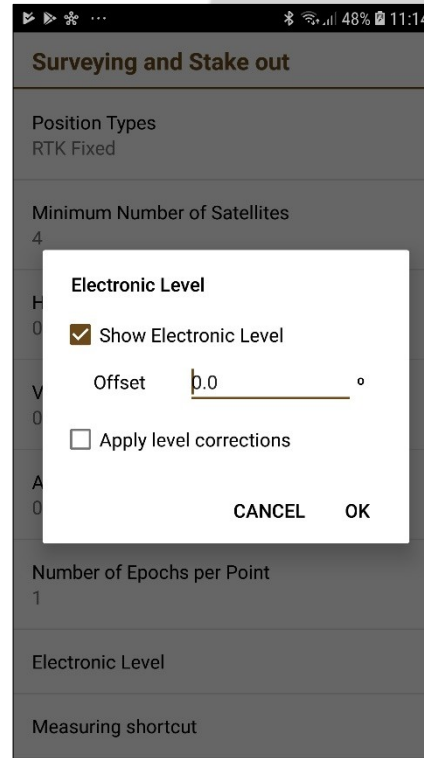


Status Toolbar



Electronic Level

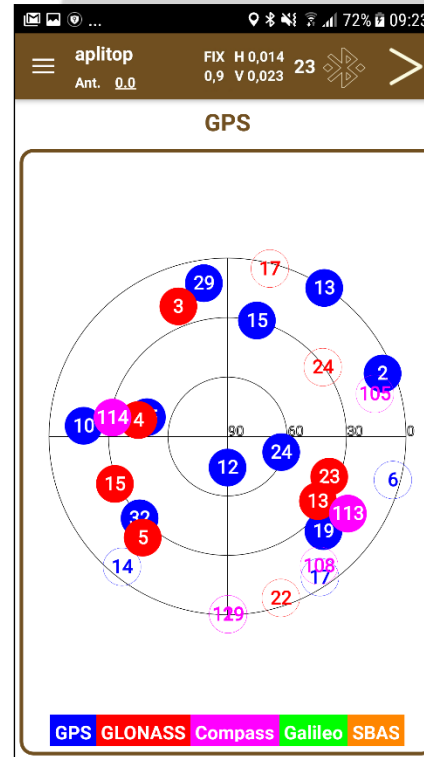
- Enable or disable level
- Apply level corrections
- Optional offset angle



Video 

Receiver Status

- Constellation of Satellites
- Position Type
- Real-time Age
- Horizontal and Vertical Precisions
- Dilution of Precision (PDOP)
- Geographic Coordinates
- Projected Coordinates

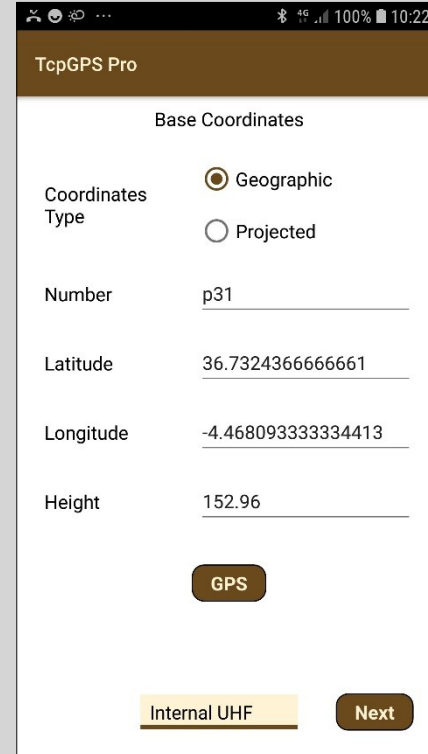


Surveying	
UTC Time	16:13:41
Satellites	23
Position Type	RTK Fixed
Latitude	36° 43' 56.35117" N
Longitude	4° 28' 05.18689" W
Ellipsoidal Height	144.088
H. Prec.	0.014
V. Prec.	0.023
PDOP	2.2
ETRS89 / UTM zone 30N +	
EGM2008 REDNAP Geoid Height (Spain-Peninsula/Balearic islands)	
Easting	368912.976
Northing	4066182.965
Orthometric Height	96.183

Base Configuration

- Current position
- Manual input
- Connection Modes
 - Internal UHF
 - Internal GSM/GPRS
 - Device's Internet

Video 

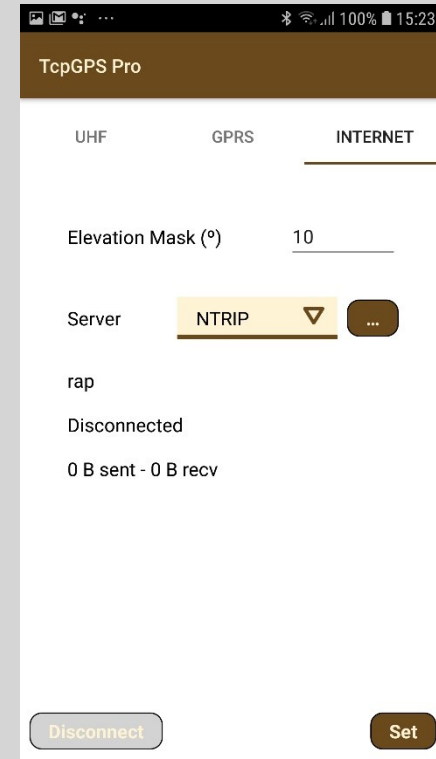
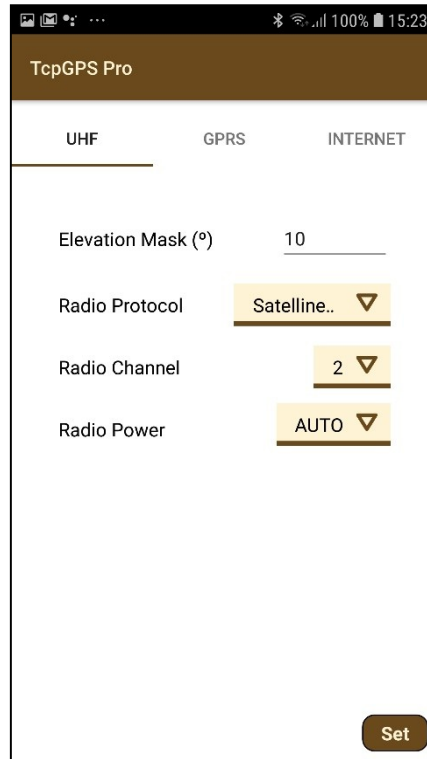


The screenshot shows the 'Base Coordinates' configuration screen in the 'TcpGPS Pro' app. The interface includes a title bar with the app name, a status bar at the top showing battery and time, and a main content area with the following fields and options:

- Base Coordinates** (Section Header)
- Coordinates Type**: Radio buttons for Geographic and Projected.
- Number**: Input field containing 'p31'.
- Latitude**: Input field containing '36.7324366666661'.
- Longitude**: Input field containing '-4.468093333334413'.
- Height**: Input field containing '152.96'.
- Buttons**: A brown 'GPS' button, a yellow 'Internal UHF' button, and a brown 'Next' button.

Rover Configuration

- Connection Modes
 - Internal UHF
 - GSM / GPRS
 - Internet



Video 

Access Point Name Configuration

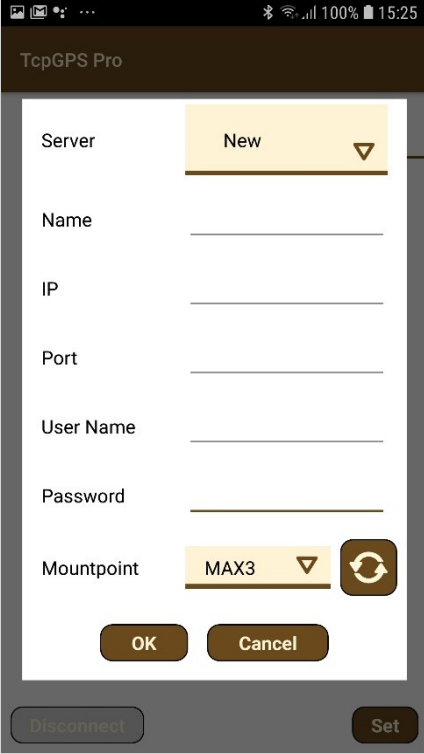
- List of APNs
- APN: URL or IP address
- User name and password

The screenshot shows the 'Base Internal GPRS' configuration screen in the TcpGPS Pro application. The screen features a dark header with the app name 'TcpGPS Pro'. Below the header, the title 'Base Internal GPRS' is centered. The main area contains a form with five input fields: 'Server' (with a dropdown menu showing 'New'), 'Name', 'APN', 'User Name', and 'Password'. At the bottom of the form are two buttons: 'OK' and 'Cancel'. A 'Set' button is located at the bottom right of the screen.

NTRIP Configuration

- List of Servers
- IP address and Port
- User name and Password
- List of Mountpoints

Video 

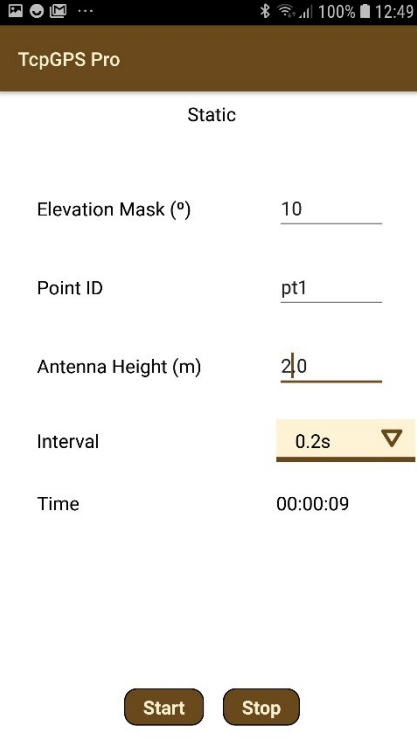


The screenshot shows the 'TcpGPS Pro' app interface. At the top, the status bar displays signal strength, Wi-Fi, 100% battery, and the time 15:25. The app title 'TcpGPS Pro' is visible. The main configuration area includes a 'Server' dropdown menu set to 'New', followed by input fields for 'Name', 'IP', 'Port', 'User Name', and 'Password'. Below these is a 'Mountpoint' dropdown menu set to 'MAX3' with a refresh icon to its right. At the bottom of the form are 'OK' and 'Cancel' buttons. Below the form, there are 'Disconnect' and 'Set' buttons.

Static Configuration

- One file for every point
- Start recording
- Stop recording

Video 



The screenshot shows the 'Static' configuration screen of the 'TcpGPS Pro' app. The settings are as follows:

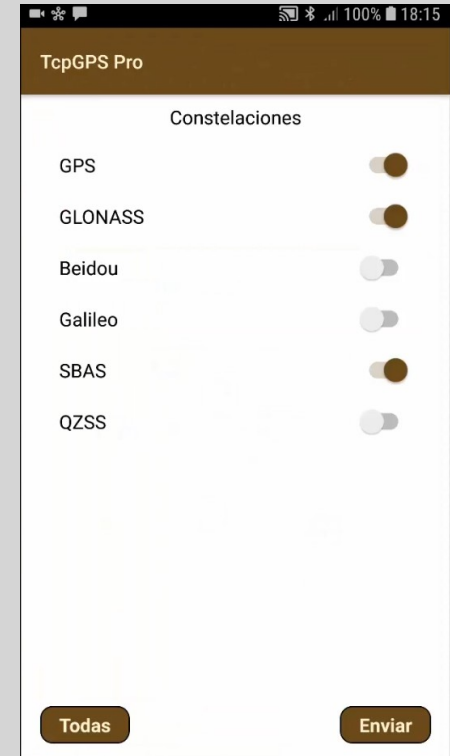
Static	
Elevation Mask (°)	10
Point ID	pt1
Antenna Height (m)	2.0
Interval	0.2s
Time	00:00:09

At the bottom of the screen, there are two buttons: 'Start' and 'Stop'.

Satellite Constellations

- Enable or disable each constellation

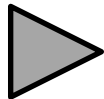
Video 



Terminal

- Ascii or Hex Output
- Pause and Resume
- Save to File

Video



The screenshot shows the aplitop application interface. At the top, there is a status bar with icons for signal strength, Wi-Fi, and battery (100%), along with the time 10:07. Below the status bar, the app title 'aplitop' is displayed, along with 'Ant. 0.0' and 'FIX H 0,014 0,9 V 0,023 23'. The main content area is titled 'GPS Output' and contains a list of NMEA-style data strings, including \$GLGSV, \$GPGSV, \$GAGSV, \$BDGSV, \$GPGGA, and \$GPGSA. At the bottom right, there is a checkbox labeled 'Hex output' which is currently unchecked. Below the checkbox are three buttons: 'Clear', 'Store', and 'Pause'.

```
2,130,34,19,40,221,30°0F
$GLGSV,2,2,06,77,27,033,,69,25,327,*68
$GPGSV,3,1,12,13,69,027,52,15,52,315,53,05,4
3,180,52,28,42,060,50*76
$GPGSV,3,2,12,24,30,259,46,30,16,057,40,17,0
6,112,,21,06,293,*7F
$GPGSV,3,3,12,20,06,322,,49,46,164,50,38,46,
199,,36,33,129,46*71
$GAGSV,1,1,00,,,*68
$BDGSV,1,1,00,,,*68
+IMU:0.101112 0.000122 -0.419376 0.000106
45.604427 0.035980 0 0 #
$GPGGA,091457.00,3643.9477770,N,
00428.0846091,W,7,06,1.3,104.604,M,
46.49,M,07,0136*4A
$GPGSA,M,
3,30,15,28,24,05,13,,,,,2.4,1.3,2.0*34
$GPGST,091457.00,1.63,0.00,0.00,0.0000,
0.00,0.00,0.00*6D
+IMU:0.094117 0.000173 -0.422872 0.000000
45.046383 0.015817 0 0 #
```