



TcpGPS Version 2. 2

Summary of New Features

Requirements

Android versions

TcpGPS 2.2 is compatible with Android versions 6 through 11.

Device performance

In order to facilitate the choice of compatible devices depending on the project type, it is recommended to use those that offer a performance indicator of 34 or more depending on androidbenchmark.net.

View [TcpGPS performance](#).

Languages

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

Communications

New receivers supported

TcpGPS is compatible with the NMEA 0183 standard, and also allows you to configure different makes and models of GNSS receivers in several working modes.

See [list of brands and models supported](#).

Projects

Behavior changes for Android 11-oriented apps

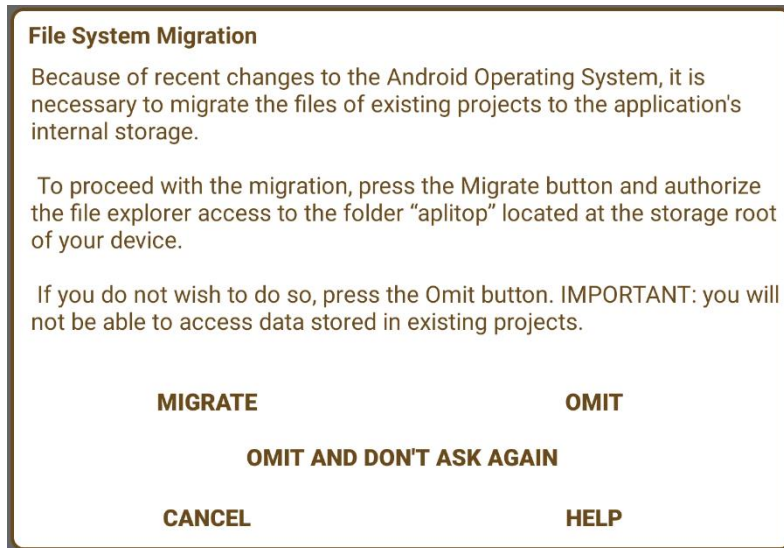
Android 11 has introduced major changes and restrictions to improve user privacy, limiting access to external storage directories to an app-specific directory, among other limitations. View [changes in the behavior of apps oriented to Android 11](#).

The project files are in the TcpGPS private folder and cannot be accessed with the file explorer of the device itself, although new functionalities have been implemented that facilitate management, as described in the following sections.

IMPORTANT: If you uninstall the application, all project files will also be deleted. It is recommended that projects be backed up periodically.

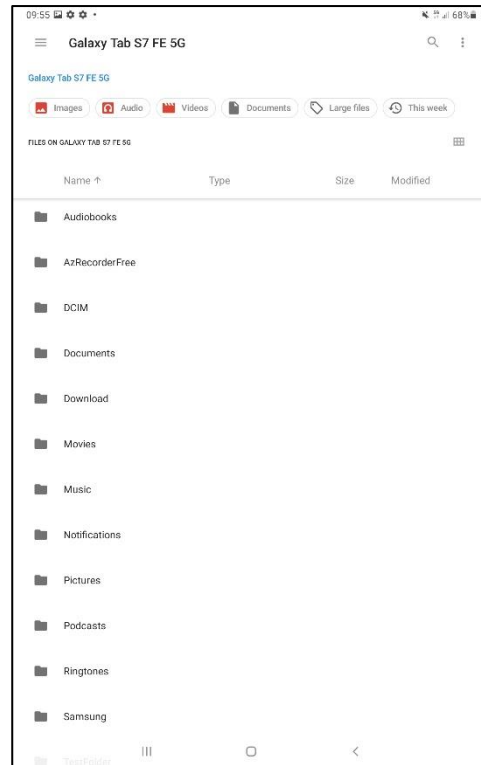
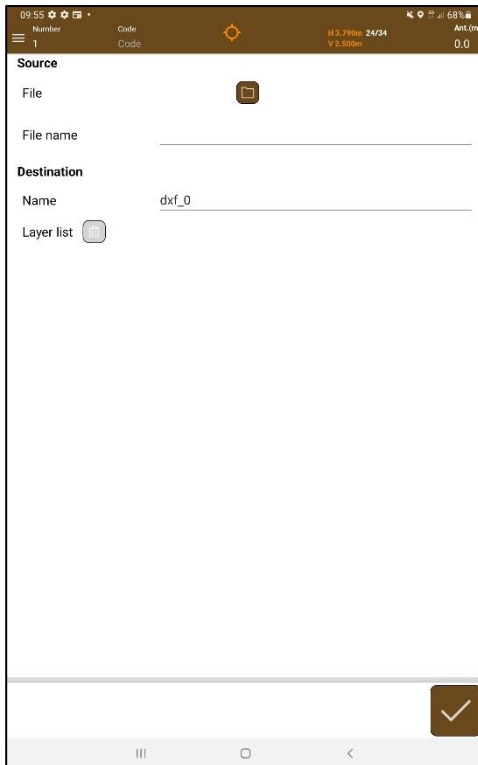
Migrating project files

In the first run of this version, if there are existing projects, a dialog is displayed that suggests the migration of your files to the new structure required by Android. See technical note [Migration of TcpGPS files](#).



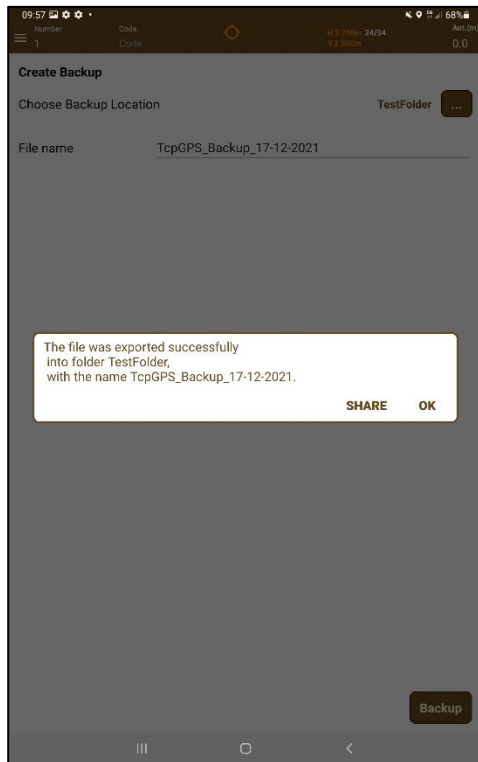
File management

For the choice of files for reading and writing, the Android browser is now used, which allows you to use data stored on the device itself or in cloud services such as Google Drive interchangeably. That is why the buttons for the selection of local or cloud files have been integrated into just one.



Backups

This option has been implemented in the Application menu, which saves data from all projects to a single compressed file. Additionally, the Restore option allows you to choose the projects to restore from the backup.



Delete projects

A new option to delete TcpGPS projects has been implemented.

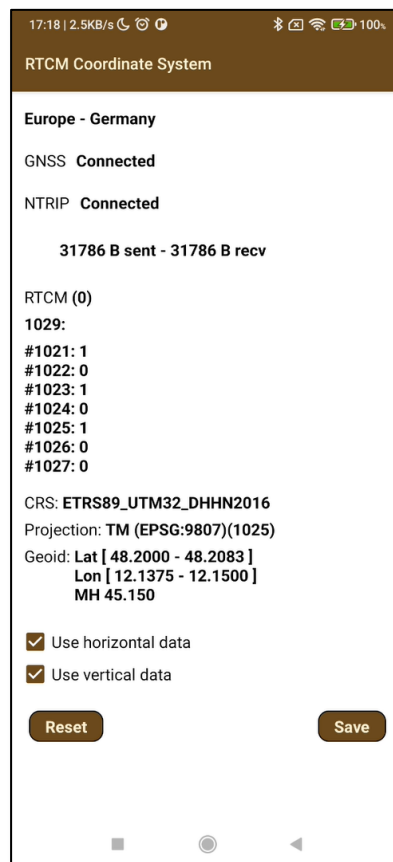
Coordinate systems

Creating coordinate systems from RTCM messages

For those countries where NTRIP servers send transformation RTCM messages along with real-time corrections, it is possible to create a coordinate system with the information contained in those messages.

Supported messages are 1021, 1023, 1025, 1026, and 1027. In the case of message 1025, only the following projections are supported:

- Transverse Mercator (EPSG:9807)
- Lambert Conic Conformal 1SP (EPSG:9801)
- Lambert Conic Conformal 2SP (EPSG:9802)
- Cassini-Soldner (EPSG:9806)
- Oblique Mercator (EPSG:9815)
- Oblique Stereographic (EPSG:9809)



Place in local system

This new command facilitates the setup of a Reference Base in RTK mode through a free positioning at a point of unknown coordinates, but ideal for its location.

New coordinate systems

Updated EPSG database to version 9. 9. 1.

Added coordinate system for Colombia "Origen Nacional / CTM12".

Added new 2011 NTv2 grid file for Japan.

New geoids

- N60 and N2000 (Finland)
- RAF20 (France)
- GG10_SBv2 (St. Barthelemy)
- GG10_SMv2 (St. Martin)
- GGGUY15 (French Guiana)
- GGM04v1 (Mayotte)
- RAGTBT2016 (Guadeloupe)
- RALDW842016 (La Desirade)

- RALS2016 (Les Saintes)
- RAMART2016 (Martinique)
- RAMG2016 (Marie Galante)
- RAR07_BL (The Reunion)
- AUSGeoid09 (Australia)
- AUSGeoid2020 (Australia)
- NZGeoid2016 (New Zealand)

Maptos

Finding features on maps

The tolerance has been adjusted to make it easier to designate objects on the map.

DXF and DWG layers

The conversion of texts has been improved, considering their justification and size.

Polyline conversion has been improved.

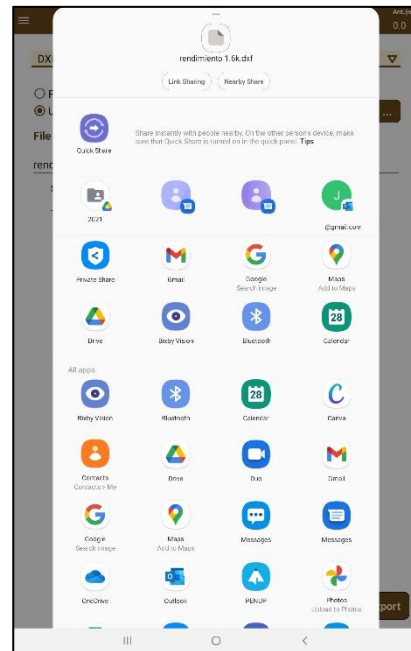
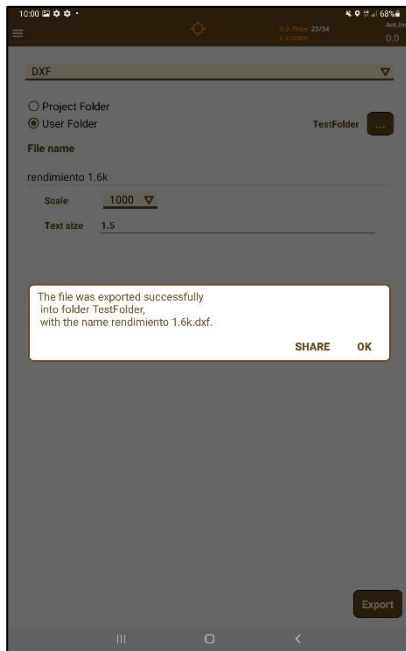
GML Layers

Fixed the error that occurred when attempting to export a project that did not contain defined parcels to GML.

Data Management

Share exported files

The behavior of the application in the export of files has been modified, clearly indicating the folder and the name of the generated file, and offering the option to share it with the installed applications.



UTC time in raw data

UTC time is now recorded instead of the system time in the raw data for each point.

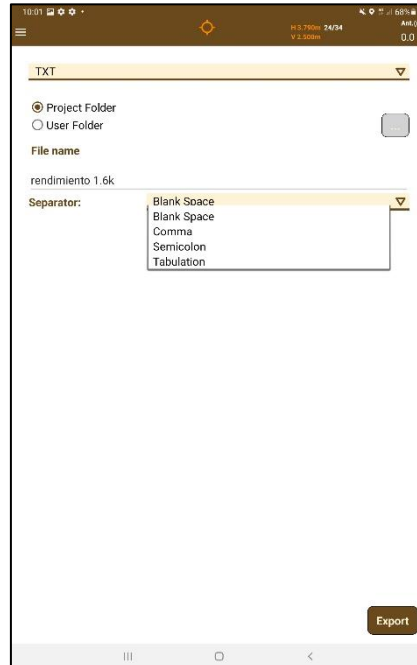
Export to DXF

In addition to the points, the number, dimension, and code attributes are exported in separate layers. Text scale and size are also requested.



Selection of separators for exporting

Both in export points and stake out data options, the separator can be chosen by the user between spaces, commas, semicolons and tabs.



Stake out

Staking to the nearest point

Fixed an error that affected the operation of the stakeout by nearest point.

Staking by code

Fixed an error in the selection of staking point codes.