

Technical Note

(tcpgps_android_en_v21_001_performance_tests)

Performance Tests

Update Date

28/10/2021

Requirements

Hardware:

Android Device

Software:

Android OS 6.0+

TcpGPS for Android 2.1+

Objective

This document is purely orientative and pretends to guide the user so it may choose a mobile device compatible with TcpGPS, with details about performance depending on number of points or the size of the drawing employed.

Details

The table in next page shows the following data:

- **Model and Brand** of multiple devices with different performance per device.
- **Device Performance Rank** based on the **Android 2D Graphics Mark Rating** https://www.androidbenchmark.net/g2dmark_chart.html at the update date of this document.
- **Project Load Time** when entering the Surveying option, in seconds. We consider **Small** a drawing weighting 1 Mb and a **Large** one with 10 Mb, containing only polylines in both cases.
- **Rendering Time** for point clouds, considering **Small** a file of 1.600 points and a **Large** one a file with 10.200 points.

Brand and Device Model	Performance Rating	Load Time		Rendering Time	
		Small	Large	Small	Large
Samsung Galaxy Tab S7 FE G5 (SM-T736B)	34,6	07"	39"	<1"	2"
Samsung Galaxy Tab S2 8.0 (SM-T719)	12,0	18"	1'57"	1"	4"
Samsung Galaxy Tab Active 2 (SM-T395)	9,6	19"	2'13"	1"	8"

To rate the results in the table we have used the following color-coded rating:

Rating	Load Time	Rendering
Excellent	<15"	<1"
Standard	<40"	<3"
Minimum	<1'	<5"
Below Minimum	>1'	>5"

To sum up, if the intent is to use files similar as the ones considered small by our team, all three models would be acceptable, but if there's a need to use larger files, only the Samsung Galaxy Tab S7 FE G5 would have an acceptable performance.