

FARO® ScanPlan™ 2D Handheld Mapper

Handheld, 2D Mapping Solution Captures Floor Plans in Real Time

Professionals working in architecture, construction, engineering and public safety have the challenge of gathering vast amounts of information with fewer people. It is that much more critical to capture floor plans with the proper technology quickly and accurately. With the ScanPlan FARO combines speed and precision and many more features to streamline everyday 2D workflows. FARO ScanPlan, an innovative, handheld device that enables rapid measurement and documentation of building floor plans in 2D. Simply walk through the building at normal speed and point the ScanPlan at the walls. While walking, the floor plan is created in real-time on a smartphone (Android or iPhone). The ScanPlan captures nearly 29,000 points/second, with a 230° field of view, so even the most complex buildings can be mapped in minutes. Turn 2D maps into complete floor plans by exporting the ScanPlan captured data into a DXF file or use the FARO Zone 2D diagramming software. 2D floor plan creation has never been so easy!



Features

Capture 2D Floor Plans as You Walk

Walk through the building at normal speed and record an accurate 2D plan of the floors.

Map Floor Plans on Multiple Floors

Capture floor plans on multiple levels and organize them into one project.

Visualize the Floor Plan in Real Time

View the floor plan as it is being scanned so you can be confident the entire building is documented when you leave.

Document Critical Details With Photographs

Add photographs and annotations directly to the floor plan to document all the details of the scene.

Find Best Positions to Place a Laser Scanner

Scan Assist feature automatically calculates the best laser scanner positions based on the recorded 2D map.

Perform a Pre-Placement of 3D Scans on Site

Combine the ScanPlan with laser scans and get confidence that a final scan registration will work. ScanPlan allows the preplacement of single scans¹.

¹ Supported: FARO® FOCUS³ and FOCUS^{XL} scanners with firmware version 6.4 or higher

Add 360° Panoramic Images to the 2D Map

Experience the captured space by visually walking through the panoramic images.

Share Captured Information with Stakeholders

Provide stakeholders access to captured information via WebShare services.

Explore Captured Space in Virtual Reality Mode

Easily export project and panoramic images directly into WebShare software for best user experience.

Benefits

Easy to Use

Use the familiar interface of a smartphone app to control the ScanPlan, visualize and save your projects.

Extended Scanning Time

Scan for two hours with one battery.

Complete Solution

Use FARO Zone 2D software, to turn any floor plan map into a completed diagram by adding doors, stairs, hazardous materials, notes, dimensions, and more.

Document More Buildings in Less Time

Just walk and point the ScanPlan at the walls to capture nearly 29,000 points/sec with a 230° field of view.

Compatible With Most Smartphones

Most Android and iOS phones are supported with the free app. A compatible smartphone is also available separately.

Portable and Lightweight

At only 1.5 kg (3.3 lb), the ScanPlan is easily carried with one hand.

System Features

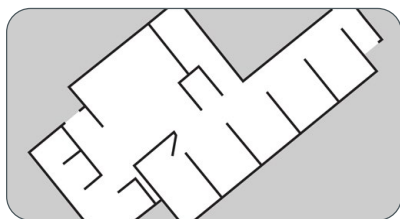
Range	
90% Reflectivity (white)	0-20m ¹
10% Reflectivity (dark-gray)	0-8m ¹
Integrated Sensors	
2D laser scanner	Yes
Inertial measure unit	Yes
Sensor Information	
Laser class 1	1
Wavelength 905nm	905nm
Frame rate/scanner line speed 40 Hz	40 Hz
Max. light illuminance 15,000 lx	15,000 lx
Measurement Distance Accuracy ²	
Measurement distance ≤ 3m ^{1,3}	± 3cm
Measurement distance > 3m ^{1,3}	< 1.5 %
Data Acquisition Rate	
Per Second	28,800 points/second
Deflection Unit	
Field of view (horizontal)	230°
Step size (horizontal)	0.25°

¹ White Kent Sheet | ² Postprocessed data, loop closure | ³ 1-sigma | (Global) accuracy depends on the effectiveness of the SLAM registration algorithm, which can be influenced by the geometry of the surveyed data. Long paths in absence of loop closures and cross passes, and different conditions as narrow tunnels and stairs, can downgrade the (global) accuracy.

Specifications

General Specifications	
Weight incl. battery	1.5 kg (excl. smartphone)
Size/dimensions opened L x H x W	255 mm x 375 mm x 130 mm
Size/dimensions closed	255 mm x 215 mm x 130 mm
Power supply voltage - external	19 V
Power supply voltage - internal (battery)	14.4 V
Power consumption	35 W (65 W charging)
Battery service life	90 minutes
Operating temperature (ambient)	-10 °C to +40 °C
Storage temperature (ambient)	Recommended: -20 °C to 25 °C Maximum*: -20 °C to 60 °C *Extended storage at temperatures greater than 40 °C may degrade battery life and performance.
Mounting	handle or 3/8" thread
Humidity	non-condensing
Maintenance/calibration	not necessary
Interface	1 x USB, WLAN
Interface Connection	
USB to USB	Yes
2 Laser Pointer	
Laser class:	1
Wavelength:	650nm

The ScanPlan Process



1. Capture floor plans in real time with the FARO ScanPlan.



2. Process floor plans into 2D diagrams easily using FARO Zone software (2D or 3D).



3. Deliver plans in compatible formats for instant access and viewing.

Local offices in over 25 countries around the world. Go to www.faro.com to learn more.

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Data Capturing & Visualisation

Smartphone Specification	
High Dynamic Range (HDR)	Yes
Recommended/Supported Phone	Samsung Galaxy S7 or higher, iPhone 7 or higher
External Devices	PanoCam : Ricoh Theta Z1 Laser Scanners: FARO Focus
Cradle dimensions (Height x Width x Thickness)	160 mm x 82 mm x 8 mm
FARO ScanPlan App	
Android Google Play Store	https://play.google.com
Apple App Store	https://www.apple.com/lae/ios/app-store/

Data Management & Processing

Data Management	
Operation of device	Via Wi-Fi (preferred) - USB tethering available
Data storage	Internal SSD
Data storage capacity	100 GB
Export	
ScanPlan Data	Flash drive/external medium
File Export	PDF, DXF, PNG, ESRI Shape file 2D Floor plan as Point Cloud: CPE, PLY, XYZ, JPEG, TIFF, DWG, FML by using FARO Zone 2D
Processing Software	
Diagramming Software	FARO Zone
Project Sharing	FARO Zone Viewer (free), FARO WebShare

Applications

AEC Professionals:

- 2D as-built documentation for project evaluation and conceptual design
- Documentation of construction sites
- Scan job planning: estimation of project size, number and ideal position of needed laser scans
- 2D documentation for facility and property management
- Basis for exposé creation and presentation

Public Safety Experts:

- Pre-Fire Planning
- Crime Scene Investigations (Demonstrative Evidence)
- Post Search Warrant Execution Diagrams
- Security Pre-Incident Planning
- Security Threat Assessments
- Executive Advance Planning
- Property Insurance Loss Control

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