

Leica ProScan

Mobile reality capture



Productivity boost

ProScan kinematic laser scanning platform combines the latest advancements in measurement system integration, software GUI designs, and data processing technologies to capture reality in 3D. Unmatched performance sets new standards in laser scanning productivity and time-to-results by decreasing up to 90% of the time spent in the field.



Maximum performance

High speed data acquisition is supported by automatic TPS tracking functionality for determining the trajectory. Open up a new dimension to capture indoor and outdoor environments with point accuracies of a few millimetres for scanning ranges up to 15 metres. Scan freely without being tethered to a single location.



Intuitive workflow

ProScan runs with an intuitive single-interface software combining modern GUI concepts with the latest developments in kinematic laser scanning algorithms. The software processes trajectories and computes point clouds in one seamless graphical user interface. Efficiently control and steer the required processes and workflows.

Leica ProScan specifications

TYPICAL ACCURACY OF POSITIONING PLATFORM

	G-Series (GNSS) (1 sigma)	T-Series (TPS) (1 sigma)
Horizontal accuracy	20 - 30 mm	10 - 20 mm
Vertical accuracy	30 - 50 mm	5 - 10 mm
Roll & pitch accuracy		0.025°
Heading accuracy		0.075°

TPS TRACKING PROCESS LIMITS

Time between two zero-velocity-updates (ZUPT)	8 - 10 s
Duration zero-velocity-update (ZUPT)	2 - 3 s
Initialisation time (alignment at start and end)	3 minutes

IMU

Frequency	400 Hz
Gyroscope range	+/-450 deg/s
Gyroscope bias (1 sigma)	0.75 deg/h
Gyroscope bias stability	0.1 deg/h
Gyroscope scale factor	0.03 %
Accelerometer range	+/-5 g
Accelerometer bias (1 sigma)	2 mg
Accelerometer bias stability	10 µg
Accelerometer scale factor	0.15 %

COMPATIBLE LASER SCANNERS

Please refer to Leica ScanStation P40, P30 or P16 data sheet.

GNSS

GNSS support is optional. Increased satellite availability with GLONASS tracking.
Signal tracking: GPS (L1, L2, L2C, L5), GLONASS (L1, L2), BeiDou (B1, B2), Galileo (E1, E5a, E5b, AltBOC), L-Band, SBAS and QZSS for GPS

TOTAL STATION (TPS)

TPS support is optional. Please refer to total station manufacturer data sheet.

CONTROL UNIT

Leica CS35 tablet controller, 10.1" touch screen display, 128 GB SSD hard disk, battery life 8 hrs, 2 x USB interface, IP65

BATTERY SYSTEM PERFORMANCE

Battery type	Lithium-Ion
Typical operating time	4 hrs (external battery pack)

DATA EXPORT OPTIONS

Deliverable outputs	Binary LAS 1.3, PTG, XYZ intensity PTS
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SENSOR PLATFORM

Weight	28 kg trolley (without laser scanner) 44 kg trolley (with Leica ScanStation P40 scanner)
Size (L x W x H)	104 x 90 x 135 cm (without laser scanner) 104 x 90 x 171 cm (with Leica ScanStation P40 scanner)

ENVIRONMENTAL

Operating temperature	-10 °C to +50 °C, non-condensing, excluding scanner. Please refer to laser scanner documentation.
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G-SERIES

GNSS positioning

Combining ProScan with GNSS receivers in differential mode for best possible positioning.



T-SERIES

TPS tracking & positioning

TPS tracking of ProScan to follow the system on its trajectory for highly accurate results.

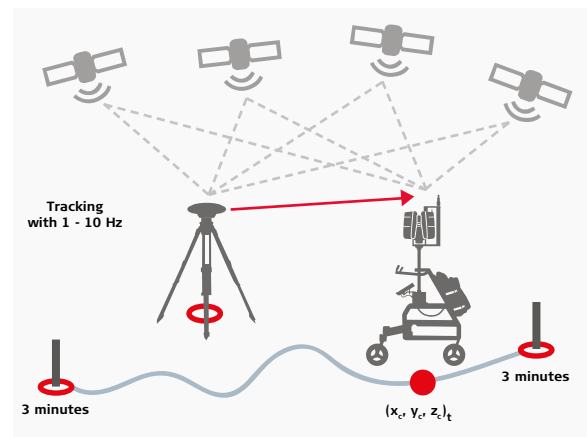


I-SERIES

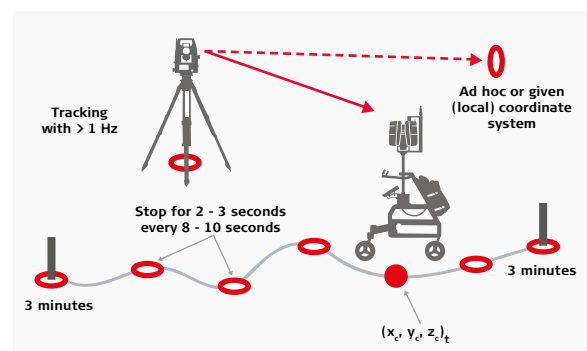
IMU positioning

Uses ProScan tracking technology to calibrate the IMU while capturing data in 3D.

GPS TRACKING PROCESS



TPS TRACKING PROCESS



- when it has to be **right**

Leica
Geosystems