

Viametris iMS 2D

Continuous Building 2D Scanner
for surveyors and topographers



When it comes to drawing simple floor plans or quantity surveys of buildings or facilities, the continuous 2D scanner of Viametris for interior (and exterior*) becomes the tool to use for its fastness and easiness to produce results.



*) scan of building exterior under certain conditions

The wearable mobile scanner of Viametris for horizontal survey (with vertical profiles) has been designed to answer to surveys needing a mild density of measurements regarding the rendering to produce or the time to operate.

Answering to professional expectations, this continuous scanner may operate for little survey (house, apartment, storehouse, shop) as well as for very large surfaces and numerous rooms (housing, office, shopping mall).

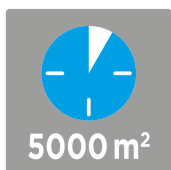
Based on mobile scanning technologies, the iMS 2D operates as walking and produces a continuous horizontal profile of the scan session completed by panoramic images taken every 2 meters and by optional vertical profiles to survey heights (ceiling, window, stair, door, furniture...).

Including an IMU (Attitude and Heading Unit - Inertial Measurement Unit), this scanner corrects the slopes taken by the operator in the most situations.

The provided software allows to navigate the scans, to browse the images and vertical profiles. Compatible with the most CAD softwares, the rendering is easy to operate by drawing over exported graphic files and consulting height profiles to indicate height measurements or viewing details through the panoramic pictures.

Portable, fast, light and easy to use, the iMS 2D will make you forget technology to help you focus on performing your surveying mission.

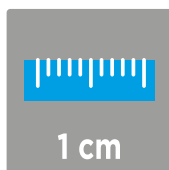
MAIN BENEFITS OF THE SOLUTION iMS 2D OF VIAMETRIS



5000 sqm / hour
(structure,
equipments
and furnitures)



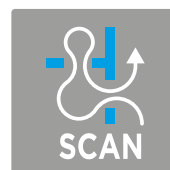
Panoramic images
to control
data survey



Centimeter
accuracy



Fully operational
without any
settings



Continuous scan
No stations



Slopes
correction

The iMS 2D is designed for the survey in any kind of buildings



Old and
new buildings



Housing



Offices



Shopping



Public



Industry

This iMS 2D perfectly suits the professional needs to operate floor plans or quantity survey



Traditional estate property mapping



Building plans update
Facility management, Rehabilitation, Renovation

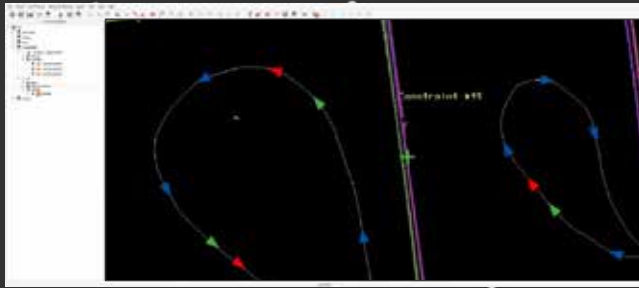


Floor plan rendering
Indoor (and outdoor*) of building and closed facilities

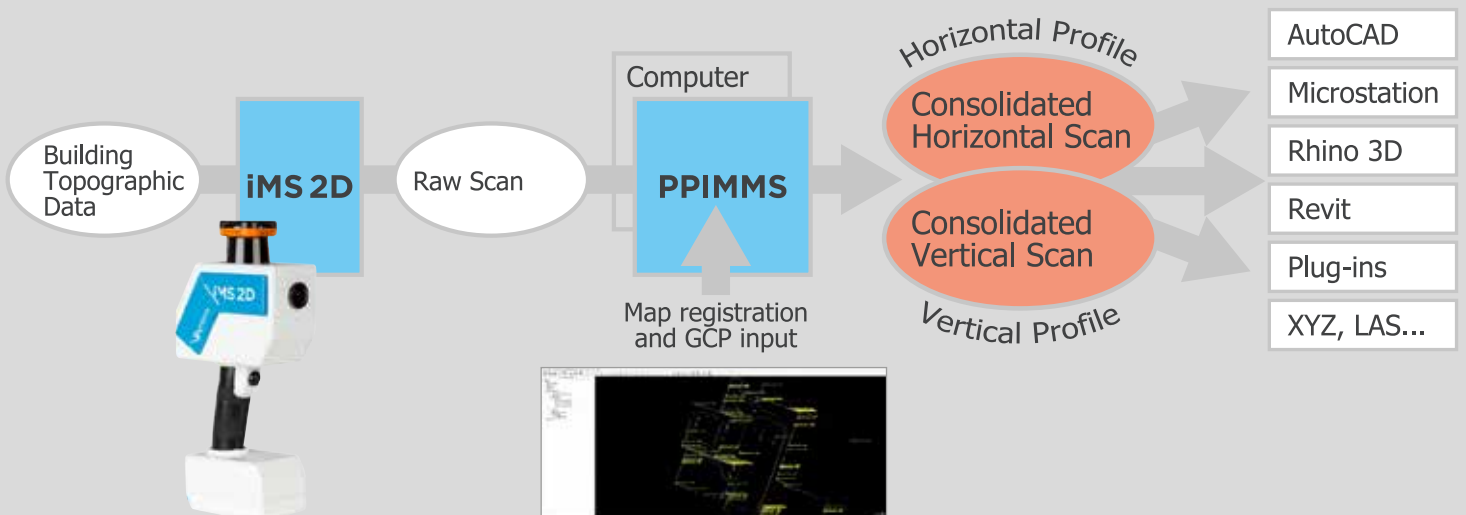


New indoor navigation systems
(Smartphone, Smartwatch)

*) scan of building exterior under certain conditions



EXPLOITATION PROCESS





The iMS 2D capture unit involves 1 laser profiler, an Inertial Measurement Unit and a panoramic camera, a tablet and a harness



While operating, the tablet shows the horizontal profile of the scanned environment



Vertical profiles are triggered through the handle button giving the opportunity to make them without screen interactions

FEATURES OF THE SYSTEM iMS2D-PPiMMS

- Accuracy positioning inferior to 1 cm by laser profiler (LiDAR) and technology of Simultaneous Localization And Mapping (SLAM)
- Slopes corrected thanks to IMU (Attitude and Heading Unit - Inertial Measurement Unit)
- System without GPS localization (no GNSS) nor Inertial Navigation System for moving monitoring
- Laser sensor at double density and 30 meters range
- 3D mask effects reduction
- Panoramic pictures capture every 2 meters along the traverse or manually
- Easy to setup and to scan
- Easy to transport (1 rugged flight case)
- Possibility to integrate external measurements (distometer, tape) or consolidation closed traverses
- Easily geotagable

Positioning and Scanning

Absolute accuracy (positioning)	< 1 cm
Scanner angular resolution	0.25°
LiDAR accuracy	± 30 mm (0.1 to 10 meters)
Scanning speed (Density)	43 240 points per second
Detection range	> 0.1 meter, < 30 meters
IMU-AHRS Framerate	200 Hz
Roll/Pitch Accuracy	0.2°
Absolute North Heading	Yes (1° internal magnetometer)

Connections

USB	1 port USB 2.0
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Power

Input supply voltage	continuous 11-14 VDC
Consumption	< 2 A
Working time	< 7 hours (Excl. Tablet PC working time)

Physical

Size	approx. 200 x 180 x 150 mm
Weight	± 1.5 kg

Environmental

Operating temperature	-10°C to +50°C
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