

Leica Pegasus:Backpack

Mobile reality capture



reddot award 2016
winner



Wichmann
Innovations
Award

Leica Pegasus:Backpack – Reality capture platform for indoor & outdoor mapping

In today's world, obtaining professional documentation is needed more frequently to keep pace with the constant change.

The Leica Pegasus:Backpack is the award-winning wearable reality capture solution to obtain professional documentation indoor, outdoor and underground. This position-independent solution captures and combines imagery and point cloud data even in GNSS-denied areas. It provides progressive time and position to understand changes for BIM, industrial training, safety and security, disaster response, and various other applications with challenging conditions. Time is saved and safety is increased when the hardest-to-reach areas are captured.

The Pegasus:Backpack enables you to make quick and informed decisions in fast-changing, challenging and rough environments.

DESIGN FEATURES



Highly ergonomic

This wearable reality capture technology features the proven ergonomics of a trekking backpack providing comfort over long periods of use.



Light & durable

The unibody carbon fibre frame hosts all components with a slim exterior, offering maximum stability and keeping the weight low at 12 kg.



Expandable

Various easily-accessible extension ports enable the integration of peripheral sensors, like an external light module or a thermal camera.



Easily transportable

Rugged aluminum case with wheels and handlebars for easy and safe transport. With 30 kg total weight, the backpack can be checked-in as luggage.



BIM

Capture data periodically and efficiently to document changing building construction sites and to achieve weekly milestones. Easily monitor construction to meet 4D scheduling deadlines and deliver a complete as-built 3D point cloud and image dataset after building construction is completed.

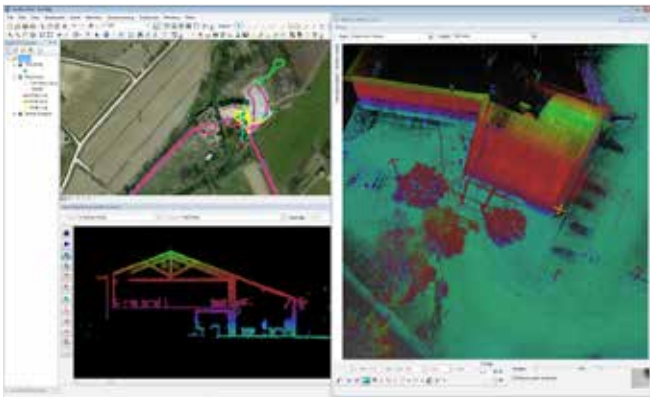


Safety & security

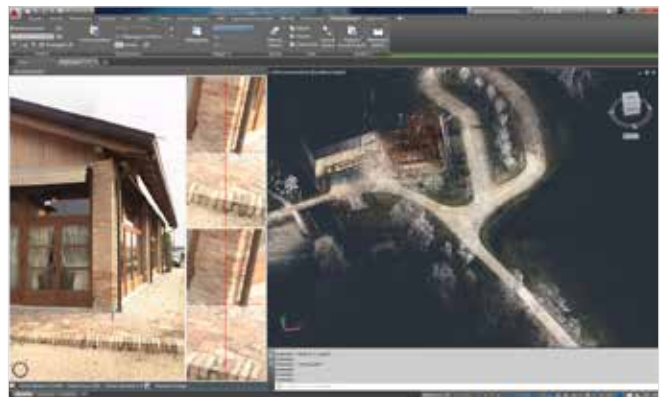
Base real-time decisions on accurate data to create evacuation plans and map routes. Benefit from clear and detailed images and point clouds, alerting authorities to area changes. Provide accurate mapping for densely populated areas and give authorities the means to keep large crowds safe.

Efficient, accurate, flexible – Professionally document any site

Designed for quick and easy reality capture, the Pegasus:Backpack turns progressive scanning into a simple procedure. Providing automated state-of-the-art post-processing software for indoor and outdoor missions, Leica Pegasus:MapFactory leverages powerful extraction features for ESRI ArcGIS and Autodesk AutoCAD, providing dedicated automated and semi-automated feature extraction capabilities.



Native ESRI ArcGIS workflow



Native Autodesk AutoCAD workflow

TECHNOLOGY FEATURES

- Synchronised imaging and point cloud data collected by five 4 MP cameras and two LiDAR profilers
- SLAM (Simultaneous Localisation and Mapping) technology and high precision IMU for accurate mapping in GNSS-denied areas
- Lighting option for clear images in dark areas
- Four batteries in hot-swappable configuration lasting up to six hours
- External trigger output and sync port outlets for additional sensor integration
- Real-time view of the captured data on the tablet



Disaster management

Responders to natural disasters can capture the effected area in 3D on foot, making it quicker and therefore reducing the time of the operator in the danger area. Capture the critical data needed to make faster and better informed decisions that increase chances of survival and reconstruction.



Industrial training

Knowing and understanding an industrial landscape when rushing into emergency situations can reduce damage and save lives. Document sites in 3D point clouds and images to train your team for fast, safe and efficient responses during emergencies and provide reality-based industrial training.

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Leica Pegasus:Backpack
Mobile reality capture



Leica Pegasus:Two
Mobile reality capture



Leica Pegasus:Stream
Mobile reality capture



Leica Pegasus:MapFactory
Mobile reality capture

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- when it has to be **right**

