

Leica Pegasus:Backpack

Mobile reality capture



reddot award 2016
winner



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Leica
Geosystems

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, simple 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 and shapes the slim exterior, offering maximum stability and keeping the weight low at 12kg.



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.

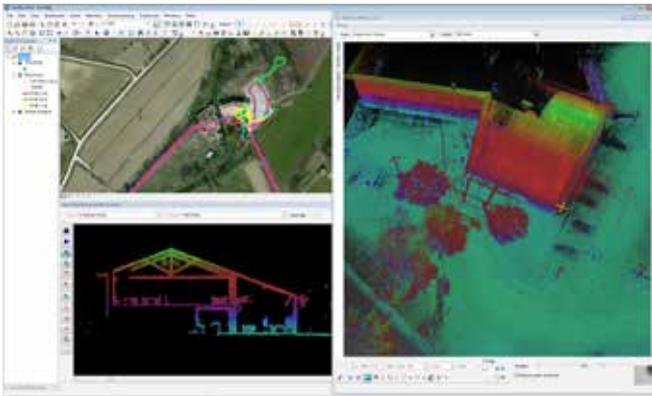


Safety & security

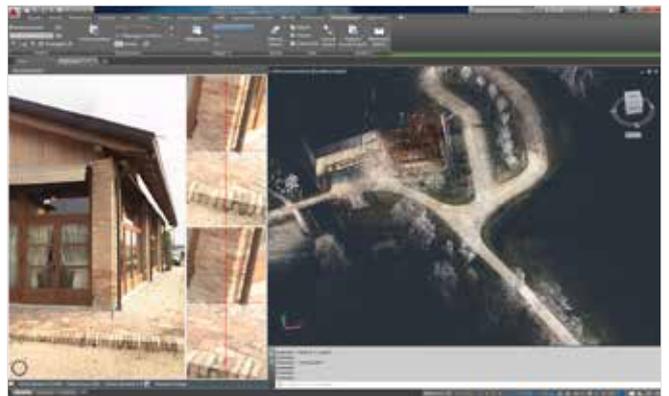
Base real-time decisions on accurate data to create evacuation plans and map routes. Benefit from clear and detailed images and point clouds and alert authorities to area changes. Provide accurate mapping for densely populated areas and give authorities the means to keep large crowds safe.

Efficient, accurate, flexible – Professionally document any site

Designed for quick and easy reality capture, the Leica 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 Software natively 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 6 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 increases 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.

Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems creates complete solutions for professionals across the planet. Known for premium products and innovative solution development, professionals in a diverse mix of industries, such as surveying and engineering, safety and security, building and construction, and power and plant, trust Leica Geosystems to capture, analyse and present smart geospatial data. With the highest-quality instruments, sophisticated software, and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world.

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Leica Pegasus:Backpack
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Leica Pegasus:Two
 Mobile reality capture



Leica Pegasus:Stream
 Mobile reality capture



Leica Pegasus:MapFactory
 Mobile reality capture

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