

Leica Pegasus:Two

Mobile reality capture



Leica Pegasus:Two

Data Economics – vehicle independent, multiple sensory platform bounded only by your imagination

Leica Pegasus:Two is a complete mobile mapping solution from hardware to object extraction. The Leica Pegasus:Two solution provides an integrated hardware platform including cameras and LiDAR

Nothing forgotten

The Leica Pegasus:Two solution captures calibrated imagery and point cloud data together – assuring that no object is missed. Capturing full 360° spherical view and LiDAR together means you never miss an object or return to a project site. Leica Pegasus:Two provides an optional rear road camera for pavement analysis giving you the opportunity to grow your business – collect once, sell twice.

profilers with an external trigger and sync output for additional sensors. Simply fly-in, collect, then fly-out. No dedicated, modified vehicles are required, batteries are included.

Complete and easy

Enabled by a complete software workflow including data acquisition, calibration, Novatel enabled post-processing, object extraction, and a GIS-enabled configurable layered storage, the Leica Pegasus:Two is your single, easy answer. A hardware light sensor assures the operator that all images are useable after post-processing.



Leica Pegasus:Two combines the comfort and confidence of visual images with the accuracy of a point cloud at vehicle speed together into a GIS-enabled interface with semi-automatic extraction tools.

Main features

- Light sensor for auto brightness and balance control for image capture
- Full calibrated spherical view through optional dome camera to enable city modelling
- Marries imagery and point cloud data into a single calibrated, user-intuitive platform
- External trigger output and external time stamping for additional sensors
- Scanners and profilers can be added separately, after purchase, and calibrated by the user
- No dedicated, modified vehicles are required
- Software enables access to Esri® ArcGIS for Desktop
- Most advanced GNSS receiver leverages global constellations
- Capture and edit 3D spatial objects from images or within the point cloud
- Data economics – balances data quantity and quality, with project logistics and post-processing

Hardware features

- Compatible with a variety of profilers, including a single high speed 200Hz profiler and multiple beam profilers
- Largest sensor to pixel in the market – 5.5 um x 5.5 um
- Six 4 MB cameras positioned to capture 360° x 270° view – plus optional sky and road cameras
- User adjustable acquisition intervals based on the distance travelled
- User adjustable camera orientation
- NovAtel ProPak6™ provides the latest and most sophisticated precise GNSS receiver with a robust field proven IMU for position accuracy of 20 mm RMS after 10 seconds of outage
- INS determination of the location, speed, velocity and orientation at a rate of 200Hz
- Includes triple band – L-Band, SBAS, and QZSS for GPS, GLONASS, Galileo, and BeiDou constellations
- Portable system fitting into two carrying cases 88 x 68 x 81 cm, 86.5 kg; 65 x 32 x 37 cm, 34.8 kg
- Battery based
- Multi-core industrial PC, 1TB SSD, USB3 interface plus USB, ethernet, and wireless connection from the battery system – enabling reliable in-vehicle connection

Software features

- Semi-automatic extraction tools
- Pavement analysis through optional eighth camera
- User capable of adding acquisition point objects in a Shapefile format during data acquisition
- Sequenced images and videos for rapid navigation and object recognition
- Software pointer “snaps” automatically and continuously onto the point cloud data from within an image
- Immediate access to point clouds for an accurate measurement
- Optional 3D stereoscopic view to decrease errors and increase throughput
- Shadowed or missing 3D points can be acquired via photogrammetric processes
- Shapefile objects can be added directly in the operator interface during collection
- Operator interface displays the current location with live LiDAR scans and cameras for management and GNSS status monitoring
- Live status monitoring of system during data acquisition

Software benefits

- Digitize spatial objects through mobile mapping
- A more natural approach for nonprofessional users while offering technical interface for advanced users
- Lidar accuracy with image-based usability
- Scalable to your applications including less accurate simple GIS needs
- Object Recognition – advanced features including street sign identification and object blurring
- Point cloud density less critical with image integration – enabling economical data collection
- Manageable data file sizes of 2GB per km
- Short data acquisition time
- Quick and efficient acquisition and post-processing of large volume projects
- Manageable licence options – compatible with thin-client viewer
- Esri® ArcGIS for Desktop compatible
- Leverages Esri relational platform for advanced features

Reality capture solutions by Leica Geosystems give you the power to digitise the world around you enabling you to work where and how you want. With advanced scanning technologies, capture the real world like never before.

Mobile reality capture.

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 aerospace and defence, safety and security, construction, and manufacturing, trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and dependable services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.

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Leica Viva GS25
GNSS Surveying Receiver
Peak Performance



Leica ScanStation P20
Industry's Best
Performing Ultra-High
Speed Scanner



Leica ADS100
Airborne Digital Sensor
Airborne Evolution



Leica ALS70
Airborne Laser Scanners
Performance for diverse
Applications