

Leica Pegasus:Two Mobile Mapping Solution



Leica Pegasus:Two

Bounded only by your imagination –
vehicle independent, data economical,
multiple sensory platform

Leica Pegasus:Two is a complete mobile mapping solution from hardware to object extraction from Leica Geosystems. The Leica Pegasus:Two solution provides an integrated hardware platform including cameras and lidar 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 included, measure the unlimited.

Leica Pegasus:Two Nothing forgotten

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

Leica Pegasus:Two 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. Capture to extract – your only tool needed.

Main features

- Light sensor for auto brightness and balance control for image capture
- Full calibrated spherical view through optional dome camera to enable city modeling
- 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
- Economical with data - balances data quantity and quality, with project logistics and postprocessing

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, 1 TB SSD, USB3 interface plus USB, ethernet, and wireless connection from the battery system – enabling reliable in-vehicle connection



Leica Pegasus:Two is at home on any vehicle



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.

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
- Data capture module displays the current location of the vehicle based on a GIS user interface
- Data capture module displays all cameras live, simultaneously
- Data capture module enables laser scanner management and GNSS operation
- 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 2 GB per km
- Short data acquisition time
- High acquisition throughput
- High post-processing throughput
- Manageable licence options – compatible with thin-client viewer
- Esri® ArcGIS for Desktop compatible
- Leverages Esri relational platform for advanced features

Leica Pegasus:Two – the only mobile platform



Whether you want to digitize your city for planning, record your road assets for budgeting, capture a topo view for new construction, or plan an emergency route, you need a single solution that is easy to use and flexible. Leica Geosystems' mobile products are integrated complete hardware and software solutions to capture data quickly, reference objects accurately, navigate your data effortlessly and present spatial information easily.

Those who use Leica Geosystems products every day trust them for their precision, their seamless integration and their superior customer support. When data really counts, Leica Geosystems delivers geospatial imaging solutions with precision, integration and service.

When it has to be right.

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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