

Leica Pegasus:One Mobile Mapping Solution



Leica Pegasus:One

Your one complete mobile mapping solution: Digitizing while on the move

Leica Pegasus:One is a complete mobile mapping solution from hardware to post-processing from Leica Geosystems. The Leica Pegasus:One solution captures calibrated imagery and point cloud data and enables processing, visualization, and

interpretation through a single, user-intuitive software platform. Record your city road assets or capture a highway topo view, Leica Pegasus:One is your one solution for mobile mapping in a 3D world.

Leica Pegasus:One Single solution

The Leica Pegasus:One solution provides a plug-and-play hardware solution including cameras and lidar sensors enabled by a complete software solution including data acquisition, calibration, post-processing, viewing, editing and storage modules.

Leica Pegasus:One Flexible and easy to use

Leica Pegasus:One is plug-and-play with qualified terrestrial scanners and profilers – no dedicated, modified vehicles are required. Packs into a case – simply fly-in, collect, then fly-out – while providing an easy process for object capture -and referencing into a GIS-based platform.

Main features

- Marries imagery and point cloud data into a single calibrated, user-intuitive platform
- Plug-and-play with qualified terrestrial scanners and profilers
- Scanners and profilers can be added separately, after purchase, and calibrated by the user
- No dedicated, modified vehicles are required
- Leica Geosystems platform roadmap to future portability
- Software enables access to Esri ArcGIS Desktop
- Provides the operator with multiple ways to view collected 3D points
- Capture and edit 3D spatial objects from images or within the point cloud simultaneously or independently
- Balances data need, quantity and quality, with project logistics and speed of post-processing to deliver a ROI-enabling platform

Hardware features

- Compatible with a variety of scanners and profilers, including the industry leading Leica ScanStation P20 in single or dual-head configuration
- Six 2MB cameras positioned to capture a full 360° x 70° view
- User adjustable acquisition intervals based on the distance travelled
- User adjustable camera orientation
- NovAtel SPAN technology connects a precise GNSS receiver with a robust IMU for position accuracy of 20mm RMS even after 10 seconds of outage
- INS determination of the location, speed, velocity and orientation at a rate of 200 Hz
- Includes L1 and L2 GPS+GLONASS
- Portable system fitting into two carrying cases 65x65x65cm, 68kg; 50x30x40cm, 38kg.
- Battery based – charges from a variety of sources



Leica Pegasus:One is at home on any vehicle



Leica Pegasus:One marries image and lidar data together into a GIS-enabled interface.

Leica Pegasus:One combines the comfort and confidence of visual images with the accuracy of a point cloud.

Software features

- 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
- Basic object recognition
- Density of point clouds less critical with image integration – enables user to balance data quantity with data type while maintaining data quality.
- Manageable data file sizes of 1 Gbyte per km
- Short data acquisition time
- High acquisition throughput
- High post-processing throughput
- Manageable licence options – compatible with thin-client viewer
- ArcGIS Desktop compatible
- Leverages Esri relational platform for advanced features

Leica Pegasus:One – your one complete mobile mapping solution

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 MobileMatrix
 The Evolution of
 Mobile GIS



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