Leica LiDAR Survey Studio
Turnkey workflow for bathymetric LiDAR survey

Leica LiDAR Survey Studio (LSS) post-processing software suite offers an efficient turnkey solution for the bathymetric LiDAR workflow in day-to-day field processing, quality assurance and reporting. In the office, the software is used to visualise and edit data, quality control and extract end products. LSS is specifically developed for full waveform processing and includes several algorithms to extract the best results from raw waveform data in turbid and clear waters, complex water surface environments, very shallow water and any other environment.

A COMPLETE TOOL
- Waters around the world differ. LSS allows to optimise full waveform processing to extract the most information from the raw data, regardless if it is clear or very turbid, a coastal or inland waterway, in simple or complex sea-bed conditions.
- Visualise all your data fast and accurately in one intuitive interface. LSS integrates and processes the data from Leica Geosystems’ fused topographic and bathymetric LiDAR systems and fuses with imaging from integrated cameras.
- Use one software for your entire workflow, including point cloud generation, sensor calibration, LiDAR registration, point cloud colourisation and quality assessment.
- LSS processes all your topographic data too, from corridor mapping surveys of urban areas to infrastructures like power transmission lines. Use LSS combined with other Leica Geosystems software to create ortho images and 3D city models.
- Topographic and bathymetric data is seamlessly integrated in one tool. Import GCPs or reference bathymetric patches from multibeam sonar for quality control. Report your project progress to manage and extract end products in the requested format.
Review all data simultaneously

Integration and workflow

The unique export function expands the post-processing productivity by enabling direct export of LiDAR point-cloud data to other software such as Leica HxMap and third party software. This is a significant step in increased productivity.

Point cloud in elevation, RGB, CIR and NIR view

Key features

QUALITY CONTROL IN THE FIELD
- Minimises re-flights by allowing the operator and field crew to analyse the data after survey completion using tools for coverage plotting, sensor calibration, quality control, cross-sectioning, colourisation options and waveform viewing

MULTIPLE SENSOR INTEGRATION
- LSS integrates RGB and near-infrared high-resolution images with the LiDAR point cloud
- Depicts urban areas and infrastructures in their true colour

MAXIMISE SEABED DATA
- The Turbid Water Enhancement provides more information than ever before with maximum water penetration
- Easy extraction of seabed information allows substrate characterisation and vegetation analysis
- Elaborate algorithms for sea surface detection and water refraction correction even in rough conditions, including sloping water surfaces of riverine and flowing environments

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- when it has to be right