SATLAB®
GEOSOLUTIONS

Sat-LiDAR

Point Cloud Data Processing Software

Made by Sweden

Sat-LiDAR *Point Cloud Data Processing Software*

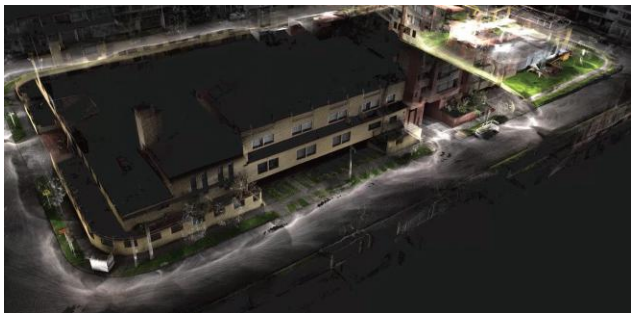
Sat-LiDAR provides a comprehensive and user-friendly solution for managing and processing airborne and mobile SLAM data. The software delivers high-precision, high-quality results through an automated workflow, enhanced visualization, and advanced engineering tools.

One Platform for All LiDAR Workflows

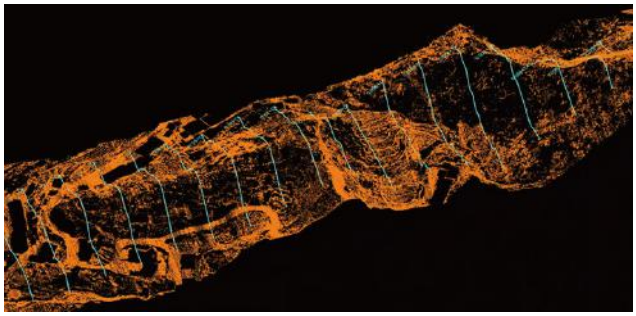
Applications

- *Airborne Mapping*

- *Mobile SLAM Mapping*



- *Engineering Analysis*



- *3DGS Visualization*

Key Features

Airborne Module

– For Apus Series Data Processing

NEW *DOM Orthophoto Generation*

Supports Fast Mode for one-click DOM generation and Professional Mode with adjustable imaging parameters, producing high-quality orthophotos for mapping, inspection, and comprehensive project deliverables.

Point Cloud Optimization

One-click strip adjustment and refined point cloud optimization.

Quality Checks & Reports

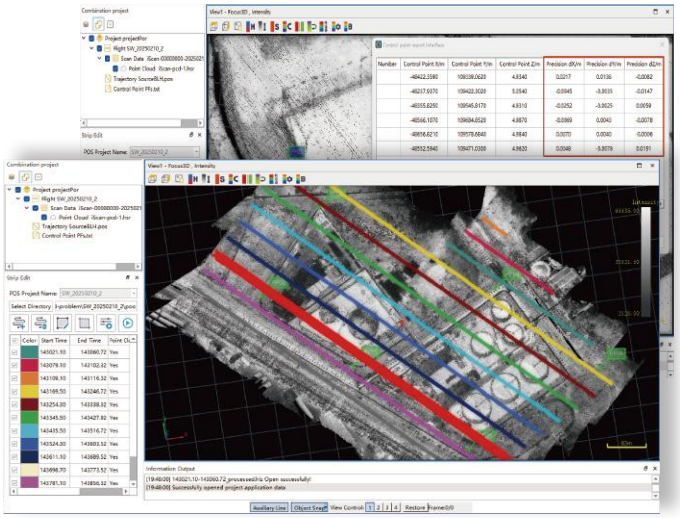
Performs checks on data, overlap, height, density, and range, and generates PDF reports.

Automatic Strip Management

Facilitates quick and easy strip editing.

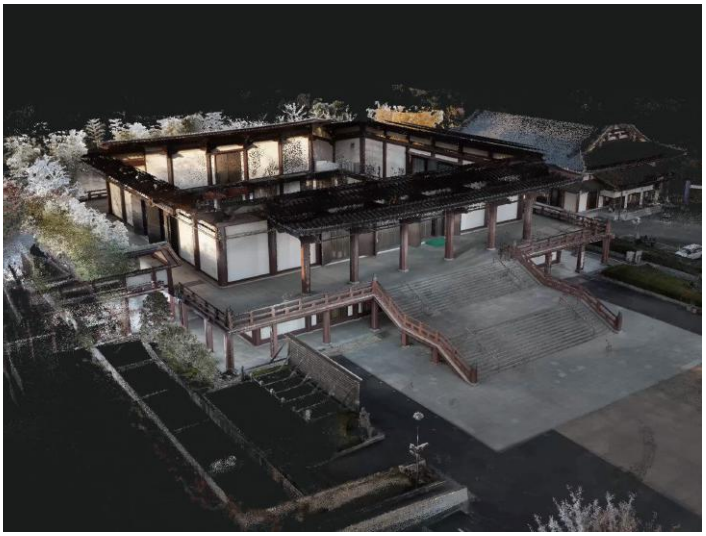
One-Click Workflow

Converts scanned coordinates to geodetic coordinates with POS and laser data, supporting multiple coordinate systems and transformations.



SLAM Module

— For Handheld SLAM Data Processing



Comprehensive Coordinate Support

Compatible with global coordinate systems and Geoid models.

SLAM Wizard Processing

One-click processing with automatic filtering, georeferencing, and colorization for fast, accurate SLAM results.

RTK/PPK/ GCPs Processing

Enhances trajectory accuracy even in GNSS-denied or obstructed environments.

NEW *3DGS Reconstruction & Visualization*

Real-time 3D Gaussian Splatting from SLAM data, creating realistic, immersive scenes for inspection, mapping, and digital twins, with fast loading and smooth roaming.

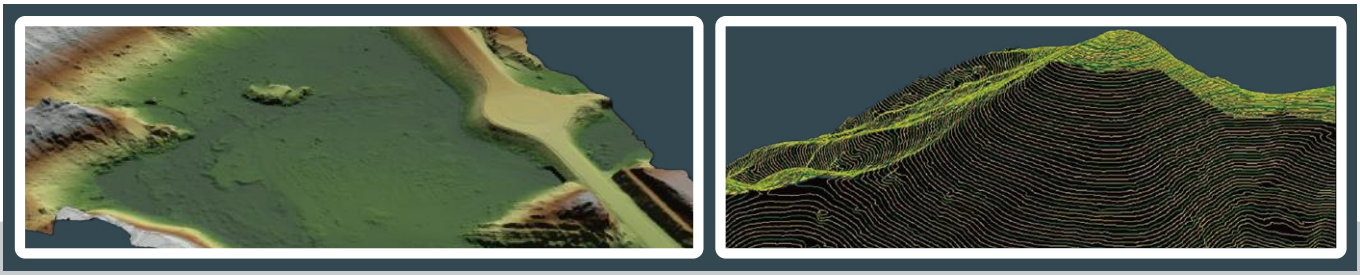
Terrain Module

Classification: Automatic classification of points as ground/non-ground.

Digital Elevation Models (DEM): Generates DEMs automatically from point cloud data.

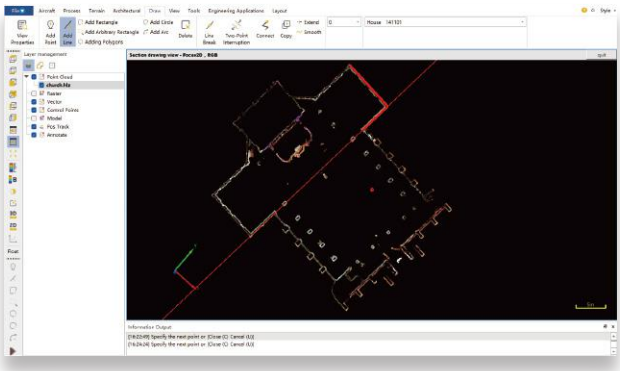
Contour and Elevation Points: Generates detailed topographic data.

Volume Measurement: Calculate and report single and multiple volume data.

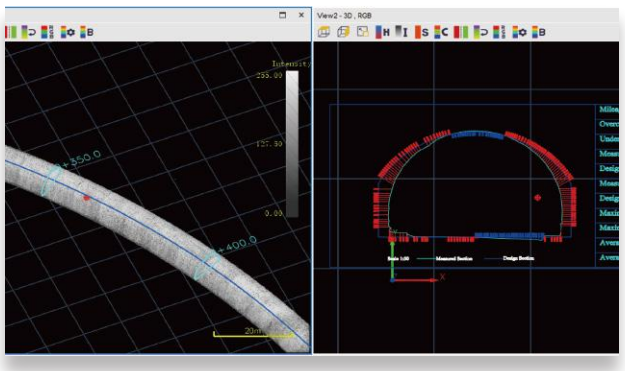


AEC (Architecture, Engineering and Construction) Module

Architecture Module: Effortless point cloud slicing and unfolding for seamless CAD geometry assistance.



Engineering Module: Extracts sections, visualizes complex structures, and provides volume measurement, comparison, and reporting tools.



Specification

Operation system	Windows 10 (64-bit), Windows 11(64-bit)	
Processor	Intel Core i7 or above, 6-core processor	
Memory	Minimum 16GB RAM	3DGS function • Memory: ≥ 32GB (recommended 64GB)
Graphics	NVIDIA discrete graphics card with at least 2GB video memory	3DGS function • Graphics card: NVIDIA GeForce RTX 20/30/40/50 series, graphics memory ≥ 8GB
Display Resolution	Minimum 1920x1080	
NET Framework	Version 3.5	

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