GOSLAM®

T50

3D Laser Scanning Mobile Measurement Systems

New Style Mobile Measurement

The GoSLAM mobile measurement system uses SLAM technology (simultaneous localization and mapping) which is real time positioning and mapping technology.It does not rely on GNSS positioning such as GPS,and can perform self positioning,incremental 3D mapping in unknown environments such as indoor and outdoor space.

GoSLAM is committed to providing user centered 3D laser mobile scanning measurement system product solutions,bringing users a better work experience.

Real time

Accuracy

Efficiency

Simplicity

Product Introduction

Scanning Range	**50 m (10% reflectivity)** **75 m (80% reflectivity)**
Point Accuracy	**1cm（Highest）** Accurate & Reliable
Scanning Speed	**320,000 points/second** Efficient Scanning
FOV	**360°×285°** Super Large Field Of View

Product Features

Rotating Laser Sensor

App real-time preview

Strong Weather Resistance

T50 has ultra strong weather resistance and can operate in an environment of -35-60 ℃.

High Level Of Protection

T50 has a high level of protection against dust and water, suitable for various environments.

Support Multi-platforms

Inheriting excellent platform compatibility,it supports multiple platforms and scanning modes such as backpack,drone,vehicle,USV and robotic dog,meeting your full imagination for mobile measurement.

Backpack   UAV   Vehivcle   USV
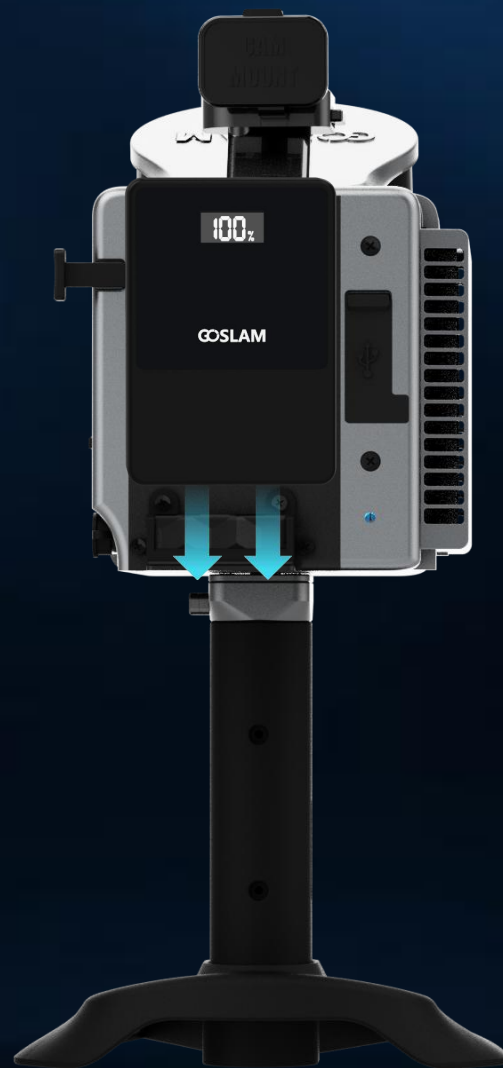
Product
Advantages

Product Portable

T50 adopts an all-in-one portable design, helping you easily complete every measurement and feeling convenient portable operation.

Product Advantages

Portable, Quick-installed Battery

GoSLAM adopts a portable fast charging battery which can display the remaining power in real time and support quick installation of plug-in and plug-out.

Product battery end

Portable

Product Advantages

Touchable Color Screen

A brand new touchable color screen that supports device status information display and user guidance,making it easier to use and smoother to operate.

Visual SLAM

With built-in high-resolution visual SLAM component, synchronously recording visual images,and performing high-precision visual SLAM mapping technology.

Product Advantages

The Third-Generation Mapping Technology

T50 adopts a third-generation mapping system that integrates multi-sources data such as laser, visual sensor and GNSS.You can choose processing data in the data-logger or on PC desktop software.
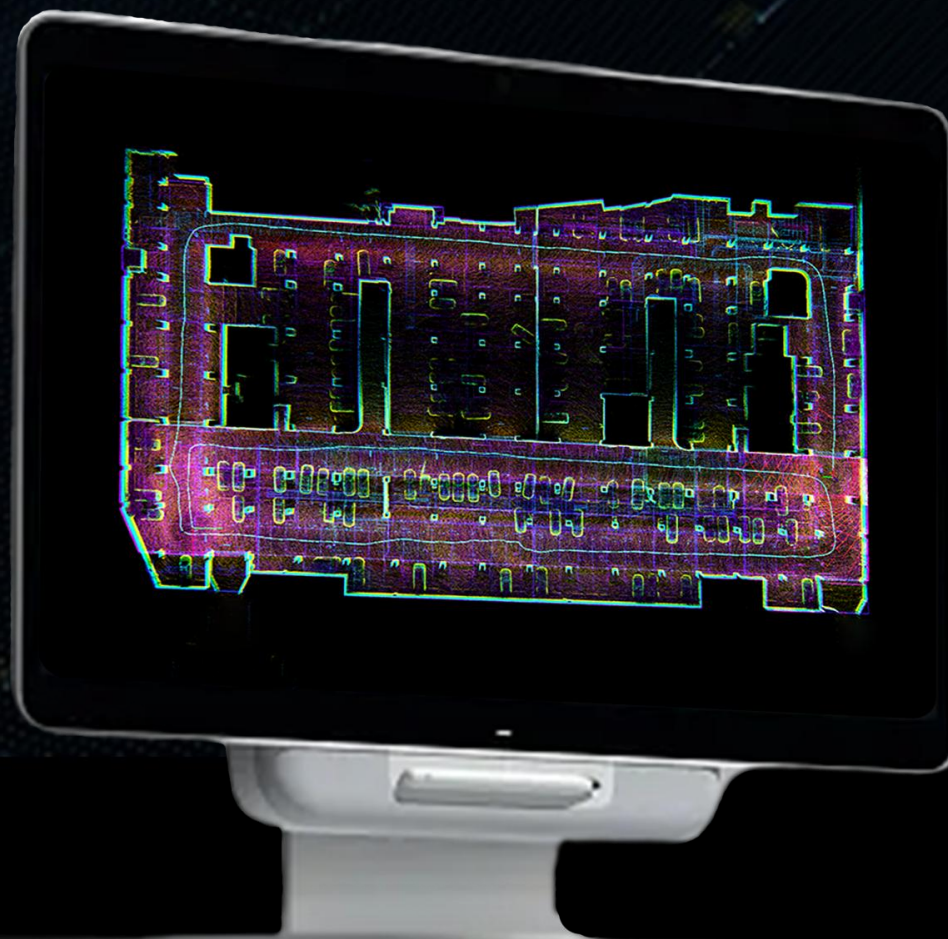
The third-generation mapping technology

Performance Improved Again

Product Advantages

Anchor Point Solution

The unique anchor point solution function can ensure the accuracy and stability of scanning data for indoor and outdoor scenarios with large ranges, low features, and high difficulty.
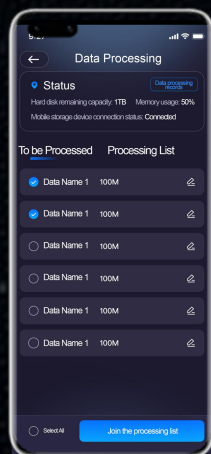
Large Scenarios Without GNSS

High Precision And Wide Range

Product Advantages

Dual Platforms Solution

GoSLAM series equipment can support dual platforms processing methods either inside the data-logger or on PC desktop.Users can choose their own processing method to improve overall work efficiency and meet needs of various customers.
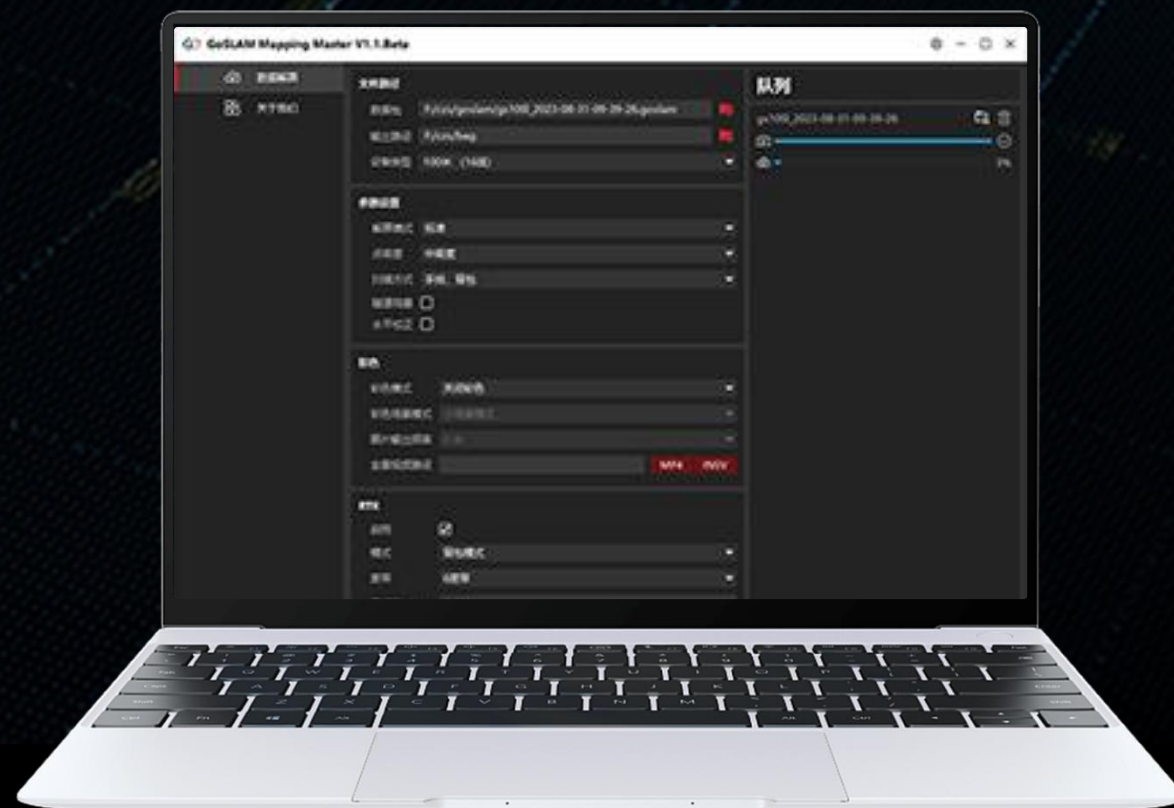
Product Advantages

Multi-Platforms System

Supports multiple scanning modes, such as handheld, backpack,vehicle and drones to meet various demands.

Handheld

Backpack

Car mount

UAV

Pile size application

Smart City

Underground facilities

Forestry applications

Surveying and mapping

Industry Applications

Industry

### Pile size metering (pan coal, ore, sand, grain storage, etc.)

Advantages

·T50 is based on laser scanning and SLAM positioning technology to perform fast mobile scanning operations in indoor and outdoor environment;
·Even without GPS, its high accuracy point clouds can be acquired quickly and displayed in real time.Its unique ultra-low reflectivity extended range function is particularly effective for coal piles , ore materials etc which make it has unparalleled advantages over other measurement solution.

Solution

Mobile solution for fast and accurate volume measurement.
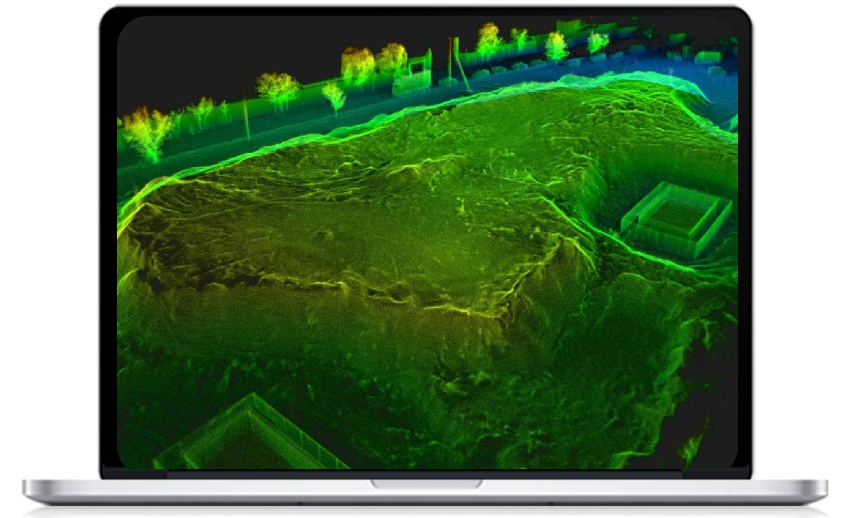
Industry Applications

Industry

### Smart City（BIM,Digital twins、building facade）

Advantages

·T50 is being developed on multi- platforms,it can be used by handheld, backpack,vehicle and UAV with a unique rotating sensor with scanning speed up to 320000 points/second.It can acquire data in higher speed.

·It can collect high-density spatial information on various types of buildings, such as modern buildings,urban houses, rural cadastre,ancient buildings etc and conduct 3D modeling and drawing for interior work.
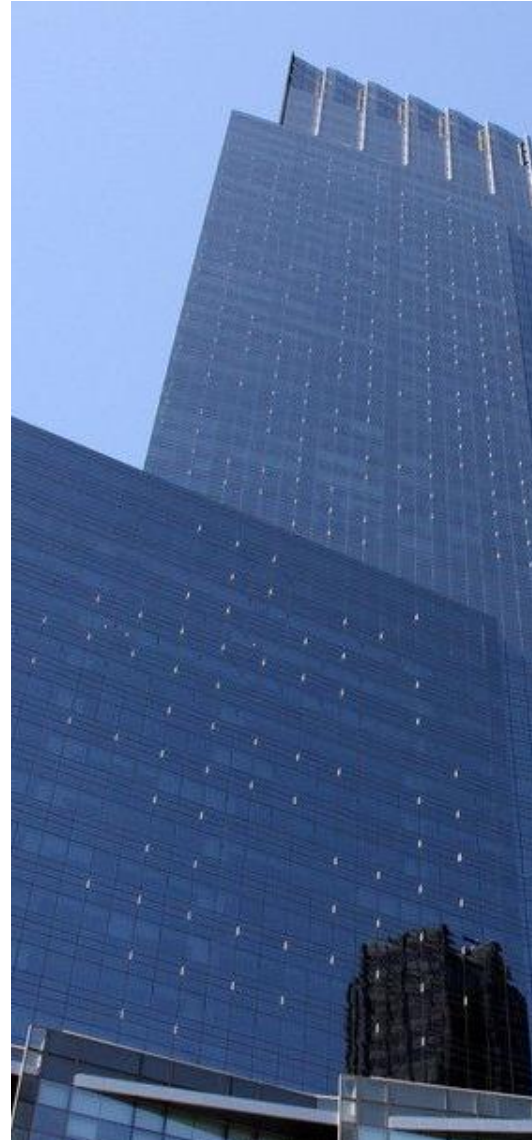
Solutions

Backpack RTK,vehicle and handheld modes can quickly obtain indoor and outdoor information of buildings
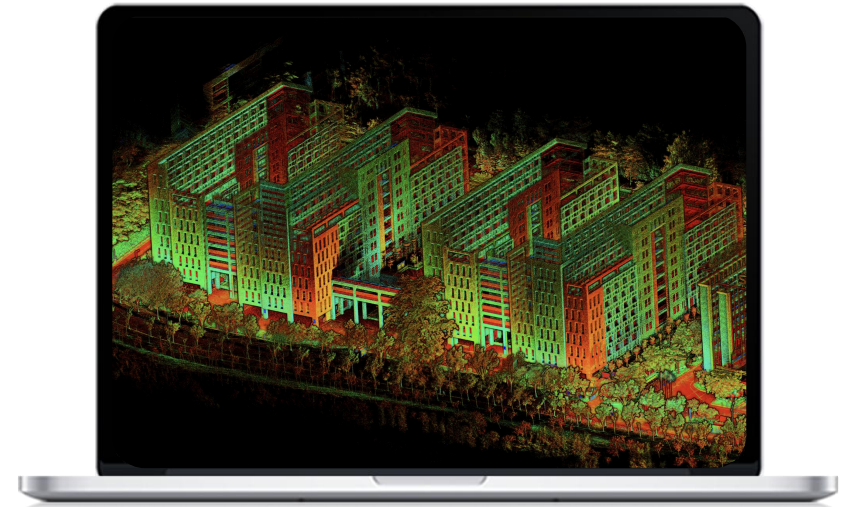
Industry Applications

Industry

Digitization of underground facilities (parking,mine,underground roadway, people air defense facilities)
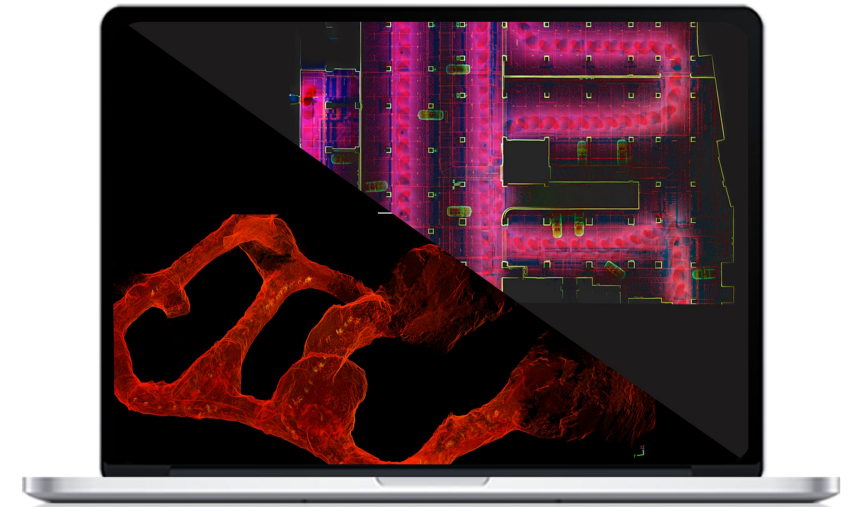
Advantages

·T50 product is based on SLAM positioning technology which does not require GPS,enabling fast 3D data acquisition both indoors and outdoors, and obtaining high-quality point cloud data withot effect of bright or dark environments;

·The T50 system can be used to collect complete and accurate spatial information for underground garage, people air defense facilities, shopping malls, airports, large factory facilities and mining tunnels.

Solutions

Seamless and integrated information collection method for above the ground and underground

Industry Applications

Industry

Agriculture, forestry, geology (forestry, plant growth, geological sampling information)
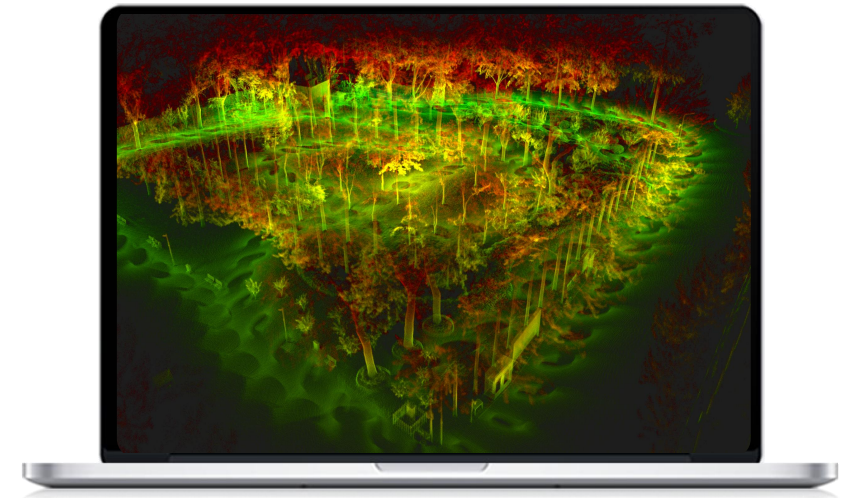
Advantage

·The complex field environment and high coverage of agriculture,forestry and geology have always been a difficult area for 3D data acquisition.The SLAM technology is able to help slove the difficulties in this field;

·GoSLAM T50 has a rotating laser sensor with 360 × 285 degree scanning coverage.It is possible to greatly collect 3D information on the horizontal and vertical surfaces of the tree crown, making it no longer difficult to conduct agricultural growth, forestry volumn evaluation and geological surveys.

Solutions

SLAM is more effective for complex structural spatial environments

Industry Applications

Industry

Surveying and mapping (Cadastral survey, topography, line drawing)

Advantage

·The flexible and versatile GoSLAM T50 system can be used with handheld,RTK backpacks and UAV.No matter it's sheltered by trees or narrow village lanes, T50 can make it easy;

·The supporting post processing software can be used with various traditional surveying and mapping equipment to provide comprehensive and powerful data assurance for mapping.
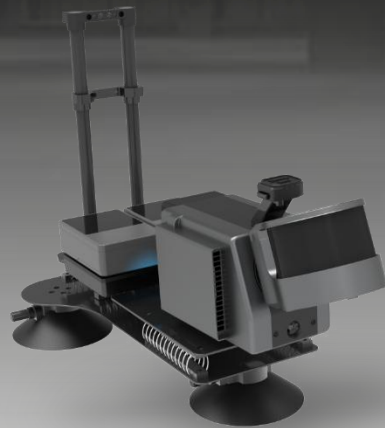
Solutions

Used in conjunction with the RTK system suite for more efficient field collection
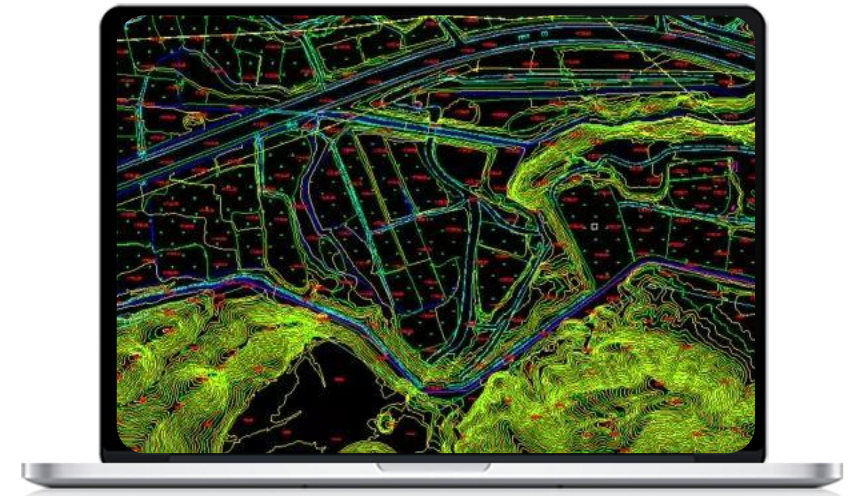
T-series Accessories

Backpack Kit   Car Mount Kit   Drone Kit   Color Module

T-series Accessories

GCM V3 Module

Long Endurance
Battery Panel
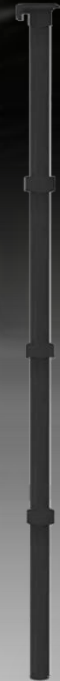
Extension Rod

Accessories

Color module

- Color module lens direction, dual support for front, rear, left, and right directions;

- It can be used by plugging in, without the need for tedious operations and can be integrated for synchronous collection;

- Support for 1/2-inch with 8K images ;

- The data can be fully automatically for colorizing point cloud and achieved interaction between panoramic image and point cloud.

Color point cloud data
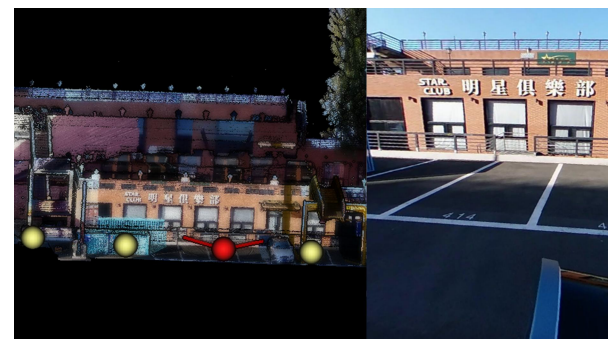
Interaction between color point cloud data and panoramic images

GoSLAM Mobile APP

The GoSLAM mobile app supports viewing device status,controlling scanners for data collection,previewing scanned point cloud data in real-time and processing data locally.It breaks physical limitations and can easily enable multiple scanning methods.

- By browsing scanning point cloud data in real-time,users can more intuitively grasp the progress and effectiveness of data collection during scanning;
- The APP supports multiple browses and interaction methods as well as more human-computer interaction functions, providing users with a more convenient and intelligent operating experience.

9:27

● T100 Pro   Chinese ∨

Scanning

IMPORTANT FUNCTIONS
IMPORTANT

Data Processing   Data Browsing   Setting

GoSLAM Mapping Master

PC processing software.Users can choose their own solution methods either in data-logger or on PC desktop software based on actual projects, improving overall work efficiency and meeting various needs.

- The PC processing software supports batch processing of multiple datas and supports multiple scanning scene solution modes;
- Support synthesis of panoramic video without third-party software, point cloud colorizing and panoramic video can be completed in one stop;
- Supports various RTK connection modes such as car mount, backpack and handheld,supports geographic coordinate output, anchor point processing and obtains high-precision scanning result data；
- Dual processing methods in PC software or data-logger, providing users with more options.

Software Function

GoSLAM LidarWorks

GoSLAM LidarWorks is a powerful point cloud post-processing software that supports GoSLAM's full range of mobile 3D laser scanning systems.

- Working with the scanner function, it can support downloading and archiving point cloud data through network as well as matching anchor control points;
- Support universal point cloud editing and browsing functions which can perform measurement, noise reduction, cropping, merging, coordinate conversion, rotation and offset work on point clouds as well as conventional processing functions such as format conversion and docking with third-party applications;
- At the same time, it also has functions such as automatically point cloud stitching, Mesh model encapsulation, model optimization processing, point cloud volume measurement, point cloud classification, one click removal of moving objects, seven parameter conversion, contour lines and orthophoto images.It can provide industry customized developing functions.
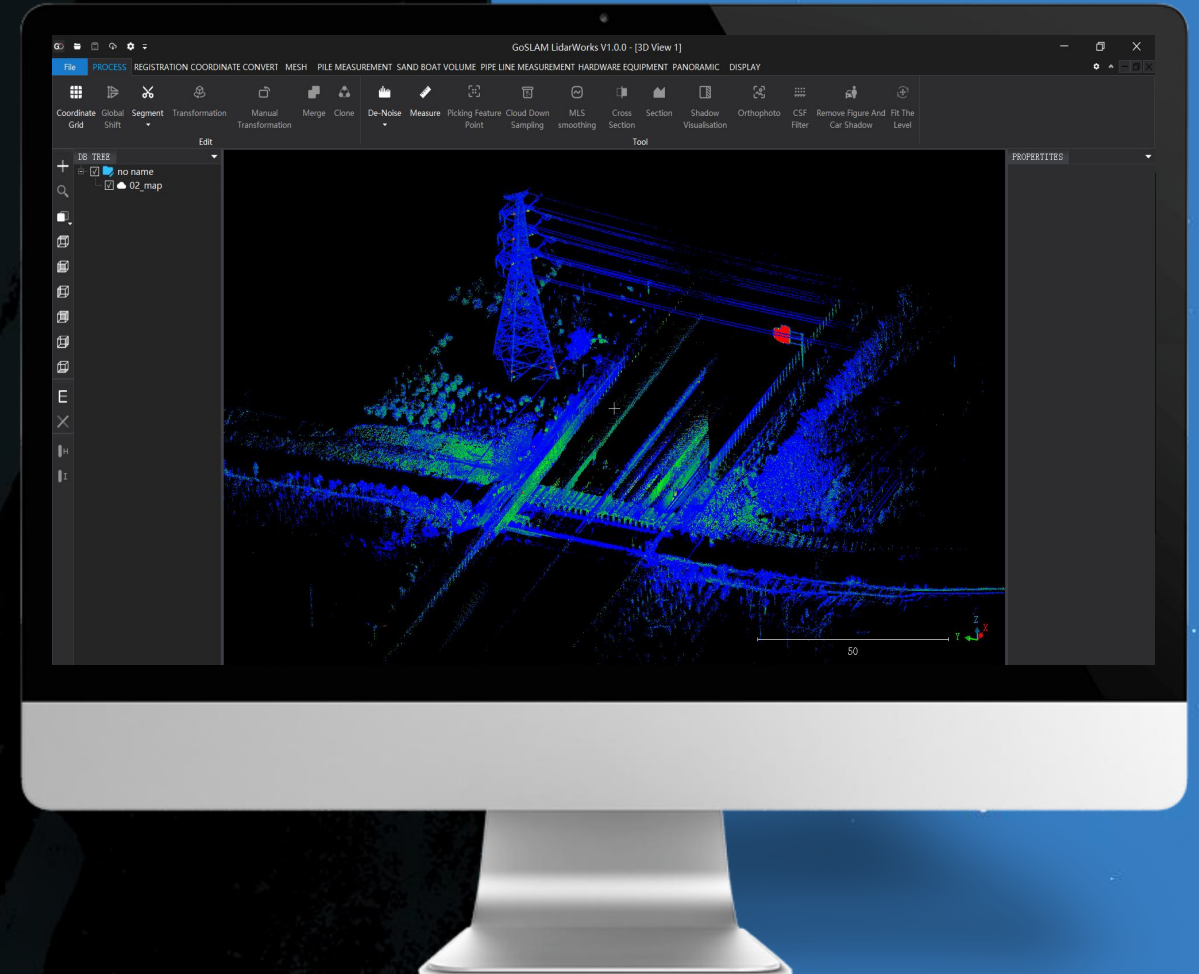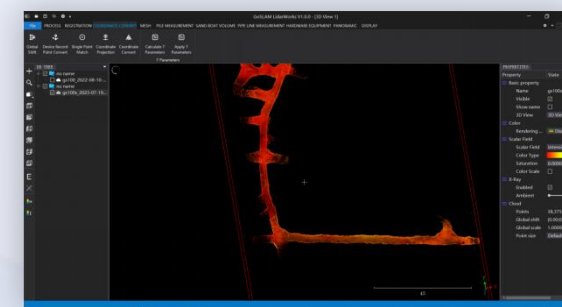
Software Function

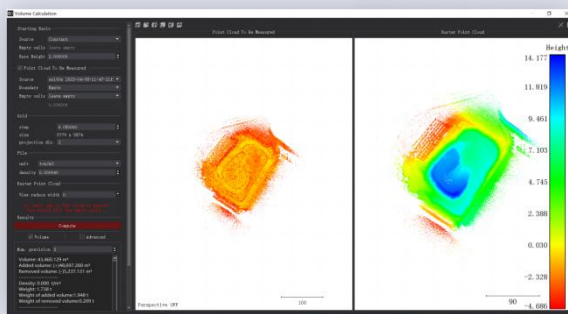## Software advantages
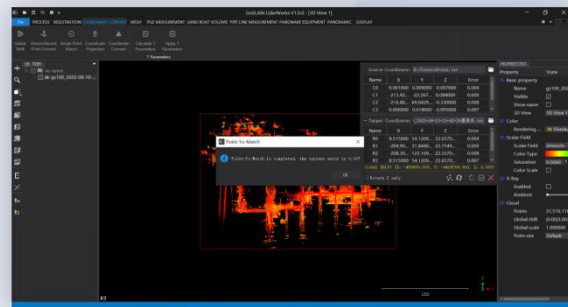
Control point conversion
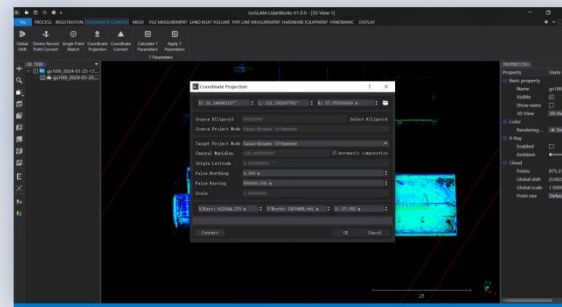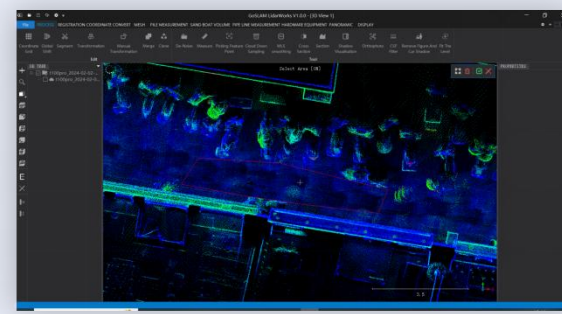

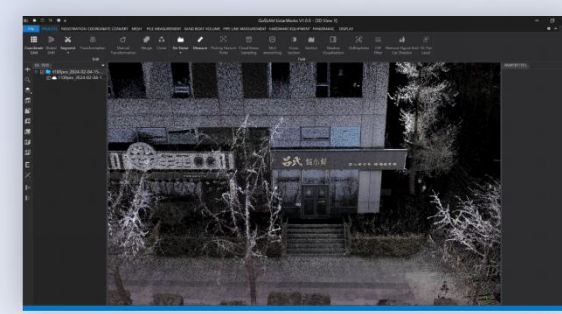Multi coordinate system conversion

X-Ray Display Mode

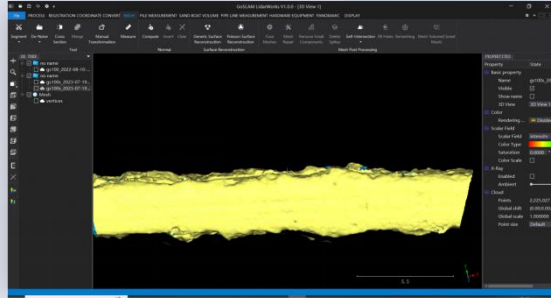Partial function display

→

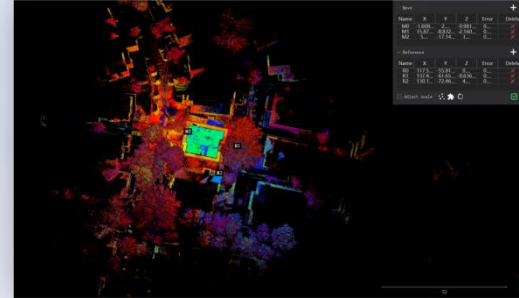Measurement of Pile Volume

Shadow and car shadow removed

Color Point Cloud
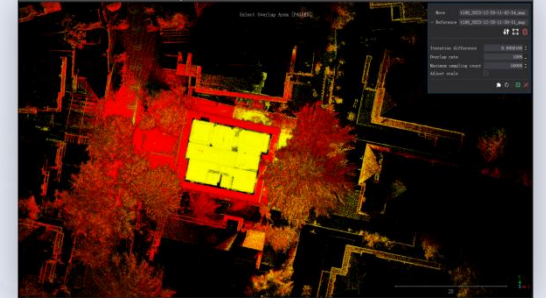
Software Function

Advantage

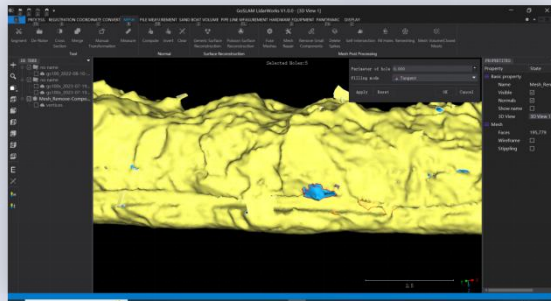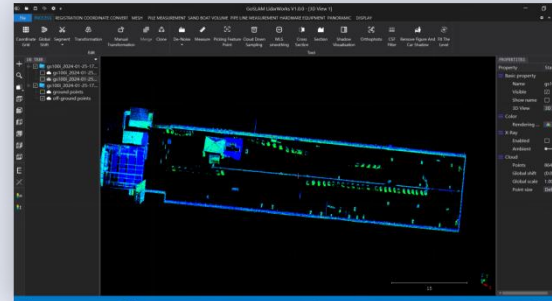Mesh Model Encapsulation
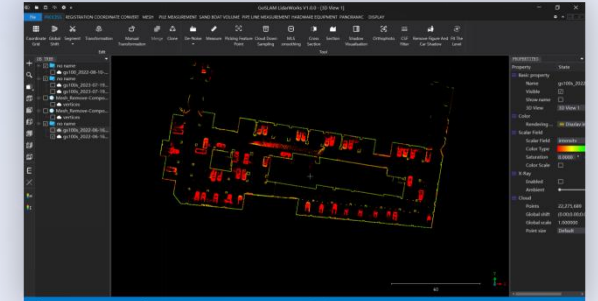

Fast Split Joint

All Loading

Partial function display


Fill Holes

Point Classification

Generate Sectional Drawing

Product Parameter

Protection class	Class I	Laser lines	16 lines	Visual SLAM	Yes
Scanning Range	50 m (10% reflectivity) 75 m (80% reflectivity)	Scanning speed	320,000/s	FOV	360°×285°
Solution method	Device end / PC end	Positioning	SLAM Technology	Accuracy	1cm(Highest)
Working time	1.5h(Standard Battery) 2.5h(High capacity battery)	Working Temperature	-35~60℃	Resolution	2mm(Highest)
Weight (host end)	1.7KG	Internal Hard Disk	512GB (Expandable)	External RTK	Support
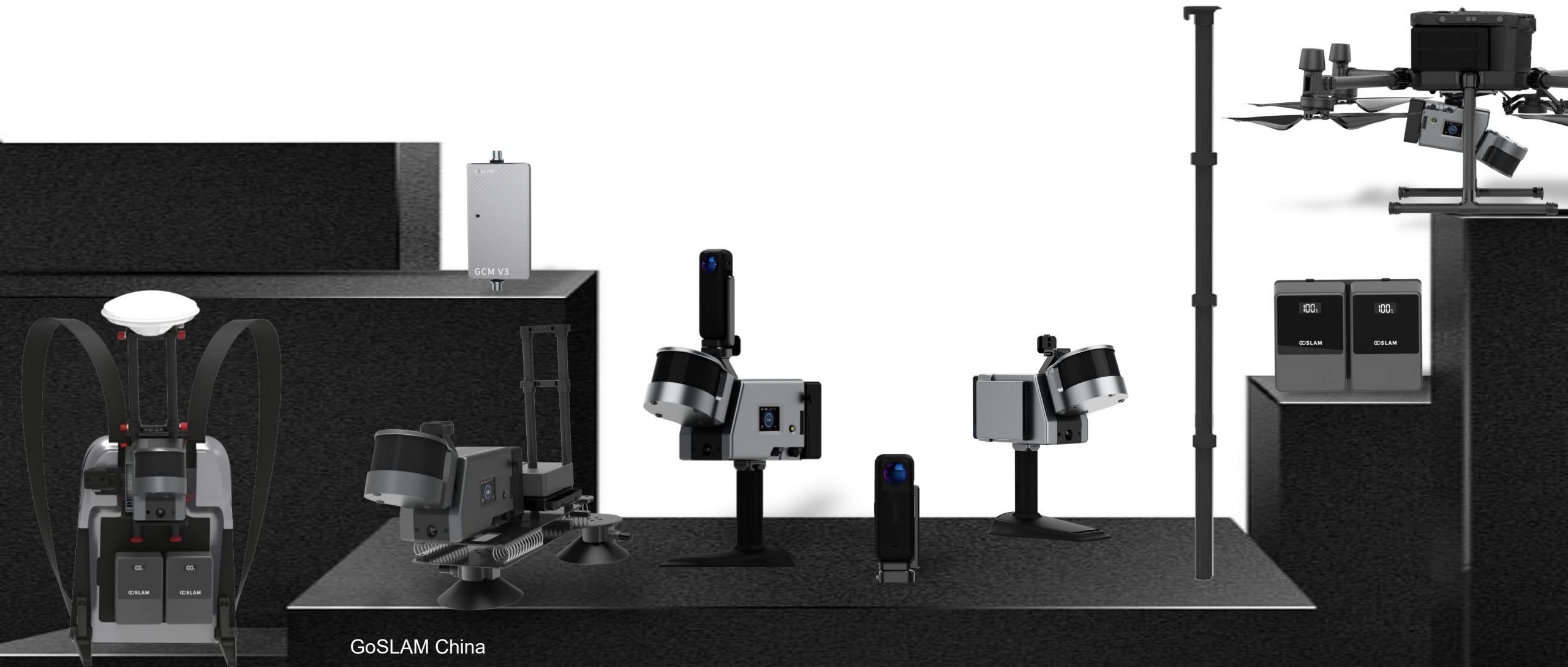
GoSLAM China

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