

GOSLAM[®]



T100 RTK

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

120m

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

T100 RTK has ultra strong weather resistance and can operate in an environment of $-35-60^{\circ}\text{C}$.



High Level Of Protection

T100 RTK 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



Vehicle



USV

Product Advantages

Product Portable

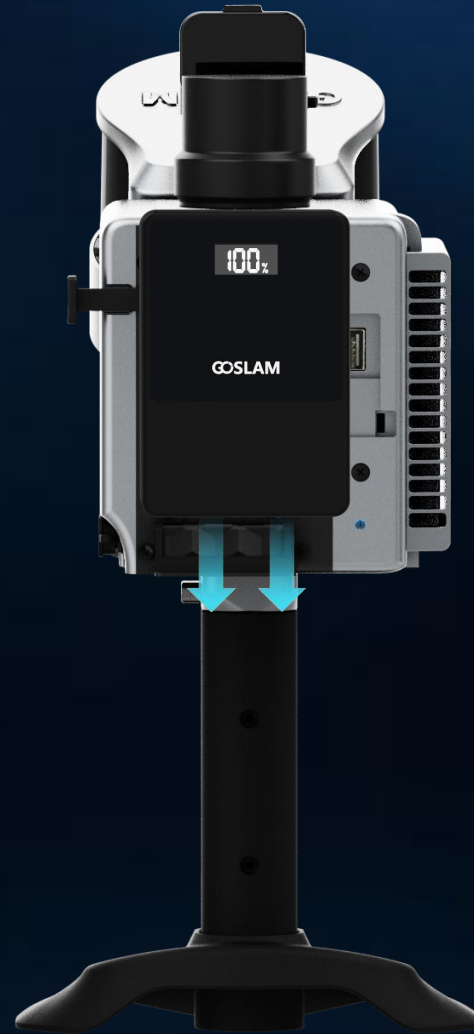
T100 RTK adopts an all-in-one portable design, helping you easily complete every measurement and feeling convenient portable operation.



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.



Product Advantages

RTK module

The T100 RTK with built-in RTK technology can collect 3D data in various scenarios such as urban planning, environmental monitoring, and ancient buildings, and can directly obtain high-precision large-coordinate data.



RTK module

**Built-in high
precision**

Product Advantages

Visual SLAM

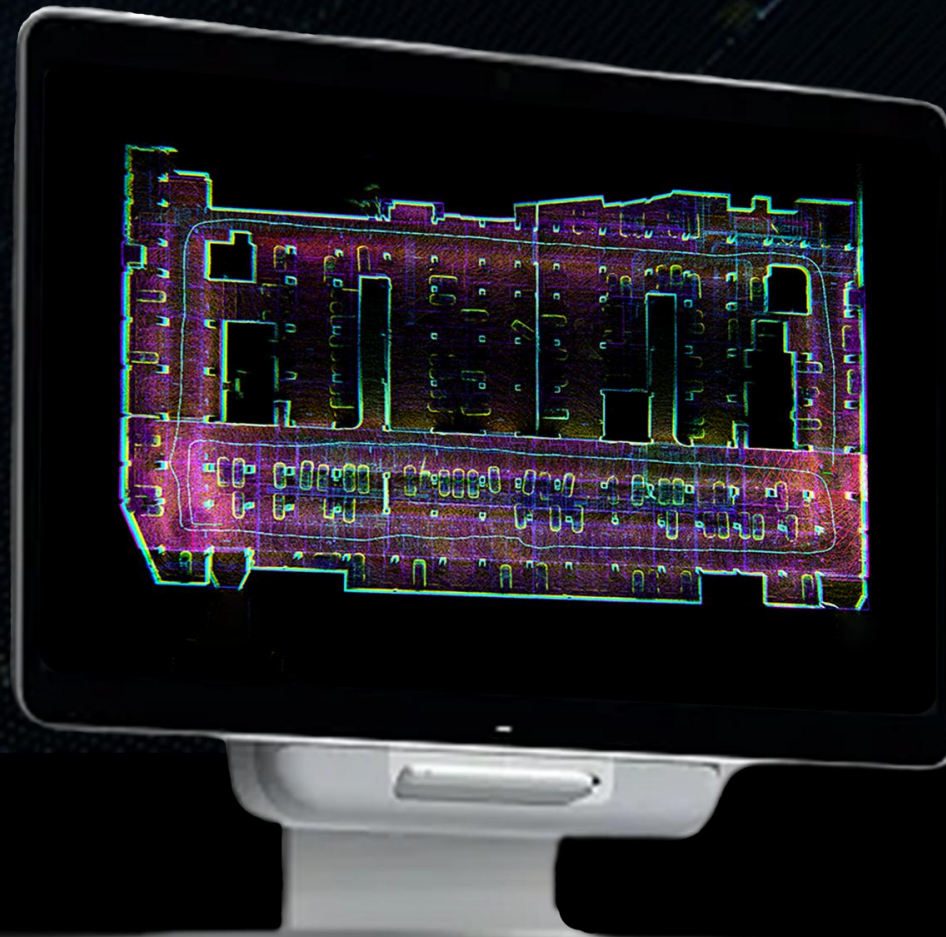
With built-in high-resolution visual SLAM component, synchronously recording visual images, and performing high-precision visual SLAM mapping technology.



Product Advantages

The Third-Generation Mapping Technology

T100 RTK 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.



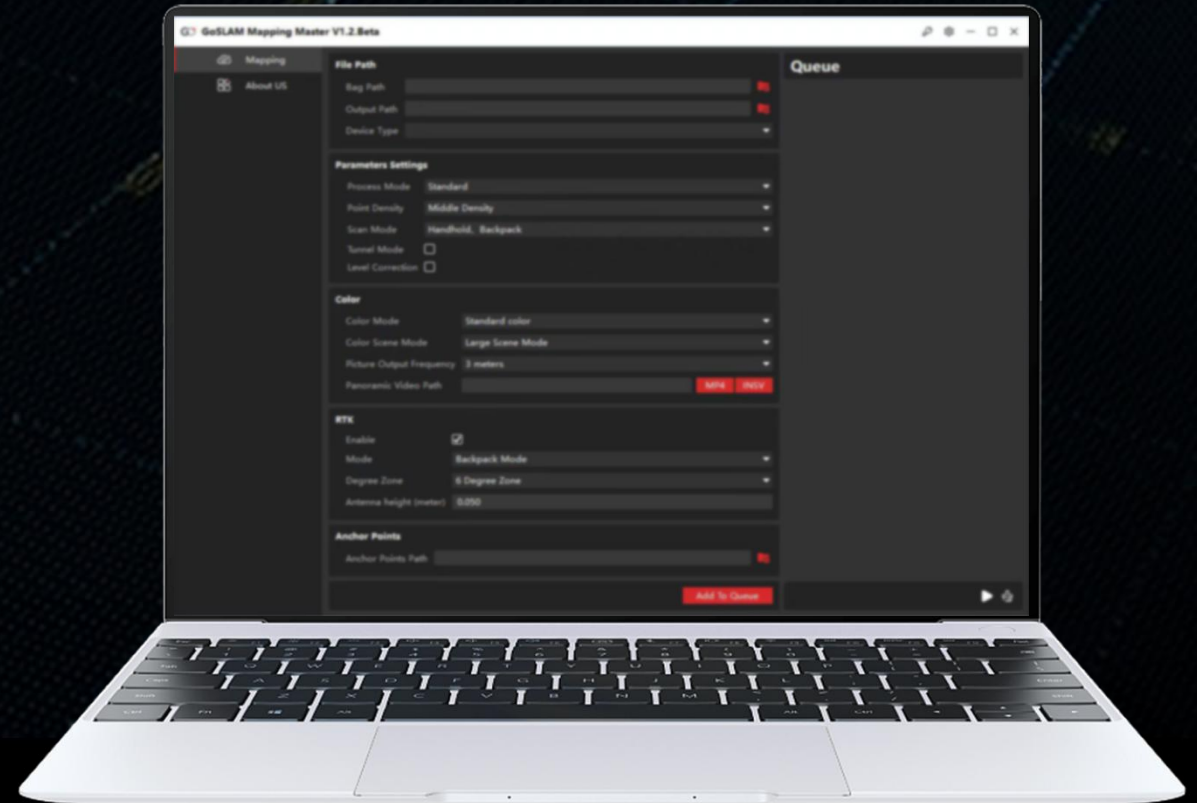
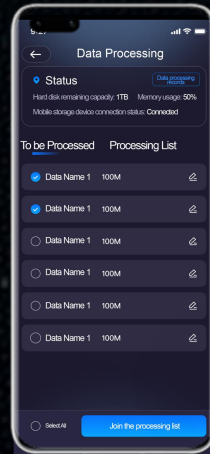
Large Scenarios Without GNSS

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



Smart City



Forestry applications



Pile size application

Underground facilities

Surveying and mapping

Industry Applications

Industry

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

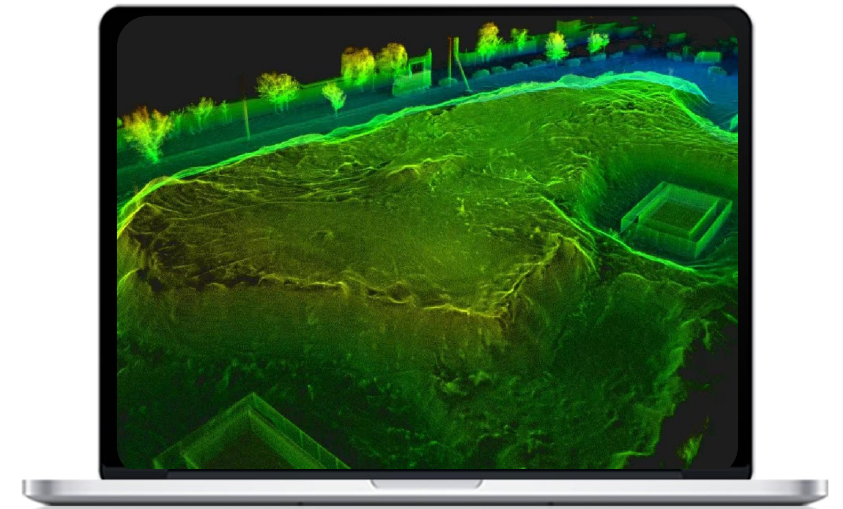
Advantages

- T100 RTK 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

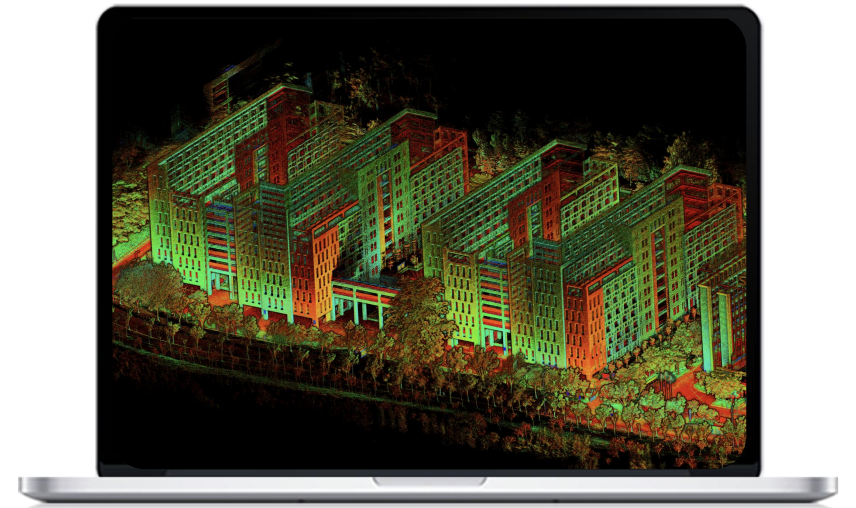
·T100 RTK is being developed on multi-platforms, it can be used by handheld, backpack, vehicle and UAV with a unique rotating sensor with scanning speed up to 320000 points/second. It can acquire data in higher speed.

·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

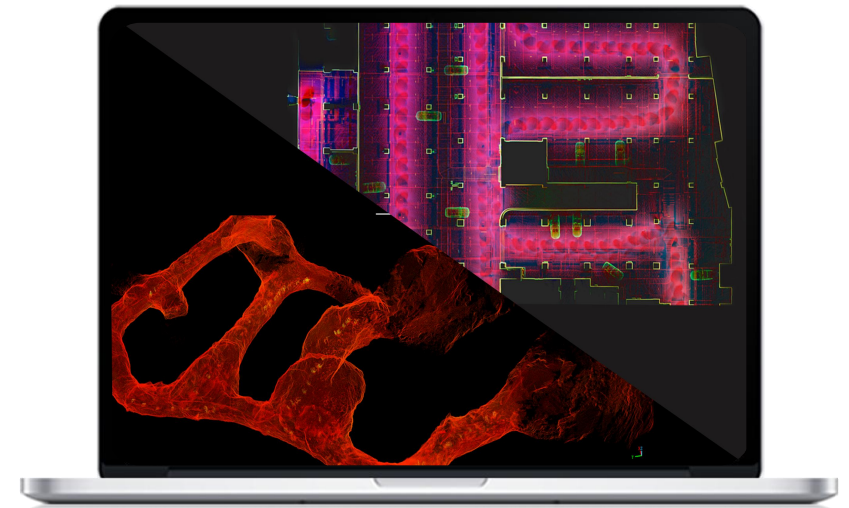
·T100 RTK product is based on SLAM positioning technology which does not require GPS, enabling fast 3D data acquisition both indoors and outdoors, and obtaining high-quality point cloud data without effect of bright or dark environments;

·The T100 RTK 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

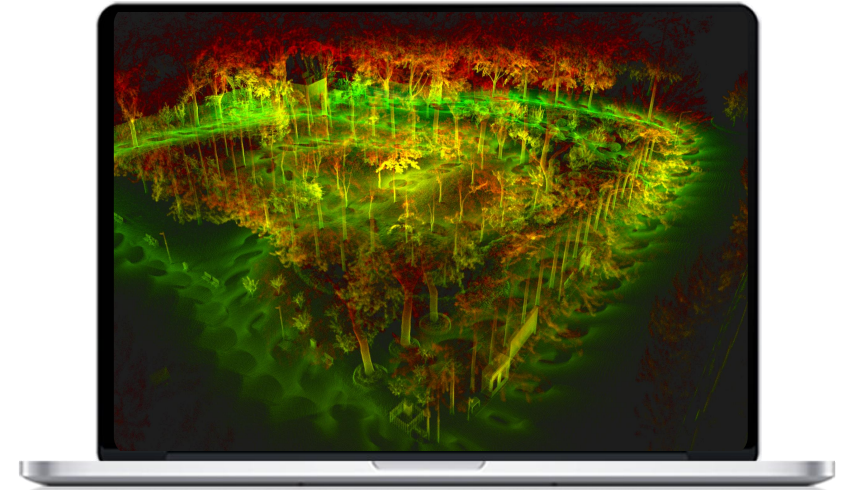
·The complex field environment and high coverage of agriculture, forestry and geology have always been a difficult area for 3D data acquisition. The SLAM technology is able to help solve the difficulties in this field;

·GoSLAM T100 RTK 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 volume 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)**

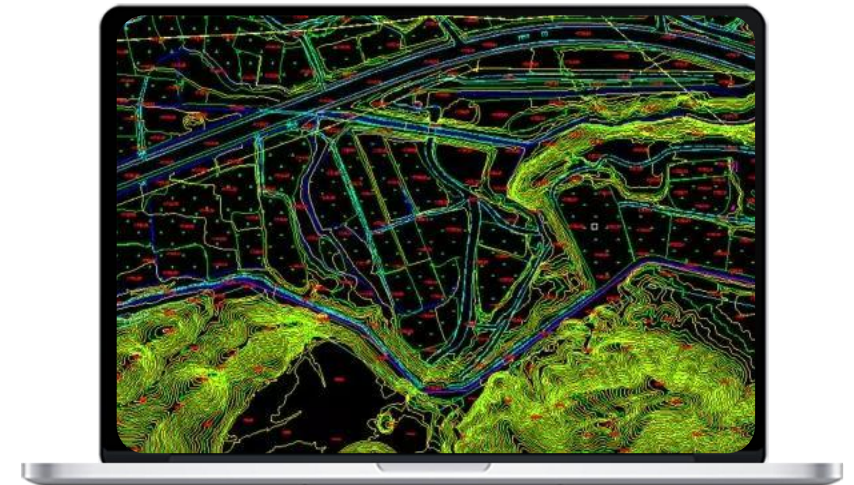
Advantage

- The flexible and versatile GoSLAM T100 RTK system can be used with handheld, RTK backpacks and UAV. No matter it's sheltered by trees or narrow village lanes, T100 RTK 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

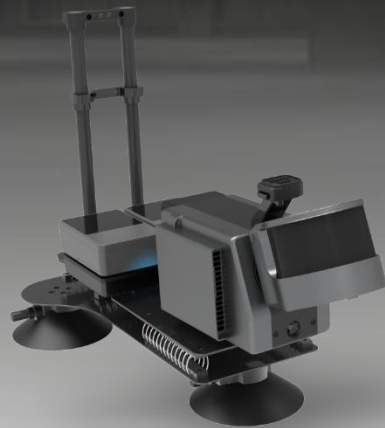
Used in conjunction with the RTK system suite for more efficient field collection



T-series Accessories



Backpack Kit



Car Mount Kit



Drone Kit



Color Module

T-series Accessories



GCM V3 Module



Bi-battery Board



Extension Rod

Accessories

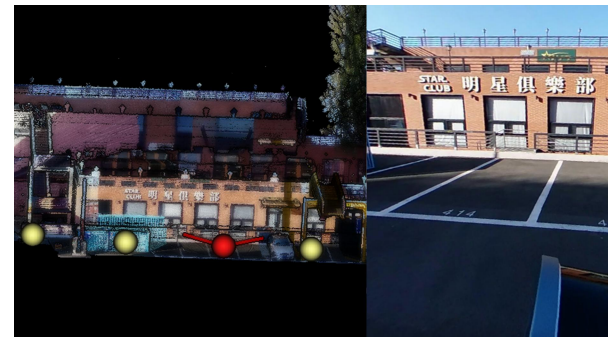


Color module

- 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

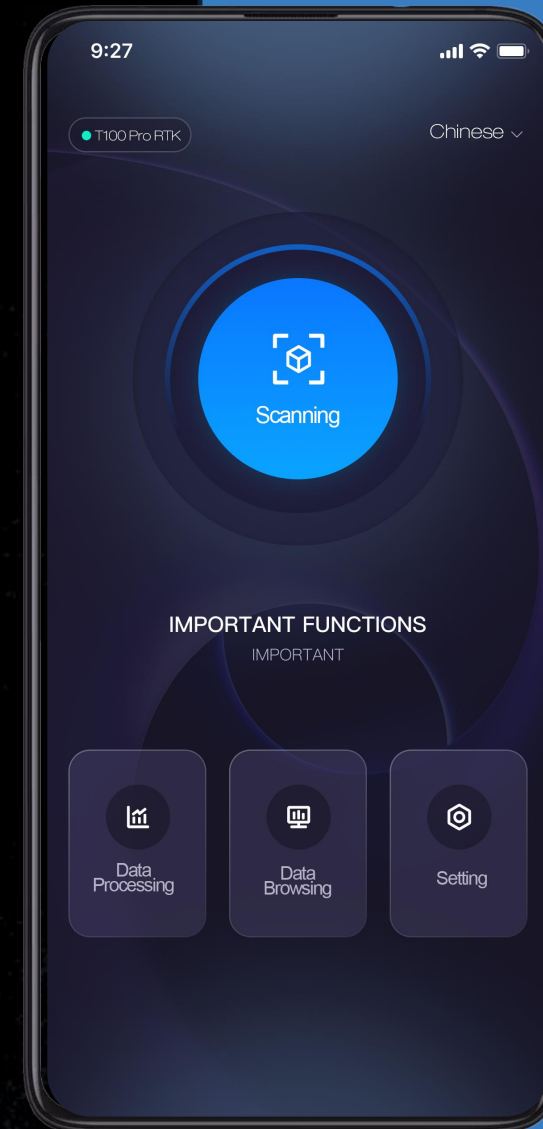


Software Function

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.

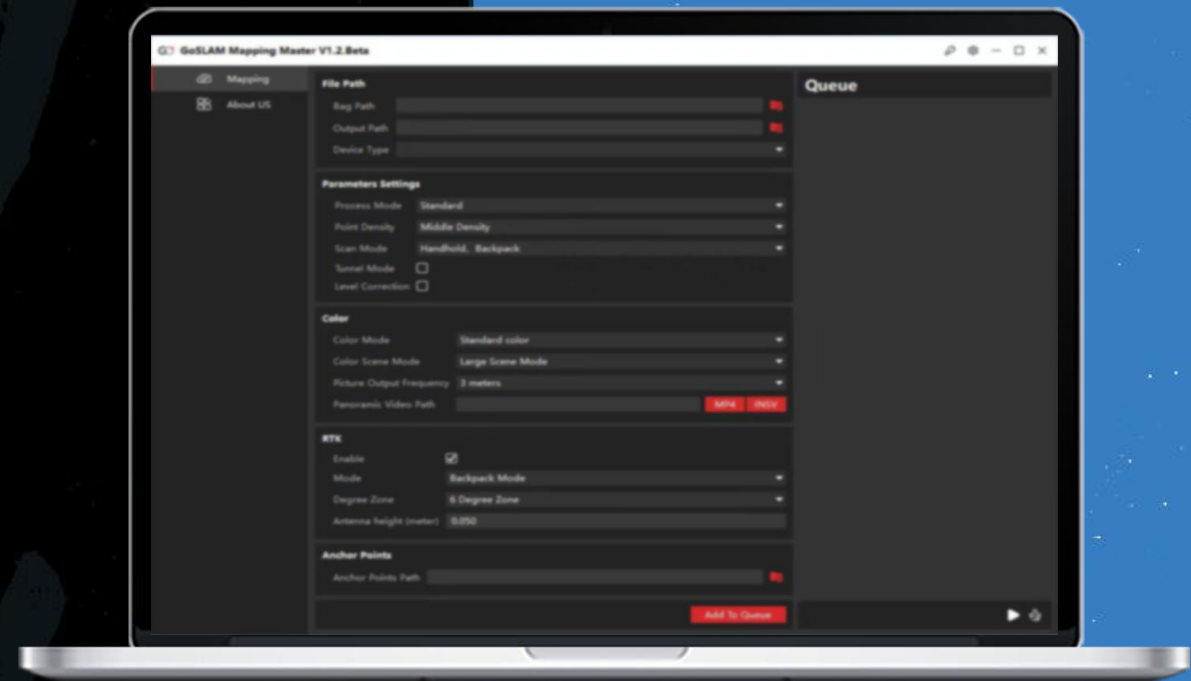


Software Function

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.

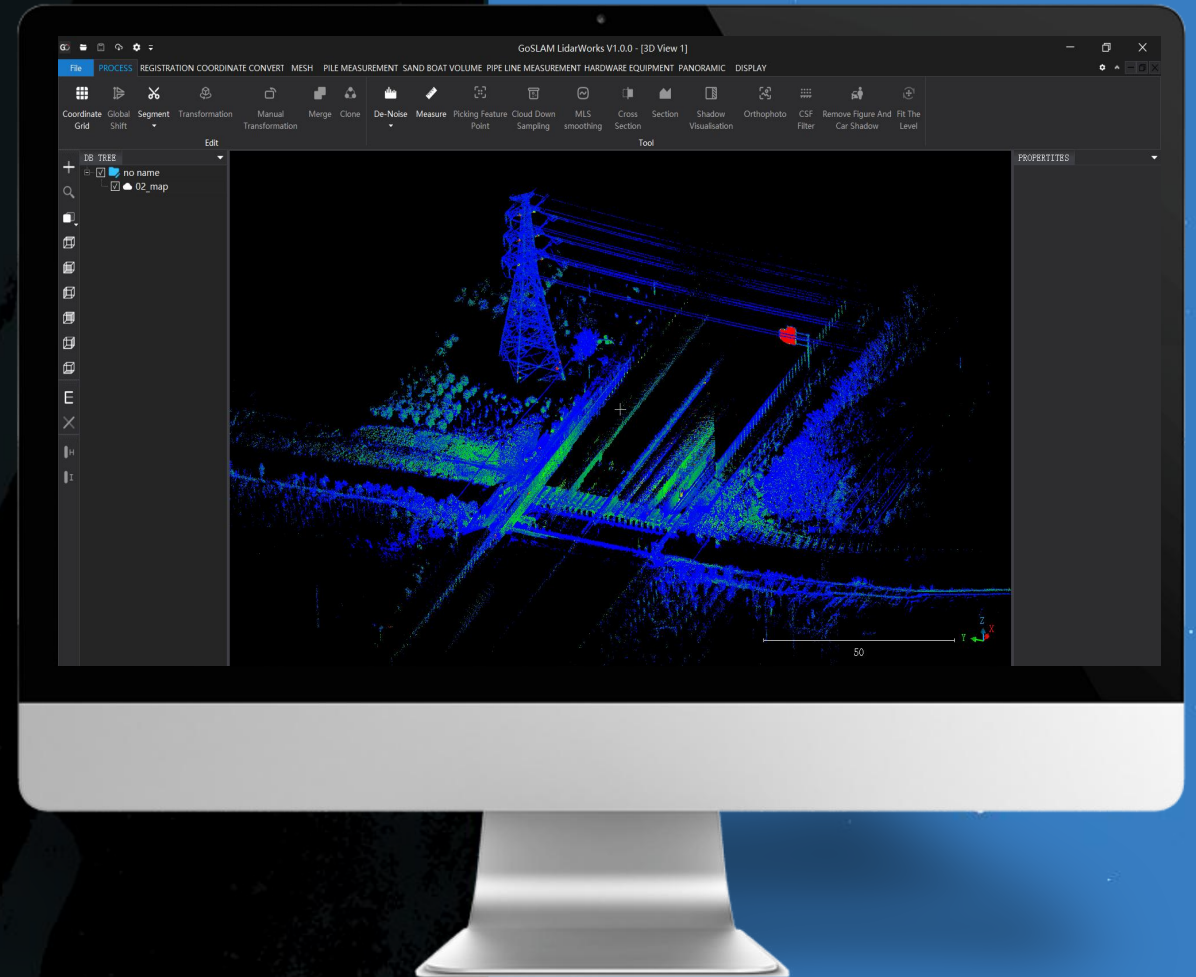
- The PC processing software supports batch processing of multiple datas and supports multiple scanning scene solution modes;
- Support synthesis of panoramic video without third-party software, point cloud colorizing and panoramic video can be completed in one stop;
- Supports various RTK connection 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

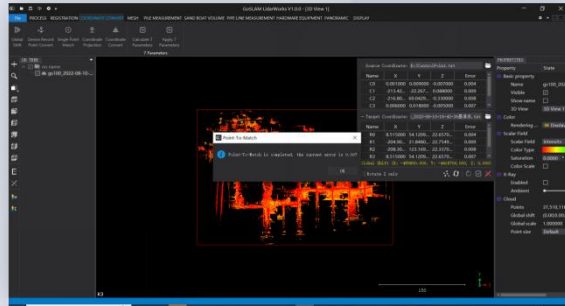
GoSLAM LidarWorks

A software specifically designed and developed for the GoSLAM mobile 3D scanners series which point cloud processing from third-party device. It is also compatible with third-party device point cloud processing. Besides, the software can easily export point cloud data from the scanner to the PC after connecting the device to a computer via network. The software not only support browsing point clouds, but also has basic functions to optimize point cloud like noise reduction, smoothing as well as format conversion to comply with third-party applications. At the same time, when used with GoSLAM scanners, multiple sets of data can be easily concatenated and merged with one click, and it has splicing optimization functions, can effectively reduce splicing errors. Special application functions have been developed for volume measurement and mapping.

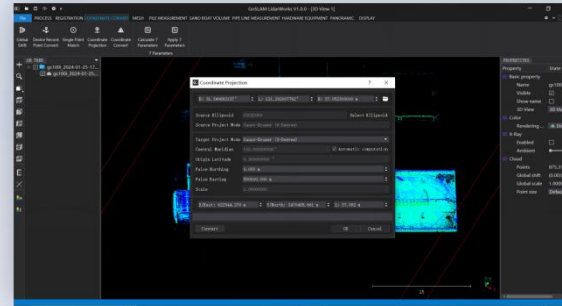


Software Function

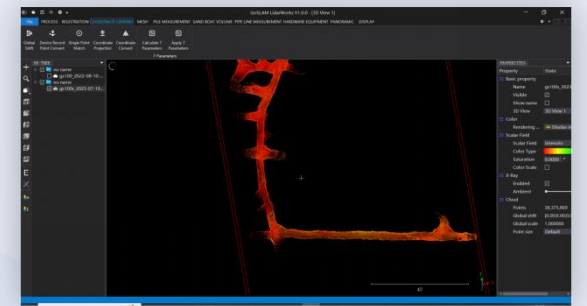
Software advantages



Control point conversion

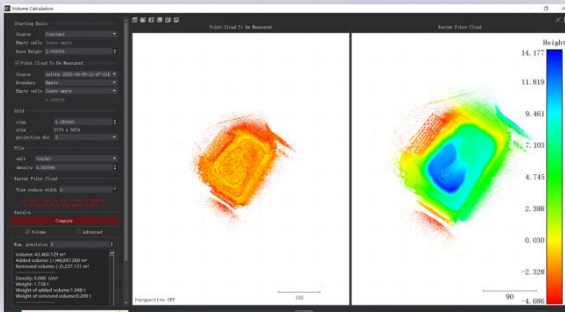


Multi coordinate system conversion

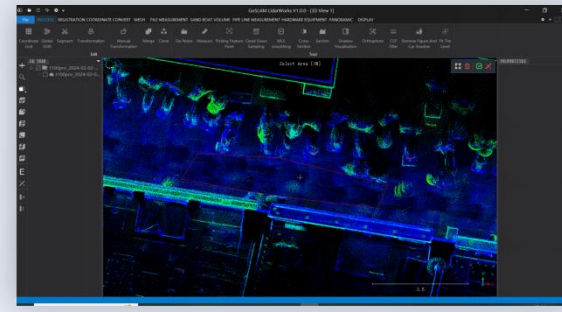


X-Ray Display Mode

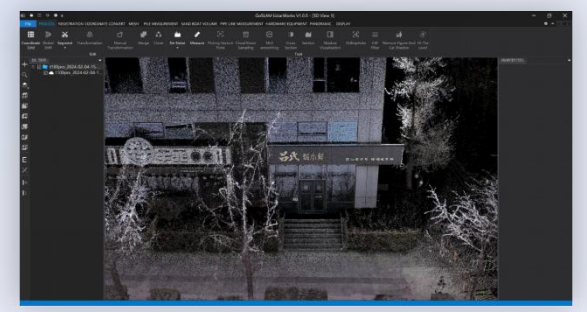
Partial function display



Measurement of Pile Volume



Shadow and car shadow removed

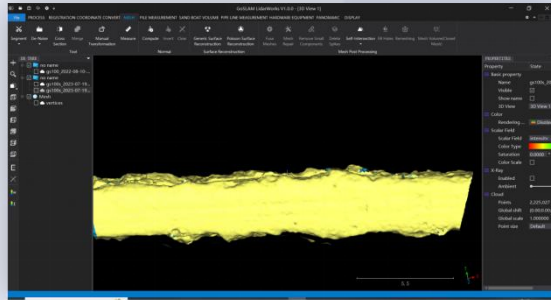


Color Point Cloud

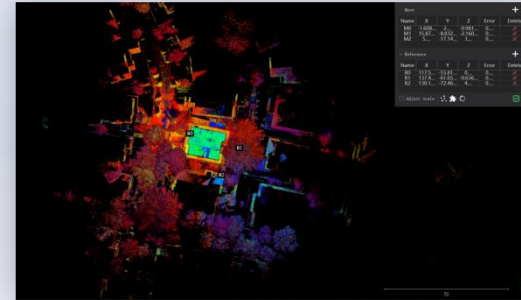


Software Function

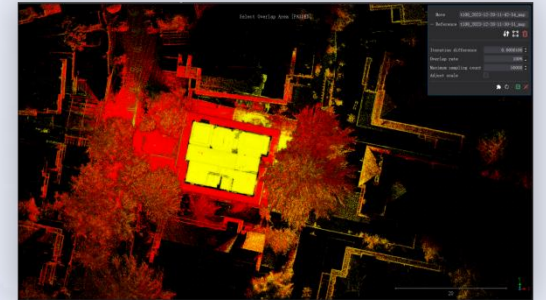
Advantage



Mesh Model Encapsulation

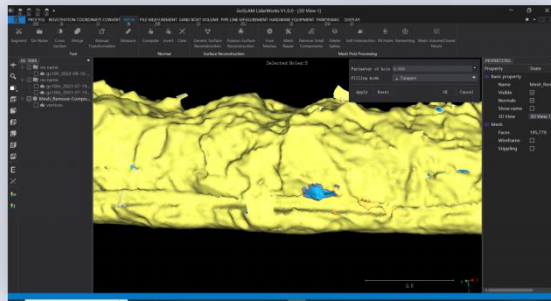


Fast Split Joint

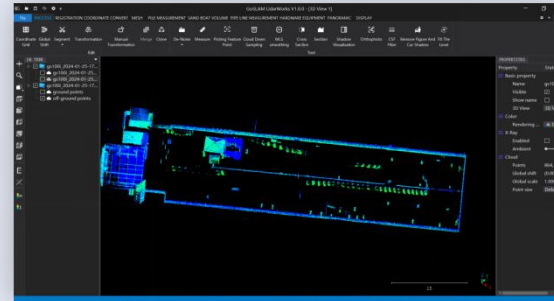


All Loading

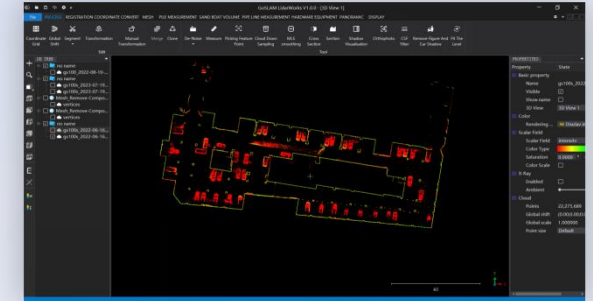
Partial function display



Fill Holes



Point Classification

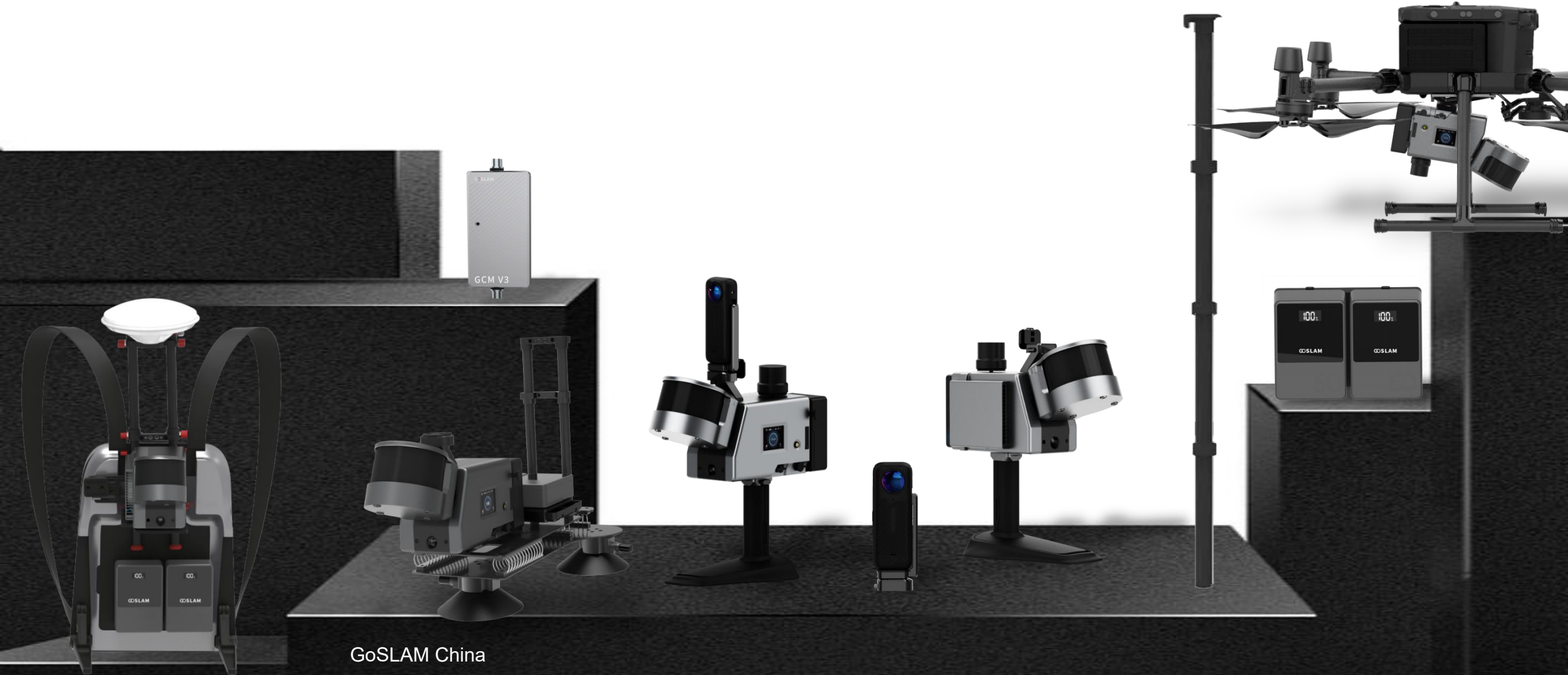


Generate Sectional Drawing

Product Parameter



Protection class	Class I	Laser lines	16 lines	Visual SLAM	Yes
Scanning Range	120m	Scanning speed	320,000/s	FOV	360°×285°
Solution method	Device end / PC end	RTK module	Built	Accuracy	1cm(Highest)
Working time	1.5h(Standard Battery) 2.5h(High capacity battery)	Working Temperature	-35~60°C	Resolution	2mm(Highest)
Weight (host end)	1.75KG	Internal Hard Disk	512GB Expandable)	External RTK	Support



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