GOSLAM®

RS100i

GOSLAM®

NEW Style for 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 performs self positioning and 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.

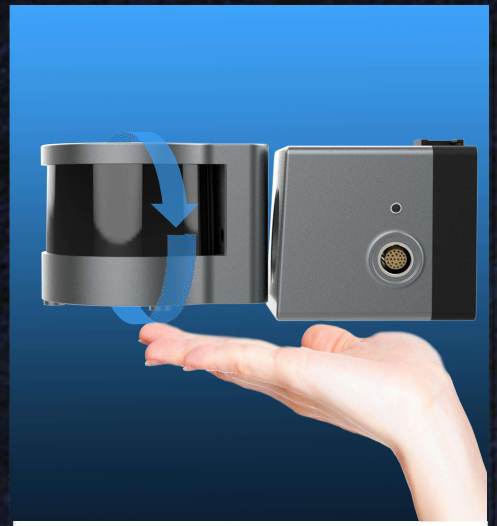
Real time, Accuracy, Efficiency, Simplicity

Introduction

GoSLAM RS100i

3D laser scanning mobile measurement system

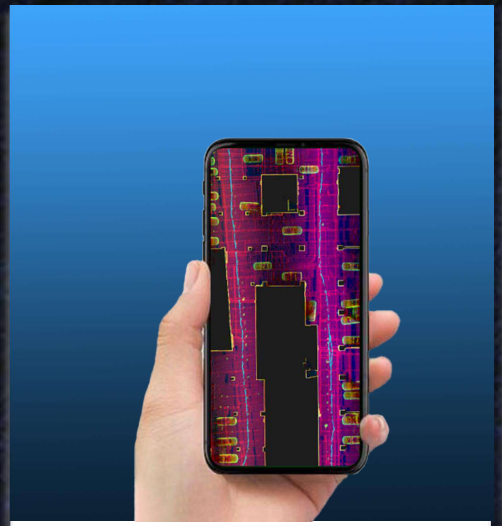
Feature Highlights



Rotating laser sensor

Continuing the vertical rotation design of the laser, the RS100i mobile measurement system has a scanning radius of 120 meters and the ability to collect 320000 points per second. It has a super large field of view angle 360 ° X285 with a point accuracy up to 1 cm.

Stong Performance



HSL Hybrid solution

RS100i has a unique hybrid solving technology which can perform post processing for the previous data during the scanning. High precision data collected is more faster and efficiency ever before.

HSL Technology

APP real-time preview

APP replaces the traditional touch screen. During operation, APP can browse point cloud data in real time which support multiple browsing interaction modes andmore human-computer interaction content.

Real Time Preview

Color Screen

A new color status display screen with a larger size supports more information display as well as operating instructions which making it easier to use and getting started.

Color Screen

Feature Highlights

Weather Fastness

RS100i has excellent weather resistance, can operate in an environment of - 35-60 ℃, and has a high level of protection against dust and water, suitable for various environments.

Weather Fastness

Two Batteries Supply

For users is not only stable power supply support, but also the ability to replace batteries without powering off when the battery is low, providing strong support for uninterrupted scanning operations, avoiding changes in scanning plans caused by low battery power, and adding unnecessary data splicing.

Two Batteries Supply

Diversity System Platform

Multiplicity external ports can easily interface with third-party device systems, providing diverse way of collaborative work, bringing more possibilities for expanding application scenarios and methods.

Diversity

Multi-platform Support

Eexcellent platform compatibility which is compatible with multiple tools such as backpack, UAV, vehicle, etc.

Multi-platform Support

Product Advantages

Product lightweight

GoSLAM RS100i Handheld terminal lightweight

The weight of the handheld terminal is reduced to help you easily complete the measurement and feel the convenience of lightweight operation.

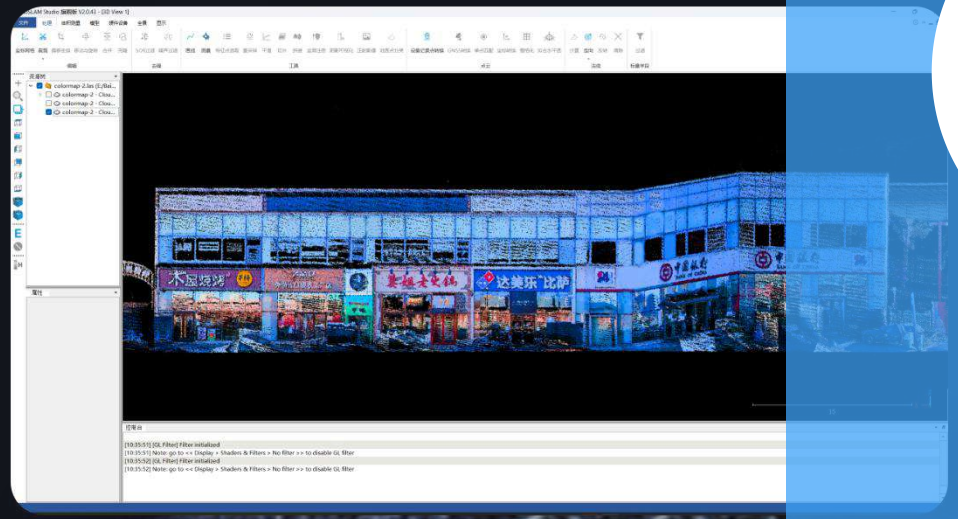
GoSLAM RS100i
Product lightweight

Handheld Terminal

lightweight

Product Advantages

New Visual Experience



GoSLAM RS100i More realistic color point cloud

GoSLAM RS100i has more excellent point cloud color function which provides users with clear immersive color effects, clearer details, more bright colors and more realistic effects.

GoSLAM RS100i
Color Point Cloud

Color Point Cloud

New Visual Experience

Product Advantages

Two Batteries System

GoSLAM RS100i Two Battery System

The two batteries system uses a standard RS series battery installed in the battery slot to provide power. It adopts two batteries uninterruptible redundancy design, supports hot swapping and replacement of batteries, and has this technical patent (Patent No.: ZL 2022 2 0611635.5).

GoSLAM RS100i
Two Batteries

Working Time Around

4h

Product Advantages

Diversity System Platform

GoSLAM RS100i data transmission

GoSLAM RS100isupports a variety of data transmission methods, including access to mobile hard disk drive, USB and connection via wifi and cables. The system has an interface which enabling collaborative work with third-party systems, bringing more possibilities for expanding application scenarios and methods.

GoSLAM RS100i
Data Transmission

Support

USB Wlan Wifi

Product Advantages

Anchor Point Process

GoSLAM RS100i Unique anchor point process

In order to ensure the accuracy and stability of scanning data for indoor and outdoor scenes with large ranges, low characteristics and high difficulty, GoSLAM's unique anchor point solution function can handle it calmly. During data post process, input the absolute coordinates of control points for solution, and control points can perform overall data adjustment on the data to obtain high-precision scanning results data.

GoSLAM RS100i

Anchor Point Process

More Flexible

Wide range and high accuracy

Product Advantages

More Powerful Mapping Procedures

GoSLAM RS100i use the second generation drawing system

The current RS system has been updated to the second generation mapping system with its robustness, low feature scene adaptability, scanning data restoration, data consistency and the accuracy of straight out high-precision absolute coordinate data equipped with the RTK system, which has been comprehensively improved and make it more better!

GoSLAM RS100i
Mapping Procedures

Second Generation Mapping System

Scan performance improved

Product Advantages

RTK kit

GNSS V2 be supported by both handheld and backpack

The GNSS module that can be quickly switched supports scanning to obtain WGS84 and CGCS2000 coordinate system point clouds. The second generation mapping system is used with an absolute accuracy about 2cm.

Handheld

GNSS V2 Fast Module Switching

Backpack

GoSLAM RS100i
RTK Support

Geodetic Coordinates

Flexible collocation and variable usage

Industry Applications

Industry

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

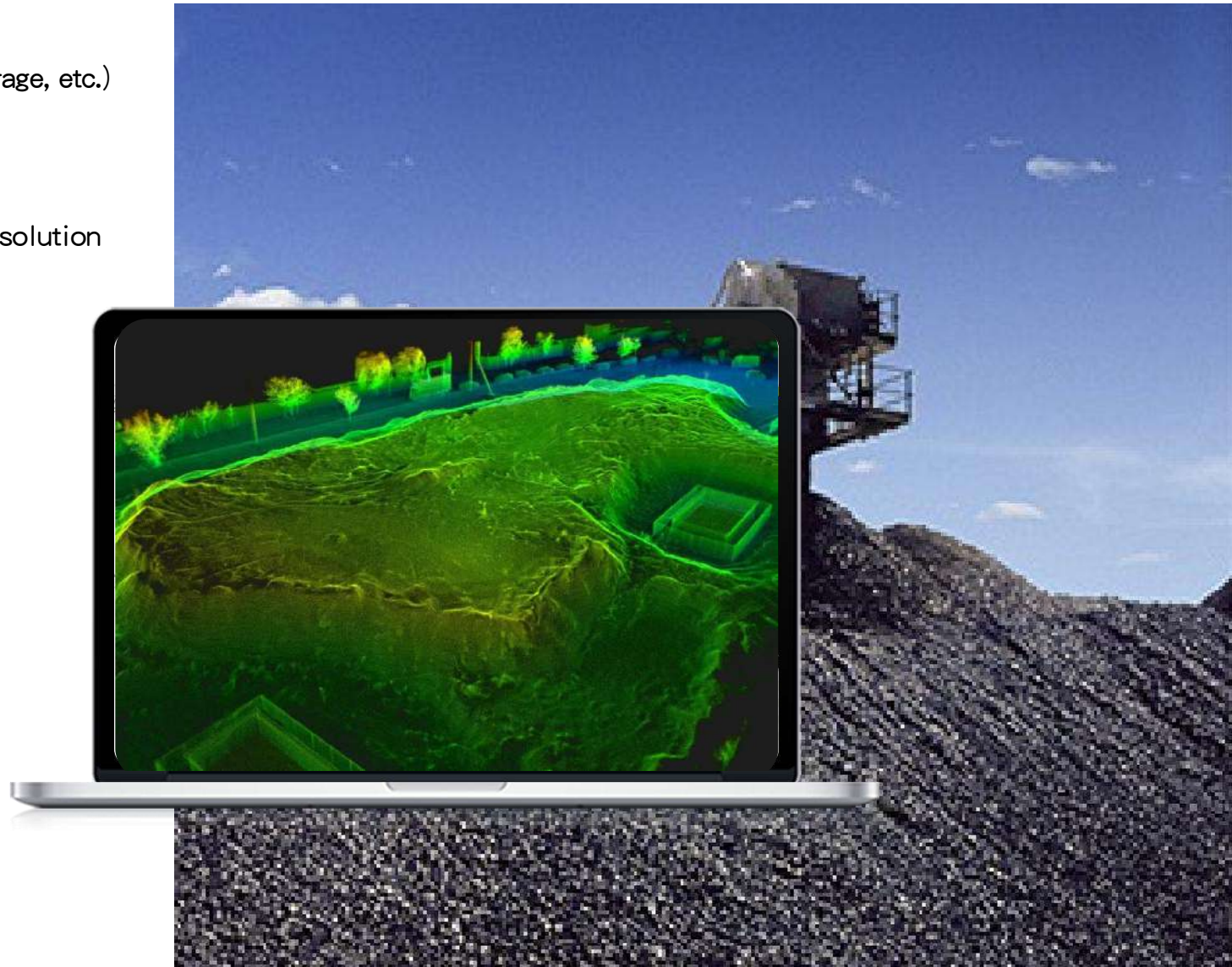
Process

Fast and accurate volume measurement mobile solution

Advantages

• RS100ibased on laser scanning and SLAM positioning technology to perform fast mobile scanning operations in indoor and outdoor environment;

• Even without GPS, it possesses function like high accuracy, fast speed and real time point clouds. Its unique ultra-low reflectivity extended range function is particularly effective for coal piles, ore materials, etc., and has unparalleled advantages over other measurement solution.



Industry Applications

Industry

Smart City (BIM, Digital city, Construction)

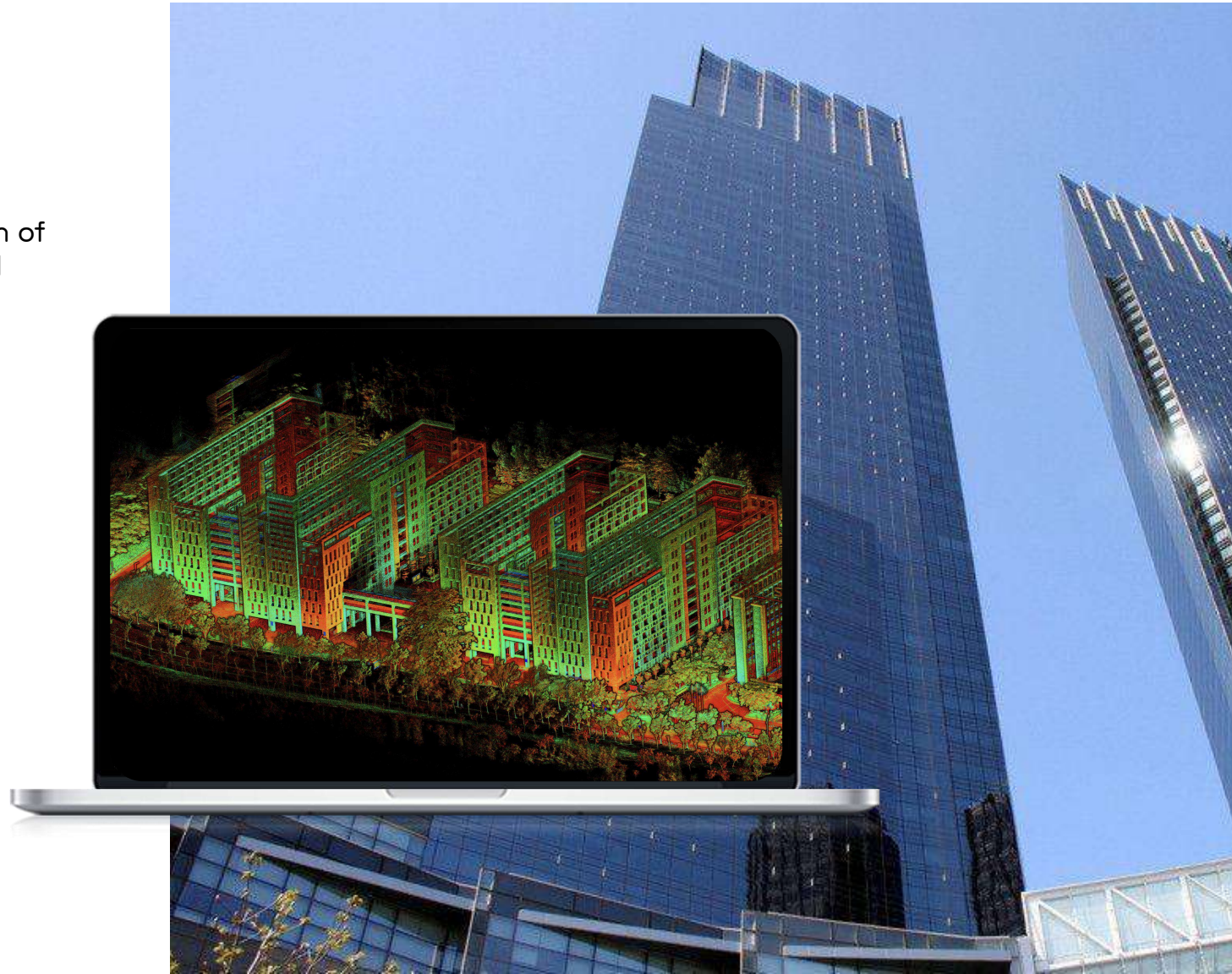
Process

Quickly obtain indoor and outdoor information of buildings via backpack RTK, car and handheld

Advantages

• GoSLAM RS100i supports multi-platform, it can be used by handheld, backpack, vehicle, and UAV with a unique rotating sensor scanning frequency of 320000 points/second, it can move faster for data collection;

• 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.



Industry Applications

Industry

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

Process

Integrated information collection method ground and underground

Advantages

• The GoSLAM RS100i product based on SLAM positioning technology does not require GPS, enabling fast 3D data acquisition both indoors and outdoors, and obtaining high-quality point cloud data independent of bright or dark environments;

• The RS100i system can be used to collect complete and accurate spatial information for underground parkings, people air defense facilities, shopping malls, airports, large factory facilities, and mining tunnels.

Industry Applications

Industry

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

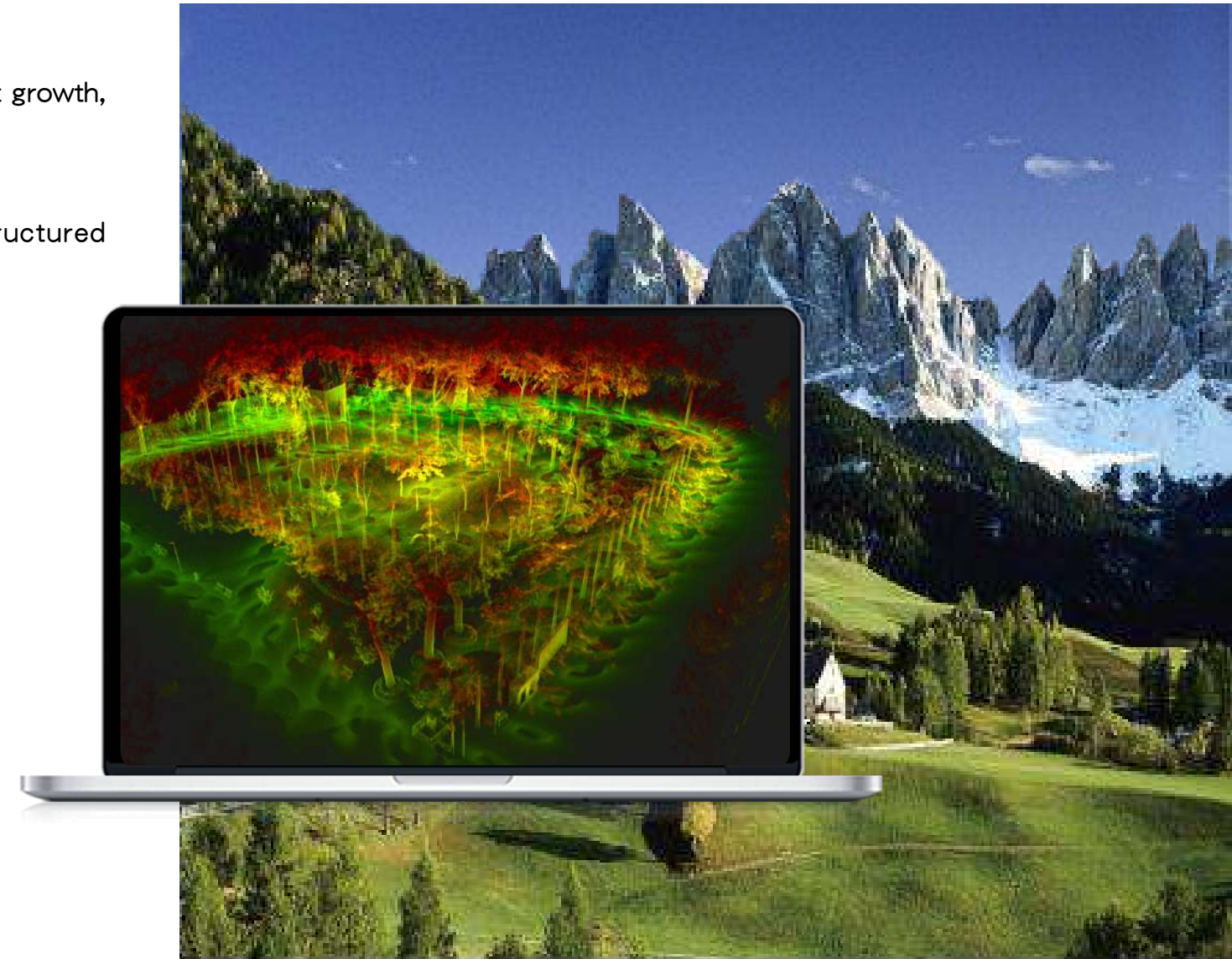
Process

SLAM is more effective for complex structured environments

Advantages

• 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 has enabled the difficulties in this field to be solved;

• GoSLAM RS100i 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 greening and geological surveys.



Industry Applications

Industry

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

Process

Use with RTK to make field collection more efficient

Advantages

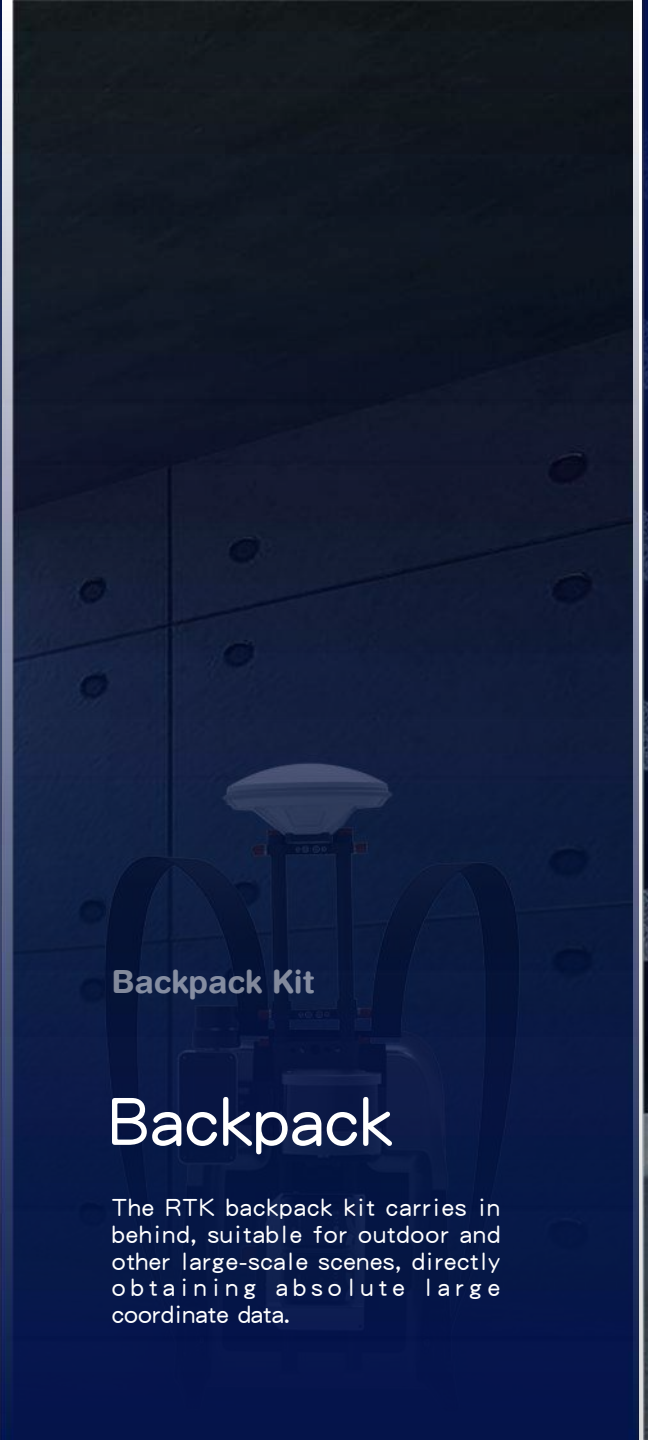
• The flexible and versatile GoSLAM RS100i system can use with handheld, RTK backpacks, and UAV, whether it's sheltered by trees or narrow village lanes, RS100i can make it easy;

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

Handheld

Handheld

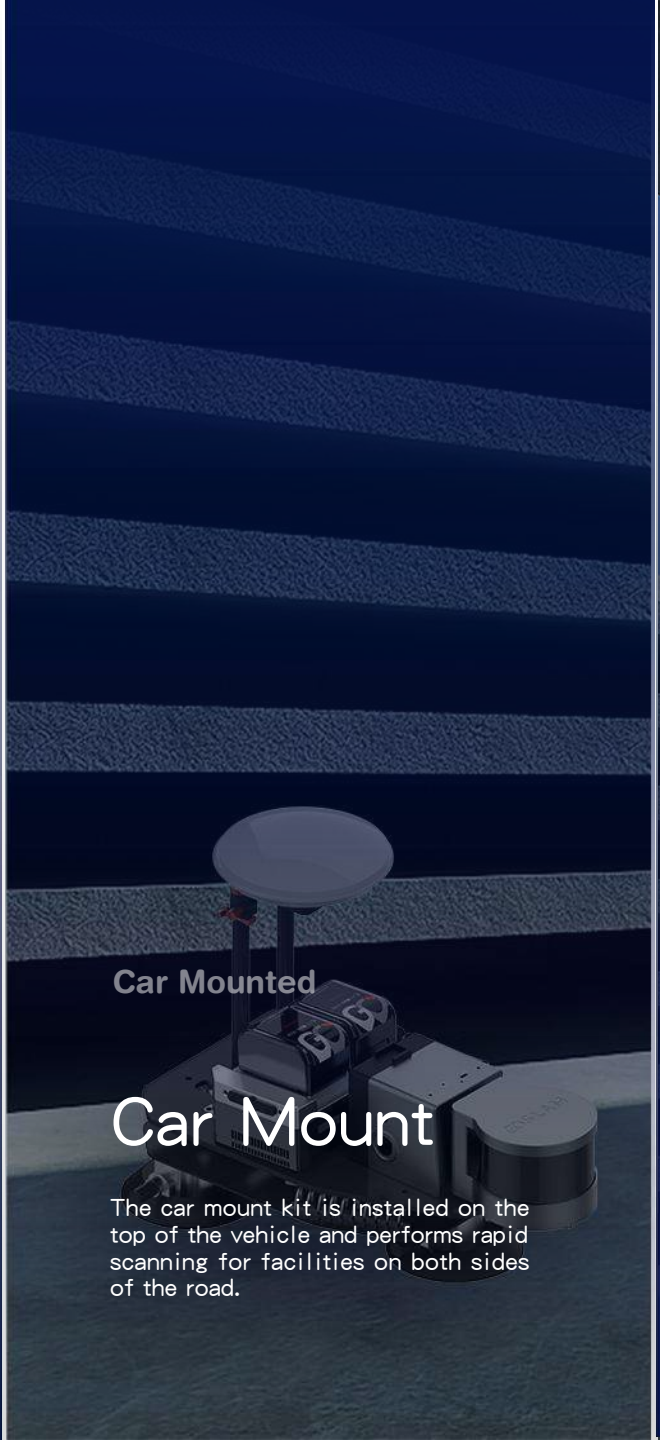
The handheld scanning is suitable for narrow mining tunnels, underground spaces, and large venues.



Backpack Kit

Backpack

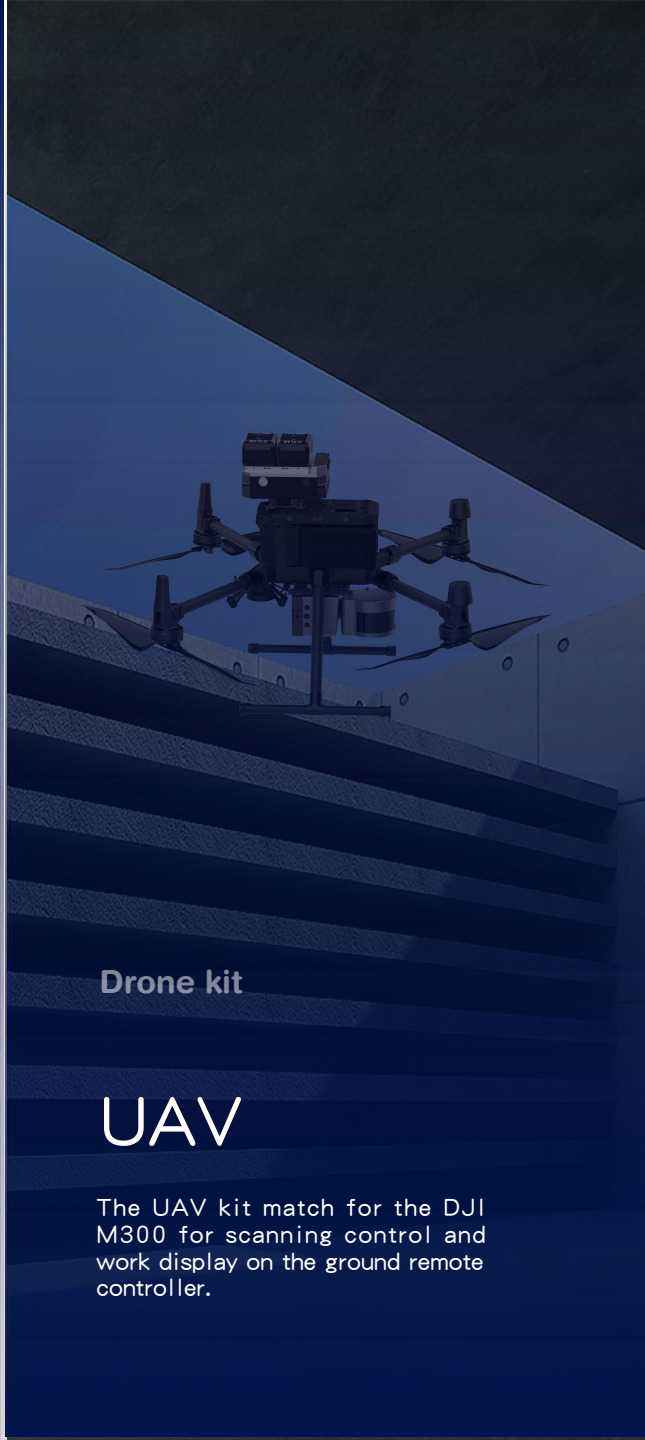
The RTK backpack kit carries in behind, suitable for outdoor and other large-scale scenes, directly obtaining absolute large coordinate data.



Car Mounted

Car Mount

The car mount kit is installed on the top of the vehicle and performs rapid scanning for facilities on both sides of the road.

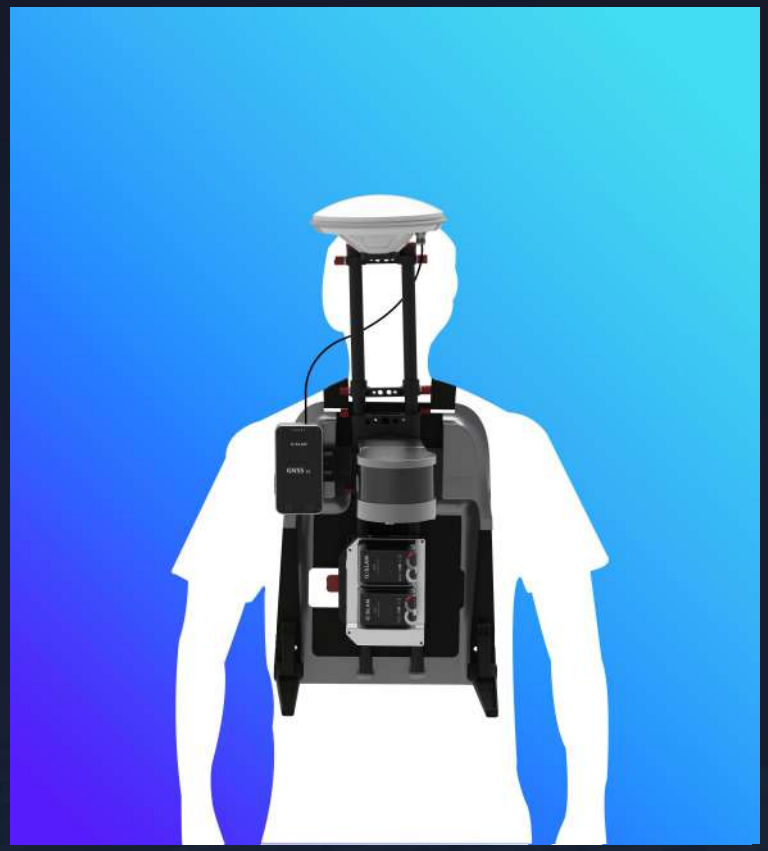


Drone kit

UAV

The UAV kit match for the DJI M300 for scanning control and work display on the ground remote controller.

Accessories



Backpack Kit

Backpack Kit

A lightweight kit that can be used for carrying GoSLAM mobile scanners, supporting quick installation by one click.

Basic Backpack Kit

The basic backpack kit is a lightweight kit for carrying the GoSLAM RS series 3D laser scanning mobile measurement system (excluding GNSS), supporting fast installation.

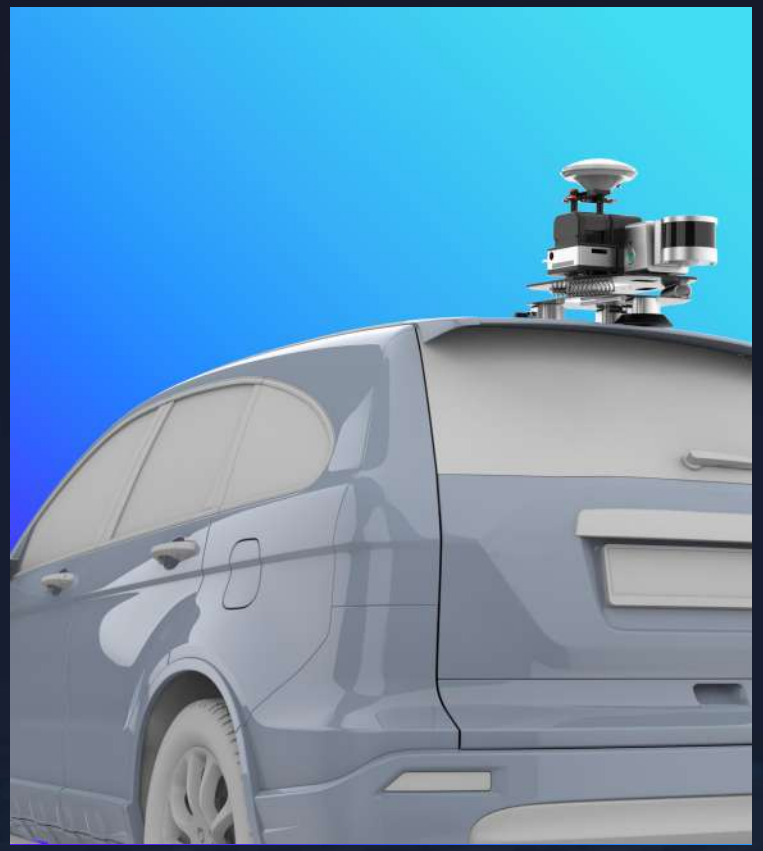
Backpack Kit with GNSS

GNSS backpack kit is an industry-level kit for carrying the GoSLAM RS series 3D laser scanning mobile measurement system. Equipped with a GNSS system in RTK mode and provides centimeter level real-time positioning, enabling higher accuracy point cloud data to be obtained without a closed-loop.

Backpack Kit with GCM

GCM backpack kit is a quick kit for carrying the GoSLAM RS series 3D laser scanning mobile measurement system, equipped with a GCM communication module, supporting third-party GNSS unit access, and real-time high-precision communication with SLAM scanning equipment.

Accessories



Car Mount Kit

Car Mount Kit

Can be used on the top of a car, allowing the GoSLAM scanner to quickly become an on-board scanning system for high-speed data collection.

Basic Car Mount Kit

The basic car kit is a mounting kit for the top of the car, which enables the GoSLAM RS series 3D laser scanning mobile measurement system to quickly become a car scanning system for high-speed data acquisition.

Car Mount Kit with GNSS

GNSS car kit is an installation kit for the top of a car, which can quickly turn the GoSLAM RS series 3D laser scanning mobile measurement system into a car scanning system. Equipped with a GNSS system in RTK mode, it can achieve centimeter level real-time positioning, and obtain higher accuracy point cloud data without requiring a closed-loop.

Car Mount Kit with GCM

GCM car kit is a mounting kit for the top of a car, making its GoSLAM RS series 3D laser scanning mobile measurement system quickly become a car scanning system, equipped with a GCM communication module, supporting third-party GNSS unit access and real-time high-precision communication with SLAM scanning equipment.

Accessories

Colour Module

- Support for color module lens orientation in front and back, left and right directions;
- Plug to use, no difficult operations, integrated synchronous acquisition;
- Support for 1/2-inch with 5.7K images and 1-inch sensors with two color cameras available for 6K images;
- Data can be automate coloring and panoramic image.

Color Point Cloud Data

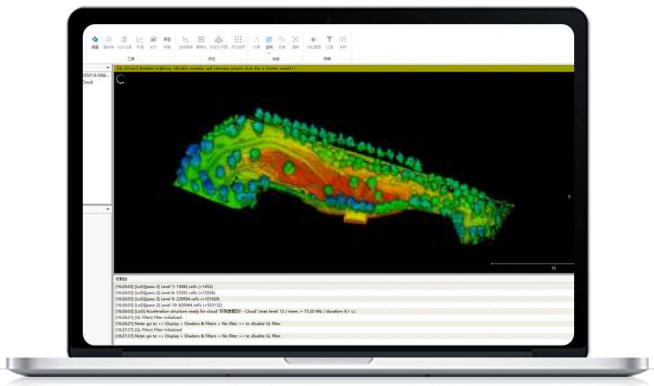
Color Point Cloud Data
With Panoramic Image

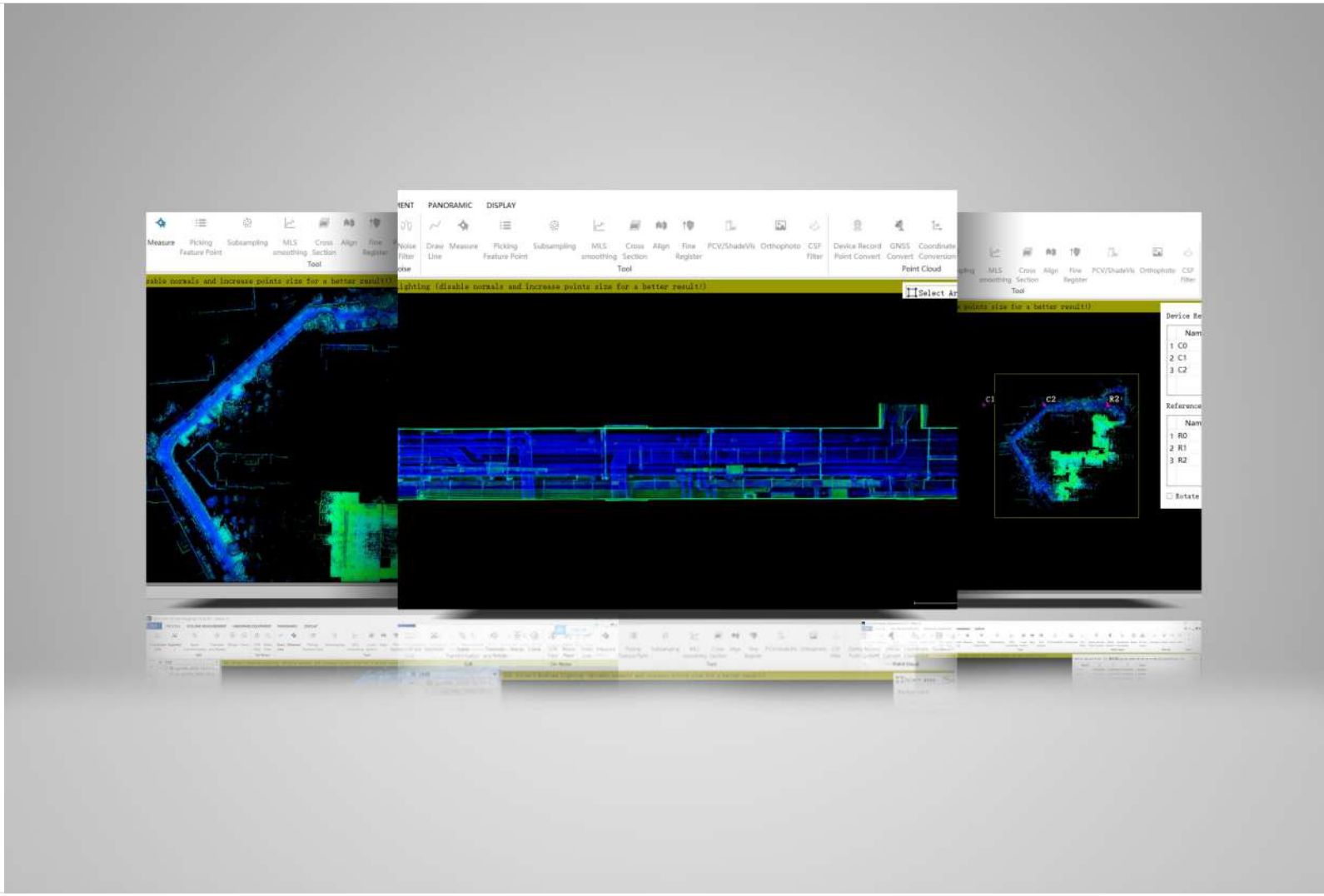
Software

Post Processing Software

GoSLAM Studio

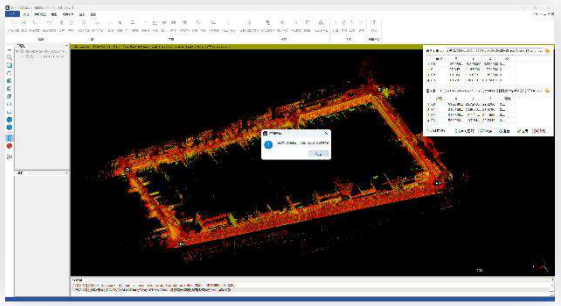
The software is a powerful point cloud post-processing software that is supported by the system. The software has rich functions and is easy to operate. It supports loading and exporting point clouds in various formats. It can achieve a series of functions such as point cloud data deletion, noise removal, splicing, section cutting, and grid model generation.



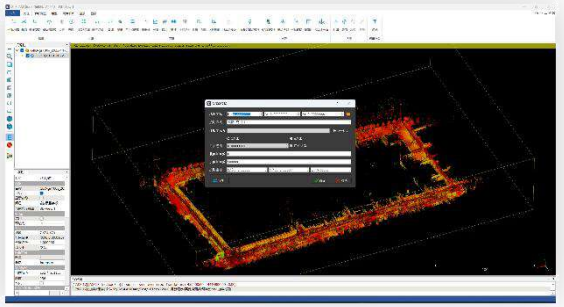


Software

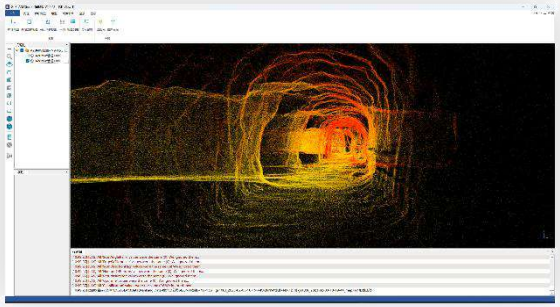
Advantages



Control Point Conversion

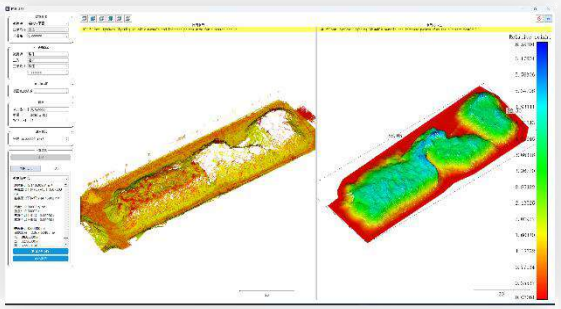


Multi Coordinate System Conversion

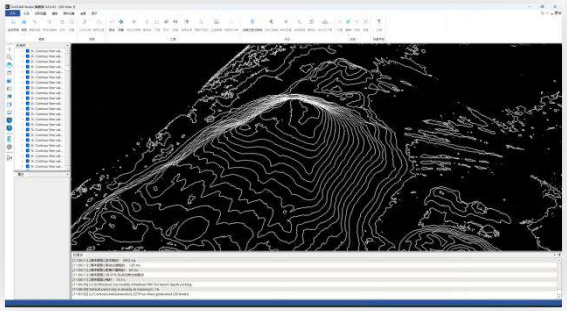


X-Ray Display Mode

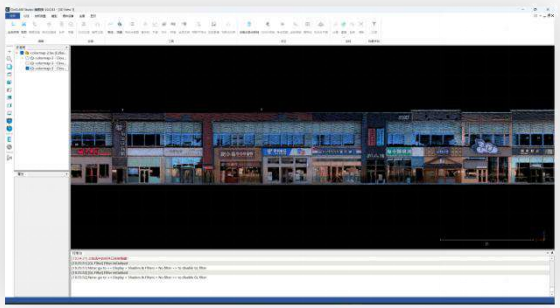
Partial function display



Measurement of Pile Volume



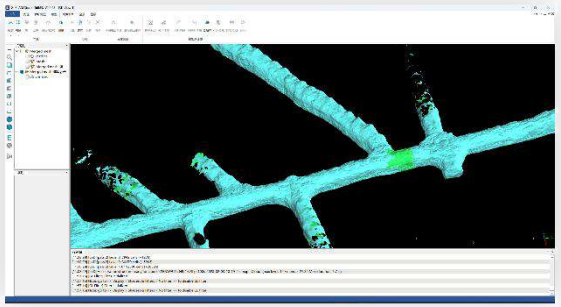
Creating Contours



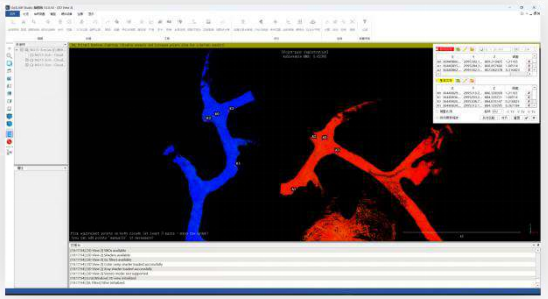
Color Point Cloud

Software

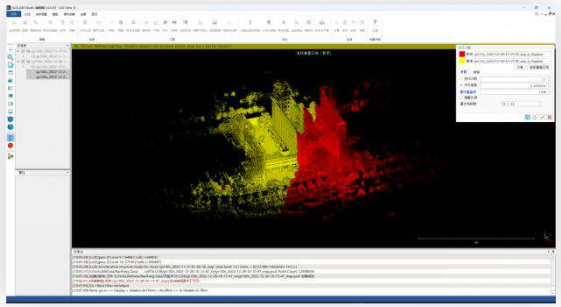
Advantages



Mesh Model Encapsulation

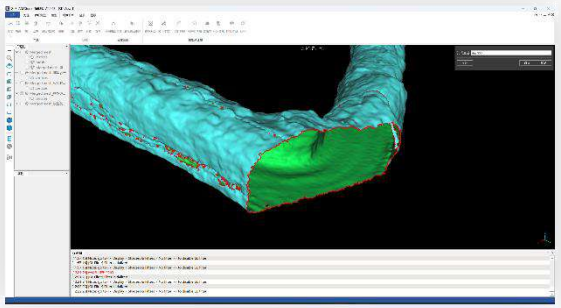


Fast Split Joint

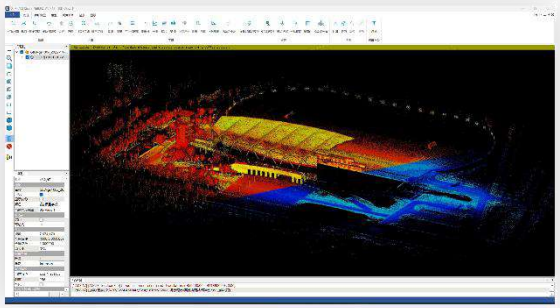


All Loading

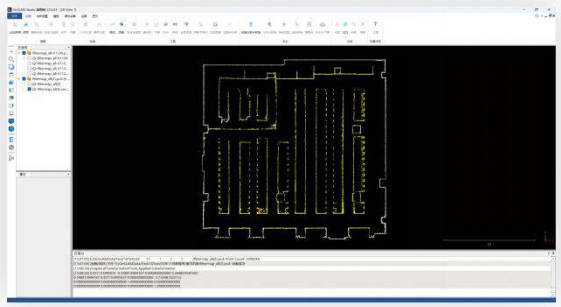
Partial function display



Fill Holes



Point Classification



Generate Sectional Drawing

Parameters

- Multi platform

Handheld, backpack, drone, vehicle and ship installation kit

Protection class	Class I	**Laser Lines**	16
Range	120m	**Scanning speed**	320,000/s
FOV	360°×285°	**Solution method**	Hybrid Solution
Laser Sensor	1	**Accuracy**	1cm（Highest）
Positioning	SLAM	**Working Temperature**	-35-60℃
Running time	4 Hours	**Operative Mode**	LED Color Screen
Weight	1.35KG（Handheld）	**Internal Hard Disk**	500G（Expandable）
Product Surface	Aviation aluminum (high protection, high anti-interference)	**Operation Mode**	key & mobile APP

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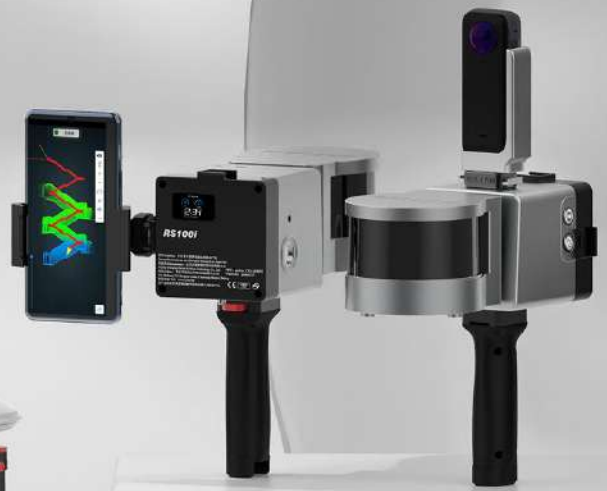

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