

GOSLAM[®]

X1 4D

DJI Dock M 4D/M 4TD Unattended Automated 3D Laser
Scanning System For Airport



GoSLAM X1 4D

Is An Airborne 3D Laser Scanning System Designed Specifically For Unmanned Outdoor Operations and Automated Inspection Scanning.

This Solution Deeply Integrates Lightweight Airborne Scanning Equipment With High-Performance DJI Dock M 4D/M 4TD Drones, Achieving A Comprehensive Upgrade From Fixed-Base Operations To Mobile Vehicle-Based Deployment and Enabling Seamless Performance Across Diverse, Complex Operational Environments.



360°×59°
FOV

200,000 PTS
Scanning Frequency

1cm(Maximum)
Scanning Accuracy



Laser Control Points



DJI Matrice 4D/4TD
Plug-and-Play Design



All-weather, All-environment



5G Real-time Data Backhaul
(5G Version)



Controllable Lighting



Real-time Scanning Data Is Visible On The Remote Controller

Equipped With Core SLAM Scanning Technology, The System Supports Autonomous Flight Along Preset Routes, Enabling Data Acquisition Without Manual Intervention. Operators Can Simultaneously View The Drone's Gimbal Video Feed and The 3D Point Cloud On The Remote Controller. Scanning Data Is Visible In Real-time—Allowing For Immediate Review—which Helps Operators Monitor Scanning Progress and Quality On-site. This Significantly Reduces The Risks Associated With Manual Involvement In High-hazard Environments, Making Unmanned Inspections Safer and More Controllable.



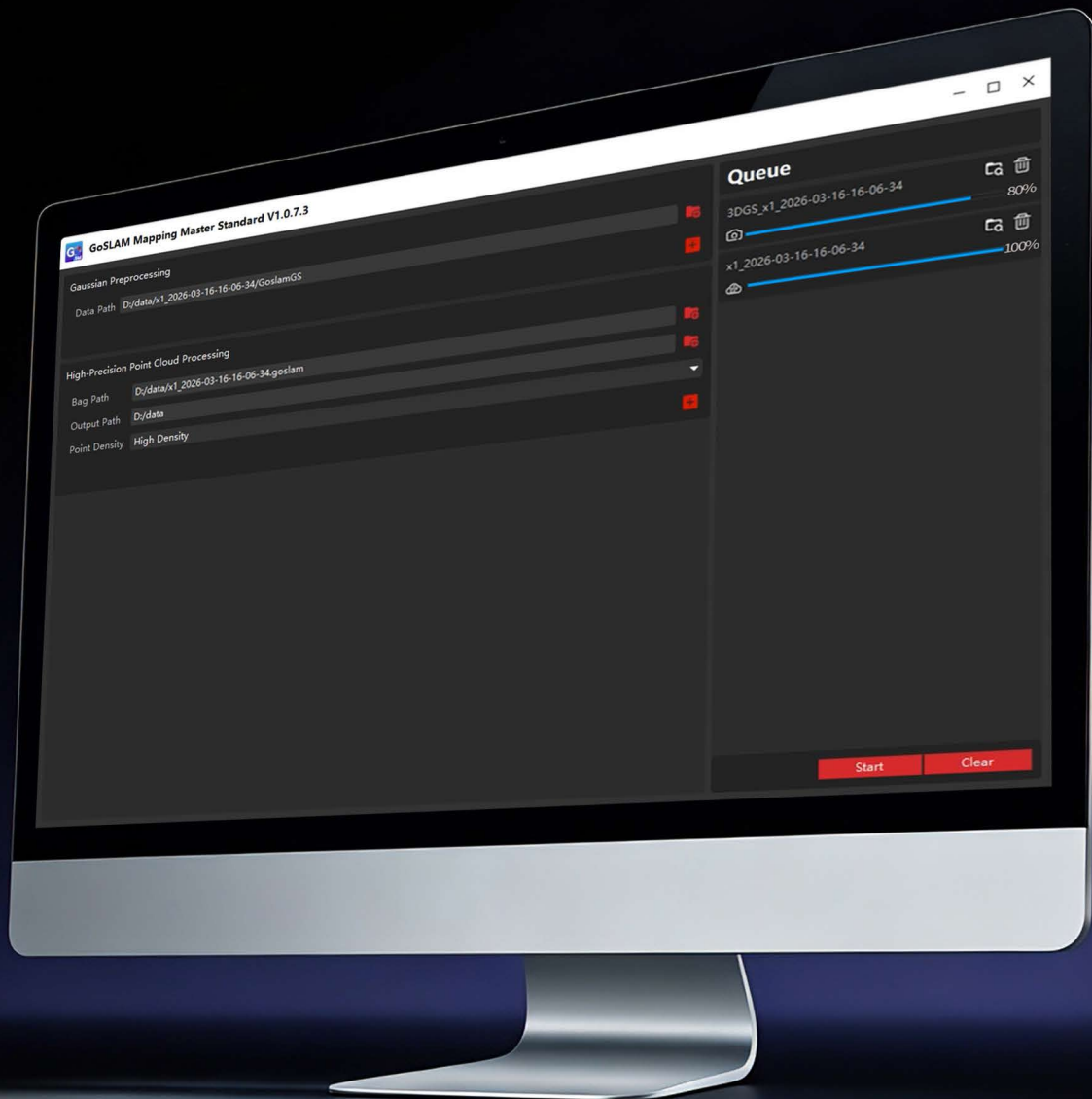
All-weather, All-environment Adaptability

Equipped With LED High-brightness Supplementary Lights, It Overcomes Lighting Limitations, Enabling Stable Operation In Low-light Environments Such As Nighttime Settings Or Dim, Enclosed Spaces.



High-precision Point Cloud Post-processing

It Supports High-precision Post-processing Of Point Cloud Data, Utilizing The Professional GoSLAM Mapping Algorithm To Optimize Data Quality and Generate More Accurate, Complete 3D Point Clouds That Meet The Requirements Of Precision Survey-Grade Applications.



X1 4D 5G Version, Connecting To Infinite Possibilities

It Supports Real-time, Remote Online Viewing and Measurement,
Providing Immediate On-site Information For Integrated Command Operations Via
The GoSLAM Online Cloud Platform.



Break-point Resume Scanning Technology

For Large-scale Scenes and Complex Environments Where Complete Data Capture In A Single Pass Is Impossible—and To Avoid The Need For Manual Stitching—The GoSLAM X1 4D Offers Full Support For "Break-point Resume Scanning" Functionality, Overcoming Drone Battery Life Limitations. It Enables Automatic Registration Of Scan Data—whether From Real-time Results Or Post-processing—across Unlimited Sessions, Eliminating The Need For Subsequent Manual Stitching.

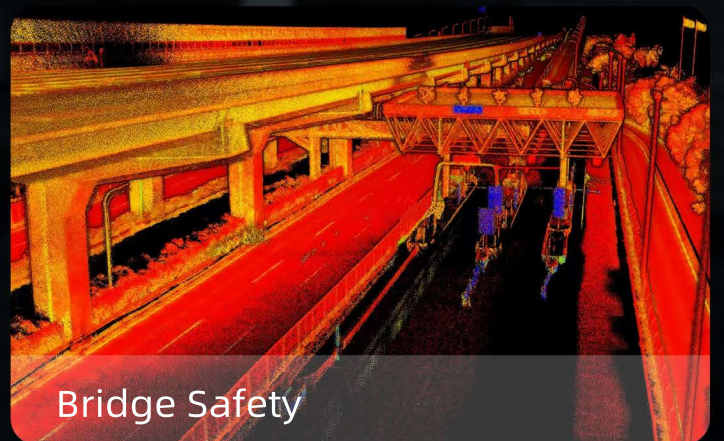
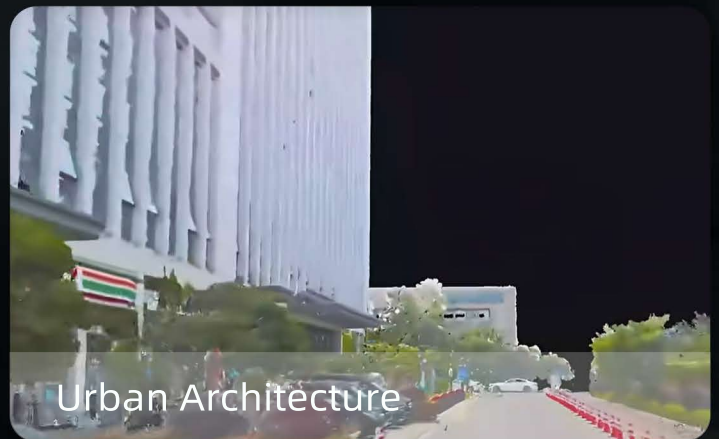
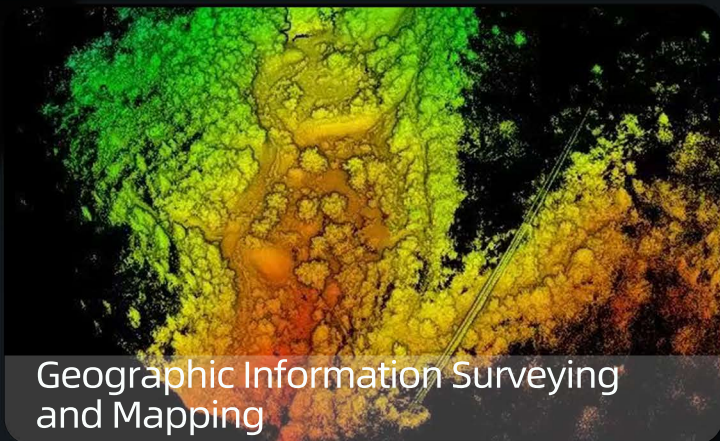
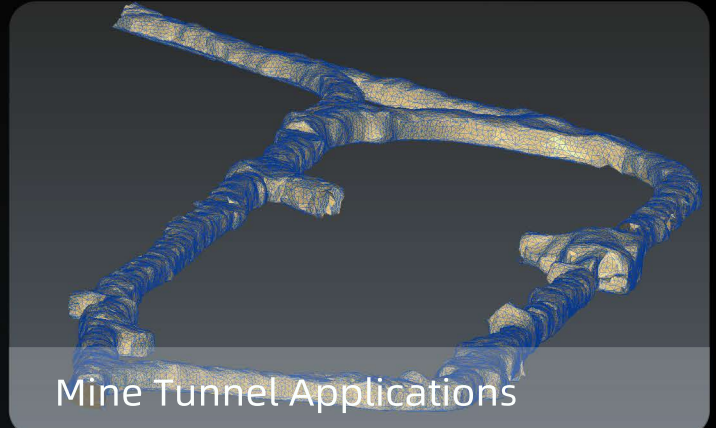
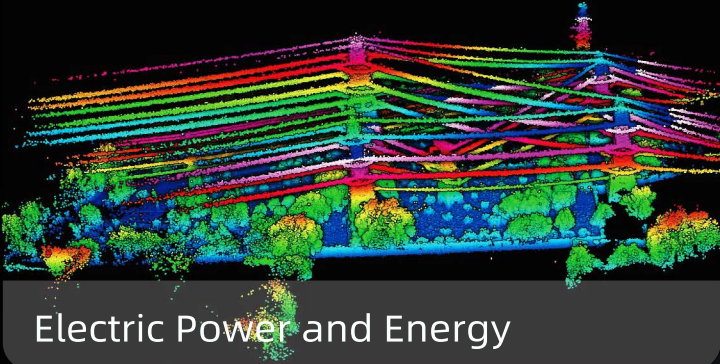


X1 4D Fully Supports RTK

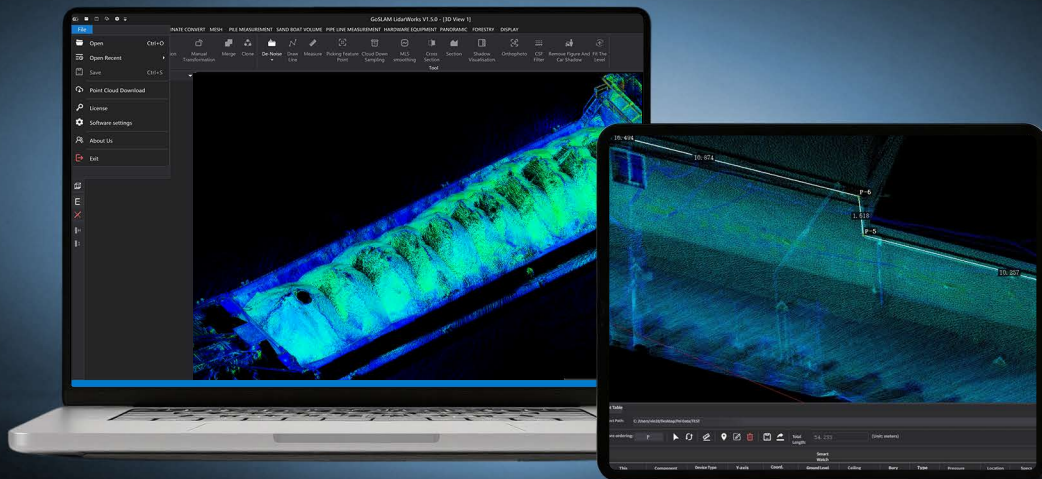
It Supports High-precision Airborne RTK Positioning Data From Matrice 4D/4TD Drones.
By Fusing The RTK Data, It Can Generate High-precision LiDAR SLAM Point Clouds.
And It Can Also Support Real-time Generation and Output Of Point Cloud Data With
Large-scale Coordinates.



Industry Application



GoSLAM LidarWorks Software Features Numerous Industry-specific Application Modules, Providing Solutions For A Wide Range Of Sectors.



Mining Module

The Mining Module intelligently extracts tunnel main bodies, centerlines, and continuous cross-sections while precisely filtering out noise; it supports over-break/under-break and deformation analysis, providing core data for volume calculation, construction analysis, and safety monitoring.

Stockpile Measurement Module

Based on point cloud data, volume and surface area can be measured with one click, without the need for model encapsulation, and custom plane adjustments are supported.

Forestry Module

This module uses intelligent algorithms to perform high-precision single-tree segmentation and parameter extraction (tree height, DBH, crown width, and volume) with one click, while preserving ground points and supporting large-coordinate output, thereby providing a precise data foundation for forestry surveys.

Pipeline Measurement Module

This module utilizes scanned point clouds to generate point-and-line schedules for gas pipelines; it enables one-click extraction of coordinates and burial depths, archives data by project, and supports Excel export, facilitating data submission and subsequent reuse.

Sand Boat Metering Module

By scanning point-cloud data of sand boats in both empty and fully loaded status, the transport volume of sand and gravel can be precisely calculated, creating a complete data chain that provides a reliable basis for water-related law enforcement and transport capacity statistics. A reliable basis for water resources law enforcement and transport capacity statistics.

Digital Assets Module

The Digital Asset Module packages point cloud data into executable files, supporting rapid previewing and secure sharing to enable efficient, convenient digital asset management and distribution.

Drawing Module

The Drafting Module integrates point cloud vectorization and layer management, supporting precise generation of sections and elevations; it enables smooth operation via a dedicated toolbar and automatic path closure within the perspective view.

Terrain Module

The Terrain Module integrates functions for generating contours, DEMs, and DSMs; leveraging intelligent coordinate correction and ground point classification technologies, it rapidly filters out non-ground structures to provide high-quality terrain data for modeling.

Registration Module

The Registration Module is based on feature-region stitching; it supports automatic target sphere recognition and fully automated registration, eliminating the need for manual selection of overlapping areas while balancing stitching speed and accuracy.

Product Parameters



Product Model

Compatible Models

Scanning Technology

Scan Radius

Scanning Frequency

Scanning Accuracy

Scanning FOV

Processing Method

Real-time Scan Preview

Illumination and Scanning Control

Storage

Break-point Resume Scanning Technology

Operating Temperature

Material

Flight Time

5G Data Backhaul

Supports RTK

Length, Width, and Height (Main Unit)

X1 4D

DJI Matrice 4D/Matrice 4TD

SLAM

40 m @ 10% Reflectivity
70 m @ 80% Reflectivity

200,000 PTS

Maximum 1cm

360°×59°

Real-time Processing,
Post-processing

Aircraft Remote Controller

Aircraft Remote Controller

128G (TF Card)

Supports

-20°C-50°C

Aviation-grade Lightweight Aluminum

Approx. 30 Minutes

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Supports Matrice 4D RTK Data Integration

157X98.4X117mm

X1 4D 5G

DJI Matrice 4D/Matrice 4TD

SLAM

40 m @ 10% Reflectivity
70 m @ 80% Reflectivity

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360°×59°

Real-time Processing,
Post-processing

Aircraft Remote Controller

Aircraft Remote Controller

128G (TF Card)

Supports

-20°C-50°C

Aviation-grade Lightweight Aluminum

Approx. 30 Minutes

Yes

Supports Matrice 4D RTK Data Integration

157X98.4X117mm

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