DJI FlightHub 2 User Manual



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The information on the FlightHub 2 webpage may vary depending on the software version. This user manual is subject to change without prior notice. If you have any questions about this manual, contact DJI by sending a message to support@privacy.dji.com.

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Introduction

DJI FlightHub 2 is a cloud-based aircraft task management platform, providing features such as member, device, map photos, task area, flight route, and task plan management. By planning flight routes on the web and distributing tasks to DJI docks and supported aircraft, DJI FlightHub 2 makes remote access to real-time task information possible and improves team productivity and efficiency.

The on-premises version of FlightHub 2 is a SaaS business platform that can be deployed on an intranet, ensuring enterprise data security while providing an almost identical user experience to the public version of FlightHub 2. Through on-premises deployment, the FlightHub platform can achieve automated control over system maintenance and upgrades. Choosing the FlightHub 2 on-premises version package ensures the security of your business.

Before Using

Supported Devices

Supported devices include DJI Dock 3, DJI Dock 2, DJI Dock, Matrice 350 RTK, the Matrice 30 series, Matrice 300 RTK, DJI Mavic 3E, DJI Mavic 3T, DJI Mavic 3T Advanced, the Matrice 3D series, the Matrice 4 series, the Matrice 4D series, and Matrice 400.

- Using Matrice 350 RTK and Matrice 300 RTK together with the Zenmuse H20 or H30 series is also supported. If a different payload is mounted onto the aircraft, some or all of the functions of DJI FlightHub 2 may not be supported.
- When using Matrice 300 RTK with the H30 series, DJI RC Plus should be used.

Operating Requirements

1. DJI FlightHub 2 requires the following computer configuration for optimal performance:
   - Processor: Intel Core i5 8th Generation or equivalent
   - RAM: 8G or higher
   - Graphics Processing Type: Dedicated graphics
   - Screen resolution: 1920 × 1080 pixels or higher
2. Browsers that can run DJI FlightHub 2 should be Chrome 92 and above, Safari 13 and above, or Firefox 90 and above. The recommended minimum bandwidth of the internet connection is 50 Mbps.
3. The DJI Pilot 2 app version should be later than v4.0. The app should be later than v6.1 if dock-related functions are used.

Roles and Permissions

There are five roles within an organization: super administrator, organization administrator, device maintainer, organization member, and temporary member. There can be multiple projects within an organization, and each project has two roles: project administrator and project member. Users with different roles are granted with different permissions, and permissions at the organization and project levels are independent of each other.

Organization Roles and Permissions

User permissions at the organization level are as follows:

1. Super Administrator: Manages the organizational life cycle and owns all permissions of an organization administrator. There should be at least one super administrator within an organization, and the super administrator can only leave the organization when the role is transferred to another member.
2. Organization Administrator: Manages members, devices, and projects within the organization.
3. Device Maintainer: Manages all devices within the organization.
4. Member: Views project information, adds devices, and exits the organization.
5. Temporary Member: Has limited operation permissions within the joined project.

> Note: Both super and organization administrators can click "Role ⓘ" on the Members page to view detailed permission descriptions.

Project Roles and Permissions

User permissions at the project level are as follows:

1. Project Administrator: Manages the project life cycle and owns all project permissions. There should be at least one project administrator within a project.
2. Member: Has basic operation permissions within the project.

> Note: The project administrator can click "Role ⓘ" on the "Project Settings" panel to view detailed permission descriptions.

Notes on On-premises Version

The FlightHub on-premises version cannot obtain updates from the flight safety database in real time. You can choose one of the following to enhance flight safety:

1. Before the flight, check the flight geography area on the "DJI FLYSAFE" website for any flight risks.

2. Make sure that the aircraft firmware version is up to date. The flight safety database will be updated along with firmware update.

Feature Differences Between Public Cloud and Private Cloud

The Public Cloud and On-Premises deployments offer different feature sets tailored to specific operational needs. While both versions share a core set of functionalities, key differences exist in areas like organization, map, task, and device management. This guide details the primary distinctions between the two versions.

Feature Differences

Module	Function	Public Cloud	On-premises
Organization Management	Interface Customization	No	Yes
	Third-Party Account Login	Yes (via Enterprise SSO)	Yes (via OAuth)
Map Service	Map Data	Yes (Included by default)	Yes (Requires custom import)
	Elevation Data	Yes (Included by default)	Yes (Requires custom import)
Task Management	Automatic Post-Flight Mapping	No	Yes
Device Management	Live Weather and Ionosphere Data Display	Yes	No
	One-Click Dock Diagnostics	Yes	No
	SMS Alerts for Critical Faults	Yes	No
	eSIM Data Usage Warnings	Yes	No
	One-Click Damage Assessment	Yes	No
	GEO Zones Unlocking	Yes	Yes
	RTMP Stream Access for DJI Consumer Drones	Supported	Not supported

Module	Function	Public Cloud	On-premises
	and Handheld Devices		
	DJI Care Enterprise	Yes	No
System Integration/Custom Development	OpenAPI	Limited support	Yes
	FlightHub Sync	Yes (OAuth and GB28181 forwarding not supported)	Yes (Mapping API support coming soon)
	MQTT Bridge	No	Yes
	Frontend Components	No	Yes
	FlightHub Sync (Beta)	Yes (Supported until end of 2025)	No

Public Version

2026-09-01 Release Preview

Feature Optimization

Smart Search Supports Count Statistics and Conditional Alerts

- "Cockpit — Multimodal Smart Search", "Mission Library — Multimodal Configuration", "Analyzer — Smart Search": search results now display target count, support setting count alert thresholds in prompts, alerts are triggered only when conditions are met, and multi-target combined search is supported.
- "Flight Records" and "Analyzer": smart search alert results support manual editing of AI search targets, as well as manually adding or removing targets.

More Features

- The waypoint route editor supports setting ground alert altitude thresholds.
- Analyzer model timeline supports filtering by model type.

> - This release preview is for reference only. Final released features may vary.

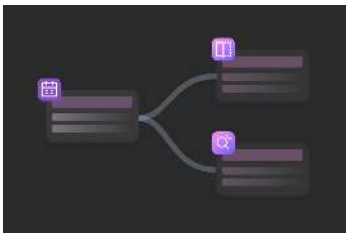
2026-07-30

What's New



[DJI FlightHub 2 Copilot Supports Flight Route Drawing]

- Copilot can now generate waypoint routes by selecting annotation points, framing an area, specifying point locations, or via natural language descriptions. The generated routes can be saved to the flight route library or dispatched immediately for execution.



Automation Workflow Enhancements

- Periodic workflows now include VLM Smart Search and Change Detection Pro sub-modules, allowing AI analysis tasks to be configured directly within the workflow.
- Trigger-based workflows now support the "Search In-Place" action, which can be paired with the smart recognition action to search for specific targets after the aircraft arrives at a designated location.
- The workflow list now includes Notification / AI tags, and execution logs support viewing the trigger method and notification results.

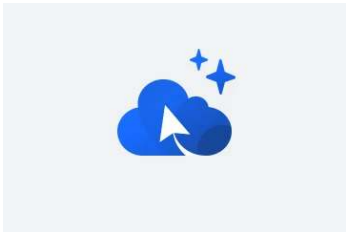
Feature Optimization



Change Detection Pro

- Change Detection Pro task management has been fully migrated into the Analyzer, and a "Change Detection Pro" entry has been added to the Analyzer.
- Change Detection Pro now supports manual modification of detection results.
- Supports generating AI reports for Change Detection Pro, and refreshing reports after manual modifications.
- Supports saving change annotations as defects and generating defect reports.

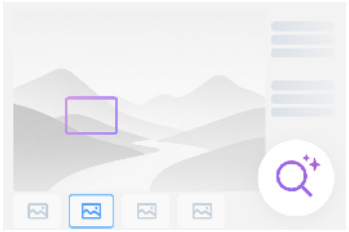
More Features



- Multimodal recognition in the Cockpit and Smart Search in the Analyzer now support reverse geolocation calculation for up to 10 targets. The calculated coordinates are for reference only.
- The map now supports creating spatial lines and spatial surfaces, which can be viewed on the map interface and in the Cockpit AR projection after being drawn.
- Live share links now remember the page layout.
- **OpenAPI V2.0 Sample Source Code Release**: After deploying and successfully running the sample source code, you can experience the functional interface developed based on OpenAPI V2.0. This helps you quickly understand how to integrate and use OpenAPI, and accelerates secondary development and integration. Access the documentation here:
  - Public Cloud OpenAPI V2.0 Documentation
  - Private Deployment OpenAPI V2.0 Documentation

2026-07-02

Feature Optimization

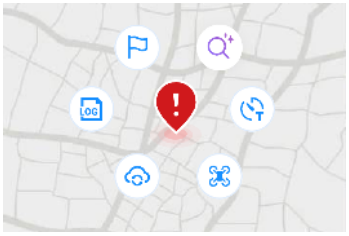


Analyzer Now Supports Smart Search

- Supports automatic target information recognition by large language models. Recognized items can be manually converted into annotations mapped onto the model, and finally a job report can be generated.

2026-06-30

What's New



Automation - Trigger-Based Workflow Enhancements

- Trigger-based workflows now support DJI Dock 2 as the operating device.
- Added a multimodal recognition action that can be activated during flight or upon arrival at a specified location.
- Customizable dispatch delay time is now supported, allowing immediate dispatch (0 seconds) after an alert is triggered.
- You can now export alert points from the dispatch log to the project annotation folder with one click, making it easier to analyze alert hotspot areas.
- The Event API now supports information synchronization for dispatch workflows, pushing alert process and result information to third-party systems.
- Added a "False Alarm" indicator. You can mark a current alert task as a false alarm in the Cockpit, which can also be reviewed in the dispatch log.

Feature Optimization



Flight Records Now Support Viewing Video Files

- Video file timeline track added: video files captured by the payload can be reviewed on the flight record timeline.
- Flight record toolbar optimized: all media files generated during the flight mission can now be viewed in the media record.

More Updates



- In-app message notifications now support filtering records by message title.

2026-06-17

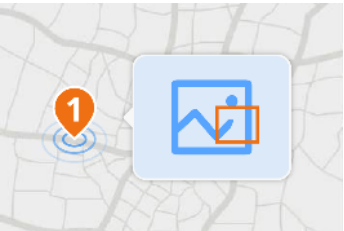
New Hardware Support



O4 Ground Station Support Added

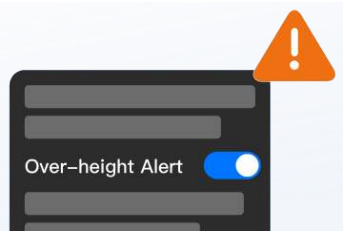
- DJI FlightHub 2 now supports the "O4 Ground Station", enabling device management of cloud-connected O4 Ground Stations on DJI FlightHub 2.
- The Cockpit and Flight Plan Library now support "O4 Ground Station" as a signal enhancement device. Regular missions can select nearby available stations to connect, extending the operating range of a single sortie.
- For network cameras connected through the "O4 Ground Station" via the ONVIF and GB/T 28181 standard protocols, you can view the video stream and remotely control them from DJI FlightHub 2.
- For RID and ADS-B airspace broadcast receivers connected through the "O4 Ground Station", detected aircraft can be viewed on DJI FlightHub 2. You can also handle abnormal situations with one-click dispatch.

What's New



Defect Annotation Supported in Analyzer

- The Analyzer now supports defect annotation. Annotations on media files are precisely mapped to spatial positions on the 3D model in the Analyzer.
- Click any location on the 3D model in the Analyzer to automatically receive recommendations of related photos that may have captured that point.
- The spatial mapping between 2D media and 3D models has been comprehensively enhanced!



AGL Altitude Recording and Alerts

- Enable AGL (Above Ground Level) altitude alerts in the Cockpit. An alert is triggered when the configured AGL value is exceeded.
- Flight records now support calculating and displaying changes in altitude above ground during the flight. Note:

This altitude is calculated based on the DJI FlightHub 2 global elevation model and may contain errors.

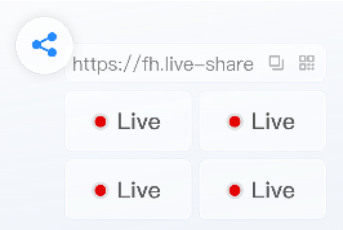
2026-05-27

What's New



OpenAPI V2.0 Public Cloud Edition Released

- Building on the capabilities opened in V1.0, this version adds query interfaces for various business modules, covering organizations and projects, member permissions, live stream forwarding and sharing, flight tasks and records, map annotations, and more — further meeting the integration needs of third-party platforms for information queries.
- This version also optimizes the API system by separating the public cloud and private cloud API documentation, making API categorization clearer for developers to quickly understand and integrate, and allowing OpenAPI to enter a more agile iteration cadence.



Live Share 2.0 Supports Sharing Multiple Devices at Once

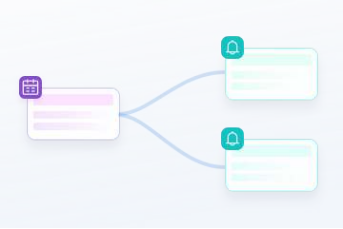
- Live sharing has been fully upgraded to support adding multiple device live streams to a single share link.



FlightHub 2 Copilot Now Supports DJI Dock 2

- FlightHub 2 Copilot, the intelligent drone control assistant, now supports DJI Dock 2.

Feature Optimization



Automated Workflow Adds Trigger Configuration and Notification Module

- Automated workflow now supports trigger and notification configuration, allowing more flexible workflow triggering and outbound notifications of workflow status.

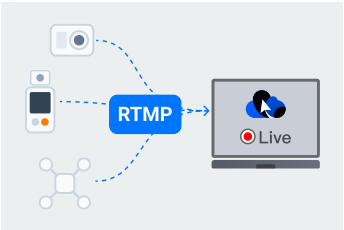
More Updates



- The FlightHub project page menu can now be expanded to display menu names.
- Notifications such as virtual cockpit AI alerts and automated assignment workflows now support sound alerts.

2026-05-08

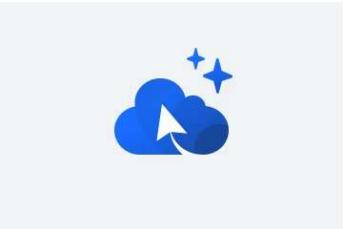
What's New



DJI Consumer Drones and Handheld Devices RTMP Stream Access

- Supports connecting DJI consumer drones and handheld devices to FlightHub 2, enabling live streaming and viewing via RTMP.
- Supports viewing live streams from streaming devices in the device window on the Project > Team page and on the multi-stream live view screen.
- For devices connected via streaming, auto-recording can be enabled in project settings to record live footage in a timely manner.

More Updates

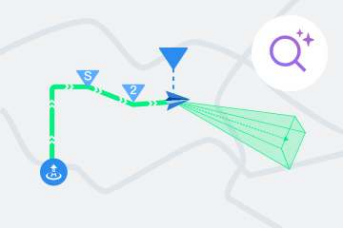


Feature Optimization

- FlightHub Sync - Live Stream Forwarding now supports live stream quality settings.
- FlightHub Mapping API now supports Zenmuse L3.

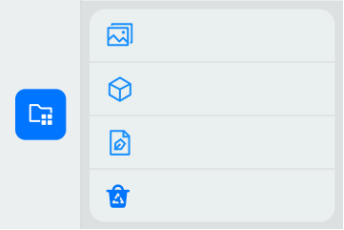
2026-04-15

What's New



Multimodal Recognition for Flight Routes

- The task plan library now supports enabling multimodal recognition, allowing specified objects to be identified during flight route execution. Users are notified through designated methods when recognition is triggered.

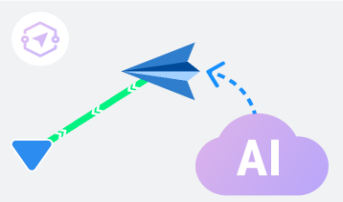


Resource Library Recycle Bin

- A recycle bin has been added to the resource library. Deleted files are moved to the recycle bin first. Periodic auto-emptying can be configured to free up storage space.

2026-03-31

What's New



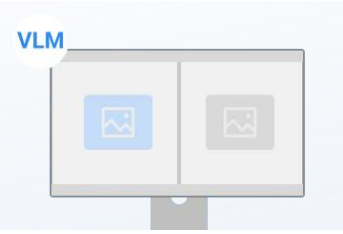
DJI FlightHub 2 Copilot – AI-Powered Drone Control Assistant

- Copilot, an intelligent aircraft control assistant, is now available in the FlightHub virtual cockpit. Use natural language or voice input to control the drone in real time and execute complex tasks.



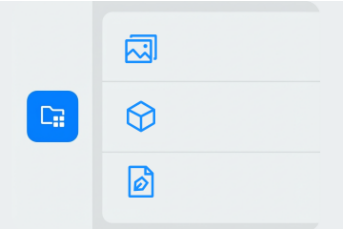
High-Definition Panorama

- Added support for 500MP high-definition panoramas for DJI Dock 3 and DJI Matrice 4 Enterprise. Environment information can be collected efficiently.
- 3x zoom can be set in virtual cockpit and waypoint route settings to capture sphere panoramas, automatic stitching is available after capture, and high-definition results can be viewed in the media file library. Related features such as analyzer import and timelines are supported.



Change Detection Pro (Beta)

- Powered by the VLM, Change Detection Pro removes angle limitations. It can now detect changes even from non-orthophoto photos taken at the same waypoint.
- The analyzer timeline now includes a SBS view, allowing users to compare any two inspection datasets from the same waypoint route. Change Detection Pro highlights changed areas, making inspection reviews more efficient and intuitive.



Resource Library Upgrade

- The original Media Library, Model Library, and Design Files have been merged into the “Resource Library” for unified, more convenient management.



FlightHub Sync

- FlightHub 2 FlightHub Sync Beta has completed testing and validation. It will be gradually phased out and replaced by the new FlightHub Sync.
- File Sync – Now supports cross-configuration of file type, project, and bucket. Multiple buckets can be configured.
- Telemetry Data Sync – A new telemetry data sync feature that enables real-time sync of the attitude data to third-

party platforms.
- RTSP Protocol – Livestream forwarding now supports the RTSP protocol.
- Third-Party Airspace Data Management – Supports configuring airspace information from third-party providers and displaying it within FlightHub.

What's New



What's Updated

- Added support for Portuguese and Russian.
- Supports setting the earliest/latest execution start time in New Task of the task plan library.
- Supports repair requests after Device Damage Assessment and Issue Reports, as well as direct one-click repair requests, simplifying the troubleshooting process and improving O&M efficiency.

2026-01-27

DJI FlightHub 2 officially launches a brand-new business version. The previous professional versions (1-month/12-month/3-year) will be discontinued. Users whose professional versions are within the validity period before the discontinuation will be automatically upgraded to the new business version free of charge. At the same time, the features available in the standard version will also be adjusted.

【Launch of the New Business Version】
- The new business version offers a wider range of advanced features. Beta features currently in trial will also be officially supported.

【Discontinuation of Professional Versions (1-Month / 12-Month / 3-Year)】
- The current professional version will be removed from both the online store and authorized agent/distributors. Versions that have already been purchased or activated will remain available and will be upgraded to the business version at no cost.

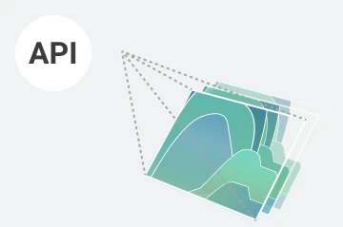
【Adjustment to Mapping Image Packages】
- The previous 20,000-image package will be removed from both the online store and authorized agent/distributors. The new mapping image recharge package will be introduced. Already purchased or activated image packages can still be used normally.

【Changes to Standard Version Features】

- Relaxed Restrictions
  - The standard version will no longer limit the number of projects or the number of models loaded to the map in each project.
- New Restrictions on the Standard Version
  - The maximum number of user accounts per organization will be set to 5. The following features will not be supported: custom project roles and permissions, exporting flight records locally, viewing organization data dashboard, creating analyzers, sharing project data within the organization, linking analyzers in automated workflows, and automated assignment workflow. Virtual cockpit will support official algorithms for people, vehicle, vessel, and large-object detection, but third-party algorithm-based detection will not be supported. AI waypoint and patrol routes will support official people, vehicle, and vessel detection, but not third-party algorithms. Smart search will be limited to 4 uses per organization per month. Change detection will be limited to 4 uses per organization per month.
- Retention of Existing Data
  - All accounts already added to organizations, custom project roles and permissions, and analyzers created before these changes take effect will remain and will not be deleted.

For more details, please visit the DJI Store. If you have any questions or suggestions, please feel free to contact us.

What's New



FlightHub Mapping API

- Added FlightHub Mapping API in OpenAPI, supporting third-party fast integration of cloud mapping capabilities.



FlightHub Sync Optimization

- Added support for EventAPI, which allows you to configure different event rules to push specific event information from FlightHub to external systems.
- Added support for deleting files within FlightHub after synchronization is completed.

What's More

What's Updated

- Added support for searching all device serial numbers and device names on the team page and in the Device List in Task Plan Library.
- Added virtual cockpit entry to Device List on team page.
- FlightHub public cloud now allows docks to import offline unlocking licenses to lift flight restrictions.

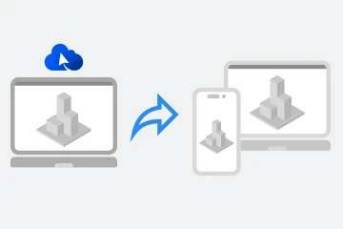
2026-01-05

What's New



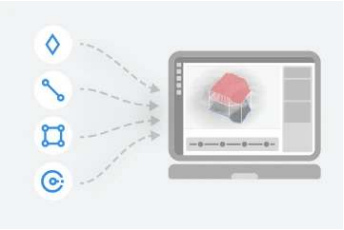
Added Gaussian Splatting in Cloud Mapping

- Scenes with fine structures or glass curtain walls are now rendered more realistically and clearly.
  (It is recommended to use the host configuration suggested by FlightHub)



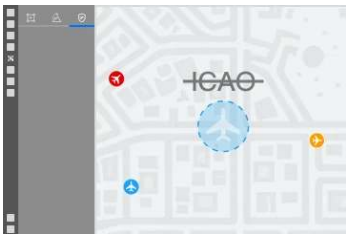
Added Direct Model Viewing in Model Sharing

- Scan code with mobile device to view models instantly without login.



Added Annotation Sync in Analyzer

- Project annotations can now be displayed simultaneously in the Analyzer map settings. You can also select annotations and convert them to measurements with a single click.



Added ICAO Filtering in AirSense

- On the Team page, the Map Task Area has been upgraded to airspace information management. AirSense alert management is now available, and ICAO number filtering is supported.

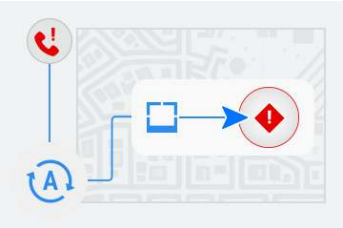
What's More

What's Updated

- On the Task Logs page, you can now directly view the output of each stage in automated workflow.

2025-12-11

What's New



Added Automated Assignment to Automated Workflow

- On the automated workflow page, you can create an automated assignment workflow, then trigger the workflow manually on the map or through an external system. After the aircraft arrives at the specified coordinates, preset actions will be performed automatically.



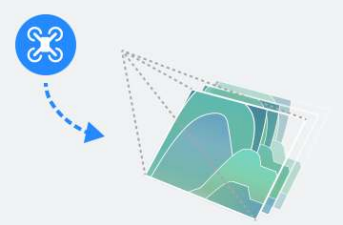
AI Flight Route Optimization

- Added support for selecting 3x or 7x zoom lens.
- Added support for DJI official and third-party infrared object detection algorithms.
- Added support for speaker and spotlight alert actions.



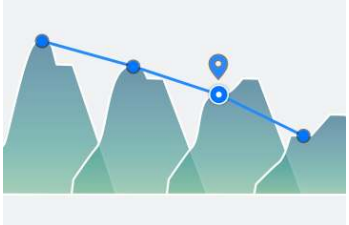
Added Real-Time AI Alert Settings to Virtual Cockpit

- During real-time flight, onboard official and third-party algorithms support setting alert thresholds. After an alert is triggered, relevant alerts will be collected in the alert list.



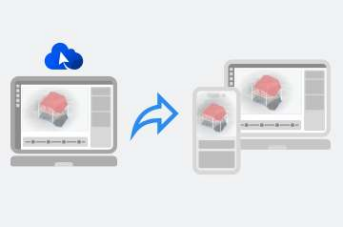
Optimized Rapid Mapping Feature

- Added support for enabling rapid mapping when distributing mapping-related tasks. The aircraft will transfer real-time thumbnails during flight, and modeling will start automatically after the transfer is complete, quickly generating models for emergency scenarios.



Added Historical Elevation to Analyzer

- Added support for creating point and historical elevation measurements in analyzer. You can draw points on the map to obtain the point's geographic location and surface heights of historical models.



Added Support for Sharing Analyzer

- On the analyzer sharing page, you can view the model media file timeline, measurement results, and analysis report directly by scanning the QR code via mobile device without login.

What's More



What's Updated

- Added support for the object segmentation algorithm in onboard algorithms.
- Added support for continuing to perform remaining steps after an automated workflow is disabled.
- Added support for following the organization settings for imperial units in analyzer.
- Added support for setting the expansion coefficient in analyzer volume calculation.
- DJI Dock 3 Car Mount supports custom network RTK calibration.
- DJI Dock 3 supports clearing all aircraft unlocking licenses with one click.

2025-11-4

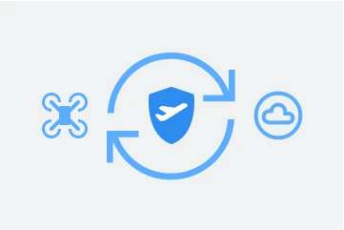
New Model Support



Adds Support for Zenmuse L3 Payload

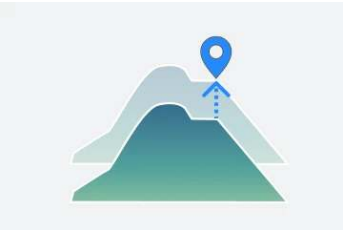
- Supports planning flight routes for Matrice 400 enterprise aircraft with the Zenmuse L3.
- Area Route now supports displaying a preliminary report of the L3's point cloud results to assess the expected data quality in advance.
- Supports viewing L3 point cloud files uploaded from the Pilot 2 app.

What's New



Adds support for flight data reporting to airspace management service providers

- Enable this feature in Organization Settings > Organization Data Management > Airspace Management Service Provider Flight Data Reporting. After entering the address and token provided by the third-party service provider, flight data will be pushed to them in real time.



Models support altitude calibration

- The analyzer now supports setting an elevation calibration point. The model surface elevation at the selected location will be calibrated to a target value for all current and future models. This calibrated elevation will be applied to all measurements and calculations.

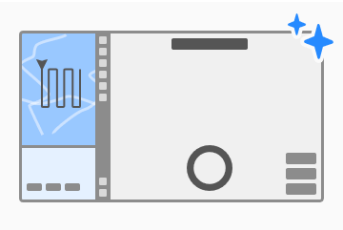
What's More



What's Updated

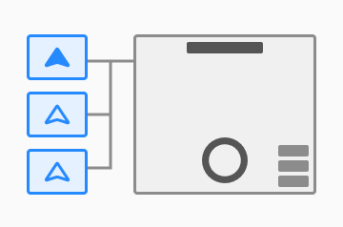
- Adds support for Japanese, Korean, German, and French.
- Supports filtering the annotation list to display annotations as needed.
- The gradient calculation and triangulation tools are optimized to perform dynamic calculations that follow the model surface.

2025-9-23



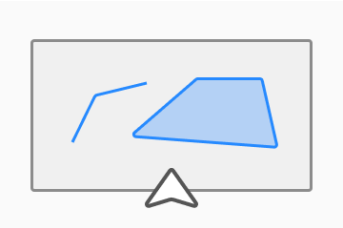
All-New Virtual Cockpit Interface

- Redesigned Interface: A complete visual and interactive optimization for a more intuitive experience.
- Flexible Layouts: Customize the interface with new layout options to fit your needs.
- Updated Icons: A brand-new icon set provides a cleaner, more refined look for improved clarity.
- Streamlined Interactions: The user experience has been optimized to make operations faster, smoother, and more intuitive.



Multi-Aircraft Control in Virtual Cockpit

- Manage a group of aircraft for collaborative tasks using the new multi-aircraft control panel.
- Instantly switch control between different aircraft, enabling a single operator to manage multiple drones.



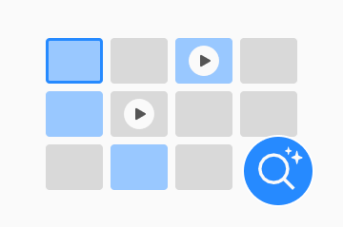
AR Projection for Spatial Lines and Areas

- AR projection now supports virtual lines and areas for enhanced situational awareness.
- View spatial lines and areas drawn in DJI Pilot 2 directly in the live view.



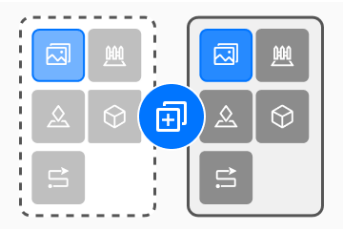
Dashboard

- Adds support for dashboard, a new centralized hub for viewing key operational data at a glance.
- Designed for administrators, it provides the high-level insights needed for effective management.
- Track core metrics including assets, device status, task schedules, and data outputs to support informed decision-making.



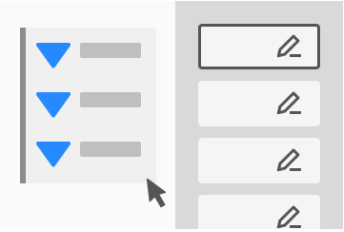
Smart Media Search

- Find what you're looking for faster. Smart Search automatically detects and tags objects in your photos and videos.
- Export search results as a detailed report for sharing, documentation, and further analysis.



Organization Data Management

- Administrators can now manage data across the entire organization. Easily view and copy annotations, flight routes, models, and GEO Zones between projects.



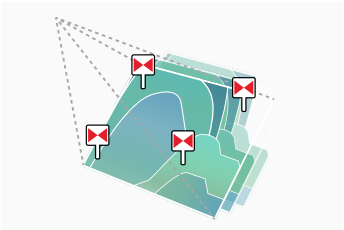
Batch Editing Waypoint Routes

- Save time by editing multiple waypoints at once. You can now batch-modify waypoint parameters and actions in the Flight Route Editor.



Centralized Message Center

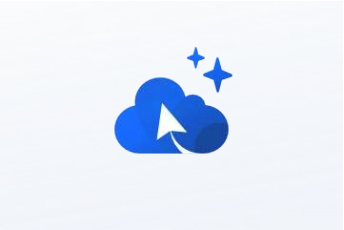
- All notifications are now aggregated into the new Message Center. View historical system messages and customize which alerts you receive in your personal settings.



Using Ground Control Points for Mapping

- Cloud reconstruction supports setting image control points, and standard targets support automatic piercing and reconstruction.

What's More



- On-Premises users can now import custom offline elevation data downloaded from the DJI Developer website.
- Adds a feature comparison table outlining the differences between the Public Cloud and On-Premises versions.

2025-9-16

New Model Support



DJI FlightHub 2 now supports Mavic 3T Advanced enterprise aircraft.

- Supports the Mavic 3T Advanced enterprise aircraft, its gimbal camera, and connected PSDK accessories.
- Supports point, line, and area annotations for Mavic 3T Advanced enterprise aircraft.

2025-8-28

What's New



Manifold 3 Cloud Integration

- Adds support for remote management and use of Manifold 3 applications via the cloud.
- Device Management: Adds support for device display and application management for Manifold 3.
- Virtual Cockpit: Enables launching loaded applications and viewing their effects in real time.



Integration of Third-Party Intelligent Algorithms on Aircraft

- Virtual cockpit adds support for third-party infrared AI recognition algorithms.
- Users can now view real-time AI recognition results from infrared cameras.
- For waypoint and patrol routes, you can now choose third-party intelligent algorithms on the aircraft to perform recognition tasks.



AI Task Report Export

- Flight records now support exporting reports for AI-generated warning events.

What's More

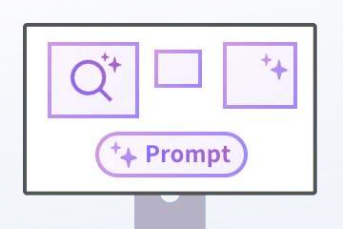


- You can now set the threshold for crewed aircraft collision risk (Effective only for dock aircraft).
- Adds support for setting a reserve battery level for return-to-home for dock aircraft. In strong winds, it's recommended to increase this value for safety.
- Virtual cockpit now supports infrared photo format settings.

- Adds a comprehensive guide to package options and billing methods.

2025-7-31

What's New



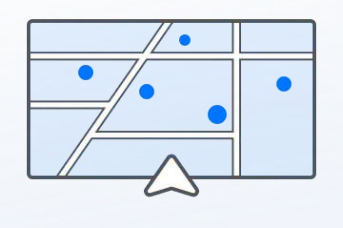
Multimodal Object Detection

- Virtual cockpit now supports multimodal object detection.
- Users can define the objects that trigger warnings by entering text, uploading images, or selecting objects in real time.
- Snapshots will be automatically archived to a dedicated folder in the media file library, with support for tag-based filtering.
- You can configure warning notification types and set record intervals.



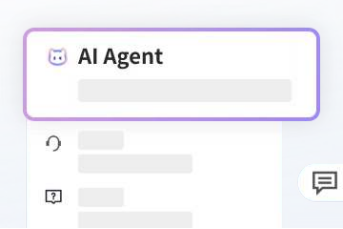
AI Warning Record List

- The AI warning record list in the virtual cockpit and flight records has been upgraded.
- Supports archiving and displaying records generated by multimodal object detection and cloud-based intelligent algorithms.



AR Street Projection

- The virtual cockpit now features AR street projection.
- Supports adjusting opacity and height offset, as well as displaying landmarks.



AI Assistant

- An AI Assistant is now available in the help pop-up window.
- The AI Assistant can intelligently answer product usage questions using content from FlightHub 2 public and on-premises product manuals, on-premises deployment manuals, and other documentation.

What's More

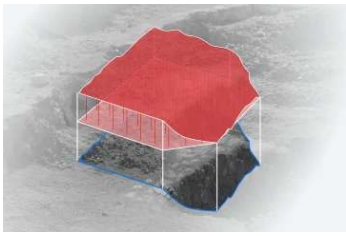


More Updates

- Organizations can now enable Two-Factor Authentication for login to enhance FlightHub account security. Once enabled, members must bind an authenticator and enter a dynamic code to complete the login process.

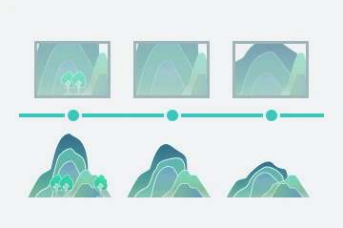
2025-6-26

New Analyzer Feature: Supports Engineering Measurement and Progress Management



Measurement and Calculation

- Measurement and calculation tools can be created in the analyzer, enabling line and volume measurements based on models and design files.
- Line Measurement: Supports triangulation and gradient measurements and allows extraction of cross-sections.
- Volume Measurement: Supports current model volume calculation, two-phase and multi-phase model volume change calculations.



Timeline

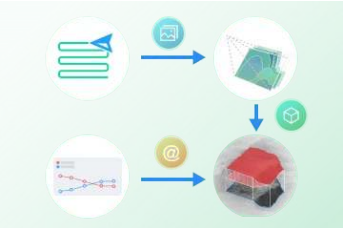
- Supports viewing model timeline, allowing quick and dynamic switching to display the model evolution process and intuitively track project progress.
- Supports viewing media timeline, enabling association and viewing media files by time and spatial dimensions for visual traceability and process management.



Analysis Report

- Supports generating measurement analysis reports, with configurable report covers, measurement areas, and other structured content.
- Supports report templates, scheduled automatic report generation, and email delivery, facilitating progress tracking, data archiving, and reporting.

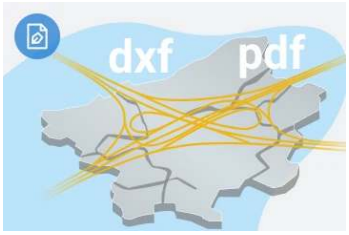
What's New



Automated Workflow

- Full Process Integration: Integrates flight, mapping, measurement, calculation, and analysis tasks for end-to-end automation from data collection to intelligent analysis.
- Flexible Task Management: You can freely choose from existing tasks or create new ones, with support for editing

and linking to meet different scenario requirements.
- Efficient Preview and Performance: Preview task results with one click, quickly save and enable automation to improve operational efficiency.



Design File Support

- Supports PDF and DXF formats. Design files can be accurately positioned on the map via coordinate system conversion or matching point calibration.
- Supports parsing 3DFACE (DXF) to obtain design heights for cross-section and volume calculations.



Engineering Coordinate System

- Project settings now support engineering coordinate system configuration.
- Supports EPSG universal and custom projected coordinate systems.
- Supports four or seven parameter calculation and application.

What's More



- Adds Spanish language support for the interface.

2025-6-10

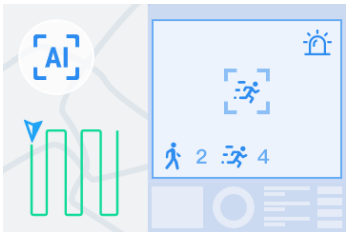
New Product Support



DJI FlightHub 2 now supports DJI Matrice 400.

- FlyTo tasks are now available for Matrice 400.
- Adds support to remotely control Matrice 400 gimbal camera and PSDK accessories.
- Adds support for flight route planning for Matrice 400.

What's New



AI Capabilities Support

- Patrol routes are now available. Users can specify areas for inspection, and the system can automatically identify people, vehicles, and boats within the patrol area using

intelligent recognition algorithms and send alert notifications.

- The virtual cockpit now supports real-time AI recognition of people, vehicles, and boats, and can automatically send alerts based on infrared video streams.
- The media file library in FlightHub now supports displaying, viewing, and sharing AI-generated videos on the aircraft, showcasing AI recognition results.



Live Flight Controls Support

- Adds support for live flight controls of Matrice 4D series aircraft when connected via remote controller.
- Users can now issue return-to-home commands to all aircraft within a project with a single click.



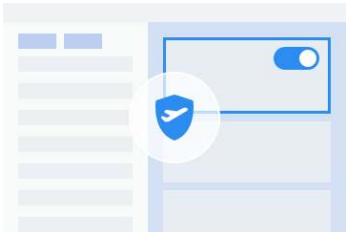
Management of Algorithms on Aircraft

- Users can now load third-party algorithms distributed from the DJI Developer website onto aircraft connected to docks via the Algorithms page.



FlightHub Sync

- FlightHub Sync Beta has been upgraded to FlightHub Sync. Users can synchronize specified project media files, flight routes, flight records, and other information to external storage buckets.



Compliance Requirements in Chinese Mainland

- Aircraft operating in the Chinese mainland must report flight dynamic data to the Civil Aviation Administration. Go to My Organization > Organization Settings > Organization Basic Information to view details and enable the feature.

What's More



- Flight records now support compatibility with DJI Dock 2.
- When distributing tasks, the system checks the flight route's historical obstacle sensing records and prompts if any exist. If obstacle sensing is triggered during recurring or continuous tasks, subsequent tasks are automatically suspended and must be manually resumed to ensure safety.
- Adds support for automatic association of abnormal feedback with dock or aircraft logs. After selecting the time, data is automatically matched and the error code field is filled in to improve problem analysis efficiency.

- Supports remote switching between FlightHub public and on-premises environments for docks.

2025-4-15

Starting from April 15, 2025, the DJI FlightHub 2 package adjustments will be effective:

- New Packages
  - Enterprise package, only limits the number of online devices. There are no restrictions on livestream and storage usage, offers extra-large mapping images package and advanced features like SSO login.
  - Introduction of larger capacity options for Livestream Minutes Recharge, and Storage Space Upgrades.
- Original Package Adjustments
  - Activation Validity: The enterprise package has no activation period, whereas other packages (Professional Version 1-Month Plan, Professional Version 12-Month Plan, Professional Version Large Capacity 3-Year Plan, Mapping Images Recharge, Livestream Minutes Recharge, Storage Space Upgrade) have a 6-month activation validity.
  - After activation, the livestream minutes recharges, mapping images recharges, and storage upgrades have a 1-year usage period.
  - The above adjustments apply only to packages purchased on or after April 15. Previously purchased packages will retain their original terms.

For more details, please visit the DJI Store. If you have any questions or suggestions, please feel free to contact us.

What's New



SSO Login

- The enterprise package supports SSO login, allowing login through third-party enterprise accounts.



Device Recommendation

- On the team page, click the FlyTo destination, and the system will automatically sort and recommend suitable docks for the user to choose from.
- When creating a new plan in the Task Plan library, after selecting a flight route task, the system will automatically sort and recommend suitable devices based on the distance between the first waypoint and the dock.



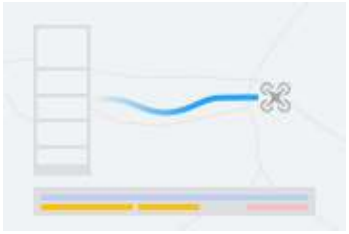
Automatic Swap Task

- The virtual cockpit supports creating automatic swap tasks. After choosing an area of interest, it automatically schedules two aircraft to swap for uninterrupted observation.
- This feature currently only supports DJI Dock 3.



Flight Route Distribution via Virtual Cockpit

- The virtual cockpit supports viewing tasks in the flight route library. Users can select, distribute, and perform waypoint routes and area routes.
- This feature currently supports DJI Dock 3, DJI Dock 2, and Matrice 4 enterprise aircraft.



Flight Records

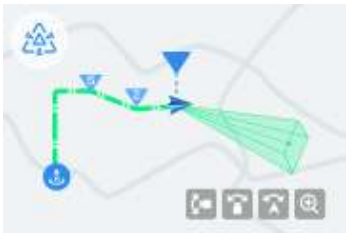
- The Task Plan library supports displaying manual flight tasks controlled via the virtual cockpit or the remote controller.
- Adds support for displaying device change information during flight, aircraft key behaviors, user commands, and more.
- Adds support to export summary or detailed information of flight records.
- This feature currently only supports DJI Dock 3.



Remote Connection to Relay

- DJI Dock 3 can now search for relays nearby. Users can select a relay device and enter a password to connect.

What's Updated



Waypoint Route Supports POS Data Recording

- The Waypoint route adds a Record Current Attitude action, allowing one-click capture of the current virtual aircraft's gimbal yaw and tilt angles, aircraft yaw angle,

and camera zoom level. These data are then added to the action list.

- The Waypoint Route Editor adds a Sync POS Info When Adding Waypoints setting in the upper right corner. When enabled, it will automatically add the aircraft's POS information when adding new waypoints, improving waypoint route editing efficiency.



More Updates

- When DJI Dock 2 performs an area route, it supports automatic obstacle bypassing of custom GEO Zones when the aircraft is flying to the first waypoint. The setting needs to be enabled in the area route editor > Advanced Settings > Custom GEO Zone Obstacle Bypassing.
- Gimbal tilt angle of Matrice 4T when performing waypoint routes is now extended to 70 degrees.
- DJI Dock 3 aircraft supports more payload capacity.
- The device list adds a visual display of aircraft payloads and accessories, making it easy to quickly select suitable docks and aircraft.

2025-3-19

What's New



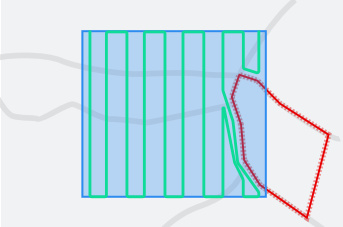
Role Configuration and Management of Project Permission

- Project role management enables detailed control over member permissions within a project by assigning various permissions to different roles.
- Organization administrators and super administrators can manage project roles within the organization via Members > Member Role Management > Project Member Role Management.



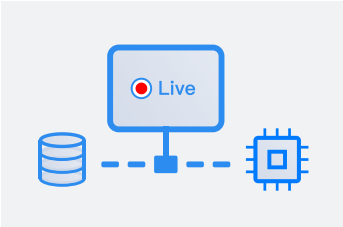
Linear Flight Route

- The flight route library now supports creating linear flight routes, which are suitable for mapping scenarios such as rivers and pipelines.



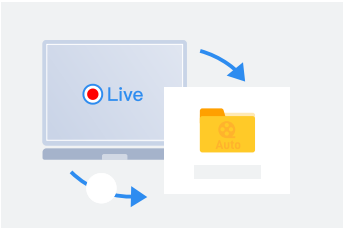
Custom GEO Zone Obstacle Bypassing in Area Route

- Area routes support Custom GEO Zone Obstacle Bypassing within Advanced Settings, allowing the aircraft to bypass custom GEO Zones during mapping.
- This feature is currently supported by DJI Dock 3, Matrice 4 Enterprise Series, and DJI Dock 2.



Cloud Intelligent Algorithms

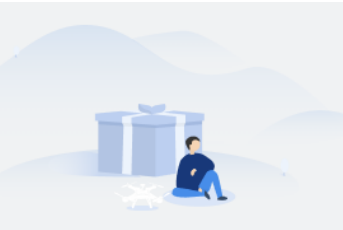
- Users can deploy intelligent algorithms via Algorithms on the cloud.
- Users can instantly call successfully configured cloud intelligent algorithms and instances in the virtual cockpit.
- Users can view deployable intelligent algorithm models from vendors on the DJI Developer platform.



Livestream Auto Recording

- Supports configuring devices within the project for automatic livestream recording.
- Recorded files will be archived in the media file library under the Auto Record Playback folder.
- Supports flexible cleanup cycle settings to automatically free up storage space.

What's More



More Updates

- Added more layout modes and improved user experience for simultaneous livestreams.

2025-2-27

New Product Support



DJI FlightHub 2 now supports DJI Dock 3.



Accessory Support

- DJI Dock 3 supports the D-RTK 3 Relay Station and DJI Dock 3 Vehicle-Mounted Gimbal Mount.
- Matrice 4D series aircraft support the DJI AS1 Speaker, DJI AL1 SpotLight and DJI FTS Module（For countries in Europe only）.

What's New



AI Capabilities Support

- The virtual cockpit supports real-time AI recognition and automatic alerts when people, vehicles, or boats are identified, and provides the ability to view detailed alert records generated during tasks in real time.
- The virtual cockpit supports Smart Track, allowing continuous tracking of AI-recognized objects.
- Waypoint routes support intelligent recognition actions, capable of recognizing people, vehicles, boats, or subjects with abnormal high and low-temperature during the flight, and performing actions such as taking photos, recording videos, and waiting for the operator to take over after alerts.
- The plan library now supports AI route warning notification, allowing the configuration of alert receiving methods and frequency after subject recognition.
- The above features are currently only supported by the Matrice 4D series aircraft.



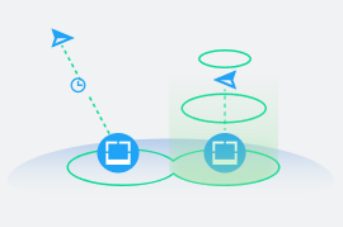
AI Change Detection

- Media File Change Detection: The media file library supports intelligent detection and marking of changes in photos from two media folders generated by the same waypoint route task.
- Model Change Detection: The model library supports intelligent detection and marking of changes in two overlapping 2D models.



Vehicle-Mounted Deployment Mode

- Adds support for quick calibration of device location and pre-flight safety checks in vehicle-mounted deployment mode.
- The feature is currently only supported by DJI Dock 3.



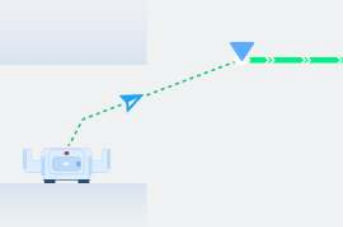
Multi-Drone Takeoff/Landing

- Adds support for scheduling devices to take off or land in areas where docks are densely deployed.
- The feature is currently only supported by DJI Dock 3.



Custom No-Landing Zone

- DJI FlightHub 2 adds a new type of no-landing zone in custom flight areas, preventing aircraft from automatically landing within these zones.
- Users can manually draw no-landing zones or convert map line annotations into no-landing zones automatically.
- Adds support for sending no-landing zones to DJI Dock 3 and Matrice 4D series aircraft within the project to enhance flight safety.



Entry/Exit Route

- Adds support for performing the entry/exit routes after takeoff to ensure safe departure before performing flight tasks.
- The feature is currently only supported by DJI Dock 3.

What's More



More Updates

- Matrice 4D series aircraft support the Night Scene mode.
- The Mouselook feature in the virtual cockpit has been upgraded.
- Resolution settings are now supported during model mappings.

2025-1-8

New Product Support



DJI FlightHub 2 now supports DJI Matrice 4 enterprise series

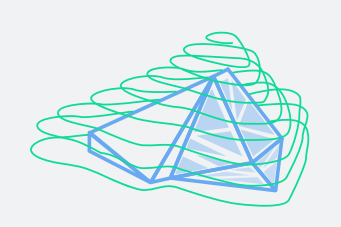
- Adds support for Live Flight Controls for Matrice 4 enterprise series aircraft.
- Adds support to remotely control gimbal cameras of Matrice 4 enterprise series aircraft.

What's New



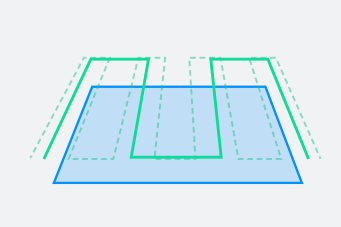
AI Recognition

- Adds support to remotely control Matrice 4 enterprise series to intelligently recognize people, vehicles, and boats, and alert users after recognition.
- Third-party algorithm models developed on DJI AI Developer platform can now be imported into Pilot 2 to expand AI recognition scenarios.
- Media file library supports display, counting, and editing of AI recognition results. Currently only wide-angle and zoom photos are supported.
- The feature is currently **only supported by Matrice 4 enterprise series aircraft**.



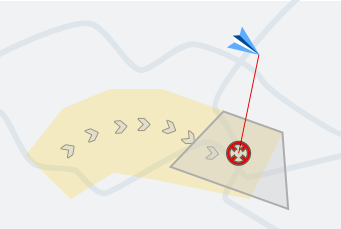
Smart 3D Capture Route

- Rough models can now be generated during model mapping and used for creating Smart 3D Capture routes.
- Adds support for Smart 3D Capture in the flight route library, allowing generation of flight routes based on rough models and simplifying mapping tasks.
- The feature is currently **only supported by Matrice 4 enterprise series aircraft**.



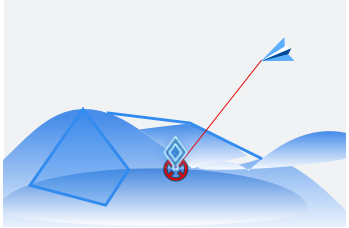
Enhanced Ortho Collection for Area Routes

- Smart Oblique can now be enabled to improve efficiency during ortho collection when aircraft is performing area routes. It is recommended to use the feature for ortho mapping tasks only.
- The feature is currently **only supported by Matrice 4 enterprise series aircraft**.



Observed View Synchronization

- Adds support for syncing observed views from Pilot 2 to FlightHub 2.
- The feature is currently **only supported by Matrice 4 enterprise series aircraft**.



Spatial Annotation Synchronization

- Adds support for syncing spatial annotations from Pilot 2 to FlightHub 2.
- The feature is currently **only supported by Matrice 4 enterprise series aircraft**.

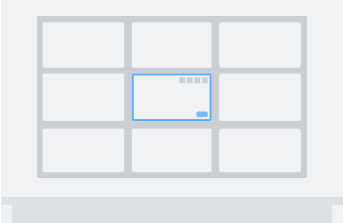
2024-11-7

Starting from November 7, 2024, DJI FlightHub 2 officially adjusts its policy on free quotas for device binding.

- Changes to the allocation logic:
  - Organizations can receive free quotas when binding a device (Dock or aircraft) for the first time.
  - An organization can only receive free quotas once. If an organization has already received free quotas, it cannot receive them again when binding additional devices.
  - A device can only receive free quotas once. If a device has already received free quotas, it cannot receive them again when re-bound to another organization.
- Changes to the amount and validity of free quotas:
  - The amount of free quotas will no longer vary by device type. All devices will receive 100GB storage space, 5000 livestream minutes, and 3000 mapping images.
  - The validity period of the free quotas is 3 months.

From November 21, 2024, compressed files will count towards storage. If storage space is insufficient, files that occupy extra space will not be deleted, but new files cannot be added. It is recommended to download, archive, or delete compressed files to avoid exceeding the storage limits. If you have any questions or suggestions, please feel free to contact us.

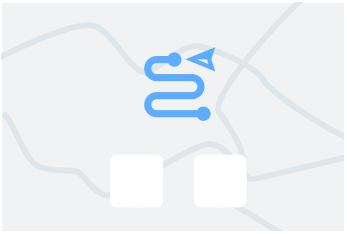
What's New



Livestream Management

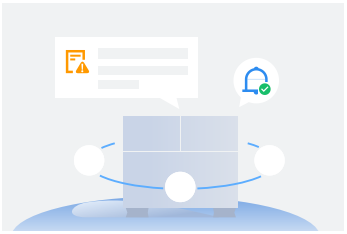
- Adds support for simultaneous livestreams for multiple devices within a project. Supported devices include the security cameras of the docks and the gimbal cameras of the aircraft.
- Adds support to choose different grid layouts for livestream display.
- Users can also recenter the device on the map, press keyboard shortcuts to enable the livestream view in full

screen, adjust the on-screen display information, and select between different livestream display modes.



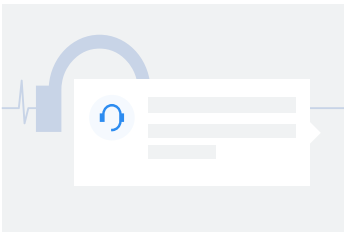
Flight Route Management

- Adds support for automatically swapping continuous actions such as starting and ending recordings when reversing flight routes.
- Adds support to download flight routes in batch.



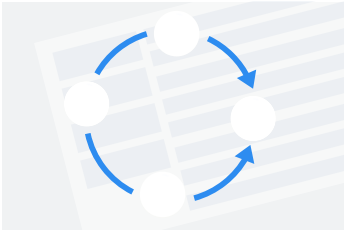
Dock Management

- Adds support to subscribe to notifications when the dock cover is not closed for an extended period of time.
- Adds support for submitting issue reports in the Task Plan library and warning message panel.
- DJI Dock 2 now supports vision assist.
- DJI Dock 2 now supports emergency landing.
- DJI Dock 2 now supports timed shots, storage settings, resolution settings, Link Zoom, and more.
- DJI Dock 2 now supports device damage assessment.
- Base station PPK files can now be transferred back to FlightHub 2, and the files will be stored in the corresponding flight route folder in Media Files.
- More battery data will be displayed for DJI Dock 2.



Online Support

- Users can now feedback system problems, make optimization suggestions, and obtain quick assistance.



Third-Party Flight Task Distribution

- FlightHub Sync now supports distributing flight tasks from third-party cloud platforms, and the tasks will be synchronized to DJI FlightHub 2.

What's Updated



- Optimized organization package information. Users can now view the details of storage space, mapping images, and livestream minutes.
- Optimized the map searching feature.

2024-9-24

DJI FlightHub 2 is expected to officially adjust its policy on free quotas for device binding in November 2024.

1. Changes to the allocation logic:
    - Organizations can receive free quotas when binding a device (Dock or aircraft) for the first time.
    - An organization can only receive free quotas once. If an organization has already received free quotas, it cannot receive them again when binding additional devices.
    - A device can only receive free quotas once. If a device has already received free quotas, it cannot receive them again when re-bound to another organization.
2. Changes to the amount and validity of free quotas:
    - The amount of free quotas will no longer vary by device type. All devices will receive 100GB storage space, 5000 livestream minutes, and 3000 mapping images.
    - The validity period of the free quotas is 3 months.

We commit to maintaining the current policy until the new policy is officially implemented. The resources you have already received can be used until they are exhausted or expired. The new pollcy is expected to take effect in November. If you have any questions or suggestions before then, please feel free to contact us.

2024-9-19

What's New



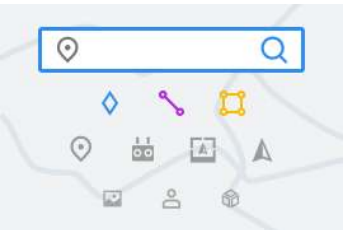
Annotation Management

- Adds support to create separate folders for annotations.



Circular Annotations

- Adds support to add circular annotations.

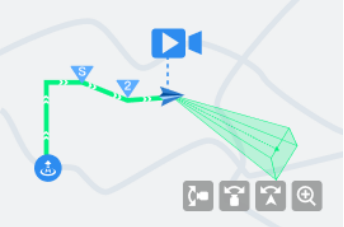


Global search for elements on map

- Users can search geographic locations, map annotations, device information, and models or photos that are overlaid on the map.

Flight Route File Management

- Users can now create folders to organize flight route files. Previous files will be automatically stored in the root directory.



More Information Stored During Recording

- When aircraft is performing a waypoint route task and recording, aircraft yaw and gimbal pan angles and camera zoom ratio will be recorded at the same time.



Local Media Files Import

- Adds support to import local media files or folders with media files that are collected by DJI devices.
- Supported file types includes wide, zoom, and infrared photos, panoramas, livestream screenshots, videos, and PPK files.

What's Updated



- Adds support to add PinPoints based on the camera orientation and terrain data for DJI Dock 2.
- Optimized the user experience when centering elements on the map.
- Optimized the photo markup feature.
  - When using the markup feature, shortcut instructions will be displayed on the lower left corner.
  - Adds support to change the markup color.
  - Adds support to filter photos with unnamed markups.

What's Fixed

- Fixed certain known issues.

2024-8-15

What's New

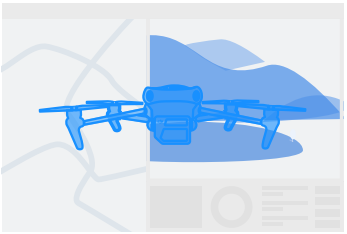
- DJI Dock users can cancel tasks after RTK convergence has timed out.

What's Fixed

- Fixed certain known issues.

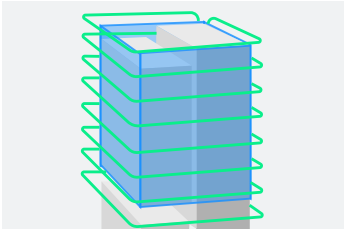
2024-7-18

What's New



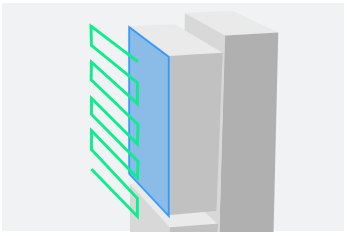
Remote Control of Mavic 3 Enterprise Series Gimbals

- Adds support for remotely controlling the Mavic 3 enterprise series gimbals.



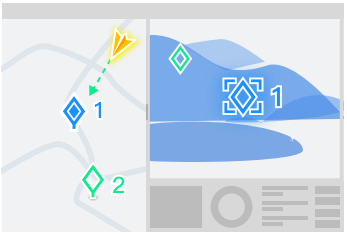
Geometric Routes

- DJI Dock 2 now supports geometric routes.



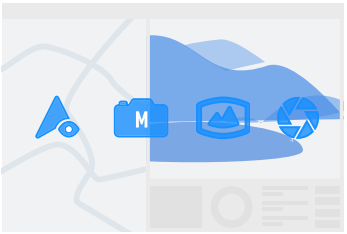
Slope Routes

- DJI Dock 2 now supports slope routes.



AR Projection

- DJI Dock 2 supports AR projection of PinPoints. Users can view PinPoints in the livestream view now.



New Features of Live Flight Controls for DJI Dock 2

- Adds support for Discreet mode.
- Adds support for manual mode and settings of parameters such as shutter speed, ISO, and aperture.
- Adds support for dewarp in camera settings on DJI Matrice 3D.
- Adds support for mechanical shutter settings on DJI Matrice 3D.

What's Updated



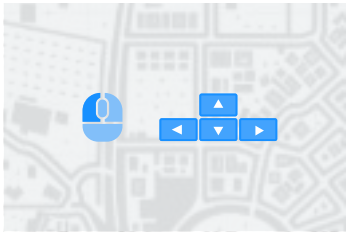
- Taking panoramas in Waypoint routes for DJI Dock 2 is now supported.
- Adds support for transferring PPK files of Waypoint and Area routes from DJI Matrice 3D to cloud, downloading, and accessing PPK files through FlightHub Sync or Cloud API.
- Adds support for embedding SRT files in videos captured by DJI Dock 2. Downloading and accessing videos with SRT files through FlightHub Sync or Cloud API are also supported.

What's Fixed

- Fixed certain known issues.

2024-6-24

What's New



Map Roaming

- Press arrow keys on keyboard to move the map.
- Press Shift and left-click or press Shift and keyboard arrow keys simultaneously to move the map vertically for a detailed view of walls and other surfaces.
- Press Alt and left-click or press Alt and keyboard arrow keys simultaneously to move the map horizontally.

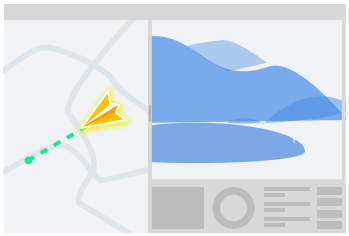
What's Updated



- Improved browsing experience on the map and models.
- Improved map element display effects.

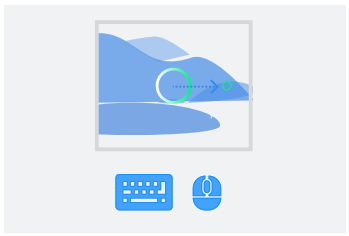
2024-5-23

What's New



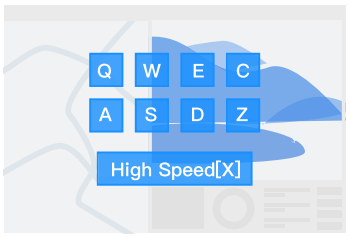
Virtual Cockpit

- Adds support for virtual cockpit for Live Flight Controls.



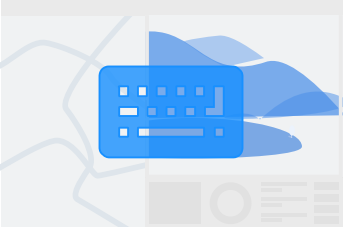
Virtual Cockpit—First Person View

- Users can control flight in the first person view after enabling mouselook.



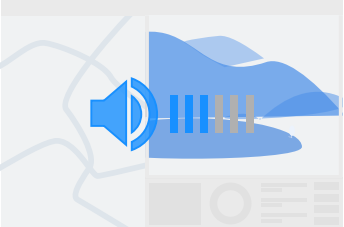
Virtual Cockpit—Flight Speed Mode

- Users can switch between high and low speed modes for aircraft.



Virtual Cockpit—Keyboard Shortcuts

- Adds support to use shortcuts to switch lenses, take photos, and start recording.



Virtual Cockpit—Voice Prompts/Sounds Effects

- Voice prompts and sound effects are supported during flight.



Virtual Cockpit—Gimbal Orientation

- Users can view the aircraft gimbal orientation on the map during flight (for DJI Dock 2 only.)

New Product Support

- Adds support for Zenmuse H30 series. When using Matrice 300 RTK with the H30 series, DJI RC Plus should be used.

What's Updated



- Users can select the coordinate system when creating 3D mapping tasks on the cloud.
- Adds support for importing KML or KMZ files exported by third-party software programs such as ArcGIS, OvitalMap, and LocaSpace Viewer. For OvitalMap, both OVKML and OVKMZ are supported.

What's Fixed

- Fixed certain known issues.

2024-4-28

What's New

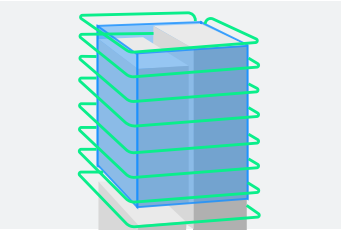
- Adds support for the remote ID status display in China, the United States, Japan, and some countries in Europe.

- When the remote ID status error prompt appears on the dock status panel, update the aircraft firmware of DJI Dock 2. For DJI Dock users, please wait for a later firmware version.

- An abnormal remote ID status error prompt does not affect the normal use of the dock or aircraft. If users are unable to update the firmware, this error prompt can temporarily be ignored.

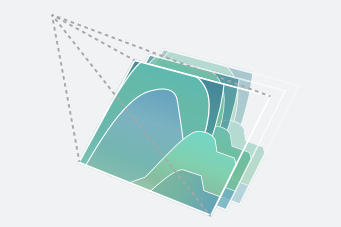
2024-4-11

What's New



Geometric Routes

- Adds support for planning geometric routes in the flight route library for mapping of prism- and cylinder-shaped structures.



Mapping Optimization

- Point cloud models based on visible photos are now supported during model mapping.
- Mapping quality reports are supported for models generated in the model library. Users can view the reports in the model list or when previewing models.
- Users can select formats such as OSGB, OBJ, and PLY when generating models in the model library.

What's Updated



- Users can now set weather-related flight restrictions for different device models in the project settings.
- When downloading more than 1,000 photos at a time, photos will be compressed into several packages, and users can select the packages to download.

What's Fixed

- Fixed certain known issues.

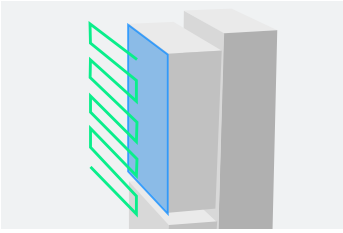
DJI FlightHub 2 will update storage policy for paid resources recently to ensure its accuracy. Contact DJI Support if you have any questions.

- Related resources of deleted projects will be cleared and will no longer take up storage space.
- Errors caused by deleting files in batches will be corrected. Deleted resources will no longer occupy storage space.
- Models generated in the model library during the beta test that did not take up storage space will be included this time.

- Due to transmission errors, data that were not counted toward storage will be corrected this time.

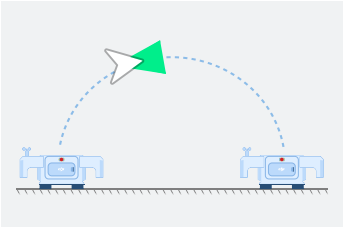
2024-4-7

What's New



Slope Routes

- Adds support for planning slope routes in the flight route library to capture photos for slope mapping.



Multi-Dock Tasks

- A new multi-dock task feature is added to the plan library. It allows an aircraft from DJI Dock 2 to perform tasks with takeoffs and landings at different locations, enabling continuous flight operations over long distances and large areas.



Subject Zoom

- Users can now right-click and drag to select a subject to zoom in when viewing the livestream of the DJI Dock 2 aircraft.

What's Updated



- Optimized the FlyTo performance for DJI Dock 2.

What's Fixed

- Fixed certain known issues.

Following features are now supported by DJI Dock 2:

- Media files captured during FlyTo and planned tasks are automatically separated and stored in different folders.
- Photos and panoramas can be transferred to the cloud in real time during Live Flight Controls.
- Adds support for panorama and Smart Low-Light photo modes. Setting the exposure value and MF, AFS, or AFC focus mode is also supported.

- Dock aircraft trial flight, unlocking licenses, silent mode, and flight trajectory playback are now supported.

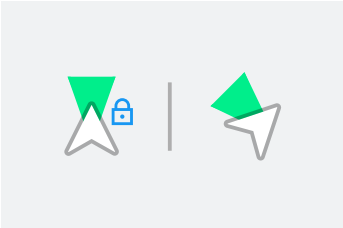
2024-2-22

What's New



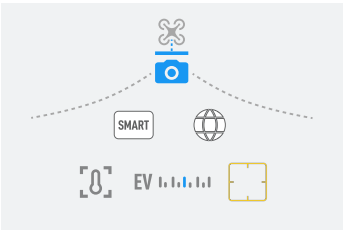
POI

- FlightHub 2 users can select any location or PinPoint on the map and start POI when DJI Dock is in the Live Flight Controls mode.



Consistent Gimbal and Aircraft Orientations

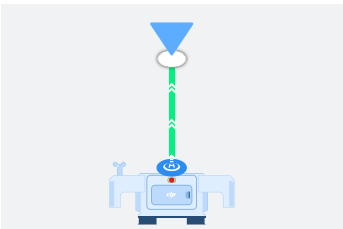
- When DJI Dock is in the Live Flight Controls mode and livestream is started, users can now set the gimbal mode as Lock mode. When users double-click the livestream view to change the gimbal angle, the aircraft will adjust its orientation and remain consistent with the gimbal.



Optimized Data Collection Performance

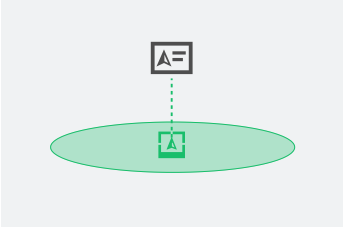
For DJI Dock:

- Media files captured during FlyTo and planned tasks are automatically separated and stored in different folders.
- Adds support for transferring photos and panoramas to the cloud in real time during Live Flight Controls.
- Adds support for panorama and Smart Low-Light photo modes. Setting the exposure value and MF, AFS, or AFC focus mode is also supported.
- The infrared camera now supports spot and area temperature measurement and high temperature alarm.



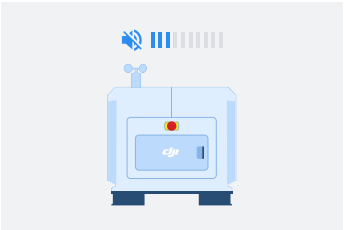
Dock Aircraft Trial Flight

- Users can now assess DJI Dock's task performance and media file transfer reliability. Click Trial Flight in Device Maintenance and a task plan will be automatically created.
- The dock aircraft will ascend 60 meters vertically, and the gimbal will tilt down to 90° to take a photo and then return home.



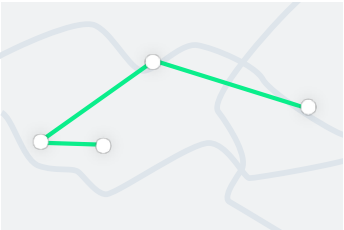
Unlocking Licenses

- DJI Dock can now transfer unlocking licenses to the dock aircraft in Devices > Dock.
- Adds support for updating Flight Safety Database for DJI Dock in Devices > Dock.



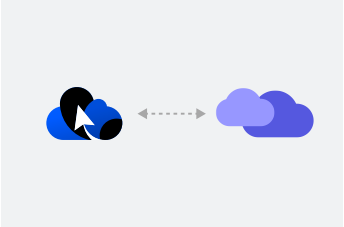
Dock Silent Mode

- When enabled in Device Maintenance, noise will be reduced when DJI Dock is in operation.



Flight Trajectory Playback

- Users can now view the flight trajectory after a planned task is completed by DJI Dock.



FlightHub Sync

- FlightHub Sync supports forwarding livestream data to third-party platforms.
- FlightHub Sync supports transferring the dock and aircraft status data, such as location and altitude, to third-party platforms in real time.
- Bidirectional flight route file transfer between FlightHub 2 and a third-party platform is now supported.
- Third-party platforms can send notifications with event details such as time, location, and description to FlightHub 2.

What's Updated



- DJI Dock supports the obstacle data settings.
- Users can now update the FlyTo destination without interrupting the FlyTo task (for DJI Dock only).
- Large Restricted Zone can now be bypassed when the DJI Dock aircraft is performing FlyTo tasks.
- Panorama is now supported when editing waypoint routes for DJI Dock and Matrice 30 series.

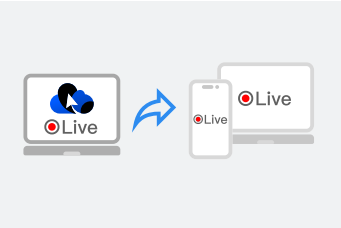
What's Fixed

- Fixed certain known issues.

Note: Certain features mentioned above will be supported by DJI Dock 2 in later versions.

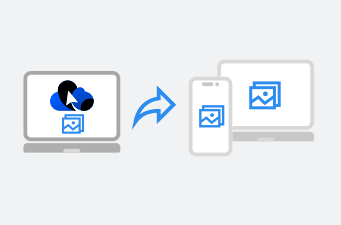
2023-11-23

What's New



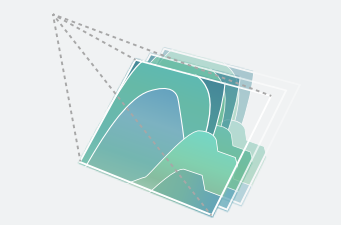
Livestream View Sharing

- FlightHub 2 users can share camera livestreams, and anyone can use the shared link to view livestreams without logging in to the cloud.



Media Files Sharing

- FlightHub 2 users can share photos, panoramas, and videos, and anyone can use the shared link to view files without logging in to the cloud.



2D/3D Mapping

- The beta test of cloud mappings and mappings based on media files has ended. Related models will occupy the cloud storage space. Removing unnecessary models recommended.
- Setting one region of interest before a mapping task is supported.

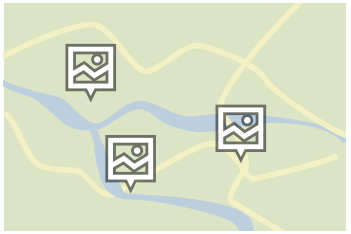
Photos and Models Comparison

- Photos Comparison: FlightHub 2 adds support for comparing wide-angle, zoom, and infrared photos taken by the same Take Photo (Fixed Angle) action at the same waypoint. Users can compare when previewing photos.
- Models Comparison:
  - Users can now compare 2D models that have overlapping areas. The models comparison can be accessed from Model Library or Map Photos.
  - Adding point, line, and area annotations is also supported.



Photo Markup

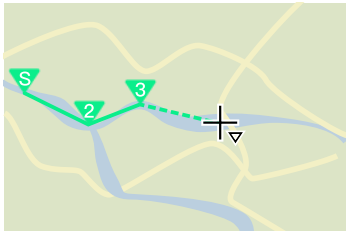
- Users can now add shapes and notes when previewing livestream screenshots and previewing or comparing wide-angle, zoom, and infrared photos.



Map Photo Management

- FlightHub 2 adds support for the map photo management. Users can now preview photos on the map in Map Photos and overlay photos in the same folder onto the map in Media Files.

What's Updated



Flight Route Editor Optimization

- Users can simply left-click on the map to add waypoints.



More Updates

- Live Flight Controls: The search result on the map can be directly converted to a FlyTo destination.
- Setting units of measurement is supported in Organization Settings.
- Models can be copied to other projects in the same organization.

What's Fixed

- Fixed certain known issues.

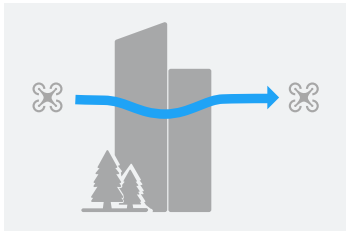
2023-11-15

What's New



New Product Support

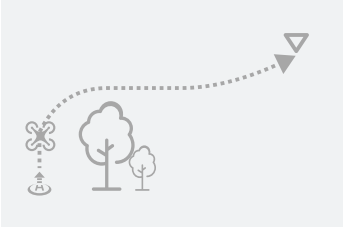
- Adds support for DJI Dock 2.



Obstacle Data

- Obstacle Data is now available in Task Area Management. Data can be transferred to Dock 2 and used for the FlyTo tasks and the RTH planning.

What's Updated



Auto Planning of Optimal Route

- Adds support for the optimal route planning during the FlyTo tasks and RTH for Dock 2. Users can enable settings when editing task plans or when aircraft is in the Live Flight Controls mode.



More Updates

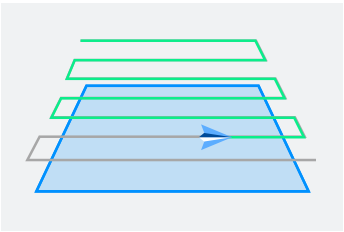
- Adds support for viewing or setting eSIM for enhanced transmission for Dock 2.
- Adds support to automatically bypass obstacles during flight for Dock 2.

What's Fixed

- Fixed certain known issues.

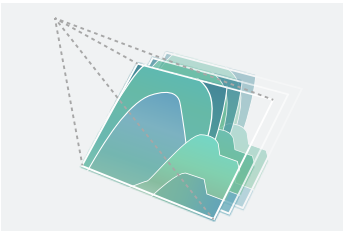
2023-09-18

What's New



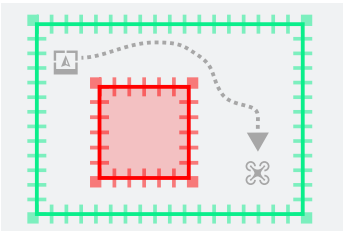
Area Route

- Adds support for area routes to collect ortho or oblique photos.



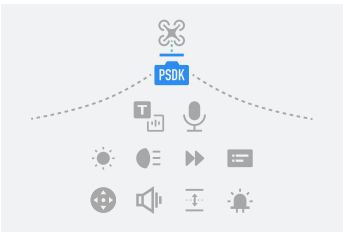
Cloud Mapping

- Cloud mapping beta is now available. Users can start area route task to capture photos or upload photos from DJI Pilot 2 and complete 2D or 3D mapping in cloud.



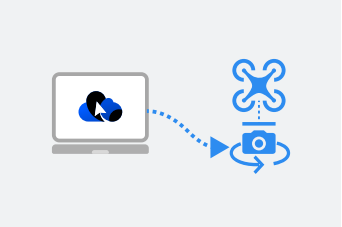
Custom Flight Area

- Task Area Management is now available to increase task safety. Users can create custom task areas or GEO Zones and synchronize data to dock and Matrice 30 series in the same project.



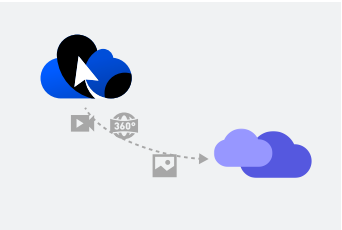
PSDK Support in Live Flight Controls

- Adds support for PSDK devices. Users can now view PSDK device info and control device after Live Flight Controls is enabled in device status window.
- Adds support for speaker to broadcast directly or convert text to speech.



Other Updates on Live Flight Controls

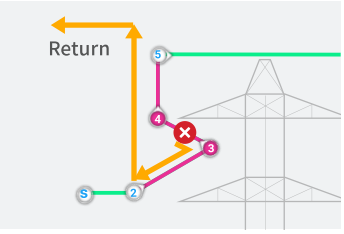
- Adds support for laser rangefinder to determine subject distance to aircraft and set subject as a PinPoint. Users can click Face PinPoint, and PinPoint will be centered in liveview.
- IR camera now supports IR palette, temperature bar, and displaying zoom and IR camera views side by side.
- Gimbal action now includes Gimbal Down and Gimbal Tilt Down.
- Users can drag livestream view with mouse to change gimbal orientation or use keyboard shortcuts to fine-tune gimbal angle.
- Setting Task Altitude is supported for enhanced flight safety. Users can now set the lowest altitude of aircraft when performing tasks.
- Adds support to remotely control aircraft with key combinations.



Media File Direct Transfer

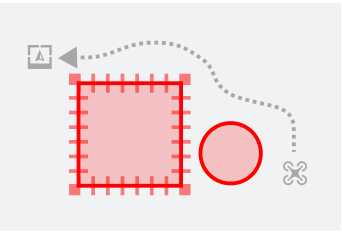
- Media File Direct Transfer is released for efficient data synchronization. Users can add third-party cloud service address in Organization Settings, and media files captured in tasks will be directly transferred to third-party platform.
- See FlightHub Sync Documentation for more details.

What's Updated



No-Return Points

- When editing waypoint route, waypoint with obstacle above it can be marked as no-return point. Area including no-return point and the route to its previous and next waypoints will be marked as no-return area. When aircraft is in no-return area and RTH is triggered, aircraft will follow route and fly out of the area before ascending to RTH altitude and returning to home.



Smart Return to Home

- Return to Home is updated. Dock aircraft can automatically bypass custom or DJI GEO Zone when returning to home.



More Updates

- Users can copy and rename waypoint routes. Waypoint routes performed by the same device type can also be merged into one.
- Adds support for online user manual (HTML version).
- Adds support to set keyboard layout as QWERTY, QWERTZ, or AZERTY in User Center > Preferences.

What's Fixed

- Fixed certain known issues.

2023-07-19

- Adds support for dock log upload.
- Adds support for displaying obstacle data collected by ToF sensor during Live Flight Controls.

2023-05-31

- Free trial of DJI FlightHub 2 cloud platform will expire on June 30, 2023. Go to My Organization to view available livestream minutes, cloud mapping images, and storage space. Contact local dealer to purchase service if needed.
- What's New and Updated
  - Dock Live Flight Controls
    - Adds support for IR camera zoom.
    - Adds support for adding PinPoint on livestream view and obtain PinPoint location.
    - Optimized beginner guide and error message prompt.
  - Dock Operation Reliability Improvement
    - Adds hourly weather forecasts of dock task area.
    - Adds flight restriction based on set conditions.
  - Flight Route Editor Optimization
    - Adds support to adjust waypoint action order by drag-and-drop.
    - Optimized interface design.
  - Adds support to enable HD model in lower right corner of the map.
  - Optimized error message prompt when uploading models.
- What's Fixed
  - Fixed display error of some 2D models.

2023-05-18

- Adds support for DJI Matrice 350 RTK.
- Fixed some known issues.

2023-05-05

- New Flight Route Editor:
  - Adds support to use mouse and keyboard to control virtual aircraft and plan waypoint route.
  - Adds support to capture subject based on imported 3D models.
  - Adds support for displaying media files captured by Matrice 30 series dock version after taking fixed-angle shots. Users can adjust shooting angle to capture desired view if photos captured are not as expected.
  - Adds support for AI Spot-Check flight route editing (beta version). Subject will be automatically matched by AI algorithm and captured during flight.

2023-04-25

- Adds support for Live Flight Controls of dock aircraft.
  - Adds support for one-click takeoff and pause, FlyTo task, and manual operation after obtaining aircraft control in cloud.
  - Adds support to operate gimbal, switch cameras, take photos, record videos, zoom on livestream view after obtaining payload control in cloud.
- Adds support for resuming flight from breakpoint.
- Adds support for email and message notification.
- Optimized Schedule and Standby charging modes by increasing battery storage level and fully charging battery automatically before task is started.
- Improved media file download speed.
- Fixed issue where media files could not be uploaded to cloud when flight was not complete and Stop Recording action was not performed.

2023-03-09

- Adds support for adding tags to media files.
- Adds support for creating folder to organize flight route files in Flight Route Library.
- Optimized user experience when switching between aircraft models in waypoint route task.
- Adds Smart Low-Light mode in waypoint route task.
- Features related to DJI dock:
  - Adds support to display more aircraft battery statuses, including warming up, maintaining temperature, maintenance required, and maintaining battery.
  - Adds remote control of AC in DJI FlightHub 2.
  - Adds support to distribute AI Spot-Check task to dock.
  - Adds support for Continuous task plan in Task Plan Library.
  - Adds support for displaying aircraft battery information when aircraft is inside dock and powered off.
  - Adds support for automatically resuming livestream after network or transmission becomes stable again.
- Fixed certain known issues.

2022-12-19

- Adds support to close dock cover when aircraft is not inside dock.
- Adds support to display number of takeoffs for Matrice 30 series dock version on DJI Maintenance Program page.
- Adds support for beginner guide after entering FPV view in flight route editor.
- Fixed certain known issues.

Note: Distributing AI Spot-Check flight task to dock in task plan library is currently not supported.

2022-11-17

- Adds support to use DJI Dock together with Matrice 30 series dock version to perform one-stop aircraft task cloud management. Users can deploy dock, remotely manage flight tasks, and access and archive data. Supported features include:
  - Dock Deployment: Adds support for dock site selection, local debugging, and deployment in DJI Pilot 2. Users can configure network, calibrate location, set alternate landing site, view device status, and debug modules in app.
  - Task Plan Library: Adds support to manage Immediate, Timed, and Recurring task plans and distribute tasks to dock. Users can view aircraft camera liveview, flight route, and trajectory when aircraft is performing task. After task is complete, data will be automatically be uploaded to cloud, and users can choose to archive data.
  - Remote Debugging: Adds support to remotely debug dock and view device status and warning messages in device status window and maintenance panel. Users can also remotely update firmware, debug devices, and report issues.
- Adds support for FPV view in flight route editor for Matrice 30 series and customizing waypoint actions on 3D model, providing immersive experience while editing.
- Adds support for importing models in PNG, TIFF, PNG+TIFF, PNTS, LAS, or B3DM format to Model library. Supported models include models generated by DJI Terra. Users can choose to display models on map and create digital sand table when needed.
- Adds support for Map Lab. Users can click Map Lab icon in the bottom right corner of the map to enable Building Model.
- Optimized video loading time and playback performance in Media Files.
- Fixed certain known issues.

2022-11-08

- Adds support to import KMZ flight route in Flight Route Library.
- Adds support for displaying flight trajectory in Flight Route Library.
- Adds support to customize storage format when setting waypoint actions such as taking photo or video in Flight Route Editor.
- Adds support to display waypoint action list and switch editing between flight route and waypoint action in Flight Route Editor.
- Adds support for pano preview to display PinPoint and photo location info within a 5km radius of where the panorama was taken.

- Optimized accuracy of estimated task duration performed by Matrice 30 series aircraft.
- Optimized loading speed of photos and panoramas in Media Files.

2022-09-27

- Adds support for DJI Mavic 3E and Mavic 3T.
- Fixed some known issues.

2022-06-16

- Added support for user feedback.
- Improved user experience when using DJI FlightHub 2 on tablets.
- Fixed issue where colors of lines and shapes not displayed after importing KML files generated by Google Earth.
- Fixed some known issues.

On-Premises Version

2026-08-17 V1.7.1

> Note: This version fixes known issues from V1.7.0.

1、Fixed Occasional Offline Issue When Devices Connect to Cloud

- Fixed a memory issue in the V1.7.0 authorization service to prevent all devices from occasionally going offline after connecting to the cloud.

2、Removed MQTT Bridge LAN Restriction

- Removed the LAN IP restriction on MQTT Bridge in V1.7.0 to prevent existing configurations from becoming unavailable.

3、Fixed Cockpit Component Return-to-Home Issue

4、Fixed Missing Screenshots in 3D Gaussian Splatting Reconstruction Reports

5、Removed es-one-api Container to Reduce Redundant Services

2026-08-06 v1.7

I. Functionality Alignment (aligned to 2026-06-30)

1、Automation - Triggered Workflow Optimizations

- Triggered workflows now support selecting the DJI Dock 2 as the operating device.
- Added a multimodal recognition action, which can start multimodal recognition during flight or after reaching a specified location.
- Supports customizing the dispatch delay time, allowing dispatch as soon as 0 seconds after an alert is triggered.
- Supports exporting alert points from the dispatch log to the project annotation folder with one click, making it easier to analyze alert hotspot areas.
- The EventApi adds information synchronization for dispatch workflows, enabling alert process and result information to be pushed to third-party systems.
- Added a "False Alarm" tag, allowing the current alert task to be tagged as a false alarm in the Cockpit and viewed in the dispatch log.

2、Flight Records Support Viewing Video Files

- Added a video file timeline track: video files captured by the payload can be reviewed on the flight record timeline.
- Optimized the flight record toolbar: supports viewing all media files generated by this flight mission in the media records.

II. On-Premises Version Feature Optimizations

1、Cockpit and Flight Plan Library Support O4 Ground Station

The Cockpit and Flight Plan Library now support adding the "O4 Ground Station" as a signal enhancement device. Regular missions can select nearby available stations to connect, extending the operating range of a single sortie.

- **Known Issue:** After the Cockpit or flight mission is completed, the dock and the ground station may fail to decouple properly, causing the Cockpit icon to appear grayed out and the device to be unable to take off again.
- **Temporary Solution:** Remotely restart the corresponding device via DJI FlightHub 2 to restore it. This issue will be fixed in a future firmware version.

2、V1.7 Incremental Upgrade Package Released

This version provides an incremental installation package that supports quickly upgrading an existing environment from V1.6 to V1.7 via incremental upgrade. Compared with a full upgrade, an incremental upgrade only needs to update the necessary services that have changed, significantly reducing upgrade time and downtime.

- Incremental upgrades only support upgrading between adjacent versions (e.g., 1.6.n > 1.7.n). Upgrading across multiple versions can only use a "full upgrade".
- The average incremental upgrade takes about 20 minutes.
- Incremental upgrade package download entry: "Developer Website > On-Premises Services > DJI FlightHub 2 On-Premises Service > Console > History"
- For details, see the "Upgrading DJI FlightHub 2 On-Premises" chapter in the On-Premises deployment manual.

3、OpenAPI V2.0 Sample Source Code Released

After deploying and successfully running the sample source code, you can experience the feature interface developed based on OpenAPI V2.0. This helps you quickly understand the integration and usage of OpenAPI and accelerates secondary development and integration. For details, see the manual: "On-Premises OpenAPI V2.0 Manual".

4、Version Number Naming Optimization

To help customers accurately identify the current on-premises version, this version unifies the version number display rules. After upgrading, the DJI FlightHub 2 organization management page and admin console will display a standard version number, for example: V1.7.0.

5、Admin Console Configuration Efficiency Optimization

When modifying configurations, the time required for the service to take effect and recover is shortened.

6、Deployment Capability Optimization

Fixes and optimizes a series of common deployment issues, improving the success rate of DJI FlightHub 2 deployment and upgrades.

7、Visual Upgrade Optimization

Fixes a series of upgrade issues and optimizes the technical architecture of the upgrade capability, improving stability and scalability.

8、Developer Console "History" Optimization

You can now obtain the installation package information for the On-Premises version and the all-in-one machine more clearly through "History".

9、Deployment Manual Changed to Online Documentation

Supports online viewing, searching, and downloading as PDF.

- Deployment manual path: "Developer Website > On-Premises Services > DJI FlightHub 2 On-Premises Service > Deployment Manual".
- Manual direct entry: "DJI FlightHub 2 On-Premises Deployment Manual".

10、Removal of Installation Packages for DJI FlightHub 2 V1.5 and Earlier

For product security and stability reasons, we will remove the installation packages for DJI FlightHub 2 V1.5 and earlier versions. If you still need them, please contact your local industry application partner or DJI technical support for assistance.

2026-06-16 v1.6

I. Functionality Alignment

1、O4 Ground Station Support Added

- DJI FlightHub 2 now supports the "O4 Ground Station", enabling device management of cloud-connected O4 Ground Stations on DJI FlightHub 2.

- The Cockpit and Flight Plan Library now support "O4 Ground Station" as a signal enhancement device. Regular missions can select nearby available stations to connect, extending the operating range of a single sortie.
- For network cameras connected through the "O4 Ground Station" via the ONVIF and GB/T 28181 standard protocols, you can view the video stream and remotely control them from DJI FlightHub 2.
- For RID and ADS-B airspace broadcast receivers connected through the "O4 Ground Station", detected aircraft can be viewed on DJI FlightHub 2. You can also handle abnormal situations with one-click dispatch.

2、Defect Annotation Supported in Analyzer

- The Analyzer now supports defect annotation. Annotations on media files are precisely mapped to spatial positions on the 3D model in the Analyzer.
- Click any location on the 3D model in the Analyzer to automatically receive recommendations of related photos that may have captured that point.
- The spatial mapping between 2D media and 3D models has been comprehensively enhanced!

3、AGL Altitude Recording and Alerts

- Enable AGL (Above Ground Level) altitude alerts in the Cockpit. An alert is triggered when the configured AGL value is exceeded.
- Flight records now support calculating and displaying changes in altitude above ground during the flight. Note: This altitude is calculated based on the DJI FlightHub 2 global elevation model and may contain errors.

4、Live Share 2.0 Supports Sharing Multiple Devices at Once

- Live sharing has been fully upgraded to support adding multiple device live streams to a single share link.

5、Automated Workflow Adds Trigger Configuration and Notification Module

- Automated workflow now supports trigger and notification configuration, allowing more flexible workflow triggering and outbound notifications of workflow status.

6、Copilot-related features and livestreaming from DJI consumer drones and handheld devices are not yet supported *

II. On-Premises Version Feature Optimizations

1、Security Issue Fixes

- Fixes common security issues found in previous versions. To safeguard system security and stability, it is strongly recommended to upgrade to the current version.

2、OpenAPI V2.0 On-Premises Release

- Building on the capabilities opened in V1.0, this version takes closed-loop secondary-development scenarios as its core goal and systematically completes APIs for key modules such as device management, flight task management, and data management (media, model, and map), bringing the total number of interfaces to more than 300 (V1.0 had 67).
- It also restructures the interface system by separating Public Cloud and On-Premises interface documentation, making categorization clearer for faster developer onboarding and integration, and enabling more agile iteration of OpenAPI in the future.

3、Visual Deployment Tool Optimizations

- Anomaly check now includes "subnet conflict" detection, helping to identify network configuration issues in advance.
- Supports launching the tool without an installed license.
- Optimizes the deployment process and exception handling, fixes known issues, and improves overall deployment success rate.

4、Livestream Performance and Stability Improvements

- Supports multi-core configuration. When CPU resources are sufficient, livestream concurrency can be improved by up to 3× compared to before.
- Fixes a series of issues, such as livestream failures, forwarding stream failures, livestream black screens, and abnormal latency data, improving livestream service stability.

5、Optimizations to Some Error Messages and Interactions in the Admin Console

2026-04-29 v1.5

I. Functionality Alignment (Aligned to 2026-04-15)

1、High-Definition Panorama

- DJI Dock 3 and Matrice 4 Enterprise now support 500MP high-definition panoramas for efficient one-click environment data collection.
- 3× zoom can be set in the virtual cockpit and waypoint route settings to capture sphere panoramas. Automatic stitching is performed after capture. High-definition results can be viewed in the media file library, and support importing into the analyzer to use timeline and related features.

2、Resource Library Upgrade

- The original media file library, model library, and design files have been merged into the "Resource Library" for unified, more convenient management.

- A recycle bin has been added. Deleted files are moved to the recycle bin first. Periodic auto-emptying can be configured to free up storage space.

3、Multimodal Recognition for Flight Routes

- The task plan library now supports enabling multimodal recognition, allowing specified objects to be identified during flight route execution. Users are notified through designated methods when recognition is triggered.

4、Surface Area Measurement in Analyzer

- Users can quickly measure the surface area of models, facilitating coverage area calculation and cost estimation, significantly improving efficiency in engineering operations.
- Applicable to scenarios such as earthwork covering, lawn greening, and irregularly curved architectural surfaces.

5、FlightHub Sync

- FlightHub 2 FlightHub Sync Beta has completed testing and validation. It will be gradually phased out and replaced by the new FlightHub Sync.
- File Sync – Now supports cross-configuration of file type, project, and bucket. Multiple buckets can be configured simultaneously.
- Telemetry Data Sync – A new telemetry data sync feature enables real-time syncing of drone attitude data to third-party platforms.
- Livestream Forwarding – Now supports the RTSP protocol.
- Added support for Event API, allowing configuration of different event rules to push specific FlightHub events to external systems.
- File sync now supports automatically deleting source files within FlightHub after sync is complete.
- Third-Party Airspace Data Management – Supports configuring airspace information from third-party providers and displaying it within FlightHub.

6、FlightHub Mapping API

- OpenAPI now includes the FlightHub Mapping API, enabling third-party systems to quickly integrate cloud-based mapping capabilities.

7、Gaussian Splatting

- On-device reconstruction now supports Gaussian Splatting format, delivering more realistic and detailed results in scenes with fine structures and glass curtain walls.

8、Model Sharing

- The model sharing page supports viewing via mobile phone or tablet scan without requiring login.

9、Sync Annotations to Analyzer

- The analyzer map settings now support syncing project annotations, with the option to select annotations and convert them to measurements with one click.

10、AirSense ICAO Filtering

- The "Map Operation Area" on the team page has been upgraded to "Airspace Safety", with new AirSense alert management capabilities, including support for filtering by ICAO number.

11、AI Change Detection

- Media Change Detection: The media file library now supports intelligent detection and marking of change areas between two media folders generated by the same waypoint route task.
- Model Change Detection: The model library now supports intelligent detection and marking of change areas between two 2D models with overlapping areas.

12、GCP-Based Reconstruction

- Cloud reconstruction now supports setting ground control points (GCPs). Standard targets support automatic point marking and automatic reconstruction.

13、Real-Time Megaphone Support

- Supports initiating voice announcements and TTS announcements directly from the cloud.

II. On-Premises Version Feature Optimizations

1、Visual Deployment

- Supports completing the deployment of FlightHub, Terra, and 4G services in private environments through a visual interface, replacing traditional command-line and manual configuration methods.
- Helps customers shorten deployment cycles, lower implementation barriers, and improve deployment success rates. Applicable for initial deployment, first-time implementation, or operations where reduced deployment complexity is desired.

2、Incremental Upgrade

- Starting from this version, incremental upgrades are supported. Compared to the previous full upgrade approach, only the necessary services that have changed need to be upgraded between adjacent versions, significantly reducing upgrade time and downtime.
- Note: This capability will take effect after the next version is released. Customers must first upgrade to this version, and can then use incremental upgrades when upgrading from this version to the next adjacent version.

3、Permanent Data Deletion

- Starting from this version, files deleted from the media file library, model library, and design files will be permanently deleted, and the corresponding storage space will be released simultaneously.

4、AIO Admin Console – New Visual Configuration Options

- Operations that previously required code, scripts, or manual configuration file editing can now be performed through the AIO Admin Console, reducing O&M learning costs and implementation overhead.
- Starting from this version, the AIO Admin Console will be deployed together with FlightHub in on-premises environments by default.

5、AIO Admin Console – Experience Optimizations

- Added display of the FlightHub version number.
- Map management now supports configuring layer information.
- Supports one-click HTTPS certificate retrieval.
- Remote O&M interaction optimized.
- Log export now supports selecting a time range.

2025-12-23 v1.4

I. Functionality Alignment

1、Automated Assignment Workflow

- In automated workflow page, you can create automated assignment workflow, then trigger workflow manually on map or through external system. After aircraft arrives at specified coordinates, preset action will be performed automatically.

2、AI Flight Route Optimization

- Added support to select 3× or 7× zoom lens for flight route planning in patrol route.
- Added support for DJI official and third-party infrared object detection algorithms.
- Added support for speaker and spotlight actions in alert actions.

3、Real-Time Alert Settings in Virtual Cockpit

- During real-time flight, onboard official and third-party algorithms support setting alert thresholds. After alert is triggered, relevant alerts will be collected into alert list.

4、Historical Elevation

- Added support for creating point and historical elevation measurements to analyzer. You can draw points on map to obtain the point's geographic location and surface height of historical models.

5、Sharing in Analyzer

- In analyzer sharing page, you can use mobile device to scan code to view model or media file timeline, measurement results, and analysis reports instantly without login.

6、Zenmuse L3 Payload

- Added support for planning flight routes for Matrice 400 enterprise aircraft with the Zenmuse L3.
- Added support for displaying a preliminary report of the L3's point cloud results in area route, which can assess the expected data quality in advance.
- Added support for viewing L3 point cloud files uploaded from the Pilot 2 app.

7、Flight Data Reporting by Airspace Management Service Providers

- Enable this feature in Organization Settings > Organization Data Management > Airspace Management Service Provider Flight Data Reporting. After entering the address and token provided by the third-party service provider, flight data will be pushed to them in real time.

8、Model Altitude Calibration

- Added support for setting altitude calibration points in analyzer. The model surface elevation at the selected location will be calibrated to a designated value for all models in analyzer. This calibrated elevation will be applied to all measurements and calculations.

9、Additional Feature Support

- Added support for object segmentation algorithm to onboard algorithm.
- Added support for completing remaining nodes after disabling automated workflow.
- Added support for using imperial units set by organization in analyzer.
- Added support for setting expansion or contraction coefficient for volume measurement in analyzer.
- 「DJI Dock 3」Added support for custom network RTK calibration in vehicle-mounted deployment mode.
- 「DJI Dock 3」 Added support for clearing all aircraft unlocking licenses with one click.
- Added support for Japanese, Korean, German, and French.
- Added support for filtering the annotation list to display annotations as needed.
- Added support for performing dynamic calculations that follow the model surface for gradient calculation and triangulation tools.

II. On-Premises Version Feature Optimizations

1、Maintenance Optimization for On-Premises Version

- Added adaptive network capability. When dock, manually operated aircraft, and FlightHub are not on the same subnet, the service layer will perform adaptive forwarding. Enable this by setting MULTIPLE_IP_ENABLE to True in ENV.
- Added visual console for operations and maintenance management of the on-premises version. Access at: {server IP}:30888.
- Added support for more than 20 bypass streaming forwarding tasks per server. The number of forwarding channels can now be configured freely according to the server specifications.

2025-10-14 v1.3

I. Functionality Alignment

1、All-New Virtual Cockpit Interface

- Redesigned Interface: A complete visual and interactive optimization for a more intuitive experience.
- Flexible Layouts: Customize the interface with new layout options to fit your needs.
- Updated Icons: A brand-new icon set provides a cleaner, more refined look for improved clarity.
- Streamlined Interactions: The user experience has been optimized to make operations faster, smoother, and more intuitive.

2、Multi-Aircraft Control in Virtual Cockpit

- Manage a group of aircraft for collaborative tasks using the new multi-aircraft control panel.
- Instantly switch control between different aircraft, enabling a single operator to manage multiple drones.

3、AR Projection for Spatial Lines and Areas

- AR projection now supports virtual lines and areas for enhanced situational awareness.
- View spatial lines and areas drawn in DJI Pilot 2 directly in the live view.

4、Dashboard

- Adds support for dashboard, a new centralized hub for viewing key operational data at a glance.
- Designed for administrators, it provides the high-level insights needed for effective management.
- Track core metrics including assets, device status, task schedules, and data outputs to support informed decision-making.

5、Smart Media Search

- Find what you're looking for faster. Smart Search automatically detects and tags objects in your photos and videos.

- Export search results as a detailed report for sharing, documentation, and further analysis.

6、Organization Data Management

- Administrators can now manage data across the entire organization. Easily view and copy annotations, flight routes, models, and GEO Zones between projects.

7、Batch Editing Waypoint Routes

- Save time by editing multiple waypoints at once. You can now batch-modify waypoint parameters and actions in the Flight Route Editor.

8、Centralized Message Center

- All notifications are now aggregated into the new Message Center. View historical system messages and customize which alerts you receive in your personal settings.

9、supports Mavic 3T Advanced enterprise aircraft

- Supports the Mavic 3T Advanced enterprise aircraft, its gimbal camera, and connected PSDK accessories.
- Supports point, line, and area annotations for Mavic 3T Advanced enterprise aircraft.

10、Manifold 3 Cloud Integration

- Adds support for remote management and use of Manifold 3 applications via the cloud.
- Device Management: Adds support for device display and application management for Manifold 3.
- Virtual Cockpit: Enables launching loaded applications and viewing their effects in real time.

11、Integration of Third-Party Intelligent Algorithms on Aircraft

- Virtual cockpit adds support for third-party infrared AI recognition algorithms.
- Users can now view real-time AI recognition results from infrared cameras.
- For waypoint and patrol routes, you can now choose third-party intelligent algorithms on the aircraft to perform recognition tasks.

12、AI Task Report Export

- Flight records now support exporting reports for AI-generated warning events.

13、Multimodal Object Detection

- Virtual cockpit now supports multimodal object detection.
- Users can define the objects that trigger warnings by entering text, uploading images, or selecting objects in real time.

- Snapshots will be automatically archived to a dedicated folder in the media file library, with support for tag-based filtering.
- You can configure warning notification types and set record intervals.

14、AI Warning Record List

- The AI warning record list in the virtual cockpit and flight records has been upgraded.
- Supports archiving and displaying records generated by multimodal object detection and cloud-based intelligent algorithms.

15、AR Street Projection

- The virtual cockpit now features AR street projection.
- Supports adjusting opacity and height offset, as well as displaying landmarks.

16、Measurement and Calculation

- Measurement and calculation tools can be created in the analyzer, enabling line and volume measurements based on models and design files.
- Line Measurement: Supports triangulation and gradient measurements and allows extraction of cross-sections.
- Volume Measurement: Supports current model volume calculation, two-phase and multi-phase model volume change calculations.

17、Timeline

- Supports viewing model timeline, allowing quick and dynamic switching to display the model evolution process and intuitively track project progress.
- Supports viewing media timeline, enabling association and viewing media files by time and spatial dimensions for visual traceability and process management.

18、Analysis Report

- Supports generating measurement analysis reports, with configurable report covers, measurement areas, and other structured content.
- Supports report templates, scheduled automatic report generation, and email delivery, facilitating progress tracking, data archiving, and reporting.

19、Automated Workflow

- Full Process Integration: Integrates flight, mapping, measurement, calculation, and analysis tasks for end-to-end automation from data collection to intelligent analysis.
- Flexible Task Management: You can freely choose from existing tasks or create new ones, with support for editing and linking to meet different scenario requirements.

- Efficient Preview and Performance: Preview task results with one click, quickly save and enable automation to improve operational efficiency.

20、Design File Support

- Supports PDF and DXF formats. Design files can be accurately positioned on the map via coordinate system conversion or matching point calibration.
- Supports parsing 3DFACE (DXF) to obtain design heights for cross-section and volume calculations.

21、Engineering Coordinate System

- Project settings now support engineering coordinate system configuration.
- Supports EPSG universal and custom projected coordinate systems.
- Supports four or seven parameter calculation and application.

22、Additional Feature Support

- Supports customizable collision-risk thresholds for manned aircraft; this setting applies only to airport-based aircraft.
- Supports customization of return-to-home reserve battery levels for airport aircraft. Under high-wind conditions, it is recommended to increase the reserve level appropriately to ensure flight safety.
- The virtual cockpit supports configuration of infrared image formats.
- Adds Spanish language support for the user interface.

II. On-Premises Version Feature Optimizations

1. Deployment optimizations for the On-Premises Version

- Added a deployment guide for AI large models; see the latest On-Premises Version Deployment Manual for details.
- Added a deployment guide for AR street projection maps; see the latest On-Premises Version Deployment Manual for details.

2. New capabilities in the On-Premises Version

- Rapid modeling capability: Supports enabling rapid modeling when mapping missions are dispatched. By receiving real-time aerial thumbnail uploads, the system can quickly generate models for emergency scenarios.
- Notification capability: In the on-premises version, in-app (site) messages can be delivered via email.
- Spatial display capability: The Organization Management interface can display the current spatial utilization/occupancy of resources.

2025-06-10 v1.2

Release list

DJI FlightHub 2 on-premises version v1.2 is fully aligned in functionality with the DJI FlightHub 2 public version.

Functionality Alignment

1. FlightHub Sync

- FlightHub Sync Beta has been upgraded to FlightHub Sync. Users can now synchronize specified project media files, flight routes, flight records, and other information to external storage buckets.

2. AI Capabilities Support

- A new patrol route feature allows users to specify areas for inspection. The system can automatically use intelligent recognition algorithms to identify people, vehicles, and boats within the patrol area and send alert notifications.
- The virtual cockpit now supports real-time AI recognition of people, vehicles, and boats, and can automatically send alerts based on infrared video streams.
- The media file library in FlightHub now supports displaying, viewing, and sharing AI-generated videos on the aircraft, showcasing AI recognition results.

3. Live Flight Controls Support

- Adds support for live flight controls of Matrice 4D series aircraft when connected via remote controller.
- Users can now issue return-to-home commands to all aircraft within a project with a single click.

4. Management of Algorithms on Aircraft

- Users can now load third-party algorithms distributed from the DJI Developer website onto aircraft connected to the dock via the Algorithms page.

5. Support for More Features

- Flight records now support compatibility with DJI Dock 2.
- When distributing tasks, the system checks the flight route's historical obstacle sensing records and prompts if any exist. If obstacle sensing is triggered during recurring or continuous tasks, subsequent tasks are automatically suspended and must be manually resumed to ensure safety.

- Adds support for automatic association of abnormal feedback with dock or aircraft logs. After selecting the time, data is automatically matched and the error code field is filled in to improve problem analysis efficiency.
- Supports remote switching between FlightHub public and on-premises environments for the dock.
- Supports real-time 2D mapping (requires deployment of mapping service).

On-premises Version Feature Optimization

1. Deployment Optimization

- Optimized the upgrade process for the on-premises version incremental package, visualizing upgrade checks and installation steps.
- Upgraded on-premises version operation and maintenance features, supporting server health checks and built-in NTP service.

Issue Fixes

- Known issues fixed to enhance system stability.

Firmware Version

For supported firmware versions, visit the deployment manual on the DJI Developer website for details, or directly download the **latest firmware list** to check.

2025-02-27 v1.1

Expansion of Support Capabilities for Aircraft and Docks

New Model Support

- Matrice 300 RTK and Matrice 350 RTK Enterprise Aircraft: Supports viewing camera view and payload livestream on FlightHub 2.
- Mavic 3 Enterprise Aircraft: Supports live flight controls of the gimbal camera.
- Matrice 4 Enterprise Aircraft: Supports live flight controls of the aircraft and gimbal camera and AI recognition of people, vehicles, and boats.
- DJI Dock 3: Supports AI recognition of people, vehicles, and boats, Smart Track, AI flight route features, vehicle-mounted deployment mode, and multi-drone takeoff/landing capabilities.

New Accessory Support

- D-RTK 3 Relay Station
- DJI AS1 Speaker
- DJI AL1 SpotLight

New Payload Support

- Zenmuse H30, Zenmuse H30T
- Zenmuse H20, Zenmuse H20T, Zenmuse H20N

Flight Route Functionality Upgrade

Flight Route Planning

- Standard geometric route
- Slope route
- Smart 3D Capture Route: Supports generating refined routes for mapping (supported by Matrice 4).
- Ortho Collection for Area Route: Supports enabling Smart Oblique in the area route settings to improve efficiency (supported by Matrice 4).
- Waypoint Route: New panoramic photo action added; supports swapping start and end points of waypoint routes, with options to switch some continuous actions. When adding video actions, it supports synchronously recording the pose information of the virtual aircraft and camera, automatically adding aircraft yaw angle, gimbal yaw angle, gimbal tilt angle, and camera zoom actions.

Route Management

- Route Folder: Supports creating multi-level folders to manage route files.
- Batch Download: Supports batch downloading of flight route library routes.

Flight Route Task

- Transfer PPK File to FlightHub 2: Supports transferring base station PPK files for flight route tasks to FlightHub 2 and storing the files in the corresponding flight route task folder in the media file library.

Comprehensive Support for AI Features

AI Recognition and Smart Track

- The virtual cockpit supports real-time AI recognition and automatic alerts when people, vehicles, or boats are detected, and allows instant viewing of alert record details triggered during flight route tasks (supported by Matrice 4 and DJI Dock 3).
- Third-party algorithm models developed on the DJI Intelligent Computing platform can be imported to and applied in Pilot 2, expanding AI recognition scenarios.
- The media file library supports the display, counting, and editing of AI recognition results. Currently only wide-angle and zoom photos are supported.

AI Flight Route (Supported by DJI Dock 3)

- Waypoint routes support intelligent recognition actions, capable of recognizing people, vehicles, boats, or subjects with abnormal high and low-temperature during the flight, and performing actions such as taking photos, recording videos, and waiting for the operator to take over after alerts.
- The task plan library now supports AI route warning notification, allowing the configuration of alert receiving methods and frequency after subject recognition.

Smart Track

- The virtual cockpit supports Smart Track, allowing continuous tracking of AI-recognized subjects (supported by DJI Dock 3).

Dock Function Optimization

Flight Operation Capability Enhancement

- DJI Dock supports canceling tasks when RTK convergence times out.
- DJI Dock 2 supports emergency landing function.
- DJI Dock 3
  - Adds support for scheduling devices to take off or land within a project in areas where docks are densely deployed.
  - Adds support for performing the entry/exit routes after takeoff to ensure safe departure before performing flight tasks.
  - Adds a new type of no-landing zone in custom flight areas, preventing aircraft from automatically landing within these zones.
  - Adds support for quick calibration of device location and pre-flight safety checks in vehicle-mounted deployment mode.
  - The Mouselook feature in the virtual cockpit has been upgraded, making First-Person-View (FPV) operation smoother.

Improved Payload Task Capabilities

- DJI Dock 2 supports manual mode, allowing for shutter, ISO, aperture settings, timed shot, storage settings, video resolution settings, Link Zoom, and more.
- DJI Matrice 3D adds distortion correction switch function and mechanical shutter function.

Other Supported Features

- AR Projection: DJI Dock 2 supports AR projection of PinPoints. Users can view PinPoints in the livestream view now.
- Vision Assist: DJI Dock 2 supports Vision Assist.
- Discreet Mode: New discreet mode supported by DJI Dock 2 and DJI Dock 3.
- Remaining Task Time: DJI Dock 2 virtual cockpit now displays the remaining task time.
- Embedded SRT in Video: Support for embedding and downloading SRT files in videos.

- Assisted Pinpointing: Adds support to add PinPoints based on the camera orientation for DJI Dock 2 (Terrain data required).

Software Feature Upgrade

New Multi-Channel Livestream

- Adds support for simultaneous livestreams for multiple devices within a project. Supported devices include the security cameras of the docks and the gimbal cameras of the aircraft. Adds support for other functions such as positioning devices on the map. **Task Management Capability Upgrade**
- Supports for subscribing to notifications of dock cover not being closed for an extended period.
- Adds support for submitting issue reports in the Task Plan library and warning message panel, and viewing feedback analysis results.

Improved Map Function

- Adds support to create separate folders for annotations.
- Adds support to add circular annotations.
- Global search for elements on map: Users can search geographic locations, map annotations, device information, and models or photos that are overlaid on the map.
- Optimized the user experience when centering elements on the map.
- Adds support for syncing observed views from Pilot 2 to FlightHub 2 (supported by Matrice 4).
- Adds support for syncing spatial annotations from Pilot 2 to FlightHub 2 (supported by Matrice 4).

Media Feature Upgrade

- Adds support to import photos, panoramas, livestream screenshots, videos, and PPK files to FlightHub 2.
- Adds photo markup shortcut operation tips, and supports modifying markup colors.
- Adds support to filter photos with unnamed markups.

Model Reconstruction Upgrade

- Rough models can now be generated during model mapping and used for creating Smart 3D Capture routes.
- Model reconstruction supports selecting resolution.

FlightHub Sync Upgrade

- Supports obtaining PPK/SRT files through FlightHub Sync.
- Supports distributing flight route tasks through FlightHub Sync.

OpenAPI

- Authentication and Authorization
- System Services
- Organization Projects
- Device Management
- Livestream Management
- Flight Route Management
- Task Management
- Model Management
- Annotation Management

Frontend Components

- Supports flight route creation components, flight route editor components, virtual cockpit components, and project/map components. It also supports custom theme colors and custom styles for components.

MQTT Bridge

- Provides MQTT bridging and forwarding functionality, supporting the forwarding of dock's MQTT information to third-party systems via FlightHub 2.

Issue Fixes

Known issues fixed to enhance system stability.

Firmware Version

Product	Firmware Version
Matrice 350 RTK	10.01.08.05
Matrice 300 RTK	60.01.08.06
Matrice 30/30T	10.01.05.04
DJI RC Plus	05.02.13.02
Mavic 3 Enterprise Series	10.01.05.03
DJI RC Pro Enterprise Version	02.01.05.10
Matrice 4 Series	12.00.01.07
DJI RC Plus 2	01.61.03.03
DJI Dock 3	99.99.92.50
DJI Dock 2	10.01.32.05

DJI Dock	10.01.02.05
DJI Pilot 2	99.0.0.1

2024-09-24 v1.0

Release list

After successfully deploying the FlightHub 2 on-premises version, most features and the overall user experience are consistent with those of the public version. The main new and optimized features are as follows:

Basic Functions

- Supports rapid deployment with Docker. Refer to the DJI FlightHub 2 On-premises Version Deployment Manual for details.
- By default, the system is accessed using only the IP address after deployment, and there is no need to configure DNS. DNS can also be enabled later if required.
- Supports importing and configuring offline map data, including importing and displaying road network data.
- Supports displaying GEO Zones in the offline version.
- Supports binding docks using DJI Pilot 2, with an option to select "FlightHub 2 On-Premises Version" during binding.
- Supports offline firmware upgrades and management.
- Supports quick access to the on-premises version manual by pressing the question mark key on the keyboard from any interface.
- Supports either a local account system or an OAuth2 account system.
- Supports basic device and cloud service log retrieval.
- Supports license expiration reminders.

Features

- Supports deployment of 2D/3D mapping services.
- Supports customization of the login page, allowing modification of the logo, background, and other information.
- FlightHub Sync Beta supports GB28181 streaming format.
- The FlightHub Sync Beta module supports the distribution of flight route tasks, allowing third-party cloud platform to directly call the interface and distribute Immediate tasks.
- After successfully deploying the FlightHub 2 on-premises version, it will include the FlightHub 2 on-premises version operations and maintenance platform by default, allowing for a more intuitive view of the operation status of FlightHub on-premises services. You can also monitor the system's running status in real time by adding a Webhook callback to monitor messages.

Firmware Version

Product	Firmware Version
Matrice 3D/3TD	10.01.1607
DJI RC Pro Enterprise Version	02.01.0507
DJI Dock 2	10.01.1607
Matrice 30/30T	10.01.0014
DJI RC Plus	05.02.1106
DJI Dock	10.01.0205
DJI Pilot 2	10.1.0.30

Known Issues List

Affected Products	Issue Description	Workaround
All models	When clicking the device status window button to watch the livestream, the virtual cockpit livestream screen will stutter for about 0.5 seconds and then return to normal.	-

Package and Billing Details

This guide provides an overview of DJI FlightHub 2's package options and billing methods.

Package Overview

DJI FlightHub 2 offers both public cloud and on-premises deployment options. The public cloud offers Standard Version (Free), Business, Enterprise, and Recharge/Upgrade packages, each tailored to different user needs.

Package Type		Target Users
Default Package	Standard Version (Free)	Free to use with limited features and resources. Ideal for basic evaluation.
Paid Packages	Business Version	Unlocks most professional features with no limit on connected devices. Resource quotas apply; purchase recharge/upgrade packages when depleted.
	Enterprise Version	For high-frequency and government/enterprise users. Includes all features with unlimited resources during the validity period (except mapping, which has an ultra-high quota). Limits the number of simultaneously online devices.
	Recharge/Upgrade	Recommended for use with the Business Version. Purchase when Business Version resources are insufficient.
	On-premises	For users with intranet deployment requirements.

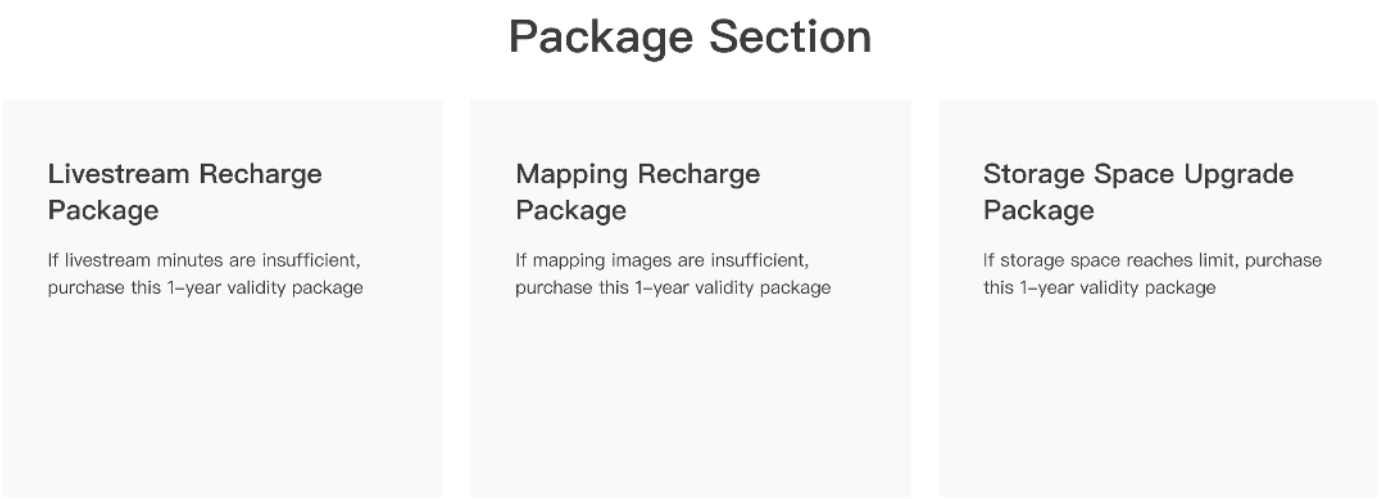
For a detailed comparison and feature differences, please refer to the sections below.

Package Comparison

Feature Differences	Standard Version(Free)	Business Version	Enterprise Version	On-Premises Version (AIO Included)
Resource				
Livestream	—	2,000 minutes/month Livestream time is calculated based on the total watch time of the audience. Unused livestream time will be rolled over into the following month only.	Unlimited duration Limited livestream minutes for dock camera: 30,000 minutes for 1-Year Plan (1 Device), 100,000 minutes for 3-Year Plan (1 Device)	Unlimited duration
Storage Capacity	5 GB	500 GB 500GB cloud storage is available within the validity period. When storage is full, files can still be downloaded but additional files cannot be uploaded.	Unlimited capacity	Unlimited capacity
Mapping Quantity	—	3,000 images/month Unused quota for mapping images will be rolled over into the following month only. Images for real-time mapping and mapping based on media files share the same quota.	150,000 images for 1-Year Plan (1 Device), 500,000 images for 3-Year Plan (1 Device), 150,000 images for Online Device Expansion (1 Device)	Unlimited quantity The current version supports up to 2000 images for a single mapping task.
Function				
Max Online Device Quantity	Unlimited	Unlimited	Determined by the purchased basic package and device expansion package.	Determined by the purchased basic package and device expansion package. FH On-Premises supports up to 200 devices, and each AIO supports up to 20 devices.
Account Quantity	5	Unlimited	Unlimited	Unlimited
Custom Project Roles and Permissions	—	✓	✓	✓
Smart Search for Media Files	4 times/month	Unlimited	Unlimited	Unlimited
Change Detection	4 times/month	Unlimited	Unlimited	Unlimited
3rd-Party Algorithm Integration (In Virtual Cockpit & Flight Routes)	—	✓	✓	✓
Flight Records	Export not supported	✓	✓	✓
Dashboard	—	✓	✓	✓
Analyzer	Demo Project Only	✓	✓	✓
Auto Dispatch Workflow	—	✓	✓	✓
Data Sharing Within Org	—	✓	✓	✓
Replace Logo	—	✓	✓	✓
Custom Login Page	—	—	—	✓
Integration				

3rd-Party Account Login	—	—	✓	✓
OpenAPI	✓	✓	✓	✓
FlightHub Sync	—	✓	✓	✓
Product Pricing	Free to Use	Visit DJI store	Visit DJI store	Please contact our dealer

When resource quotas run out in Standard Version or Business Version, recharge or upgrade packages can supplement resources:



Standard Version (Free) Overview

- Billing resource quotas are as follows. Upgrading your package or adding a Recharge/Upgrade package is recommended:
  - Livestream Minutes: None
  - Storage Space: 5 GB
  - Mapping Images: None
- Not supported: Changing organization logo, third-party account login, FlightHub Sync, custom project roles and permissions, exporting flight records locally, viewing organization data dashboard, creating analyzers, sharing project data within the organization, linking analyzers in automated workflows, auto dispatch workflow, and custom login page.
- Maximum number of user accounts per organization: 5.
- Other restrictions:
  - Virtual cockpit supports official people/vehicle/vessel detection and large-model object detection, but third-party algorithm-based detection is not supported.
  - AI waypoint and patrol routes support official people/vehicle/vessel detection, but not third-party algorithms.
  - Smart search is limited to 4 uses per organization per month.
  - Change detection is limited to 4 uses per organization per month.

Business Version Overview

Feature Limitations:

Advanced capabilities such as custom login page and third-party account login are not supported.

Features:

Feature	Business (1 Month)	Business (1 Year)	Business (3-Year Large Capacity)
Activation Period [1]	6 months (180 days)		
Usage Period [2]	1 month (30 days)	1 year (365 days)	3 years (1,095 days)
Livestream Minutes	2,000 min/month Note: Unused minutes expire at end of month and cannot roll over.	2,000 min/month Note: Unused minutes can roll over to the following month only.	90,000 min/year Note: Total livestream minutes for the 3-year usage period.
Storage Space	500 GB	500 GB	1,000 GB
Mapping Images	3,000 images/month Note: Unused images expire at end of month and cannot roll over.	3,000 images/month Note: Unused images can roll over to the following month only.	60,000 images/3 years Note: Total mapping images for the 3-year usage period.
Pricing	Contact your dealer	Contact your dealer	Contact your dealer [3]

Notes:

1. Activation Period:
   - Activate within the activation period; otherwise the package will expire.
   - Calculated from the delivery date of your activation code (sent via email or SMS).
2. Usage Period: Begins on the date of activation.
3. Business (3-Year Large Capacity): Please contact your authorized dealer for purchase. Not available in the DJI Store.

Business Package Stacking Rules:

- Activating multiple Business (1-month) or Business (1-year) packages extends the usage period; resource quotas are not cumulative. Purchase a Recharge/Upgrade package if more resources are needed.
- Activating Business (1-month or 1-year) and Business (3-year large capacity) simultaneously means both are active at the same time. The validity period will not be extended, but resource quotas are cumulative. Resources from the package expiring soonest will be consumed first.
- Activating multiple Business (3-year large capacity) packages means both are active at the same time. Resource quotas are cumulative, but the usage period will not be extended.

Recharge/Upgrade Overview

Recharge/Upgrade packages supplement specific resources without adding other entitlements. For example, stacking a Recharge/Upgrade package on a Standard Version plan only adds the corresponding resources while keeping Standard Version feature restrictions.

Feature	Livestream Recharge	Mapping Recharge	Storage Upgrade
Options	10,000 min/year	30,000 images/year	500 GB/year
	100,000 min/year	300,000 images/year	5 TB/year
Activation Period [1]	6 months		
Usage Period [2]	1 year		

Notes:

1. Activation Period:
   - Activate within the activation period; otherwise the package will expire.
   - Calculated from the delivery date of your activation code (sent via email or SMS).
2. Usage Period: Begins on the date of activation.

Enterprise Version Overview

1. Core Features

- During the usage period:
  - Livestream Minutes: Unlimited.
  - Storage Space: Unlimited.
  - Mapping Images: High-capacity quota depending on the package.

- Advanced capabilities: Third-party account login (SSO login) and other advanced features.
- No limit on bound devices, but the number of simultaneously online devices is restricted:
  - Remote controller cloud connection limits aircraft count; dock cloud connection limits dock count; dual-control scenarios count as 1 device.
  - Restriction method: The number of devices that can be added to a project is limited on the device management page.

2. Package Types

Includes Enterprise Version base packages and an Online Device Expansion package.

Enterprise Base Packages

	Activation Period	Usage Period	Simultaneous Online Devices	Livestream Minutes	Storage Space	Mappin Image
1 Year, 3 Devices	Unlimited	1 year	3	Unlimited *	Unlimited	500,000
3 Years, 3 Devices	Unlimited	3 years	3	Unlimited *	Unlimited	1,500,0(

*** Livestream Minutes:** Aircraft cameras are unlimited. Dock cameras (interior and exterior) have a limit.

- 1 Year, 3 Devices: 100,000 minutes.
- 3 Years, 3 Devices: 300,000 minutes.

Online Device Expansion Package

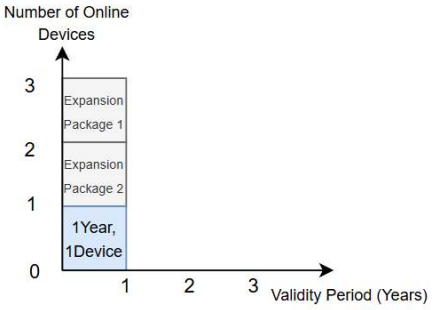
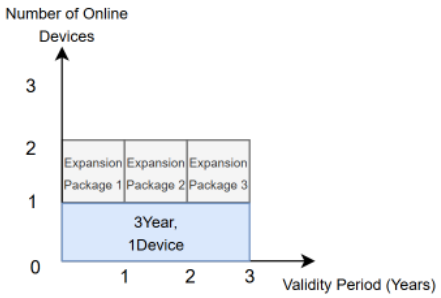
To increase the number of simultaneously online devices, purchase the "Online Device Expansion Package". Contact your authorized dealer for details.

Expansion Rules: Multiple expansion packages can be activated cumulatively within the validity period of the Enterprise Version base package.

- Number of expansion packages needed = (New device count - Current device count) × Years remaining (rounded up).
- Each device expansion adds 150,000 mapping images and 30,000 dock camera livestream minutes.

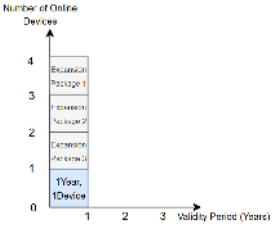
Note: The validity of expansion packages follows the base package. When the base package expires, any activated expansion packages also expire.

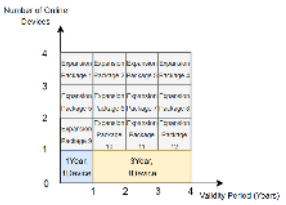
Example:

Before	After	Packages Needed	Explanation
1 Year, 3 Devices	1 Year, 5 Devices	2 expansion packages	Within a 1-year usage period, expanding by +2 devices requires 2 expansion packages. 
3 Years, 3 Devices	3 Years, 5 Devices	6 expansion packages	Within a 3-year usage period, expanding by +2 devices requires 6 expansion packages, so that the newly added online devices also have a 3-year usage period. 

3. Purchase Channels

The Enterprise version is only available through authorized dealers. Examples of purchasing configurations for different requirements:

Requirement	Recommended Configuration	Chart
1 Year, 4 Devices	1-Year, 3-Device base package + 1 expansion package	

Requirement	Recommended Configuration	Chart
4 Years, 3 Devices	3-Year, 3-Device base package + 1-Year, 3-Device base package	
4 Years, 4 Devices	3-Year, 3-Device base package + 1-Year, 3-Device base package + 4 expansion packages	

4. FAQ

Question	Answer
If my organization already has an active package (Business monthly/yearly/3-year or recharge package), can I still activate an Enterprise Version package? Will the remaining resources of the existing package expire after activation?	Yes, you can activate an Enterprise Version package while having other active packages. After activation, the existing package's validity period is frozen. Once the Enterprise Version package expires, you can continue using the remaining resources.
Can I activate a Business or Recharge/Upgrade package while my Enterprise Version package is active?	No. The Enterprise Version package already provides unlimited livestream minutes, unlimited storage, and an ultra-high mapping quota, so there is no need to activate a Business or Recharge/Upgrade package.
Can I activate a new Enterprise Version base package if one is already active?	Yes. This only extends the validity period. The new Enterprise Version package takes effect automatically after the current one expires.
Can I activate an Online Device Expansion package without an Enterprise Version base package?	No.
Can I activate multiple Enterprise Version base packages at the same time?	You can only stack identical Enterprise Version base packages to extend the validity period. Activating different base packages (e.g., 1-Year, 3-Device and 3-Year, 3-Device) simultaneously is not supported. If needed, activate them separately in your desired order.

On-premises Version Overview

The on-premises version is designed for users who require intranet deployment.

1. Core Features

- Unlimited Resources:
  - Livestream Minutes: Unlimited.
  - Storage Space: Unlimited.
  - Mapping Images: Unlimited (the current version supports a maximum of 2,000 photos per **single** mapping task).
- Advanced capabilities: Third-party account login (OAuth 2.0), custom login page, and other advanced features.
- The number of simultaneously online devices is restricted:
  - No limit on bound devices. Limits on online device count: remote controller cloud connection limits aircraft; dock cloud connection limits docks; dual-control scenarios count as 1 device.
  - Up to 200 simultaneous online devices after expansion.

2. Package Types

Contact your authorized dealer for details:

Category	Package Type	Description
Base Package	5-device version	Supports up to 5 simultaneous online devices, expandable.
	20-device version	Supports up to 20 simultaneous online devices, expandable.
Device Expansion	+5 devices	Adds 5 more simultaneous online devices on top of the base package.
Upgrade Validity Extension	1 year	The base package includes 1 year of free upgrade validity. Purchase this package if you need a longer period.
Advanced Feature Package	Cloud Mapping (On-premises)	Cloud mapping is not included in the base package. Purchase separately if needed.
	4G Enhanced Transmission (On-premises)	4G Enhanced Transmission private deployment is not included in the base package. Purchase separately if needed.

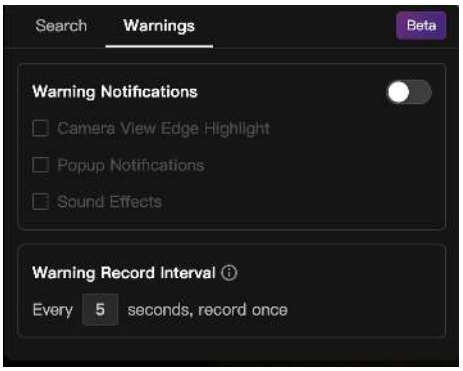
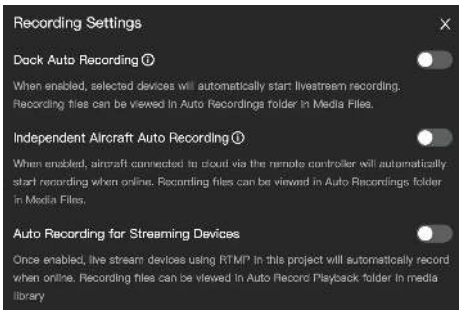
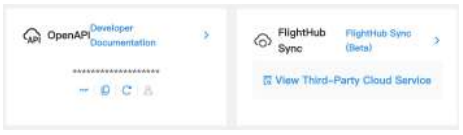
Billing Method

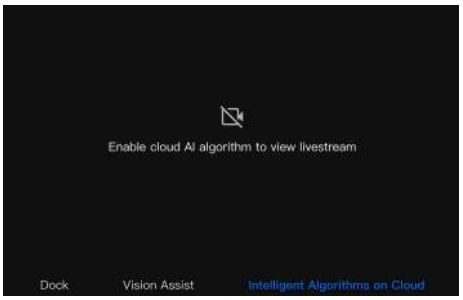
DJI FlightHub 2 public cloud charges for three billing items: livestream minutes, mapping images, and storage space. The following details the billing method for each item.

I. Livestream Minutes Billing

Billing by Protocol / Channel

Different usage modes correspond to different billing rules, as follows:

Usage Scenario	Billing Rule
Device Status Window, Virtual Cockpit (including manual cloud recording), Multi-channel Livestream, Livestream Sharing	**Livestream minutes consumed per viewer = Number of streams viewed × Viewing minutes** Note: If both the infrared and wide-angle cameras of an aircraft are viewed simultaneously, the stream count is recorded as 2.
Multimodal AI Object Detection Enabling multimodal object detection in Virtual Cockpit and route missions 	**Additional livestream minutes consumed = Duration of multimodal object detection enabled**
Background Auto Recording Enabling auto recording for devices in Project Settings for continuous background recording 	**Livestream minutes consumed per recorded stream = Auto recording duration**
FlightHub Sync / Cloud Interconnect Livestream Forwarding, Open API Livestream Forwarding Pushing livestream via Sync forwarding or OpenAPI to third-party systems 	**RTMP forwarding channel**: Minutes consumed per channel = Actual streaming duration **RTSP forwarding channel**: Minutes consumed per channel = Number of pull clients × Actual streaming duration
Cloud AI Algorithm (External Cloud Algorithm)	**Livestream minutes consumed per viewer = Algorithm instance active duration × Number of active instances**



Livestream Billing Calculation

Typical Scenario:

When entering the virtual cockpit of an aircraft, the system automatically enables "camera view + auxiliary view", totaling 2 streams.

If 3 browser tabs simultaneously open the virtual cockpit page for this device.

Then: **Livestream minutes consumed per minute = 2 streams × 3 viewers = 6 minutes**.

More Scenario Reference Table

Scenario	Stream Count	Viewer Count	Consumption per Minute
Virtual cockpit viewing 1 aircraft camera stream (no auxiliary view), 1 viewer	1	1	1 min
Virtual cockpit viewing 1 aircraft camera stream + auxiliary view, 1 viewer	2	1	2 min
Virtual cockpit viewing 1 aircraft camera stream + auxiliary view, 3 viewers	2	3	6 min
Virtual cockpit viewing 1 aircraft camera stream + auxiliary view + multimodal AI object detection enabled, 3 viewers	2 + 1	3	2 x 3 + 1 = **7 min**
Virtual cockpit viewing 1 aircraft camera stream + auxiliary view + multimodal AI object detection enabled + cloud recording (auto recording aircraft camera stream), 3 viewers	2 + 1 + 1	3	2 x 3 + 1 + 1 = **8 min**
FlightHub Sync forwarding 1 stream via RTSP, pulled by 5 clients	1	5	5 min
Multi-channel livestream page with 4 panels open, 2 viewers	4	2	4 x 2 = **8 min**

▼ **Common Questions**

Q: Billing records appear at 2–3 AM. Is this an abnormal deduction?

This is not abnormal. Dock devices perform scheduled restart maintenance at 2–3 AM, and billing

records are automatically segmented on a 24-hour cycle. **The billing entries during this period are due to billing segmentation, not new consumption.**

Q: No one is viewing the livestream forwarding channel. Why is there still a charge?
Once a forwarding channel is enabled, it continuously streams while the device is online and the channel remains open. **To stop billing, you must manually close the channel or delete the forwarding configuration.**

Q: Why is 2 minutes consumed per minute after entering the virtual cockpit?
After entering the virtual cockpit, the system **automatically enables auxiliary view** (FPV feed) by default, equivalent to viewing 2 streams simultaneously, resulting in 2 billing entries per minute.

Q: The Sync forwarding configuration is not closed. Will charges continue?
If your forwarding channel is RTSP, billing will continue as long as the forwarding configuration is enabled and the source device is streaming, regardless of whether any clients are watching. **It is recommended to close the channel or delete the configuration when not in use.**

Q: Why is the billing for RTSP channels significantly higher than other types?
RTSP protocol billing multiplies by the actual number of pull clients. For example: 5 players pulling the same stream simultaneously results in: 1 stream × 5 clients = **5 entries per minute**. Check whether there are redundant pull clients.

II. Mapping Images

Operations that consume mapping images include:

- Real-time mapping.
- Model reconstruction.

The required number of images is pre-deducted when a mapping task starts. If the task fails, the images are refunded.

III. Storage Space

The following resources are counted towards storage space:

Category	Details
Media	Source: DJI Pilot 2, docks, local uploads Types: Photos, videos, compressed files
Models	Source: Real-time mapping, model reconstruction, local uploads Types: 2D models, 3D models

When storage space is insufficient:

- Existing data will not be deleted and can be viewed and used normally.
- Ongoing data recording and uploads can complete normally, but subsequent uploads, recording, and related features will become unavailable. A prompt indicating insufficient remaining space will appear.

Purchase and Activation

Purchase

Available through the DJI Store and authorized dealers.

Activation

1. Activation Period

Activate within the activation period; otherwise the package will expire. The activation period is calculated from the delivery date of your activation code (sent via email or SMS).

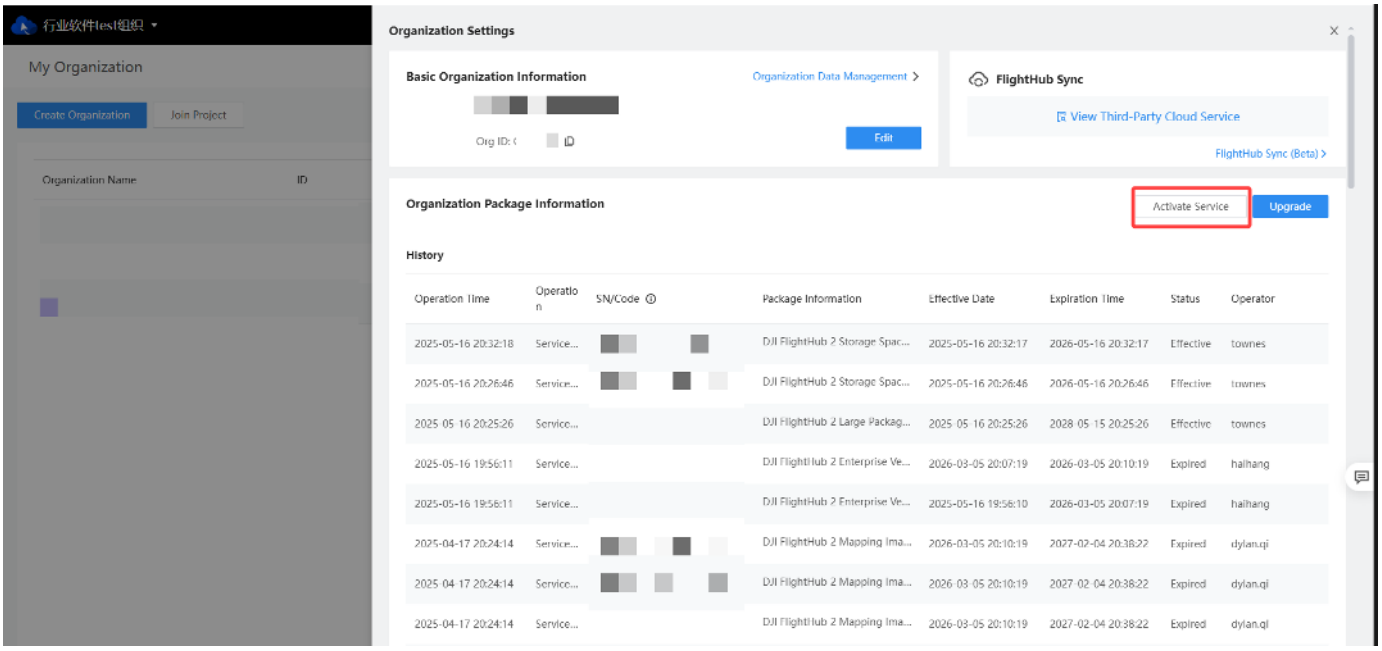
- Enterprise Version package: No activation period limit.
- All other packages (Business 1-month, Business 1-year, Business 3-year large capacity, mapping recharge, livestream recharge, storage upgrade): 6-month activation period.

2. Notes

- After a successful purchase, the DJI FlightHub 2 activation code will be sent to your email or phone via email or SMS.
- A refund can be requested only if the code is unused within 30 days of delivery.
- After the activation code is activated, refunds or exchanges will not be provided, nor can it be transferred to another organization.
- Once activated, the package takes effect immediately. The validity period begins on the date of activation.

3. Activation Steps

- Log in to DJI FlightHub 2 and go to My Organization.
- Click the Settings button of the organization you want to activate the package for, and enter Organization Settings.
- In the Organization Package Information panel, click Activate Service to enter the activation page.
- Confirm the organization name and organization ID, and enter your activation code.
- Click Activate Now.



Free Quota Policy

1. Device Binding Bonus

When an organization binds its first device (dock or aircraft), it can claim a one-time bonus.

- An organization can only claim the bonus once. If the organization has already claimed it, binding additional devices will not grant another bonus.
- A device can only be used to claim the bonus once. If a device has already been used to claim a bonus, rebinding it to another organization will not grant another bonus.
- First-time device binding grants: 100 GB storage space, 5,000 livestream minutes, and 3,000 mapping images. The bonus is valid for 3 months.

2. Livestream Minutes for Multimodal AI Object Detection

All organizations receive a free grant of 1,000 livestream minutes, exclusively for use with the multimodal AI object detection feature in the virtual cockpit.

Resource Usage Details

You can view resource purchase history, remaining usage, and usage details under My Organization > Organization Settings > Organization Package Information. Usage details include:

- Livestream Minutes: Displays the total daily usage of livestream minutes by the organization. You can download a CSV file to view details, including specific time, project, livestream type, user, and device used.
- Mapping Images: Displays the total daily mapping image usage by the organization. Quotas for failed tasks are automatically refunded. You can download a CSV file to view details, including

specific time, user, project, and model name.
- Storage Space: Displays the storage space occupied by projects within the organization.

Notes:

- Usage history is only available for data generated on or after November 7, 2024. Viewing of historical data is not supported.
- When multiple packages are active (e.g., Business and Recharge/Upgrade), resources are consumed from the package with the earliest expiration date first.

Registration and Login

Account Login

Users can visit the DJI FlightHub 2 official website, create a DJI account, and log in to DJI FlightHub 2.

FlightHub 2 supports SSO login. Users can use third-party enterprise accounts and their enterprise domain for login. Initial login requires binding a DJI account. After binding, you can directly log in through the enterprise account.

> Note: Users can log in to DJI FlightHub 2 and DJI Pilot 2 at the same time with the same DJI account, but multiple logins to the same platform are not supported.

SSO Login Settings

The organization admin or super admin enters My Organization, clicks ⚙ to access the organization settings page, selects Configure SSO metadata, enables SSO feature, and configures the related settings.

> Note: SSO login is currently only supported in the enterprise version.

1. SSO Status: Enable or disable the single sign-on feature for third-party application users under this domain name.
2. Domain name: Domain name is used to restrict third-party user login names.
3. Metadata Document: Metadata document provided by external identity provider (IdP), including IdP's login service address and X.509 public key certificate (used to verify the validity of SAML Assertion issued by IdP).

> Note: Currently, only email format is supported, and the "nameIdentifierFormat" in the name_id format of the metadata document needs to be set to "urn:oasis:names:tc:SAML:1.1:nameid-format:emailAddress".
> Authentication callback address should be filled in as: https://es-flight-api.djigate.com/manage/api/v1/sso/acs.

Click Save to complete the configuration.

Create an Organization

Create Organization

If users have not joined any organizations, they will be directed to the Organization Management page. Click Create Organization and enter an organization name to create an organization. The user who creates the organization will be assigned as a super administrator.

At the next login, users will be directed to the Projects page and be able to switch organizations in the upper left corner of the page.

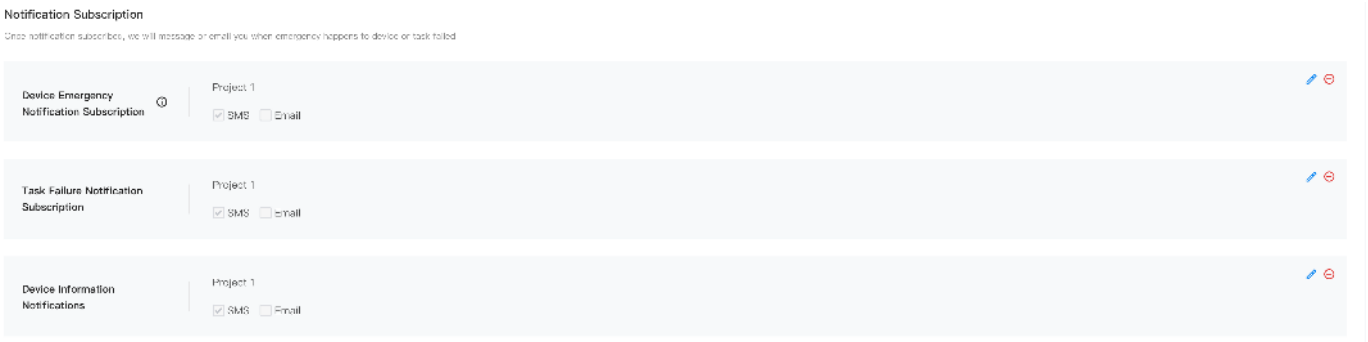


Message Subscription

Users can click the user account in the upper right corner and select User Center to view the account and organization information and add a mobile number or email address for service subscription.

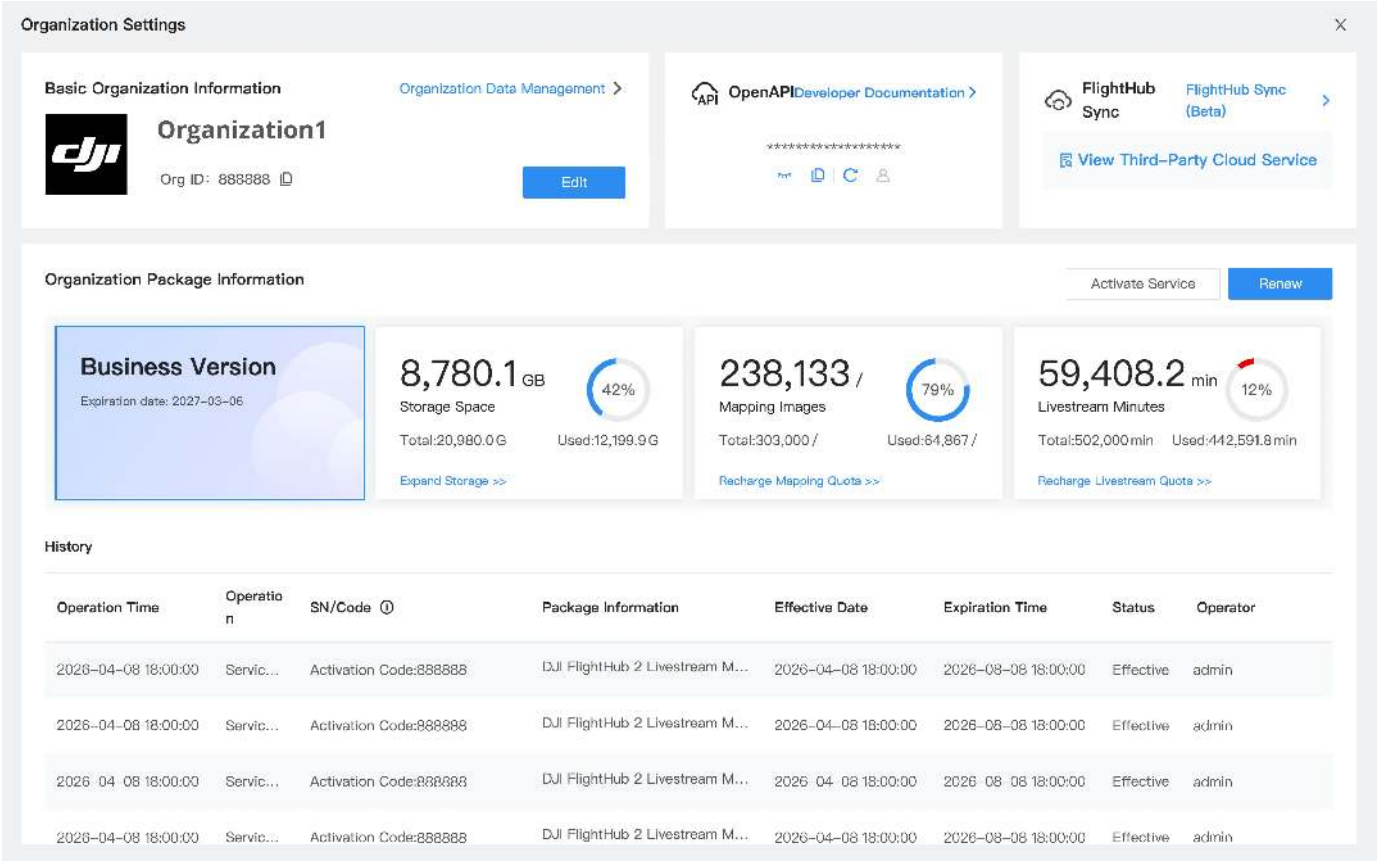


Once notification is subscribed, the system will automatically send a message or email to notify users of an emergency, a failed task, or a device error.



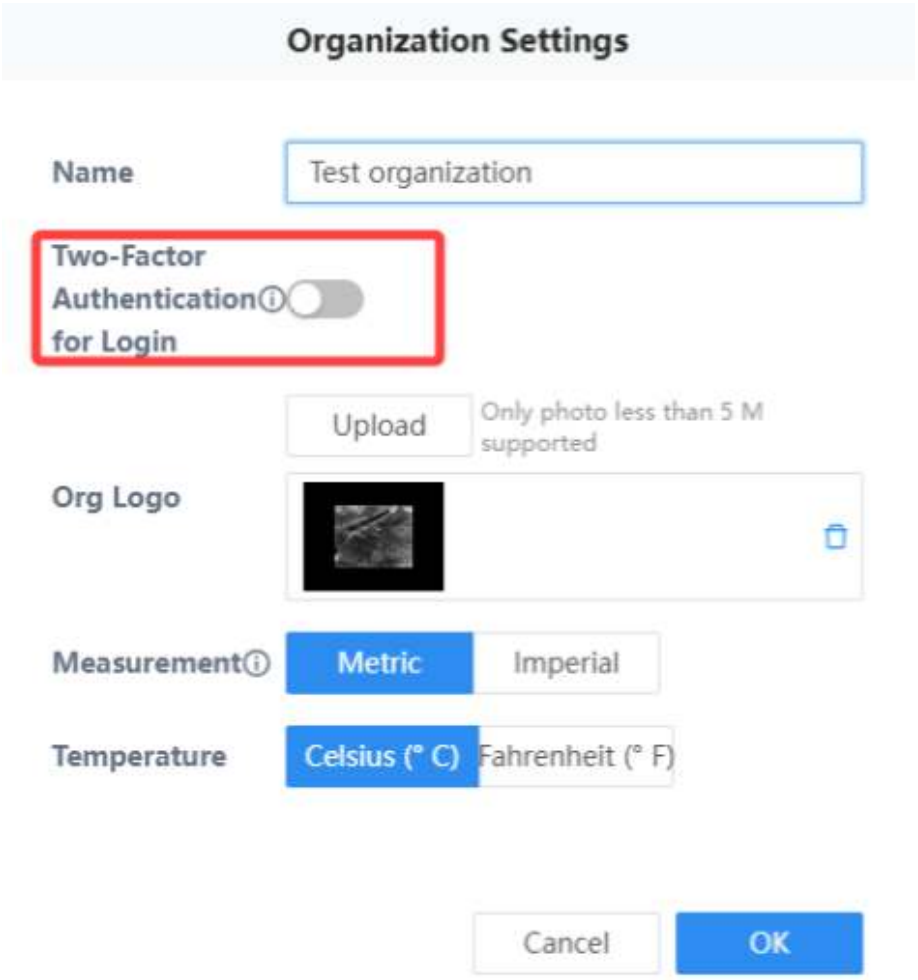
My Organization

Users can also select My Organization to edit the organization information or exit the organization. Click ⚙ to enter Organization Settings to upgrade the organization package, add FlightHub Sync Beta service, join the DJI Dock User Experience Improvement Program, and edit the basic organization information, including uploading the organization logo and selecting the units of measurement.



Two-Factor Authentication for Login

To enhance the security of FlightHub accounts, super admins can enable the Two-Factor Authentication for Login feature. The super admin can click My Organization > Organization Settings > Organization Basic Information > Edit button to enable the feature. Once enabled, all organization members will be required to bind an authenticator app (Google Authenticator is recommended) and enter a dynamic code during login.



Organization Package Information

Users can choose to:

- Purchase or activate packages.
- View activation history.
- View purchase records and usage of resources.
  - Storage Space: Displays the storage space occupied by each project.
  - Mapping Images: Display the total number of mapping images used on a specific day within the organization. If mapping fails, related images will be returned. Users can download a CSV file to view details, including the usage time, user, project, and model name.
  - Livestream Minutes: Display the total livestream minutes used on a specific day within the organization. Users can download a CSV file to view details, including the livestream time and duration, project, livestream type, user information, and device name.

> Note: Users can only view the details of resource usage on and after November 7, 2024.

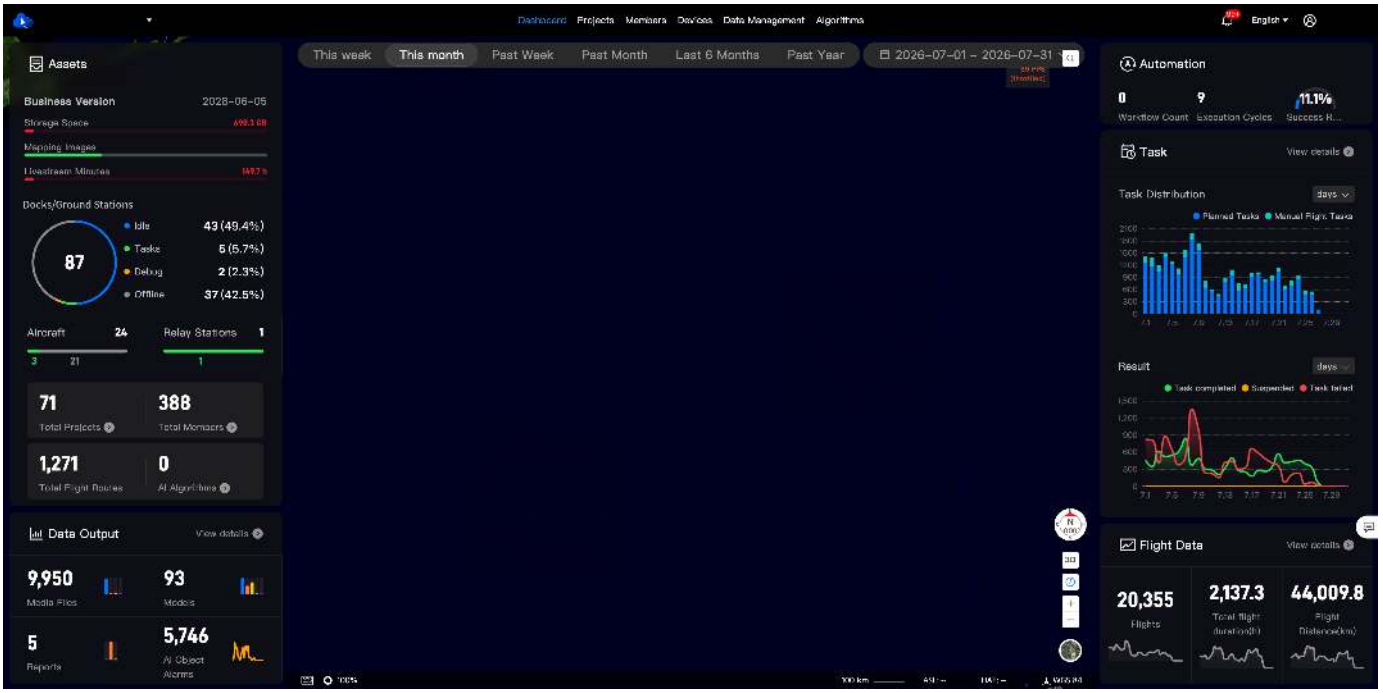
Notes on On-premises Version

Users can also select My Organization to edit the organization information or exit the organization. Click ⚙ to enter Organization Settings to add FlightHub Sync Beta service and edit the basic organization information, including uploading the organization logo and selecting the units of measurement.

Overview Dashboard

The dashboard provides a centralized, at-a-glance view of your organization's key operational data. Using intuitive charts and figures, it summarizes metrics for projects, members, devices, and automated tasks, offering valuable insights for management and decision-making.

> **Note:** Access to the dashboard is limited to the organization's super administrators and administrators.



Dashboard Components

Time Filter

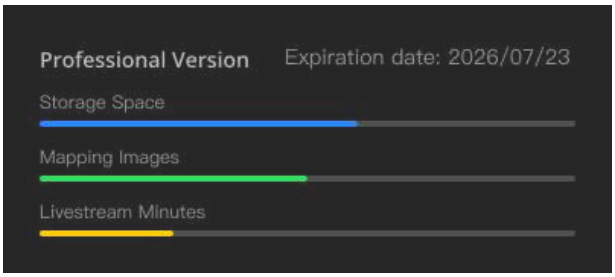
Provides quick filters for This Week, This Month, Past Week, Past Month, Past 6 Months, and Past Year, along with a custom date range option, making it easy to view data across different time periods.



Assets Module

1. Package and Resource Overview

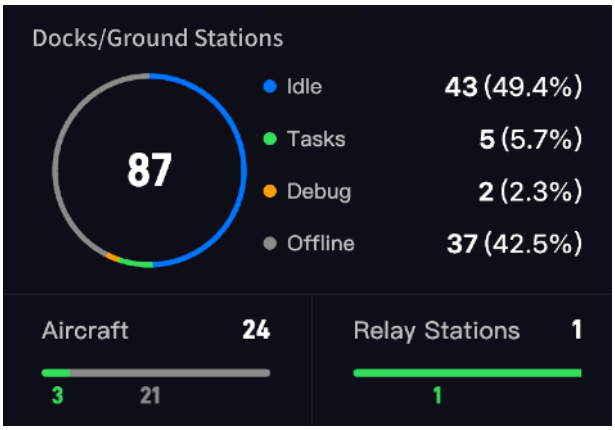
Tracks your organization's subscription plan details and resource consumption, including storage space, mapping images, and livestream minutes.



2. Device Status Distribution

Dock Status: A donut chart shows the status distribution of all docks. The center of the chart displays the total number of docks.

Other Device Status: A separate donut chart shows the online/offline status of all other connected devices.

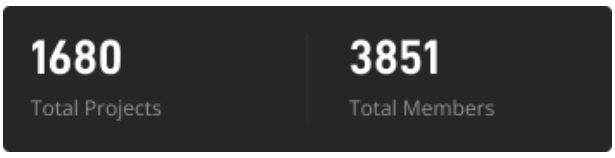


Status Descriptions:

Status	Description
Idle	The device is idle.
In Task	A task is currently in progress.
Debug	The device is undergoing remote debugging, on-site maintenance, or a firmware update.
Offline	The device is offline or has been stopped by an on-site emergency command.

3. Projects & Members

Displays the total count of projects and members in the organization.

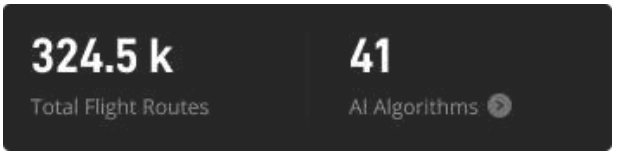


4. Flight Routes

Displays the total number of planned flight routes across the organization.

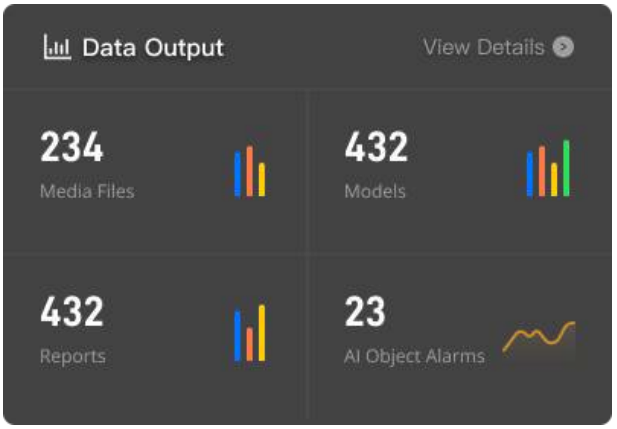
5. AI Algorithms

Displays the total number of available AI algorithms.

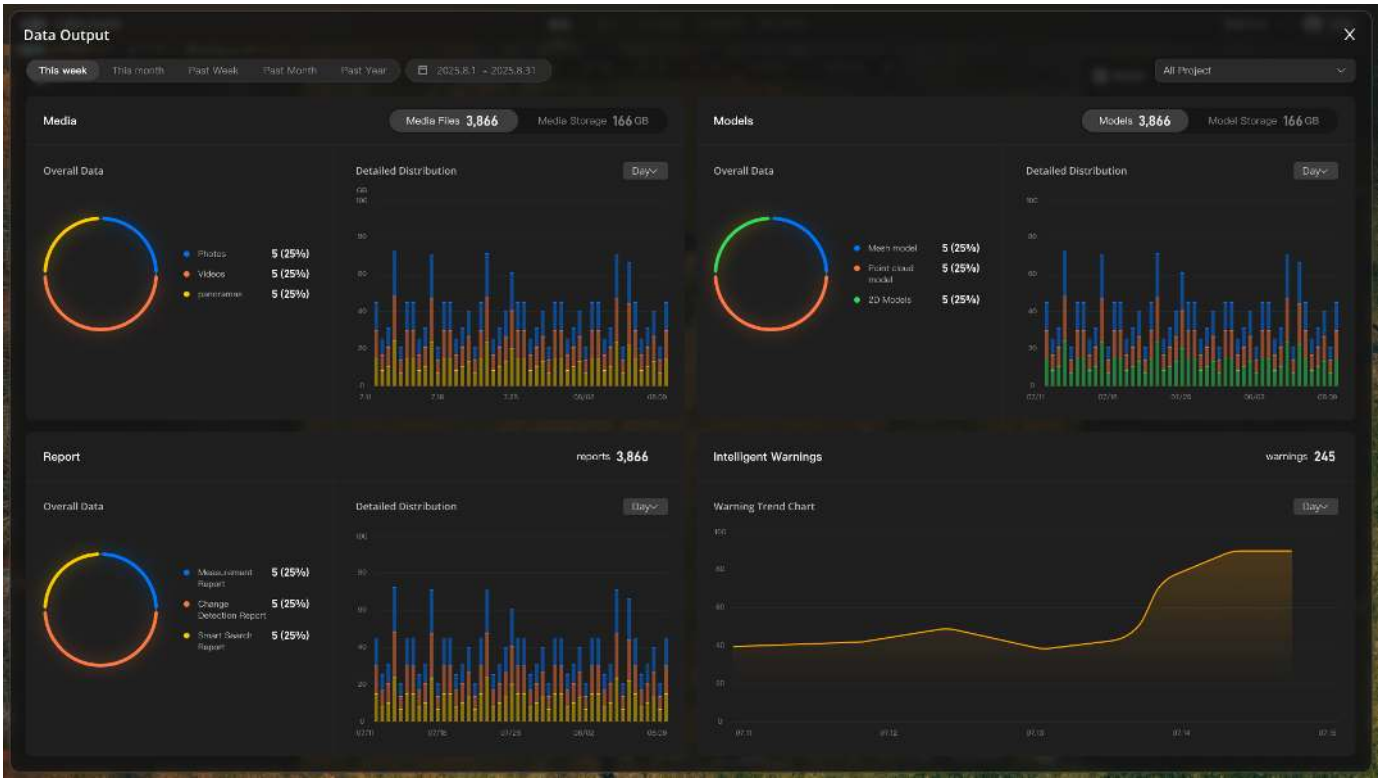


Data Output Module

Summarizes key data outputs generated by your projects, including the total count of media files, models, reports, and AI object alarms. Click **View Details** to see a breakdown of data volume and storage distribution.



Click "View Details" to see a breakdown of data volume and storage distribution.



Automation Module

Tracks the scale and performance of your organization's automated workflows.



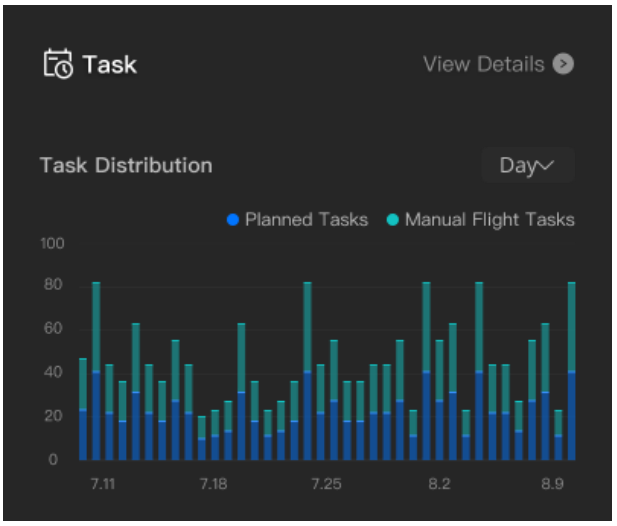
Parameter Description:

Parameter	Description
Workflow Count	The total number of enabled automated tasks.
Execution Cycles	The total number of times an enabled automated workflow has run to completion.
Task Completion Rate	The percentage of completed cycles that ran successfully from start to finish.

Task Module

1. Task Distribution

A bar chart shows the distribution of planned tasks vs. manual tasks over time, helping you identify peak activity periods. Supports switching between Day, Week, and Month time dimensions via the dropdown.



2. Task Outcomes

A line chart tracks the trends of task outcomes over time—Success (green), Suspended (yellow), and Failure (red)—to help you monitor overall task reliability. Supports switching between Day, Week, and Month time dimensions via the dropdown.



3. Device Task Gantt Chart

Click **View Details** in the Task Module to view the Device Task Gantt Chart.



- Supports quick views for This Week, This Month, Past Week, and Past Month, as well as custom time ranges.
- Supports filtering by project.

Flight Data Module

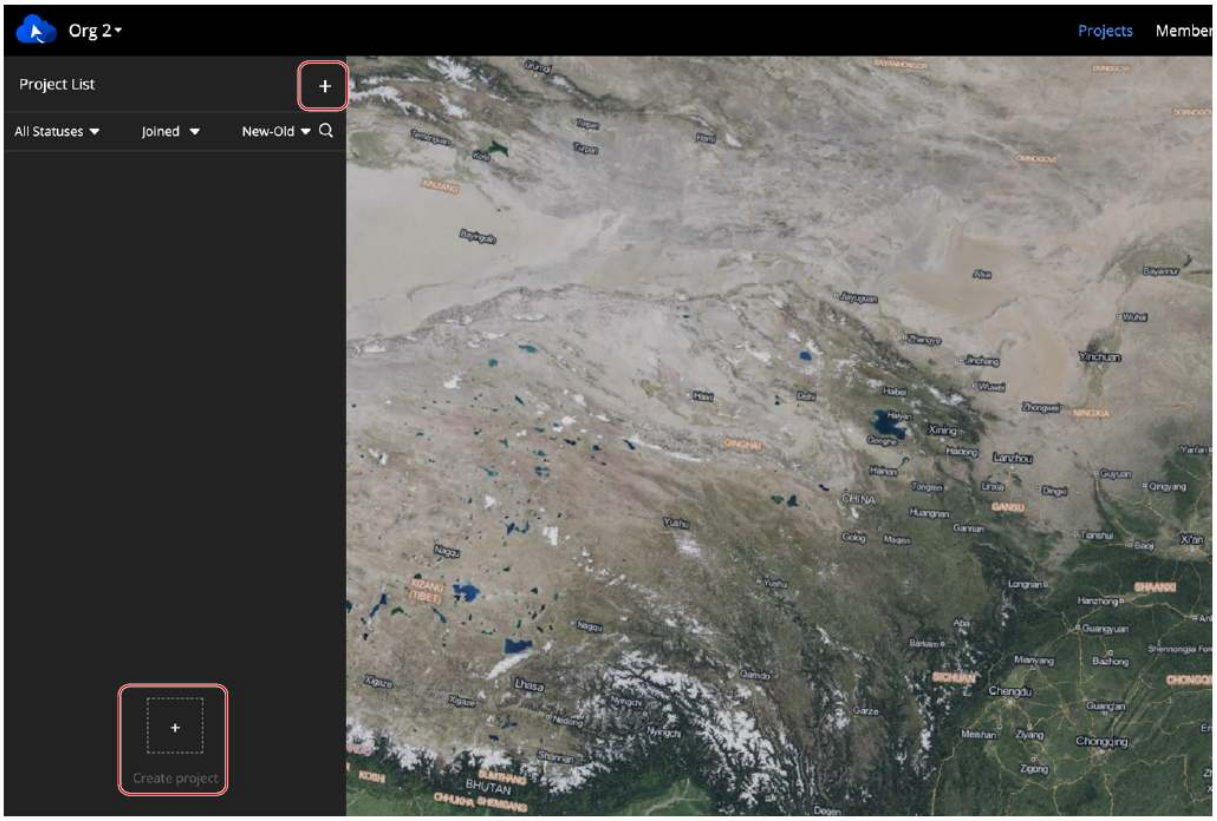
Summarizes key flight statistics, including the total number of flights, cumulative flight duration, and total flight distance.


Flight Data
View Details
136
Flights
414
Total flight duration(h)
1156
Flight Distance(km)

Create a Project

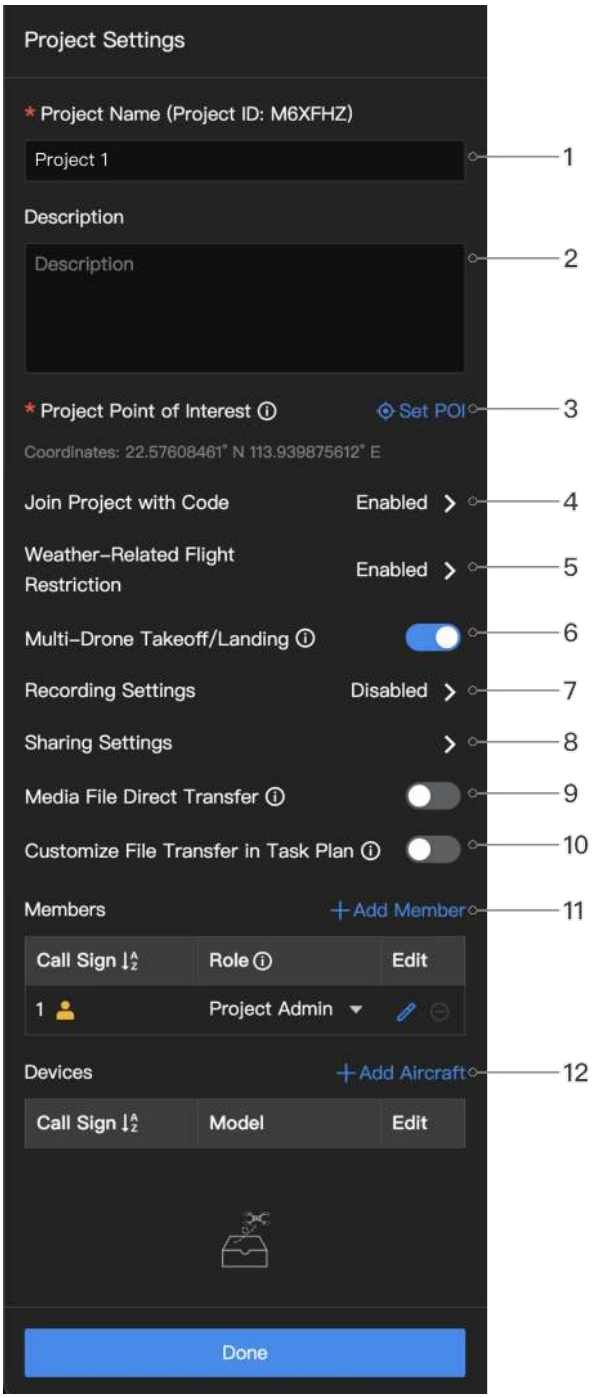
Project Creation Process and Introduction

Administrators can click “+” in the middle of the project list panel or in the upper right corner to create a project.



The location information of the administrator will be requested when creating a project, and the geographic location obtained will be used as the default project point of interest.

Fill in the following information to create a project.



1. Project Name

The project name is required and should be within 40 characters.

2. Description

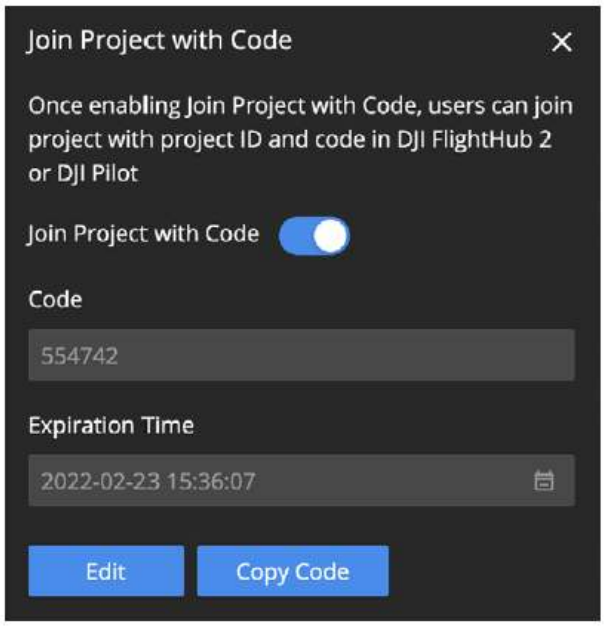
The project description is optional.

3. Project Point of Interest

Click Set Point of Interest. The set point will be displayed in the middle of the web page when users enter the project.

4. Join Project with Code

Administrators can enable Join Project with Code after creating a project. Click Copy Code to copy the project ID and code as well as the project link and send them to members who wish to join the project.



DJI FlightHub 2 users can click the link or enter the project ID and code on the My Organization page to join the project. DJI Pilot 2 users can log in to the DJI FlightHub 2 cloud service and join the project with the project ID and code. For users who are not organization members but join projects under the organization, their organization roles will be assigned as Temporary Member.

5. Weather-Related Flight Restriction

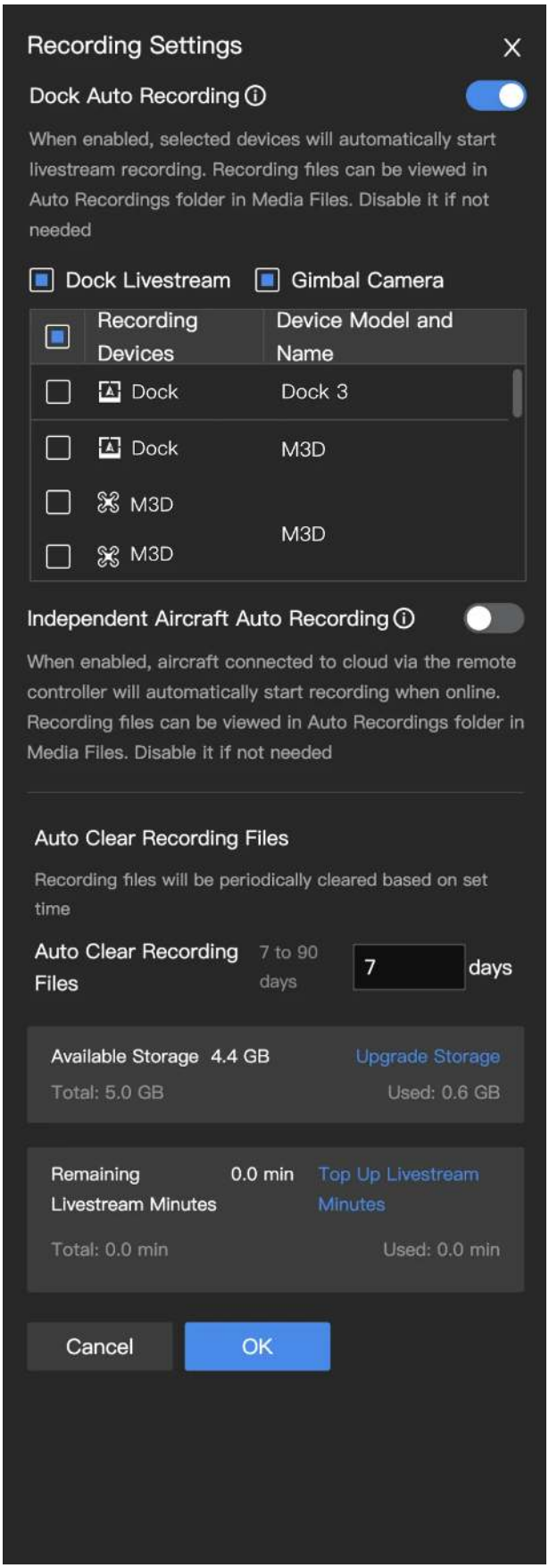
Click to set flight restrictions for different device models, and settings apply only to the current project.

6. Multi-Drone Takeoff/Landing

Click to enable or disable the multi-drone takeoff/landing settings within this project. Once the status is updated, it will take effect on the next flight task and will not affect the flight tasks currently in progress. See Multi-Drone Takeoff/Landing for more details.

7. Recording Settings

The project administrator can enable either Dock Auto Recording or Independent Aircraft Auto Recording. When enabled, the system will consume the organization's livestream minutes and storage space. It is recommended to enable this feature according to actual needs.



7.1 Dock Auto Recording

- When enabled, the selected device will automatically start livestream and recording, and the recorded files will be stored in the Auto Record Playback folder in the media file library.
- Trigger Logic: Docks will start recording at the beginning of a task and stop at the end.

- Device Selection: Users can quickly select devices in batch based on device categories. Checking Live will automatically select all dock security cameras within the project. Checking FPV Camera will automatically select all FPV cameras of dock aircraft within the project. Checking Gimbal Camera will automatically select all gimbal cameras of dock aircraft within the project. Alternatively, users can select the required recording devices individually from the device list according to actual needs.

7.2 Aircraft Auto Recording

When enabled, all aircraft connected to the project will automatically start recording when online, and the recorded files will be stored in the Auto Record Playback folder in the media file library. The aircraft will start recording automatically once the device is online and stops when the device goes offline.

7.3 Auto File Cleanup

After enabling any automatic recording function, a retention period for recorded files must be set. The default is 30 days, with a modifiable range of 7 to 90 days. The system will periodically clear the cache of automatically recorded videos based on the set retention period to avoid storage redundancy.

7.4 Resource Consumption Display (for FlightHub 2 public version only)

Below the recording settings, the remaining storage space and livestream minutes for the organization related to the project will be displayed. If resources are insufficient, users can click Upgrade Storage and Top Up Livestream Minutes to navigate to the DJI FlightHub 2 package link for renewal and purchase.

8. Sharing Settings

Project administrators can enable livestream view and photo sharing.

9. Media File Direct Transfer

Organization administrators can go to My Organization > Organization Settings > FlightHub Sync Beta > Media File Direct Transfer to add a third-party cloud service. After enabling Media File Direct Transfer, the data collected by the dock will only be uploaded to the third-party cloud platform.

10. Customize File Transfer in Task Plan

When enabled, users can enable or disable Media File Direct Transfer when creating task plans. When disabled, the task plan settings will apply the project settings.

11. Members

Click Add Member to add organization members to the project. If the member is not on the list, the organization administrator can add the member in Member Management. Users can also join the project with the project ID and code.

12. Devices

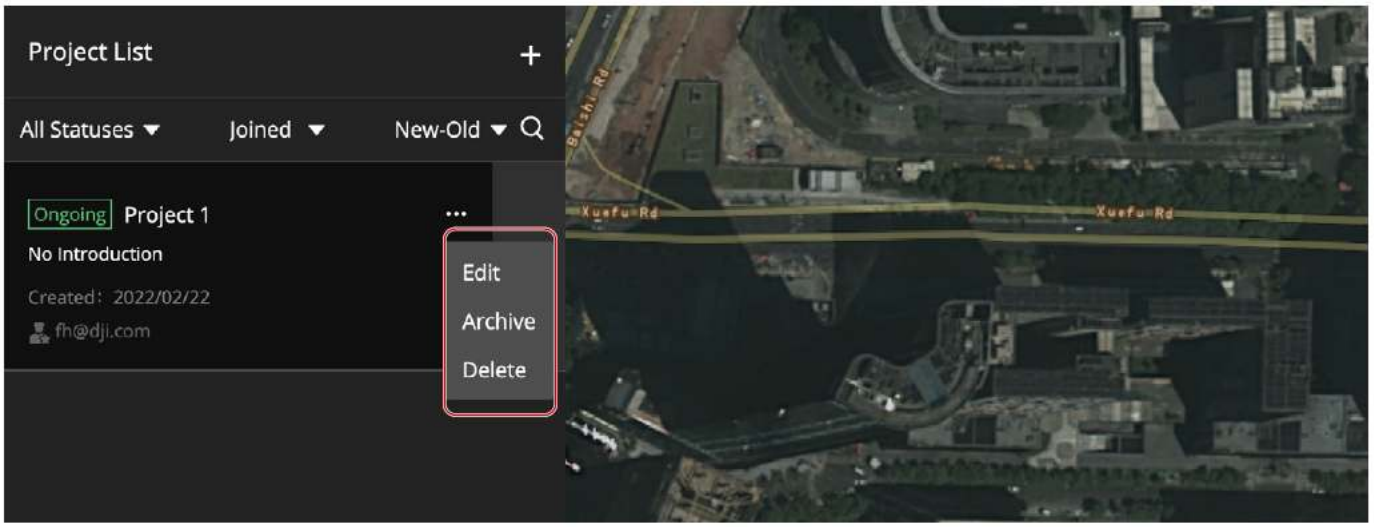
Devices include the docks and the aircraft that are bound to the current project. Click Add Aircraft to add aircraft that are bound to the organization to the project. See Device Management for more details.

a. Users can deploy a dock in DJI Pilot 2 or DJI Enterprise app. The dock information will automatically be displayed on the panel.

b. For DJI Pilot 2 users who enter the cloud project, once their aircraft are linked with remote controllers, the aircraft information will automatically be displayed on the device list.

Click Create Project to create the project.

Both super and organization administrators can edit, archive, and delete projects. They can also activate archived projects. The project administrator can edit, archive, activate, and delete projects they manage. Other members can only view information of joined projects.



Note: DJI Pilot 2 users cannot view or work on archived projects.

Notes on On-premises Version

The FlightHub 2 on-premises version does not support joining projects with a code and archiving or activating archived projects.

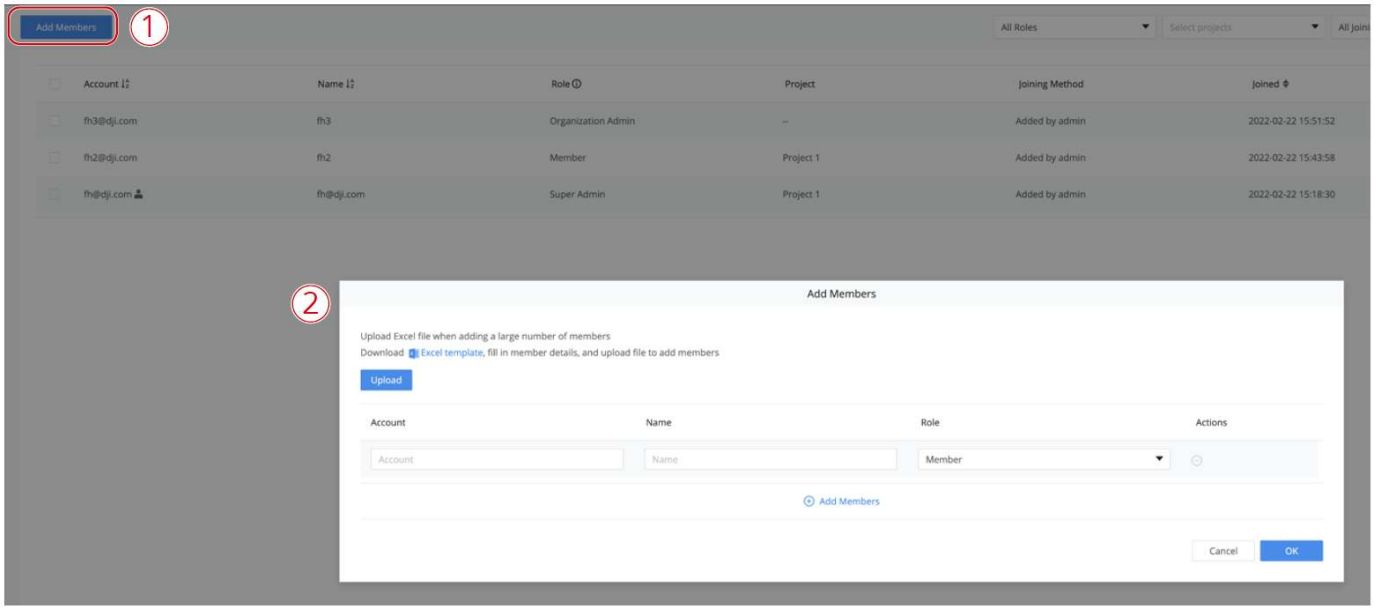
Member Management

Notes on Public Version

Both super and organization administrators can manage members on the Members page.

Add Members

Click Add Members and fill in members' DJI accounts and organization names and roles. To add multiple members at once, administrators can also download an Excel template, fill in the members' information, and then upload the file.



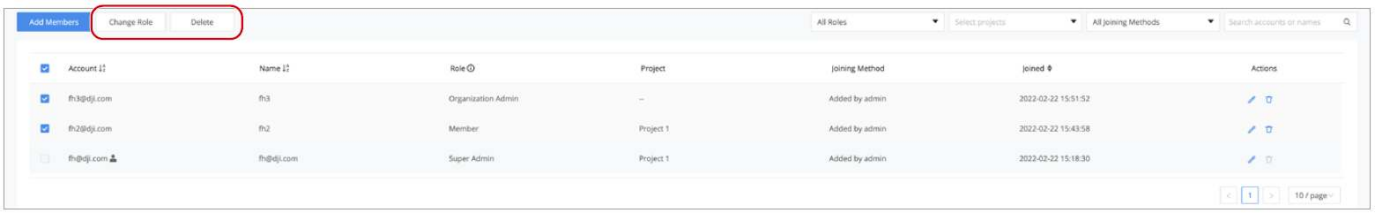
Change Member Information

Administrators can edit member information and delete members.

> Note: The organization administrator cannot change the role or delete the account of the super administrator.



Administrators can also select multiple accounts and change member roles or delete all accounts at once.



When deploying the FlightHub 2 on-premises version, you can choose between a local account system or a third-party account system. The organizational management methods of these two account systems differ.

- Local account system: Manually add and manage accounts after deployment. Suitable for users without an existing account system.
- Third-party account system: Use by configuring the OAuth2 protocol during deployment. Suitable for users with an existing account system who wish to integrate with FlightHub 2. Unlike the FlightHub 2 public version, after logging in with a third-party account, if not pre-assigned as a super admin, the default role is Guest with no permissions, requiring an admin to set roles.

> Note：For specific definitions and permissions regarding roles, please refer to Organization Roles and Permissions.

Notes on On-premises Version

Local Account System

Login with Password

If you use the local account system, a super administrator account will be included during deployment. The super administrator must log in for the first time using the default super administrator username and password. Other members must log in using the accounts and passwords added by the super administrator or organization administrator. After logging in, change your password in the User Center as soon as possible.

Organization Creation

The super administrator can create an organization, and only one organization can be created.

Member Management

The super administrator or organization administrator can manage members on the Members page.

Add Organization Members

The super administrator or organization administrator can go to the Members page, click Add Members and fill in members' accounts, passwords, and organization names and roles. To add multiple members at once, administrators can also download an Excel template, fill in the members' information, and then upload the file.

Edit Member Information

You can edit the name and user role of organization members.

Remove Members

The super administrator and organization administrator can delete members by clicking the delete button. Members cannot delete their own accounts or the super administrator account.

Password Loss and Reset

If a password is lost, the super administrator and organization administrator can reset the password for that account. The super administrator's password can only be reset by the super administrator. The reset password will be automatically generated.

It is recommended to set up multiple super administrators and keep account passwords safe. If all super administrator passwords are lost, refer to the deployment manual to redeploy or contact DJI Support.

Third-Party Account System

Login with Password

If using a third-party account system, the super administrator account ID must be configured during deployment. All members can log in using their third-party account credentials. After logging in, members are automatically added to the organization created by the super administrator. By default, their user role is visitor with no permissions. After being assigned another role by the super administrator or organization administrator, members can obtain the corresponding permissions.

Organization Creation

The super administrator can create an organization, and only one organization can be created.

Member Management

The super administrator or organization administrator can manage members on the Members page.

Add Organization Members

If using a third-party account system, including the account system of the public version FlightHub 2, the super administrator is pre-written during deployment, but the super administrator does not

have the ability to add members. Therefore, OAuth2 protocol needs to be configured during deployment to use the third-party account system. If you want to continue adding members after the on-premises version deployment, you can add members directly on the third-party platform.

Edit Member Information

You can edit the name and user role of organization members.

Delete Members

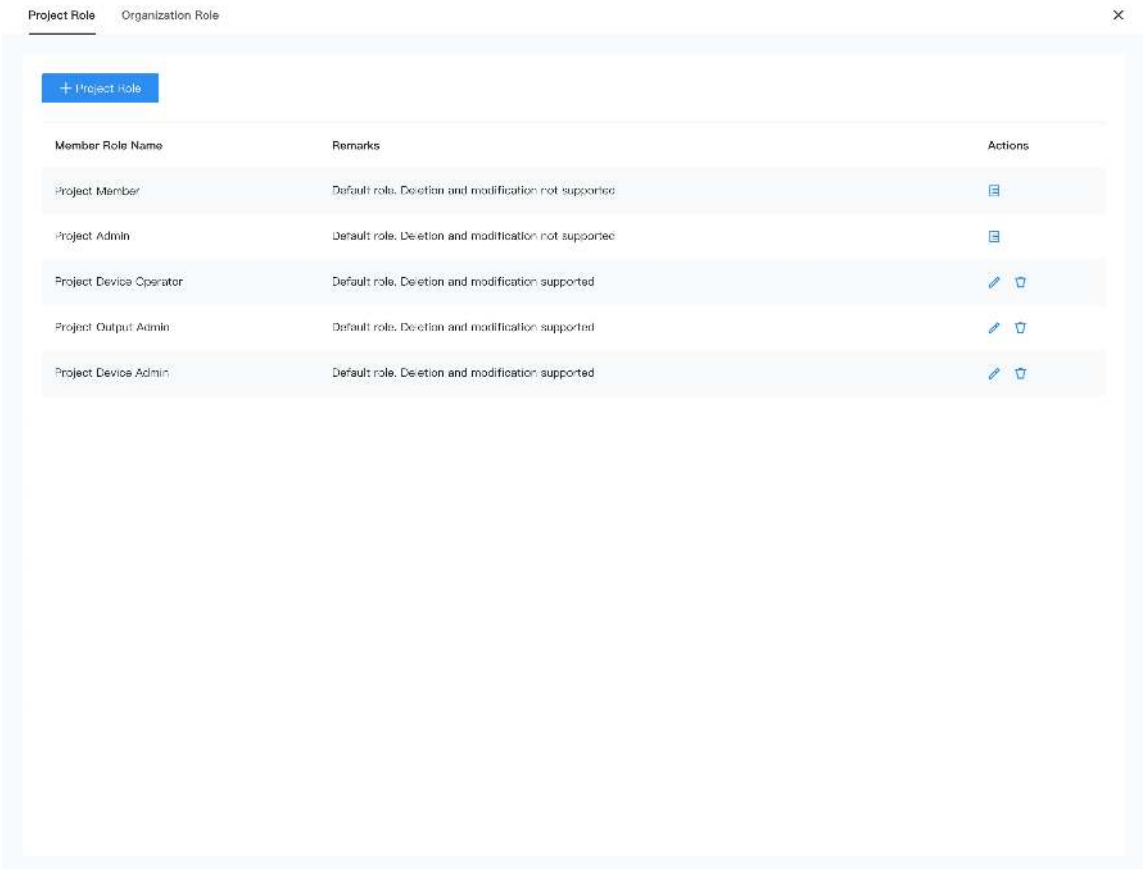
If a member is deleted directly from the organization, the member will no longer exist in the organization, but can still log in with the same account. After logging in, their role will be a visitor with no permissions.

Project User Role Management

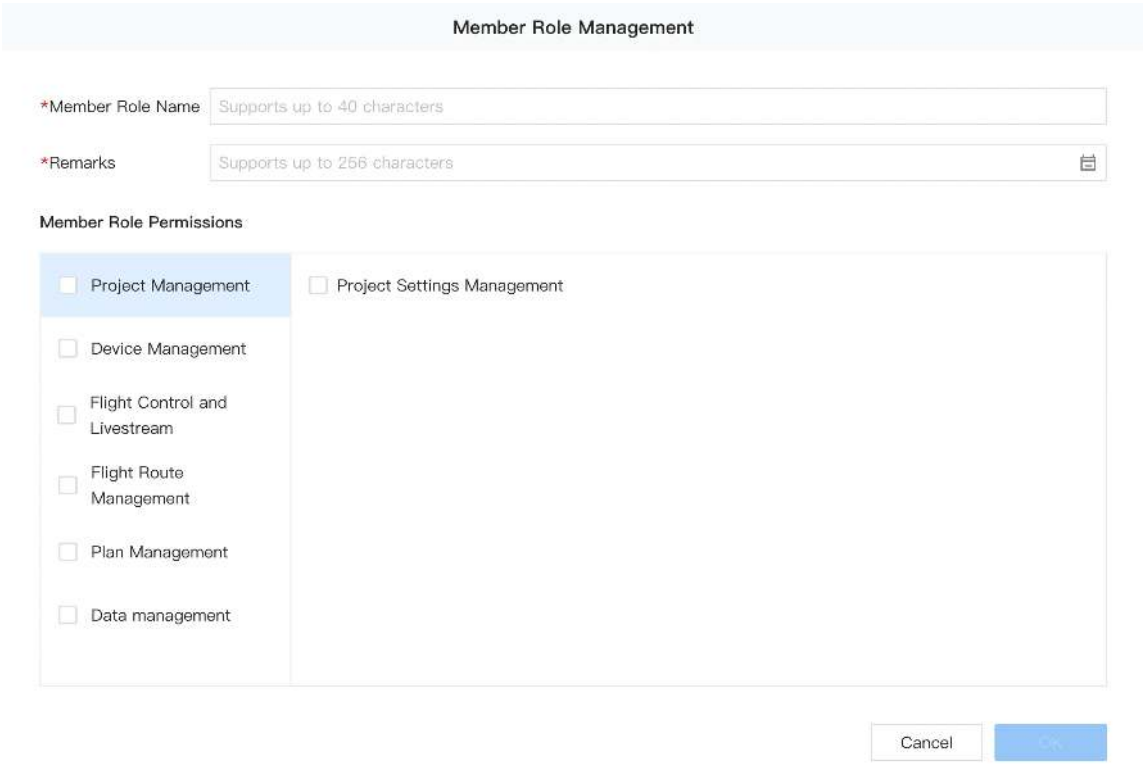
Project user role management allows for detailed control of member permissions within a project by assigning various permissions to different user types. FlightHub 2 presets five user roles: Project Admin, Project Member, Project Output Admin, Project Device Operator, and Project Device Admin.

Among them, Project Admin and Project Member are system default user roles that cannot be deleted or modified. Temporary members joining the project within the organization will also be authorized as project members by default. The remaining three user roles are example user roles that can be modified or deleted according to actual needs. New user roles can also be created as needed to meet management requirements.

Specifically, the organization super admin and organization admin can edit the detailed settings of any project on the project list page. However, accessing detailed project settings within the project requires members to have the Edit Project permission for that project.



Add and Modify Project User Roles

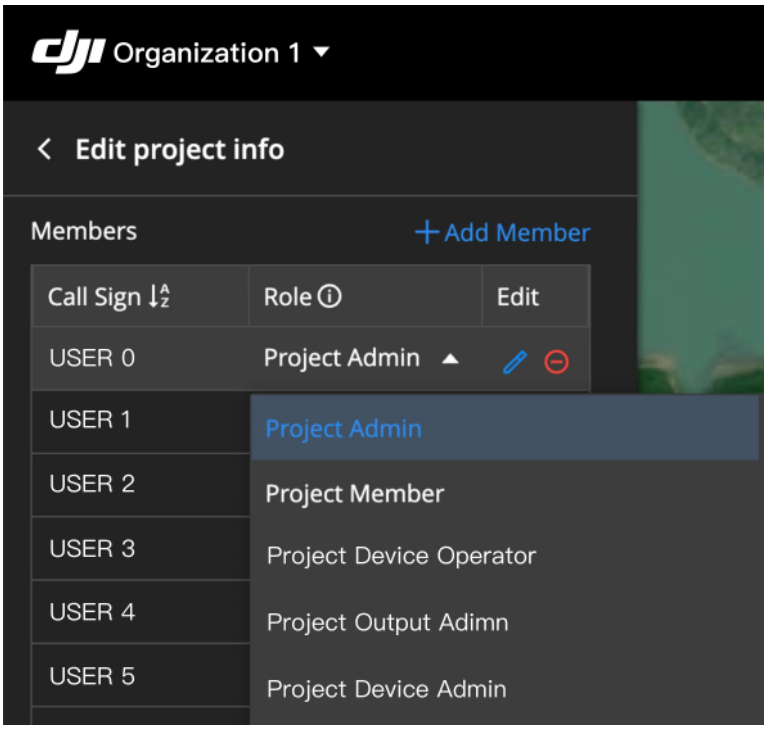


- When creating and modifying user roles, the user role name and remarks are required fields. It is recommended to accurately describe the remarks for future management.
- Pre-permission: Some feature permissions depend on other permissions to function properly. When enabling the corresponding permissions, pre-permissions will be enabled first to ensure the feature functions properly. For example, the pre-permissions for Plan Management are: Flight Route Management - Create Flight Route, Flight Route Management - Delete Flight Route, Flight Route Management - View Flight Route, Device Management - View Device Details, and Data Viewing and Management - Upload or Create Media.
- Basic Permissions: Basic permissions are the most fundamental permissions at the current permission level. Before enabling peer-level or subordinate-level permissions, basic permissions must be enabled. For example, the basic permission required to enable Delete Media is View Media.

Project User Role Assignment and Settings

The permission to enter the project settings interface is: Project Management > Edit Project. Organization super admins and organization admins can enter the settings interface of any project without project-specific permissions.

After defining the project user roles on the Members page, you can assign these user roles to members within the project settings



Delete Project User Role

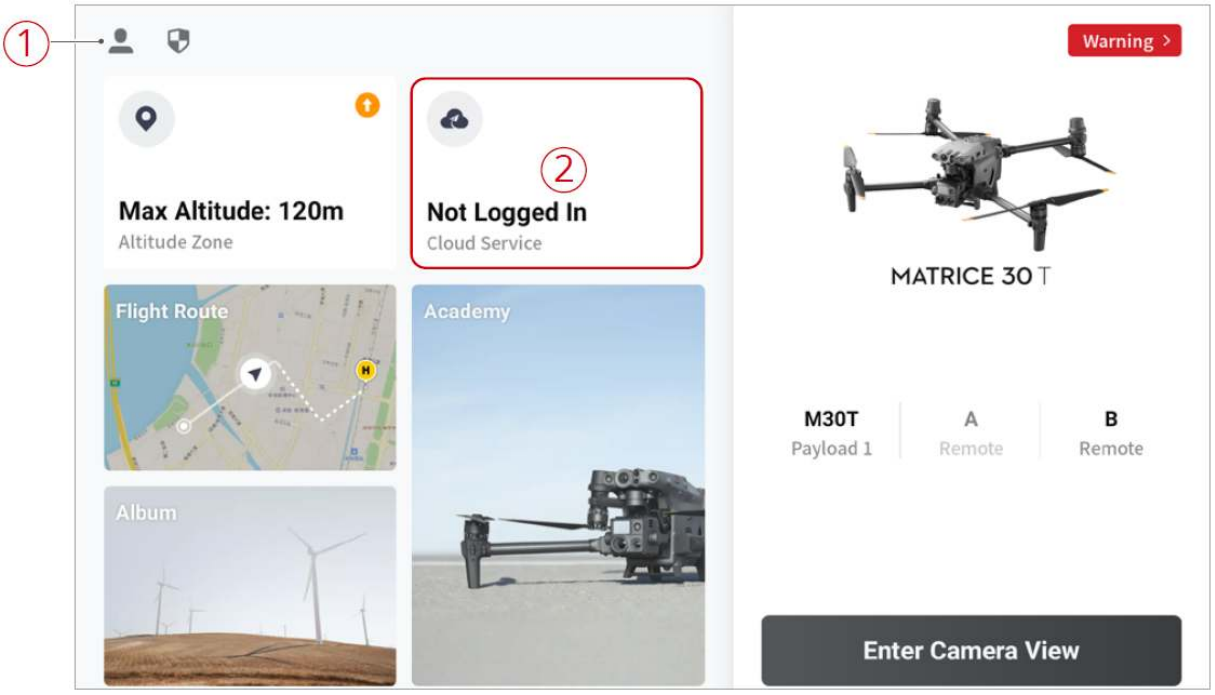
Deleting removable user roles within the project will cause all users assigned to that user role to exit the project. Please proceed with caution.

Device Management

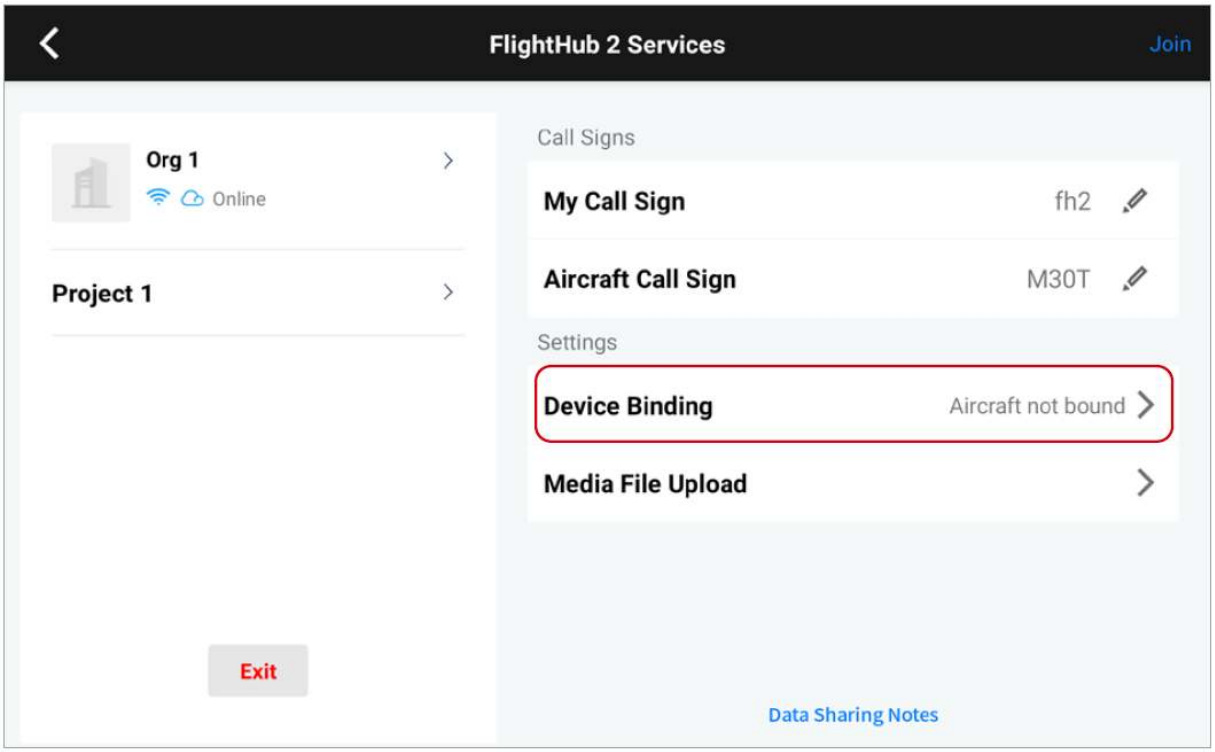
Aircraft Management

DJI Pilot 2 users can bind their aircraft to DJI FlightHub 2 organizations. Make sure that the remote controller is connected to the internet. Open DJI Pilot 2 and enter the home screen.

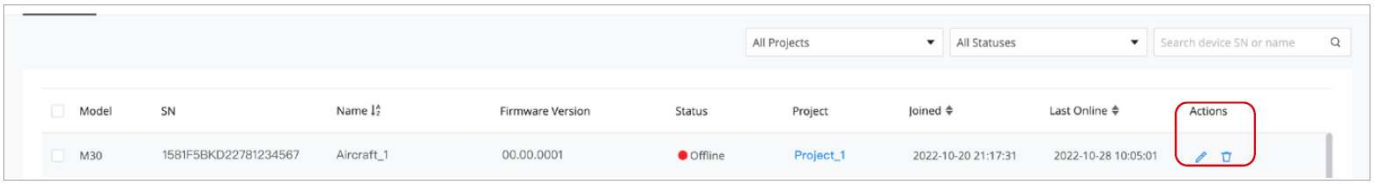
1. Tap Settings in the upper left corner and log in with a DJI account.
2. Tap Cloud Service and select the DJI FlightHub 2 cloud service. Users need to select the organization and project they want to join upon the first login. At subsequent logins, they will be directed to the project page they entered last time. If users have not joined any organization, they can contact the administrators for details.



3. After logging in, the project information will be displayed on the screen. Click Device Binding to bind the aircraft to the organization.



The administrators can manage the aircraft on the Devices page after the aircraft is bound to the organization.



Dock/Ground Station Management

Bind to an Organization

The DJI dock can be bound to the FlightHub 2 organization via the DJI Pilot 2 or DJI Enterprise app.

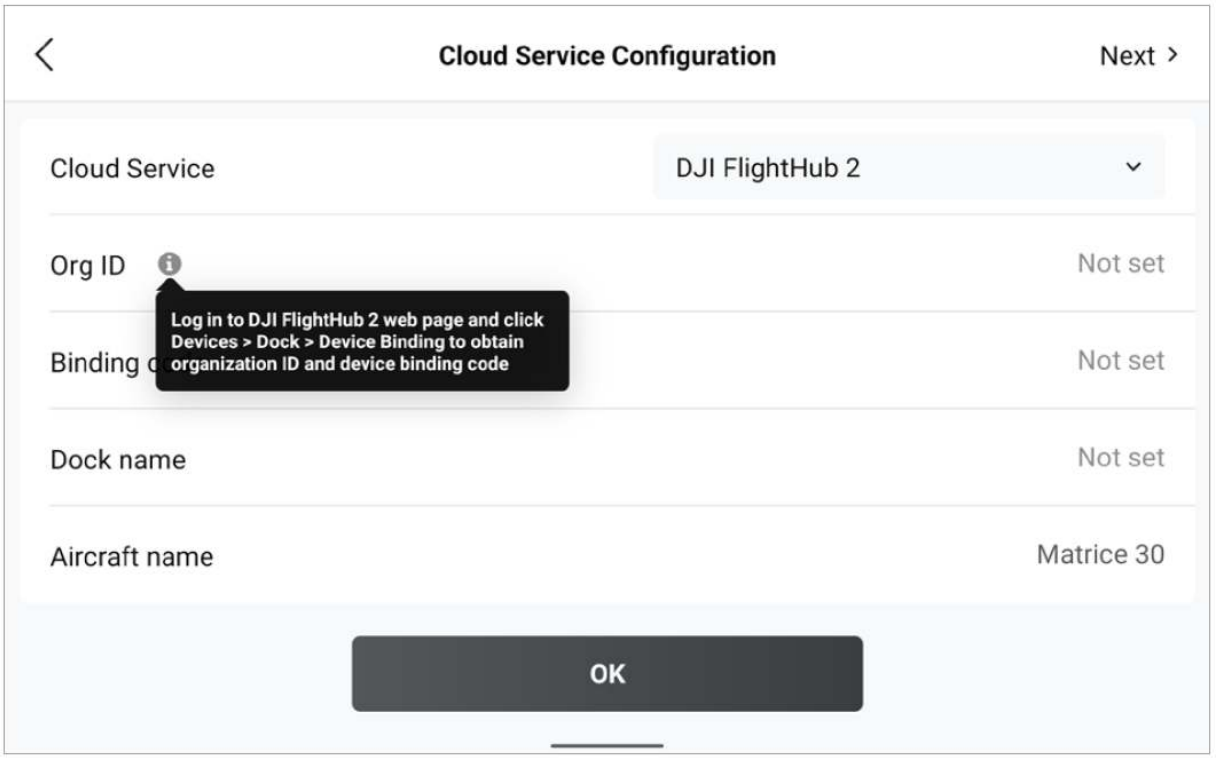
- DJI Dock and DJI Dock 2 can be bound to an organization via DJI Pilot 2.
- "DJI Dock 3" and "O4 Ground Station" can be bound to an organization via the DJI Pilot 2 app.

1. Bind docks to organizations through Pilot 2

Make sure that the dock is connected to the cable or 4G network. Open DJI Pilot 2 and enter the home screen.

1. Connect the USB-A port on the dock to the USB-C port on the remote controller with a USB cable.

2. Follow the on-screen instructions to deploy the dock. Input the organization ID, device binding code, and dock and aircraft names on the Cloud Service Configuration screen.
3. Tap OK after completing the information, and the dock will be bound to the organization.



2. Bind Dock/Ground Station to organization via DJI Pilot 2 app

Ensure the Dock/Ground Station is connected to a wired or 4G network. Open the DJI Enterprise app and enter the home screen.

1. Use a dual-head USB-C cable to connect the mobile phone to the Dock/Ground Station.
2. After the Dock/Ground Station deployment page pops up, follow the on-screen instructions to deploy the Dock/Ground Station. Enter the Organization ID, Device Binding Code, Ground Station Name, Dock Name, and Aircraft Name on the Cloud Service Configuration screen.
3. Tap OK after completing the information, and the Dock/Ground Station will be bound to the organization.

- Go to Devices > Dock/Ground Station > Device Binding to access the organization ID and device binding code on FlightHub 2.
- A Dock/Ground Station can only be bound to one organization. To switch organizations, users can go to Devices > Dock/Ground Station to unbind the device first and bind it to a new organization in DJI Pilot 2 or the DJI Enterprise app.

Manage on the Cloud

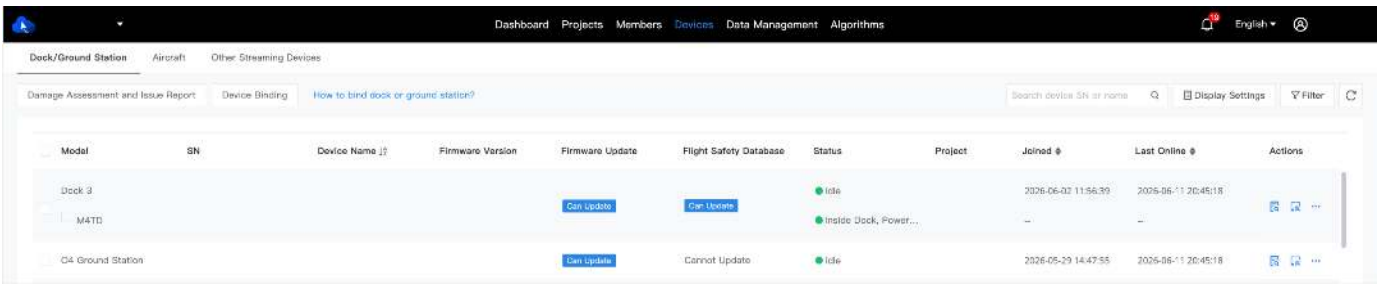
Administrators can manage the Dock/Ground Station on the Devices page after it is bound to an organization. Users can also bind the Dock/Ground Station to a project, view the warning messages,

operate the device remotely, and update the Flight Safety Database.

> Note: To update the Flight Safety Database, the firmware version of DJI Dock should be v01.06.17.02 or later.

Bind to a Project

The administrators can click Dock/Ground Station > ••• > Edit to bind the Dock/Ground Station to a project.



> Note: A Dock or a Ground Station can only operate in one project at a time.

View Warning Messages

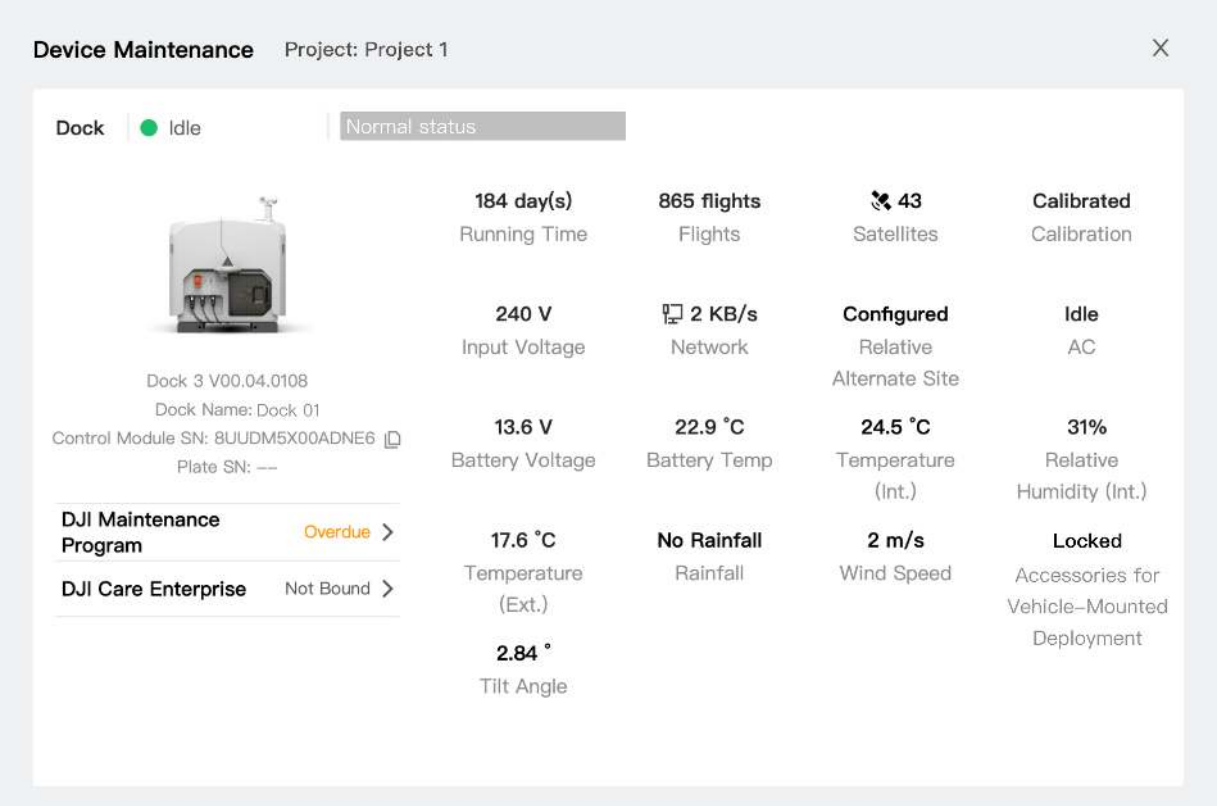
Users can click to view the warning messages of the Dock, Ground Station, and aircraft. The message includes the start and end time, warning level, device type, error code, content, and recommended solutions.

Monitor and Maintain Devices

Users can click to monitor and maintain the Dock, Ground Station, and aircraft remotely, and perform remote debugging.

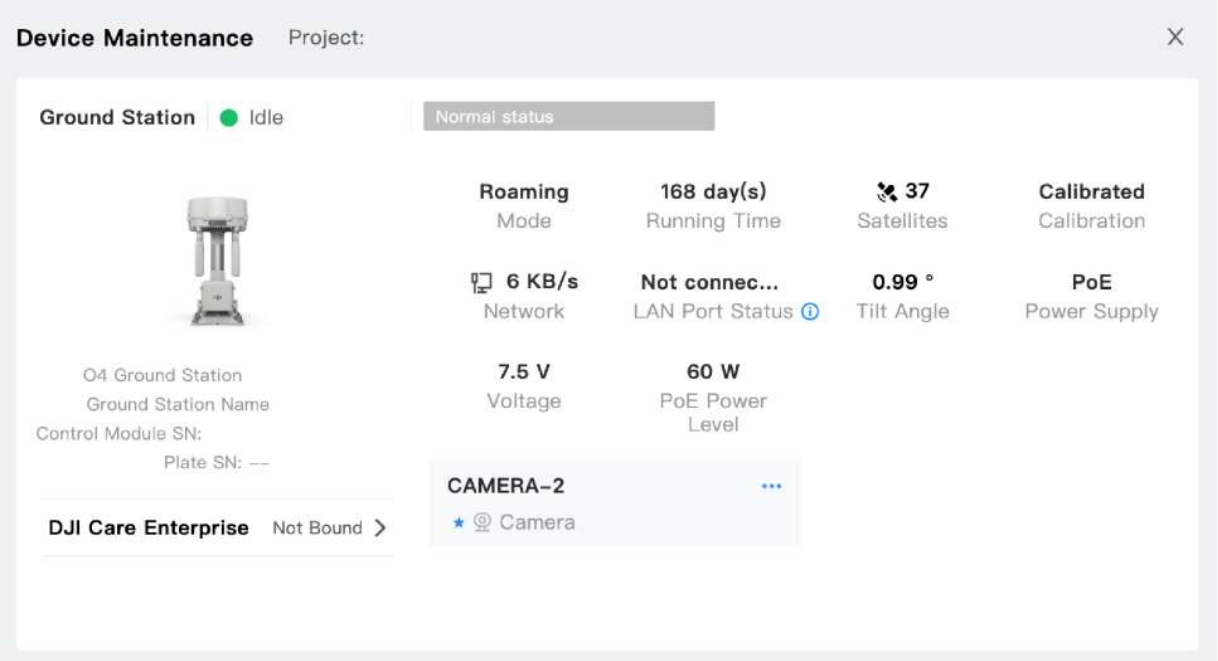
Dock Status Panel

Users can view the dock name, type, firmware version, SN, maintenance program, DJI Care Enterprise, and other status information on the dock status panel. If the entry/exit route has been set for the dock, the dock aircraft will first perform the entry/exit route before performing tasks to ensure safe departure. To modify the entry/exit route, contact your local dealer to use DJI Pilot 2 to reevaluate the site and redeploy the dock.



Ground Station Information

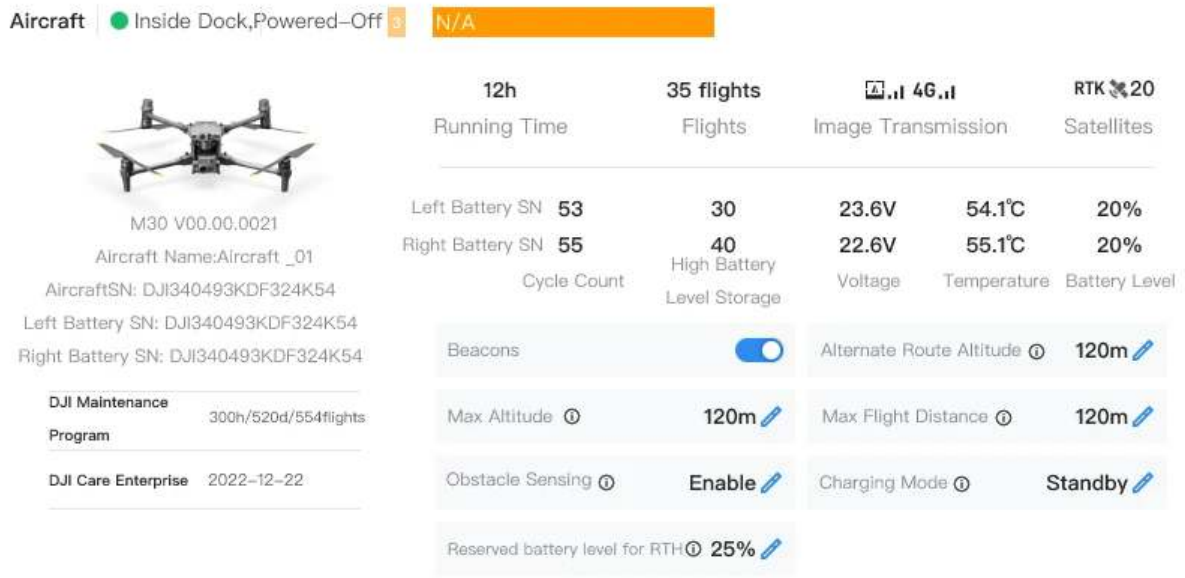
Through the Ground Station information panel, you can view the Ground Station name, model, firmware version, SN, Maintenance Program, DJI Care Enterprise, and Ground Station status data. If the Ground Station is connected to an IP camera, you can modify the camera settings in the device card (e.g., modify the name, set as main camera, complete device login verification). The view set as the main camera will be displayed first when the Ground Station live stream is turned on.



Aircraft Status Panel

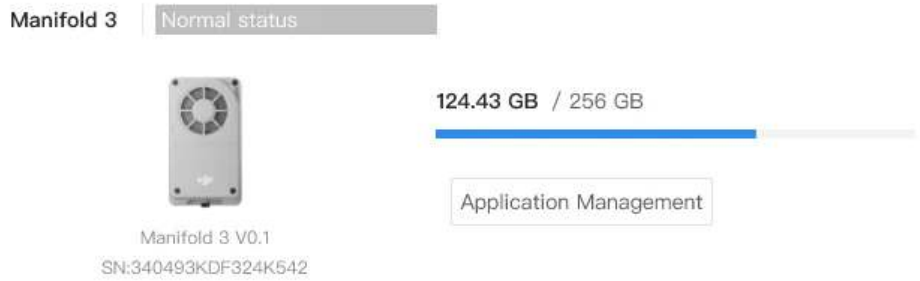
Users can view the aircraft name, type, firmware version, SN, left/right battery SN, maintenance program, DJI Care Enterprise, and other status information on the aircraft status panel. The beacon

status, maximum flight altitude and distance, obstacle sensing status, operating mode, and the reserve battery level for return-to-home can be modified.



Manifold 3 Information

The Manifold 3 information panel displays the status, firmware version, SN, and memory usage of the Manifold 3 device connected to the aircraft.

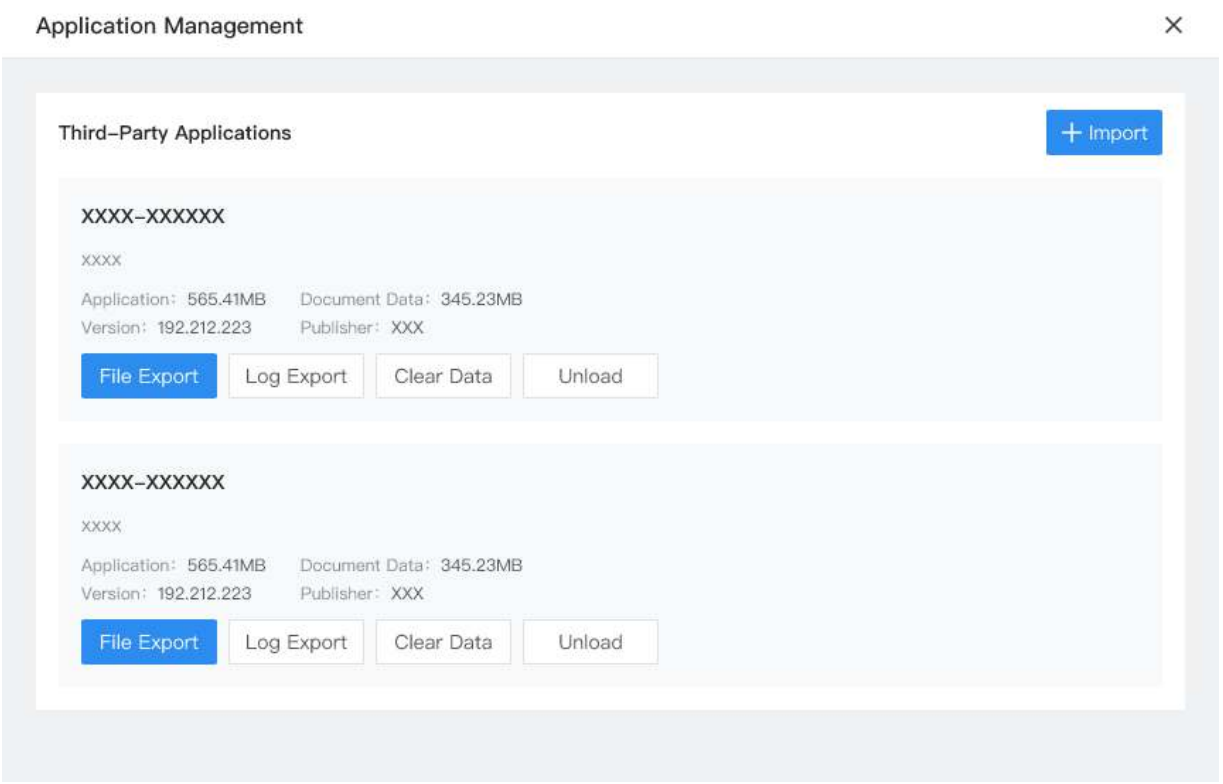


Application Management

The application management feature allows users to manage applications installed on the Manifold 3 device. The operation process is as follows:

1. Enter the application management page

In the Manifold 3 information panel, click `Application Management` to access the application management configuration page.



2. Application Management Operations

On the application management page, users can perform the following operations:

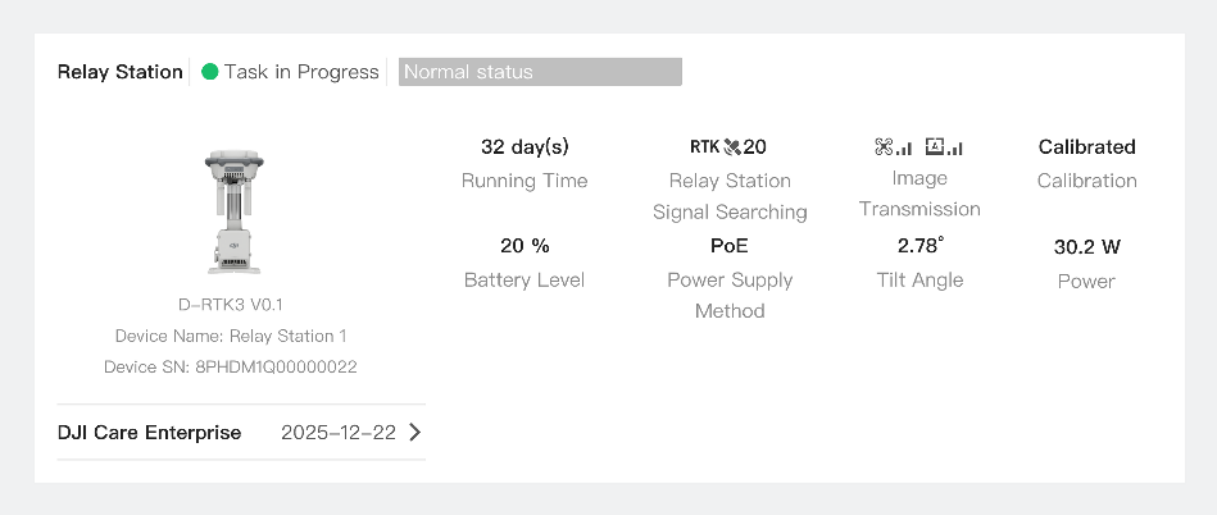
- Local Import: Supports importing application files in DPKG format.
  - Click + Import and select a local application file to upload. Once imported, the application will appear in the application panel.
- The application panel displays the following information:
  - Application Name: The name of the application.
  - Application Description: A brief description of the application.
  - Application Size: The size of the application file.
  - Document Data Size: The data space occupied by the application.
  - Application Version Number: The current version number of the application.
  - Publisher Information: The publisher information of the application.
- Application File Export:
  - Supports exporting files of installed applications.
- Log Export:
  - Supports exporting application log files for troubleshooting and analysis.
- Data Clearing:
  - Supports clearing application cache data and files.
- Application Uninstallation:
  - Supports uninstalling installed applications from the Manifold 3 device.

3. Call Application

After importing the application, users can enter the virtual cockpit of the corresponding aircraft to activate and call the application.

Relay Station Information

Users can view the relay station name, firmware version, SN, DJI Care Enterprise, and other relay station data.



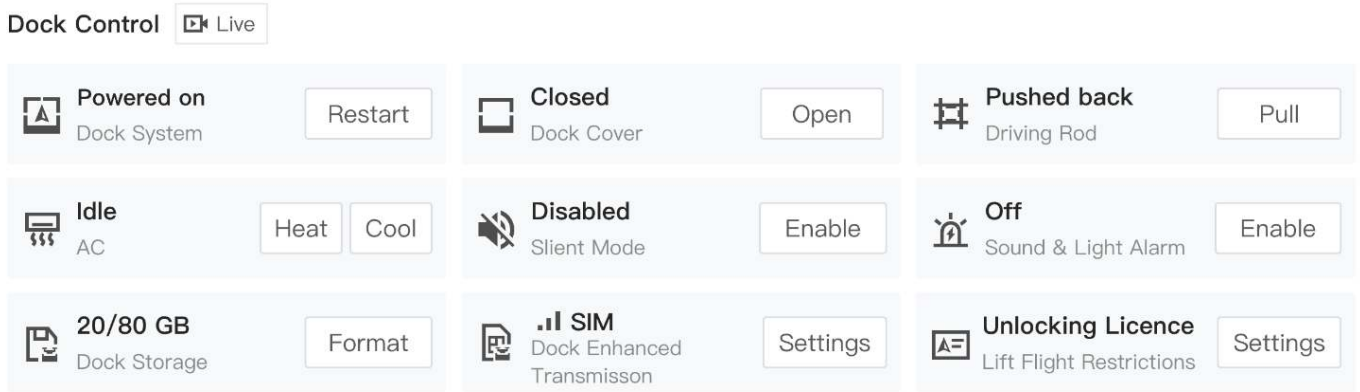
Remote Operations

Users can remotely debug the Ground Station, Dock, and aircraft, including Ground Station control, Dock control, and aircraft control.

> Note: After Remote Operations is enabled, the Dock/Ground Station will not be able to perform flight tasks.

Dock Control

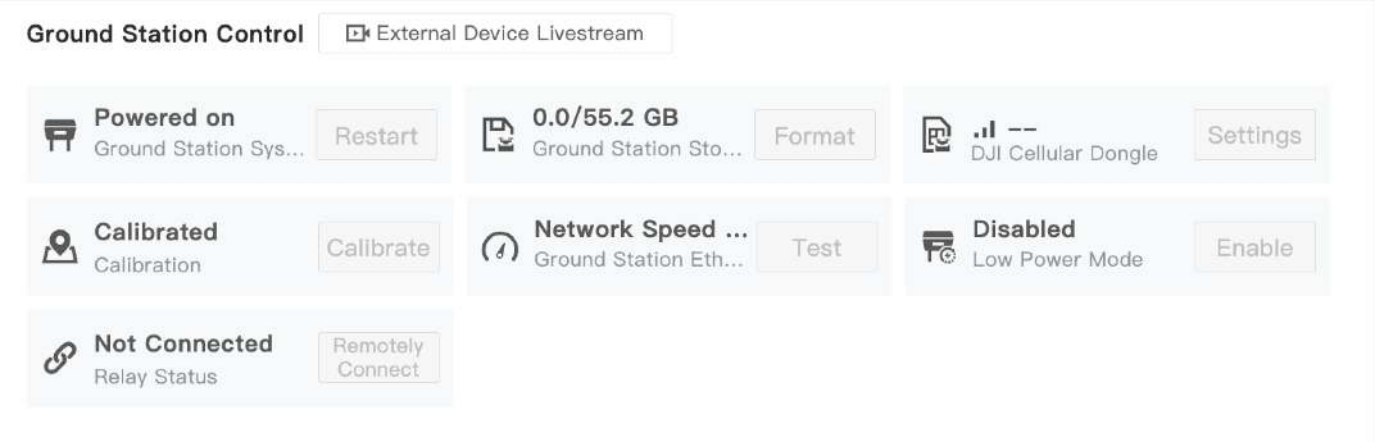
The dock control panel supports operating the dock system, dock cover, driving rods, and air conditioner, enabling the silent mode and sound-light alarm, formatting the dock storage, customizing the enhanced transmission settings, and setting the unlocking license details. The administrators can click Live to view the dock livestream.



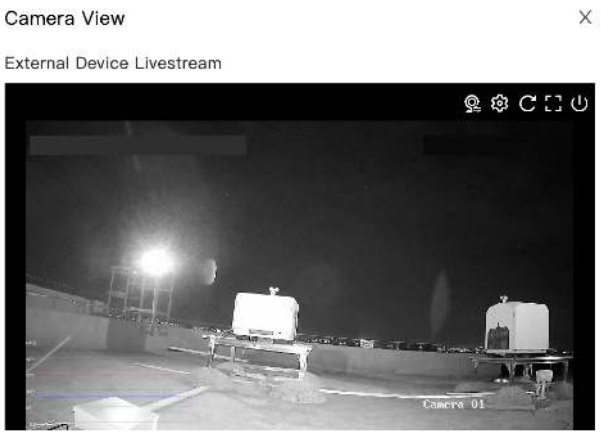
Note: Only DJI Dock supports operating the driving rods.

Ground Station Control

The Ground Station control panel includes Ground Station system restart, Ground Station storage formatting, enhanced transmission settings, Ground Station calibration, network speed test, energy-saving mode, and relay connection settings. Click the peripheral live stream button on the right side of the Ground Station control to view the external IP camera feed of the Ground Station.

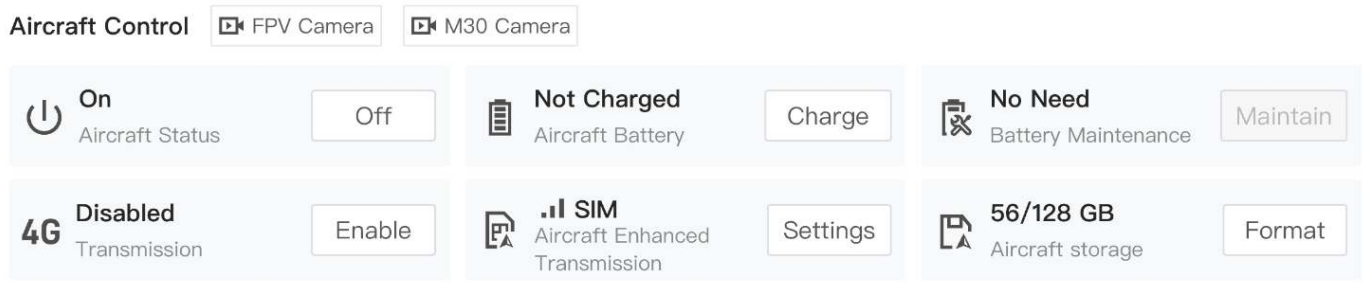


If the Ground Station is connected to multiple external camera live streams, you can switch views. Click the  live stream switch button in the upper right corner of the live stream window to switch the live stream of different cameras.

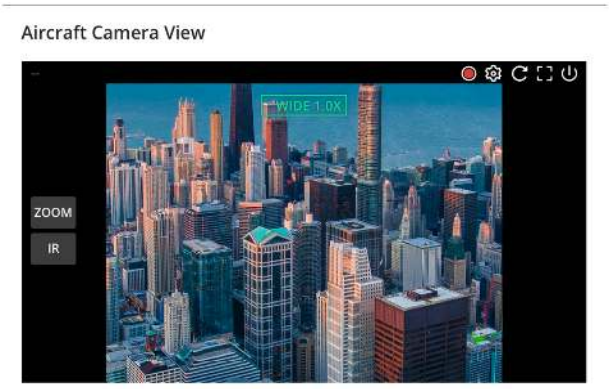


Aircraft Control

The aircraft control panel supports powering on the aircraft, charging the aircraft, customizing the enhanced transmission settings, and formatting the aircraft storage. The administrators can click the camera view buttons to view the FPV or the payload camera view.

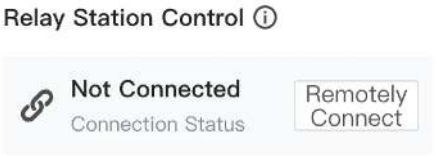


Users can click the camera type to switch between camera views or click ● to start recording. The recorded video will automatically be stored to Media Files.

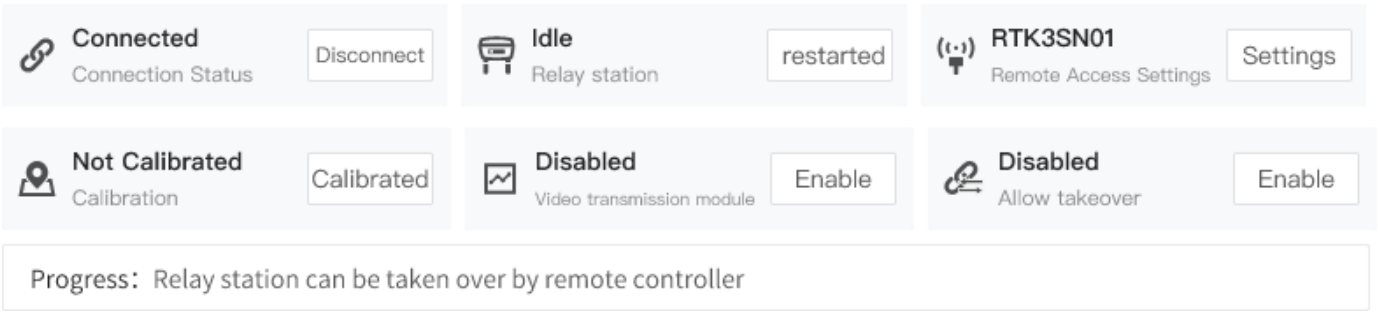


Relay Station Control

When the Dock/Ground Station is not connected to a relay, the control panel of the Dock/Ground Station has remote relay connection capability, supporting the search for relays near the O4 Ground Station and DJI Dock 3. Select a device and enter a password to connect. After the initial connection, it is recommended to change and remember your password.



After the Dock/Ground Station is connected to the relay, the relay station control panel includes relay system reboot, location calibration, video transmission switch, relay disconnection, remote relay access, and relay takeover settings. The relay remote access settings allow you to configure the name, password, and display or hide options for the relay remote access signal.



Trial Flight

Users can assess DJI Dock's task performance and media file transfer reliability.

Click Dock Aircraft Trial Flight and a trial flight task will be automatically created to test whether the dock can perform tasks.

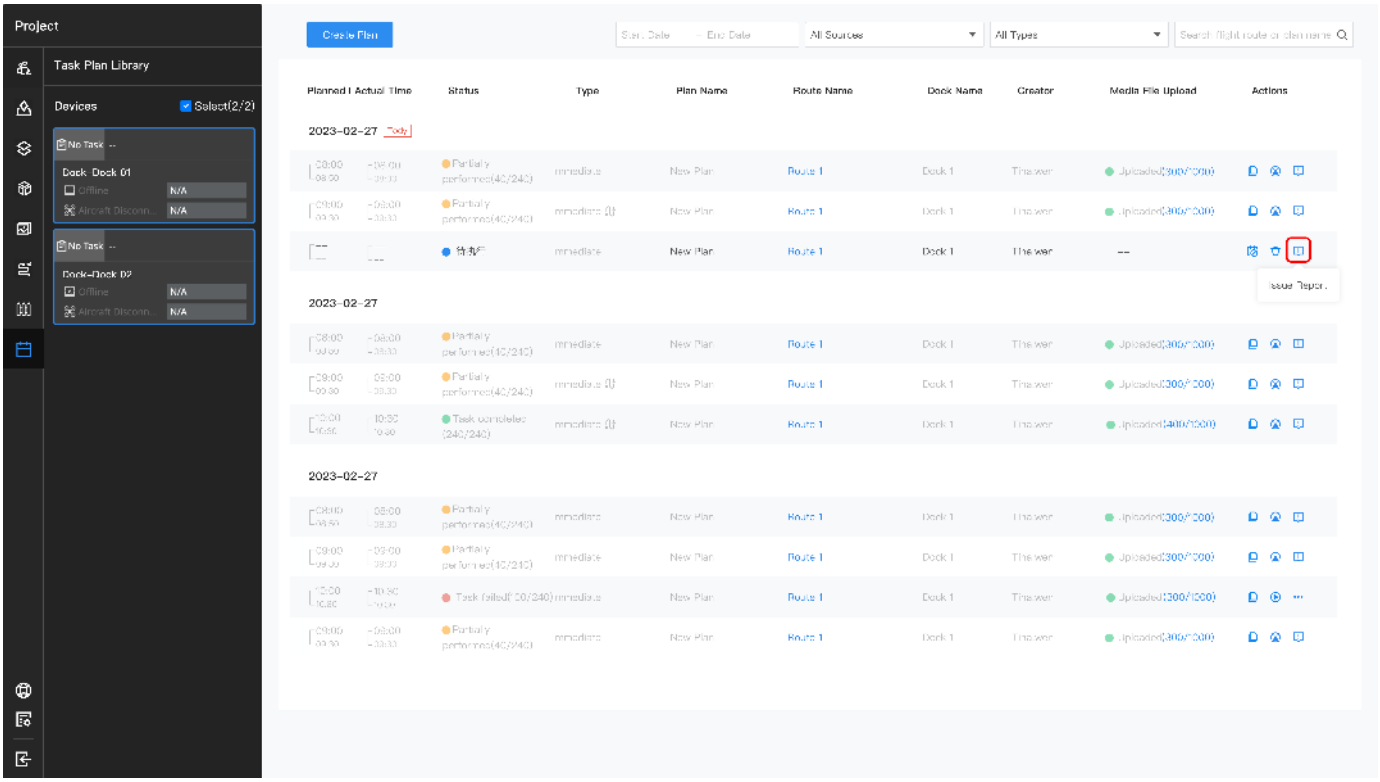
For DJI Dock and DJI Dock 2, the dock aircraft will ascend vertically to 60 meters, tilt the gimbal to -90°, take photos, and then return to home. For DJI Dock 3, if the entry/exit route has not been set for the dock, the dock aircraft will ascend vertically to 60 meters, tilt the gimbal to -90°, take photos, and then return to home. If the entry/exit route has been set for the current dock, the dock aircraft will perform the entry/exit route first, and then ascend vertically to a height of 5 m, tilt the gimbal to -90°, take photos, and then return to home.

The following conditions should be met before starting a trial flight:

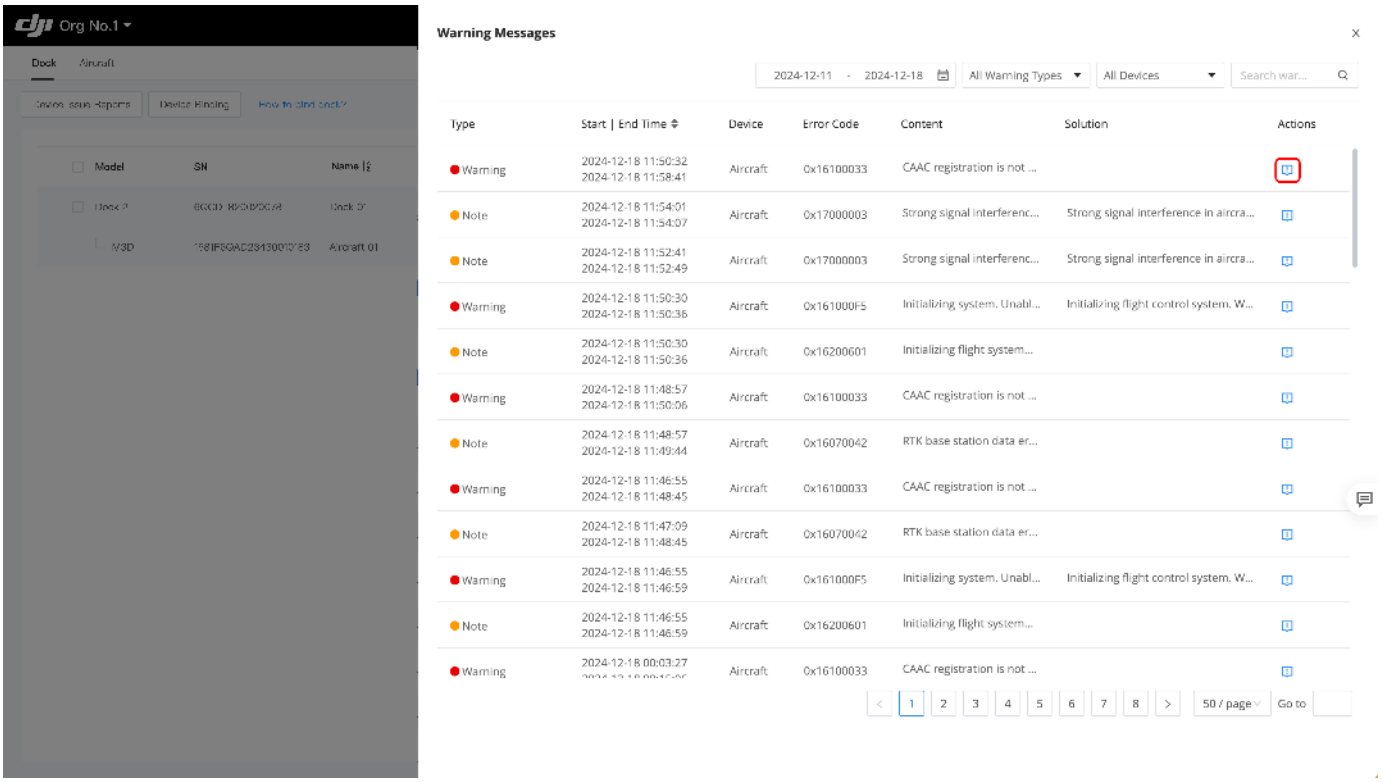
- The dock should be bound to a project.
- The operator should be a project administrator and have the device management permission.
- The dock is in an idle status.

Device Issue Report

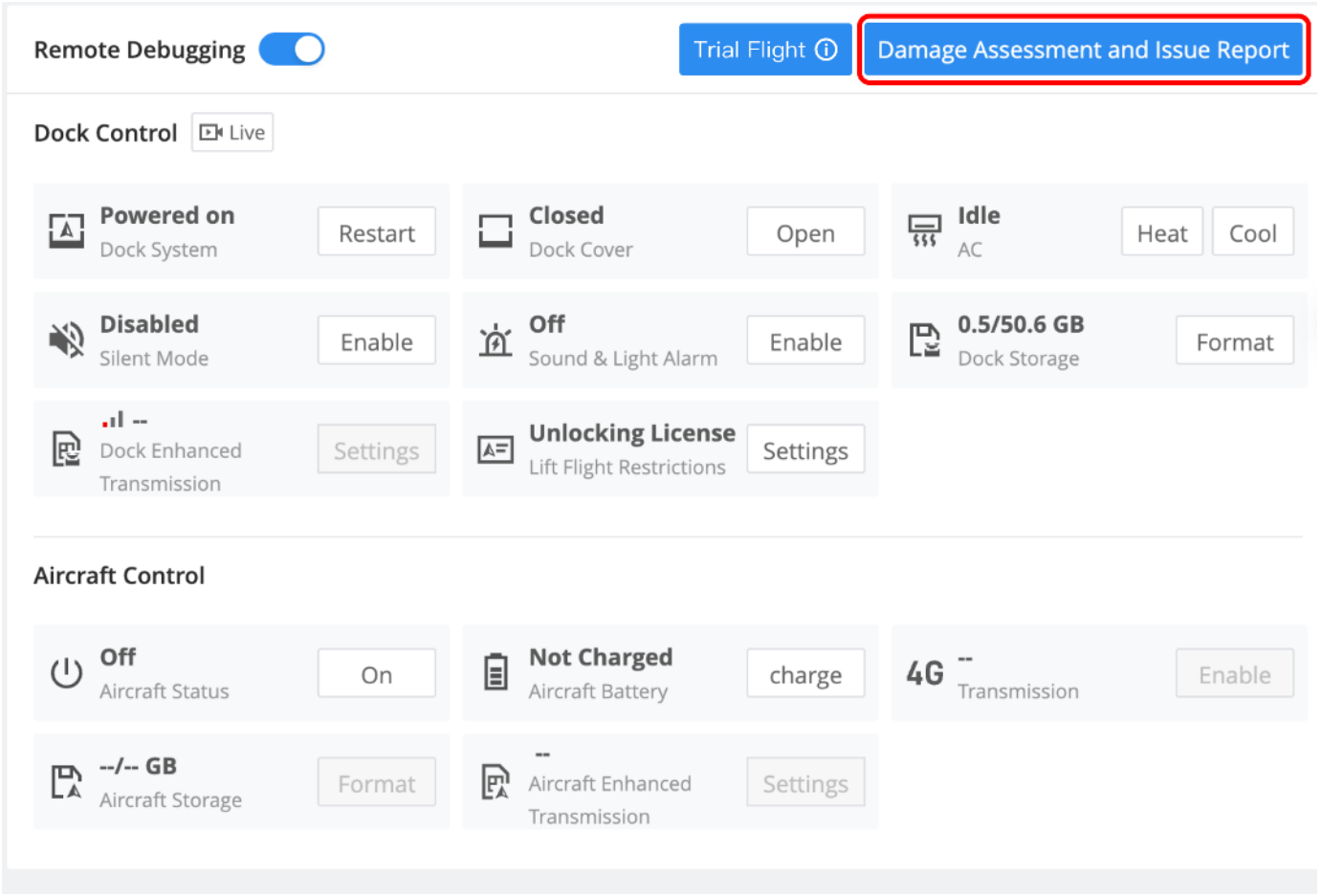
When a task fails, an issue report can be submitted directly in the task plan library and the error code and description will be automatically filled in.



If there is a device warning message, users can also directly click the message and submit an issue report. The error code and description will be automatically filled in.



If the issue cannot be reported using the above methods, administrators can click Damage Assessment and Issue Report > Create Report to submit the report.



Fill in detailed description, error code, and the time when the error occurs, and select the corresponding logs.

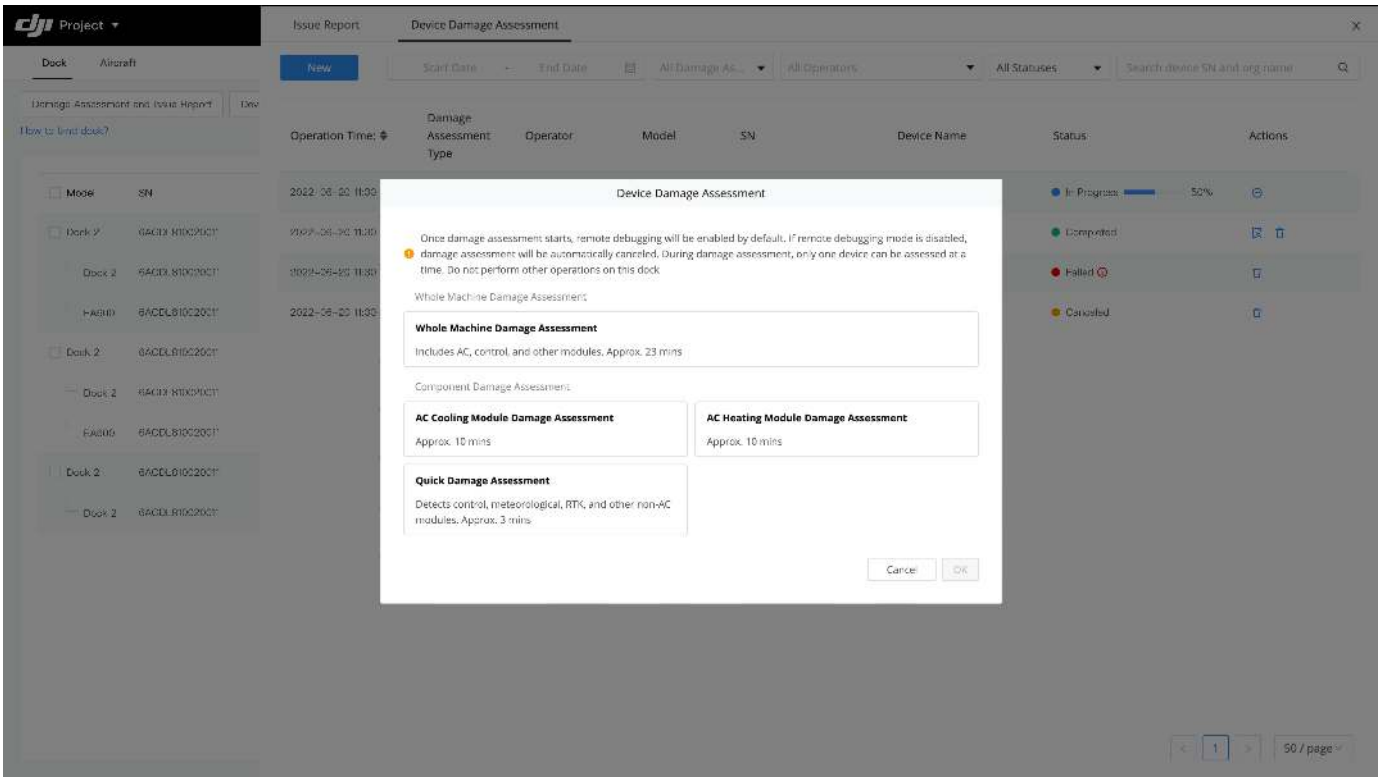
- When Synchronize Selection is enabled, after selecting the logs of the Dock/Ground Station, device logs recorded at overlapping time periods will be automatically selected.
- Administrators should submit the issue report in time to avoid the device logs being overwritten and failure to identify the problem.
- After entering the Device Issue Report page, the aircraft will automatically power on if the aircraft was powered off previously.
- Users can click ↻ to refresh logs if the logs are not loaded.

After submission, please wait for feedback from DJI Support.Subsequently, you can view the assessment results in Device Damage Assessment.

Note: Visit DJI Dock User Manual, DJI Dock 2 User Manual, and DJI Dock 3 User Manual to access more information about how to use docks., O4 Ground Station User Manual

Device Damage Assessment

If any errors occur to a Dock, Ground Station, or aircraft, administrator can click Device Maintenance > Damage Assessment and Issue Report > Device Damage Assessment > New and select the damage type to submit the assessment.



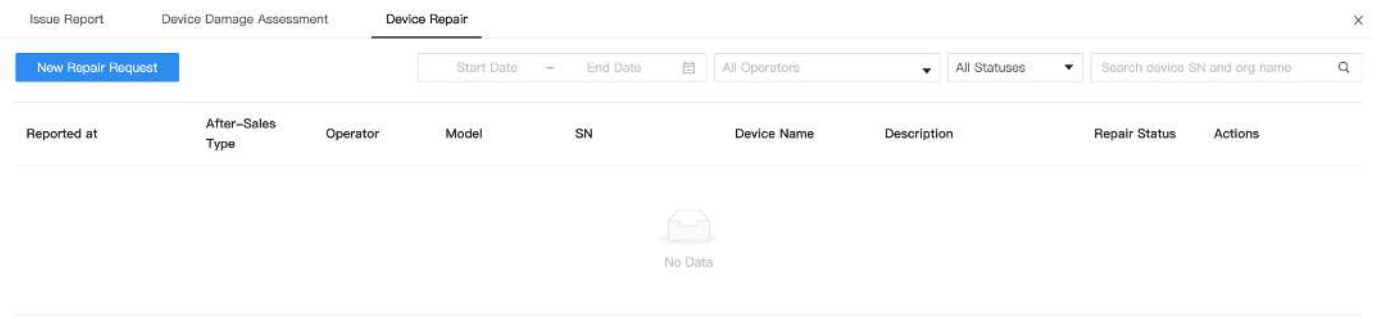
After the assessment is completed, contact the local dealer to maintain the device.

- Device damage assessment is only supported in Chinese mainland.

- After the assessment starts, remote debugging will be enabled by default. During the assessment, do not perform other operations on the dock. The assessment will be canceled after the remote debugging is disabled.
- Do not initiate multiple damage assessments for the same Dock/Ground Station at the same time.

Device Repair

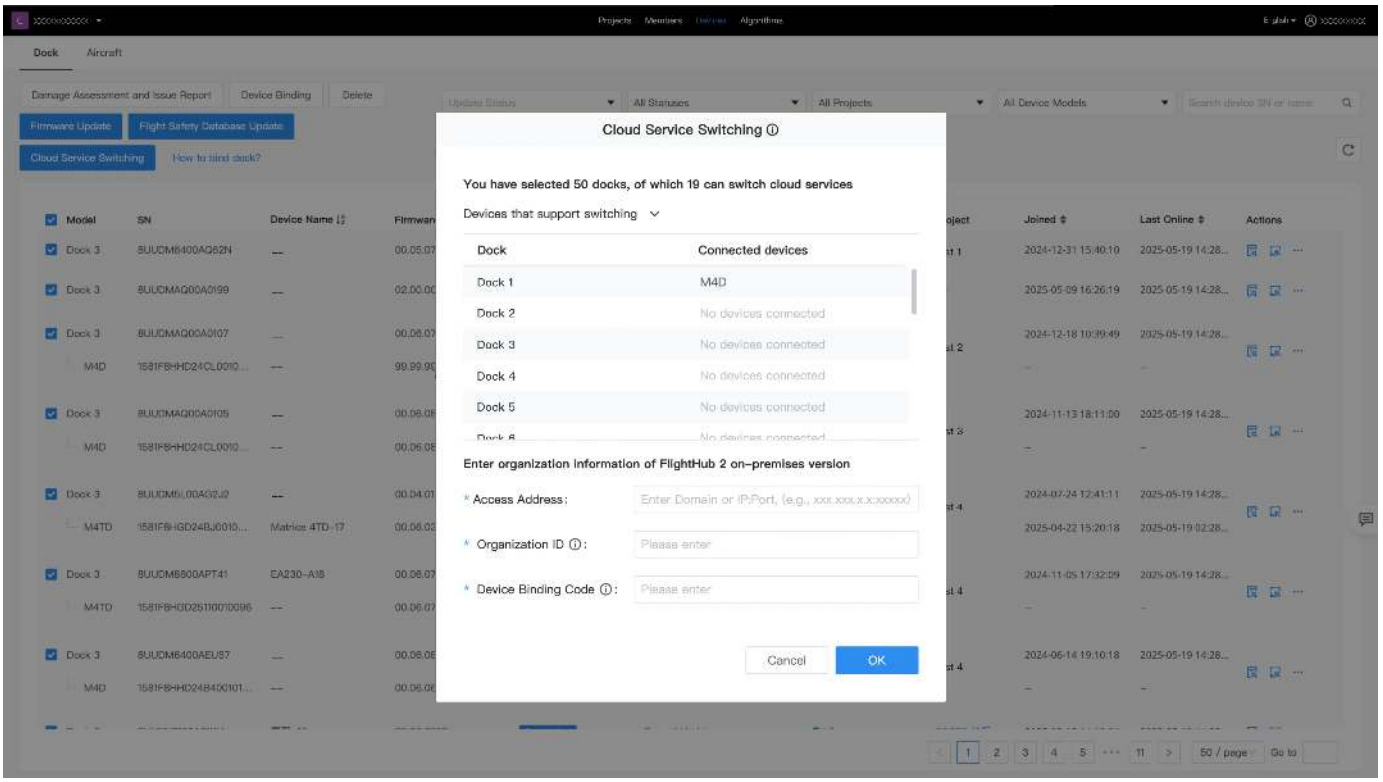
After completing the Device Issue Report or Damage Assessment, if the analysis results do not resolve the issue, click "Request Repair" to initiate a repair. After the request is submitted, a DJI dealer will visit the site for repairs.



Cloud Service Switching

Cloud service switching supports switching cloud services between FlightHub public and on-premises versions, and between different on-premises environments.

Super admin and organization admin can go to Devices > Dock/Ground Station > Actions > More > Cloud Service Switching to remotely switch Dock/Ground Station cloud services. You can select multiple Docks/Ground Stations to batch switch the cloud service of the devices.



Notes:

- Currently only supports "Dock 3" and "O4 Ground Station".
- Please make sure that the media files generated by the flight are fully uploaded before switching cloud services to avoid data loss.
- The device must be idle to initiate a cloud service switch. The process takes about 1 to 2 minutes. Do not perform other operations on the device.
- After switching the cloud service of the Dock/Ground Station, the following will migrate: aircraft and relay connected to the Dock/Ground Station, Dock/Ground Station data and devices (e.g., device damage assessment, alert information, algorithms on aircraft, flight safety database, real-name status, etc.).
- After switching the cloud service of the Dock/Ground Station, the following will not be migrated: Free quotas for device binding will not migrate.

1. Successful switch: The device will be offline in the current organization and available in the new organization after an automatic restart.

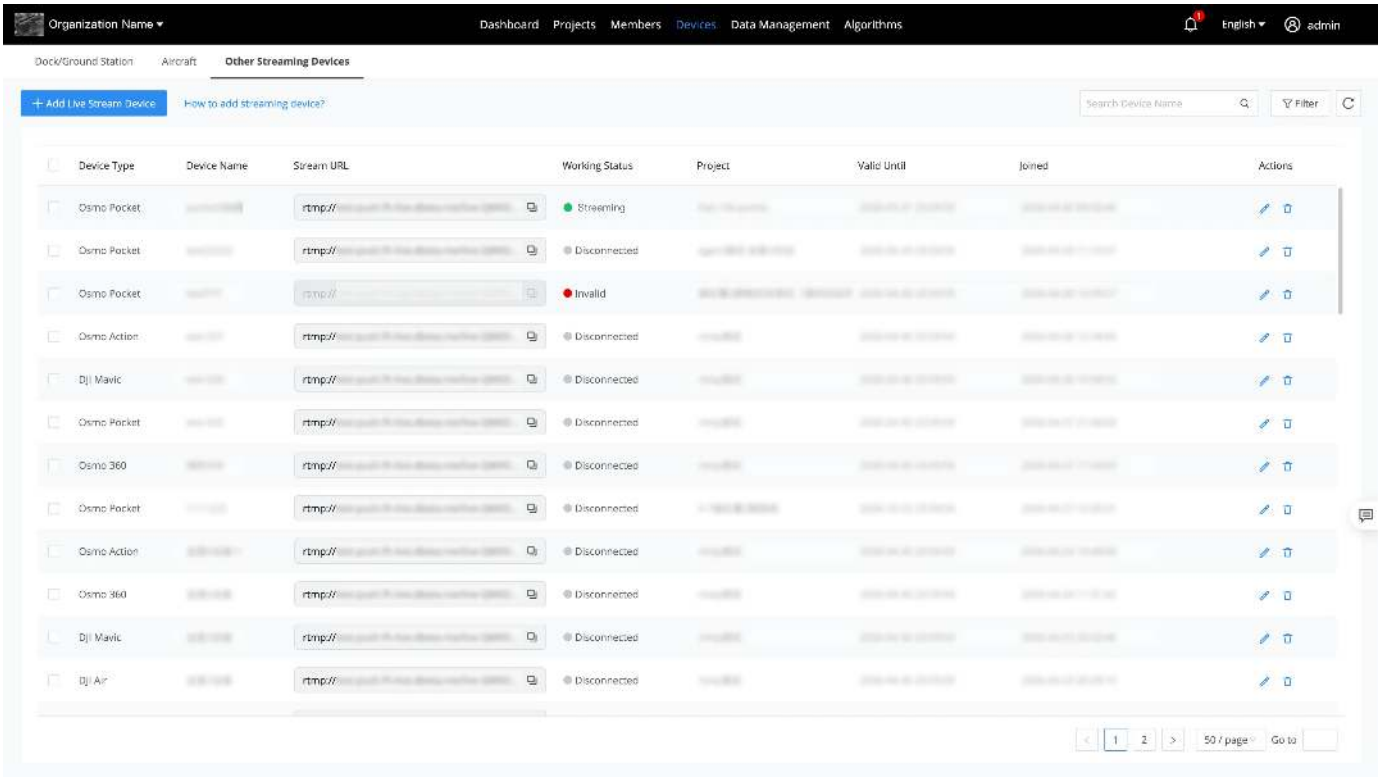
2. Switch failure:

Error Code	Reason	Solution
324071	Server error	Please try again later
324072	Server error	Please try again later
324073	Server error	Please try again later
324074	Server error	Please try again later

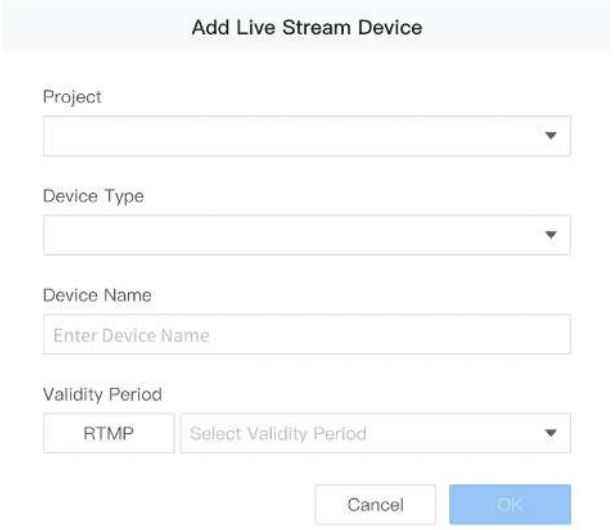
324075	Incorrect information or network not connected	Check information and network connection
324076	Server error	Please try again later
325001	Server error	Please try again later
325005	Device is busy.	Please try again later
325006	Device in task preparation status.	Please try again later
325007	Device is performing task.	Please try again later
325008	Device is processing task output.	Please try again later
325009	Device is exporting logs to cloud.	Please try again later
325010	Device is updating custom flight area.	Please try again later
325011	Device is updating offline map.	Please try again later
210229	Incorrect device binding code	Modify the code and try again
210230	Information error or server error	Check information and try again
210231	Server error	Please try again later
210232	Device bound to another organization	Remove device from current organization before switching
210233	Server error	Please try again later

Other Streaming Device Management

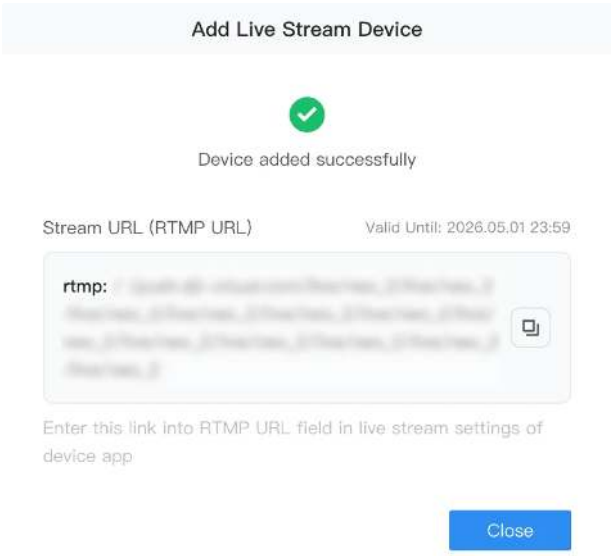
On the Other Streaming Device Management page, users can manage or add devices in the organization that access the platform via RTMP streaming.



Click Add Live Stream Device and configure the device type, device name, associated project, and validity period. Once set, the validity period cannot be changed. The maximum validity period for the stream URL is 180 days.



After the device is added, copy the generated stream URL to the device's streaming platform (e.g., DJI Fly App) to start streaming.



- RTMP stream access for DJI consumer drones and handheld devices is currently supported only on the public cloud.
- For more information, refer to the DJI Fly App Live Streaming Guide and DJI Mimo App Live Streaming Guide.

Notes on On-premises Version

Bind to an Organization

1. Bind docks to the organization through the DJI Pilot 2 app: On the cloud service configuration page, select FlightHub 2 On-premises Version, and fill in the organization ID, address, device binding code, dock name, and aircraft name.

2. Bind Dock/Ground Station to the organization through the DJI Enterprise app: On the cloud service configuration page, select FlightHub 2 On-premises Version, and fill in the organization ID, address, device binding code, Ground Station name, dock name, and aircraft name.

Firmware Manager and Update

On the Other Streaming Device Management page, users can manage or add devices in the organization that access the platform via RTMP streaming.

Go to Firmware Manager > Upload Firmware to upload the firmware installation package for the device. After uploading, click to activate the firmware installation package within the organization. Select a device for firmware update from the list in Devices > Dock.

Notes:

1. Only one firmware installation package can be stored on a device. The latest firmware will replace the previous version.
2. Obtain the corresponding device firmware package from the DJI official website under the respective product page.

View Dock/Ground Station and Aircraft Information

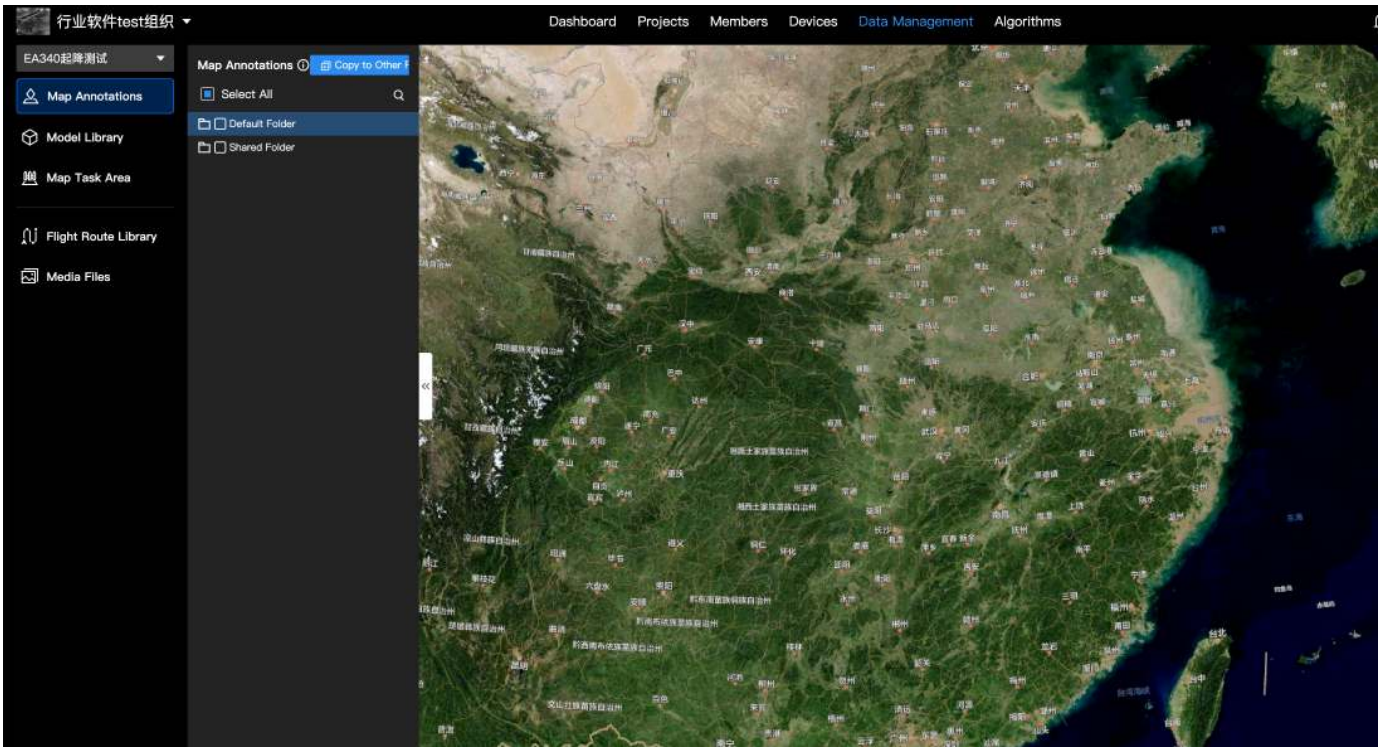
DJI Maintenance Program and DJI Care rely on DJI official online services. Therefore, DJI FlightHub 2 on-premises version does not support viewing Maintenance Program and DJI Care Enterprise information for Docks, Ground Stations, and aircraft.

Device Damage Assessment

Device damage assessment function relies on DJI official online services. Therefore, DJI FlightHub 2 on-premises version does not support device damage assessment.

Data Management

Organization administrators and super administrators can use this feature to manage data for various projects within the organization, including annotations, models, and flight routes. You can view data from a specific project or copy it to others.



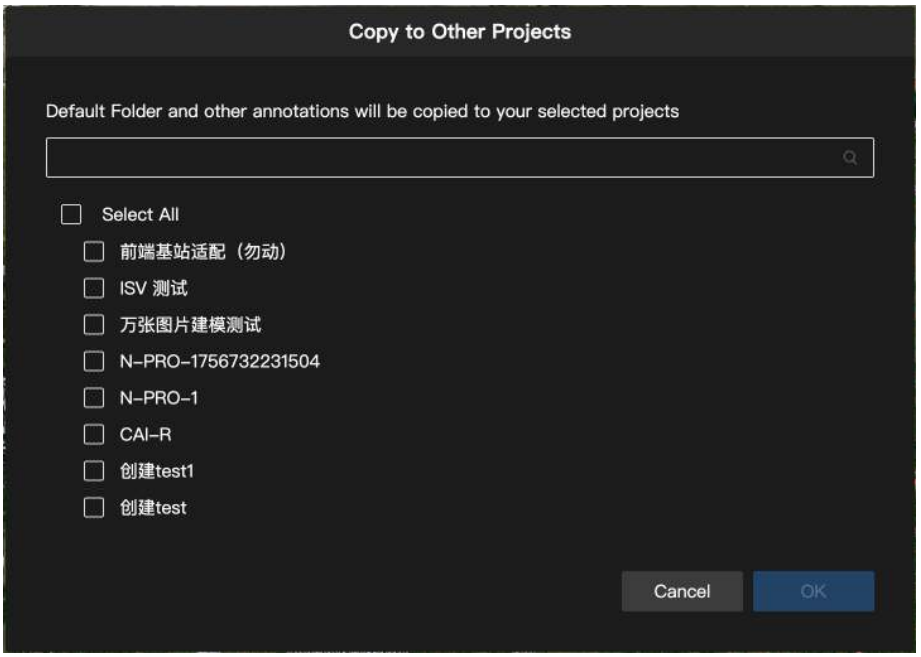
Filtering by Project

Use the Project Selector to filter the data you want to view or manage.

You can select any unarchived project or use the search bar to find a project by name.

Copying Data Between Projects

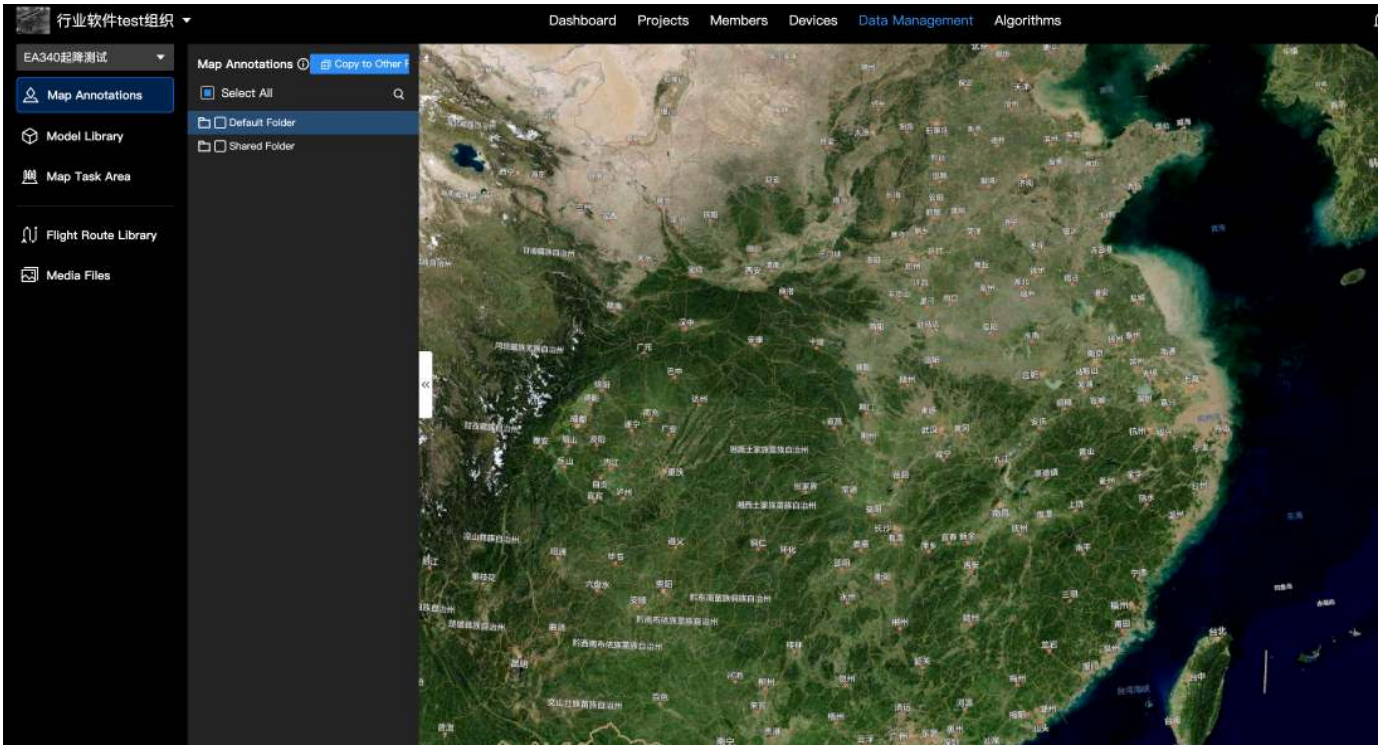
In any data module, select the items you need, then click Copy to Project and choose one or more target projects. After copying, the data is automatically placed in a dedicated folder within the target project's corresponding module. Map task areas will be automatically renamed with an `-org` suffix.



Annotation Management

Viewing Annotations

- Select a project to display all of its annotations (points, lines, and areas) in the annotation tab.
- Hiding annotations here will not affect their visibility in the original project.



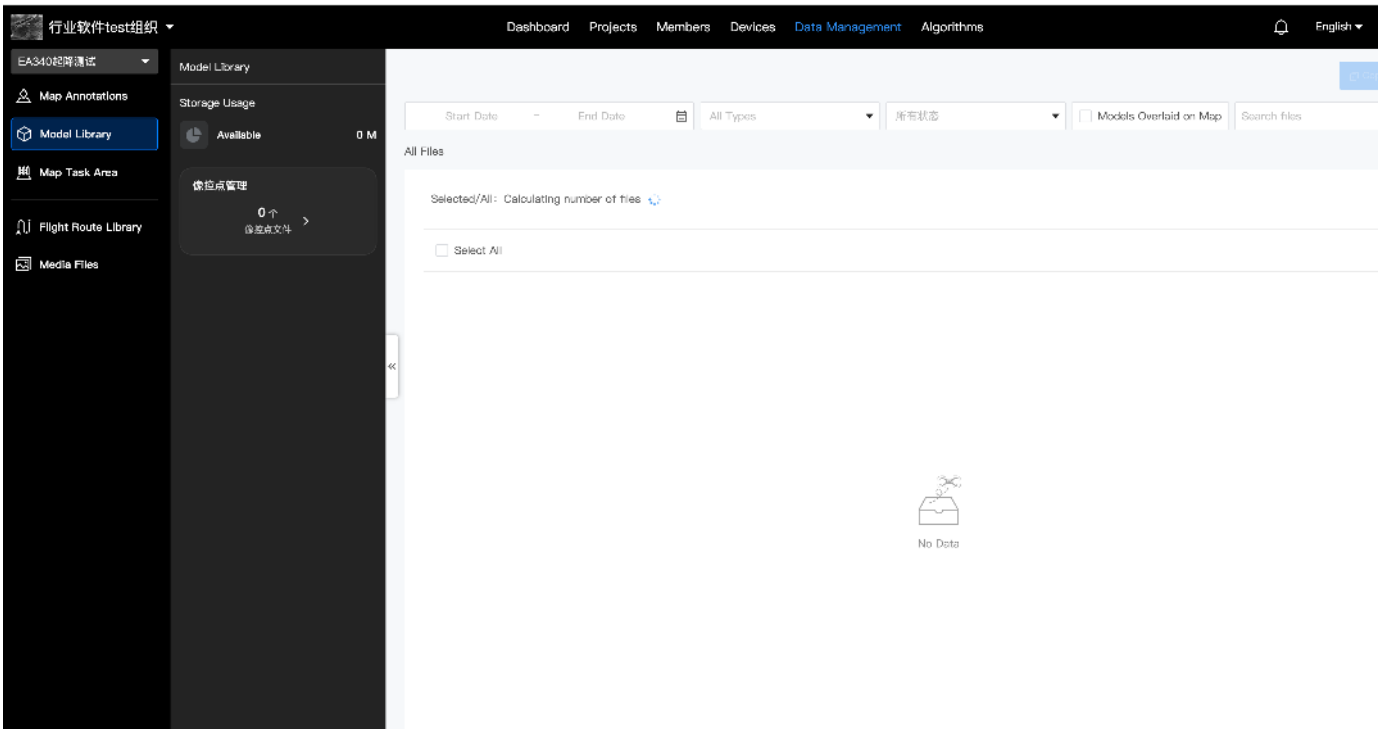
Limitations

- **Editing**: You can only click an annotation to locate it on the map. To edit it, you must navigate to the original project.
- **Management**: You cannot add, rename, move, copy, or delete annotations.
- **Search**: You can search for annotations by name.
- **Add**: Currently you cannot add new annotations.

Model Management

Viewing Models

Click on a model file to open a preview window directly on the page.



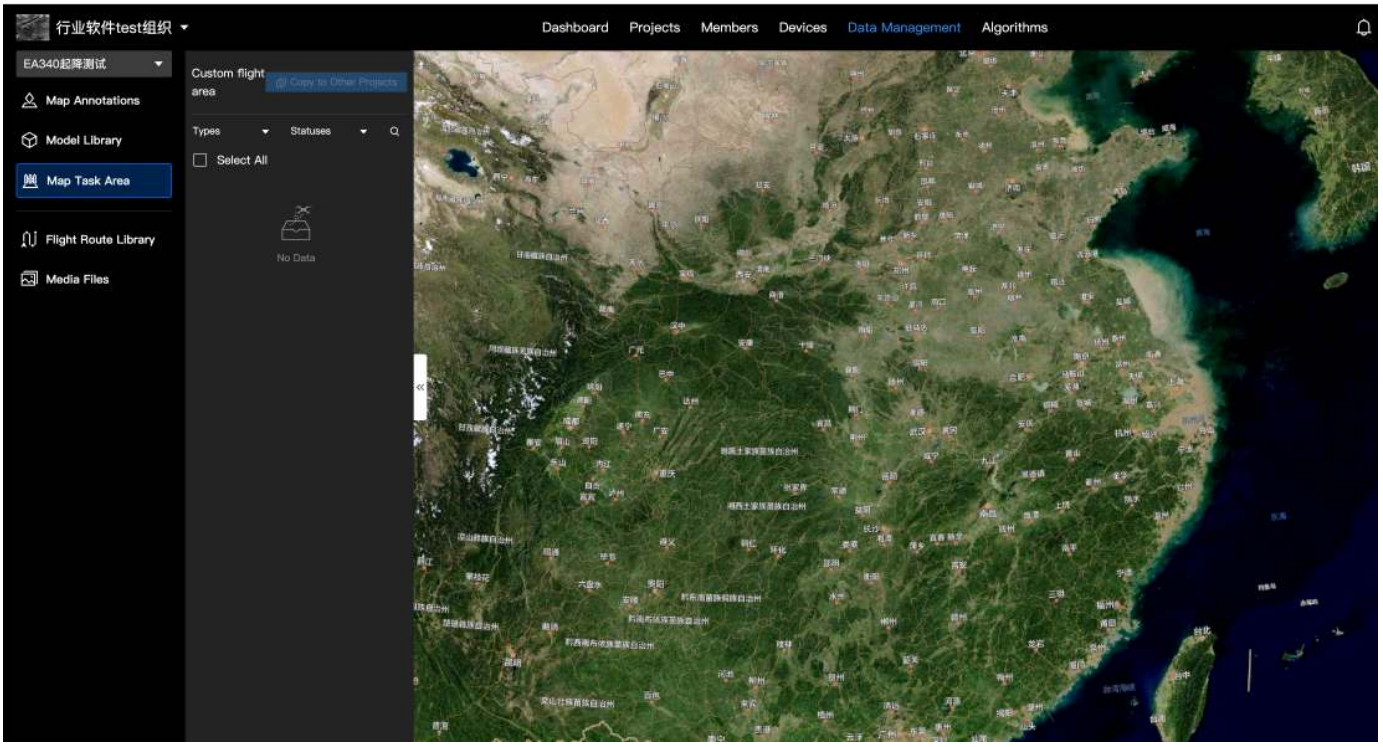
Limitations

- **Copying**: If a model with the same name already exists in the target project, the new file will be automatically renamed to prevent overwriting.

Flight Route Management

Viewing Flight Routes

Select a flight route to see its path on the map. You can also download the flight route file from here.



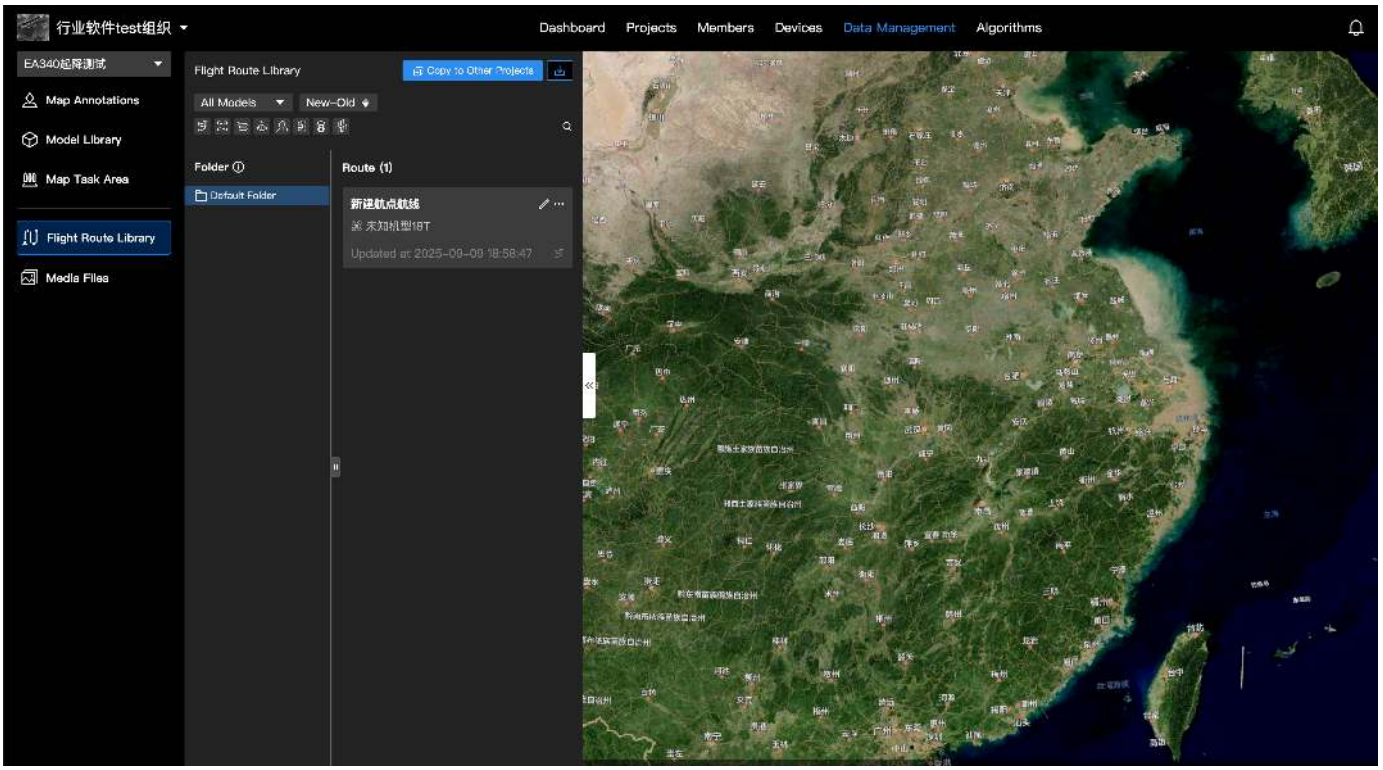
Limitations

- Editing: Clicking Edit will redirect you to the flight route editor within the original project.
- **Management**: You cannot delete, merge, or move flight routes.

Map Task Area

Viewing Map Task Area

Select a map task area to view its boundaries on the map. Hiding map task areas will not affect their visibility in the original project.



Limitations

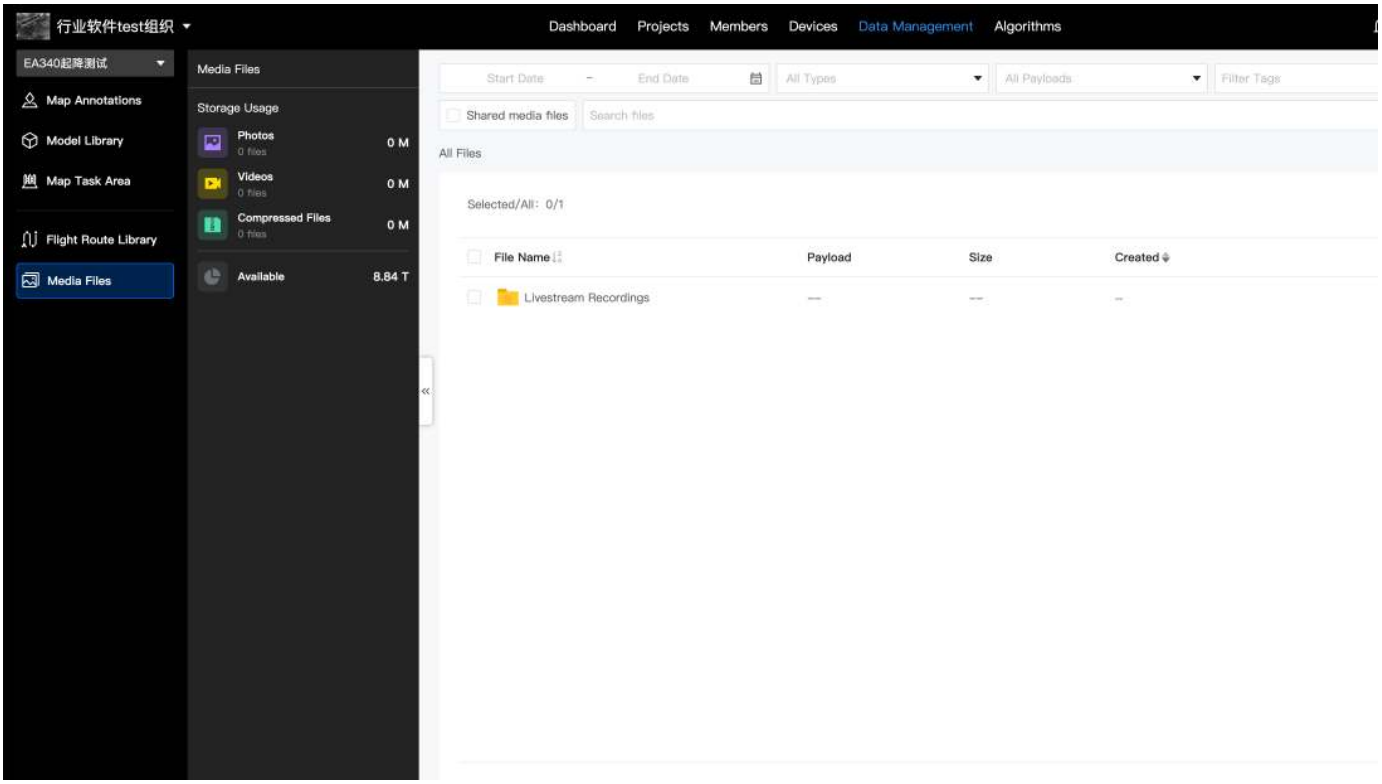
- **Editing**: You cannot rename, enable, or disable map task areas.

Media File Management

Viewing Media Files

Click on a media file to open it in the media browser.

- You can switch between full-screen and half-screen views.
- **Limitations**: Advanced features like adding photo markups, tagging, renaming, or loading media files on the map are not available here.
- **Download**: Supports downloading original files.



> **Note**: Copying media files is not supported in the current version. This feature is planned for a future release.

Algorithm Management

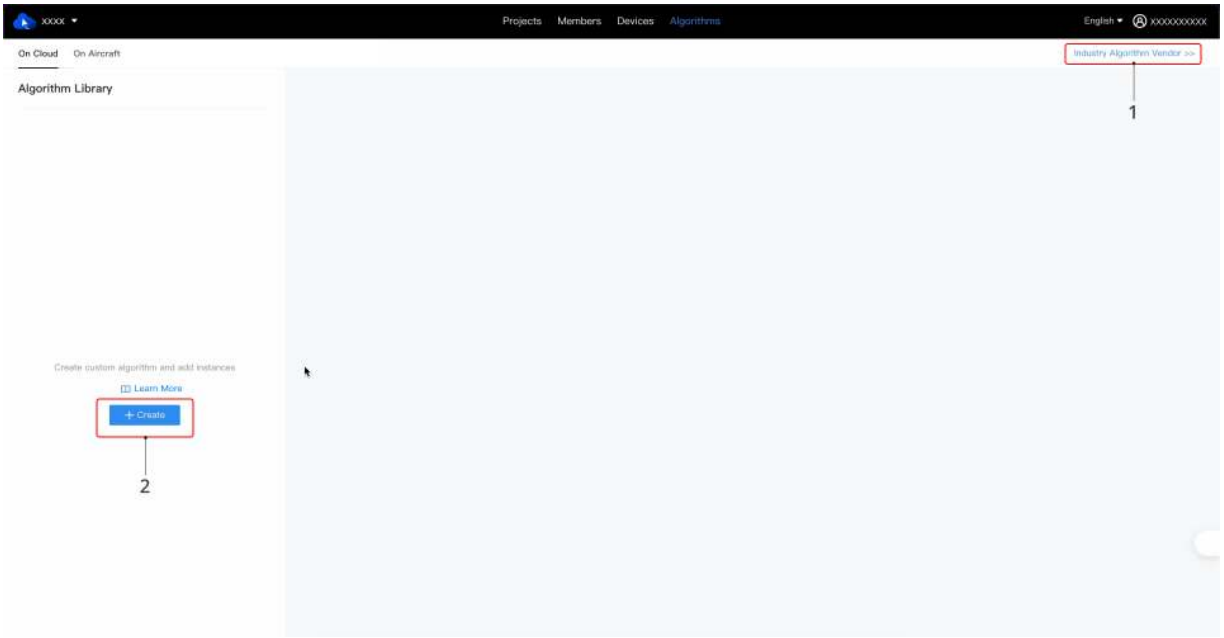
Custom Algorithm

Users can configure cloud intelligent algorithms on the Algorithms page, and call deployed algorithm instances in the virtual cockpit in real time.

Create Custom Algorithm

If the algorithm management feature is used for the first time, no algorithm is displayed after entering the Algorithms page. Users can create an algorithm through the following steps:

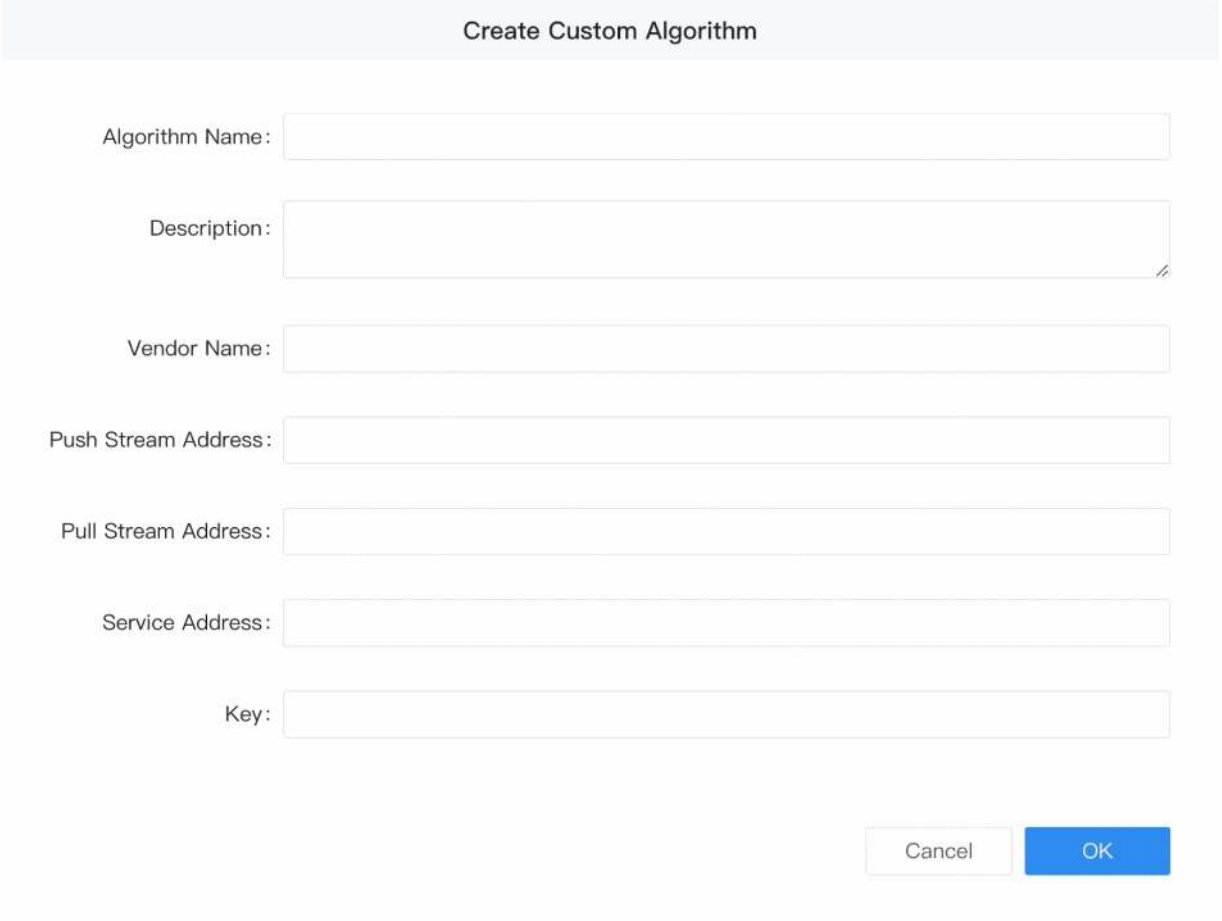
1. View the algorithms provided by vendors: Click Industry Algorithm Vendor and navigate to the DJI Developer website, and view the algorithms provided by vendors. Contact a vendor to obtain the configuration parameters of the desired algorithm, such as the addresses for stream pushing and pulling.



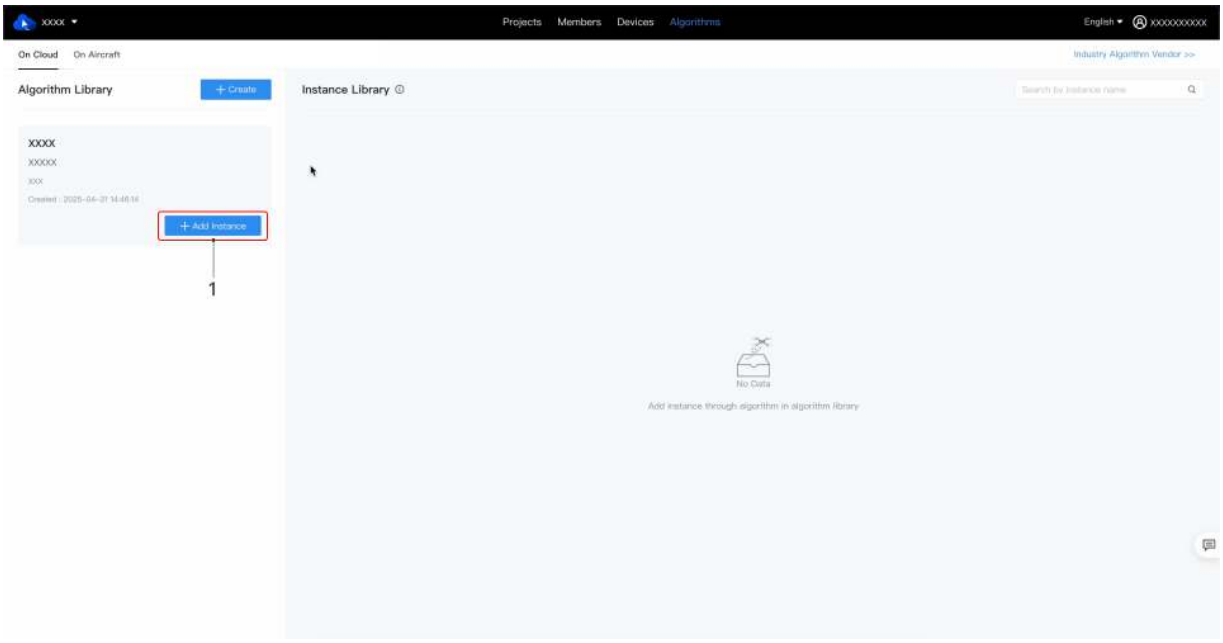
2. After obtaining the configuration information about the desired algorithm, click Create Custom Algorithm and fill in the following required fields:

- Algorithm Name: The name of the intelligent algorithm, which can be up to 128 characters in length.
- Description: The description and application scenarios of the algorithm, which can be up to 512 characters in length.
- Vendor Name: The name of the source vendor, which can be up to 128 characters in length.
- Push Stream Address: Formatted as rtmp://x.x
- Pull Stream Address: Formatted as https://x.x/x/x

- Service Address: Formatted as https://x.x
- Key: The key can be 32 to 64 characters in length, which supports only English letters, numbers, underscores, and hyphens.



After the algorithm is created, a corresponding card appears in the algorithm library, displaying the algorithm name, vendor, description, and creation time. The created algorithm can be edited or deleted.



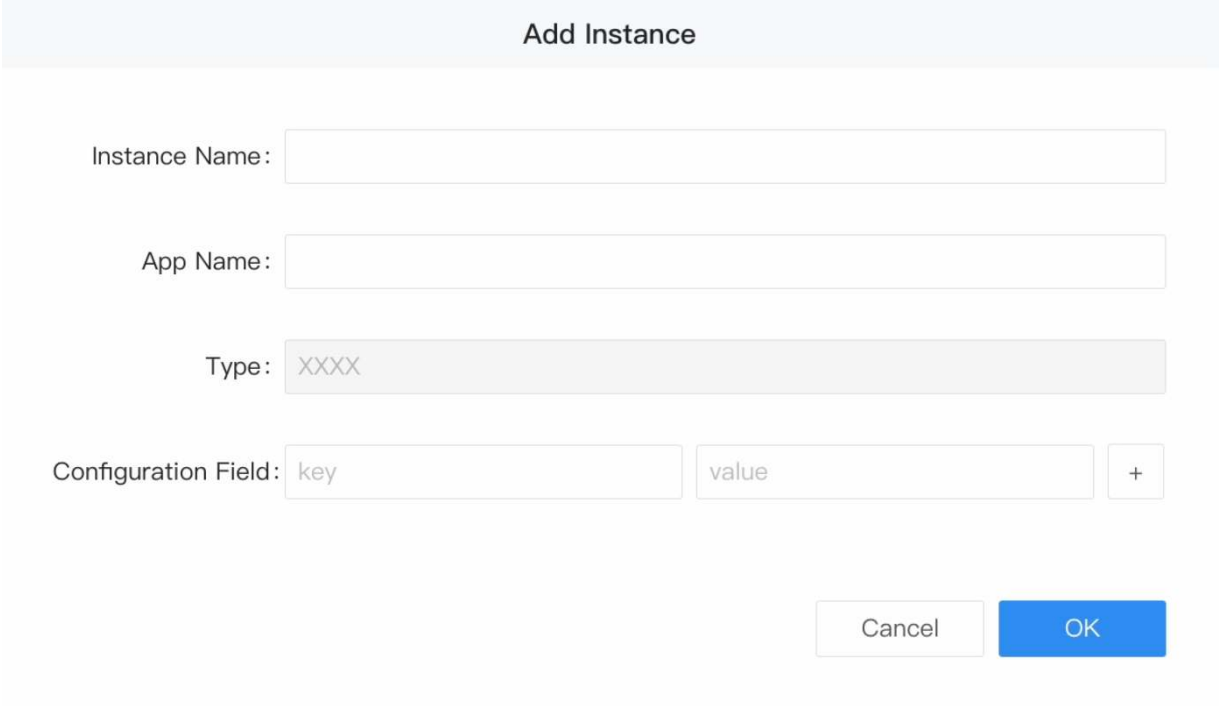
Create Algorithm Instance

Algorithm instances are used to configure scene-specific parameters, such as algorithm confidence level, counting threshold, and recognition type. Users need to create instances before they can call instances in the virtual cockpit.

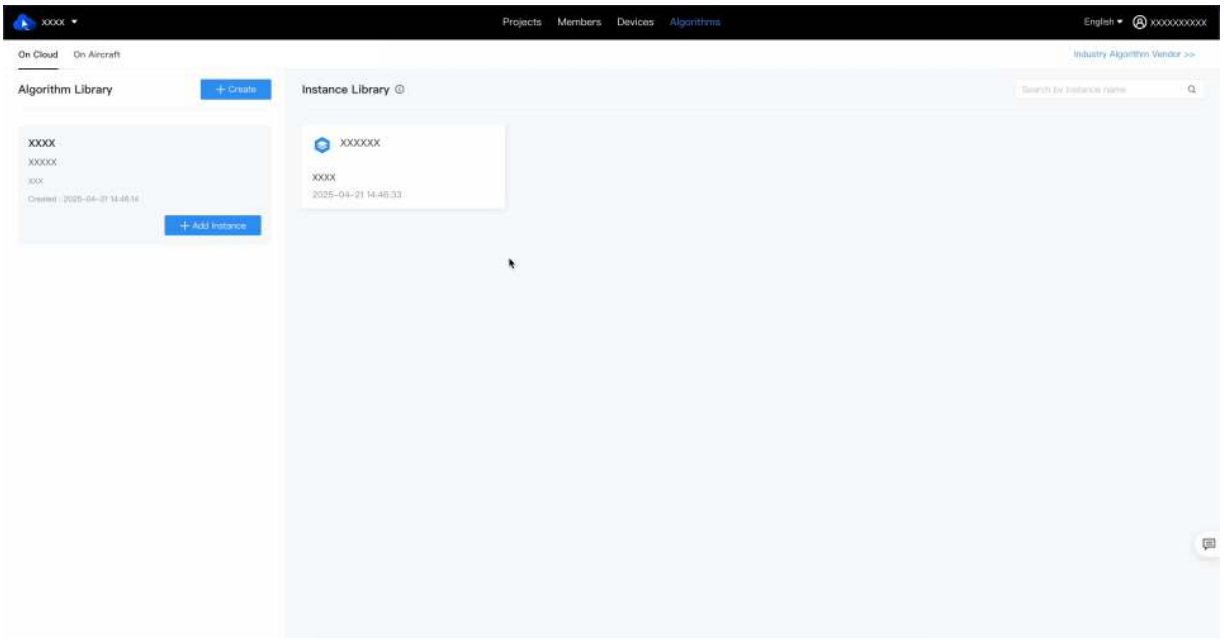
Procedure

1. Create an instance: After obtaining the configuration information about the corresponding algorithm instance, click Add Instance and fill in the following information:

- Instance Name: The custom name of the instance, which can be up to 128 characters in length.
- App Name: The unique identifier of the app, which can be up to 50 characters in length. Example: power_inspection_v1.
- Configuration Field: Optional. Customize the configuration as needed. The key must start with a letter and can only include letters, numbers, and underscores.



2. Manage the instance: After the instance is created, a corresponding card appears in the instance library, showing the name, algorithm, and creation time of the instance. The created instance can be edited or deleted. Successfully created instances are available to users in the virtual cockpit. Users can call an instance from the cloud intelligent algorithm instance list in real time.



Management of Algorithms on Aircraft

After successfully uploading a third-party infrared intelligent algorithm on the developer website and distributing it to the aircraft, the corresponding algorithm will appear with the Infrared label on the Algorithms > Algorithms on Aircraft page in FlightHub 2. Once the algorithm is loaded, you can call the algorithm for the respective aircraft device within the virtual cockpit.



It supports loading third-party algorithms, distributed via the DJI Developer platform, onto aircraft connected to the dock. Successfully loaded algorithms can be used in the virtual cockpit.

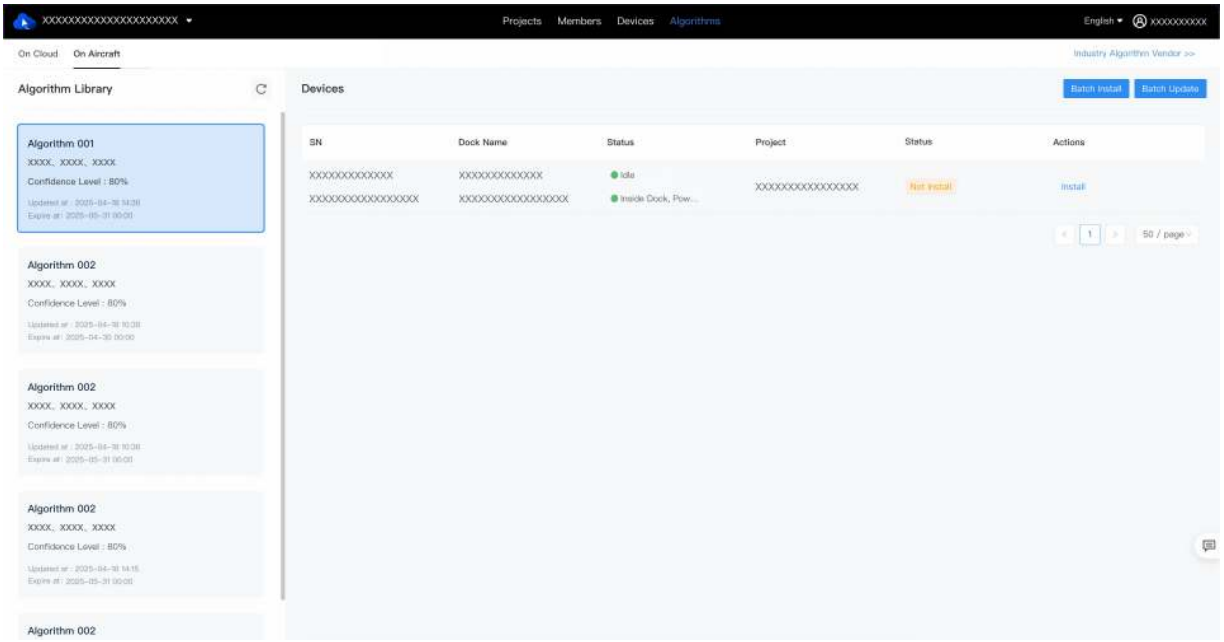
1. View algorithm vendors: Click "Industry Algorithm Vendor>>" to jump to DJI Developer platform. Browse intelligent algorithm cases and contact the corresponding vendor to distribute algorithms to your aircraft.

2. Supports managing algorithms on aircraft that are distributed through the DJI Developer platform. You can view the latest information about algorithms on aircraft, load or update algorithms, and unload algorithms as needed.

Notes:

- Only super admins and organization admins can view and operate.
- Supported aircraft are Matrice 4D series and aircraft connected to the dock within the organization.

- When the device status is idle, you can load, update, or unload algorithms on aircraft. After starting any of these operations, do not perform other operations on the dock.



Notes on On-premises Version

Management of Algorithms on Aircraft

First, download the ZIP file of algorithms from the DJI Developer website, then import it into DJI FlightHub 2 on-premises version. Through the algorithm management feature, you can load or update algorithms onto the aircraft, as well as uninstall them when needed.

Notes:

- Only super administrators and organization administrators are allowed to view and operate.
- Supported aircraft are Matrice 4D series and aircraft connected to the dock within the organization.
- When the device status is idle, you can load, update, or unload algorithms on aircraft. After starting any of these operations, do not perform other operations on the dock.

Airspace Management

Feature Description

After enabling real-time airspace data reporting, you can obtain a Webhook URL and an encryption token from your service provider. After entering and saving them, the FlightHub API can push real-time aircraft data to third parties. The following is the integration guide for third-party service providers.

Integration Guide

Data Reporting Protocol

1. Request Header

Field Name	Field Code	Data Type	Description	Required
Data Source	`source`	Integer	`1` : Reported directly by aircraft `2` : Reported by manufacturer's system `3` : Reported by add-on module `4` : Reported by collection device	Yes
Reporting Platform	`platform`	String	Platform name (e.g., `DJI Fly`)	Yes
Program Version	`programVersion`	String	Version number (e.g., `version 1.0`)	Yes
Signature	`signature`	String	The generated request signature	Yes
Request timestamp	`timestamp`	String	Request Unix timestamp (in seconds)	Yes
Nonce	`nonce`	String	A randomly generated string	Yes

Signature Generation Process

Input Parameters

- `token` : Application key (provided by the integrated service provider and configured by the user in FlightHub 2). Must be 32-64 characters long and consist of a combination of at least three of

the following types: letters, numbers, and special symbols.

- `timestamp`: Request timestamp (from the `timestamp` request header)
- `nonce`: Random string (from the `nonce` request header)
- `body`: Raw byte data of the request body (e.g., the JSON-serialized `RequestBody`)

Signature Rules

1. Concatenate `timestamp`, `nonce`, and `body` into a single string in that order (without separators).
2. Use the **HMAC-SHA256** algorithm with the `token` as the key to encrypt the concatenated string.
3. Convert the encrypted result to a **lowercase hexadecimal string**.

Go Code Implementation

```go
import (
    "crypto/hmac"
    "crypto/sha256"
    "crypto/subtle"
    "encoding/hex"
)

func GenerateHMACSignature(appKey, timestamp, nonce string, body []byte) string
    mac := hmac.New(sha256.New, []byte(appKey))
    mac.Write([]byte(timestamp))
    mac.Write([]byte(nonce))
    mac.Write(body)
    return hex.EncodeToString(mac.Sum(nil))
}
```

Signature Verification Process

Verification Logic

1. The server retrieves the following from the request header:
   - `signature`: The signature generated by the client
   - `timestamp`: The request timestamp
   - `nonce`: The random string
2. The server regenerates a signature using the same parameters and the secret key `appKey`.
3. Use a **constant-time comparison** to verify if the client's signature matches the one generated by the server.

Go Code Implementation

```go
func VerifyHMACSignature(appKey, timestamp, nonce string, body []byte, signature
    expected := GenerateHMACSignature(appKey, timestamp, nonce, body)
    return subtle.ConstantTimeCompare([]byte(expected), []byte(signature)) == 1
}
```

2. Request Body

JSON format

```json
{
  "app_id":"default",
   "flight_hub_organization_id":"xxxx",
  "paths": [
    { /* FlightPath object */ },
    { /* FlightPath object */ }
  ]
}
```

Field Descriptions

Field	Type	Required	Description
`app_id`	`string`	Yes	Unique application identifier. Currently defaults to default.
`flight_hub_organization_id`	`string`	Yes	User's FlightHub organization ID
`paths`	`FlightPath[]`	Yes	Array of flight path data (see object structure below)

FlightPathRecord Structure Description

This structure is used to describe flight path point data. The following are detailed field descriptions:

No.	Field Name	Field Code	Data Type	Description	Requir
1	Flight Record ID	`order_id`	String	Format: `Manufacturer Serial Number (sn)-8-digit takeoff date (YYYYMMDD)-8-digit random code` . Example: `1581F5FHD25G100C1SDN-`	Yes

No.	Field Name	Field Code	Data Type	Description	Requir
				`20240320-owvGyLqe`. The same ID is used throughout the entire flight.	
2	Aircraft Serial Number	`sn`	String	Manufacturer's aircraft production SN	Yes
3	Flight Status	`flight_status`	String	`TakeOff`: takeoff point, `Inflight`: In flight, `Land`: Landing point	Yes
4	Unified Social Credit Code	`manufacturer_id`	String	The manufacturer's Unified Social Credit Code.	Yes
5	CAAC Real-name Registration Number	`uas_id`	String	If there is no registration number, use the default value `UAS-DEFAULT`.	Yes
6	Current Timestamp	`time_stamp`	String	UTC+8 time, format: `yyyyMMddHHmmss`. Example: `20240124095001`	Yes
7	Product Model	`uas_model`	String	A combination of letters, numbers, and/or symbols.	Yes
8	Coordinate System Type	`coordinate`	Integer	`1`: WGS-84 `2`: CGCS2000 `3`: GLONASS-PZ90	Yes
9	Longitude	`longitude`	Long	Unit: degrees (°). Actual value = field value / 10^7.	Yes
10	Latitude	`latitude`	Long	Unit: degrees (°). Actual value = field value / 10^7.	Yes
11	True Height Type	`height_type`	Integer	`1`: Altitude relative to takeoff point (ALT) `2`: Altitude relative to current position (AGL)	Yes
12	True Height	`height`	Integer	Unit: meters (m). Actual value = field value / 10.	Yes
13	Altitude	`altitude`	Integer	Unit: meters (m). Actual value = field value / 10.	Yes
14	Vertical Speed	`vs`	Integer	Unit: m/s. Actual value = field value / 10.	Yes

No.	Field Name	Field Code	Data Type	Description	Requir
15	Horizontal Flight Speed	`gs`	Integer	Unit: m/s. Actual value = field value / 10.	Yes
16	Course	`course`	Integer	Angle clockwise from True North (0°-360°). Actual value = field value / 10. Fill with `-999` when no data is available.	Yes
17	RID Broadcast Status	`remote_id_status`	Integer	`0` : Disabled `1` : Enabled	Yes

Body Example:

```json
{
    "app_id": "default",
    "flight_hub_organization_id": "105ddf05-54ce-4626-a872-cb32b8c98864",
    "paths": [{
        "order_id": "1529F6QAD23CB00A42DP-20251028-89W2aK2W",
        "sn": "1529F6QAD23CB00A42DP",
        "flight_status": "Land",
        "manufacturer_id": "925413007954257495",
        "uas_id": "UAS-DEFAULT",
        "time_stamp": "20251028115000",
        "uas_model": "M3D",
        "coordinate": 1,
        "longitude": 1243579943,
        "latitude": 217931488,
        "height_type": 1,
        "height": 0,
        "altitude": 187,
        "vs": 0,
        "gs": 0,
        "course": 1229,
        "remote_id_status": 1
    }]
}

```

3. Response Body

Field Name	Field Code	Data Type	Description
Status Code	`code`	String	`0` = Success, `400` = Failure
Result Description	`result`	String	Detailed description (e.g., `success`)

Response Example:

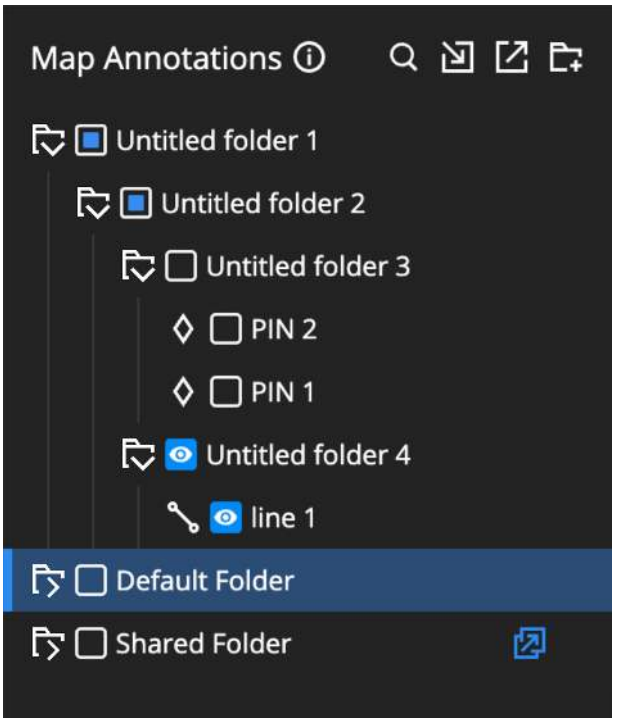
```json
{
  "code": "0",
  "result": "success"
}
```

Map Annotations

Project members can click to enter the Annotation page and add annotations such as points, lines, areas, and circles on the map. The project administrator can click to distribute annotation folders to DJI Pilot 2 and click to lock folders. Once the folder is locked, project members can no longer edit the annotations in the folder.



Click to import KML/KMZ files and click to select and export annotation folders to KML files.



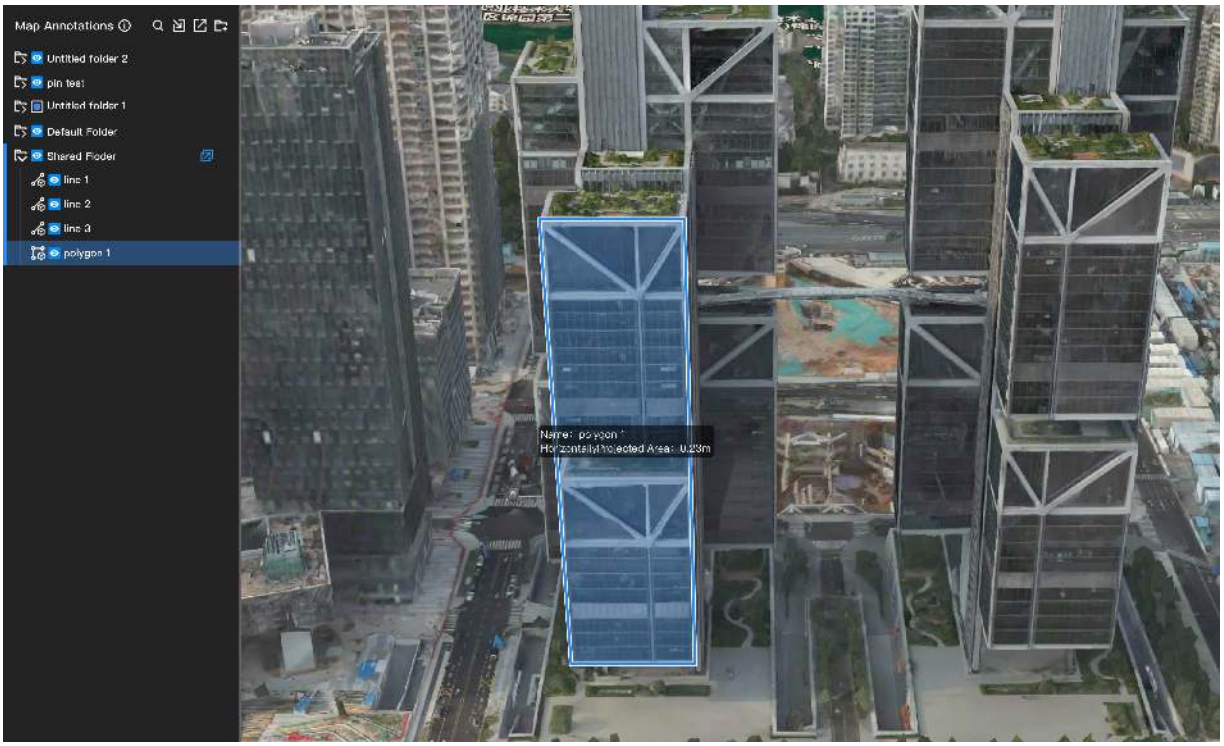
DJI Pilot 2 users can also create points, lines, areas, and circles after entering the map view. Annotations will be remotely uploaded to DJI FlightHub 2 and stored in Shared Folder. Annotations in Shared Folder are distributed by default and cannot be disabled.



DJI Pilot 2 can record the observed views of the camera, and the views will be synced to the Observed View Annotations folder on the cloud. Selected observation views can be converted into area annotations. The feature is currently only supported by the Matrice 4 enterprise series aircraft.

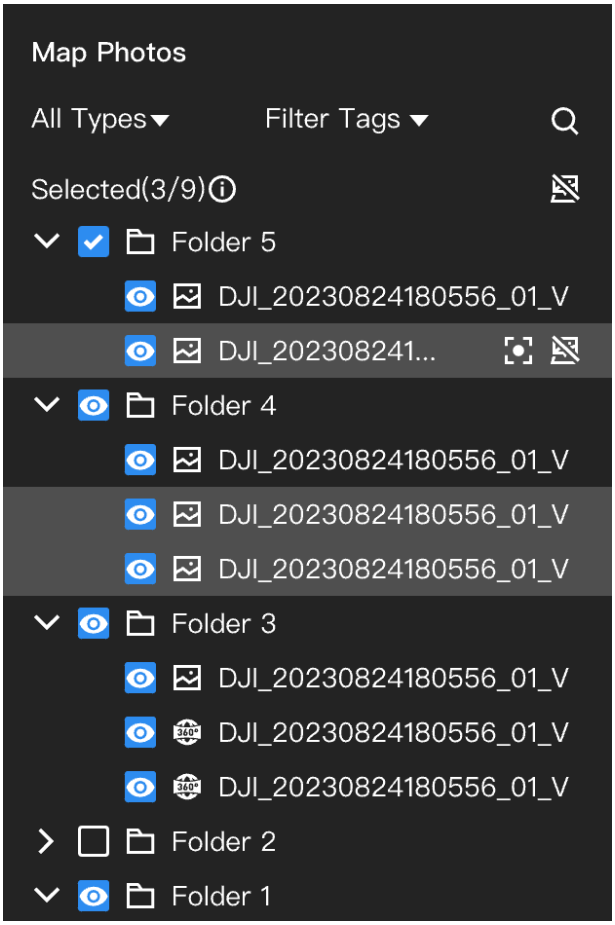


Spatial points, lines, and areas can be created using laser technology in DJI Pilot 2, and the annotations will be synced to the Shared Folder on the cloud. Selected spatial points, lines, and areas can be projected onto the ground and automatically generated as new annotations. The feature is currently only supported by the Matrice 4 enterprise series aircraft.


Map Annotations
Untitled folder 2
pin test
Untitled folder 1
Default Folder
Shared Folder
line 1
line 2
line 3
polygon 1
Name: polygon 1
Horizontally Projected Area: 0.93m

Map Photos

Project members can click to enter Map Photos to manage all the photos that are overlaid on the map.



1. Click to hide the display of a single photo or the entire folder on the map.
2. Click to cancel the overlay of a single photo or the entire folder on the map.

Users can click a single photo on the list or the thumbnail on the map to preview the photo.



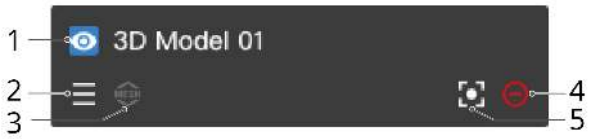
1. Click to markup photos. Users can add frames and notes on the photos and press [Shift] and drag to move the photos. The notes will automatically become the tags for the photos and can be used for filtering the photos. Users can also filter photos with unnamed markups.
2. Click to hide the markup.
3. Click to hide annotations.
4. Click to compare photos taken by the same Take Photo (Fixed Angle) action at the same waypoint. See Preview Media Files for more details.
5. Click to customize the sharing settings and share the current photo.

Users can also use the following keyboard shortcuts:

- Press [T] to add a tag.
- Press [←] [→] to switch photos.
- Press [ESC] to exit the preview.

3D Model Management

3D Model Panel



1. Display the Model on the Map

The project administrator can click to display the model on the map.

2. Change the Display Order

The project administrator can drag to change the display order of the models. If there are overlapping models in the same area, the 3D models at the top of the list will be displayed on the top of the map.

3. Display the Model Type

The icon stands for the point cloud model, and stands for the mesh model.

4. Center the 3D Model

Users can click to select the 3D model, and the model will be displayed in the middle of the web page.

5. Remove the 3D Model

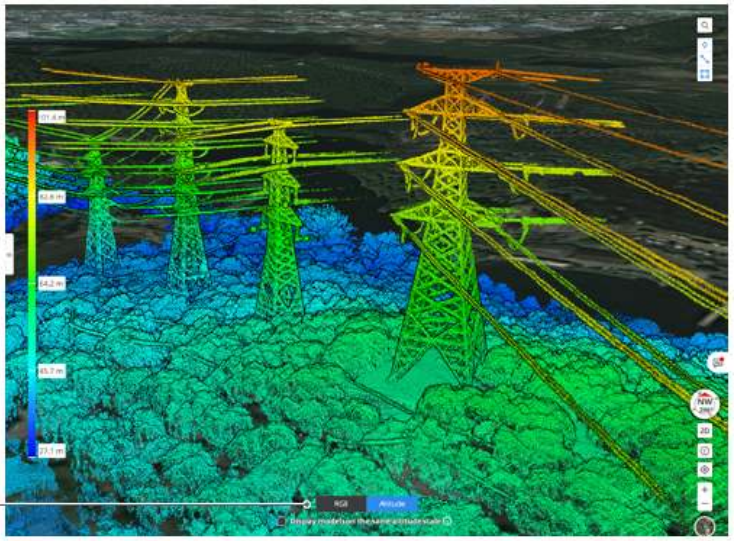
Users can click to cancel the display of the 3D model on the map. The 3D model will still exist in the Model library.

Point Cloud Model Display

The point cloud models can be displayed in the RGB, Reflectivity, Altitude, or Echo mode, depending on what information is included in the models.

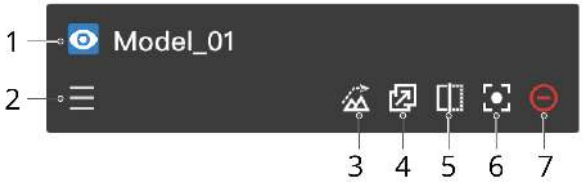
When the model is displayed in the Altitude mode, the altitude scale will be shown on the left. After selecting "Display models on the same altitude scale", multiple selected models will be displayed on the same altitude scale, and the same altitude will be rendered with the same color.


RGB
Altitude
Display models on the same altitude scale



2D Model Management

2D Model Panel



1. Display the Model on the Map

The project administrator can click to display the model on the map.

2. Change the Display Order

The project administrator can drag to change the display order of the models. If there are overlapping models in the same area, the 2D models at the top of the list will be displayed on the top of the map.

3. Load the Elevation Data

After the elevation of a mapped area is calculated, the project administrator can click to load the elevation data onto the map.

> Note: Users can only load the elevation data of a mapped area one at a time.

4. Distribute the Mapping Output

The 2D model can be distributed to DJI Pilot 2. The project administrator can click to cancel the distribution.

5. Compare 2D Models

Click to compare models that have overlapping areas. See Manage Models for more details.

6. Center the 2D Model

Users can click to select the 2D model, and the model will be displayed in the middle of the web page.

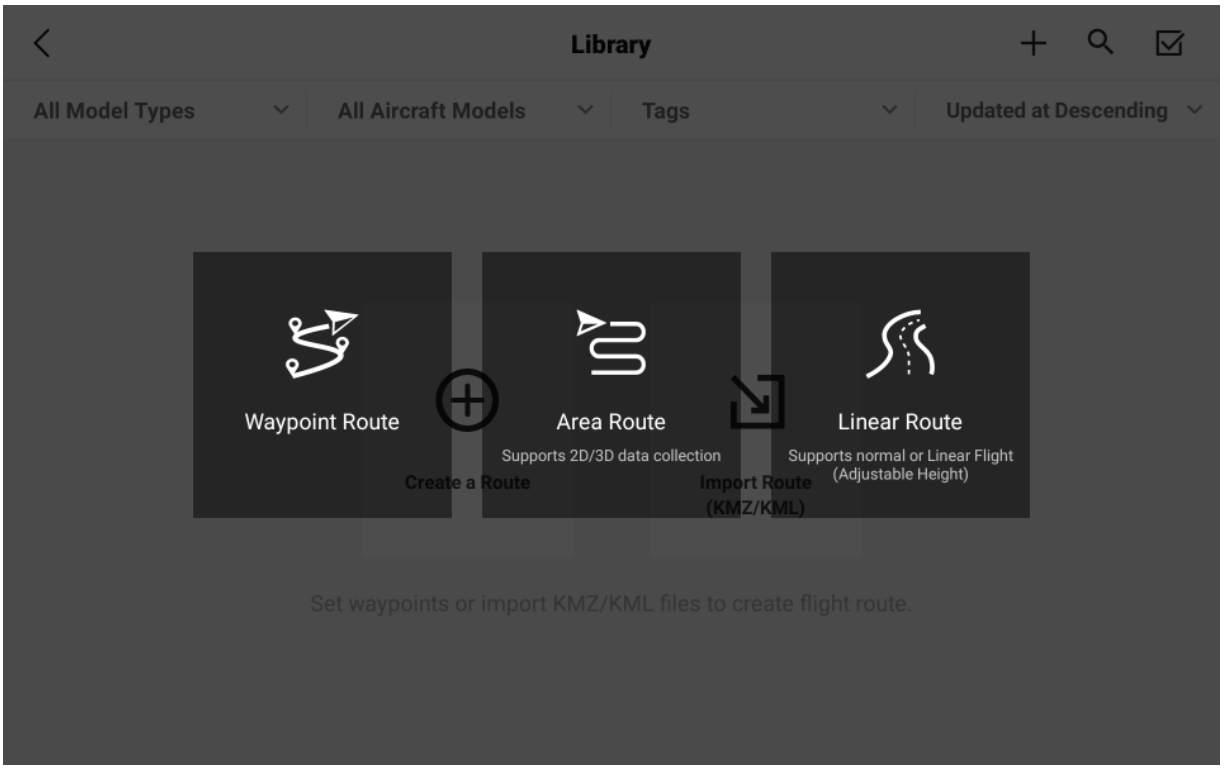
7. Remove the 2D Model

Users can click ⊖ to cancel the display of the 2D model on the map. The 2D model will still exist in the model library.

Cloud Mapping

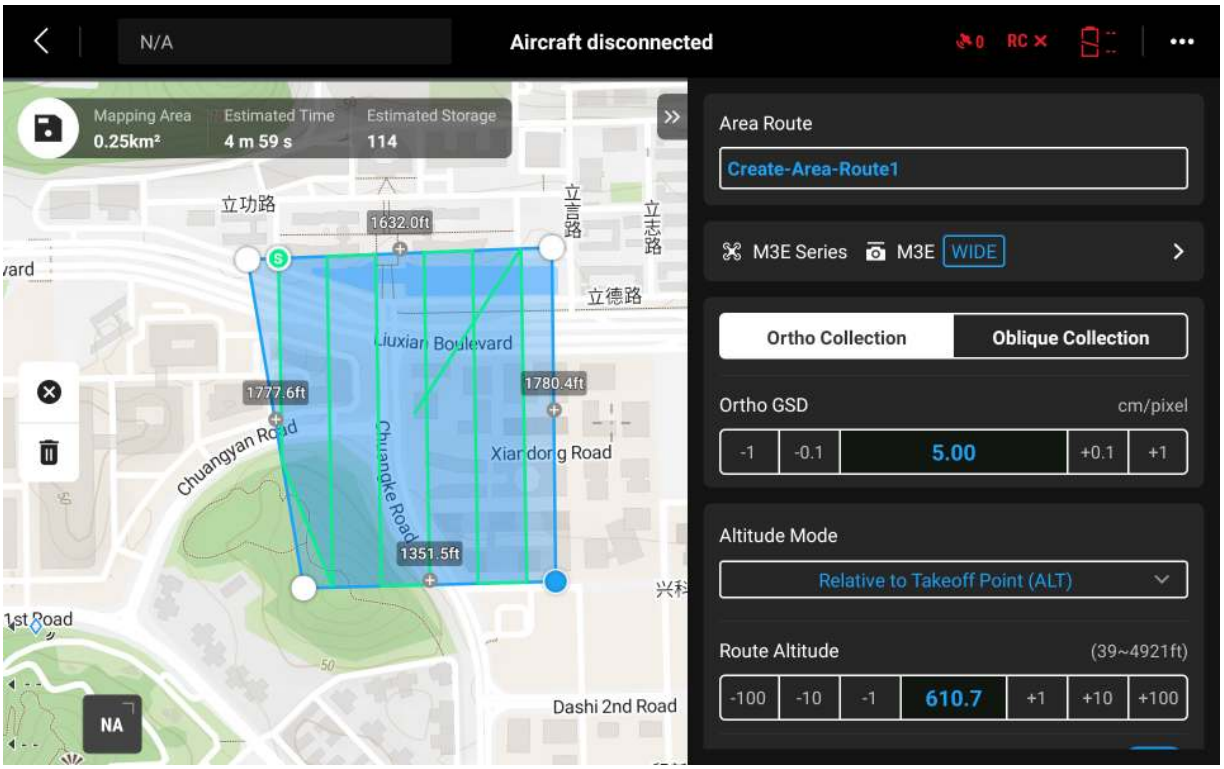
DJI Pilot 2 users can log in to the DJI FlightHub 2 cloud service to perform cloud mapping and manage the mapping progress on the web.

1. Tap Flight Route on the DJI Pilot 2 home screen and select Area Route.

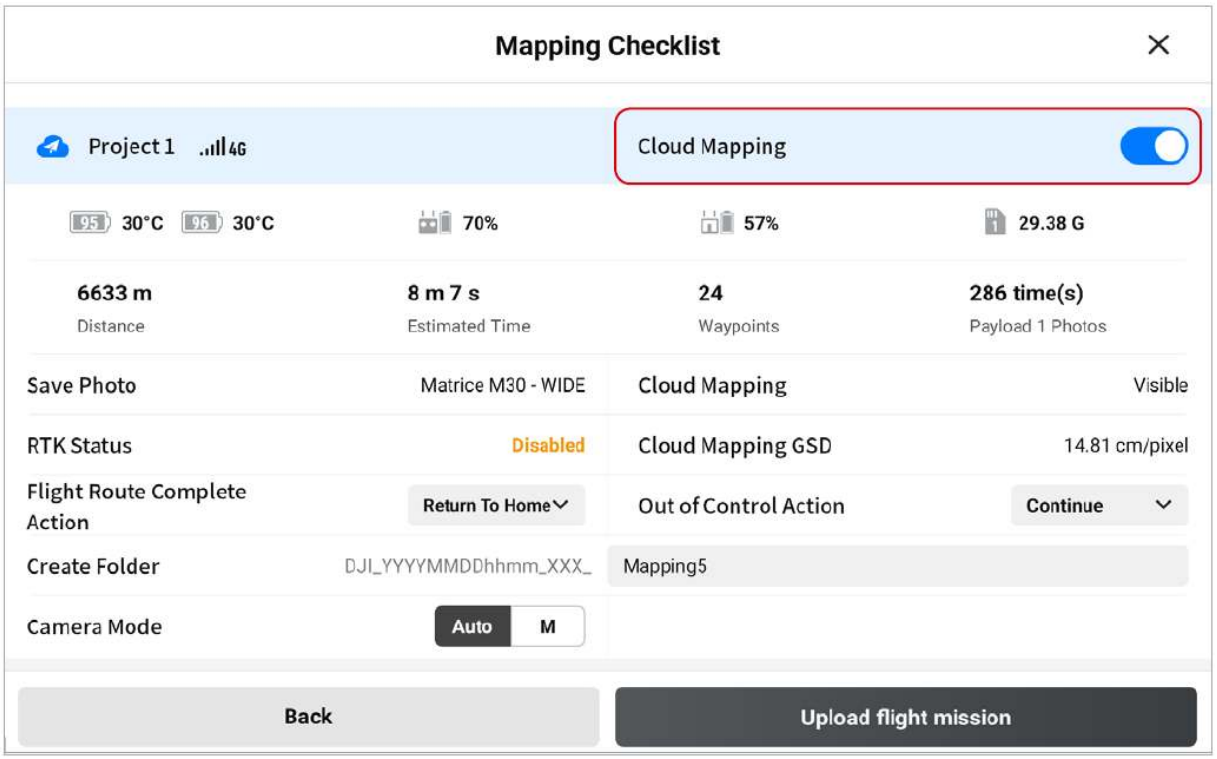


2. Configure settings on the right panel. Tap 💾 to save settings and tap ▶ to perform the mapping task.

DJI FlightHub 2 supports infrared and visible light mapping tasks with Zenmuse H20/H30 series, and the Matrice 30 series (including the dock version), Mavic 3 enterprise series, and Matrice 3D series cameras.



3. Enable Cloud Mapping on the mapping checklist and upload the flight task.



4. Tap Progress to view the mapping status.



DJI FlightHub 2 project members can click to enter the Map page. Select the mapping task to view the task planning area and mapping output.

Design Files on Map

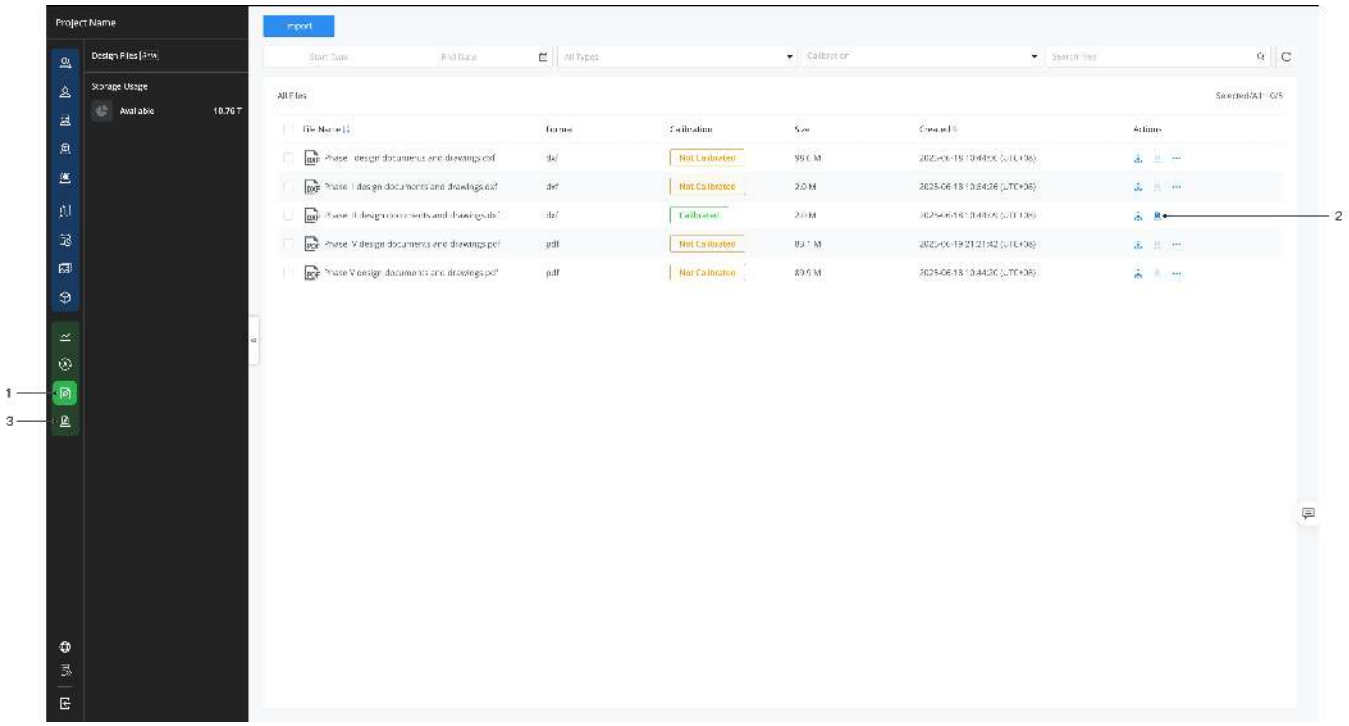
This section mainly introduces how to load design files onto the map.

Prerequisites

1. Only calibrated design files can be loaded onto the map.
2. Data Management > Design File Management permissions are required.

Steps

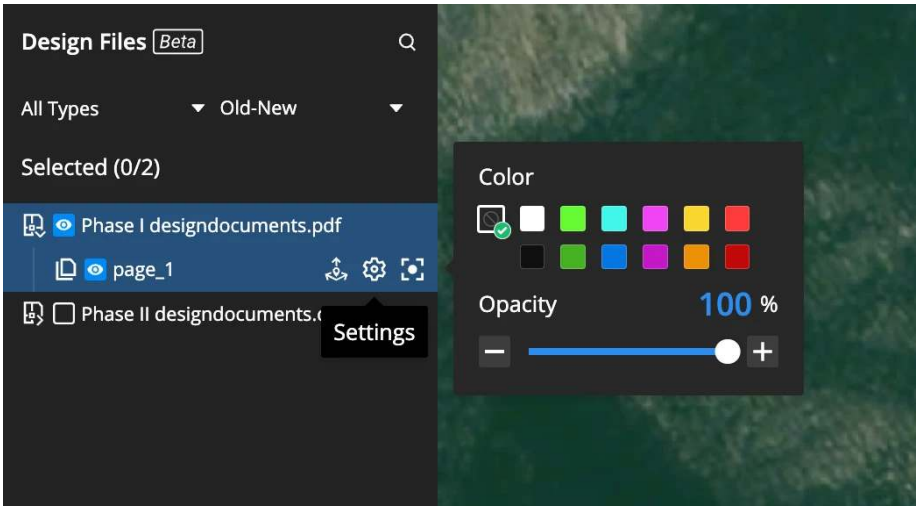
1. Log in to FlightHub 2, enter a project, and click  to enter the Design Files page.
2. Select the design file you want to import, click , and load the design file onto the map.
3. After the design file is successfully loaded onto the map, click  to enter the "Design files on map" page.



4. Check the loaded design files, and the design files will be displayed on the map.



5. Click the dropdown arrow next to the design file to open the secondary menu. Here, you can adjust the color and opacity of the design file.



- Note: When selecting as a PDF file, this option can be set. If selecting a DXF file, only the return function is supported.

Custom Flight Area

Project administrators can click  to enter the Task Area Management and manage the custom task areas and GEO Zones.

Administrators can click  to create custom flight areas. The types of the custom flight areas include:

- Polygonal or circular task area: The aircraft can perform tasks in the area and cannot take off when it is outside the area or within 10 meters of the area boundary.
- Polygonal or circular GEO Zone: The aircraft cannot enter the GEO Zone, nor take off when it is inside the GEO Zone or within 10 meters of the zone boundary.
- Rectangular No-Landing Zone: The aircraft cannot automatically land within the no-landing zone. If an attempt is made to land while a pilot is manually flying the aircraft, or while the aircraft is performing a task, the aircraft will automatically plan the shortest path to exit the zone before landing.

- The custom task areas cannot overlap.
- If a dock is bound to a project and needs to perform tasks, the dock should be inside the custom flight area, and the distance between the dock and the boundary of the area should be less than 10 meters.
- A maximum of 255 vertexes can be added when creating a polygonal flight area. The minimum radius of a circular task area is 10 m.
- If the distance between the aircraft and the boundary of the custom flight area is less than 5 meters during a task, the task will be stopped and the aircraft will return home directly. Pay attention to the distance between the aircraft and custom flight area when planning a task.
- Users can manually draw rectangular no-landing zones, with a length range of 10 to 3000 meters and a width range of 10 to 100 meters. Up to 50 rectangular no-landing zones can be created for each project.
- Go to Map Task Area, right-click on a line annotation, and select Convert to custom No-Landing Zone. The system will automatically convert the line annotation into a no-landing zone.
- Note: When No-Landing Zones overlap and form a closed area, the closed area does not automatically become a No-Landing Zone. Only the original No-Landing Zones are considered effective. To ensure flight safety, adjust the width of the No-Landing Zones or reposition the endpoints to prevent overlaps.


Project 1
Custom Flight Area
Obstacle data
Types
Statuses
Custom No-Landing Zone
Custom GEO Zone
Custom Task Area
Sync Across Devices
Custom GEO Zone 1
Custom GEO Zone 2
Custom No-Landing Zone 1
Custom Polygonal GEO Zone
Custom Circular GEO Zone
Custom Polygonal Task Area
Custom Circular Task Area
Custom No-Flying Zone
3D

Obstacle Data

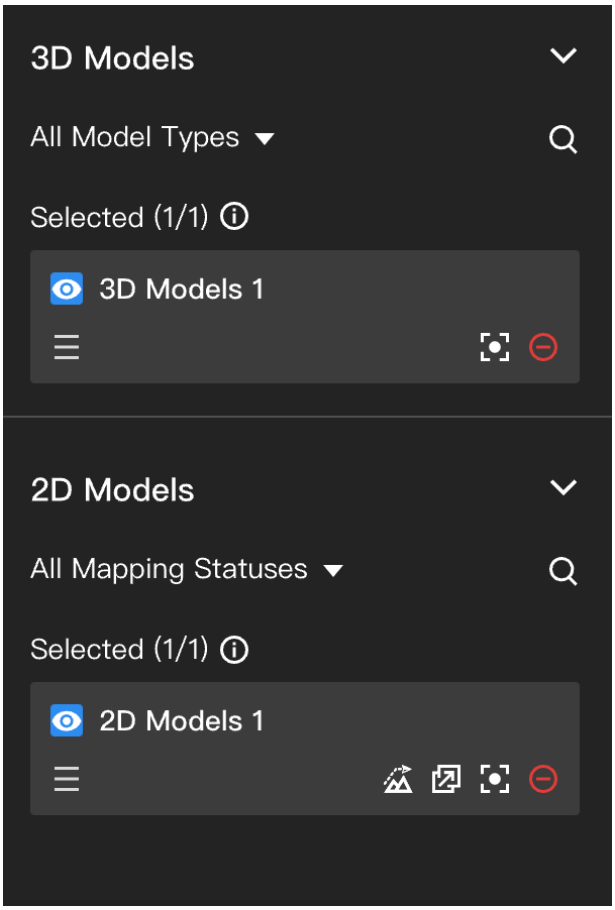
The obstacle data is sourced from the global elevation data and the models in the project. Users can enable Obstacle Data on the cloud and synchronize the data to the dock aircraft. Based on the obstacle data, the aircraft can plan an optimal route to bypass obstacles along the route when performing FlyTo tasks or returning home.

Obstacle Data Introduction

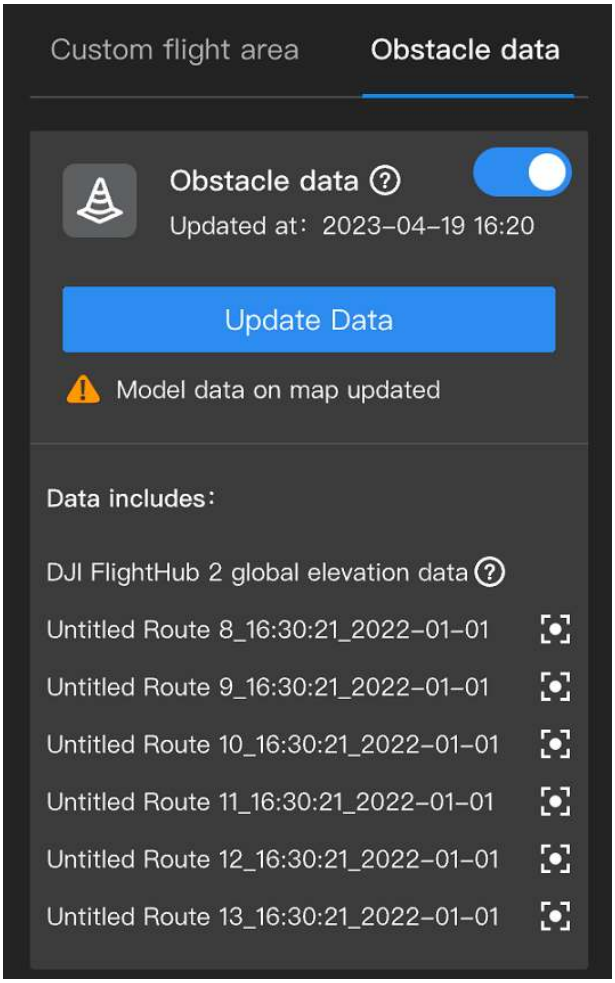
- By default, the obstacle data is sourced from the global elevation data within a 40 km × 40 km (24.85 mi × 24.85 mi) area centered around the dock. When both the global elevation data and the model data are present on the map, the model data will be prioritized.
- To ensure the reliability of the obstacle data, it is recommended to perform the RTK calibration when deploying the dock and choose the RTK mode when creating task plans.
- When the environment is suitable for the vision system to work properly, the aircraft will automatically plan an optimal route based on the obstacle data and the data collected by the vision sensors. The optimal route will maintain a safe distance from the objects on the 2.5D map and in the models. The horizontal distance is approximately 10 meters, while the vertical distance from the 2D or 3D models is about 30 meters and 60 meters from the objects on the map. When the environment is not suitable for the vision system to work properly, such as low or no light at night, only the obstacle data will be valid. There will be potential safety risk if the model data is not accurate.
- Based on the obstacle data, the aircraft will bypass the area that has weak GNSS signal to ensure aircraft positioning accuracy. If there are objects such as power cranes, power lines, and bridges, the aircraft will try to bypass the obstacles by flying above the objects.
- When the aircraft is performing tasks based on the GNSS positioning, the obstacle bypassing performance may be affected. Users should pay close attention to the flight route and the livestream view and fly with caution.

Obstacle Data Settings

1. If there are 2D or 3D models within the task area in the project, users can click Map on the left to load the model data onto the map.



2. The project administrator can enable Obstacle Data.



The obstacle data will automatically be synchronized to the dock aircraft for optimal route planning.

Notes on On-premises Version

Since the on-premises version of FlightHub 2 does not include global elevation map data by default, it is highly recommended that you import offline elevation data for your work area to ensure flight safety.

Downloading Offline Elevation Data

On the DJI Developer website's FlightHub 2 On-Premises Service page, navigate to Download Elevation Data to proceed.

- **Step 1:** Verify your License ID.
- **Step 2:** Select an area on the map or enter the latitude and longitude range for the work area.
- **Step 3:** Download the elevation data.

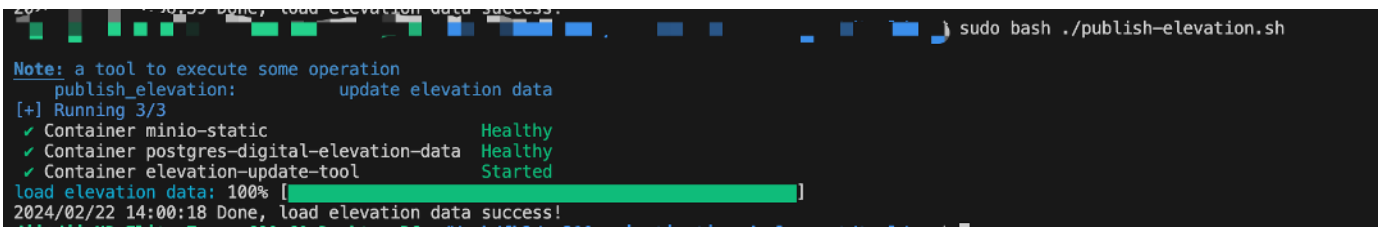
Notes:

- If the coordinates you enter are not whole numbers, the final data package will cover an area expanded to the nearest whole-number coordinates (rounded up).
- Data generation can take a long time. Please wait for the process to complete.

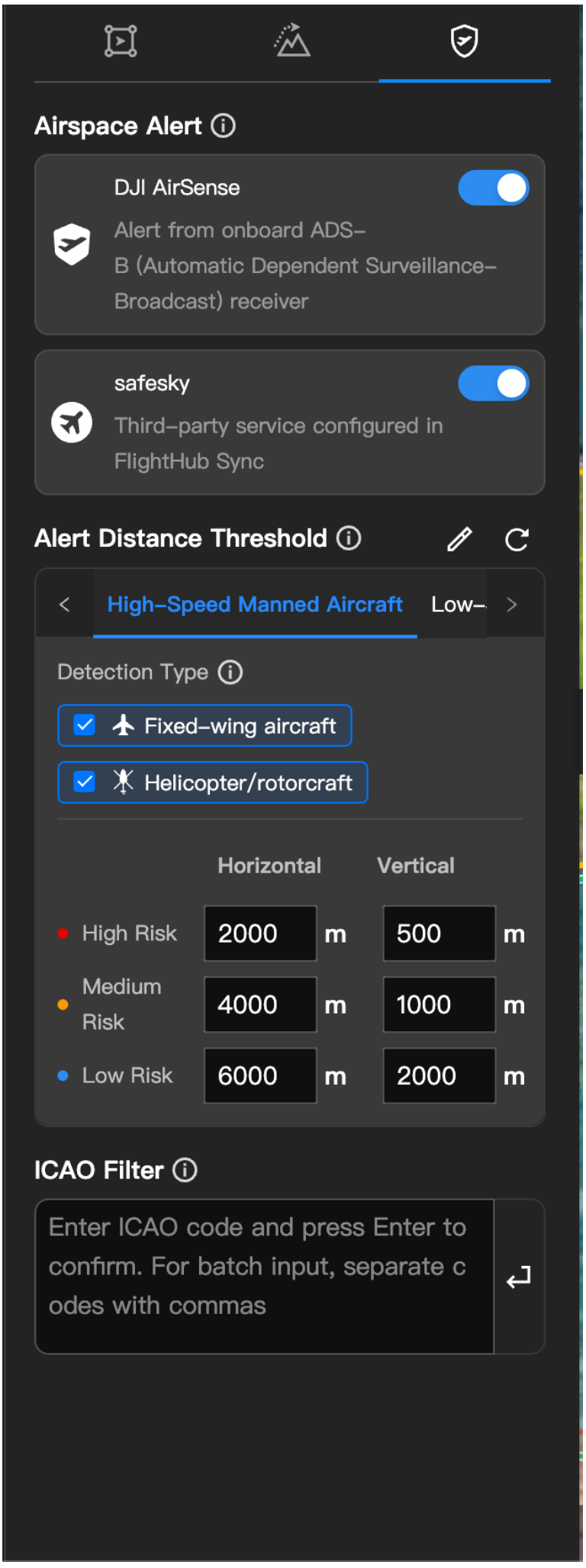
Importing Offline Elevation Data

For on-premises service users:

- **Step 1:**Clear the existing data from the target directory: `rm -rf ${DATA_ROOT_PATH}/static_data/elevation`
- **Step 2:**Unzip the downloaded elevation data package.Then, `elevation/` move the contents of the elevation `${DATA_ROOT_PATH}/static_data/elevation/` folder into the server's static data directory.
- **Step 3:** Navigate to `${deployment package extraction directory}/tool/map/` to run the publishing script: `bash ./publish-elevation.sh`
- The import is successful when the script's progress reaches 100%.



Airspace Alert


Airspace Alert
DJI AirSense
Alert from onboard ADS-B (Automatic Dependent Surveillance-Broadcast) receiver
safesky
Third-party service configured in FlightHub Sync
Alert Distance Threshold
High-Speed Manned Aircraft
Low-
Detection Type
Fixed-wing aircraft
Helicopter/rotorcraft
Horizontal
Vertical
High Risk
2000 m
500 m
Medium Risk
4000 m
1000 m
Low Risk
6000 m
2000 m
ICAO Filter
Enter ICAO code and press Enter to confirm. For batch input, separate codes with commas

The "Airspace Alert" section consists of two sub-modules: "System Settings" and "Alert Settings".

1. System Settings

Displays the airspace alert systems currently available, including DJI AirSense, DJI O4 Ground Station (used with an airspace broadcast receiver), and external airspace systems configured in FlightHub Sync (such as SafeSky). You can enable any of them individually or simultaneously. When multiple sources are enabled, the system automatically deduplicates the same target from different sources to avoid duplicate alerts.

If no external airspace system has been configured, click "Add External Airspace Data Management System" to jump to FlightHub Sync for configuration.

Once DJI O4 Ground Station is enabled together with an airspace broadcast receiver, the following capabilities become available:

- Real-time display on the map of nearby aircraft detected by the airspace broadcast receiver
- Push notifications via the message box when an alert is triggered
- Automatic backend recording of alert data, with support for exporting the history

2. Alert Settings

The alert settings apply to all enabled airspace systems and affect all users within the project. Please configure them as needed.

- **Alert Distance Threshold**: For high, medium, and low collision risk levels respectively, configure the horizontal and vertical safety distances for three aircraft categories: "High-Speed Manned Aircraft / Low-Speed Aircraft / Drones". Click "Edit Type" to adjust which specific aircraft types belong to each category (a given aircraft type can only belong to one rule).
- **ICAO Filter**: Enter the ICAO codes of aircraft to ignore (multiple codes separated by English commas). Aircraft in the list will not trigger alerts.
- **Aircraft Type Filter** (visible only when an external airspace system is enabled): Filter specific aircraft categories in bulk by aircraft type.

When airspace alerts are enabled, nearby aircraft are displayed on the Cockpit map in real time, where you can view their ICAO code, altitude, speed, and other information. When a collision risk exists, the message box pushes an avoidance prompt to remind the operator to take over and maneuver away promptly.

For drones detected via the airspace broadcast receiver, click the drone on the map to display a line connecting it to its remote controller location, making investigation and response easier.

> - Before using an external airspace system, complete the API Key and other onboarding configuration in FlightHub Sync "Airspace Data Management".

- Enabling DJI O4 Ground Station requires at least one online O4 Ground Station and its accompanying airspace broadcast receiver in the project.
- For docks/base stations, the alert threshold only changes the color based on horizontal distance and does not push alerts; for aircraft, both horizontal and vertical distances are evaluated and alerts are pushed, with the aircraft alert level taking priority.
- Any change to the alert distance threshold takes effect immediately for all devices in the project that have airspace alerts enabled.
- When more than 3,000 real-time airspace targets are displayed on the map, it is recommended to zoom out to avoid rendering lag.

Data Synchronization

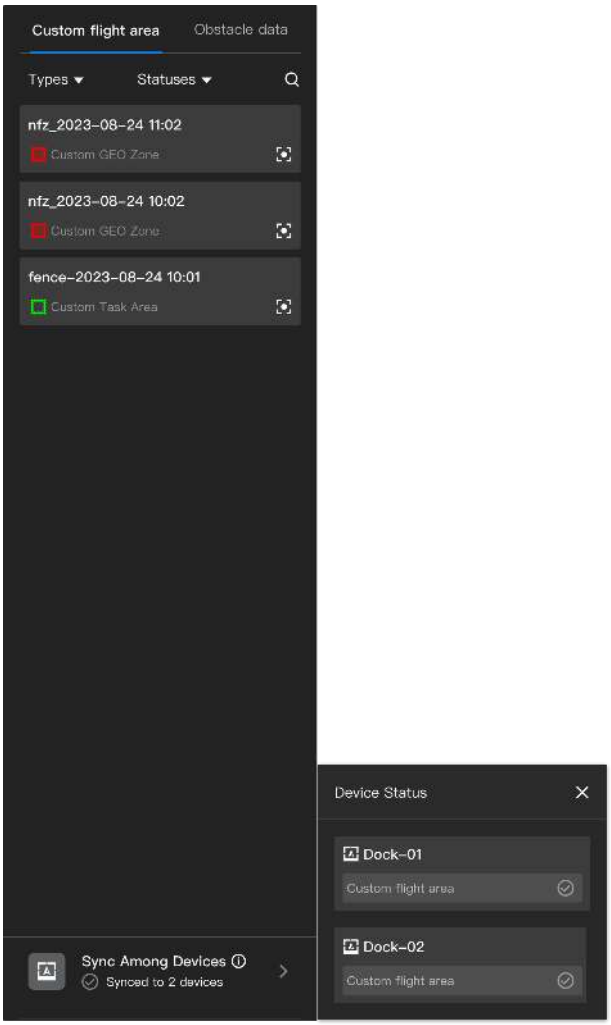
When the data in the task area is updated, the update will also be automatically synchronized from the cloud to the dock aircraft.

1. Custom Flight Area

- The custom flight area data will automatically be synchronized to the idle dock aircraft. For the dock aircraft that is performing a task, the data will be synchronized after the task is completed.
- For the data that is synchronized to the aircraft connected to the remote controller, an update prompt will be displayed on the screen of remote controller. Users can choose to synchronize the updates before starting tasks.

2. Obstacle data

The data will automatically be synchronized to the idle dock aircraft. For the dock aircraft that is performing a task, the data will be synchronized after the task is completed.



Online Project Information

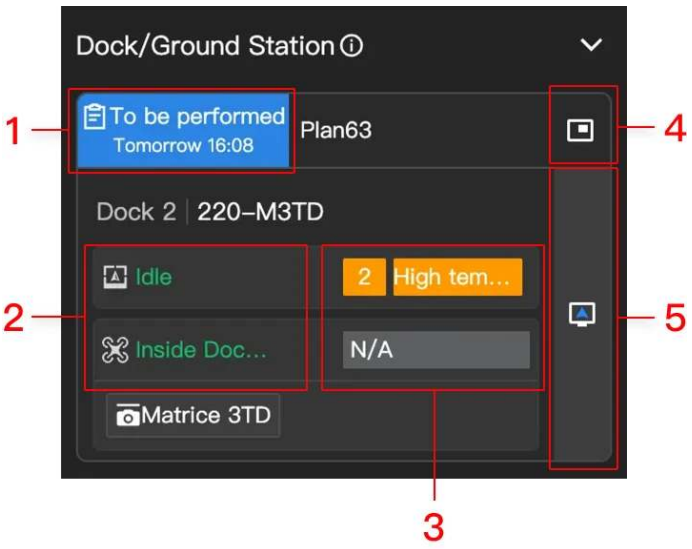
Online users on the web can view team online information, device details, and enable online livestreams on the Team page to stay updated on operations in real time.

After joining a project, project members can view the Dock/Ground Station, Online Devices, and Online Member List on the left.

Dock/Ground Station

Through the Dock/Ground Station panel, you can view the task status of the Dock and Ground Station, the operation status of the bound aircraft, and device warning messages, as well as open the device mini-window. When multiple Docks/Ground Stations are online, the information of the online Docks/Ground Stations will be placed at the top of the panel.

> Note: The page content displayed may vary slightly depending on the Dock/Ground Station model. Please refer to the actual interface.



1. Dock/Ground Station Task Status

The Dock/Ground Station task status includes "Planned Task Status" and "Live Flight Controls Status". Click the task status bar to view the flight task list for the day.

- **Planned task statuses include**: No task, To be performed, In progress, Task failed, and Task ended.
  - **To be performed**: Displays the scheduled date and time.
  - **In progress**: Displays the estimated remaining time.

- **Live Flight Controls statuses include**: Live Flight Controls, Live Flight Controls (Manual Flight), and Live Flight Controls (Auto Flight).
  - **Live Flight Controls**: When a user obtains control of the aircraft.
  - **Live Flight Controls (Manual Flight)**: When a user is controlling the aircraft via keyboard or device mini-window buttons.
  - **Live Flight Controls (Auto Flight)**: When the aircraft is automatically executing remote control commands.

2. Device Status

Click the device status bar to center the device on the map.

- **Dock statuses include**: Idle, Task preparing, Flight task executing, Closing dock cover after task, and Offline.
- **Ground Station statuses include**: Idle, Power saving, Task preparing, Flight task executing, and Offline.
- **Aircraft statuses include**: Standby, Powering off, Powering on, Prepare to take off, Ready to take off, Manual flight, Auto takeoff, Task in progress, Returning to home, Landing, Updating firmware, Auto avoidance, Forced landing, and Not connected.

The operation status changes of the Dock, Ground Station, and aircraft during a flight task are as follows:

Device	Task Preparation	Task in Progress	Task Completion
Dock	Idle > Task preparing	Flight task executing	Closing dock cover after task > Idle
Ground Station	Idle > Task preparing	Flight task executing	Idle
Aircraft	Powering off > Powering on > Standby > Prepare to take off > Ready to take off	Auto takeoff > Task in progress	Returning to home > Landing > Standby > Powering off

3. Device Warning Messages

Displays the warning messages for each device. Click the warning content to expand the warning list and view all warning messages for the current device.

4. Device Mini-Window

Click to open the device mini-window, which supports remote control of the aircraft, such as issuing commands or executing tasks.

For more details, see Live Flight Controls - Device Mini-Window.

5. Virtual Cockpit

Project administrators can click "Virtual Cockpit" to enter the virtual cockpit interface for remote control.

For more details, see Live Flight Controls - Virtual Cockpit.

Online Devices

In Online Devices, you can view currently online RTMP streaming devices, standalone aircraft, and associated remote controllers.

> - When the device is online, its information is displayed in the left panel.
> - When a device is offline for less than 5 minutes, its information will be displayed in gray.
> - If the device remains offline for more than 5 minutes, it will no longer be displayed in the left panel.

1. RTMP Streaming Devices

1.1 RTMP Streaming Device Status

The status of RTMP streaming devices includes: Streaming (online), Disconnected, and Invalid.

- **Disconnected**: The device is currently offline, but the stream URL is still valid.
- **Invalid**: The device's stream URL has expired.

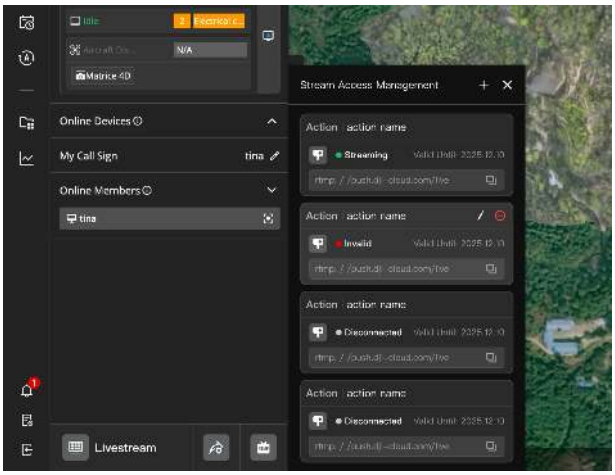


1.2 Stream Access Management

Click  in the lower-left corner of the page to add new RTMP streaming devices or manage existing streaming devices in the project.

1.3 Edit

Hover over the panel to display the  Edit and  Remove buttons. Click Edit to change the device name, or click Remove to remove the device from the current project. This feature is available only to roles with project settings management permission.



- RTMP stream access for DJI consumer drones and handheld devices is currently supported only on the public cloud.
- Minutes generated by viewing livestreams from streaming devices and auto-recording will consume the livestream billing duration.
- Devices connected via RTMP streaming do not count towards the online device limit in the Enterprise Edition.
- For more information, refer to the DJI Fly App Live Streaming Guide and DJI Mimo App Live Streaming Guide.

2. Aircraft and Remote Controllers

1. The aircraft statuses include: Standby, Powering off, Powering on, Prepare to take off, Ready to take off, Manual flight, Auto takeoff, Task in progress, Returning to home, Landing, Updating firmware, Auto avoidance, Forced landing, and Not connected.



1. Aircraft details

Aircraft details include: aircraft status, video transmission, satellite status, battery level and status, altitude, horizontal speed, and distance to the Home Point.

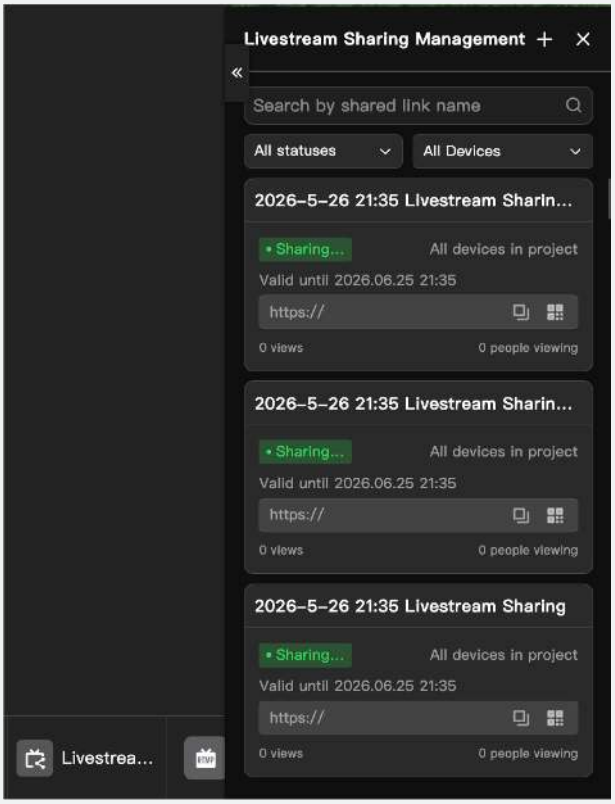
Note: When the aircraft is disconnected, the last recorded coordinates and time will be displayed. Click the information to center the aircraft location on the map, and right-click to create a PinPoint to help locate the aircraft.

2. Click the flight camera or payload camera button to view the livestream.

Note: When using DJI Mavic 3 Enterprise Series aircraft with firmware version V09.02.07.04 or later, PinPoints will be projected on the camera view to facilitate ground-air coordination.

3. During the livestream, click to configure sharing settings and share the livestream with other users. Click to start recording. The recorded video will automatically be saved to Media Files.

- Click "Live Stream Share" in the lower-left corner of the page to view shared device information, current viewer count, and views. You can also manage shared live stream links or turn off sharing.



- Live stream sharing consumes the live stream usage of the current organization. The consumed usage is the total time all users visiting the live stream sharing page spend watching the live stream.

Online Members

Online members include:

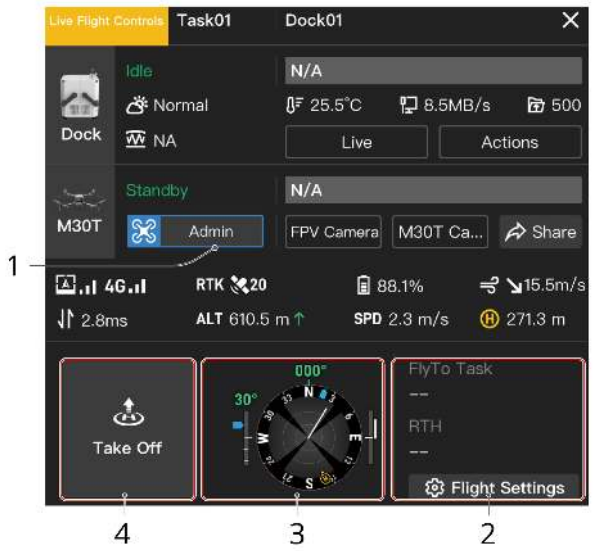
- Members accessing via a computer.
- Members whose remote controller is logged in but not connected to an aircraft.

Device Status Window

FlightHub 2 enables remote control of aircraft at DJI Dock, DJI Dock 2, and DJI Dock 3 via the device status window, allowing for command transmission and task performance.

> Note: The DJI Dock firmware version should be later than v01.03.0902, and the aircraft version should be later than v06.02.0803 before using Live Flight Controls.

Aircraft Control



1. Obtain Aircraft Control

Project administrators can right-click the dock or aircraft icon on the map or click Aircraft Control in the device status window to enable Live Flight Controls.

- When Live Flight Controls is enabled, the remote control latency will be displayed. Users can hover the mouse over ⇵ to view the uplink and downlink latency. Uplink means transferring data from the aircraft to the cloud, while downlink refers to the data transmission from the cloud to the aircraft.
- Users can click the FPV or camera view button to view livestreams.

2. Flight Settings

2.1 Optimal Route Planning:

- When the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft will automatically plan an optimal route to improve task efficiency and preserve battery life.
- When the environment is not suitable for the vision system to work properly and Obstacle Data is disabled, the aircraft will fly based on the task altitude and RTH altitude settings.

- When Optimal Route Planning is enabled, the aircraft will intelligently adjust the flight altitude and speed based on the obstacle data and the environment conditions such as the wind speed and direction, so that the aircraft can reach the FlyTo destination or the Home Point with improved efficiency.
- It is recommended to enable Obstacle Data in Task Area Management to improve the route planning performance. See Obstacle Data for more details.
- When the environment is not suitable for the vision system to work properly or other issues occur when the aircraft is performing FlyTo tasks or returning to home, the aircraft will not be able to plan an optimal route. If Obstacle Data is also disabled, the aircraft can only fly based on the set altitude and will not be able to avoid obstacles along the route. Therefore, users should set appropriate task altitude and RTH altitude before starting FlyTo tasks or returning to home.
- When Optimal Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still fly horizontally or vertically to avoid obstacles.
- If the maximum flight altitude is lower than the current aircraft altitude, the aircraft will descend directly to the maximum flight altitude before continuing tasks. If the maximum altitude is higher than the current aircraft altitude, the aircraft will stop ascending when the aircraft reaches the maximum flight altitude.

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- When there are obstacles such as wires and electric towers that are hard for the vision sensors to detect, users should disable Optimal Route Planning and make sure the set task altitude and RTH altitude are higher than the obstacle altitude along the route.

2.2 Task Altitude (ALT):

The lowest altitude (relative to the takeoff point) of the aircraft when performing FlyTo tasks. DJI FlightHub 2 will display a prompt when the aircraft altitude is lower than the task altitude.

Note: For the DJI Dock aircraft with the firmware version earlier than v08.00.0003, DJI FlightHub 2 will display a prompt when the aircraft altitude is lower than the task altitude.

2.3 RTH Altitude (ALT):

The aircraft altitude relative to the dock when the aircraft is returning to the dock. The RTH altitude should be set based on the actual flight condition, surrounding environment, and GEO information. It is recommended that the altitude is set higher than the highest geographical point in the flight area and should be lower than the maximum flight altitude.

- For DJI Dock 2
  - When Optimal Route Planning is enabled, the aircraft will intelligently plan an optimal route based on the obstacle data or the vision system data when the environment is suitable for the vision system to work properly.
  - When Optimal Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still fly horizontally or vertically to avoid obstacles.
  - When the dock aircraft is more than 5.5 meters away from the Home Point horizontally, the aircraft will ascend to the RTH altitude and return to home. When the dock aircraft is 5.5 meters or less than 5.5 meters away from the Home Point horizontally, the aircraft will maintain the current altitude (when it is higher than 15 meters) or ascend to 15 meters (when it is lower than 20 meters) before returning to home.
- For DJI Dock
  - When the dock aircraft is more than 5.5 meters away from the Home Point horizontally, the aircraft will ascend to the RTH altitude and return to home. When the dock aircraft is 5.5 meters or less than 5.5 meters away from the Home Point horizontally, the aircraft will maintain the current altitude (when it is higher than 20 meters) or ascend to 20 meters (when it is lower than 20 meters) before returning to home. When the environment is suitable for the vision system to work properly, the aircraft can still fly horizontally or vertically to avoid obstacles.
  - For the DJI Dock aircraft with the firmware version earlier than v08.00.0003, the aircraft will not be able to bypass obstacles and GEO Zones. Check the surrounding environment when the aircraft is returning to home.

2.4 On Signal Lost: Users can choose from Return to Home, Hover, or Continue. The dock aircraft will perform the signal lost action when the aircraft is disconnected from the dock. To ensure flight safety, it is recommended to set the signal lost action as Return to Home.

2.5 Destination Altitude (AGL): The default altitude above the ground of the FlyTo destination.

> Note: All parameters can be set when the dock aircraft is powered off.

3. Situation Awareness

Users can view the Home Point location, aircraft and payload orientation, and obstacle sensing information in the Navigation Display.

4. Take Off

When the aircraft is inside the dock, users can click Take Off, and the aircraft will ascend to the task altitude and hover.

5. Keyboard Commands

When the Live Flight Controls status is Manual Flight, users can click the buttons or press the keyboard keys to control aircraft movements.

[W]: Forward	[S]: Backward
[C]: Ascend	[Z]: Descend
[A]: Roll left	[D]: Roll right
[Q]: Yaw left	[E]: Yaw right
[Space]: Pause	

6. FlyTo Tasks

Right-click on the map to set a FlyTo destination. Users can also set a PinPoint or the search result on the map as the FlyTo destination. After the FlyTo destination is set, a virtual flight route will be displayed on the map. Users can click Start, and the aircraft will fly directly to the destination.

- When the aircraft starts the FlyTo task from DJI Dock 2:
  - When Optimal Route Planning is enabled, the aircraft will plan an optimal route, ascend 20 meters, and then perform the FlyTo task.
  - When Optimal Route Planning is disabled and the FlyTo altitude is higher than the task altitude, the aircraft will ascend to the task altitude before performing the FlyTo task. When the FlyTo altitude is lower than the task altitude, the aircraft will fly at the task altitude, reach above the FlyTo destination, and descend to the FlyTo altitude.
- When the aircraft starts the FlyTo task from DJI Dock:
  - When the FlyTo altitude is higher than the task altitude, the aircraft will ascend to the task altitude before performing the FlyTo task. When the FlyTo altitude is lower than the task altitude, the aircraft will fly at the task altitude, reach above the FlyTo destination, and descend to the FlyTo altitude.
  - For the aircraft with the firmware version earlier than v08.00.0003, the aircraft will ascend to the task altitude and directly fly to the FlyTo destination.

During a FlyTo task, users can select a new FlyTo destination, and the aircraft will fly to the destination directly.

Note: To change the destination, the DJI Dock firmware version should be v01.06.17.02 or later, while the dock aircraft version should be v09.01.00.05 or later. As for DJI Dock 2, the firmware version should be v09.02.01.08 or later, while the Dock 2 aircraft version should be v09.02.01.08 or later.

If Live Flight Controls is enabled when the aircraft is performing a flight task, users can click Resume to resume the task, or click RTH to disable Live Flight Controls and the aircraft will return to home automatically.

- To ensure flight safety, a reasonable task altitude, RTH altitude, and FlyTo destination altitude should be set based on the surrounding environment and task requirements and at least 5 meters lower than the maximum flight altitude allowed in Altitude Zone. Users should also make sure that there are no obstacles during flight.
- The aircraft will bypass GEO Zones and obstacles during FlyTo tasks. If there is a GEO Zone with a maximum width of more than 400 meters between the current aircraft position and the FlyTo destination, the aircraft may not be able to bypass the area and will hover at the area boundary. Users should pay close attention to the the livestream view and fly the aircraft manually to bypass the GEO Zone.

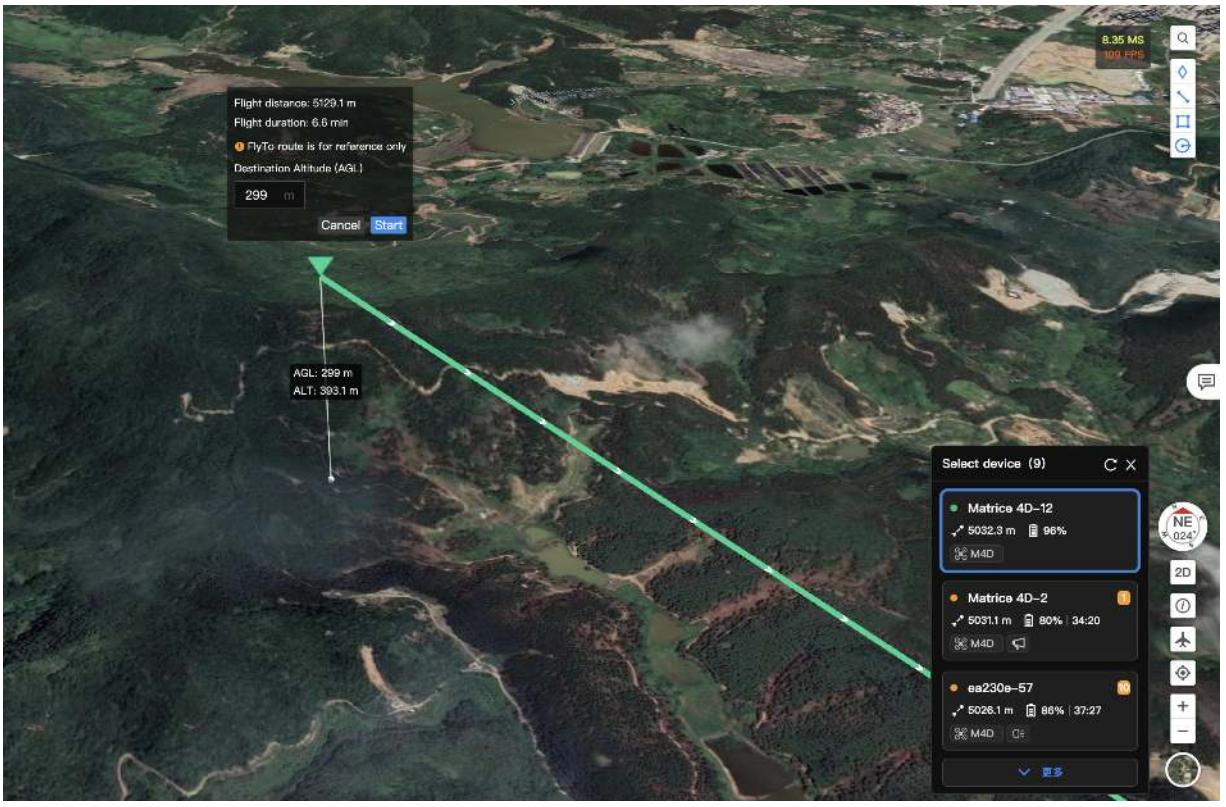
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- When Low Battery RTH is triggered, DO NOT cancel RTH or enable Live Flight Controls during RTH, otherwise the aircraft will exit RTH and may not be able to return to the dock.
- When the aircraft battery is critically low, the aircraft will land automatically, and the landing cannot be canceled.
- DO NOT control the aircraft to land on the dock using keyboard commands, otherwise the aircraft will not be able to stop propellers after landing and return to the dock automatically.

When no device is selected, right-click on the destination point on the map, and the menu will show the FlyTo option. After confirmation, the device recommendation list panel will expand on the right side of the map, and the system will display available aircraft in recommended order.



After selecting the most suitable device for the current task, fill in the destination altitude, and click Start to begin the flight. The aircraft will start flying to the destination point.



7. POI

FlightHub 2 users can select any location or PinPoint on the map and start a POI task when DJI Dock is in the Live Flight Controls mode. After the FlyTo destination is set, the dock aircraft will face the FlyTo destination, and a virtual flight trajectory will be displayed on the map. Users can set the POI direction and speed and use the keyboard shortcuts to adjust the aircraft altitude and distance

to the FlyTo destination. The task panel will display the estimated time needed for completing the POI task. Users can click Start to start the POI task.



Users can click buttons on the device status window or use the keyboard shortcuts to adjust the aircraft direction and speed during POI. Click Exit or press the Space key to exit POI.

- Users need to obtain the flight and gimbal control before starting POI tasks.
- To start POI, the DJI Dock firmware version should be v01.06.17.02 or later, and the dock aircraft version should be v09.01.00.05 or later.
- If the aircraft approaches a GEO Zone or detects obstacles during POI, the aircraft will hover. Pay attention to the aircraft status and livestream view. Fly with caution.
- The aircraft will fly sideways during POI. When the environment is not suitable for the vision system to work properly, the aircraft may not be able to bypass obstacles. Users should check the surrounding environment on-site or the flight trajectory on the cloud before starting POI.
- FlightHub 2 will intelligently adjust the maximum speed of POI based on the distance between the aircraft and the point of interest.
- During POI, when the user double-clicks the livestream view, the aircraft will not be able to face the clicked point. Dragging the livestream view or using the keyboard shortcuts to adjust the gimbal angle are also not supported.

8. One-Click Multi-Aircraft Return-to-Home

Right-click on the map and select Return All to Home from the menu. After confirmation, the system will send return instructions to all aircraft currently performing flight tasks within the project. For aircraft performing automatic tasks, the current task will be immediately interrupted and the aircraft will initiate automatic return-to-home. For aircraft under manual control, the operator with control authority will receive a return request and must manually confirm execution.



Note: Before sending the Return All to Home command, make sure that all aircraft within the project are at a safe altitude and have set an appropriate return height to avoid collision risks during the return process.

Gimbal Camera Control

1. Obtain Camera Control

Users can click the camera view button to start livestream and click to obtain the gimbal camera control.

2. Switch Cameras

Depending on the device model, users can switch between wide-angle, zoom, and infrared cameras. Below is the introduction of the zoom camera view of Matrice 30 Series (Dock Version).



1. Camera Settings: Click to customize the camera settings.
2. Camera Parameters: Displays the ISO, shutter, and EV values.
3. Focus Mode: Click to switch between MF (manual focus), AFC (continuous autofocus), and AFS (single autofocus) modes.
4. Photo/Video Mode:
   - Users can take single, smart low-light, and panoramic photos or start recording. Only the zoom camera supports taking smart low-light photos.

     When taking panoramic photos:
     - Users are unable to start FlyTo tasks nor double-click on the livestream view to center the view around the clicked point. Enabling Face PinPoint or the subject zoom is also not supported.
     - Users are unable to drag the livestream view or press [←] [→] [↑] [↑] to fine-tune the gimbal angle.
     - Operating the aircraft will stop the process but will not affect the panorama stitching if stitching is in progress.

   - Media files captured by the dock aircraft after obtaining the aircraft control will be transferred to the cloud in real time. Users can change the settings for DJI Dock 2 in the Details panel.

     To transfer media files in real time:
     - The DJI Dock firmware version should be v01.06.17.02 or later, and the aircraft version should be v09.01.00.05 or later.
     - The DJI Dock 2 firmware version should be v09.02.01.08 or later, and the aircraft version should be v09.02.01.08 or later. If the aircraft is recording or using PSDK functions, the transfer will be interrupted.

Media file naming rules:

- When the aircraft is performing a planned task and the aircraft control is enabled, media files captured or videos recorded will be stored in a subfolder of the corresponding flight folder in the media file library. The name of the subfolder is "Remote Control".
- When the aircraft is performing a FlyTo task, media files captured or videos recorded will be stored in a separate folder in the media file library. The folder name follows the naming convention of starting with "the dock name-", followed by "FLY-TO-" and then the time when the task is performed.

5. Zoom: Users can adjust the zoom slider or scroll the mouse to zoom in or out on the livestream view.
6. Laser Rangefinder: Click  to obtain the coordinates and altitude of the subject on the focal point, as well as the distance between the subject and the dock aircraft.
7. PinPoint: Click  to add a PinPoint of the object on the focal point. Users can also right-click the PinPoint on the map and choose to Face PinPoint.
8. Gimbal Control:
   - Users can switch from gimbal free and lock modes.
     - Free Mode: Users can adjust the gimbal angle freely, and the aircraft orientation will not follow the gimbal angle.
     - Lock Mode: When users double-click or drag the livestream view to change the gimbal angle, the aircraft will adjust its orientation to keep consistent with the gimbal. Users can enable the gimbal lock mode to achieve enhanced flight safety.

Note: When adjusting the gimbal angle of the DJI Dock 2 aircraft, the aircraft orientation will be adjusted simultaneously. When the aircraft orientation reaches limit, some of the gimbal control features will not be available. For example, gimbal control is not supported when DJI Dock 2 is in the Live Flight Controls mode.

   - Users can also use shortcut keys to switch between following gimbal modes:
     - Recenter
     - Gimbal Down
     - Recenter Gimbal Pan (for DJI Dock only)
     - Gimbal Tilt Down (for DJI Dock only)
   - Gimbal control also supports:
     - Double-click on the livestream view to center the view around the clicked point.
     - Drag the livestream view or press [←] [→] [↑] [↑] to fine-tune the gimbal angle.
     - Press and hold the right mouse button and select a subject to zoom in. The camera in use will be switched from the wide-angle to zoom camera when zooming in the subject in the wide-angle view.



> Note: Only DJI Dock 2 supports the subject zoom. To use the feature, the DJI Dock 2 firmware version should be v09.02.01.08 or later, and the dock aircraft version should be v09.02.01.08 or later.

9. PSDK Control: DJI FlightHub 2 supports remotely operating the PSDK devices. See PSDK Control for more information.

This section introduces the infrared camera view, and only the differences from the zoom camera view will be explained.



1. Camera Parameters:
   - IR Palette: Click to change the IR palette color.
   - High Temperature Alarm: Click to customize the high temperature alarm settings.
2. SBS: Click to display the infrared and zoom camera views side by side.
3. Temperature Bar: Displays the highest and lowest temperatures of the objects within the camera view.
4. Gain Mode: Click to switch between high- and low-gain modes. The high-gain mode provides more accurate temperature measurements, while the low-gain mode supports a wider

temperature measurement range.

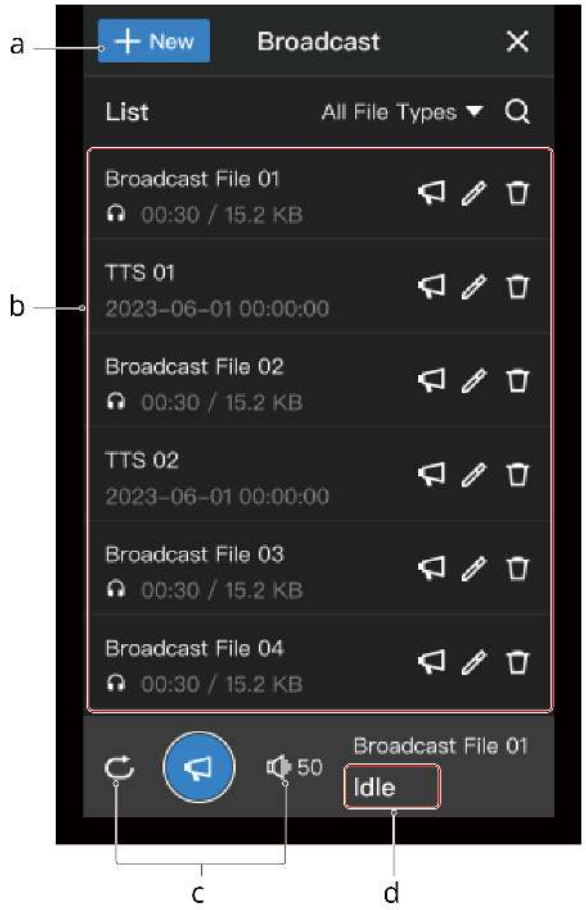
5. Spot Temperature Measurement: Displays the temperature of the object at the focus point. Click anywhere on the camera view, and the camera will measure the temperature of the object at the clicked point.
6. Area Temperature Measurement: Click to enable the area temperature measurement and adjust or drag the temperature measurement frame to change its size or location.

PSDK Control

Click to enter the PSDK control interface.

- Main Interface: Displays the PSDK functions, including but not limited to the speaker, lighting device, and gimbal control, depending on the PSDK device installed.
- Settings: Click to customize the PSDK device settings.

Take a third-party PSDK speaker as an example.



a. Create Broadcast Task

Click New to select from Record & Broadcast, Text to Speech, or Import Audio File.

b. Broadcast List

Displays all cloud files in the current project. Files stored in the PSDK speaker are not included.

c. Broadcast Settings

Users can set the loop play and adjust the broadcast volume.

d. Broadcast Status

Displays the current status of the speaker.

Click 🎧 to preview the audio. Click 📣 and the dock aircraft will broadcast the audio.

- Users need to allow DJI FlightHub 2 to access the microphone and install a voice input device if necessary.
- Users should contact the PSDK device manufacturer to upgrade the device to the latest version if the PSDK device version is too early.

Virtual Cockpit

Overview

Project administrators can click Virtual Cockpit to enter the virtual cockpit. When the aircraft is powered on, entering the virtual cockpit will by default start the FPV and gimbal camera views, and the project administrator will automatically gain the flight control.

- Devices supported by the virtual cockpit include DJI Dock, DJI Dock 2, DJI Dock 3, DJI AS1 Speaker, DJI AL1 SpotLight, DJI Mavic 3 enterprise series, DJI Matrice 4 enterprise series, and Matrice 400.
- When using DJI Dock, make sure to update the firmware of the dock to v01.03.0902 or later, and the firmware of the aircraft to v06.02.0803 or later.
- Make sure to update the firmware of the Mavic 3 enterprise series to v10.01.00.14 or later to control the gimbals remotely.
- When using the DJI Matrice 4 enterprise series to remotely control the aircraft and the gimbal camera, it is necessary to update the aircraft firmware version to 12.0.0 or later.
- To use the FlyTo, gimbal camera, and PSDK control features, the Matrice 400 firmware version must be v14.1.0 or later.

Feature Introduction



Aircraft Information

Includes the aircraft status, the warning messages related to the aircraft, and the overall operation latency status.

- Aircraft Status: The current status of the aircraft will be displayed during Live Flight Controls.
- Warning Messages: Displays the warning messages of the aircraft when there are any.
- Overall Operation Latency Status: Displays the latency data for the control loop from the cloud to the aircraft. The link data is affected by network bandwidth and video transmission signal.

Gimbal Camera View

When the aircraft is powered on, the camera view will be enabled automatically after users enter the virtual cockpit.

Switch Cameras

Depending on the device model, users can switch between wide-angle, zoom, and infrared cameras. Below is the introduction of the zoom camera view.

- Keyboard Shortcuts:

[1]: Switch to the wide-angle camera	[2]: Switch to the zoom camera
[3]: Switch to the infrared camera if available	[F]: Take photos

[X]: Switch the speed modes	[R]: Start/Stop recording
[T]: Add PinPoints	[V]: Enable the Mouselook feature. Press [V] or [ESC] to exit
[B]: AI recognition	[G]: Smart Track

- Camera Settings: Click on camera settings to enter the settings panel and view common camera functions.
  - Mechanical Shutter: Users can disable the mechanical shutter to extend the device's operational life.
  - Distortion Correction: Users can enable distortion correction to ensure proper display of the camera view.
  - Watermark: Users can enable the watermark feature to display watermark information on the liveview and media files captured by the camera.

    > Note: Enabling the watermark may affect the mapping results.

  - Lens Defog: Users can manually enable the lens electronic defog feature.
- Camera Parameters: Display ISO, shutter, and exposure data.
  - Auto mode allows for setting the camera exposure parameters (EV), while M mode allows for setting the ISO, shutter speed, and aperture.
- Focus Mode: Click to adjust the zoom camera's focus mode, supporting MF (manual focus), AFC (auto continuous focus), and AFS (auto single-point focus).
- Photo/Video Mode: Users can take single, timed, smart low-light, and panoramic photos or start recording.

  - Panoramic Photo Mode:
    - Users are unable to start FlyTo tasks nor double-click on the livestream view to center the view around the clicked point. Enabling Face PinPoint or the subject zoom is also not supported.
    - Users are unable to drag the livestream view or press [←] [→] [↑] [↓] to fine-tune the gimbal angle.
    - Operating the aircraft will stop taking panoramas.

  - Media files captured by the dock aircraft after obtaining the aircraft control will be transferred to the cloud in real time. Users can change the settings in the Details panel.

    > To transfer media files in real time:

- The DJI Dock firmware version should be v01.06.17.02 or later, and the aircraft version should be v09.01.00.05 or later.
- The DJI Dock 2 firmware version should be v09.02.01.08 or later, and the aircraft version should be v09.02.01.08 or later. If the aircraft is recording or using PSDK functions, the transfer will be interrupted.

Media file naming rules:

- When the aircraft is performing a planned task and the aircraft control is enabled, media files captured or videos recorded will be stored in a subfolder of the corresponding flight folder in the media file library. The name of the subfolder is "Remote Control".
- When the aircraft is performing a FlyTo task, media files captured or videos recorded will be stored in a separate folder in the media file library. The folder name follows the naming convention of starting with "the dock name-", followed by "FLY-TO-" and then the time when the task is performed.

- Resolution Settings: Users can set the resolution of videos captured by the visible light camera.
- Storage Settings: Display the remaining storage space in the current mode. Users can set the photo or video storage type. Users can choose storage types such as Current Lens (C), Visible Light (V), and Infrared (I). In the SBS mode, the infrared photos are video transmission screenshots.
- Night Scene Mode: In low-light environments, enabling night scene mode can enhance the image quality, providing clearer and more accurate visual information, thereby ensuring efficiency and accuracy during nighttime operations.

> Note: This feature is only supported by DJI Dock 3.

- Adjust Zoom Scale: Users can adjust the zoom slider or scroll the mouse to zoom in or out on the livestream view. Link Zoom is now supported by DJI Dock 2. Users can control the zoom scale of the visible light and infrared camera views at the same time.

> Note: To use the Link Zoom feature, the DJI Dock 2 firmware version should be v10.01.32.05 or later, and the aircraft version should be v10.01.32.05 or later.

- Laser Rangefinder: Click  to obtain the coordinates and altitude of the subject on the focal point, as well as the distance between the subject and the dock aircraft.
- PinPoint: Click  to add a PinPoint of the object on the focal point. Users can also right-click the PinPoint on the map and choose to Face PinPoint.

> Note: Users can add PinPoints based on the camera orientation and terrain data for DJI Dock 2.

- Gimbal Control:
  - Users can switch from gimbal free and lock modes.
    - Free Mode: Users can adjust the gimbal angle freely, and the aircraft orientation will not follow the gimbal angle.
    - Lock Mode: When users double-click or drag the livestream view to change the gimbal angle, the aircraft will adjust its orientation to keep consistent with the gimbal. Users can enable the gimbal lock mode to achieve enhanced flight safety.

    > Note: When adjusting the gimbal angle of the DJI Dock 2 aircraft, the aircraft orientation will be adjusted simultaneously. When the aircraft orientation reaches limit, some of the gimbal control features will not be available. For example, gimbal control is not supported when DJI Dock 2 is in the Live Flight Controls mode.

  - Users can also use shortcut keys to switch between following gimbal modes:
    - Recenter
    - Gimbal Down
    - Recenter Gimbal Pan (for DJI Dock only)
    - Gimbal Tilt Down (for DJI Dock only)
  - Gimbal control also supports:
    - Double-click on the livestream view to center the view around the clicked point.
    - Drag the livestream view or press [←] [→] [↑] [↑] to fine-tune the gimbal angle.
    - Press and hold the right mouse button and select a subject to zoom in. The camera in use will be switched from the wide-angle to zoom camera when zooming in the subject in the wide-angle view.

      
- Beacons: Users can turn on or off beacons within the virtual cockpit.
- Discreet Mode: Users can enable the Discreet mode to turn off the beacons, aircraft status indicators, and battery level LEDs.

Note: Turning on the beacons will automatically exit the Discreet mode.

Differences Between Infrared and Zoom Cameras



1. Camera Parameters:
   - IR Palette: Click to change the IR palette color.
   - High Temperature Alarm: Click to customize the high temperature alarm settings.
2. SBS: Click to display the infrared and zoom camera views side by side.
3. Temperature Bar: Displays the highest and lowest temperatures of the objects within the camera view.
4. Gain Mode: Click to switch between high- and low-gain modes. The high-gain mode provides more accurate temperature measurements, while the low-gain mode supports a wider temperature measurement range.
5. Spot Temperature Measurement: Displays the temperature of the object at the focus point. Click anywhere on the camera view, and the camera will measure the temperature of the object at the clicked point.
6. Area Temperature Measurement: Click to enable the area temperature measurement and adjust or drag the temperature measurement frame to change its size or location.

Mouselook Mode

Users can click or press [V] to enable mouselook and track subjects. When enabled, the mouse shape will become circular, and the cursor will be centered in the middle of the camera view. A circle will also be displayed in the center. Users can move the cursor, and the aircraft or gimbal will face the subject at the cursor position.

- When using mouselook and the gimbal movement is not limited, the gimbal will face the subject at the cursor position. When the movement is limited, the aircraft will change its

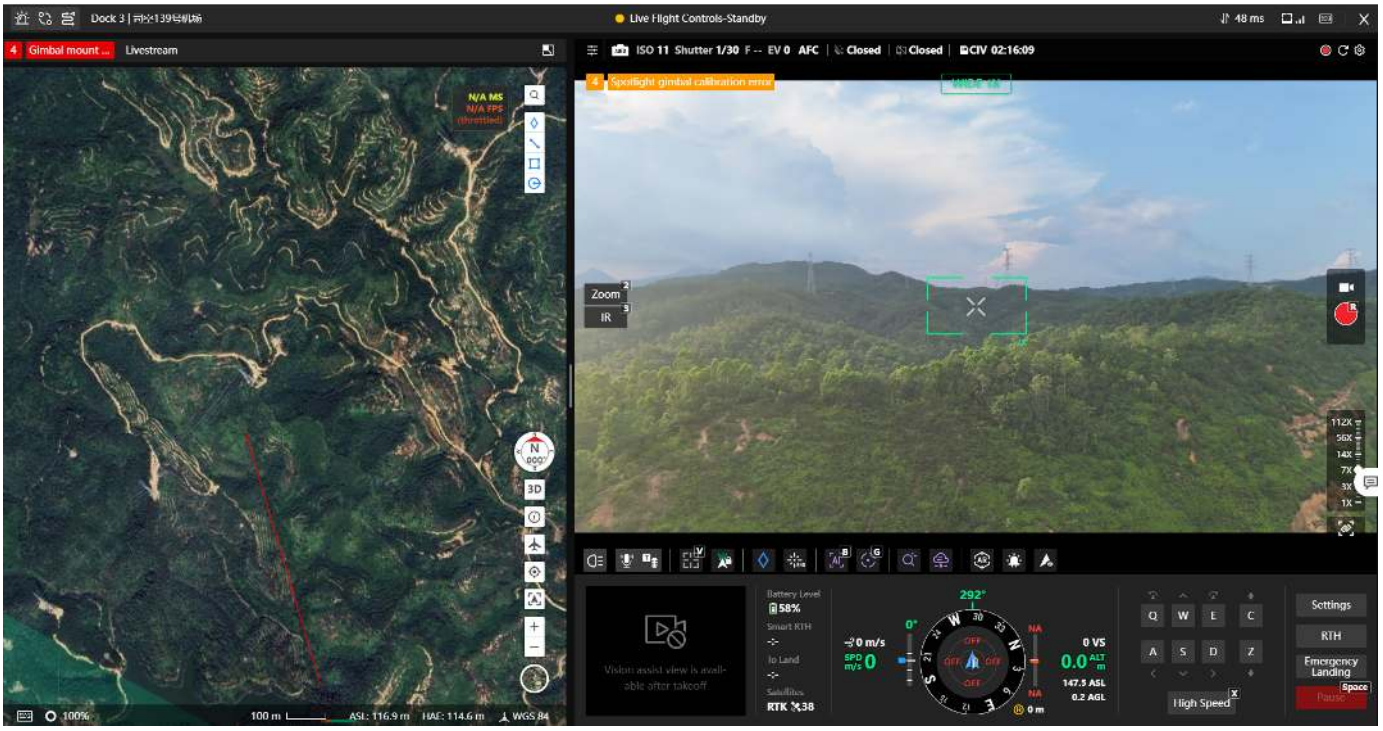
orientation accordingly.

- If the cursor only moves inside the circle, the aircraft or gimbal will not change its orientation.
- Users are unable to click buttons on the interface after enabling mouselook. To operate the aircraft or gimbal, users can use the keyboard shortcuts or mouse. To use the buttons on the interface, users should press [ESC] or [V] to exit mouselook first.
- See Gimbal Camera Control for more details.
- Note: Browsers that support the current feature should be Chrome 92 and above.

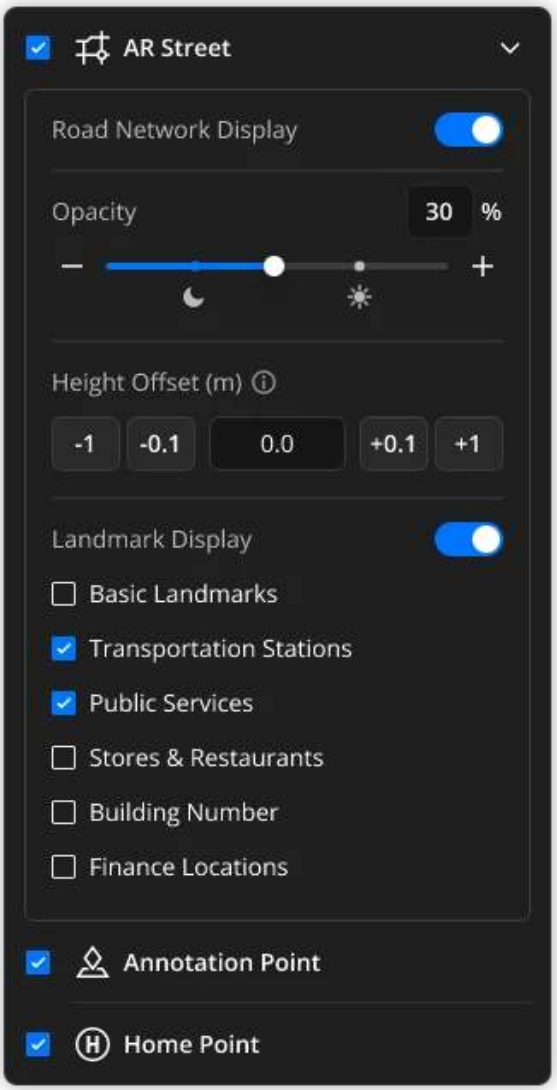
AR Projection

The AR Projection feature displays virtual elements in the virtual cockpit, including annotation points, lines, and areas, as well as the aircraft's Home Point and AR streets.

> Note: Currently, only annotation lines and areas drawn in DJI Pilot 2 can be synced and displayed on FlightHub 2.



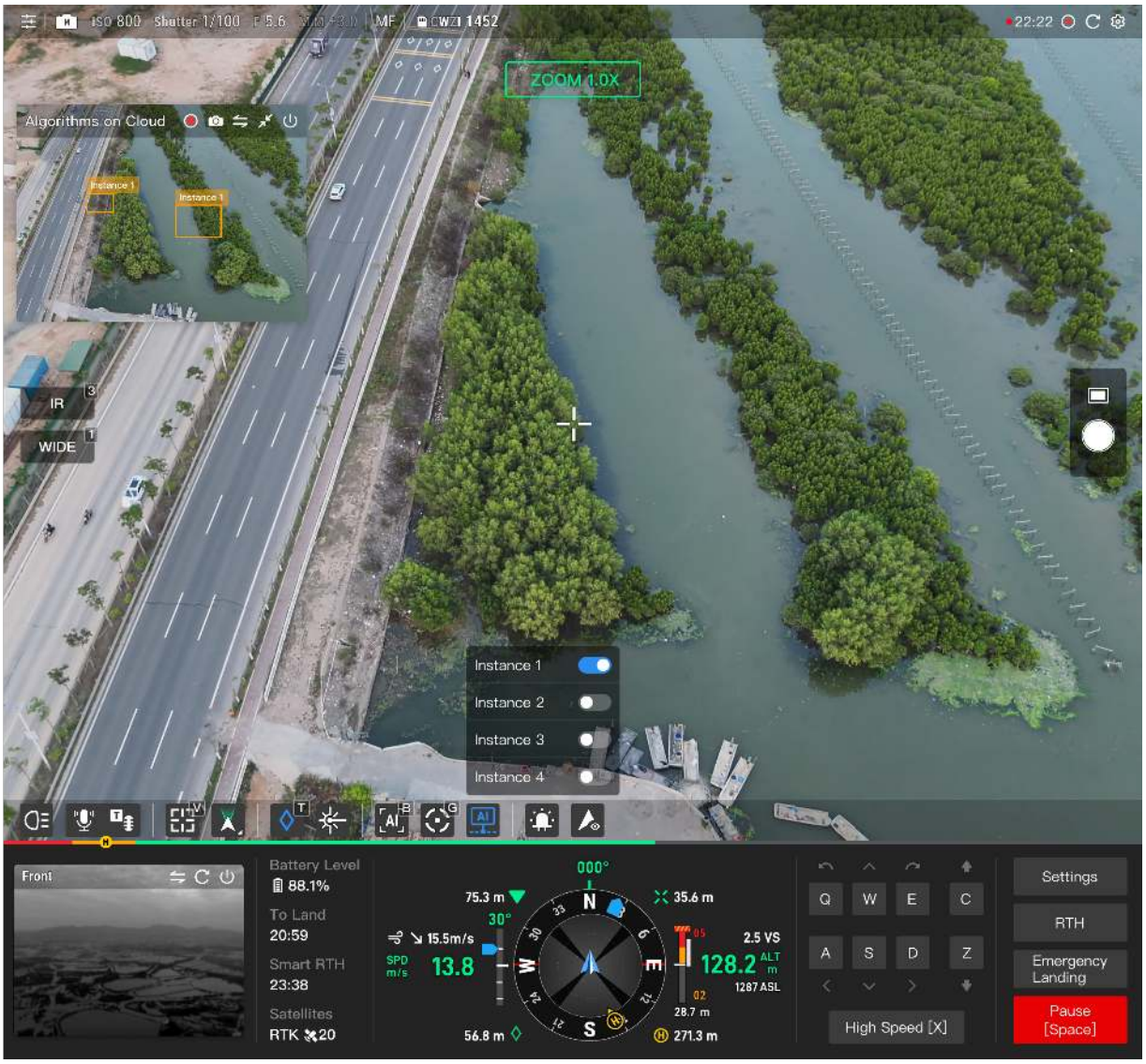
To use AR projection, open the settings panel and select the types of projections you wish to display. The selected elements will appear in the livestream. You can enable or disable AR Street using a shortcut, and customize parameters such as opacity, height offset, and landmark display.



- Note: This feature requires Chrome browser version 92 or above.

AI Recognition

After enabling the AI recognition feature, the livestream will display the recognized objects in real time. You can select DJI Visible Light Recognition, an algorithm that supports the recognition of people, vehicles, and boats.



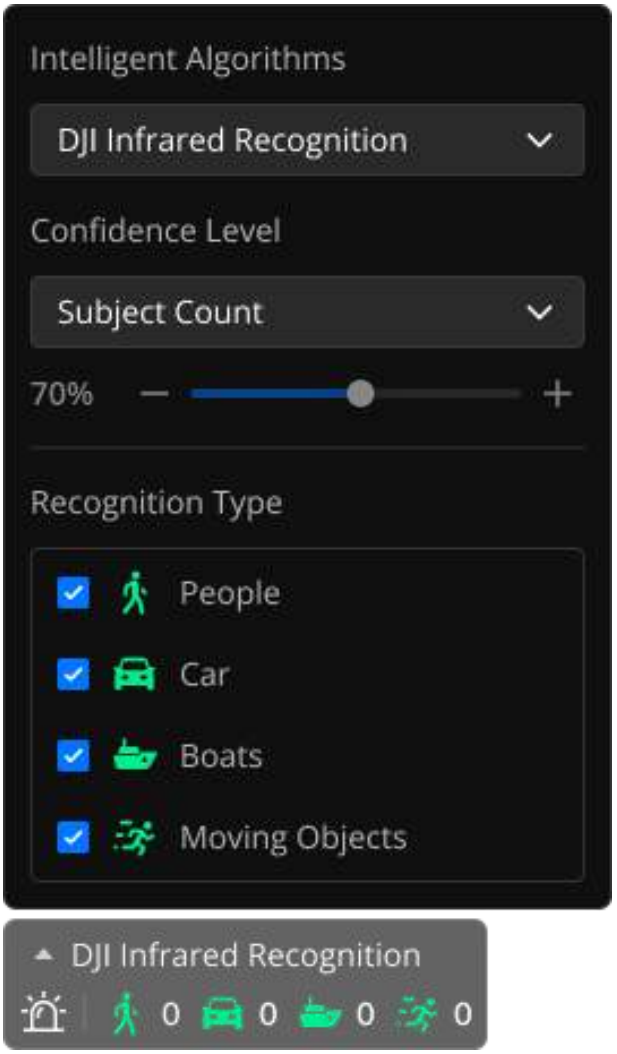
Or you can select DJI Infrared Recognition, an algorithm that supports the recognition of people, vehicles, boats, and moving objects. You can enable different types of AI recognition algorithms based on the scenario.



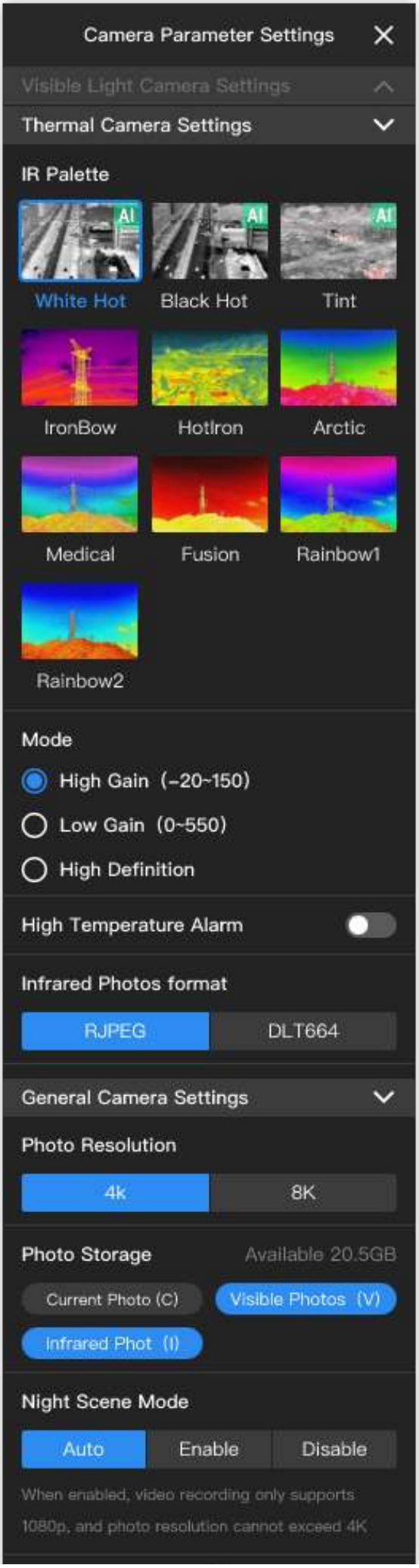
When Alert is enabled, a breathing light effect will occur when an object is identified, and an alert sound will also be played automatically.

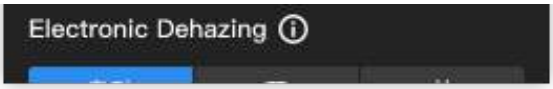


If the aircraft is equipped with third-party AI algorithms, a Third-Party Algorithms tab will appear in the pull-up menu. Users can select the corresponding third-party model for recognition.



Select either a DJI or third-party infrared recognition algorithm. The system will automatically switch to the recommended compatible infrared color palette.


Camera Parameter Settings
Visible Light Camera Settings
Thermal Camera Settings
IR Palette
AI
White Hot
Black Hot
Tint
IronBow
HotIron
Arctic
Medical
Fusion
Rainbow1
Rainbow2
Mode
High Gain (-20~150)
Low Gain (0~550)
High Definition
High Temperature Alarm
Infrared Photos format
RJPEG
DLT664
General Camera Settings
Photo Resolution
4k
8K
Photo Storage
Available 20.5GB
Current Photo (C)
Visible Photos (V)
Infrared Phot (I)
Night Scene Mode
Auto
Enable
Disable
When enabled, video recording only supports 1080p, and photo resolution cannot exceed 4K



- Note: Browsers that support the current feature should be Chrome 92 and above.

Smart Track

When enabled, hover mouse over subject and press [E] or right-click and select subject for continuous tracking.

While in the locked state, you can cancel the subject lock tracking by pressing the shortcut key [Q].

During the subject tracking process, you can move the mouse to another identified subject and press the shortcut key [E] to quickly switch the tracking subject. If the subject is lost during tracking, the system will attempt to automatically track again.



- Note: Browsers that support the current feature should be Chrome 92 and above.

DJI AS1 Speaker, DJI AL1 SpotLight, and Third-Party Accessories

DJI Dock 3 now supports mounting the DJI AS1 Speaker and DJI AL1 Spotlight. Matrice 400 supports mounting the Zenmuse S1 Spotlight, Zenmuse V1 Speaker, as well as third-party speakers.These accessories can be operated within the virtual cockpit. After installing accessories, flight propulsion or vision system performance may be affected. Pay attention to flight safety.

(1) DJI AS1 Speaker After entering the virtual cockpit, click  to start file broadcasting and click  to broadcast in real time.

- File broadcasting includes uploading voice files and inputting text for broadcasting. The speaker only supports audio files in AAC, MP3, and WAV formats, and each audio file must be within 10 MB in size.
- For real-time broadcasting, a voice input device needs to be configured, and the browser must be authorized for voice permissions.

(2) DJI AL1 SpotLight After entering the virtual cockpit, click  to open the spotlight control panel and set the spotlight working mode. The spotlight is by default linked with the camera gimbal, which

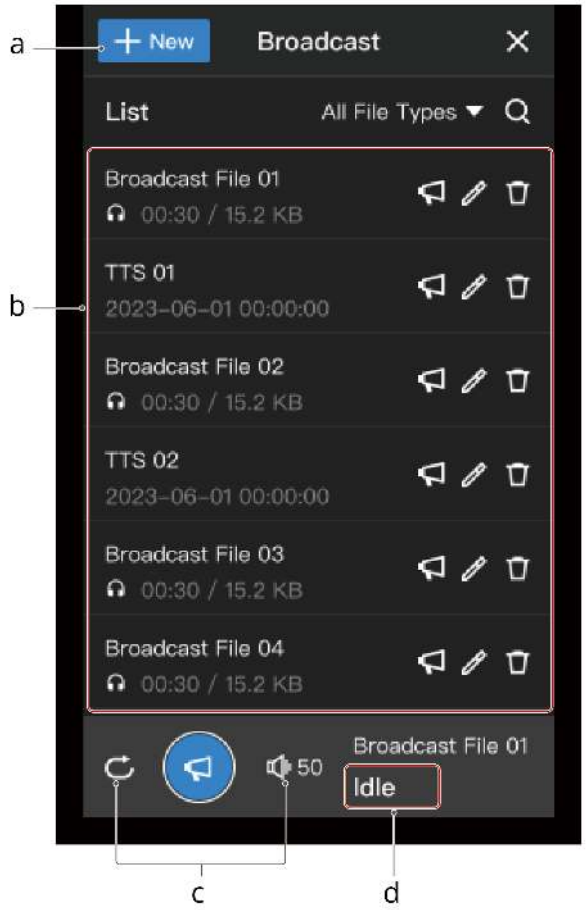
can enhance the aircraft's operational capability at night.

- The spotlight supports two modes: constant light and strobe.
- It is recommended to appropriately reduce the brightness of the spotlight and turn the spotlight on as needed to minimize the impact on the aircraft's endurance.

The virtual cockpit supports control of third-party PSDK accessories. Once third-party PSDK accessories are successfully connected, click PSDK to enter the PSDK main interface.

- Main Interface: Displays the PSDK functions, including but not limited to the speaker, lighting device, and gimbal control, depending on the PSDK device installed.
- Settings: Click ⚙ to customize the PSDK device settings.

Take a third-party PSDK speaker as an example.



a. Create Broadcast Task

Click New to select from Record & Broadcast, Text to Speech, or Import Audio File.

b. Broadcast List

Displays all cloud files in the current project. Files stored in the PSDK speaker are not included.

c. Broadcast Settings

Users can set the loop play and adjust the broadcast volume.

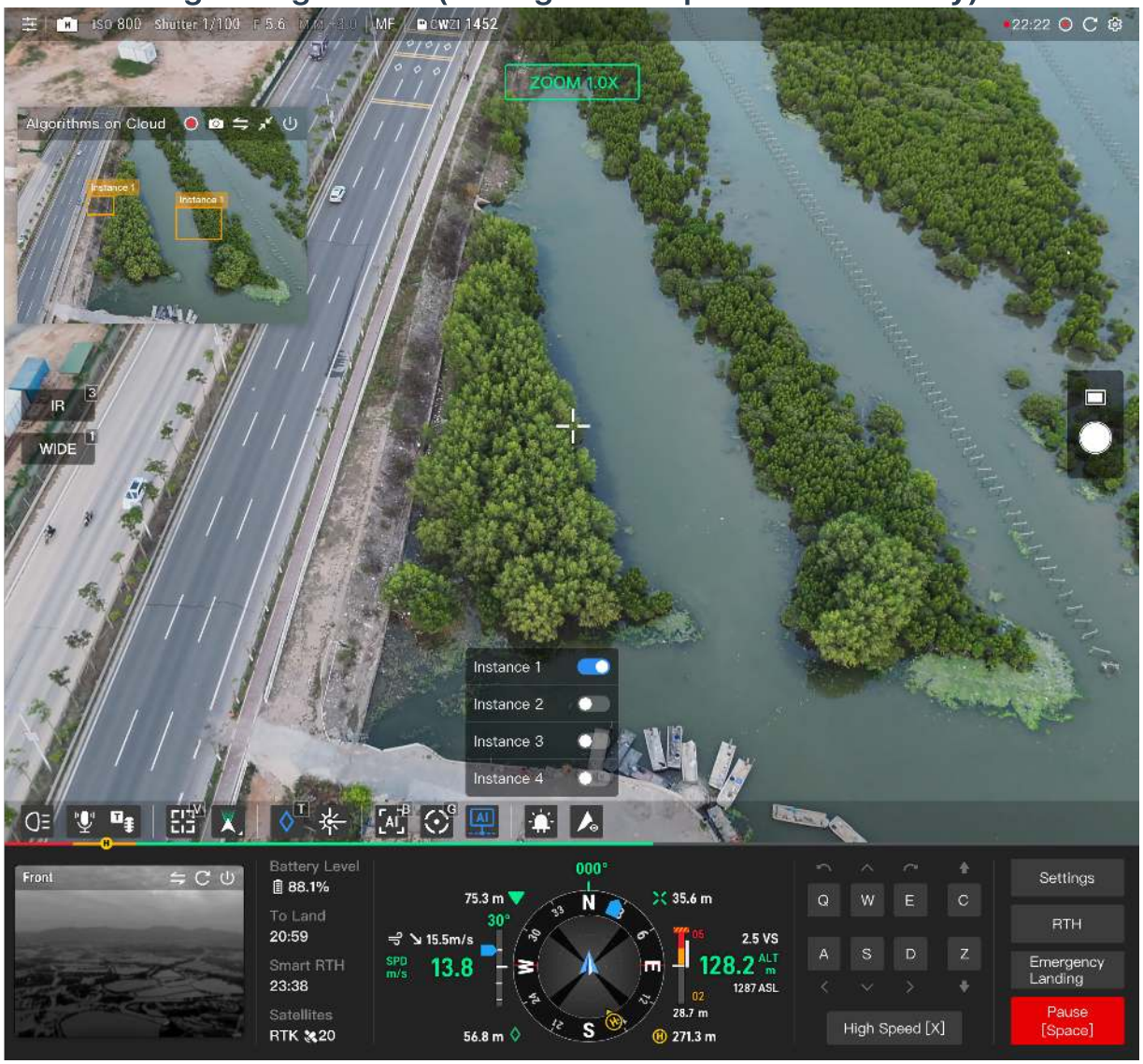
d. Broadcast Status

Displays the current status of the speaker.

Click to preview the audio. Click and the dock aircraft will broadcast the audio.

- Users need to allow DJI FlightHub 2 to access the microphone and install a voice input device if necessary.
- Users should contact the PSDK device manufacturer to upgrade the device to the latest version if the PSDK device version is too early.

Cloud Intelligent Algorithms (for FlightHub 2 public version only)



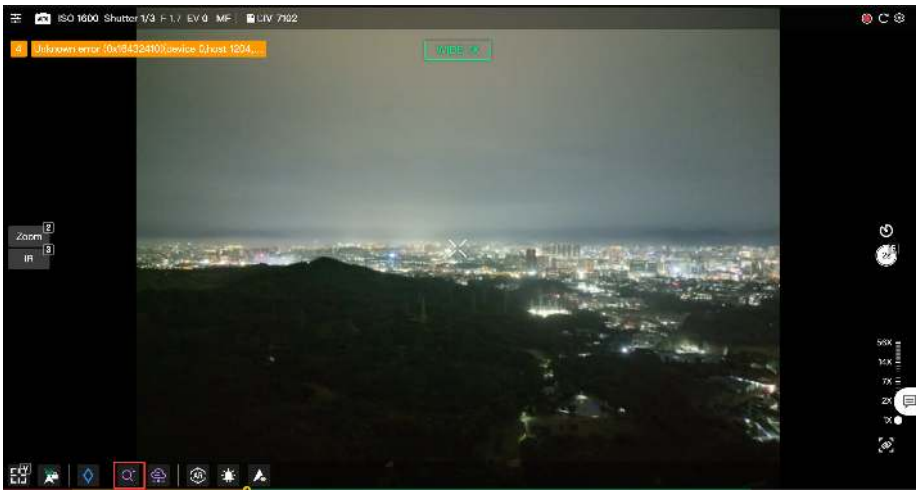
1. Select an algorithm instance: In the virtual cockpit, click the cloud intelligent algorithm call button to view all successfully created algorithm instances in the expanded list. For details, refer to Organization Management > Algorithm Management .
2. Enable the algorithm instance: When enabled, a real-time livestream window will be displayed in the upper left corner of the livestream screen, allowing users to view the live video processed by the cloud algorithm. Users can switch views, minimize the window, or end the livestream.

3. Note: Due to the delay in calling the cloud algorithm, which depends on the service performance of third-party vendors, it is necessary to pay attention to flight safety after switching the livestream screen of the cloud intelligent algorithm to the main view.

Multimodal Object Observation

How to Access

After obtaining payload control in the virtual cockpit and switching to the visible light camera, you can access multimodal object observation. Click  to open the object search input panel.

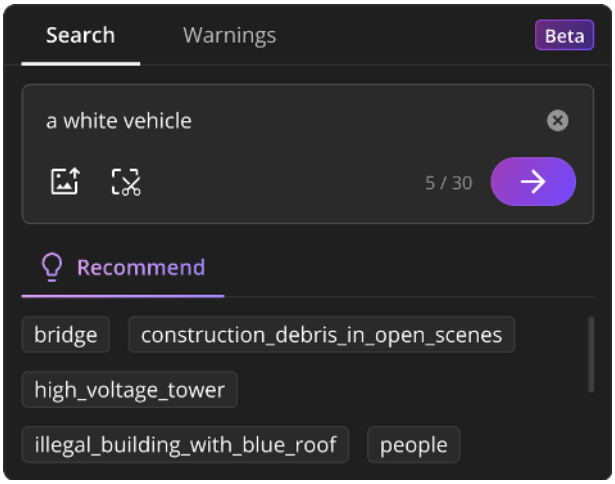


Intent Recognition

There are three ways to input your object search:

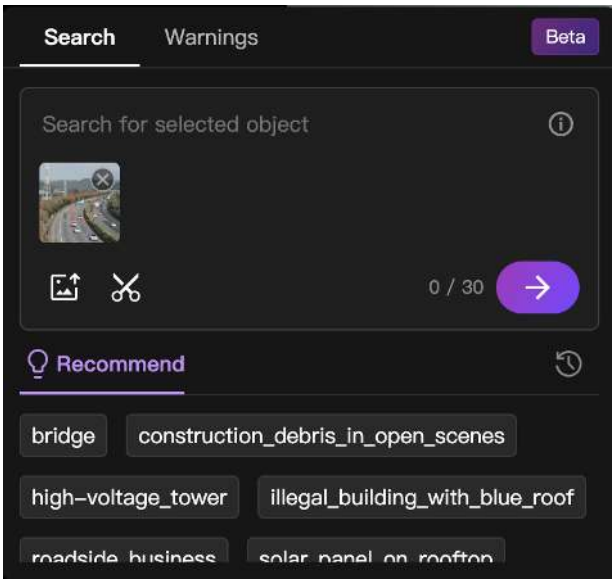
1. Text Description

Enter a description of the object you wish to find (e.g., "Small black car"), up to 60 characters. You may also select from recommended high-frequency scene prompts, which will auto-fill the text box.



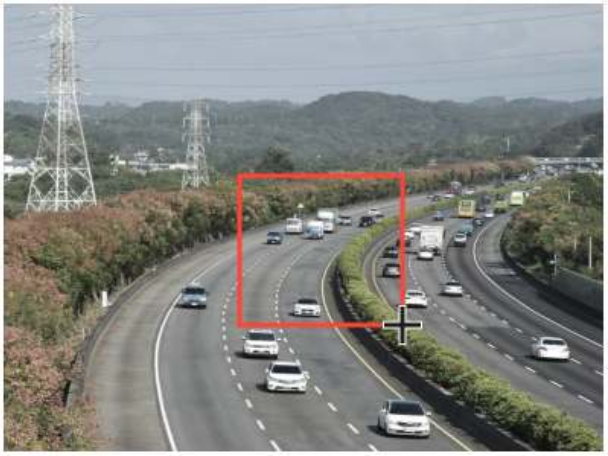
2. Image Upload

Click to upload a photo, select the file, and then choose the object within the image. Once uploaded successfully, the text box will automatically fill with the copy "Search for object in photo," which you can further edit.



3. Livestream View Capture

Capture the current livestream view and select the object within the captured image. After confirming the object, click the Next button. The AI model will analyze your input and generate up to three tags (each up to 20 characters), which you can edit or delete. Once confirmed, click Start Search to begin object detection. The panel will close automatically.



Object Search

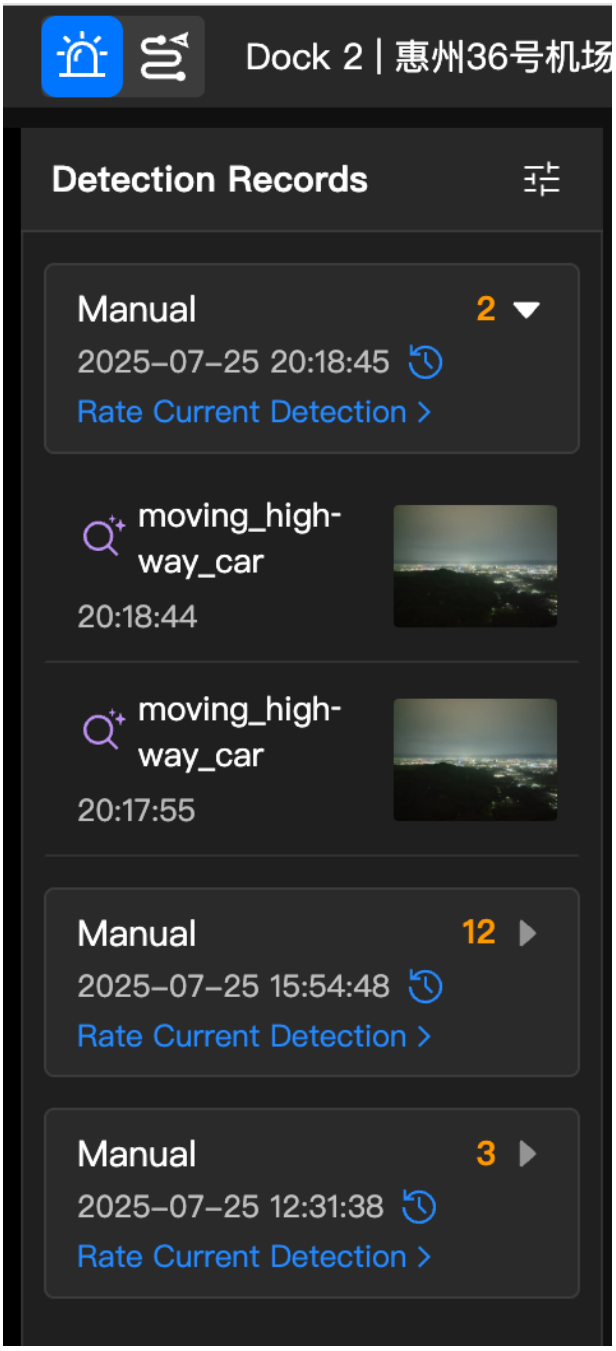
Once the search begins, the multimodal object detection module will maintain a dynamic display effect.



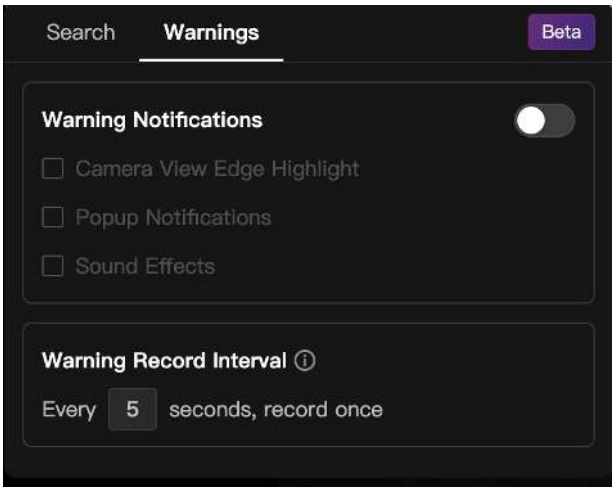
Object Detection Alerts

1. Notification Configuration

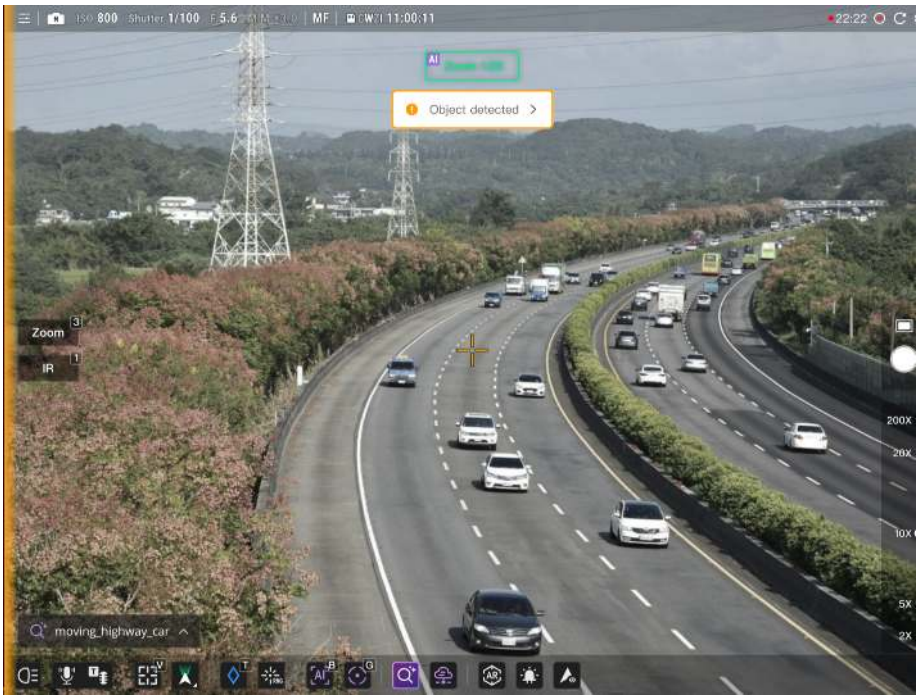
- When not enabled, detected objects will only be recorded in the AI warning record list.



- When enabled, you can select additional notification categories.



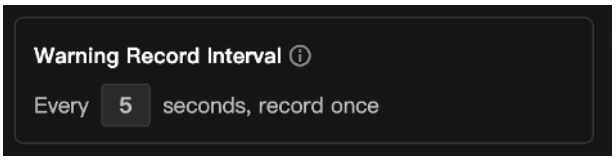
- Edge Highlight: A flashing effect appears on both sides of the livestream screen when an object is detected.
- Popup Notification: When a object is detected, a window pops up on the livestream screen; clicking it expands the AI warning record list.



- Sound Effect: A buzzing sound plays when a object is detected.

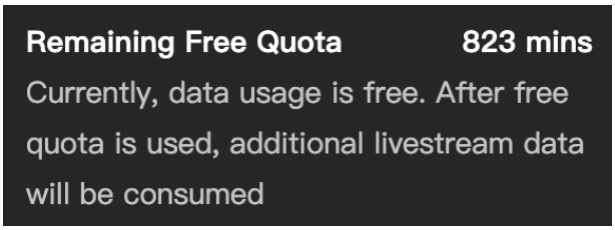
2. Warning Record Interval Configuration

- You can set the minimum interval between alerts, with a minimum of 2 seconds.



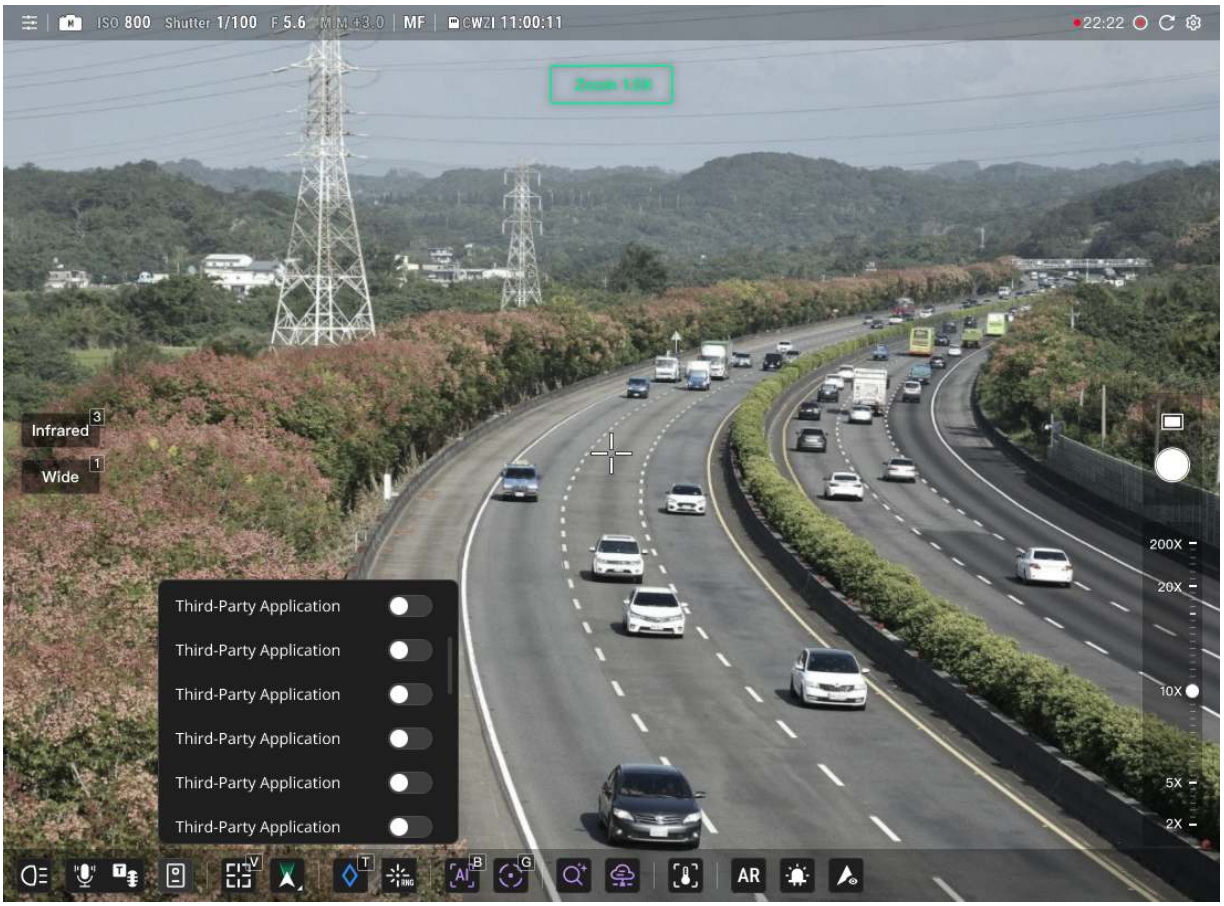
Resource Consumption

Using the multimodal object observation feature consumes organizational livestream minutes. Each organization receives a default free quota of 1,000 minutes. After exceeding this quota, additional usage will be billed based on livestream minutes consumed. You can view detailed resource consumption under the Livestream (Multimodal object Observation) category in your organization's payment list.



Launching Manifold 3 Applications

After importing the application and successfully connecting to the virtual cockpit of the aircraft equipped with Manifold 3, you will see the Manifold 3 application entry. Click it to expand the application menu.



Once the application is launched, third-party PSDK controls will be automatically activated. If the application is AI-related, the camera view will display AI recognition effects and labels in real time.



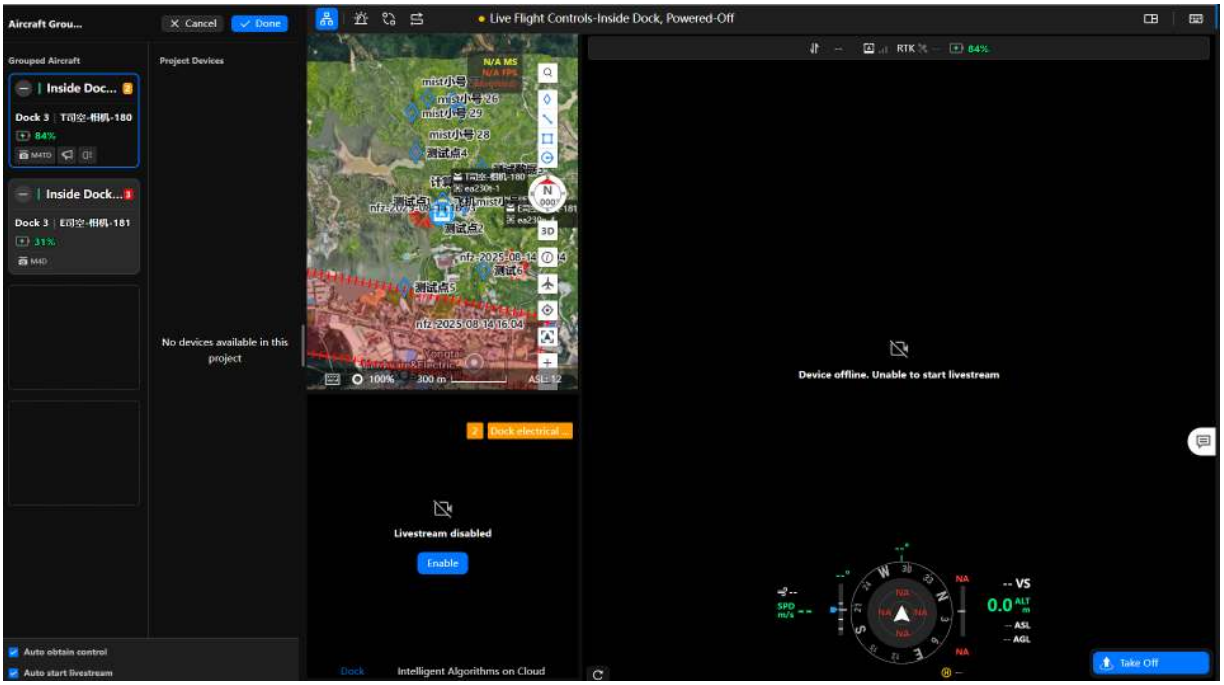
Notes:

- Currently, only DJI Dock 3 aircraft are supported.
- For the best experience, it is recommended to use the latest version of Chrome.

Multi-Aircraft Control

To manage multiple aircraft, expand the multi-aircraft control panel and add available aircraft to the Grouped Aircraft list. You can then configure what happens when you switch between aircraft, including:

- Automatically taking control of the selected aircraft.
- Automatically starting the livestream from the selected aircraft.



Clicking an aircraft's device card allows you to instantly switch control to that aircraft. The card also provides one-click commands for critical functions like Return to Home (RTH) and emergency stop.


Aircraft Grou...
Grouped Aircraft
Standby
2
Dock 3 | T司空-相机-180
86%
M4TD
Inside Dock...
3
Dock 3 | E司空-相机-181
31%
M4D

Recommended Configuration Requirements:

>>Control 1 to 2 devices simultaneously:

- Processor: Intel Core i5-1135G7 or higher
- Memory: 16 GB or more
- Network Bandwidth: 50 Mbps or higher

>>Control 3 to 4 devices simultaneously:

- Processor: Intel Core i7-12700K or higher
- Memory: 32 GB or more
- Network Bandwidth: 150 Mbps or higher

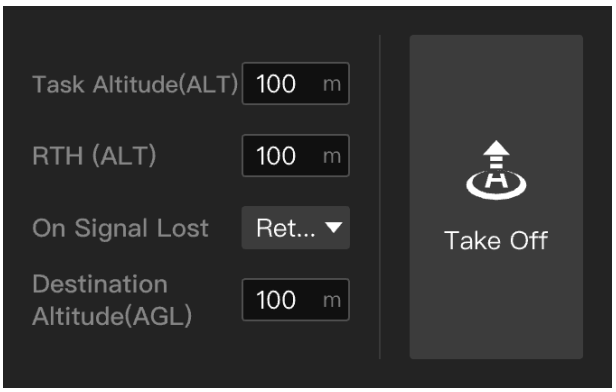
Please note that low-power processors (such as the i5-7200U) are not recommended for simultaneous control. Additionally, to ensure a better user experience, make sure the device is connected to a power source and the signal is stable throughout the operation.

Operation Panel

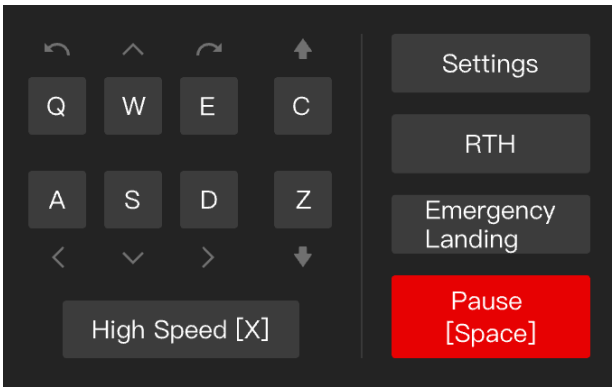
Displays different information when the aircraft is in different status.

- When the aircraft is powered off or idle, the panel will display the basic parameters and the Take Off button.

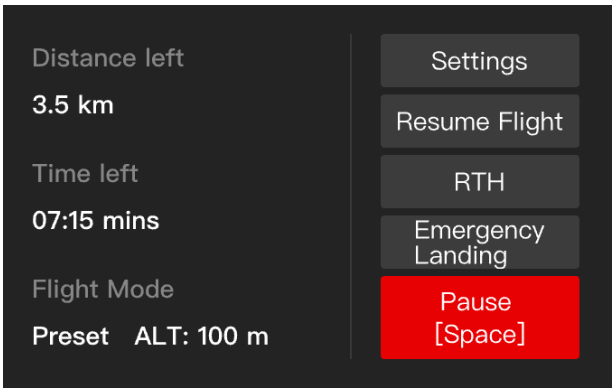
  Take Off: When the aircraft is inside the dock, users can click Take Off, and the aircraft will ascend to the task altitude and hover.



- When the aircraft is in the manual flight mode, the panel will display buttons for switching the flight speed mode and operating the aircraft to fly forward and backward, descend, ascend, and rotate. When users click the High Speed button or press [X], the horizontal speed of the aircraft will change from 5 m/s to 15 m/s.



- When the aircraft is performing the FlyTo tasks, the panel will display the remaining flight distance and time, as well as the flight mode. Users can customize the flight parameters, operate the aircraft to return home, and pause or resume the flight.

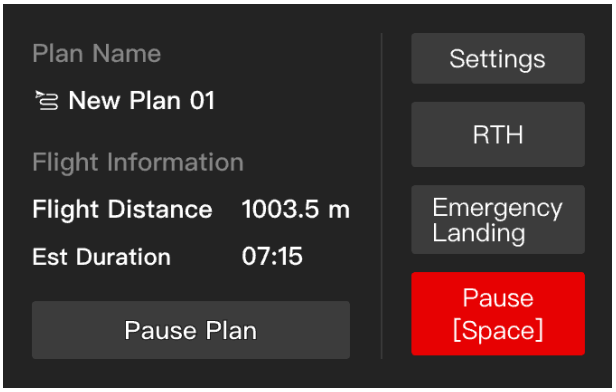


FlyTo Tasks: Right-click on the map to set a FlyTo destination. Users can also set a PinPoint or the search result on the map as the FlyTo destination. After the FlyTo destination is set, a virtual flight route will be displayed on the map. Users can click Start, and the aircraft will fly directly to the destination.

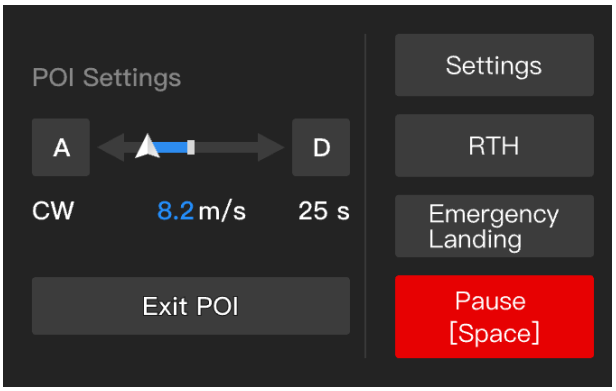
- When the aircraft starts the FlyTo task from DJI Dock 2:
  - When Optimal Route Planning is enabled, the aircraft will plan an optimal route, ascend 20 meters, and then perform the FlyTo task.
  - When Optimal Route Planning is disabled and the FlyTo altitude is higher than the task altitude, the aircraft will ascend to the task altitude before performing the FlyTo task. When the FlyTo altitude is lower than the task altitude, the aircraft will fly at the task altitude, reach above the FlyTo destination, and descend to the FlyTo altitude.
- When the aircraft starts the FlyTo task from DJI Dock:
  - When the FlyTo altitude is higher than the task altitude, the aircraft will ascend to the task altitude before performing the FlyTo task. When the FlyTo altitude is lower than the task altitude, the aircraft will fly at the task altitude, reach above the FlyTo destination, and descend to the FlyTo altitude.
  - For the aircraft with the firmware version earlier than v08.00.0003, the aircraft will ascend to the task altitude and directly fly to the FlyTo destination.
  - During a FlyTo task, users can select a new FlyTo destination, and the aircraft will fly to the destination directly.

    - To change the destination, the DJI Dock firmware version should be v01.06.17.02 or later, while the dock aircraft version should be v09.01.00.05 or later. As for DJI Dock 2, the firmware version should be v09.02.01.08 or later, while the Dock 2 aircraft version should be v09.02.01.08 or later.
    - To ensure flight safety, a reasonable task altitude, RTH altitude, and FlyTo destination altitude should be set based on the surrounding environment and task requirements and at least 5 meters lower than the maximum flight altitude allowed in Altitude Zone. Users should also make sure that there are no obstacles during flight.
    - The aircraft will bypass GEO Zones and obstacles during FlyTo tasks. If there is a GEO Zone with a maximum width of more than 400 meters between the current aircraft position and the FlyTo destination, the aircraft may not be able to bypass the area and will hover at the area boundary. Users should pay close attention to the the livestream view and fly the aircraft manually to bypass the GEO Zone.
    - When Low Battery RTH is triggered, DO NOT cancel RTH or enable Live Flight Controls during RTH, otherwise the aircraft will exit RTH and may not be able to return to the dock.
    - When the aircraft battery is critically low, the aircraft will land automatically, and the landing cannot be canceled.
    - DO NOT control the aircraft to land on the dock using keyboard commands, otherwise the aircraft will not be able to stop propellers after landing and return to the dock automatically.

- When the aircraft is performing planned tasks, the panel will display the basic flight information. Users can customize the flight parameters, operate the aircraft to return home, and pause or resume the flight.



- When the aircraft is performing the POI tasks, the panel will display the POI speed. Users can customize the flight parameters, operate the aircraft to return home, and pause or resume the flight.



POI

FlightHub 2 users can select any location or PinPoint on the map and start a POI task when DJI Dock is in the Live Flight Controls mode. After the FlyTo destination is set, the dock aircraft will face the FlyTo destination, and a virtual flight trajectory will be displayed on the map. Users can set the POI direction and speed and use the keyboard shortcuts to adjust the aircraft altitude and distance to the FlyTo destination. The task panel will display the estimated time needed for completing the POI task. Users can click Start to start the POI task.

Users can click buttons on the device status window or use the keyboard shortcuts to adjust the aircraft direction and speed during POI. Click Exit or press the Space key to exit POI.

- Users need to obtain the flight and gimbal control before starting POI tasks.
- To start POI, the DJI Dock firmware version should be v01.06.17.02 or later, and the dock aircraft version should be v09.01.00.05 or later.
- If the aircraft approaches a GEO Zone or detects obstacles during POI, the aircraft will hover. Pay attention to the aircraft status and livestream view. Fly with caution.
- The aircraft will fly sideways during POI. When the environment is not suitable for the vision system to work properly, the aircraft may not be able to bypass obstacles. Users should check the surrounding environment on-site or the flight trajectory on the cloud before starting POI.
- FlightHub 2 will intelligently adjust the maximum speed of POI based on the distance between the aircraft and the point of interest.
- During POI, when the user double-clicks the livestream view, the aircraft will not be able to face the clicked point. Dragging the livestream view or using the keyboard shortcuts to adjust the gimbal angle are also not supported.

- Emergency Landing: Users can land the aircraft in case of an emergency. Users can cancel landing at any time or control the aircraft manually to avoid obstacles.

  - The aircraft is unable to take off again after the emergency landing. Use with caution.
  - The DJI Dock 2 firmware version should be v10.01.32.05 or later, and the aircraft version should be v10.01.32.05 or later.

- Optimal Route Planning:
  - When the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft will automatically plan an optimal route to improve task efficiency and preserve battery life.
  - When the environment is not suitable for the vision system to work properly and Obstacle Data is disabled, the aircraft will fly based on the task altitude and RTH altitude settings.

  - When Optimal Route Planning is enabled, the aircraft will intelligently adjust the flight altitude and speed based on the obstacle data and the environment conditions such as the wind speed and direction, so that the aircraft can reach the FlyTo destination or the Home Point with improved efficiency.
  - It is recommended to enable Obstacle Data in Task Area Management to improve the route planning performance. See Obstacle Data for more details.
  - When the environment is not suitable for the vision system to work properly or other issues occur when the aircraft is performing FlyTo tasks or returning to home, the aircraft will not be able to plan an optimal route. If Obstacle Data is also disabled, the aircraft can only fly based on the set altitude and will not be able to avoid obstacles along the route. Therefore, users should set appropriate task altitude and RTH altitude before starting FlyTo tasks or returning to home.
  - When Optimal Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still fly horizontally or vertically to avoid obstacles.
  - If the maximum flight altitude is lower than the current aircraft altitude, the aircraft will descend directly to the maximum flight altitude before continuing tasks. If the maximum altitude is higher than the current aircraft altitude, the aircraft will stop ascending when the aircraft reaches the maximum flight altitude.

  ⚠️

  - When there are obstacles such as wires and electric towers that are hard for the vision sensors to detect, users should disable Optimal Route Planning and make sure the set task altitude and RTH altitude are higher than the obstacle altitude along the route.

a. Task Altitude (ALT): The lowest altitude (relative to the takeoff point) of the aircraft when performing FlyTo tasks. DJI FlightHub 2 will display a prompt when the aircraft altitude is lower than the task altitude.

Note: For the DJI Dock aircraft with the firmware version earlier than v08.00.0003, DJI FlightHub 2 will display a prompt when the aircraft altitude is lower than the task altitude.

b. RTH Altitude (ALT): The aircraft altitude relative to the dock when the aircraft is returning to the dock. The RTH altitude should be set based on the actual flight condition, surrounding environment, and GEO information. It is recommended that the altitude is set higher than the highest geographical point in the flight area and should be lower than the maximum flight altitude.

- For DJI Dock 2
  - When Optimal Route Planning is enabled, the aircraft will intelligently plan an optimal route based on the obstacle data or the vision system data when the environment is suitable for the vision system to work properly.
  - When Optimal Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still fly horizontally or vertically to avoid obstacles.
  - When the dock aircraft is more than 5.5 meters away from the Home Point horizontally, the aircraft will ascend to the RTH altitude and return to home. When the dock aircraft is 5.5 meters or less than 5.5 meters away from the Home Point horizontally, the aircraft will maintain the current altitude (when it is higher than 15 meters) or ascend to 15 meters (when it is lower than 20 meters) before returning to home.
- For DJI Dock
  - When the dock aircraft is more than 5.5 meters away from the Home Point horizontally, the aircraft will ascend to the RTH altitude and return to home. When the dock aircraft is 5.5 meters or less than 5.5 meters away from the Home Point horizontally, the aircraft will maintain the current altitude (when it is higher than 20 meters) or ascend to 20 meters (when it is lower than 20 meters) before returning to home. When the environment is suitable for the vision system to work properly, the aircraft can still fly horizontally or vertically to avoid obstacles.
  - For the DJI Dock aircraft with the firmware version earlier than v08.00.0003, the aircraft will not be able to bypass obstacles and GEO Zones. Check the surrounding environment when the aircraft is returning to home.

c. On Signal Lost: Users can choose from Return to Home, Hover, or Continue. The dock aircraft will perform the signal lost action when the aircraft is disconnected from the dock. To ensure flight safety, it is recommended to set the signal lost action as Return to Home.

d. Destination Altitude (AGL): The default altitude above the ground of the FlyTo destination.

> Note: All parameters can be set when the dock aircraft is powered off.

Aircraft Status Information

- Basic status information: Includes the satellite status, battery level, smart RTH time, and time before aircraft lands.

- Smart RTH: The time when the aircraft starts smart RTH due to low battery. The aircraft will start smart RTH when the battery is low, and will land in its current location when the battery is critically low.
- To Land: The time when the aircraft starts to land due to low battery.

> Note: Pay attention to the time when the aircraft starts landing, and make sure the aircraft can return home safely.

- Navigation Display: Includes the aircraft and gimbal orientations, aircraft altitude, horizontal and vertical speeds, wind speed, distance between the aircraft and Home Point, and warning messages for the obstacle sensing.

FPV View/Vision Assist

1. Click ⇆ to switch between the FPV view/Vision Assist and gimbal camera views.
2. Click ↻ to refresh the FPV view/Vision Assist.
3. Click ⏻ to close the FPV view/Vision Assist.

> - The FPV view for DJI Dock only.
> - To use Vision Assist, the DJI Dock 2 firmware version should be v10.01.32.05 or later, and the aircraft version should be v10.01.32.05 or later.
> - When the aircraft has not taken off and is in the low-power state, Vision Assist is disabled by default.

Map Information

Users can view all the annotations and device information of the project on the map. Users can also start the FlyTo or POI tasks or double-click on the map and the aircraft will face the clicked point.

> Note: See Map Details for more details.

Dock Information

Includes the dock livestream view and the warning messages related to the dock.

- Dock Livestream View: The dock livestream view will be enabled automatically after project administrators enter the virtual cockpit or when the aircraft is returning home. Users can click ⤡ to expand the view.
- Warning Messages: Displays the warning messages of the dock when there are any.

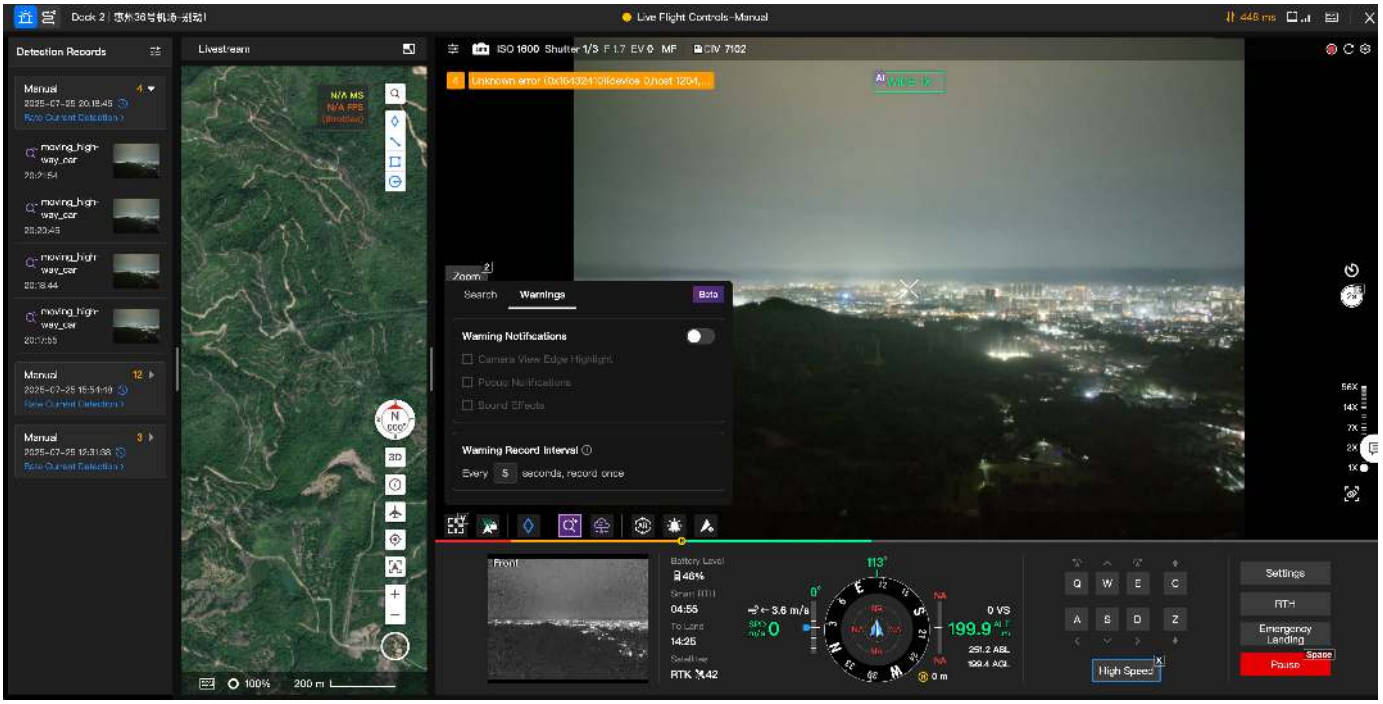
AI Warning Records

Real-time AI Warnings

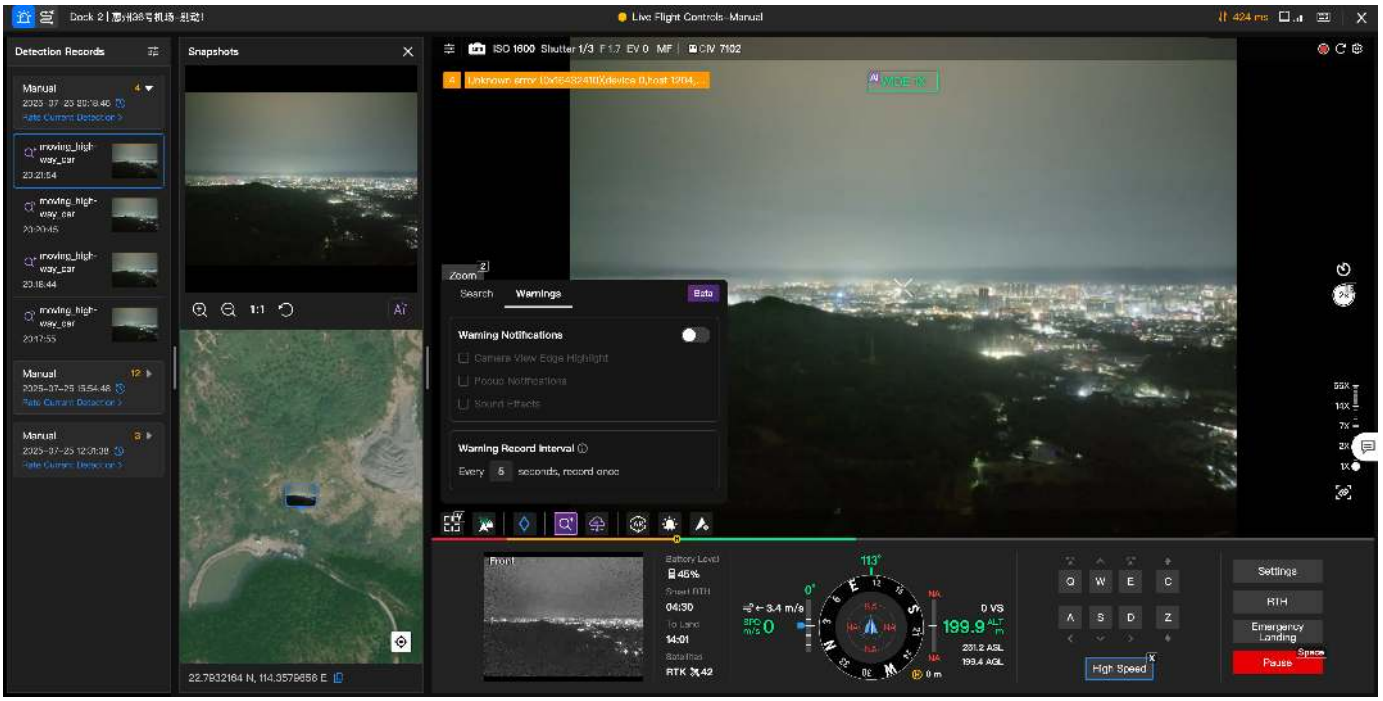
When AI functions are enabled in the virtual cockpit and an alert is triggered, relevant information and snapshots are displayed in the AI warning record list. You can filter records by date, warning category, and object type. Completed flights can be reviewed via a shortcut in the flight records.

Automated Flight Route AI Warnings

When a Smart Capture waypoint route triggers a warning and in-web notifications are enabled, you can use the notification link to jump directly to the virtual cockpit, where you can manually take over the aircraft for task intervention.

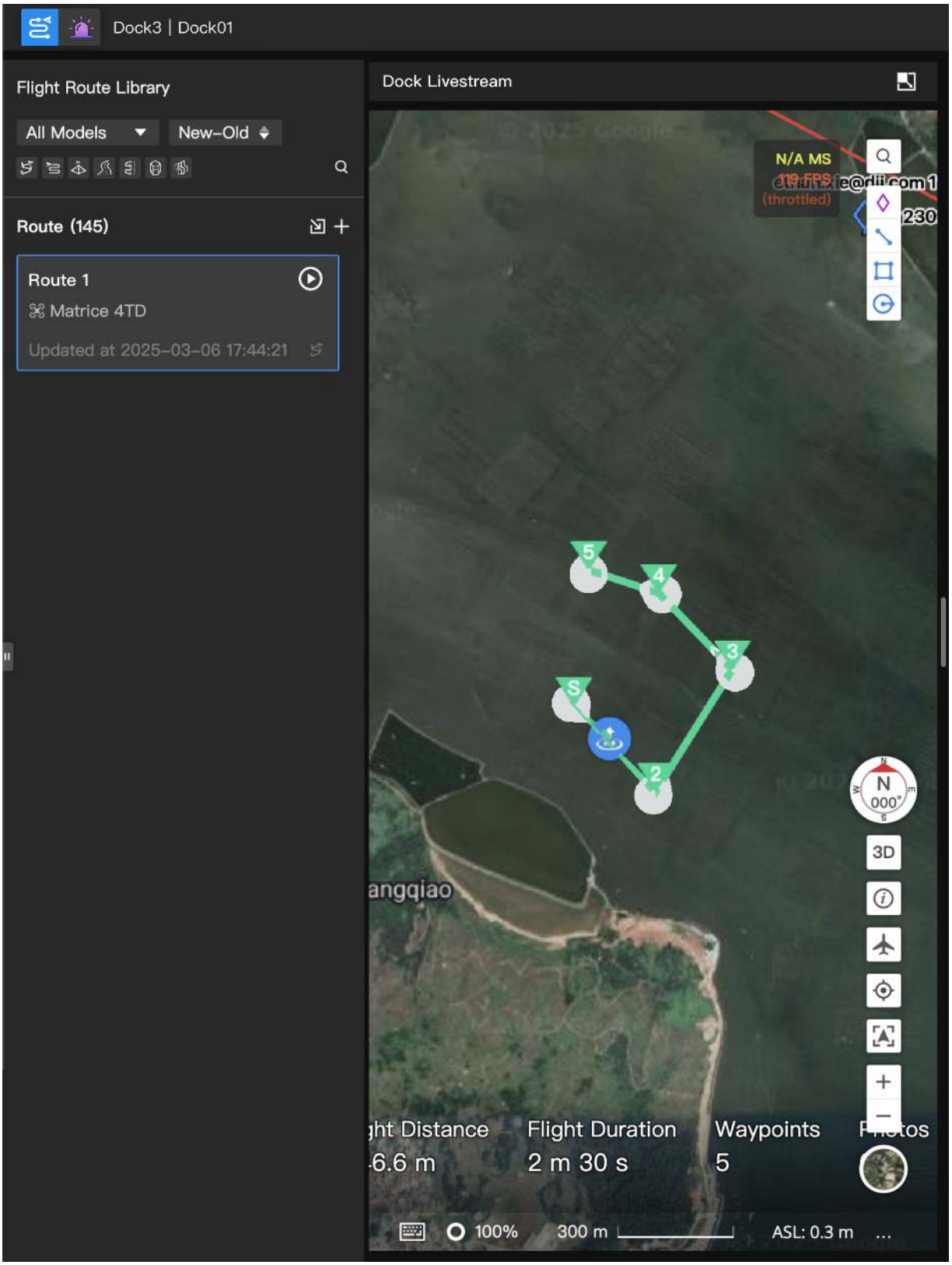


The virtual cockpit displays AI automated flight route warning records, providing quick access to alert trigger times, conditions, object locations, and snapshots.



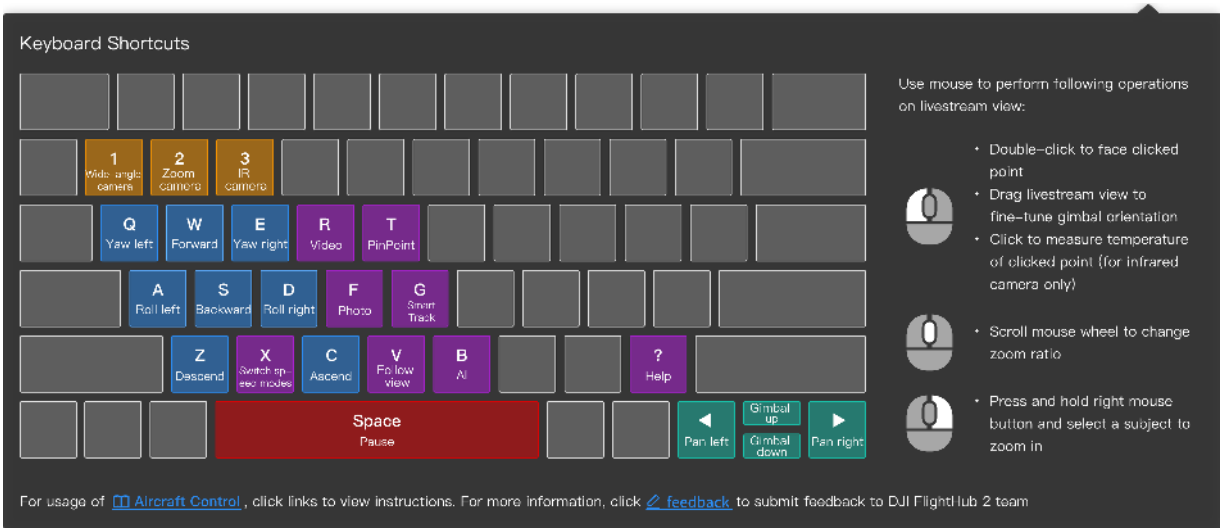
Distribute Flight Route via Virtual Cockpit

Users can expand the flight route list in the virtual cockpit interface, select, and distribute the required flight route task in real time.



Keyboard Shortcuts

Click ⌨ or press [?] to display the keyboard shortcuts instructions.



Note: The keyboard layout may be different in different countries or regions, and users should follow the actual interface guidance. To change the keyboard layout, go to User Center > Preferences > Keyboard Layout to customize the settings.

Feature List

Users can refer to the following table to view the details of the features supported by different aircraft models.

Feature Category	Feature Name	Dock aircraft					
		DJI Dock		DJI Dock 2		DJI Dock 3	
		Matrice 30	Matrice 30T	Matrice 3D	Matrice 3TD	Matrice 4D	M 4
Flight Control	Obtain flight control	✔	✔	✔	✔	✔	✔
Flight Control	Take off	✔	✔	✔	✔	✔	✔
Flight Control	FlyTo Task	✔	✔	✔	✔	✔	✔
Flight Control	Keyboard Controls (WASD/QE/CZ)	✔	✔	✔	✔	✔	✔
Flight Control	Flight Parameter Settings	✔	✔	✔	✔	✔	✔

Flight Control	One-click RTH	✔	✔	✔	✔	✔	✔
Flight Control	Emergency/one-click landing	✔	✔	✔	✔	✘	✘
Flight Control	Emergency stop	✔	✔	✔	✔	✔	✔
Flight Control	High speed mode	✔	✔	✔	✔	✔	✔
Flight Control	Resume flight	✔	✔	✔	✔	✔	✔
Flight Control	Pause flight	✔	✔	✔	✔	✔	✔
Flight Control	Exit flight	✔	✔	✔	✔	✔	✔
Flight Control	POI	✔	✔	✘	✘	✔	✔
Flight Control	Distribute Flight Route	✘	✘	✔	✔	✔	✔
Flight Control	Automatic Swap	✘	✘	✘	✘	✔	✔
Payload Control	Obtain payload control	✔	✔	✔	✔	✔	✔
Payload Control	Switch camera using shortcut key	✔	✔	✔	✔	✔	✔
Payload Control	Mechanical Shutter	✘	✘	✔	✘	✘	✘
Payload Control	Dewarp	✘	✘	✔	✘	✘	✘
Payload Control	Watermark	✘	✘	✔	✔	✔	✔
Payload Control	Lens Defog	✘	✘	✔	✔	✔	✔
Payload Control	Reset camera settings	✘	✘	✘	✘	✔	✔
Payload Control	Adjust camera settings	✘	✘	✔	✔	✔	✔
Payload Control	Focus mode	✔	✔	✔	✔	✔	✔

Payload Control	Single Shot	✔	✔	✔	✔	✔	✔
Payload Control	Timed	✘	✘	✔	✔	✘	✘
Payload Control	Smart Low-Light	✔	✔	✔	✔	✔	✔
Payload Control	Take a panorama	✔	✔	✔	✔	✔	✔
Payload Control	Record	✔	✔	✔	✔	✔	✔
Payload Control	Resolution settings	✘	✘	✔	✔	✘	✘
Payload Control	Storage settings	✘	✘	✔	✔	✘	✘
Payload Control	Zoom	✔	✔	✔	✔	✔	✔
Payload Control	Link Zoom	✘	✘	✘	✔	✘	✘
Payload Control	Laser rangefinder	✔	✔	✘	✘	✔	✔
Payload Control	Add PinPoint using laser technology	✔	✔	✘	✘	✔	✔
Payload Control	Recenter Gimbal	✔	✔	✔	✔	✔	✔
Payload Control	Gimbal Down	✔	✔	✔	✔	✔	✔
Payload Control	Recenter Gimbal Pan	✔	✔	✘	✘	✘	✘
Payload Control	Gimbal Tilt Down	✔	✔	✘	✘	✘	✘
Payload Control	Double-click to center view around clicked point	✔	✔	✔	✔	✔	✔
Payload Control	Fine-tune gimbal orientation	✔	✔	✔	✔	✔	✔
Payload Control	Select subject and zoom in	✘	✘	✔	✔	✔	✔

Payload Control	Beacons	✘	✘	✔	✔	✔	✔
Payload Control	Discreet Mode	✘	✘	✔	✔	✔	✔
Payload Control	Switch IR palette	✘	✔	✘	✔	✘	✔
Payload Control	High temperature alarm	✘	✔	✘	✔	✘	✔
Payload Control	SBS	✘	✔	✘	✔	✘	✔
Payload Control	Temperature bar	✘	✔	✘	✔	✘	✔
Payload Control	Gain	✘	✔	✘	✔	✘	✔
Payload Control	Spot/area temperature measurement	✘	✔	✘	✔	✘	✔
Payload Control	Mouselook	✔	✔	✔	✔	✔	✔
Payload Control	AR projection	✘	✘	✔	✔	✘	✘
Payload Control	AI recognition	✘	✘	✘	✘	✔	✔
Payload Control	Smart Track	✘	✘	✘	✘	✔	✔
Payload Control	Night Scene Mode	✘	✘	✘	✘	✔	✔
Payload Control	Algorithms on Cloud	✔	✔	✔	✔	✔	✔

Sound Effects and Voice Prompts

After users enter the virtual cockpit, the system will play sound effects or voice prompts to help users better know about the aircraft status and warning issues.

Support List:

Scenario	Description	Type

Low battery	When the aircraft battery level starts to fall into the yellow zone of the battery level indicator	Voice prompt
Critically low battery	When the aircraft battery level starts to fall into the red zone of the battery level indicator	Voice prompt
Low or critically low battery	When the aircraft battery level falls into the yellow or red zone of the battery level indicator	Sound effect
Obstacle sensing	Warning sounds will be played at different frequencies based on the distance between the aircraft and obstacles	Sound effect
Return home	When the aircraft is returning home	Voice prompt
Landing	When the aircraft is landing	Voice prompt
Return home/Landing	When the aircraft is returning home or landing	Sound effect
Reached max flight altitude	When the aircraft reached the maximum flight altitude	Voice prompt
Reached max flight distance	When the aircraft reached the maximum flight distance	Voice prompt
Take a photo	When the aircraft is taking photos	Sound effect
Record a video	When the aircraft starts or stops recording	Sound effect
Take a panorama	When the aircraft starts or stops taking panorama, or when the process is interrupted	Voice prompt
AI recognition	When an object is identified	Sound effect

Note: It is recommended to enable the audio on computer after entering the virtual cockpit. To disable the voice prompts and sound effects, go to User Center > Preferences > Sound Effects/Voice Prompts.

O4 Ground Station

Overview

After the O4 Ground Station is connected to DJI FlightHub 2, you can remotely view and operate the station via the Device Status Window, and use it as a network station in the Virtual Cockpit to participate in flight operations (Fly To Here, One-Click Takeoff, etc.).

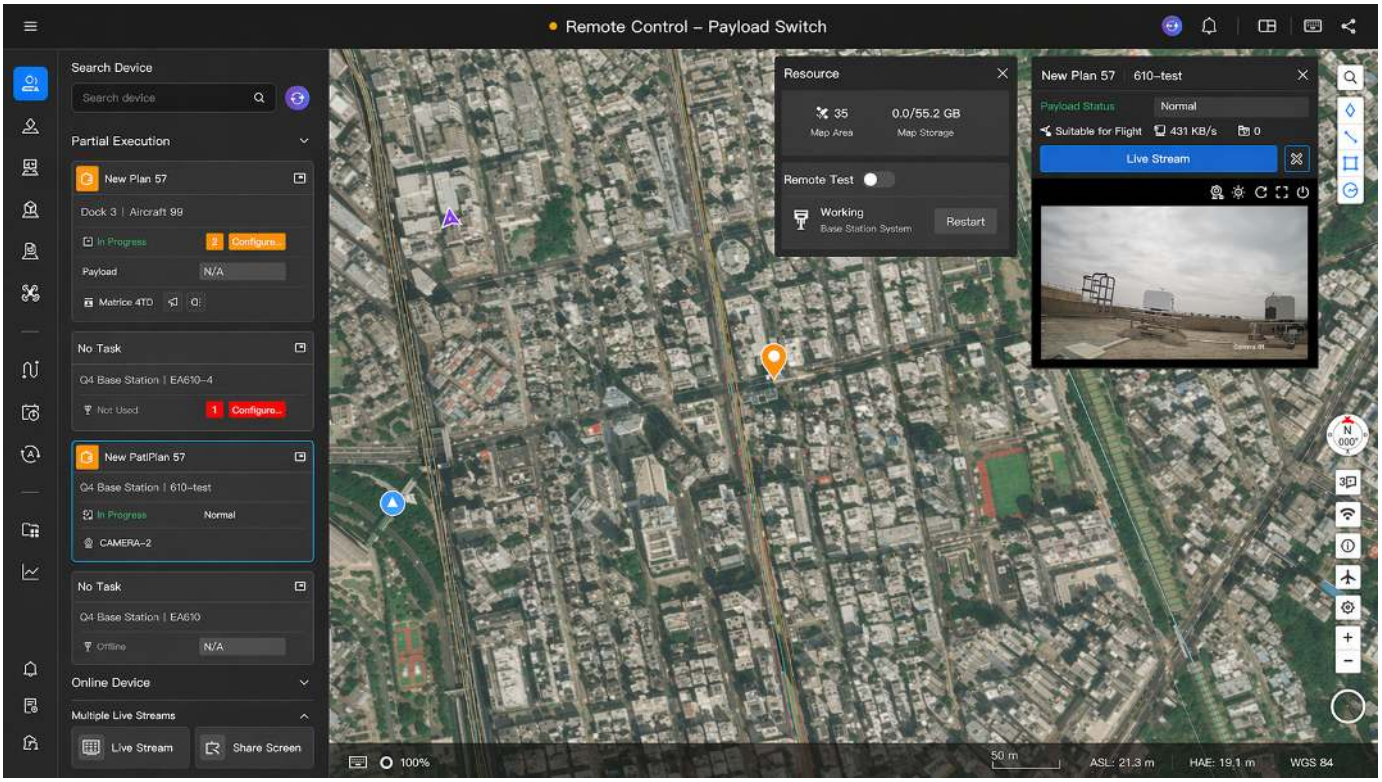
Function Overview

DJI FlightHub 2's support for the O4 Ground Station covers two modules:

- **Device Status Window**: Remotely view the O4 Ground Station's running status and alerts, perform operation and maintenance actions, view the on-site livestream, and control connected third-party peripherals via cloud widgets.
- **Virtual Cockpit**: Use the O4 Ground Station as a network station for flight operations such as Fly To Here, One-Click Takeoff, etc., with capabilities including station visualization, real-time cross-station flight observation, and signal map filtering.

Device Status Window

After the O4 Ground Station is connected to DJI FlightHub 2, click the O4 Ground Station device card in the team page's Dock/Ground Station list to open the Device Status Window.



Device Details

1. Basic Information

The Device Status Window shows the O4 Ground Station's basic information, including: device model, device SN, project callsign, power-saving status, GNSS status, storage status, and system status.

2. Device Alerts

The top of the Device Status Window shows alerts from the O4 Ground Station and connected devices. Click an alert to expand the alert list.

3. Ground Station Livestream

Click the Ground Station Livestream entry in the Device Status Window to view the on-site livestream from the O4 Ground Station, with real-time temperature and timestamp overlays.

Aircraft Connection Display

1. Aircraft Card

After an aircraft is bound to the O4 Ground Station, the aircraft card will display the bound station name and connection status.

2. Aircraft Cloud Access

After an aircraft goes online via the O4 Ground Station, you can view the aircraft's real-time status and livestream in the Device Status Window, and control the aircraft through remote operations.

Third-Party Peripheral Cloud Widget Control

The Device Status Window supports cloud-based control of third-party peripherals connected to the O4 Ground Station, including but not limited to:

- Gimbal control for standard cameras
- Hatch control for third-party docks
- Charging module control

Virtual Cockpit Adaptation

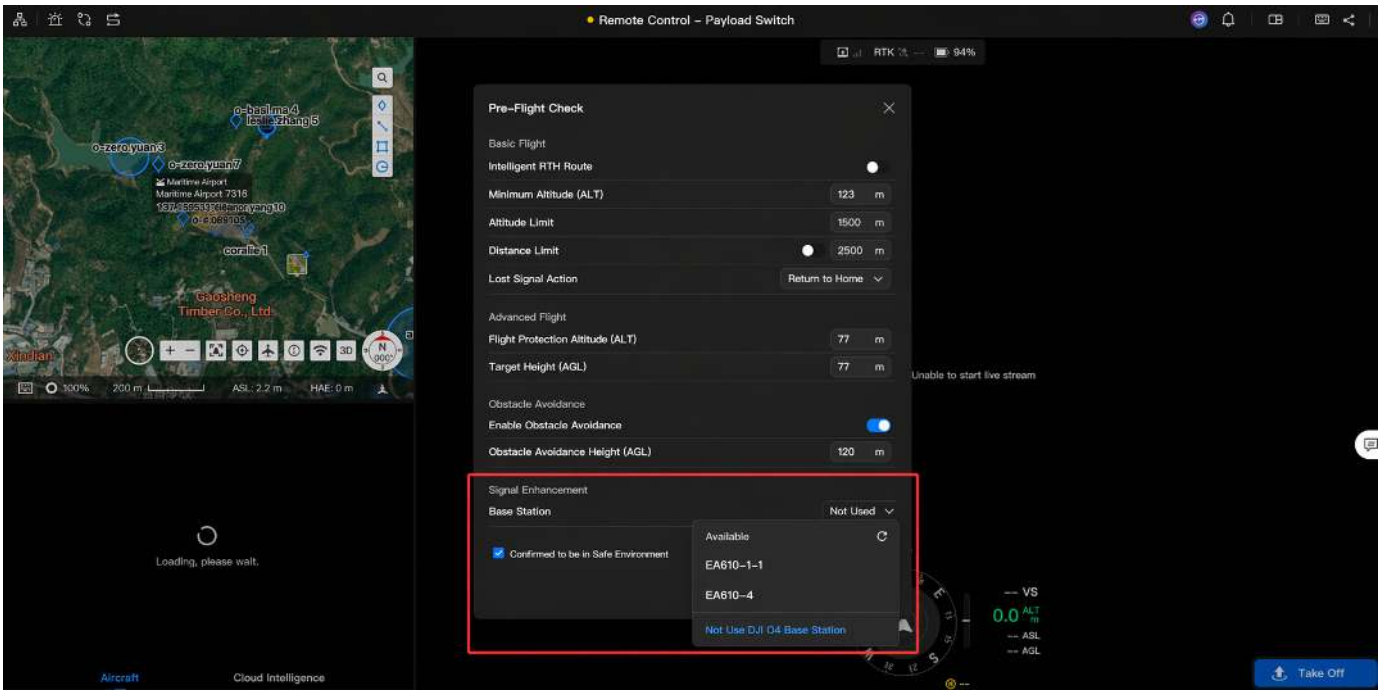
The Virtual Cockpit has been adapted for the O4 Ground Station, including pre-flight station recommendation and binding, map-based station visualization, real-time cross-station flight

observation, and signal map filtering by the current controlled device.

Signal Enhancement (Fly To Here)

When you right-click "Fly to Here" on the Virtual Cockpit map, the pre-flight check menu now includes a new "Signal Enhancement" section:

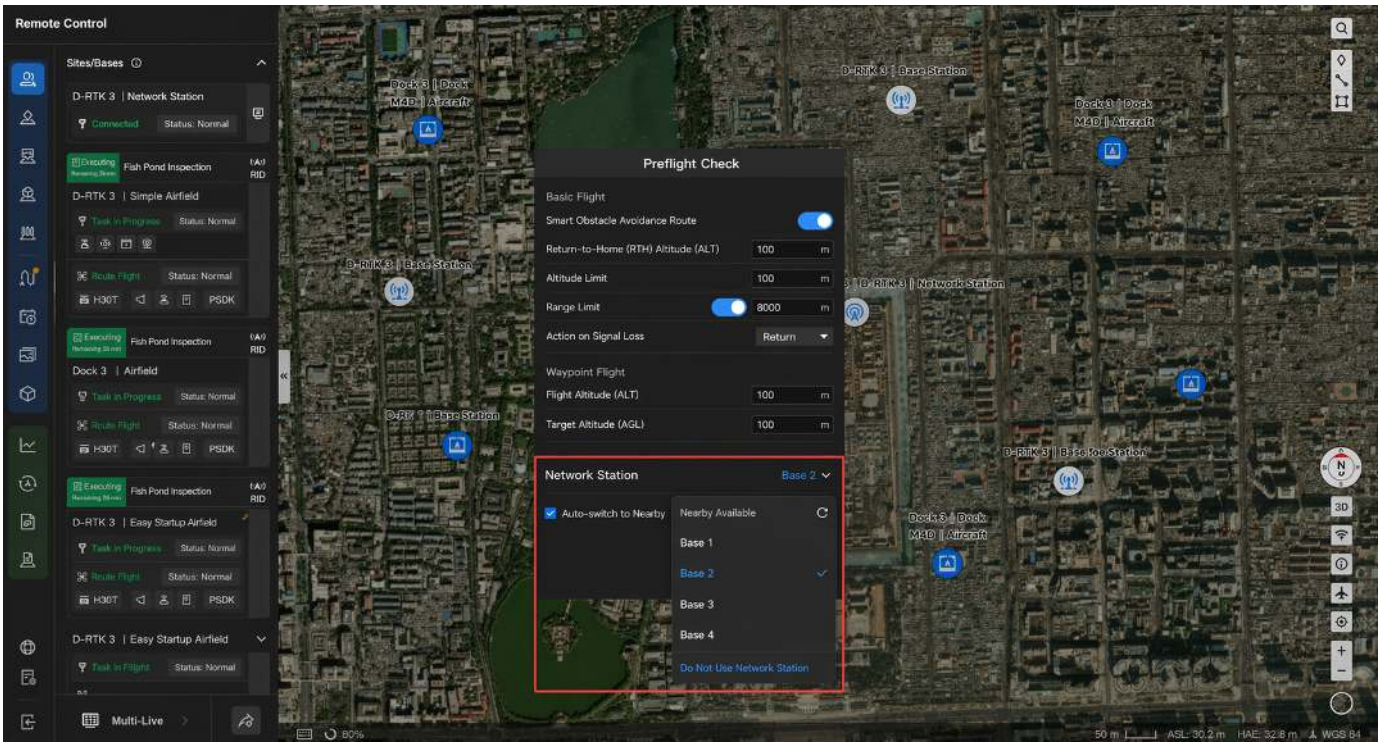
- **Network Station**: Lists the "available nearby" O4 Ground Stations (manual refresh supported), sorted by signal strength in descending order. They are shown as "Station 1 / Station 2 / Station 3 / Station 4", and one can be selected manually.
- **No Network Station**: Choose not to bind any station and fly using only the dock link.



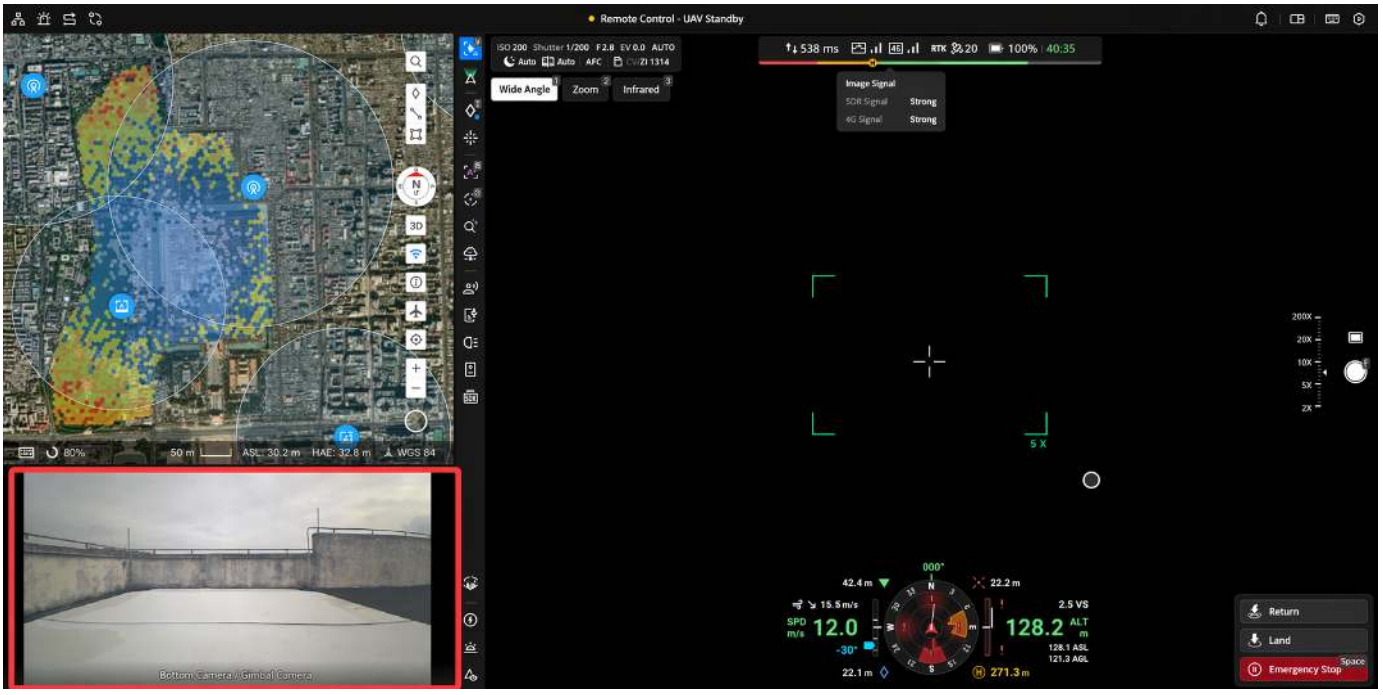
Signal Enhancement (One-Click Takeoff)

When you click "One-Click Takeoff", the pre-flight check menu now includes a new "Signal Enhancement" section:

- **Network Station**: Lists the "available nearby" O4 Ground Stations (manual refresh supported), sorted by signal strength in descending order. They are shown as "Station 1 / Station 2 / Station 3 / Station 4", and one can be selected manually.
- **No Network Station**: Choose not to bind any station and fly using only the dock link.



Station Visualization



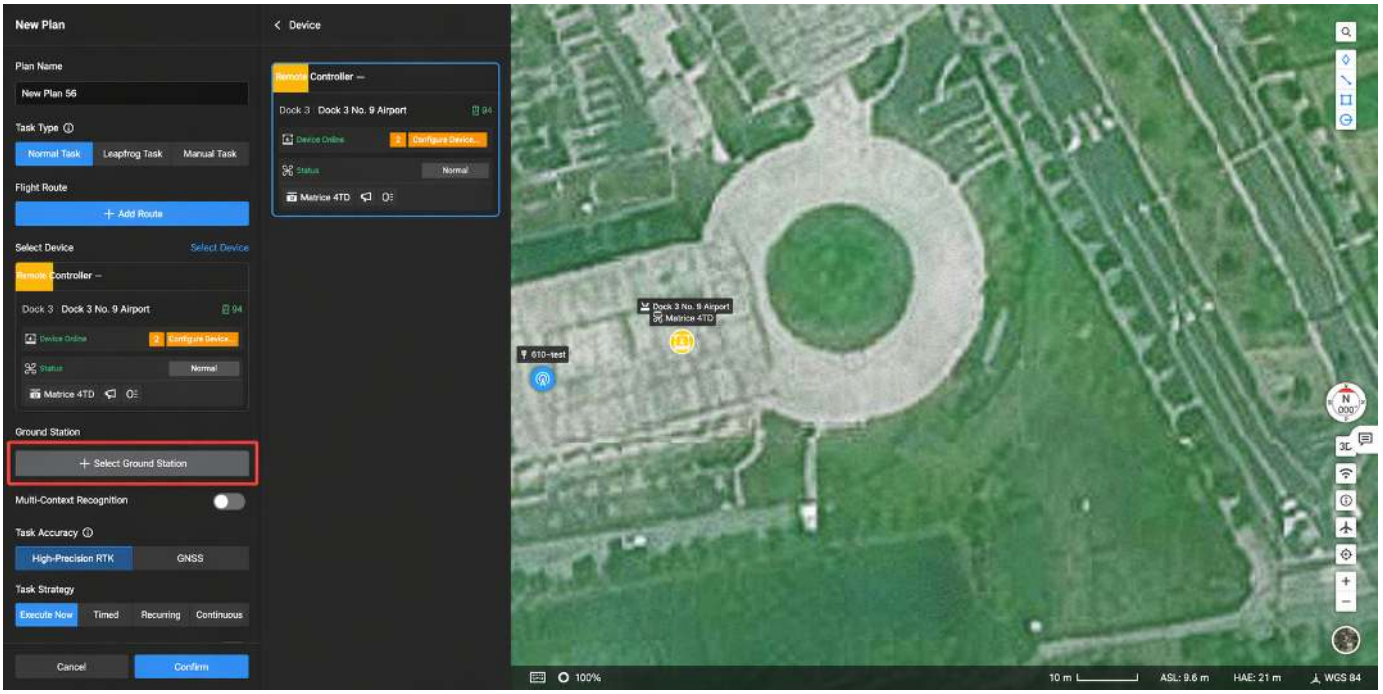
1. Binding Relationship between Station and Dock

- **Before Pairing**: The map displays the connection status and name of all bound stations in the organization by default.
- **After Pairing**: The map additionally shows the binding relationship status between paired O4 Ground Stations and their corresponding docks.

Real-Time Cross-Station Flight Observation (Planned Task)

During a Planned task, you can observe the aircraft's cross-station flight in real time in the Virtual Cockpit:

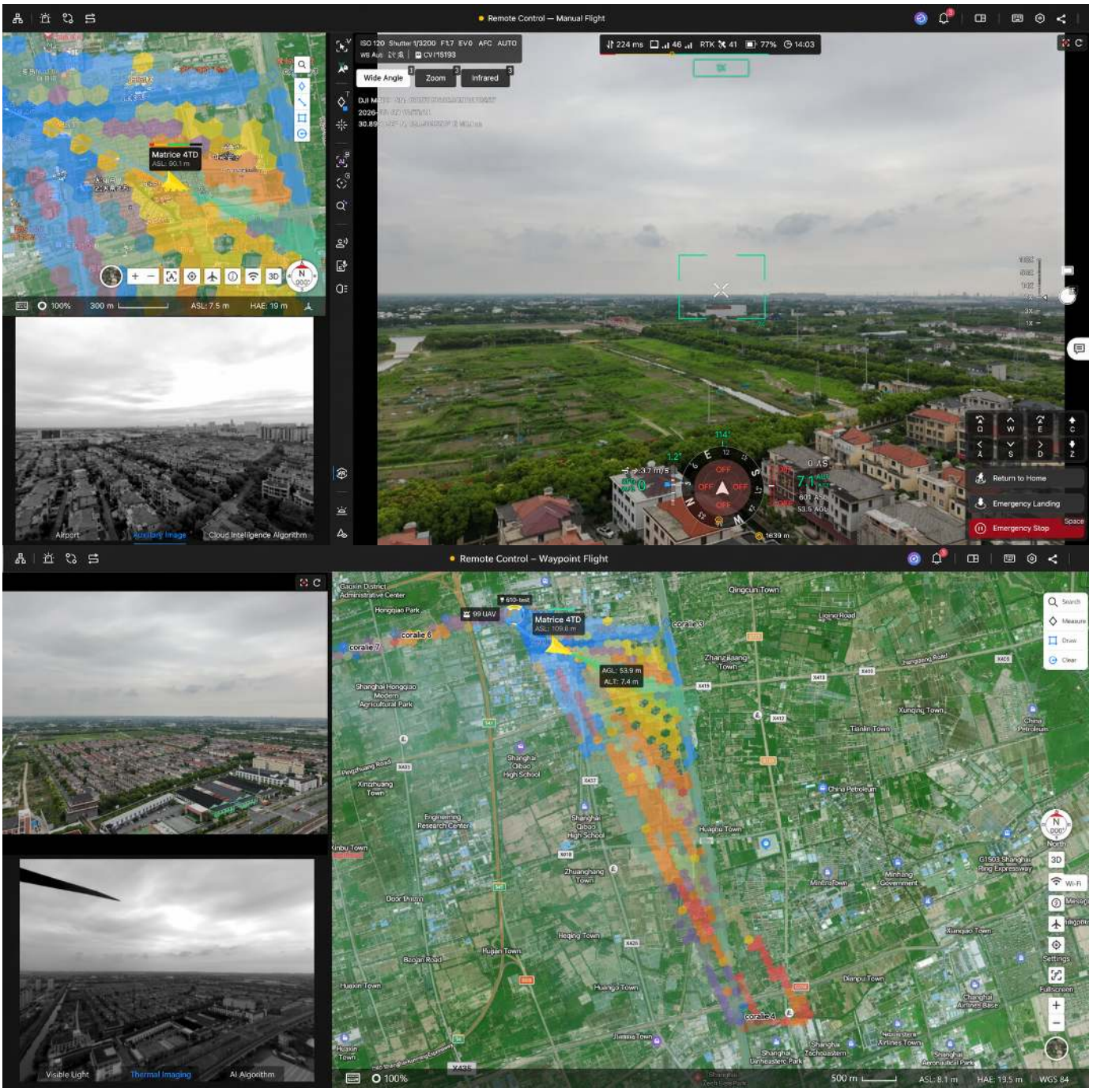
- **Current Controlling Device**: Displays in real time which dock or O4 Ground Station the aircraft is currently associated with.
- **Map**: Shows the takeoff dock and the O4 Ground Station positions at the same time.
- **Control Page**: Displays the connected station information, including station icon, device name, and SDR signal status.
- **Flight Records**: Flight records and media files generated by cross-station flights are associated with the corresponding O4 Ground Station.
- **Flight Operation Adaptation**: During cross-station flights, the Virtual Cockpit's flight controls (in-flight route delivery, dual-aircraft relay, etc.), payload controls (panoramic photo, intelligent low-light, etc.), PSDK controls (Speaker, Spotlight, etc.), and livestream/recording features have all been adapted for cross-station scenarios.



Signal Map

After entering the Virtual Cockpit, the signal map only shows the signal map of the device currently being controlled:

- **Dock + Aircraft**: Shows the signal map of the current dock.
- **O4 Ground Station + Aircraft**: Shows the signal map of the current O4 Ground Station.
- **Dock + Relay + Aircraft**: Shows the signal map of the current dock and relay.
- **Dock + O4 Ground Station + Aircraft**: Shows the signal map of the current dock and O4 Ground Station.


Remote Control — Manual Flight
Matrice 4TD
ASL: 50.1 m
100%
300 m
ASL: 7.5 m
HAE: 19 m
Airport
Auxiliary Image
Cloud Intelligence Algorithm
Wide Angle
Zoom
Infrared
Return to Home
Emergency Landing
Emergency Stop
Space
Remote Control – Waypoint Flight
Matrice 4TD
AGL: 53.9 m
ALT: 7.4 m
coralie 6
coralie 7
coralie 3
coralie 4
Visible Light
Thermal Imaging
AI Algorithm
100%
500 m
ASL: 8.1 m
HAE: 19.5 m
WGS 84

Livestream Management

The live stream device list is divided into Docks and Online Devices. Docks include live-stream-capable cameras from DJI Docks (Dock live stream), Ground Station external IP cameras, and Dock aircraft (gimbal cameras). Online Devices include live-stream-capable cameras from aircraft (gimbal cameras) connected to FlightHub 2 via DJI Pilot 2, as well as live streams from devices connected via RTMP.

- Multi-Grid Layout: Users can customize and choose various layouts based on the devices in the project to meet different livestream needs.
- Recenter Map: Click Recenter Map in the livestream view, the corresponding device will automatically be recentered and highlighted on the map.
- Keyboard Shortcuts: Users can press keyboard shortcuts to switch between livestream views.
- Display Mode: Users can switch between adaptive and full screen display modes, as well as disable the on-screen display information.

Before using simultaneous livestreams, make sure that your computer or device meets the following configuration requirements.

>>Minimum Configuration Requirements:

- Processor: Intel Core i3-8100 or higher
- Memory: 8 GB or more
- Network Bandwidth: 50 Mbps or higher

>>Recommended Configuration Requirements:

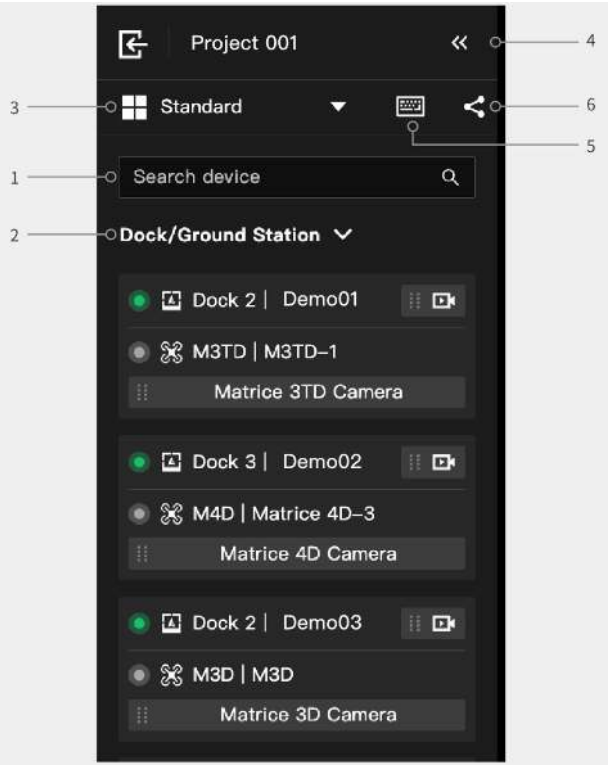
- Processor: Intel Core i5-8500 or higher
- Memory: 16 GB or more
- Network Bandwidth: 100 Mbps or higher

Please note that low-power processors (such as the i5-7200U) are not recommended for simultaneous livestreams. Additionally, to ensure a better user experience, make sure the device is connected to a power source or has sufficient battery throughout use.

How to Access

When a user clicks Livestream at the bottom of the device list, the browser will open a new tab and automatically navigate to the livestream page. The layout settings will be saved, and the livestream layout will remain the same the next time the user enters Livestream.

Device Information



1. Search Bar

Enter the device name or keywords to search for the device that is livestreaming.

2. Device Type

The live stream device list is divided into Docks and Online Devices. Docks include live-stream-capable cameras from DJI Docks (Dock live stream), Ground Station external IP cameras, and Dock aircraft (gimbal cameras). Online Devices include live-stream-capable cameras from aircraft (gimbal cameras) connected to FlightHub 2 via DJI Pilot 2, as well as live streams from devices connected via RTMP.

2.1 Docks/Ground Stations

- Device Statuses: Include Task in Progress and Live Flight Controls. When a task is in progress, the task name will be displayed. When Live Flight Controls is enabled, the operator name will be displayed.
- Online Status and Device Name: When a device is online, the status indicator will be displayed in green. When offline, the indicator is gray. Next to the indicator, the device model and name will be displayed.
- Livestream Camera: Users can click or drag the camera button to the livestream window to start the livestream.

Click: Click the device live camera button to open the live stream in the foremost live view window. Drag: Drag the device's live camera button to a specified window to activate the live stream.

2.2 Online Devices

1. Aircraft (Remote Controller)

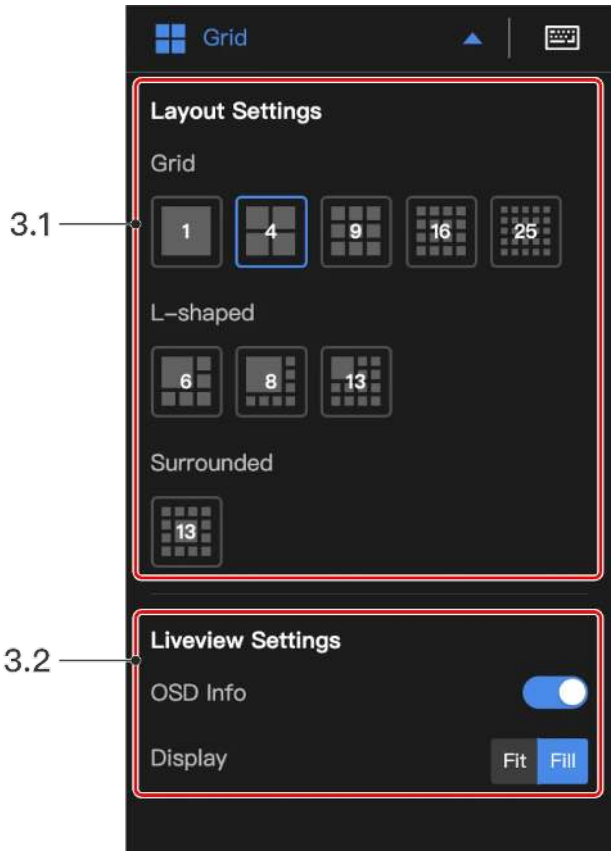
- Device Status: Users can obtain the aircraft control on the cloud, and the Live Flight Controls status will be displayed here.
  Online Status and Name: If a device is live streaming and successfully connected to FlightHub 2, the indicator is green. If the device is disconnected or offline, the indicator is gray. Offline devices remain in the list for 5 minutes by default and disappear after that. The device model and name are displayed next to the indicator. Live Camera: You can click or drag the device's live camera button to a live view pane to activate the live stream:
  - Click: Click the device live camera button to open the live stream in the foremost live view window.
  - Drag: Drag the device's live camera button to a specified window to activate the live stream.

2. RTMP Streaming Devices

- Online Status and Name: If a device is live streaming and successfully connected to FlightHub 2, the indicator is green. If the device is disconnected or offline, the indicator is gray. Offline devices remain in the list for 5 minutes by default and disappear after that. The device model and name are displayed next to the indicator.
- Live Camera: You can click or drag the device's live camera button to a live view pane to activate the live stream:
  - Click: Click the device live camera button to open the live stream in the foremost live view window.
  - Drag: Drag the device's live camera button to a specified window to activate the live stream.

3. Change Layout

When users first enter the livestream page, the livestreams will be displayed in a four-grid layout. Users can expand the layout switch menu in the sidebar to switch between Grid, L-shaped, and Surrounded modes. When the layout changes, the livestream order will remain the same, displaying livestreams from left to right and top to bottom.(As shown in Figure 3.1)



Click the Liveview Settings to disable the on-screen display (OSD) information or select between different livestream display modes.(As shown in Figure 3.2)

- OSD Info: Includes the device name, model, task name, operator, and geographic location. The OSD information will be displayed on the top of the livestream window. The OSD Info is enabled by default. Users can disable the OSD info manually.
- Display: Users can choose between Fit and Fill modes. The actual aspect ratio will be displayed by default. Users can change to the fill mode, and the livestream view will occupy the entire window.

4. Expand and Collapse

Click to collapse or expand the list.

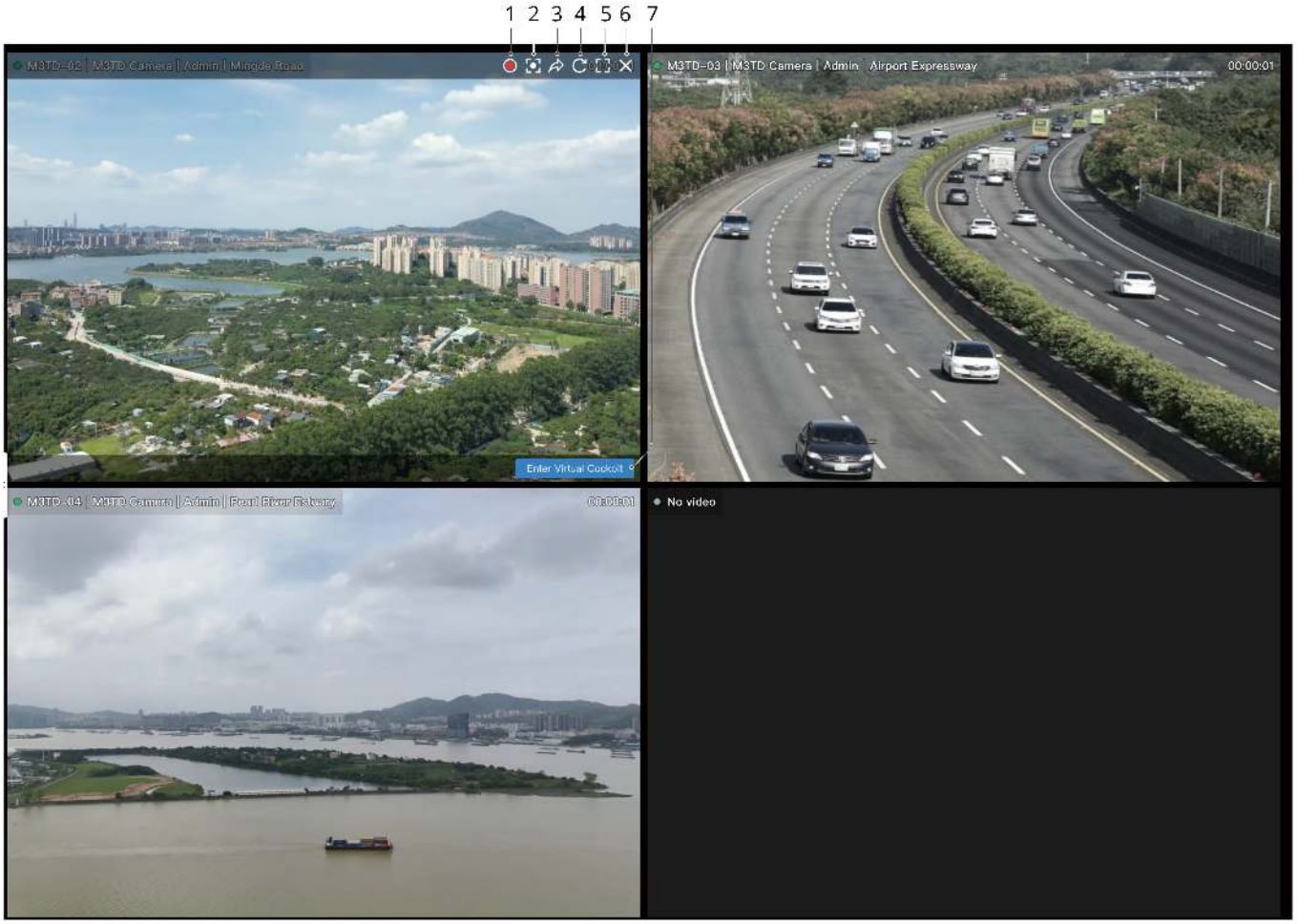
5. Keyboard Shortcuts

Click Keyboard Shortcuts and the shortcut keys will be displayed on the windows. Users can press the corresponding button to display the selected livestream in full screen.

6. Livestream Sharing Management

Click to open the Livestream Sharing Management panel, where you can create, edit, or cancel livestream sharing links.

Livestream Window



- Linked Operations: When the cursor hovers over a livestream window, a blue border will appear, indicating that the window is selected. At the same time, the corresponding camera button on the device list will also be highlighted.
- Drag Livestream Window: Drag the livestream window to adjust its position.

1. Recording

Click to record the current livestream. The indicator at the top of the window will turn red. During the recording, the operations on the livestream view and virtual cockpit will also be reflected on the device status window.

2. Recenter Map

Click to recenter the device on the map, and the device will also be automatically highlighted.

3. Share Livestream

Click to share livestream to other users.

4. Refresh

Click to refresh the livestream view.

5. Full Screen

Click to enter the full screen mode. Press ESC or click Exit full screen to exit.

6. Exit Livestream

Click to exit the livestream view.

7. Enter Virtual Cockpit

Click to open the virtual cockpit of the corresponding aircraft in a new browser tab.

Exit Livestream

Click on the upper left corner to exit livestream.

Notes

1. Livestream Lag

If the livestream is lagging, the livestream window will automatically refresh and display "Loading".

2. Device Powered Off

If a device is powered off, the livestream window will display "Offline".

3. Device Error

If any errors occur to the device and the livestream cannot be displayed properly, the livestream window will display "Livestream error. Click Refresh". By default, the livestream view will automatically refresh within 10 seconds. Users can also manually refresh the view.

Map Details

The dock and aircraft locations will be displayed on the map in real time. Users can click the dock or aircraft icon, and a line connecting the dock and its connected aircraft will be displayed.

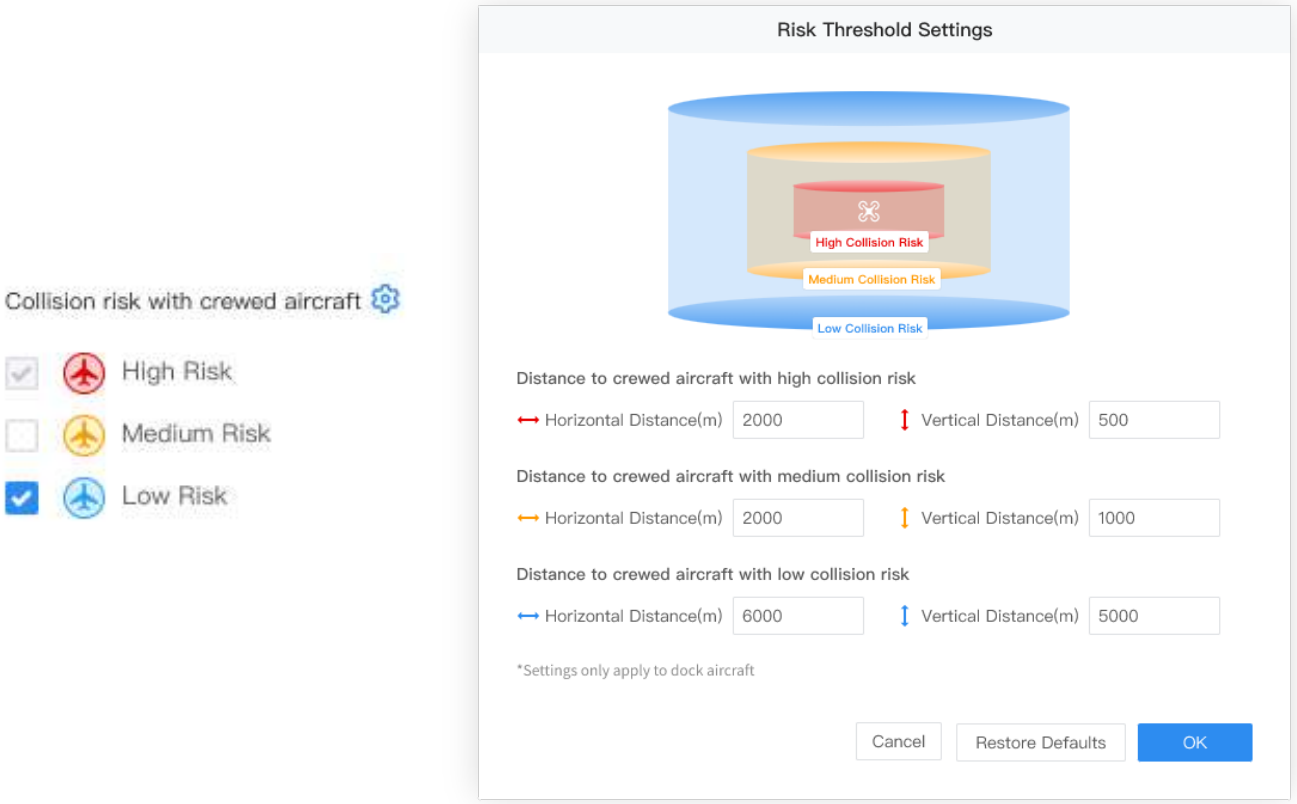
When the dock is performing tasks, users can click the dock status panel, and the flight route will be displayed in green and the aircraft trajectory in blue on the map. If the aircraft is performing a flight route task, the waypoint number will also be displayed.

Project members can also perform the following actions on the map.

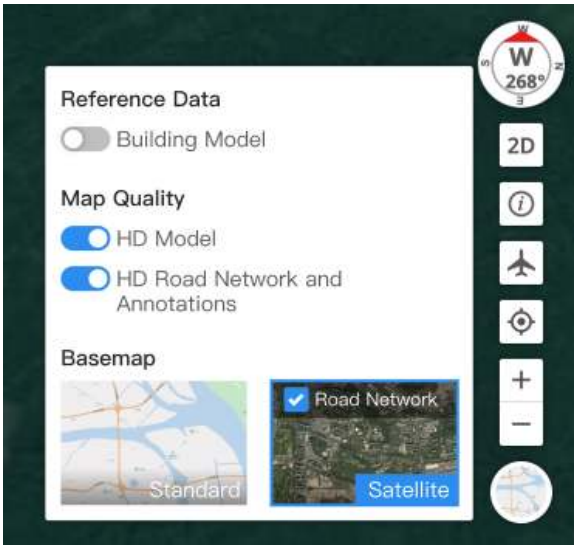
1. Click Q to search geographic locations, annotations, device information, and models or photos that are overlaid on the map.



2. View for the map orientation.
3. Click 2D to enable the 3D map. Press and hold the Control/Ctrl key and left button of the mouse together to rotate the map.
4. Click to view GEO Zone information.
5. Click to adjust how collision risk with crewed aircraft is displayed on the map. You can also customize the threshold for crewed aircraft collision risk.



6. Click and the project point of interest will be displayed in the middle of the web page.
7. Click to view the map lab.



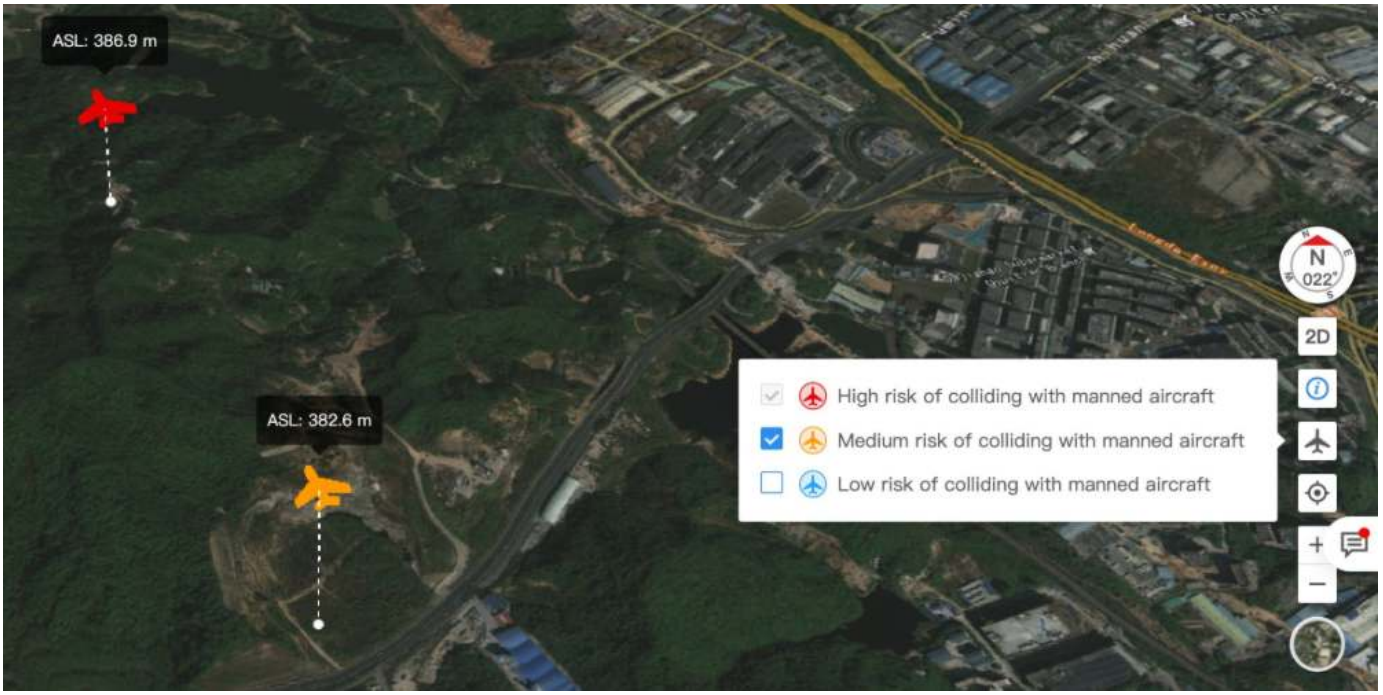
- Building Model: Enable Building Model to display building models on the map.
- HD Model: When enabled, models will be displayed in high definition. Operations may stutter with low computer performance.
- HD Road Network and Annotations: Enabling this feature enhances the display of the map's road network and annotations. Operations may stutter with low computer performance.
- Map Type: Choose to switch between the standard and satellite maps.

DJI AirSense

DJI FlightHub 2 collects all the DJI AirSense data reported by the **dock aircraft** in the project and displays the location of an approaching manned airplane or helicopter, as well as a warning message on the web page when there is a potential risk of collision. DJI AirSense can obtain and analyze the location, altitude, orientation, and velocity of the manned airplane or helicopter and compare the information with the current location, altitude, orientation, and velocity of the dock aircraft to evaluate the collision risk in real time.

- Warning (high collision risk): A red airplane icon will appear on the map, and the web page will display the message stating, "Manned aircraft nearby. Take over aircraft promptly to avoid". FlightHub 2 users can click the dock name to open the device status window and obtain the aircraft control to avoid collisions.
- Caution (medium collision risk): A yellow airplane icon will appear on the map when a manned airplane or helicopter is relatively near the dock aircraft.
- Normal (low collision risk): A blue airplane icon will appear on the map when the manned airplane or helicopter is relatively far away from the dock aircraft.

Users can click in the lower right corner of the map to decide whether to display the low and medium collision risk warnings on the map.



Manned airplanes or helicopters with Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters can broadcast flight information. The DJI aircraft equipped with DJI AirSense can receive the flight information broadcast from ADS-B transmitters that comply with the 1090ES

(RTCA DO-260) or UAT (RTCA DO-282) standard and within a radius range of 10 km. DJI AirSense only issues warning messages under certain circumstances when specific manned airplanes or helicopters are approaching and is not able to actively control or take over the DJI aircraft to avoid collisions. Users should always fly the aircraft within the visual line of sight and be cautious at all times to ensure flight safety. DJI AirSense has the following limitations:

- DJI AirSense can only receive messages broadcast by manned airplanes or helicopters installed with an ADS-B Out device that is in compliance with the 1090ES or UAT standard. DJI AirSense cannot receive messages from manned airplanes or helicopters that are not equipped with ADS-B Out devices or equipped with devices that are not functioning properly.
- DJI AirSense uses satellite and radio signals to receive ADS-B messages. If there is an obstacle between a manned airplane or helicopter and a DJI aircraft, DJI AirSense may not be able to receive broadcast and issue warning messages.
- Warning messages may be sent with delays if DJI AirSense experiences any interference from the surrounding environment. Users need to observe the surrounding environment and fly with caution.
- Warning messages may not be accurate when the DJI aircraft is unable to obtain its location information.
- DJI AirSense cannot receive broadcast from manned airplanes or helicopters, nor send warning messages to FlightHub 2 users when DJI AirSense is disabled or not properly functioning.

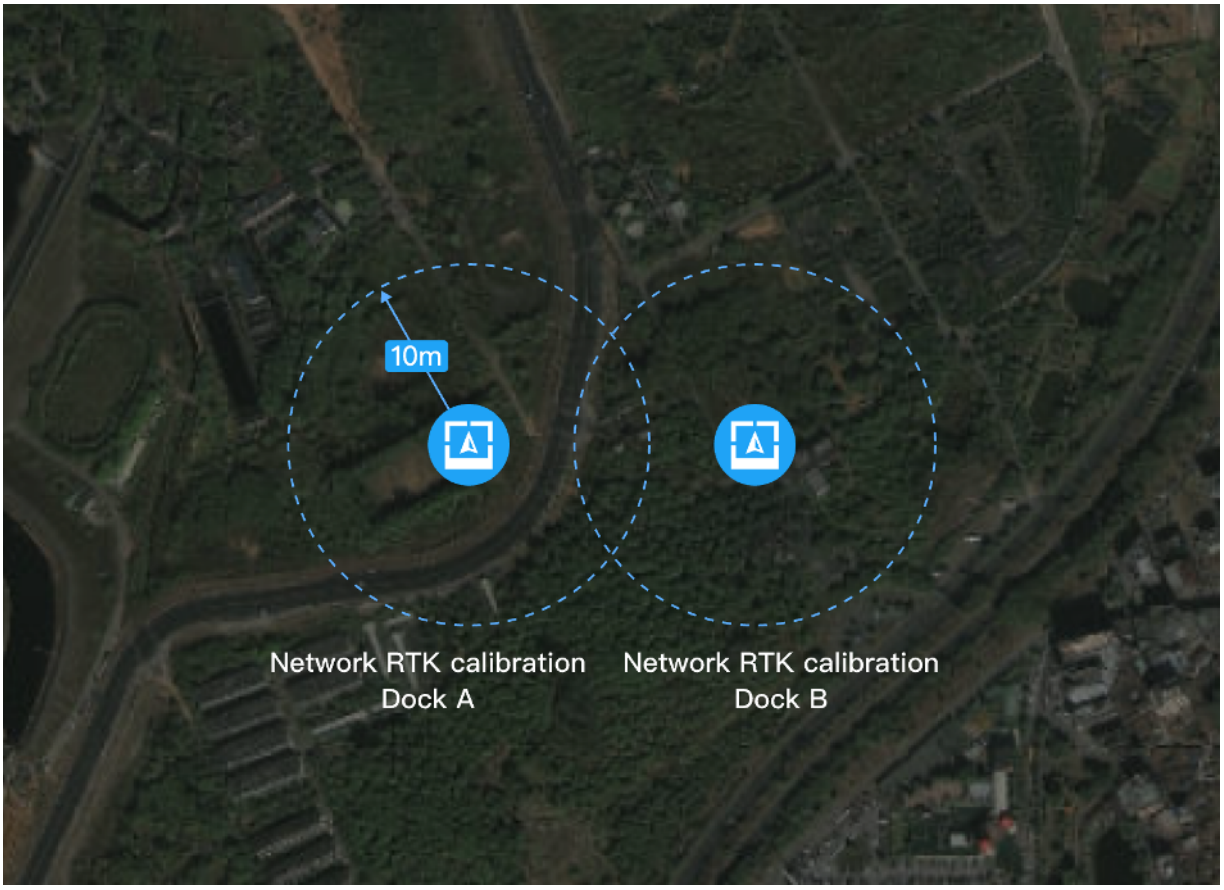
Multi-Drone Takeoff/Landing

This feature primarily addresses potential collision and incorrect dock landing issues that may arise during takeoff and landing when docks are deployed closely. You can enable or disable this feature here. When enabled, the system will automatically group docks based on their deployment locations and automatically schedule docks during task performance.

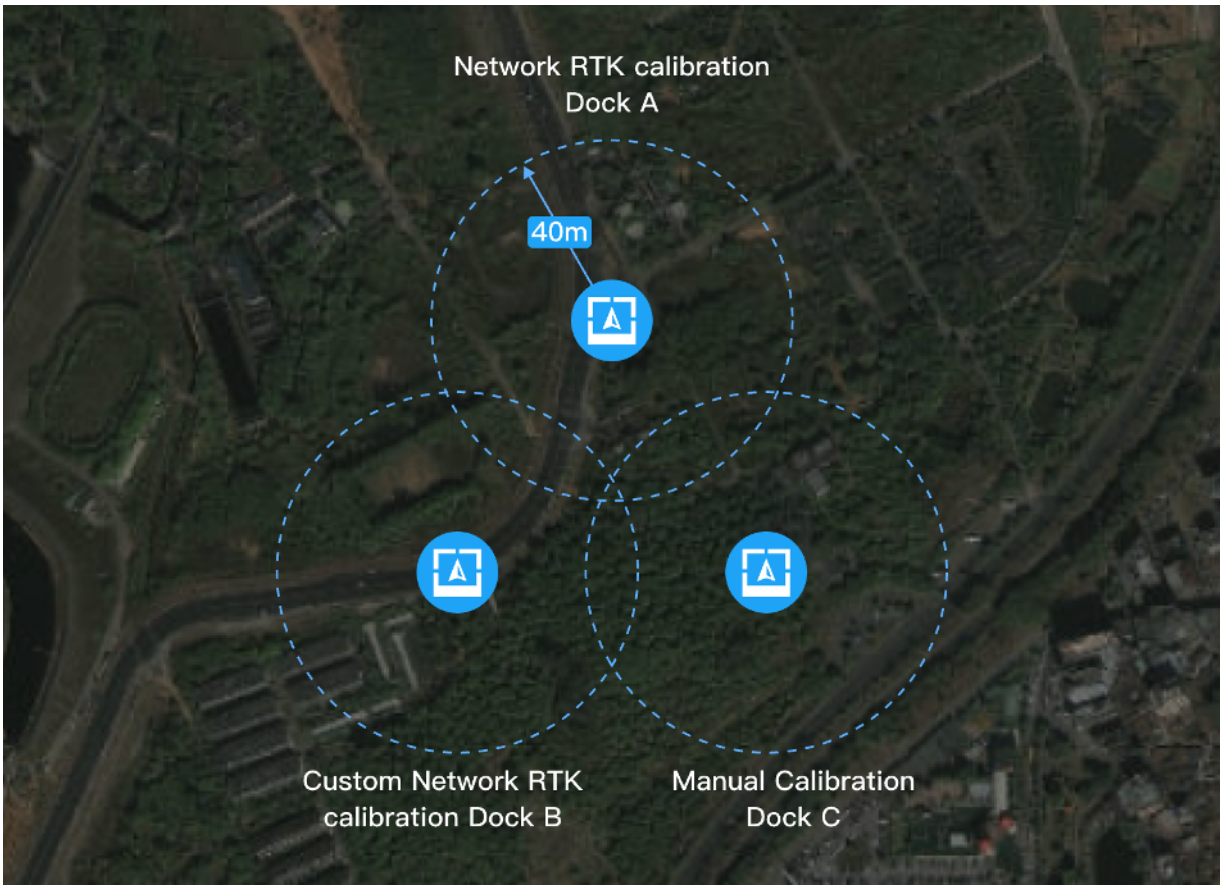
- Only DJI Dock 3 supports the multi-drone takeoff/landing feature.

1. Dock Auto-Grouping Conditions

Scenario 1: For docks whose locations are calibrated through network RTK and deployed within 20 meters, a circular area with a 10m radius is defined as the takeoff/landing area for each dock. Docks with overlapping takeoff/landing areas will be automatically grouped.



Scenario 2: For docks whose locations are not calibrated through network RTK, but through GNSS, manual calibration, or custom network RTK, and deployed within 80 meters, a circular area with a 40m radius is defined as the takeoff/landing area for each dock. Docks with overlapping takeoff/landing areas will be automatically grouped.



2. Takeoff and Landing Scheduling

1. Takeoff Scheduling

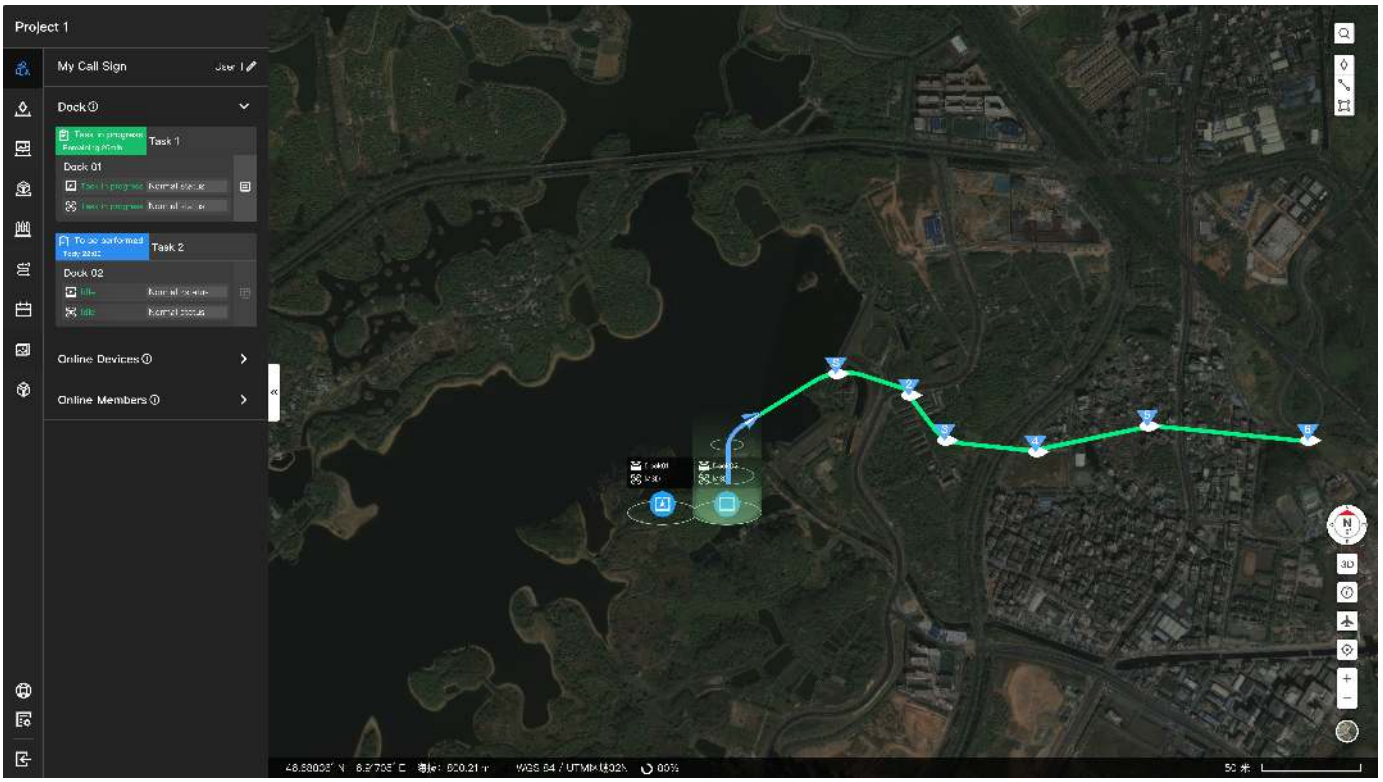
Before an aircraft takes off, the system will first check if any other aircraft in the dock group is taking off or landing. If so, the aircraft will wait until the takeoff/landing area is available. If not, the aircraft will take off and occupy the takeoff/landing area in the group. The area will be released only after the aircraft leaves the takeoff/landing area.

2. Landing Scheduling

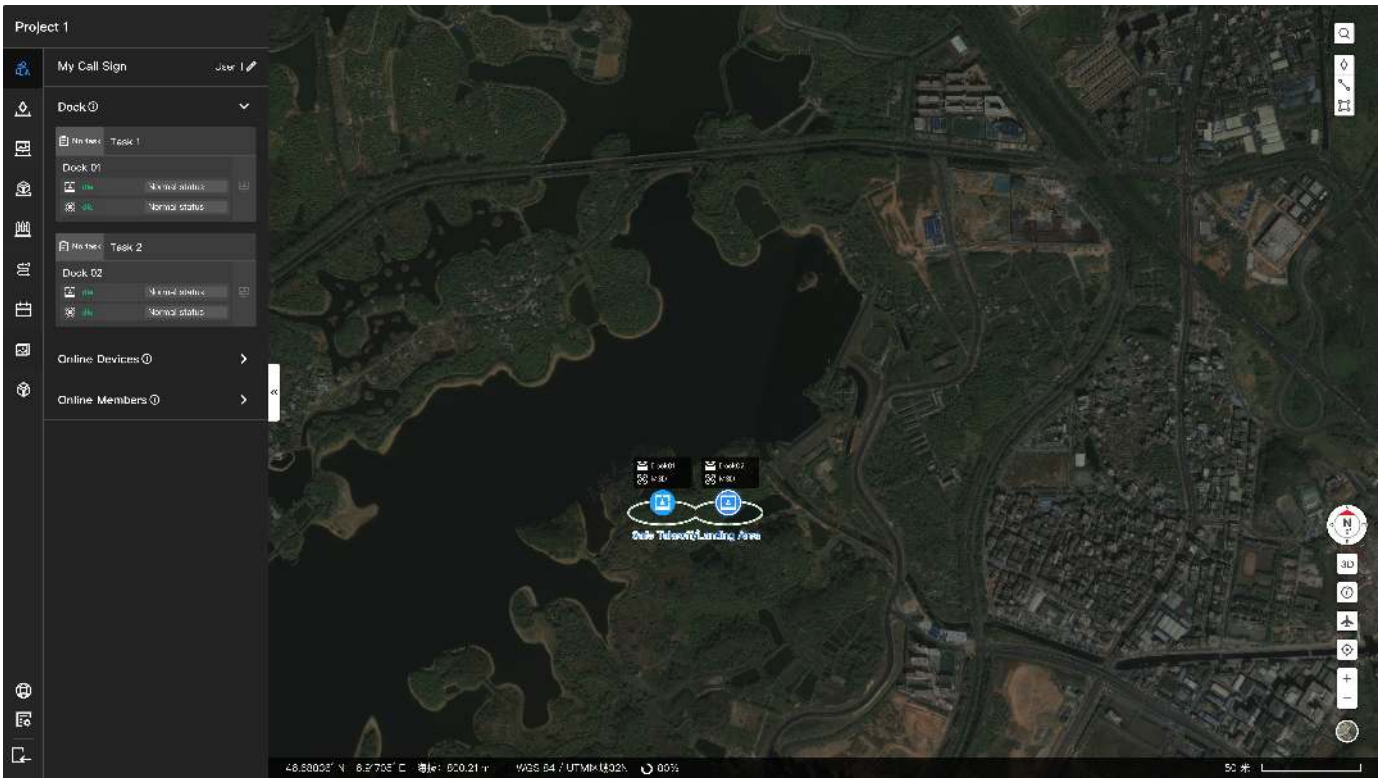
When an aircraft is returning home, upon returning to the takeoff/landing area or requesting to open dock covers, the system will check if any aircraft in the group is taking off or landing.

- If the takeoff/landing zone is occupied, the aircraft will hover at the edge of the area, waiting for the area to be available. The aircraft will continue to return home if the battery is low.
- If the takeoff/landing area is not occupied, the aircraft will continue returning home and request the dock to open the covers. The area will not become available until the aircraft completes landing and the dock closes the covers.

During tasks, you can view the status of the takeoff/landing area on the map.



You can also click on the dock on the map to view the grouping status in the takeoff/landing area.



- Remote debugging or opening the covers on-site does not affect the occupancy status of the takeoff/landing area, but it may impact the takeoff and landing process of other aircraft. Exercise caution when debugging if there are aircraft operating nearby.

3. Exceptional Situations

1. After a flight task ends, if the covers do not close properly, the takeoff/landing area that is occupied will not be released automatically. In this case, the covers need to be closed via remote or on-site debugging so the area can become available. Reasons for the covers not closing after task performances include but are not limited to:

- Abnormal operation of the dock cover's mechanical structure.
- The dock was already in remote or on-site debugging with the covers open before the flight task was distributed.

2. If the dock goes offline before the aircraft takes off and leaves the takeoff/landing area or after occupying the area during landing, the message to release the area cannot be sent. The area will continue to be occupied until communication is restored or the occupation times out after 30 minutes.

Automatic Swap

The automatic swap task supports uninterrupted observation of a specified subject by automatically scheduling aircraft from two docks.

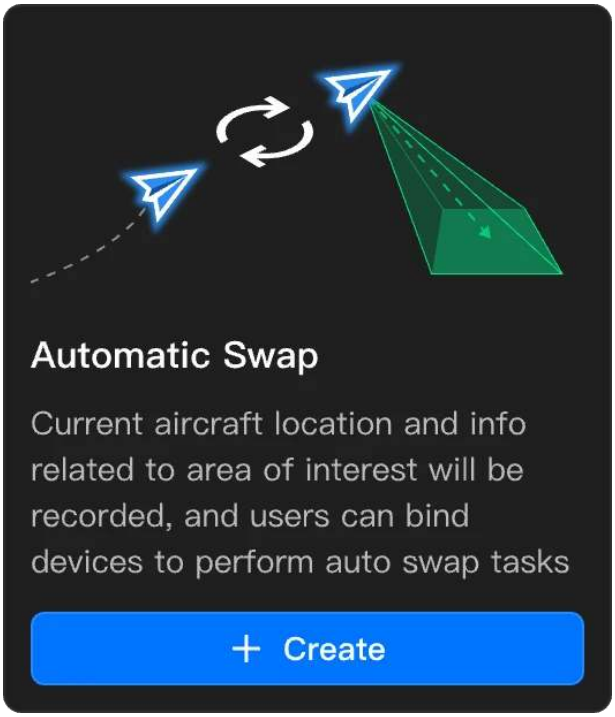
- Only DJI Dock 3 supports the automatic swap feature.

Prerequisites and Checklist

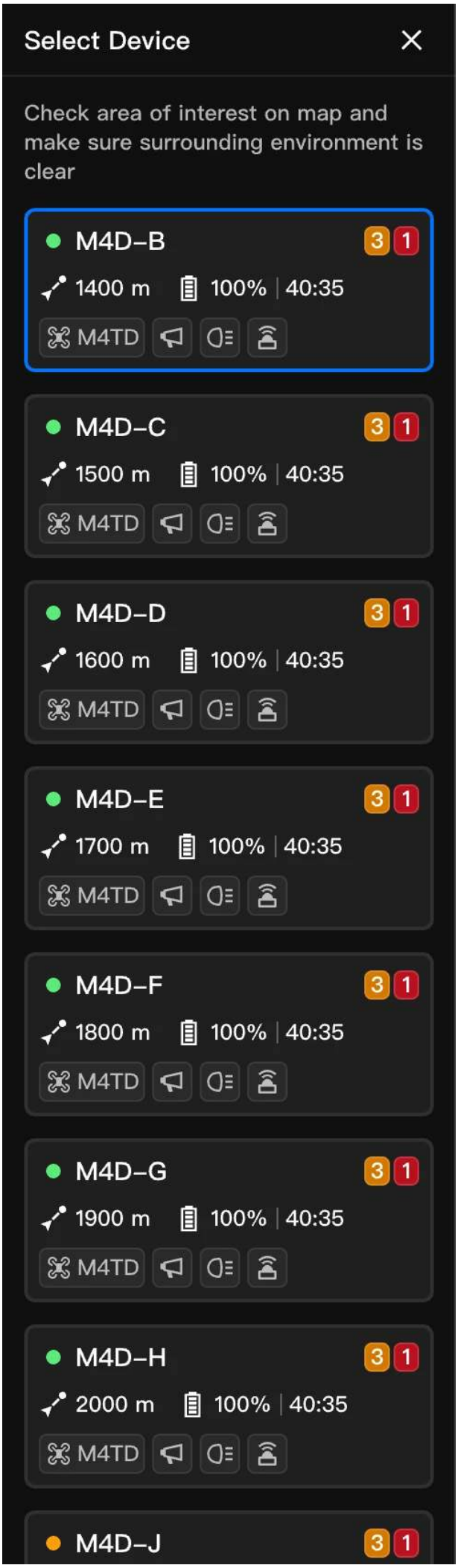
1. The primary aircraft has successfully taken off, flown out of the safe takeoff/landing area, and is currently in the Manual Flight mode.
2. The primary aircraft is hovering, and the subject or area to be observed is confirmed.

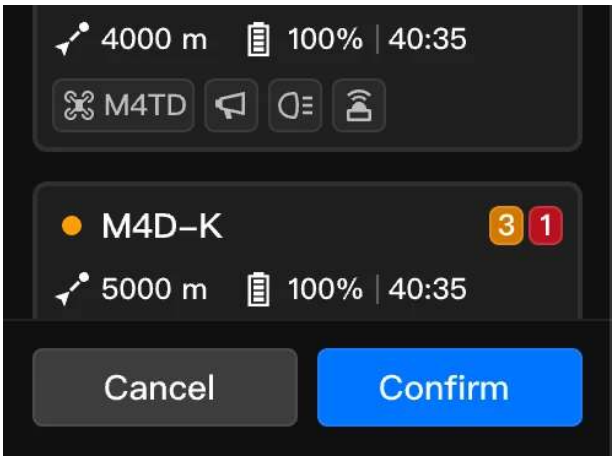
Task Configuration Process

1. Create an automatic swap task in the virtual cockpit.

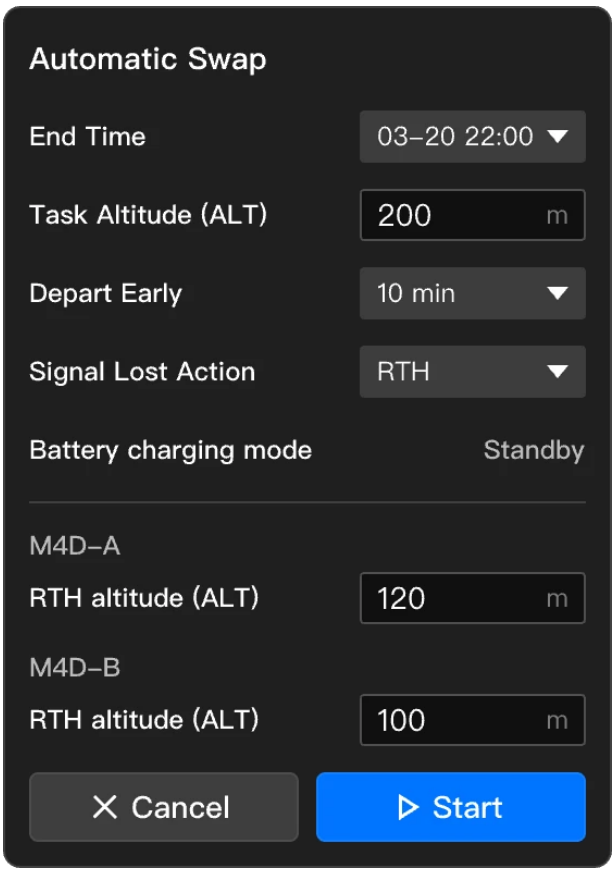


2. In the recommended device list, select a reserve aircraft. Only docks within 5 km of the aerial task point can be selected.


Select Device
Check area of interest on map and make sure surrounding environment is clear
M4D–B
3 1
1400 m
100% | 40:35
M4TD
M4D–C
3 1
1500 m
100% | 40:35
M4TD
M4D–D
3 1
1600 m
100% | 40:35
M4TD
M4D–E
3 1
1700 m
100% | 40:35
M4TD
M4D–F
3 1
1800 m
100% | 40:35
M4TD
M4D–G
3 1
1900 m
100% | 40:35
M4TD
M4D–H
3 1
2000 m
100% | 40:35
M4TD
M4D–J
3 1



3. Set task parameters.

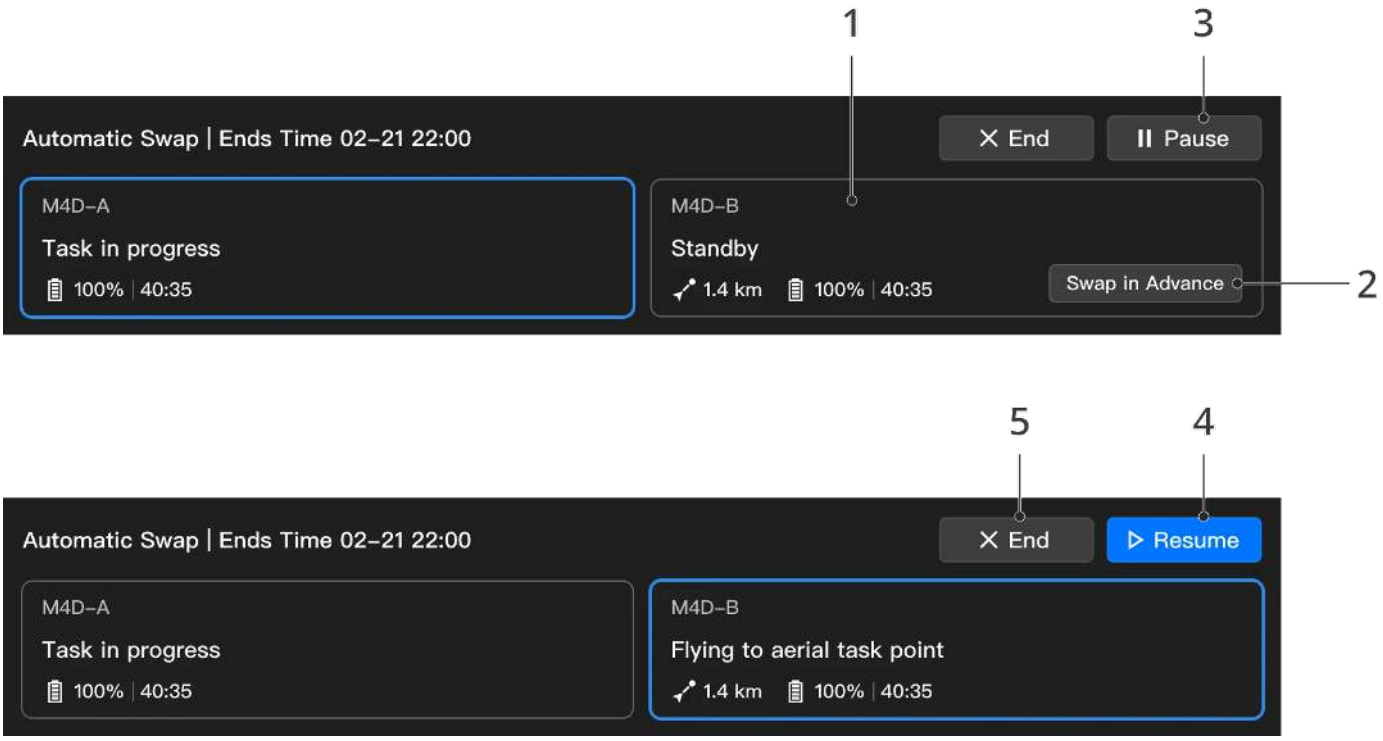


Parameter	Range	Description
End Time	1 to 12 hours after the task begins	Indicates the maximum duration of the task. Once the task deadline is reached, the task will automatically end.
Depart Early	0 to 30 minutes	It is recommended to depart 10 minutes early. Adjust according to environmental complexity (e.g., wind speed, obstacles), and set an earlier departure time in complex scenes.
Battery Charging Mode	The system defaults to battery standby mode.	During the automatic swap task, the aircraft will automatically recharge to 90% battery to ensure efficient operation.

Task Performance and Management

After the task starts, the system will automatically calculate two aerial aerial task points based on the location of the observed subject, primary aircraft, and reserve aircraft. During the automatic swap task, the aircraft will be automatically scheduled to reach the aerial task points in sequence to observe the area of interest.

- The aerial task point for the reserve aircraft will be defined within a radius of 50 meters from the primary aircraft. Make sure this area is relatively clear to guarantee the safety of the task.
- After completing the task, the reserve aircraft will orient itself toward the target location that the primary aircraft was facing when the task was created, and adjust its zoom level to match that of the primary aircraft.



(1) Switch livestream device and payload control

- After entering the virtual cockpit, the user will by default have flight and payload control of the primary aircraft.
- Click on the device card to view the video transmission of the reserve aircraft and perform corresponding operations.

- During the automatic swap task, only the gimbal can be manually controlled. Other operations need to be paused or performed after the task.

(2) Swap in Advance: Click Swap in Advance to allow the reserve aircraft to take off in advance, reach the aerial task point, and complete the device swap.

(3) Pause Task: Click Pause Task to freely control any aircraft (except during Return to Home (RTH) or landing process).

(4) Resume Task: When resuming a task, the system will resume the task based on the locations of the observed subject and aerial task point. If the primary aircraft moves during task suspension, the system will recalculate the aerial task point based on the new position of the primary aircraft before resuming the task.

(5) Complete Task: When the task is completed, the primary and reserve aircraft will operate independently of each other. If both aircraft are still performing tasks in the air, they will automatically return to home.

- During the swap process, if the reserve aircraft cannot reach the aerial task point due to reasons such as takeoff failure or insufficient battery, the automatic swap task will be paused.

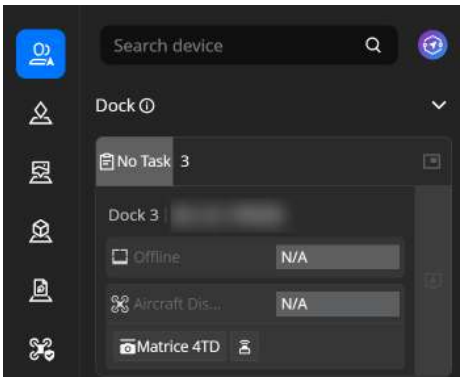
Copilot Remote Control

Copilot is an AI assistant integrated into the FlightHub 2 platform. Users can issue commands to Copilot using natural language (text or voice). The AI then interprets the request and controls the drone in real time to perform complex operational tasks such as flight, photography, and search, without requiring professional piloting skills.【**Currently supported devices: DJI Dock 3 and DJI Dock 2**】

How to Access

Copilot offers two entry points:

1. **Virtual cockpit entry**: In the virtual cockpit interface, click the Copilot button to open the chat window on the right. The system will automatically bind Copilot to the currently controlled drone device.
2. **Team page entry**: Click the Copilot button on the Team page to open the chat window. If a device is already selected, it will be automatically bound to the session. If no device is selected, the user must manually select a device within the chat window.



The screenshot shows the location of the Copilot button in the virtual cockpit interface and highlights the chat window that appears after clicking it.

Basic Concepts

- **Conversation**: Each interaction with Copilot is called a session. A session is strictly bound to one drone: (1 user : 1 Copilot : 1 drone). To control another aircraft, start a new conversation.
- **Instruction**: A command is the natural-language input entered by the user in the chat box, for example: “Fly to the park entrance and search for a person wearing red”. Copilot automatically parses the instruction to identify locations, actions, and targets.
- **Planning confirmation**: When a command involves high-risk operations such as takeoff or flight, Copilot generates a mission plan and requests user confirmation before executing it to ensure

safety and control.

- **Emergency stop**: A red emergency stop button is always visible in the chat window. Pressing it will cause the drone to immediately hover in place. This command bypasses AI processing and is sent directly to the drone.

Copilot Capabilities Overview

The following tables describe all capabilities currently supported by Copilot, unsupported operations, and usage considerations for Copilot.

Flight Control

Capability	Support Status	Description	Example
Fly to Destination Point Intelligently	**Supported**	Copilot automatically handles takeoff/in-air status, ground elevation calculation, and flight parameter retrieval. Altitude can be specified. It is recommended to enable Intelligent Optimal Flight Route Planning in the virtual cockpit.	“Fly to the park entrance”, “Fly to Marker B at 100 meters altitude”
Take Off / Fly to Specified Altitude	**Supported**	Altitude is measured as altitude above ground level (AGL). The system automatically calculates the absolute altitude. **Due to potential inaccuracies in FlightHub global elevation data, we recommend leaving a sufficient safety margin.**	“Take off”, “Take off to 100 meters”, “Fly to 80 meters altitude”
Relative Direction Flight	**Supported**	Based on the drone’s current position, supports relative movement in 10 directions: forward, backward, left, right, front-left, front-right, rear-left, rear-right, up, and down.	“Fly forward 100 meters”, “Fly left 50 meters”, “Ascend 30 meters”
Return to Home and Land	**Supported**	The drone automatically returns to the takeoff point and lands.	“Return to home”
Emergency Stop	**Supported**	The drone immediately hovers in place. Use only in emergency situations. After activation, a new command must be issued manually to resume operations.	“Emergency stop” or press the emergency stop button
Continuous Flights Between	**Unsupported**	A single command supports only one absolute PinPoint. To fly to multiple locations, issue commands sequentially.	—

Capability	Support Status	Description	Example
Multiple PinPoints			
Flight Task Execution	**Unsupported**	Existing flight task files cannot be executed directly. Only real-time FlyTo is supported.	—

Camera & Imaging

Capability	Support Status	Description	Example
Photo Capture	**Supported**	Supports single or multiple photos. Users can set number of photos and interval timing.	“Take a photo”, “Take 3 photos”, “Take a photo every 2 seconds, 5 times”, “Zoom to 7x and take a photo”
Video Recording	**Supported**	Supports timed recording and continuous recording (manual stop). Camera mode switches automatically.	“Record for 30 seconds”, “Start recording”
Stop Recording	**Supported**	Stops an active recording session anytime.	“Stop recording”
Pano	**Supported**	Automatically switches to pano mode. The drone must maintain stable hover during capture (approx. 100 seconds).	“Take a pano photo”
Lens Switching	**Supported**	Supports switching between infrared, wide-angle, and zoom lenses.	“Switch to infrared camera”, “Switch to wide-angle”, “Switch to zoom lens”
Orient the Camera Toward a Coordinate	**Supported**	Points the camera toward a specified geographic location.	“Point the camera toward the park entrance”
Manual Focus / Exposure Adjustment	**Unsupported**	Manual focus (MF/AF), exposure compensation, night mode, and similar settings are not controllable.	—

Gimbal Control

Capability	Support Status	Description	Example
Gimbal Recenter (horizontal)	**Supported**	Gimbal returns to its horizontal position.	“Recenter the gimbal”
Tilt Gimbal Downward	**Supported**	Adjusts the gimbal to 90° downward, suitable for orthographic imaging and mapping tasks.	“Point the gimbal downward”
Precise Pitch / Yaw Angle Control	**Unsupported**	Only two preset positions are available: center and vertical downward. Precise angle adjustment is not supported.	—

Circle Point of Interest (POI)

Capability	Support Status	Description	Example
Circle POI	**Supported**	Circle a specified POI. The system automatically calculates the radius and duration. Circle speed can be specified.	“Circle the signal tower”, “Circle this building once”
Exit POI	**Supported**	Stops the current POI flight at any time.	“Stop circling”
Custom Circle Count	**Supported**	Allows multiple circles to be specified.	“Circle the signal tower 3 times”
Custom Circle Radius	**Unsupported**	The circle radius is automatically determined by the current distance between the drone and the PinPoint. If the distance is less than 100 m, the radius is automatically set to 40 m; if the distance is greater than 100 m, the radius is automatically set to 100 m.	—

VLM Intelligent Search

Capability	Support Status	Description	Example
Enable Object Detection	**Supported**	Performs real-time object detection using a Vision-Language Model (VLM). Custom detection labels are supported.	“Search for a person wearing red”, “Detect fire and smoke”
Disable Object	**Supported**	tops an ongoing detection task at any time.	“Stop detection”

Capability	Support Status	Description	Example
Detection			
Search Scan	**Supported**	Executes a three-layer circular scanning pattern (near to far). The system automatically switches to the wide-angle camera and performs 360° rotational scans for each layer. This process is automatically triggered after a search command is issued.	“Search for nearby vehicles” (Copilot automatically orchestrates the scanning sequence)
Wait for Detection Results	**Supported**	Blocks and waits for VLM to return detection results. A timeout value can be configured.	Automatically invoked by Copilot; no manual command required.
Small Object Detection	**Unsupported**	Targets that are too small in scale are not supported (e.g., “road cracks larger than 2 cm”).	—
Highly Specialized Subjects	**Unsupported**	Extremely specialized targets are not supported (e.g., “double-tension insulator strings” or other niche industrial components).	—

Location Search

Capability	Support Status	Description	Example
Search by Place Name	**Supported**	Enter a location keyword. The system first searches PinPoints within the project. If no match is found, external locations are searched automatically. Up to five candidate locations are returned.	“Fly to Jiangang Mountain”, “Fly to the landing pad”
Location Confirmation	**Supported**	After coordinates are found, a confirmation card with a map preview is displayed. Users can review and modify the location before confirming to prevent incorrect navigation.	Automatically triggered by Copilot; user confirms or edits on the map card.
Fuzzy Historical Reference	**Unsupported**	Ambiguous references to previously visited locations are not supported.	—
Pure Relative Directions	**Unsupported**	Relative descriptions without a geographic anchor point are not supported.	—

Capability	Support Status	Description	Example
Area Range Description	**Unsupported**	The destination must be a specific point. Area-based or corridor-style descriptions are not supported.	—

Speaker

Capability	Support Status	Description	Example
TTS Voice Broadcast	**Supported**	Converts text to speech and plays it through the drone speaker. Supports single playback or loop playback, with adjustable volume (0–100). The text should not exceed 200 characters.	“Broadcast: Please stay clear. Construction area ahead.” / “Loop playback: Please pull over for inspection.”
Stop Broadcast	**Supported**	Stops an ongoing voice broadcast at any time.	“Stop broadcasting”

Interaction Confirmation

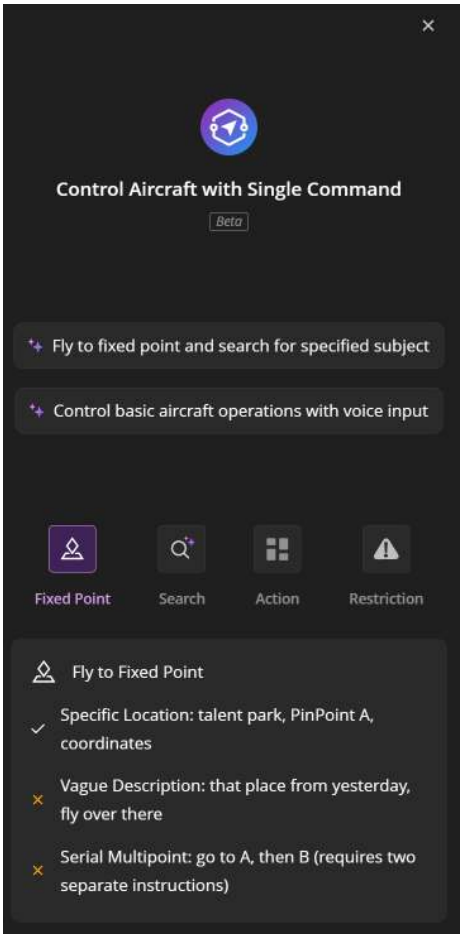
Capability	Support Status	Description	Example
Location Confirmation	**Supported**	When a command involves flight targets, a map confirmation card is automatically displayed. Users can review or adjust the location on the map.	Automatically triggered by Copilot; user confirms on the card.
Plan Confirmation	**Supported**	For high-risk operations such as takeoff or movement, a full task plan preview is displayed. Execution begins only after user confirmation.	Automatically triggered by Copilot; user selects “Execute Now” or “Cancel”.
Automatic Device Parameter Retrieval	**Supported**	Automatically retrieves device parameters such as altitude and distance limitations, RTH altitude, and failsafe settings.	No user input required. The system completes this automatically.

Usage Workflow

Basic Workflow

1. **Enter Copilot**: Click the Copilot button in the virtual cockpit or on the team page.
2. **Confirm Device**: Ensure the correct drone is linked.

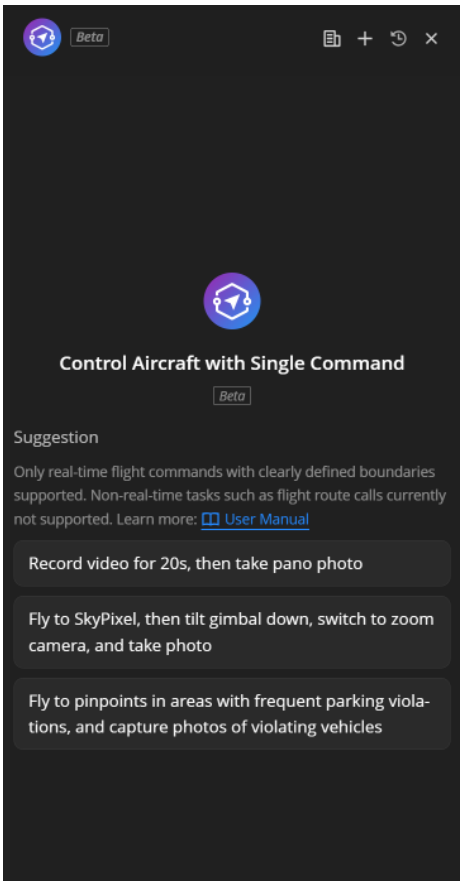
3. **Enter a Command**: Describe the task in natural language in the chat box, for example: “Fly to PinPoint B and take a photo”.
4. **Confirm Location**: If the command involves a location, Copilot will display a location confirmation card. Confirm the location or modify it if necessary.
5. **Confirm Task Plan**: If the command involves high-risk operations, Copilot will display a task plan summary. The operation will begin only after user confirmation.
6. **Monitor Execution**: During the task, progress can be monitored in real time within the chat window.
7. **View Results**: Check the result report after the task is completed.



Flowchart: Command Input > Location Confirmation Card > Task Confirmation Card > Execution Progress > Result Report.

Session Management

- **Create a New Session**: Click the New Session button to start a new conversation. Each session is bound to one drone.
- **History**: Historical sessions can be filtered by date or searched by title.
- **Rename/Delete**: Existing sessions can be renamed or deleted from the history list.
- **Global Timeout**: If a session remains active for more than 90 minutes, it will automatically terminate. Plan your task duration accordingly.



The screenshot shows the session list interface, and highlights the New Session, Search, and History controls.

Command Writing Guidelines

Copilot understands natural language, but following these guidelines will improve your experience:

Recommended Command Formats:

- “Take off and climb to 100 m” — A clearly defined altitude
- “Fly to the park entrance” — A clearly specified location
- “Fly forward 50 m, then take a photo” — Explicit direction, distance, and action
- “Search for a person wearing red” — Specific subject description
- “Start recording for 30 seconds” — Explicit duration

Commands Not Recommended

- “Fly to the place we visited yesterday” — Ambiguous historical reference. Copilot cannot interpret it.
- “Fly to Park A, then Square B, and finally Building C” — Contains multiple absolute destination points in a single command. Not supported.
- “Tilt the gimbal down 35 degrees” — Precise angle control is not supported.
- “Power off” — Commands beyond the control scope are not supported.

Best Use Scenarios

Scenario 1: Security Patrol — Target Search in a Designated Area

Scenario: Security personnel receive an alert and need the drone to fly to a specified location to search for suspicious individuals.

Example:

```
User: Fly to the south gate of the park, search for a suspicious person wearing
```

Copilot Workflow:

1. Search for the location “South Gate of the Park” and display a location confirmation card with a list of candidate places.
2. After the user confirms the desired location, generate a task plan (including flight altitude and search strategy).
3. Once the plan is confirmed, the drone automatically takes off and flies to the location.
4. Upon arrival, VLM intelligent search is automatically activated, and then the wide-angle camera engages for a three-layer circular scan.
5. When a match is found, the gimbal automatically points toward the target and takes a photo.
6. The task completes and a result report card is displayed (including captured photos and flight logs).

Scenario 2: Emergency Response — Rapid Arrival and Video Evidence Collection

Scenario: The command center receives a fire report and needs a drone to quickly reach the site and record video for evidence.

Example:

```
User: Fly to the main entrance of the warehouse area and record a video for 60 s
```

Copilot Workflow:

1. Search for “Warehouse Area Entrance” and request user confirmation.
2. Generate a flight plan that shows the estimated flight distance and duration.

3. After confirmation, the drone takes off and the flight progress is displayed in real time.
4. Once the drone reaches the destination point, recording automatically starts for 60 seconds.
5. After recording ends, a result report is displayed.

Advanced Operation — Combined with VLM Detection:

```
User: Fly to the warehouse area, search for fire or smoke, and orbit and record
```

Copilot automatically plans the route: Fly to the target > Enable VLM detection (labels: fire, smoke) > Perform circular search scanning > When a target is detected, orient the gimbal toward it > Start recording > Circle POI > Stop recording.

Scenario 3: Routine Inspection — Point-Based Photo Capture + Voice Broadcast

Scenario: A security team in an industrial park is on a routine patrol and needs a drone to fly to each inspection point to perform environmental checks and broadcast safety reminders.

Example:

```
User: Fly to Helipad B and take a photo.
```

```
User: Fly forward 200 meters, tilt the gimbal down, and take 3 photos.
```

```
User: Broadcast "Please stay safe. Entry to the construction area is prohibited.
```

Copilot Workflow:

1. 1st Command: Fly to Landing Pad B (automatically matches PinPoint within the project). Take a photo upon arrival.
2. 2nd Command: Fly forward 200 meters from current position, point the gimbal downward, and take three consecutive photos.
3. 3rd Command: Use the speaker to broadcast the specified message.

Scenario 4: POI Circle Inspection

Scenario: Conduct a 360-degree circle around key buildings or facilities for inspection and recording.

Example:

```
User: Fly to the signal tower, then orbit and record a video.
```

Copilot Workflow:

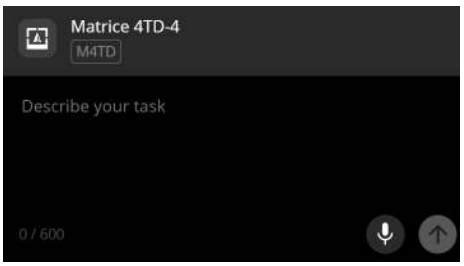
1. Search for “Signal Tower” and request confirmation.
2. The drone flies to the signal tower.
3. Recording automatically starts upon arrival (continuous recording mode).
4. The drone starts circling POI automatically with the camera locked onto the tower.
5. Stop recording after one circle is completed.
6. The task result is displayed.

Safety Notice

Emergency Stop

A red **Emergency Stop button** is persistently displayed in the lower-left corner of the chat window. This is the most critical safety safeguard.

- Once pressed, the drone **immediately hovers in place**, and all ongoing tasks are terminated.
- The Emergency Stop command **bypasses AI processing** and is sent directly to the drone to ensure the fastest possible response.
- After an emergency stop is triggered, you must manually send a new command to regain control.



> Screenshot showing the location and appearance of the Emergency Stop button, with a clear annotation indicating its function.

Permission Management

- Other operators can take over control of the drone from Copilot at any time. When this occurs, Copilot inserts a system notification in the conversation.
- If you attempt to take control of a drone that is currently executing a task, the system displays a secondary confirmation prompt.
- To control a different drone, create a new session. Switching devices within the same session is not supported.

Important

1. **Only one absolute PinPoint is supported per command**: Commands such as “Fly to A and then fly to B” will be rejected. Please issue them as two separate commands.
2. **90-minute session timeout**: A session will automatically terminate if it exceeds 90 minutes. Plan your tasks accordingly.
3. **Always verify the location and parameters before flight**: Copilot displays a confirmation card. Carefully review the coordinates and flight parameters before confirming execution.
4. **Monitor battery level**: Before executing long-distance flights or search tasks, ensure the drone has sufficient battery power.
5. **Use clear and specific detection labels for VLM searches**: “Person wearing red” yields better results than “a suspicious person”. The more specific the description, the better the detection.
6. **Sequence of recording and actions**: If you want to record while circling, Copilot automatically starts recording first, and then begins circling; If you want to record after circling is complete, please specify "after completion" in the instruction.
7. **Pano**: Panorama capture requires the drone to hover steadily for approximately 100 seconds. Ensure the surrounding environment is safe.

FAQ

Q: Can Copilot control multiple drones simultaneously? A: In the current version, each session can only be bound to one drone. To operate multiple drones, create separate sessions for each device.

Q: Can I manually take over control while Copilot is executing a task? A: Yes. You can stop the task at any time using the Emergency Stop button, or manually reclaim control in the virtual cockpit. Copilot will receive a notification in the conversation.

Q: Why did Copilot reject my command? A: Common reasons include: The command contains multiple absolute PinPoints. The request involves operations beyond Copilot’s capabilities (e.g., adjusting exposure parameters). The target description is too vague or overly specialized. Copilot will provide a specific explanation for the rejection.

Q: What should I do if VLM search fails to find the PinPoint? A: You may try the following: Refine the detection label to make it more precise; change the search location; lower the flight altitude to obtain a better visual angle. Note that VLM detection performance may be limited for very small objects or highly specialized targets.

Q: What is the flight altitude relative to? A: All flight altitudes in Copilot are altitude above ground level (AGL). The system automatically looks up ground elevation and calculates the absolute

altitude. You do not need to worry about elevation conversions.

Q: In commands, what direction does “forward” refer to? A: In relative movement commands, “forward/backward/left/right” are defined relative to the aircraft heading, not the cardinal directions on the map (north, south, east, west).

Copilot Wayline Editing

The Wayline Agent is an intelligent flight route planning tool built into the Copilot Assistant on the FlightHub 2 platform. Users describe flight tasks in natural language, and the system automatically interprets the intent, identifies map targets, and generates or modifies waylines. It is designed for patrol and inspection scenarios.

【Currently supported devices: DJI Dock 3, DJI Dock 2, DJI Dock, Matrice 4 Series, Matrice 3D/3TD】

Overview

The Wayline Agent provides the following core capabilities:

- **Natural language input**: No need to manually add waypoints or configure flight altitude, speed, gimbal angles and other parameters — a complete wayline can be generated from a spoken-style description.
- **Map target picking**: Supports picking annotation points on the map, marking custom points, and selecting rectangular areas as inputs for wayline planning.
- **Multi-turn refinement**: Supports iterative modification and refinement of generated results within the same conversation.

How to Access

The Wayline Agent can be launched from the following locations:

Entry Point	Applicable Scenario
Project page	Plan a new wayline from scratch based on map targets
Wayline library / Wayline editor	Modify and adjust an existing wayline

Basic Concepts

- **Picker**: An interactive tool for passing map targets to the Wayline Agent. It supports three modes:
  - **Pick annotation points**: Select one or more existing annotation points on the map. The order can be adjusted to indicate the desired waypoint execution sequence.
  - **Map point marking**: Quickly place several points on the map as waypoint inputs.
  - **Area selection**: Select a rectangular area, and the Agent will plan the wayline based on the geographic features (such as buildings, roads, rivers, lakes, etc.) that you specify within that

area.

- **Altitude reference**: All altitude parameters in a wayline require an explicit reference, including **Absolute altitude (ASL)**, **Relative to takeoff point**, and **Above ground level (AGL)**. If not specified in the command, the Agent will proactively ask.
- **Conversation context**: The Agent retains context within the same conversation, allowing the wayline to be gradually refined through multiple turns of dialogue.

Usage Flow

Generating a wayline typically involves three steps:

1. **Launch the Agent and describe the task**: Open the Agent dialog on the project page, wayline library, or wayline editor, and describe the task objective and key parameters in natural language.
2. **Confirm targets and key parameters**: The Agent highlights the identified targets on the map. If key information is missing (such as altitude reference or modification scope), the system will proactively ask for clarification.
3. **Preview, save, and dispatch for execution**: Once generated, the wayline can be previewed on the map. The system displays summary information such as the number of waypoints, altitude range, and estimated flight duration. After confirmation, the wayline can be saved or dispatched for execution.

Command Elements

To improve the one-shot success rate, it is recommended that commands include the following elements:

Element	Description	Behavior When Missing
Task target	The destination, annotation points to pick, or area to select	The Agent will ask or prompt the user to select on the map
Task type	Inspection, orbit, stationary surveillance, etc.	Inferred from keywords; the result may not match expectations
Altitude reference	ASL / Relative to takeoff point / AGL	**Always asked**
Shooting action	Recording, photo, AI recognition, etc.	Default action is used, or the Agent asks

Generating a Wayline from Scratch

Line-Based Inspection (Roads, Rivers, Boundaries)

The Agent automatically identifies road centerlines, river centerlines, or boundary lines, and evenly places waypoints along them.

Requirement	Example Command	Generated Result
Pure patrol using defaults	Draw a patrol wayline along Shennan Boulevard	Waypoints placed along the road centerline; altitude and speed use default values
Specify flight altitude	Generate a wayline along North Ring Road with a flight altitude of 100 meters	All waypoints have a uniform altitude of 100 m
Camera facing a specific direction	Fly along the centerline of the Shenzhen River at 120 m, camera facing the water	Altitude 120 m, gimbal tilted at an appropriate angle toward the water surface
Closed-loop boundary flight	Fly one loop around the perimeter of Shenzhen Talent Park	Waypoints placed along the park boundary to form a closed loop
Equally spaced photography	Fly this inspection route and take a photo every 50 meters	Waypoint spacing about 50 m, each waypoint has a photo action

When multiple candidate targets exist, the Agent presents a candidate list for selection. Annotations with the same name that already exist in the project are prioritized.

Orbit and Spiral Flight

Perform circular flight around buildings, transmission towers, or points of interest, with the gimbal always aimed at the center.

- **Orbit flight**: For example, the command "Fly one loop around Ping An Finance Center, camera always looking at the building" causes the Agent to generate circular waypoints with yaw mode set to "Always toward POI" and the gimbal facing the center.
- **Spiral flight**: For example, the command "Spiral upward around this transmission tower with a radius of 50 meters" causes the Agent to generate a wayline with a radius of about 50 m, progressively increasing altitude at each waypoint, and the gimbal facing the center.

Area Coverage Inspection

Select an area, and the Agent will plan an inspection wayline based on the geographic features (buildings, roads, rivers, lakes, etc.) within it.

> **Note**: In this release, the Wayline Agent is positioned for patrol and inspection scenarios and is not recommended for mapping or 3D modeling tasks.

Stationary Hover and Custom Waypoints

Scenario	Example Command	Generated Result
Stationary surveillance	Generate a stationary hover surveillance task at this point on the map, lasting 10 minutes	Single waypoint + 600 s hover
Multi-point route	(After marking three points) Connect these three points into an inspection wayline	Points connected in the picking order with default actions
Path navigation	Generate an inspection wayline along the shortest road route from point 1 to point 3	Path planned along roads between the points with waypoints placed
Custom point inspection	Generate a patrol wayline based on these points, photographing each outdoor A/C unit at a 45° angle, altitude 120 m, zoom 7x	Match annotation points, gimbal about -45°, altitude 120 m, focal length corresponding to 7x

The Agent supports combined AI recognition and action sequences. For example: `Inspect along these points for anyone present; if detected, take a photo, start recording, then broadcast "Fishing is prohibited here"` . The Agent will generate a sequence of "AI recognition → photo → recording → broadcast" actions.

Modifying an Existing Wayline

When modifying a wayline, two elements must be specified: **which parameters to modify** and **the scope of application (all waypoints / a specific waypoint range / a specific lens type)**.

Global Batch Modification

- `Increase the altitude of the entire wayline by 20 meters` → All waypoint altitudes are increased by 20 m.
- `Change the flight speed to 8 m/s` → The global flight speed and all waypoint speeds are unified to 8 m/s.

Local Modification

- `Change the altitude of waypoints 3 to 5 to 320 meters` → Only waypoints 3, 4, and 5 have their altitude changed to 320 m.

Adding and Removing Actions

Operation	Example Command	Generated Result
Batch add action	Add a photo action to every waypoint	Each waypoint gains an oriented photo action

Operation	Example Command	Generated Result
Batch remove action	Remove the second photo action from all waypoints	The second photo action is removed from each waypoint
Unified gimbal angle	Change the gimbal action angle at all waypoints to vertical downward	Waypoint action gimbal pitch is unified to -90°
Local hover	Hover for 2 seconds at each photo point	A 2-second hover is inserted before each photo point

Geometric Transformations

- **Reverse wayline**: `Swap the start and end points; I want to fly it in reverse`
- **Translate**: `Shift the entire wayline 50 meters to the east`
- **Split**: `Split from the 6th waypoint into two segments`
- **Combined command**: `Altitude +20 m, speed changed to 6 m/s, gimbal down -90°`

> **Note**: Locked waylines cannot be edited. When multiple users or multiple Agents edit the same wayline simultaneously, each pipeline is independent, and the last saved state becomes final.

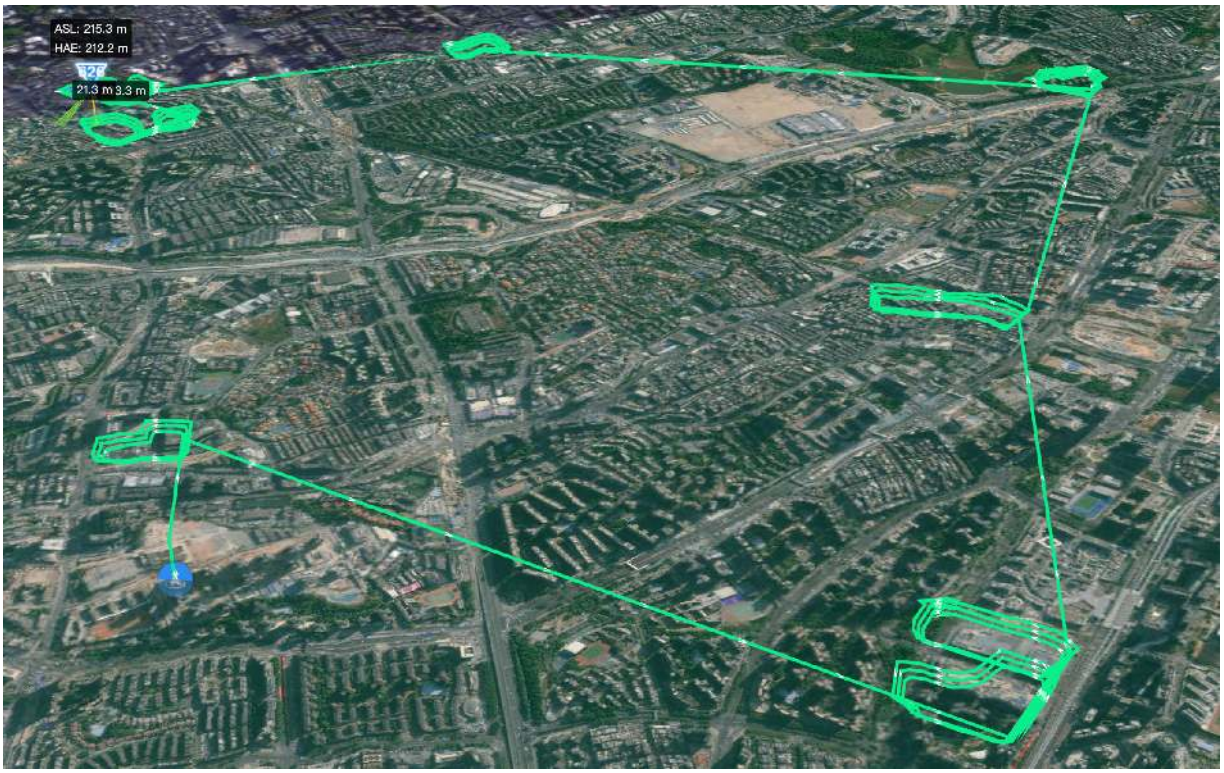
Practical Examples

The following are comprehensive task examples demonstrating the Agent's ability to handle multiple conditions and segmented actions.

Example 1: Commercial District Area Inspection

Command: Inspect the commercial centers within the selected area. For each commercial center, continuously shoot along the mall perimeter with the gimbal pointed straight down. At the first waypoint of each commercial center, add a gimbal -45° action and start recording; stop recording when the inspection of one commercial center is complete, then move on to the next. Orbit each commercial center 3 times before flying to the next.

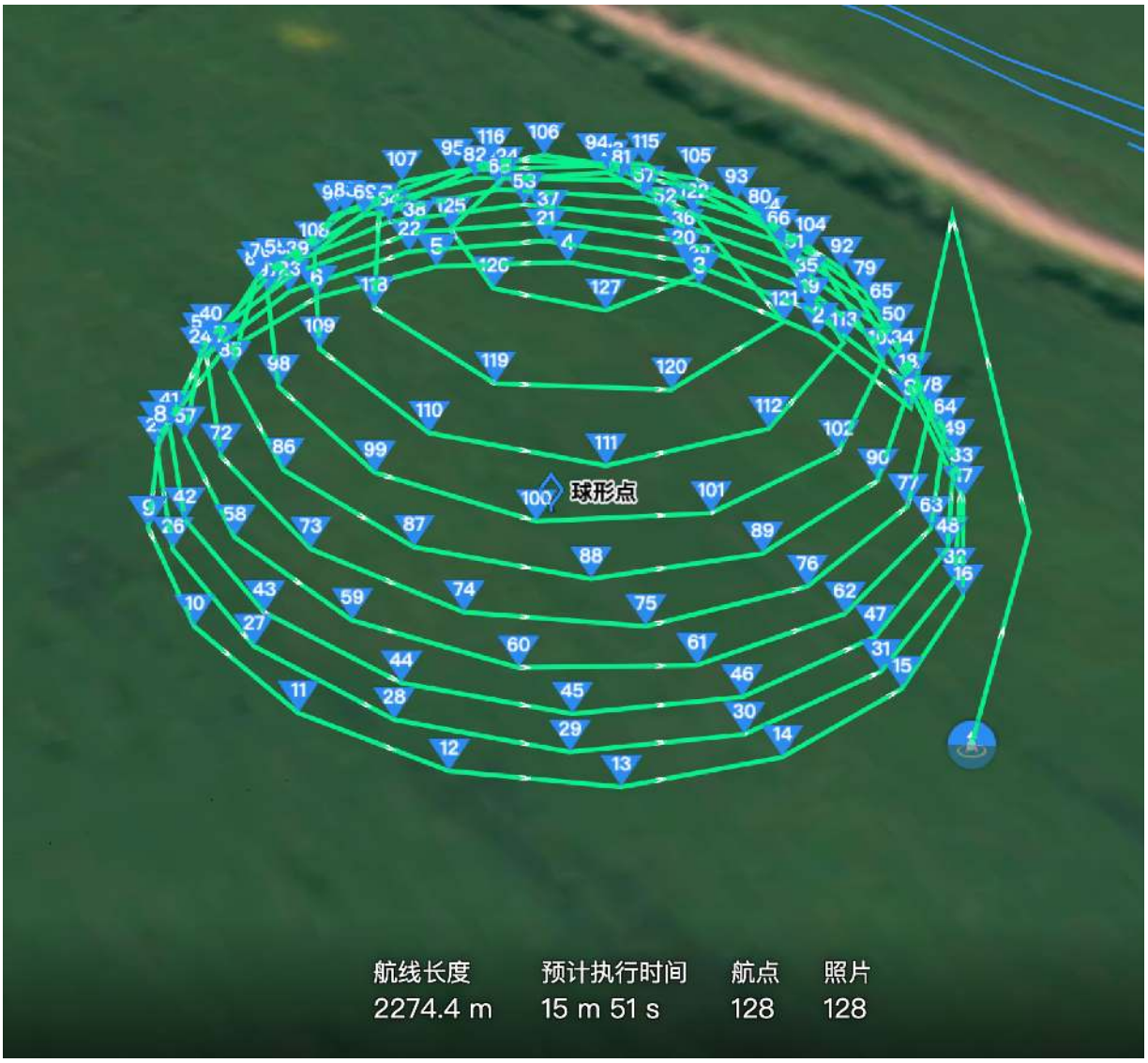
Key points: Area selection automatically identifies multiple commercial centers / 3 orbits around each mall perimeter / Independent recording start/stop for each segment / Gimbal -45° at the first waypoint.



Example 2: Hemispherical Photography Wayline

Command: Based on this point, generate a hemispherical photography wayline that spirals upward ring by ring. The sphere radius is 50 meters. At each point, look toward the center point for photography. The bottom layer of the sphere should be 10 meters above the ground.

Key points: Hemispherical ring-by-ring ascent / Sphere radius 50 m / Each point aimed at the center for photography / Bottom layer 10 m above ground.



Example 3: River Inspection + AI Recognition + Broadcast

Command: Along the river within the area I selected, inspect with the aircraft nose facing north. Add a gimbal -45° action looking at the ground at the first waypoint. During the flight, search for people; if any are detected, trigger an oriented photo, then broadcast "This is a forest water source protection area, leave immediately".

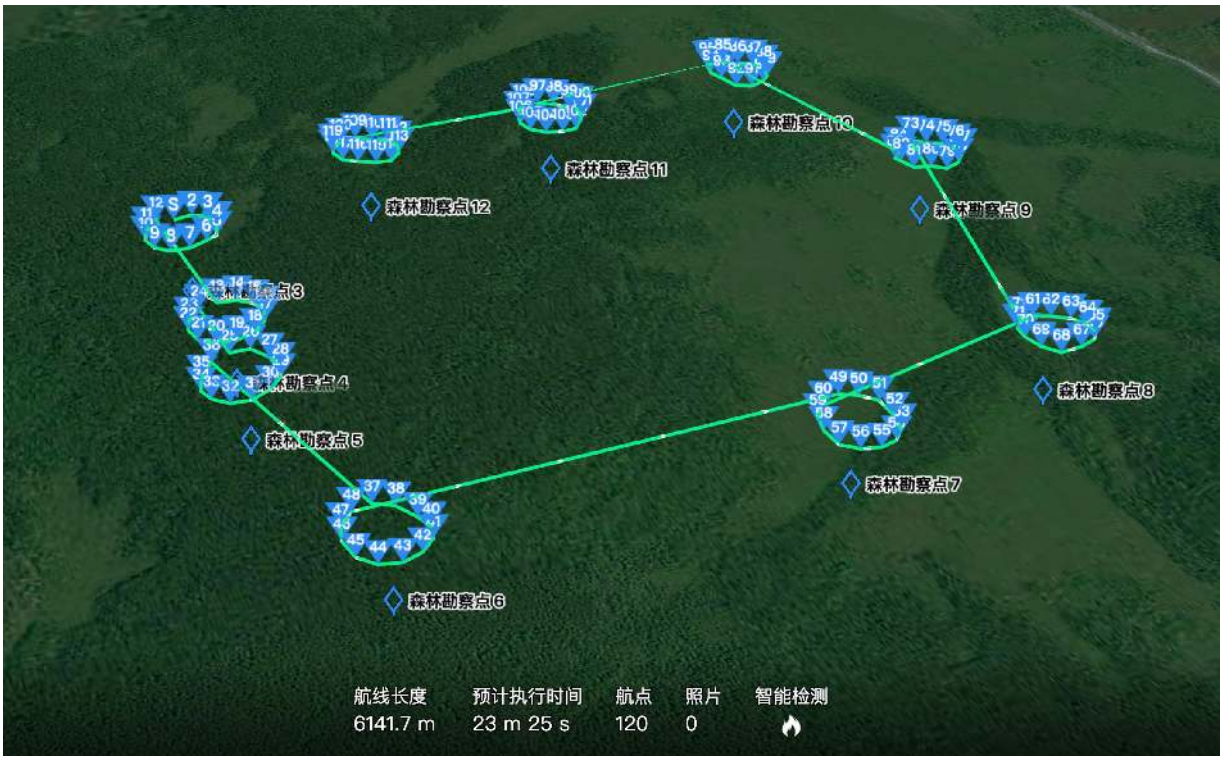
Key points: Area selection identifies the river / Aircraft nose unified toward north / AI person detection → oriented photo → broadcast / Gimbal -45° at the first waypoint.



Example 4: Forest Critical Risk Point Orbit + Thermal Imaging

Command: Inspect for fire risks along forest survey points 3 to 12. At each point, orbit 1 loop with the point as the center at 120 meters above. Start recording when the orbit begins, and simultaneously enable thermal temperature detection. If the detected temperature exceeds 50°C, start recording for 30 seconds.

Key points: Pick survey points 3–12 / 1 orbit at 120 m above each point / Thermal temperature >50°C trigger / Conditional recording for 30 s.



Dialog and Clarification Mechanism

Continuous Dialogue

Context memory is supported within the same conversation, allowing the full "decompose → confirm → execute" flow through multiple rounds of dialogue.

When the Agent Proactively Asks

Priority	Trigger Condition	Typical Question
Mandatory	Altitude reference unclear (ASL / relative to takeoff / AGL)	Do you mean absolute altitude or relative to the takeoff point?
Mandatory	Modification scope unclear (global / local)	Do you want to modify all waypoints or specific waypoints?
Mandatory	Target object unclear	Please specify the target object or select it on the map
Frequent	Only vague expressions such as "faster / slower / higher" without a value	What is the target speed?
Frequent	Angle sign ambiguity	Do you mean gimbal pitch down 60° (-60°)?

Common Misunderstandings

- **Three meanings of "altitude"**: `ASL 300 m` ≠ `Relative to takeoff point 300 m` ≠ `AGL 300 m`. When in doubt, use "relative to takeoff point" (the most common reference).
- **Angles include sign**: Gimbal "pitch down 60°" means -60°, not 60°. Direction convention: North = 0°, East = 90°, South = 180°, West = -90°.

Recommended complete command structure: Target + shape/task + altitude + reference + speed + shooting action. Example: `Generate a patrol wayline along Liuxian Boulevard, relative to takeoff point 120 m, record throughout`.

Capability Boundaries and Safety Limits

Safety Guardrails

The Agent validates commands based on numerical boundaries of wayline parameters:

Command	Agent Response	Type
Set speed to 100 m/s	Exceeds safety range (max 15 m/s depending on aircraft model), limited or please reset	Blocking
Set altitude to 0 m	Risk of ground collision, please confirm	Warning
Generate a wayline with 1000 waypoints	Warning about waypoint quantity limits or performance risks	Warning

Unsupported Capabilities

Capability	Description
Real-time event triggering	For example, "Take a photo when a violating vehicle is seen" — only preset waypoint execution is available; recommended to approximate via "route + AI recognition"
Fine-structure recognition	For example, "Automatically recognize insulators on power towers and generate shooting points" — fine structural components cannot be recognized; annotate points manually
Environmental adaptation	For example, "Adjust automatically based on today's wind speed" — real-time weather data cannot be obtained; specify parameters manually
Dynamic obstacle avoidance	Dynamic obstacle avoidance based on 3D models is not yet supported
Mapping and modeling	This release focuses on patrol and inspection; mapping or modeling tasks are not recommended
Cross-session memory	For example, "Fly like last time" — the Agent cannot access historical conversations; provide a specific wayline file or parameters

Subjective Description Commands

For subjective description commands such as "Make it look nicer" or "Make it more cinematic", the Agent will not adjust parameters on its own. It will ask the user to specify concrete parameters (gimbal angle, focal length, camera movement style) or select a preset camera movement template.

FAQ

Q: Can the wayline generated by the Agent be dispatched for execution directly?

Yes, but it is recommended to preview it first. After generation, the Agent provides summary information such as the number of waypoints, altitude range, and estimated duration, and performs checks such as overspeed, ground collision risk, and waypoint count limits based on numerical boundaries. **Note: This release supports only "immediate tasks" (dispatched for execution**

immediately after generation), and does not yet support "scheduled tasks" (reserved for timed execution).

Q: Why does the Agent repeatedly ask when I modify altitude?

"Altitude" involves two frequent ambiguities: reference (ASL / relative to takeoff / AGL) and application scope (all waypoints or specific ones). When both are made explicit in the command (for example, "Change waypoints 3 to 5 altitude to 120 m relative to takeoff point"), the Agent will execute directly.

Q: Can the Agent recognize specific place names such as "Dasha River" or "Shennan Boulevard"?

Yes. Based on the current project coordinates, the Agent picks the closest matching or similarly-named target and highlights it on the map for confirmation. If multiple candidates exist, the Agent presents a candidate list; annotations already existing in the project with the same name are prioritized. You may also select an annotation on the map first, then issue the command.

Q: After switching aircraft model, is the original wayline still usable?

You can instruct the Agent to switch the aircraft model (for example, "I'm switching to M350, please switch the aircraft model for me"), and the system will update the corresponding aircraft parameters. Note that different aircraft models have different capabilities (for example, speaker, spotlight, and thermal imaging are only supported on some models; maximum speed and gimbal pitch range also differ). After switching, the Agent will proactively notify if any action is no longer supported.

Q: Will conflicts occur when multiple people edit the same wayline simultaneously?

Multiple people can edit simultaneously, with each pipeline independent, but the last saved state becomes final (later saves override earlier ones). Locked waylines cannot be edited.

Q: How can I quickly adjust an unsatisfactory generated wayline?

Simply continue issuing modification commands within the same conversation — the Agent retains context. For example, "The waypoints are too dense, please sparse them out and keep only the key ones" or "Set a larger turning radius". You can also directly fine-tune the picked target lines or points on the map.

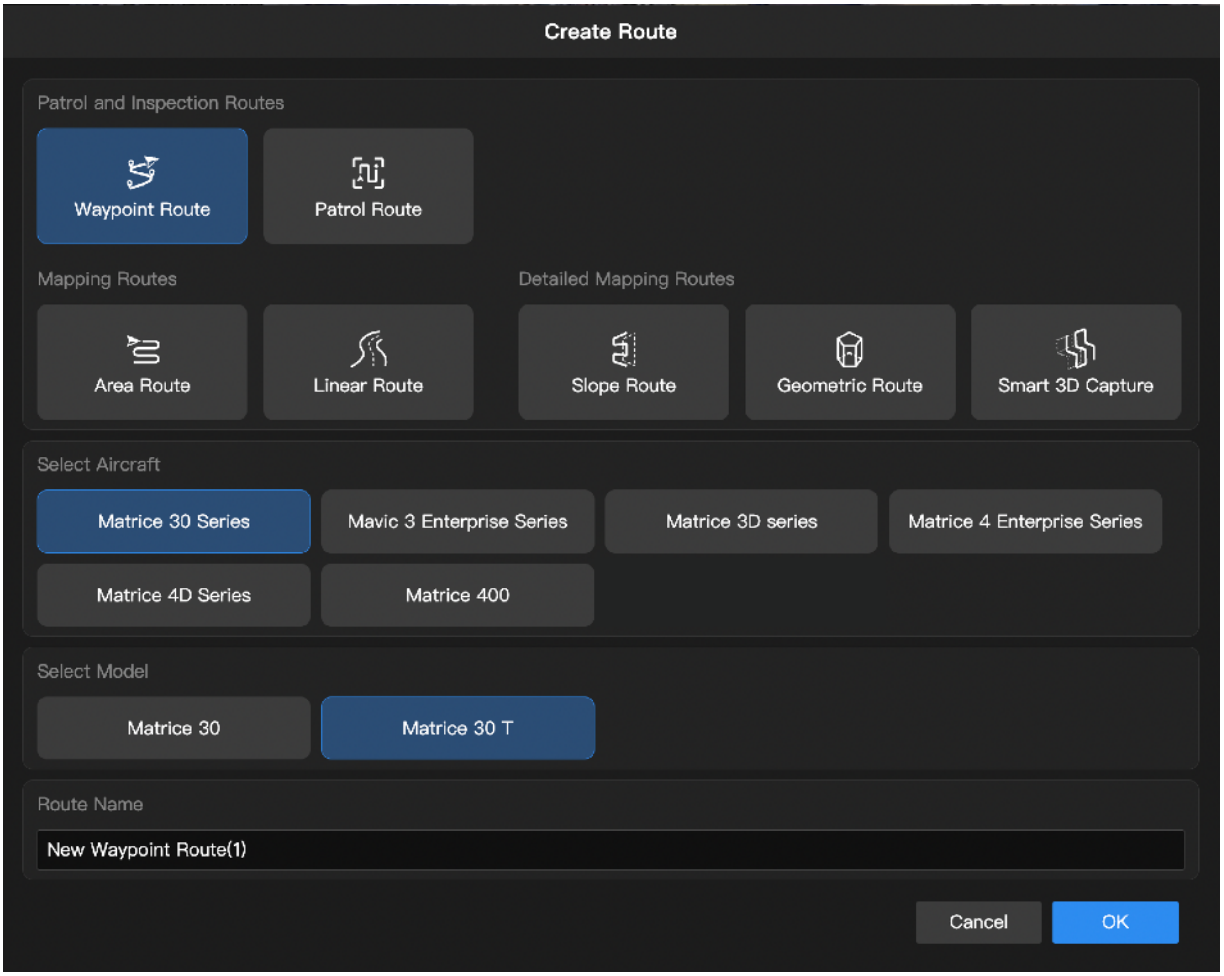
Import Flight Routes

Click  > Import KMZ File to select and import KMZ flight routes.

- The KMZ file must include wpmz/template.kml and wpmz/waylines.wpml.
- The upload progress and status will be displayed. Users can stop uploading files when the files are being or waiting to be uploaded.

Create Flight Routes

Click "+" in the upper right corner of the flight route list and fill in the information below to create a flight route.



1. Route Type

Waypoint, area, slope, and geometric routes are supported.

2. Select Aircraft

The Matrice 3D series, Matrice 30, and Mavic 3 enterprise series are supported.

3. Select Model

Select the specific aircraft model.

> Note:Users should select the correct aircraft model before planning the task.

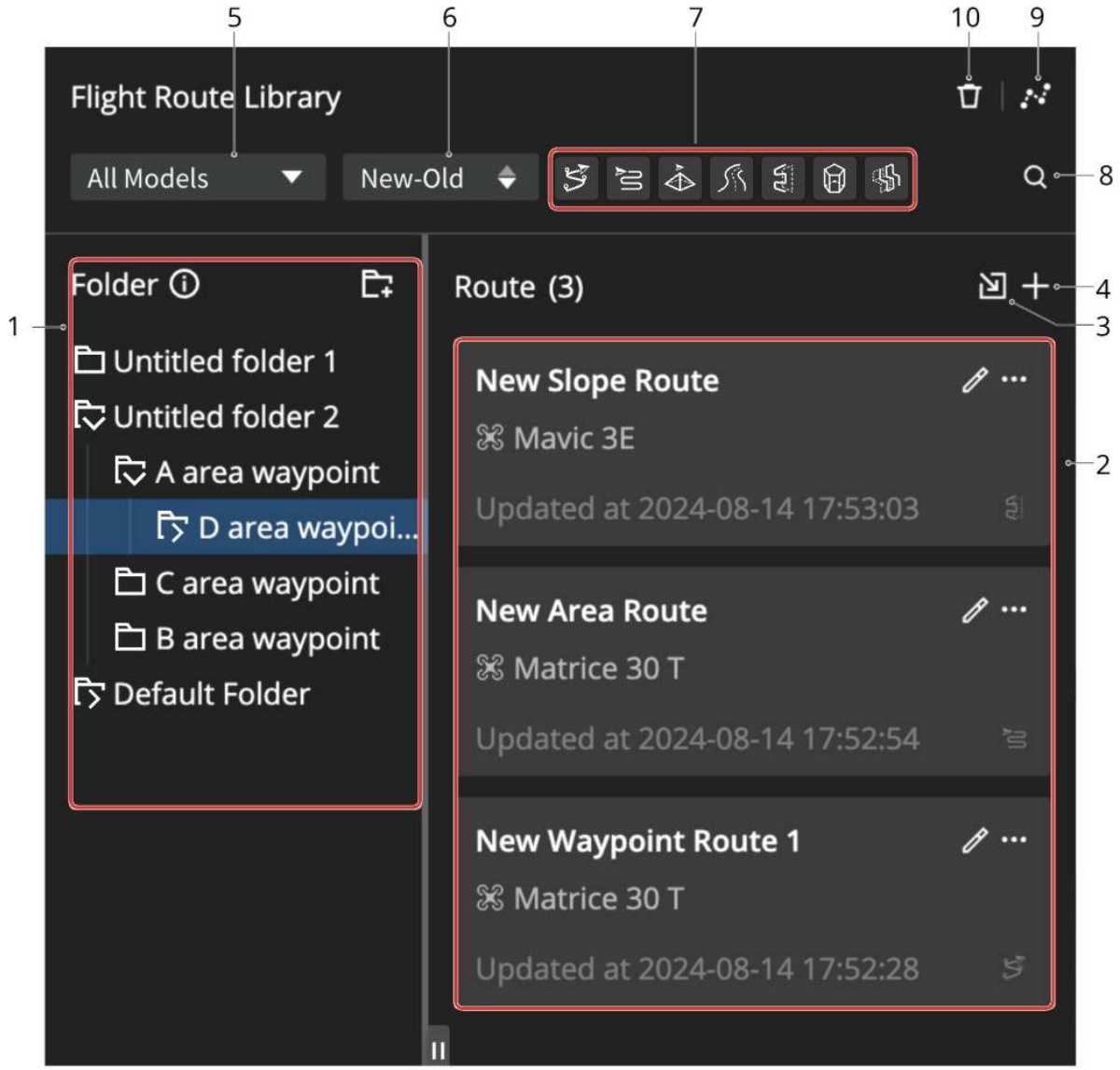
4. Route Name

The route name is required and should be within 60 characters.

Click OK to create the flight route.

Manage Flight Routes

After clicking the Flight Route Library, the file structure will be shown on the left and files within the selected folder will be displayed on the right.



1. Folder: Users can manage all the folders here. Files in the selected folder will be displayed on the right.

   Note: Files stored in the subfolders will be displayed only when the subfolders are selected.

   - Create Folder: Click to create a subfolder under the currently selected folder.
   - Folder Management: Click a folder to change the folder's name. Drag the folder to change its hierarchy. The number after the folder name means the total number of the flight routes in the

current folder and its subfolders.

2. Route: Displays the basic information of the flight route. Press Control/Cmd and click to multi-select routes and click ••• for more settings.
3. Import flight route: Click to import flight routes.
4. Add flight route: Create a new flight route in the current folder.
5. Search aircraft model: Click All Models and filter aircraft model to view flight routes performed by the same aircraft model.
6. Sort by time: Users can sort flight routes by last modified time.
7. Filter flight route: Users can select a flight route type and filter all flight routes of the same type.
8. Search: Users can search by folder or flight route name. Folders and route files that meet the criteria will be displayed in the search results.
9. Merge flight routes: Users can select files and merge. Selected routes should meet the following requirements:
    - Only waypoint routes are supported.
    - Routes are performed by the same aircraft model.
    - For waypoint altitude that is set as relative to takeoff point, takeoff point should be set.
    - The currently supported models are Matrice 30 series, Matrice 3D series, Mavic 3 enterprise series,Matrice 4 enterprise series and Matrice 4D series.
10. Delete selected flight route file: Select a file, click  to delete.

Edit Waypoint Routes

The Waypoint Route Editor supports using the mouse and keyboard to control a virtual aircraft to plan waypoint routes, adjusting the waypoint location and shooting angle based on the imported 3D models, as well as checking whether the flight routes are safe. After completing the route planning and first flight, users can enable AI Spot-Check or adjust the subject of interest to capture the desired views in the subsequent tasks.

Editor Interface Introduction



1.Reverse Flight Route

Click to reverse the waypoint order of the flight route.

For the following waypoint action pairs:

Start Recording	Stop Recording
Start Timed Interval Shot	End Interval Shot
Start Distance Interval Shot	End Interval Shot

The waypoint order can be automatically swapped. Make sure the new flight route meets requirements before reverse.

2. Waypoint List

Displays the added waypoints and waypoint actions.

- Click the waypoint or action icon, and the waypoint will be displayed in the middle of the web page.
- Double-click the Take Photo (Fixed Angle) action and scroll the mouse wheel to zoom in or out or drag the auxiliary view to adjust the shooting angle.

3. Main View

- Displays the flight route based on the map view. Users can drag the map, scroll the mouse wheel to zoom in or out, or press and move wheel to rotate the map view. Users can also click ⇆ or press [~] to switch to the map view.
- The data in the center of the main view represents the straight line distance between the virtual aircraft and the shooting subject.

4. Flight Data

Displays the altitude and heading of the virtual aircraft, as well as the gimbal angle. Users can also click  to adjust the waypoint type and aircraft yaw mode.

5. Action Editor

Displays details of the selected waypoint action. For the Take Photo (Fixed Angle) action, users can preview the zoom photo effect based on the imported models. Media files captured will be displayed here after the flight task is completed. Users can enable AI Spot-Check or adjust the shooting angle and start the task again to capture the expected views.

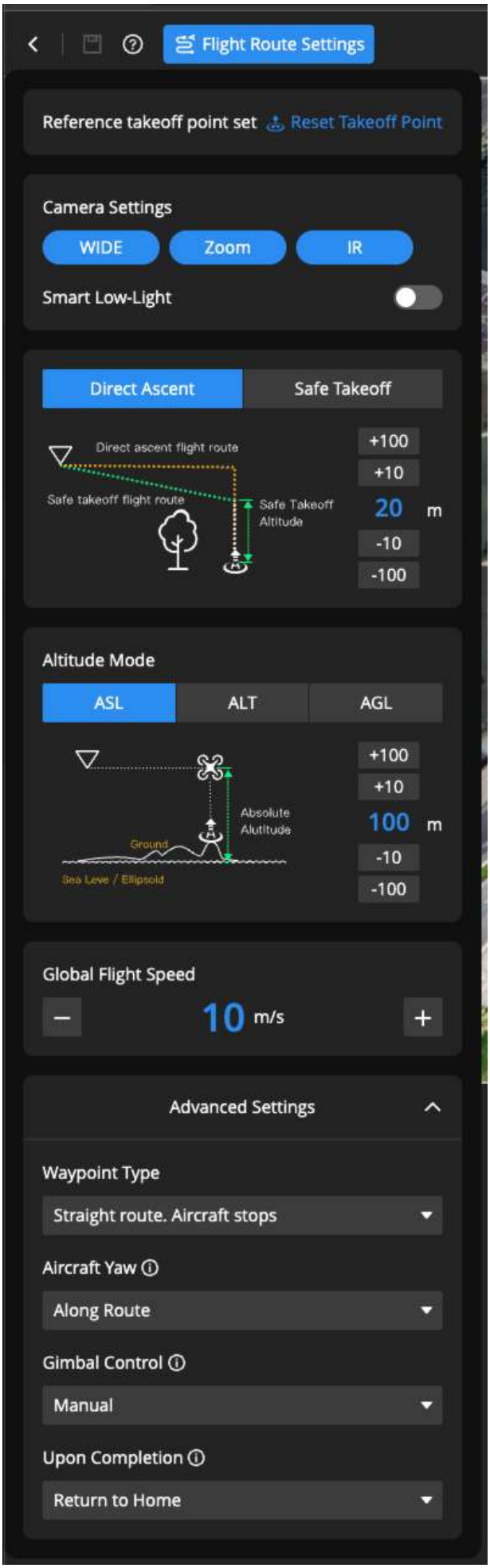
> Note: To use AI Spot-Check, users should select to store zoom photos and choose an appropriate zoom ratio so that the subject of interest is within the camera view before tasks.

6. Auxiliary View

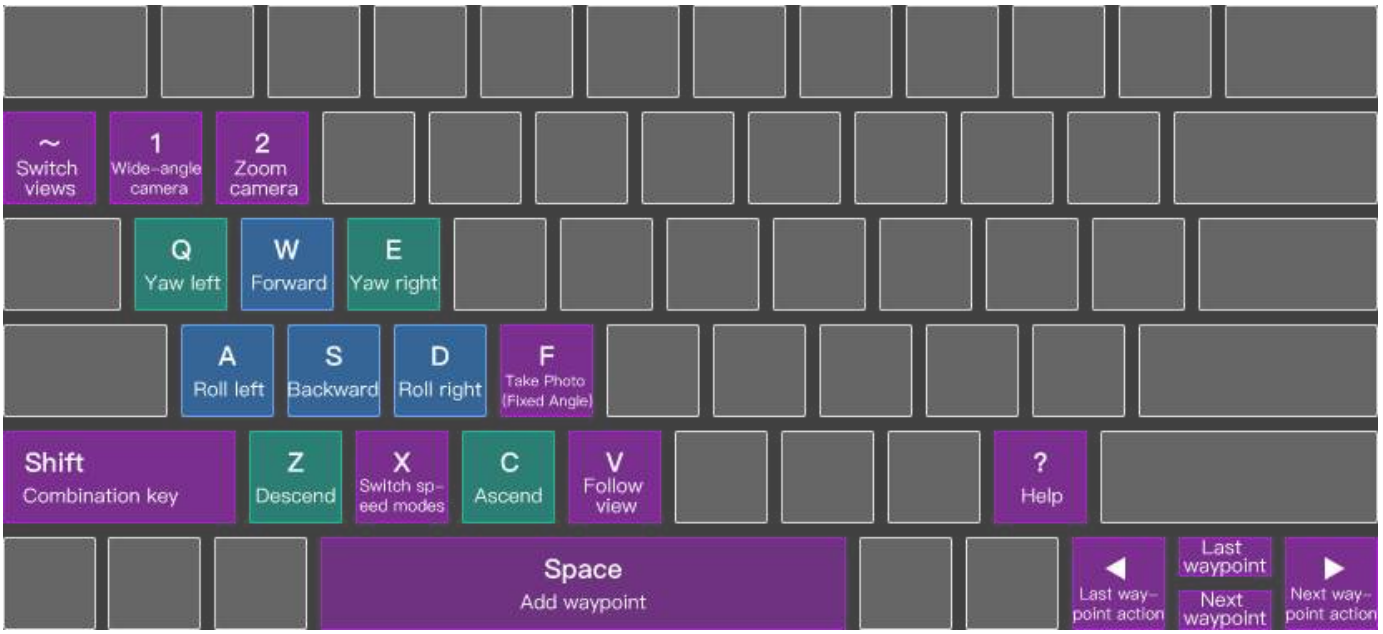
Displays the flight route based on the first-person view. Users can scroll the mouse wheel to zoom in or out or drag the auxiliary view to adjust the shooting angle. Users can also click ⇆ or press [~] to switch to the map view.

7. Flight Route Settings

Users can move the mouse over ⓘ to view the setting descriptions and modify the global settings.



8. Keyboard Shortcuts



[1]: Switch to the wide-angle camera	[2]: Switch to the zoom camera
[Q]: Yaw left	[E]: Yaw right
[W]: Forward	[S]: Backward
[A]: Roll left	[D]: Roll right
[Z]: Descend	[C]: Ascend
[F]: Add Take Photo (Fixed Angle) action in the current virtual aircraft location. Confirm the shooting angle or zoom ratio if the user is editing the action	[Space]: Add a waypoint in the current virtual aircraft location. Confirm the updated waypoint location if the user is editing the waypoint
[Shift]+[F]: Insert a Take Photo (Fixed Angle) action after the current action	[Shift]+[Space]: Insert a waypoint after the current waypoint
[X]: Switch the speed modes of the virtual aircraft	[V]: Enable the mouselook feature. Press [V] or [ESC] to exit
[←]: Select the last waypoint action	[→]: Select the next waypoint action
[↑]: Select the last waypoint	[↓]: Select the next waypoint
[~]: Switch between the map and first-person views	

Note: The keyboard layout may be different in different countries or regions, and users should follow the actual interface guidance. To change the keyboard layout, go to User Center > Preferences > Keyboard Layout to customize the settings.

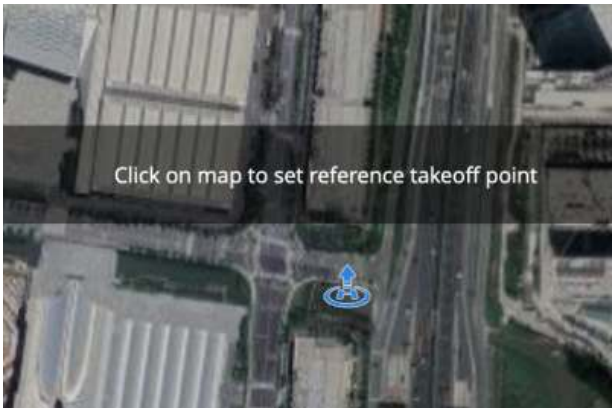
9. **Flight Route Edit Settings**

FlightHub 2 supports synchronizing attitude information when adding a new waypoint. When enabled, it automatically records the virtual aircraft's gimbal yaw and tilt angles, the aircraft's yaw, and camera zoom level upon adding a new waypoint, and adds these data to the action list.

Flight Route Planning and Initiation

1. Set a Reference Takeoff Point

Select an appropriate location or the dock as a reference takeoff point. It is recommended to set the dock as the reference takeoff point.



2. Add a Waypoint

Control and move the virtual aircraft to a desired location and press [Space] to add a waypoint in that location.

3. Insert a Waypoint

Select a waypoint and press [Shift]+[Space] to insert a waypoint after the selected one.

4. Adjust the Camera View

In the first-person view:

- Drag the camera view to change the camera view or scroll the mouse or adjust the slider to change the zoom ratio.
- Press [V] to enable the mouselook feature so that users can directly adjust the camera view by moving the mouse. Press [V] or [ESC] to exit.

5. Add a Waypoint Action

- Users can press [F] to add a Take Photo (Fixed Angle) action for the current waypoint. If the virtual aircraft is not on the waypoint, a waypoint with a Take Photo (Fixed Angle) action will be added automatically.
- Press [Shift]+[F] to insert a Take Photo (Fixed Angle) action after the selected action. If the virtual aircraft is not on the current waypoint, a waypoint with a Take Photo (Fixed Angle) action

will be inserted automatically.

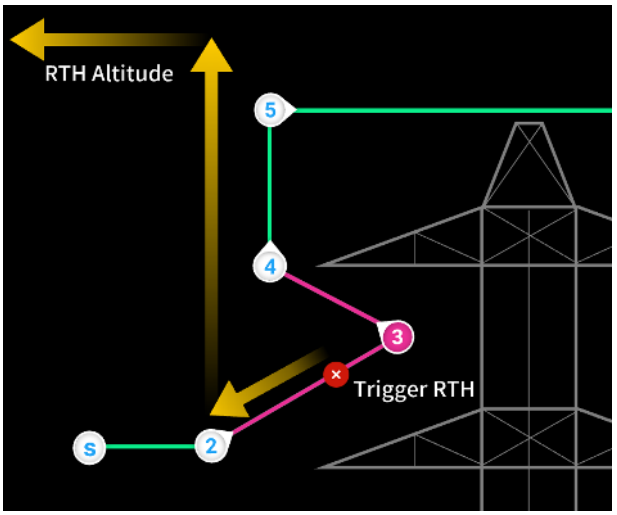
Click ••• to display more waypoint actions.

Add waypoint at current virtual aircraft location	Start recording (Aircraft yaw and gimbal pan angles and camera zoom ratio will be recorded at the same time)
Add Take Photo (Fixed Angle) action	Stop recording
Start timed interval shot	Start timed interval shot
End interval shot	Hover
Aircraft yaw	Gimbal yaw
Gimbal yaw	Gimbal yaw
Camera zoom	Create folder
Take panorama	
Spotlight	Spotlight Strobe
Spotlight on	Spotlight off
Speaker	Start/Stop broadcasting
Intelligent recognition	Start/Stop intelligent recognition
Record current attitude	

6. Add a No-Return Point

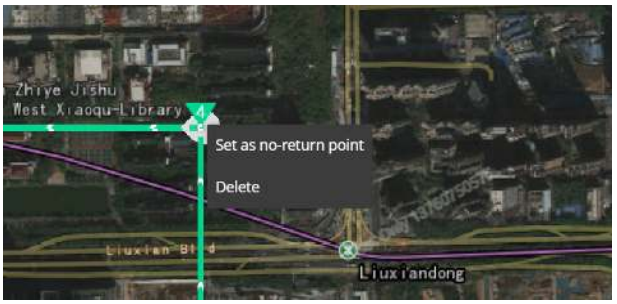
When editing the waypoint route, the waypoint with obstacles above it can be marked as a no-return point. The route from the previous waypoint of the no-return point to its next waypoint will be marked as a no-return area (Both the previous and next waypoints are not included.) When the aircraft is in the no-return area and safe RTH is triggered, the aircraft will follow the route and fly out of the area before ascending to the RTH altitude and returning to home.

As shown in the photo below, Waypoint 3 is a no-return point, and the yellow line is the RTH route.

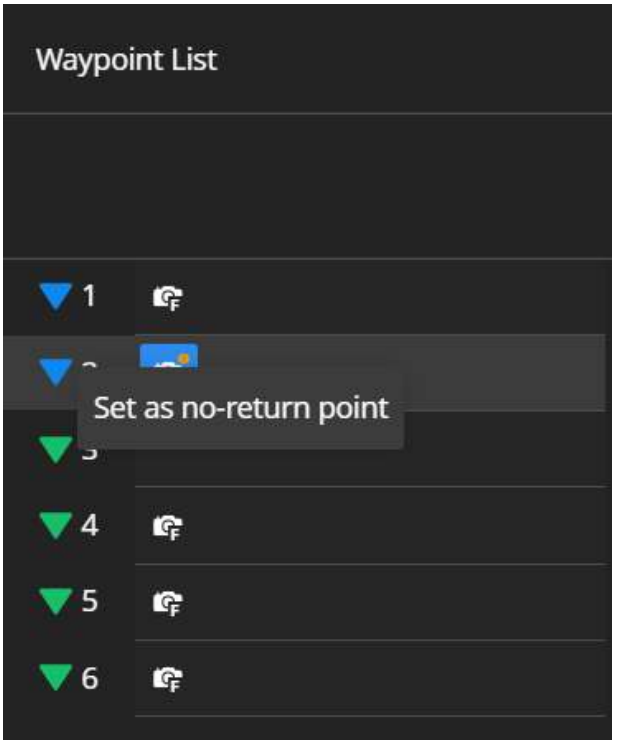


Ways to add no-return points:

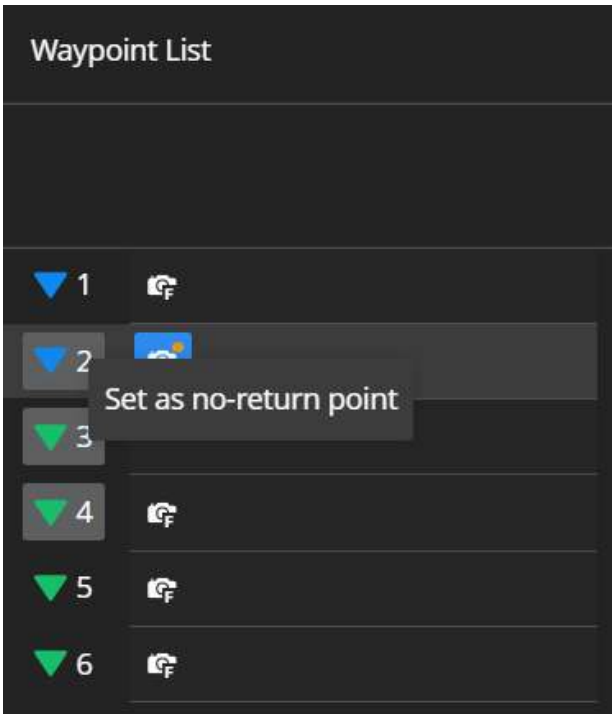
- When the map view is set as the main view, select the waypoint and right-click to choose "Set as no-return point".



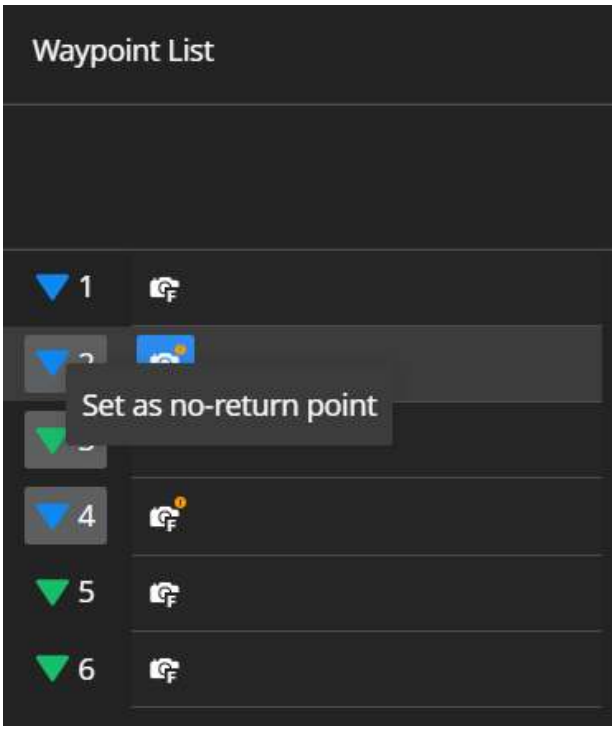
- Select a waypoint in the waypoint list and right-click to select "Set as no-return point".



- Press [Shift] and select the start and end waypoints to set consecutive waypoints as no-return points. Users can also press the left button of the mouse, drag to select waypoints, and right-click to select "Set as no-return point".



To cancel the no-return point settings, select waypoints and right-click "Cancel no-return point".



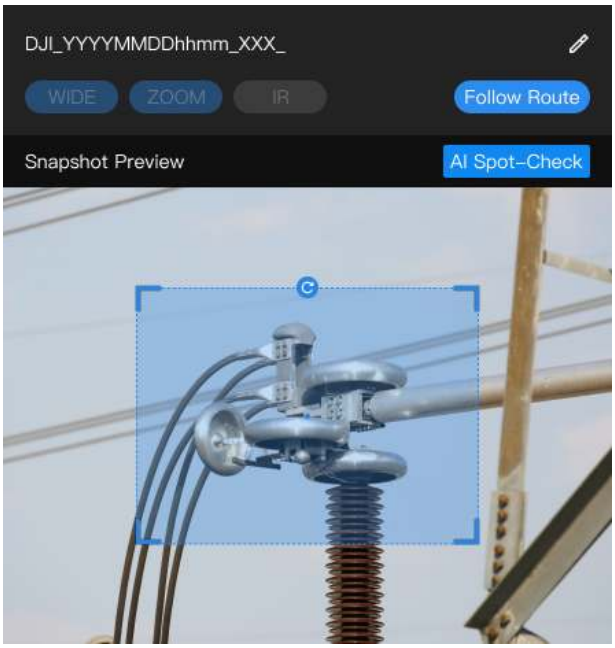
7. Perform AI Spot-Check

7.1 Distribute the task

Users can distribute the task to the dock through the plan library after planning the flight route. Wait until the media files are uploaded to the cloud. See Task Plan Library for more details.

7.2 Adjust the shooting angle

Users can reopen the flight route editor and view the media files captured in the action editor. Click AI Spot-Check and drag or rotate the blue frame to adjust the subject of interest.



7.3 Perform the task again

After adjusting the subject of interest, users can distribute the task again. The dock aircraft will perform AI Spot-Check based on the adjusted angle to capture the desired views.

8. Batch Editing

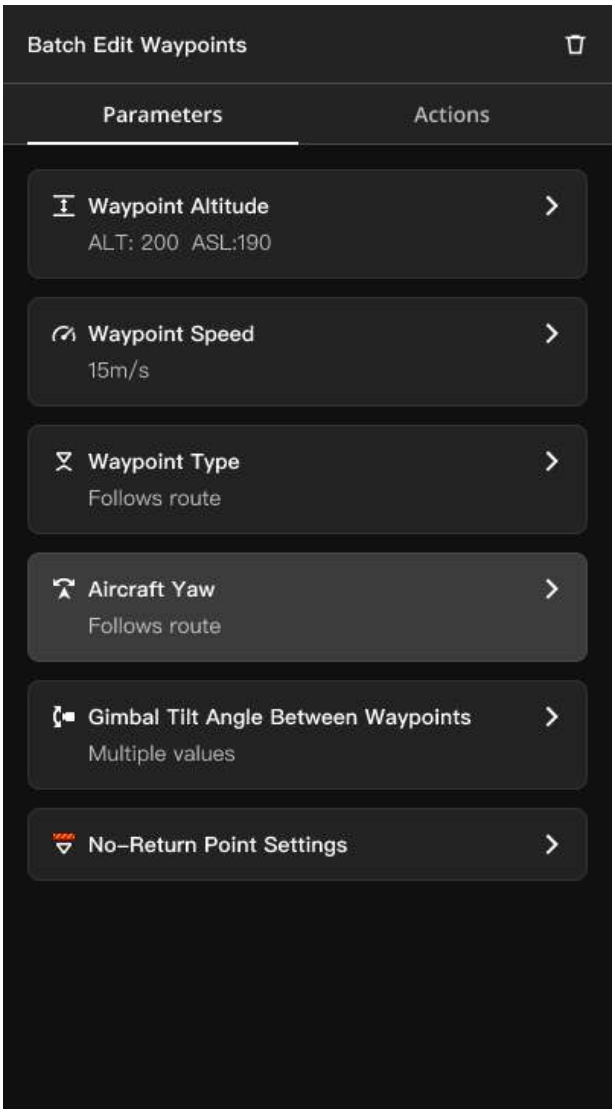
8.1 Selecting Multiple Waypoints

To select a group of consecutive waypoints, click the first waypoint, then press and hold the Shift key and click the last waypoint. You can then use the Batch Edit Waypoints panel on the right to edit all selected waypoints at once.

8.2 Batch Editing Waypoint Parameters

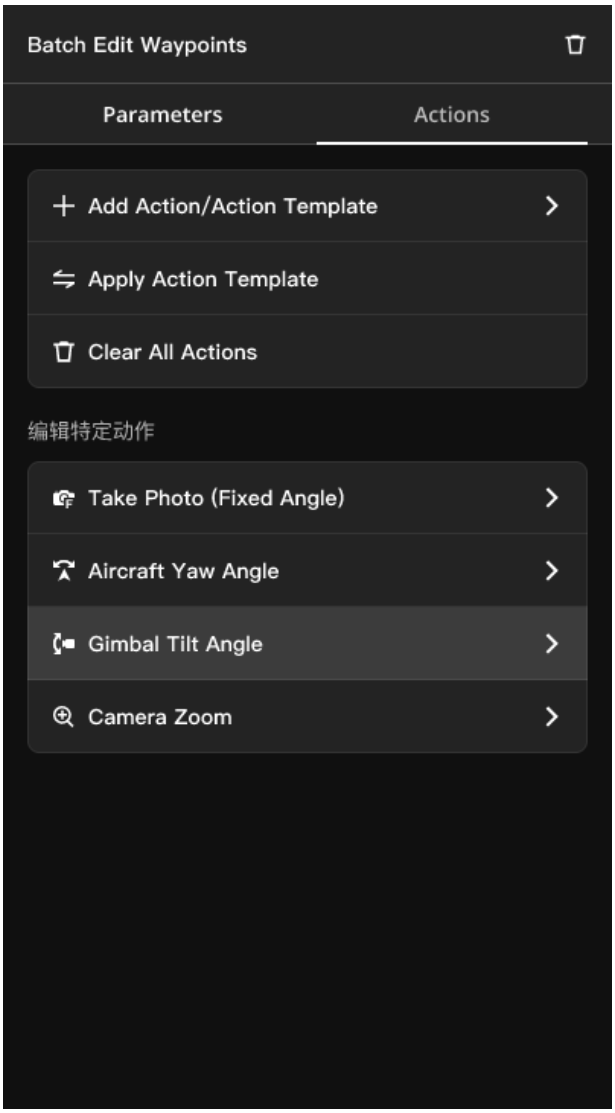
You can modify the following parameters for all selected waypoints:

- Waypoint Altitude
- Waypoint Speed
- Waypoint Type
- Aircraft Yaw
- Gimbal Tilt Angle Between Waypoints
- No-Return Points



Note: The Gimbal Tilt Angle Between Waypoints can only be edited after selecting "For Each Waypoint" in Flight Route Settings > Advanced Settings.

8.3 Batch Editing Waypoint Actions



1. Add Action/Action Template

- Add Action: Adds a single new action to the start or end of the action list for each selected waypoint.
- Add Action Template: Right-click any waypoint in the list and select Copy as Action Template. You can then add the action template to the start or end of selected waypoint actions.

2. Replace with Action Template

- Replaces all existing actions on the selected waypoints with the actions from your template.

3. Clear All Actions

- Removes all actions from the selected waypoints.

4. Edit Specific Actions

- Click to batch edit action parameters of the selected waypoints.

AI Waypoint Route Planning

The waypoint route supports adding intelligent recognition actions, allowing the identification of people, vehicles, boats, or abnormal high and low-temperature points during the route, and performing actions such as taking photos, recording videos, and waiting for the operator to take over after alerts.

Feature Introduction

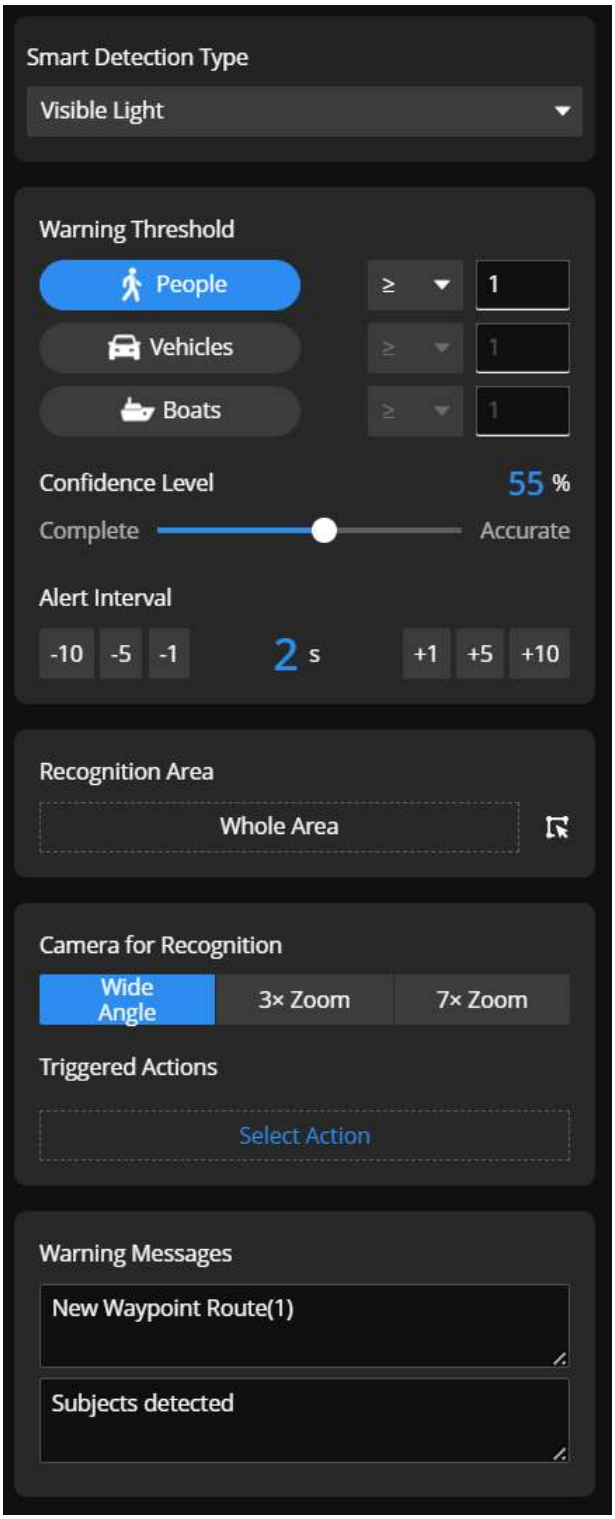
- Intelligent recognition supports the recognition of visible light photos, infrared temperature, and infrared objects, and third-party on-aircraft algorithms. **If you switch to infrared mode during visible light detection, visible light intelligent recognition will not be available**, and vice versa.
- Once intelligent recognition starts, it remains active continuously. After triggering an alert, the pre-set actions will be performed automatically. Once the actions are completed, the intelligent recognition will reactivate after a 10-second interval to avoid repeated alerts.
- Since intelligent recognition actions occur between waypoints, they will automatically be placed as the first action at the corresponding waypoint after saving the route. Their execution order is parallel to waypoint actions.
- **Actions between waypoints** include starting intelligent recognition, timed shots, and distance interval shots, while **waypoint actions** include all other actions.
- The intelligent recognition capability will automatically deactivate upon performing the intelligent recognition stop action or at the end of the route. To perform another intelligent recognition start action, add a stop action first to ensure actions are paired. This feature allows for the following scenarios.

> Waypoint 1: Start intelligent recognition - visible light - person recognition
> Waypoint 3: Action 1: Stop intelligent recognition; Action 2: Start intelligent recognition - visible light - vehicle recognition
> Waypoint 5: Action 1: Stop intelligent recognition; Action 2: Start intelligent recognition - infrared - high temperature
> Waypoint 6: Stop intelligent recognition
> This route will recognize people between waypoints 1 and 3, vehicles between waypoints 3 and 5, and high-temperature points between waypoints 5 and 6.

- In the current version, the intelligent recognition capability, AI-Spot check, and speaker action are mutually exclusive. Please do not add the above action combinations on the same route.

Visible Light Recognition Configuration

After enabling intelligent recognition, you can set related parameters here, choosing either visible light or infrared recognition.



Warning Conditions: You can select multiple options such as people, vehicles, and boats for recognition, and set alert thresholds. For example, a alert is triggered when the number of people is 20 or more. When either the threshold for person, vehicle, or boat recognition is met, the alert will be triggered.

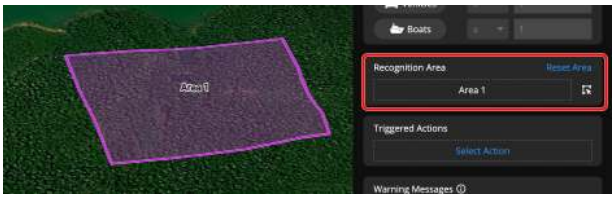
Confidence Level: You can set the confidence level of the intelligent recognition algorithm. Based on the algorithm's performance in actual scenarios, select an appropriate confidence level to make the alarms more accurate.

Note: Perform person, vehicle, and boat recognition in well-lit environments to avoid recognition errors or blurry snapshots.

Recognition Area: You can set the area for recognition, useful for scenarios where only specific areas need to be recognized. For example, if the camera view includes an 8-lane road, you may only want to recognize a specific lane.

By default, all objects in the camera view will be recognized. After clicking , you can specify the recognition area by clicking the name of the area annotation marked on the map. The selected area will be highlighted in pink.

The recognition area boundaries are for reference only, and objects at the boundaries may not be accurately recognized.



Actions: You can customize alert actions after the set threshold is met. When an alert is triggered, a snapshot will be taken by default for archiving and saved in the Immediate-Media folder under the corresponding route file in the media file library.

- Take Photos: After the threshold is met, photos will be taken for each object. If the object moves during the process, the object may not be captured. These photos will be saved in the root directory of the route file. If the virtual cockpit is entered during tasks, photos will be saved in the Remote-control folder.
- Record Videos: Video recording will start and continue for a set duration before resuming the route.
- Wait for Takeover: The aircraft will hover and wait for user intervention, continuing the route after a set duration.
- Speaker: When an abnormality is detected, the aircraft will hover and start broadcasting. You can set the number of broadcasts, and the aircraft will resume flight once completing all broadcasts.
- Spotlight: When an abnormality is detected, the spotlight will be turned on, and the aircraft will hover and illuminate for the specified duration before continuing the flight.
- Recording Duration & Waiting-for-Takeover Duration: Both will begin calculating at the same time. For example, if recording duration is set to 30 seconds and waiting for takeover 60

seconds, then after recording ends, the aircraft will wait for another 30 seconds, and vice versa. All actions above will be performed simultaneously. For example, if both the speaker and spotlight are configured, when an abnormality is detected, the aircraft will turn on the spotlight and start broadcasting at the same time.

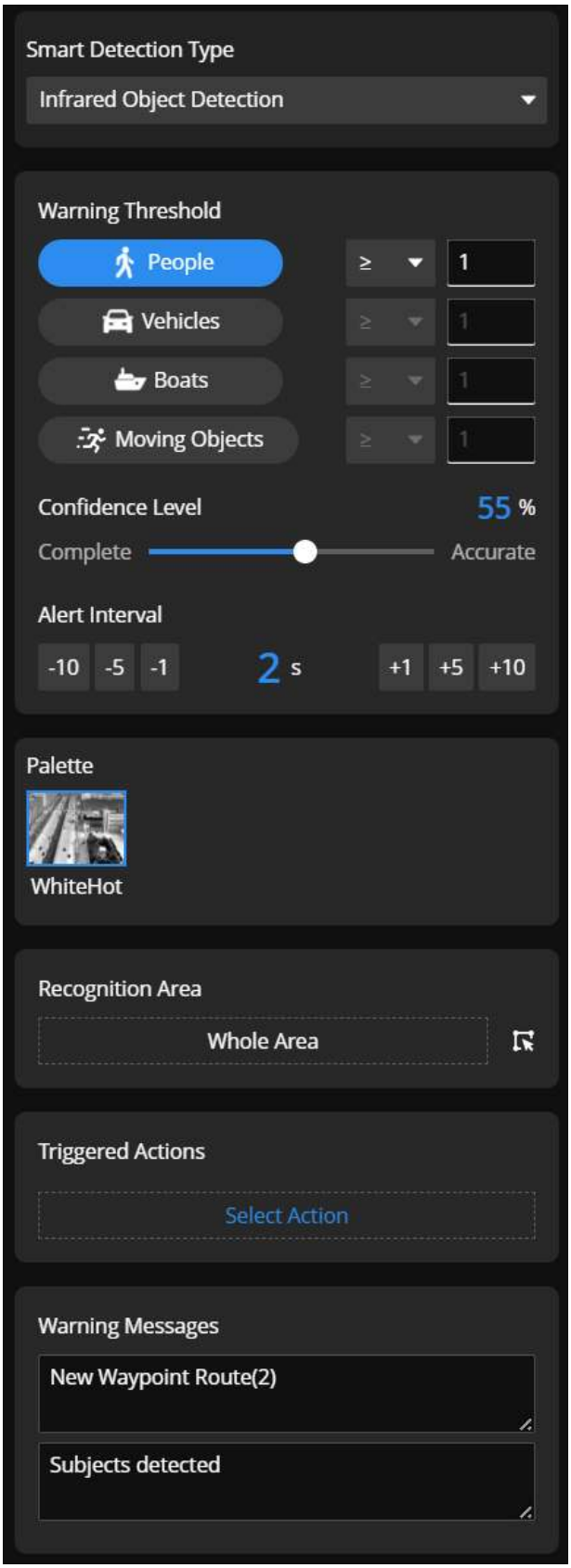
Warning Messages: You can configure the warning message and content to be pushed to specific users after an alert occurs. The title can be up to 60 characters, and the content up to 120 characters. Do not enter characters other than Chinese, English, and common symbols.

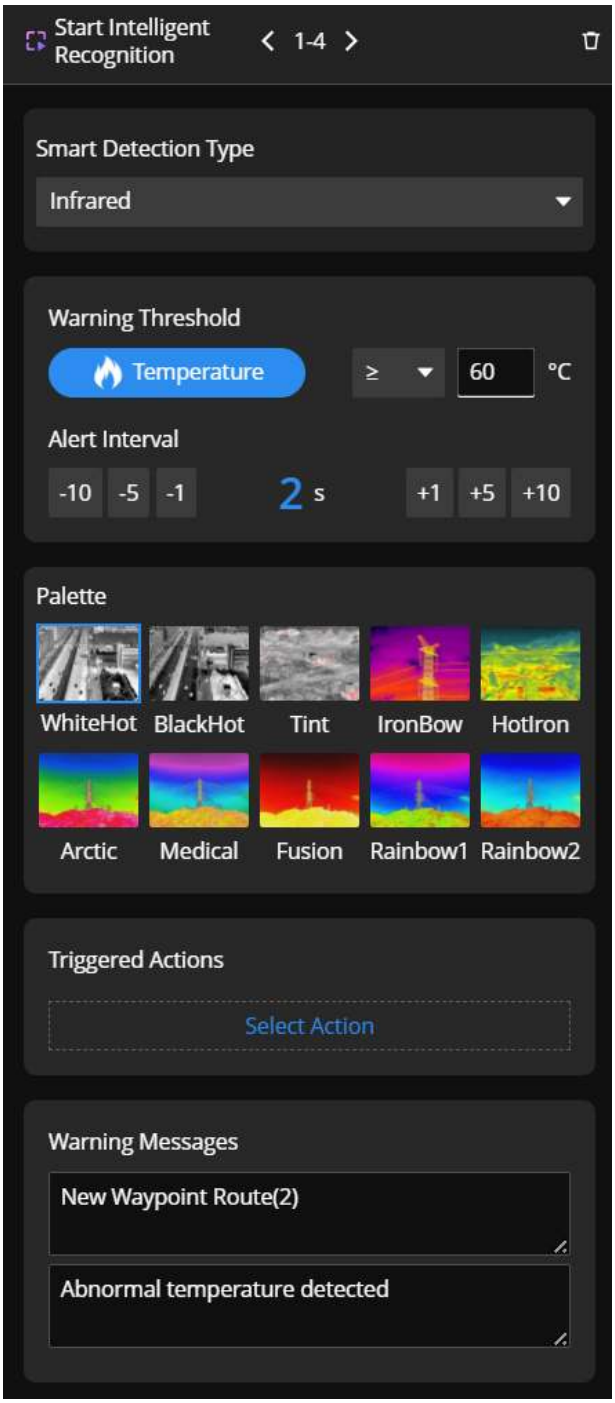
When the warning message is pushed, the snapshot and location information will be pushed as well. Due to issues like poor video transmission signals, photos may not be loaded in the message temporarily.

Infrared Recognition Configuration

After enabling intelligent recognition, you can set related parameters for infrared recognition, choosing either visible light or infrared recognition.

Intelligent recognition supports the recognition of infrared objects and infrared temperature, which are used for detecting infrared objects or temperature thresholds.


Smart Detection Type
Infrared Object Detection
Warning Threshold
People
≥
1
Vehicles
≥
1
Boats
≥
1
Moving Objects
≥
1
Confidence Level
55 %
Complete
Accurate
Alert Interval
-10
-5
-1
2 s
+1
+5
+10
Palette
WhiteHot
Recognition Area
Whole Area
Triggered Actions
Select Action
Warning Messages
New Waypoint Route(2)
Subjects detected



Alert Conditions: For temperature detection, you can set the temperature thresholds. The lower and upper limits are -20°C and 550°C, with a recommended range of -20°C to 150°C. For infrared object detection, human, vehicle, vessel, or moving objects can be detected.

Palette: You can set the palette to use for collecting infrared images. For infrared object detection, only White Hot is currently supported. Do not switch palettes during task to avoid detection errors.

Actions: Currently, after the threshold is met, photos will not be taken for each object. The logic for video recording and waiting for takeover is the same as for visible light recognition.

Warning Information: The warning information capability is the same as for visible light recognition.

Third-Party On-Aircraft Algorithm Configuration

Selection of Algorithms on Aircraft: Select available onboard algorithms for aircraft bound to the current project. You can add or manage these by navigating to Algorithms.

Note: You can add multiple Smart Capture actions and configure third-party algorithms, visible light, or infrared recognition within the same waypoint route. However, only one third-party on-aircraft algorithm is supported per flight route.

Start Intelligent Recognition 1-4

Smart Detection Type

Third-Party

Selection of Third-Party Algorithm on Aircraft

Photovoltaic Panel Defect Detection(Infrared)

Algorithm Management

Warning Threshold

Module Hot Spot	≥	1
Diode Failure	≥	1
Sunlight Reflection	≥	1
String Open-Circuit	≥	1
String Short Circuit	≥	1
Module Odor	≥	1
Module Damage	≥	1

Confidence Level 50 %

Complete Accurate

Alert Interval

-10 -5 -1 2 s +1 +5 +10

Palette



WhiteHot IronBow HotIron Medical Fusion

Recognition Area

Whole Area

Triggered Actions

Select Action

Warning Messages

Enter warning title

Enter warning content



Warning Threshold: Set the trigger threshold for alarms, which are defined by the selected third-party algorithm.

Confidence Level: After selecting a third-party algorithm, the confidence level will automatically adjust to the recommended confidence level set by the developer at the time of algorithm release. We advise not changing this value unless you have a specific requirement.

Recognition Area: Define a specific area for the algorithm to recognize. This works just like the recognition area for visible light recognition.

Triggered Actions: Customize the action when an alarm is triggered. This functions similarly to the triggered actions for visible light recognition.

> Note: To ensure a successful task, the algorithms selected in the flight route must match the algorithms loaded on the aircraft. The flight route will fail if the specified algorithm is not available on the aircraft.

Flight Route Execution

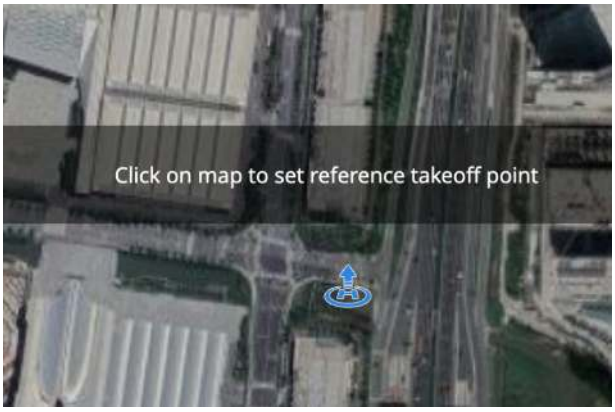
Users can configure recognition objects, warning frequency, and methods for routes with intelligent recognition actions. See AI Route Warning Notification section in the Task Plan Library > Single-Dock Plans/Multi-Dock Plans for more details.

Edit Area Routes

Cloud users can edit routes for 2D or 3D mapping in the Area Route Editor, distribute the flight task through the plan library, and complete the mapping task in the Model library.

Flight Route Planning

1. Click on the map to select an appropriate location or the dock as a reference takeoff point.



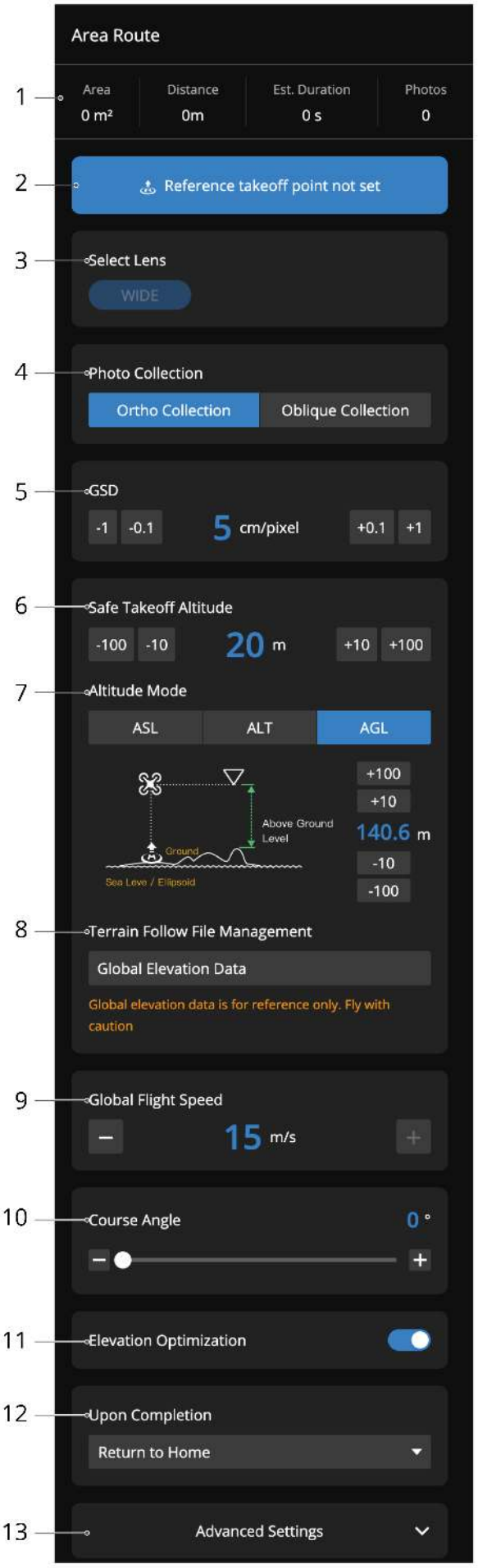
> Note: It is recommended to set the dock as the reference takeoff point.

2. Draw the mapping area.



- If there are obstacles in the mapping area, make sure the obstacle altitude is lower than the flight altitude.
- If the mapping size is too large, it may take some time to generate flight routes. It is recommended to divide the mapping area into multiple sections.

3. Global Settings



1. Basic Information

Displays the area route information, including the area size, flight route distance, estimated flight time, and number of photos that will be captured.

2. Set a Reference Takeoff Point

Click on the map to set a reference takeoff point.

3. Select Lens

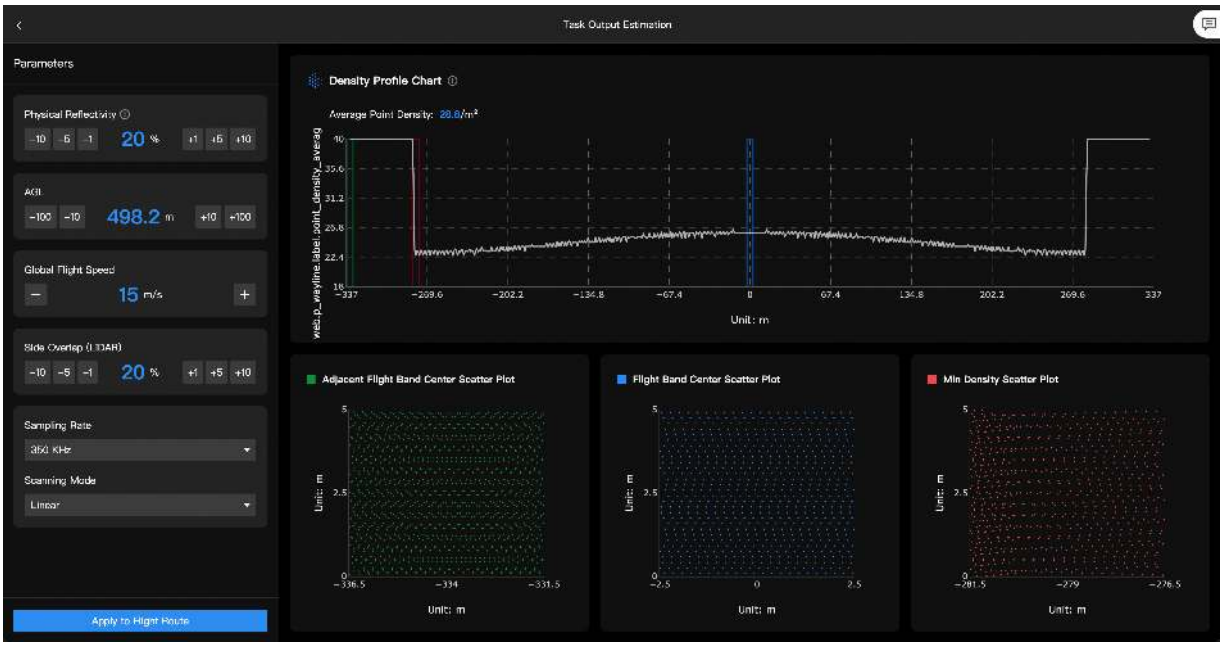
Users can select lenses when the aircraft supports multiple lenses.

4. Collection Method

Users can choose from different collection methods.

> - After selecting Ortho Collection and enabling Elevation Optimization, the photos collected will contain elevation data.
> - To generate 3D models, users should select Oblique Collection.

For area routes using the L3 for LiDAR data acquisition, a result estimation feature is supported. This allows you to preview the expected point cloud results before the task, based on the configured parameters.



5. GSD

Ground Sample Distance (GSD) is the physical distance on the ground that each pixel represents. A smaller GSD value indicates a higher resolution and larger data size. Adjusting the GSD value will affect parameters such as the flight altitude. It is recommended to use the default settings.

6. Safe Takeoff Altitude

- If the safe takeoff altitude is higher than the altitude of the first waypoint, the aircraft will fly to the first waypoint at safe takeoff altitude and then descend to the first waypoint.
- If the safe takeoff altitude is lower than the altitude of the first waypoint, the aircraft will ascend to the safe takeoff altitude and then fly to the first waypoint.

7. Altitude Mode

- Absolute Altitude (ASL): Consistent waypoint altitude relative to the sea level or ellipsoid height.
- Altitude Relative to Takeoff Point (ALT): Consistent waypoint altitude relative to the takeoff point.
- Altitude Above Ground Level (AGL): Consistent waypoint altitude relative to the ground.

> - The data of the ground elevation can be sourced from the global elevation data and the user-imported models.
> - Data source priority: 3D model elevation data > 2D model elevation data > global elevation data
> - When there are more than one 3D model in the same mapping area, the highest altitude of the terrain surface will be regarded as the ground level.

8. Terrain Follow File Management

- Real-time Terrain Follow can be enabled when flight routes are performed by the Mavic 3 enterprise series. When enabled, the aircraft will perform Terrain Follow based on the terrain surface altitude collected by the aircraft sensors.
- After selecting AGL, models that are displayed in the mapping area will be used as the Terrain Follow source data.

> Note: To use the 2D elevation model as the Terrain Follow source data, users need to load the elevation data on the map first.

9. Global Flight Speed

The speed of the aircraft when performing the flight route. It is recommended to set the value as 15 m/s to increase the photo collection efficiency.

10. Course Angle

Adjust the course angle of the generated routes. Using the default settings is recommended.

11. Elevation Optimization

When enabled, the aircraft will fly to the mapping area center after completing the flight route and capture a series of tilt-angle photos to improve the elevation data accuracy. It is recommended to enable Elevation Optimization to obtain more accurate elevation information.

12. Upon Completion

The aircraft action when it completes the flight task. Setting to "Return to Home" is recommended.

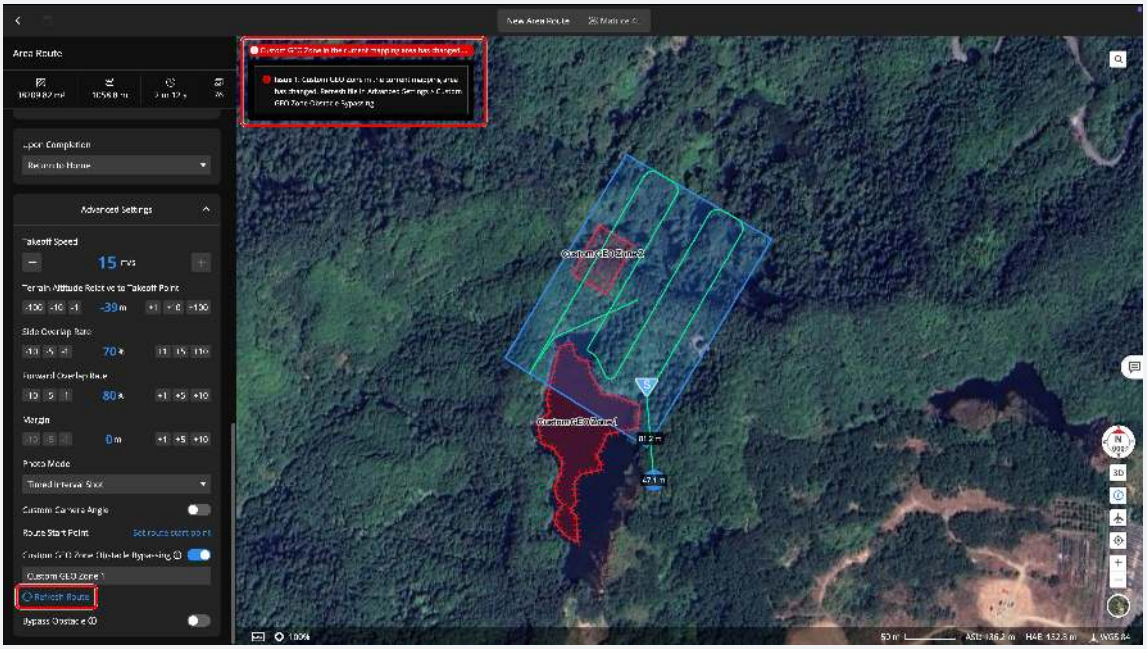
13. Advanced Settings

- **Side/forward overlap rate**: High overlap rates increase the overlap between adjacent photos captured by the aircraft and improve the mapping accuracy, but the mapping efficiency will be decreased. It is recommended to use the default overlap rates to balance the mapping quality and efficiency.
- **Margin**: Setting the margin to the mapping area can widen the flight area to avoid issues like blurriness at the edge of the model.
- **Photo mode**: Users can select between "Timed Interval Shot" and "Distance Interval Shot".
- **Custom Camera Angle**: When enabled, the camera angle can be customized, but it may lead to failure in mapping.
- **Route Start Point**: Click to set the start waypoint of the flight route on the map.
- **Custom GEO Zone Obstacle Bypassing**: When enabled, the flight route will bypass the GEO Zone within the mapping area, with the flight speed reduced at the edge of the GEO Zone.

- If the GEO Zones within the mapping area are too dense or complex, generating a feasible area route may not be possible. It is recommended to adjust the mapping area or customize the GEO Zone. This feature is currently only supported by DJI Dock 3, Matrice 4 Enterprise Series, and DJI Dock 2.
- If a GEO Zone is encountered while the aircraft is flying to the first waypoint, enabling this switch will allow the aircraft to plan a real-time bypassing route, which will not be displayed in the flight route editor. This feature is currently only supported by DJI Dock 3.



- If there are changes to the custom GEO Zone in the project, refresh the flight route in the flight route editor promptly to avoid task failure.



- **Bypass Obstacle**: When enabled, the aircraft will attempt to bypass obstacles during tasks, but mapping output may not be generated as expected. Tasks will be interrupted if the aircraft fails to bypass obstacles. Compared to Custom GEO Zone Obstacle Bypassing, Bypass Obstacle is primarily suitable for real-time bypassing of temporary obstacles and has a limited bypassing distance. If there are long-term fixed obstacles or areas that need to be bypassed in the mapping area, it is recommended to use Custom GEO Zone Obstacle Bypassing.

Flight Task Execution

Users can distribute the task to the dock through the plan library after planning the flight route. Wait until the photos are uploaded to the cloud. See Task Plan Library for more details.

- After selecting the corresponding flight route and device in the plan library, it is recommended to enable "Resume Flight from Breakpoint" to ensure a successful collection of photos.
- It is recommended to start the area route in overcast weather conditions without direct sunlight for enhanced photo quality.

Photo Mapping

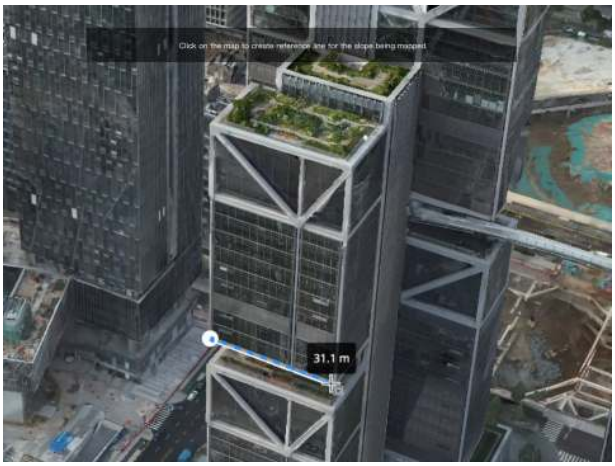
After photos are captured by the aircraft, users can start the 2D or 3D mapping. See Mapping for more details.

Edit Slope Routes

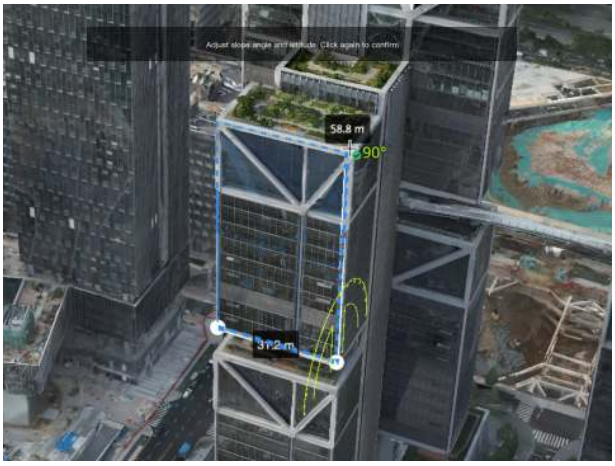
The Slope Route Editor supports creating a mapping task for a slope. Users can create a slope route, distribute the task to DJI Pilot 2, and complete the mapping task in the model library. Before creating a slope route, users can perform an area route task and generate a rough model of the area for the slope planning.

Flight Route Planning

1. Click on the map to create a reference line for the slope being mapped.

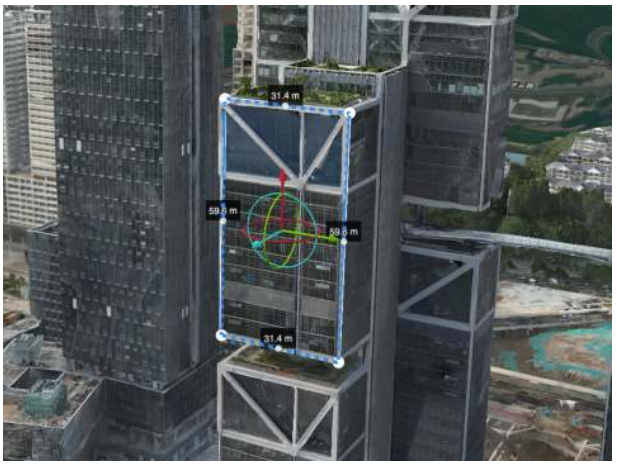


2. Move the cursor to create a mapping area along the slope surface. Press [Shift] at the same time to enable a protractor and adjust the slope angle. Click to confirm the mapping area.

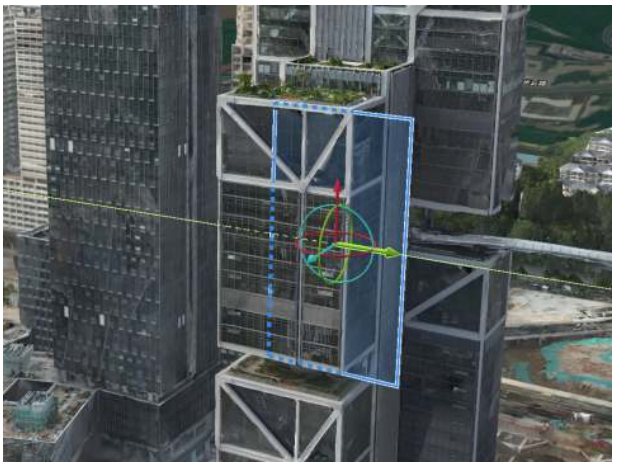


3. Edit mapping area:

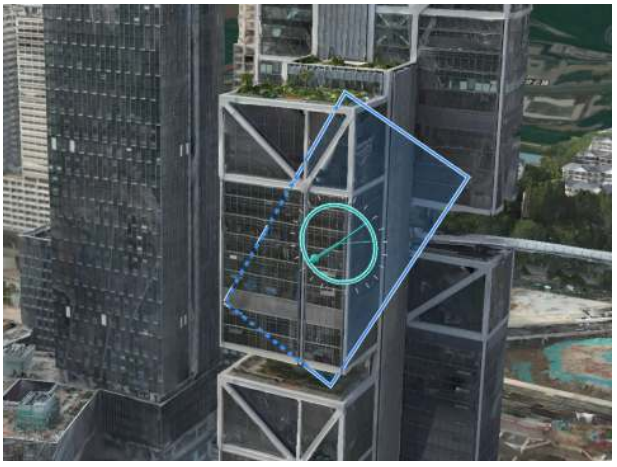
- Click on the mapping area to edit.



- Drag the vertex or use the 3D manipulator to adjust the mapping area. The 3D manipulator consists of 3 translation arrows and rotation circles. Press and drag the X, Y, or Z axis to move the mapping area along the corresponding direction.



- Press and drag the rotation circle to rotate the mapping area along the corresponding axis plane. Press [Shift] at the same time to enable the protractor and adjust the slope angle.

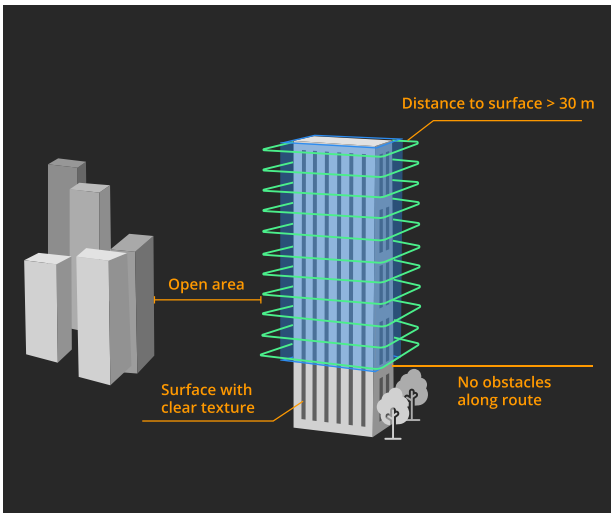


Edit Geometric Routes

The Geometric Route Editor supports creating a mapping task for prism- or cylinder-shaped structures. Users can create a geometric route, distribute the task to DJI Pilot 2, and complete the mapping task in the model library. Before creating a geometric route, users can perform an area route task and generate a rough model of the area for the geometric planning.

Before Use

- It is recommended to set the distance between the geometric route and geometric surface to be greater than 30 meters. Otherwise, satellite signal may be affected.
- The mapping surface should be non-reflective and have rich texture. Avoid mapping glass walls.
- Make sure there is enough space when aircraft is performing tasks. Avoid starting tasks in narrow space between buildings or areas with many trees.
- Make sure RTK is working properly when checking flight details and during tasks.

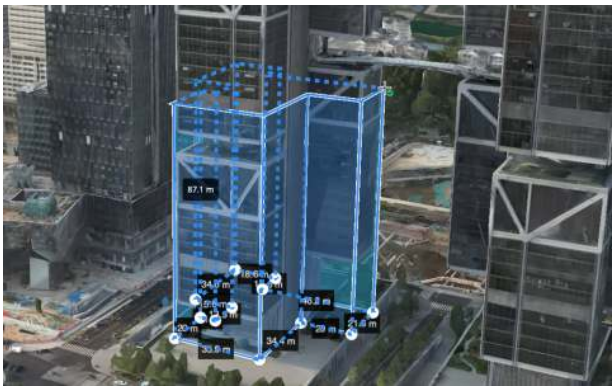


Flight Route Planning

1. Click on the map to create the bottom or top base of the area being mapped, and click  to switch between mapping for prisms and cylinders.

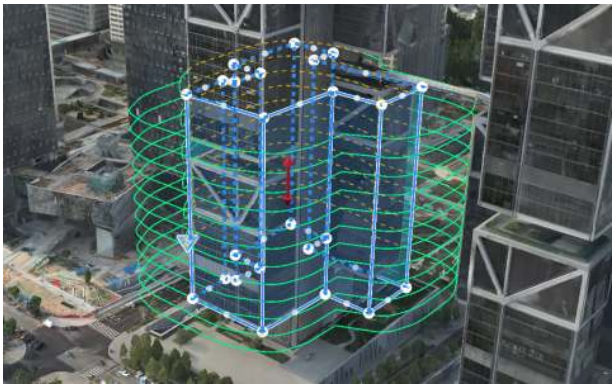


2. Change to the 3D map, move the cursor to set the height, and click again to confirm.



3. Edit mapping area:

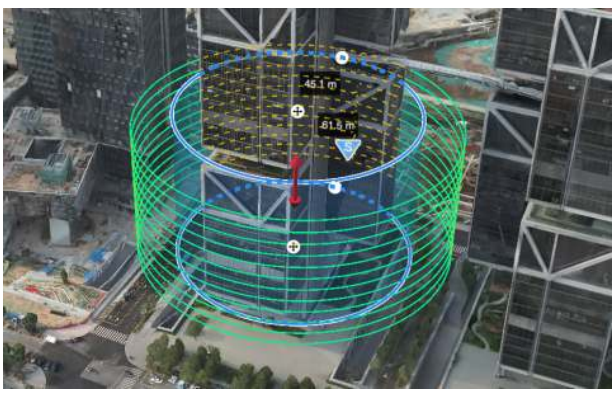
- Click on the mapping area to edit.



- Drag the edge or vertex or add a vertex between vertexes to adjust the mapping area. Users can also drag the Z axis to move the mapping area vertically.

Users can also perform the following operations on the cylindrical mapping area:

- Drag the edge of the top or bottom base to adjust the height.
- Drag the center of the top or bottom base to move the cylinder horizontally.
- Drag the vertex of the top or bottom base to adjust the radius.
- Drag the Z axis to move the cylinder vertically.



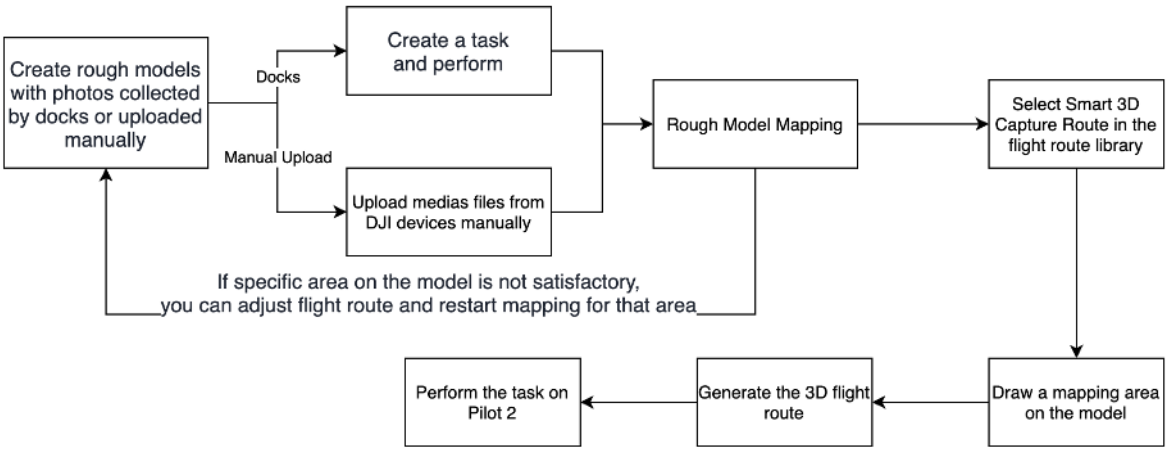
Edit Smart 3D Capture

Smart 3D Capture routes can be created based on **rough models**. DJI FlightHub 2 users can use photos uploaded from dock or imported from media file library to generate Smart 3D Capture rough model in model library, and then create a new Smart 3D Capture route in flight route library based on the rough model. After planning in DJI FlightHub, acquire the route via remote controller and run the route. Smart 3D Capture is available on DJI Matrice 4E, DJI Matrice 4D, DJI Matrice 400 (when used with P1). Compared to local Smart 3D Capture route on DJI Pilot 2, DJI FlightHub 2 is suitable for planning and managing Smart 3D Capture route over a larger area. Rough model mapping on the cloud outperforms modeling on remote controller. It is recommended to flexibly select DJI Pilot 2 or DJI FlightHub 2 for Smart 3D Capture route planning based on scenario requirements.

Notes

- If there are obvious missing parts in the rough model, add a custom model first to assist in generation of the flight route.
- Make sure there is enough space when aircraft is performing tasks. Avoid starting tasks in narrow space between buildings or areas with many trees.
- Make sure RTK is converged, signal strength is good, and no warning messages appear when collecting the rough model data or during the Smart 3D Capture task.

Overall Process



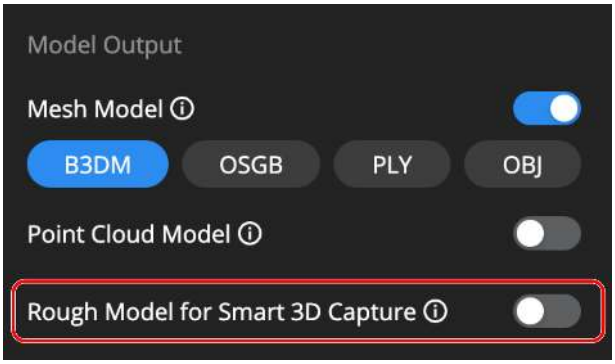
Rough Model Mapping

Rough Model for Smart 3D Capture can be enabled in the Model library. When enabled, generated models can be used for Smart 3D Capture. Make sure the RTK signal is converged during photo collection. Besides using the photos uploaded from docks for mapping, users can also import media

files from local to the media file library. Since rough model files will be compressed together with route files, avoid using too many photos to prevent the compressed file size from being too large.

1. Import local photos to the media file library or select photos uploaded from docks.

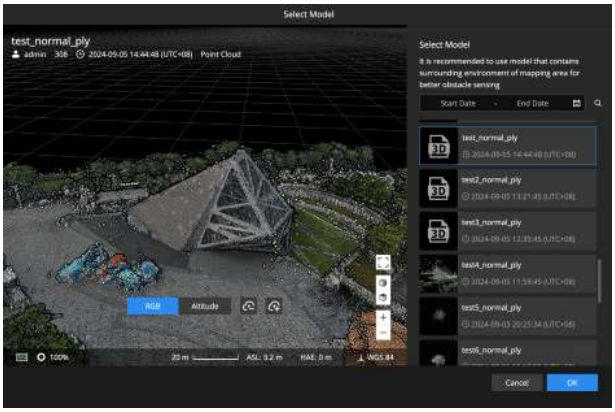
2. Enable Rough Model for Smart 3D Capture to generate a model for route planning.



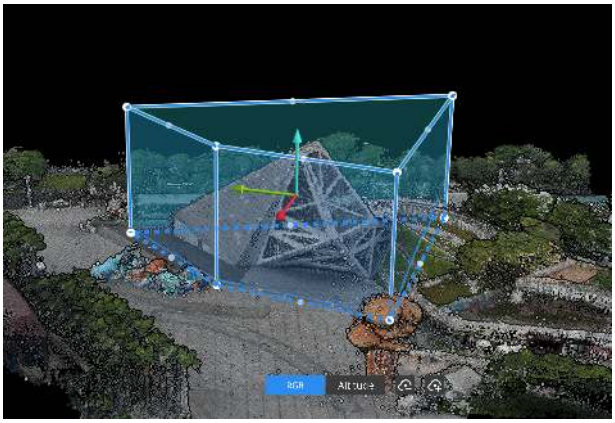
Smart 3D Capture Route Planning

1. Select Smart 3D Capture Route in the flight route library or edit routes uploaded from Pilot 2.

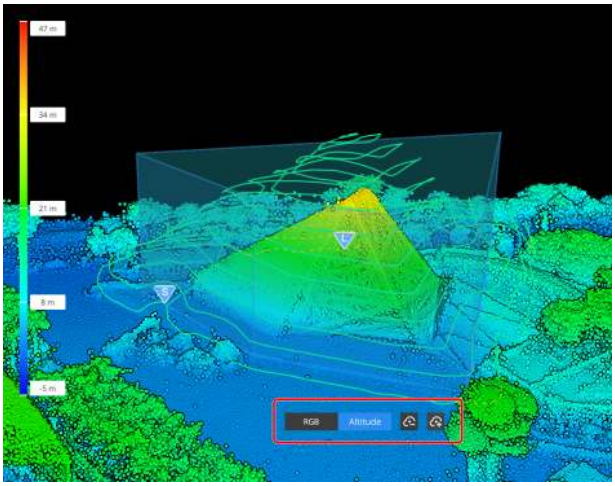
2. Choose a rough model for route planning. If Rough Model for Smart 3D Capture is not enabled before model mapping, the model will not be available.



3. Draw a mapping area on the model, and a 3D area will be automatically generated based on the highest and lowest points within the selected area. There is a size limit for the mapping area. If the area is too large, the area will turn red and the route cannot be generated. It is recommended to divide large scenes into sections and collect data from one part at a time.

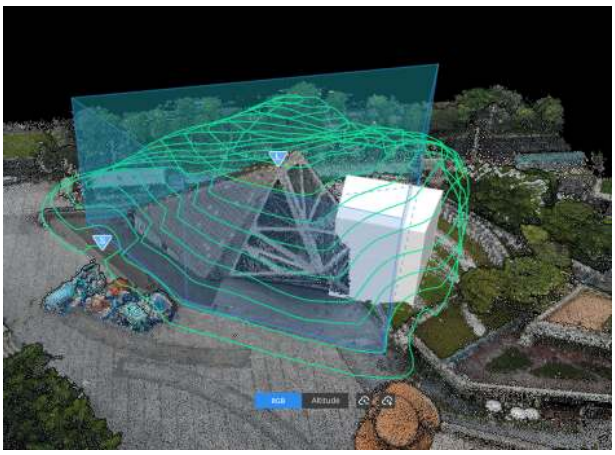


4. At the bottom, users can switch the point cloud display mode between Height or RGB mode and the point cloud density according to the scene.



Refine Model (Customize Model)

1. To refine a model, users can click in the upper right corner to create a custom model. After creating the shape of the model base, pull the model base upwards or downwards to complete the creation of the model. A route will be automatically regenerated after the custom model is created.



Flight Route Execution

Currently, docks do not support performing Smart 3D Capture routes. Users can distribute the route to the remote controller and perform the task using Pilot 2. Before task, it is recommended to perform a safety check of the flight route using the AR display.

Edit Linear Routes

The flight route editor supports the planning of linear routes, allowing for quick drawing of orthophoto routes for strip-shaped areas. This is suitable for mapping tasks in scenes such as highways, rivers, and pipelines.

Flight Route Planning

1. Draw the points of the center line of the flight route as needed. After completing the drawing, click the last point to confirm the completion of the area drawing.



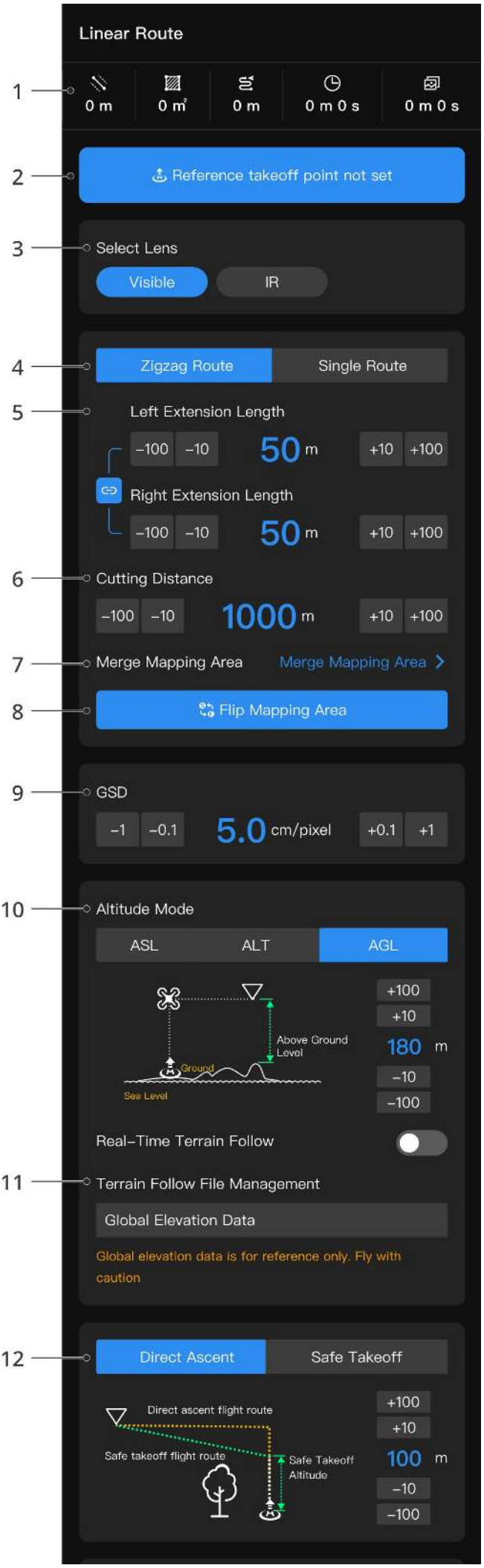
2. Once the center line is confirmed, a mapping area will be generated according to the default left and right extension lengths, and the linear route will be generated.

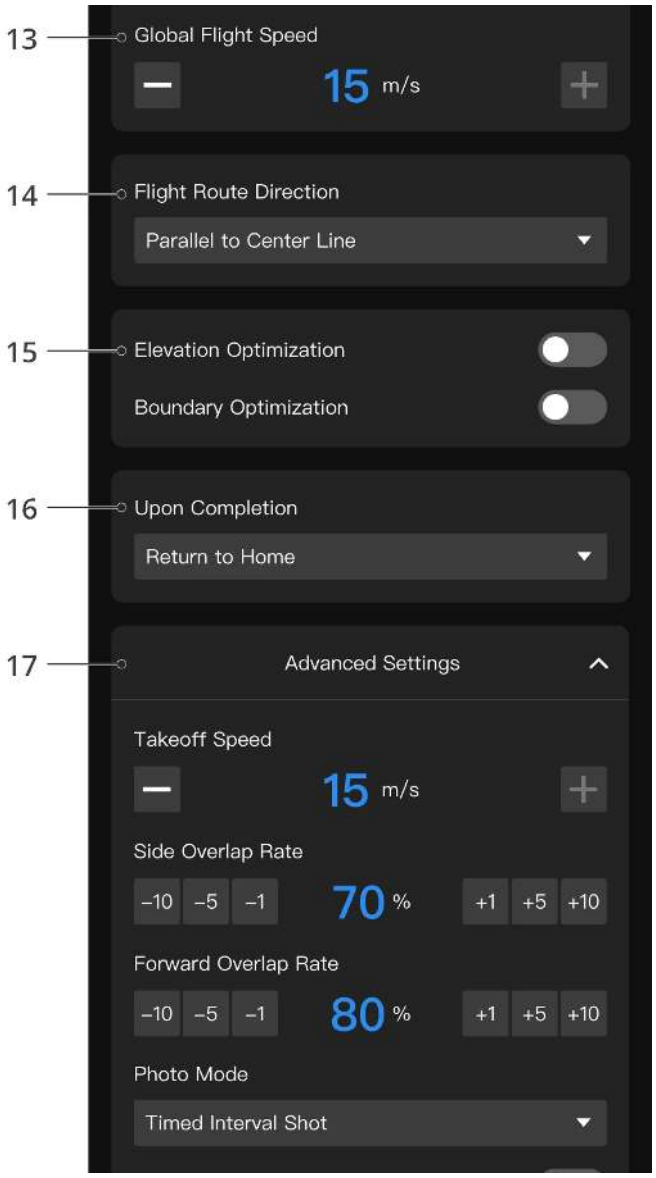


3. After the flight route is generated, you can click the center line or the center line edit button in the upper right corner to edit the center line trajectory again. You can add a point before the first endpoint by pressing the Shift key and clicking.



4. Global Settings


Linear Route
1
0 m
0 m²
0 m
0 m 0 s
0 m 0 s
2
Reference takeoff point not set
3
Select Lens
Visible
IR
4
Zigzag Route
Single Route
5
Left Extension Length
−100
−10
50 m
+10
+100
Right Extension Length
−100
−10
50 m
+10
+100
6
Cutting Distance
−100
−10
1000 m
+10
+100
7
Merge Mapping Area
Merge Mapping Area
8
Flip Mapping Area
9
GSD
−1
−0.1
5.0 cm/pixel
+0.1
+1
10
Altitude Mode
ASL
ALT
AGL
Above Ground Level
Ground
Sea Level
+100
+10
180 m
−10
−100
Real-Time Terrain Follow
11
Terrain Follow File Management
Global Elevation Data
Global elevation data is for reference only. Fly with caution
12
Direct Ascent
Safe Takeoff
Direct ascent flight route
Safe takeoff flight route
Safe Takeoff Altitude
+100
+10
100 m
−10
−100



1. Basic Route Information

Displays information such as the center line length, coverage area, flight route length, estimated duration, and estimated number of photos.

2. Reference Takeoff Point Settings

Click on the map to set a reference takeoff point.

3. Select Lens

Users can select lenses when the aircraft supports multiple lenses.

4. Flight Route Form

- The zigzag route will cover the mapping area along the zigzag trajectory with a higher overlap rate.
- A single route will only fly along the center line.

5. Extension Length

You can set the distance for the mapping area to extend outward from the center line to the left and right at the same time. You can also choose to set the extension distance separately by clicking 🔗.

6. Cutting Distance

You can set the cutting distance of the mapping area. For longer flight bands, you can adjust the cutting distance as needed to limit the center line length of each segment of the mapping area, facilitating more efficient planning during flight route execution.

7. Merge Mapping Areas

You can merge any adjacent flight band segments into a mapping area as needed, or split the merged mapping area back to its original status.

8. Flip Mapping Area

Click to flip the linear route area.

9. GSD

Ground Sample Distance (GSD) is the physical distance on the ground that each pixel represents. A smaller GSD value indicates a higher resolution and larger data size. Adjusting the GSD value will affect parameters such as the flight altitude. It is recommended to use the default settings.

10. Altitude Mode

- Absolute Altitude (ASL): Consistent waypoint altitude relative to the sea level or ellipsoid height.
- Altitude Relative to Takeoff Point (ALT): Consistent waypoint altitude relative to the takeoff point.
- Altitude Above Ground Level (AGL): Consistent waypoint altitude relative to the ground.

> - The data of the ground elevation can be sourced from the global elevation data and the user-imported models. Data source priority: 3D model elevation data > 2D model elevation data > global elevation data.
> - When there are more than one 3D model in the same mapping area, the highest altitude of the terrain surface will be regarded as the ground level.

11. Terrain Follow File Management

- In AGL mode, models displayed on the map and included within the mapping area will be used as Terrain Follow data sources.
- When a flight route is performed by a Mavic 3 Enterprise Series aircraft, users can choose to enable real-time Terrain Follow. When enabled, the aircraft will perform Terrain Follow based on the terrain surface altitude collected by the aircraft sensors, and the flight route rendered on the page is for reference only.

> Note: To use the 2D elevation model as the Terrain Follow source data, users need to load the elevation data on the map first.

12. Takeoff Mode

Direct Ascent: The aircraft will ascend to the start point altitude and fly to the start point directly.

Safe Takeoff: The aircraft will ascend to the safe takeoff altitude before flying to the start point.

- If the safe takeoff altitude is greater than the first waypoint altitude, the aircraft will maintain the safe takeoff altitude, fly directly above the first waypoint, and then descend to the waypoint altitude.
- If the safe takeoff altitude is less than the first waypoint altitude, the aircraft will ascend to the waypoint altitude after takeoff and then fly to the first waypoint directly.

13. Global Flight Speed

The speed of the aircraft when performing the flight route. It is recommended to set the value as 15 m/s to increase the photo collection efficiency.

14. Flight Route Direction

The direction of the zigzag flight route can be set parallel or perpendicular to the center line.

15. Elevation Optimization & Boundary Optimization

- When enabled, the aircraft will fly to the mapping area center after completing the flight route and capture a series of tilt-angle photos to improve the elevation data accuracy.
- Boundary Optimization: When enabled, each flight band will cover two extra strips of area along its extension boundaries to ensure that more photos and details of the boundaries are captured for mapping.

16. Upon Completion

The aircraft action when it completes the flight task. Setting to "Return to Home" is recommended.

17. Advanced Settings

- Takeoff Speed: The speed at which the aircraft flies to the first waypoint can be set.
- Side/Forward Overlap Rate: High overlap rates increase the overlap between adjacent photos captured by the aircraft and improve the mapping accuracy, but the mapping efficiency will be decreased. It is recommended to use the default overlap rates to balance the mapping quality and efficiency.
- Photo mode: Users can select between "Timed Interval Shot" and "Distance Interval Shot".
- Include Center Line: When enabled, the zigzag flight route will include the center line trajectory.

Flight Task Execution

Users can distribute the task to the dock through the plan library after planning the flight route. Wait until the photos are uploaded to the cloud. See Task Plan Library for more details.

> - After selecting the corresponding flight route and device in the plan library, it is recommended to enable "Resume Flight from Breakpoint" to ensure a successful collection of photos.
> - It is recommended to start the area route in overcast weather conditions without direct sunlight for enhanced photo quality.

Photo Mapping

After photos are captured by the aircraft, users can start the 2D or 3D mapping. See Mapping for more details.

Edit Patrol Routes

The patrol flight route supports automatic flight route planning within a specified area for specific subject recognition and alerts. Compared to Smart Capture in waypoint routes, patrol flight route planning is more convenient and offers a more intuitive recognition area. However, flexibility is relatively reduced.

Flight Route Planning

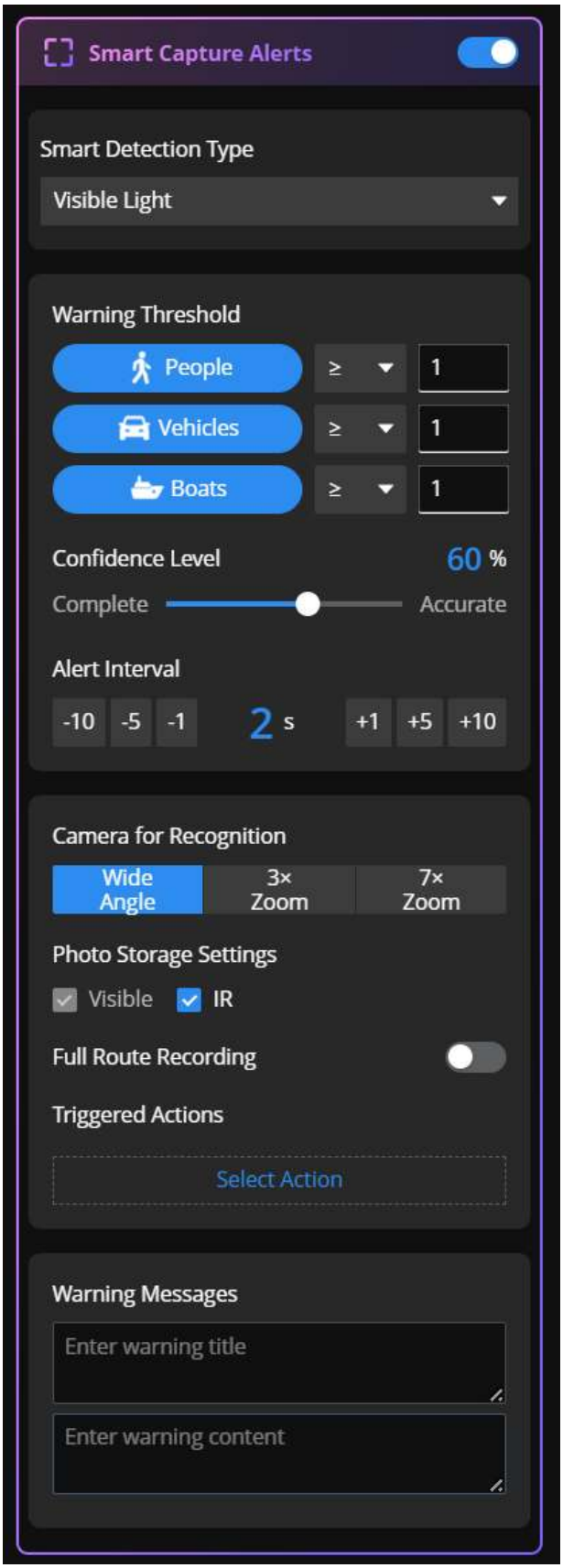
1. Plan Recognition Area

Click on the map and draw a recognition area. Once the area is determined, a patrol flight route will automatically be generated.



2. Adjust Flight Route Parameters

Smart Capture Alerts:



The patrol flight route enables Smart Capture for people by default, with options to enable recognition for vehicles and boats. The recommended altitude varies for different subjects. Please pay attention to the altitude range prompt after adjusting the recognition subject to avoid reduced recognition rates.

For configuration details of visible light and infrared recognition, refer to: Edit Waypoint Routes > Visible Light Recognition Configuration.

After disabling the Smart Capture alert function, the flight route will not automatically search for and recognize subjects. This is suitable for manual recognition scenarios.

Other Parameters:

Reference takeoff point not set

Altitude Mode

ASL | ALT | AGL



+100
+10
180 m
−10
−100

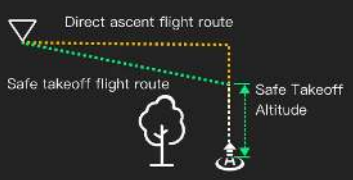
Real-Time Terrain Follow

Terrain Follow File Management

Global Elevation Data

Global elevation data is for reference only. Fly with caution

Direct Ascent | Safe Takeoff



+100
+10
100 m
−10
−100

Global Flight Speed

− 15 m/s +

Course Angle 0°

− +

Gimbal Tilt Angle −45°

− +

Upon Completion

Return to Home

Advanced Settings

Takeoff Speed

− 15 m/s +

Route Start Point Set route start point

Custom GEO Zone Obstacle Bypassing ⓘ

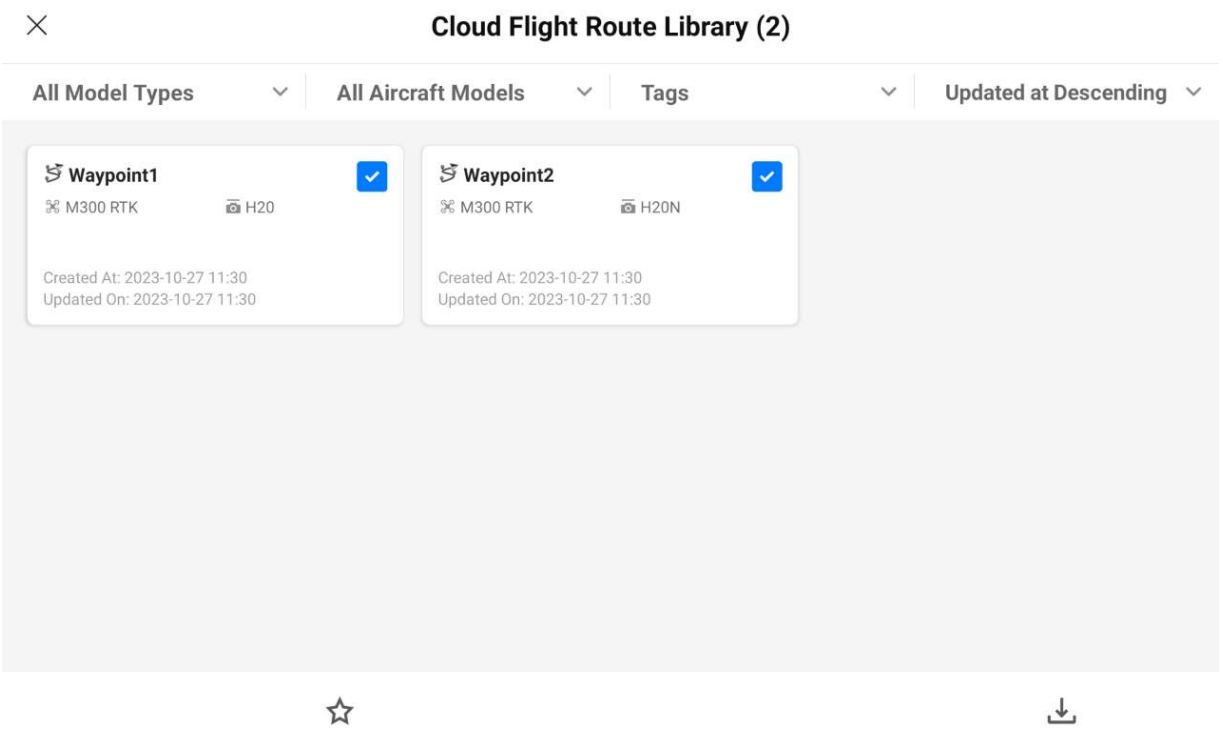
Bypass Obstacle ⓘ

For specific flight route parameters, refer to: Edit Area Routes.

The optimal gimbal angle varies for different recognition subjects. Please pay attention to relevant prompts to avoid using gimbal angles beyond the recommended range, which may decrease recognition rates.

Sync Flight Routes

DJI Pilot 2 users can log in to the DJI FlightHub 2 cloud service and access cloud flight tasks. Enter the home screen of DJI Pilot 2, tap Flight Route, and select Cloud to view and download flight routes created on DJI FlightHub 2.



DJI Pilot 2 users can also select flight routes in the Flight Route Library and tap to upload routes to the cloud.

Flight Route Library (2)

Cancel

All Model Types | All Aircraft Models | Tags | Updated at Descending



Waypoint1

M300 RTK H20 488 m

Created At: 2023-10-27 11:25
Updated On: 2023-10-27 11:30



Waypoint2

M300 RTK H20N 355 m

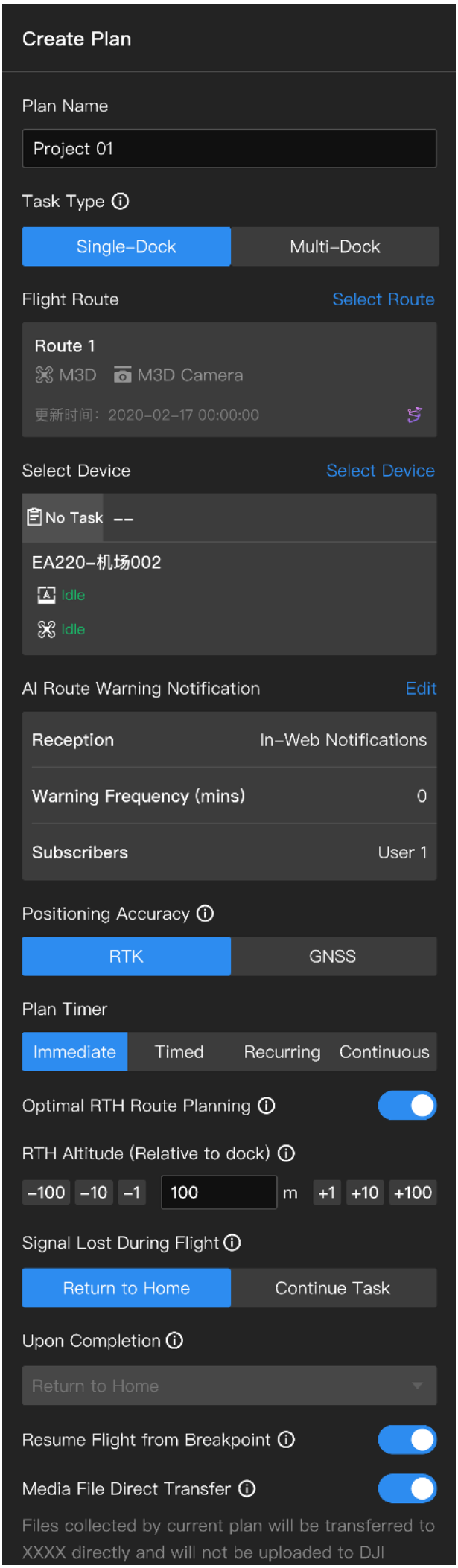
Created At: 2023-10-27 11:22
Updated On: 2023-10-27 11:29

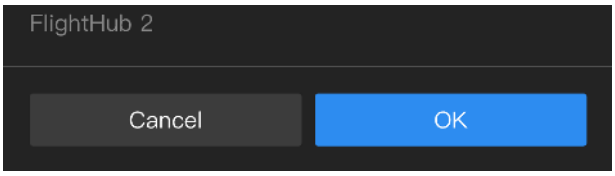
Single-Dock Plans

Project members can click to enter the task plan library to view task plans, and the administrators can create and manage plans.

Create Plans

Click Create Plan to create a task plan.


Create Plan
Plan Name
Project 01
Task Type
Single-Dock
Multi-Dock
Flight Route
Select Route
Route 1
M3D
M3D Camera
更新时间：2020-02-17 00:00:00
Select Device
Select Device
No Task --
EA220-机场002
Idle
Idle
AI Route Warning Notification
Edit
Reception
In-Web Notifications
Warning Frequency (mins)
0
Subscribers
User 1
Positioning Accuracy
RTK
GNSS
Plan Timer
Immediate
Timed
Recurring
Continuous
Optimal RTH Route Planning
RTH Altitude (Relative to dock)
-100
-10
-1
100
m
+1
+10
+100
Signal Lost During Flight
Return to Home
Continue Task
Upon Completion
Return to Home
Resume Flight from Breakpoint
Media File Direct Transfer
Files collected by current plan will be transferred to XXXX directly and will not be uploaded to DJI



1. Plan Name

The plan name is required and should be within 50 characters.

2. Task Type

Select Single-Dock.

3. Flight Route

Click to select a flight route. Only flight routes supported by the dock are displayed in the list. A flight route duplicate will be created after selecting a flight route.

- The duplicate cannot be modified after the plan is created, and the duplicate will be deleted after the plan is deleted.
- Modifying the flight route in the flight route library will not affect the flight route duplicate. Users need to create a new plan to perform the edited flight task.

4. Select Device

Only docks can be selected.

5. AI Route Warning Notification (Only Supported by DJI Dock 3)

After selecting the AI route, users need to configure the alert notification's receiving method, frequency, and subscribers when the alert conditions are met during tasks.

- Reception: You can choose in-web, SMS, or email notifications. If the organization has configured a webhook URL, you can also choose to push warning messages to the reserved webhook.
- Warning Frequency: If the warning frequency for in-web and webhook notifications is set to 0, notifications will be pushed as soon as the alert conditions are met. For all other receiving methods, the warning frequency must be set to more than 1 minute.
- Subscribers: Subscribers are only effective for in-web, SMS, and email notifications. The members added must have maintained their mobile numbers and email addresses in User Center > Basic Information.

Webhook URL: When an alert occurs, the system pushes two notifications to the configured webhook URL. The first is an instant notification, which will be sent immediately. The second

is sent after photo generation and includes the photo captured at the time of the alert. Each notification contains the following information:

- "notify_type": Identifies the type of notification. Currently only "alert_notification" is supported.
- "title": The alert title customized by the user.
- "content": The alert content customized by the user.
- "dateTime": The time when the alert occurs.
- "location": The location of the subject at the time of the alert. If multiple subjects are recognized simultaneously, this will be the location at the center of the photo.
- "mediaUrl": The URL of the captured media file. If Media File Direct Transfer is enabled, it will be the file name of the media file.
- "flight_id": Identifier for the flight during which the alert occurs.
- "organization_uuid": Identifier for the organization associated with the alert.
- "project_uuid": Identifier for the project associated with the alert.

- When setting the warning frequency to Y minutes, you will only receive one warning notification every Y minutes, and the notification will only contain the latest warning information from the last Y minutes.

6. Positioning Accuracy (for DJI Dock 2 and DJI Dock 3 only)

Users can select between RTK and GNSS.

- RTK: The dock aircraft will take off and converge the RTK data in the air before performing the task. Users are unable to pause the task during the convergence. Users can choose RTK when high positioning accuracy is required.
- GNSS: The aircraft will perform tasks directly without converging the RTK data. Users can choose GNSS when relatively low positioning accuracy is acceptable.

7. Plan Timer

Users can select from Immediate, Timed, Recurring, and Continuous.

- When the plan timer is set to Immediate, the aircraft will immediately perform the flight task once the plan is created.
- When the plan timer is set to Timed, the aircraft will perform the flight task when the set time is reached.
- When the plan timer is set to Recurring, the aircraft will perform repeated flight tasks when the set time is reached.
- When the plan timer is set to Continuous, the aircraft will perform flight tasks continuously when the set time is reached and the battery level meets the requirement.

    - When single time period is selected in Resume Flight from Breakpoint, if the task is interrupted, such as due to insufficient battery, aircraft can continue flight from the breakpoint within the set time period. However, the task will start from the beginning for the next time period.
    - When cross time periods are selected in Resume Flight from Breakpoint, the breakpoint location will be saved automatically. Then, at the start of the next time period, aircraft will continue flight from the breakpoint.

8. Optimal RTH Route Planning

- When the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft will automatically plan an optimal RTH route to improve task efficiency and preserve battery life.
- When the environment is not suitable for the vision system to work properly and Obstacle Data is disabled, the aircraft will return to home based on the task altitude and RTH altitude settings.

- When Optimal RTH Route Planning is enabled, the aircraft will intelligently adjust the flight altitude and speed based on the obstacle data and the environment conditions such as the wind speed and direction, so that the aircraft can reach the FlyTo destination or the Home Point with improved efficiency.
- It is recommended to enable Obstacle Data in Task Area Management for the optimized route planning. See Obstacle Data for more details.
- When the environment is not suitable for the vision system to work properly or other issues occur when the aircraft is performing FlyTo tasks or returning to home, the aircraft will not be able to plan an optimal route. If Obstacle Data is also disabled, the aircraft can only fly based on the set altitude and will not be able to avoid obstacles along the route. Users should set an appropriate RTH altitude before the aircraft returns to home.
- When Optimal RTH Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still fly horizontally or vertically to avoid obstacles.
- If the maximum flight altitude is lower than the current aircraft altitude, the aircraft will descend directly to the maximum flight altitude before continuing tasks. If the maximum altitude is higher than the current aircraft altitude, the aircraft will stop ascending when the aircraft reaches the maximum flight altitude.

⚠️

- When there are obstacles such as wires and electric towers that are hard for the vision sensors to detect, users should disable Optimal Route Planning and make sure the set task altitude and RTH altitude are higher than the obstacle altitude along the route.

9. RTH Altitude (Relative to dock)

The aircraft altitude relative to the dock when the aircraft is returning to the dock.For DJI Dock and DJI Dock 3, the altitude range is 20 - 1500 m, and for DJI Dock 2 is 15 - 1500 m. The RTH altitude should be set based on the actual flight condition, surrounding environment, and GEO information. It is recommended that the altitude is set higher than the highest geographical point in the flight area and should be lower than the maximum flight altitude.

10. Signal Lost During Flight

The aircraft will return to home or continue the flight task when it is disconnected from the dock.

11. Upon Completion

Only Return to Home is supported when creating a task plan.

12. Resume Flight from Breakpoint

When a task cannot be completed by one single flight, a new task will automatically be generated, and the aircraft will resume the flight from the breakpoint and complete the task after being fully charged.

> Note: Tasks resuming from breakpoint will automatically expire if the tasks are not performed for more than 3 days.

13. Media File Direct Transfer

When enabled, media files collected by current plan will be directly transferred to third-party platforms.

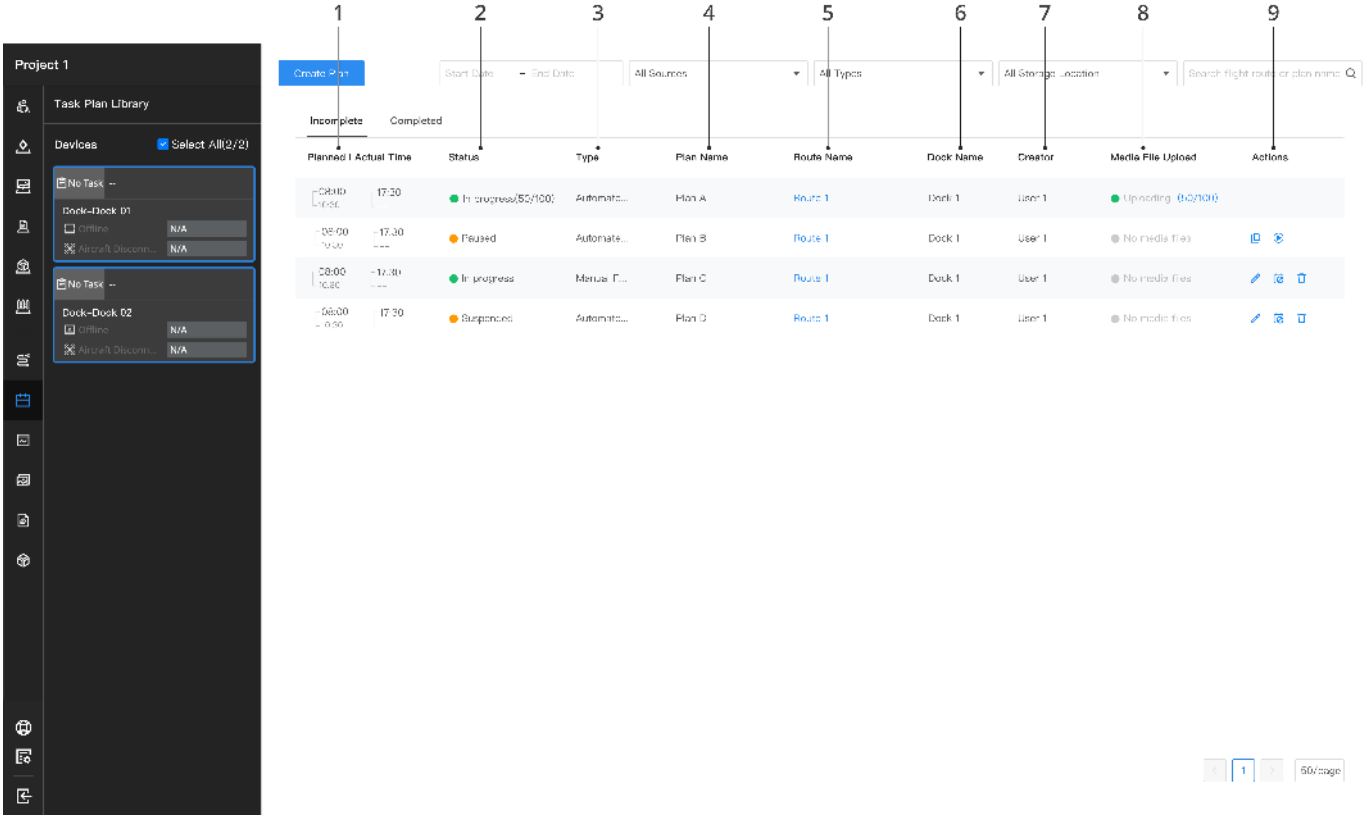
Perform Plans

Users can view the status of the single-dock task plan in the dock panel after the task starts. Click the device status window to view the device details and livestream. See Online Project Information for more details.

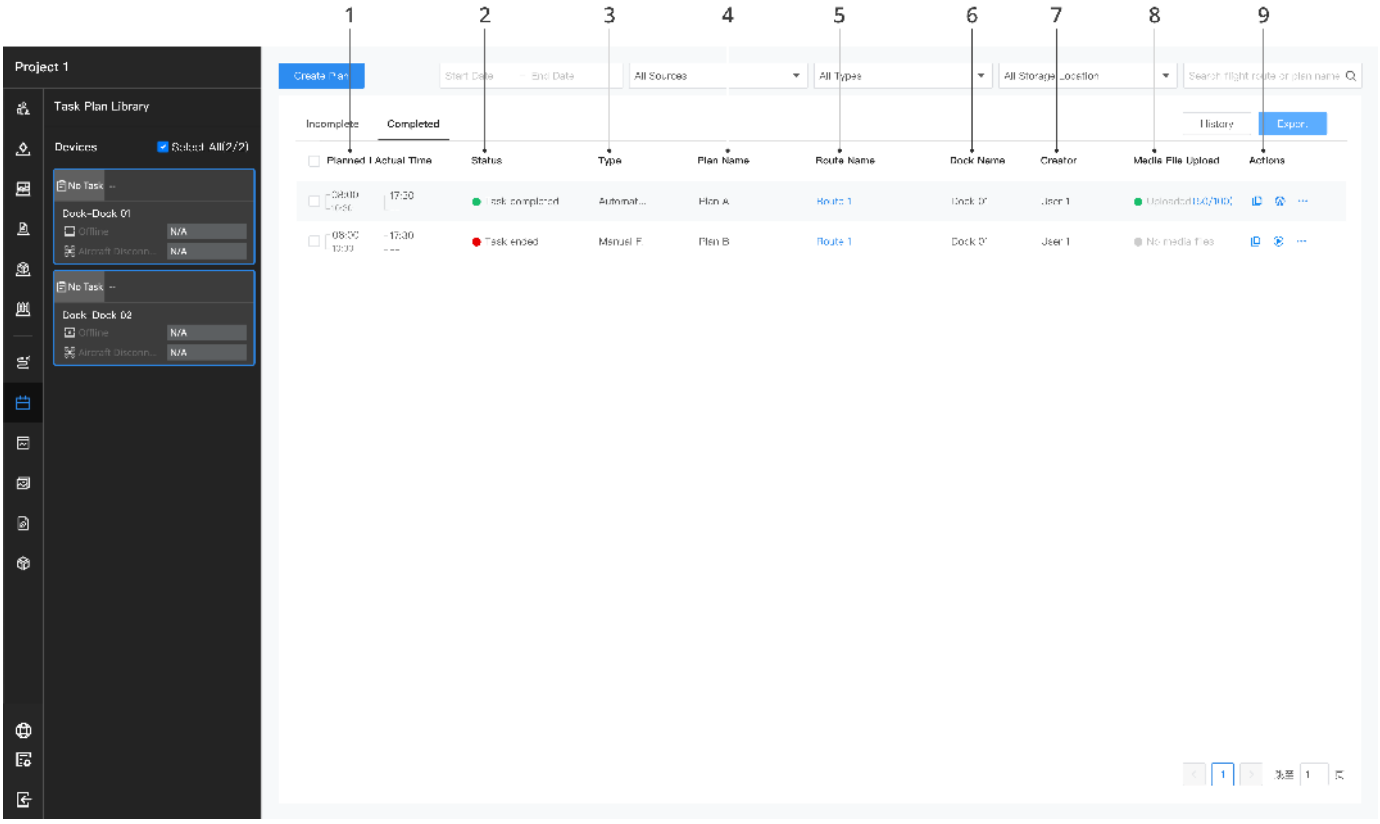
Task Management

In the Task Plan library, users can view details of both automated and manual flight tasks, including task plans, actual performance times, status, type, plan name, flight route name, device name, creator, and media file upload status. Users can also perform operations related to these tasks.

By clicking the Incomplete tab, users can view planned or ongoing flight tasks.



By clicking the Completed tab, users can view completed flight tasks.



1. Planned/Actual Time

Displays the estimated and actual performance times of flight tasks.

2. Status

- Statuses of incomplete tasks include: To be performed, In progress, Paused, and Suspended.
- Statuses of completed tasks include: Partially performed, Task completed, Task failed, and Task interrupted.

3. Type

- Automated tasks: Tasks distributed from the Task Plan Library.
- Manual flight tasks: Tasks controlled via the virtual cockpit or remote controller.

4. Plan Name

Displays the name defined by the user when creating the task.

5. Route Name

Displays the flight route copy of the flight task. Click to view the flight route. The flight route copy does not support editing.

6. Dock Name

Displays the name of the dock.

7. Creator

Displays creator information.

8. Media File Upload

Displays the media file upload status, including the number of uploaded files and total number. The media file upload statuses include Waiting to upload, Uploading, and Uploaded. Click to view media files in the Media Files library. The upload sequence of the media files is as follows:

- Media files of the Immediate flight task will be uploaded first. Media files of the Timed and Recurring tasks will be uploaded according to its actual completion time.
- Users can click Upload Now to prioritize the upload of the selected media files.

9. Actions

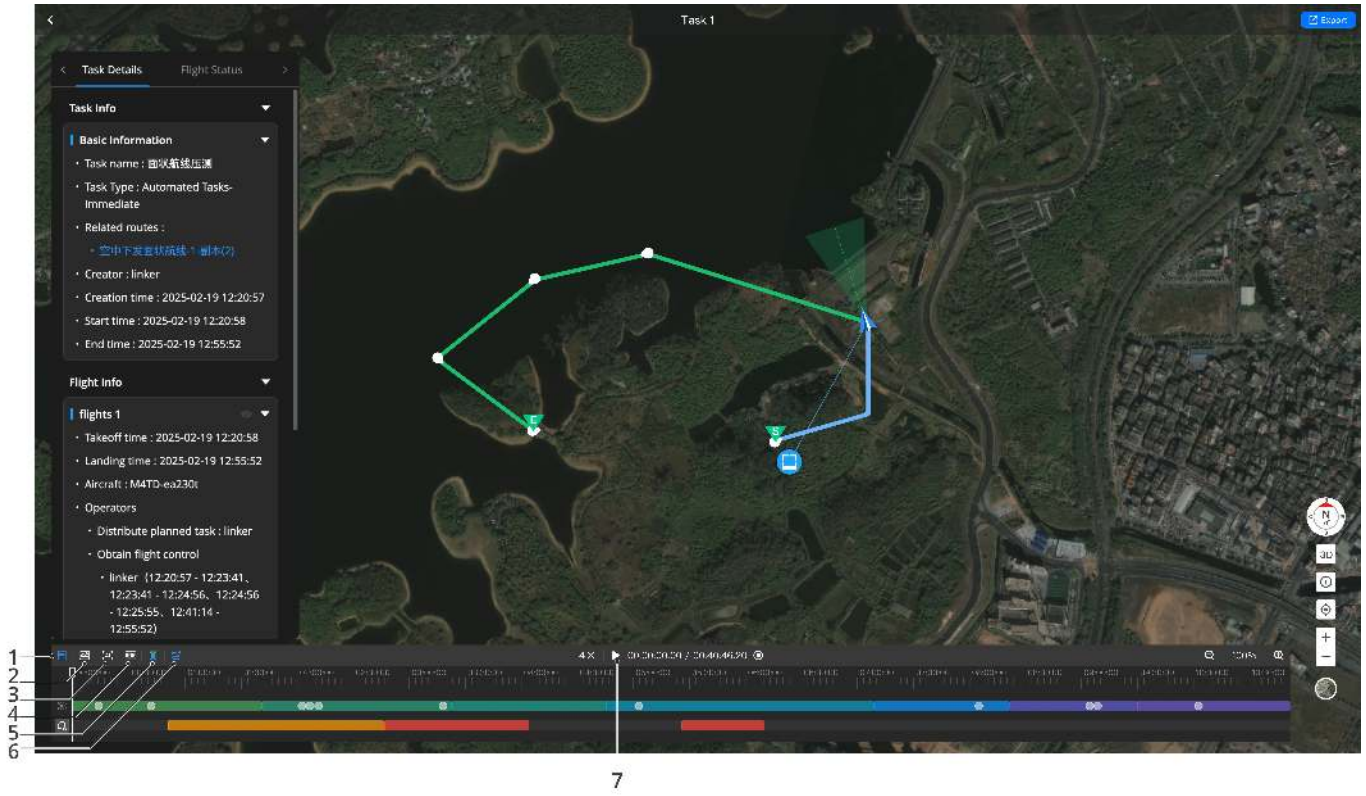
- For the flight tasks that are to be performed, users can edit, suspend, or delete the tasks. After the flight tasks are suspended, the aircraft will not perform the tasks. Users can resume the task so that the aircraft can continue performing the task. If the flight task exceeds the planned time, the task will be shown as failed.
- For the flight tasks that are performed, users can copy the task plan and view the flight trajectory. Click  to copy the plan, enter the flight route editor, and edit to create a new task plan. When the task is completed, users can click  to view the flight trajectory.

- For the flight tasks that are partially performed, users can choose to resume the flight from the breakpoint. After clicking , a new task will automatically be generated, and the aircraft will resume the flight from the breakpoint and complete the task after being fully charged.

10. View and Export Flight Records

10.1 View Flight Records

Click the Completed tab, and then click to view the flight record after a flight task is completed. You can view detailed task information corresponding to the flight task.



1) Click , you can view task details, flight status, and device information.

1. Task Details: You can view the task and flight information.
2. Flight Status: You can view user commands and flight parameters during the flight. Click the filter icon to filter fields.
3. Device Info: You can view real-time parameters of the aircraft and dock.

2) Click to preview media files.

3) Click to view detailed intelligent warning records, and support exporting AI task report.

4) Click to view the OcuSync video transmission quality corresponding to the flight trajectory on the map.

5) Click to view the aircraft's FOV on the map during trajectory playback.

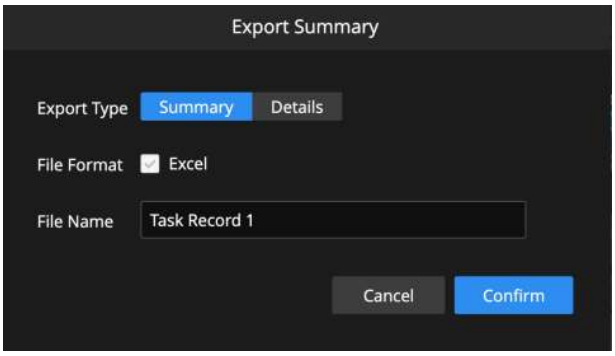
6) Click to show or hide the flight trajectory on the map.

7) Click ▶ to replay the flight trajectory.

10.2 Export Flight Records

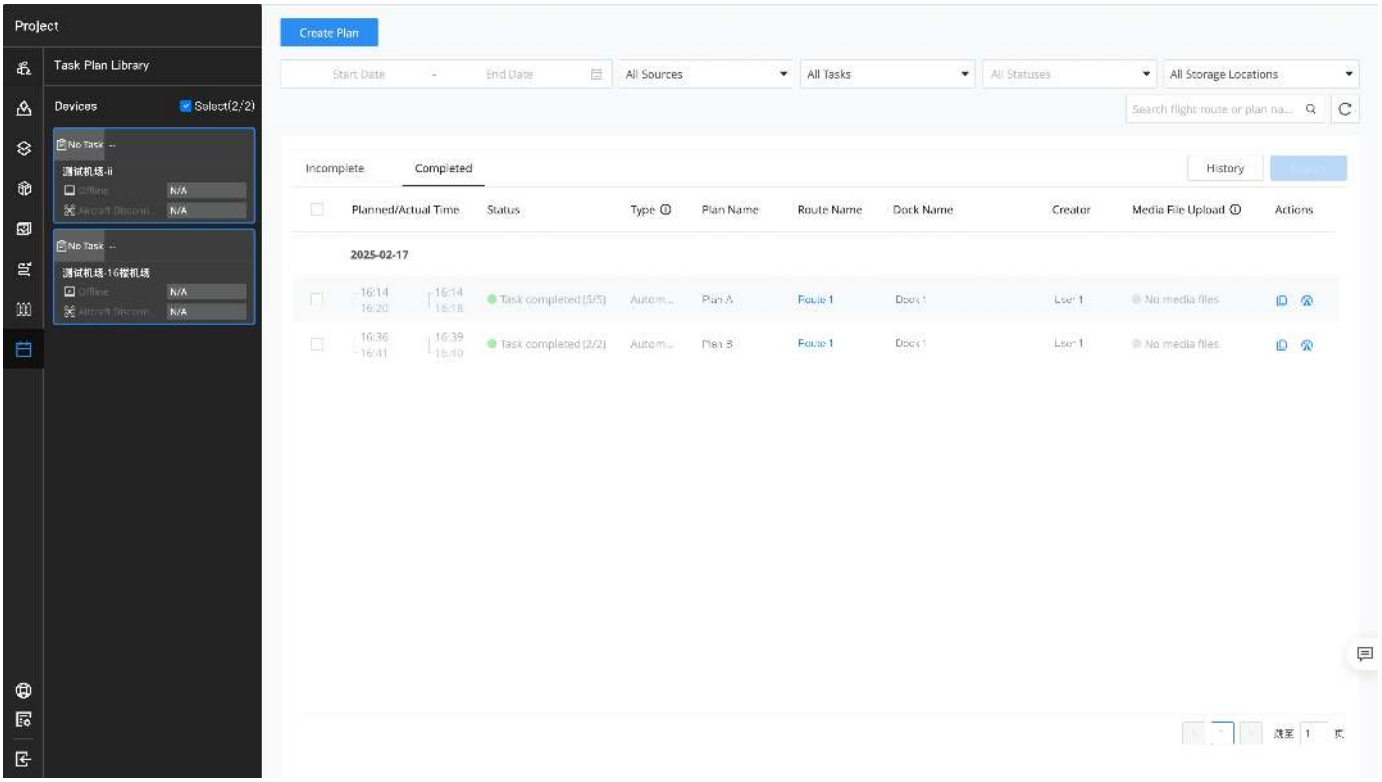
1. Single Export

Click the upper right corner of the flight record details to choose to export the summary or detailed information of the flight. When exporting detailed information, you can select the required fields. You can view past exported records or check the export progress in History.



2. Batch Export

In the Completed list, check the flight records you want to export, click export, and choose to export the summary or detailed information of the flight.



> Note: Only Dock 3 supports viewing and exporting flight records. Other versions or devices only support viewing flight record summary information.

Note: When the following error codes occur when the aircraft is performing consecutive tasks, to prevent continuous retries and failures, the next consecutive task will automatically be postponed and retried after 10 minutes.

Error Code	Description
219102	Dock offline. Unable to perform task. Check if dock power supply and network connection are stable
219103	Dock not found in project. Unable to perform task
316026	Dock emergency stop button pressed down. Unable to perform task. Release button and try again
319001	Unable to perform task. Dock is performing task or uploading issue logs. Wait until task is complete or logs uploaded and try again
319016	Dock performing other task. Unable to perform current task
319018	Unable to perform task. Dock uploading issue logs. Try again later
319019	Unable to perform task. Dock obtaining issue logs. Try again later
321513	Unable to perform task. Flight route altitude greater than aircraft max flight altitude
321514	Failed to perform task. Flight route start or end point in buffer zone or exceeds distance limit
321515	Unable to perform task. Aircraft will fly across GEO Zone
514120	Dock and aircraft disconnected. Restart dock and try again or relink dock and aircraft
514134	Heavy rainfall. Unable to perform task. Try again later
514135	Unable to perform task. Wind speed too high. Try again later
514136	Dock power supply error. Unable to perform task. Resume power supply and try again
514137	Unable to perform task. Environment temperature lower than -20° C (-4° F). Try again later
514145	Dock in local debugging mode. Unable to perform current operation or task. Disconnect dock from remote controller and try again
514146	Dock in remote debugging mode. Unable to perform task. Exit debugging mode and try again
514147	Unable to start remote debugging or perform task. Updating device firmware. Wait until update is complete

Error Code	Description
514148	Task in progress. Dock unable to enter remote debugging mode or perform task again. Wait until current task is complete and try again

Notes on On-premises Version

The SMS and email services for AI routes rely on third-party cloud service capabilities. DJI FlightHub 2 on-premises version currently does not support SMS notifications.

Configuring the internal communication server or the alert server with a webhook URL is currently not supported either.

Rapid Mapping

The private version of DJI FlightHub 2 supports enabling the rapid modeling function when issuing area-based route tasks. When enabled, the aircraft will continuously transmit thumbnails during route execution. Once the thumbnail transmission is complete, model reconstruction will be automatically triggered. This is suitable for emergency scenarios where quick access to low-precision models is required.

The Matrice 4 industry series also supports enabling this function on the Pilot 2 App, which can be activated during oblique modeling route planning or issuance.

> Note: After the private version of DJI FlightHub 2 is issued to the App, the plan will be executed immediately. Please ensure the safety of the surrounding environment before issuing the route task.

Distribute FlightHub Flight Route Planned Task to Pilot

The FlightHub on-premises version supports directly distributing flight tasks to DJI Matrice 4 enterprise series aircraft and starting the tasks immediately, improving end-cloud collaboration efficiency.

> Note: After distributing from FlightHub on-premises version to the app, the planned task will start immediately. Make sure the surroundings are safe before distributing flight tasks.

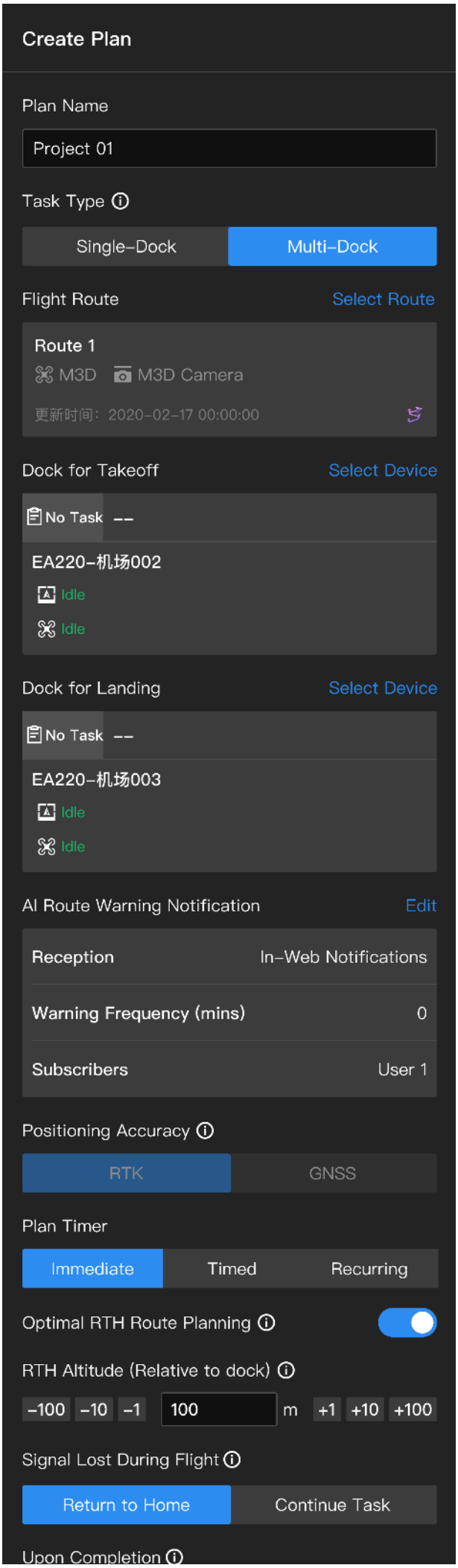
Multi-Dock Plans

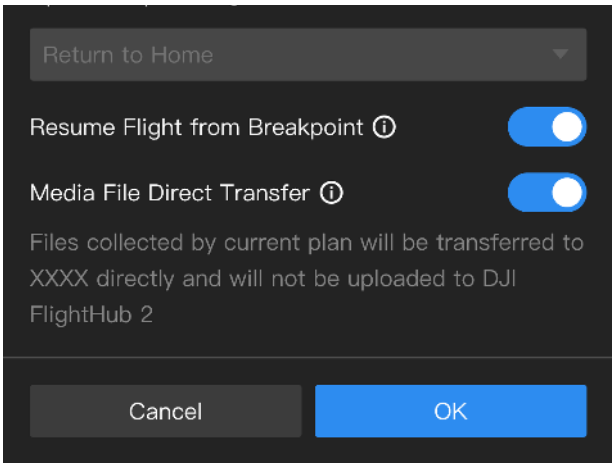
Project members can click to enter the task plan library to view task plans, and the administrators can create and manage multi-dock task plans.

- DJI Dock 2 (firmware version must be v09.02.01.08 or later) and DJI Dock 3 support multi-dock task plans.

Create Plans

Click Create Plan to create a task plan.


Create Plan
Plan Name
Project 01
Task Type
Single-Dock
Multi-Dock
Flight Route
Select Route
Route 1
M3D
M3D Camera
更新时间：2020-02-17 00:00:00
Dock for Takeoff
Select Device
No Task --
EA220-机场002
Idle
Idle
Dock for Landing
Select Device
No Task --
EA220-机场003
Idle
Idle
AI Route Warning Notification
Edit
Reception
In-Web Notifications
Warning Frequency (mins)
0
Subscribers
User 1
Positioning Accuracy
RTK
GNSS
Plan Timer
Immediate
Timed
Recurring
Optimal RTH Route Planning
RTH Altitude (Relative to dock)
-100
-10
-1
100
m
+1
+10
+100
Signal Lost During Flight
Return to Home
Continue Task
Upon Completion



1. Plan Name

The plan name is required and should be within 50 characters.

2. Task Type

Select Multi-Dock.

3. Flight Route

Click to select a flight route. Only flight routes supported by the dock are displayed in the list. A flight route duplicate will be created after selecting a flight route.

- The duplicate cannot be modified after the plan is created, and the duplicate will be deleted after the plan is deleted.
- Modifying the flight route in the flight route library will not affect the flight route duplicate. Users need to create a new plan to perform the edited flight task.

4. AI Route Alert Notifications (DJI Dock 3 Only)

See Single-Dock Plans for more details.

5. Dock for Takeoff

Select a dock for takeoff. Make sure there is an aircraft inside the dock before starting tasks.

6. Dock for Landing

Select a dock for landing. Make sure there is no aircraft inside the dock before starting tasks.

Note: The firmware versions of the docks for takeoff and landing should be consistent.

7.Positioning Accuracy (for DJI Dock 2 and DJI Dock 3 only)

To ensure flight safety, only RTK can be selected in multi-dock task plans. The dock aircraft will take off and converge the RTK data in the air before performing the task. Users are unable to pause the task during the convergence.

8. Plan Timer

Users can select from Immediate, Timed, and Recurring.

- When the plan timer is set to Immediate, the aircraft will immediately perform the flight task once the plan is created.
- When the plan timer is set to Timed, the aircraft will perform the flight task when the set time is reached.
- When the plan timer is set to Recurring, the aircraft will perform repeated flight tasks when the set time is reached.

9. Optimal RTH Route Planning

- When the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft will automatically plan an optimal RTH route to improve task efficiency.
- When the environment is not suitable for the vision system to work properly and Obstacle Data is disabled, the aircraft will return home based on the task altitude and RTH altitude settings.

- When Optimal RTH Route Planning is enabled, the aircraft will intelligently adjust the flight altitude and speed based on the obstacle data and the environment conditions such as the wind speed and direction, so that the aircraft can reach the FlyTo destination or the Home Point with improved efficiency.
- It is recommended to enable Obstacle Data in Task Area Management for the optimized route planning. See Obstacle Data for more details.
- When the environment is not suitable for the vision system to work properly or other issues occur when the aircraft is performing FlyTo tasks or returning home, the aircraft will not be able to plan an optimal route. Users should set an appropriate RTH altitude before the aircraft returns home.
- When Optimal RTH Route Planning is disabled but the environment is suitable for the vision system to work properly or Obstacle Data is enabled, the aircraft can still avoid obstacles by adjusting the flight route intelligently.
- If the maximum flight altitude is lower than the current aircraft altitude, the aircraft will descend directly to the maximum flight altitude before continuing tasks. If the maximum altitude is higher than the current aircraft altitude, the aircraft will stop ascending when the aircraft reaches the maximum flight altitude.

⚠️

- When there are obstacles such as wires and electric towers that are hard for the vision sensors to detect, users should disable Optimal RTH Route Planning and make sure the set task altitude and RTH altitude are higher than the obstacle altitude along the route.

10. RTH Altitude (Relative to dock)

The aircraft altitude relative to the dock when the aircraft is returning to the dock. For DJI Dock and DJI Dock 3, the altitude range is 20 - 1500 m, and for DJI Dock 2 is 15 - 1500 m. The RTH altitude should be set based on the actual flight condition, surrounding environment, and GEO information. It is recommended that the altitude is set higher than the highest geographical point in the flight area and should be lower than the maximum flight altitude.

11. Signal Lost During Flight

The aircraft will return home or continue the flight task when it is disconnected from the dock.

12. Upon Completion

Only Return to Home supported when creating task plans.

13. Resume Flight from Breakpoint

When a task cannot be completed by one single flight, a new task will automatically be generated, and the aircraft will resume the flight from the breakpoint and complete the task after being fully charged. In multi-dock task plans, the aircraft can resume the task from the breakpoint only from the dock that it lands on. If the aircraft stops the task at the breakpoint and returns to the set dock for landing, a plan will be automatically created as a single-dock task plan.

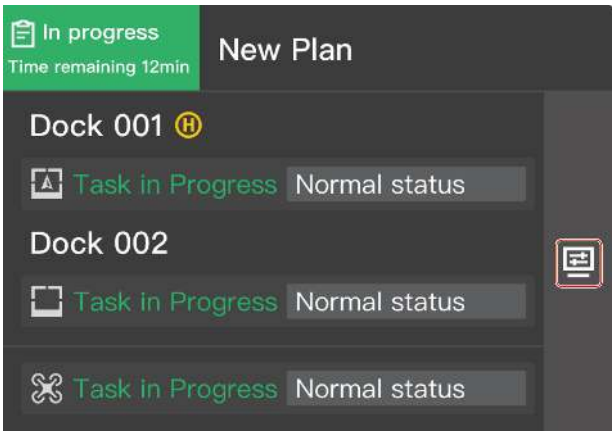
Note: Tasks resuming from breakpoint will automatically expire if the tasks are not performed for more than 3 days.

14. Media File Direct Transfer

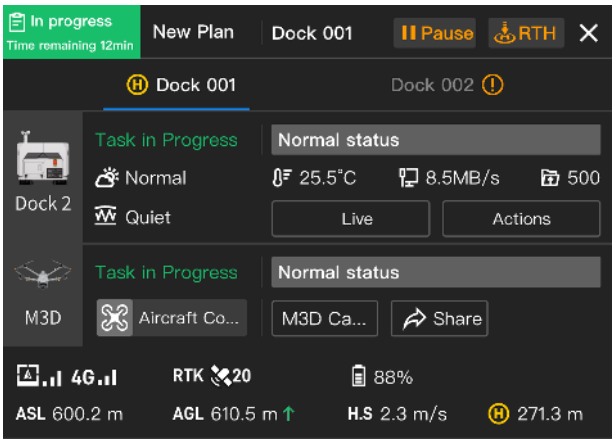
When enabled, media files collected by current plan will be directly transferred to third-party platforms.

Perform Plans

Users can view the status of the multi-dock task plan in the dock panel after the task starts. Click the device status window to view the device details and livestream.

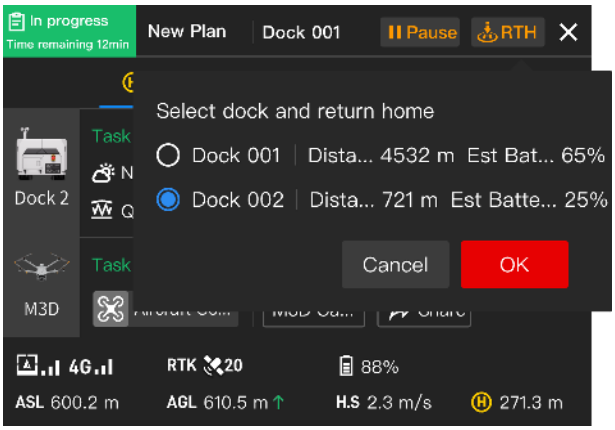


Click the dock name to view the status of the dock.



- (H) indicates that the current dock is the set dock for landing.
- (!) indicates that there are warning messages about the current dock. Users need to pay attention to the messages.

Click  and the aircraft will return home. DJI FlightHub 2 will automatically recommend a dock for RTH. Users can also analyze the RTH distance and battery level and select a dock for RTH. The aircraft will automatically return home after the dock is selected. Pay attention to the aircraft status and livestream view. Fly with caution.



Note: Live Flight Controls is not supported when the aircraft is performing multi-dock task plans.

Manage Plans

For more feature details, please refer to the Single-Dock Plans section.

Manual Flight Tasks

A manual flight task refers to a task issued through the DJI FlightHub 2 cloud platform that the aircraft executes immediately, supporting flight control via dock or remote controller. Manual flight tasks are immediate and support DJI Matrice 4 Enterprise Series and Matrice 4D Series aircraft.

Project members can click  to enter the task plan library to view task plans, and administrators can create and manage manual flight tasks.

Create Plans

Click Create Plan to enter the plan creation page.



1. Plan Name

Enter the plan name (within 50 characters).

2. Task Type

Select Manual Flight Tasks.

3. Flight Route

Only flight routes supported by the dock can be selected. A flight route duplicate will be created after selecting a flight route.

- The duplicate cannot be modified after the plan is created, and the duplicate will be deleted after the plan is deleted.
- Modifying the flight route in the flight route library will not affect the flight route duplicate. Users need to create a new plan to perform the edited flight task.

4. Plan Timer

The plan timer is set to Immediate by default. Once the plan is created, the aircraft will immediately perform the flight task.

5. Resume Flight from Breakpoint

When enabled, if the aircraft cannot complete the flight route due to insufficient battery, a pending task will be automatically generated. Once the battery is sufficiently charged, the task will resume until the flight route is completed.

6. RTH Altitude (Relative to dock)

The aircraft altitude when returning to the dock. The RTH altitude should be set based on the actual flight condition, surrounding environment, and GEO information. It is recommended that the altitude is set higher than the highest geographical point in the flight area and should be lower than the maximum flight altitude. For DJI Dock and DJI Dock 3, the altitude range is 20 - 1500 m, and for DJI Dock 2 is 15 - 1500 m.

7. Signal Lost During Flight

The aircraft will return home by default when disconnected. Users can also set it to continue the flight route. After communication between the dock and aircraft is lost, the aircraft will fly back to the takeoff point or continue the flight task.

8. Upon Completion

Only Return to Home is supported when creating task plans.

Perform Plans

Users can view the status of the task in the dock panel after the task starts. Click the device status window to view the device details and livestream. See Online Project Information for more details.

Manage Plans

For more feature details, please refer to the Planned Tasks section.

Workflow Management

Overview

Automated workflows are an integrated hardware-and-software system for unattended operations. With a one-time configuration, users can manage tasks centrally via the cloud to achieve fully unmanned operations across the entire process—automatic takeoff, automatic capture, automatic upload and archiving, and automatic report generation—greatly improving industry operation efficiency.

Users can view, create, start/stop, edit, and manage workflows in a unified manner on the Automation page. The system supports two types of workflows:

Workflow Type	Description
Periodic Workflow	Runs automatically at a preset time, cycle, or schedule. Suitable for scenarios such as scheduled inspection, scheduled aerial photography, automatic modeling, and automatic analysis.
Triggered Workflow	Runs when triggered by an external interface, an alarm event, or a system condition. Suitable for scenarios such as automatic dispatch, alarm linkage, and emergency response.

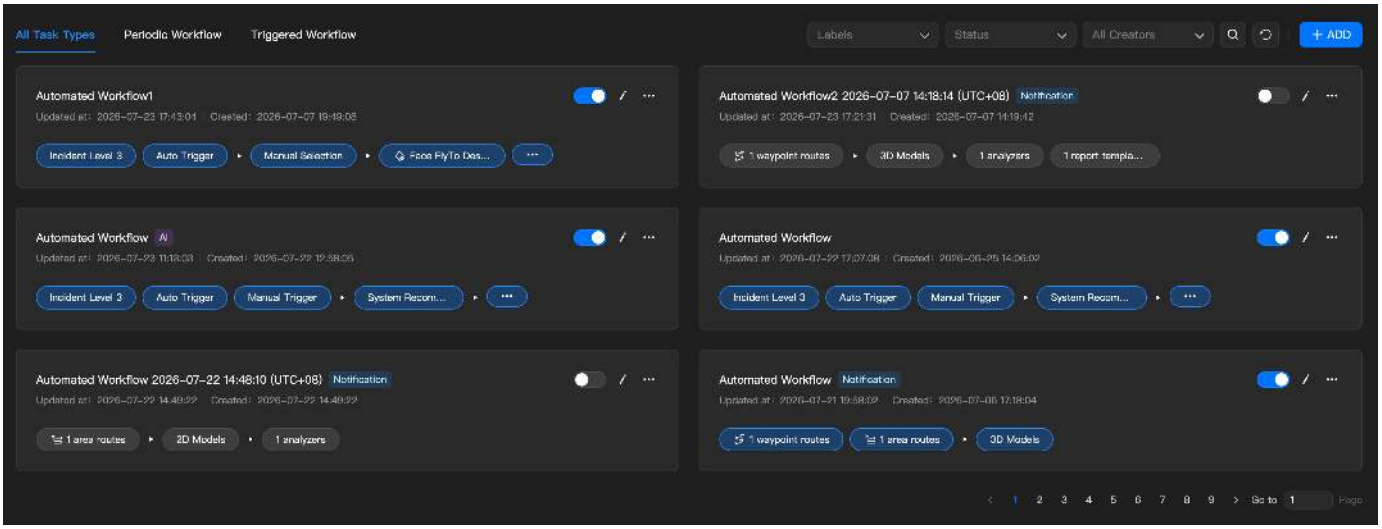
Pre-permission Instructions

1. Assign project members a project role that includes the relevant "Automated Workflow" permissions, so that they can create, edit, enable, disable, and manage workflows.
2. Alternatively, set project members directly as the "Project Administrator". The Project Administrator has management permissions for automated workflows within the project by default and can use the relevant features directly.

- Note: Before enabling an automated workflow, you can complete the relevant basic configurations first. For example, configure the flight plan in the "Task Plan Library" module, and configure the analyzer and report template in the "Analyzer" module, so that they can be referenced directly in the workflow.

Workflow List

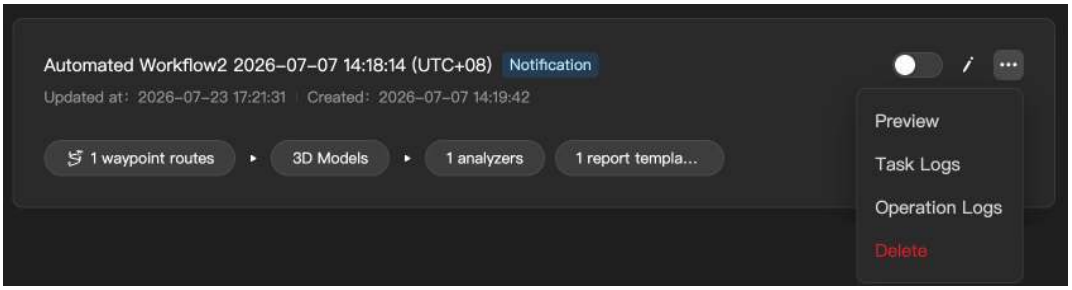
The workflow list displays the automated workflows created under the current project. Here, users can view the workflow status, type, update time, and process nodes, and start/stop, edit, and perform more operations on workflows.



The area above the workflow list provides filtering and search functions to quickly locate the target workflow. Supported filters include:

Filter	Description
Task Type	Displayed by task type, including All, Periodic, and Triggered
Tag	Filtered by workflow tag, such as Notification, AI, etc.
Enablement Status	Filtered by enabled or disabled status
Creator	Filtered by workflow creator
Search	Enter a workflow name keyword to search

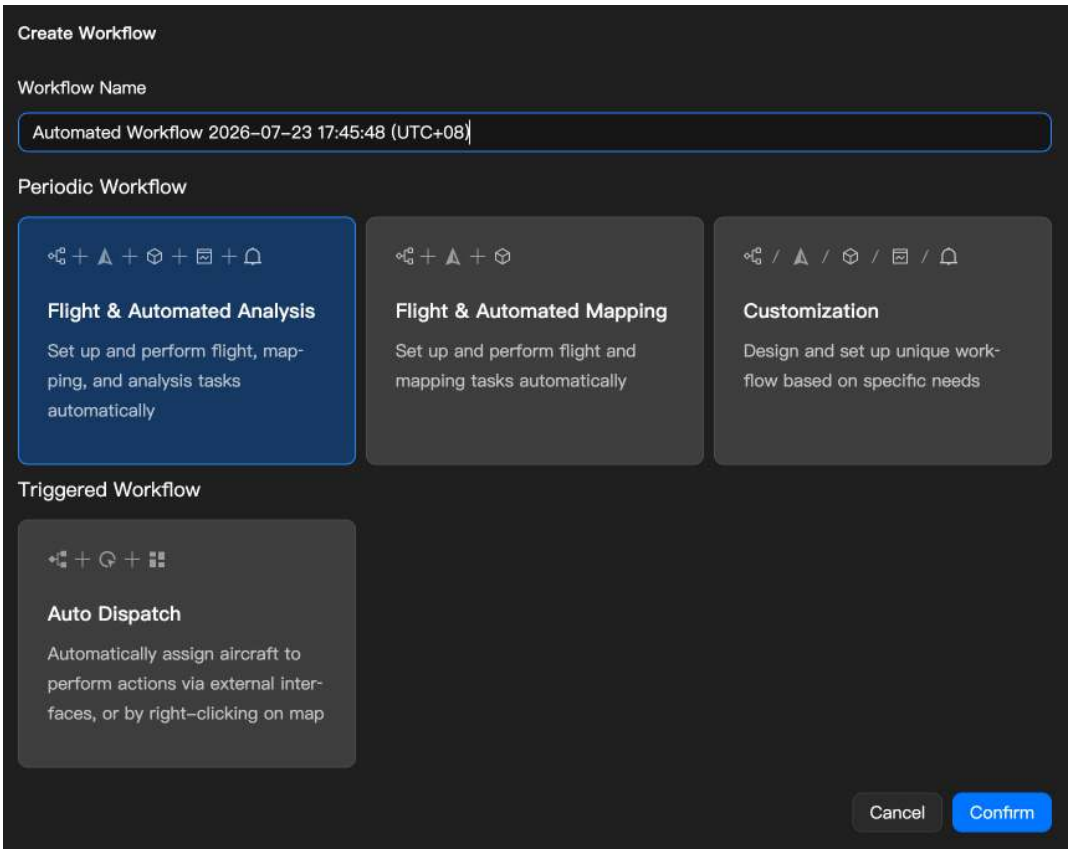
Each workflow is displayed as a card, with key information including: name, tag, update time, creation time, process nodes, enablement toggle, edit, and more operations (execution logs, operation logs, delete), etc.



- Note: A disabled workflow will not continue to run automatically, but its historical run records and configuration content will still be retained.

Creating a Workflow

Click the "+ New" button in the upper-right corner of the page to create a new automated workflow. Enter a configuration name and select a workflow type. After confirming, you will enter the corresponding configuration page. After completing the configuration, save it and enable the workflow as needed.



Supported Workflow Types

1. Periodic Workflow

Periodic workflows are suitable for tasks that run automatically at a fixed time and fixed frequency, such as scheduled inspection, scheduled modeling, and scheduled generation of analysis results.

Available templates include:

- **Flight and Automatic Analysis Workflow**: Configure a flight task, and modeling and analysis are performed automatically after the task is completed.
- **Flight and Automatic Modeling Workflow**: Configure a flight task, and modeling is performed automatically after the task is completed.
- **Custom Workflow**: Customize the workflow nodes and execution order based on business needs.

- Note: For detailed configuration methods, refer to the documentation Periodic Workflow.

2. Triggered Workflow

Triggered workflows are suitable for tasks triggered by external events, interface calls, or business instructions, such as automatically dispatching a drone to perform a flight task after receiving an alarm.

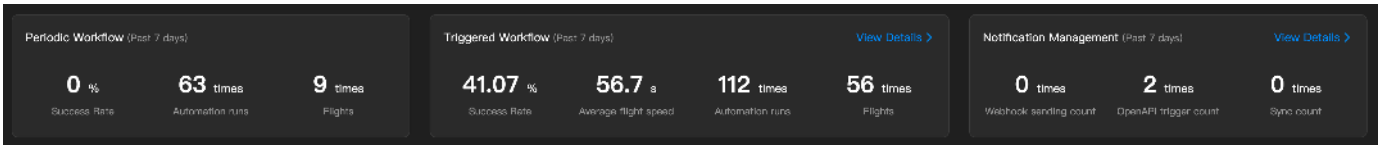
Available templates include:

- **Automatic Dispatch Workflow**: Triggered by an external interface or a map instruction to automatically dispatch a drone to perform flight and subsequent actions.

- Note: For detailed configuration methods, refer to the documentation Triggered Workflow.

Data Statistics

The top of the page displays an overview of the automated workflow runs over the past seven days, helping users quickly understand the workflow run results and trigger status.



1. Periodic Workflow Statistics

Displays the overall run status of periodic workflows over the past seven days, including:

- **Success Rate**: The proportion of periodic workflows that were executed successfully.
- **Run Count**: The number of times periodic workflows were executed.
- **Flight Sorties**: The number of flight tasks triggered by periodic workflows.

2. Triggered Workflow Statistics

Displays the overall run status of triggered workflows over the past seven days, including:

- **Success Rate**: The proportion of triggered workflows that were executed successfully.
- **Average Arrival Speed**: The average time from triggering to the drone arriving at the target area.
- **Run Count**: The number of times triggered workflows were executed.
- **Flight Sorties**: The number of flight tasks triggered by triggered workflows.

3. Notification Management Statistics

Displays the invocation of notification capabilities in automation over the past seven days, including:

- Number of Webhook sends.
- Number of Open API triggers.
- Number of Sync operations.

Click "View Details" in the corresponding statistics card to enter the details page and view more specific run records or notification records.

Periodic Workflow

Feature Overview

A periodic workflow is a time- or event-driven automated workflow. Users chain and orchestrate nodes such as "Flight Plan → Mapping Task → Analysis Task", and the system automatically executes them in sequence at the configured interval, achieving an unattended closed loop of "flight + mapping + analysis". It is suitable for scheduled inspection, scheduled mapping, and periodic AI analysis.

The workflow uses a canvas-based "node + connection" orchestration: once a node finishes executing, its downstream nodes are automatically triggered, enabling automatic data flow.

Built-in Nodes

Trigger

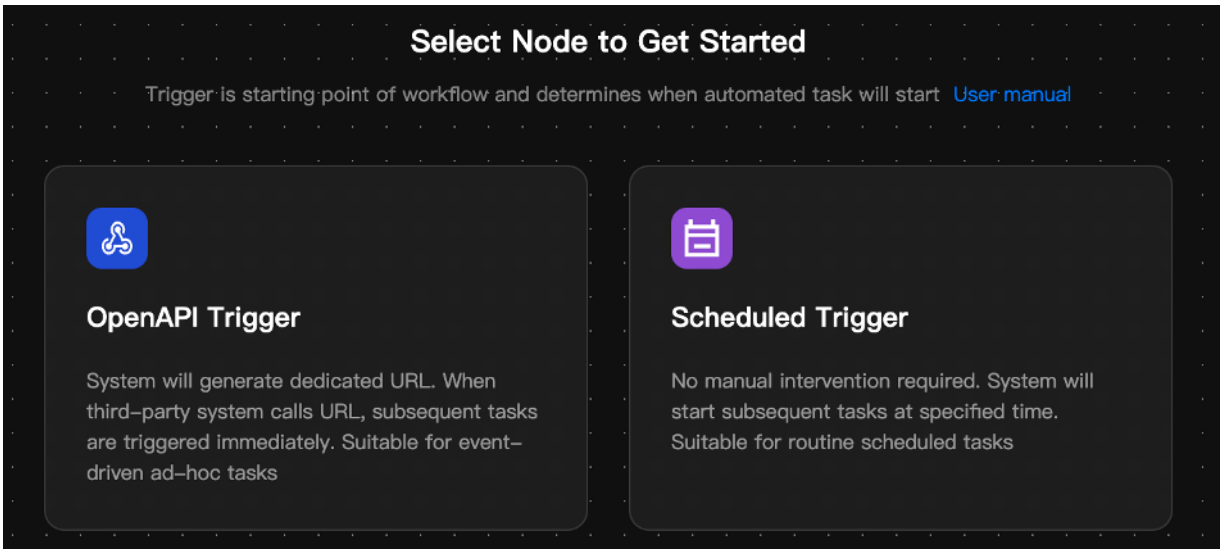
The "inbound start node" of the workflow, which determines when the workflow is launched.

A trigger can only connect to "Flight Plan" or "Notification" nodes. One trigger can connect to multiple flight plans, and multiple triggers can connect to the same flight plan.

Periodic workflows provide two types of triggers:

Workflow Type	Description	Parameters
Scheduled Trigger	Automatically launches the workflow based on the time, time range, and repeat frequency set by the user. Suitable for tasks performed at fixed intervals such as daily, weekly, or monthly.	Execution time, repeat frequency
OpenAPI Trigger	The platform automatically generates a POST endpoint for the trigger. Third-party systems can trigger the workflow by sending requests to this endpoint, commonly used for integrations with IoT platforms, operations platforms, and other systems.	POST endpoint

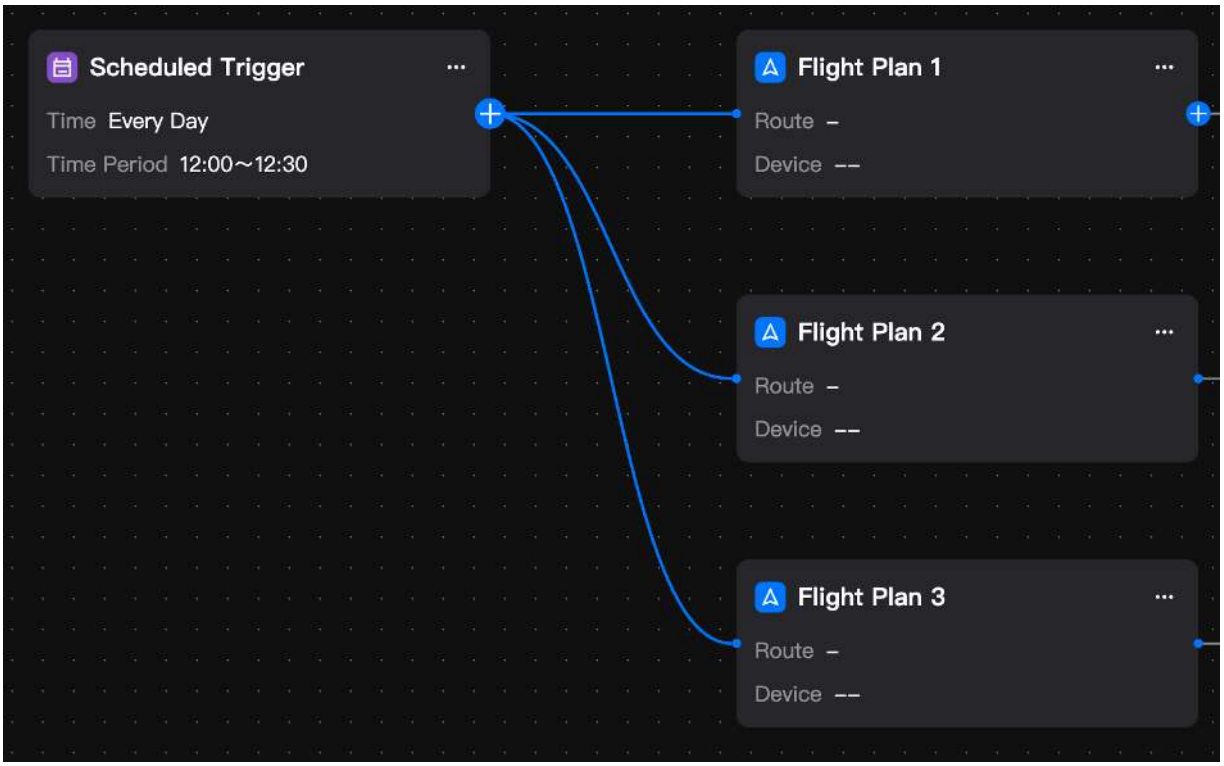
- Note: The Scheduled Trigger and the "Recurring Task" strategy configured in the flight plan can only be used one at a time, to avoid duplicate triggering. In the current version, the trigger only controls when the workflow starts, and does not yet support passing external parameters to downstream nodes.



Flight Plan

Select an existing flight plan from the plan library or create a new one to control the dock/aircraft to perform capture flights along the preset route. This is the data collection starting point of the workflow.

Click the "+" on the "Trigger card" in the flow blueprint or the "Flight Plan card" in the preset flow to expand the "Select Flight Plan panel". Here you can select one or more flight plans, and you can also create a new flight plan.





Note:

- Automated workflows only support flight plans whose task strategy is "Recurring Task".
- After linking to an automated workflow, the flight plan is automatically upgraded to an automated flight plan. Its performance date follows the automated workflow being enabled/disabled and is automatically rescheduled.
- After linking to an automated workflow, the flight plan will automatically disable the "Media File Direct Transfer" feature.

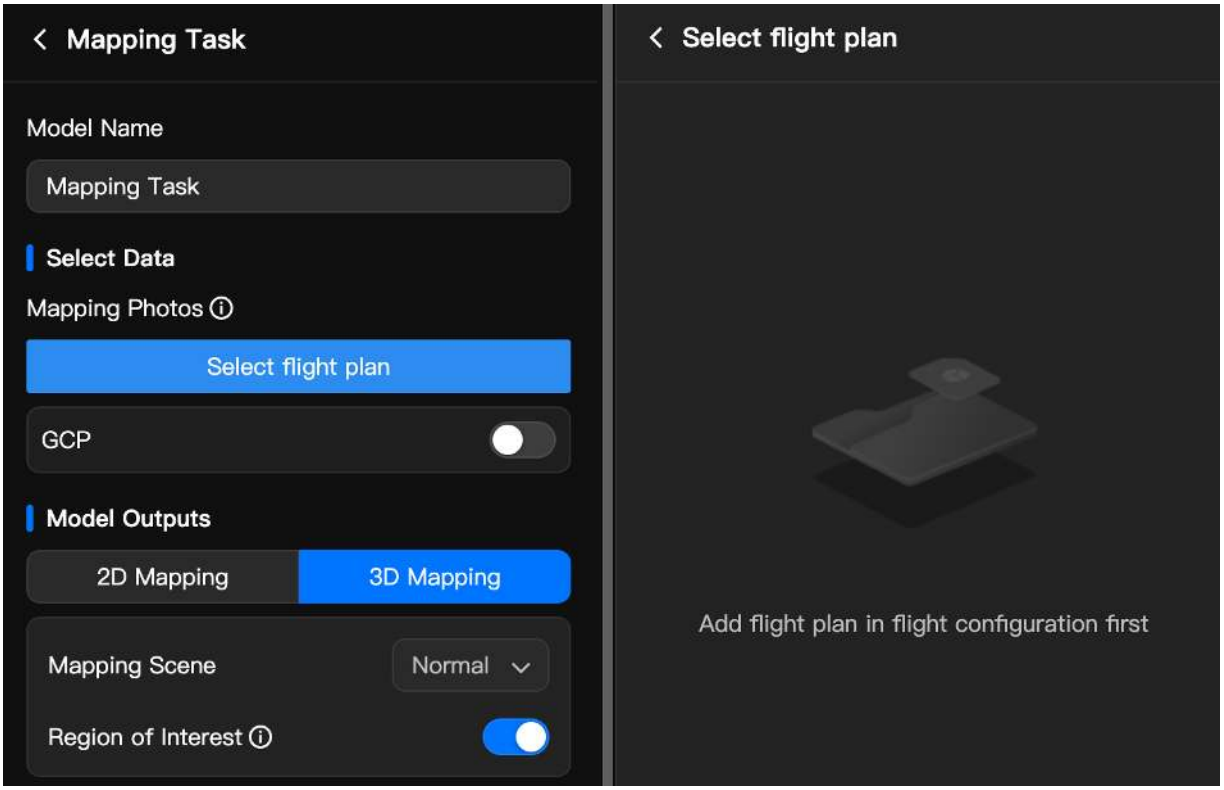
Mapping Task

After the flight capture is complete, model reconstruction is automatically initiated based on the photo data captured by the selected flight plan, generating model results.

Click the "+" on the "Flight Plan card" in the flow blueprint or the "Mapping Task card" in the preset flow to expand the "Create Mapping Task panel", where you can edit the mapping task. Its core parameters include:

Parameter	Description
Select Flight Plan	The source of photo data on which mapping depends. You can select an upstream flight plan or directly link a flight plan on the configuration page to automatically import photos, enabling automatic flight-to-mapping chaining.
Model Results	High-precision 2D orthophoto or reality 3D model. When 3D is selected, you can set the mapping scene (Normal/Orbit), Mesh model (B3DM/OSGB/PLY/OBJ), and point cloud model (PNTS/LAS/PLY).

Parameter	Description
Region of Interest	Set a region of interest to crop the model outside the region and improve mapping speed. Only one region of interest is supported.



VLM Detection

VLM Detection refers to the multimodal Vision Language Model (VLM) AI detection capability introduced by DJI FlightHub 2, giving drones the general intelligent recognition ability to "understand what they see and hear".

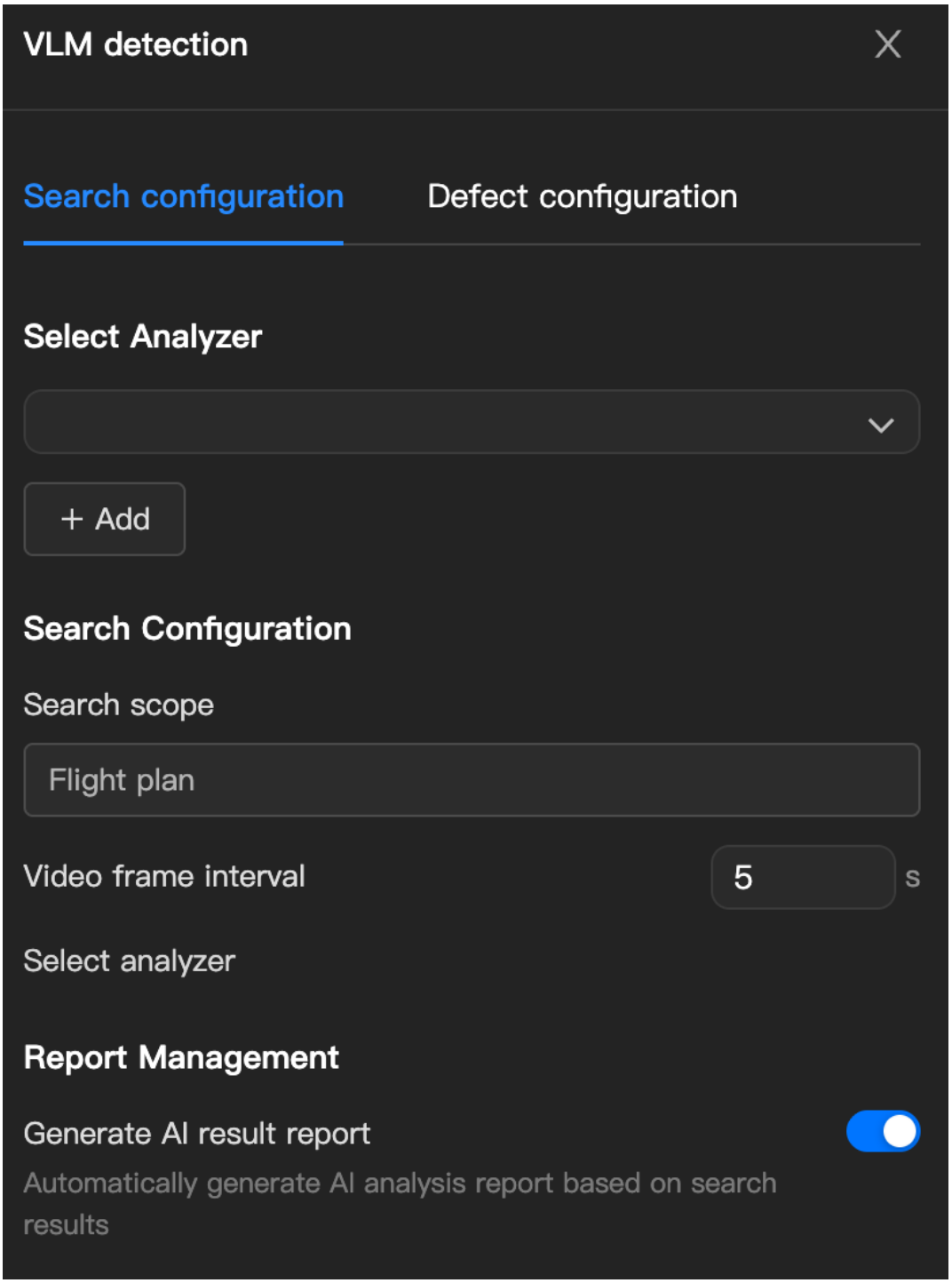
Select or create an analyzer to perform intelligent analysis on captured/mapping results. On the configuration page, you can link the flight plan and mapping task with the analyzer, so that media or models are automatically synced to the analyzer for computation once completed.

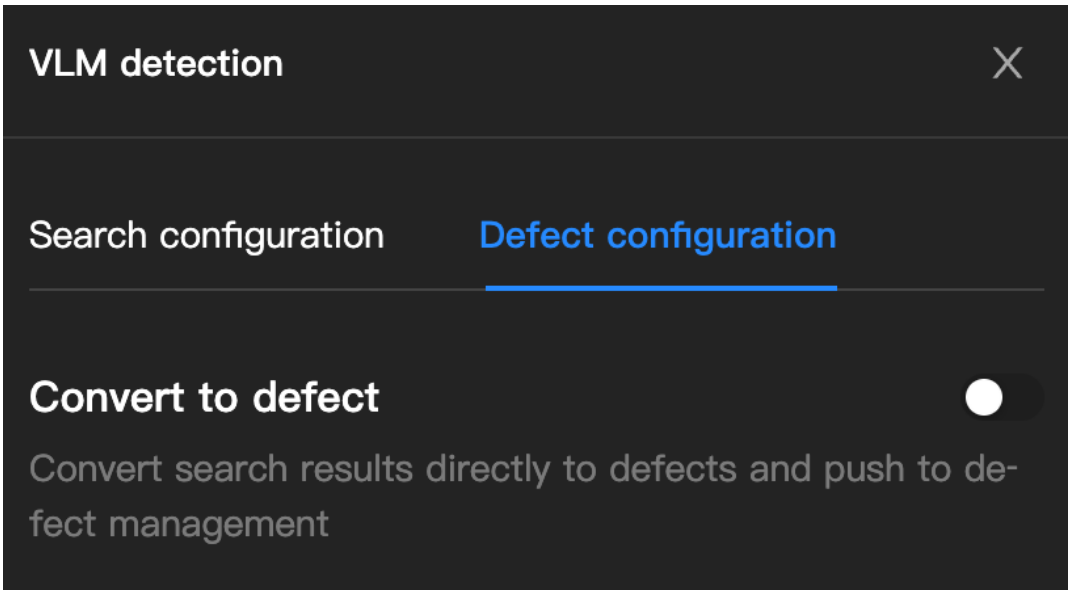
Click the "+" on the "Flight Plan card" in the flow blueprint or the "VLM Detection card" in the preset flow to expand the "VLM Detection panel", where you can edit the detection parameters.

The core parameters include:

Parameter	Description
Analyzer Selection / Creation	The analyzer is the core module of FlightHub 2 for 3D result analysis and engineering processing. It aggregates "models/media/design files" into the same spatial coordinate system, providing measurement calculation, defect annotation, timeline comparison, change detection, and analysis report capabilities.
Video Frame Capture	The time interval for automatically capturing and saving static images from the real-time video stream, in seconds. Integers from 1 to 3600s are

Parameter	Description
Frequency	supported.
Generate AI Result Report	After the task is completed, image and video materials are automatically collected to generate a structured, professional-grade task analysis report, clearly presenting target distribution, timeline details, anomaly records, and recognition accuracy, greatly reducing manual analysis time.
Convert to Defect	After analysis by the AI algorithm, the system marks the target status confirmed as an anomaly as a specific "defect" or "hazard" and pushes it to defect management.





Change Detection Pro

Change Detection uses cloud AI algorithms and multimodal large language models to automatically compare 2D images or 3D reality models captured of the same area at different times, accurately identifying changes such as new cracks, illegal constructions, project progress deviations, or environmental differences.

Click the "+" on the "Flight Plan card" in the flow blueprint or the "Change Detection Pro card" in the preset flow to expand the "Change Detection panel", where you can edit the detection parameters.

The core parameters include:

Parameter	Description
Select Matching Rule	You can choose Dynamic Relative Comparison (automatically finds the last successful execution record of the flight plan as a reference, suitable for daily inspection and continuous progress tracking) or Specify Historical Batch (manually specify a historical task as a fixed baseline, suitable for scenarios requiring strict comparison with the initial state or a pre-construction baseline batch).

- Note: Currently, change detection is only supported for public-version waypoint route tasks.

Change Detection Pro

Rule settings | Defect configuration

Select Analyzer

+ Add

Data to be detected

Associated flight route tasks

Only waypoint routes are supported for detection

Flight plan

Select matching rule

- (•) Dynamic relative comparison

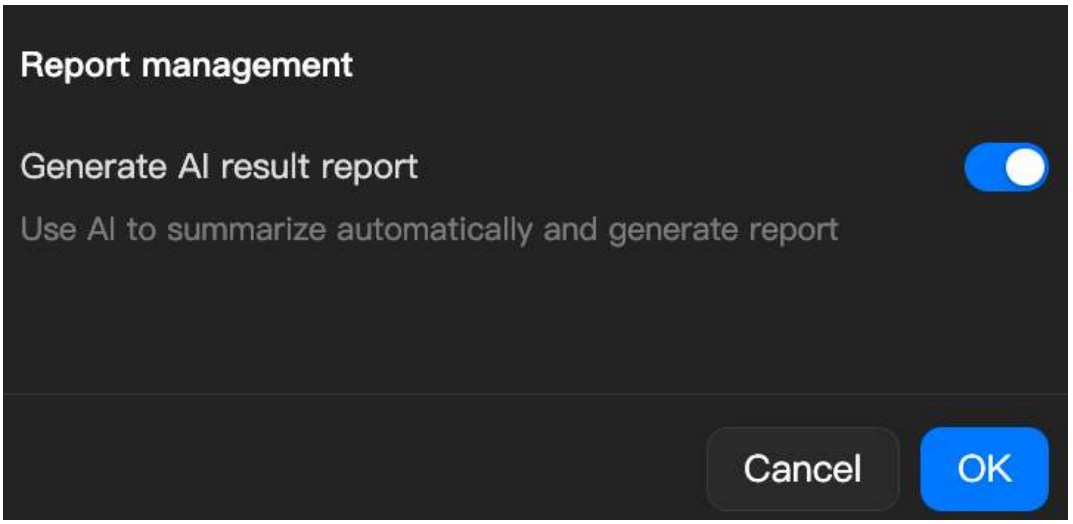
  System will automatically use last successful run of flight plan as reference. If first flight for flight route, comparison will be skipped automatically

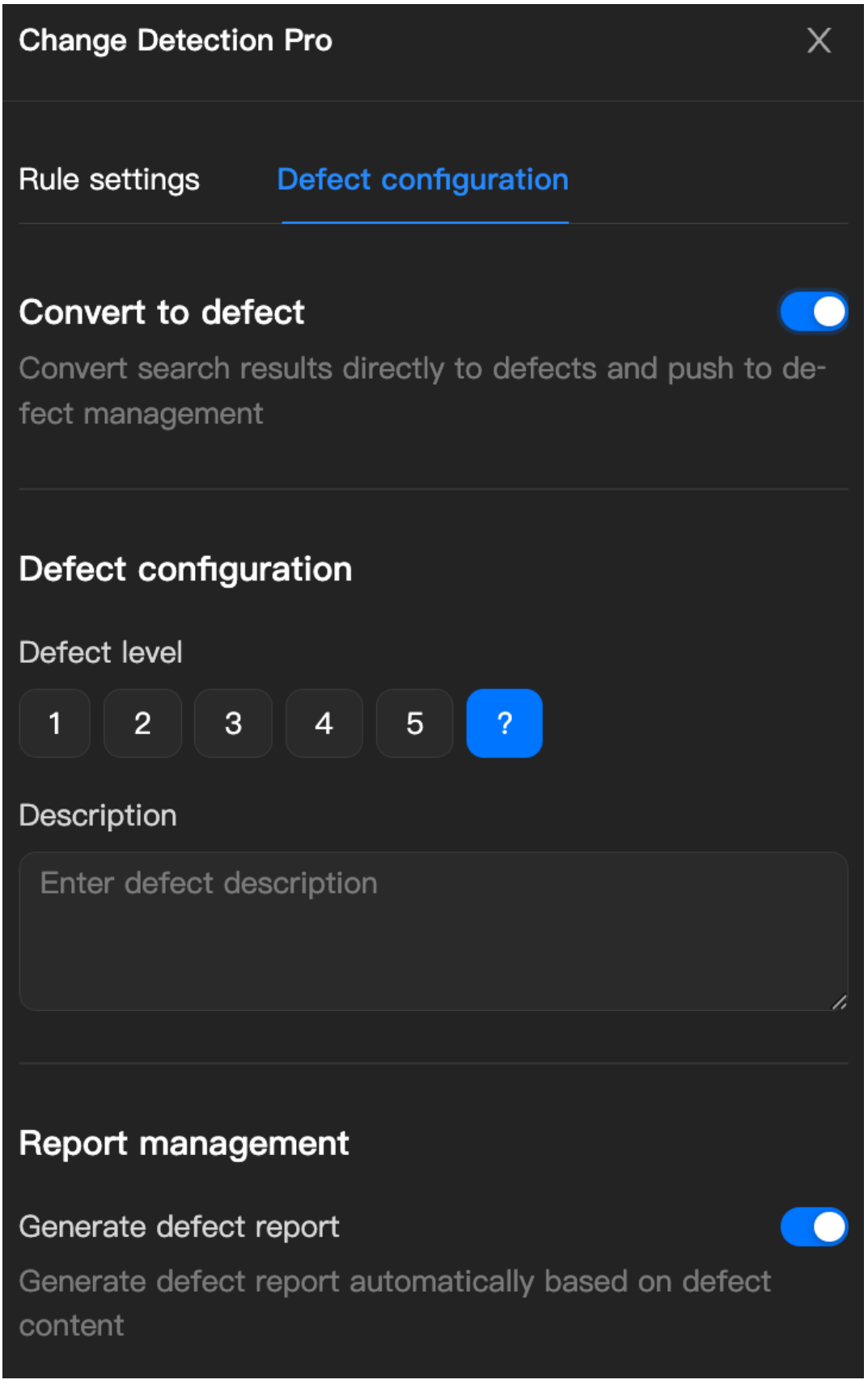
- ( ) Specified historical batch

  Manually select historical task. All future comparisons will use this fixed data

OLD	NEW
Reference baseline	Current detection

Change detection results are highlighted on photos from two phases. Generated defect coordinates are based on current detection

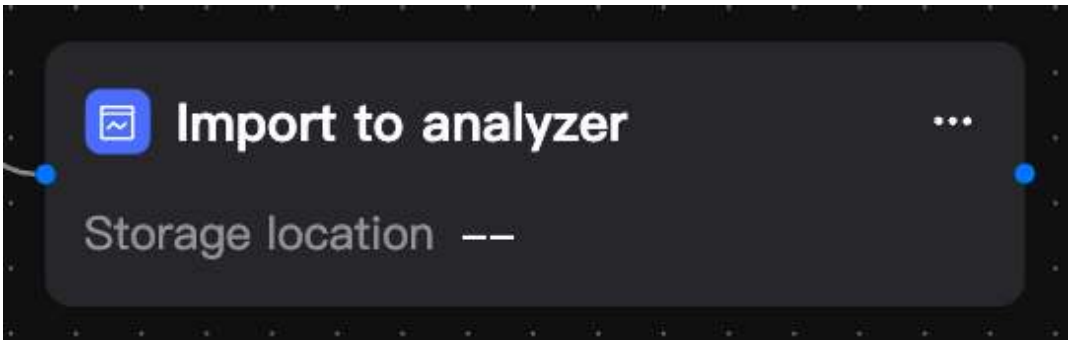

Report management
Generate AI result report
Use AI to summarize automatically and generate report
Cancel
OK



Import Analyzer

Introduce a specified analyzer into the workflow so that other nodes can call it to complete data analysis, enabling reuse of analysis capabilities.

In the flow blueprint, you can create an "Import Analyzer card" from either the "Flight Plan card" or the "Flight Plan card".

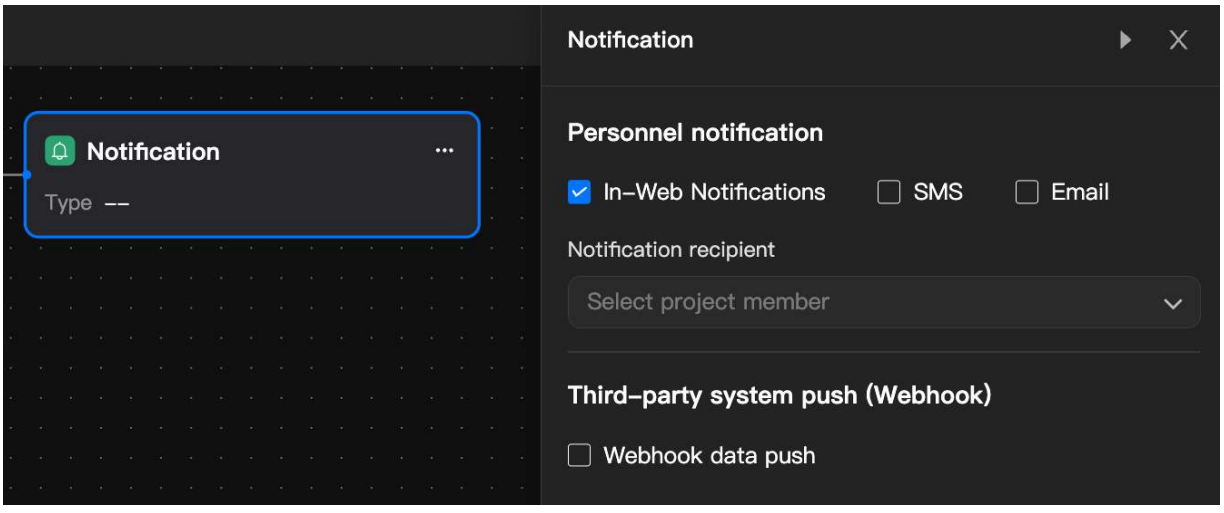


Notification

The notification node is the "outbound notification node" within the workflow. When an upstream node finishes executing, it automatically sends notifications to the specified recipients.

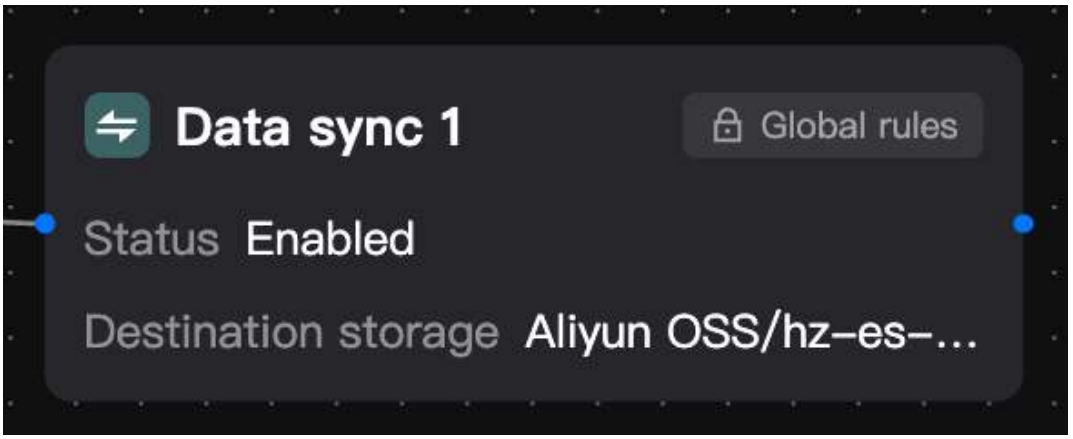
Notification nodes can be attached after any "flight task", "mapping task", or "analysis task" node, and multiple notification nodes can be added in the same workflow.

Notification Type	Description
Personnel Message Notification (In-App/SMS/Email)	Select one or more recipients from the organization members. For SMS/Email, the recipient must have a phone number/email bound in their organization profile; otherwise the message will be delivered only as an in-app notification.
Webhook Data Push	The platform sends an HTTP POST request to the configured target URL, pushing the upstream node's execution result to external systems (enterprise IM, operations platforms, third-party business systems). The target URL must be reachable from the public internet, and the platform will retry failed requests a limited number of times.



Data Sync

When the project has configured media file sync rules, the data sync node is connected by default after the "Flight Plan" node and "Mapping Task" node. It cannot be deleted or changed and relies on sync capabilities such as FlightHub Sync. When no sync rule is set, this node is automatically skipped during execution.


Data sync 1
Global rules
Status Enabled
Destination storage Aliyun OSS/hz-es-...

Triggered Workflow

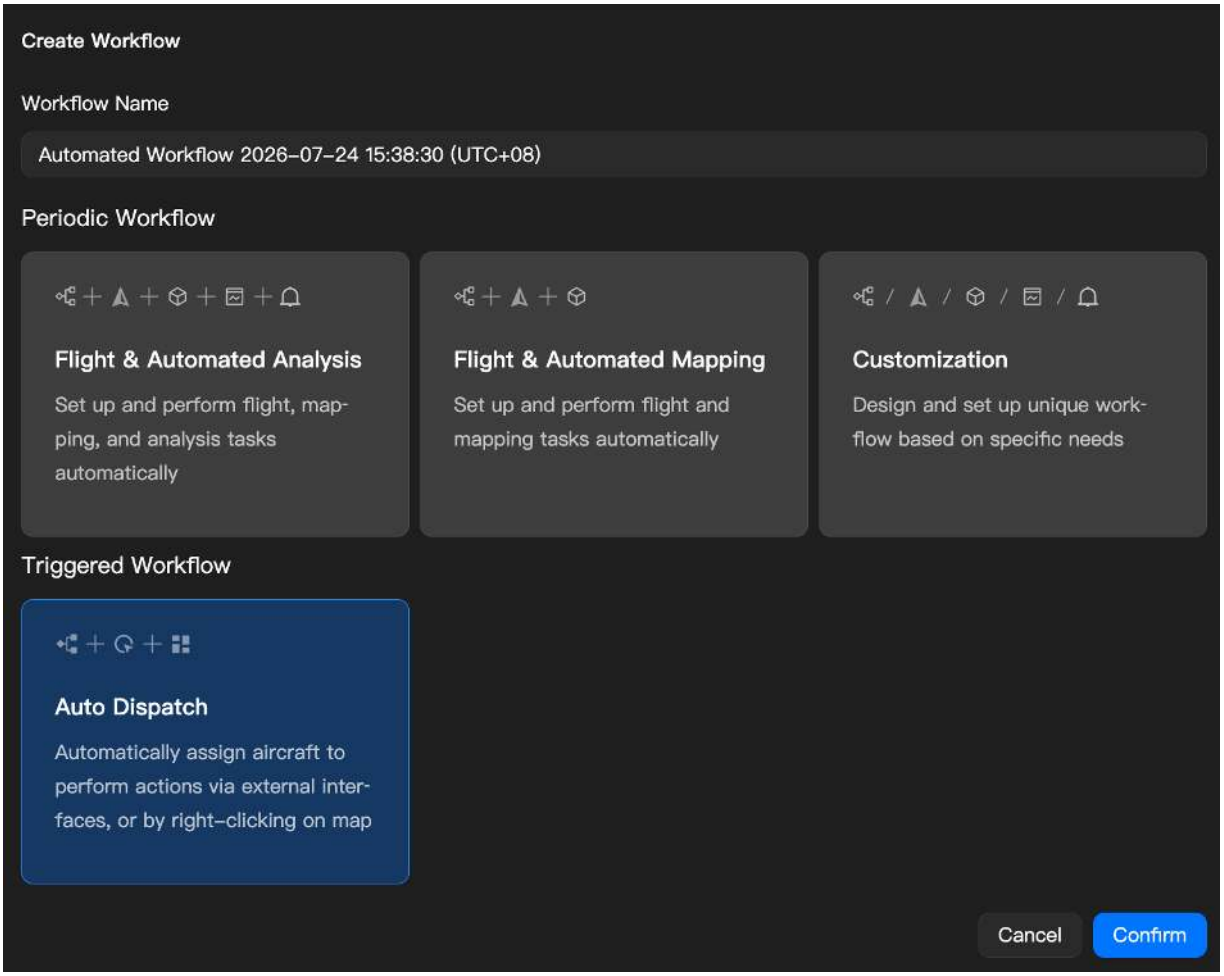
Feature Overview

Used to automatically or manually dispatch aircraft to a designated location to perform tasks after an alert is received. Suitable for incident and emergency response, routine inspection, and similar scenarios.

The current version only supports issuing tasks to devices that are in a dock and idle. Supported operating devices include DJI Dock 3 and DJI Dock 2.

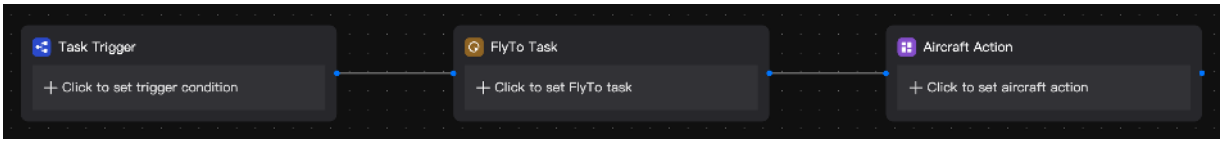
Entry & Permissions

- Entry: Click the "+ Create" button in the top-right corner of the task list in the "Automated Workflow" module to add an "Auto-Dispatch Workflow".
- Permissions: Only "Project Administrators" and "Super Administrators" can create this type of workflow.



Function Nodes

A triggered workflow contains three nodes: "Task Trigger → FlyTo Task → Aircraft Action", connected in series by default. **Note that the aircraft must remain connected to the dock throughout the entire task.**



Task Trigger Configuration

The task trigger is used to trigger the subsequent workflow. Click the "Task Trigger" card in the workflow to set the trigger conditions.

- Note: Select at least one of auto trigger or manual trigger.

Task Trigger

Perform flight tasks automatically or manually via task trigger. Keep API Key secure to prevent leaks

Data Input

Recipients

Notify recipients after task is automatically triggered

kira.wu ×

Expiration Time (Minutes) ⓘ

− 5 +

Auto Trigger

POST Address

{host}/openapi/v0.1/workflow

Auto-Trigger Level (1~5)

− 3 +

Low High

Manual Trigger

Trigger Delay (0s to 120s)

After alert is triggered, dispatch action will be automatically triggered after delay of several seconds. Changing settings is not recommended unless necessary

Flight Assignment

Device Assignment Mode

System Recommendation | Manual Selection

When automated FlyTo task is triggered, system will assign available device to fly to specified location. If no devices are available, select any device manually. Manual selection will interrupt any tasks selected device is currently performing

Auto Trigger

- **Auto Trigger Switch**: When enabled, you can configure the auto-trigger settings.
- **POST Address**: The POST address used to receive information pushed from external systems.
  - **Public cloud users**: The default addresses are — International Server: `https://es-flight-api-us.djigate.com`; European Server: `https://es-flight-api-eu.djigate.com`
  - **On-premise users**: Enter the custom domain: `https://{host}:30812/openapi/v0.1/workflow`
- **Auto Trigger Level**: Set a response threshold from 1 to 5 (default level 3). Below the threshold, only a reminder is sent without auto-dispatch; above the threshold, auto-dispatch is triggered.
- **Recipients & Expiration Time**:
  - **Recipients**: Only project administrators can be selected.
  - **Expiration Time**: 1–30 minutes. If no one responds before timeout, the task enters the [Unresponded] state and the execution of subsequent nodes is canceled.

Instructions for Third-Party System Integration

Provide the following information to your system developers so they can send requests to the FlightHub system to automatically trigger the workflow:

```json
// ========================= HTTP Request Headers =========================
//
// Content-Type: application/json
//
// [Authentication Key] Used to verify the validity of the request.
// Go to Organization Settings > FlightHub Sync to obtain and replace YOUR_SECRE
// X-User-Token: YOUR_SECRET_TOKEN
//
// [Project ID] The unique identifier of the project for the current configurati
// x-project-uuid: {value obtained from the interface}
//
// ========================== HTTP Request Body ===========================
{
  // [System Parameter] The unique workflow identifier. This is a system-generat
  "workflow_uuid": "{value obtained from the interface}",

  // [Fixed Value] The trigger type. Always enter 0. (Integer)
  "trigger_type": 0,

  // [Service Parameter] The name of the alert task. (String)
  "name": "High-voltage tower foreign object-20231113180000",

  // [Core Parameter] The object containing the core business parameters of the
```

```
  "params": {
    // [System Parameter] The task creator ID. This is a system-generated value.
    "creator": "1988423428261173248",

    // [Service Parameter] The alert latitude. Coordinate system standard is WGS
    "latitude": 22.793234156,

    // [Service Parameter] The alert longitude. Coordinate system standard is WG
    "longitude": 114.258620618,

    // [Core Business Parameter] The alert level, used to trigger auto-dispatch.
    // When level >= the "Auto Trigger Level" you set, the aircraft will be disp
    "level": 5,

    // [Service Parameter] A detailed text description of the alert. (String)
    "desc": "Unknown floating object was found on the A-phase insulator string c
  }
}
```

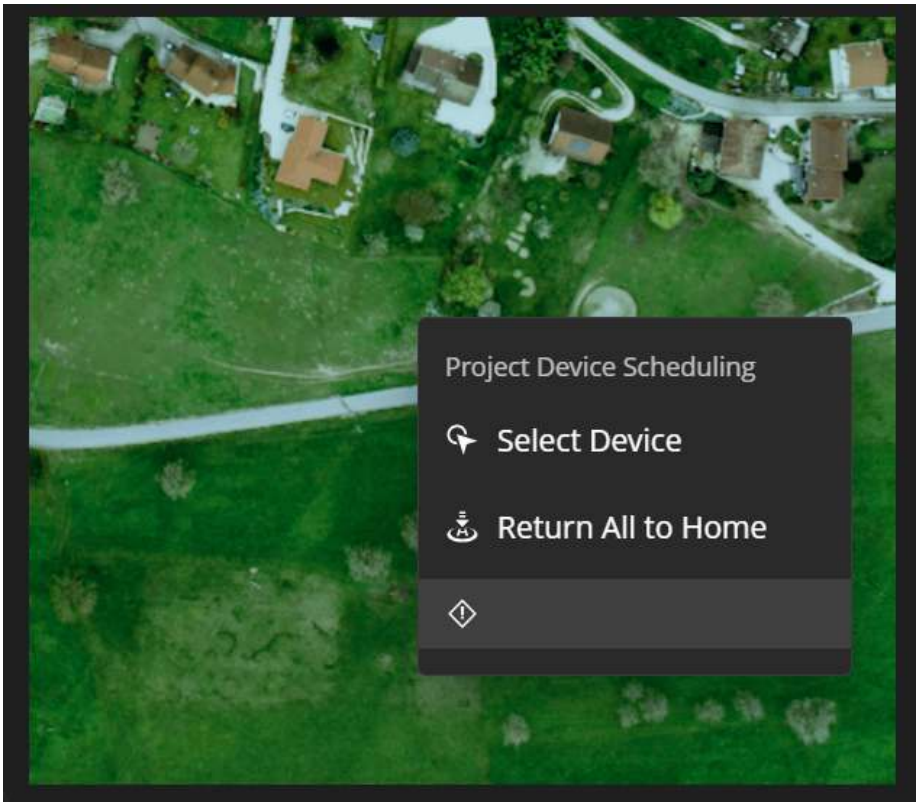
Response Description

- **Successful (`200 OK`)**: Indicates FlightHub has successfully received your alert information and started processing the subsequent flow based on the `level` value.
- **Failed (other status codes)**: Indicates there is an issue with the request. Common error codes include:
  - `400 Bad Request`: **Request format or parameter error**.
  - **General reason**: Usually indicates that the **request body (Body)** JSON format is incorrect, or required fields are missing, or field types do not match.
  - **Specific business error codes (returned in the response body)**:
    - `code: 245008`: **Workflow does not match project (Workflow is not in project)**.
      - **Reason**: The `workflow_uuid` in the request body does not match the project specified by the request header `x-project-uuid`.
      - **Suggestion**: Make sure the `workflow_uuid` and `x-project-uuid` you use are both obtained from the current configuration page, without mixing in configurations from other projects.
    - `401 Unauthorized` / `403 Forbidden`: **Authentication failed**.
      - **Reason**: Usually indicates that the `X-User-Token` in the **request header (Headers)** is incorrect, missing, or expired, or that `x-project-uuid` does not match.
      - **Suggestion**: Check your header configuration and confirm whether the `X-User-Token` is obtained correctly from Organization Settings > FlightHub Sync.
    - `500 Internal Server Error`: **Server internal error**.
      - **Reason**: The FlightHub system encountered an unexpected problem while processing your request.

- **Suggestion**: Please try again later. If the problem persists, contact technical support.

Manual Trigger

- Switch: When enabled, the trigger entry is shown in the map right-click menu (the name can be customized).
- Trigger Info: Click to open a dialog and fill in
  - Level (default 3)
  - Title
  - Alert Level
  - Description
- Trigger Delay: Set the delay before issuing the dispatch command after the alert is triggered. Selectable values: 0s / 10s / 30s / 60s / 120s (upper limit 120s, lower limit 0s), used to configure 0-second immediate dispatch or to reserve time for manual confirmation. **Do not change unless necessary. Once an alert is triggered, the auto-dispatch will be issued after a few seconds of delay.**

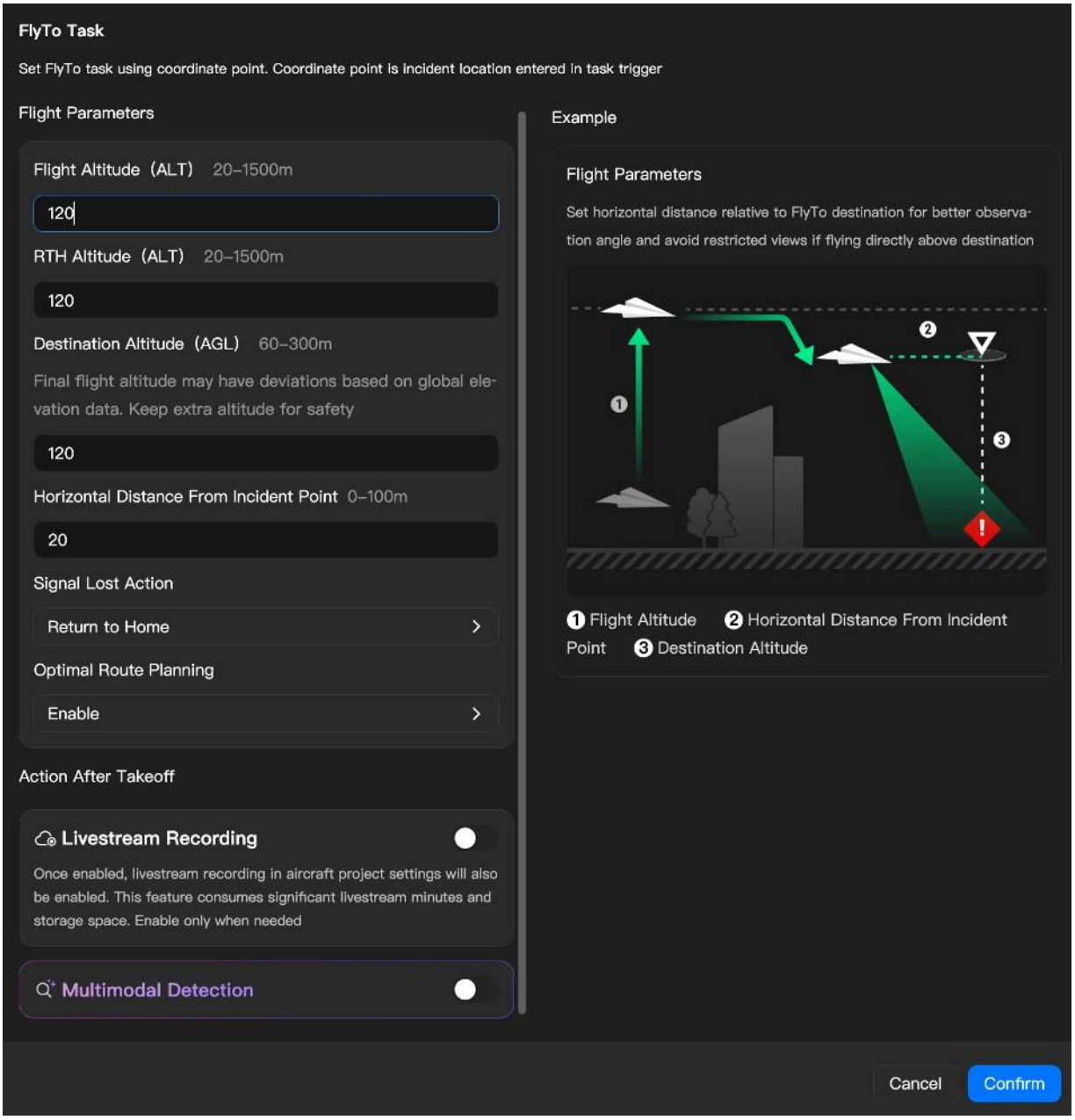


Device Assignment Mode

- **System Recommendation**: When auto FlyTo is triggered, the system automatically dispatches the currently idle device to fly to the designated location. If no idle device is available, you can manually assign any device; manual assignment interrupts the task the device is currently performing.
- **Manual Selection**: Assign a fixed device to perform all triggered tasks, or set it so that the operating device must be manually selected each time.

FlyTo Task Configuration

Used to set how the aircraft flies toward the destination. Click the "FlyTo" card in the workflow to set the FlyTo parameters.



Common Parameters

The FlyTo parameters are consistent with the cockpit settings:

Parameter	Description
Flight Altitude	The altitude at which the aircraft flies to the destination.
RTH Altitude	The altitude at which the aircraft returns to home.

Parameter	Description
Destination Altitude	The altitude of the aircraft's destination. By default, it will be directly above the alert point. Note: The destination altitude is the ALT altitude relative to the dock; set it appropriately to avoid the aircraft's final altitude being too high or too low.
Horizontal Distance From Alert Point	If you need to orbit the alert point, or retreat a certain distance for easier observation, you can set the horizontal distance from the alert point.
Signal Lost Action	The action taken when the aircraft loses connection during flight. RTH is recommended.
Optimal Route Planning	Whether to plan the optimal flight route in real time based on terrain and other information during flight. Enabling by default is recommended.

Live-Stream Recording

When live-stream recording is enabled, the corresponding live-stream recording function in the aircraft's project settings will be enabled simultaneously, ensuring data retention throughout the task. **This function consumes significant live-stream duration and storage space. Enable it as needed.** After the task ends, if live-stream recording was already enabled before the flight, the system will not turn it off automatically; if the live-stream recording was enabled by this incident-response task, the system will automatically disable live-stream recording for the corresponding project once the task ends.

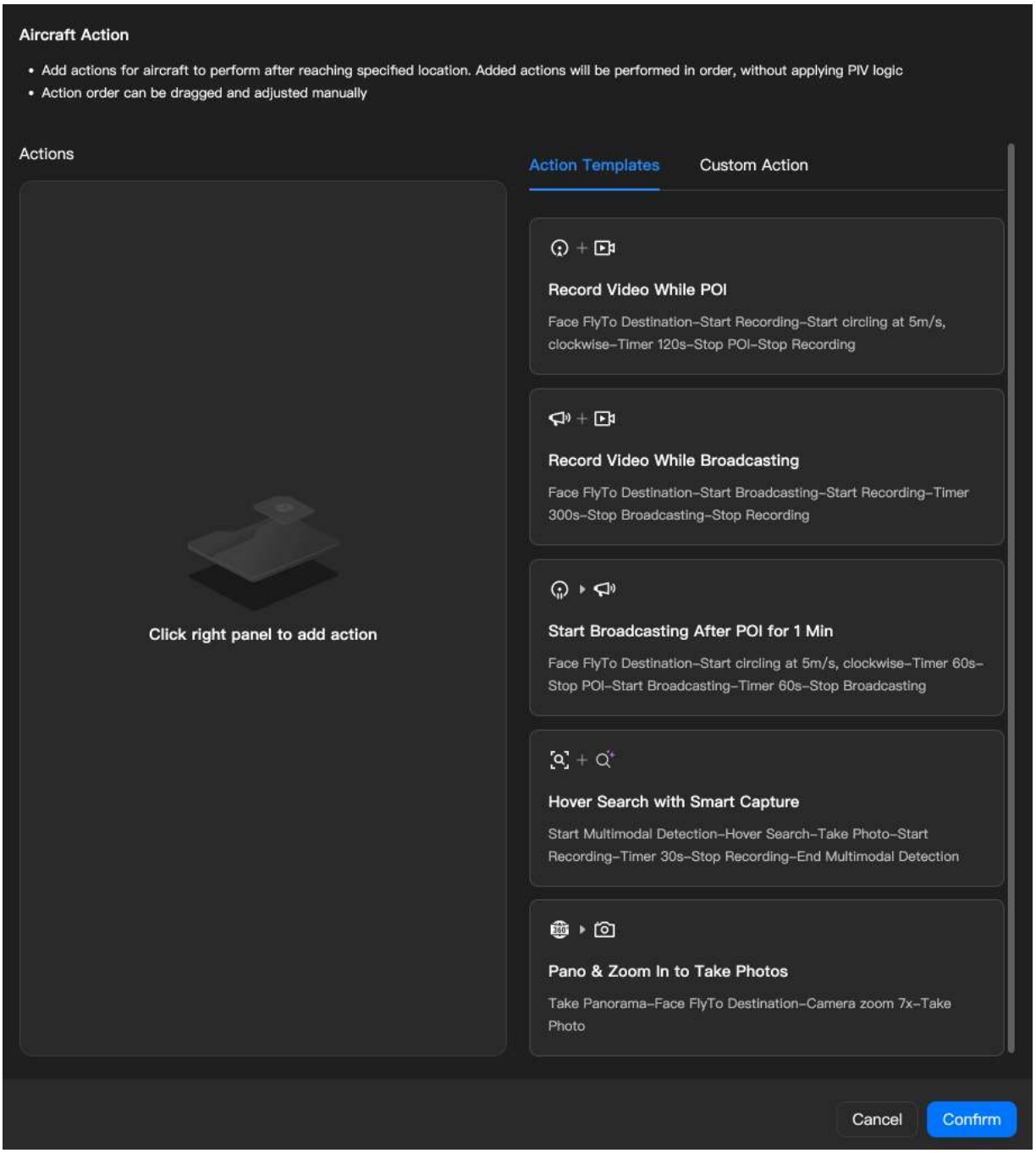
Multimodal Recognition

When enabled, the multimodal recognition function can be activated during the FlyTo stage. After turning on the switch, you can enter a specific multimodal recognition prompt; the interaction follows the existing multimodal recognition input field.

Aircraft Action Configuration

Actions performed automatically after arriving at the destination. Click the "Aircraft Action" card in the workflow to set aircraft actions. Actions can be dragged to reorder, and the aircraft returns to home after execution (no new actions are issued during return).

- Note: Issuing aircraft actions requires the drone to remain connected to the dock throughout. If the video transmission signal is lost, the drone will hover and wait.



Action Templates

Default Action Template (Example)	Description
Record while orbiting	Face destination → start recording → start orbit (clockwise, 5 m/s) → timer 300 s → stop orbit → stop recording
Record while broadcasting	Face destination → start broadcasting → start recording → timer 300 s → stop broadcasting → stop recording
Start broadcasting after orbiting for one minute	Face destination → start orbit (clockwise, 5 m/s) → timer 60 s → stop orbit → start broadcasting → timer 60 s → stop broadcasting
Search in place with simultaneous intelligent recognition	Start multimodal recognition → search in place → take photo → start recording → timer 30 s → stop recording → stop multimodal recognition

Default Action Template (Example)	Description
Take panorama and zoom-in photo	Take panorama → face destination → 7x zoom → take photo

Supported Actions and Parameters

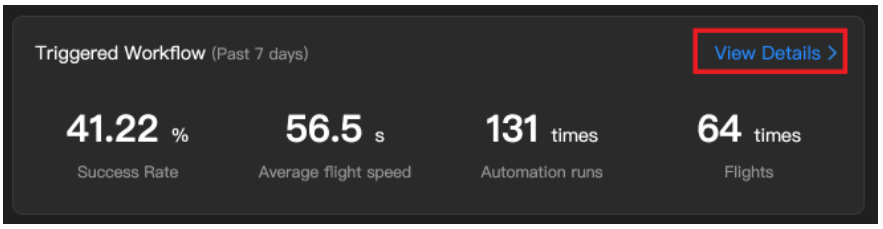
Supported Action	Parameter Description
Face Destination	No parameter
Gimbal Tilt Angle	-90° ~ 35°, default -90°
Zoom	1x ~ 112x, default 1x
Take Photo	No parameter
Start/Stop Recording	No parameter
Hover	Combined with the timer for duration control, 1 ~ 1800 s
Start/Stop Broadcasting	The specific broadcast file content can be set
Panorama	No parameter
Start/Stop Orbit	Direction, speed 0.1 ~ 14.0 m/s
Timer	1 ~ 1800 s. The device continues performing the previous action during the timer and does not proceed to the next action until the timer ends. For example, "start orbit → timer 120 s → stop orbit" means the aircraft will keep orbiting for 120 s before stopping.
Camera Switching	Switch between wide-angle / zoom / infrared lenses during the task flow. For aircraft that do not support infrared, the action to switch to the infrared lens will be skipped after being issued.
Multimodal Recognition	Perform a specific multimodal recognition task after arriving at the location
Search in Place	The aircraft spins in place three times while the gimbal swings at low, medium, and high angles respectively. It is recommended to use it together with the multimodal recognition action for coverage-style target search; after finding a target, the gimbal automatically aims at the first detected target.
RTH	No parameter

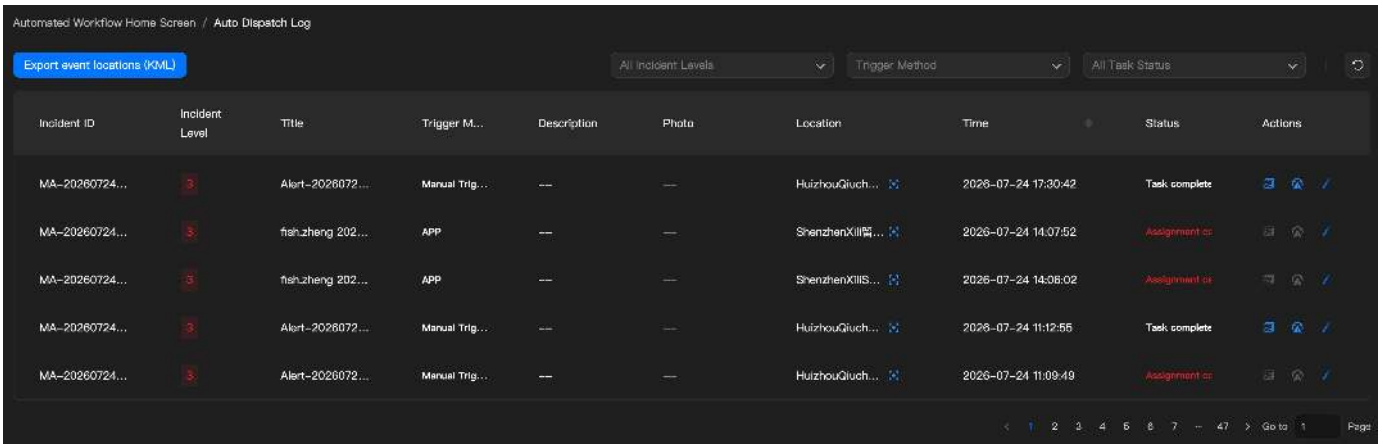
> Device compatibility note: When DJI Dock 2 is selected as the operating device, if unsupported actions (such as Start POI / Stop POI) are configured, a prompt "This action is only supported by DJI Dock 3. Issuing it to other models will cause abnormal action execution" will appear after adding the action; if the workflow contains actions not supported by DJI Dock 2, they will be skipped during execution.

Auto-Dispatch Log

After the first auto-dispatch task is triggered, you can enter by clicking "View Details" of "Triggered Workflow" in the data statistics section on the automated workflow home page.

The dispatch log supports filtering by "Alert Level", "Trigger Method", and "Task Status".





List Fields

- Incident ID
- Alert Level: filterable
- Title
- Trigger Method: filterable
- Description
- Image
- Location
- Time
- Status: filterable
  - Dispatch Successful: all three nodes completed, and the aircraft action at least partially performed
  - Dispatch Interrupted: trigger succeeded but the FlyTo failed

    - Dispatch Failed: trigger execution failed
    - False Alarm Indicator: an icon is displayed in the status column for events manually marked as false alarms; hovering shows "Manually confirmed as false alarm"
- Operation
    - Related Records: supports jumping to view the flight records and media files of this FlyTo task

One-Click KML Export

Supports exporting the alert points of all triggered events within the project as a KML file to the "Auto-Dispatch Locations" folder on the project annotation page.

Message Center

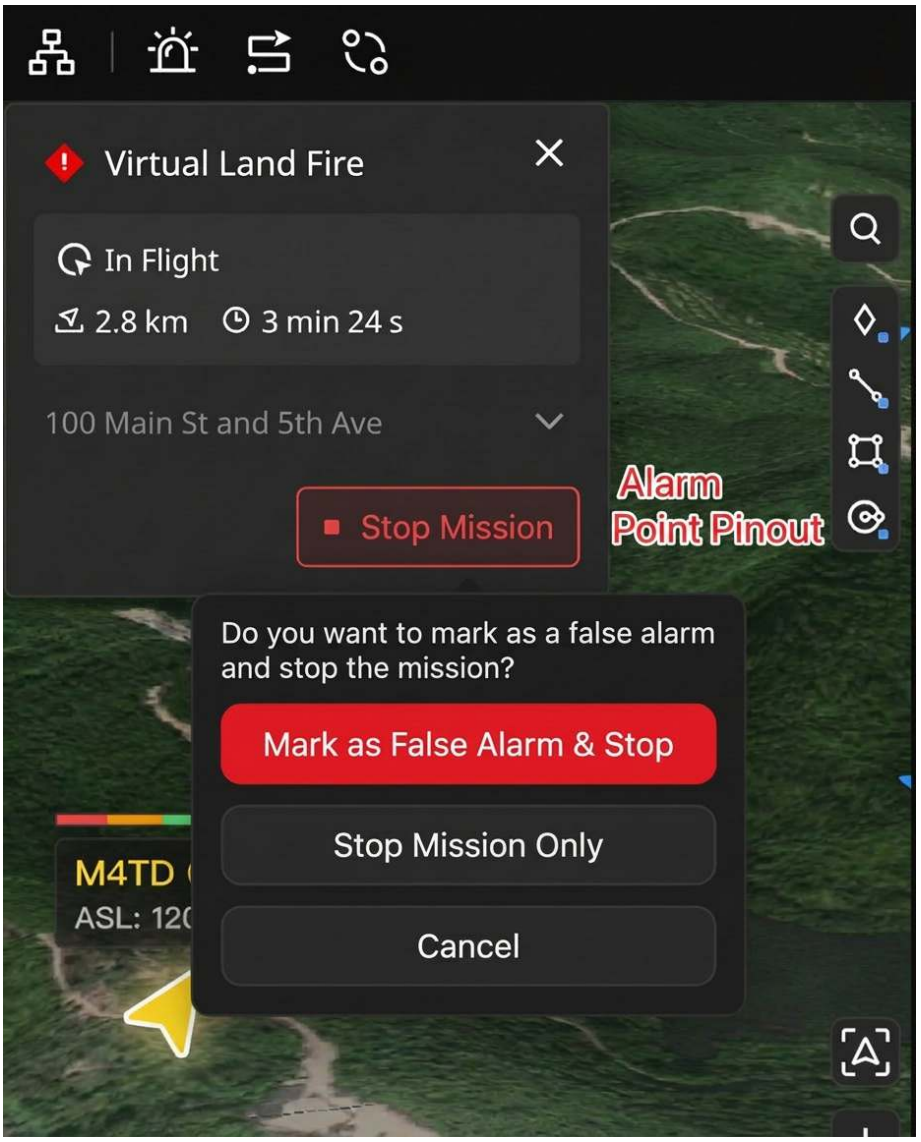
Global Prompt for Auto-Dispatch

When a user manually triggers, or automatically triggers via API, the auto-dispatch workflow:

- Display: alert title/description/level, coordinates (recenterable), estimated flight distance and duration, operating device (changeable)
- Available operations:
    - Cancel Dispatch: terminate the task
    - Immediate Dispatch: the aircraft is automatically dispatched after the countdown ends; clicking manually dispatches immediately and opens the cockpit to view

Cockpit Status Sync and Mission Stop

- Status Sync: If the user is already on the cockpit page of the corresponding alert aircraft, no redirection is needed when an incident is triggered—the incident task status is displayed synchronously in the current view. If the user is not in the corresponding aircraft's cockpit (whether in another aircraft's cockpit or a non-cockpit page), a new page will continue to be opened.
- Direct Trigger from Map: The cockpit map supports right-clicking to directly trigger the auto-dispatch workflow. If the currently selected aircraft is the one being used, no new tab is opened.
- Mission Stop and False Alarm Marking: In the cockpit mission panel, after clicking the red **"Stop Mission"** button, the system pops up a confirmation dialog asking "Mark as false alarm and stop the mission?", providing the following options:
    - Mark as False Alarm & Stop: interrupts the current mission and makes the aircraft hover, while marking the task as a "False Alarm" (viewable in the dispatch log). This action synchronizes information containing the false alarm flag via EventAPI.
    - Stop Mission Only: only interrupts the mission and makes the aircraft hover, without marking a false alarm. This action synchronizes only task status information via EventAPI.
    - Cancel: closes the dialog, and the task continues execution



EventAPI Message Subscription

During the execution of the auto-dispatch workflow, you can subscribe to event messages via EventAPI to achieve status synchronization with third-party systems. The returned fields include:

- Alert ID
- Workflow UUID
- Operating Device SN
- Camera SN and Index
- Overall execution progress enumeration
- Media file path (returned only after the overall workflow status reaches a terminal state; recommended to use together with FlightHub Sync)
- False Alarm Flag (returned when the user clicks the "Stop Mission" button in the cockpit mission panel and confirms marking as a false alarm)

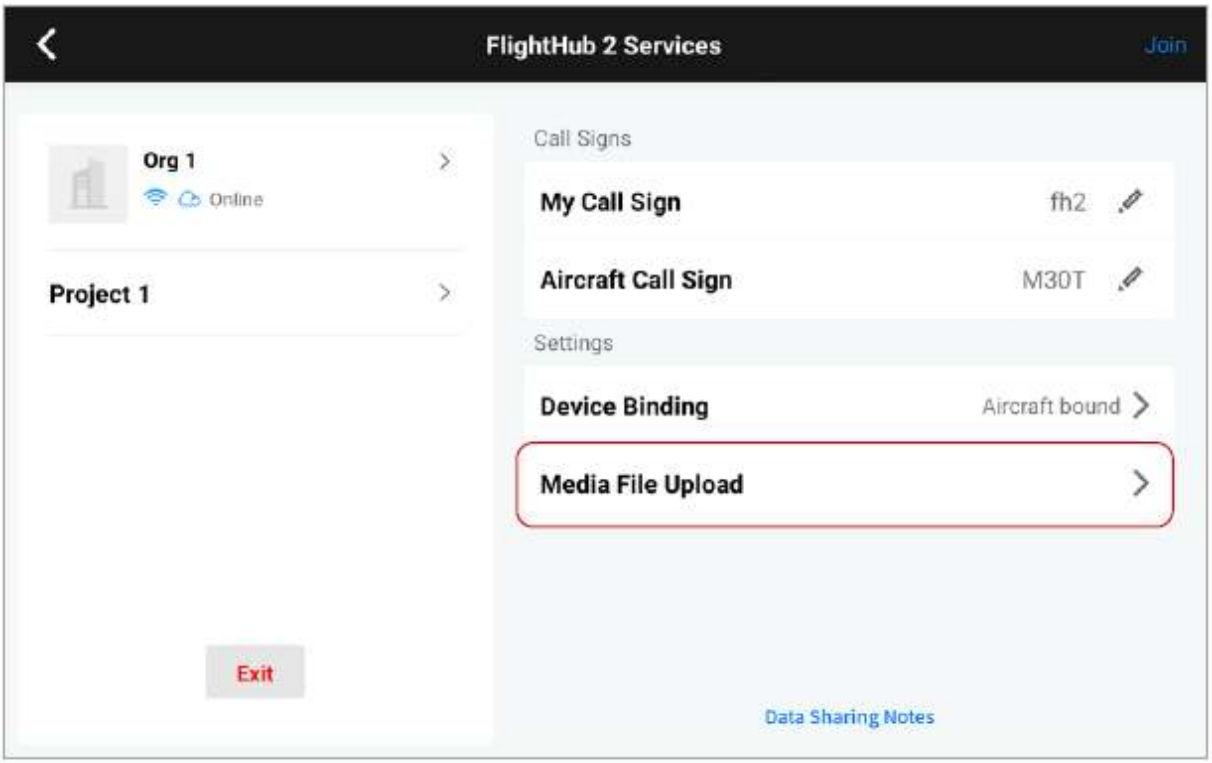
For more event types, field definitions, status enumerations, and full integration instructions, please refer to EventAPI for details.

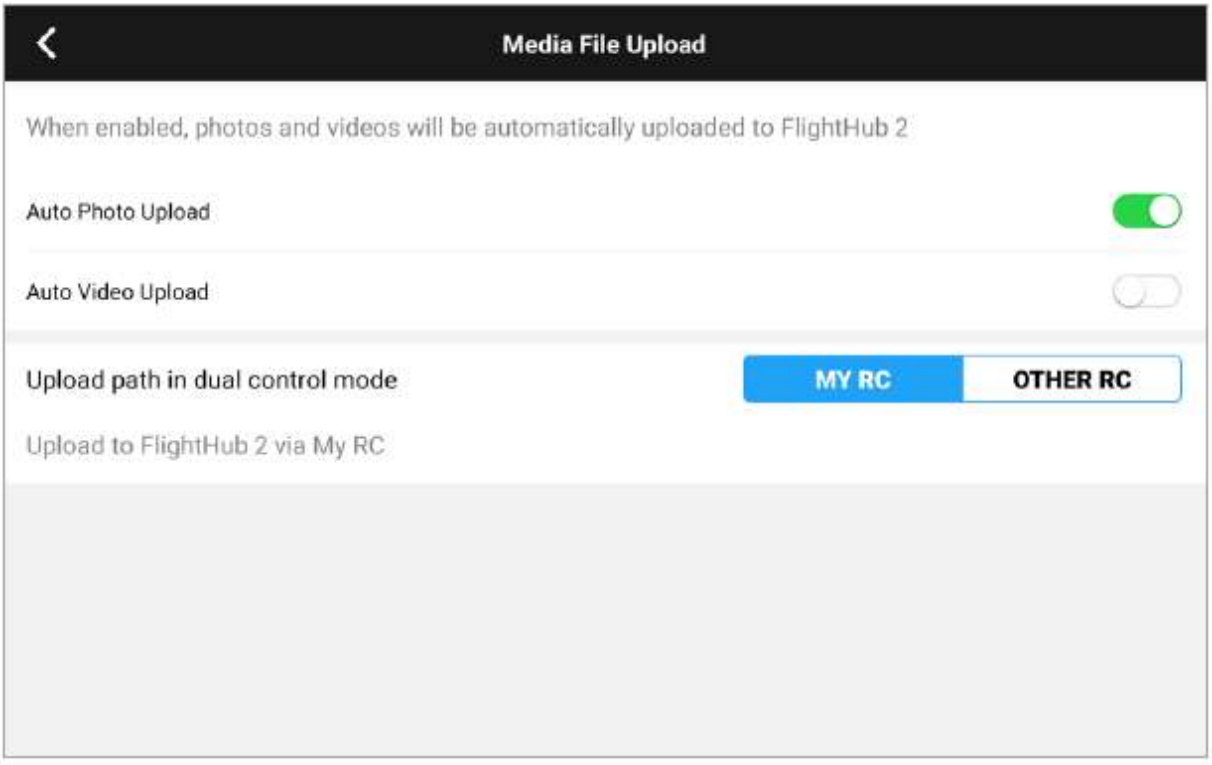
Media File Library

Project members can click to enter the Media Files page to manage all media files uploaded from DJI Dock or DJI Pilot 2 or files that are imported locally.

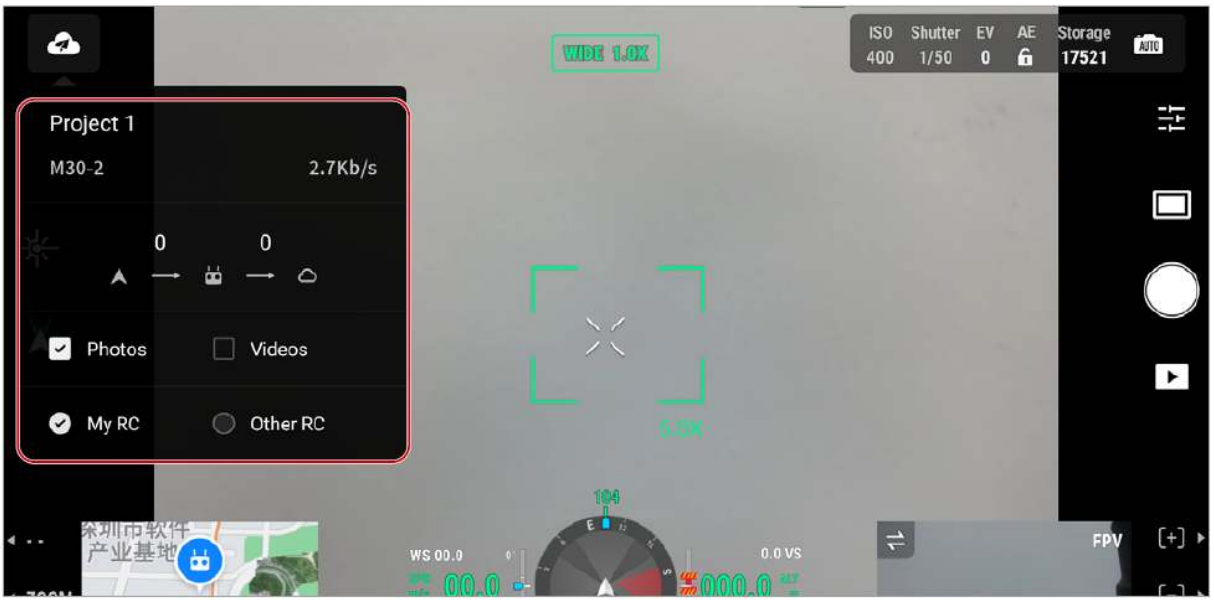
Upload Media Files

The automatic upload of media files in DJI Pilot 2 is disabled by default. To enable the function, DJI Pilot 2 users can tap Media File Upload in DJI FlightHub 2 Services and choose to upload photos and videos to DJI FlightHub 2 automatically. In the dual control mode, media files will be uploaded to DJI FlightHub 2 via the first remote controller that is linked to the aircraft. Users can also change the settings and upload media files from another controller.



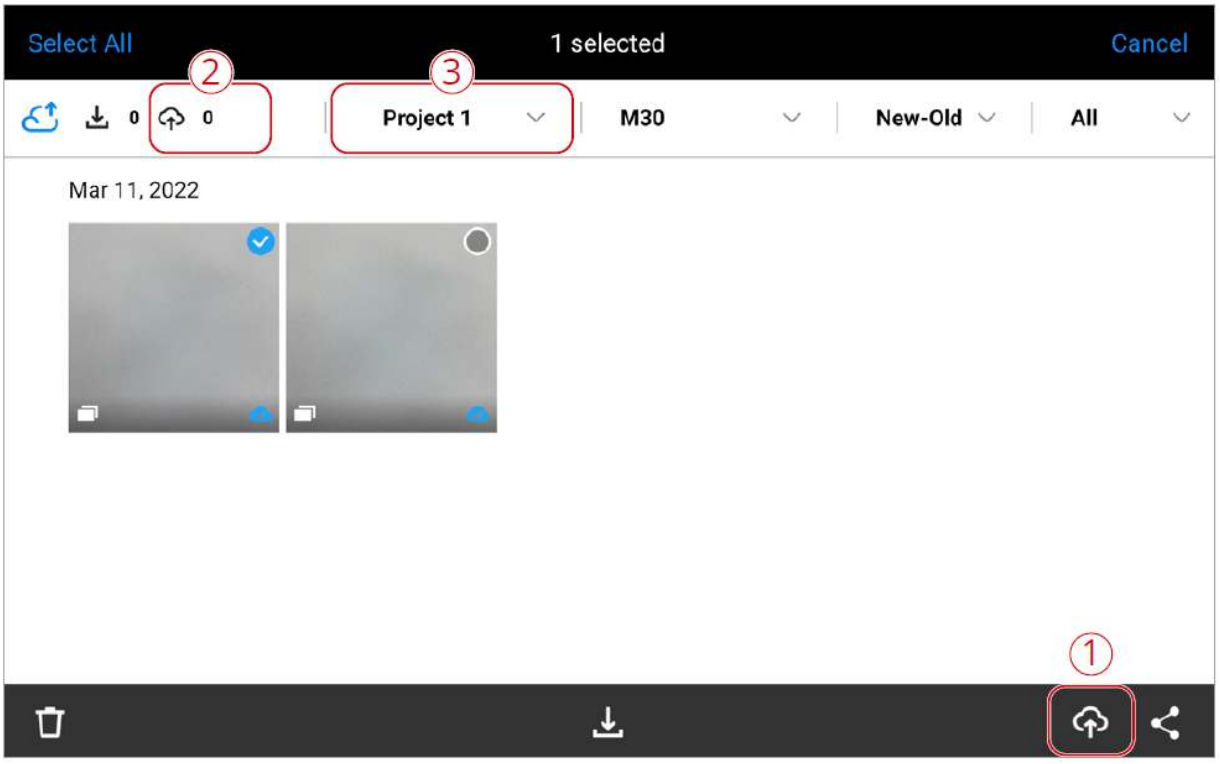


DJI Pilot 2 users can also enter the camera view and upload media files on the left panel.



To manually upload media files, DJI Pilot 2 users can enter Album and select files that need to be uploaded.

1. Select project files, tap in the lower right corner of the screen, and upload files to DJI FlightHub 2.
2. The number of files waiting to be uploaded is displayed in the upper left corner.
3. To upload media files from other projects, tap the project name, select files, and tap in the lower right corner to upload files to the corresponding project media file library.



Import Media Files

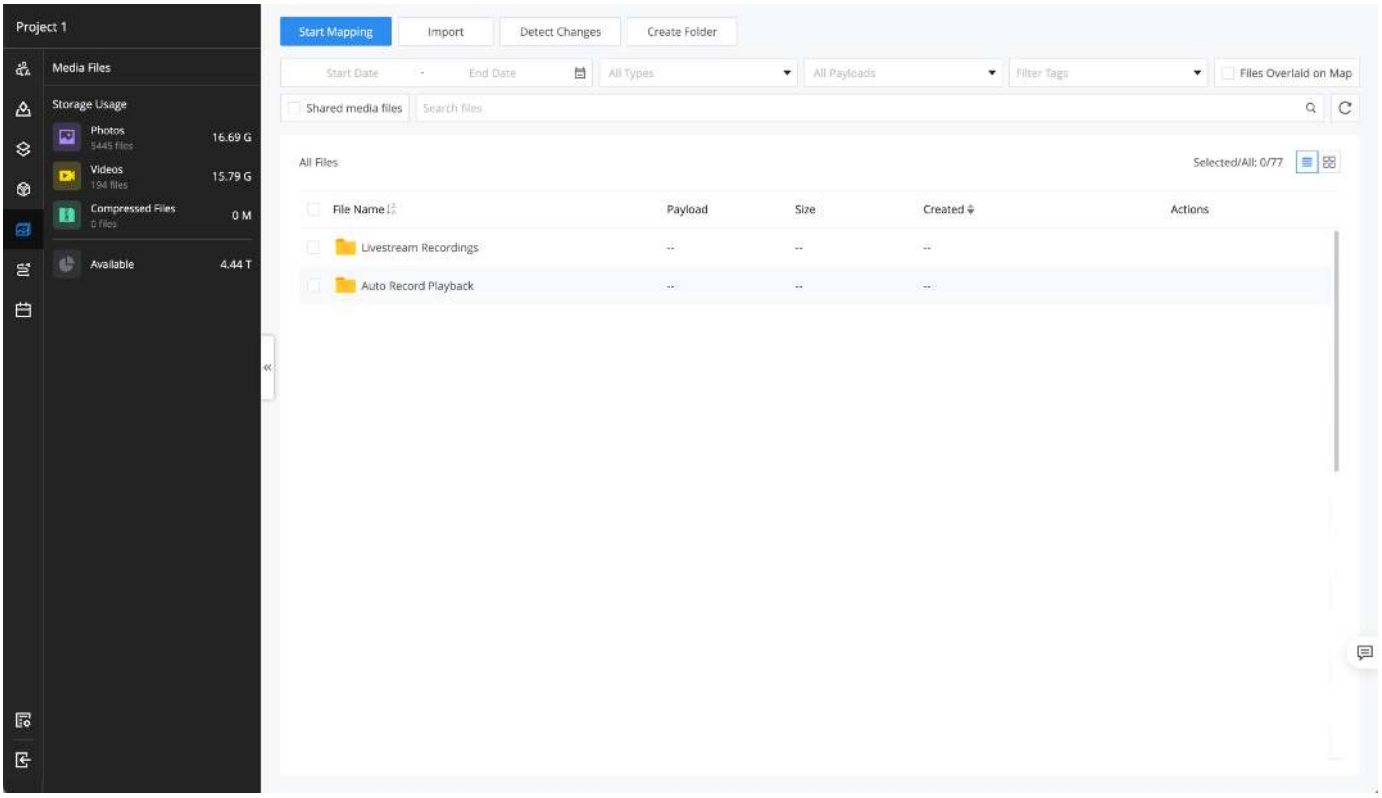
DJI FlightHub 2 supports importing files or folders with files collected by DJI devices. Compressed files are currently not supported. Supported media file types and formats are as follows:

Media Type	Format
Wide-angle/zoom/infrared photo	JPG/JPEG/PNG
Panorama	JPG/JPEG/PNG
Liveview screenshot	JPG/JPEG/PNG
Video	MP4
PPK file	MRK/NAV/OBS/RTK/BIN

Procedures:

1. Click Import to enter the Import Media Files page.
2. Click Import File or Import Folder to select a single file or folder and click Upload.
3. After files are uploaded, the files will be stored at the target path and maintain the original file structure.

Manage Media Files

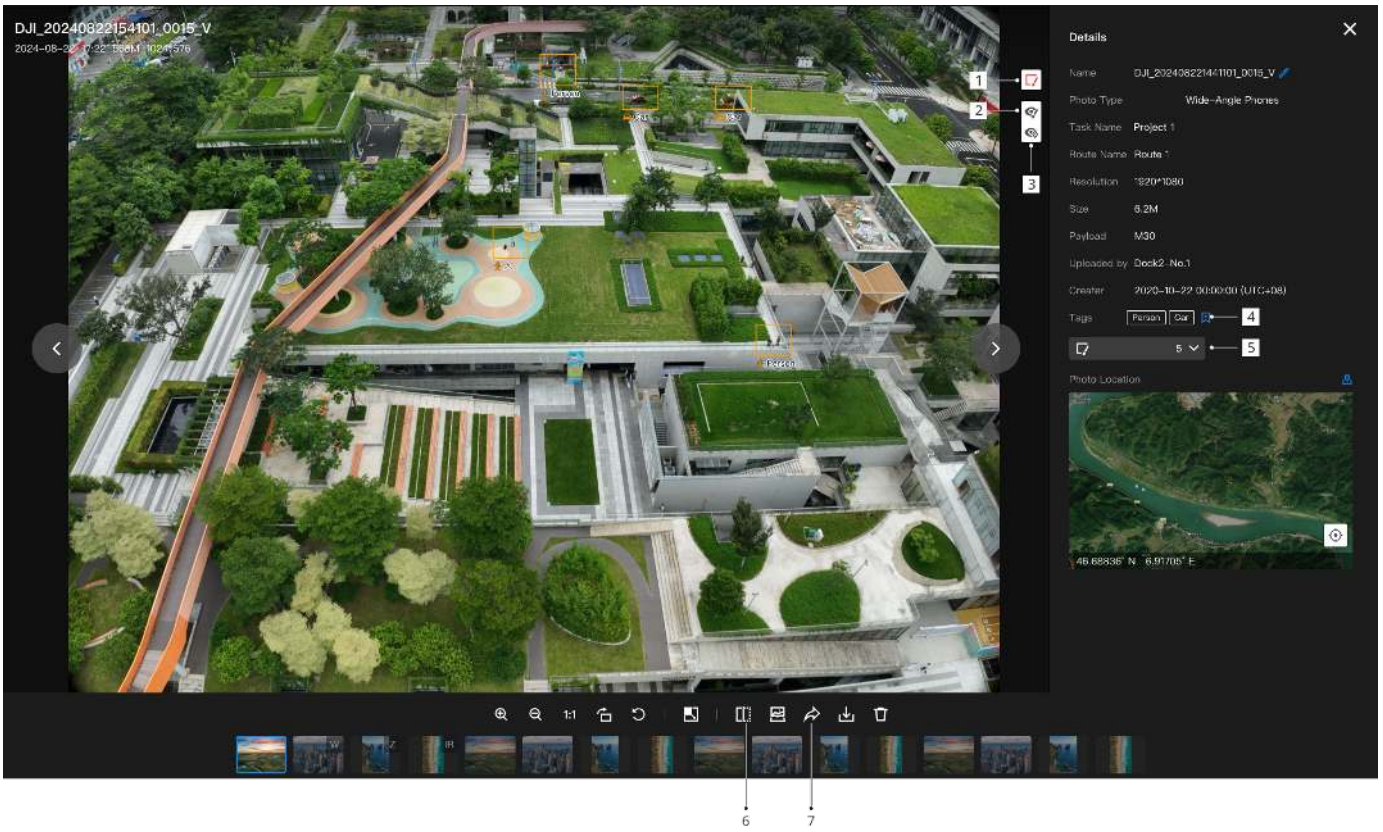


1. Project members can view, edit, transfer, delete, and download media files.
2. Click Start Mapping to select media files and start mapping tasks. See Mapping for more details.
3. Click Detect Changes to use AI to detect and mark the change regions between two phases of media files. See Media File Change Detection for more details.
4. Click to customize the sharing settings and share a single media file or the entire media file folder.

5. Members can enter a tag to filter media files with the same tag and select "Files Overlaid on Map" to view all the photos that are overlaid on the map.
6. Click "Overlay on Map" to overlay photos with location information onto the map. Panoramas are overlaid on the map by default. Go to Map Photos to manage media files that are overlaid on the map.
7. When performing Waypoint and Area routes with DJI Matrice 3D, transferring PPK files with file types such as MRK, NAV, OBS, and RTK (BIN) is supported. Downloading and accessing PPK files through FlightHub Sync or Cloud API are also available.
8. Embedding SRT files in videos captured by DJI Dock 2 is supported. Downloading and accessing videos with SRT files through FlightHub Sync or Cloud API are also available.
9. DJI Dock 2 supports transferring the base station PPK files to FlightHub 2, and the files will be stored in the corresponding flight route folder in Media Files.

Preview Media Files

Users can click a photo to preview. PinPoints that are added within five kilometers of where the photo is taken will also be displayed. When previewing panoramas, photos and panoramas that are captured within five kilometers of where the panoramas are taken will also be displayed. Click the photo or panorama thumbnail to view details.



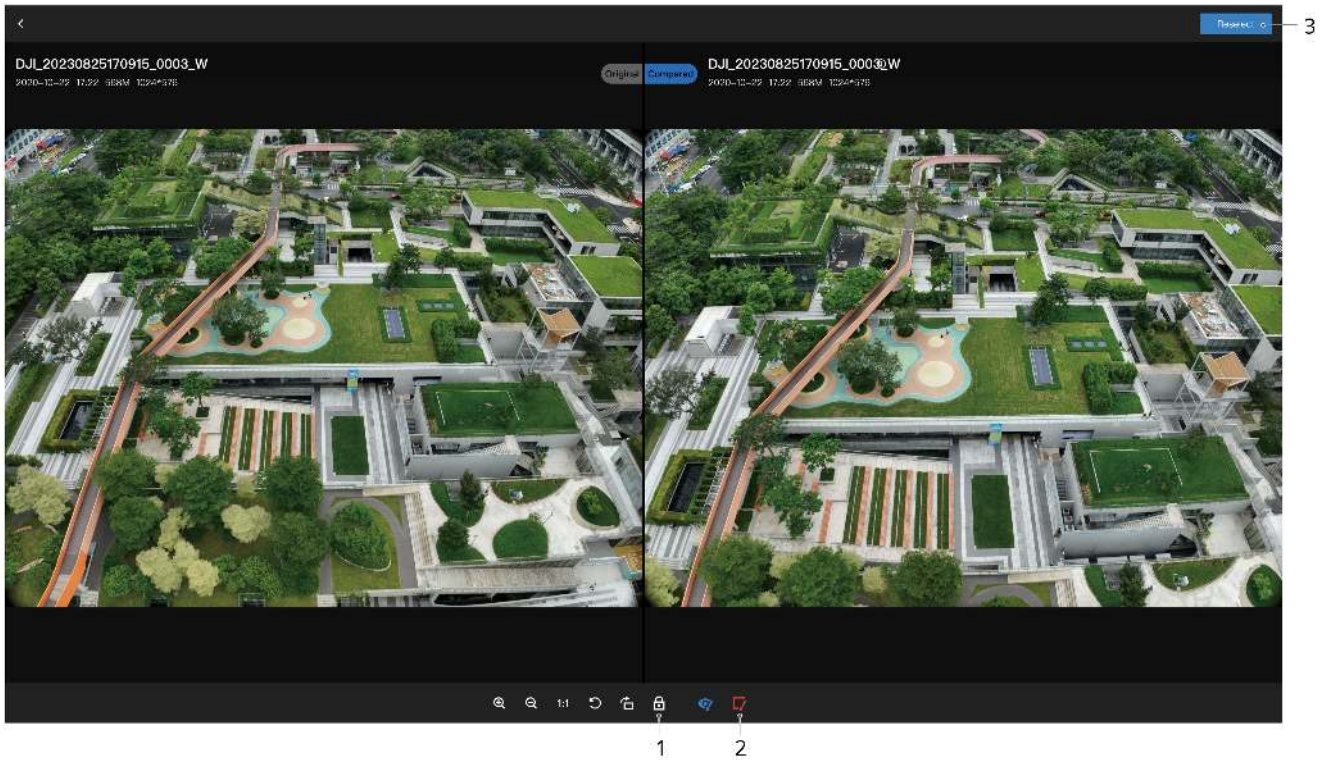
1. Click to markup photos. Users can add frames and notes on the photos. The notes will automatically become the tags for the photos and can be used for filtering the photos. Users can also filter photos with unnamed markups.

AI recognition results will be displayed as photo markups. Markup boxes indicate subject locations, and text descriptions indicate recognized content.
- Text descriptions are automatically generated as photo tags and can be used for filtering media files.
- Editing markups is supported.

2. Click to hide the markup.
3. Click to hide annotations.

- Panorama markup is currently not supported.
- Users can choose to download the photo with the photo markup.

4. Click to add tags for photos or videos.
5. Click to display a count of each type of markups.
6. All markups support one-click conversion to defects. You can import them into an existing Analyzer or create a new Analyzer to convert them to defects.
7. Click to compare photos captured by the same Take Photo (Fixed Angle) action at the same waypoint. Comparing wide-angle, zoom, and infrared photos is currently supported.
   When comparing photos, the original photo will be displayed on the left, and on the right is the recommended photo for comparison. The recommended photo is the last captured photo in the same format.



1. Click to cancel the synchronization of operations on the photos.
2. Click to add markup on one of the photos.
3. Click Reselect to change the photo to be compared.

8. Click  to customize the sharing settings and share the current media file.

SuperPhoto Pano

SuperPhoto Pano

SuperPhoto Pano is a high-resolution panorama image technology based on cloud processing. It uses the aircraft's telephoto lens (3x) to capture groups of high-resolution local photos, which are then stitched together on the cloud to generate a high-definition sphere panorama with a 500 million resolution. Compared to standard wide-angle panorama, SuperPhoto Pano significantly improves detail clarity, suitable for detailed inspection tasks in AEC (architecture, engineer, construction) and dock operations. This feature is in public beta testing for a limited time.

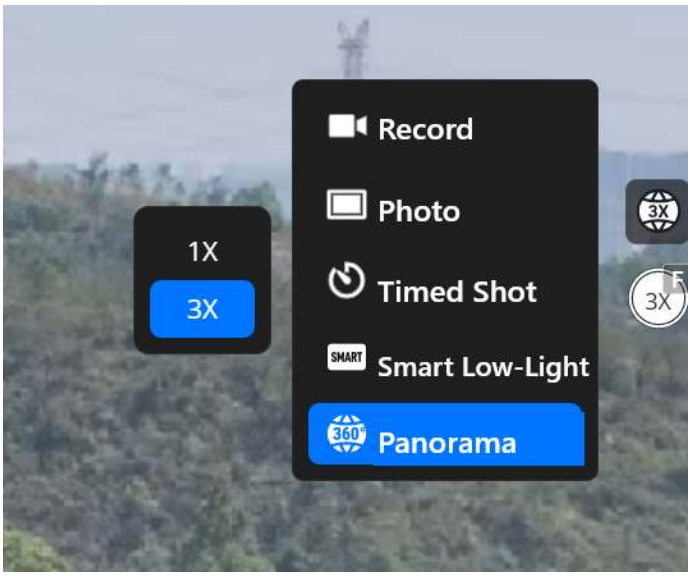
> Note: This feature is supported on DJI Dock 3 and DJI Matrice 4 Enterprise Series.

Task Modes

1. Real-time virtual cockpit capture

After obtaining flight control via the remote controller or DJI FlightHub 2 virtual cockpit, manually trigger SuperPhoto Pano shooting.

1. Enter camera view: In the cloud operating interface, ensure that flight control has been obtained.
2. Select shooting mode: In camera settings, select Pano mode.
3. Switch Pano type: In the Pano submenu, select SuperPhoto Pano (3X).
4. Take photo: Tap on the photo button. The aircraft will automatically rotate the gimbal and use the telephoto lens to capture a set of local photos.



2. Flight task distribution

You can preset SuperPhoto Pano actions in flight route editor:

1. Create or edit flight route: Enter the flight route library, and create or edit a flight task.
2. Add action: In waypoint action settings, add “Pano” action, and select “3X”.
3. Distribute task: After saving the flight route, distribute the task through task plan library to dock or aircraft for processing. After editing, cloud users can distribute tasks through task plan library to enable fully automated data collection.



Cloud Processing and Viewing

Automatic Stitching and Manual Stitching

- After shooting is complete, original photos are automatically uploaded to the cloud media file library. The cloud detects a high-resolution panorama task and then automatically stitches the photos.
- Alternatively, you can manually start high-resolution panorama stitching by selecting folders in the media file library.

View and Share

- The final high-resolution panorama can be viewed and shared in media file library
- You can import an analyzer to view media file timeline.

Notes on On-premises Version

For the Private Version, considering memory limitations, the resolution is compressed from 500 million pixels to 390 million pixels.

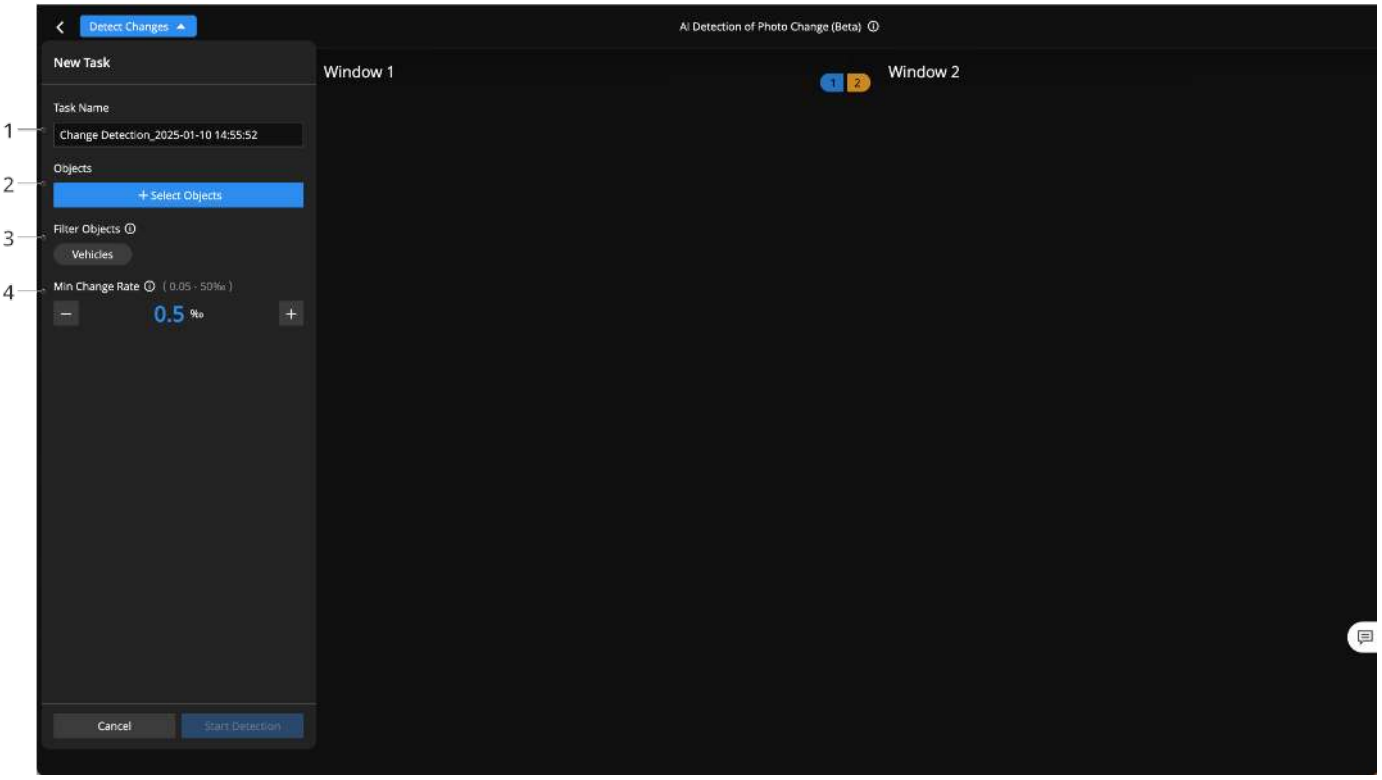
Media File Change Detection

Media File Change Detection

AI can detect and mark the regions of change between two phases of photos. Now available for free during our limited-time public beta.

- Supports comparing two phases of photos from media folders generated by the same waypoint route task.
- Supports overhead wide-angle and zoom photos with the same resolution.
- Local uploads or media files transferred from DJI Pilot 2 are not supported.

New Task

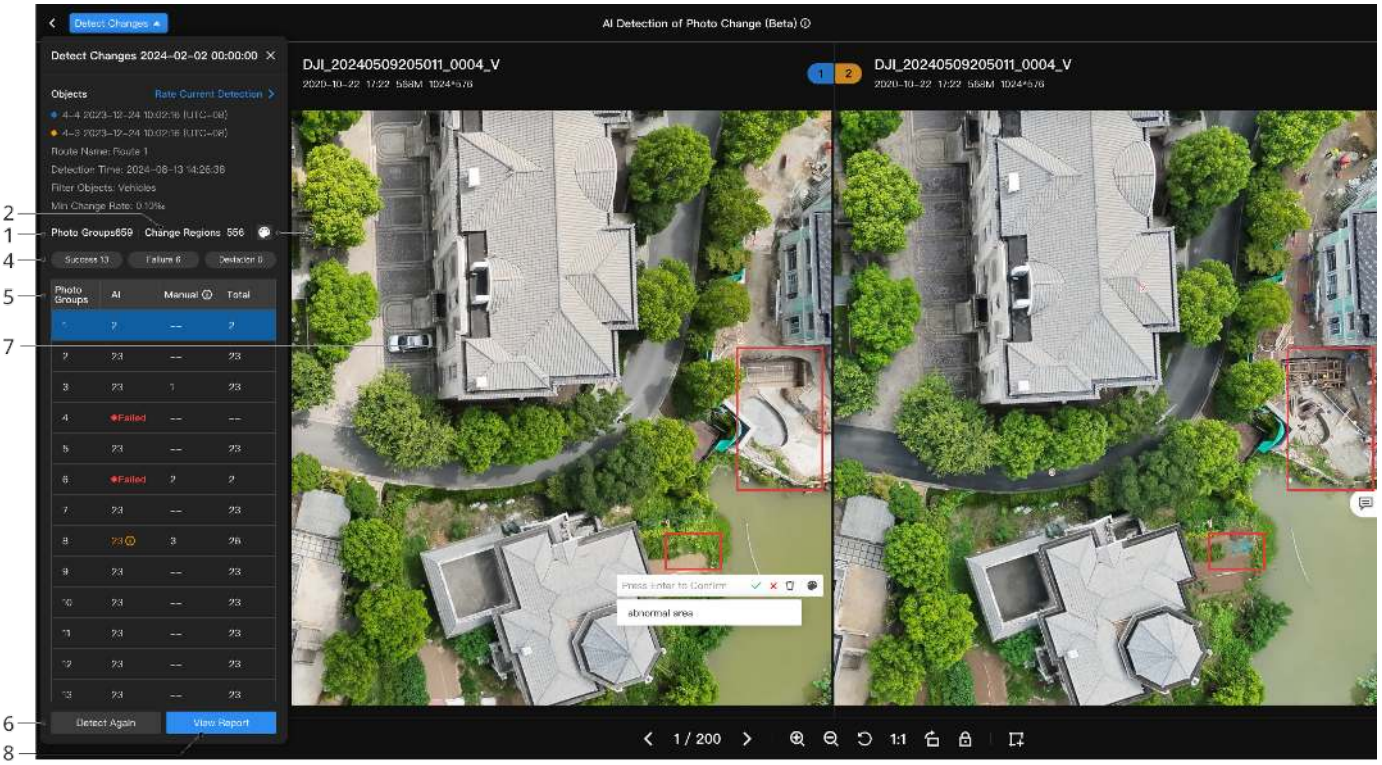


1. Task Name: Enter the detection task name.
2. Objects: Click to select objects. Choose a waypoint route first and then the media files generated by the waypoint route. After selection, photos of the same type taken in the same Take Photo (Fixed Angle) action will be automatically matched.
3. Filter Objects: If Vehicles is selected, vehicles will not be recognized as changes.
4. Min Change Region: A region will not be considered a change if the ratio of change-region pixels to total photo pixels falls below the specified threshold.

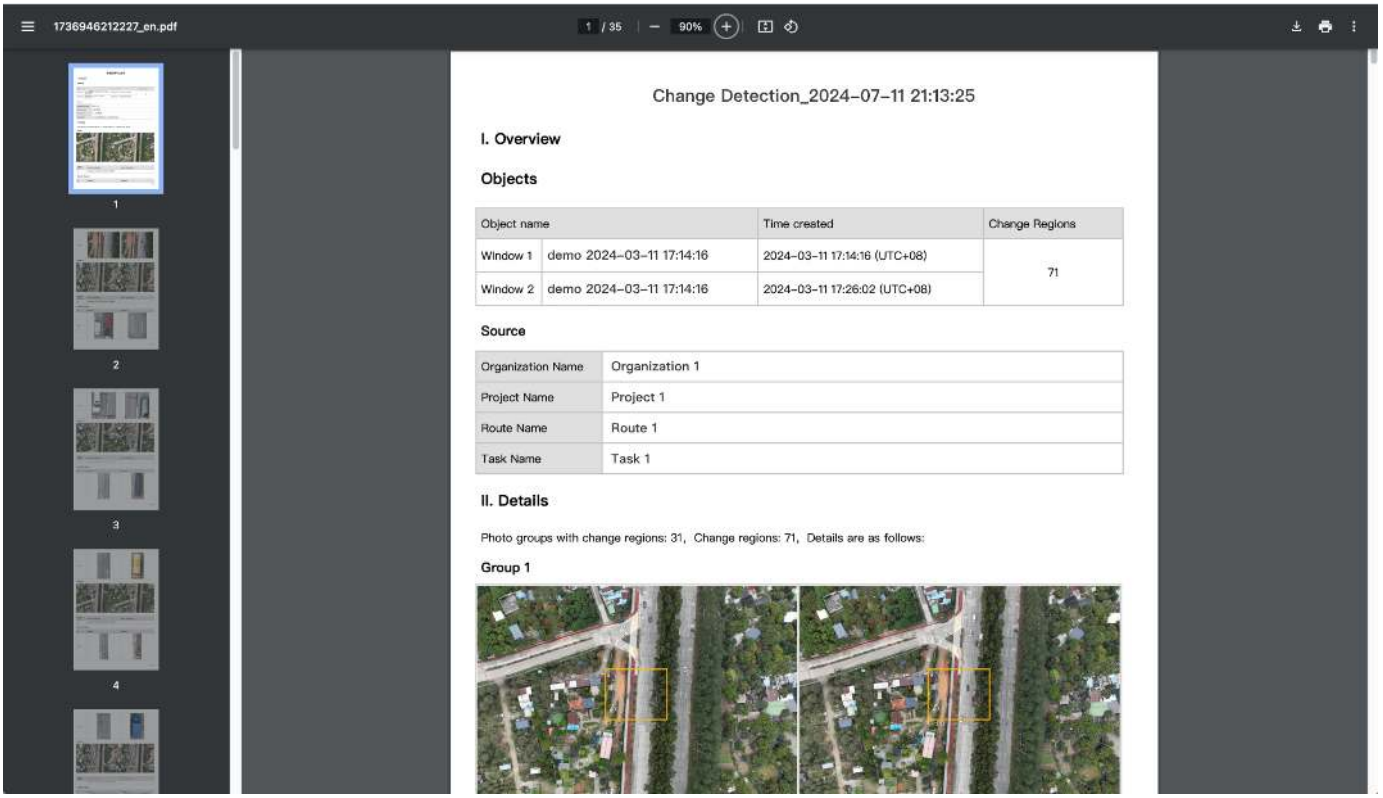
Click Start Detection and wait for the detection to complete.

Viewing and Editing Results

After detection is complete, you can view the change regions marked by AI.

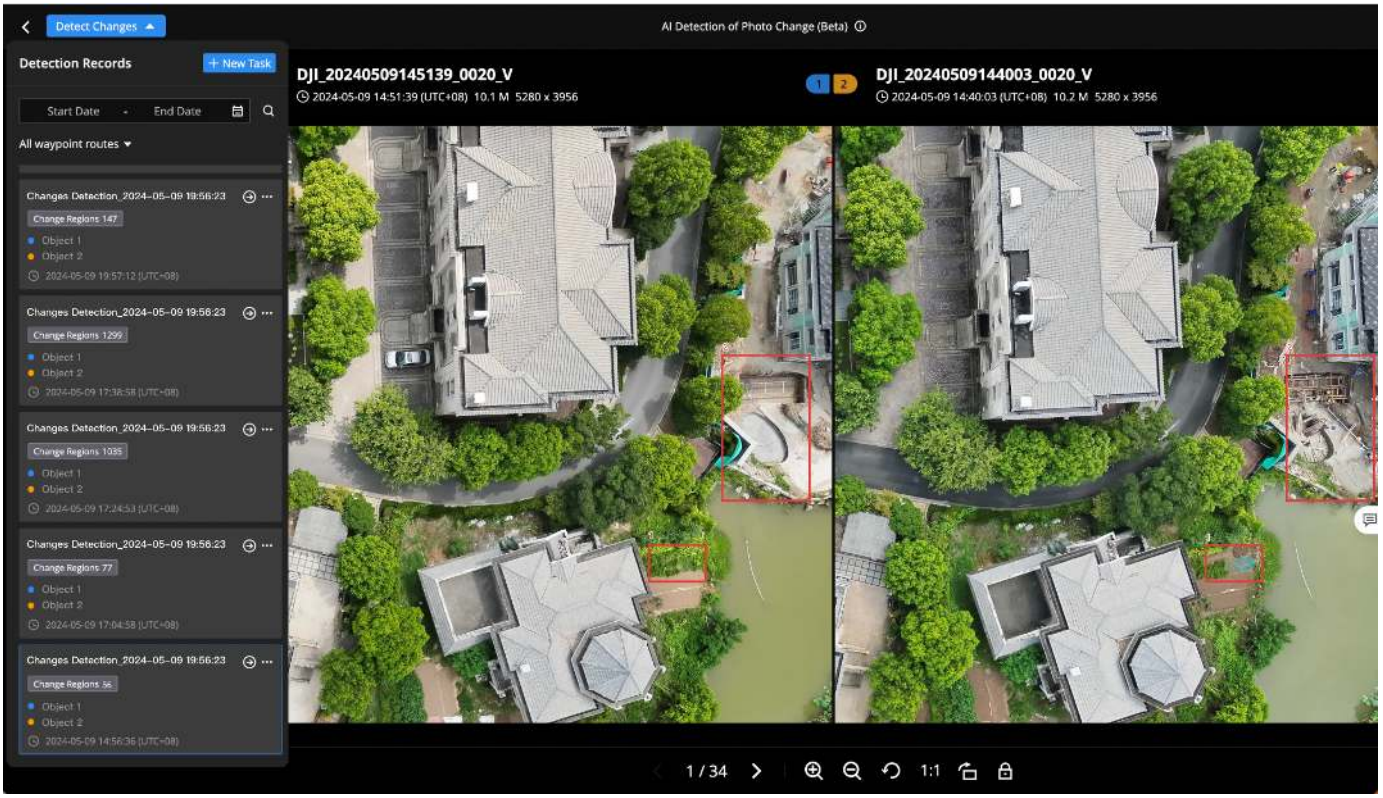


1. Photo Groups: Number of photo groups involved in detection.
2. Change Regions: Total number of change regions.
3. Modify the color of all change regions.
4. Filter photo groups with successful detection, failed detection, or detection results with deviation. Detection results with deviation occur when the shooting angles of a group of photos vary significantly. In this case, manual review is recommended.
5. Change Region List for Photo Groups: Displays the number of change regions detected by AI, manually modified or added change regions, and the total number of change regions.
6. Detect Again: Detecting again will overwrite the current detection results.
7. Result Editing: Supports editing of AI-detected change regions, including adding and deleting change regions, or modifying borders, colors, or texts. Modifying a change region in one window will also modify the corresponding change region in the other window.
8. View Report: Click to view the report. A report will be generated, including detected object information, change region statistics, and photos and coordinates for each change. Exporting reports in PDF or DOC format is supported.



Detection Record Management

You can create, view, and manage all detection records.



Notes on On-premises Version

The media library supports intelligent detection of two sets of media folders generated by the same waypoint flight route task, and marks the changed areas.

Import Models

Project members can click to enter the Model library to import and manage 2D and 3D models.

Supported model types and formats are as follows.

Model Type	Model Format
2D model	PNG, TIFF, and PNG+TIFF
Point cloud model	PNTS and LAS
Mesh model	B3DM

For model files in the TIFF or LAS format, users can upload files directly. For model files in other formats, follow the provided example on the web to prepare the model file and compress the model into a ZIP file before uploading.

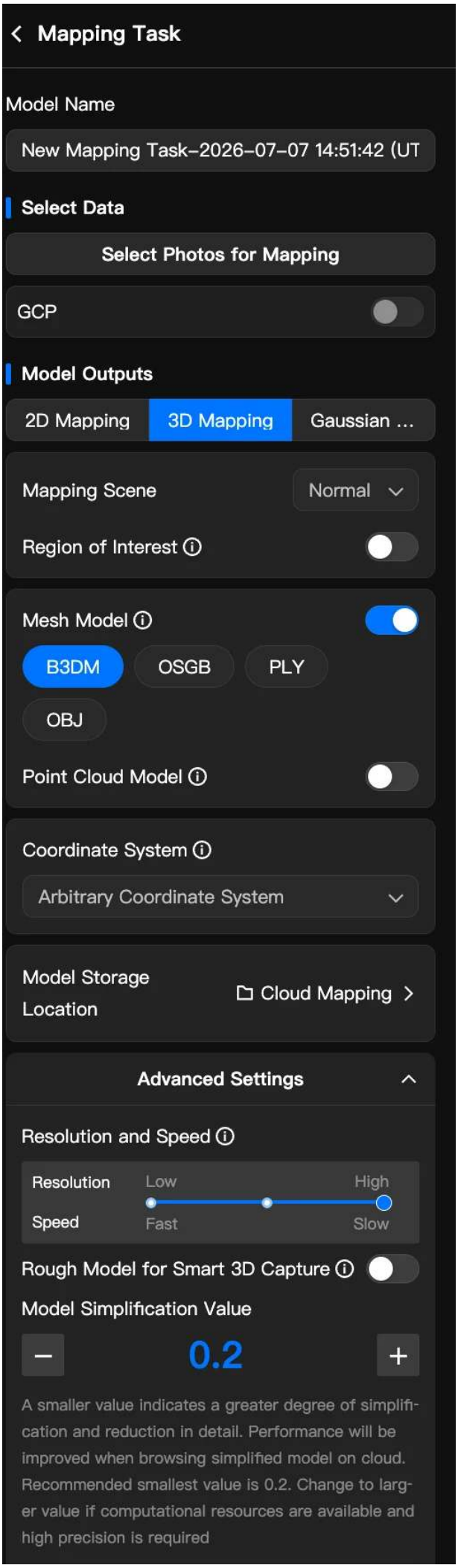
1. Click Import to enter the Import Model page.
2. Click Import Model to import one or multiple models at the same time. Users can choose Display Model on Map Once Imported, and the imported models will automatically be displayed on the map.

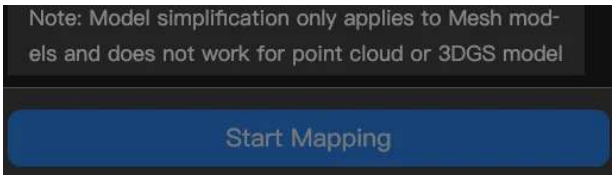
- The ZIP file will automatically be decompressed after it is imported.
- The imported LAS model will automatically be converted to the PNTS format.
- If the coordinate system information is missing in the imported LAS model, users can click Set GCS/PCS and enter the coordinate system name or its EPSG code to search for the coordinate system.

Mapping

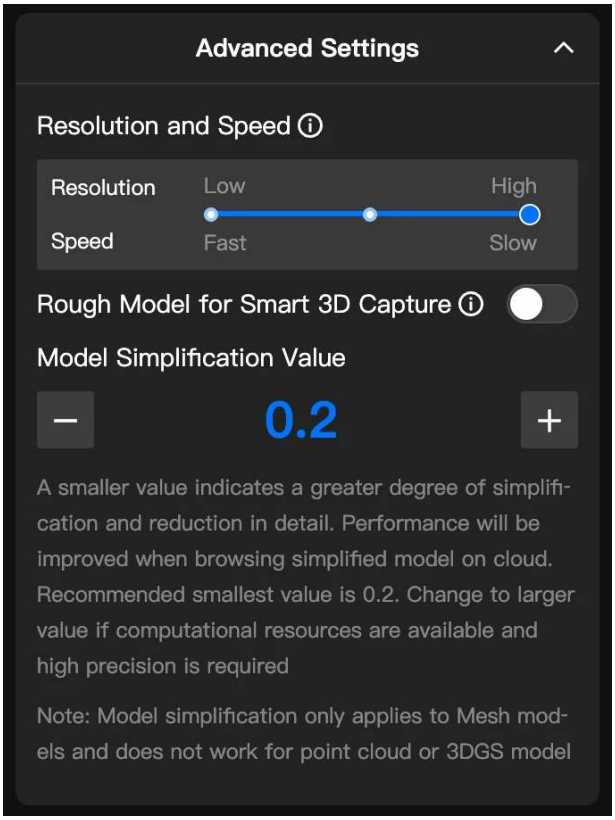
Mapping Introduction

Enter the Model library and click "Start Mapping".


Mapping Task
Model Name
New Mapping Task–2026–07–07 14:51:42 (UT
Select Data
Select Photos for Mapping
GCP
Model Outputs
2D Mapping
3D Mapping
Gaussian ...
Mapping Scene
Normal
Region of Interest
Mesh Model
B3DM
OSGB
PLY
OBJ
Point Cloud Model
Coordinate System
Arbitrary Coordinate System
Model Storage Location
Cloud Mapping
Advanced Settings
Resolution and Speed
Resolution
Low
High
Speed
Fast
Slow
Rough Model for Smart 3D Capture
Model Simplification Value
0.2
A smaller value indicates a greater degree of simplification and reduction in detail. Performance will be improved when browsing simplified model on cloud. Recommended smallest value is 0.2. Change to larger value if computational resources are available and high precision is required



1. **Model Name:** Model name can be edited.
2. **Mapping Photos:** Click Select Photos and select the mapping photos from "Files captured by aircraft" or "Files in media file library".
3. **Reconstruction Type:** Select 2D, 3D, or Gaussian Splatting.
4. **Mapping Scene:** Users can select from Normal and Circle before generating 3D models. It is recommended to select Circle when the photos for mapping are collected by the geometric routes or other routes that circle around an area.
5. **Resolution and Speed:** (Advanced Settings panel) You can reduce the model resolution to increase the mapping speed. The model resolution and mapping speed are inversely proportional.



The following are the reference effects of speed and resolution, using 627 photos as an example for mapping:



> Note: The mapping effects and speed are for reference only.

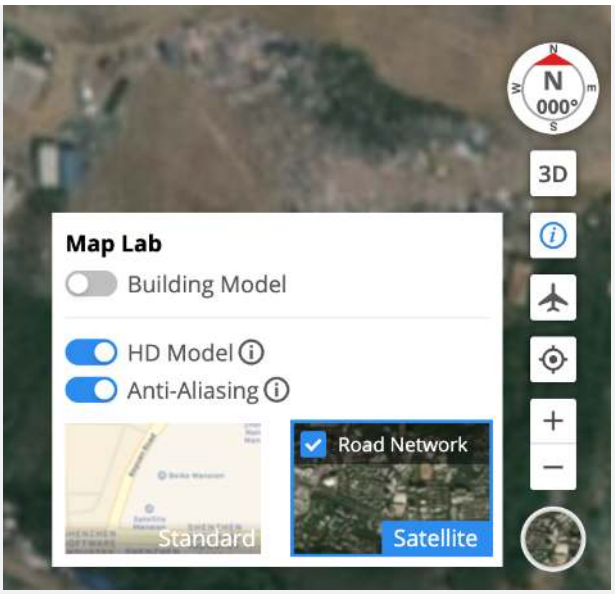
6. **Region of Interest:** When enabled, only photos within the region of interest will be used for mapping to increase efficiency.

> - Setting one region of interest is supported.
> - For the flight tasks that are planned on the cloud, the region of interest will automatically be set as the mapping area. If the photos for a mapping task cannot be collected in one single flight, blurriness at the edge of the model may occur. It is recommended to reduce the region of interest to be within the mapping area.

7. **Model Output:** Users need to select at least one output format before generating 3D models. To use the model for Smart 3D Capture route planning, users need to enable Rough Model for Smart 3D Capture.
8. **Coordinate System:** Users can select from Known Coordinate System and Arbitrary Coordinate System. If there are no specific requirements, it is recommended to use the default selection.
9. **Model Simplification Value:** It is recommended to set the model simplification value to 0.2 for enhanced mapping efficiency and better browsing experience.

Click OK to start the mapping task.

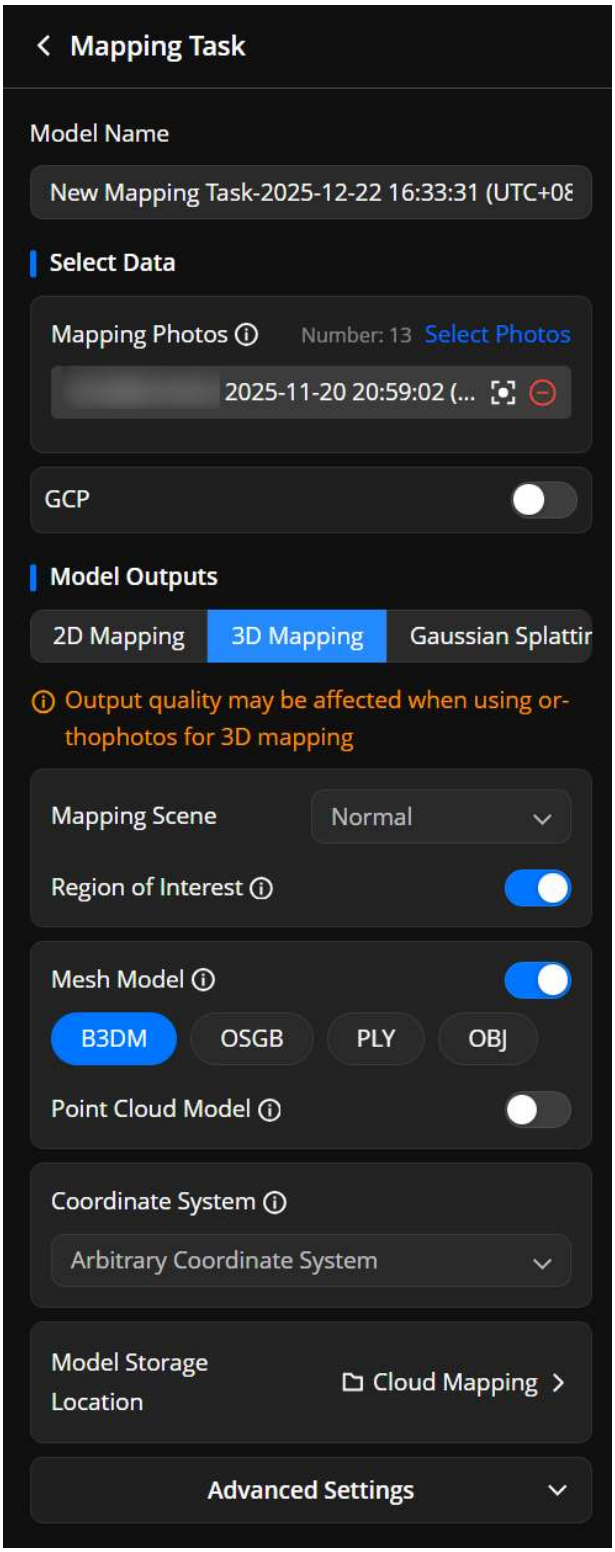
> - Users can change to a larger model simplification value if the computer performance is good or high precision is required. Users can also enable HD Model in the lower right corner of the web page to enhance the model details.



- The mapping time required depends on the mapping type and number of photos.

Using Ground Control Points for Mapping

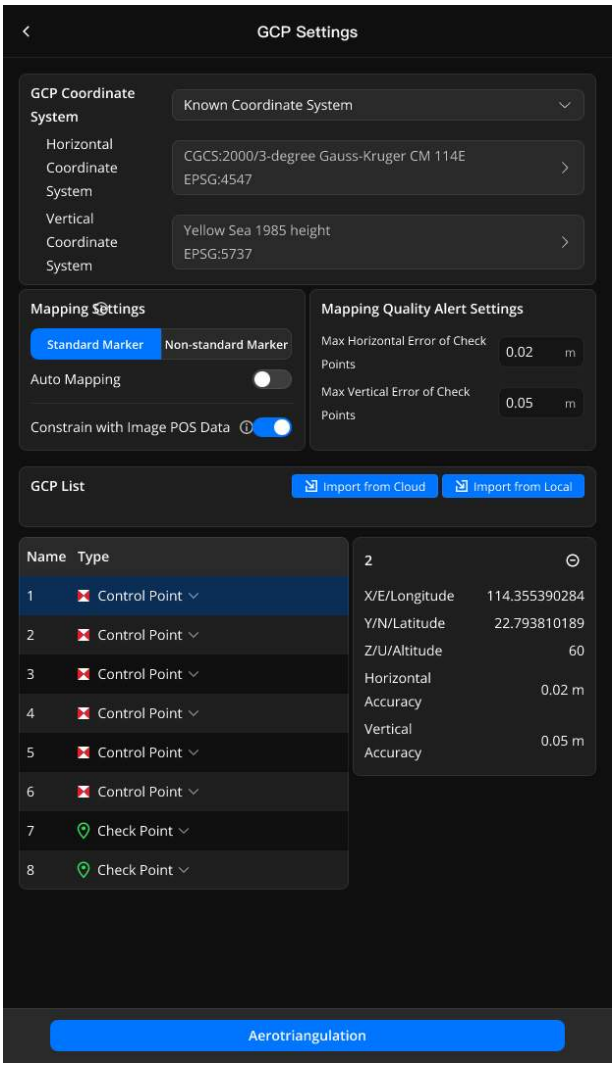
For more accurate model reconstruction, you can use Ground Control Points (GCPs). Enable the GCP feature after selecting the photos for your mapping task.



GCP Settings

Coordinate System and Data

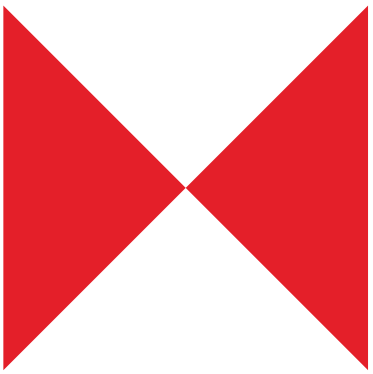
1. **GCP Coordinate System:** Select horizontal and vertical coordinate systems using standard EPSG codes.
2. **Image POS Data:** Enable this to use the position data from your images. This improves reconstruction accuracy and can reduce the number of control points required.



Marker Type

Select the type of physical marker used in the mapping area.

- Standard Marker: Markers with red and white patterns.
- Non-standard Marker: Choose this for any other marker style.
  Standard marker layout size recommendations: For a flight altitude of 150 meters above the ground, marker of at least 114 cm is recommended. For a flight altitude of 100 meters, marker of 76 cm is recommended. For a flight altitude of 65 meters, marker of 50 cm is recommended.



Auto Mapping

1. Automatic marking is only available for Standard Markers.
2. When enabled, the software will automatically add marks after the aerotriangulation stage. After marking is complete, it will proceed to aerotriangulation optimization and final model mapping.
3. You can set a minimum number of required control points. If the software finds fewer control points than this threshold, the automated process will pause, allowing you to manually intervene. You can also review and edit the automatically added marks in the model library. Check values like Reprojection Error and 3D Point Error to identify and correct any issues, such as misidentification or intentional movement of markers.

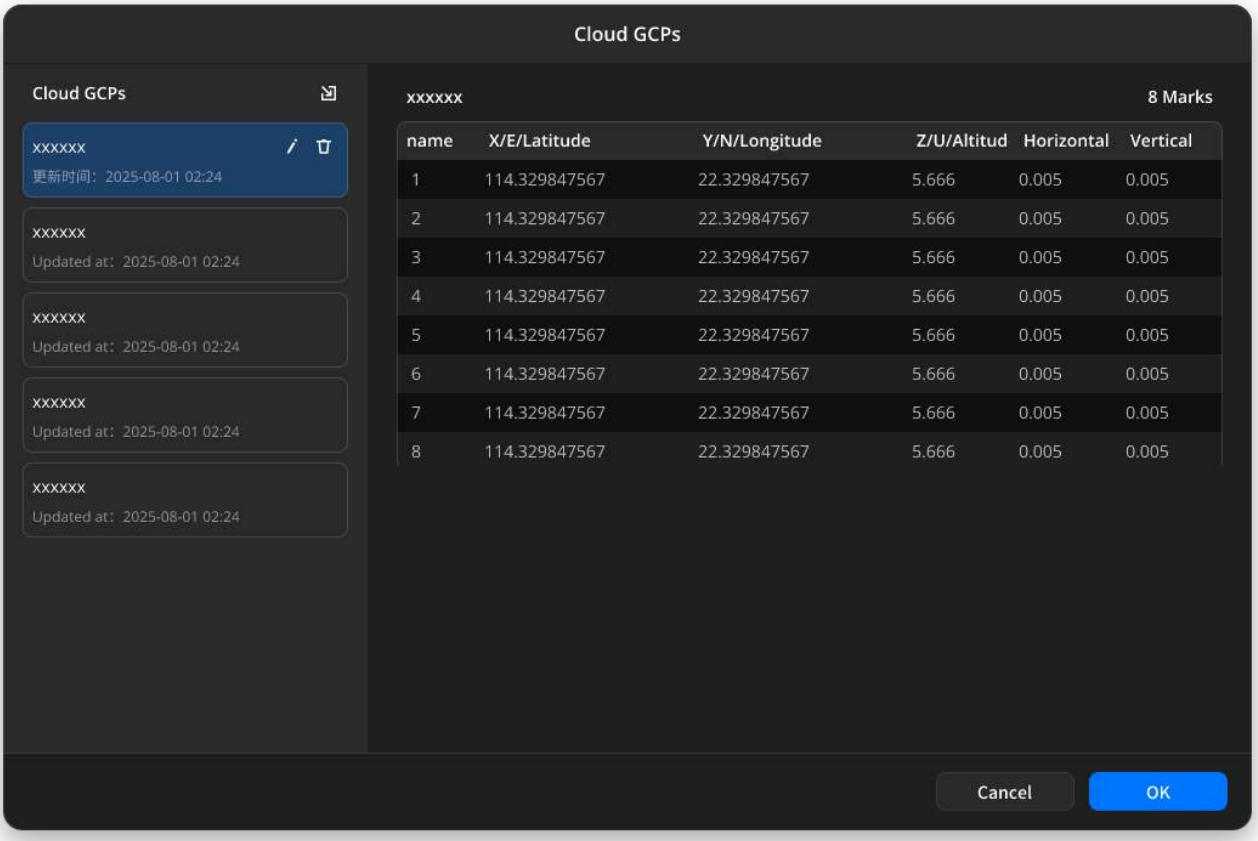
Mapping Quality Alert

Set a maximum acceptable error threshold for your check points. If the final model's check point error exceeds this value, the system will display a warning, indicating that the model's accuracy may not meet your requirements. This helps you identify potential data accuracy issues with the model.

Importing and Configuring GCPs

1. You can import GCPs from local CSV or TXT files. Once imported, GCP files are automatically saved to the FlightHub cloud, making them accessible for future projects.
2. Saved GCPs can be managed from the model library.
3. After importing, you must set control or check points. For best results, make sure your GCPs are distributed as evenly as possible across the area, as shown on the map.

> Note: The GCP positions shown on the map are based solely on their EPSG coordinates. There might be some slight inaccuracies.



Notes on On-premises Version

The model reconstruction feature of FlightHub 2 On-premises version requires a separate deployment of the Terra service together with a computing server. You can visit the official website or contact an authorized agent to request a trial.

> Note: Only one reconstruction task can be initiated at a time, and each task is limited to no more than 2,000 photos.

Rapid Modeling

In the FlightHub 2 on-premises version's model mapping feature, you can enable the rapid mapping feature for photos with captured thumbnails. Thumbnail capture must be enabled when distributing the task for the returned media files to include thumbnails.

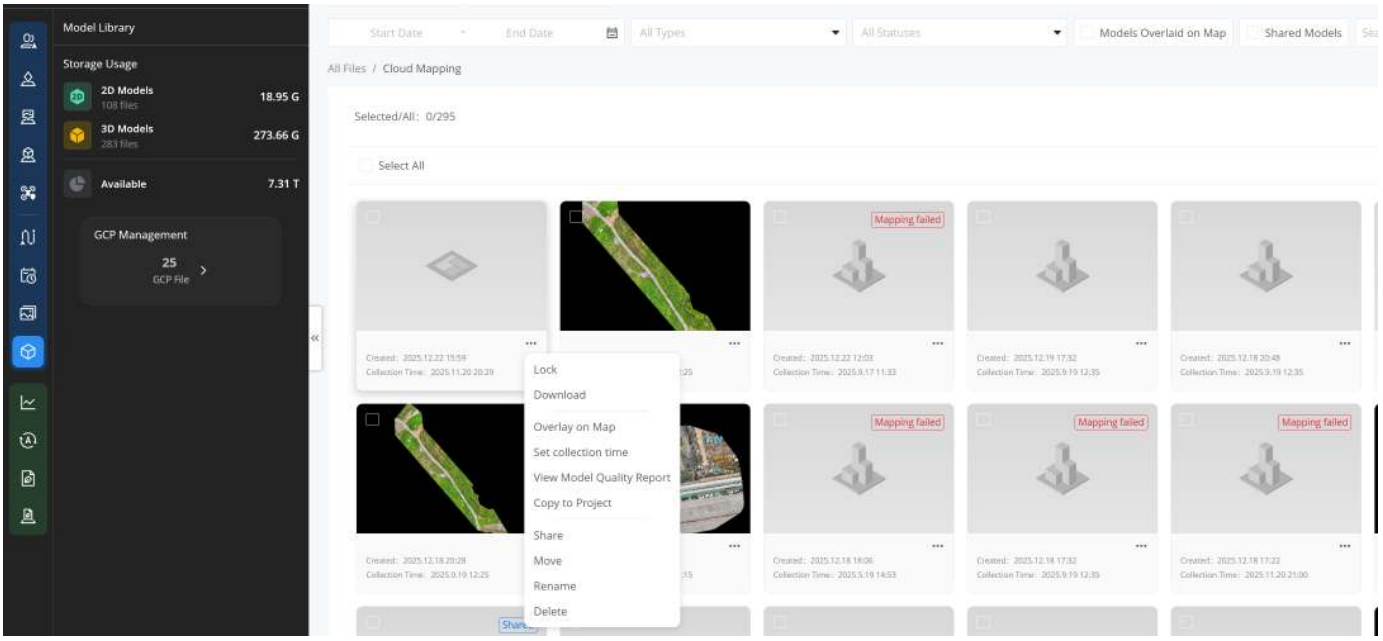
> Note: After selecting rapid modeling for a single modeling task, the original images will not participate in the reconstruction.

Using Ground Control Points for Mapping

on On-Premises Deployment is currently not supported.

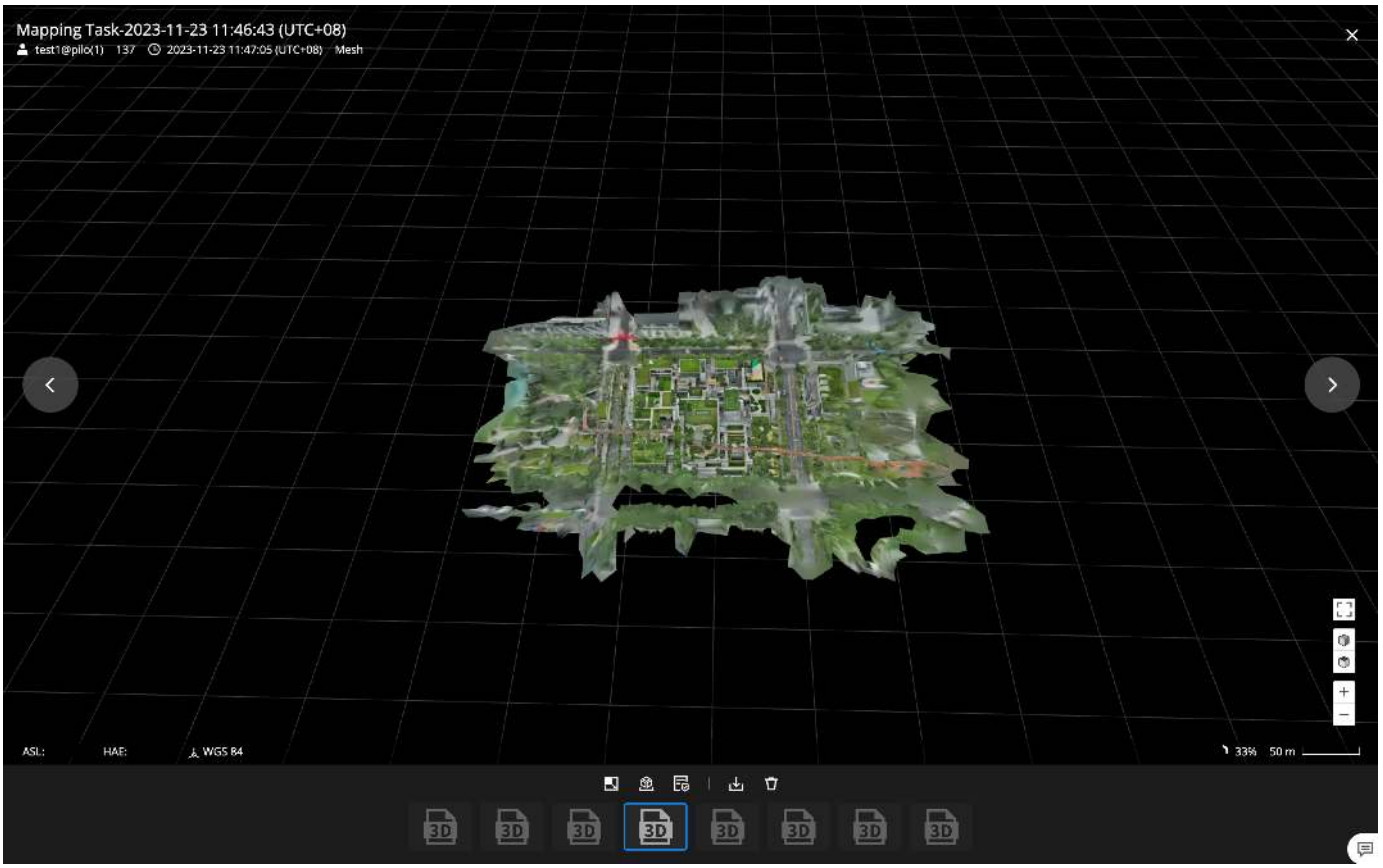
Manage Models

Project members can preview, lock, download, share, show or hide on map, move, rename, and delete model files on web page. Model files can be displayed in either list or grid view.



Preview Models

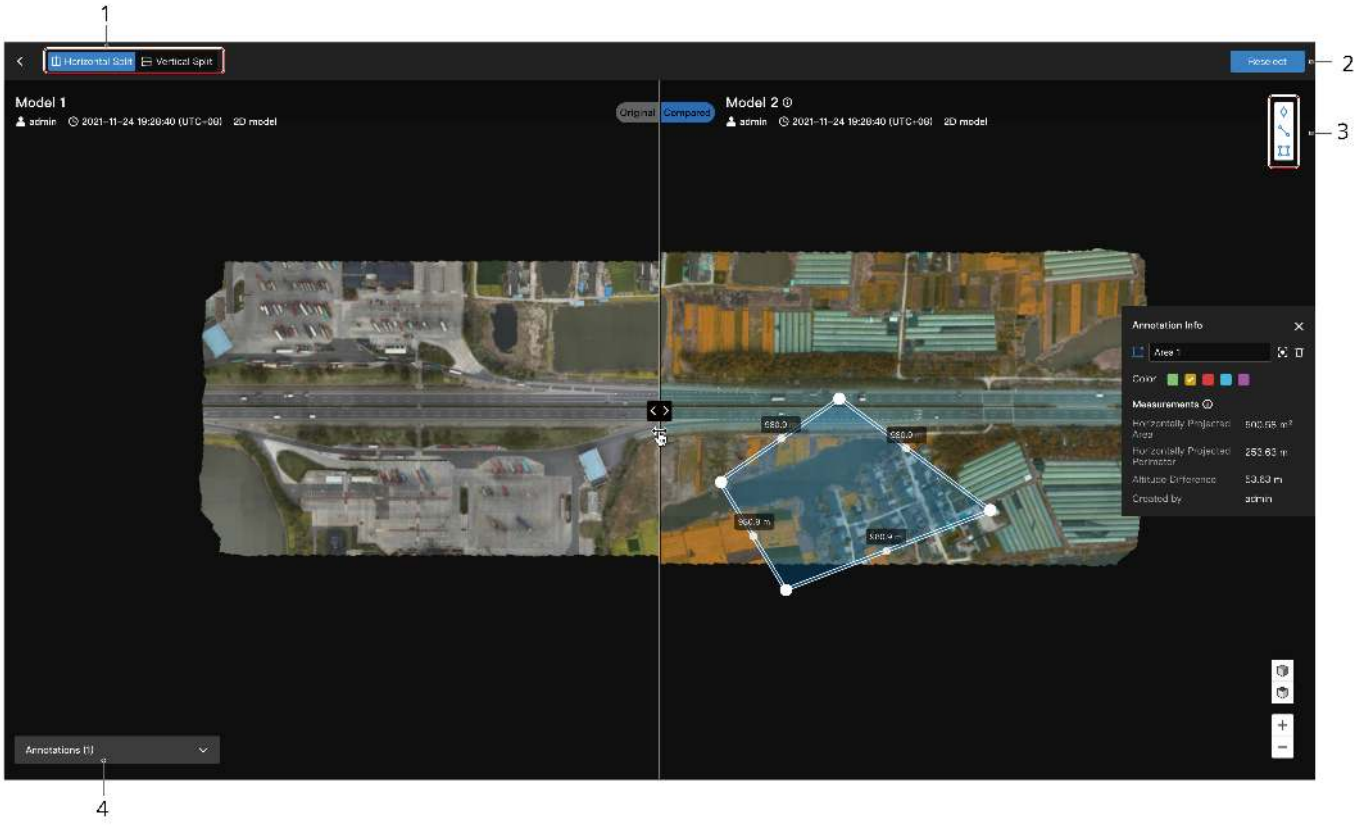
Users can click the file to preview the model. The model name, uploader, upload time, and model type will be displayed in the upper left corner. Project members can zoom, rotate, download, or delete models. Members can also choose to enter the full screen of the model, display the models on the map, and view the model quality report.



Compare Models

DJI FlightHub 2 supports comparing 2D models with overlapping areas.

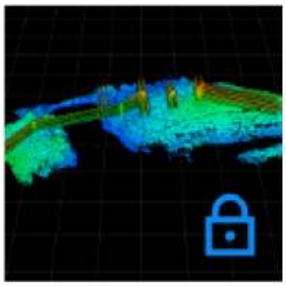
Users can click to start comparing models during the model preview. When comparing models, the original model will be displayed on the left, and on the right is the recommended model for comparison. The recommended model is the model last generated with overlapping areas.



1. Click Horizontal Split or Vertical Split in the upper left corner of the page to change the comparison layout.
2. Click Reselect to change the model to be compared.
3. Click to add points, lines, areas, and circles on a single model or both models. The added annotations will automatically be saved to a folder named Original Model vs Compared Model, and the changes made to the annotations will be synchronized to the annotations on the map.
4. Click Annotations in the lower left corner of the page to display or hide the annotations on the models.

Lock Models

After a model file or an entire folder is locked, project members will not be able to rename, move, or delete the model or the folder. Locking a model in the Model library will not affect its display on the map.



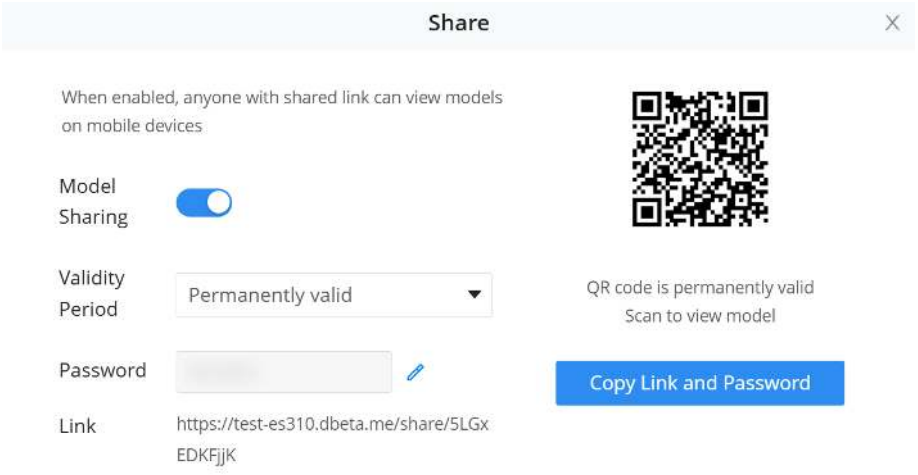
Model Sharing

Enable Sharing

You can enable sharing directly on the model card, or click Share on the model detail page.

Sharing Settings

You can set a sharing password. (The image is for reference only)



Sharing Page

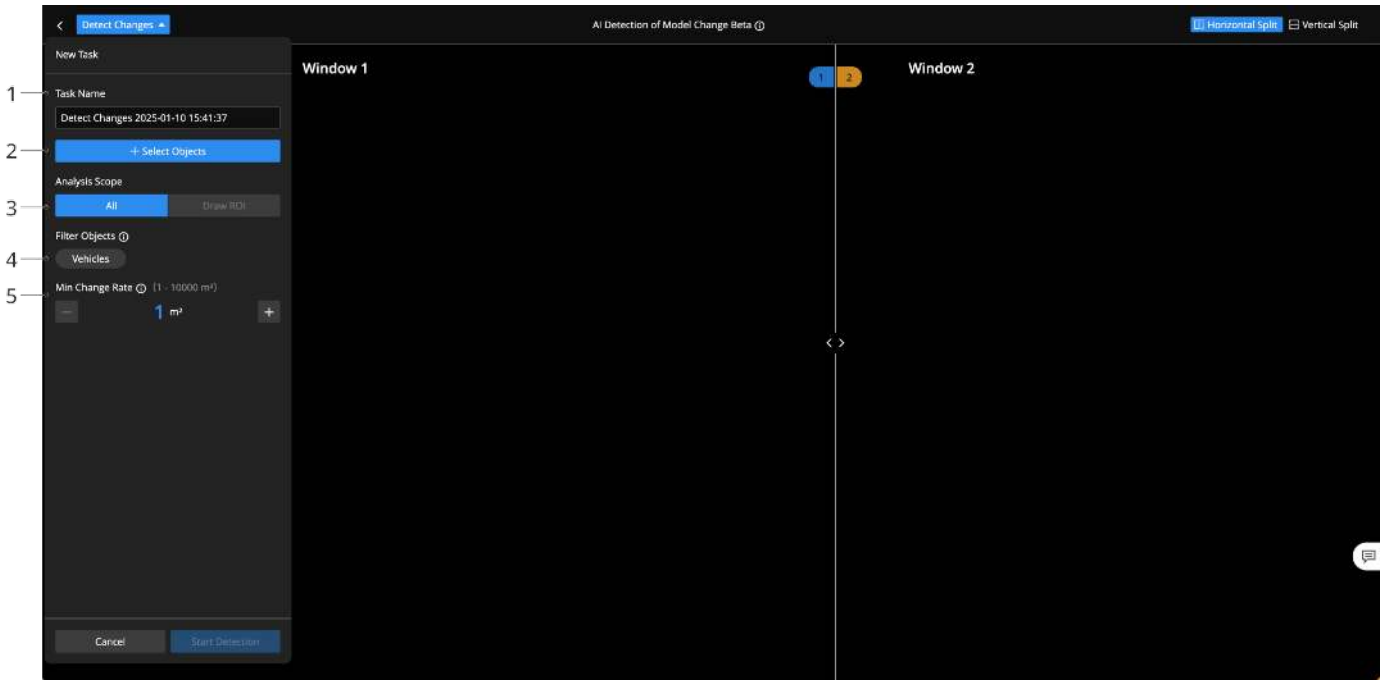
Whether you are an organization or a project member, you can view this model directly on your mobile device.

Model Change Detection

Model Change Detection

AI can detect and mark the regions of change between two 2D models that have overlapping area. Now available for free during our limited-time public beta.

New Task

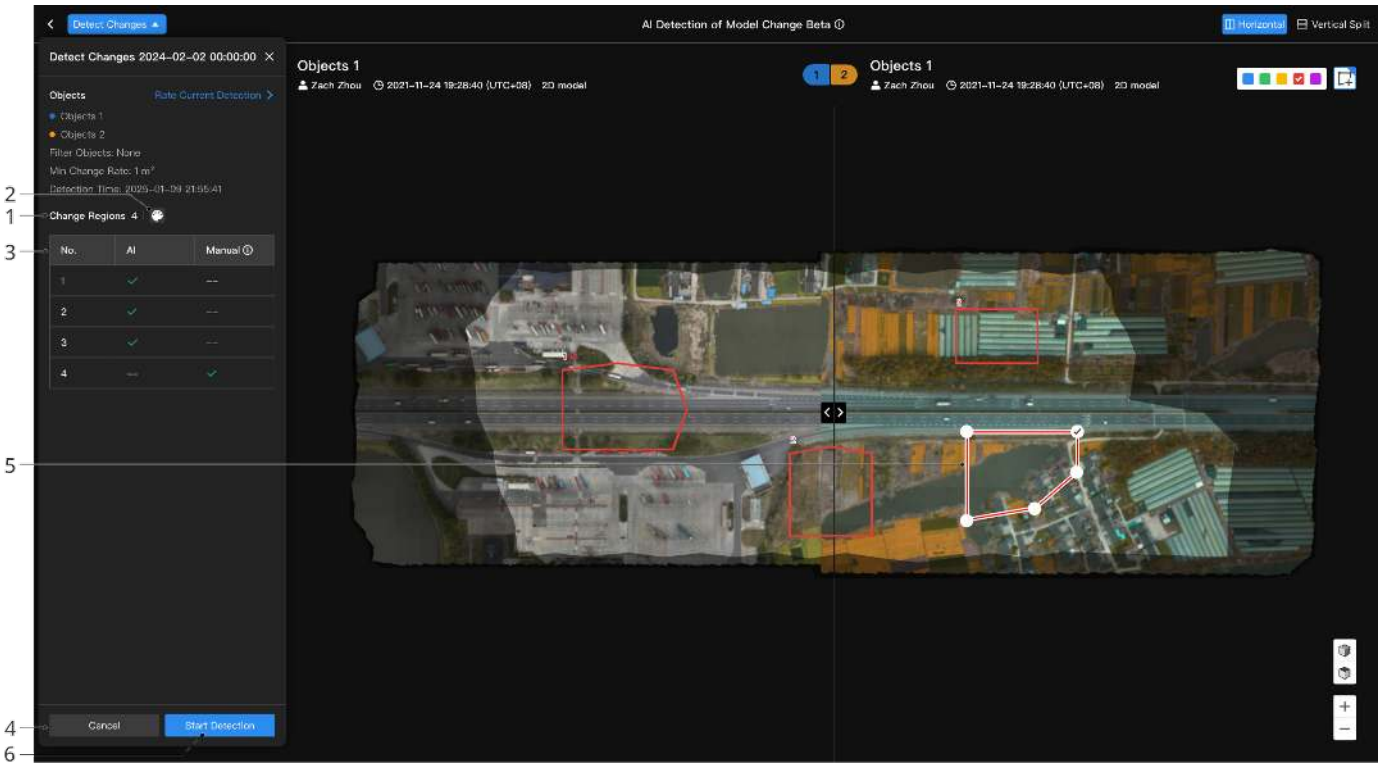


1. Task Name: Enter the detection task name.
2. Objects: Click Objects to select models.
3. Analysis Scope: Supports drawing a region of interest, and only changes within this region will be detected.
4. Filter Objects: If Vehicles is selected, vehicles will not be recognized as changes.
5. Min Change Region: A region will not be considered a change if the area of the change region falls below the specified threshold.

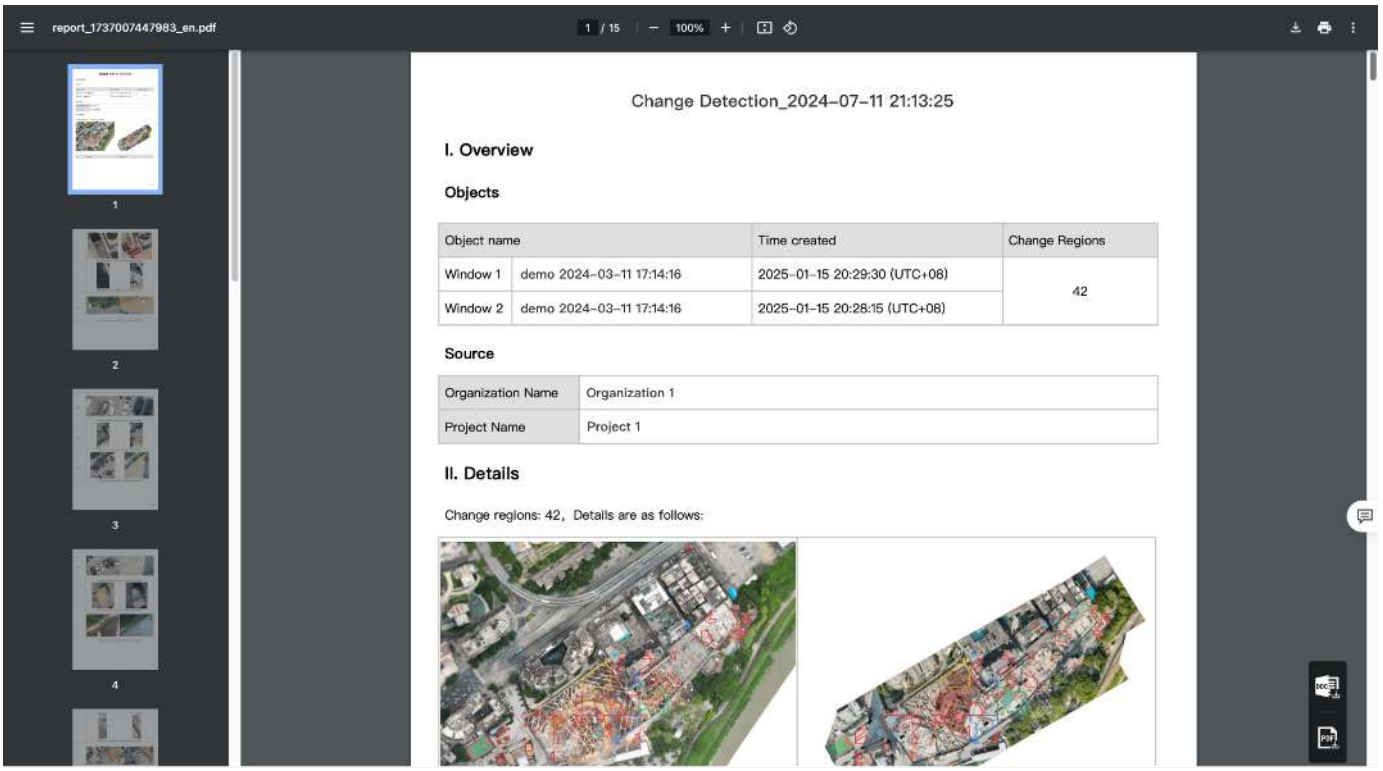
Click Start Detection and wait for the detection to complete.

Viewing and Editing Results

After detection is complete, you can view the change regions marked by AI.

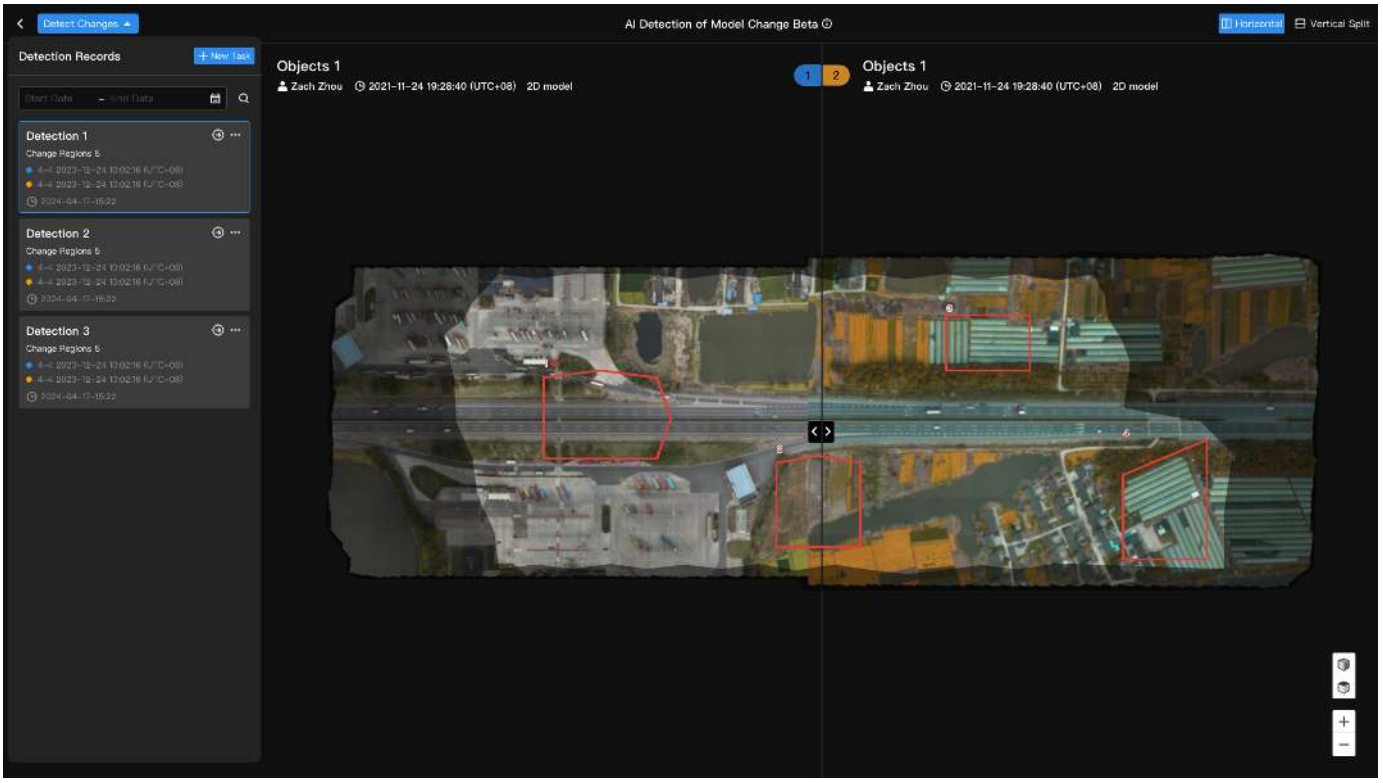


1. Change Regions: Total number of change regions.
2. Modify the color of all change regions.
3. Change Area List: Displays whether each change is detected by AI, manually modified, or newly added.
4. Detect Again: Detecting again will overwrite the current detection results.
5. Result Editing: Supports editing of AI-detected change regions, including adding and deleting change regions, or modifying shapes, colors, or texts.
6. View Report: Click to view the report. A report will be generated, including detected object information, change region statistics, and photos and center point coordinates for each change. Exporting reports in PDF or DOC format is supported.



Detection Record Management

You can create, view, and manage all detection records.



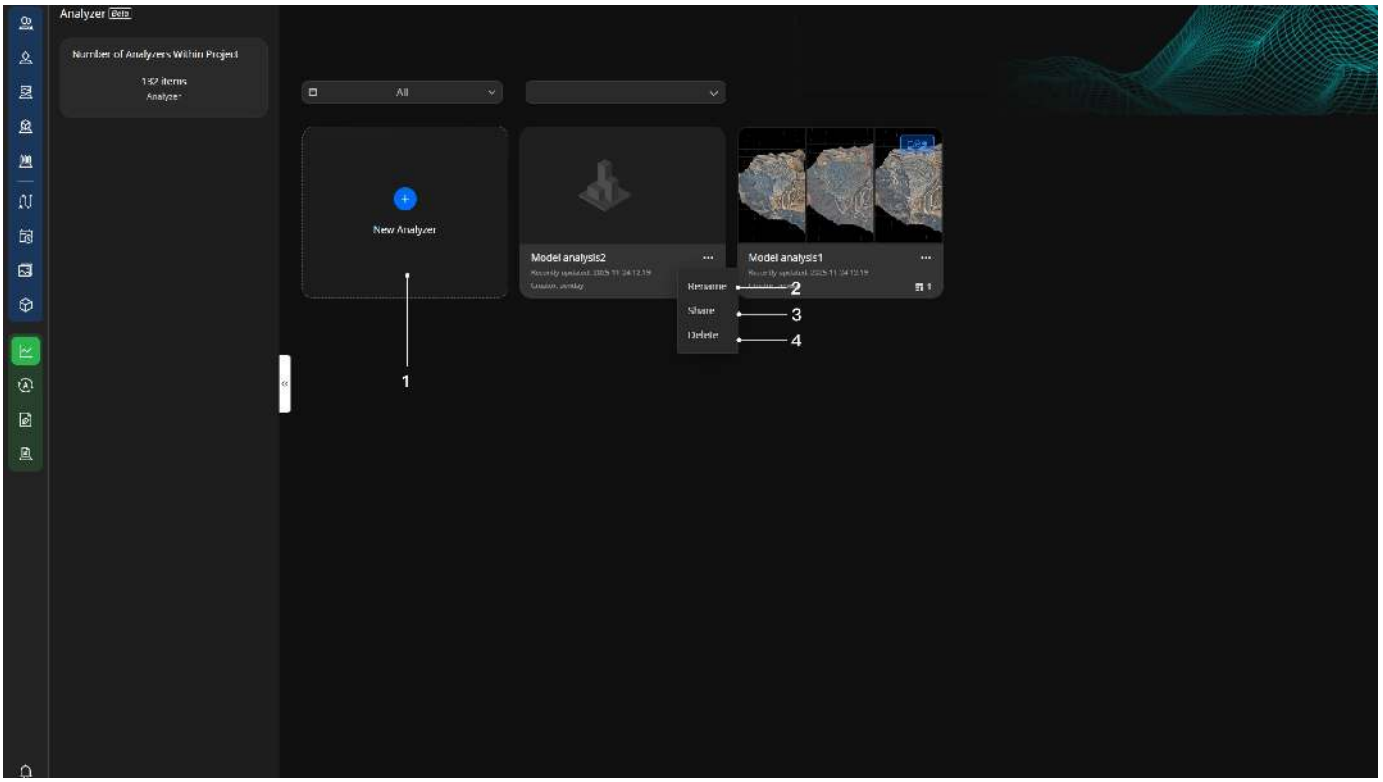
Notes on On-premises Version

The model library supports intelligent detection of two 2D models with overlapping areas, and marks the changed areas.

Analyzer Management

The analyzer supports the management and volume calculation of design files and models, engineering project data analysis, timeline display of models and media, multiple measurement tools, and analysis report generation. After entering a project, project members can click the panel on the left to create, rename, delete, or share analyzers.

Analyzer management interface



1. Project members can click + and enter the analyzer name to create an analyzer;
2. Project members can click ... and select rename to edit the analyzer name;
3. Project members can click ... and select 'Delete' to delete this analyzer;
4. Project members can click ..., select Share to share this analyzer.

Notes:

- Supports creating, renaming, deleting, and sharing analyzers within the project;
- Click on the analyzer card to enter the analyzer.

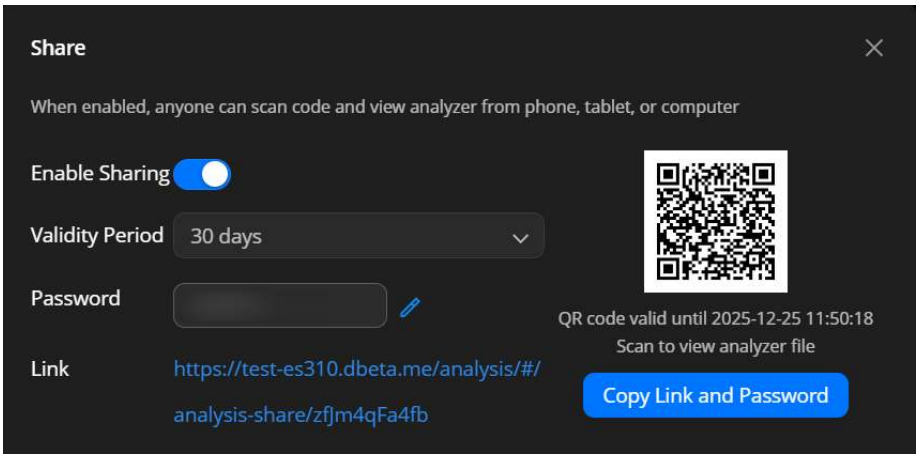
Analyzer Sharing

Enable：

Click on the analyzer card to enter the analyzer. Then click Share in the top right corner to share the analyzer.

Sharing Settings：

Set a sharing password.



Sharing Page:

Supports switching models, refreshing measurement results, and viewing media file and model timelines.Editing is not supported temporarily.

Both organization and project members can scan the QR code via mobile devices to view this analyzer directly.

Data Import

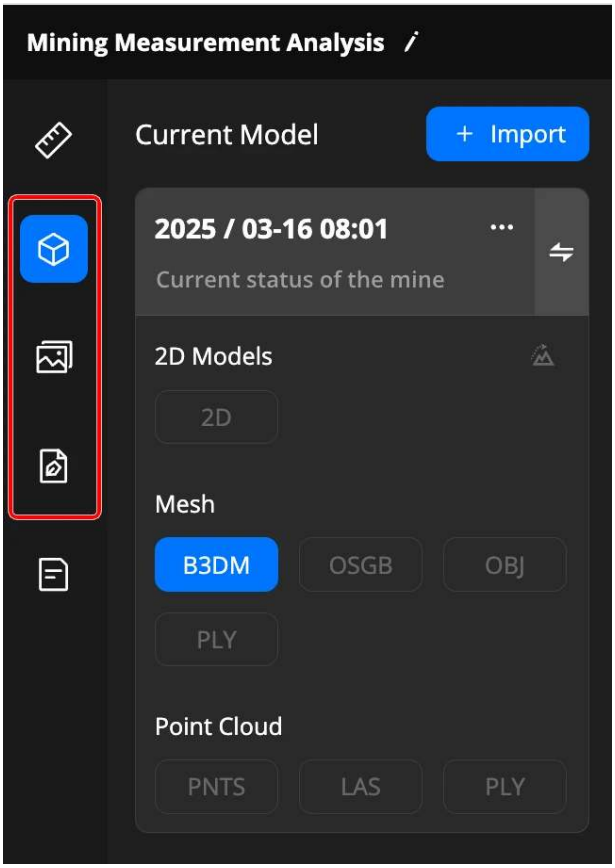
After entering the project, project members click enter the analyzer,After selecting the created analyzer, data can be imported.

Import Data

1. Click the 「Import」 button on the analyzer to open the import page;
2. After selecting a single file or folder, click ✓ to import;
3. After successful import, the files will be displayed in their respective file lists.

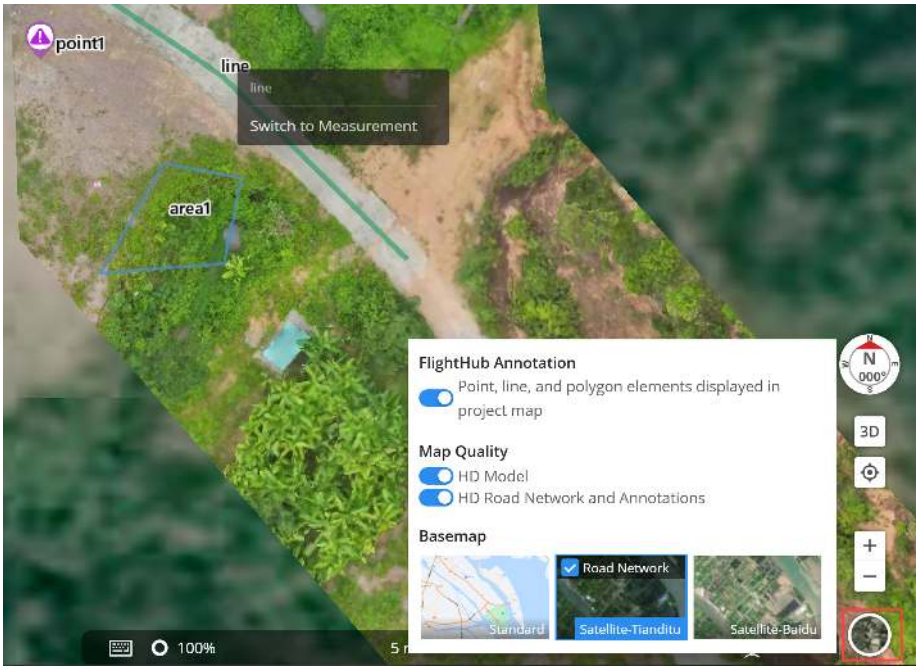
Note:

- The list data is consistent with the model library, media library, and design file library in the project;
- Click to preview data;
- The list supports time filtering, type filtering, and file name search;
- Supported data types for import:
  - Media: wide-angle, zoom, infrared, panoramic view;
  - Models: 2D model, mesh model, point cloud model;
    (Note: To ensure the accuracy of subsequent measurements, it is recommended to use models collected at a flight altitude of 120 meters or less.)
  - Design files: PDF, DXF.



Project Annotation Sync

In the analyzer map settings, you can enable synchronization to display project annotations on the map. You can also right-click an annotation to convert it into measurement within the analyzer.



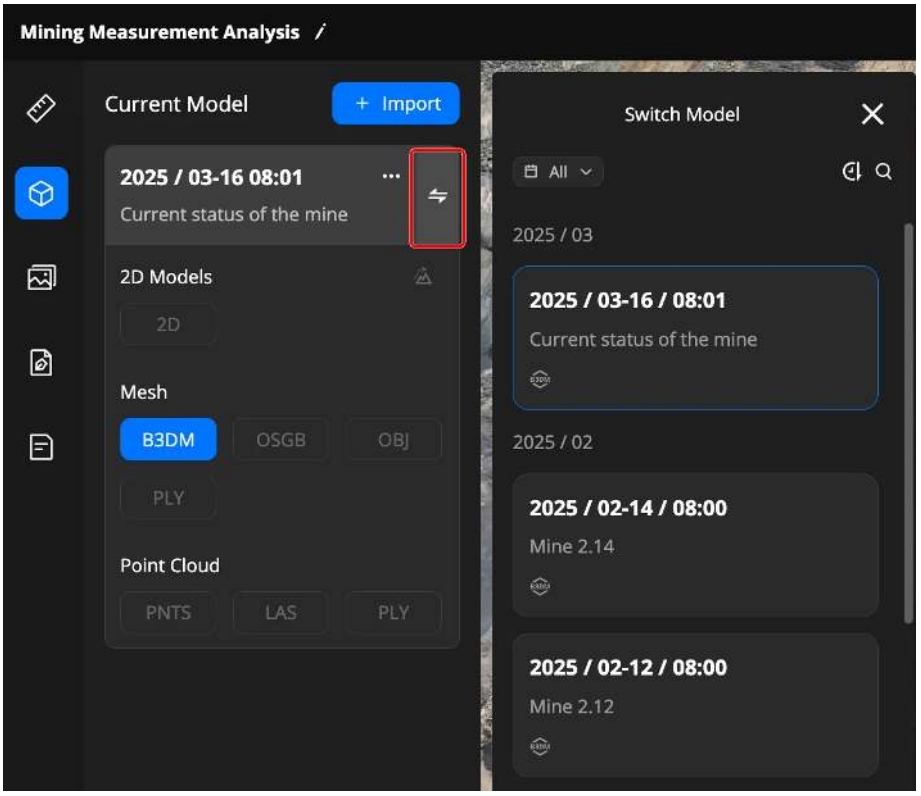
Analyzer Data Management

Model Management

Models created in different formats from the same data source are grouped together in the analyzer.

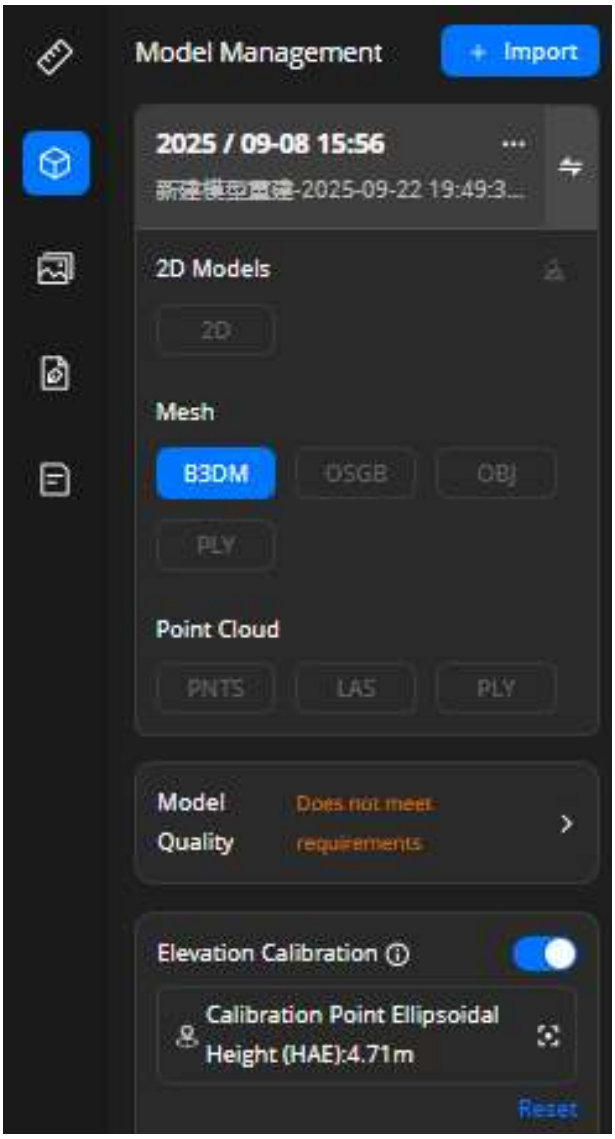
The analyzer uses a "current model" concept. The current model is displayed on the map, and measurement functions are based on the current model.

You can switch the current model among those imported into the analyzer, click ⇋ to view the list.



Model Elevation Calibration

You can now select a model elevation calibration point within the analyzer and set its target elevation. The surface elevation of all models in the analyzer (including future imports) at the specified location will be calibrated to the target elevation.





All measurement tools will perform calculations based on the calibrated model elevation.

Note: The elevation value displayed in the bottom-right corner when hovering the mouse over the map currently shows the pre-calibration elevation.

Media File Management

After entering the analyzer, project members can click on media management to import and manage media files.

1. Click the "Import" button to enter the media import page;
2. After selecting the file or folder that needs to be imported, click ✓ Import;
3. After successful import, the file will be displayed under "Media Management".

Note:

- Media file capabilities: Timeline view, rename, remove, and toggle media file visibility on the map;
- Media file list features: Time filtering, sorting, and search.

Design File Management

After entering the analyzer, project members can click on media management to import and manage media files.

1. Click the "Import" button to enter the media import page;
2. After selecting the file or folder that needs to be imported, click ✓ Import;
3. After successful import, the file will be displayed under "Design Files".

Note:

- Basic capabilities: Geographic location calibration, recenter, rename, remove, and toggle visibility on the map;
- Design file list features: Time sorting, search, and file type filtering;
- PDF advanced settings: Supports color and transparency modification.

Smart Search

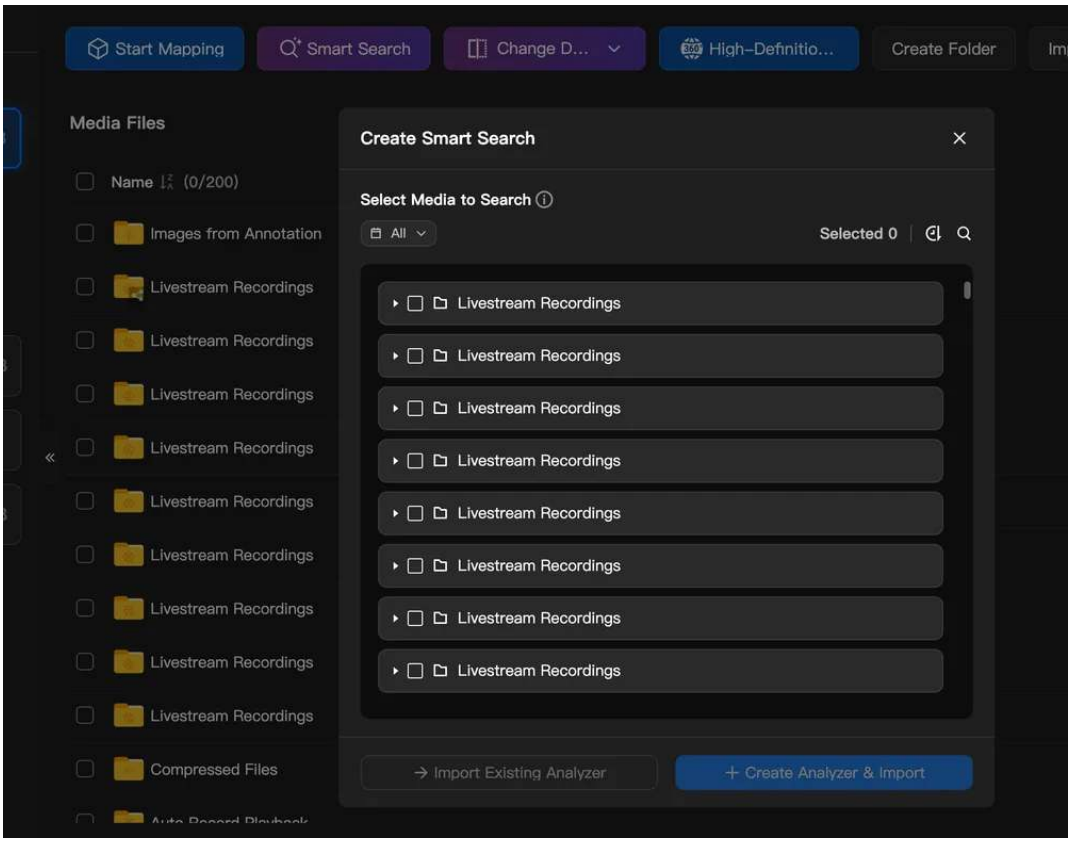
Feature Limitations

- **Unsupported Media**: Panoramic and infrared photos
- **File Size and Resolution Limits**: Files with a resolution exceeding 36,000,000 pixels are not supported.
- **Task Limits**:
  - A single search task can include a maximum of **1,000 files** (photos + video frames), with a maximum of **10 videos**.
  - Only one search task can run per project at a time.
  - A single user account can run a maximum of **20 search tasks** concurrently across all projects.

Creating a New Search Task

1. Select Media

- Currently supports wide-angle photos, zoom photos, and videos.
- In the Media File Library, click Smart Search, select your media, and import them into the Analyzer to search for objects.
- Or, in the Analyzer, select Smart Search to create a new search task. Then select the media you want.



2. Define Your Search Object

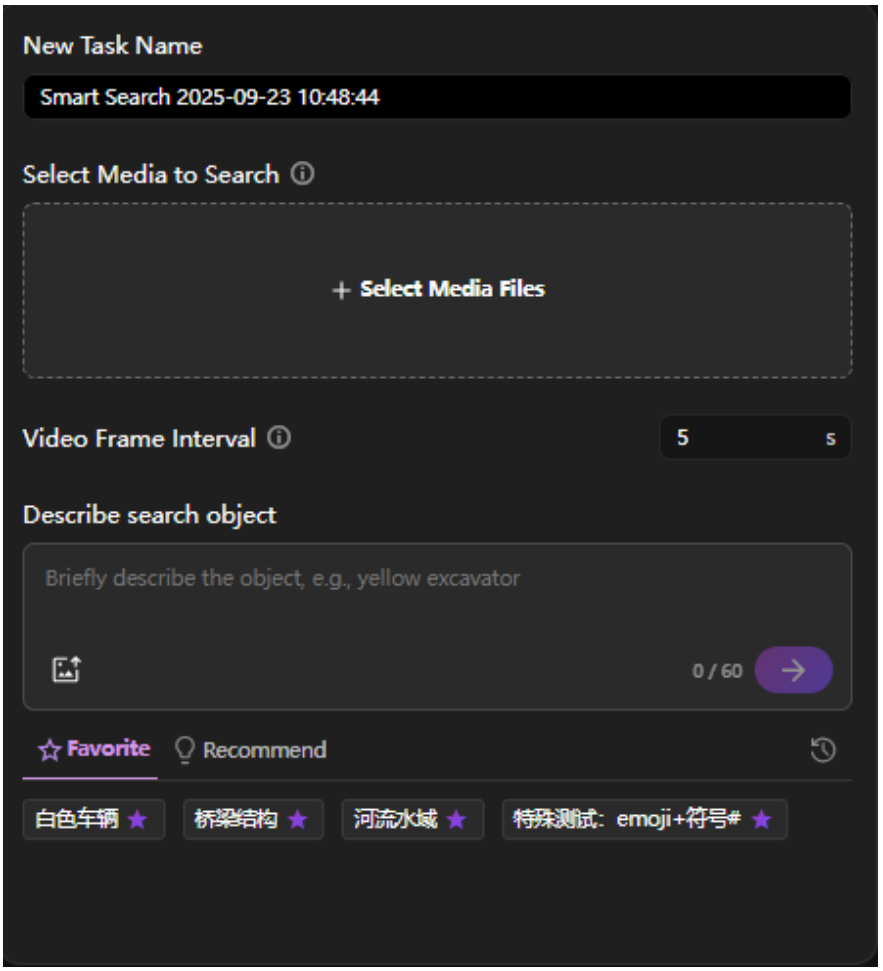
- Text Description: Simply type what you want to find.
- Image Description: Upload a reference photo and mark up the object you want to find. The AI model will interpret your input and convert it into effective search tags, which you can modify or delete as needed. You can define multiple search objects in a single task.

3. Set Video Frame Capture Interval

If your selection includes videos, you can set the frame capture interval. This helps prevent the model from missing objects or detecting the same object repeatedly.

4. Start the Search

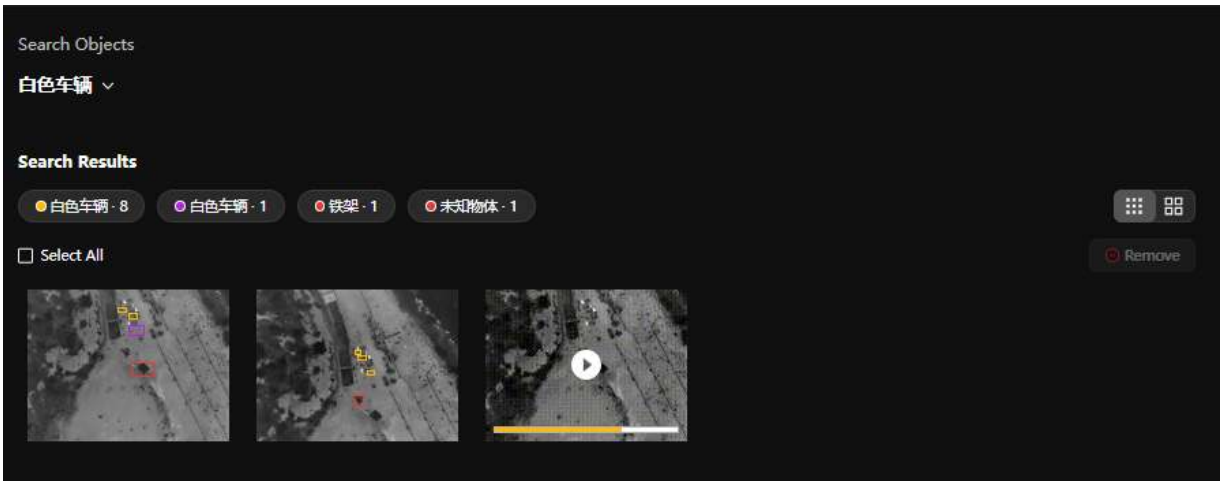
Once you start the task, the page will display real-time progress and update with results as they are found.



Reviewing and Managing Search Results

1. Viewing Results

- Found objects will be marked with annotations on the photos and videos. You can show or hide these markups.
- Filter the results by search tags to focus on specific objects.
- For videos, the timeline will highlight the time periods where objects are found. You can switch between two views:
  - Time Series Chart: Shows the exact time points when an object appears.
  - Area Chart: Displays the number of objects at each time point.



2. Editing Results

- You can add, modify, or delete objects.
- You can also remove any irrelevant photos, video frames, or entire videos from the results.

3. Saving Your Results

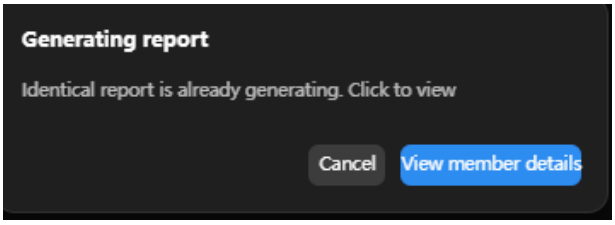
By default, the markups generated by a search will not be saved to the media file library. You can click **Save** Markups. This will sync the results to the original media files in your media file library and the analyzer.

4. Downloading Media

You can download the original media files or download files with the marked search results.

5. Generating a Report

Create a PDF report of the search results for easy archiving, sharing, and documentation.

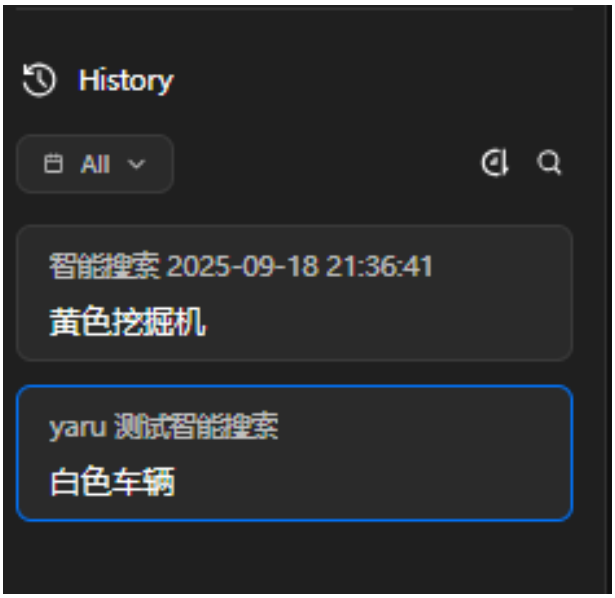


6. Important Note on Video Frames

- Storage: Video frames generated during a search are automatically saved in a subfolder and will consume storage space.
- Deletion: If you remove a video frame from the search results, the corresponding frame will also be permanently deleted from the subfolder.

Managing Search History

All past and current search tasks are listed here, allowing you to easily view, manage, and revisit your search history.



For On-Premises Users

The Smart Search feature is also available for on-premises deployments. This version offers the additional benefit of allowing you to integrate custom AI models for your specific search needs.

Detect Changes Pro

Detect Changes Pro is powered by AI large models. It automatically detects and marks areas of change between two sets of media captured at the same location at different times, helping you quickly identify target changes and defects while significantly reducing the manual effort of comparing photos one by one and lowering the miss rate. You can access Detect Changes Pro from the sidebar entry in the Analyzer (alongside Smart Search), the Detect Changes Pro entry on the media page, or the split-screen comparison page.

Supported Scope

- **Media source:** Two sets of media folders captured at different times from the same waypoint route task (i.e., photo pairs at the same location, different times).
- **Supported photo types:** Wide-angle photos (w), zoom photos (z), and infrared photos (ir) from any perspective.
- **Currently unsupported types:** Panoramic photos.

Feature Entries

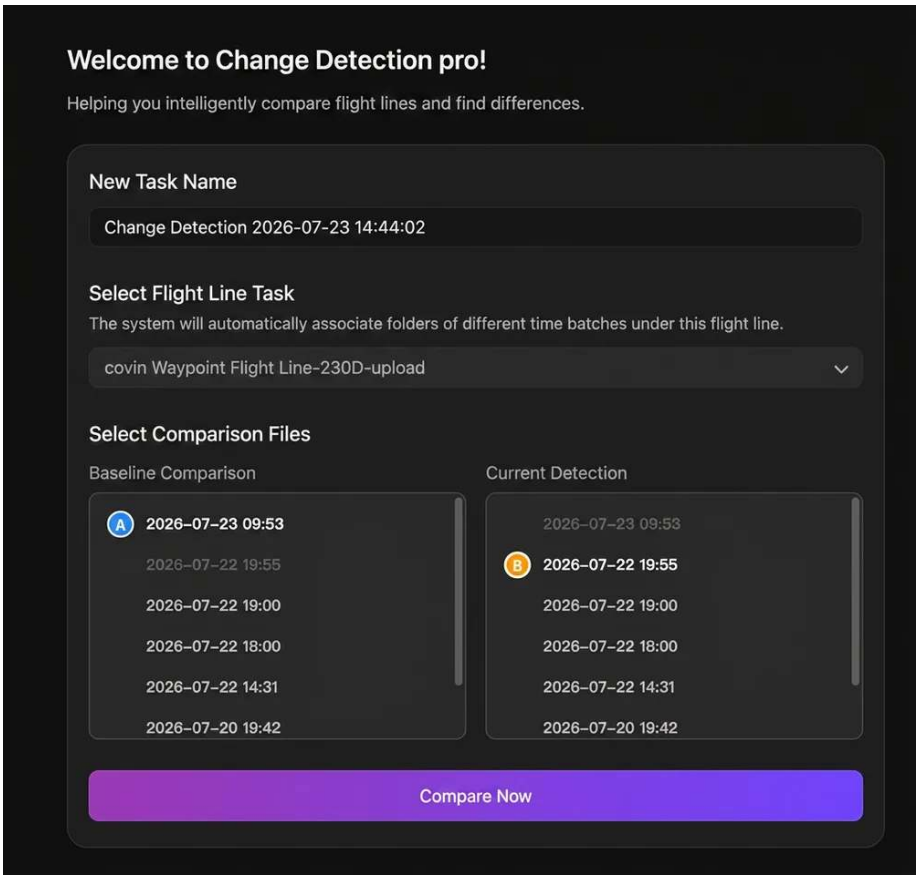
Detect Changes Pro provides multiple entries so you can quickly start a detection task from different scenarios:

- **From the Media File Library:** A Detect Changes Pro entry is available on the timeline of the media detail page, allowing you to import waypoint route media into the Analyzer with one click for analysis.
- **From the Analyzer AI entry:** In the Analyzer's AI feature entry, select "Detect Changes Pro" (alongside Smart Search).
- **From the split-screen comparison page:** On the dual-screen media comparison page, start AI change detection directly.

Creating a New Change Detection Task

1. Select the photo pair range

- Select a waypoint route (routes within the Analyzer are shown first; routes outside the Analyzer are also supported).
- Select the two capture times to compare.



The system automatically matches photo pairs at the same location and different times for comparison.

2. Confirm the detection target

At the current stage, a system default prompt is used to automatically identify and mark most of the changes between the two sets of photos, with no manual input required.

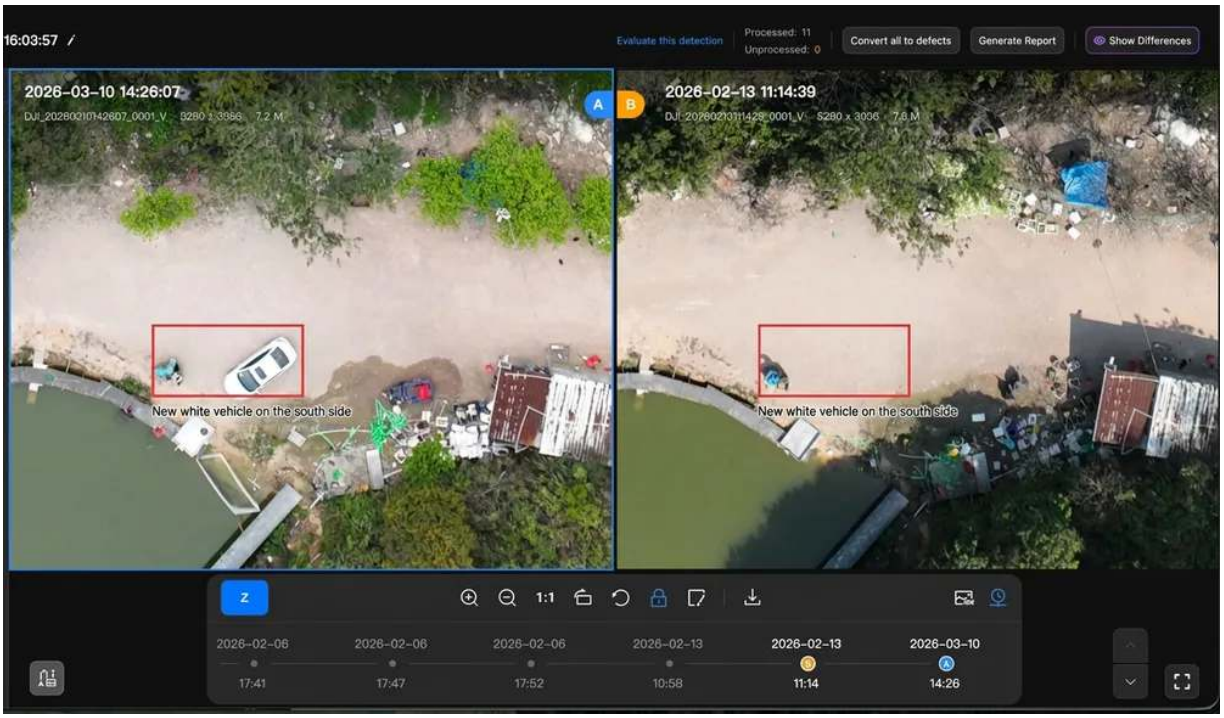
3. Start the detection task

After you click Start Detection, the page displays the detection progress in real time. Once detection is complete, you can review the results.

Reviewing and Editing Detection Results

1. Result preview

- Change annotations are displayed synchronously on both sets of photos in a left-right dual-screen view.
- You can show or hide the change annotations.



2. Manual editing

You can add, modify, move, or delete change annotations to correct any results that do not meet expectations.

3. Download media

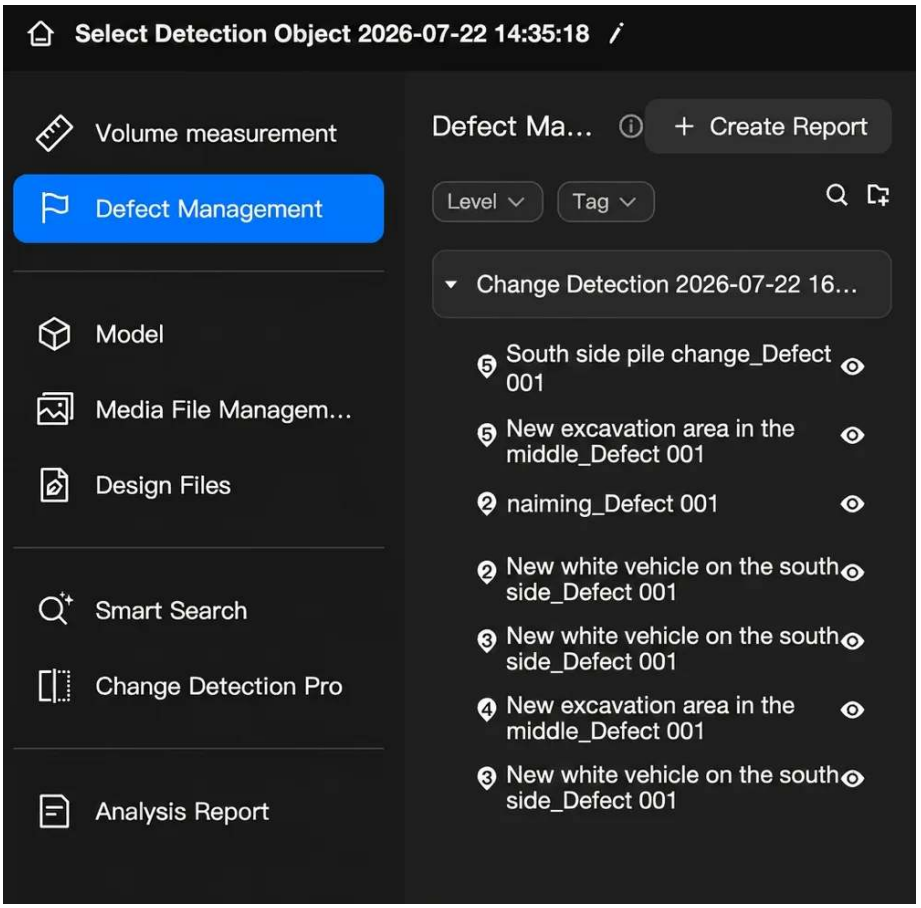
- You can choose to download a single set of waypoint photos.
- The downloaded photos are left-right comparison images stitched from the original photos, with change annotations rendered.

4. Generate an AI report

- You can generate an AI report from the detection results for easy archiving and sharing.
- After manually editing the results, you can refresh and regenerate the report.

5. Save as defects

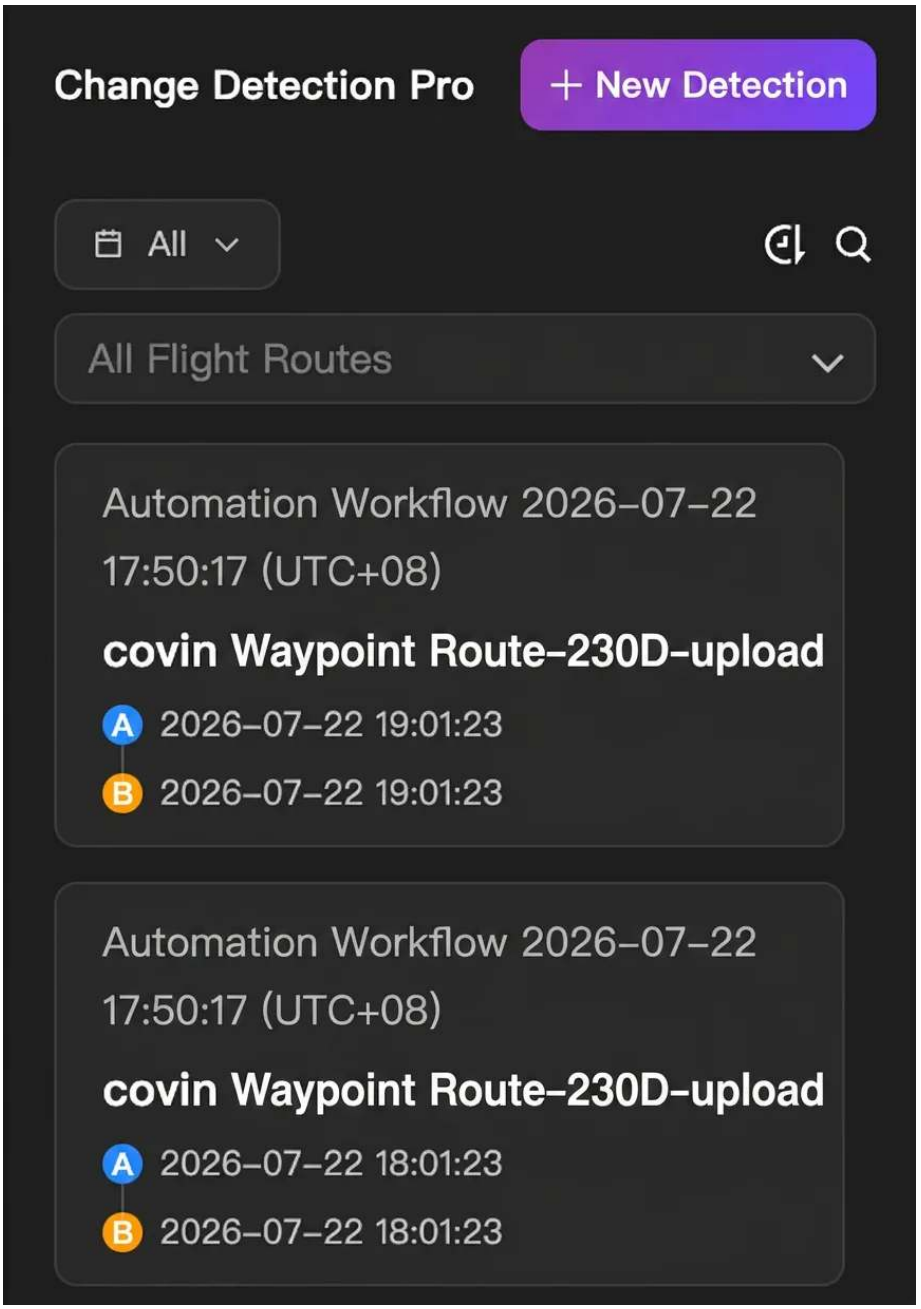
- You can save the change results as defects. Defect positions are calculated based on the later set of photos (Set B).
- Defect positions can be displayed on the model and mapped to the map.
- Defect reports can be generated.



Record Management

Here you can easily create, view, and manage the history of all change detection tasks.

- A historical task consists of one comparison result made up of two sets of photos, with results aggregated by route.
- You can search and filter the history by route and by time.



For On-Premises Users

The on-premises version supports Detect Changes Pro. The large model calls require you to deploy the model yourself, and you can customize the large model used as needed.

Timeline

Model Timeline

A model timeline is located at the bottom of the map. Click the model timeline to arrange all models in chronological order based on their data collection times. Click the dot on the timeline to switch the model displayed on the map.

Media File Timeline

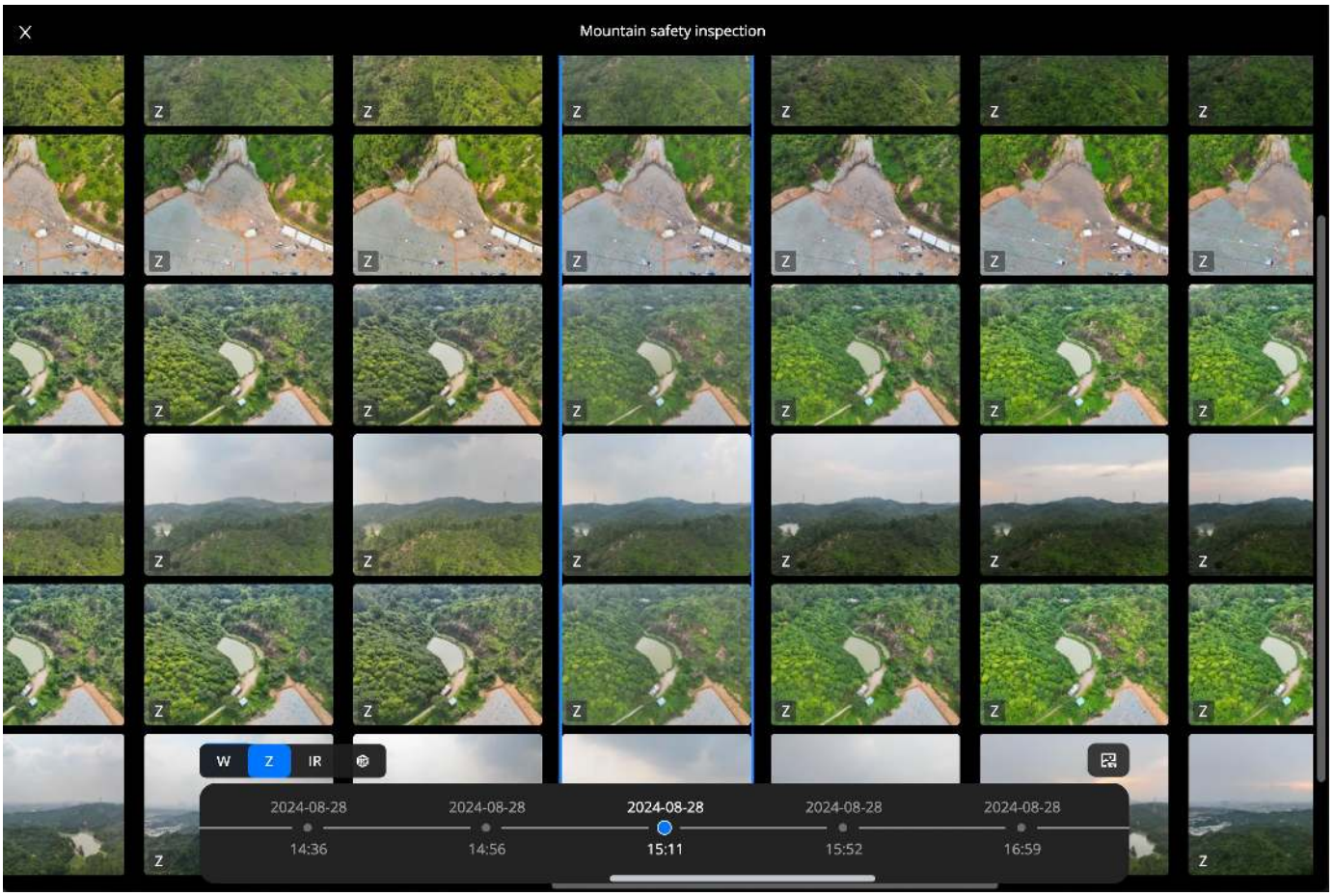
The media file timeline allows you to arrange media files in chronological order based on their data collection times.

- Wide-angle, zoom, and infrared photos: These are media files collected from the same waypoint route and using the same fixed-angle action.
- Panorama photos: These are media files collected from the same waypoint.

Palace grid style

Entry: Click the Timeline button in the media file folder.
Vertical Axis: Represents spatial order, arranging media files from the same waypoint route by waypoint sequence.
Horizontal Axis: Represents time, with media files collected from the same waypoint route and by the same fixed-angle action in chronological order.
Features:

- Filter media types by clicking W, Z, or IR. Multiple selections are supported.
- Click  to quickly jump to the latest media file list.
- Click a media file to enter single image style.

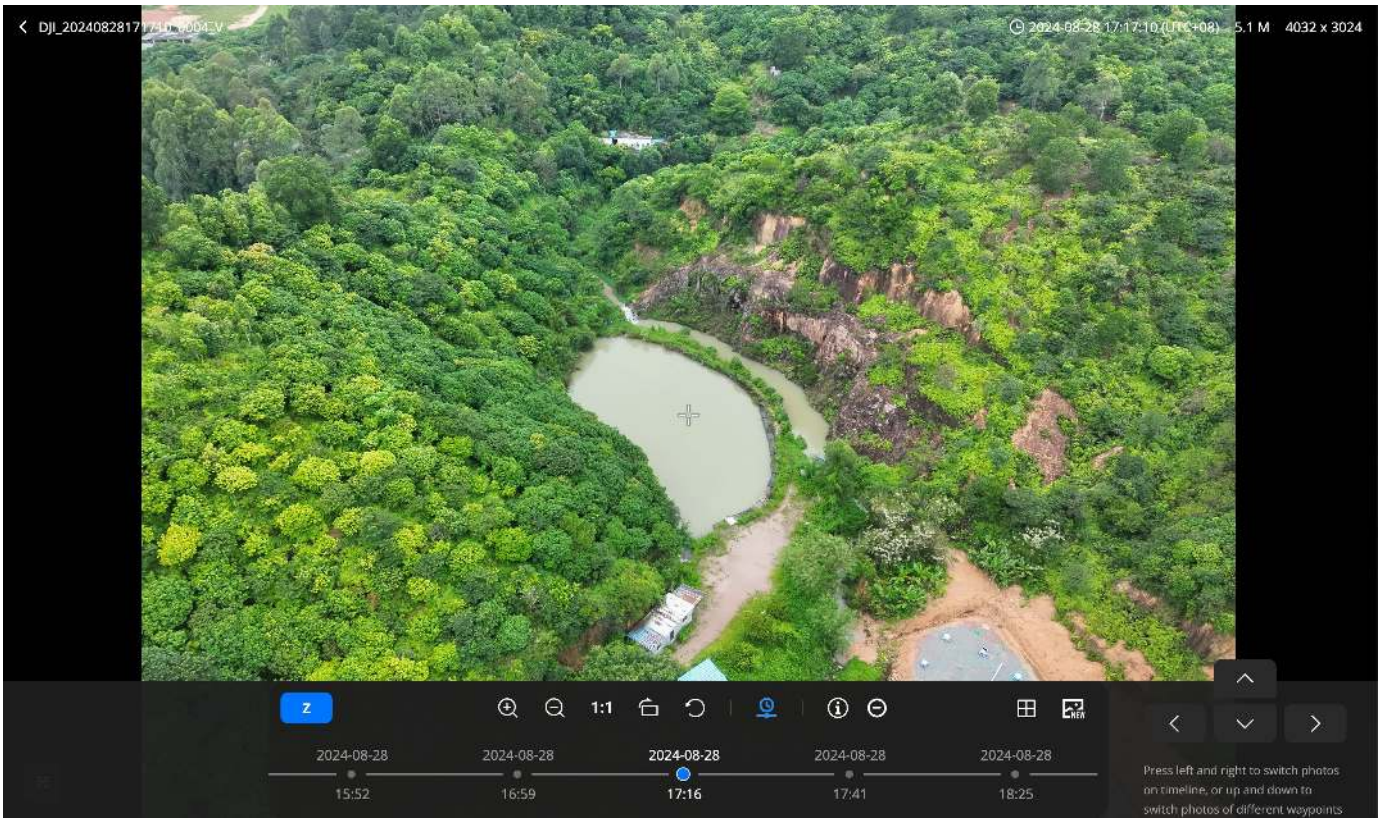


Single sheet style

Entry: Click the Timeline button in the media file folder.

Features:

- Click a dot on the timeline to display media files collected at the corresponding time, from the same waypoint route and by the same fixed-angle action.
- View and switch between different media file types.
- Click the grid icon to switch to grid style.
- Click the NEW icon to quickly jump to the latest media files collected from the same waypoint route and by the same fixed-angle action.

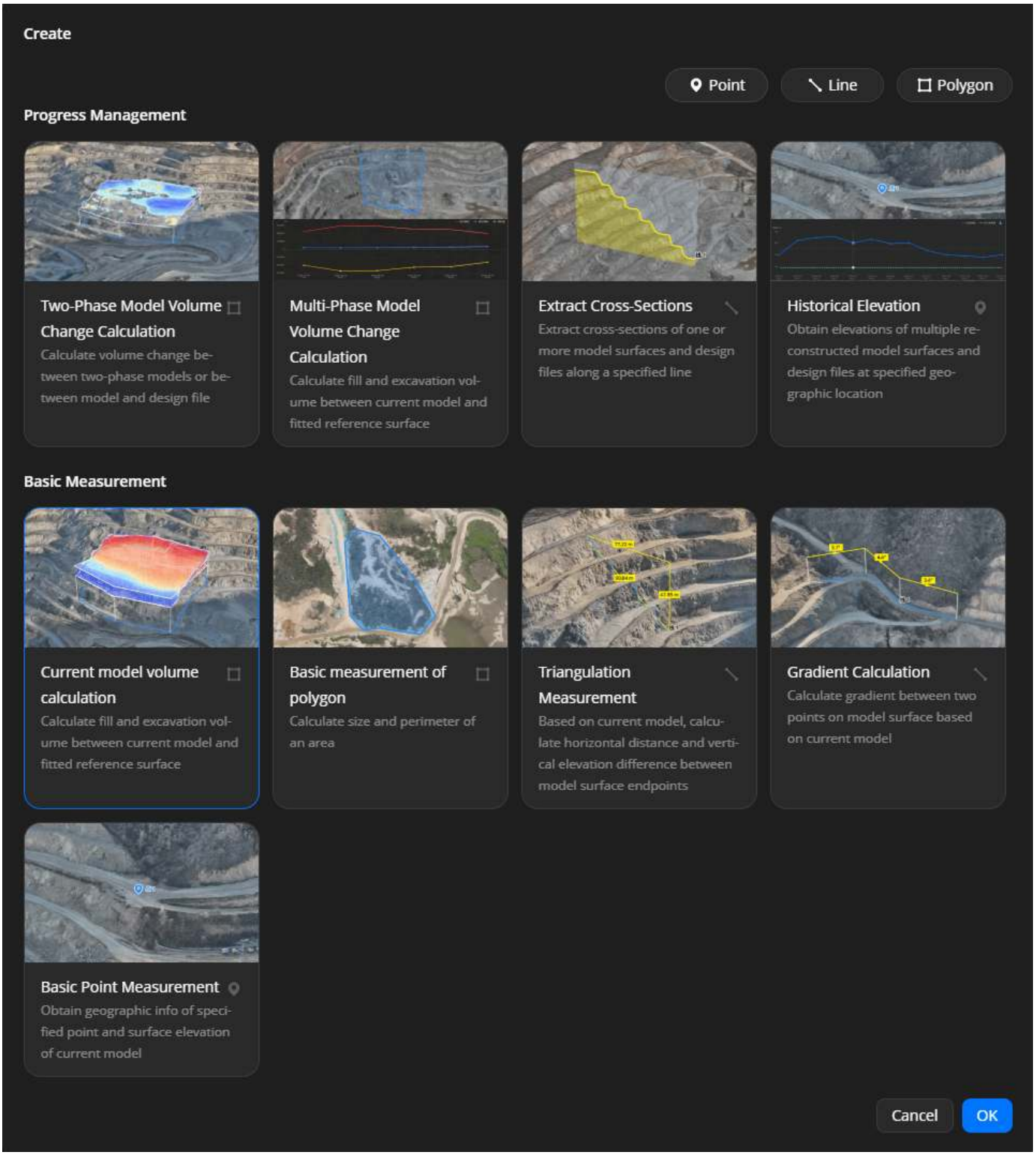

2024-08-28 17:17:10 (UTC+08)
5.1 M
4032 x 3024
1:1
2024-08-28
15:52
2024-08-28
16:59
2024-08-28
17:16
2024-08-28
17:41
2024-08-28
18:25
Press left and right to switch photos on timeline, or up and down to switch photos of different waypoints

Measurement Calculation

How to Use Measurement

Create Measurement

Method 1: In the analyzer, click Create on the left to access the measurement function . click + Create ,Select the desired calculation tool to create a corresponding measurement.



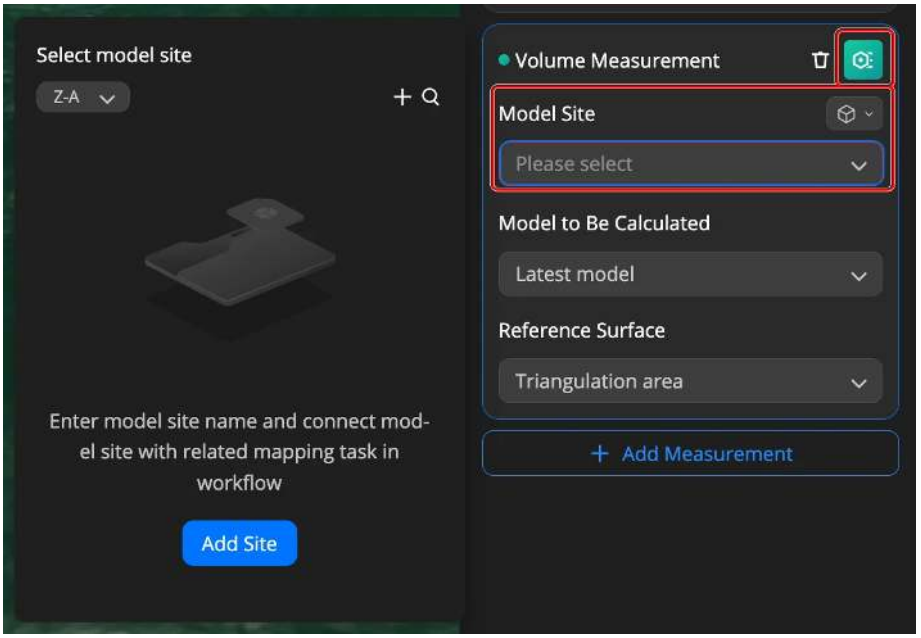
Method 2: On the analyzer map, click ↘ or ⬚, use the shortcut toolbar on the right to quickly draw and create a measurement.

Calculation Tools

- Measurement refers to depicting the geometry of the measurement area. Calculation tools are specific rules or algorithms applied to the measurement area to generate results.
- A single measurement can be configured with multiple calculation tools, allowing the same measurement area to be analyzed using different rules.
- In the measurement property panel on the right, click different calculation tools to view their respective results.
- Click 「Add Measurement」 to add, delete, or reorder calculation tools for a measurement.

Advanced Measurement

- When Advanced mode is enabled, measurements can be integrated with automated workflows, supporting the full process: Flight data collection > Model mapping > Measurement calculation > Analysis report.
- In the Advanced mode, you can select model sites. Model sites are groups of models associated with model mapping tasks in automated task configurations, representing periodically reconstructed model groups.



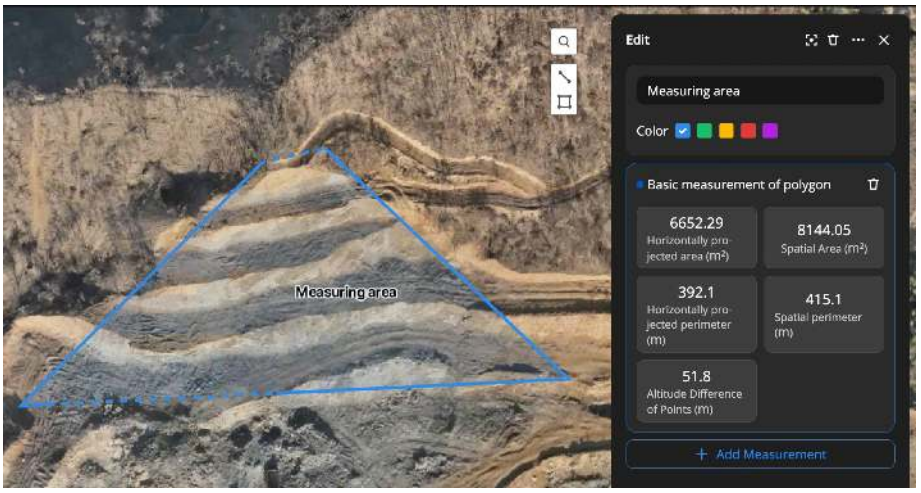
Surface Calculation Tools

Basic Measurement of Polygon

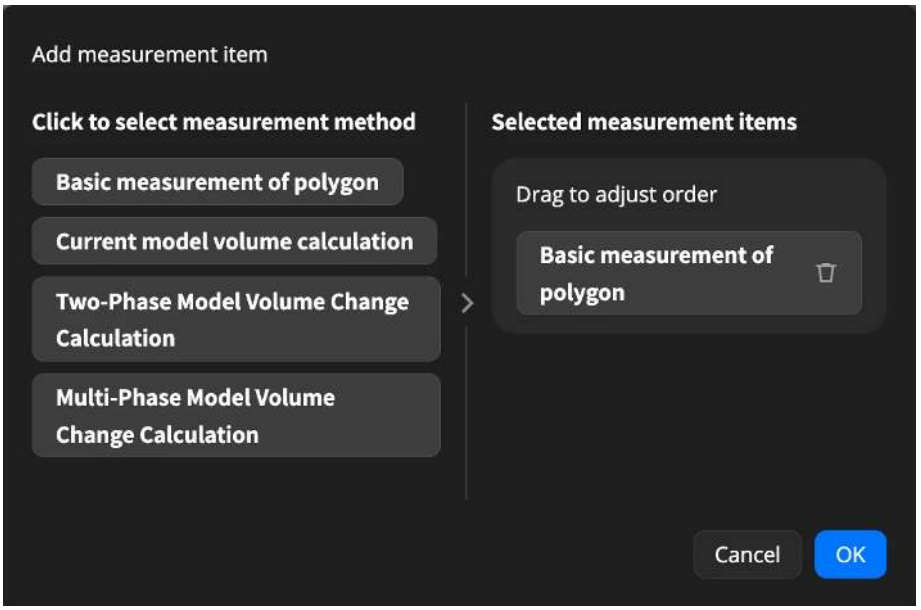
After drawing a specific polygon, you can measure the following properties:

Horizontally projected area, triangulation area, horizontally projected perimeter, spatial perimeter, and altitude difference.

You can also adjust the name and color of the surface as needed.



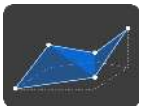
For the same polygon, you can initiate multiple measurement tasks simultaneously by clicking "Add Measurement" below.

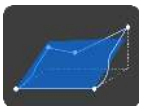
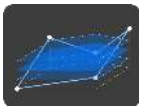


> Note: For optimal measurement accuracy, it is recommended to use model data collected at a flight altitude of 120 meters or below.

Current Model Volume Calculation

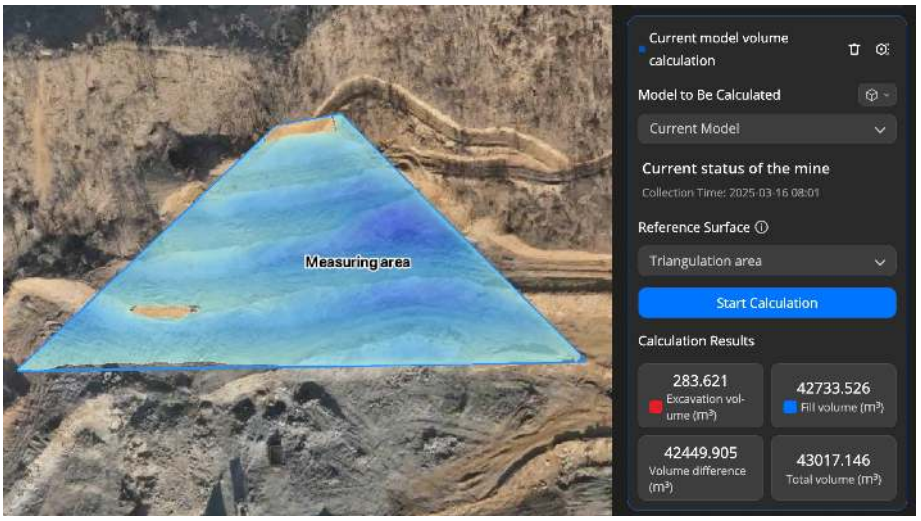
By using the current model as the calculation basis, you can perform volume calculations for different scenarios and requirements by specifying different reference surfaces. Currently, four types of volume calculations are supported.

Reference Surface	Surface Generation Method	Applicable Scenarios	Sketch Map
Triangulation area	Based on the polygon triangulation algorithm, triangulation is performed on the target surface to form a	Ideal for terrain mapping, original site surveys, and volume measurement of narrow, elongated stockpiles, large	

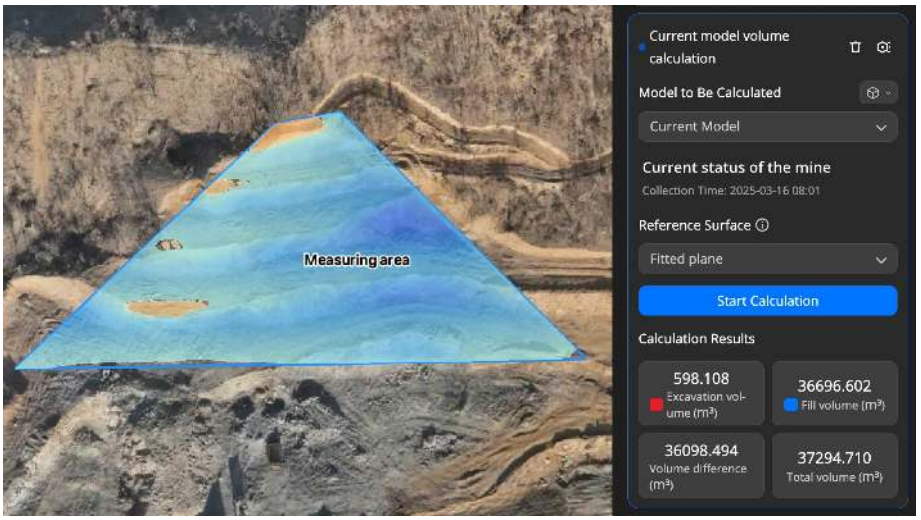
Reference Surface	Surface Generation Method	Applicable Scenarios	Sketch Map
	three-dimensional triangular mesh surface	stockpiles, and sloped environments	
Fitted plane	The algorithm processes endpoints of the target area to fit an absolutely flat reference surface in 3D space. This theoretical surface is positioned such that the sum of the distances from all endpoints to the surface is minimized	Ideal for conventional volume measurement of individual stockpiles on flat sites and slope leveling design and construction at uniform elevation	
Reference level	By manually entering ASL value or ellipsoidal height, the algorithm generates a reference level at the specified value	Suitable for scenes requiring a specific horizontal elevation, as well as conventional volume measurement of individual stockpiles on flat sites	
Model from last phase	Calculate volume difference using selected reference surface and model from previous phase	Quickly obtain progress between two adjacent phases	

The schematic effects of different calculation methods for the current model volume calculation are as follows:

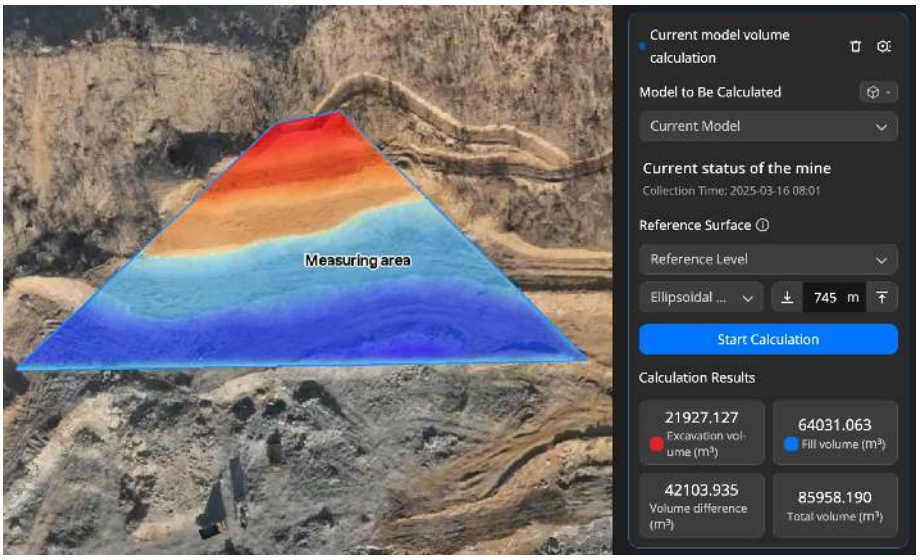
Triangular network fitting surface



Plane fitting surface

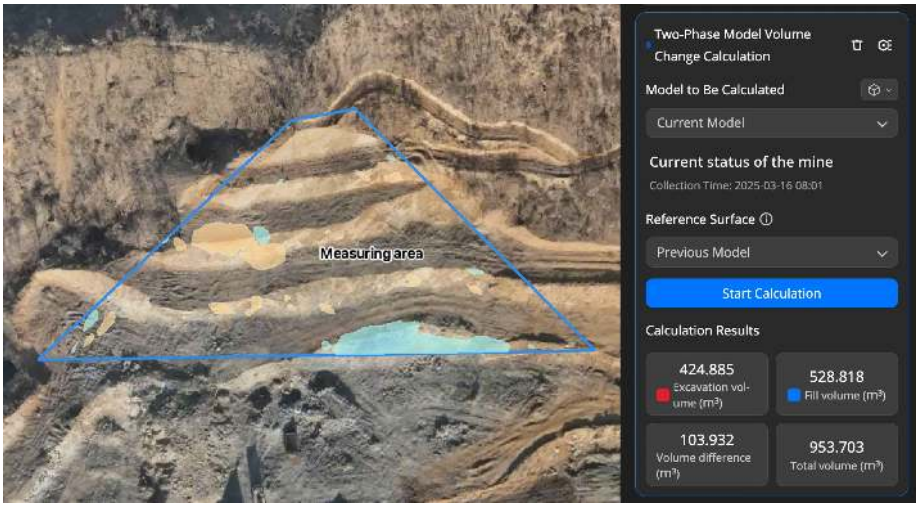


Custom horizontal plane



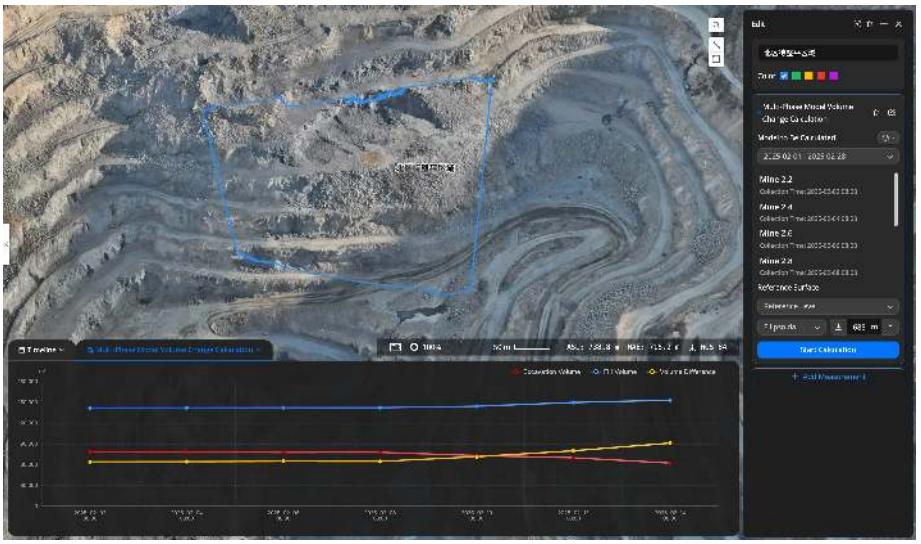
Calculation of Volume Changes in Two Phase Models

The calculation of volume changes in the two-phase model will default to selecting the current model as the calculation model. The calculation benchmark can be selected from the previous model (the previous model of the calculation benchmark), a specified custom model, or a DXF design file containing 3DFace. By calculating the volume change of the two models, relevant information on the comparison between the two models can be obtained:



Calculation of volume changes in multi-stage models

Calculate the volume change of a multi-stage model by selecting a set of multi-stage models and comparing them to a fixed reference plane (design file or reference model) to calculate their volume change. Calculate the benchmark by selecting the progress of adjacent two phases of the model, which can calculate the change between each phase.



Line Calculation Tool

Gradient Calculation



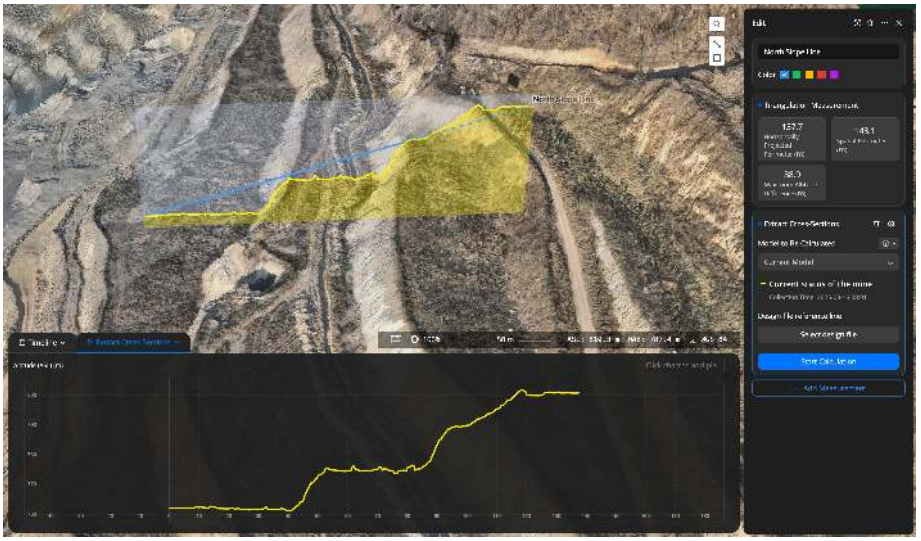
The gradient measurement tool is used to measure slope gradient information along a line, supporting three display formats: gradient, gradient percentage, and gradient ratio.

Triangulation Measurement



The triangulation measurement tool calculates the following information between the endpoints of multiple line segments: horizontal distance, elevation difference, and spatial length.

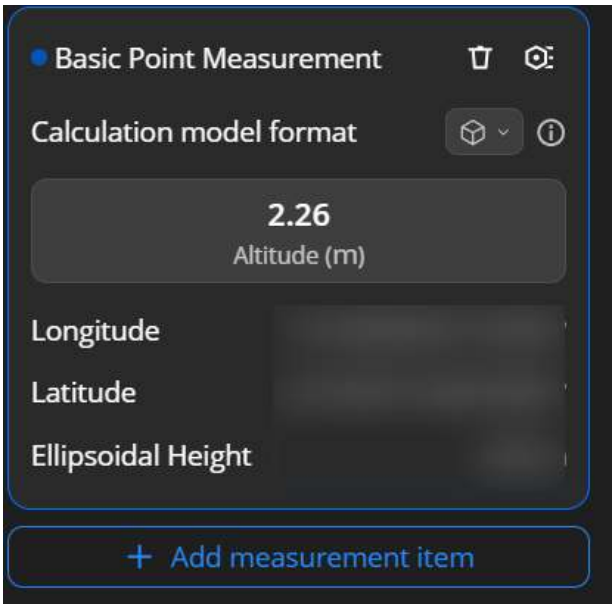
Extract longitudinal and transverse sections



Extract the longitudinal and transverse sections of a single or multiple reconstructed model surfaces and design files along a specified route. You can obtain detailed height information by hovering over the mouse or clicking on the add pin.

Point Calculation Tools

Basic Point Measurement



You can obtain the point's geographic location and surface elevation information of the current model.

Historical Elevation



You can obtain the point's geographic location and surface elevation information of the historical model.

Defect Management

The analyzer supports drawing defect boxes directly on media files. Using the camera parameters and the model, the system performs a ray intersection to precisely map the 2D annotation onto the corresponding 3D position on the sandbox model. Conversely, click any point on the sandbox model to automatically recommend related media files that may have captured that point — enabling two-way spatial linkage between **2D media** and the **3D model**.

Create a Defect

Entry Points

When viewing a media file in the analyzer, open the media detail page and click the defect tool in the toolbar to enter drawing mode. The following viewing paths all support defect creation:

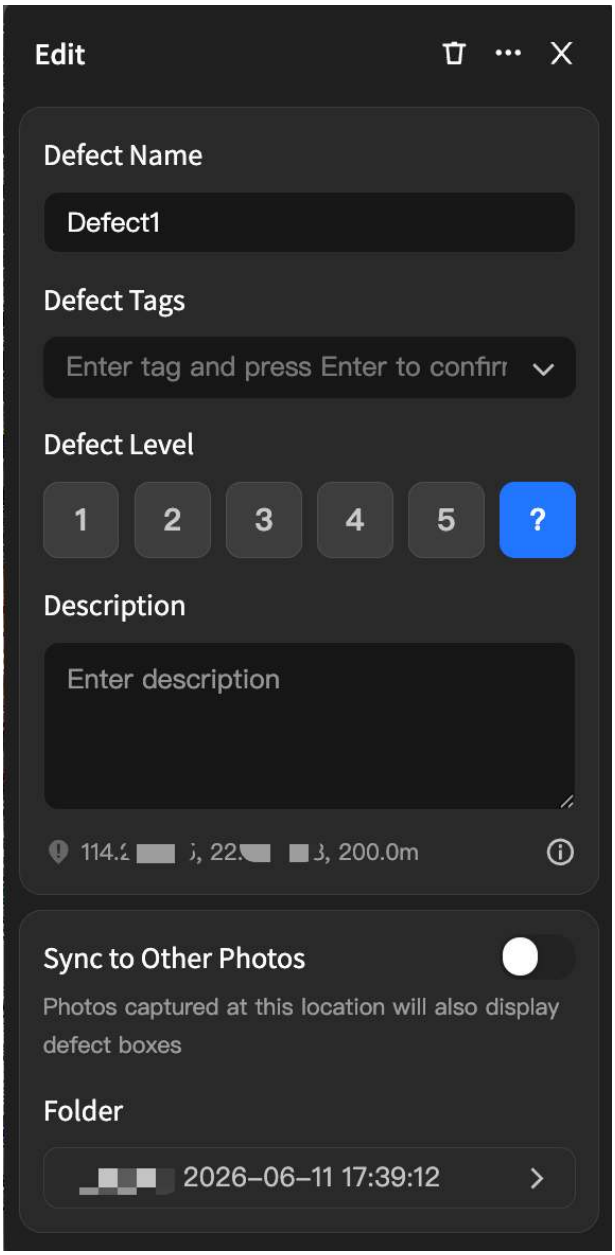
- Media timeline view
- Media side-by-side comparison
- Map photo single-image view

Draw a Defect

After entering the defect tool, press and hold the left mouse button on the photo and drag to draw a defect box; release to finish. Press **[Shift] + left mouse button** to pan the photo, and press **[Esc]** to exit the defect tool.

Defect Properties

After the defect is drawn, the property panel on the right expands automatically:

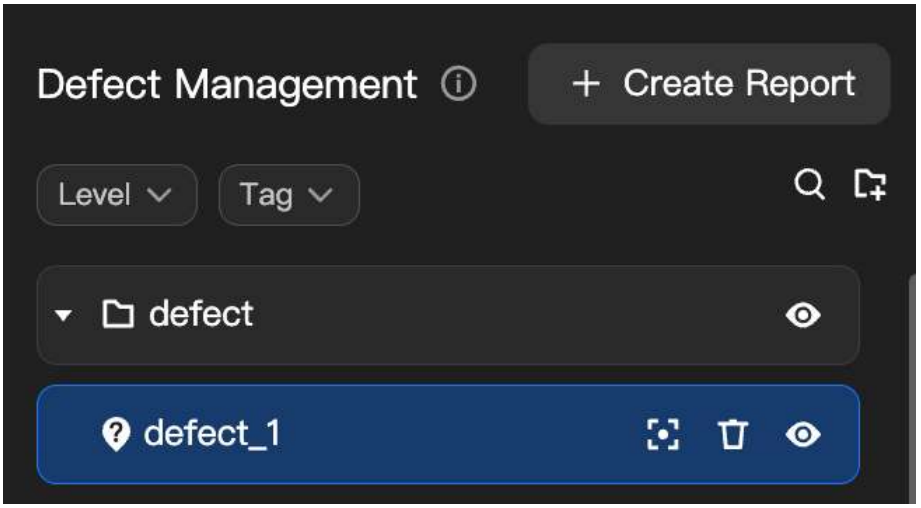


Property	Description
Defect name	Defaults to "Defect N" (incremental); editable.
Defect tags	Enter a tag and press Enter to confirm. The dropdown shows up to 10 frequently used tags from this analyzer. Multiple tags per defect are supported.
Defect level	Defaults to "?" (unrated). Five levels (1 – 5) are available.
Description	Free text input.
Location	The longitude, latitude and altitude where the box center ray intersects the current model — computed automatically.
Sync to other photos	Off by default. When on, the defect is also displayed (as a dashed box) on other photos taken from the same waypoint.
Folder	Defaults to the photo capture date; editable.

- A defect is essentially a **ray** based on the photo's pose information (fov). Whichever model is currently displayed on the map is the model used for ray intersection — what you see is what is calculated. When you switch the model on the sandbox, the defect position is recalculated and re-rendered automatically.
- If other photos at the same waypoint were captured with different camera actions (e.g. infrared and zoom), they are not included in the sync for now.

Defect Management List

In the analyzer's left navigation, click the Defect Management icon to open the defect management list.



Folder Organization

- Defects can be organized in folders. Only a single folder level is supported for now.
- By default, defects collected from the same flight route are grouped into the same folder.
- You can create folders and drag defects / folders to reorder them or change their parent.
- Double-click a folder to rename it.

Filtering and Selection

- The icon on each list row directly reflects the defect level; the same level icon is used on the sandbox map points.
- The top of the list supports filtering by **level** and **tag**, both with multi-select.
- List and map stay in sync:
  - Clicking a defect point on the map scrolls the list to the matching row.
  - Clicking a defect in the list highlights its point on the map, but the map view does not auto-center. Click the **Center** button to center manually.

Edit and Delete

- Hovering over a defect or folder reveals the **Show / Hide**, **Center**, and **Delete** buttons at the end of the row.
- Deleting a folder shows a confirmation pop-up: "All defects inside this folder will also be deleted."
- All defect properties (name, tags, level, description, etc.) can be edited in the detail panel on the right.

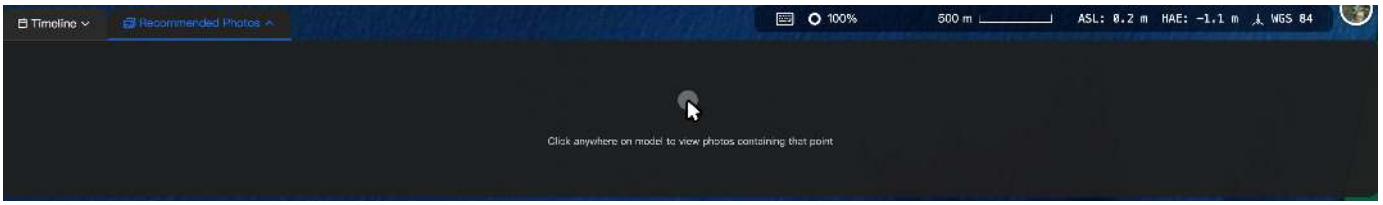
Photo Recommendation from Model

Click any point on the sandbox model, and the system will use camera-pose-based geometric back-calculation to automatically recommend photos that may have captured that point — useful for multi-view diagnosis.

Tool Entry Points

The following three entry points all support photo recommendation from the model:

- Click **Recommended Photos** at the bottom of the sandbox to display recommendations for the current view.
- Right-click anywhere on the sandbox model and choose **View Matching Photos**.
- Select a defect in the defect management panel; the **Recommended Photos** section below will automatically list recommended thumbnails.



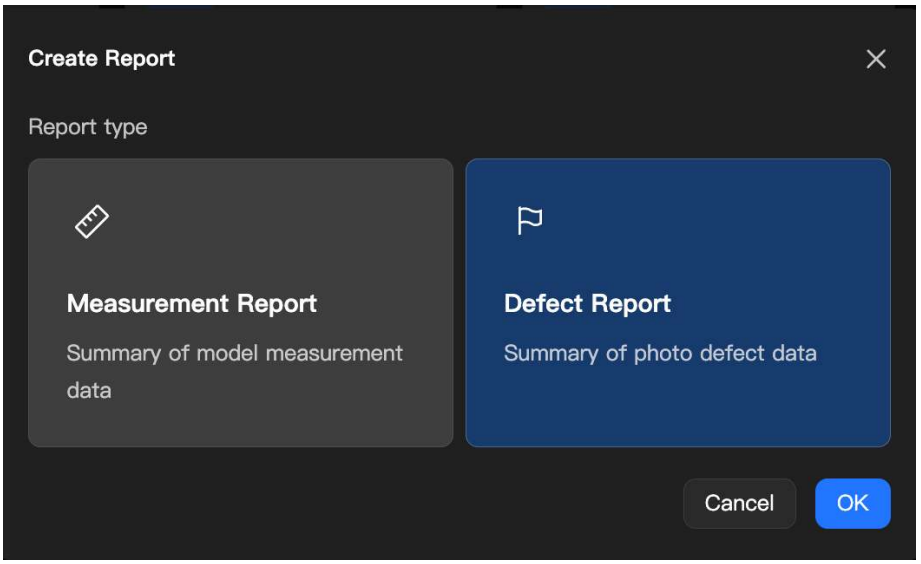
- The model-to-photo recommendation capability depends on model reconstruction and the pose information of the media files.
- Recommendation scope: media within the analyzer (including panoramas). Results are ordered by capture distance (nearest first).

Defect Report

Entry Points

The following two entry points both support creating a defect report:

- In the analyzer, click the **Analysis Report** icon to open the analysis report feature, click **New Report**, and choose **Defect Report**.
- In the upper-right corner of the defect management list, click **New Report** to enter the defect report creation flow directly.



- Defect reports currently support manual creation only. Automated tasks and report templates will be supported soon.
- You can filter by type using the **Report Type** filter in the analysis report and report template lists.

Defect Report Content

A generated defect report contains the following sections:

- **Cover**: report name, cover screenshot (with defect points), model capture time, report generation time, company logo.
- **Defect Overview**: total defect count; breakdown by level (1 – 5, unrated); breakdown by tag.
- **Defect Details**: sorted by defect level from high to low. Each defect includes its original photo (with the defect box), photo name, capture time, defect level, defect tags, defect longitude/latitude/altitude, and the model name and capture time.

- Defect details are sorted by defect level from high to low, so inspectors can prioritize high-level defects.
- Other operations for defect reports (filtering, downloading, email sharing, etc.) are identical to the Analysis Report.

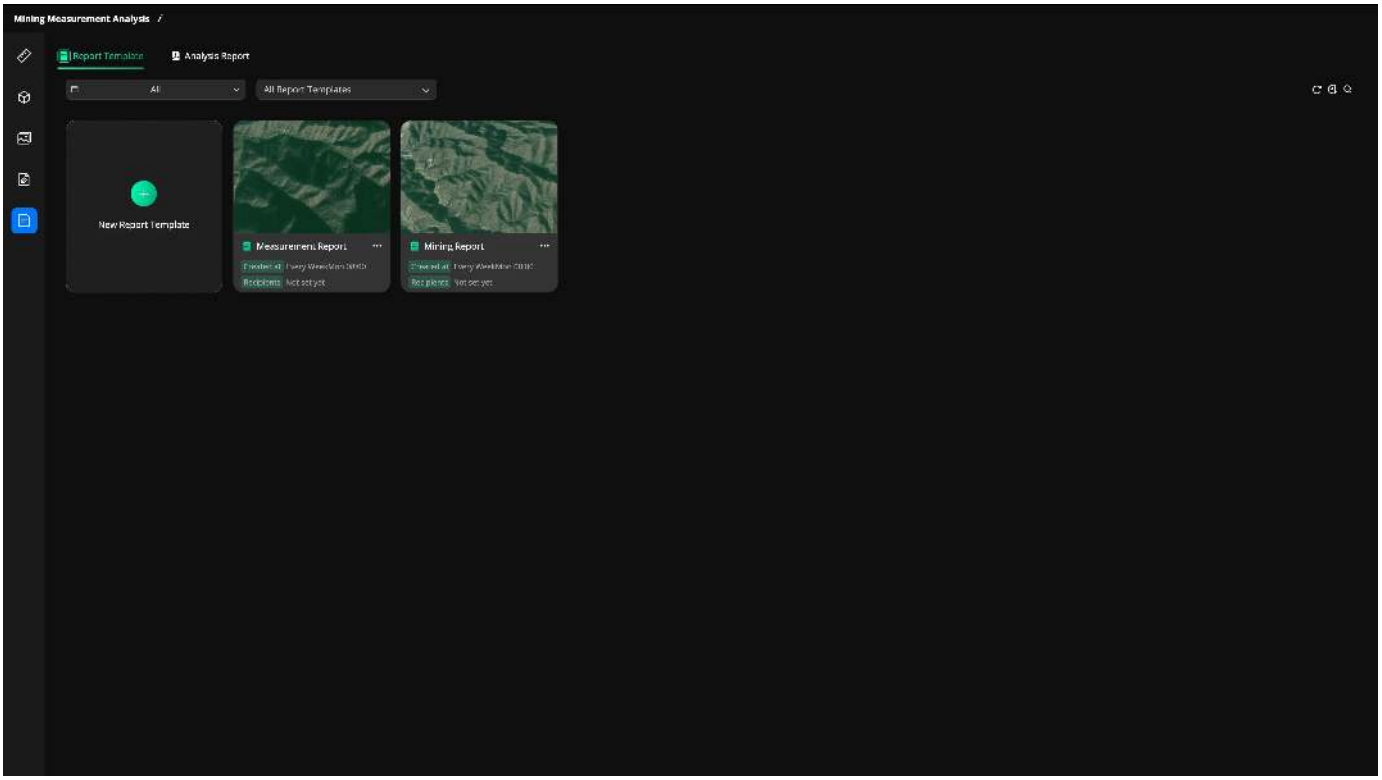
Analysis Report

Click the analysis report icon in the analyzer to enter the analysis report page.

Report Template

Create Report Template

Click "New Report Template" in the report template tab to start a new template. Report templates are designed for content that is repeatedly generated, and are often used together with automated workflows and model sites. This enables a complete process of automated data collection, mapping, and analysis reporting. Users can receive the latest measurement analysis reports on a scheduled basis.

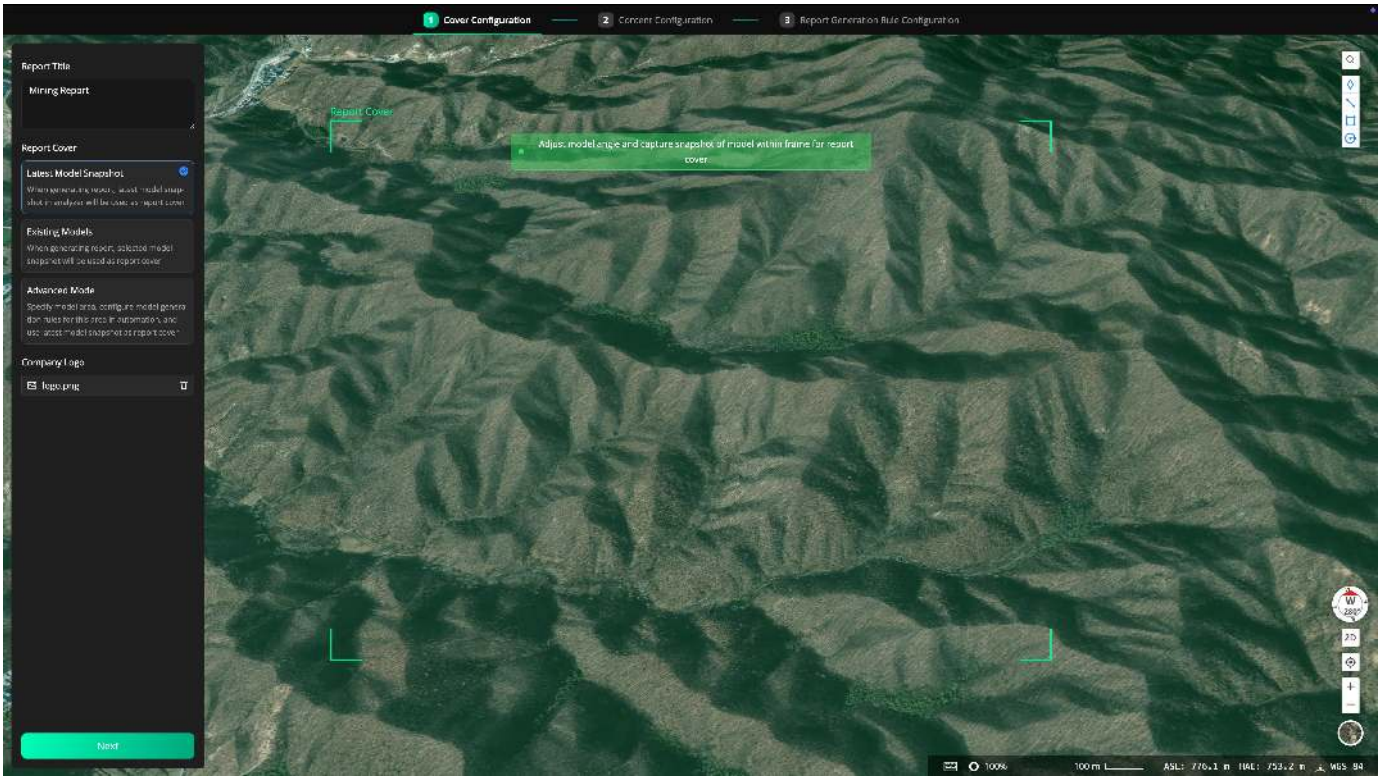


Cover Configuration

1. Enter the report title;
2. Select a model to display on the report cover:

- Latest Model Snapshot: When generating a report, use the latest model snapshot from the analyzer as the report cover.
- Existing Models: When generating a report, use the selected model as the report cover.
- Advanced Mode: Specify the model site, associate the model generation rules of the area in the automated workflow, and use the latest model of the specified area as the report cover.

3. Adjust the model angle on the right map page and capture a snapshot of the model within the frame for the report cover;
4. Supports uploading and adding a company logo.



Content Configuration

1. Select the measurements to include in the report;
2. Select the calculation tools to be used for each measurement;

- Basic measurement: Includes Current Model Volume Calculation, Basic Measurement of Polygon, Triangulation Measurement, and Gradient Measurement.
- Progress Management: Includes Two-Phase Model Volume Change Calculation, Multi-Phase Model Volume Change Calculation, and Extract Cross-Sections
- Advanced Mode: The measurement calculation tool rules include the model site associated with the automated workflow.

Report Generation and Delivery

1. Auto Report Generation

These settings apply to report templates only. It is recommended to use this feature together with automated workflows. Enable Auto Report Generation and set the periodic generation time.

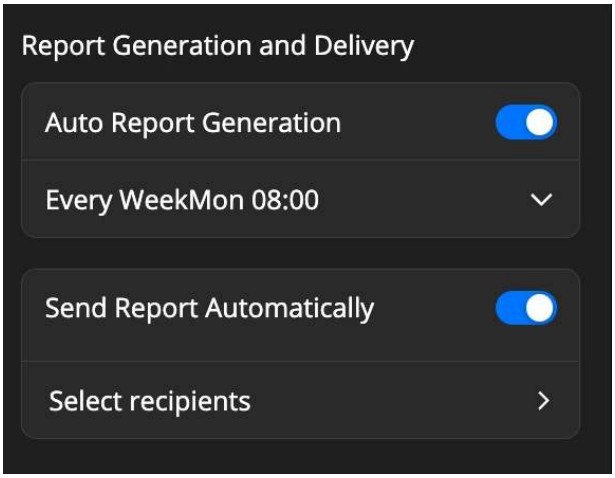
> Note:
> - The automatic generation time of the report will affect the measurement calculation of the model site within the report template;

- The automatic generation time of the report should be set after the corresponding automated modeling task time, and sufficient time should be reserved in between for cloud reconstruction.

2. Report Sending

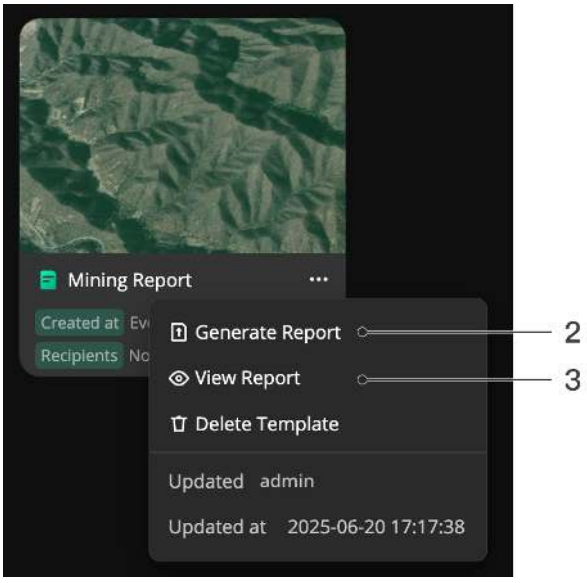
Turn on the send switch, set the email recipients, and the latest report generated will be sent automatically.

- Note:The current automatic report sending setting only applies to report templates.



Report Template Management

1. Report templates can be filtered by creation time and whether auto-generation is enabled.
2. Click on a report template module for more settings, to quickly generate a report, confirm the model, enter report editing, view the report, and access the full history of reports generated from this template.



3. Click on the report template card to view the report in more settings, and you will be redirected to view the history of all reports generated under this report template

Analysis Report and Management

Create Analysis Report

Click "Create Report" in the analysis report tab to create a new analysis report. The creation process is similar to that of a report template, including cover and content configuration.

Analysis Report Management

1. Analysis reports can be filtered by time and by report template.
2. Click on the analysis report module for more settings. Enter an email address to share the analysis report file, and quickly download the analysis report file.

Automated Workflow Report

Report templates are designed for content that is repeatedly generated, and are often used together with automated workflows and model sites. This enables a complete process of automated data collection, mapping, and analysis reporting. Users can receive the latest measurement analysis reports on a scheduled basis.

Standard Mode Example

1. Create an automated workflow.
2. Plan a flight route task, ensuring the mapping area covers the required area, and schedule automatic flight data collection every Sunday at 12:00 noon.
3. Create a cloud mapping task and associate it with the flight route task. Configure relevant mapping parameters, and obtain the model every Sunday.
4. In the analyzer, draw a polygon for the area to create a measurement. Add the calculation tool "Current Model Volume Calculation", and select "Current Model" as the calculation model.
5. In the analyzer, create a new report template. Configure the report cover to display the "Latest Model Snapshot". Choose the previously created measurement for content configuration. Enable basic measurement in the standard calculation rules. Set the automatic report generation time to every Monday at 10:00 AM. Add the recipient’s email address for automatic report sending.
6. In the automated workflow, associate the cloud mapping task and the analyzer. This ensures the model is automatically imported into the analyzer every Sunday.

- Note: The analyzer defaults to the current model as the latest model, which means that the measurement P is calculated based on the latest model at the time of report generation for volume calculation. That is, when the report is generated at 10:00 am every Monday, the latest model in the analyzer is the reconstructed model Q from the previous Sunday, and the

measurement P is calculated based on this model for the current model volume. The results will be sent to email B in the form of report template J.

Advanced Mode Example

1. Create an automated workflow.
2. Plan a flight route task, ensuring the mapping area covers the required area, and schedule automatic flight data collection every Sunday at 12:00 noon.
3. Create a cloud mapping task and associate it with the flight route task. Configure relevant mapping parameters, and obtain the model every Sunday.
4. In the analyzer, draw a polygon for the area to create a measurement. Enable Advanced mode in the upper right corner. Add the calculation tool "Current Model Volume Calculation". Create a new model site. Select "Latest Model" as the model to be calculated.
5. In the analyzer, create a new report template. Configure the report cover to select Advanced mode. Choose the newly created model site. For content configuration, select the previously created measurement. Enable Advanced mode and check the basic measurement in the advanced calculation rules. Set the automatic report generation time to every Monday at 10:00 AM. Add the recipient's email address for automatic report sending.
6. In the automated workflow, associate the cloud mapping task and the model site in the report template within the analyzer. This ensures the model is automatically imported into the analyzer every Sunday and becomes the designated model site.

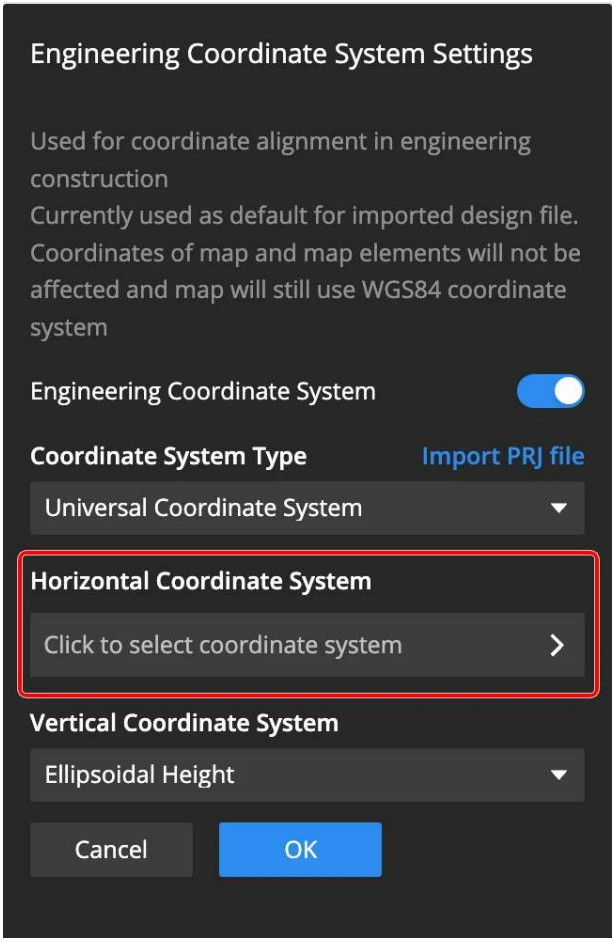
- Note: Compared to the regular mode, the advanced mode allows for the setting of model sites, more precise configuration of specific model calculation rules, and supports multiple model sites. It is often suitable for larger projects that pursue accuracy and require local reconstruction of more refined models.

Project Engineering Coordinate System Settings

In the project settings, you can enable the engineering coordinate system settings. This coordinate system setting is only used when importing design files, and does not affect the coordinate system of the map or map elements within the project. The map will still use the WGS84 coordinate system.

General Coordinate System

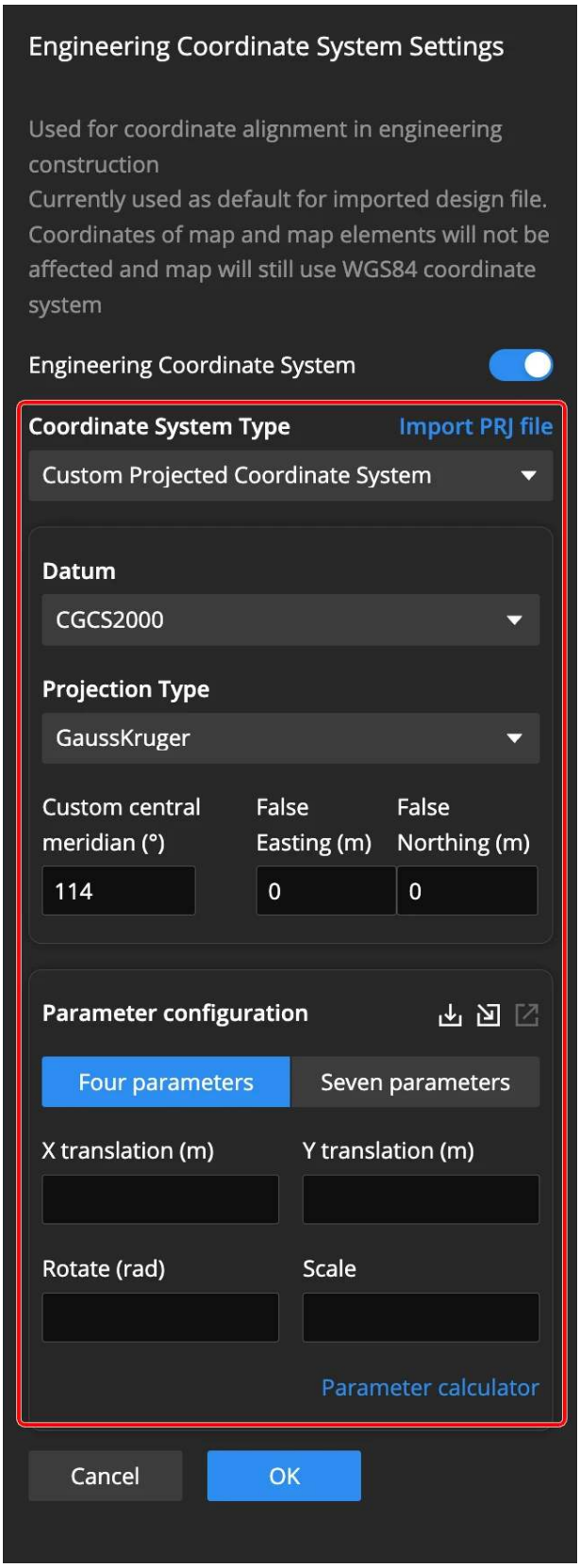
Supports setting EPSG code for the general coordinate system.



Custom Projected Coordinate System

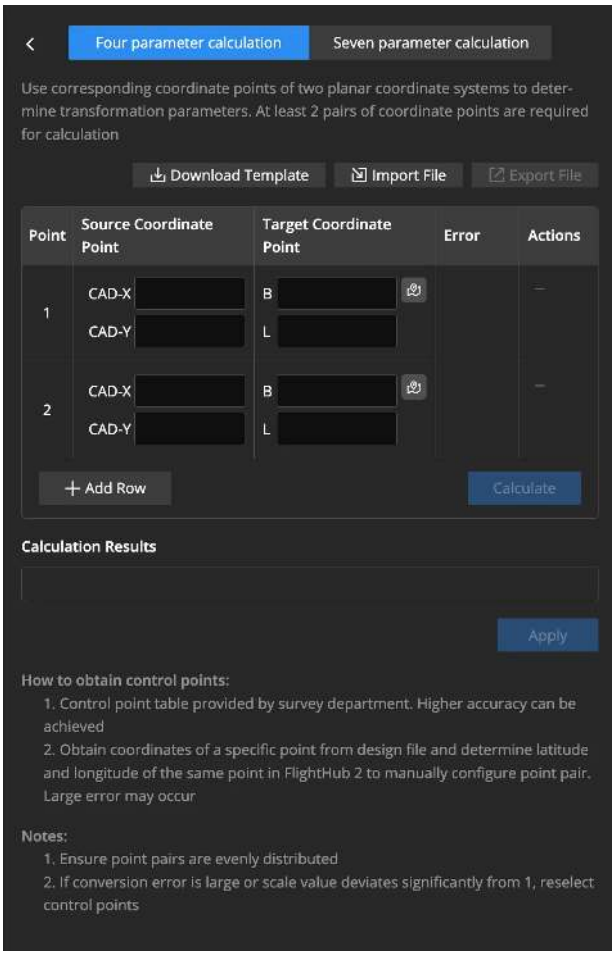
Supports customizing the projected coordinate system by setting the following parameters:

- Datum: CGCS2000, WGS84, Beijing 54, or Xi'an 80
- Projection Type: Gauss-Kruger, UTM, or Web Mercator
- Custom central meridian
- False easting and northing



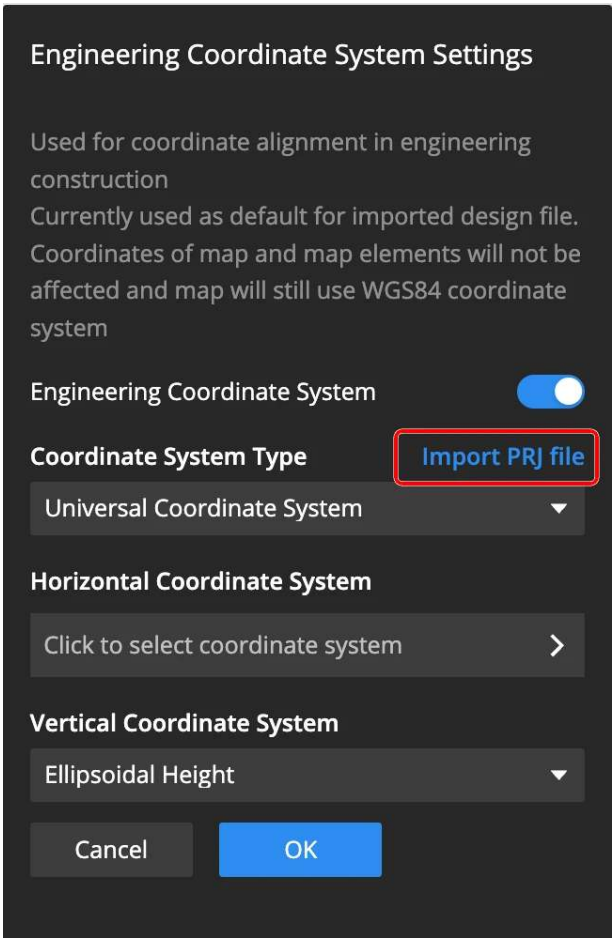
Four- or Seven-Parameter Configuration

- Supports direct import of parameter files in the CSV format.
- Supports four- or seven-parameter transformations using control point pairs.



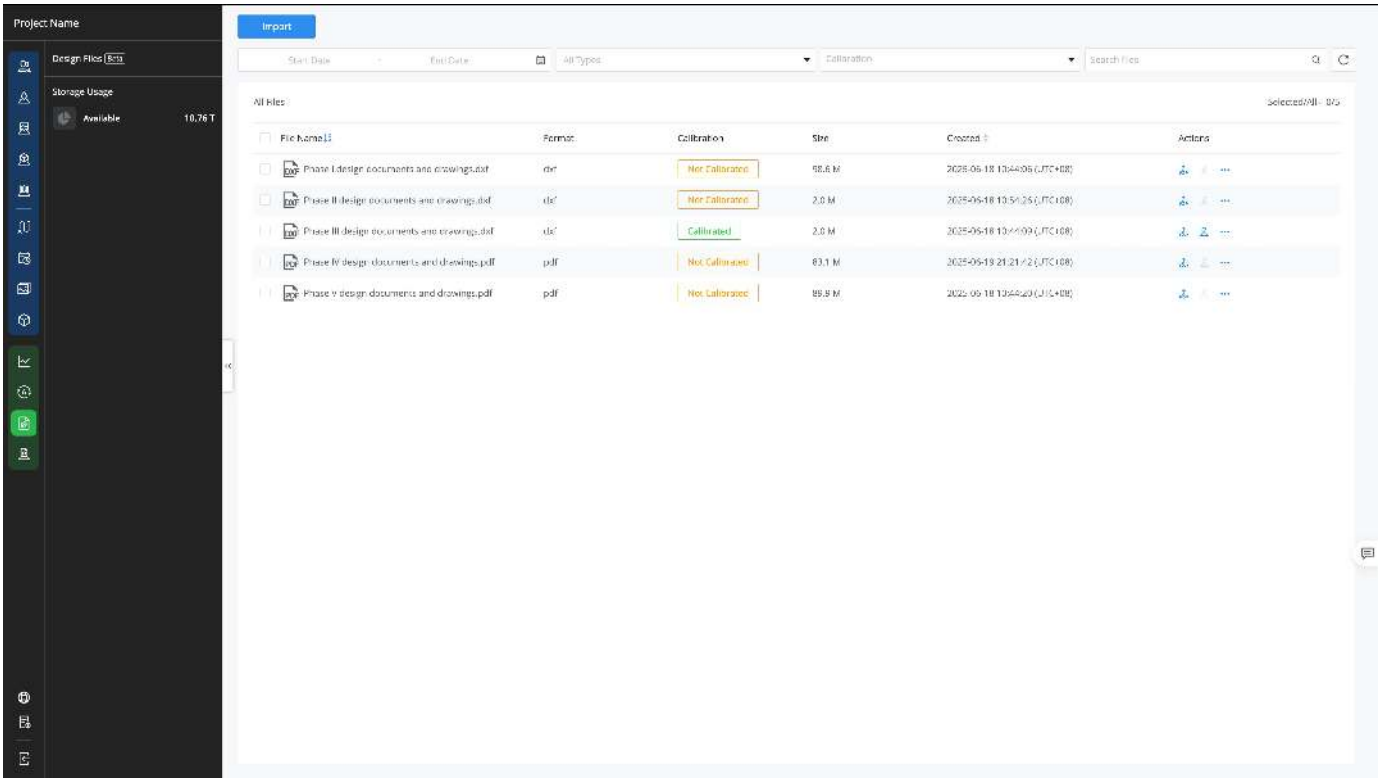
PRJ File Import

You can import PRJ files that define coordinate systems. The system will read and apply the coordinate system information from the PRJ file automatically.


Engineering Coordinate System Settings
Used for coordinate alignment in engineering construction
Currently used as default for imported design file. Coordinates of map and map elements will not be affected and map will still use WGS84 coordinate system
Engineering Coordinate System
Coordinate System Type
Import PRJ file
Universal Coordinate System
Horizontal Coordinate System
Click to select coordinate system
Vertical Coordinate System
Ellipsoidal Height
Cancel
OK

Design File Import

DXF or PDF design files can be imported and displayed within the FlightHub 2 project map and analyzer. You can upload DXF files with 3DFACE entities. The system calculates volumes and visually tracks construction progress based on your selected models and design files.



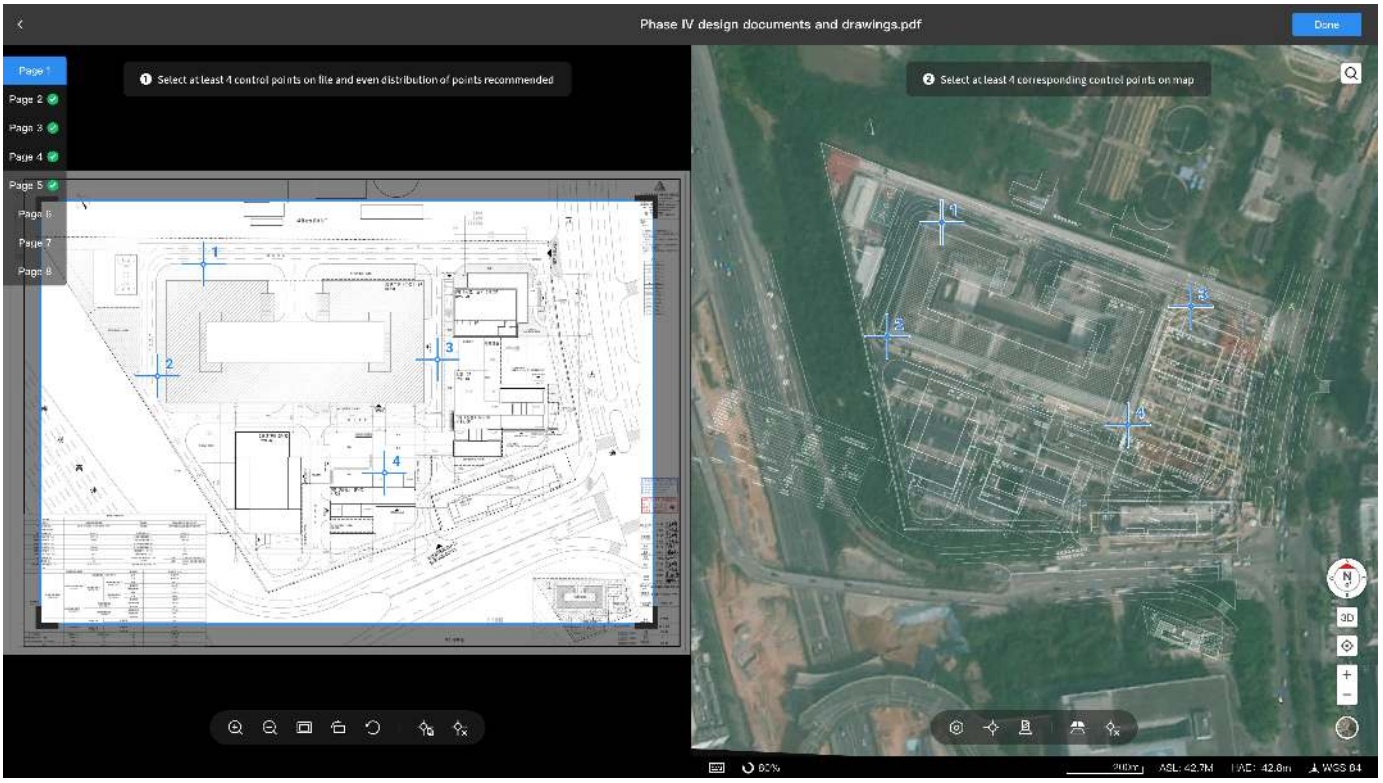
Note:

- Multi-page PDF file can be uploaded and be displayed on the map after matching points are set and calibrated in the design file management;
- DXF files less than 100 MB can be uploaded and be displayed on the map after matching points are calibrated or coordinate system is converted in the design file management;
- The above design files can only be referenced by the analyzer after calibration is completed.

PDF File Calibration

Calibration Process

After importing the PDF file, you can click to enter the calibration interface and calibrate the PDF file to the specified position on the map.



Please add at least 4 matching points, and ensure the matching points are as dispersed as possible and not aligned in a straight line to achieve the best calibration effect.

If the calibration is incorrect, you can click on a specific matching point and double-click the button to delete that matching point.

Toolbar Description

PDF Interface:



1. Zoom in the file
2. Zoom out the file
3. Scale the file to fit the current screen size
4. Rotate the file
5. Reset the page size and orientation

6. Copy all matching points from the previous page of the current file
7. Delete all matching points on the current page

Map interface:



1. Set the color and transparency style of the PDF file after being overlaid on the map
2. Adjust the coordinates of matching points
3. Choose whether to overlay the file on the map after calibration
4. Show or hide map elements on the current page
5. Delete all matching points on the current map page

DXF File Calibration

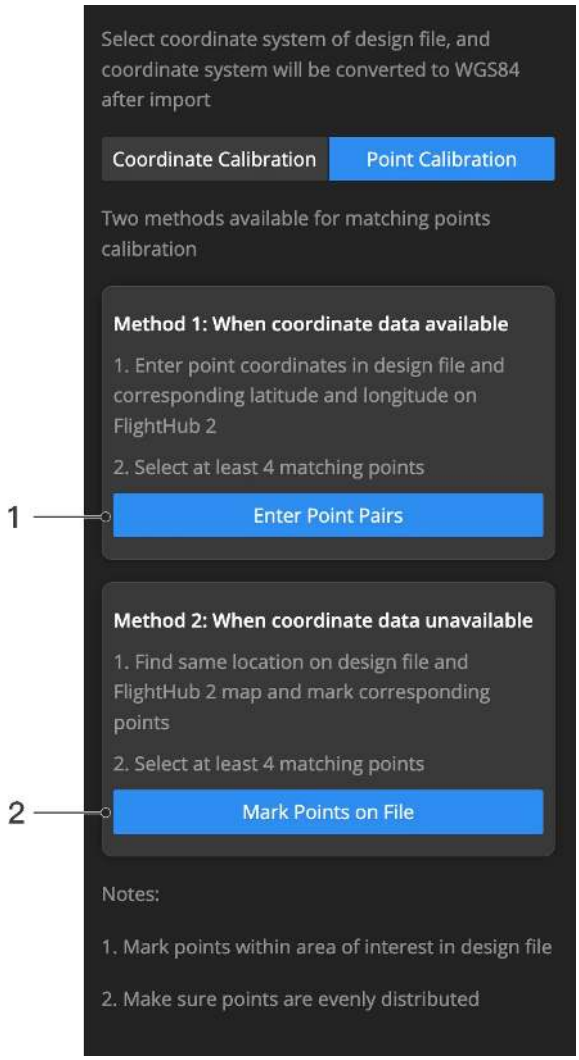
After importing the DXF file, you can choose to calibrate the file through precise calibration or matching point calibration.

Precise Calibration

Supports setting custom projected coordinate systems and general coordinate systems, same as the engineering coordinate system settings.

Matching Point Calibration

Method 1: If coordinate data is available, you can mark points on the map or directly enter the coordinates of matching points.



Method 2: If coordinate data is not available, you can refer to the PDF file calibration method to calibrate the DXF file.

Introduction

Release Notes

FlightHub Sync Beta is now upgraded to FlightHub Sync

1. All FlightHub Sync features are integrated into FlightHub Sync. New users should use Sync directly.
2. Existing FlightHub Sync users can continue using the service; once all configurations are deleted, the entry will close automatically.
3. For a detailed introduction to FlightHub Sync, see FlightHub Sync.

> Note: FlightHub Sync Beta has completed public beta testing and been upgraded to "FlightHub Sync". Please migrate to FlightHub Sync as soon as possible to access the full feature set.

API Mapping Reference Table

All FlightHub Sync Beta APIs are now fully supported in OpenAPI. Use the following mapping table to update your API calls. For the complete OpenAPI documentation, see FlightHub OpenAPI.

FlightHub Sync Beta API	OpenAPI Equivalent	Endpoint Path
Get the list of devices for a specific project	Get the list of devices under the project	`/openapi/v0.1/project/device`
Get temporary upload credentials for a project	Get the storage upload credentials for a project	`/openapi/v0.1/project/sts-token`
Send flight commands	Issue real-time control commands	`/openapi/v0.1/device/{device_sn}/command`
Initiate live-stream forwarding (create transcoder)	Create stream forwarder	`/openapi/v0.1/live-stream/converter`
Get the transcoder for the stream forwarding channel	Get the stream transcoder list	`/openapi/v0.1/live-stream/converter`

FlightHub Sync Beta API	OpenAPI Equivalent	Endpoint Path
Stop stream forwarding (delete transcoder)	Delete stream forwarder	`/openapi/v0.1/live-stream/converter/{uuid}`
Get the list of flight routes	Get the list of flight routes under the project	`/openapi/v0.1/wayline`
Get the generated file info and download URL	Get flight route details	`/openapi/v0.1/wayline/{wayline_id}`
Flight route upload notification	Flight route upload completion notification	`/openapi/v0.1/wayline/finish-upload`
Task distribution API (create task)	Create flight tasks	`/openapi/v0.1/flight-task`
Get task details	Get flight task info	`/openapi/v0.1/flight-task/{task_uuid}`
Get task trajectory	Get flight task trajectory info	`/openapi/v0.1/flight-task/{task_uuid}/track`
Publish notifications and create map elements	Create map annotations	`/openapi/v0.1/map/element`

Configuring Basic FlightHub Sync Information

Organization administrators or super admins can configure Cloud Connect as follows: Navigate to “My Organization” and click ⚙ to enter the organization settings page. Select “Add FlightHub Sync Service” and fill in the required basic information.

1. Organization Key: Serves as the credential to call FlightHub Sync APIs for the current organization.
2. Third-Party Cloud Name: Name of the cloud platform being integrated.
3. Webhook URL: Endpoint for FlightHub Sync API interactions; used to send the organization’s information to the third-party cloud platform.

Click "OK" to complete the configuration.

Configure Media File Direct Transfer

When Media File Direct Transfer is enabled, media files generated by the aircraft during operations bypass FlightHub 2 and are sent directly to a third-party cloud storage bucket.

1. Complete the basic configuration.
2. Click "Configure Media File Direct Transfer" and enter the storage address. For details, see FlightHub Sync documentation.
3. Click ••• > "Edit" to modify the configuration, or click "Delete" to remove it and stop file transfer.

Configure Telemetry Data Transfer

Telemetry data configuration enables the synchronization of relevant data from the dock and aircraft to a third-party cloud platform during task operation. After configuration, data is synced immediately and matches the device property updates pushed via the Cloud API and device model.

1. Complete the basic configuration.
2. Click Configure Telemetry Data and enter the MQTT broker information. For details on the pushed data, see DJI Dock MQTT Details and Aircraft MQTT Details.
3. Click ••• > "Edit" to modify the configuration, or click "Delete" to remove it and stop data synchronization.

> Note: FlightHub Sync now supports pushing telemetry data to third-party servers via the MQTT protocol (migrated to Sync 2.0). Refer to FlightHub Sync for the latest configuration method.

Configure Stream Forwarding

Device stream configuration syncs aircraft stream data to a third-party cloud platform.

1. Complete the basic configuration.
2. Click Configure Stream Forwarding and set up the RTMP server information.
3. To enable stream forwarding, call the `Start Stream Forwarding` API. The stream data will then be pushed to the third-party cloud platform.
4. To disable stream forwarding: a. Call the `Get Stream Forwarding Channel Transcoder` API to obtain the `converter_id`. Call the `Stop Stream Forwarding` API with the `converter_id` parameter.
5. Click ••• > Edit to modify the configuration, or click Delete to remove it.

Important notes for stream forwarding:

- Currently, only RTMP format streams are supported.
- Device SNs can be retrieved by calling the `Get the List of Devices for a Specific Project` API.
- After you finish streaming, call the Stop Stream Forwarding API; otherwise, livestream minutes will continue to be deducted from your organization's package.

- If multiple transcoders are created for the same livestream, the livestream minutes consumed by each transcoder will be deducted accordingly.

> Note: FlightHub Sync livestream forwarding now supports RTSP and GB28181 formats. Refer to FlightHub Sync for the full range of forwarding capabilities.

Synchronizing Post-Reconstruction Model Files

1. Complete the basic configuration.
2. After model reconstruction is complete, call the `New File Generated Notification` API. FlightHub 2 will push a notification to the third-party cloud platform via the configured Webhook URL. Using the returned `file_id`, call the `Get Generated File Information and Download URL` API to retrieve the download link for the generated file, and then download the file.

Synchronizing Flight Route Files

The FlightHub 2 Cloud Platform supports two-way synchronization of flight route files.

Obtain Flight Route Files from FlightHub 2

1. Complete the basic configuration.
2. When a new flight route file is generated, call the `New File Generated Notification` API. FlightHub 2 will push a notification to the third-party cloud platform via the configured Webhook URL. Using the returned `file_id`, call the `Get Generated File Information and Download URL` API to retrieve the download link for the generated file, and then download the file.

Synchronizing Flight Route Files to FlightHub 2

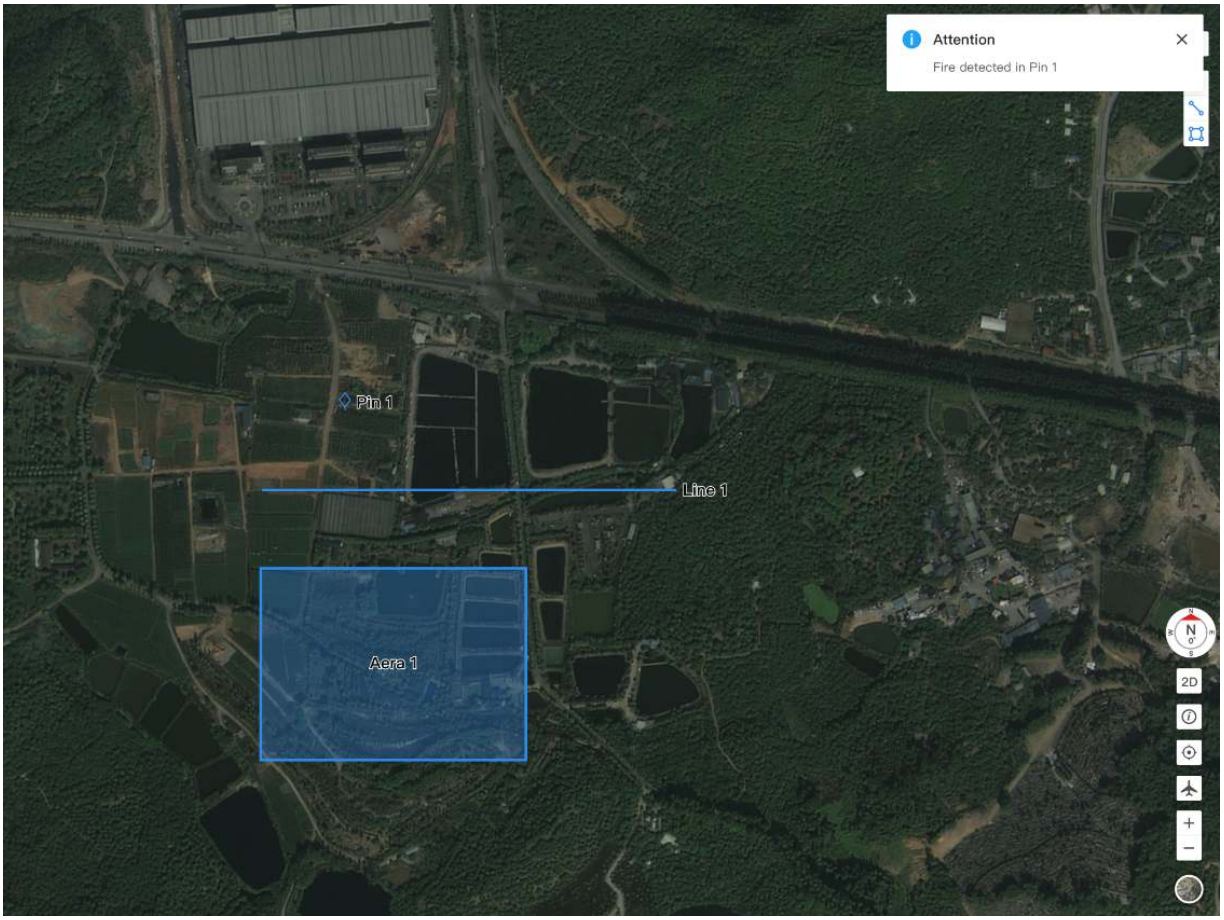
1. Complete the basic configuration.
2. Call the `Get Temporary Upload Credentials for the Project` API to obtain temporary credentials for uploading files to the FlightHub storage bucket. Use the upload SDK (Alibaba Cloud or AWS) to upload the files to the FlightHub storage bucket.
3. Call the `Flight Route Upload Completion Notification` API to display the notification on the FlightHub 2 page.

Pushing Message Notifications

Third-party cloud platforms can send key event information to FlightHub 2, including event time, location, description, and other details.

1. Complete the basic configuration.

2. Call the `Publish Notification and Create Map Element` API to customize the message and create point, line, or area map elements. Push the message to FlightHub 2. Once received, the FlightHub 2 cloud platform displays both the notification content and the associated map element.



Distributing Flight Tasks from Third-Party Cloud Platforms

FlightHub Sync allows third-party cloud platforms to distribute flight tasks, which are then displayed in the FlightHub 2 task plan library.

Usage

1. A Super Administrator or Organization Administrator configures the basic information in FlightHub 2 Organization Settings > FlightHub Sync Beta.
2. The following operations can be performed via API:
   - Distribute tasks:
     - Supports single-dock and multi-dock tasks.
     - Supports immediate tasks, but does not support one-time scheduled, recurring scheduled, or continuous tasks.
     - Supports configuring Media File Direct Transfer to upload media files to FlightHub 2 or a third-party cloud platform.
   - Retrieve task progress, task status, and flight trajectory.
   - Pause or resume a task.
   - Trigger Return-to-Home (RTH) or cancel RTH; retrieve the RTH trajectory and RTH exit status.

For detailed API usage, see theFlightHub Sync API Overview.

> Note: The above APIs will be gradually migrated to FlightHub Sync OpenAPI. Refer to FlightHub Sync for the latest API information.

Flight Safety Notice

The following safety checks are performed. If any of these checks fail, the task will not run:

- All dock and aircraft safety checks.
- Whether the device supports multi-dock planning.
- Whether the required task parameters are empty.
- Flight route validity.

The following safety checks are not supported:

Unsupported check	Result
Does the device support Resume Flight from Breakpoint?	If not supported, the task fails.
Does the device support the configured Minimum RTH Altitude?	If not supported, the task fails.
Does the device support Smart RTH Altitude Planning?	If not supported, the setting is ignored.
Does the device support the specified Flight Route Accuracy Type?	If GNSS is not supported, RTK is used instead.
Does the device support Media File Direct Transfer?	If not supported, media files are uploaded to FlightHub 2 instead.
Is the distance between the dock and the first waypoint within 5 km?	Task proceeds normally.
Do the aircraft model, payload, and gimbal match the flight route requirements?	Task proceeds normally.
Weather-Related Flight Restriction Settings in Project Settings	Custom weather-related flight restriction thresholds in Project Settings are ignored; weather restrictions are enforced based on the fixed default values from the device's weather station.

For On-Premises Users

DJI FlightHub 2 On-Premises Version supports configuring livestream forwarding, which provides a more flexible and convenient alternative compared to basic stream forwarding.

Configuring Livestream Forwarding

In the on-premises version, super administrators and organization administrators can configure livestream forwarding channels. After configuration, the livestream can be forwarded to third-party cloud platforms. **Both RTMP and GB28181 stream formats are supported. You can configure up to 20 streams in total, combining both formats.** Configuration can be done either through the API or through the user interface. Detailed step-by-step instructions are provided later.

API Configuration

Refer to the **Livestream Forwarding** for details.

Complete API call instructions: `${DOMAIN_PROTOCOL}://${BACKEND_DOMAIN}/${API}`

> **Note:** `${DOMAIN_PROTOCOL}` and `${BACKEND_DOMAIN}` are environment variables in the ENV file within the deployment installation package of the FlightHub 2 on-premises version.

Interface Configuration

Forwarding Channel Configuration Process

1. Go to My Organization > Organization Settings > FlightHub Sync > Details > Configure Livestream Forwarding to configure livestream forwarding.

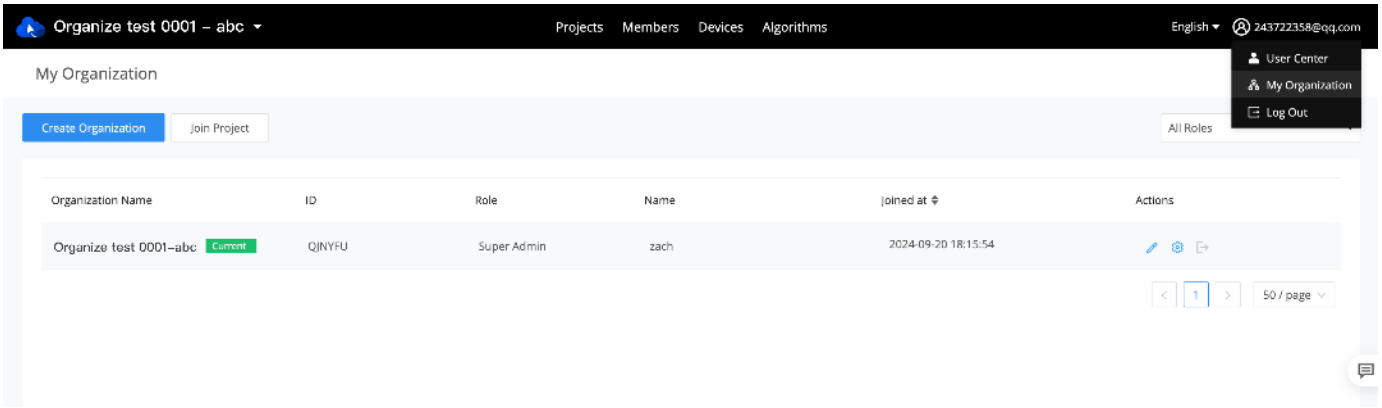


Fig. My Organization > Organization Settings

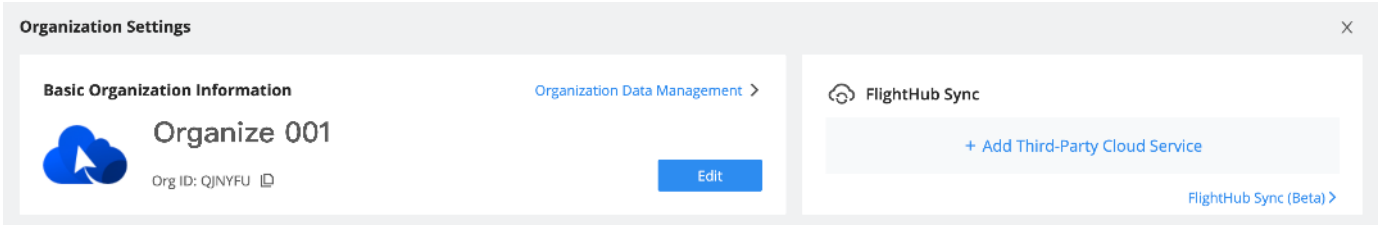


Fig. Add FlightHub Sync Service

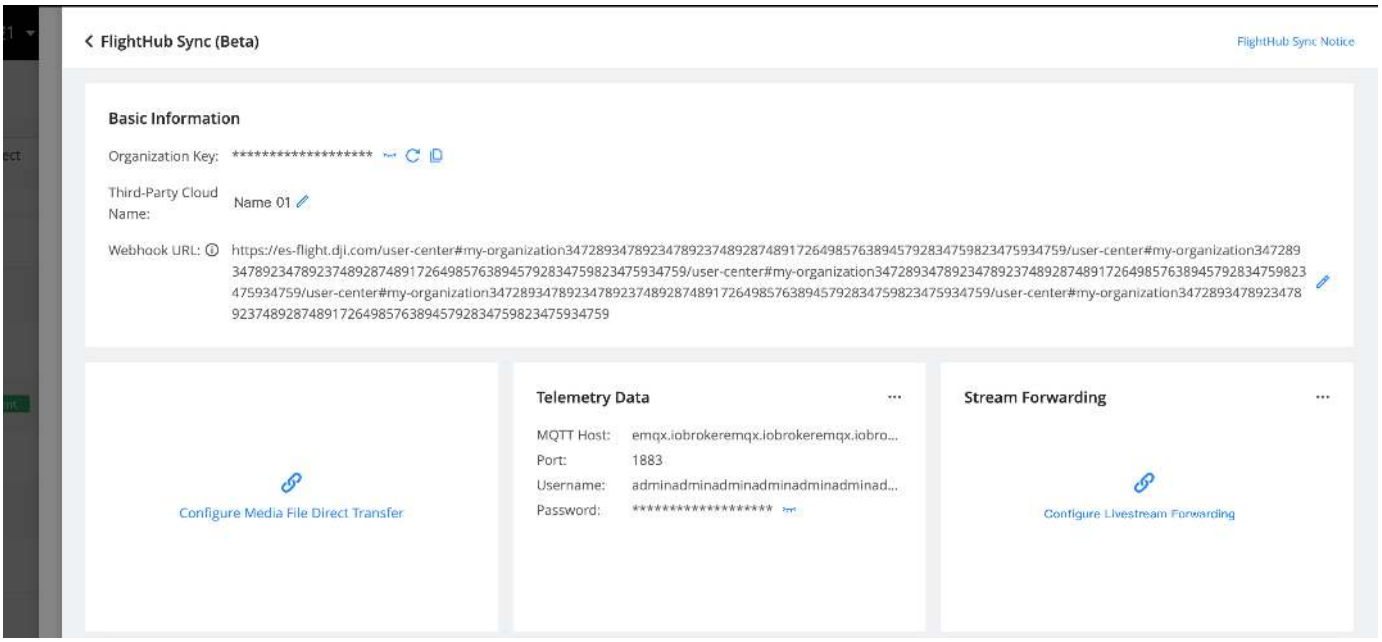


Fig. Configure Livestream Forwarding

2. Click New and complete the following parameter configuration.

(1) Introduction to parameters in the RTMP stream configuration interface:

- Forwarding Channel Name
- Forwarding Channel Type: Select RTMP
- Server Address: Please start with **RTMP://** .
- Device Name:
  - A dropdown will display all bound device names, including docks and aircraft.
  - Supports device search.
  - After selection, the **device SN** will be displayed for confirmation.
- Stream Source:
  - If dock is selected as the device name, only dock cameras will be available as options.
  - If aircraft is selected as the device name, the available camera types for that aircraft will be displayed, such as infrared, wide-angle, and zoom cameras.

> **Note:**
>
> - Selected stream source will become default stream for forwarding after the livestream starts.
> - A single aircraft can be configured with up to two stream sources: the first is the FPV Camera, and the second can be either an infrared, wide-angle, and zoom cameras. If the configurations of multiple forwarding channels differ, the latest configuration will prevail.
> - The EA610 base station does not support relay capabilities for third-party peripherals. Related devices will appear grayed out in the interface.

- Create Next: When enabled, this window will not disappear after the previous configuration is successfully created, allowing you to continue creating the next one.

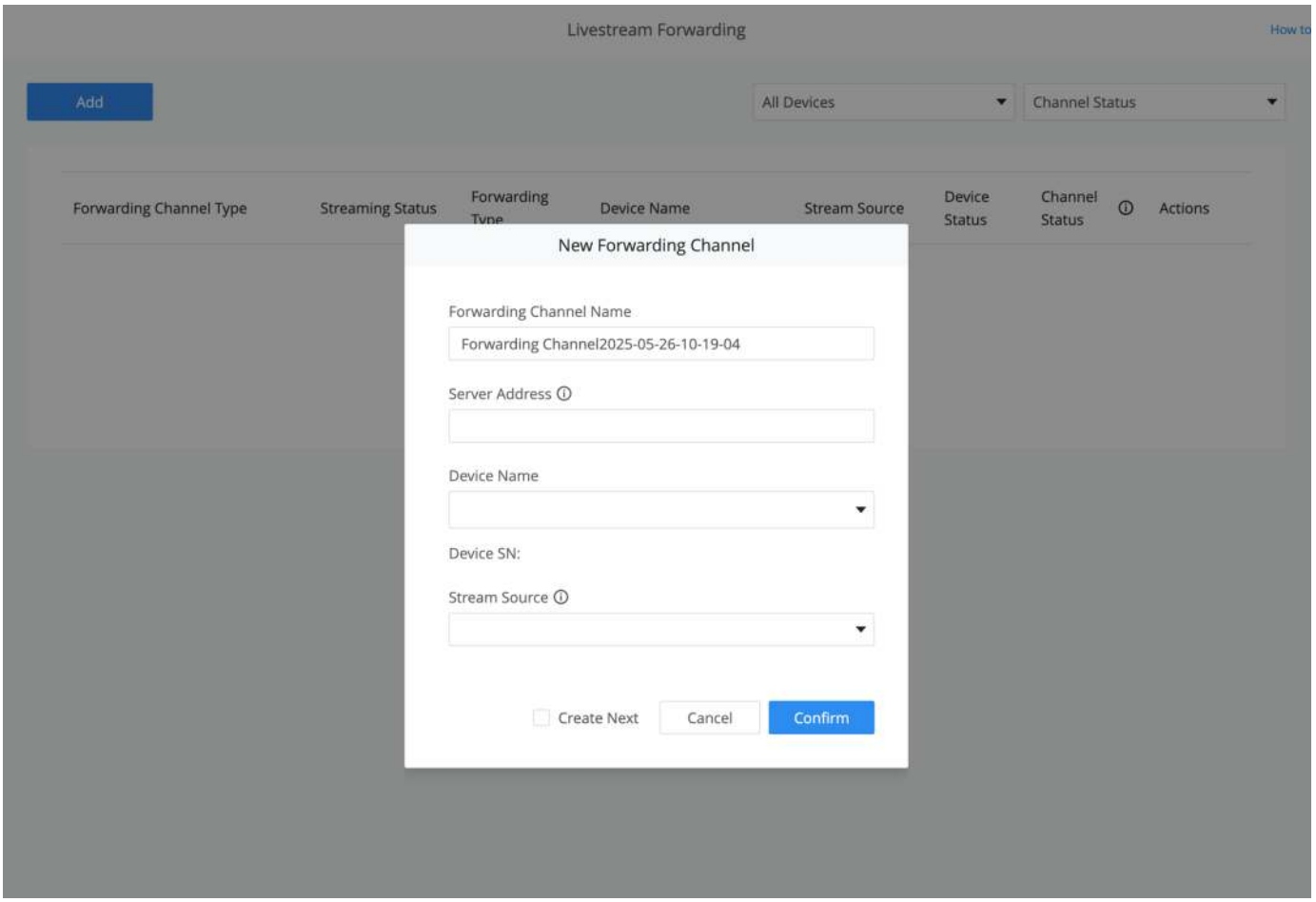


Fig. RTMP Configuration Interface

(2) Introduction to parameters in the GB28181 format stream configuration interface:

- Forwarding Channel Name
- Forwarding Channel Type: Select GB28181
- SIP Server IP: IP format xxx.xxx.xxx.xxx, 0-255
- SIP Server Port: The usage range is usually within [0, 65535].
- Server Number: Globally unique
- Device Number: Globally unique to ensure unique identification among different devices.
- Registration Password
- SIP Local Port: Globally unique, ranging from 10000 to 65535.
- Local Channel: Refers to the video channel number.

> **Note:** Once a GB28181 configuration is created and the device comes online, it will automatically be available for on-demand streaming (meaning the device's SIP session is active). Third-party platforms can then initiate a stream with a single click. This behavior does not apply to RTMP streams.



Fig. GB28181 Configuration Interface

Forwarding Channel List Management

After a livestream forwarding channel is successfully configured, it will appear in the configuration list. Each channel in the list supports editing, copying, and deleting.

The configuration list displays the following information for each channel:

- Auto Forwarding Switch:
  - For RTMP streams: You can enable the auto forwarding switch. When enabled, the device will automatically start streaming when it comes online and stop streaming when it goes offline. By default, this switch is turned off when a new channel is created.
  - For GB28181 streams: You can enable the auto session establishment switch. When enabled, the device will automatically establish a session upon startup, but streaming still requires a request from the playback side.
- Forwarding Status:
  - Forwarding
  - Not Forwarded
  - Forwarding Error. If there is an error, you can click the red exclamation mark next to it to view detailed error information.

> **Note:** Livestream forwarding channels configured via API will also be synchronized in the list.

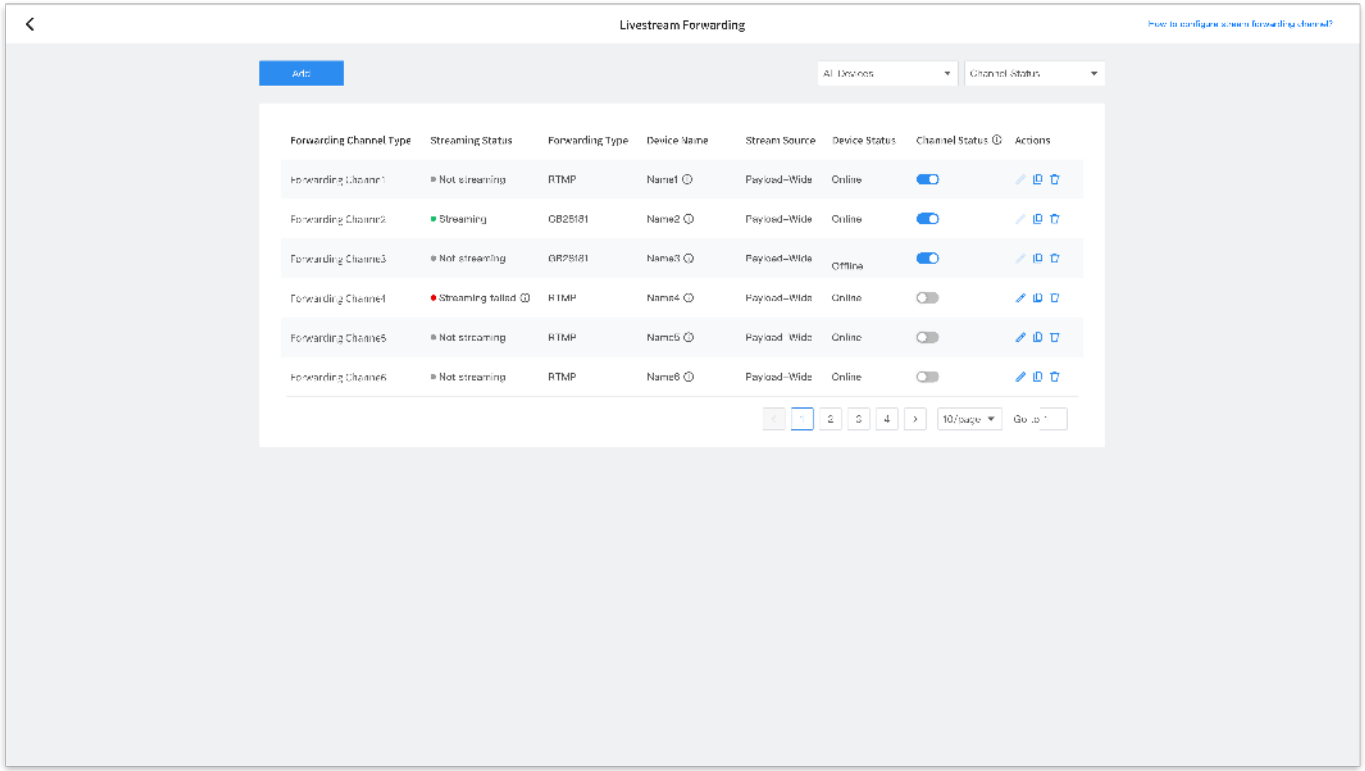


Fig. Forwarding Channel List Management

API Services

FlightHub Sync API manages the APIs for interaction between FlightHub and third-party cloud platforms.

> Note: FlightHub Sync API will be gradually migrated to FlightHub Sync OpenAPI. New users should use FlightHub Sync and EventAPI directly.

When using the FlightHub Sync API, please note the following:

- Users must include the X-Organization-Key header in requests. This key serves as the organization's authentication credential.
- Users can call the `Get the List of Projects Under the Organization`, `Get the List of Devices for a Specific Project`, and `Get Task Details` APIs to obtain related information about tasks and devices.
- The Organization ID can be obtained from the URL when users access the FlightHub 2 Project List page.

- Public Cloud
- On-Premises Version

FlightHub Sync Webhook

When a file is generated, FlightHub 2 sends a notification to the third-party cloud platform via the configured Webhook URL.

> Note: FlightHub Sync has introduced a new EventAPI service that supports a wider range of event types and more flexible rule configurations. For details, see EventAPI.

`New File Generated Notification` API:

```json
{
    "notify_type": "file_uploaded",
    "notify_time": "2023-11-07T12:00:00.582627+00:00",
    "data": {
        "organization_id": "Organization ID",
        "workspace_id": "Project ID",
```

```
        "file": {
            "id": "File ID",
            "name": "File Name",
            "object_key": "Object Storage Key",
            "type": 5 // 5-Flight route files, 7-3D mapping files
        }
    }
}
```

FlightHub Sync API

The following APIs will be gradually migrated to FlightHub Sync OpenAPI:

Interface Pins	Migration Status
Get AI Warning List & Snapshot	Migrated to EventAPI
Get the list of projects under the organization	Migrating
Get the list of devices for a specific project	Migrating
Publish notifications and create map elements	Migrating
Get temporary upload credentials for a project	Migrating
Flight route upload notification	Migrating
Get the generated file info and download URL	Migrating
Bypass streaming API	Migrating
Task distribution API	Migrating

For details on other requests, see the FlightHub Sync API Overview.

> Note: FlightHub Sync has completed public beta testing and has been upgraded to FlightHub Sync. The stream forwarding feature deducts livestream minutes from the current organization. Deduction starts when a transcoder is created (stream forwarding initiated). Each transcoder counts independently. Deleting the transcoder (stopping stream forwarding) ends consumption.

On-Premises V2.0

API Introduction

On-Premises OpenAPI V2.0 is an open platform based on RESTful specifications, designed to provide developers with data interoperability and business integration between third-party private cloud platforms and the DJI FlightHub 2 On-Premises.

Through OpenAPI V2.0, developers can build system integrations around key modules such as device management, flight task management, and data management (media, model, and map data) to power use cases such as data interoperability, device management, task scheduling, and lightweight real-time control on top of FlightHub 2.

> Compared with V1.0, V2.0 takes **closed-loop secondary-development scenarios** as its core goal. On top of the existing capabilities, it systematically completes APIs for key modules such as device management, flight task management, and data management (media, model, and map), bringing the total number of interfaces to more than 300 (V1.0 had 67).
>
> It also restructures the interface system by separating Public Cloud and On-Premises interface documentation, making categorization clearer for faster developer onboarding and integration, and enabling more agile iteration of OpenAPI in the future.

Feature List

Feature	Description
Organization and Project Management	Provides query and management capabilities for projects, members, and role permissions.
Device Management	Supports device query and management, including device list, real-time status, thing-model shadow, HMS health events, network and RTK configuration — used to build device management and configuration systems.
Flight Tasks	Supports creating flight tasks, querying task lists and execution details, flight records, and AI alerts — used to build flight task management systems.
Real-Time Control	Supports querying and acquiring cloud control authority, issuing point-to-point flight, POI orbit, camera control commands, and more — enabling lightweight, business-level real-time control.

Feature	Description
Livestream	Supports livestream and bypass-streaming management, switching lenses and quality, and more — used to build livestream management systems.
Media Management	Supports querying, management, and downloading of media files — used to build media management systems.
Model Management	Supports starting reconstruction tasks and managing model assets — used to build model management systems.
Flight Route Management	Supports retrieving flight route lists, managing flight route files, and more — used to build flight route file management systems.
Map Data Management	Supports annotation management, custom flight area management, signal heatmap query, and more.
Change Detection	Supports starting change analysis tasks and querying detection results — applicable to scenarios such as construction monitoring and inspection comparison.
Open Modeling	Supports starting modeling tasks using media data from third-party platforms.

Interface Documentation

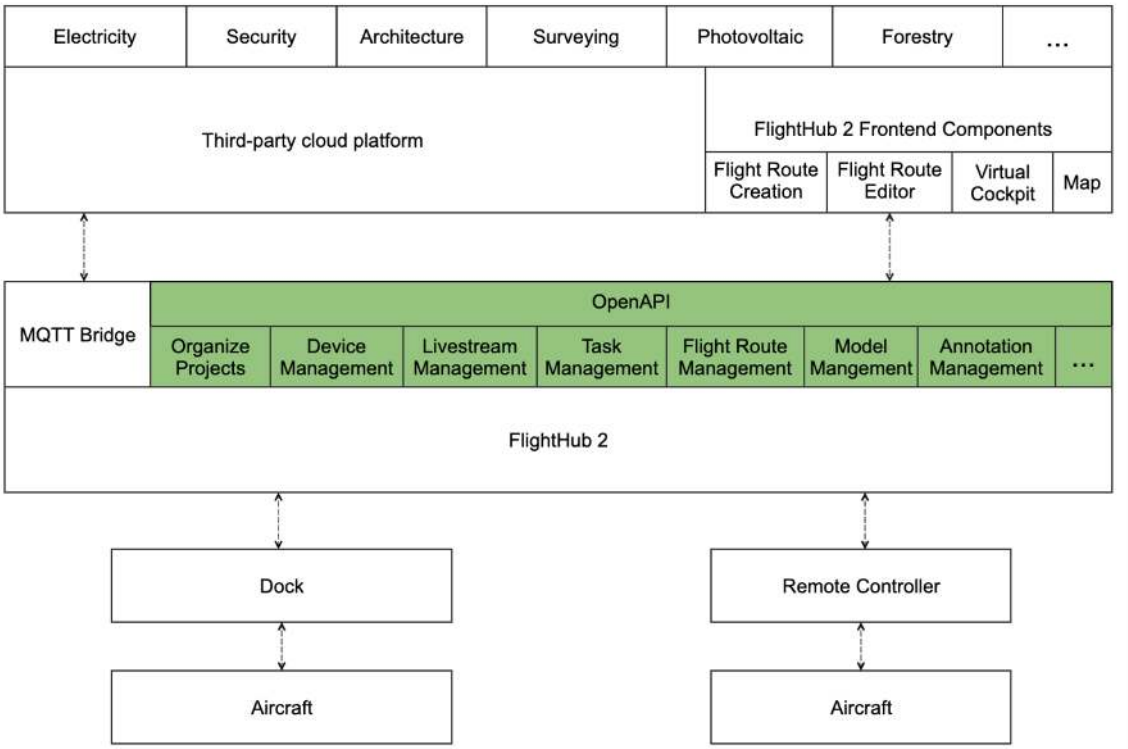
- The interface documentation includes the OpenAPI feature list, tutorials, interface list, and interface descriptions. Refer to: OpenAPI Interface Documentation.

Sample Source Code

After deploying and successfully running the sample source code, you can experience the feature interface developed based on OpenAPI V2.0. The sample source code also helps you quickly understand how to access and use OpenAPI, accelerating your development and integration.

Click Sample Source Code to obtain the source code and access guide.

Product Architecture



Quick Start

Environment Setup (specific to the FlightHub 2 on-premises version)

Refer to the DJI FlightHub 2 On-Premises Version Deployment Manual to deploy the FlightHub 2 on-premises version.

Authentication and Authorization

Refer to the document Authentication and Authorization Tutorial to understand the principles of OpenAPI authentication and authorization, and obtain `x-user-token` and `X-Project-Uuid`. These two parameters must be passed in the header field of most interfaces to ensure the security of OpenAPI and to implement access control to FlightHub 2.

Sample Code

1. Query the FlightHub 2 Real-Time Control Service Status

After the FlightHub 2 on-premises version is successfully deployed, call the interface to query the real-time control service status: Query FlightHub 2 System Status

```http
GET /openapi/v2.0/drc/health HTTP/1.1
Host: 127.0.0.1:30812
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
X-Project-Uuid: xxxxxxxxxx
x-user-token: xxxxxxxx
```

A return value of 0 indicates that the FlightHub 2 real-time control service is operating normally:

```http
{
  "code": 0,
  "message": "OK",
  "data": null
}
```

2. Get the List of Projects Under the Organization

Create an organization, set up a project, and bind devices in FlightHub 2. Refer to the "Platform Basics > Organization Management" section of this manual for creating organizations and projects in FlightHub 2, then call the Get the List of Projects Under the Organization interface to obtain the list of created projects.

```http
GET /openapi/v2.0/manage/api/v1/organizations/{uuid}/projects?usage=complete&sor
Host: 127.0.0.1:30812
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
X-Project-Uuid: xxxxxxxxxx
x-user-token: xxxxxxxx
```

The list of created projects will be returned:

```http
{
  "code": 0,
  "message": "OK",
  "data": {
    "list": [
      {
        "name": "c2c_test",
        "introduction": "a",
        "uuid": "b2c3d4e5-6789-0123-bcde-f12345678901",
        "project_id": "PRJ202401001",
        "org_uuid": "a1b2c3d4-5678-9012-abcd-ef1234567890",
        "status": "active",
        "c2c_enable": true,
        "dock_rotation_disabled": false,
        "c2c_task_enable": true,
        "created_at": 1700000000,
        "updated_at": 1700100000
      }
```

```
    ]
  }
}
```

3. Start Livestream

Refer to the Device Management section of this manual to bind devices in FlightHub 2, then refer to the Livestream Management Tutorial to start streaming.

```http
POST /openapi/v2.0/drc/api/v2/projects/{proj_uuid}/live-channels/stream/start HT
Host: 127.0.0.1:30812
X-Project-Uuid: xxxxxxxxxx
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
Content-Type: application/json
x-user-token:  xxxxxxxx
Content-Length: 130

{
    "sn": "1ZNBH1Dxxxxxxx",
    "camera": "165-0-7",
    "video": "normal-0",
    "gateway_sn": "7CTDM3Dxxxxxxx",
    "video_quality": 0
}
```

A return value of 0 indicates that the streaming task has been successfully dispatched, and the device will start pushing the stream to the media server as configured:

```c
{
  "code": 0,
  "message": "OK",
  "data": null
}
```

https://dl.djicdn.com/downloads/dji-terra/20240723/DJI%20Terra%20Error%20Code%20Guide%20V4.2.0_EN.pdf

Public Cloud V2.0

API Introduction

Public Cloud OpenAPI V2.0 is an open platform based on RESTful specifications, designed to provide developers with data interoperability and business integration between third-party cloud platforms and the DJI FlightHub 2 Public Cloud.

Through OpenAPI V2.0, developers can build system integrations around organizations and members, devices, flight tasks, livestreams, and other data to power use cases such as device supervision, task supervision, and livestream applications.

> Compared with V1.0, V2.0 adds more query and business-scenario interfaces on top of the existing capabilities. It also restructures the interface system by separating Public Cloud and On-Premises interface documentation, making categorization clearer for faster developer onboarding and integration, and enabling more agile iteration of OpenAPI in the future.

Feature List

Feature	Description
Organization, Project, and Member Information Query	Provides query capabilities for organization list, project list, user list, permission list, role permissions, and more.
Device Information Query	Retrieves device lists under organizations or projects, project device details, device history topology, HMS information, thing-model information, video stream clarity, and more — for device asset management and status display.
Flight Tasks	Supports creating flight tasks, querying task lists, task details, flight trajectories, media resources, flight record downloads, operation logs, AI flight alerts, and more.
Real-Time Control	Supports querying device control authority status, acquiring control authority, switching cameras, and more.
Livestream and Forwarding	Supports starting livestreams, querying recording tasks, and creating, querying, and deleting stream converters.
Flight Route Query	Supports retrieving the flight route list under a project, getting flight route details, and more.
Model Reconstruction	Supports starting reconstruction tasks using media data collected from FlightHub flight tasks.

Feature	Description
Open Modeling	Supports starting reconstruction tasks using media data from third-party clouds.

Interface Documentation

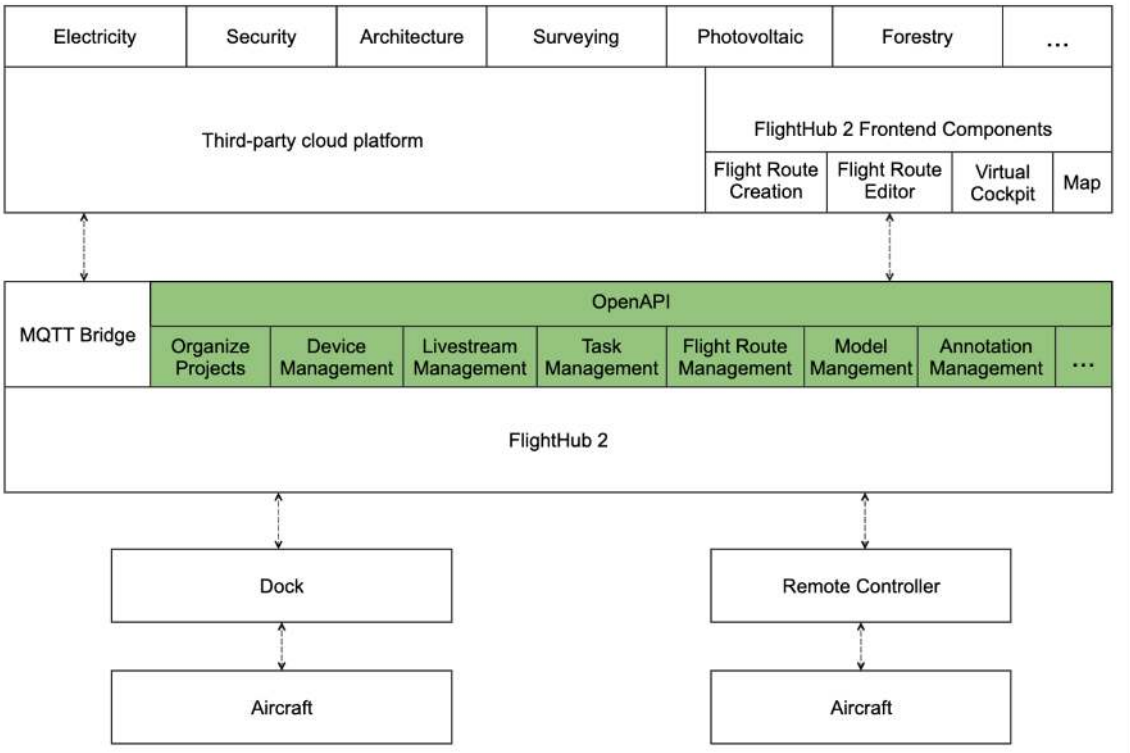
- The interface documentation includes the OpenAPI feature list, tutorials, interface list, and interface descriptions. Refer to: OpenAPI Interface Documentation.

Sample Source Code

After deploying and successfully running the sample source code, you can experience the feature interface developed based on OpenAPI V2.0. The sample source code also helps you quickly understand how to access and use OpenAPI, accelerating your development and integration.

Click Sample Source Code to obtain the source code and access guide.

Product Architecture



Quick Start

Authentication and Authorization

Refer to the document Authentication and Authorization Tutorial to understand the principles of OpenAPI authentication and authorization, and obtain `X-User-Token` and `X-Project-Uuid`.

These two parameters must be passed in the header field of most interfaces to ensure the security of OpenAPI and to implement access control to FlightHub 2.

Sample Code

1. Query FlightHub 2 System Status

FlightHub 2 Public Cloud calls the interface to query system status: Query FlightHub 2 System Status

```http
GET /openapi/v2.0/system_status HTTP/1.1
Host: 127.0.0.1:30812
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
X-User-Token: xxxxxxxx
```

A return value of 0 indicates that the FlightHub 2 system is operating normally:

```http
{
  "code": 0,
  "message": ""
}
```

2. Get the List of Projects Under the Organization

Create an organization, set up a project, and bind devices in FlightHub 2. Refer to the "Platform Basics > Organization Management" section of this manual for creating organizations and projects in FlightHub 2, then call the Get the List of Projects Under the Organization interface to obtain the list of created projects.

```http
GET /openapi/v2.0/project?usage=complete&sort_column=create_time&sort_type=desc&
Host: 127.0.0.1:30812
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
X-User-Token: xxxxxxxx
```

The list of created projects will be returned:

```http
{
```

```
  "code": 0,
  "message": "",
  "data": {
    "list": [
      {
        "name": "c2c_test",
        "introduction": "a",
        "uuid": "93df839d-ae74-4f04-842e-2f1f81c89a66",
        "org_uuid": "105ddd05-34ce-46b6-a872-cb32b8c98f64",
        "created_at": 1702498686,
        "updated_at": 1702498686,
        "project_work_center_point": {
          "latitude": 22.906899500237845,
          "longitude": 113.69995967214662
        }
      }
    ]
  }
}
```


3. Start Livestream

Refer to the Device Management section of this manual to bind devices in FlightHub 2, then refer to the Livestream Management Tutorial and call the Start Livestream interface to start streaming.

json

```http
POST /openapi/v2.0/live-stream/start HTTP/1.1
Host: 127.0.0.1:30812
X-Project-Uuid: xxxxxxxxxx
X-Language: en
X-Request-Id: 550e8400-e29b-41d4-a716-446655440000
Content-Type: application/json
X-User-Token:  xxxxxxxx
Content-Length: 119

{
    "sn": "7CTDM3Dxxxxxx",
    "camera_index": "165-0-7",
    "video_expire": 7200,
    "quality_type": "adaptive"
}
```

Returns the livestream authorization information at `data.url`. The stream must be pulled using the SDK of the corresponding provider indicated by `data.url_type`:

```json
```c
{
  "code": 0,
  "message": "",
  "data": {
    "expire_ts": 1779446430,
    "url": "http://127.0.0.1:30806/rtc/v1/whep/?app=live&stream=7CTDM3Dxxxxxx_16
    "url_type": "srs"
  }
}
```
```

Previous V1.0

API Introduction

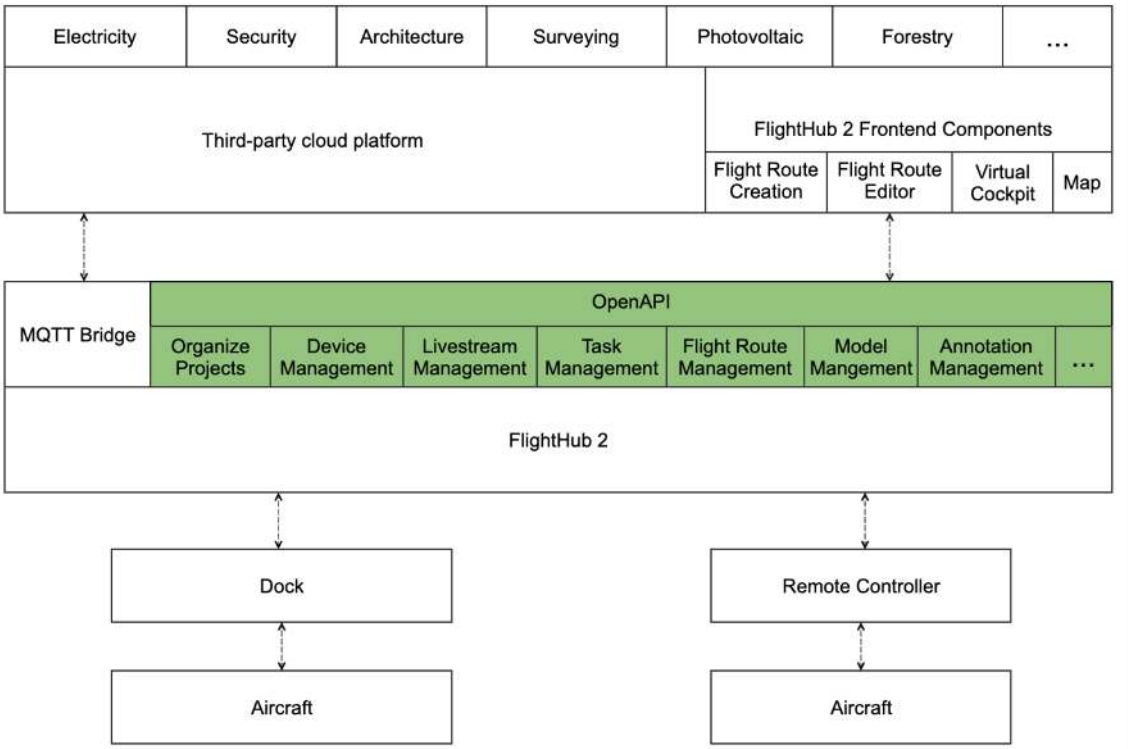
DJI FlightHub 2 OpenAPI is an open platform based on RESTful specifications, designed to provide developers with the ability to interact with third-party cloud platforms and DJI FlightHub 2.

Here are some key features of OpenAPI:

- RESTful Design: Adopts RESTful specifications, making the use of the API more intuitive and compliant with web standards. Developers can interact with FlightHub 2 using standard HTTP methods such as GET, POST, PUT, and DELETE.
- Authentication and Authorization: Implements secure authentication and authorization mechanisms to protect API resources and manage access permissions effectively.
- FlightHub 2 Interaction: Offers features such as DJI FlightHub 2 organization and project management, device management, livestream management, flight route management, task management, model management, and annotation management.
- Developer Support and Documentation: Offers detailed API documentation, code examples, and developer support, enabling rapid integration and effective utilization of platform features.

Developers can quickly integrate the core features of FlightHub 2 by calling OpenAPI, significantly reducing development costs and meeting various business needs and innovative application scenes.

Product Architecture



Quick Start

Environment Setup

Refer to the DJI FlightHub 2 On-Premises Version Deployment Manual to deploy the FlightHub 2 on-premises version.

Authentication and Authorization

Refer to the **Authentication and Authorization** tutorial to understand the principles of OpenAPI authentication and authorization, obtain the values of `X-User-Token` and `X-Project-Uuid`, and enter these two values in the header field to ensure the security of OpenAPI and achieve access control to FlightHub 2.

Sample Code

1. Query FlightHub 2 System Status

FlightHub 2 public version uses API to query system status: **Query FlightHub 2 System Status**

After the FlightHub 2 on-premises version is successfully deployed, call the method to check the system status: **Query FlightHub 2 System Status**

```http
GET /openapi/v0.1/system_status HTTP/1.1
Host: 127.0.0.1:30812
X-Language: en
X-User-Token: xxxxxxxx
```

A return value of 0 indicates that the FlightHub 2 system is operating normally.

```http
{
  "code": 0,
  "message": ""
}
```

2. Get the List of Projects Under the Organization

Create an organization, set up a project, and bind devices in FlightHub 2. Refer to the `DJI FlightHub 2 User Manual` > `Organization Management` section on creating organizations and projects in FlightHub 2, then call the **Get the List of Projects under the Organization** method to obtain the list of created projects.

```http
GET /openapi/v0.1/project HTTP/1.1
Host: 127.0.0.1:30812
X-Language: en
X-User-Token: xxxxxxxx
```

The list of created projects will be returned.

```http
{
  "code": 0,
  "message": "OK",
  "data": {
    "list": [
      {
        "name": "c2c_test",
        "introduction": "a",
        "uuid": "93df839d-ae74-4f04-842e-2f1f81c89a66",
        "org_uuid": "105ddd05-34ce-46b6-a872-cb32b8c98f64",
        "created_at": 1702498686,
        "updated_at": 1702498686,
        "project_work_center_point": {
          "latitude": 22.906899500237845,
          "longitude": 113.69995967214662
        }
      }
    ]
```

```
  }
}
```

3. Start Livestream

Refer to the `DJI FlightHub 2 User Manual` > `Device Management` section on binding devices in FlightHub 2, then refer to the **Livestream Management** tutorial, and call the **Enable Livestream** method to start streaming.

```http
POST /openapi/v0.1/live-stream/start HTTP/1.1
Host: 127.0.0.1:30812
X-Project-Uuid: xxxxxxxxxx
X-Language: en
Content-Type: application/json
X-User-Token:  xxxxxxxx
Content-Length: 120

{
    "sn": "7CTDM3Dxxxxxx",
    "camera_index": "165-0-7",
    "video_expire": 7200,
    "video_quality": "adaptive"
}
```

The livestream link will be available at `data.url`, where you can visit to view the livestream.

```c
{
  "code": 0,
  "message": "",
  "data": {
    "expire_ts": 1764751629,
    "url": "http://127.0.0.1:30806/rtc/v1/whep/?app=live&stream=7CTDM3Dxxxxxx_16
    "url_type": "srs"
  }
}
```

Interface Tutorial

- The interface tutorial includes the OpenAPI feature list, tutorials, method list, and descriptions. Refer to the **OpenAPI Interface Tutorial** for more details.

Mapping API

DJI FlightHub Mapping API Introduction

Added FlightHub Mapping API in OpenAPI, supporting third-party fast integration of cloud mapping capabilities.

1. Maximum number of concurrent mapping tasks: 2 for standard version, 5 for business version, and 10 for enterprise version
2. Pricing strategy: Consistent with DJI FlightHub public cloud. 2D, 3D, and 3DGS files are charged separately.

> - Supports uploading point cloud data for reconstruction. Every 5 MB of point cloud model uses 1 mapping image.
> - For point cloud files, LDR files are counted based on size, while images and other files are counted by quantity.

3. Supported mapping range:
   Visible light: 2D model, 3D point cloud, 3D mesh, and 3DGS Gaussian splatting
   Laser point cloud: supported for L1 and L2, and preparing to be supported for L3

4. Maximum number of files per mapping task: Each mapping task has a maximum file limit.
   2D model: Minimum 5, maximum 20,000
   3D model: Minimum 5, maximum 20,000
   Gaussian splatting: Minimum 5, maximum 4,000
   Laser point cloud: Minimum 5, maximum 20,000

Sample Code

> OpenAPI has been upgraded to V2.0. The Mapping API behavior is unchanged; only the "v0.1" segment in the route is replaced with "v2.0".
>
> - For example, "/openapi/v0.1/open_model/stores/obtain_token" becomes "/openapi/v2.0/open_model/stores/obtain_token".
> - If you are an OpenAPI V1.0 user, simply keep "v0.1".

1. Get the upload credential

Get the temporary credential for uploading media files for modeling to the bucket.

```
POST /openapi/v2.0/open_model/stores/obtain_token
X-User-Token: xxxxxxxx
X-Request-ID: yyyyyyyy
```

Response

```json
{
    "code": 0,
    "message": "",
    "data": {
        "cloud_name": "ali",
        "access_key_id": "xxx",
        "secret_access_key": "xx",
        "session_token": "xx",
        "region": "cn-hangzhou",
        "cloud_bucket_name": "xxx",
        "callback_param": "Q1g0Mm1uOUR6ZUJnMlkzb29vUmE0dmNWdnh0b1M1eis0d3B2c0paQ
        "store_path": "fh/organizations/5a6f9d4b-2a38-4b4b-86f9-3a678da0bf4a/ope
        "expire_time": 1768209932,
        "end_point": "https://xxx"
    }
}
```

2. Send an upload callback

This is used to notify which file resources need to be copied after file upload.

```
POST /openapi/v2.0/open_model/stores/upload_callback
X-User-Token: xxxxxxxx
X-Request-ID: yyyyyyyy
```

Request

```json
{
    "resource_uuid": "69e49a97-6a02-4638-b1b5-b9e871b6c51e",
    "resource_name": "test",
```

```
    "callback_param": "Q1g0Mm1uOUR6ZUJnMlkzb29vUmE0dmNWdnh0b1M1eis0d3B2c0paQmsrU
    "files": [
        {
            "name": "DJI_20250721120152_0025_V.jpeg",
            "etag": "69922E94721B338B174C219542370E8E"
        },
        {
            "name": "DJI_20250721120153_0026_V.jpeg",
            "etag": "60C05FF3D620ADA0365F3427F2A43FA7"
        }
    ]
}
```

Response

```json
{
    "code": 0,
        "message": "",
        "data": {
        "resource_uuid": "69e49a97-6a02-4638-b1b5-b9e871b6c51e",
        "upload_count": 2
    }
}
```

- etag specifies the hash value assigned to the file by the bucket to verify file integrity.

Sample code for obtaining the etag value (Go)

```go
meta, _ := bucket.GetObjectDetailedMeta(key)
etag := strings.Trim(meta.Get("ETag"), "\"")
```

3. Start the reconstruction task

```
POST /openapi/v2.0/open_model/models/reconstruction/start
X-User-Token: xxxxxxxx
X-Request-ID: yyyyyyyy
```

Request

```json
{
    "resource_uuid": "69e49a97-6a02-4638-b1b5-b9e871b6c51e",
    "parameter_2d": "",
    "parameter_3d": "{\"parameter\":{\"cut_AOI\":false,\"generate_b3dm\":true,\"
    "parameter_3dgs": "",
    "parameter_lidar": "",
    "delete_resource_if_finish": false
}
```

Response

```json
{
    "code": 0,
    "message": "",
    "data": {
        "model_3d": {
            "uuid": "476954f7-3ad4-4dcf-a03f-2654d5e0d3cc",
            "status": 12,
            "sub_error_code": 0
        }
    }
}
```

4. Get Model Details

Get model details to check the model status, size, and task progress.

```
GET /openapi/v2.0/open_model/models/476954f7-3ad4-4dcf-a03f-2654d5e0d3cc
X-User-Token: xxxxxxxx
X-Request-ID: yyyyyyyy
```

Response

```json
{
    "code": 0,
    "message": "",
    "data": {
        "resource_uuid": "69e49a97-6a02-4638-b1b5-b9e871b6c51e",
        "model_uuid": "476954f7-3ad4-4dcf-a03f-2654d5e0d3cc",
        "model_type": 2,
        "model_status": 9,
        "model_size": 37420969,
        "reconstruction_progress": 100,
```

```
        "error_code": 0,
        "zip_status": 2,
        "zip_progress": 100,
        "zip_file_key": "xxxx"
    }
}
```

Introduction

Basic Introduction

Introduction to Frontend Components

The DJI FlightHub 2 frontend components include: flight route creation, flight route editor, virtual cockpit, and project/map. These components support custom themes and styles. This manual will introduce how to integrate these components into your own system from scratch.

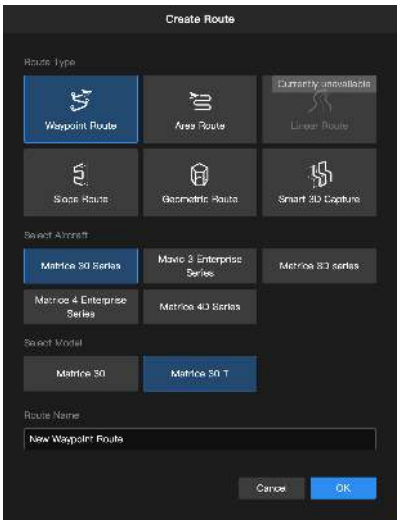
Preparation Before Starting

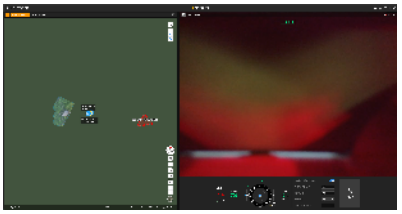
- Technology Stack: React, Vue, and HTML + CSS are all supported.
- Hardware Requirements: Refer to the DJI FlightHub 2 On-Premises Version Deployment Manual to deploy the FlightHub 2 On-Premises Version.

Quick Start

The current version mainly offers the following components and corresponding feature collections. You can download the **Demo** and refer to this manual for configuration and debugging.

The components released are as follows:

Component	Feature Collection	Feature Screenshot
Flight Route Creation	Flight route types: - Waypoint route - Area route - Slope route - Geometric route - Smart 3D Capture route Style customization	
Flight Route Editor	Flight route types: - Waypoint route - Area route - Slope route - Geometric route - Smart 3D Capture route	

Component	Feature Collection	Feature Screenshot
	Flight route functions: - Flight route editing and saving - Map annotations - Cesium open - Point, line, area annotations - Model loading Style customization	
Virtual Cockpit	Remote control functions: - One-click takeoff - Livestream - Manual flight and trajectory display by pressing WASD keys - One-click RTH Style customization	
Project/Map	Project map data: - Point, line, area annotations - Flight route and trajectory planning - Custom task area, custom Restricted Zone - Project device list - Dock aircraft - Manual flight aircraft	

Tutorial

Add Required Styles and Dependencies

After completing the FlightHub 2 on-premises version deployment, you will receive a private IP. Enter this private IP or domain name and port into the `HEAD` section of the code block.

```html
<!DOCTYPE html>
<html>
  <head>
    <script type="text/javascript" src="http://Private IP or domain name/paas.js
    <title>Demo</title>
  </head>
  <body>
  </body>
</html>
```

Frontend Component Compliance Information

The frontend components depend on capabilities provided by the FlightHub 2 on-premises version, so it is necessary to obtain the `projectToken` and `prjId` of the FlightHub 2 on-premises version.

The methods to obtain the information are as follows:

- `projectToken`: Access the FlightHub 2 on-premises version, Go to My Organization (deployed FlightHub 2 domain name/user-center#/my-organization) > Organization Settings > FlightHub Sync to obtain the organization key. This organization key value is `projectToken`.
- `prjId`: Access the FlightHub 2 on-premises version, click on the project list, select a project, and find the project ID in the URL. For example: https://deployed FlightHub 2 domain name/organization/4bf0039f-6434-44a8-b891-8d7b6b7ff132/project/aa9c7a78-4e97-4ced-8953-2cea96c07c00, where `4bf0039f-6434-44a8-b891-8d7b6b7ff132` is the `orgId`, and `aa9c7a78-4e97-4ced-8953-2cea96c07c00` is the `prjId`.

Example:

```js
window.FH2.initConfig({
    serverUrl: 'http://Enter the domain name and backend service port here. Defa
    wssUrl: 'ws://Enter the domain name and backend service port here. Default p
    hostUrl: 'http://Enter the IP or domain name of the web page and the port nu

    // Copy prjId value and paste here
    prjId: 'cdca2736-8096-4729-9bc7-497ad5b60d5e',
    // Copy projectToken value and paste here
    projectToken: 'MTczMDg4NDI1NHx1NUR3RWxNajc5VnF4QWJuY1BvZmxUenlwYzdnRnBUazFSQ
})
```

Note

Make sure that the calling of `window.FH2` is executed after the page has fully loaded (`load`). For example, you can use `addEventListener('load', cb)` to define a callback function `cb` and call the `window.FH2` method within this callback.

Add a Container for the Component

For example, to add a route editor, insert the following code in the section of your code where you want the route editor to be displayed:

```html
<div class="fh2-container">
    <div id="wayline-header"></div>
    <div class="project-details">
        <div id="project-app-container"></div>
        <div id="project-middle-container"></div>
        <div id="project-right-micro-app" class="right-micro-app">
            <div class="maps-micro-app">
```

```
                <div id="project-map-app-placeholder" class="map-app-placeholder
                    <div id="map-app-global" class="map-app-container"></div>
                </div>
            </div>
            <div id="wayline-app-container"></div>
        </div>
    </div>
</div>
```

Add the Component Container Style

Below are the recommended container styles, which can be directly used in the target code area. If there are other custom requirements, you can modify the style code yourself.

```html
<!DOCTYPE html>
<html>
  <head>
    <!-- start -->
    <style>
        .fh2-container {
            display: flex;
            flex-direction: column;
            /* Set the width and height of the container where you want to load
            height: 100vh;
            width: 100vw;
        }

        #project-app-container>div, .map-app-container>div {
            width: 100%;
            height: 100%;
        }

        .project-details {
            position: relative;
            width: 100%;
            display: flex;
            flex: 1;
            overflow: auto;
        }

        .project-details .right-micro-app {
            position: relative;
            display: flex;
            flex: 1;
        }

        .project-details .right-micro-app .maps-micro-app {
```

```
            display: flex;
            flex: 1;
        }

        .project-details .right-micro-app .map-app-placeholder {
            flex: 1;
            position: relative;
            display: flex;
            flex-direction: column;
        }

        .project-details .right-micro-app .map-app-container {
            height: 100%;
        }

        .project-details .right-micro-app #wayline-app-container {
            position: absolute;
            top: 0;
            left: 0;
            width: 100%;
            height: 100%;
            pointer-events: none;
        }
    </style>
    <title>Demo</title>
  </head>
  <body>
  </body>
</html>
```

Load Frontend Components

Using the flight route editor as an example, you can load the component by passing the `id` and the corresponding `wayline_id` to the method. Refer to the `Interface Tutorial` of the manual for more details.

```js
window.FH2.loadWayline("wayline-app-container", {
      wayline_id: 'bded3cf1-c924-4cd0-95d0-4bd642ddda09',
})
```

Customize Map Elements (Optional)

Using custom map text as an example, you can click `Customize Map` at the top of `wayline.html` and zoom out the map to see the effect.

```html
<!DOCTYPE html>
<html>
  <head>
    <link href="./custom-style.css" rel="stylesheet">
  </head>
  <body>
    <div class="btn-bar">
        <button id="CesiumMapBtn" onclick="addCustomCesiumData()">Customize Map<
    </div>
    <script>
        const CesiumMapBtn = document.getElementById('CesiumMapBtn')
        CesiumMapBtn.style.display = 'none'
        window.addEventListener('load', function () {
            // Wait until the map instance is ready, and then display the map cu
            window.FH2.subscribe('cesium-viewer-change', (key) => {
                if (window.FH2.cesiumViewer.global) {
                    CesiumMapBtn.style.display = 'inline-block'
                }
            })
        })

        // Example: Customize the map, adding custom text to the map
        function addCustomCesiumData () {
            for (const key in window.FH2.cesiumViewer) {
                if (Object.prototype.hasOwnProperty.call(window.FH2.cesiumViewer
                    const ins = window.FH2.cesiumViewer[key].entities.add({
                        position: window.Cesium.Cartesian3.fromDegrees(113.93,
                        label: {
                            text: "User custom text",
                        },
                    })
                }
            }
        }
    </script>
  </body>
</html>
```

Customize Theme (Optional)

The demo file showcases the capability to customize styles. You can modify corresponding theme styles in `custom-style.css` and immediately see the effects across the four HTML files, including `wayline.html`. `custom-style.css` is written using CSS, so if your project also employs CSS, you can directly adjust the style variables `custom-style` within your project.

```html
<!DOCTYPE html>
<html>
  <head>
    <link href="./custom-style.css" rel="stylesheet">
  </head>
  <body>
    <div class="btn-bar">
        <button onclick="changeTheme()">Customize Style</button>
    </div>
    <script>
        function changeTheme () {
            document.body.className = document.body.className ? '' : 'set-change
        }
    </script>
  </body>
</html>
```

Add Event Listener (Optional)

Using the flight route editor as an example, you can subscribe to the save button and receive corresponding prompts when saving or canceling the flight route.

```c
window.FH2.subscribe('wayline-cancel', () => {
    console.log('Canceled saving flight route')
})
window.FH2.subscribe('wayline-save', () => {
    console.log('Flight route saved')
})
```

Interface Tutorial

Instance: window.FH2

Method: validateToken

Parameter	Type	Required	Description
token	string	true	Returns token validation result: true/false

Method: initConfig

Parameter	Type	Required	Description
serverUrl	string	true	Backend HTTP service address

Parameter	Type	Required	Description
wssUrl	string	true	Backend Duplex service address
hostUrl	string	true	Frontend web entry address
prjId	string	true	Project ID
projectToken	string	true	OpenAPI authentication token

Method: loadWaylineCreation

Parameter	Type	Required	Description
domId	string	true	Third-party frontend provides DOM node ID
props	Object<WaylineCreationConfig>	false	For detailed parameter description, see the table below: WaylineCreationConfig

WaylineCreationConfig parameter description:

Parameter	Type	Required	Description
folder_id	string	false	The folder where the created flight route is stored. The value is the folder ID. If not provided, it will be the default folder.

Method: destroyWaylineCreation

Parameter	Type	Required	Description
-	-	-	Destroy the flight route creation component instance

Method: loadWayline

Parameter	Type	Required	Description
domId	string	true	Third-party frontend provides DOM node ID
props	Object<WaylineConfig>	true	For detailed parameter descriptions, see the table below: WaylineConfig.

WaylineConfig parameter description:

Parameter	Type	Required	Description
wayline_id	string	true	Wayline ID

Method: destroyWayline

Parameter	Type	Required	Description
isEffect	boolean	false	Destroy the flight route editor instance. If there are multiple components on the current page, passing true to destroy the instance will not affect other loaded components. If no parameter is passed, it defaults to false.

Method: loadCockpit

Parameter	Type	Required	Description
domId	string	true	Third-party frontend provides DOM node ID
props	Object<CockpitConfig>	true	For detailed parameter description, see the table below: CockpitConfig

CockpitConfig parameter description:

Parameter	Type	Required	Description
gatewaySn	string	true	Gateway SN
droneSn	string	true	Aircraft SN
map	boolean	false	Whether to load the map. Default value is true. Setting the method parameter to false prevents the map from loading.

Method: destroyCockpit

Parameter	Type	Required	Description
isEffect	boolean	false	Destroy the virtual cockpit instance. If there are multiple components on the current page, passing true to destroy the instance will not affect other loaded components. If no parameter is passed, it defaults to false.

Method: loadProject

Parameter	Type	Required	Description
domId	boolean	true	Load project map

Method: destroyProject

Parameter	Type	Required	Description
-	-	-	Destroy project map

Method: loadFlightPath

Parameter	Type	Required	Description
domId	string	true	DOM node ID provided by the third-party frontend
params	IFlightPathParams	true	See the table below for parameter details: IFlightPathParams

IFlightPathParams parameters:

Parameter	Type	Required	Description
flight_path_id	string	true	Flight path ID

Method: destroyFlightPath

Parameter	Type	Required	Description
-	-	-	Unload flight record

Method: subscribe

Parameter	Type	Required	Description
eventName	string	true	Subscribe to events: - wayline-save: Triggered when saving a flight route, and the callback parameter is the ID of the successfully saved flight route - wayline-cancel: Triggered when canceling the save of a flight route, and the callback parameter is the ID of the flight route - wayline-back: Triggered when clicking the back button on the flight route editor component, and the callback parameter is the ID of the flight route - wayline-creation-saved: Triggered when saving a flight route creation component, and the callback parameter is the ID of the successfully saved flight route - wayline-creation-cancel: Triggered when canceling the save of a flight route creation component - cesium-viewer-change: Triggered when changes in the loading of each Cesium map are detected - flight-path-back: Triggered when returning from flight record
callback	string	false	Pass in the current flight route ID

Method: cesiumViewer

Type	Explanation
{ [key: string]: CesiumViewer }	This method provides access to all Cesium Viewer instances on the current page. The key values currently include: - global: Main map - wayline_editor_support: Auxiliary map in the flight route editor component.

Instance: window.Cesium

Native Cesium objects can be accessed directly through the window object, so users don't need to import `cesium.js` themselves.

FAQs

- Why does calling FH2 result in a 'property undefined' error?

Make sure you call the method `window.FH2` after the page is loaded (`load`). You can also use to define a callback function and call `window.FH2` within this callback.

- Why does the web page's body background color turn white after loading the FlightHub 2 component?

Currently, loading the FlightHub 2 component applies a global style to the body background color, which may override the original website style. In this case, you need to set a higher priority style for the website's background color, such as using the !important style.

- Why does using the FlightHub 2 component cause some interface elements to have inaccurate positioning?

For example, when adding waypoints, annotations, and message prompts in the flight route editor, some element positioning is inaccurate. Solution: Make sure that the component container and its parent containers do not have the following style properties: 1. transform or perspective is not none; 2. filter is not none; 3. will-change is transform or perspective; 4. contain is paint

- How to perform TypeScript inference?

Refer to the following code:

```js
export type eventName = 'wayline-save' | 'wayline-cancel' | 'cesium-viewer-chang
export interface IWaylineParams {
  wayline_id: string;
}

```

```ts
export interface ICockpitParams {
  gateway_sn: string;
  drone_sn: string;
}

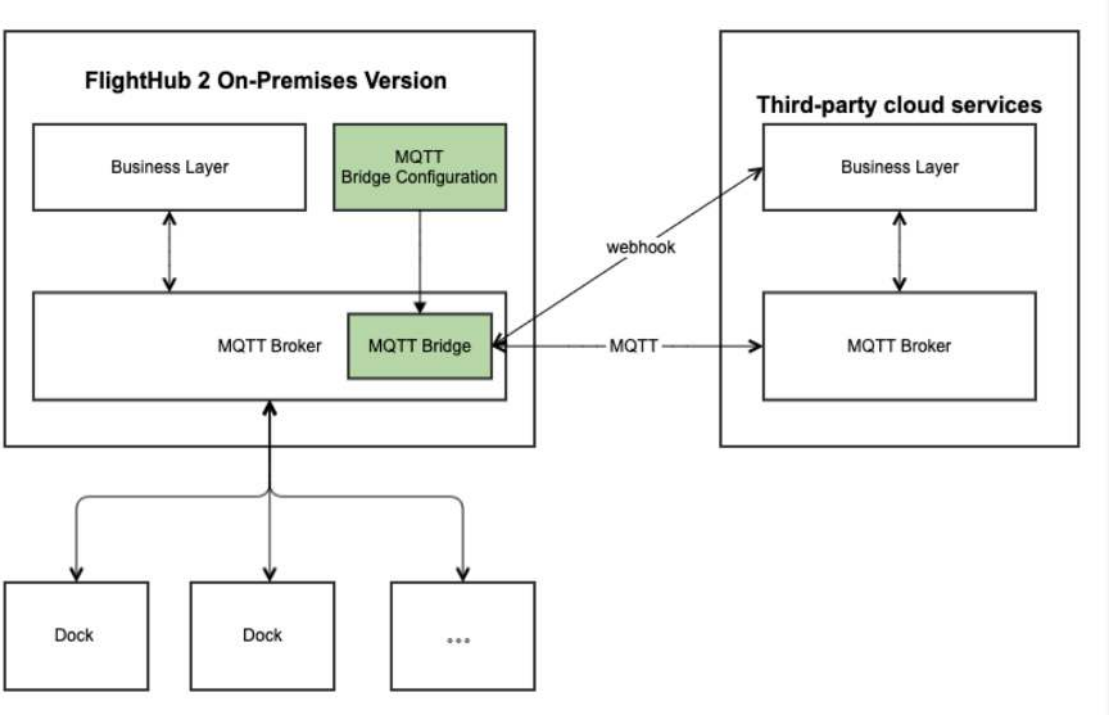
export interface IFH2Config {
  userId: string;
  orgId: string;
  prjId: string;
  serverUrl: string;
  wssUrl: string;
  hostUrl: string;
  token?: string;
}
export interface FH2 extends Record<string, any> {
  validateToken: (token: string) => boolean;
  initConfig: (config: IFH2Config) => void;
  subscribe: (eventName: eventName, callback: (...args: any[]) => void) => void;
  unsubscribe: (eventName: eventName) => void;
  destroyWayline: () => void;
  loadWayline: (domId: string, routerName: string, params?: IWaylineParams) => v
  updateWayline: (routerName: string, params?: IWaylineParams) => void;
}
```

Introduction

Basic Introduction

The MQTT Bridge provides MQTT bridging and forwarding functionality, supporting the forwarding of dock's MQTT information to third-party systems through FlightHub 2 on-premises version, offering a collaborative task solution for third-party systems and FlightHub 2 on-premises version in industry scenarios.

System Topology



Preparation Before Starting

1. Refer to the DJI FlightHub 2 On-Premises Version Deployment Manual to deploy the FlightHub 2 on-premises version.
2. The network that hosts the third-party system's MQTT Broker must be connected to the network that hosts the on-premises version of FlightHub 2. The MQTT Broker supports the EMQX type. If an MQTT Broker other than EMQX is used, users need to conduct their own testing to ensure compatibility and functionality.
3. The third-party system must ensure that the ports for both the MQTT server and the webhook URL are open. Refer to the `Configuring Bridge` section for more details.

Configuration Steps

Configuring Bridge

Enter the curl command in your terminal to set up the MQTT bridge address and configure webhooks for monitoring device online and offline status.

Example:

```json
curl -X POST "http://10.94.98.15:38080/bridges/v1/resources" -H "Content-Type: a
    "mqtt": {
        "id": "mqttbridge2",
        "config": {
            "username": "admin",
            "proto_ver": "mqttv4",
            "password": "",
            "address": "10.94.98.17:1883",
            "clientid": "fh2-bridge2"
        }
    },
    "webhook": {
        "config": {
            "url": "http://10.94.98.17:8080",
            "method": "POST",
            "path": "/",
            "body_template": "{ \"username\": \"${username}\", \"timestamp\": ${
        },
        "id": "webhook1"
    }
}'
```

Parameter description:

mqtt:

- "http://10.94.98.15:38080": Needs to be replaced with the address and port where the FlightHub 2 on-premises version is running.
- id: Unique identifier of the bridge. Can be customized and must be letters and numbers only.
- username: Username allowed to connect to third-party MQTT.
- password: Password for connecting to third-party MQTT. Cannot be empty.
- proto_ver: Protocol version number of MQTT. Currently only supports mqttv4. Default is mqttv4.
- address: Access address of third-party MQTT.
- clientid: MQTT client identifier. Can be customized and must be letters and numbers only.

webhook:

- url: URL for the interface that tracks third-party device online and offline events.
- method: Method for the interface that tracks third-party device online and offline events.
- path: Path for the interface that tracks third-party device online and offline events.

- body_template: A string template for the content sent to the third-party interface for device online and offline events. You can modify the keys to fit the specific requirements of your interface.

Configuration verification: The following information indicates successful configuration. If it returns a failure, please check whether the address and port are configured correctly and whether the network is connected.

```json
{"result":{"code":0,"message":"success"},"data":null}
```

Querying Bridge

Enter the curl command in your terminal to query the status of the MQTT Bridge.

Example:

```json
curl -X GET "http://10.94.98.15:38080/bridges/v1/resources"
```

Modifying Bridge

Enter the curl command in your terminal to query the status of the MQTT Bridge. When modifying, please ensure that the ID of MQTT and the ID of the webhook cannot be changed. For other parameter descriptions, please refer to the parameter description of the configuration bridge command.

Example:

```json
curl -X PUT "http://10.94.98.15:38080/bridges/v1/resources" -H "Content-Type: ap
{
    "mqtt": {
        "id": "mqttbridge2",
        "config": {
            "username": "admin",
            "proto_ver": "mqttv4",
            "password": "",
            "address": "10.94.98.17:1883",
            "clientid": "fh2-bridge2"
        }
    },
    "webhook": {
        "config": {
            "url": "http://10.94.98.17:8080",
            "method": "POST",
```

```
            "path": "/",
            "body_template": "{ \"username\": \"${username}\", \"timestamp\": ${
        },
        "id": "webhook1"
    }
}
'
```

Enabling or Disabling Bridge

Enter the curl command in your terminal to enable or disable the bridge function. When disabled, MQTT messages will not be able to be forwarded to the third-party platform's MQTT Broker.

Example:

```json
curl -X PUT "http://10.94.98.15:38080/bridges/v1/resources/switch" -H "Content-T
    "enabled": true
}
'
```

Binding Dock to Third-Party System

Refer to the Access to the Cloud Server tutorial to bind the dock a third-party system.

Binding Dock to FlightHub 2

Refer to the FlightHub 2 user manual ->Organization Management->Device Management ->Dock Management section,to bind the dock to an organization in FlightHub.

Verifying Bridge

Mosquitto verification:

1. Open two terminals and subscribe to 'thing/product/+/osd' on both FlightHub 2 and the third-party MQTT Broker.

```json
mosquitto_sub -h <FlightHub 2 Broker IP> -p <FlightHub 2 Broker Port> -t "thing/
mosquitto_sub -h <Third-Party Broker IP> -p <Third-Party Broker Port> -t "thing/
```

2. In a third terminal, publish the message 'test' to the topic. If 'test' appears in both subscribing terminals, the bridge setup is successful.

```json
mosquitto_pub -h <FlightHub 2 Broker IP> -p <FlightHub 2 Broker Port> -t "thing/
```

FlightHub 2 verification: If the MQTT data received by the third-party broker matches the FlightHub 2 on-premises interface data, the bridge is successful.

Notes

1. Strategy for using the livestream function with the third-party system and FlightHub 2

The third-party system has higher priority. It can take over the livestream from FlightHub 2 after it starts. When the third-party system starts streaming, FlightHub 2 cannot start a livestream. To enable the livestream on FlightHub 2, use the following command to disable the third-party system's livestream.

```json
curl -X POST http://10.94.98.15:38081/thing-access-service/inner/tas/bridges/liv
    "sn": "6QCDL870020196"
}'
```

Note: sn refers to the dock's serial number.

2. After enabling the MQTT Bridge function, the dock will automatically forward media files from the aircraft directly to the third-party system.

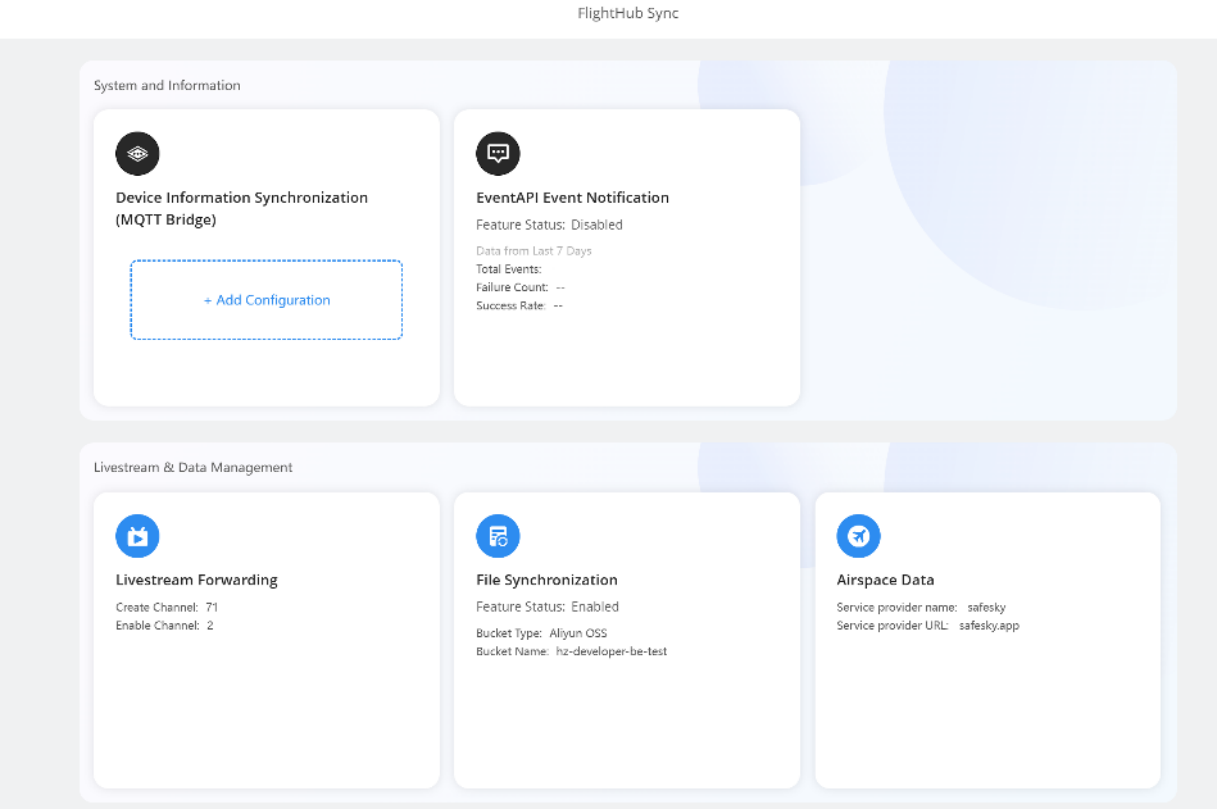
Refer to the Media Management tutorial to configure the third-party system's bucket address.

Introduction

FlightHub Sync Introduction

FlightHub Sync enables integration between public or on-premises versions of FlightHub and third-party cloud platforms, allowing synchronization of files, livestreams, device telemetry, and other data. The main features are as follows:

Feature	FlightHub Public Version	FlightHub On-Premises Version
Livestream Forwarding	Supported	Supported
File Synchronization	Supported	Supported
Device Information Synchronization	Via telemetry data	Via MQTT Bridge
EventAPI	Supported	Supported
Third-party OAuth	Not Supported	Supported
Third-Party Airspace Management	Supported	Supported



Device Information Synchronization (MQTT Bridge)

Device information sync enables the synchronization of relevant data from the dock and aircraft to a third-party cloud platform during task operation.

Public Version Telemetry Data (MQTT Protocol Push)

Users of the public version can push telemetry data of a device to third-party servers via the MQTT protocol. The configuration steps are as follows:

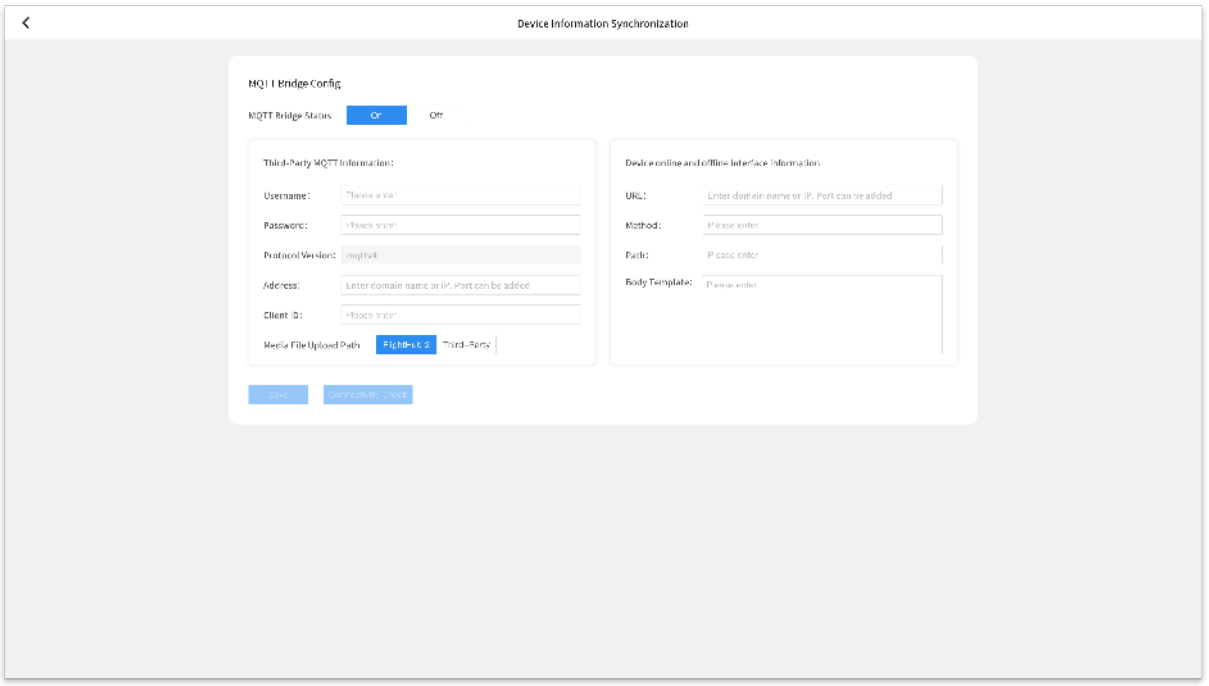
1. In FlightHub Sync settings, navigate to the Telemetry Data Forwarding page.
2. Configure the MQTT Broker connection details:
   - **Protocol**: TCP
   - **Host**: IP address or domain name supported
   - **Port**: MQTT service port
   - **Username/Password**: Authentication credentials
3. Once the service is enabled, telemetry data is pushed in real time to the configured MQTT Broker.

Service Status Indicators:

- **Running** (Green): MQTT connected successfully; data is being forwarded.
- **Disconnected** (Red): The service is switched on, but the connection has failed.
- **Disabled** (Gray): The service is switched off.

MQTT Bridge (On-Premises Version)

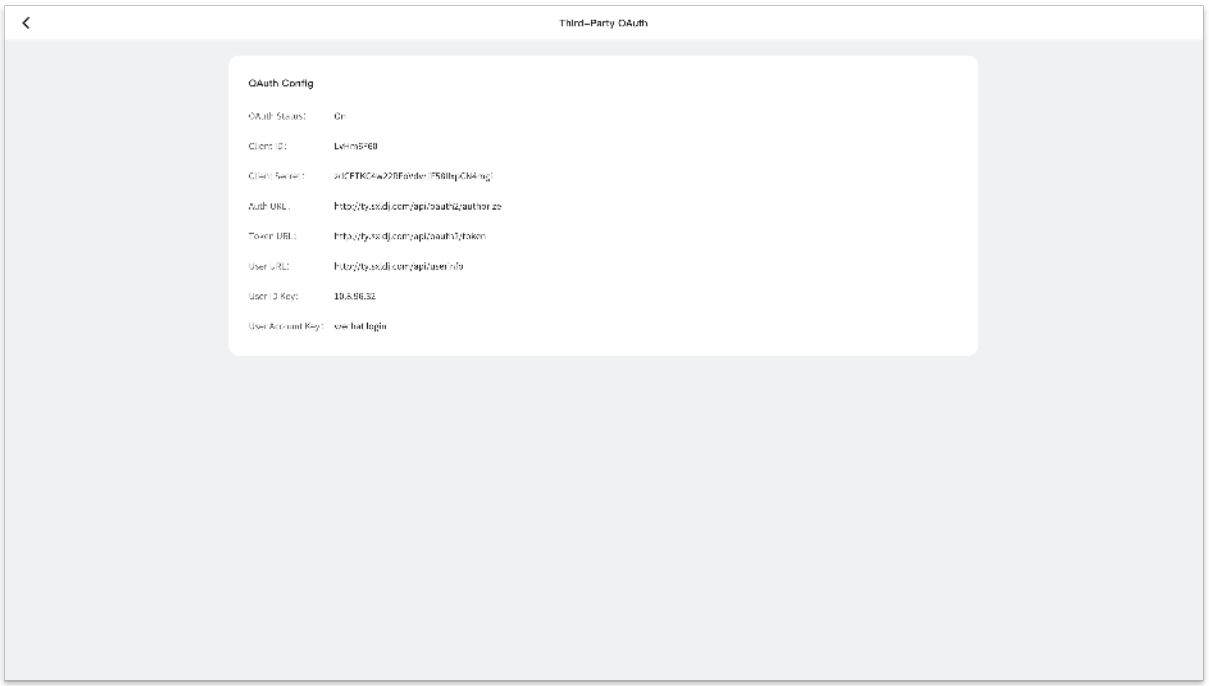
The specific configuration items are shown in the figure below:



For more details, see MQTT Bridge Overview.

Third-Party OAuth

Third-party OAuth allows users to access FlightHub using temporary authorization tokens (Access Tokens) from external systems. This enhances both security and integration efficiency within existing workflows. Currently, this feature is only supported in the FlightHub 2 On-Premises Version. To deploy the FlightHub 2 On-Premises Version, relevant fields should be configured. For details, refer to the FlightHub On-Premises Version Deployment Manual.

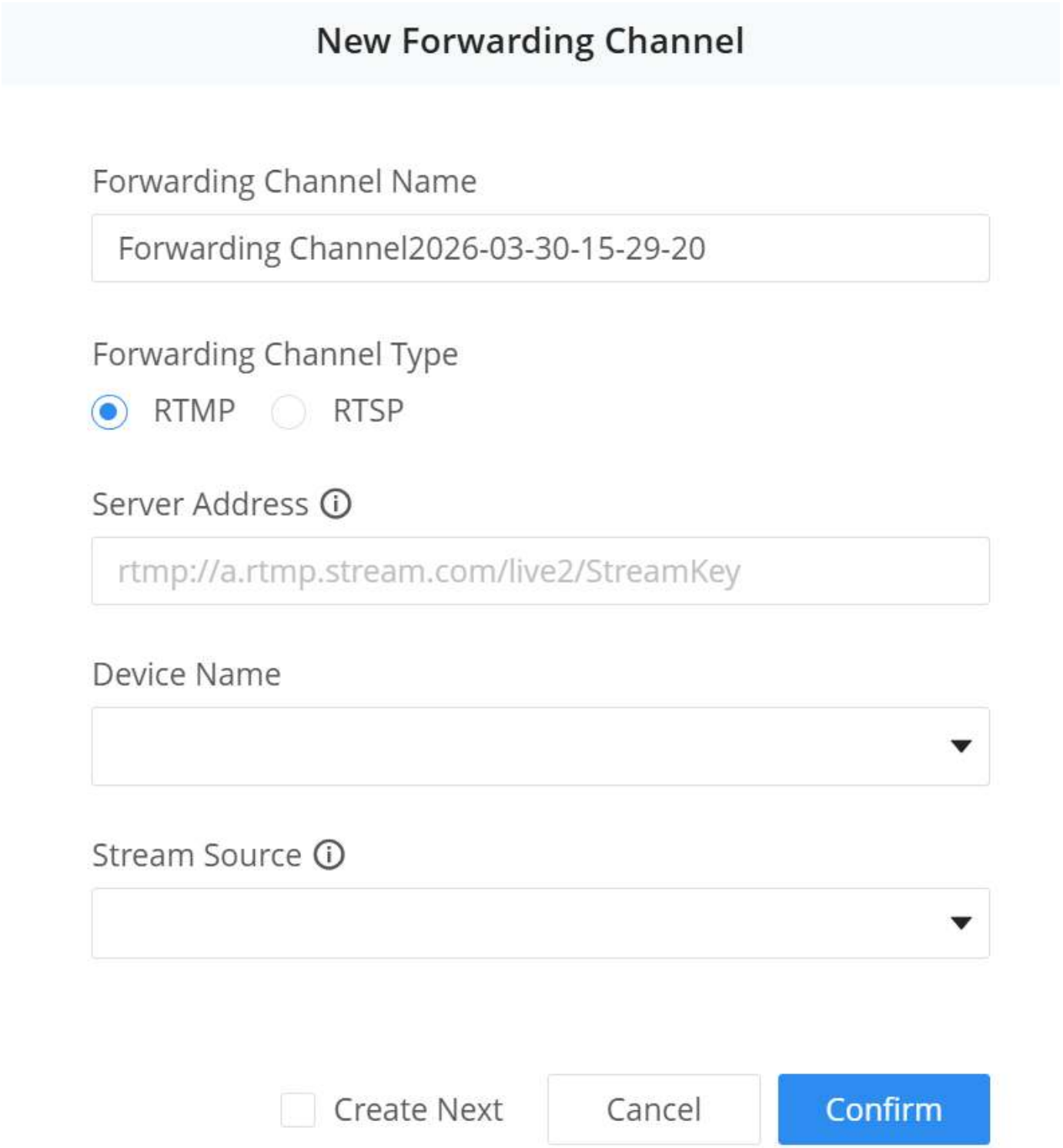


Livestream Forwarding

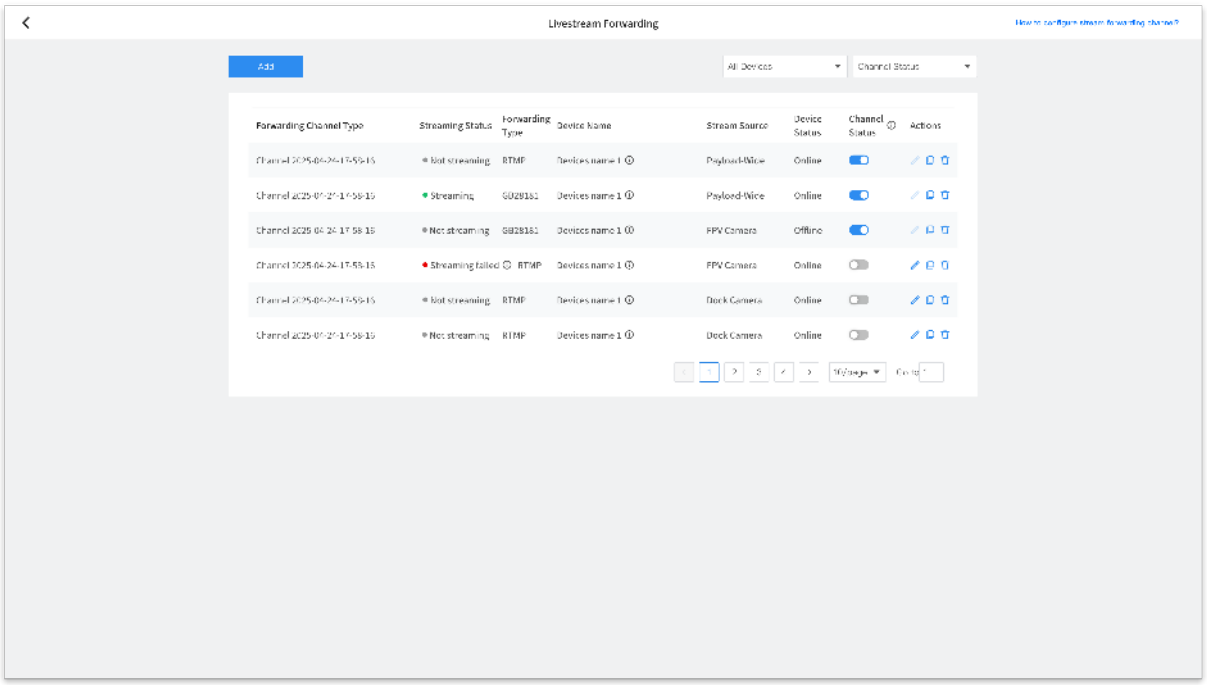
Livestream forwarding enables the streaming of any project within the current organization to third-party livestream platforms via RTMP (supported in both public and on-premises versions), RTSP (supported in both public and on-premises versions), and GB28181 (supported only in the on-premises version). Note that forwarded livestream data will consume livestream minutes from your organization's package. Please monitor usage accordingly.

Configuration Process:

1. Create a forwarding channel and complete the relevant configuration.



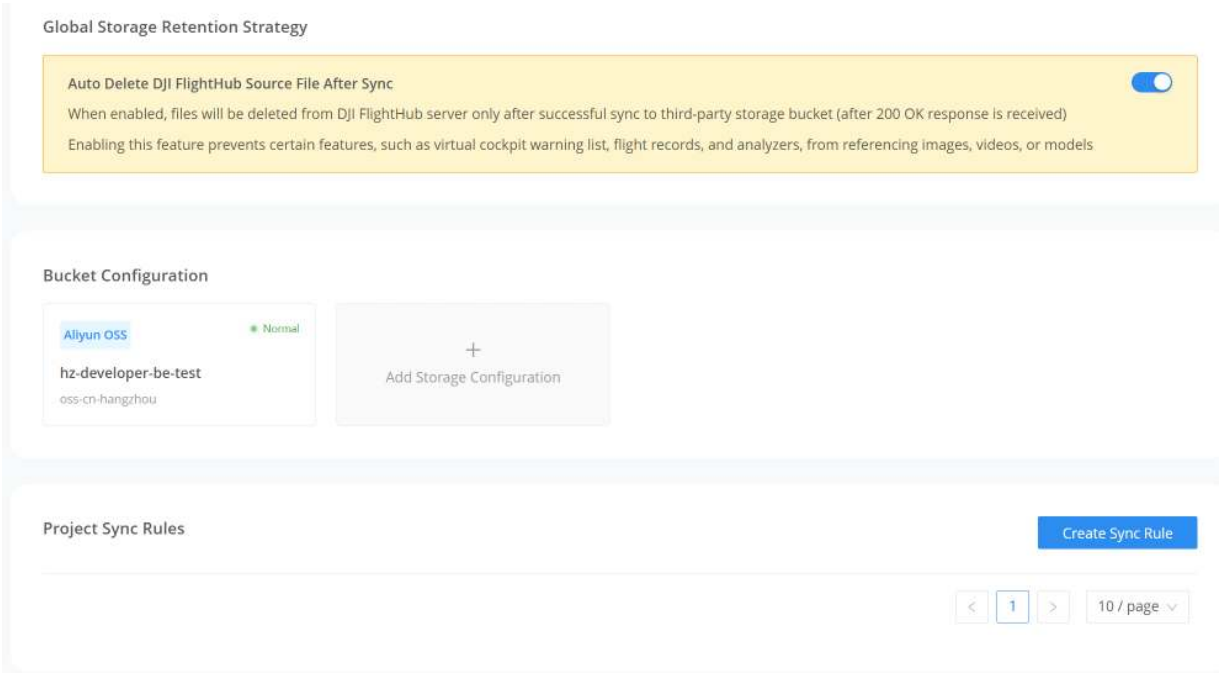
2. After configuration, use the Channel Status to enable or disable the corresponding forwarding channel.



> **Note:** For the RTSP protocol, the IP address is not retained after streaming is stopped. If you need to start streaming again, enable streaming, obtain a new IP address, and update it on the third-party platform.

File Synchronization

The file synchronization feature allows file data within FlightHub to be synchronized with third-party platforms. Details are as follows:



File Type	From FlightHub to Third Party	From Third Party to FlightHub	Notes
Media Files	Supported	Supported	When auto-delete is enabled, original file within FlightHub will be deleted automatically after file sync.
Flight Routes	Supported	Supported	Unable to delete original file within FlightHub after file sync.
Model	Supported	Supported	When auto-delete is enabled, original file within FlightHub will be deleted automatically after file sync.
Flight Records	Supported	Unsupported	When auto-delete is enabled, original file within FlightHub will be deleted automatically after file sync.
Annotation Info	Supported	Supported	Synchronization is performed via OpenAPI. Refer to “Creating Map Annotations” for details.

Note: Files are fully packaged during synchronization, so their size on the third-party platform will be larger than the original files in FlightHub.

Auto-Delete Source Files

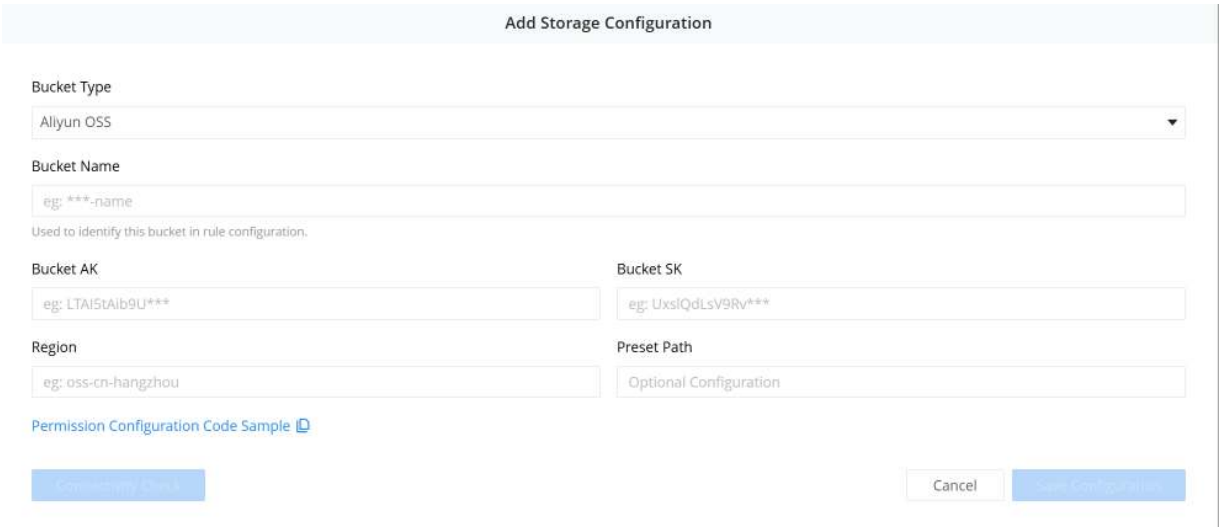
File synchronization settings include an option to "Automatically delete FlightHub source files after sync".

- Deletion occurs only upon receiving a 200 OK response from the third-party storage.
- Deleting files will affect features in FlightHub that depend on those files, such as Virtual Cockpit alerts, flight logs, and the Analyzer.
- **This action cannot be undone**. Enable with caution.

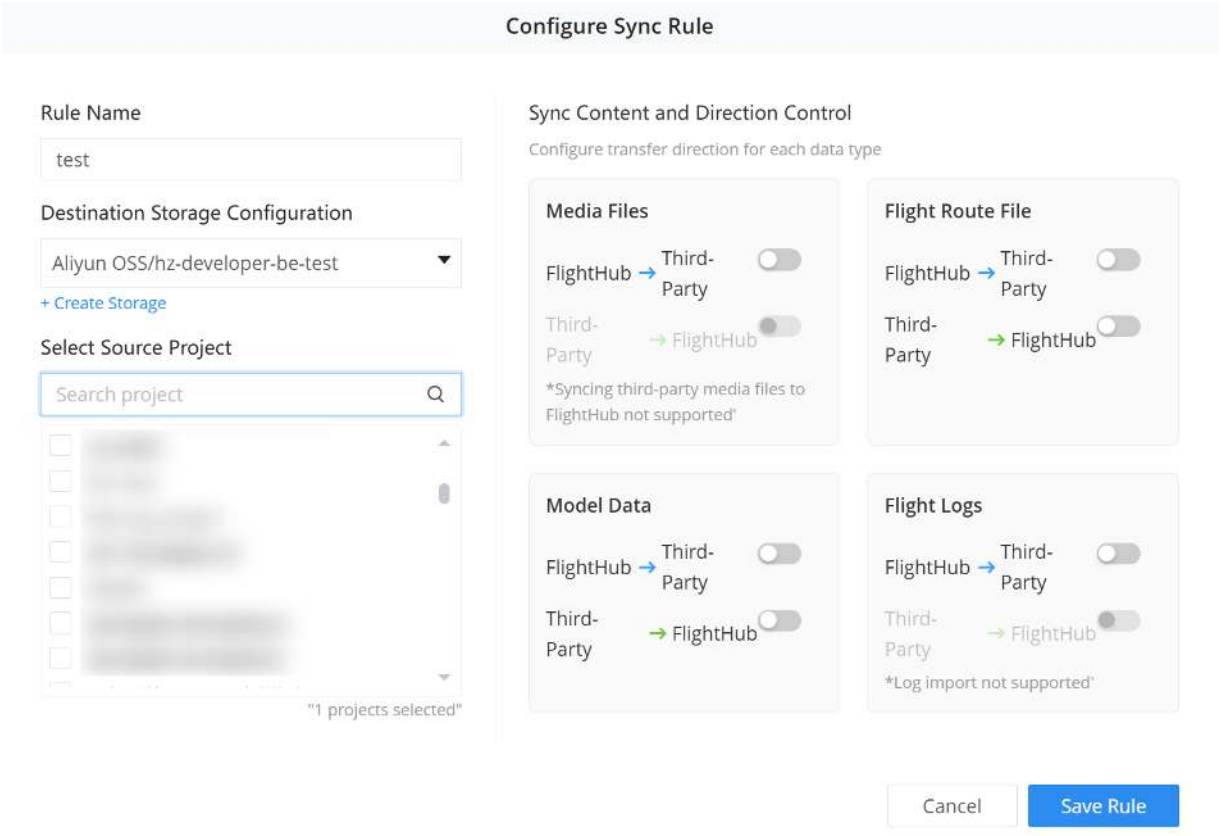
Bucket Configuration

Configuration Steps:

1. Configure bucket parameters: Currently, AWS, Alibaba Cloud, and self-hosted S3 protocol storage (MinIO) are supported. Configure the corresponding bucket permissions for read and write operations.



2. Configure synchronization parameters: FlightHub Sync allows **each project** to have independent synchronization rules and target buckets. This enables different projects to connect to different storage buckets. Note that flight records require your consent to the relevant terms before activation. This setting applies to flight data across the entire organization.

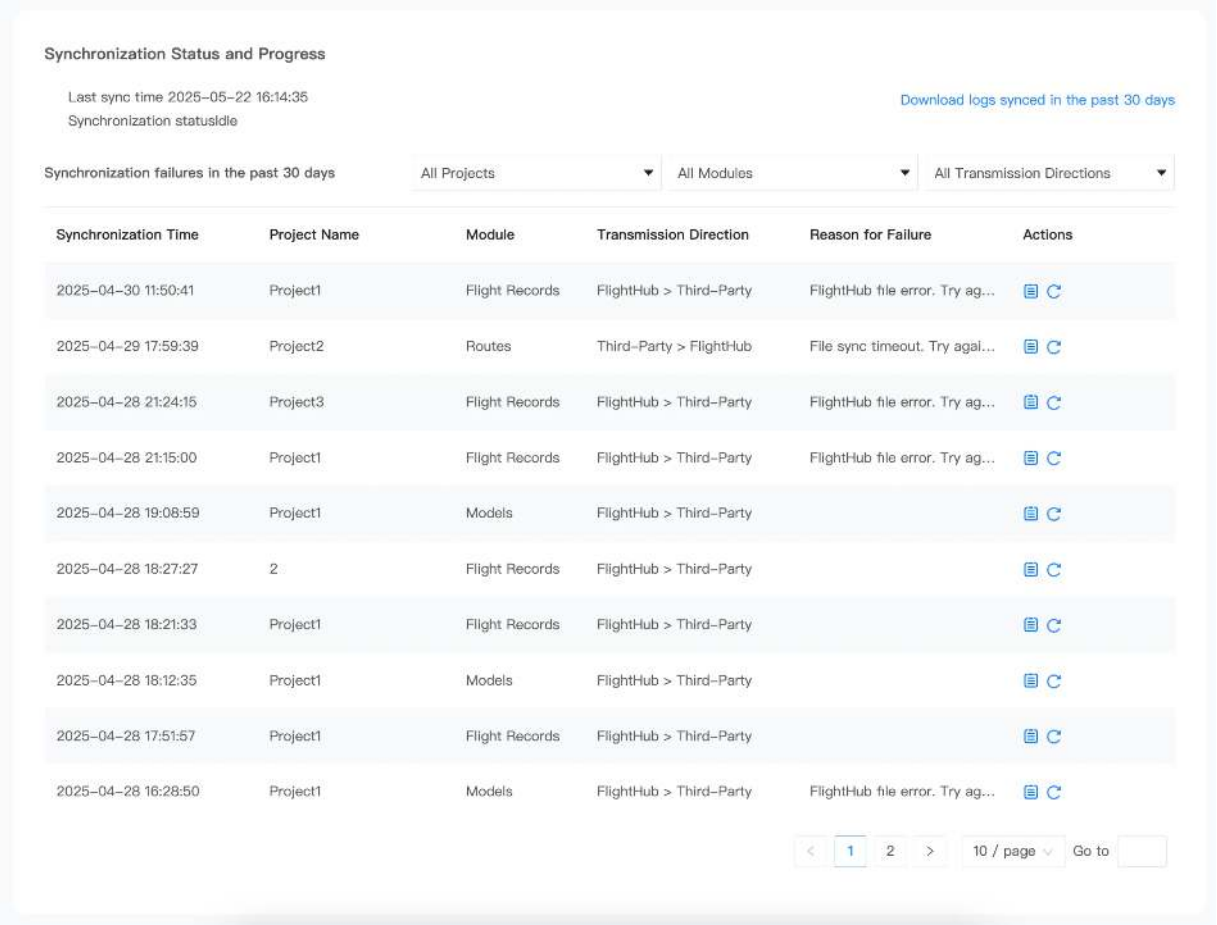


Project-Level Storage Notes:

- Synchronization rules and destination buckets can be configured independently for each project.
- A single storage configuration can be reused across multiple rules, decoupling “storage configuration” from “synchronization rules”.
- Each project can belong to only one custom synchronization rule at a time.
- Rules are automatically created for historical projects to archive them.

- Up to 20 storage bucket configurations can be added simultaneously within a single organization.

3. View synchronization status and errors: Once file synchronization begins, you can view the current file synchronization status at the bottom of the page. Failed files will be listed, and you can download logs to view the complete synchronization history for the past 30 days.



EventAPI

EventAPI is FlightHub Sync's active notification service for pushing business events to third-party platforms in real time. For more details, see EventAPI.

Key Features:

- Configurable notification rules—select the event types you want to subscribe to
- Flexible data push scope—target all projects or specific projects
- Request source validation using HMAC-SHA256 signatures
- Seven-day delivery log auditing and CSV download
- Message push through a fixed IP address for easy firewall whitelist configuration

Third-Party Airspace Management

Third-party airspace management integrates real-time airspace information from external data providers into the FlightHub platform. It displays nearby aircraft movements on the team page map

and, combined with DJI AirSense data, issues collision risk alerts to enhance flight safety.

Configuration Steps

1. Navigate to the Airspace Data Management page in FlightHub Sync and enable the service.
2. Enter the **API Key** obtained from the airspace data provider and complete verification.
3. Enter the external system address and a custom provider name.
4. Save the configuration. The airspace information section on the project team page will then display real-time airspace data from this provider.

Supported Providers

The currently supported third-party airspace data provider is SafeSky. To use this service, you must subscribe to a plan on the SafeSky platform and obtain an API Key.

Core Capabilities

- Receive and display aircraft position, altitude, speed, and other dynamic information in external airspace in a real-time manner
- Integrate DJI AirSense data for automatic deduplication and prioritize given to AirSense (ADS-B) sources
- Configure distance thresholds for collision risk alerts (high, medium, or low risk)
- Filter alerts by ICAO code or aircraft type to reduce unnecessary notifications

Event API

Feature Introduction

EventAPI is FlightHub Sync's active notification service for pushing business events to third-party platforms in real time. When using EventAPI, note the following:

- ◦ Users need to verify the field `x-dji-signature` in the header of the received service. The signature is calculated using HMAC-SHA256 based on **the organization token**, which is used to verify the validity of the request source.
- Users can configure **notification rules**, select event types to subscribe to, and specify data subscription for **all projects** or **specific projects**.
- The receiving endpoint supports both HTTP and HTTPS protocols.
- FlightHub 2 will push the event notifications using a fixed IP address. Servers in different regions use different IP addresses. For the on-premises version of FlightHub, the specific IP address depends on your server.

Country/Region	IP

EU Server + Global Server	`18.198.174.64`
	`3.64.50.113`
	`3.71.214.14`
	`63.177.169.61`
	`52.3.45.199`
	`52.55.215.248`
	`52.73.49.179`
	`34.237.190.206`
	`34.237.182.49`
	`34.228.131.169`

Notification Rule Configuration

Rule Management

The rule list displays the following information:

- **Rule name**: User-defined, up to 60 characters
- **Push address**: Endpoint URL (HTTP/HTTPS)
- **Data scope**: All projects or specific projects
- **Subscribed events**: List of selected event types
- **Status**: Enabled/Disabled
- **Actions**: Edit, Delete

Data Scope Configuration

- **All projects**: Automatically includes all future projects.
- **Specific projects**: Each project can only be referenced by one custom rule (excluding "All Projects" rules). Projects already referenced will be grayed out.

> **Note:** If an "All Projects" rule already exists in the organization, creating a new specific-project rule will trigger a dual-event push warning.

Delivery Log Auditing

EventAPI provides 7-day delivery log statistics, including:

- **Success rate**: Displayed as a percentage; a 200 callback is considered successful.
- **Total events**: Number of events generated in the last 7 days
- **Number of failures**: Total number of failed deliveries over 7 days

Logs from the last 7 days can be downloaded in CSV format. Only data from this period is retained.

Push Event Types

File Sync Notification

```json
{
  "id": "e3b0c442-73fc-1c14-9afb-f17e2fa6826a", // Universally unique identifier
  "type": "file_sync_success", // Event type: file synced notification
  "created_at": 1767875288, // Event push timestamp (seconds)
  "data": {
    "task_id": "sync_task_10001", // Universally unique identifier of the sync t
    "organization_id": "org_123456_xxxxxx", // organization ID
    "project_id": "proj_789012_xxxxxx", // Project ID of file
    "file_id": "file_345678_xxxxxx", // File ID within FlightHub
    "file_type": "application/pdf", // File type (waypoint route, flight record,
    "file_external_key": "customer_storage/2026/01/report_09.pdf", // Object Key
    "file_bytes_size": 1048576, // File size (bytes)
    "fh2_file_path": "/project_docs/report/report_09.pdf", // Original logical p
  }
}
```

Obtain AI Warning List & Snapshot

```json
{
  "id": "e3b0c442-98fc-1c14-9afb-f17e2fa6826a" , // UUID of the event message
  "type": "ai_alert_record", // Event type: AI detection records
  "created_at": 1767875288, // Event push timestamp (seconds)
  "data": {
    "alert_uuid": "e3b0c442-98fc-1c14-9afb-f17e2fa6826a", // UUID of warning rec
    "algorithm_source": 100002, // // Algorithm source ID Enumeration values are
                                // 0: DJI official intelligent algorithm
                                // 1: DJI visible light detection of people,
                                // 2: DJI infrared detection of people, vehic
                                // 3: DJI infrared temperature detection
                                // 255: AI-inside third-party algorithms on d
                                // 100001: AI-LINK third-party cloud algorith
                                // 100002: DJI multimodal object detection
    "drone_sn": "1581F6XXXXXX00A6XXXX", // Serial number of the aircraft perform
    "file_id": 123456, // Associated original media file ID
    "file_url": "https://file-storage.djicdn.com/example/path/image.jpg?auth_key
    "flight_id": "f17e2fa6-826a-48c5-a89a-fffe4093xxxx", // Associated flight ID
    "gateway_sn": "6QCDL8XXXXXX02XXXX", // Associated dock/gateway device SN
    "interval_seconds": 0, // Alert interval or duration (seconds). Defaults to
    "labels": [
      "lights"// Detected subject label/type
    ],
    "location": {
      "altitude": 80.5, // The altitude when the alert occurred (meters)
      "latitude": 22.123456, // The latitude when the alert occurred. For on-boa
      "longitude": 113.123456, // The longitude when the alert occurred. For on-
    },
    "project_id": "fe2400a5-5a74-4cb5-8374-548b7eaxxxxx", // Affiliated project
    "task_name": "FlyToTask_Inspect_ZoneA", // Associated flight task name
    "thumbnail_url": "https://oss-cn-hangzhou.aliyuncs.com/example/thumbnail.jpe
    "timestamp": 1767875275677, // The timestamp when AI detection occurred (mil
  }
}
```

Triggered Workflow Progress Notification

Used to push the node execution progress of the auto-dispatch workflow (incident-response workflow), enabling third-party systems to synchronize task status, identify terminal states, and false-alarm marks in real time.

```json
{
  "event_type": "alert_workflow_progress",        // Event type: triggered work
  "event_id": "e3b0c442-73fc-1c14-9afb-f17e2fa6826a", // Unique event message ID
  "org_id": "org_123456_xxxxxx",                  // Organization ID this event
```

```
    "project_id": "proj_789012_xxxxxx",              // Project ID this event belo
    "created_at": 1767875288,                        // Event push timestamp (seco
    "data": {
      "incident_id": "incident_2026062900001",       // Incident event ID
      "workflow_uuid": "wf_uuid_xxxxxxxxxxxx",       // Workflow UUID
      "drone_sn": "1581F5BKD2380030XXXXX",           // Operating aircraft serial
      "node_type": "command_task",                   // Node type: command_task (F
      "status": 1,                                   // Current node status code,
                                                     // node_type = "command_task"
                                                     //   0: Pending     (non-term
                                                     //   1: Executing   (non-term
                                                     //   2: Successful  (terminal
                                                     //   3: Manual intervention (
                                                     //   4: Execution failed   (t
                                                     // node_type = "device_actior
                                                     //   0: Successful       (ter
                                                     //   1: Partially successful
                                                     //   2: Failed           (ter
                                                     //   3: In progress      (nor
                                                     //   4: Manual intervention (
      "is_false_alarm": false,                       // Whether marked as false al
      "flight_id": "task_uuid_xxxxxxxxxxxx"          // UUID of the current execut
    }
  }
```

Media File Upload Notification

```json
{
  "id": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
  "type": "media_file_uploaded",
  "created_at": 1767875288,
  "data": {
    "organization_id": "org_123456_xxxxxx",
    "project_id": "proj_789012_xxxxxx",
    "file_id": "file_345678_xxxxxx",
    "file_name": "DJI_20260108_120000_0001.JPG",
    "file_type": "image/jpeg",
    "file_size": 10485760,
    "device_sn": "1581F6XXXXXX00A6XXXX",
    "flight_id": "f17e2fa6-826a-48c5-a89a-fffe4093xxxx"
  }
}
```

Notification on Flight Route File Upload and Update

```json
{
  "type": "wayline_file_uploaded",
  "org_id": "1024dd05-34ce-46b6-a872-cb32b8c98f64",
  "project_id": "38535b47-b972-4663-b1ce-5bd5a29224a4",
  "created_at": 1769414678,
  "data": {
    "id": "testcda7-c97d-4bf6-8f8f-b490b9b18401", // Flight route ID
    "name": "New waypoint route (2)",           // Flight route name
    "object_key": "1testd05-34ce-46b6-a872-cb32b8c98f64/test9b47-b972-4663-b1ce-
    "type": 5 // File type. 5 indicates the flight route
  }
}
```

Notification of Model Reconstruction Completion

```json
{
  "type": "model_post_reconstruction",
  "org_id": "105ddd05-34ce-46b6-a872-cb32b8c98f64",
  "project_id": "38559b47-b972-4663-b1ce-5bd5a29224a4",
  "created_at": 1769414678,
  "data": {
    "id": "2e12cda7-c97d-4bf6-8f8f-btest9b18401", // Model ID
    "name": "xx Model",                      // Model Name
    "object_key": "105ddd05-34ce-46b6-a872-cb32b8c98f64/38559b47-b972-4663-b1ce-
    "type": 8//8: 2D model, 9: 3D model
  }
}
```

Notification on Abnormal RTH Exit

```json
{
  "id": "9ab96be1-0231-4b2c-9892-2221188c323b",
  "type": "device_exit_return_home",
  "created_at": 1769400986,
  "data": {
    "action": 1,
    "event_type": "device_exit_return_home",
    "notify_type": "device_exit_return_home",
    "organization_uuid": "8test46f-2cd5-476b-9f33-415c98de11a5",
    "project_uuid": "8test9a5-d2ba-423d-a03e-e3b323c40810",
    "reason": null, // Reason for the abnormal RTH exit: "2": "Behavior tree ini
    "sn": "158TESTGD24BK0010114" // SN of the aircraft that undergoes the abnorm

```

```
  }
}
```

Organization Annotation Added/Edited Notification

```json
{
  "created_at": 1772803375,
  "data": {
    "count": 1,
    "download_url": "/openapi/v0.1/map/data-sync/files/33711783-bf96-440d-baa2-0
    "format": "kml-gz",
    "geometry_types": [
      "polygon"
    ],
    "sync_id": "annotation-f7356cd3-53de-4318-955f-306cbcc60ca2",
    "sync_type": 0
  },
  "id": "5df19eca-65cf-4975-a942-09fdcfd7bdf9",
  "org_id": "105ddd05-34ce-46b6-a872-cb32b8c98f64",
  "project_id": "33711783-bf96-440d-baa2-0e71afa1d485",
  "type": "map_geo_elements_update"
}
```

RTSP Address Update Push

```json
{
  "converter_name": "Example Converter",
  "converter_id": "29f4f54b-93af-4fd3-aed6-bd3d768082e9",
  "sn": "SN1234567890",
  "camera_index": "89-0-0",
  "device_callsign": "DRONE-01",
  "url": "rtsp://192.168.1.10:554/live/stream",
  "username": "rtsp_user",
  "password": "rtsp_password"
}
```

FlightHub Mapping API - Model Reconstruction Progress

```json
{
    "msg_type": "model_reconstruction_percent_change", // Message type, model_re
    "resource_uuid": "7417bac3-00a4-4e07-b078-233c77e3fdf9",
    "model_uuid": "3d33643c-de0d-4070-b155-8cf791e662e2",
    "model_status": 14, // Reconstruction status, 9=Model compression, 12=Waitin
```

```
    "model_size": 37353992,
    "reconstruction_progress": 100, // Reconstruction progress, 0-100
    "error_code": 0, // Reconstruction error code
    "zip_status": 2, // Compression status, 1=Compression in progress, 2=Compres
    "zip_progress": 100, // Compression progress 0-100
    "zip_file_key": "https://test-file-storage.djicdn.com/5a6f9d4b-2a38-4b4b-86f
}
```