DJI TERRA

User Manual

v5.0 2025.07

Content

Disclaimer

Read this disclaimer and the terms in DJI TERRA™ (hereinafter referred to as “product”) carefully before using this product. By using this product, you hereby agree to this disclaimer and the Terms of Use and signify that you have read it fully. Please install and use this product in strict accordance with the User Manual. SZ DJI TECHNOLOGY CO., LTD. and its affiliated companies assume no liability for damage(s) or injuries incurred directly or indirectly from using this product improperly.

This disclaimer is produced in various languages. In the event of variance among different versions, the Chinese version shall prevail when the product in question is purchased in China, and the English version shall prevail when the product in question is purchased in any other region.

Introduction

DJI Terra is 3D modeling software equipped with next-generation reconstruction technologies, including 3D Gaussian Splatting. It supports accurate and efficient 2D and 3D reconstruction from visible light imagery, and processes data collected by DJI LiDAR. When integrated with DJI drones, Terra delivers a unified hardware and software solution for data acquisition, processing, and application, streamlining aerial surveying workflows for greater efficiency and accuracy.

DJI Terra is available in Agriculture and Cluster versions based on available features. Users can purchase through the DJI official store or authorized dealers, then activate and bind in DJI Terra. See More Functions for details.

Agriculture Version: Includes 2D reconstruction for farmland and fruit tree scenarios, 2D multispectral reconstruction, and agricultural applications.

Standard Version: Builds upon the Agriculture version by adding KML file import, output coordinate system selection, 2D reconstruction for urban scenarios, image POS import, ROI mapping, 3D reconstruction, multi-GPU reconstruction, LiDAR point cloud accuracy optimization, GCPs, and scale constraints.

Flagship Version: Further expands the Standard version by introducing specialized tools for power line scenarios, detailed inspection, and advanced 3D Gaussian splatting reconstruction.

Cluster Version: Includes all the features of the Flagship version and adds the ability to perform cluster reconstruction using multiple devices on the same local network

* Support for DJI devices will be added as testing and development continues. Visit the DJI Terra product page on dji.com for a complete list. https://www.dji.com/dji-terra

Download and Launch

DJI Terra is supported on Windows 10 (64-bit) or later.

Your computer should meet certain hardware requirements for optimal use of some of the advanced functions such as reconstruction.

Hardware	2D Map Reconstruction / 3D Model Reconstruction / LiDAR Point Cloud Processing
CPU	i5 or later
GPU	NVIDIA graphics cards with a compute capability of no less than 6.1*
VRAM	No less than 4GB
RAM	No less than 32GB
HDD	200GB Free (basic requirement) or SSD+200GB Free (better)

NOTE:

- If using an NVIDIA graphics card, the processing speed will be faster. Computing power is a key metric of a graphics card's performance. For more information about the NVIDIA graphics card computing power, go to https://developer.nvidia.com/cuda-gpus#compute.
- It is recommended to use the graphics cards listed above. If using other models, please contact DJI Support before use.
- Make sure that the graphics card driver is up-to-date regardless of the models.
- Refer to Preparation Before Using DJI Terra on the official DJI website for more information on hardware and other configuration requirements when using the Cluster version. https://www.dji.com/downloads/products/dji-terra

1. Visit the DJI Terra product page on dji.com using your computer to download and install the software.
2. Launch DJI Terra and log in with your DJI account. If an offline license was purchased, offline login is required. Refer to Preparation Before Using DJI Terra for more information.

Mission Type

Reconstruction Missions

Visible Light

Use the original photos captured by the camera to obtain a high-precision 2D map or 3D model. After a map or model has been produced, users have the option to add annotations and perform a variety of measurements.

Multispectral

Use the original photos captured by the multispectral cameras to obtain a high-precision 2D multispectral map. After a map has been produced, users have the option to add annotations and perform a variety of measurements and agriculture applications.

LiDAR Point Cloud

Use the point cloud data captured by the Zenmuse L1/L2 to obtain a high-precision true-color point cloud. After the point cloud has been reconstructed, users can add annotations and perform a variety of measurements.

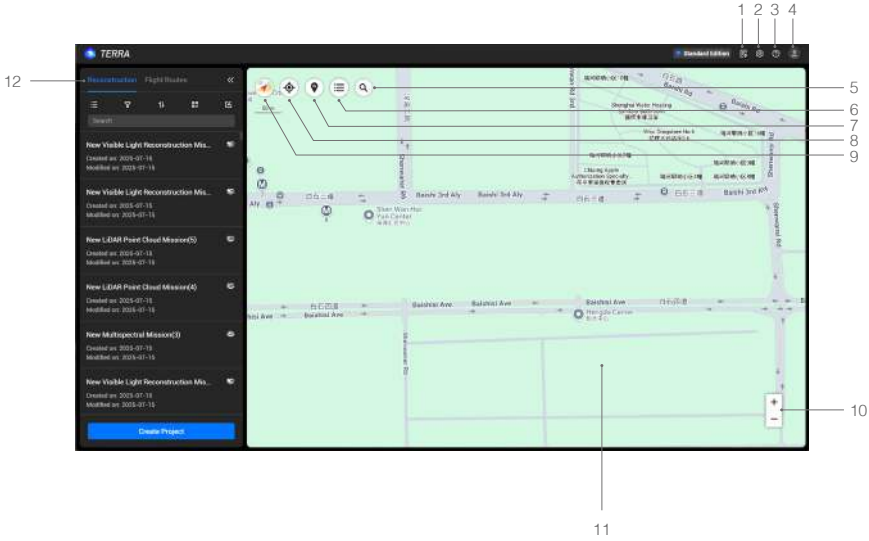
Flight Route Missions

Detailed Inspection

DJI Terra automatically generates waypoints to make up the inspection flight path after the user has imported models from 3D reconstruction results using DJI Terra or third-party LAS point cloud files, added target points on the model, and set shooting distance, flight route speed, and other parameters. After planning the flight route, users can choose from: 1. Export a KML file and upload it to the DJI Pilot app and perform the mission (requires Phantom 4 RTK (SDK), Matrice 300 RTK, or Mavic 2 Enterprise Advanced); 2. Export a KMZ file and upload it to the DJI Pilot app and perform the mission (requires Matrice 30 series or DJI Mavic 3 Enterprise series).

Interface Introduction

Main Screen



1. Bug Report
   Enter a mission and click to upload the bug report of a reconstruction mission. DJI Terra will perform reconstruction on the cloud for failed reconstruction missions, and the reconstruction output will be returned after the reconstruction is successful (only supported by certain licenses).
2. Settings
   Click to enter the Settings menu.
3. Help Center
   Click ⓘ to enter the Help Center for solutions on the most frequently asked questions.
4. Account Information
   : Log into/out of your account, activate license(s), check the unlocking license(s), version number, read the privacy policy, and configure privacy data settings.
5. Search
   ⌕ : Input names to search on the map.
6. Self Mapping List
   ☰ : Click to show a self mapping list. Choose a map or multi maps to display in the map view. Maps will not display if not chosen.
7. Show/Hide GEO Zones
   : Click to show or hide the DJI GEO Zones on the map.

8. Positioning

: If the aircraft is connected, click the icon to center the map around the aircraft's location. If the aircraft is disconnected, the map will be centered around the current network location. If there is no available internet connection, it will be centered around the defaulted initial location or the location when quitting from the software.

9. Map Mode

: Tap to switch bettwen Regular Map, Satellite Map, and Road Map.

10. Map Zoom

Click +/- to zoom in or out of the map.

11. Map View

Displays the map. Scroll the scroll wheel on the computer mouse to zoom in/out. Press and hold the left button on the computer mouse to move the map.

12. Mission Library

Missions will be assorted by types in mission library. Click each tag to display all missions of the corresponding type. Click the arrow « on the right of the library to collapse or expand it.

: Reconstruction Mission Management — This icon will only appear in the Reconstruction tag. Click to enter reconstruction mission management to view the status of all reconstruction missions. When using cluster reconstruction, users can also view the status of worker devices.

: Filter — Filter missions by type.

: Sort — Sort missions by name, time created, or last update.

: Select — Select multiple missions and export or delete. The export function here is the same as the one mentioned in the text below regarding the export function for a selected mission.

: Import — Click to import missions.

Search: input keywords in the text box to search a mission.

PC 3D AT 2D 2DM LPC GS : for a Reconstruction mission, the marks of reconstruction results will appear in the lower left corner of a mission if reconstruction is performed. See the details below for the meaning of the marks.

AT: Aerotriangulation	2D: 2D map	3D: 3D Model
2DM: 2D Multispectral Map	PC: Point Cloud	LPC: LiDAR Point Cloud
GS: Gaussian Splatting		

New Mission: click to choose a mission type and create a new mission.

Click a mission to select and:

Name: click the mission name and change it in the text box.

: the icon of the corresponding mission type will appear on the right of the mission name. Here the icon of a Visible Light Reconstruction mission is used as an example. Click to enter the mission editing view.

For a Flight Route mission, the icon mentioned above has three statuses. The description below uses a Mapping mission as an example.

: the icon will appear in Flight Route missions if the reconstruction was created using DJI Terra v2.3.0 or earlier. Click to enter the reconstruction page for 2D map reconstruction or 3D model reconstruction. For more information, refer to Reconstruction Missions.

: Copy — Click to create a copy of this mission. This will copy the photo list, parameter settings, and aerotriangulation result (if any) in a Reconstruction mission or the flight path and parameter settings in a Flight Route mission.

: Open Folder — Click to open the folder where the current mission is located.

: Delete — Click to delete the mission.

: Export — Click to export the mission with the current settings and its files such as photos, 2D maps, and 3D models. The exported file can be used to create a mission via “Import”. The mission name of the exported mission is the same as the one in DJI Terra. It will not be changed when importing it to create a mission even if the exported file's name is changed.

: Edit Model in DJI Modify: If the latest version of DJI Terra is installed, click to import the 3D model into DJI Modify for editing. Before import, it is necessary to generate the files required by DJI Modify. It is recommended to enable Output Editable in DJI Modify before reconstruction to generate the required files.

Double click a mission to enter the Mission Editing mode directly.

Flight Route Mission Editing View

1. Back

   Click to return to the main screen.

2. Parameter List

   This list includes the common screen elements below. The other settings vary according to different mission types. Refer to Parameter Setting Introduction for details.

   « / » : Collapse / Expand — Click to collapse or expand the list.

   Mission Name: Click the button on the right to edit the mission name.

   : Save — Click to save current settings.

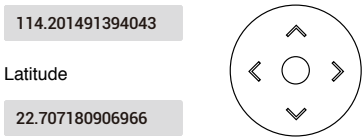
   KML : KML Import — Click to import a KML file. The data in the KML file will be converted to waypoints or edge points and displayed on the map for planning. Refer to Create a Mission for details.

   KML : KML Export — This icon will appear only in Waypoints and Detailed Inspection missions. Click to export the current flight route as a KML file. The exported file can be used to plan the flight path in a Waypoints mission via “Import KML”. For KML files exported from Detailed Inspection missions, users can also import the file into the Library in the DJI Pilot app to perform the mission.

   Mission Information: Information varies according to different mission types. These include: route distance, estimated flight route time, estimated total flight route time, waypoint count, cover area, estimated photo count, etc.

   Sliders and -/+: Move to the left or right to adjust values. Click -/+ for fine-tuning.

Waypoint / Edge Point Edit:



Click the box to input values. Click the arrow keys on the right for fine tuning. Up and down adjust latitude while left and right adjust longitude.

Mission Button (aircraft connection is required):

a. Start: Click to start the mission after parameters are set.
b. Stop: During the mission, click to stop the mission. The aircraft hovers and records its location as a breakpoint and users can control the aircraft manually. Users can then choose an operation after stopping the mission from the prompted list in the software.
c. Pause / Continue: During a Waypoints mission, click to pause the mission, and the aircraft will hover. Users can control the aircraft to fly forward or backward along the flight path, but the aircraft heading cannot be controlled. Click “Continue,” and the aircraft continues the mission from its current position.

Reconstruction Missions

Users can use the Reconstruction function with the original photos captured by the aircraft to obtain a high-precision 2D map or 3D model. After a model has been produced, users have the option to add annotation and perform a variety of measurements. For photos captured in Mapping and Corridor missions, both 2D reconstruction and 3D reconstruction are achievable, and agriculture-specific functions can be done based on a 2D map. For photos captured in Oblique missions, only 3D reconstruction is available. If the imported photos include a PPK result file from the Cloud PPK Service of the Phantom 4 RTK, this PPK file can be used for 2D or 3D reconstructions at a higher accuracy. If the imported photos are captured using the P4 Multispectral, you can reconstruct 2D multispectral maps. You can also import image POS data and generate reconstructions in the designated coordinate system.

Reconstruction mission types also include LiDAR point cloud processing. Use the point cloud data captured by the Zenmuse L1/L2 to obtain a high-precision true-color point cloud. After the point cloud has been reconstructed, users can add annotations and perform a variety of measurements.

Importing Image POS Data

Click + to select a file or folder for import. After importing, the total number of images will be displayed.

Image POS

If ✓ is displayed after importing, it indicates that the imported images contain POS data. You can view, export, and import POS data.

a. Click to view image POS data, including latitude, longitude, and altitude.
b. Click to export POS data to your local device.
c. Click to import POS data. Note: Importing new POS data will overwrite any existing POS data.

File Format

Lines to Skip From Top: Select the number of the lines to skip from the top when reading the data.
Decimal Separator: Select the decimal separator of the data. Choices are: period (.) and comma (,).
Column Separator: Select the separator of the data columns. Choices are: comma (,), period (.), semicolon (;), space ( ), and tab.
Treat combined separators as one: If the box is checked, the software will treat combined decimal separators or column separators as one when they exist in the data.

Preview

Preview the content of the imported file. Click on the upper right corner to add another POS data file.

Data Properties

POS Data Coordinate System: Select the coordinate system the POS data used and set the elevation and height offset.
Euler Angles: Set the euler angles of the POS data.

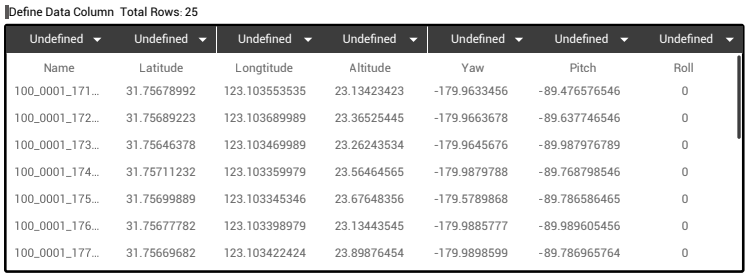
a. N/A: The imported POS data does not include euler angles. Default settings from DJI Terra will be used.
b. Omega, Phi, Kappa: The imported POS data includes euler angles of Omega, Phi, and Kappa.
c. Yaw, Pitch, Roll: The imported POS data includes euler angles of Yaw, Pitch, and Roll.

POS Data Accuracy: Set the accuracy of the POS data.

a. Use Default DJI Terra Accuracy: The imported POS data does not include accuracy. Default settings from DJI Terra will be used. When using images with RTK positioning, the horizontal accuracy is 0.03 m, and the vertical accuracy is 0.06 m. When using images with non-RTK positioning, the horizontal and vertical accuracies are 2 m and 10 m respectively.
b. Use Custom Accuracy: Use the horizontal accuracy and vertical accuracy in the POS data file.

Define Data Column

Define each column in the POS data file, including photo name, Latitude (X/E), Longitude (Y/N), Altitude (Z/U), Omega (Yaw), Phi (Pitch), Kappa (Roll), Horizontal Accuracy, and Vertical Accuracy.


Define Data Column Total Rows: 25

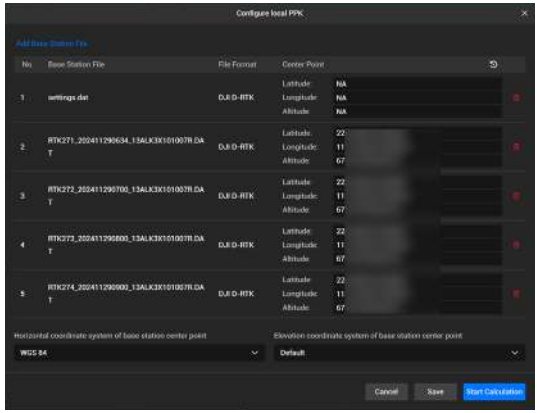
Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
Name	Latitude	Longtitude	Altitude	Yaw	Pitch	Roll
100_0001_171...	31.75678992	123.103553535	23.13423423	-179.9633456	-89.476576546	0
100_0001_172...	31.75689223	123.103689989	23.36525445	-179.9663678	-89.637746546	0
100_0001_173...	31.75646378	123.103469989	23.26243534	-179.9645676	-89.987976789	0
100_0001_174...	31.75711232	123.103359979	23.56464565	-179.9879788	-89.768798546	0
100_0001_175...	31.75699889	123.103345346	23.67648356	-179.5789868	-89.786586465	0
100_0001_176...	31.75677782	123.103398979	23.13443545	-179.9885777	-89.989605456	0
100_0001_177...	31.75669682	123.103422424	23.89876454	-179.9898599	-89.786965764	0

- Photo name, latitude (X/E), longitude (Y/N), and altitude (Z/U) are required.
- You cannot select the same definition for multiple columns.

4. After setting the format and properties, click the preview button to view the configured data, and click the import button after checking the data to import the data for reconstruction.
5. Users can also click on the right of the Image POS Data section in Reconstruction page to view the POS data after import. If any setting is incorrect, click the edit button in the preview page to make changes.
6. Refer to the section below for the remaining instructions on reconstruction.

Local PPK

If ⚠ is displayed after importing, it indicates that not all images have POS data. You can use Local PPK to calculate and obtain POS data via PPK. After selecting Local PPK, click ⚙ to configure local PPK settings.



The specific configuration items are shown in the figure below:

a. Load base station files.
b. Set the latitude, longitude, and altitude of the base station center point.
c. Select the horizontal coordinate system for the base station center.
d. Select the elevation coordinate system for the base station center.
e. Start the calculation.

Third-Party Camera Adaptation

Users can import third-party camera data to DJI Terra to perform visible light reconstruction.

1. Create a mission based on the steps provided in the "Visible Light Reconstruction" section, and then import photo data from a third-party camera.
2. Refer to the "Importing Image POS Data" section to import a file.
3. Click 👁 on the right side of "Camera Info," enter camera information (such as camera name and 35 mm Equivalent Focal Length,) and then click "Apply" to perform the reconstruction.

💡 When photo data is captured from a camera that has multiple lenses (such as a five-lens camera), the photos of different lenses are saved in different file folders. Go to "Group By" and then select "Folder" to set the corresponding lens info.

Pre-Setting or Fixing Intrinsic Camera Parameters

Pre-set or fix intrinsic camera parameters to obtain high-accuracy reconstruction results.

1. Import photo data, enter 35 mm Equivalent Focal Length based on data provided by the manufacturer on the “Camera Info” page, and then start the reconstruction.
2. Click “Apply” to save the camera configuration after the camera info is entered. Saved camera info can be found under “Camera Name” and selected for application next time.

- Click ⓘ to view camera information and import or export camera information.
- To obtain high-accuracy reconstruction results, fill in the data under “Advanced Settings” based on actual data provided by the manufacturer. Refer to https://www.dji.com/dji-terra/info#faq for instructions on how to obtain camera parameters. Click “Aerotriangulation” in DJI Terra to perform the aerial triangulation calculation. The optimized camera data shown in the aerial triangulation quality report can be used to update the camera parameters. The updated intrinsic camera parameters can be used for future reconstruction to obtain high-accuracy reconstruction results. Repeating the above process multiple times can help users obtain more accurate intrinsic camera parameters and reconstruction results of higher accuracy.

Visible Light Reconstruction

Reconstruction Procedure

1. Create a mission via the following two methods:
   a. Click the Reconstruction tag in the mission library, click Create Project in the lower left corner, choose the mission type, input the mission name, and click OK to enter Mission Editing mode.
   b. Click in the right section of the mission library to import a mission file from the computer. Click to select the imported mission and click the icon on the right of the mission name to enter Mission Editing mode. The imported mission cannot be edited if it has already been finished before exporting.
2. Click Select File or Select Folder. Select photos corresponding to the Mapping mission to add photos.

⚠ It is recommended to select at least ten photos on two main paths for reconstruction.

3D reconstruction occupies more computer resources. To ensure smooth 3D reconstruction processes by adding an adequate amount of photos, refer to the number of photos corresponding to the following computer configurations.

Available RAM	Max Photo Amount for Standalone Computation	Max Photo Amount for Cluster Computation
32GB	12800	192000
48GB	19200	288000
64GB	25600	384000
128GB	51200	768000

3. After import, the icon will appear on the upper right corner of the map view. Click to turn it blue indicating that capture location display is enabled. The corresponding location of the photos captured will be displayed on the map as a dot. Click > on the right to manage the photos. The photos are grouped by the folders they are located. Expand the list to view and manage photos.
   If capture location display is enabled, click the name of the photo to turn it blue and the corresponding dot on the map will turn orange. Similarly, when you click the dot on the map, its corresponding photo name in the list will turn blue.
   Double-click a photo to view in a large size and zoom in or out.
   Click the name of the photo to select it and click Delete to delete the photo.
   Users can also draw a selection box to select photos using the buttons on the upper right corner of the map view. Follow the instructions below.
   a. Add the edge points of the area
      : Click the icon and click the left mouse button on the map to add the edge points of the selection box.
      : Click to import a KML file. The data in the KML file will be converted to the edge points of the selection box.
   b. Edit edge points
      Click the left mouse button on the edge point to select it. Press and hold the left mouse button and drag to adjust the position of the edge point. Click the left mouse button on the boundary to add a new edge point on the boundary.
      : delete the selected edge point.
      : delete all edge points.
   c. After the selection box is added, click the right mouse button and select to delete the photos inside or outside of the box in the pop-up menu.
   Click < to return to the reconstruction page.

4. Image POS Data: Refer to Importing Image POS Data for more information.

5. Click the icon on the right side of Camera Info, enter camera information such as camera name and 35 mm Equivalent Focal Length, and then click Apply to perform the reconstruction.

6. Templates
   Six preset templates are available for visible light reconstruction, each tailored for different scenarios to enable quick parameter configuration. The templates are as follows:

Type	Name	Description
Custom Template	User-defined	Configure parameters and click Save Parameters as Template to create a custom template for future use.
System Template	General	Includes 2D Map, 3D Mesh, and Gaussian Splatting.
	Rapid 2D Mapping	Includes only 2D Map.
	Rapid 3D Reconstruction	Includes only 3D Mesh.
	Terrain Result	Includes Point Cloud, DEM, Contour Lines, Grid of Points, and TIN.
	Power Lines	Includes only Point Cloud.
	Agriculture	Includes only 2D Map.

7. Preprocessing (Aerotriangulation) Settings

   Aerotriangulation is always included in the reconstruction output. If neither the 2D map nor 3D model option is enabled, only aerotriangulation results will be generated. Click Aerotriangulation to expand the settings menu.

   Scenarios:

   Normal: Suitable for most cases, including oblique and orthophoto scenarios. Circle: Ideal for circular flight paths and reconstruction of small, vertical objects (e.g., base stations, towers, wind turbines). Power Lines: Optimized for power line reconstruction; outputs only point cloud results and does not support model output. The mapping scene setting for aerotriangulation will be updated to 3D model settings automatically. Refer to the table below for aerotriangulation configuration items.

Item	Options/Parameters	Description
Computation Method	Standalone Computation	Cluster computation can be selected for reconstruction when using the Cluster version. Refer to Cluster Reconstruction for cluster reconstruction settings.
	Cluster Computation	
Route Type	Normal	Applicable to most scenarios, including oblique photography and orthophoto.
	Circle	Applicable to circling scenarios and especially for reconstructions of small and vertical objects, such as base stations, tower, and wind-driven generator.
	Power Lines	Applicable to scenarios focused on power line reconstruction, only outputting point cloud results and not supporting model output.
Feature Point Density	High (recommended), Low	High: Moderate processing time. Low: Faster processing.
GCP and Constraints	Click to enter the GCP Management page. Detailed operations are described later.	
Distance to Ground/ Subject	Unit: m	Distance between the camera and the ground or subject during data collection. If multiple values exist, the shortest distance will be used for calculation. The larger the distance value, the slower the aerial triangulation calculation speed. The default value applies to a majority of scenarios.
XML Output	XML, XML with tie points	The default output is in the XML format supported by DJI Terra. You can also select ContextCapture Blocks Exchange format and define the output coordinate system. Users can also choose the XML format, i.e., ContextCapture Blocks Exchange, and define its output coordinate system.

8. 2D Map Settings

When 2D map is enabled, the reconstruction results will include a 2D map. Click 2D Map to expand the settings menu.

Resolution: High refers to the original resolution, Medium refers to 1/2 of the original resolution (the length and width are both 1/2 of the original photo), and Low refers to 1/4 of the original resolution (the length and width are both 1/4 of the original photo). For example, if the resolution of the original photo is 6000×6000 pixels, it will be the same in High, 3000×3000 pixels in Medium, and 1500×1500 pixels in Low.

Mapping Scenes: Field is suitable for open areas with objects of small height difference such as farmland, Urban is suitable for areas with more buildings and will produce a downsampled DSM result with a GSD of 5 m/pixel. Fruit Tree is suitable for areas with objects of large height difference such as orchard. DJI Terra will recognize objects in the reconstruction result to mark different areas such as fruit trees, buildings, and ground. After reconstruction, in the Agriculture Application page, users can add boundary points of a flight area and calibration points and DJI Terra can automatically generate a flight path according to the recognition results. Refer to Agricultural Application for more information.

Advanced Settings:

a. Region of Interest: Click to enter the Region of Interest (ROI) page. Refer to the related section for more information.

> Aerial triangulation should be performed before entering the ROI page. Make sure that 2D map and 3D model options are disabled. Click Aerotriangulation at the bottom to start aerial triangulation and wait until it is completed. Click Quality Report to view the report and make sure that the data is correct.

b. Output Coordinate System: Output coordinate system settings. Refer to the related section for more information.
c. Map Tilting: Enable and set the maximum grid length for map tiling.
d. Light Uniformity: In a strong light environment, the glossy surfaces of land or crop canopies may cause mirror-like reflections leading to brightness on one side and shadows on the other. The reconstructed map will show stripes in gradients. Enabling this feature will improve reconstruction effects for the field scene.

Refer to the table below for 2D map configuration items.

Item	Options/Parameters	Description
Computation Method	Standalone Computation	Cluster computation can be selected for reconstruction when using the Cluster version.
	Cluster Computation	
Scenario	Field	Suitable for open areas with small height differences, such as farmland.
	Mapping	Suitable for areas with more buildings and will produce a downsampled DSM result with a GSD of 5 m/pixel.
	Fruit Tree	Suitable for areas with large height differences, such as orchards.

Resolution	Automatic, Custom	If you choose custom resolution, you can configure its parameters, with the unit m/px.
Region of Interest	Click to enter the ROI (Region of Interest) page. Detailed operations are described later.	Before entering the ROI page, aerial triangulation must be performed first. Make sure that 2D map and 3D model options are disabled. Click Aerotriangulation at the bottom to start aerial triangulation and wait until it is completed. Click Quality Report to view the report and make sure that the data is correct.
Map Tilting	Enable/Disable	Digital Orthophoto Maps (DOM) and Digital Surface Models (DSM) will be divided into grids if Map Tilting is enabled.
Fill Hole Intelligently	Enable/Disable	When enabled, holes will be intelligently filled on 2D reconstruction models. It is recommended to enable current feature when Smart Oblique is enabled for data collection.

9. 3D Mesh Settings

Usage Scenario: Same as aerotriangulation scene settings.

Resolution: High refers to the original resolution, Medium refers to 1/2 of the original resolution (the length and width are both 1/2 of the original photo), and Low refers to 1/4 of the original resolution (the length and width are both 1/4 of the original photo). For example, if the resolution of the original photo is 6000×6000 pixels, it will be the same in High, 3000×3000 pixels in Medium, and 1500×1500 pixels in Low.

Refer to the table below for 3D mesh configuration items.

Item	Options/Parameters	Description
Computation Method	Standalone Computation	Cluster computation can be selected for reconstruction when using the Cluster version.
	Cluster Computation	
Quality	High, Medium, Low	High is the original resolution, Medium is 1/2 of the original resolution (i.e., both the length and width of the image are 1/2 of the original), Low is 1/4 of the original resolution (i.e., both the length and width of the image are 1/4 of the original)
Reduce Model to	Percentage (%)	Use this feature to reduce the size of the model, which can facilitate the browsing of the model with a third-party browser, or better support other model editing software. At least 20% is recommended.
File Format	B3DM	Default generation for display in Terra (LOD model format, suitable for display in Cesium)
	OSGB	LOD model format
	PLY	Non-LOD model format
	OBJ	Non-LOD model format
	S3MB	SuperMap LOD model format

File Format	I3S	Non-LOD model format
	FBX	Non-LOD model format. LOD switching can be achieved through external software.
ROI (Region of Interest)/ Block Splitting	Click to enter the ROI (Region of Interest) page. Detailed operations are described later.	Before entering the ROI page, aerial triangulation must be performed first. Make sure that 2D map and 3D model options are disabled. Click Aerotriangulation at the bottom to start aerial triangulation and wait until it is completed. Click Quality Report to view the report and make sure that the data is correct.
Refine Water Surface	Enable/Disable	When enabled, water surfaces identified during reconstruction will be refined.
Output Editable in DJI Modify	Enable/Disable	When enabled, 3D model output formats compatible with DJI Modify will be generated, and a project file for DJI Modify will be created automatically.

Gaussian Splatting

Usage Scenarios: 3D Gaussian Splatting (3DGS) reconstruction technology is applicable to engineering, highways, and construction projects, protection and restoration of ancient buildings and cultural relics, key subject reconstruction in security, substation reconstruction in the power industry, and scene reconstruction in film and game production. 3DGS enables image-level restoration, effectively addressing poor reconstruction results for complex structures in traditional photogrammetry.

Refer to the table below for Gaussian splatting configuration items.

Item	Parameters	Description
Resolution	Extra high, High, Preview	
Region of Interest	Click to enter the ROI (Region of Interest) page. Detailed operations are described later.	Before entering the ROI page, aerial triangulation must be performed first. Make sure that 2D map and 3D model options are disabled. Click Aerotriangulation at the bottom to start aerial triangulation and wait until it is completed. Click Quality Report to view the report and make sure that the data is correct.

Point Cloud:

Usage Scenario: Same as aerotriangulation scene settings.

Refer to the table below for point cloud configuration items.

Item	Parameters	Description
Computation Method	Standalone Computation	Cluster computation can be selected for reconstruction when using the Cluster version.
	Cluster Computation	
Quality	High, Medium, Low	
Density	High, Medium, Low.	High density is 100%, medium density is 25%, and low density is 6.25%.

Point Cloud Format	PNTS	Default generation for display in Terra (LOD point cloud format, suitable for display in Cesium)
	LAS	ASPRS LASer, three-dimensional point cloud format
	PLY	Non-LOD point cloud format
	PCD	Non-LOD point cloud format
	S3MB	SuperMap LOD point cloud format
	LAZ	LAZ is the lossless compressed version of LAS, defined by ASPRS
Merged Output	Enable/Disable	When enabled, merges point cloud outputs from multiple flights. Can be enabled before or after reconstruction.
Optimize Accuracy	Enable/Disable	When enabled, optimizes point cloud thickness and accuracy in weak texture areas and reduces noise.
Ground Point Classification	Enable/Disable	When enabled, parameters should be configured.
Ground Type	Flatland	Default angle: 3°
	Gentle Slope	Default angle: 6°
	Steep Slope	Default angle: 10°
Building Max Diagonal	1–1000 m (default: 20 m)	Maximum diagonal length of a building in the top view.
Iteration Angle	0.1° to 60°	Used to determine ground points. When the angle between the point and the triangular surface is within the configured value, the point is regarded as a ground point. Default: Flatland 3°, Gentle Slope 6°, Steep Slope 10°.
Iteration Distance	0.01 m to 10 m	Used to determine ground points. When the angle between the point and the surface is within the configured value, the point is regarded as a ground point. Default: Flatland 0.3 m, Gentle Slope 0.5 m, Steep Slope 0.7 m.

Digital Elevation Model (DEM):

Usage Scenario: Same as aerotriangulation scene settings.

Refer to the table below for DEM configuration items.

Item	Parameters	Description
Size	GSD	By GSD: Each pixel in the GeoTIFF DEM output represents a specific ground distance (m/px). The output format is GeoTIFF by default.
	Scale	Options include 1:500, 1:1000, 1:2000.

Contour Lines

Usage Scenario: Same as aerotriangulation scene settings.

Refer to the table below for contour line configuration items.

Item	Parameters	Description
Interval	Configurable (m)	Difference between adjacent contour lines.

Datum	Configurable (m)	Elevation of contour lines is calculated based on elevation datum and interval. For example, if datum value is 0 and interval is 10, elevation of contour lines will be -30, -20, -10, 0, 10, 20, and 30.
Elevation Annotation Radius	Configurable (m)	Used to generate elevation points for topographic mapping.
Discard Invalid Contour Lines	Enable/Disable	When enabled, the following parameters should be configured.
Min Contour Length	Configurable (m)	Contour lines with length smaller than this value will not be displayed.

Grid of Points & TIN

Usage Scenario: Same as aerotriangulation scene settings.

Advanced Settings:

a. ROI / Block Splitting: Click to enter the ROI page. Detailed operations are described later.

> Aerial triangulation should be performed before entering the ROI page. Make sure that 2D map and 3D model options are disabled. Click Aerotriangulation at the bottom to start aerial triangulation and wait until it is completed. Click Quality Report to view the report and make sure that the data is correct.

b. Output Coordinate System: Output coordinate system settings. Refer to the related section for more information.

c. Custom model origin: Enable and set the model origin coordinates. The model origin of the OSGB, OBJ, PLY output obtained after reconstruction will be set to the entered coordinate values. Use cases:

To display multiple reconstruction outputs on one model presentation platform, set the same model origin for all tasks.

For large models that require updates, you can efficiently update only a specific region by setting both the model origin and the block origin to the same coordinates as in the previous task. This ensures that the block filenames in the updated area will match those from before, allowing you to simply copy and paste the new block files to replace the old ones for seamless and efficient local model updates.

Refer to the table below for grid of points and TIN configuration items.

Item	Parameters	Description
Mode	Standard	Retains more original point cloud details.
	Smart	Generates smaller grid of points outputs.
Sample Distance	Configurable (m)	Set the distance between original points.

10. Click Start Reconstruction or Aerotriangulation if 2D map and 3D model are disabled. Check the settings in the pop-up reconstruction parameter checklist. Check the box “Do not show again” and the checklist will not pop up after starting reconstruction. Users can enable the checklist

in general settings in the Settings menu on the main screen. Click OK to start reconstruction. The progress bar at the bottom will show the reconstruction progress. Click Stop to stop reconstruction and the progress will be saved. If reconstruction is restarted after stopping, DJI Terra will track back slightly from the saved progress before continuing.

11. Multiple reconstruction missions can be started, but only one reconstruction mission can be processed at once. Any remaining missions will be queued. To view the mission progress, click in the main screen to enter the reconstruction mission management page.

12. After reconstruction is completed, click AT, 2D, or 3D to view the corresponding aerotriangulation, 2D map, or 3D model reconstruction result in different views. Annotation and measurement and agriculture applications are also available in the Application menu. Refer to the related sections for more information.

    Click on the upper right corner on the map to show or hide the capture location.

    In 2D or 3D view, click for single measurement. The measurement operations are the same as those in the annotation and measurement page with the only difference being that the data of single measurement cannot be saved.

    In AT or 3D view, users can view the reconstruction result from different angles using the buttons below, translate and rotate the model, and zoom in or out.

    : click the button and the model will rotate automatically. Click the button for other angles to stop the rotation.

    / : displays the model in top view or front view. In either view, hold down the left mouse button and drag to translate the model, scroll the mouse wheel or hold down the right mouse button and drag to zoom in or out, and hold down the mouse wheel and drag to rotate.

13. Click Quality Report to view and save a report in html format. The report includes an overview of the reconstruction result, RTK status, camera calibration information, and process information. Refer to the document How to Read a DJI Terra Quality Report on the official DJI website for more information.

File Format and Storage Path of 2D Maps

The 2D map reconstruction result is raster data in GeoTIFF format which can be used in third party software compatible with GeoTIFF format.

The default storage path of the 2D map files is as below. This cache directory can be changed in Settings.

C:\Users\<computer name>\Documents\DJI\DJI Terra\<DJI account name>\<mission name>\map\result.tif

In the reconstruction page, users can open the current mission folder using the keyboard shortcut “Ctrl+Alt+F”.

If PC GS Pro has been used on your computer, after DJI Terra has been installed, the cache directory will still be as follows:
C:\Users\<computer name>\Documents\DJI\Groundstation\Missions\<DJI account name>

File Format and Storage Path of Aerial Triangulation and 3D Reconstruction Results

DJI Terra can output aerial triangulation results in the following formats: Terra and XML.

DJI Terra can output 3D point clouds in the following formats:

1. Non-LOD point cloud file in the las, ply, and pcd formats.
2. LOD cloud file in pnts and s3mb formats. Format conversion is not supported.

DJI Terra can output 3D models in the following formats:
1. Texture mesh file in ply, obj, and i3s formats.
2. LOD model file in b3dm, osgb, and s3mb formats. Format conversion is not supported.

The default storage path of the 3D reconstruction files is as follows:
C:\Users\<computer name>\Documents\DJI\DJI Terra\<DJI account name>\<mission name>\models\pc\0
In the reconstruction page, users can open the current mission folder using the keyboard shortcut "Ctrl+Alt+F".
NOTE: This cache directory can be changed in Settings.

If PC GS Pro has been used on your computer, after DJI Terra has been installed, the cache directory will still be as follows:
C:\Users\<computer name>\Documents\DJI\Groundstation\Missions\<DJI account name>

Multispectral Reconstruction

Multispectral reconstruction is supported when using DJI multispectral aircraft. The reconstruction procedure is similar to that of 2D map reconstruction. Users can view the supported vegetation index outputs. Radiometric correction is available before reconstruction to improve the reliability of the output index when images of the calibration board and the camera reflectance factor can be obtained.

Annotations and measurements can be done after reconstruction. Enter the agricultural application page to plan operations on the 2D multispectral map. Refer to the related section for more information.

Radiometric Correction

Radiometric correction can reduce the effects on images caused by weather and time and helps to output more reliable indexes in reconstruction missions. Multispectral images with radiometric correction can be reconstructed to a 2D multispectral map with an output of reflectance. Click Advanced in the 2D map setting menu and then Radiometric Correction to enter the page. After configuration, return to the reconstruction page to start reconstruction with radiometric correction.

Template

The multispectral reconstruction system comes with 2 preset templates, allowing for quick parameter configuration. The specific template parameters are as follows:

Template Type	Name	Description
Custom Template	User-defined	Configure parameters and click Save Parameters as Template to create a custom template for future use.
System Template	General	Includes 2D Map and Aerotriangulation.
	Rapid 2D Mapping	Includes only 2D Map.

Importing Calibration Board Data

Users should import at least one group of images of the calibration board in each band and up to three groups. The groups are named Calibration Board 1, 2, and 3.

1. Select Calibration Board 1, 2, or 3.
2. Click Import Calibration Photo and select photos including the calibration board in blue, green, red, red edge, and near infrared bands to import.
3. Click the photo in the desired band and the photo will be displayed on the main screen on the left.
4. Click or to replace or delete the selected photo.
5. Input the corresponding reflectance factor in the text box for each band.

Marking the Calibration Board

1. Click the photo displayed on the main screen on the left to add a point as a mark of the edge of the calibration board in the photo.
2. Drag the edge point to adjust the position.
3. Click to delete all the points in the selected photo.
4. Mark the calibration board for each photo accordingly.
5. The marks of the calibration board will be applied to the next group of images of the calibration board. Drag the edge points to adjust if needed.

Vegetation Index Outputs

DJI Terra supports 5 types of vegetation indices: NDVI, LCI, GNDVI, OSAVI, and NDRE, each requiring photos from different spectral bands. DJI Terra will display the indices that can be calculated according to the imported photos. There will be notifications under output index if any photos are missing in the required band. After reconstruction, click the buttons for different indices to view the results.

Even if only one photo is missing from a required band for the desired vegetation index, it is considered that the information of that whole band is missing. Users can view which photos are missing in the required band in the photo list.

File Format and Storage Path of 2D Multispectral Maps

The 2D multispectral map reconstruction results are raster data in the GeoTIFF format which can be used in third party software compatible with GeoTIFF format. The results include multispectral index maps for each index, 2D orthographic maps in RGB and for each of the spectral bands. The default storage path of the 2D multispectral map files can be found below. In the reconstruction page, users can open the current mission folder using the keyboard shortcut “Ctrl+Alt+F”. This cache directory can be changed in Settings.

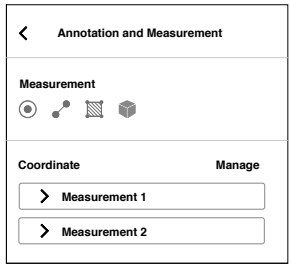
The default storage path of the multispectral index maps is
C:\Users\<computer name>\Documents\DJI\DJI Terra\<DJI account name>\<mission name>\map\index_map

The default storage path of the 2D orthographic maps in RGB and for each of the spectral bands is
C:\Users\<computer name>\Documents\DJI\DJI Terra\<DJI account name>\<mission name>\map
The result.tif file is the RGB 2D orthographic map. The result_XXX.tif file is the 2D orthographic map for the spectral band corresponding to “XXX” in the file name.

If PC GS Pro has been used on your computer, after DJI Terra has been installed, the cache directory will still be as follows:
C:\Users\<computer name>\Documents\DJI\Groundstation\Missions\<DJI account name>

Annotation and Measurement

Click ❯ on the right of the Annotation and Measurement bar to enter the page.



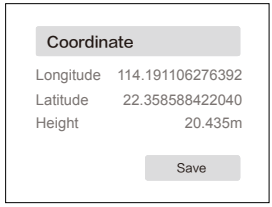
2D View

In 2D view, users can add coordinates and measure distance and area.

Coordinate

The three-dimensional coordinate of the added coordinate point, including latitude/X/E, longitude/Y/N, height/Z/U. The height corresponds to the elevation in the coordinate system that the photos use.

1. Click ◉ to enter Coordinate Adding mode.
2. Click on the map to add a coordinate. Drag to adjust its position. Click 🗑 on top to delete the coordinate. The box below the coordinate shows the name, latitude/X/E, longitude/Y/N, and height/Z/U, indicating that the coordinate is in editing status. Click the text box of the name to input the name, then click “Save” to exit editing.

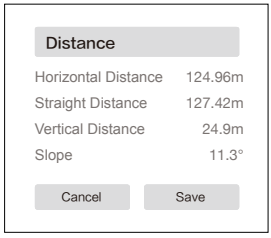


3. The coordinate list displays the added coordinates. Click ❯ to expand the information to view coordinate values or change the name.
4. Make sure that there is no coordinate in editing status. Click “Manage,” and select coordinates (the outer box of the coordinate will turn blue when selected) to export or delete them.

Distance

The horizontal distance is the length of the horizontal projection of the line segment between the two added measurement points, the vertical distance is the height difference between the two points, and the straight distance refers to the spatial distance between the two points, i.e., the length of the line segment between two points. If a polyline is added, the straight distance is the sum of the straight distances for each segment. The slope refers to the angle between the horizontal plane and the line segment generated by the two added measurement points.

1. Click to enter distance measurement mode.
2. Click the left mouse button on the map to add measurement points. Drag to adjust the position. The selected point is red, while the unselected point is gray. Click on top to delete the selected point. Click to delete all the points in this measurement. Click the right mouse button to end measurement. The box below the line shows the name, horizontal distance, straight distance, vertical distance, and slope. Click the text box of the name to input the name, then click “Save” to exit editing. A distance measurement is in editing status when the measurement is not ended or saved. To exit editing status, end the measurement and save.

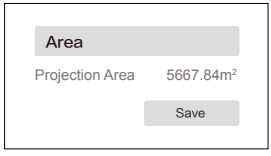


3. The process to view and manage distance measurements is the same as the one used for coordinates.

Area

The projection area refers to the projected area of the polygon area formed by the added measurement points along the elevation direction.

1. Click to enter area measurement mode.
2. As with distance measurement, the procedure to add measurement points for area is similar. The only difference is that there are three measurements points required before ending the measurement, which is achievable by clicking the right mouse button.



3D View

In 3D view, users can add coordinates, measure distance, area and volume based on a specified coordinate system. For example, when using the photos captured by a Phantom 4 RTK aircraft in WGS84 coordinate system, the altitude involved in Annotation and Measurement refers to the

ellipsoidal height. If using other coordinate systems, the altitude corresponds to the elevation in the coordinate system that the photos use.

The method for adding coordinates and measuring distances and areas is similar to the one used in 2D reconstruction, but the data included in area measurements will be different. When measuring the volume, it is required to select the base plane. The following is a description of the data of area and volume in 3D reconstruction.

Area: The projection area refers to the projected area of the polygon area formed by the added measurement points along the elevation direction. The fitted area refers to the area value for the polygonal area on the plane fitted using the added measurement points.

Volume: When projecting the polygon area formed by the added measurement points along the elevation direction, a polyhedron is produced. With reference to the specified base plane, the volume refers to the cut and fill volume of the model. The portion above the base plane (the direction in which the elevation is increased) is the cut, and the portion below the base plane (the direction in which the elevation is reduced) is the fill. There are two options for the base plane, the Mean Plane and the Lowest Point.

- Mean Plane: A plane (possibly an inclined plane) fitted with multiple measurement points as the reference plane.
- Lowest Point: Use the plane of the lowest elevation point among the measurement points as the base plane.

The Annotation and Measurement of the 3D model also includes the function to display the camera pose when adding coordinates.

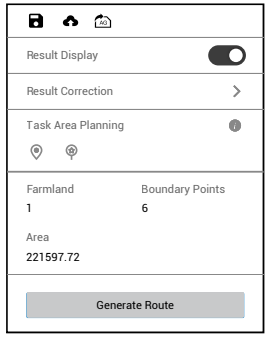
1. Enable “Camera Pose” and the green patterns indicates the camera pose when the photo was captured.
2. Click ◉ to enter Coordinate Adding mode.
3. Click on the model to select a point. The camera pose display of the photos including the selected point will turn yellow, and a photo preview from the camera's perspective will be displayed at the bottom of the screen.

4. The yellow cross in the preview photo indicates the position of the point on the model in the photo. Click the photo, and the corresponding camera pose display will turn blue. Double-click the photo to view in a large size and zoom in or out.

Agricultural Application

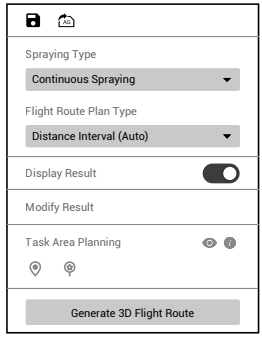
For 2D map reconstruction (Field and Fruit Tree) and 2D multispectral map reconstruction, click > on the right of the Agricultural Application bar to enter the page. Users can plan operations for fields or fruit trees on the map.

Field



1. If Display Result is enabled, recognition for different areas such as fruit trees, buildings, ground, water, and poles will be displayed on the map.
2. Click Modify Result to use the corresponding brush for each type of area to paint on the map to modify the recognition result.
3. Click and to add boundary points and calibration points in the area that includes fields.
4. Click “Generate Route.” DJI Terra will automatically generate a route for field operations. Users can enable or disable route display and obstacle avoidance, and configure altitude, route width, and route angle.
5. Click to save the mission. Click and the mission will be uploaded to DJI Agras Management Platform. Agras aircraft users can download the mission from the platform to the compatible app. Click and the mission will be exported to the microSD card in the remote controller connected to the computer. Insert the card into the Agras remote controller and import the mission in the pop-up menu in the app.

Fruit Tree



1. Select Spraying Type. When using an Agras aircraft to perform the flight mission generated by DJI Terra, the aircraft will spray according to the selected type.
   Continuous Spraying refers to spraying when flying within a recognized fruit tree area and is suitable for orchards with moderately sized and evenly distributed fruit trees.
   Spot Spraying refers to spraying only when flying to the center of the tree crown in the recognized fruit tree area and is suitable for orchards that have scattered trees with thick crowns.
2. Select Flight Route Plan Type. The plan type varies for different spraying type. Continuous spraying corresponds to Distance Interval (Auto), Tree Crown Center (Auto), Semi-automated, and Manual, while Spot spraying corresponds to Tree Crown Center (Auto) and Semi-automated.

Six planning methods are available for different operation scenarios when combining the parameters above: Continuous Spraying - Distance Interval (Auto), Continuous Spraying - Tree Crown Center (Auto), Continuous Spraying - Semi-automated, Continuous Spraying - Manual, Spot Spraying - Tree Crown Center (Auto), and Spot Spraying - Semi-automated. Refer to the descriptions below.

3. If Display Result is enabled, recognition for different areas such as fruit trees, buildings, ground, water, and poles will be displayed on the map.
4. Click Modify Result to modify the recognition result manually. Operation varies for different spraying types:.
   - When Continuous Spraying is selected, use the corresponding brush for each type of area to paint on the map to modify the recognition result.
   - When Spot Spraying is selected, circles will be displayed on the map to mark the tree crown centers. Click to edit them. Click the recognized tree crown center to select it, then click to delete. Click on the map to mark a new tree crown center.
5. Click and to add farmland points and calibration points in the area that includes fruit trees. Click the icon or to show or hide the planned farmland and calibration points. The farmland points that can be added vary for different flight route plan type, such as boundary points and waypoints. Refer to the description below.
6. Click “Generate 3D Flight Route.” DJI Terra will automatically generate a route for fruit tree operations. Users can enable or disable route display and obstacle avoidance, and configure route altitude, route width, route angle and terrain follow accuracy.
7. Click to select a waypoint to adjust waypoint location and altitude. Click to delete selected waypoint.
8. Click to save the mission. Click and the mission will be exported to the microSD card in the remote controller connected to the computer. Insert the card into the Agras remote controller and import the mission in the pup-up menu in the app.

Continuous Spraying - Distance Interval (Auto)

After adding boundary points and calibration points, click “Generate 3D Flight Route.” DJI Terra will automatically generate a zig-zag route with a same line spacing in the field. This function fits the needs of most large orchards.

Continuous Spraying - Tree Crown Center (Auto)

After adding boundary points and calibration points, click “Generate 3D Flight Route.” DJI Terra will automatically generate a route including all the tree crown centers. This is suitable for orchards with evenly distributed trees and where continuous spraying is required.

Continuous Spraying - Semi-automated

Click on the map to add waypoints along the fruit trees. The flight route will contain the waypoints. Click “2D Flight Route Preview.” DJI Terra will adjust the waypoints according to the location of the tree crown centers. Click “Back” after the preview, then click “Generate 3D Flight Route” to generate the final flight route. This is suitable for orchards with trees distribution following some kind of pattern and where continuous spraying is required.

Continuous Spraying - Manual

Click on the map to add waypoints along the fruit trees. The flight route will contain the waypoints. Click “Generate 3D Flight Route.” DJI Terra will automatically generate a route. This is suitable for orchards with unevenly distributed trees and where a custom flight route is required.

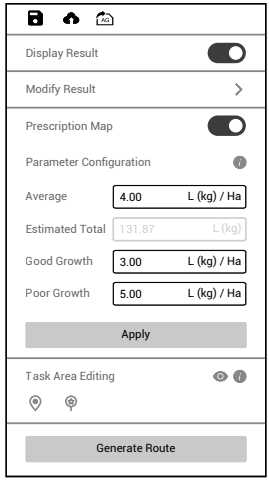
Spot Spraying - Tree Crown Center (Auto)

After adding boundary points and calibration points, click “Generate 3D Flight Route.” DJI Terra will automatically generate a route including all the tree crown centers. This is suitable for orchards with evenly distributed trees and where only spraying on the top of the trees is required.

Spot Spraying - Semi-automated

Click on the map to add waypoints along the fruit trees. The flight route will contain the waypoints. Click “2D Flight Route Preview.” DJI Terra will generate a route that connects all the tree crown centers within 1.5 m of the waypoints. Click “Back” after the preview, then click “Generate 3D Flight Route” to generate the final flight route. This is suitable for orchards with a tree distribution following some kind of pattern and where only spraying on the top of the trees is required.

2D Multispectral Map



1. If Display Result is enabled, recognition for different areas such as fruit trees, buildings, ground, water, and poles will be displayed on the map.

2. Click Modify Result to use the corresponding brush for each type of area to paint on the map to modify the recognition result.
3. Click and to add boundary points and calibration points in the area that includes fields.
4. Select a planned field and set the material amount for average, good, and poor growth in Parameter Configuration. Click to view the detailed descriptions for the parameters.
5. Click Apply and wait for the software to generate the prescription map. Users can select to show or hide the prescription map.
   The prescription map is used for Agras aircraft to conduct variable rate fertilizer application. Users can adjust the parameters to change the prescription map. When a prescription map is shown in NDVI view, each field on the map will be displayed in a color corresponding to its material amount according to the color bar on the left. Hover the mouse on the map to view the specific amount.
6. Click “Generate Flight Route.” DJI Terra will automatically generate a route for field operations. Users can enable or disable obstacle avoidance and configure route altitude, route width, and route angle.
7. Click to save the mission. Click to upload flight route output or 2D reconstruction output to DJI Agras Management Platform. Agras aircraft users can download the mission from the platform to a compatible app. Click and the mission will be exported to the microSD card in the remote controller connected to the computer. Insert the card into the Agras remote controller and import the mission in the prompted menu in the app.

Region of Interest/Block

When configuring 2D reconstruction, 3D reconstruction, and Gaussian splatting, users can select the ROI after adding photos to the model, saving modeling time and improving efficiency. To define the ROI, click on the right side of the ROI section to enter the ROI page. The specific operation is as follows. After setting the ROI, return to the reconstruction page to begin processing within the defined area.

Define ROI

There are four methods to define the ROI for reconstruction. The coordinate system used here is the same as the one in Output Coordinate System settings.

1. Click “KML Import” to convert the points in the KML file into the edge points of the ROI.
2. Input the min and max latitude, longitude, and height or XYZ values of the ROI in the text boxes, and then click “Apply” to define the ROI.
3. In the “Reset Region” option, click “Auto” or “Max Region”, and DJI Terra will generate the corresponding ROI automatically.
   Auto: DJI Terra will calculate a proper cuboid region automatically according to the point cloud distribution.
   Max Region: The cuboid region covering the whole point cloud.
4. Click on the top of the screen to enter editing mode. Click on the map to add the edge points of the ROI, and then input the height in the height text box to define the ROI.

Translate ROI

Click to enter translation mode, and then drag the defined ROI to translate it.

Edit ROI

Click to enter editing mode.
1. Click on the map to add edge points of the ROI.
2. Drag the edge point to adjust its location and the shape of the ROI.
3. Click to align blocks automatically. The ROI will automatically align with intersecting blocks.
4. Select the edge point, and then click to delete it.
5. Click to delete all the edge points.
6. Click to save settings and exit from the editing mode.

Other Information and Settings

1. When the ROI is a cuboid, its length, width, and height will appear on the top of the page.
2. : Show or hide the camera pose of the added photos.
3. Display Region: Show or hide the defined ROI.

Block Splitting Options

For 3D reconstructions, users can select the block splitting mode for efficient data management and updates.

Auto

The software will obtain the current available RAM of the computer and split the ROI into blocks accordingly.

Custom Size

Enter the single block memory limit. The software will split the ROI according to the input memory value.

Custom Side Length

The software will split the ROI according to the splitting origin and side length.

Side Length

Enter the side length. The software will split the ROI into blocks in a grid and display the estimated memory usage and block count depending on the length.

Splitting Origin

Disabled: The software will set a splitting origin automatically.
Enabled: Users can set the splitting coordinate system and the coordinates of the splitting origin.

Output Coordinate System Settings

When generating 2D or 3D reconstructions, users can set the output coordinate system after importing images. The coordinates in the reconstruction result will be converted to the designated coordinate system.

If the images do not include GPS information, the output coordinate system will be automatically set to “Arbitrary Coordinate System” defined by DJI Terra.
If the images include GPS information, the output coordinate system will be automatically set to “Known Coordinate System” and converted to a projected coordinate system in WGS 84 under 2D Map Reconstruction. In 3D Model Reconstruction, if the images include GPS information, the output coordinate system will be automatically set to “Arbitrary Coordinate System”. Users can select other known coordinate systems.

Coordinate system information is displayed at the bottom left of the user interface, as shown below.

Arbitrary Coordinate System Settings

Seven-Parameter Transformation: If multiple mapping areas exist in a small area (normally within 50 km^2) or a single mapping area needs to be mapped repeatedly, users can use the Seven-Parameter Transformation function to convert the coordinates in the reconstruction result to the designated coordinate system without adding or marking GCPs. Click to start Seven-Parameter Transformation process. On the displayed dialogue box, users can directly add coordinate information or import files.

1. Adding coordinate information directly: Input coordinate data, click “Calculate”, and then click “Apply”.
2. Importing files:
   a. Import coordinate files (in TXT or CSV format), click “Calculate”, and then click “Apply”. Coordinate data in the file should be in this order: name of the coordinate pair, latitude, longitude, and height of the source coordinates, X/E, Y/N, and Z/U of the target coordinates. Source coordinates only support the geodetic coordinate system. Separate the data with commas (TXT file) or fill data in different columns (CSV file).

      TXT file example is as shown below:
      1,22.56789101,114.0056789,37.89,192345.678,2501234.56,37.89
      2,22.56789101,114.0056789,37.89,192345.678,2501234.56,37.89
      3,22.56789101,114.0056789,37.89,192345.678,2501234.56,37.89

      CSV file example is as shown below:

Name	Latitude	Longitude	Height	X/E	Y/N	Z/U
1	22.56789101	114.0056789	37.89	192345.678	2501234.56	37.89
2	22.56789101	114.0056789	37.89	192345.678	2501234.56	37.89
3	22.56789101	114.0056789	37.89	192345.678	2501234.56	37.89

   b. Import the result file (JSON format) of the Seven-Parameter Transformation and then click “Apply”.

      Click “Start Reconstruction” and wait for the reconstruction to complete.

Known Coordinate System Settings

There are two methods to set the known coordinate system, importing a PRJ file and searching in DJI Terra.

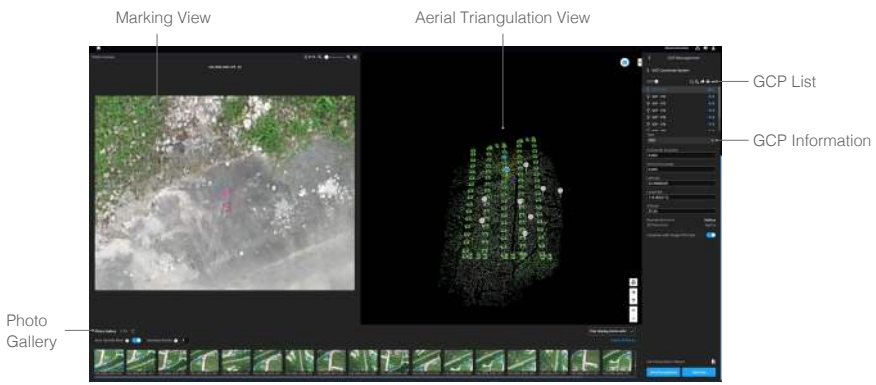
1. Importing a PRJ file: Search and download the .prj file for the desired coordinate system on the website https://spatialreference.org. Then click PRJ in DJI Terra to import.
   Searching in DJI Terra: Click “Search”, input the coordinate system name or authorization code, select the desired coordinate system in the searching results. Then click “Apply”.
2. Searching in DJI Terra: Select “Horizontal coordinate system database” and “Vertical coordinate system database” from the “Horizontal Datum Settings” and “Geoid Settings” in the drop-down menu. Input the coordinate system name or authorization code, select the desired coordinate system in the searching results. Then click “OK”.

GCP Management

Ground Control Points (GCPs) are marked points on the ground with known coordinates and are clearly visible in an image. GCPs can be obtained using photogrammetry methods such as GPS-RTK or a total station. GCPs are used to optimize the result of aerial triangulation. There are also check points that are used to check for the absolute accuracy of aerial triangulation.

When generating visible light reconstructions, users can import GCPs after importing images to help increase the robustness and accuracy of aerial triangulation, check the accuracy of the aerial triangulation against actual measurements, and convert the aerial triangulation result into the one in the GCP’s coordinate system. Note that the positioning and pose of the camera should be included in the added images or be imported after images added.

Click ❯ on the right of GCP Management bar to enter the page. The page includes GCP list, GCP information, photo gallery, aerial triangulation view, and marking view. The marking view will appear on the left of the aerial triangulation view after an image is selected in the photo gallery, as shown below. Users can add GCPs, mark points, and conduct aerial triangulation calculation and optimization.



Aerial Triangulation

In the GCP management page, DJI Terra will process the added images, and the camera positioning and attitude information will be shown on the map when complete. Click “Aerotriangulation” at the bottom of the screen to start aerial triangulation calculation. The result will be shown on the screen when complete, including camera positioning and attitude and aerial triangulation points.

GCP Coordinate System

Click ❯ on the left of GCP Coordinate System bar to set the GCP coordinate system by following the same instructions as the ones for output coordinate system configuration.

Optimization

Import a GCP file and mark points on the images to optimize the aerial triangulation.

Importing GCP Files

1. Preparing GCP Files
   The GCP data in the file should be in this order: point name, latitude/X/E, longitude/Y/N, height/Z/U, horizontal accuracy, vertical accuracy. Accuracy data is optional. Each column is separated with a space or a tab. The example is as shown below. Note that in the projected coordinate system, X represents the East, and Y represents the North.

Name	Latitude	Longitude	Height
1	22.59489	114.00106	1.0
2	22.59432	114.00188	2.0
a	22.59476	114.00121	3.0
b	22.59418	114.00194	4.0

2. Importing GCPs
   Click , and select the desired GCP file to import it. Users can also import GCPs with marked points by clicking .

   You can only import GCP files in the json format that are exported in DJI Terra when using to import GCPs.

   After the GCP file is imported, the user will see the page for editing the format and properties. The page has four sections: File Format, Preview, Data Properties, and Define Data Column.

   File Format

   Lines to Skip From Top: Select the number of the lines to skip from the top when reading the data.
   Decimal Separator: Select the decimal separator of the data. Choices are: period (.) and comma (,).
   Column Separator: Select the separator of the data columns. Choices are: comma (,), period (.), semicolon (;), space ( ), and tab.

Treat combined separators as one: If the box is checked, the software will treat combined decimal separators or column separators as one when they exist in the data.

Preview

Preview the content of the imported file.

Data Properties

GCP Coordinate System: Select the coordinate system used by the GCPs and set the altitude.

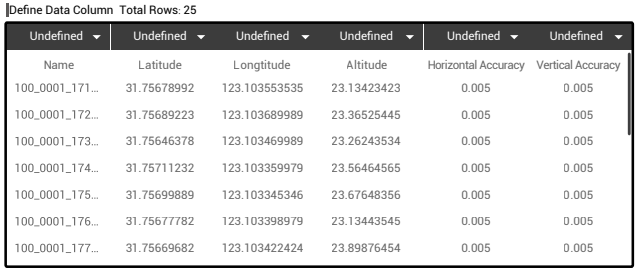
GCP Accuracy: Set the accuracy of the GCPs.

a. Use Default DJI Terra Accuracy: The imported GCP data does not include accuracy. The default settings from DJI Terra will be applied, with a horizontal and vertical accuracy of 0.005 m.

b. Use Custom Accuracy: The horizontal and vertical accuracy in the GCP file will be applied.

Define Data Column

Define each column in the GCP data file, including name, Latitude (X/E), Longitude (Y/N), Altitude (Z/U), Horizontal Accuracy, and Vertical Accuracy.


Define Data Column Total Rows: 25

Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
Name	Latitude	Longtitude	Altitude	Horizontal Accuracy	Vertical Accuracy
100_0001_171...	31.75678992	123.103553535	23.13423423	0.005	0.005
100_0001_172...	31.75689223	123.103689989	23.36525445	0.005	0.005
100_0001_173...	31.75646378	123.103469989	23.26243534	0.005	0.005
100_0001_174...	31.75711232	123.103359979	23.56464565	0.005	0.005
100_0001_175...	31.75699889	123.103345346	23.67648356	0.005	0.005
100_0001_176...	31.75677782	123.103398979	23.13443545	0.005	0.005
100_0001_177...	31.75669682	123.103422424	23.89876454	0.005	0.005

- Name, latitude (X/E), longitude (Y/N), and altitude (Z/U) are required.
- You cannot select the same definition for multiple columns.

Click the import button after checking the data. After importing, the GCPs will be shown in both the aerial triangulation view and GCP list.

3. Editing GCPs

Click to select a GCP. It will turn blue in the aerial triangulation view and GCP list when selected. The camera position of the images that contain the selected GCP will turn yellow. The blue cross on the thumbnail in the photo gallery represents the GCP's projected result on the image. Users can choose Only display photos with GCPs, Only Display Photos with Marks, or Display All Photos based on the requirements.

Press and hold the Ctrl key on the keyboard and click the GCPs to select multiple GCPs. Click − to delete the selected GCPs.

Click + to add a GCP. Set the GCP as a control point or a check point, and input its horizontal accuracy, vertical accuracy, and coordinates in the coordinate system the GCPs are in.

Marking

1. Select a GCP, and click one of the images including the selected GCP in the photo gallery. The marking view will display on the left of the aerial triangulation view. The blue cross in the marking view represents the GCP's projected result on the image.
2. In the marking view, hold the left button on the mouse to drag the image, scroll to zoom in and out. Click on the image using the yellow cross to mark the GCP's actual location in the image. The marked point is displayed in the marking view and photo gallery with a green cross, and there will be a check mark on the upper right corner of the image in the photo gallery, indicating that this is an image with a marked point.
3. Auto Identify Mark: After enabling this feature, DJI Terra will automatically identify marks of other photos based on the first mark users manually add. Users can set the number of Identified Marks based on actual needs.
4. Delete marked points: Select the images with marked points in the photo gallery, and press the Delete key on the keyboard or click on the top of the marking view.
5. Export GCP file: Click to export a json file including GCPs and marked points, which can be applied to other missions including the same images with marked points.
6. For the same GCP, the blue cross location will be updated according to the marked point location after each marking from the third image on. The reprojection error and 3D point error will also be updated.

- To ensure the robustness of the post aerial triangulation optimization, it is recommended to mark at least nine images for each GCP and make sure that the GCPs with marked points are as evenly distributed as possible in the mapping area. The recommended number of GCPs is no less than four (the type of the point should be set to GCP). Check points can be set according to the demand of the mission.
- Shortcut Keys: the Up and Down keys can switch between different GCPs, the Left and Right keys can switch between different marked photos to check, and the Delete key can remove the mark from a photo. Before the current photo marking is over, you can press the Down key to directly switch to the next GCP for operation, and DJI Terra will automatically queue up the photos for marking.
- If the reprojection error of a marked photo is too large, a red warning icon will be displayed on the photo, and DJI Terra will show the total number of photos with large reprojection errors in the GCP list area. A large reprojection error does not mean the marking is wrong, but it is required to check whether points are correctly marked. Adjust the location of marks if necessary. If marks are correctly marked, click Optimize after completing the marking process.

Using Image POS Data in Calculation

If image POS data is imported, users can enable "Constrain with Image POS Data" on the bottom of the page. The image POS data will be used for georeferencing the RMSE.

Optimization

1. After marking points, click "Optimize" at the bottom of the screen for aerial triangulation optimization. The aerial triangulation display will be updated when complete.

2. Select one of the GCPs to view the reprojection error and 3D point error after aerial triangulation optimization in the GCP information section. If the 3D point error is too large, adjust the marked points and repeat optimization until the error meets your requirements.

Aerial triangulation optimization can be done repeatedly. Remember to click “Optimize” to update the aerial triangulation result once you adjust the marked points, change the coordinate system, and edit the GCPs. If optimization is not run after adjustment, when you back to the reconstruction page, the reconstruction will be done using the previous aerial triangulation result.

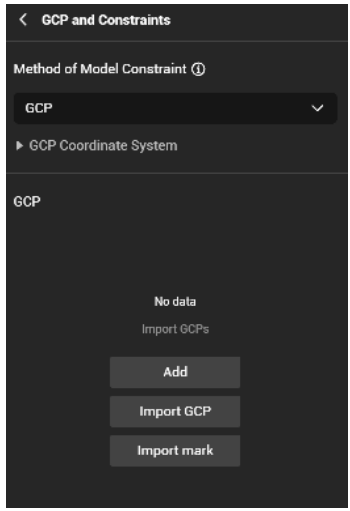
GCP and Constraints

When setting preprocessing (aerotriangulation), click Not Set to enter the GCP and constraint configuration interface. Refer to the table below for specific parameter descriptions.

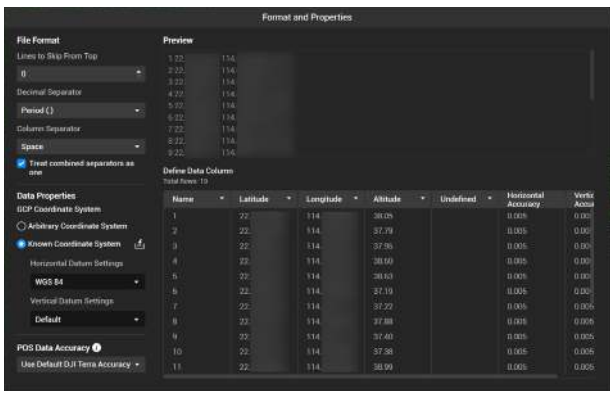
Template Type	Name	Description
GCP (Ground Control Points)	Arbitrary	For arbitrary systems, no configuration is needed.
	Known Coordinate System	For known systems, configure horizontal and elevation information.
	GCP	Click Add, Import GCP, or Import Mark and complete the following configuration.
	Type	Select GCP or check point.
	Horizontal Accuracy	Configure horizontal accuracy
	Vertical Accuracy	Configure vertical accuracy
	Latitude	Configure latitude
	Longitude	Configure longitude
	Altitude	Configure altitude
	Optimize Based on Existing AT Result	When enabled, the system will optimize aerotriangulation based on existing AT result. When not enabled, the system will remove existing AT result and optimize aerotriangulation from scratch.
	Constrain with Image POS Data	Choose whether to enable.
Scale Constraint	Click Add and enter distance (m).	Add scale constraints to at least two photos and make sure that starting point (S) and ending point (E) correspond to each other. Do not add scale constraints to photos at the edge of mapping area.
	Optimize Based on Existing AT Result	When enabled, the system will optimize aerotriangulation based on existing AT result. When not enabled, the system will remove existing AT result and optimize aerotriangulation from scratch.

GCP Addition

1. Click Add, Import GCP, or Import Mark to import GCPs.



2. Set the format and properties, then import.



3. Locate the mark based on the system's predicted projection and mark its position on the photo.
4. If Auto Identify Mark is enabled, complete aerotriangulation first, then enable this option.
5. When enabled, the system will automatically identify marks of other photos based on the manually added mark.

Constraint Line Drawing

1. Move the mouse into the image area.
2. Left-click to create a start point (S), drag to draw a line. Right-click to cancel. When the constraint list on the right is not empty, clicking will automatically add a new record, and GCPs will be adjusted accordingly.

3. Left-click again to create an endpoint (E) and finish the line.
4. Left-click a third time to start a new line. The previous line will be cleared.

For specific configuration parameters, refer to the Local PPK section.

LiDAR Point Cloud Processing

Reconstruction Procedure

1. Similar with visible light reconstruction, users can create a new LiDAR Point Cloud Processing mission by creating a new mission or importing a mission.
   Refer to the size of the raw point cloud data corresponding to the following computer configurations to make sure that there is an adequate amount of raw LiDAR point cloud data and that the point cloud data can be processed smoothly.

Available RAM	Max Size of Raw Point Cloud (Version Earlier than Terra v4.0)	Max Size of Raw Point Cloud (Terra v4.0 and Later Versions)
16GB	4GB	15GB
32GB	8GB	30GB
64GB	16GB	60GB
128GB	32GB	120GB

2. Click Select Folder and select a folder name based on data collection time to add the LiDAR point cloud data to DJI Terra. The folder should contain files with the following suffixes: CLC, CLI, CMI, IMU, LDR, RTB, RTK, RTL, and RTS. JPEG data is essential for generating a 3D mesh. Import data based on the requirements.

3. Base Station Center Point Settings
   Copy the base station data corresponding to the point cloud data from the D-RTK 2 mobile station or a third-party base station to the directory of the original data and click Base Station Center Point Settings to modify the center point coordinates. Refer to the Base Station Satellite Data Acquisition section in the Zenmuse L1 User Manual or the PPK Data Acquisition section in the Zenmuse L2 User Manual for more information on copying data.
   a. Search for the desired coordinate system and set it as the coordinate system of the base station center point or a known point.
   b. The data list will show the number, folder name, latitude (X), longitude (Y), and altitude (Z) of the center point.

   Modify one by one: input data in the text box for latitude, longitude, and altitude.
   Batch edit: check the check box in front of each number, input data in the text box for latitude (X), longitude (Y), and altitude (Z) above the table and click Batch Edit.

4. PPK Calculation
   When data collected by devices with PPK rights, such as Zenmuse L2 (Chinese mainland version), is imported, the software will display the PPK calculation switch. Users can enable this feature to perform PPK calculation with one click, enhancing operational efficiency. After the software processing is complete, the page will display the point cloud output reconstructed using PPK data.

5. Template
   The LiDAR point cloud reconstruction system comes with 5 preset templates, providing template configurations for multiple scenes, allowing for quick parameter configuration. The specific template parameters are as follows:

Template Type	Name	Description
Custom Template	User-defined	Configure parameters and click Save Parameters as Template to create a custom template for future use.
System Template	General	Includes only 2D Map.
	Rapid Point Cloud Generation	Includes only Point Cloud.
	Terrain Result	Includes DEM and Contour Lines.
	Power Lines	Includes only 3D Mesh.
	LiDAR Calibration	Includes only Preprocessing and Point Cloud.

6. Parameters Settings
   Scenarios: Select Point Cloud Processing to process LiDAR point cloud data. Select LiDAR Calibration to use the collected data for DJI Zenmuse L1/L2 calibration. Select Substation Reconstruction to perform reconstruction for power line scenarios.

   Point Cloud:
   a. Point Cloud Format: PNTS, LAS, PLY, PCD, or S3MB. The default format of LOD point cloud files is PNTS. Users can select other formats. LAS refers to the ASPRS LASer format for a 3D point cloud file. PLY refers to the PLY format for a non-LOD 3D point cloud file. PCD refers to the PCD format for a non-LOD 3D point cloud file, which is used in Point Cloud Library and can be viewed using CloudCompare. S3MB refers to the S3MB format for the SuperMap LOD

3D point cloud file. If the selected point cloud format is LAS, PLY, or PCD, you can enable the Merged Point Cloud Output feature to merge the point cloud output into a single file.

b. Merged Point Cloud Output: When enabled, the point cloud reconstruction output from multiple missions is merged into one. Enable Merged Point Cloud Output before or after reconstruction.

c. Point Cloud Density:
By percentage: High density refers to the original sampling rate, which uses 100% of the point cloud data for processing. The processing results will be of the highest quality but will take the longest amount of time to process. Medium density uses 25% of the point cloud data for processing. The processing results will be of medium quality and will take an average amount of time to process. Low density uses 6.25% of the point cloud data for processing. The processing results will be of lower quality but will take the shortest amount of time to process.
By distance: When the point cloud density is uneven (e.g., if the point cloud area is too dense), you can set the sample distance to select some points within this distance range for calculation, which reduces the number of point clouds and makes the point cloud density more even.

d. Point Cloud Effective Distance Range: Set the effective distance between the LiDAR sensor and point cloud data. Only point cloud data within the effective distance range will be used for processing. If the points captured by the LiDAR exceed the effective distance range, the points will be filtered out during processing.

- You can set an effective point cloud distance range if you need to reconstruct a nearer target area, but it will inevitably capture the background in the distance.
- Setting an effective point cloud distance range: Estimate the longest linear distance between the LiDAR sensor and the corresponding target area. Set this distance as the point cloud effective distance range.

e. Optimize Point Cloud Accuracy: If enabled, the software will optimize point cloud data collected at different times during processing for higher overall consistency and accuracy. This is a premium feature included in DJI Terra Pro and more advanced versions. Purchase and activate a license before use. Refer to More Functions for more information on purchasing and activating licenses.

f. Smooth Point Cloud: This feature reduces the point cloud thickness to remove discrete noise, which makes local structures clearer, and improves the effect of ground point extraction. In LiDAR Point Cloud Mission, it is not recommended to enable this feature if users need to preserve the characteristics of small elevation changes (<5 cm) on the surface of objects (e.g. delicate textures and structures).

3D Mesh

3D Mesh model is only supported in Substation Reconstruction mode. During fieldwork, it is recommended to use L2 LiDAR Mapping, choose Oblique Collection, set the mapping range to 200×200 m², Flight Altitude to 50 m, Flight Speed to 10 m/s, and Scan Mode to Non-repetitive. It is recommended to set Side Overlap Ratio to 40% or above Forward Overlap Ratio to 80% or above to make sure data of the mapping area can be fully collected.

a. Format: Supports B3DM, OSGB, PLY, OBJ, S3MB, and I3S. The default format for the LOD model is B3DM. Users can also output into other formats. OSGB refers to the OSGB format for the LOD model. OBJ refers to the OBJ format for non-LOD models. PLY refers to the PLY format for non-LOD models. S3MB refers to the SuperMap LOD models. I3S refers to the I3S format for non-LOD models that can be viewed in the ArcGIS client server or web page.
b. Reduce Model To: The 3D model produced by DJI Terra in Visible Light Reconstruction is relatively large. Use this feature to reduce the size of the model, which can facilitate the browsing of the model with a third-party browser, or better support other model editing software. By merging model triangles, DJI Terra can save model accuracy to the maximum extent.

Ground Point Classification: Enable this feature and select the Ground Type based on actual needs. Flat Ground is suitable for areas with dense buildings or plains. Gentle Slope is suitable for areas such as averaged-sized mountains and hills. Steep Slope is suitable for areas with great elevation changes such as high mountains and valleys. Set Building Max Diagonal, Iteration Angle, and Iteration Distance based on requirements.

DEM: Select Generate DEM and select DEM resolution by Scale or GSD. Ground Point Classification will be set as default. Users can set Ground Point Classification Parameters based on Ground Type.

Contour: Enable this feature and wait for the reconstruction to complete. Open the project directory and the output files of contour lines that are saved under /lidars/ terra_contour. Users can export the files to a third-party tool for viewing and editing.

Advanced Settings:

a. Accuracy Control and Check: Click > to enter the Accuracy Control and Check page and import the files of the control and check points. Set the parameters under File Format, Data Properties, and Define Data Column. Click Type to select check points or control points. Click Quality Report to view accuracy statistics for control and check points after performing the reconstruction.

Photo name, latitude (X/E), longitude (Y/N), and altitude (Z/U) are required when defining the data column. You cannot select the same definition for multiple columns.

b. Output Coordinate System: Same as 2D and 3D reconstructions. Users can set the output coordinate system so that the results will be converted to the corresponding coordinate system. Refer to Output Coordinate System Settings for more information. Height offset can be set if a known coordinate system is selected. Modifying the height offset value after reconstruction is complete.

7. Click Start Processing. Check the settings in the pop-up reconstruction parameter checklist. Check the box “Do not show again” and the checklist will not pop up after starting processing. Users can enable the checklist in general settings in the Settings menu on the main screen. Click OK to start processing. The progress bar at the bottom will show the processing progress. Click Stop to stop processing and the progress will be saved. If processing is restarted after stopping, DJI Terra will track back slightly from the saved progress before continuing.
8. Multiple processing missions can be started, but only one processing mission can be processed at once. Any remaining processing missions will be queued.

9. After processing, users can translate and rotate the processing results and zoom in or out to view it from different angles. The operations are the same as with 3D models. Select different display styles at the bottom of the screen.
   RGB: displays real color.
   Reflectivity: displays corresponding color according to the reflectance of objects with values between 0 and 255. 0 to 150 corresponds to the reflectance within the range of 0 to 100% in the Lambertian reflection model. 151 to 255 corresponds to the reflectance of target objects with retroflection properties.
   Height: displays the corresponding color according to the height of the point cloud.
   Return: display the corresponding color according to the number of returns when collecting data.
   Click or to zoom in or out the point cloud.
10. Click Quality Report to view and save a report in html format. The report includes an overview of the raw data information, software parameters, reconstruction file format, and point cloud processing time. Refer to the document How to Read a DJI Terra Quality Report on the official DJI website for more information.
11. Enter the annotation and measurement page in the Application menu to add annotations and perform a variety of measurements to the point cloud processing results. The operations are same as those in the 3D view. Refer to Annotation and Measurement for more information.
12. After the reconstruction is complete, click Point Cloud > Type > to choose the point cloud type.
13. Click to view model profile. Users can perform the operations below on the interface:
    Coordinate: Click and then click to select a point on the model profile to view coordinate information of the selected point.
    Measurement: Click and draw a line on the profile to view the straight-line distance, horizontal distance, vertical distance, and slope information between the two points of this line.
    Gridlines: Click to view assisted altitude and distance information.
14. Click to display the first base station center point.
15. Click to display the flight trajectory of a LiDAR point cloud mission. Currently only the trajectories of tasks performed by Zenmuse L2 can be displayed. The route info is obtained from the RPT file. No trajectory will be displayed until the reconstruction of images captured by the Power Line Follow task is complete. Make sure the firmware of Zenmuse L2 is up-to-date before the aircraft performs tasks. The LiDAR POS information will be displayed after reconstruction is complete.
16. If LiDAR Calibration is selected for reconstruction scenario, click Export Calibration File after processing, store the file to the root directory of the microSD card, and insert it into the L1/L2. The file will be used for automatic calibration when the L1/L2 is powered on.

File Storage Path of LiDAR Point Cloud Results

The default storage path of the LiDAR point cloud results is shown below. The cache directory can be changed in Settings.

C:\Users\<computer name>\Documents\DJI\DJI Terra\<DJI account name>\<mission name>\<lidars>

On the processing page, users can open the current mission folder using the keyboard shortcut “Ctrl+Alt+F”.

If PC GS Pro has been used on your computer, after DJI Terra has been installed, the cache directory will still be as follows:
C:\Users\<computer name>\Documents\DJI\Groundstation\Missions\<DJI account name>

Flight Route Missions

Create a Mission

1. New Mission

   Create a mission via the following two methods:

   a. Click the Flight Route tag in the mission library, click Create Project on the lower left corner, choose the mission type, input the mission name, and click OK to enter Mission Editing mode.

   b. Click in the right section of the mission library to import a mission file from the computer. Click to select the imported mission and click the icon on the right of the mission name to enter Mission Editing mode. The imported mission cannot be edited if it has already been finished before exporting.

2. Mission Settings

   For a Detailed Inspection mission, there will be a prompt for route planning instructions after a mission is created to guide users throughout the basic procedure. Click “OK” after reading the instructions and enter the Mission Settings page to edit the mission name, select aircraft and desired model. The list in this page will list the models from 3D reconstruction results using DJI Terra. Users can also click “Import Point Cloud” to import third-party LAS point cloud files as the model to use. After configuration, click “OK” to enter Mission Editing mode.

   ⚠ Make sure that the accuracy of the imported models or point clouds meets the operation requirements.

3. Plan Flight Path

   Detailed Inspection are flight paths with waypoints. When using a Phantom 4 RTK aircraft, the waypoint quantity should not exceed 199. While using other aircraft, the waypoint quantity should not exceed 99.

   For Oblique missions, DJI Terra automatically generates flight paths after the user has set their required flight area and parameters.

   For Corridor missions, DJI Terra automatically creates a flight area extending from the center line and generates flight paths after the user has set their required corridor points and parameters.

   Add points via the following methods:

   a. Click on the map to add a point.

   b. Fly the aircraft to the desired position and then click on the upper right corner to set the aircraft position as a point.

   c. Click KML in the parameter list to import a KML file. The data in the file will be converted to points and displayed on the map. This is a premium function included in DJI Terra Pro and more advanced versions. Please purchase a license and then activate it before use. For more information related to purchase and activation, refer to More Functions.

   For Waypoints missions, users can plan flight paths based on a 2D map, 3D model or point cloud generated in DJI Terra. Make sure that there is no waypoint added, then click › on the right of the model type section in the parameter list, select a desired 2D map or 3D model, and click “Import.” The imported map or model will be displayed in the map view. Add waypoints based on the 2D map or 3D model using the above methods.

The functions for importing 2D maps or 3D models, flight path planning based on a 2D map, and flight path planning based on a 3D model (called “3D Mission Planning” in a Waypoints mission) are included in the DJI Terra Pro and more advanced versions. Please purchase a license and then activate it before use. For information related to purchase and activation, refer to More Functions.

During 3D mission planning, waypoints can only be added when the 3D model is displayed in top view. Click to switch to the top view automatically.

For a Detailed Inspection mission, click on the model to add a target point, and then configure the parameters. DJI Terra will generate its corresponding waypoint. All the waypoints make up the flight path. When using a Phantom 4 RTK aircraft, the waypoint quantity should not exceed 199.

4. Edit Points

Click a point to select it and the selected point will turn from white to blue. Drag the point to change the area shape or flight path (except Detailed Inspection missions). In a Mapping mission or Oblique mission, click on the map, and a new point will be added between the two points. These points will be situated near the location you have clicked on.

For a Detailed Inspection mission, click the target point to select it and the selected point will turn from green to red. Drag the target point to change its position. Select a waypoint or target point, then click the desired position for a new target point on the model, and a new point will be added between the selected point and its next point.

Other operations can also be performed via the buttons below:

: Delete selected waypoint/edge point — Click a point to select it and it will turn to blue. Then click this button to delete it.

: Delete all waypoints/edge points — Click to delete all the waypoints or edge points in this mission.

: Switch start and endpoints — Click to swap the start and endpoints to reverse the flight path.

: Set your aircraft’s current position as a waypoint/edge point — Click to set the aircraft position as a waypoint or edge point.

During 3D Mission Planning, hold down the mouse wheel and drag to adjust the display view of the 3D model, and different icons will be displayed on the selected waypoint to indicate the directions in which this waypoint can be adjusted. indicates that the position in horizontal direction can be adjusted, and indicates that the position in vertical direction can be adjusted. Drag the waypoint in the corresponding direction to adjust its position. The image of viewing the model from the selected waypoint’s perspective is displayed on the lower right corner on the screen.

- Edge points of a flight area should not be too close. Otherwise, it will fail to generate flight path.
- The above requirements are also applicable when importing a KML file to plan a flight path.

- There are different limits depending on the models of the aircraft when planning and editing a Waypoint mission.
  For Phantom 4 RTK, Phantom 4 Pro+ V2.0, and Phantom 4 Pro V2.0 aircraft: The distance between two waypoints should not exceed 200 km. The total distance of the flight path has no limits.
  For Phantom 4 Pro+, Phantom 4 Pro, Phantom 4 Advanced, and Phantom 4 aircraft: The distance between two waypoints should not exceed 2 km. The total distance of the flight path cannot exceed 40 km.

For a Detailed Inspection mission, users can also perform the operations below.
/ : To display or hide the target name. When the target name is displayed, click the text box near the target point on the map to edit its name.
In the 3D model view, hold down the mouse wheel and drag to adjust the display view of the 3D model. Click the buttons on the right of the screen to adjust the display of the 3D model in specific views and to zoom in or out.
In “Waypoint Settings”, edit and configure each waypoint separately. Refer to Parameter Setting Introduction for more details.

5. Parameter Settings
   Set each item in the parameter list and click to save when complete. Refer to Parameter Setting Introduction for more details.

Perform Mission

For a Detailed Inspection mission, if the Phantom 4 RTK aircraft is selected in the Mission Settings, import the flight route KML file to a Waypoints mission in DJI Terra or import the file into Library in DJI Pilot to perform the mission. If the Matrice 300 RTK aircraft is selected, to perform the mission, the flight route KML file can only be imported into Library in DJI Pilot.

- To perform the mission using KML files exported from Detailed Inspection missions, aircraft firmware and DJI Pilot app of the corresponding version are required. Pay attention to the release notes of the related products.
- Before performing the mission, make sure that the aircraft positioning is in the RTK FIX status to avoid accidents.

Parameter Setting Introduction

Select a mission in the mission library. Click “Edit” to enter mission editing mode for parameter settings.

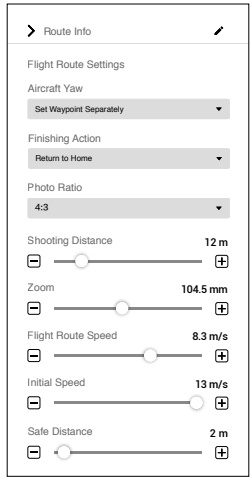
Detailed Inspection Settings

When none of target points are added, there will be a parameters list on the right screen, including flight route information and flight route settings. After a target point is added, there will also be a Waypoint Settings page on the left screen. Click « / » to collapse or expand the page.

Route Info

Click › to collapse the route information. Information based on the current parameter settings will be displayed, including flight route distance, estimated flight route time, waypoint count, estimated photo count, aircraft, height mode, and model. Click ✎ to enter the Mission Settings page again to change the mission name, aircraft and model.

Flight Route Settings



Unless otherwise specified, the flight route settings below will only be applied to the waypoints that are added after the configuration.

1. Aircraft Yaw

   Aircraft yaw when performing the mission.

   Set Waypoint Separately: The aircraft yaw will change gradually to the angle pre-set at the next waypoint if the values at the two consecutive waypoints are different.

   Follow Flight Route Direction: The front of the aircraft is always aligned to the direction of the two consecutive waypoints when flying between the two waypoints.

2. Finishing Action

Aircraft action after mission complete.

Hover: The aircraft will hover at the final waypoint after mission completion. Then users can then control the aircraft directly.

Return to Home: If the aircraft altitude is higher than this pre-set value, it will return to home at its mission completion altitude. If the aircraft altitude is lower than the pre-set value it will ascend to the RTH altitude after mission completion before returning to home. The RTH altitude can be set in Flight Controller Settings.

Land: The aircraft will land at the final waypoint and stop motors automatically after mission completion.

Return and Hover: The aircraft will return to the starting point of the flight path and hover after the mission is complete. The altitude when returning to the starting point is the same as RTH altitude.

⚠ Make sure that the endpoint of the flight path is suitable for landing when finishing action is set to “Land” to avoid potential flight accidents.

3. Photo Ratio

Set the photo ratio of the photos captured during the mission. 4:3 is the default setting for Matrice 300 RTK that cannot be changed by users.

4. Shooting Distance

Set the distance between the aircraft and target point when shooting. The range is 1 to 100 m.

5. Zoom

Set the focal length of the camera when shooting. The range is 31.7 to 200 mm. The parameter will appear only when the aircraft is set to Matrice 300 RTK.

6. Flight Route Speed

The flight speed when flying along a waypoint flight path. The range can be set from 0.2 to 13 m/s.

7. Initial Speed

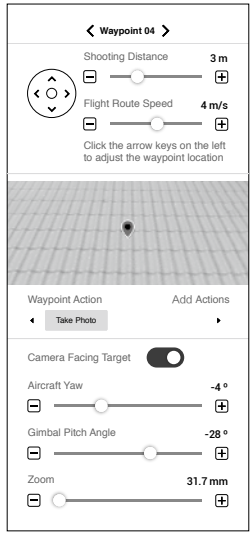
Flight speed when not flying along the waypoint-determined flight path. This includes the flight speed from the aircraft position to the starting point of the flight path when starting a mission, or returning speed after mission completion.

8. Safe Distance

After the safe distance is set, if the distance between the flight path produced by added waypoints and the model exceeds the preset safe distance, the flight path will be displayed in red and the nearest distance between the flight path and the model will also be displayed.

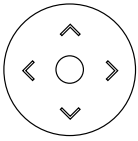
Waypoint Settings

Select a waypoint (it will turn blue when selected) then set waypoint parameters. Click ❮ or ❯ to switch to the previous or next waypoint. The keyboard shortcut “Ctrl+ ← ” or “Ctrl+ → ” can also be used to switch accordingly.



1. Arrow Keys

   Click to adjust the waypoint location on upward, downward, left and right directions.



2. Shooting Distance

   Set the distance between the aircraft and target point when shooting. The range is 1 to 100 m.

3. Flight Route Speed

   The flight speed when flying along a waypoint flight path. The range can be set from 0.2 to 13 m/s.

4. Simulated Camera View

   Displays the expected image from the camera's perspective with the current settings.

5. Waypoint Action

   Add actions the aircraft will perform at each waypoint. Name, delete, and order the added actions.

   Add Actions: Click the button and then select the desired action.

   a. Hover: The aircraft will hover at the waypoint. Set hovering time from 0 to 30 s.

   b. Take Photo: Capture on arrival at a waypoint. Users can set the parameters about taking photos below.

Camera Facing Target — ① When this is enabled, the camera will always face the target point whatever the other parameter settings are. Users cannot set the aircraft yaw and gimbal pitch angle. During mission, users can manually adjust the aircraft yaw and gimbal pitch angle at the waypoint. Note that the operations will change the aircraft position. ② When this is disabled, users can set the aircraft yaw and gimbal pitch angle here. During mission, if users adjust the aircraft yaw or gimbal pitch angle at the waypoint, the aircraft position will not change.

Zoom — Set the focal length of the camera when shooting. The range is 31.7 to 200 mm. The parameter will appear only when the aircraft is set to Matrice 300 RTK.

Name Actions, Delete Actions: Hover the mouse over the added action. Then click to edit the name of the action. Click × to delete the action.

Re-Order: Drag the added action to the desired position and release.

More Functions

KML files can be imported onto DJI Terra to add waypoints or edge points of a flight area. In a Waypoints mission, 2D / 3D Mission Planning based on an existing or newly created reconstruction is available. For Reconstruction missions, there are various functions available such as 2D Map Reconstruction (urban scenes), Output Coordinate System, ROI, Multi-GPU Reconstruction GCP Management, 3D Model Reconstruction, and LiDAR Point Cloud Accuracy Optimization. Users can also purchase the Cluster version to use multiple devices in the local network for cluster reconstruction. These are premium features. Purchase a license according to the features you require. See the table below which provides an overview of DJI Terra's more advanced features and functions.

Module	Function	Agriculture Version	Standard Version	Flagship Version	Cluster Version
Import	Aerial and ground Images in JPG formats	√	√	√	√
	Third-party camera data	√	√	√	√
	Image POS data		√	√	√
	LiDAR data [1]		√	√	√
	Multispectral data [2]	√	√	√	√
	Projects	√	√	√	√
	KML files		√	√	√
	Reconstruction with over 500 Photos or 8GB point cloud	√	√	√	√
Reconstruction	Visible light aerotriangulation	√	√	√	√
	DSM and DOM reconstruction from visible light photos		√	√	√
	Mesh reconstruction from visible light photos		√	√	√
	Point cloud reconstruction from visible light photos		√	√	√
	Point cloud classification after visible light reconstruction		√	√	√
	DEM generation after visible light reconstruction		√	√	√
	Contour line generation after visible light reconstruction		√	√	√
	Grid of points generation after visible light reconstruction		√	√	√
	TIN generation after visible light reconstruction		√	√	√
	2D reconstruction (farmland) from visible light photos	√	√	√	√

Reconstruction	2D reconstruction (fruit tree) from visible light photos	√	√	√	√
	Power lines reconstruction from visible light photos			√	√
	Gaussian splatting DOM from visible light photos			√	√
	Gaussian splatting 3D reconstruction from visible light photos			√	√
	LiDAR point cloud data post-processing		√	√	√
	LiDAR point cloud accuracy optimization		√	√	√
	LiDAR point cloud smoothing		√	√	√
	LiDAR point cloud mesh generation		√	√	√
	LiDAR substation reconstruction		√	√	√
	LiDAR point cloud classification		√	√	√
	LiDAR point cloud contour lines generation		√	√	√
	2D multispectral reconstruction	√	√	√	√
	Multi-GPU reconstruction		√	√	√
Flight Route Planning	Detailed inspection [3]			√	√
	Agricultural application	√	√	√	√
Tools	Annotation and measurement	√	√	√	√
	Custom coordinate system settings		√	√	√
	Region of interest		√	√	√
	Quality reports	√	√	√	√
	Control and check points		√	√	√
	Zoom constraints [4]		√	√	√
	Flight trajectory	√	√	√	√
	Cluster reconstruction				√
	Local PPK calculation of POS data from visible light photos		√	√	√
	Zenmuse LiDAR cloud PPK [5]		√	√	√
	Template with custom parameter	√	√	√	√
Support	Forum community [6]	√	√	√	√
	Error upload [7]		√	√	√
	License unbinding [8]	√	√	√	√
Language	9 multilingual options	√	√	√	√
	Imperial length units	√	√	√	√

[1] Only supports importing data collected by DJI Zenmuse LiDAR.
[2] Multispectral reconstruction supports importing photos collected by Mavic 3 Multispectral and Phantom 4 Multispectral.
[3] Only the following models support importing flight routes of detailed inspection projects:
(1) Phantom 4 RTK (remote controller without screen)
(2) Matrice 300 RTK + H20 series payload
(3) Mavic 2 Enterprise Advanced
(4) Matrice 30 series
(5) DJI Mavic 3 enterprise series
(6) DJI Matrice 4T, 4D, 4TD, and 4E
[4] Scale constraints are only available for visible light reconstruction tasks.
[5] Only supports reconstruction tasks for Chinese mainland users, and the offline license does not include this feature.
[6] https://bbs.dji.com
[7] Only supports reconstruction tasks for Chinese mainland users, and the offline license does not include this feature.
[8] A license bound to one device can be unbound once per calendar year. Licenses bound to three or more devices can be unbound twice per year. All devices under the license will be unbound after applying. Free trial licenses do not support unbinding.

Purchase Licenses

To purchase DJI Terra Agriculture, DJI Terra Pro (Online Version) and Upgrade and Maintenance Fee, or DJI Terra Electricity (Online Version), visit the DJI Online Store (https://store.dji.com), search for “DJI Terra”, and select the corresponding version.

To purchase DJI Terra Pro (Online and Offline Versions), DJI Terra Electricity (Online Version), DJI Terra Cluster (Offline Version), or DJI Terra Education (Online Version), and Upgrade and Maintenance Fee, visit the DJI Terra product page at https://www.dji.com/dji-terra . Input your information on the contact form, and then wait for a DJI authorized dealer to respond to your request.

Cluster version only supports offline login. Users can contact an authorized DJI dealer via the product page on the official DJI website to purchase an offline license and choose from different worker device quotas.

Refer to the Preparation Before Using DJI Terra for more information on how to activate the offline license and bind a device.

Launch DJI Terra >  > Activated License(s) > Buy New License(s). Users will be redirected to the official DJI website to get the details about the functions of different versions. Users can also be redirected to the official DJI website by clicking the corresponding button where Reconstruction, Output Coordinate System, GCP Management, Agriculture, KML File Import, or Model Type function is required.

[1] The education version does not support reconstruction of more than 500 photos or 8GB point cloud, nor error uploads. Other features are equivalent to the flagship version.
[2] Offline authorization cannot use the following online functions:
(1) GEO Zone unlocking
(2) Map loading and location search
(3) DJI Terra software control of aircraft will be restricted (without account login)
(4) Error data upload

Activate Online Licenses and Bind Devices

To use the licenses with the desired DJI accounts and on the desired computers, license activation and device binding are required. Activate licenses in DJI Terra or via an activation link. The license can be bound to a computer after activation. Contact DJI Support to unbind the license if needed.

1. Enter the activation page via the two methods below:
   DJI Terra: Launch DJI Terra >  > Activated License(s) > Activate a New License. A window prompt will appear.
   Activation Link: Visit https://license.dji.com/en
2. Input the activation code you received and the desired DJI account that you want to use the license with, then click “Activate.”
3. After successful activation, view the ID, expiry time, and device binding status of the license. If activating the license via the link, re-enter the Activated License(s) page to view the information.
4. Click “Device Binding” and then click “Bind” to bind the license to the current computer used. “Bound” will be displayed next to the license of the corresponding ID in Activated License(s).

Cluster Reconstruction

Environment Setup

Refer to Preparation Before Using DJI Terra for more information on required devices and how to set up Cluster version. https://www.dji.com/downloads/products/dji-terra

Usage

- Control device: the device running DJI Terra Cluster. In the control device, users can configure cluster reconstruction settings, select worker devices, and view the status of reconstruction missions.
- Worker devices: the devices in the local network that can be assigned by the control device to reconstruction missions.

Control Device Operations

Make sure you have imported the license, activated Cluster version, and logged in offline.

Cluster Reconstruction Settings

Click ⚙ on the upper right corner of DJI Terra to open the Preference Settings page.

Reconstruction Settings

Users can set the default computation method to Standalone Computation or Cluster Computation. The default computation method applies to aerotriangulation/2D maps/3D models for New Visible Light Reconstruction Mission. Users need to have cluster permission to enable Cluster Computation.

Output File Directory of Cluster Reconstruction

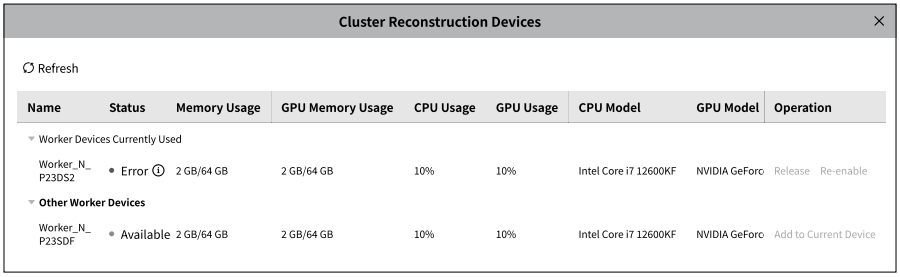
Under Cluster Settings, click Settings besides Output File Directory to select the storage path of the generated output file. Users can select mapped drive path. We recommend setting this on a Network Attached Storage (NAS). For more information, refer to Preparation Before Using DJI Terra.

- Make sure the path type of the imported data and the output file is the same, which is either a drive path or network path.
- When using a drive path as the output file directory of cluster reconstruction, the drive letter of the network location mapped in the worker devices must be same as the drive letter mapped in the control device.

Worker Device Management

Click Settings besides Worker Device Management to open Cluster Reconstruction Devices. All worker devices used under the current LAN will be automatically displayed. Users can view the following information of worker devices: Name (computer name of worker device), Status (Available, Waiting, Running, Error), Memory Usage, CPU Usage, GPU Usage, and more. Click ↻ to refresh the worker device status.

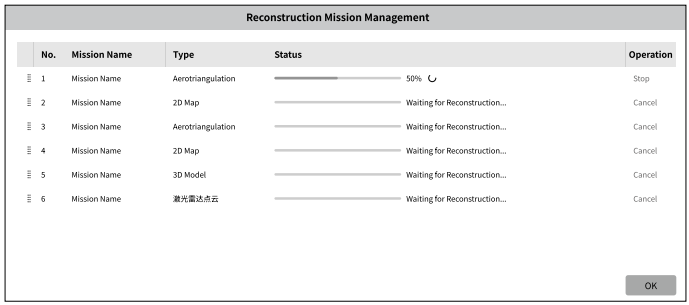
1. Adding a worker device automatically: Open DJI Terra Engine and enable a worker device. DJI Terra will automatically add it to the Worker Devices Currently Used column. There is no need for users to manually add worker devices. For details on how to enable worker devices, please refer to the later section on DJI Terra Engine.
2. Releasing a worker device manually: Users can click Release to remove a worker device from the current control device. If a worker device is removed during the reconstruction process, the worker device will not be used for the reconstruction mission.
3. Adding a worker device manually: Released worker devices can be used by other control devices. Users can also add released worker devices to the current control device again. If a worker device is added during the reconstruction process, the worker device will be used for the reconstruction mission.
4. Re-enabling a worker device: When an error occurs on a worker device and is fixed, click Re-enable to re-apply the worker device to the current reconstruction mission.



- Worker devices that exceed the max allowed number by the license will not be automatically added by DJI Terra after they are enabled.
- When an error occurs on a worker device during the reconstruction process, DJI Terra will use an available worker device from the Other Worker Devices list to replace the error worker device.
- When there are multiple control devices, different control devices can use the same batch of worker devices. If a control device starts reconstruction first, the control device can occupy and use the worker devices first. When worker devices for a control device are occupied by another control device, these worker devices will be moved to the Other Worker Devices list and cannot be used by the current control device. Worker devices can be used again when their statuses are changed to Available.

Reconstruction Mission Management

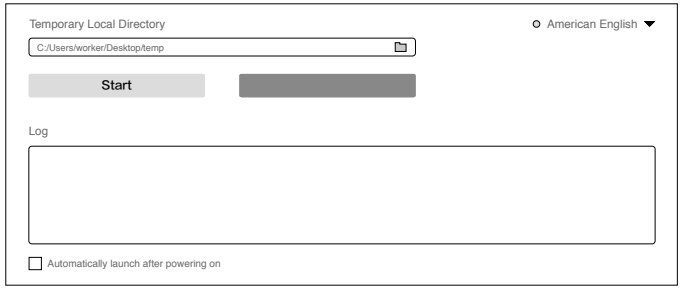
When Cluster Computation is selected and a reconstruction mission is started, users can click to enter the Reconstruction Mission Management page.



The upper section of the page displays the queue of reconstruction missions. Users can view the name, reconstruction type, and status of each mission. The mission can be stopped or canceled in the Operation section. Click and drag to re-order the missions.

DJI Terra Engine

The DJI Terra Engine will be installed automatically to the worker device when DJI Terra is installed. Users can find DJITerraEngine.exe in the Cluster folder in the installation directory or go to the DJI Product folder in the Start menu.



1. Temporary Local Directory: used for temporary storage while the worker device is performing a reconstruction. Select a local directory in the worker device as the temporary local directory and make sure that there is enough disk space.
2. Start/Stop: to start or stop the worker device. Once started, a worker device can be searched for and used by the control device in the local network.
3. Log: print the logs of the worker device.
4. Language Switch: click the language switch on the upper right corner to switch language.
5. Automatically launch after powering on: if enabled, the DJI Terra Engine will launch automatically after the worker device is powered on.

Cluster Reconstruction Process

1. Make sure you have completed parameter settings for Cluster Reconstruction.
2. Start reconstruction following the normal procedure for reconstruction missions and make sure to use cluster reconstruction.
3. Check mission progress in Reconstruction Mission Management.
4. If the connection with the output file directory is maintained after completing the cluster reconstruction, the user can view the reconstruction results in DJI Terra and the output files in the corresponding folders.

View and Export Logs

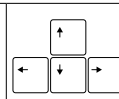
DJI Terra generates a log file every time a mission is performed. If an error occurs or the software crashes during the operation process, users can enter a mission and click > to export log files or use the keyboard shortcut Ctrl+Alt+L to open the log storage path after opening DJI Terra. Users can access the corresponding log file in the storage path below according to the time when the mission was performed. Then export it and send it to DJI Support for analysis.

Storage Path: C:\Users\<Computer User Name>\AppData\Roaming\DJI Terra\log

Software Shortcuts

In DJI Terra, users can perform some functions and operations using shortcuts. The table below lists the shortcuts that can be used in different pages in DJI Terra.

Page	Functions / Operations	Shortcuts
Mission Library	Create mission	Ctrl+N
	Switch mission type when creating a mission	Tab
	Switch mission type	Tab
	Switch mission	Up: ↑ , Down: ↓
	Switch operation for mission	Left: ← ,Right: →
	Delete mission	Delete
	Select all missions when deleting or exporting multi missions	Ctrl+A
Map	Map Zoom In/Out	Zoom In: +, Zoom Out: -
Mission Editing	Save the current mission	Ctrl+S
	Delete the selected waypoint	Delete
	Switch parameter	Tab
	Adjust parameter value	More: ↑ , Less: ↓
Waypoints or Detailed Inspection Mission Editing	Switch waypoint	Previous: Ctrl+ ← Next: Ctrl+ →

Detailed Inspection Mission Editing	Adjust waypoint location	
Reconstruction	Open the current mission folder	Ctrl+Alt+F
3D Model Map	Switch model display view	Orthographic projection: F1 Front view: F2 Top view: F3
	Switch between aerotriangulation, point cloud, and model result	F4
Photo Management	Select the photos in series in the same folder	Shift+click the first and last photo
	Delete multi photos in the same folder	Delete
GCP Management	Edit the name of the selected GCP	Enter
	Switch GCP	Up: ↑ , Down: ↓
	Switch parameter	Tab
Annotation and Measurement	Switch object for measurement	Tab
	Expand or collapse measurement results	Ctrl+Q
Measurement Result Management	Select results in series	Shift+click the first and last measurement results
	Select all results	Ctrl+A
Flight Route Plan in Agricultural Application	Delete the selected farmland point or calibration point	Delete
	Switch between farmland points or calibration points	Tab
	Save the current mission	Ctrl+S
	Show or hide recognition result	F5
	Modify fruit trees recognition result	Ctrl+Left Mouse Button
	Show or hide prescription map	F6
	Enable or disable obstacle avoidance	F7
	Show or hide flight route	F8
All Pages	Open the log storage directory	Ctrl+Alt+L

This content is subject to change.

Download the latest version from
http://www.dji.com/dji-terra

If you have any questions about this document, please contact DJI by sending a message to DocSupport@dji.com.