4DKanKan
HW & SW
Technical Training

4DAGE DIGITAL EVERYTHING | 4DKanKan Let space tell the story

CONTENTS

Products Overview

4DKanKan Pro | Basic

Octa Vision 3D Scanning Solution

- Equip with a total of 8 wide angle fisheye lenses
- AI fully automated 3D modeling
- Cost-effective space scanning solution

4DKanKan Minion | Senior Reality 360 Camera

- 720° 16K ultra-HD Image Quality
- 1- inch super large CMOS
- AI fully automated 3D modeling
- High-standard full-scene scanning solution

4DKanKan Mega | Premium 360 Camera & Laser Scanner

- 905nm LiDAR ultra-high precision scanning
- Outdoor scanning for 260 meters
- Modeling accuracy ±10mm; 16K ultra-HD image quality
- Over 2 million point cloud data per single point
- Fully automated, pure cloud-based, professional-grade mapping

4DMeta | Latest 360 Camera & Laser Scanner

- Stationary + wearable SLAM dual scanning mode
- Lightweight hardware solution
- 905nm LIDAR ultra-high precision scanning
- Modeling accuracy ±10mm; 16K ultra-HD image quality
- Over 2 million point cloud data for single point position
- Fully automated pure cloud professional level mapping
- Multi-function plug-ins of RTK, infrared thermal imaging, fill light and multi-spectrum are optional.

Prepare to Scan with 4DKanKan

Before using **4DKanKan Minion, 4DKanKan Mega and 4DKanKan Meta Online Version**, please download and install 4DKanKan APP as follows:

1. Search for "4DKanKan" in the App Store, download and install it.
2. Go to the official website of 4DAGE at https://eur.4dage.com, go to App Download under Support, scan the QR code to download and install.

iOS

Android

Note:

For **4DKanKan Pro** users, please download the **4DKanKan Pro** to use.

For **Local Version** users, please download the **4DKanKan Local** to use.

Offline Version Installation Overview

1. Workflow

2. Preparation for Offline Version

3. Disable all protections in Virus & threat protection

4. License Manager

4.1 Online Activation

4.2 Offline Activation

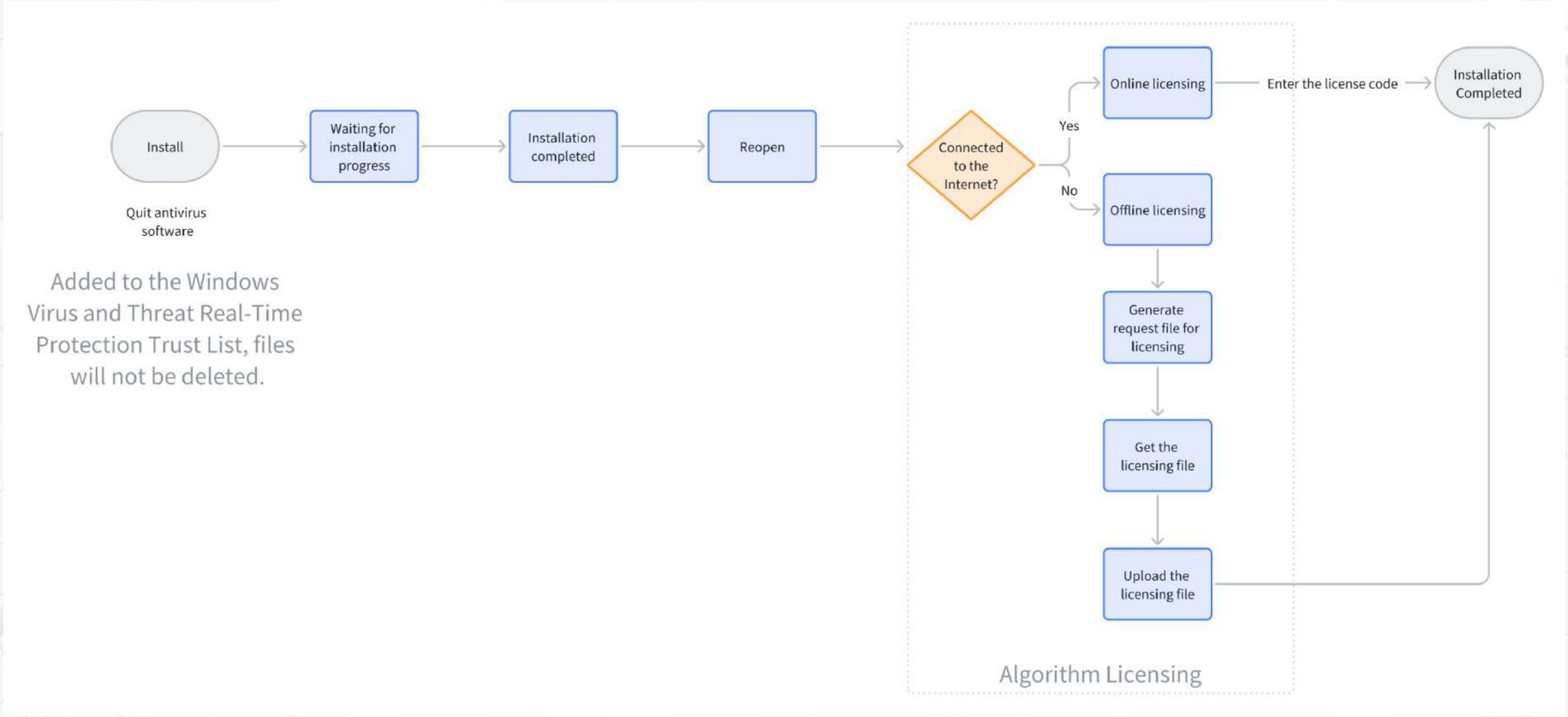
5. 4DKanKan Offline Software

5.1 Software Installation

5.2 Device Binding

Offline Version Installation

1. Workflow



Offline Version Installation

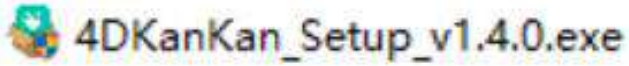
2. Preparation for Offline Version

- **What will you get from 4DAGE?**

3 Installation Packages and 1 License Code

(Please request the latest version of these materials from the 4DAGE)

- **4DKanKan Setup.exe**



- **4DKanKan License Manager.exe**

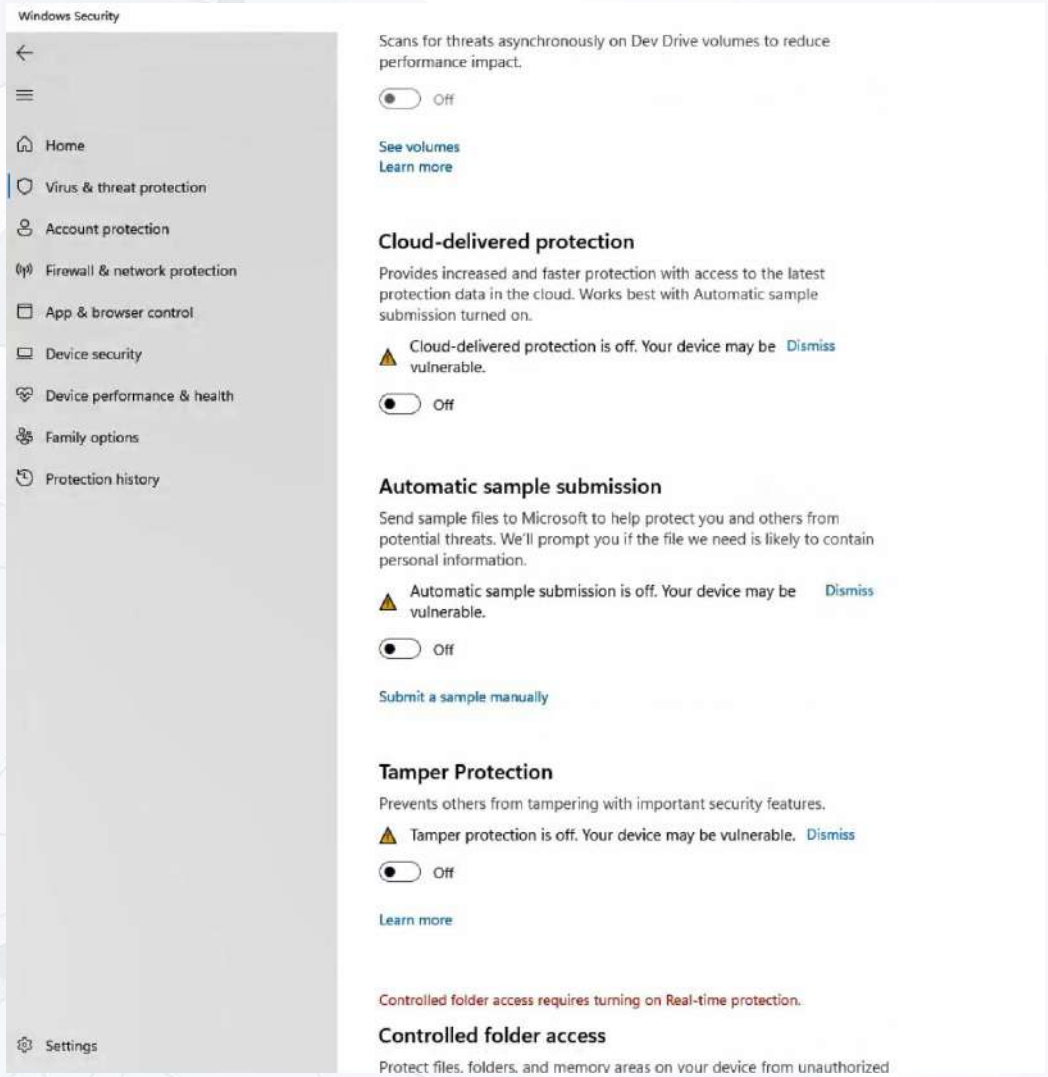
- **4DKanKan Offline Version App**

Note: You must use the **4DKanKan Offline Version App** when you use the offline version.
The data collected by the Online Version App (downloaded from the App Store) and the Offline Version App **cannot be transferred to each other.**

- **License Code for the License Manager**

Offline Version Installation

3. Disable all protections in Virus & threat protection

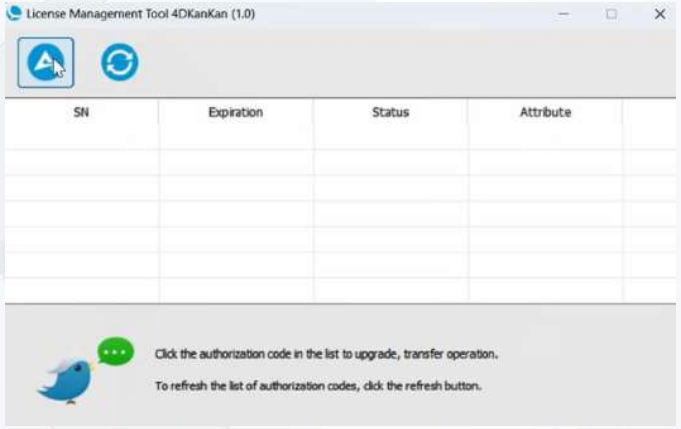


- **Please disable all protections in Window Security - Virus & threat protection.**

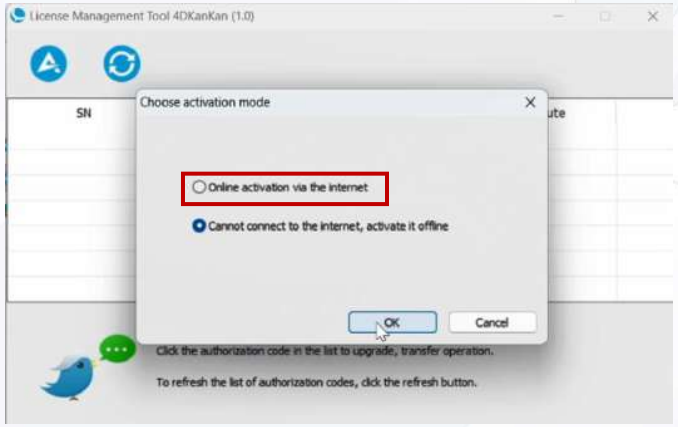
Offline Version Installation

4.1 License Manager – Online Activation

1. Click the Activation button

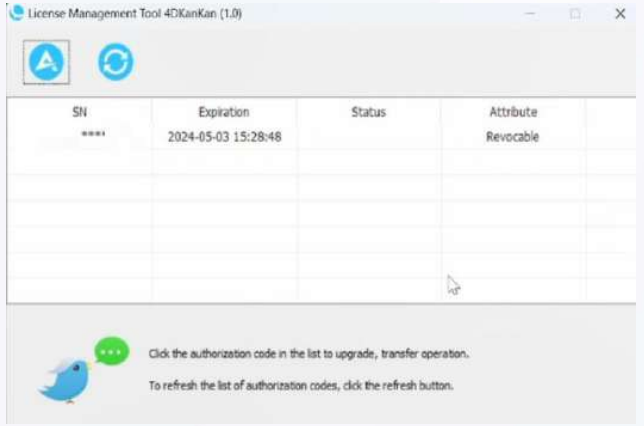


2. Select Online Activation



3. Enter the License Code provided by 4DAGE

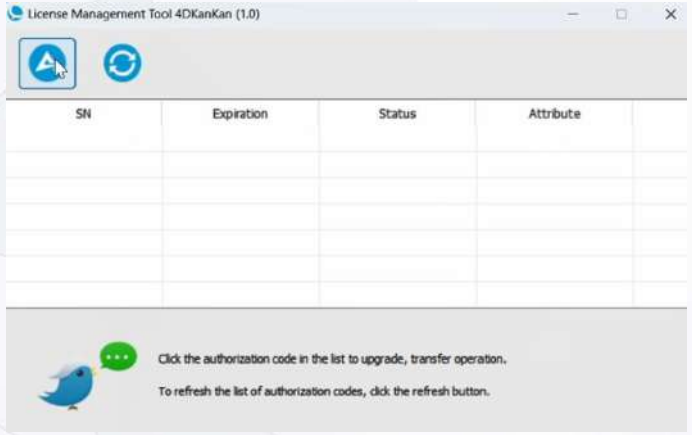
4. Licensing finished



Offline Version Installation

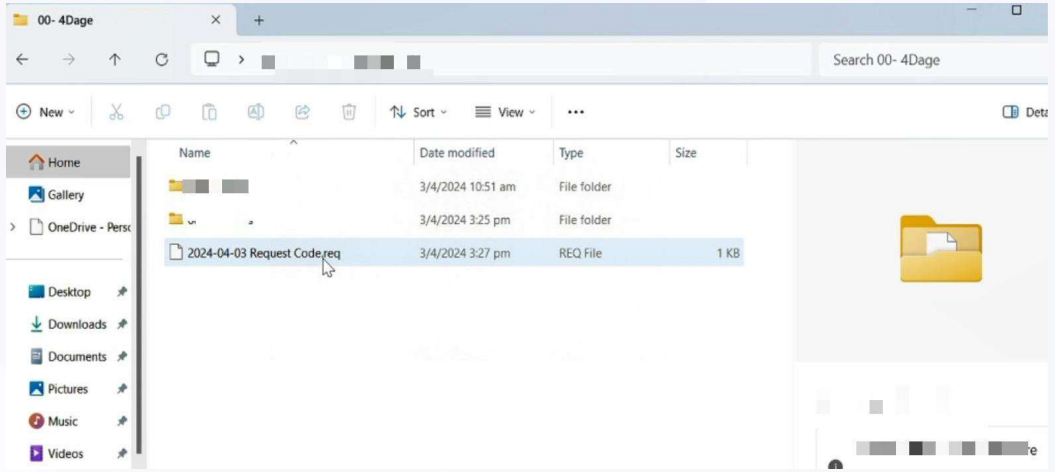
4.2 License Manager – Offline Activation

1. Click the Activation button



2. Select Offline Activation

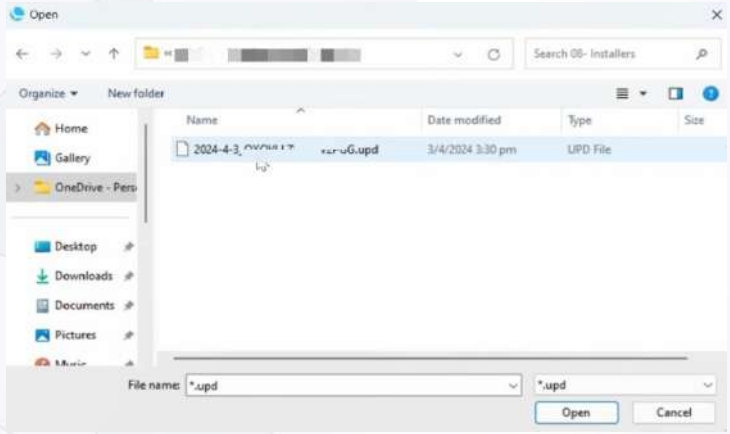
3. Get a .req file and send it to 4DAGE.

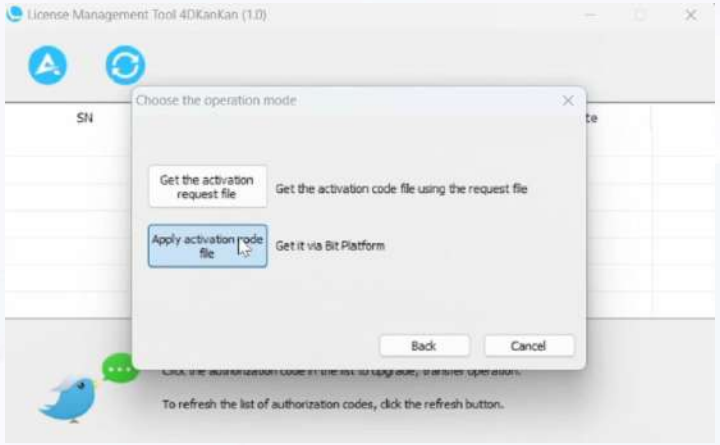


Offline Version Installation

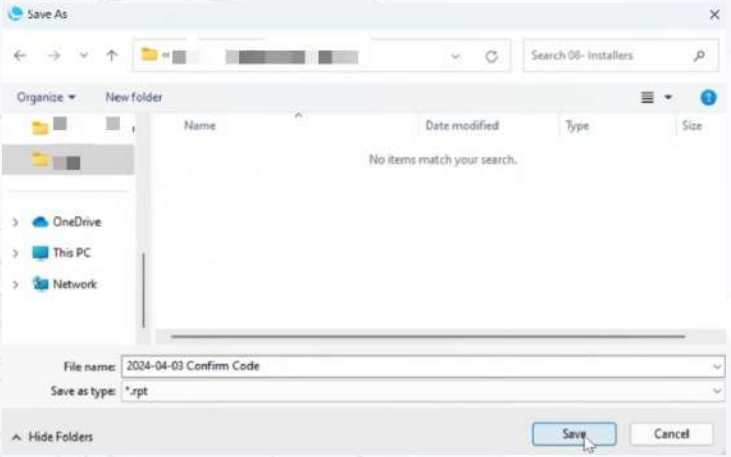
4.2 License Manager – Offline Activation

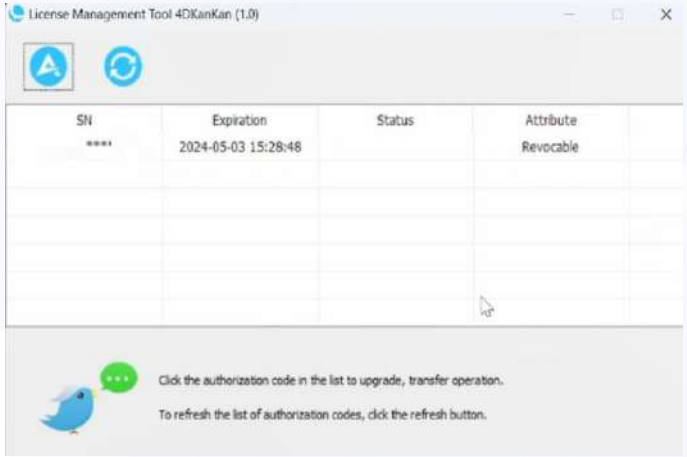
4. Upload the .upd file provided by 4DAGE in the License Manager





4. Offline Activation will generate a result file .rpt when licensing is finished. If licensing fails, please send it to 4DAGE

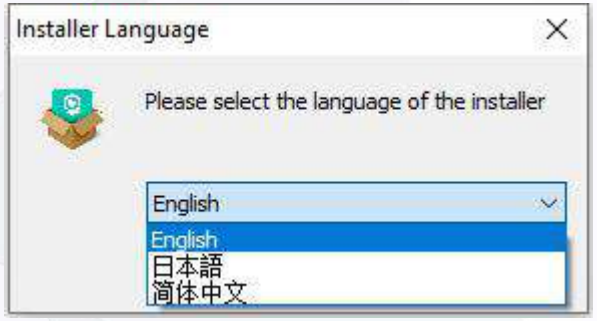




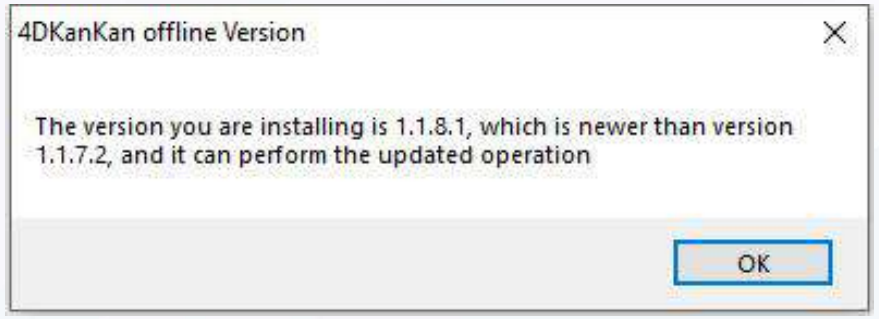
Offline Version Installation

5.1 4DKanKan Offline Software – Software Installation

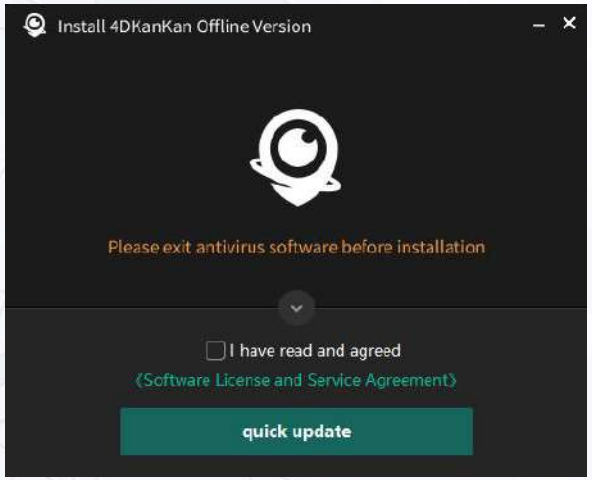
1. Select language of the installer

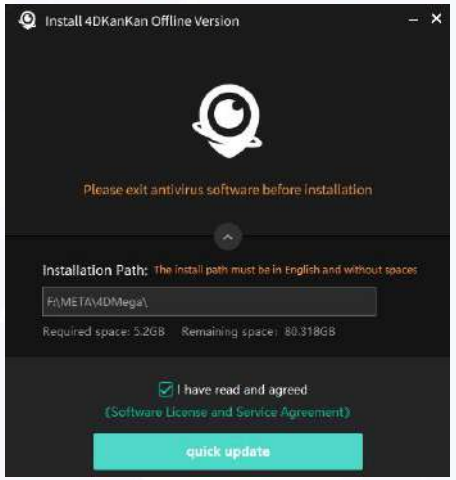


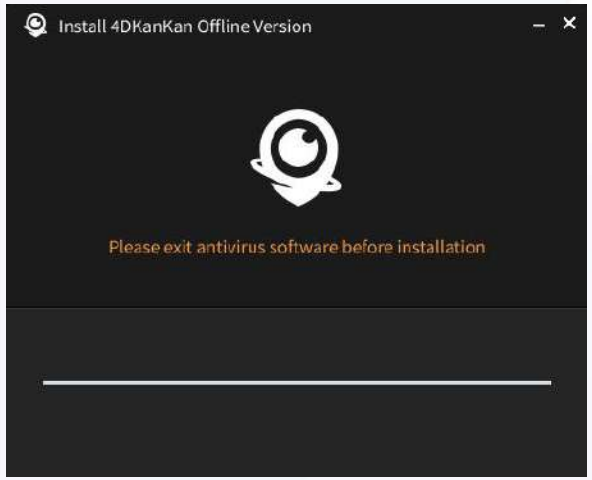
Note: If you have the previous version installed, click OK to upgrade.



2. Start the installation







Note:

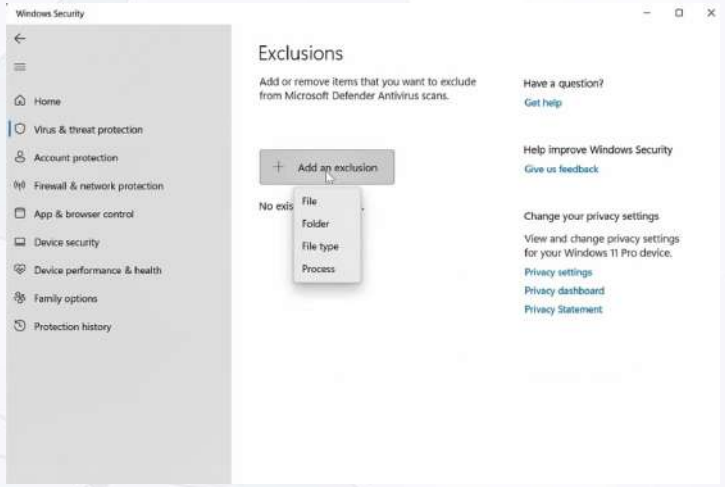
a. Do not install the software on the C drive.

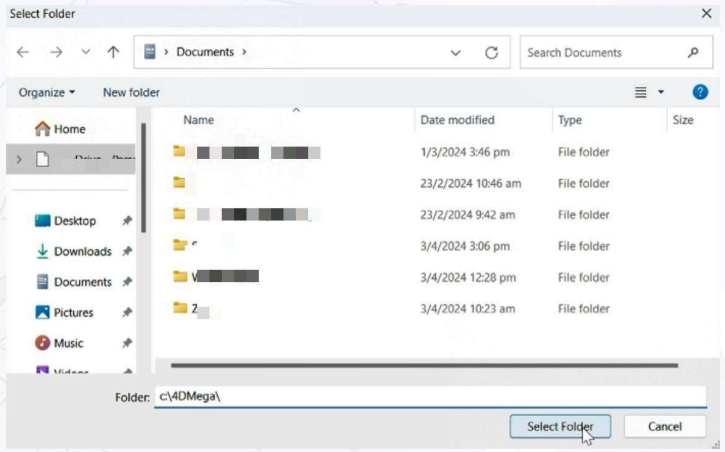
b. The installation path must be in English and without spaces. We recommend that you do not change the name of the installation path.

Offline Version Installation

5.1 4DKanKan Offline Software – Software Installation

3. Set the installation path as an exclusion in Virus & threat protection.





Copy the installation path (the folder)

↓

Window Security

↓

Virus & threat protection

↓

Virus & threat protection settings

↓

Exclusion

↓

Add an exclusion-Choose Folder

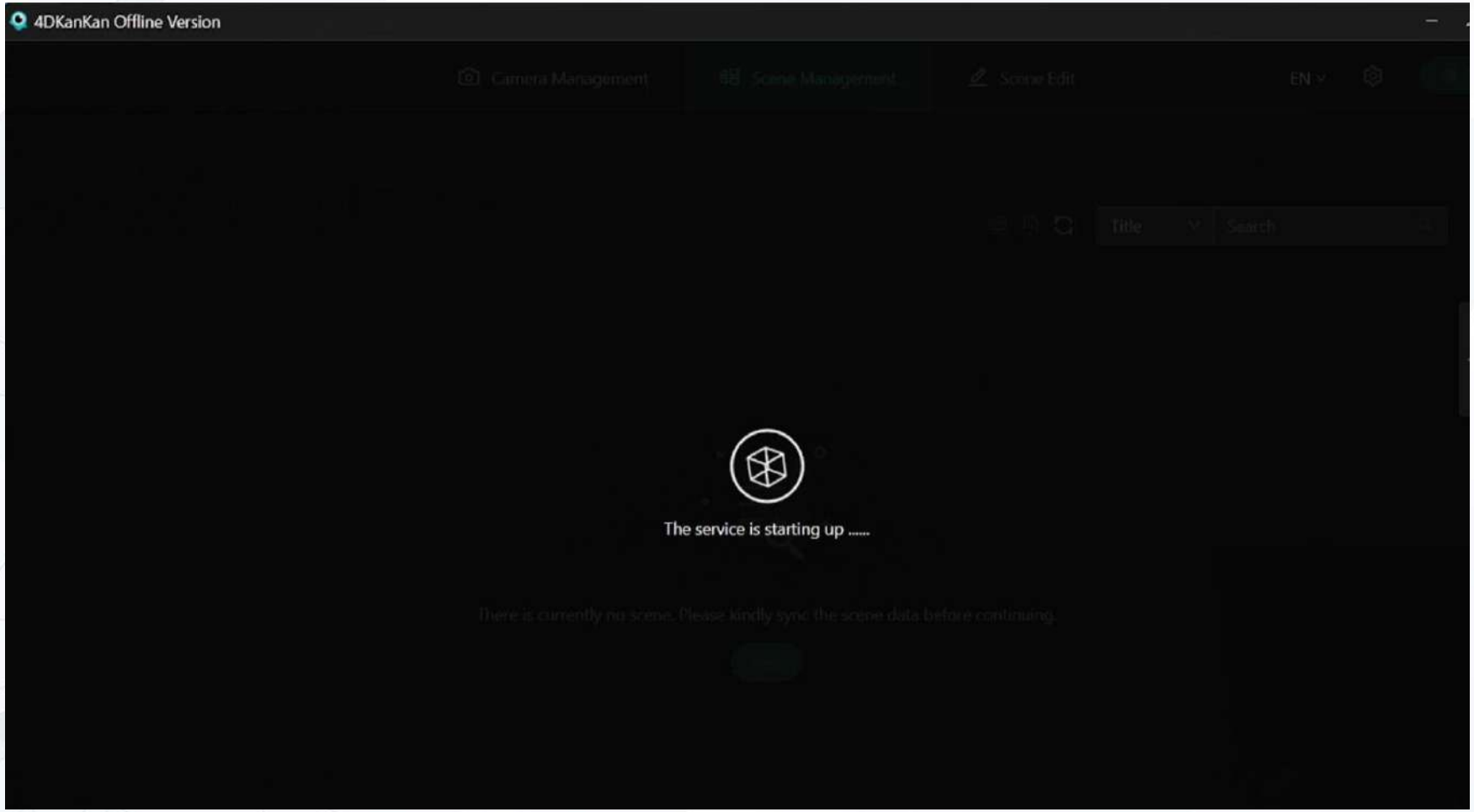
↓

Paste the installation path

Offline Version Installation

5.1 4DKanKan Offline Software – Software Installation

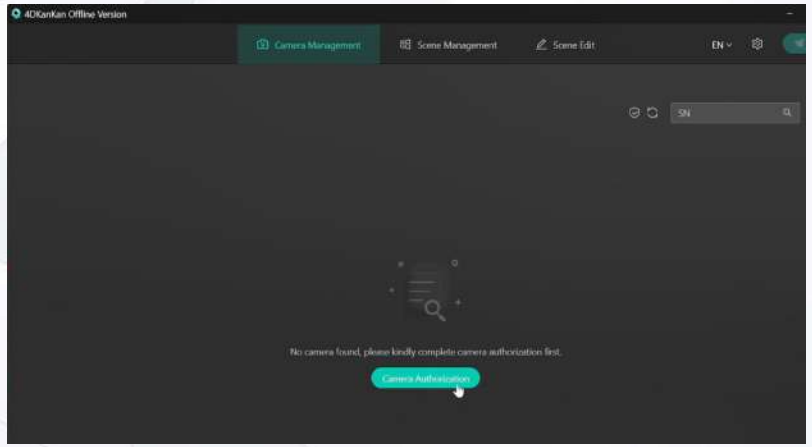
4. Software installation is finished, please open the software again.



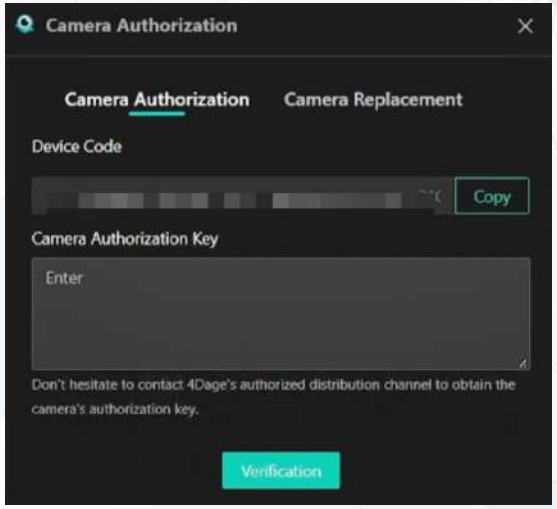
Offline Version Installation

5.2 4DKanKan Offline Software – Device Binding

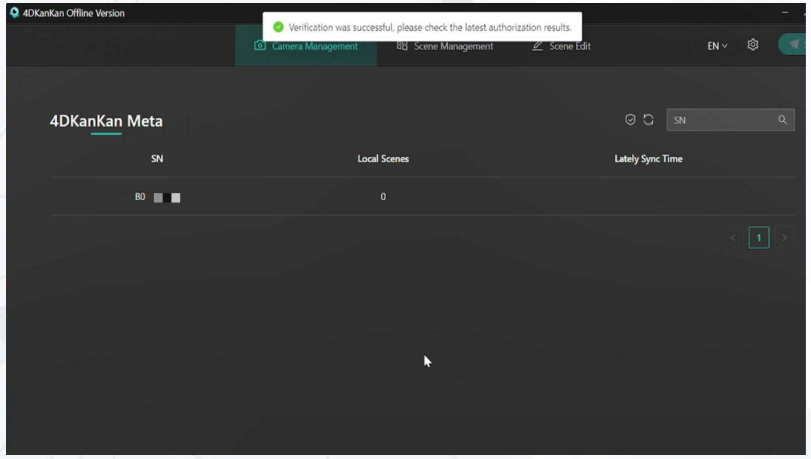
1. Select Camera Authorization



2. Copy the Device Code and send it to 4DAGE to obtain the Camera Authorization Key



3. Enter the Camera Authorization Key to finish Device Binding



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Scan with 4DKanKan Meta

Overview

Scan with 4DKanKan Meta

1. Product Description

Note: Do not grab the top cover of the scanner when picking it up.

Scan with 4DKanKan Meta

2. Setup the Meta

- **Terrestrial Laser Scanning Setting Up**

1. Open the tripod and fix the leg angle adjustable locks (limiting the opening angle of the tripod legs).

2.Extend the legs by loosening the leg locks, then tighten it when the height of the to a suitable position and then tighten it.

3. Open the dolly, insert the tripod legs into the lock corresponding to the dolly, and secure the tripod by tightening the screws on the lock.

4. Please make sure that the tripod and the dolly are properly installed, stable and balanced before mounting the camera on the tripod to prevent the scanner from falling.

Scan with 4DKanKan Meta

2. Setup the Meta

- **Terrestrial Laser Scanning Setting Up**

When the tripod is properly set up, stable and balanced, follow these steps to start scanning.

1. Place the scanner on the tripod so that the tripod mount on the bottom of the scanner is aligned with the tripod head. (Hold the scanner steady until it is properly mounted.)
2. Tighten the scanner counterclockwise as shown in the figure.
3. Open the battery compartment, insert the battery correctly, and close the battery compartment.
4. Wipe the camera lens with the lens wiper to make sure the lens is clean.
5. Click the Power button next to the display to turn on the camera. Wait for the display to light up and start scanning.

Scan with 4DKanKan Meta

2. Setup the Meta

- **SLAM Mobile Scanning Setting Up**

If you need to scan in SLAM mode, you can use the wheeled dolly or the SLAM harness. (If you use the harness for SLAM scanning, you will not be able to take a panorama while scanning.)

1. Put on the harness and adjust the tightness of the shoulder and waist straps.
2. Make sure the harness fits securely and does not shake, then lock all the buckles.
3. Align the Meta with the scanner mount, then tighten the mount knob. Make sure the camera does not fall down during installation.
4. Make sure the camera is tightened on the harness and you can start SLAM scanning.

Scan with 4DKanKan Meta

3. Connect the Meta

- **Notice Before Scanning**

4DKanKan

4DKanKan

4DKanKan Local

4DKanKan

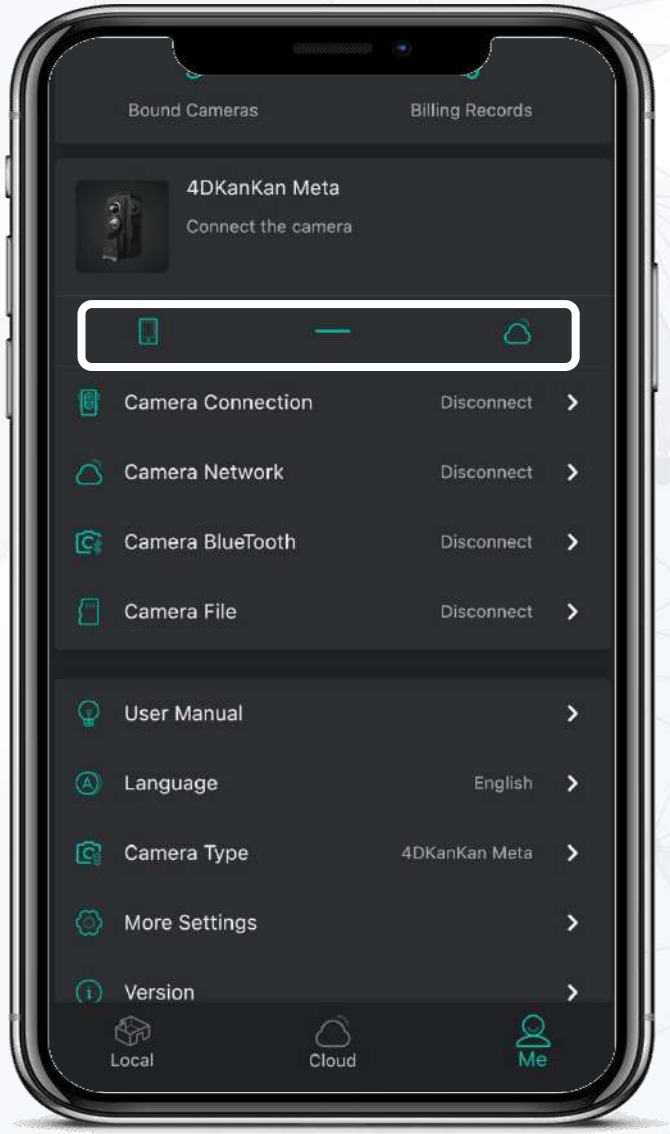
You **MUST** choose the correct App before start scanning.
The data collected by the Online Version App (downloaded from the App Store) and the Offline Version App **cannot be transferred to each other.**

- **Turn on the Meta**

Press the power button of Meta, and when you see the 4DKanKan logo and four icons on the screen, you can start connecting to it.

- **Connect the Meta**

1. Open the APP, on the **Me** page, click **Camera Type** and select **4DKanKan Meta**.
2. Click **Camera Connection**, search for the Wi-Fi named **4DSG_XXXXXXXXX**, enter the password **12345678** to connect.
3. If your phone prompts that this Wi-Fi is not connected to the network and asks you to switch automatically, please click **[No]**.
4. After the WIFI connection is successful, return to the Me page, at this time the status bar on the APP will show the connection status.



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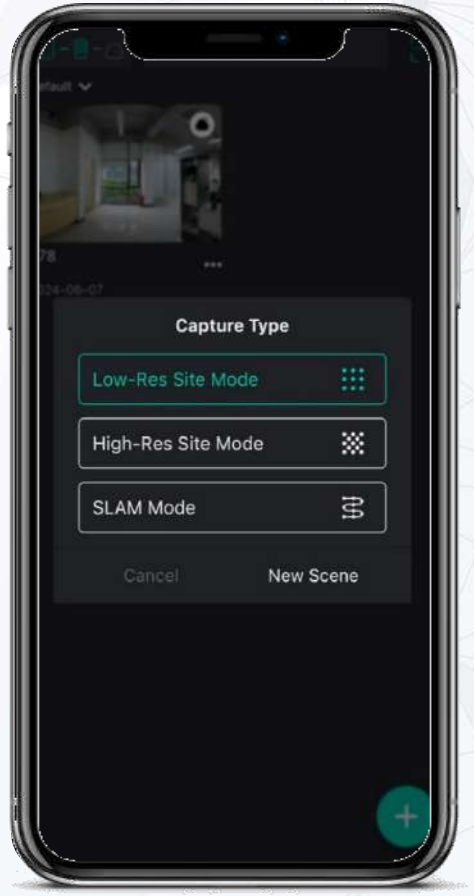
Scan with 4DKanKan Meta

4. Project Scanning

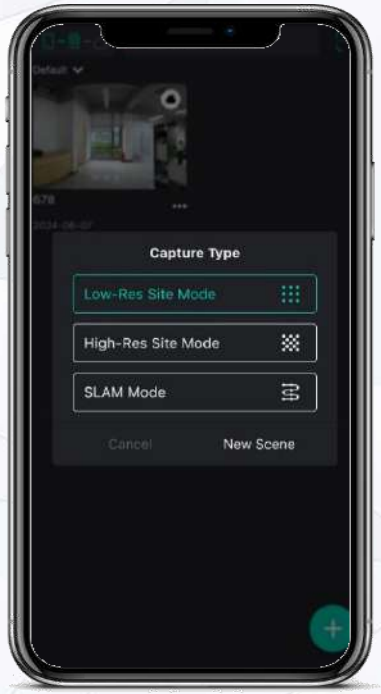
- **Scanning Modes**

Scanning Modes	Single Point Scan Time	Point Cloud Density	Scan Speed	Range	Number of points per scan point	Maximum Scan Points/ Distance	Optimal Distance between Scan Points	Recommended Scanning Environments
Low-density Site Mode	37 s	1 cm	200,000 points/s	70 m @ 80% reflectivity	2 M	500	1.5 - 5 m	Indoor
High-density Site Mode	80 s				8 M	100	1.5 - 10 m	Outdoor
SLAM Mode	39 s				2 M	Maximum 1.5 km or 500 scan points	/	Indoor/ Outdoor

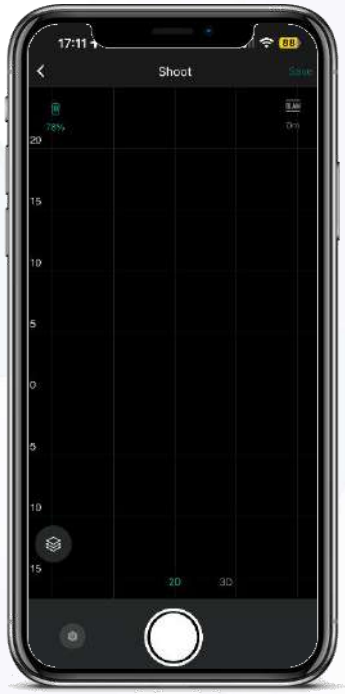


Scan with 4DKanKan Meta

4.1 Terrestrial Laser Scanning



On the **Local** page, click the + to create a new task, and select High or Low Density to create a task.



After creating a new task, move the scanner to the scan point, face the camera display, and click the capture button.

After clicking the scan button, the scanner will start scanning in a clockwise direction, and each rotation is 60 degrees, for a total of 6 rotations to complete the scanning of a point. While scanning, you need to follow the rotation to move, always looking at the camera display to avoid being captured by the scanner.

After scanning at a point, you can preview the result by clicking the point number:
(1) If you are satisfied with the result, you can move the scanner to the next point and continue scanning.
(2) If you want to rescan, you can click the top right corner of the preview page to delete the current point and rescan.

Repeat the scanning process until all scan points are completed.

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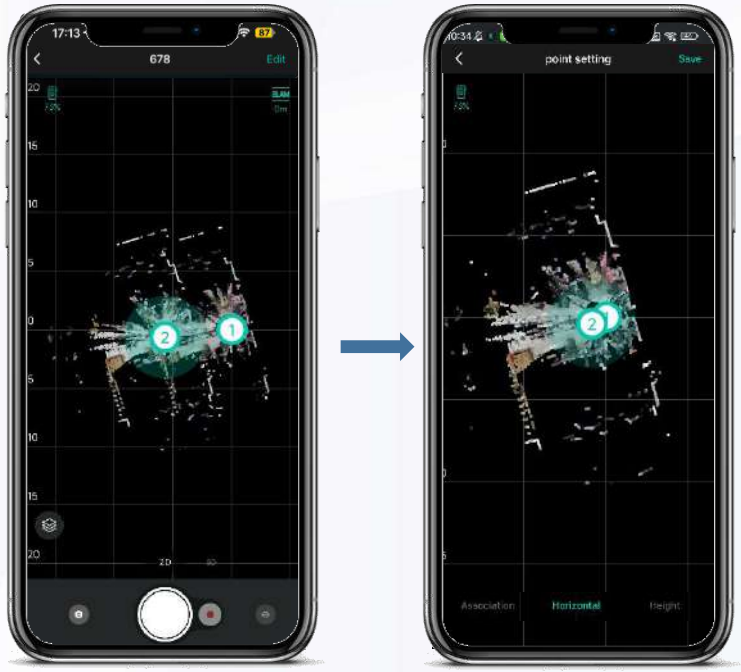
Scan with 4DKanKan Meta

4.1 Terrestrial Laser Scanning

The **Point Editing** function is used to assist in the **calculation of points**. If the points generated within the current space deviate from the actual position, this function can be used to adjust the points to the correct position.

Associated Point:
Reference point for the next shooting point, you can set it manually and select the nearest point for association. It is mostly used for rescanning or scanning at another fork of the road.

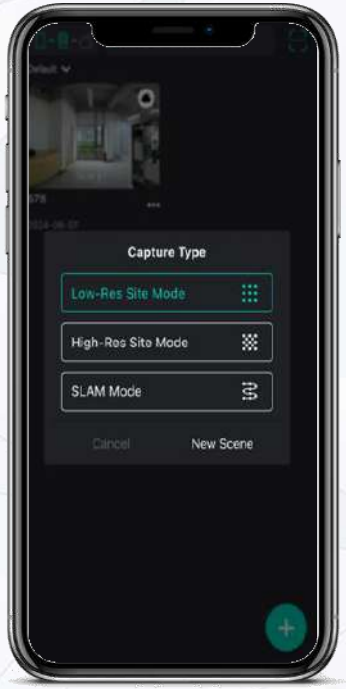


Horizontal adjustment:
Adjust the last point horizontally to the correct position.

Height Adjustment:
Adjust the height until the last point is set to the correct position.

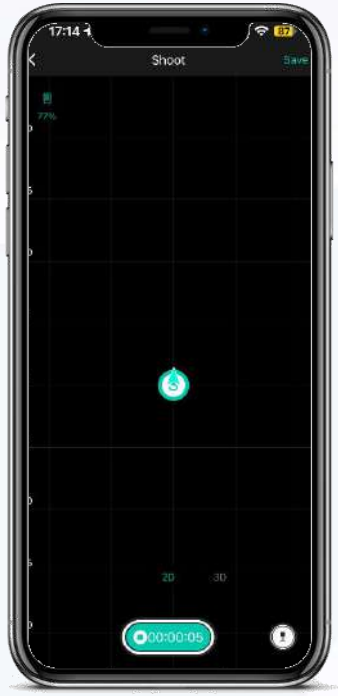
Scan with 4DKanKan Meta

4.2 SLAM Mobile Scanning

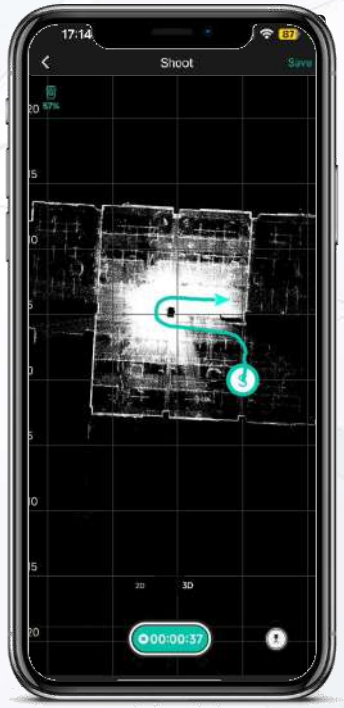


1. After connecting the scanner, you can create a SLAM scan task by clicking the + and selecting the SLAM mode.

2. After creating a scan task, move the scanner to the starting point, face the camera display, and click the **Start** button. You will be prompted for initialization. Keep the scanner steady and wait for scanning to begin.



3. Once started, the scanner will scan in SLAM mode, and during scanning, the APP will display the point cloud data captured by the scanner.



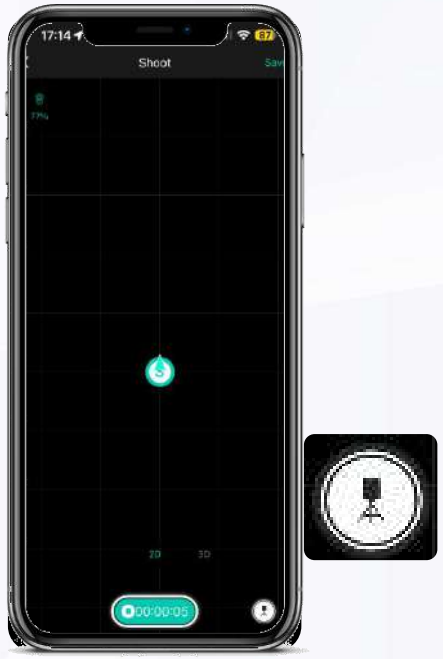
4. Move to capture the point cloud data, the scanner should move smoothly and at a steady speed, and the camera lens should always face forward and along the moving direction. The APP will display the moving track and point cloud data in real time.

Scan with 4DKanKan Meta

4.2 SLAM Mobile Scanning

Note:
1. The SLAM mode currently supports a moving distance of 1.5KM, please pay attention to route planning.
2. SLAM mode does not allow you to continue scanning, so please make sure that you have finished scanning before you stop.
3. Scanning distance display function will be available in next version.

5. During SLAM scanning, you can use the 2D or 3D button to change the view to preview the real-time point cloud data.



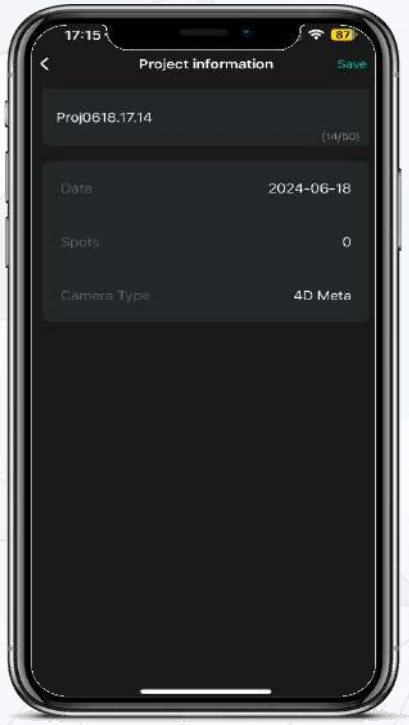
6. You can also **add a stationary scan point in SLAM mode**. Click the scan button in the lower right corner to scan. At this time, the scanner will rotate 6 times for a total of 360 degrees, and you must follow the rotation to avoid being captured.

7. When adding scan points in SLAM scanning, the scan page will display the point number, you can click the point to preview. The maximum number of points in a SLAM scan project is 500, and the distance between points is not limited.

8. When you finish the SLAM scanning, click the capture bottom again to end.

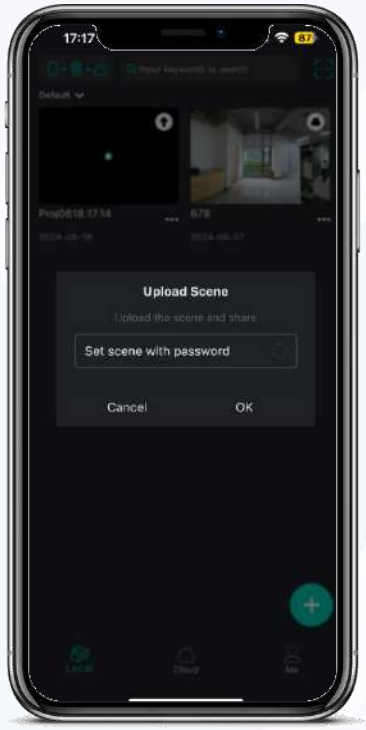
Scan with 4DKanKan Meta

5.1 Online Project Upload



After scanning, click the Save button in the upper right corner of the scan page, fill in the project information as prompted, and then click Save again to save the project locally.

Find the local project you just saved and click the Upload button. If the scanner is not connected to the network, a window as shown above will appear, please follow the instructions to complete the network connection.



Once the camera is connected to the network, a message will appear asking you whether you want to generate the OBJ model (optional for TLS only) and set the project password. Click OK to start uploading.

After the calculation is completed, the project will appear in the Cloud page of the APP. Click it to open the project. Or you can log in to the 4DAGE website - Personal Center - My Scenes to view it.

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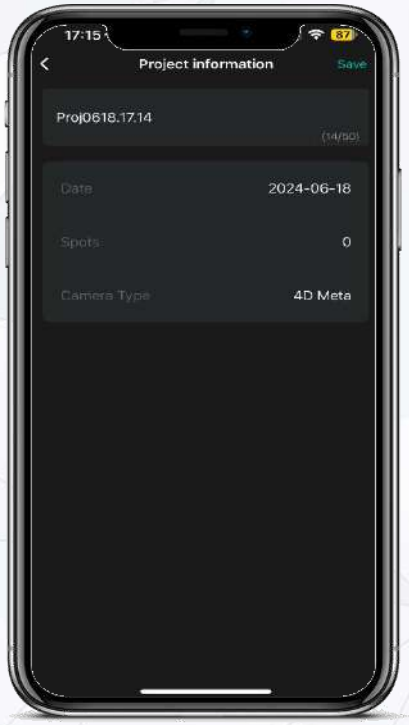
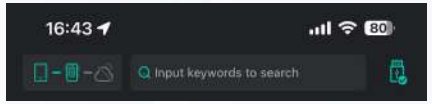
Scan with 4DKanKan Meta

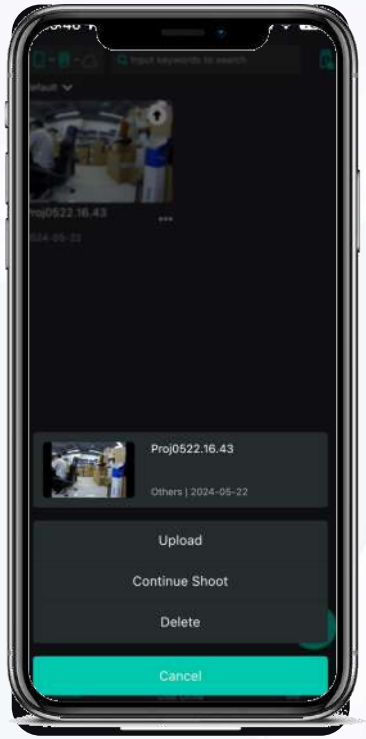
5.2 Offline Project Upload



After scanning, click the Save button in the upper right corner of the scan page, fill in the project information as prompted, and then click Save again to save the project locally.



Insert the USB flash drive into the Meta. The top right corner of the App will show the USB flash drive with a check mark if it is successfully connectd.



Click Upload to upload the project to the USB flash drive, a message will appear asking you whether you want to generate the OBJ model (optional for TLS only) and set the project password. Click OK to start uploading.

The project has been transferred to a USB flash drive. Click USB Drive to check the projects that have been transferred to the USB flash drive.

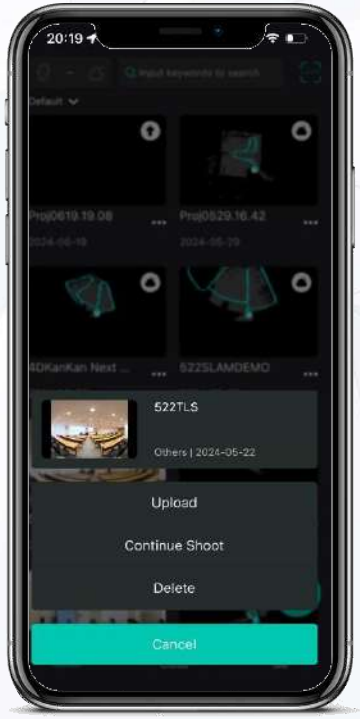
Scan with 4DKanKan Meta

5.3 Online Project Download for Rescanning

After the project is uploaded and calculated successfully, if the local project has been deleted, you can download it back to the local area via the cloud to rescan.(SLAM scanning does not support downloading for rescanning.)

After the calculation is finished, you can see the project on the server in the "Cloud" page of the APP.

Select the project you want to download, click the "..." button on the right, and then select Download from the pop-up window.

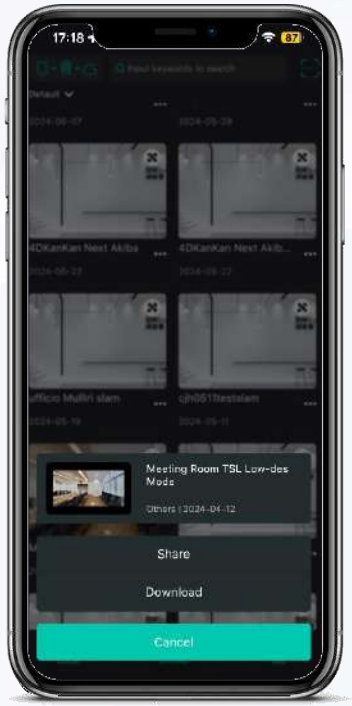


When you download, you can go back to the Local page and wait for the download to complete, after the download is complete, click "..." on the right side of the project, select Continue Shoot in the pop-up window, you can continue scanning.

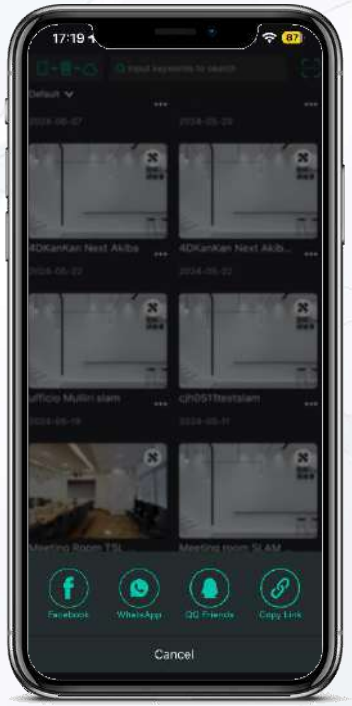
Scan with 4DKanKan Meta

5.4 Online Project Share

After the calculation, you can share the project in the "Cloud" page of the APP.



Select the project you want to share, select "..." on the right side, and then select Share on the pop-up page.



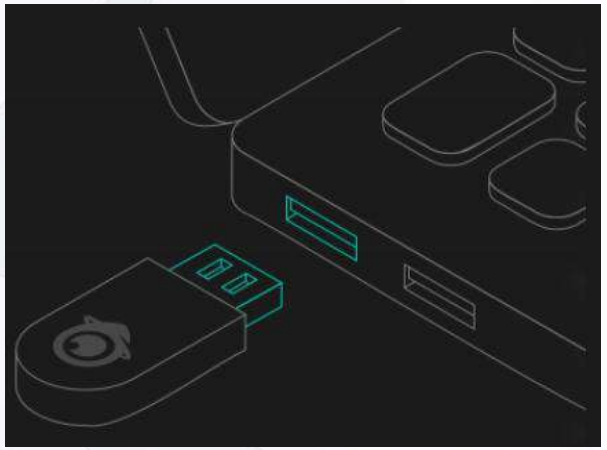
You can share your projects with others in the ways described above. Others can view your projects through the link you share.

4DAGE DIGITAL EVERYTHING | 4DKanKan Let space tell the story

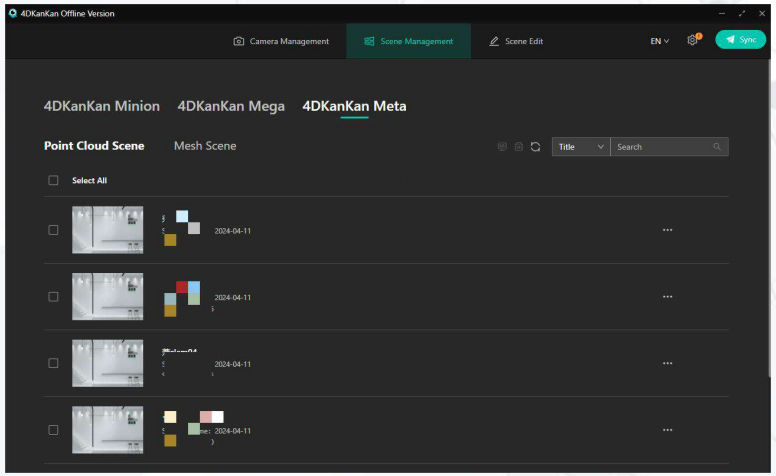
Scan with 4DKanKan Meta

5.5 Offline Project Sync, Calculate & Rescan

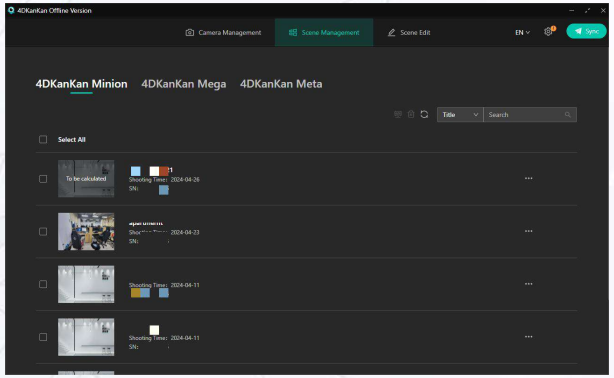
1. Insert the USB flash drive into the computer



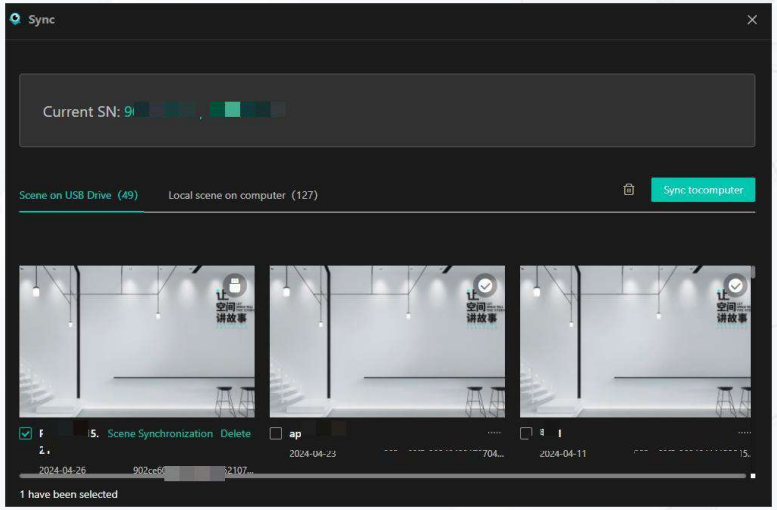
2. Click Sync in the upper right corner to select the project and start synchronizing (transferring) data from a USB flash drive to your computer.



3. Calculation (processing) of data starts automatically



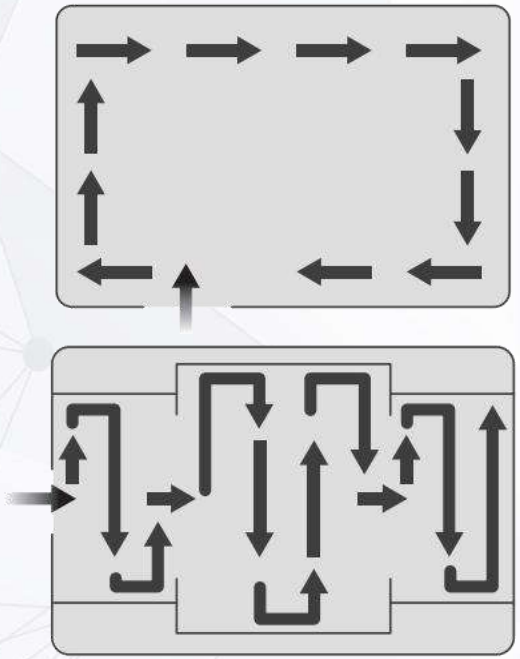
4. For offline project rescanning, you can click Sync to synchronize (transfer) the data from your computer to the USB flash drive and then transfer the data to the Meta to continue scanning your project.



Scan with 4DKanKan Meta

6.1 TLS Scanning Skills

Planning a good route before scanning can save time and improve efficiency during scanning, and the projects will also have a better viewing effect on the results.



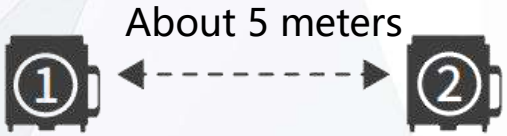
For scanning environments that are not too large and not too complicated, we recommend planning the route in a ring and setting scan points at even distances, as shown in the figure on the left.

When scanning larger areas, it is recommended planning the serpentine route and setting scan points at even distances, as shown in the figure on the left.

For spaces with more complex environments and more forks in the road, plan the scan route according to the actual space.

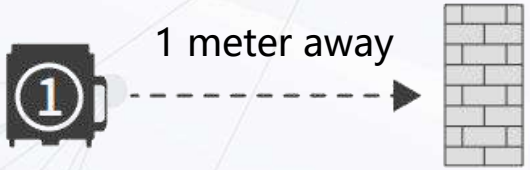
Scan with 4DKanKan Meta

6.1 TLS Scanning Skills



When scanning in Low-density mode:
It is recommended that the distance between scan points is 5 meters, within this distance the generated point cloud will have the best results.

When scanning in High-density mode:
It is recommended that the distance between scan points is 10 meters, within this distance the generated point cloud will have the best results.



It is recommended that the scanner be placed 1 meter away from obstacles during scanning.
Being too close can affect the accuracy of the measurement and can also cause stitching problems in the panorama.

Scan with 4DKanKan Meta

6.1 TLS Scanning Skills

- **Avoid Noise and Overexposure**

Please try to avoid scanning in an environment with many mirrors. So as not to cause too much noises.

Please avoid direct sunlight on the lens as much as possible, as this will cause overexposure in panoramas.
Also, overexposure will be more noticeable when scanning in darker indoor environments.

- **Forks Scanning and Rescanning**

About Forks in the Road:
If you need to go back to a previous point to scan another fork after finishing one, you need to use the Associated Points feature to continue scanning. On the scan page, click the lower left corner to enable the Associated Points feature, select the closest point to the next point you need to scan, click to set it as an associated point, then click the upper right corner to save and start scanning.

About rescanning in TSL mode:
Click the Local page, find the project you want to rescan, click "..." and select Continue Shooting. When you enter the scanning page, click the lower left corner to turn on the " Associated Points " function, select the point near your next scan point, and click the upper right corner to save, you can anchor the approximate location of the area to be scanned. Start scanning from this point, the new scan point should be within 5 meters.

Scan with 4DKanKan Meta

6.2 SLAM Scanning Skills

SLAM mode currently supports a scanning distance of about 1.5km for a single project, so please plan your route in advance.

The APP will pop up a reminder at 20%,10%,5% of the remaining distance to remind you that you are about to finish scanning, please remember to save the project.

If you are scanning a large area, you can divide the area into several small parts for scanning. The Point Cloud Editor supports merging point clouds from multiple projects.

When scanning in SLAM mode, please follow these instructions to avoid point cloud capture errors.

1. When moving the scanner, keep it moving steadily at a speed of no more than 1.5 m/s.
2. When rotating the scanner, do not rotate more than 50° per second.
3. When moving the scanner through a door, the door must be open so as not to interfere with data capture.
4. Do not force shutdown or close the APP during scanning.

PLEASE ADD PANORAMA CAPTURE IN SLAM MODE

Scan with 4DKanKan Meta

7. FAQ

- **A. The APP doesn't work after connecting to the scanner.**

1. Make sure you are using the correct APP first, you need to use the 4DKanKan Pro APP if you are using 4DKanKan Pro, use the 4DKanKan APP if you are using 4DKanKan Minion, Mega and Meta.
2. Check if the access required by the APP is enabled or not, go to Settings - Application Settings - 4DKankan - Assess to check if Location and WIFI access are enabled or not.
3. Check if the phone has disabled the positioning/GPS function.
4. Whether you select to keep using this WIFI after connecting to the scanner for the first time.

- **B. How long does the Meta work? How long does it take to recharge the battery?**

With a fully charged battery, the Meta can work for approximately 4 hours continuously; the battery recharging time is approximately 2 hours.

- **C. What formats are supported for exporting point cloud data captured by Meta?**

1. Export formats are .las, .ply and .e57;
2. Use Autodesk Recap to convert .las file into RCS or RCP file that can be opened in AutoCAD;
3. Software such as Cloud Compare, Global Mapper can directly open the las files.

Scan with 4DKanKan Meta

7. FAQ

- **D. What software is supported for editing OBJ files captured by Meta after download?**

3Dmax、blender

- **E. How many points does the Meta capture in a single scan point?**

2 million (Low-density Mode) ; 8 million (High-density Mode) .

- **F. How long does it take to calculate a TLS project?**

Number of scan points x 4-5 minutes (Low-density Mode) + 1 minute if obj model is generated;

Number of points x 5-6 minutes (High-density Mode) + 1 minute if obj model is generated;

- **G. How many points does the Meta capture while scanning?**

200,000 points per second.

- **H. What is the size of the data that is captured by the Meta in a single scan point?**

The scanning range is about 10 meters², about 20 MB.

- **I. Why does the Meta have high and low density scanning modes?**

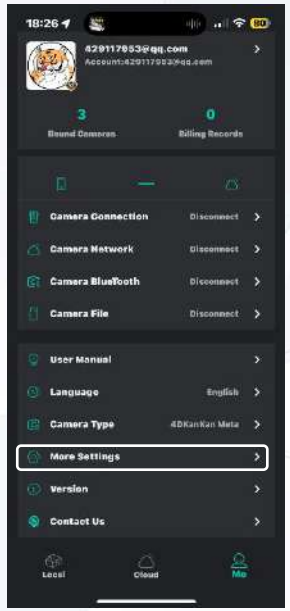
The High-density mode is mainly for outdoor environments with less reflections. The accuracy of high density and low density is the same.

Scan with 4DKanKan Meta

7. FAQ

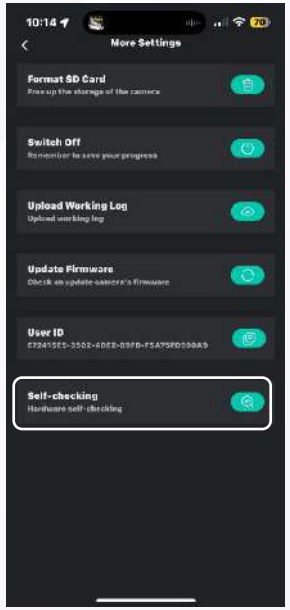
- **J. How to update the App firmware?**

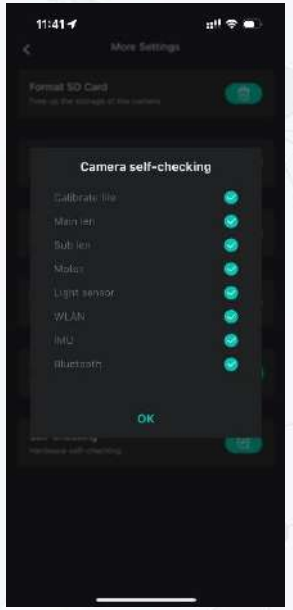
1. The scanner will automatically update its firmware when necessary. When you open the app, a prompt will appear informing you of the update. You will not be able to use the camera if you do not update the firmware.
2. To update the firmware, click **My - More Settings - Update Firmware**.



- **K. How to perform the camera self-checking?**

Please click **on My - More Settings - Camera Self-checking**.





Scan with 4DKanKan Minion

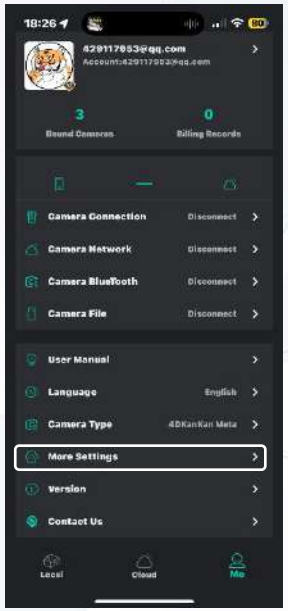
5. FAQ

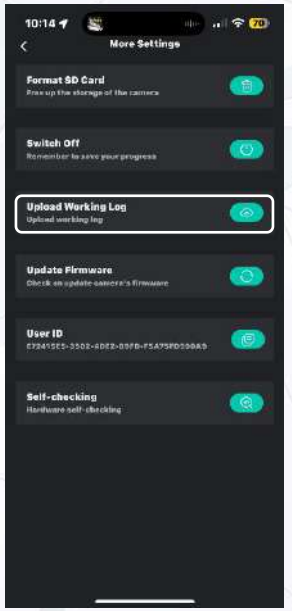
- **L. How do I upload logs for troubleshooting?**

If you encounter any problems while using the camera, you need to upload the camera log for technical support:

APP Upload Log:

1. Connect your mobile phone to the camera and the camera to the network;
2. Click **My - More Settings - Upload Log**;
3. After clicking "Upload", the application will prompt “Log uploaded successfully" when the progress bar is 100%.

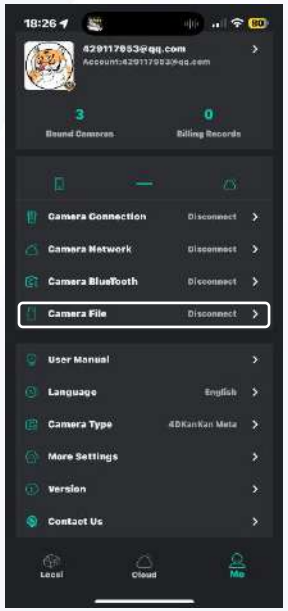


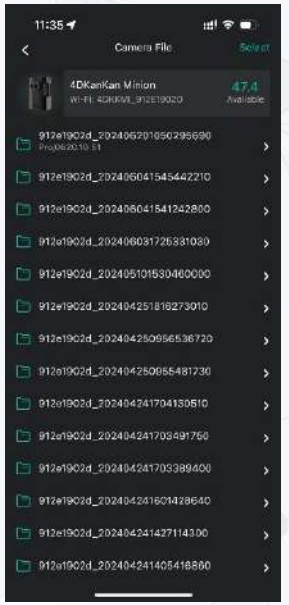


- **M. How do I clear the camera memory in the app?**

How do I clear the camera memory in the app?

1. Connect your mobile phone to the camera;
2. Make sure all projects are uploaded to the cloud;
3. Click **My - File Management - Select**, select the project files need to be deleted, if you are not sure about the files need to be deleted, you can follow the project scanning time, or click into the file to check the .JPG file to confirm it by checking the images.





4DKanKan Point Cloud Editor | Overview

1. View
1.1 Panorama & Point Cloud Mode
1.2 View Settings & Point Cloud Settings
1.3 Redirect to Mesh Project
1.4 Search Box & Mini-map

2. Dataset

3. Hotspots/Tags
3.1 Add a New Tag
3.2 Edit or Delete Tags
3.3 Viewable Range Settings

4. Measure
4.1 Measure
4.2 Export, share, and delete measurements

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5.1 Start Earthwork/Volume Calculation
5.2 Report Download
5.3 Coordinates Download

6. Plan View/Floor Plan
6.1 Floor Plan Displays
6.2 Customized Floor Plan

7. Coord/Coordinates

8. Download
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8.2 Crop and Download

9. Edit
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9.2 Geo-registration *
9.3 Datasets Calibration
9.4 Space Model
9.5 Point Calibration *
9.6 Crop Point Cloud

10. Settings
10.1 Change the Project Name
10.2 Set the Initial Screen
10.3 Viewable Settings

NOTE:
Editing features with * is not supported for projects scanned in SLAM mode

4DKanKan Point Cloud Editor

1.1 Panorama & Point Cloud Mode

- **Panorama Mode**

You can view the panorama and move around the project using the Panorama Mode. It displays the panoramas captured by the optical lens of the camera.

Panorama mode is not supported for projects scanned only in SLAM mode.

- **Point Cloud Mode**

Click the  button in the lower left corner of the page to switch to the Point Cloud Mode for viewing the project. It displays the point cloud captured by the LiDAR.

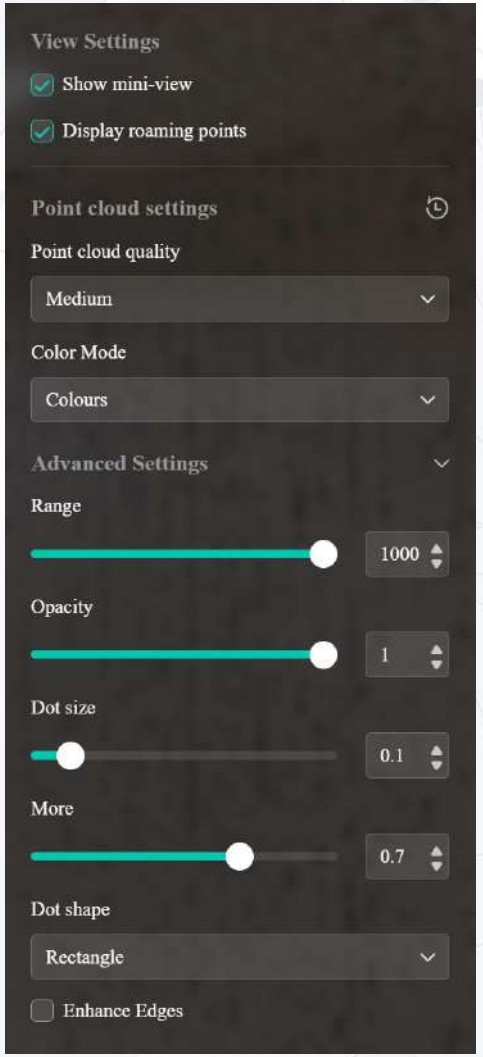
4DKanKan Point Cloud Editor

1.2 View Settings & Point Cloud Settings

- **View Settings**

Show mini-view: Show/hide the mini-map.

Show Roaming Points: Show/hide roaming points within the mini-map. (Projects scanned only in SLAM mode do not have this option)



- **Point Cloud Settings**

This setting is only available in **Point Cloud Mode**, point cloud settings are not adjustable in Panorama Mode.

Point cloud quality: Low, Medium, High;

Color Mode: Color, Elevation, Translucent;

Range: the range of the point cloud display, adjustable from 20 to 1000;

Opacity: the opacity of the point cloud display, adjustable value 0.01-1;

Dot (Point) size: the size of the individual point clouds, adjustable from 0.01-1;

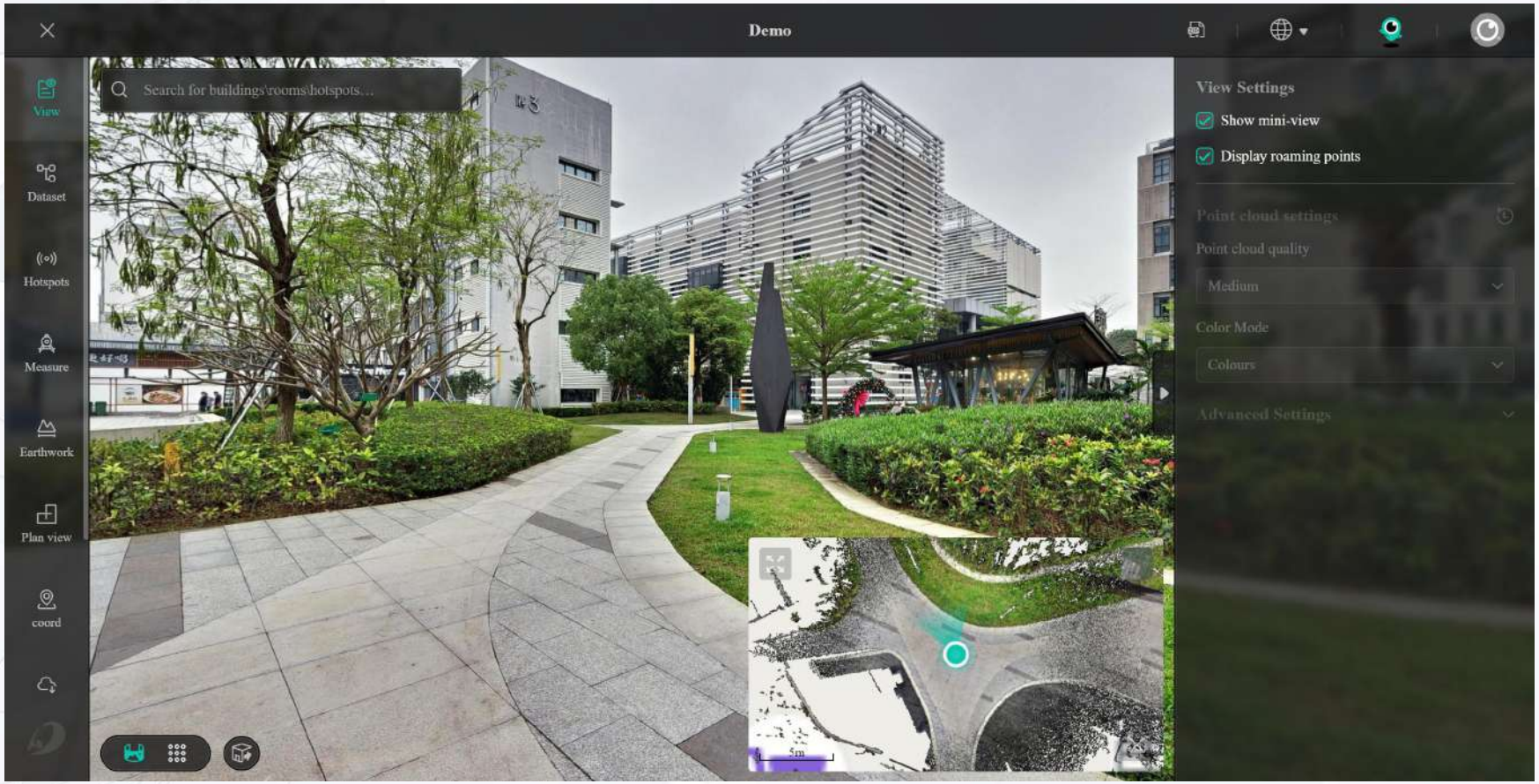
More (Density): Adjust the density of the point cloud display, adjustable value 0-1;

Dot (Point) shape: Rectangle, circle;

☑**Enhanced edges:** When turned on, it improves edge processing between different colors.

4DKanKan Point Cloud Editor

1.3 Redirect to Mesh Project



Clicking here will quickly redirect to the mesh project corresponding to the point cloud project.
(Only for projects that have been scanned by **stationary scanning** and generated an obj file during upload or in the 4DKanKan platform)

4DKanKan Point Cloud Editor

1.4 Search Box & Mini-map

Search Box:

The search box in the main view (red box on the left) allows you to search for the location of buildings, rooms and tags in the project. The search box can be used for quick location.

Mini-map Full Screen:

Clicking it will toggle the window between the mini-map and the panorama/point cloud view, with a full-screen mini-map.

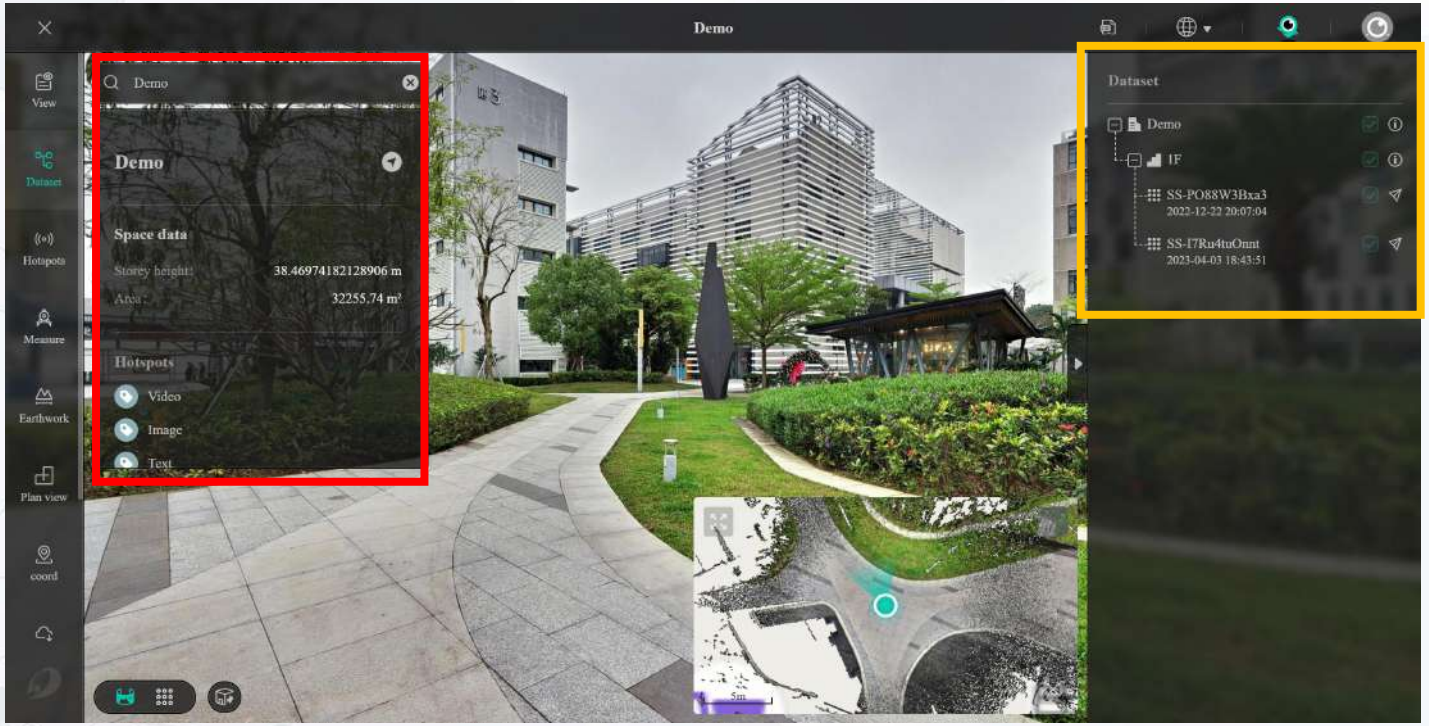
Hide/display the mini-map:

Clicking it will hide the mini-map. Once hidden, clicking the same button again will display the mini-map.

4DKanKan Point Cloud Editor

2. Dataset

Datasets: Datasets contain various information such as point clouds, panoramas, point locations, coordinates, floor plans, and so on. It is a collection of data.



Datasets:

The datasets contained in the project are displayed here. Click the on the right to show or hide the records. Clicking will redirect to the location of the specified dataset and display the information contained in the specified dataset on the left. (Red box on the left)

Information:

Selecting the specific information button on the right side of the dataset will display an information bar that shows you the content, such as tags, that the dataset already contains. Clicking the Tags button in the information bar will navigate to the tags. Clicking the navigation button to the right of the name in the information bar will set this location as the end of the navigation route.

4DKanKan Point Cloud Editor

3.1 Add a New Tag

Add a Hotspot/Tag:

Right-click the location in the project where you want to add a hotspot/tag and select Add Hotspot. Enter the content of the hotspot/tag in the edit box (shown at right).

Save the Hotspot/Tag:

Click the Save button in the upper right corner to save the hotspot/tag.

Hotspot/Tag Logo:

You can customize the logo for this hotspot/tag and it also supports uploading your logo or choosing the default logo.

Hotspot/Tag Title:

The title of this hotspot is a required field.

Text:

The maximum of text for hotspot/tag can be up to 200 characters. Support inserting hyperlinks into the text, select the "Add Link" button at the bottom left of the text box to insert text hyperlinks.

Multimedia:

Multimedia content for hotspot/tag display.
They are image, video, audio, webpage:
Image: support jpg\png format, single ≤ 5Mb, maximum upload 9 images.
Video: support mp4\mpv format, bit rate ＜2Mbps, size ≤20Mb.
Audio: support mp3\wav format, size ≤5Mb.
Webpage: click the √ button on the right after input for verification, if it can not be displayed, then the target web page can not be embedded.

4DKanKan Point Cloud Editor

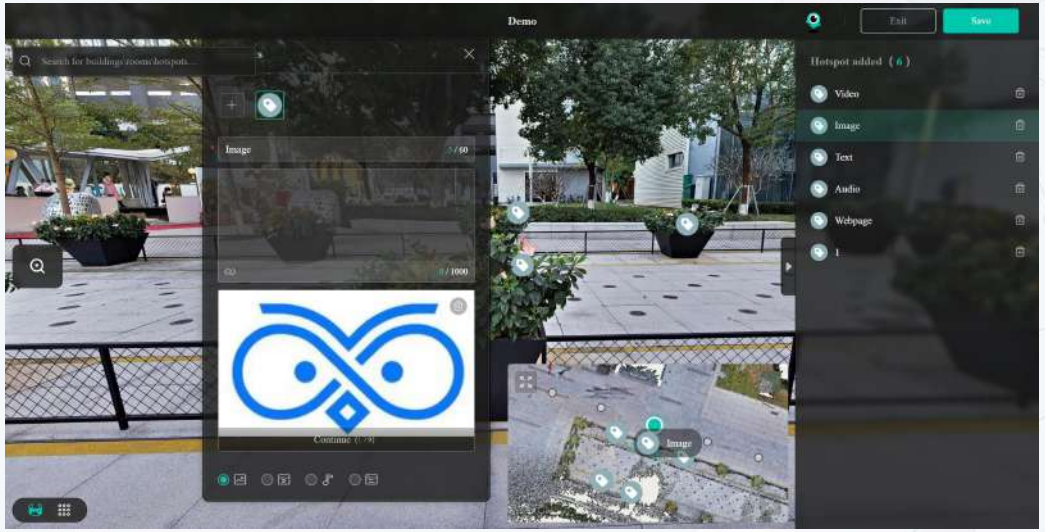
3.1 Add a New Tag

- **Edit Hotspots/Tags:**

If you need to modify the hotspot/tag after saving, you can click the corresponding hotspot on the right side of the **Hotspot** menu in the edit page, and then it will automatically direct to the location of the hotspot/tag. (As shown in the picture on the left.) Click "**Modify**" in the lower right corner of the hotspot window to modify the content. Then you can change the content of the hotspot. (As shown in the image below left)

- **Move Hotspots/Tags:**

If you need to move the hotspot/tag position after saving. You can move the hotspot/tag by dragging the icon directly on the **Modify** page.

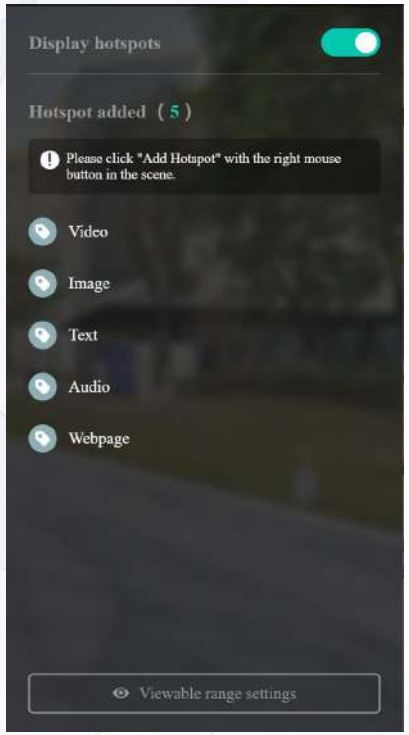


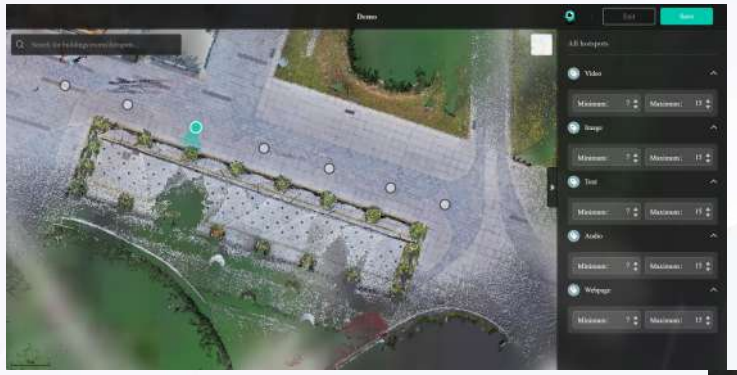
- **Delete Hotspots/Tags:**

If you want to delete a hotspot/tag, you can delete the it by clicking the "Delete" button on the **Modify** page.

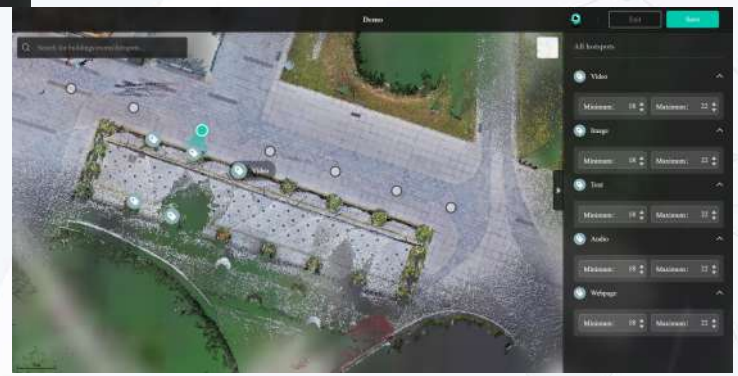
4DKanKan Point Cloud Editor

3.3 Viewable Range Settings





Hotpots/tags are **invisible** on the map when the viewable area is set to 7-15.



Hotpots/tags are **visible** on the map when the viewable area is set to 18-22.

- **Show hotspots/tags:**

If turned off, all added hotspots/tags will be hidden.

- **Viewable range settings:**

: In the lower right corner of the hotspot page, click the Viewable range settings button to enter the settings.

- **Viewable range settings page:**

You can adjust the viewable range of a single hotspot/tag on the Viewable range settings.

Note that this adjustment is for the **display range of the hotspot/tag in the map, not the visibility range when roaming.**

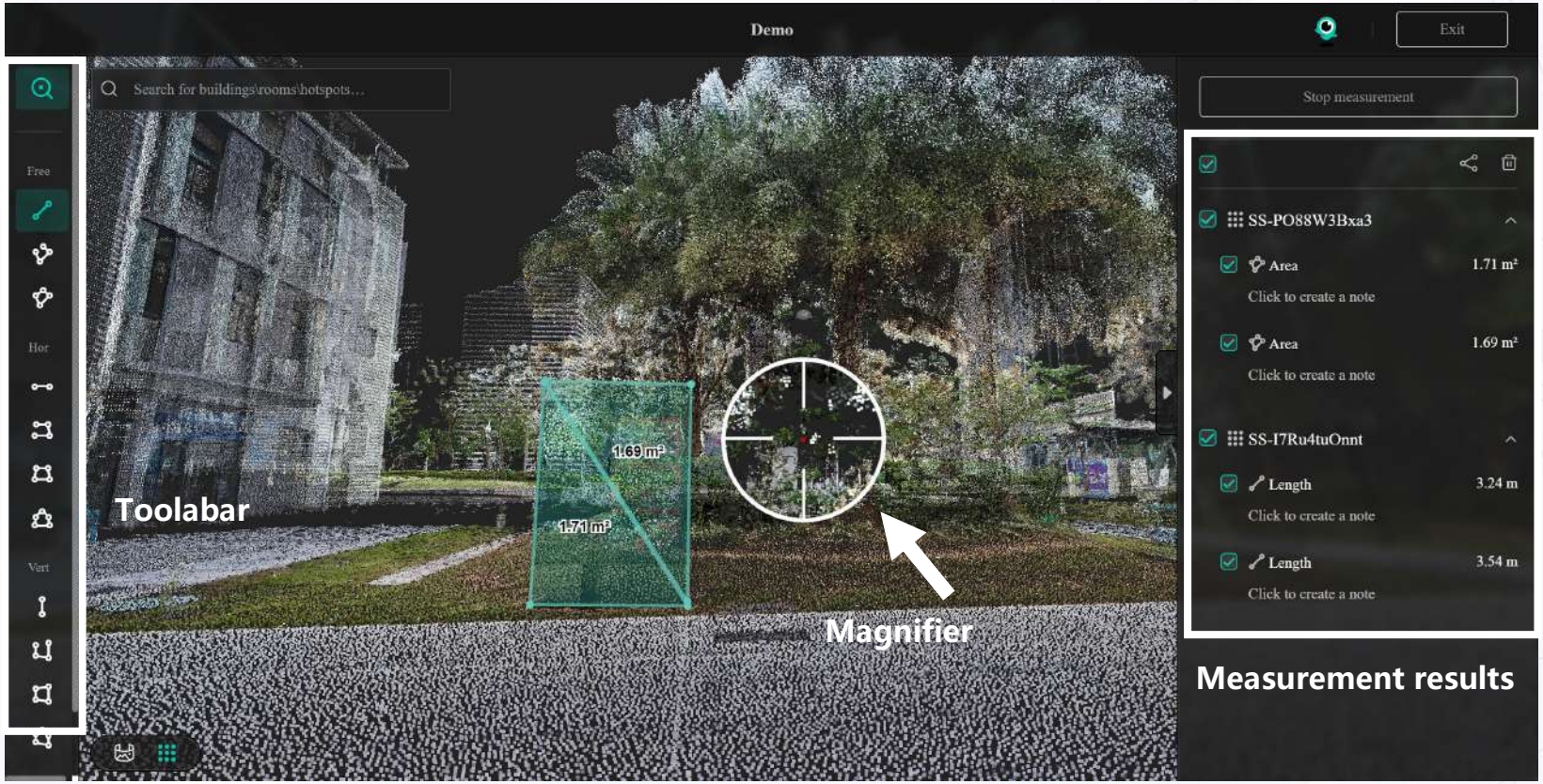
The hotspots/tags will only be displayed within the specified range.

4DKanKan Point Cloud Editor

4. Measure

The measure feature enables precise measurements of the actual area and length based on the characteristics of the point cloud.

- Navigate to the Measurement menu. We offer two length units for measurement: **meters and feet.** Select the desired unit of length and click Start Measurement to proceed to the measurement page.



4DKanKan Point Cloud Editor

4.2 Export, share, and delete measurements

Magnifier: When turned on, you can select the tool to measure. Click it again to cancel the measurement.

You can use the tool without any restrictions in **free mode**
Straight line: Measure length.
Continuous line: Measure the partial and total length of a continuous line.
Polygon: Measure closed area.

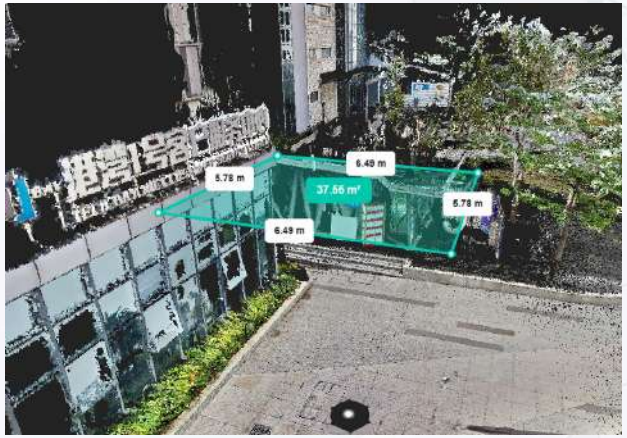
Horizontal mode can only measure data parallel to the ground, the system supports automatic leveling.
Straight line: Measures length. (Straight lines parallel to the ground)
Continuous straight line: Measures the partial and total length of a continuous straight line. (Continuous lines parallel to the ground)
Rectangle: Measures the area of a rectangle. A rectangle measurement can be determined by dragging after drawing an edge. (Rectangle parallel to ground)
Polygon: Measures the area of a closed polygon. (Polygons parallel to the ground)

Vertical mode can only measure data perpendicular to the ground, the system helps automatically
Vertical Line: Measures length data. (Straight lines perpendicular to the ground)
Continuous straight line: Measures the partial length and total length data of a continuous straight line. (Continuous straight line perpendicular to the ground)
Rectangle: Measures the area of a rectangle. A rectangle measurement can be determined by dragging after drawing one side. (Rectangle perpendicular to the ground)
Polygon: Measures the area data of a closed polygon. (Polygon perpendicular to ground)

Enable Split Screen: When enabled, the interface will be split screen, displaying **2D and 3D images** at the same time.

Horizontal

Vertical

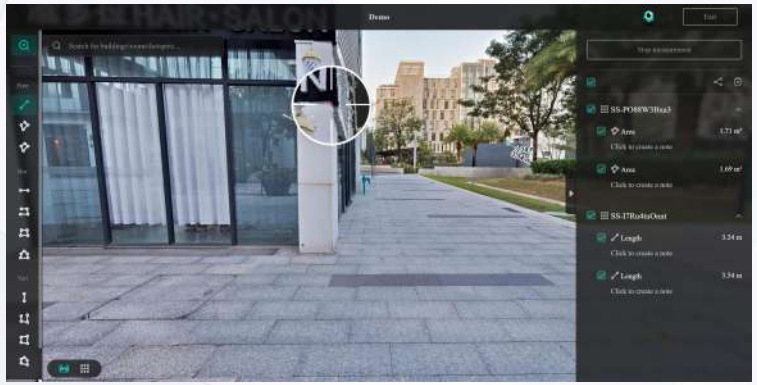


4DKanKan Point Cloud Editor

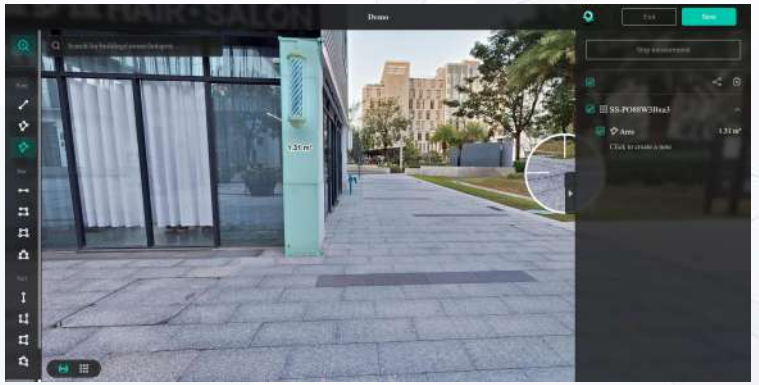
4.2 Export, share, and delete measurements

Measurement example

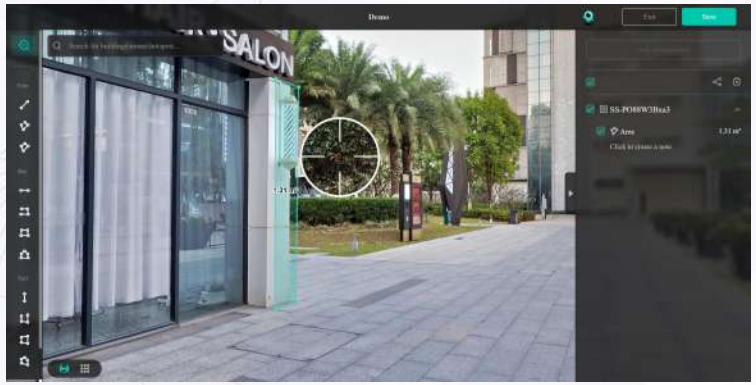
1. Use the magnifier and confirm the measurement point with the red center of the magnifier.



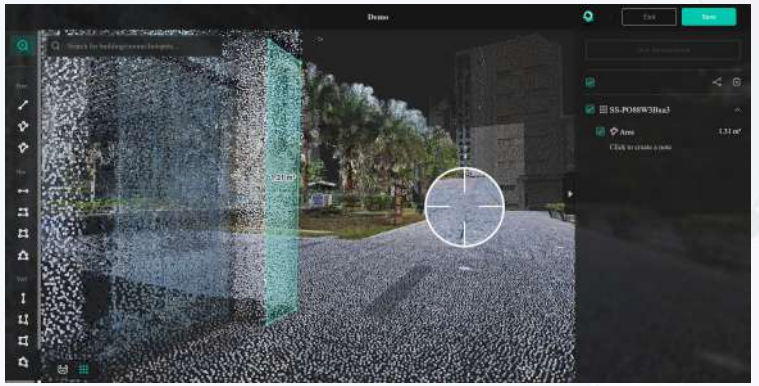
2. Set the measurement area by clicking on the measurement point, then right-click to complete the measurement.



3. Switch to another point to see if the measurement point is aligned, if there is no alignment, you can drag the measurement point to the correct position by selecting it.

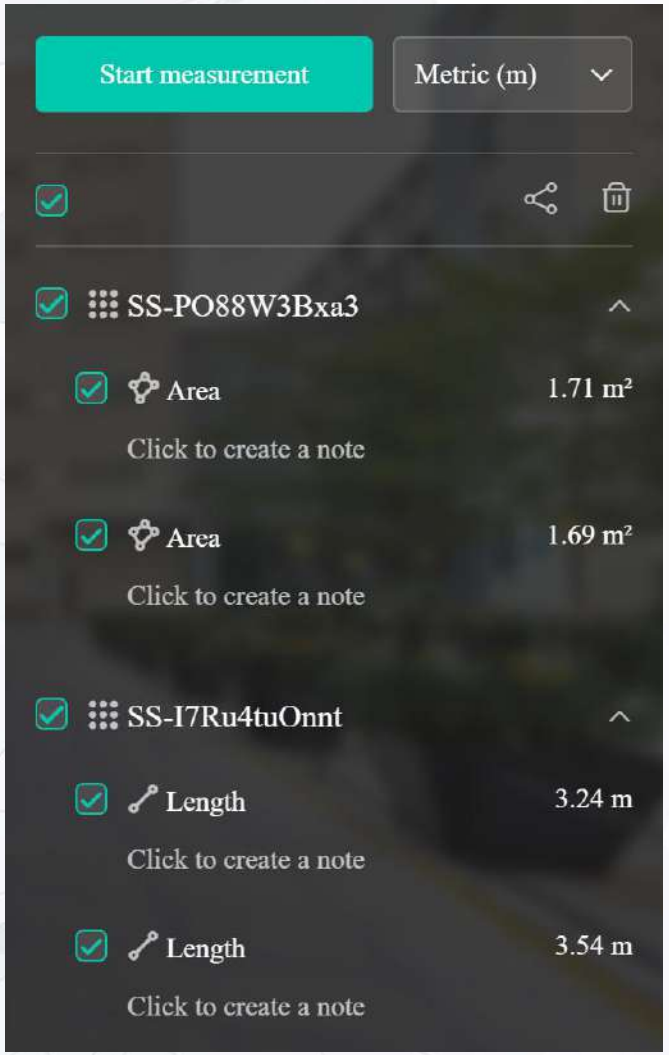


4. Switch to the point cloud mode to check if the measurement points are all aligned and to get the measurement result.



4DKanKan Point Cloud Editor

4.2 Export, share, and delete measurements



- **Measurement results:**

Measurement results are displayed in the right column. Click on the measurement result to quickly navigate to the measurement location. Click the Comment column to add a comment to the measurement result..

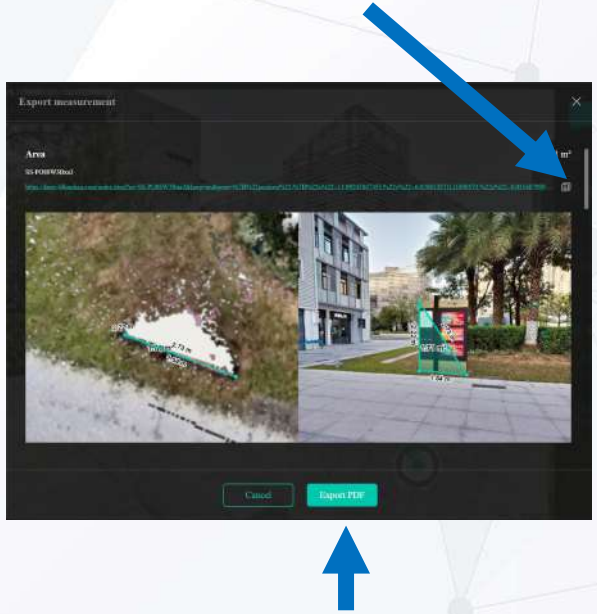
- **Delete measurement results:**

Select the measurement results to be deleted. Measurement results are deleted by clicking the Trash button. To empty the measurement results, select all the measurements and then delete them.

- **Export and share measurement results:**

Select the measurements you want to export and share. Click the Share button on the right to open the Export window. Click the Copy button to the right of the URL of a measurement result to share the measurement result as a link. Selecting the Export PDF button at the bottom will generate a PDF download of the selected measurement results.

Copy and share the measurement results with the link

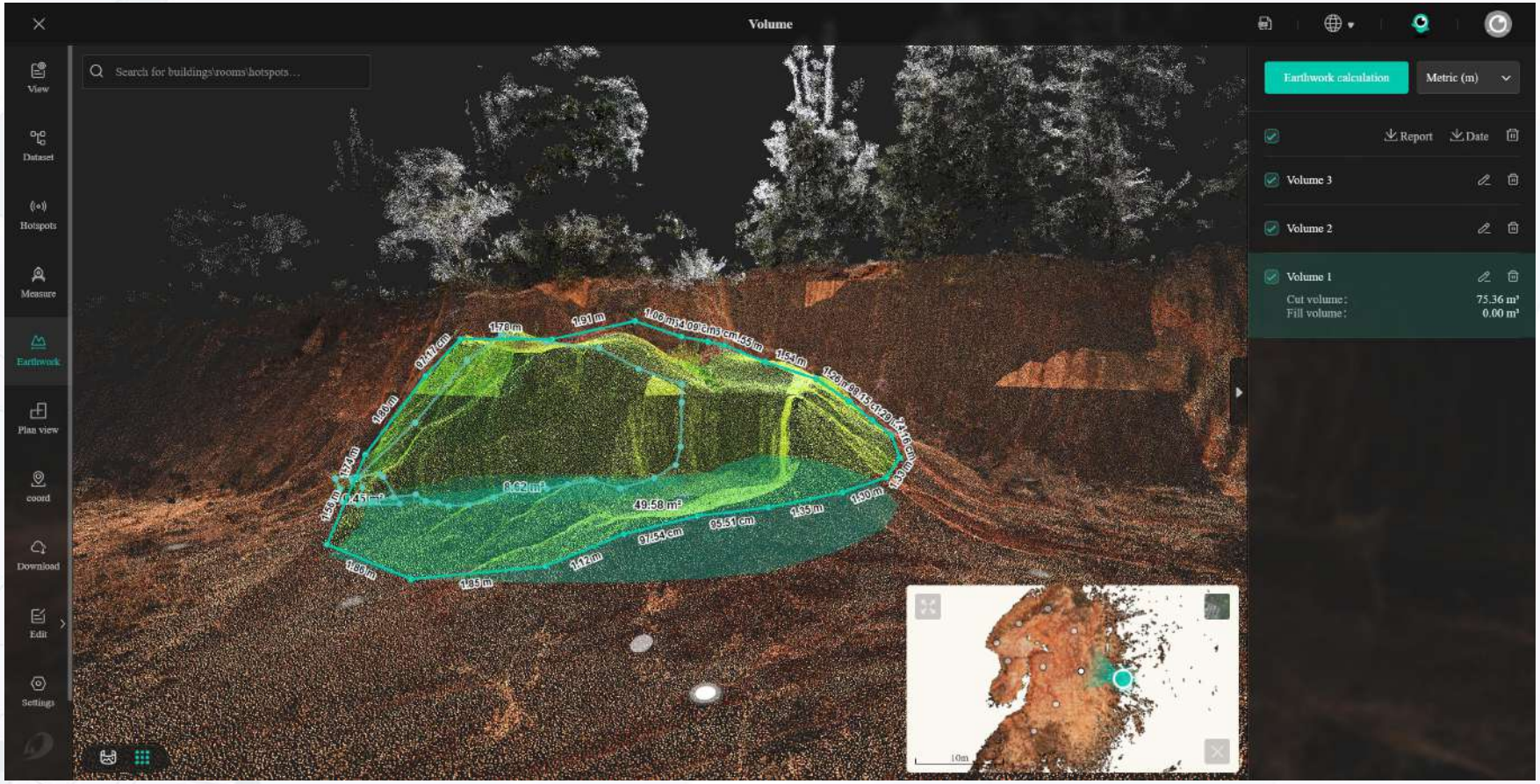


Export the measurement results in PDF

4DKanKan Point Cloud Editor

5. Earthwork/Volume

Note: Earthwork is not available in current vision, under development bow

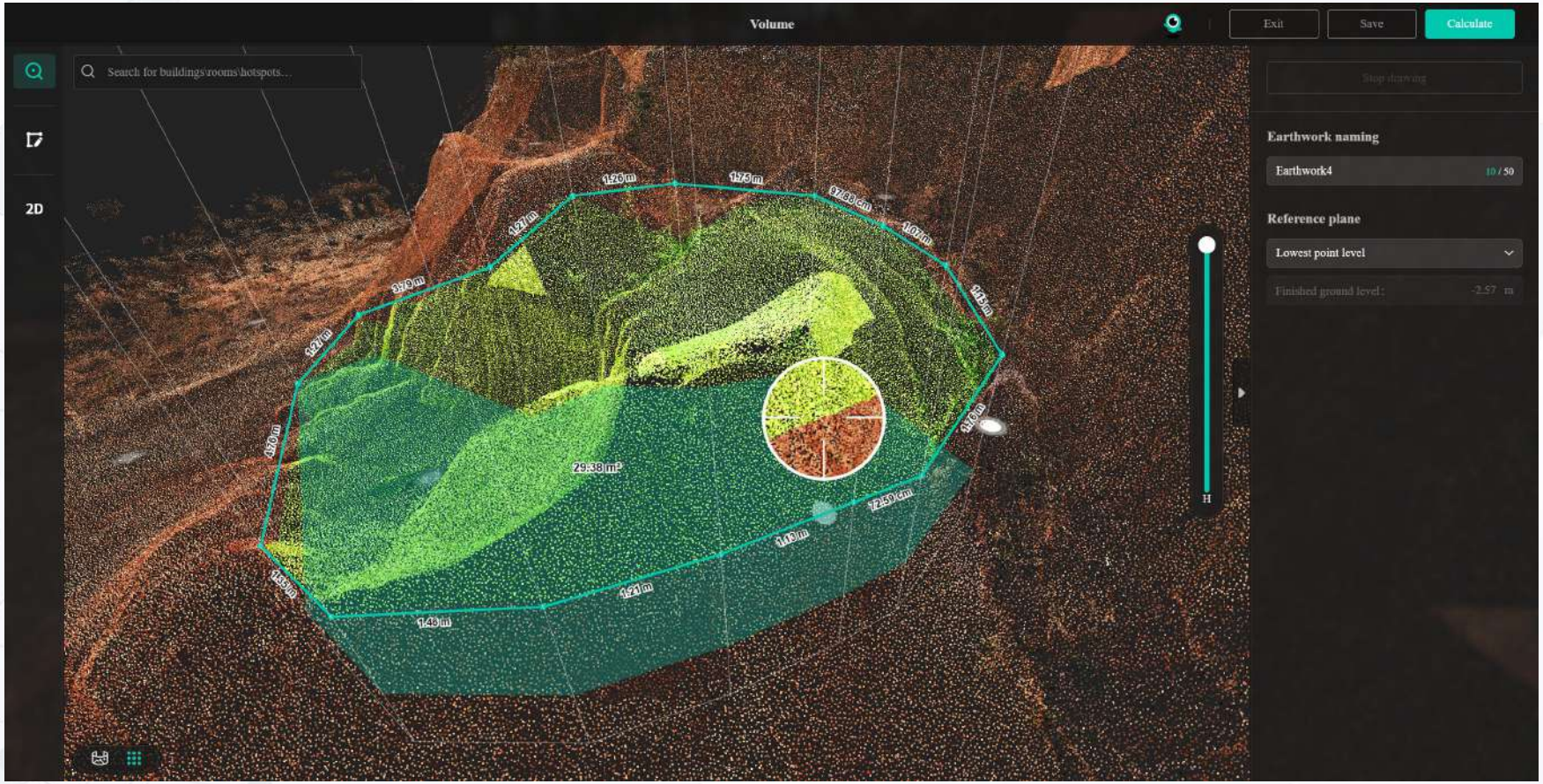


- **Function Description:**

1. Click the earthwork, you can enter the earthwork calculation function;
2. Measurement results: display the results of multiple measurements of earthworks, support the download of measurement reports and coordinates, and delete;
3. Within the project: display the earthworks corresponding to the measurement results.

4DKanKan Point Cloud Editor

5.1 Start Earthwork/Volume Calculation

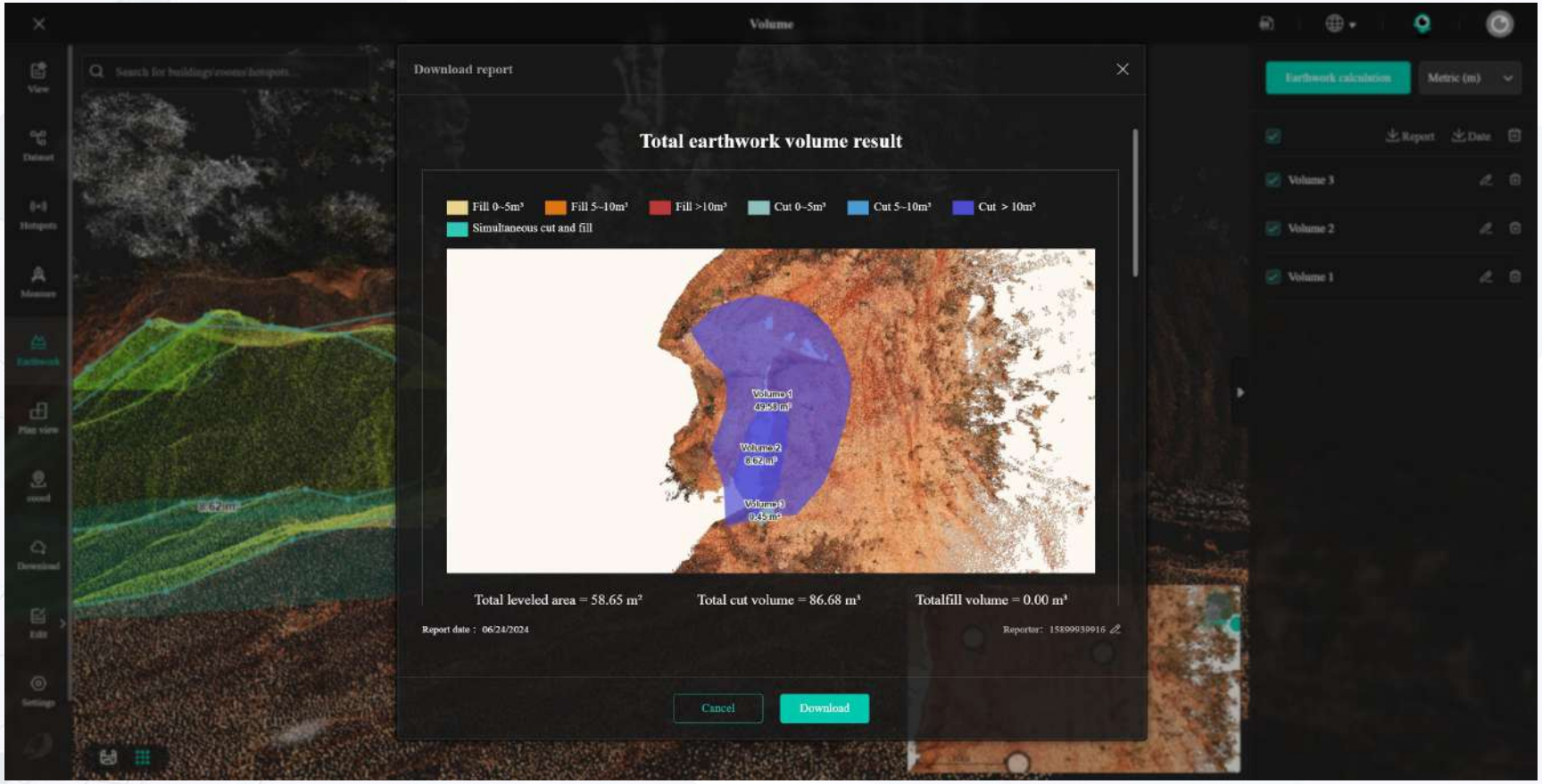


- **Earthwork/volume Calculation :**

1. Click Start Calculation in the upper right corner to draw the area that requires earthwork/volume calculation in the point cloud project;
2. Support magnifier to zoom in the drawing area;
3. Support for top view drawing in 2D view;
4. Support for earthworks naming;
5. Set the reference plane according to the highest point, lowest point or customized level.

4DKanKan Point Cloud Editor

5.2 Report Download

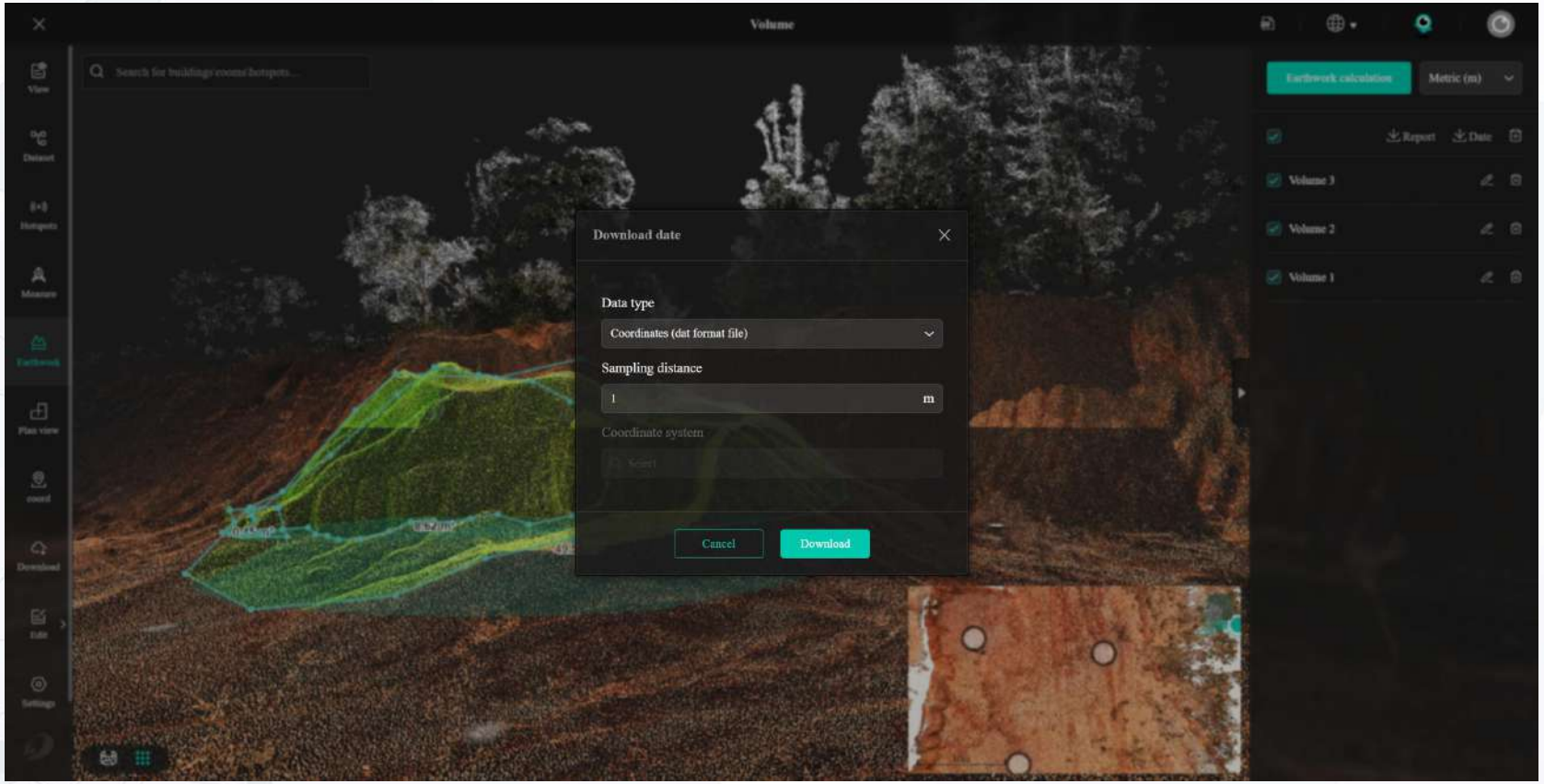


- **Report Download:**

1. Export the measurement reports in PDF format;
2. Support combined export of multiple measurements.

4DKanKan Point Cloud Editor

5.3 Coordinates Download

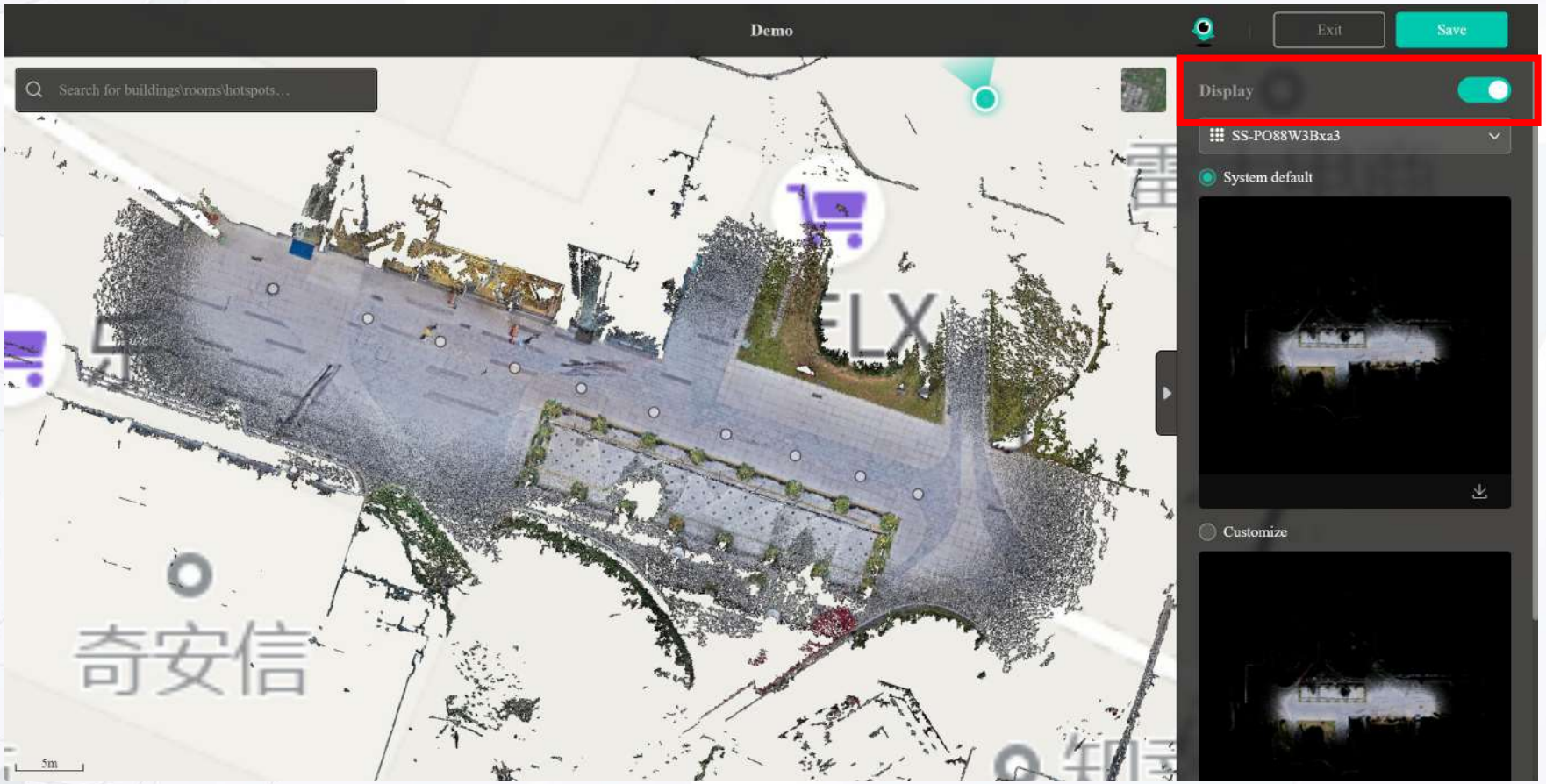


- **Coordinates Download:**

1. Export coordinates according to the sampling distance set by the user;
2. Support exporting after converting coordinate system;
3. Export .dat format file.

4DKanKan Point Cloud Editor

6.1 Floor Plan Displays

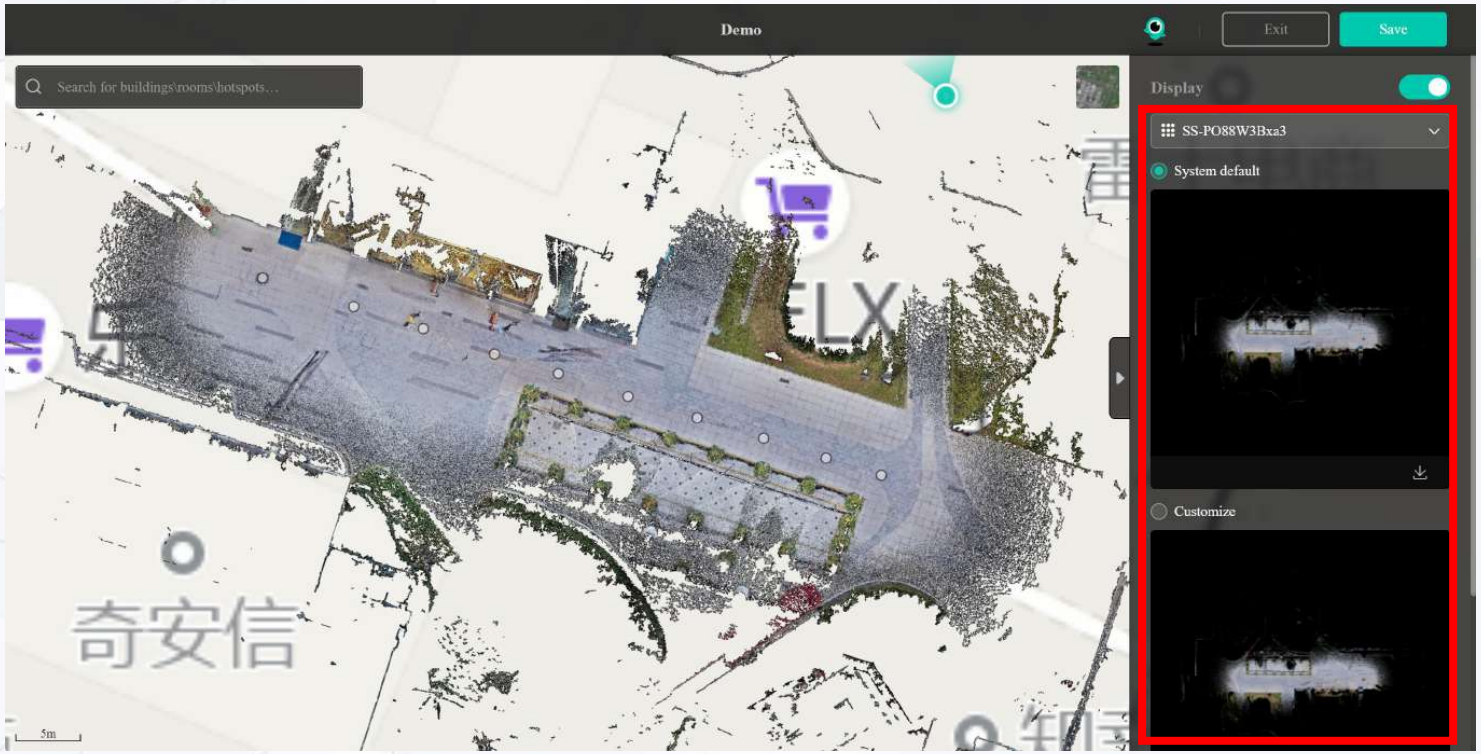


- **Floor Plan Displays:**

The switch in the red box is for the floor plan display setting; if it is off, the floor plan will not be displayed on the map.

4DKanKan Point Cloud Editor

6.2 Customized Floor Plan



- **Datasets:**

If more than one dataset exists for the scene, you can switch to the corresponding floor plan from here.

- **Default floor plan download**

- **Customized floor plan download**

- **Customized floor plan:**

Point Cloud Editor supports customized floor plan, you can choose the default floor plan or customized floor plan by the button in the red box in the picture above. You can download the default floor plan and then modify the floor plan through the post-processing software. After modification, you can upload the customized floor plan by clicking the Upload button in Customized Floor Plan. After uploading, you need to click the Save button in the upper right corner for the upload to save. When uploading, you need to upload it in the original file format and do not resize it. Otherwise, it will fail to save.

4DKanKan Point Cloud Editor

7. Coord/Coordinates

The editor provides viewing and copying of coordinates.

You can select the type of coordinates on the right side of the menu. There are 4 types of coordinates: local coordinates, geodetic coordinates, projected coordinates and map coordinates **(Amap in China, Google Map in other regions)**.

You can select the coordinates you want to view and copy.

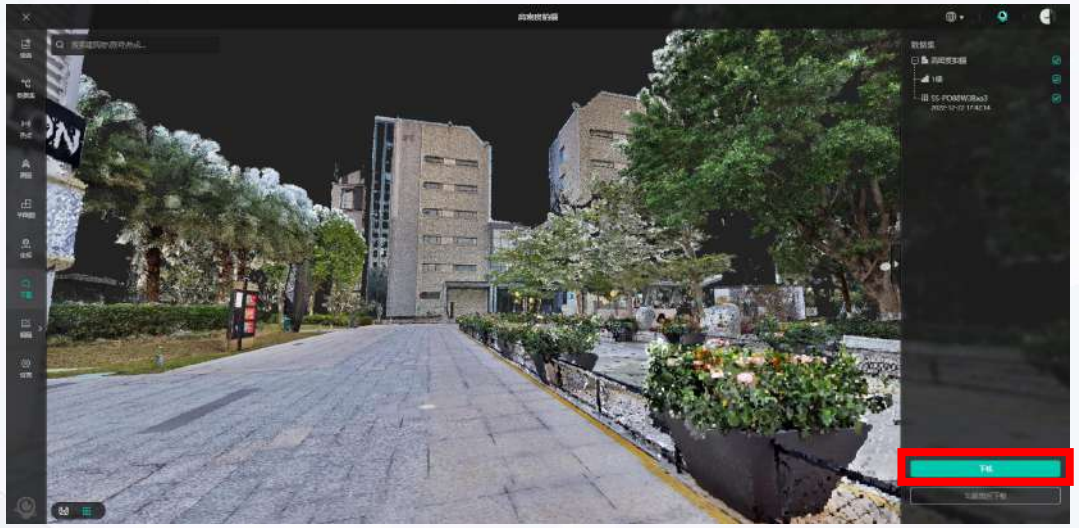
Among them, you can select different coordinate systems as reference for geodetic coordinates and projected coordinates.

Move the mouse over the project, the corresponding coordinate parameters will be displayed in real time. Right click to copy the coordinates of the point.

The project captured in SLAM mode supports only local coordinates. (Other coordinates coming soon)

4DKanKan Point Cloud Editor

8.1 Download



- **Download the point clouds and model:**

The Download function supports the download of point clouds and the model.

Click Download on the left side, the right side shows all datasets in the project. Click Download as shown in the red box to enter the download page.

The download page supports downloading point clouds in .las, .ply, and .e57 format, and model in .obj format.

Select the file you want to download and click Download to start the download.

- **Notes:**

1. Because the .las point cloud file contains coordinate, if this project has set up the geo-registration, you can select the coordinate system as needed to enter the download.
2. To download the .obj file of the 3D model, you need to select "Generate .obj" when uploading the project or click "Generate .obj" in the 4DKanKan platform to download.
3. The projects scanned in SLAM mode do not support .obj and .e57 format files.

4DKanKan Point Cloud Editor

8.2 Crop and Download

- **Download After Cropping:**

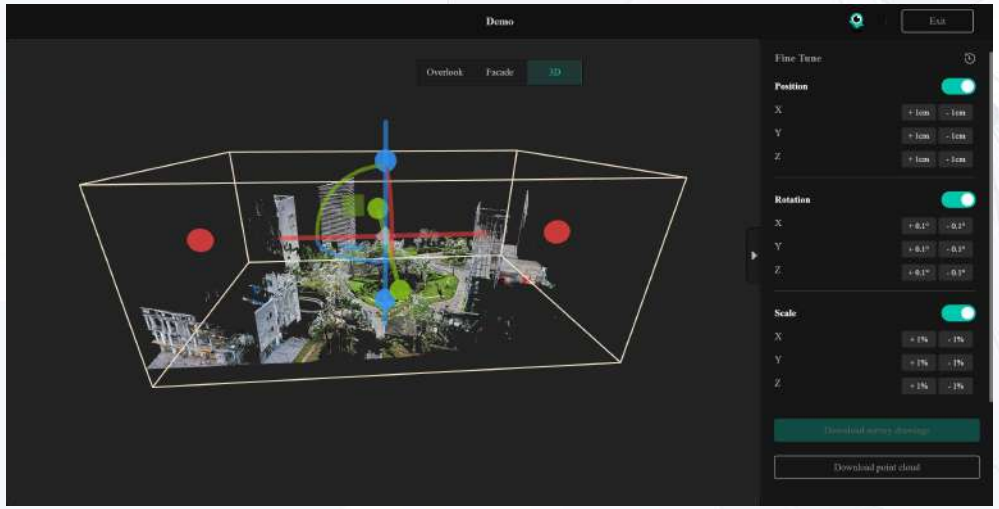
On the Download page, click the "Crop and Download" function button to get to the point cloud cropping page.

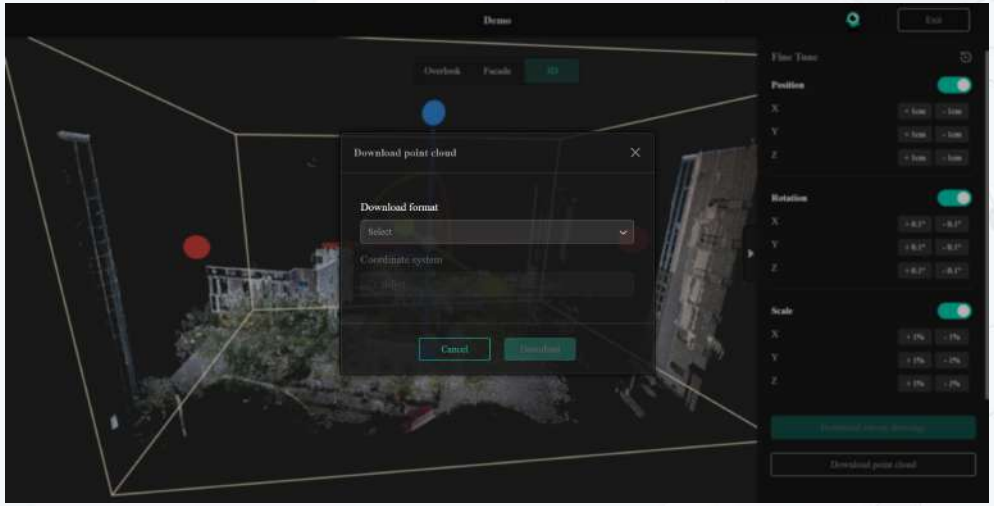
You can use the function keys shown in the red box on the left to switch between 3D and 2D (Topview/Overlook and Side view/Facade) views and crop the point cloud to the correct size for download.

In the 3D view, you can resize the box by dragging the points at either end of the axis.
Drag the origin of the axis to move the position of the box.

In 2D view, you can resize the rectangle by dragging the 8 adjustment points (small cubes) of the rectangle. Rotate the rectangle by dragging the rotation point.
Drag the inside of the rectangle to move the position of the rectangle.

After cropping, click the Download button to download the cropped point cloud file.
Downloading .obj files is not supported at this time.

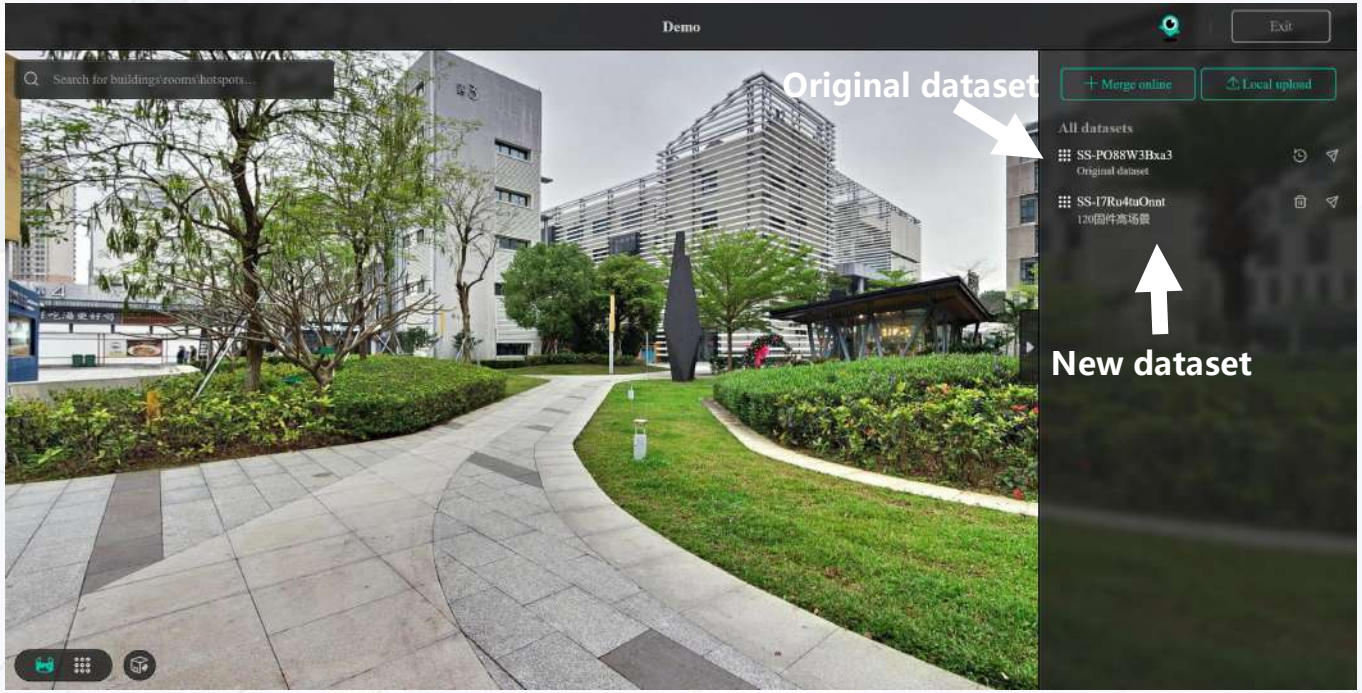




4DKanKan Point Cloud Editor

9.1 Dataset Management

Dataset management: This function can merge multiple point cloud projects into one.

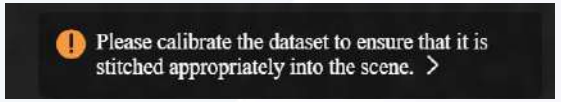


- **Functions Description:**

Restoring the default project will delete all added datasets.

Quickly navigate to the specific dataset location.

Delete this added dataset.



Quickly navigate to the dataset calibration function, please refer to the following tutorial "Dataset Calibration" for details on how to use it.

- **Add a new project to the original project:**

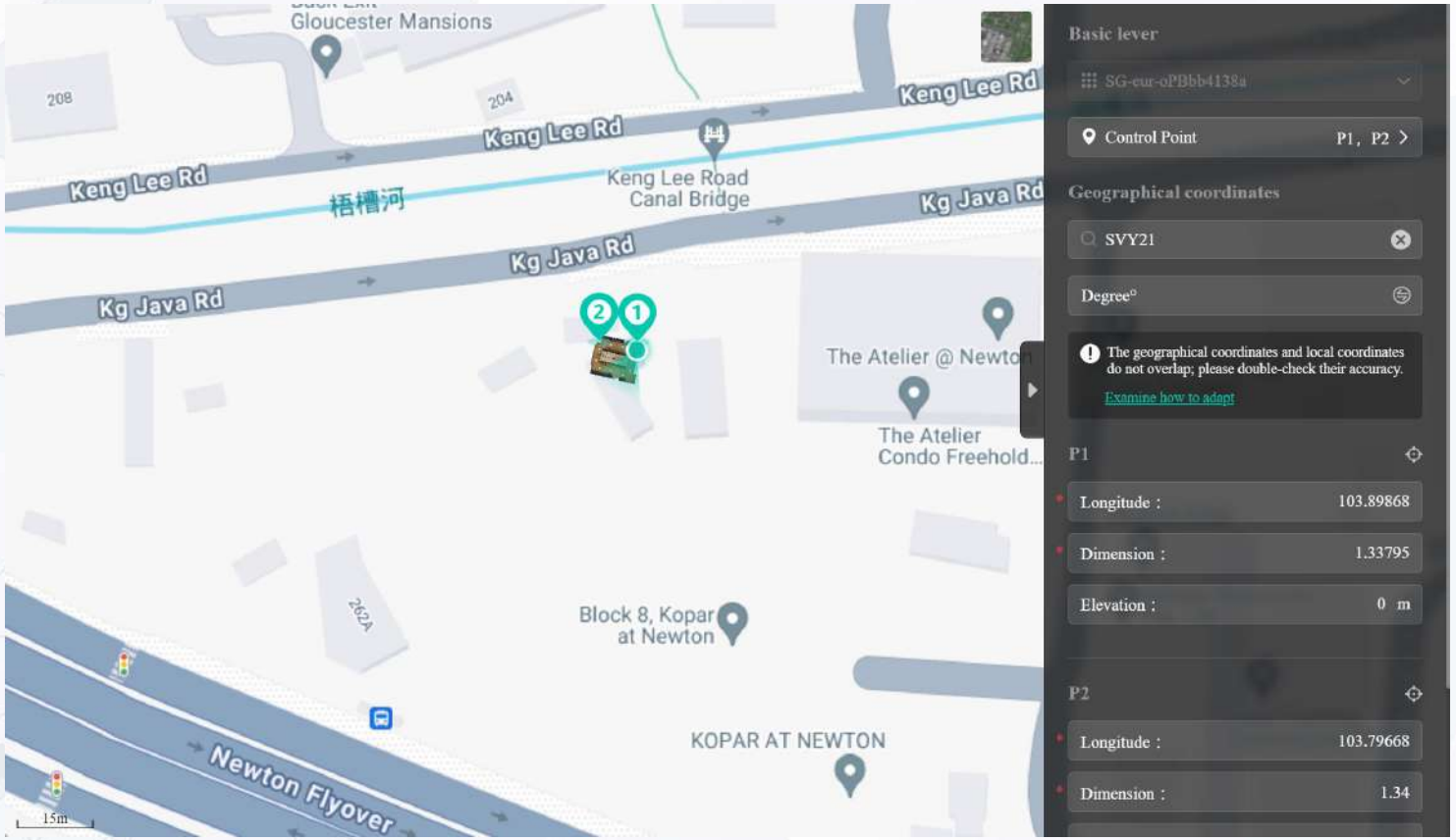
1. Online Merge: You can click Online Merge to merge other point cloud projects under the same account.
2. Local Upload: You can click Local Upload to upload point cloud files (.las and .ply) stored locally on your computer to the Dataset Management.

The uploaded dataset will be divided into original dataset and new dataset as shown above. The original dataset cannot be deleted, and the new dataset is the project from the Local Upload or Online Merge.

4DKanKan Point Cloud Editor

9.2 Geo-registration

Geo-Registration (Geo-Registration is currently not supported for projects scanned by SLAM mode, coming soon):
This function maps the dataset to a map.

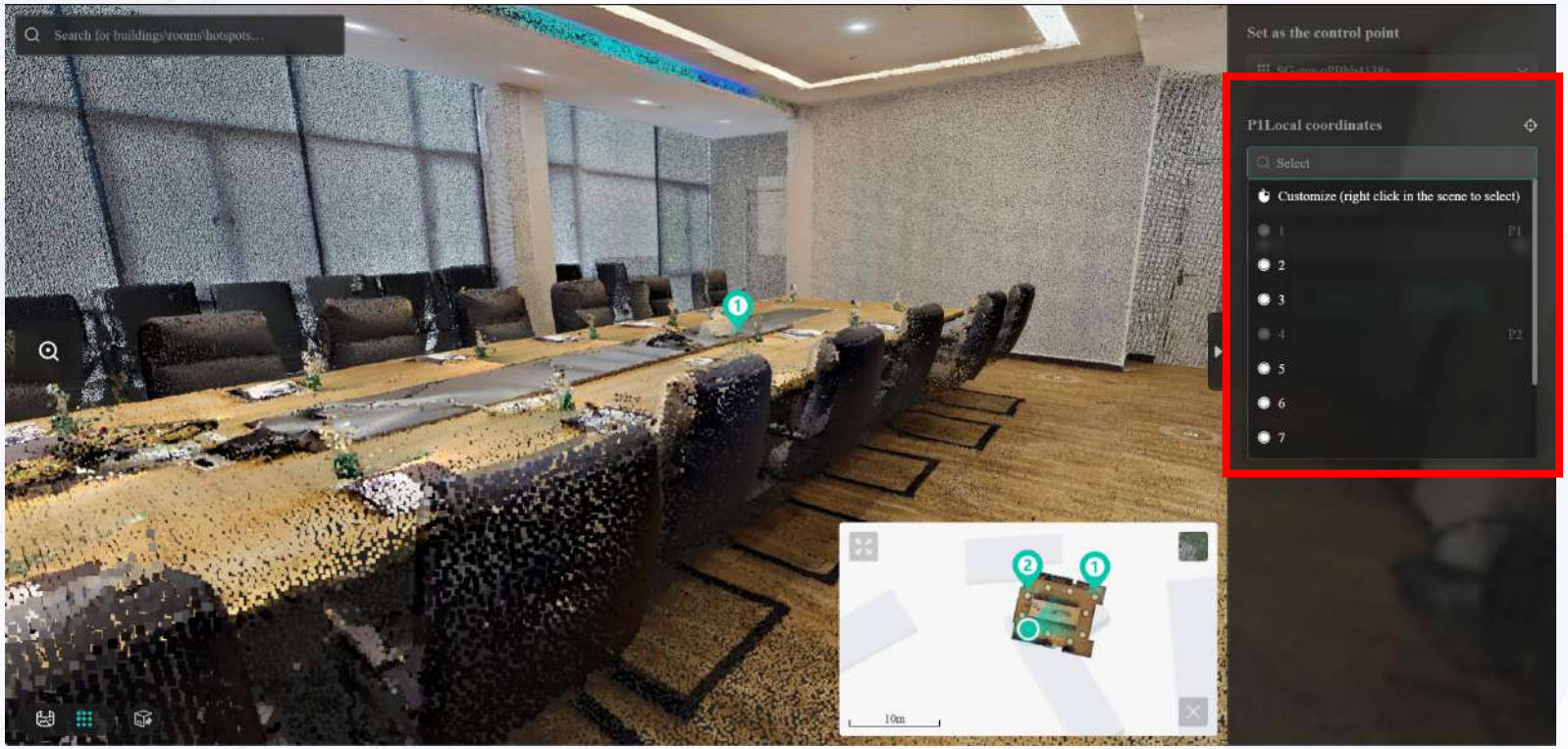


If you want to place the dataset on the map, you need to select **two control points** on the dataset (generated from the project scanned by the laser camera) and enter the geographic coordinates of these two points to be placed on the map, so that the local coordinates and the geographic coordinates be kept coincident.
(Will upgrade to three control points in the coming version)

If the project is not placed at the correct map coordinates, you can use the geo-registration feature to map it correctly.

4DKanKan Point Cloud Editor

9.2 Geo-registration



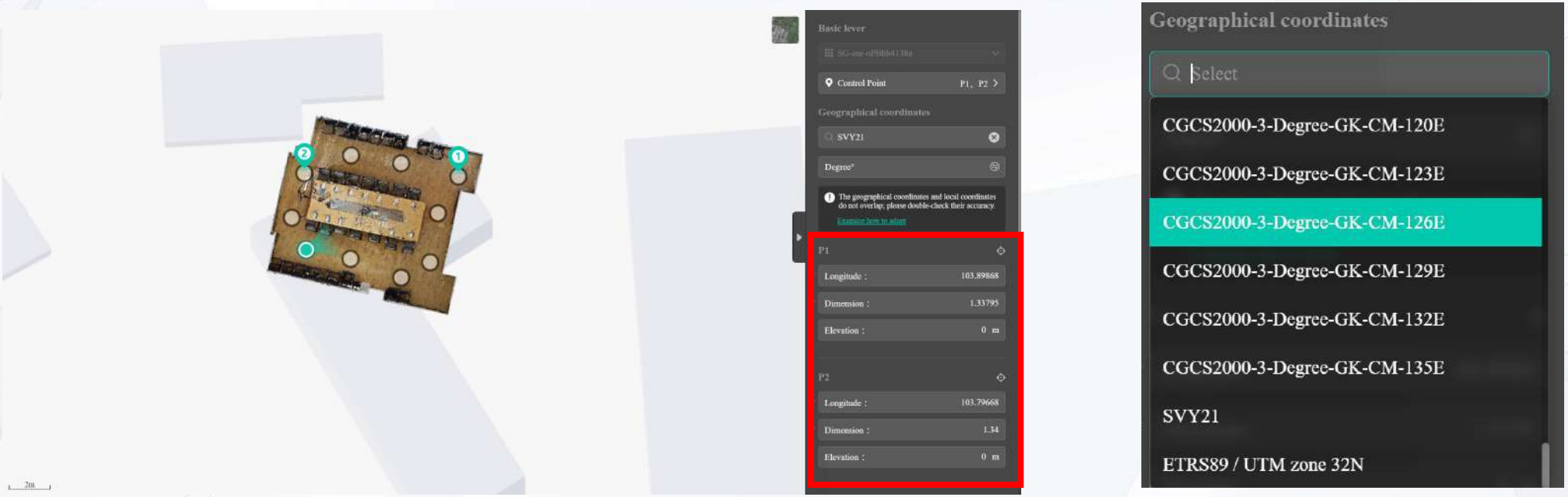
Click "Control Points" in the Geo-registration to enter the page of setting control points (as shown above), you need to set two control points "P1" and "P2" in the project to correspond to the map coordinates for mapping.

There are two ways to set the control points on the map. (shown in red box)

1. Customize the control point: After selecting Customize, right-click in the project and select Set as P1/P2.
2. Select the scan point as the control point: Select the appropriate scan point from the drop-down menu. The corresponding control point icon is marked in the project. After setting two control points, click OK to return to the Geo-registration page.

4DKanKan Point Cloud Editor

9.2 Geo-registration



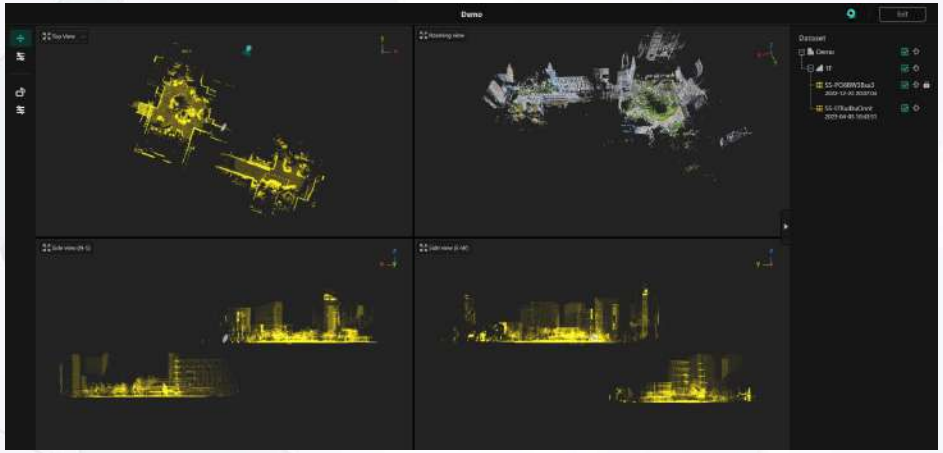
After setting up control points P1 and P2, enter the corresponding geographic coordinates of the two control points in latitude and longitude (e.g., enter the corresponding latitude and longitude under the appropriate coordinate system in the red box in the figure above), and click Save. The page will be refreshed. The project appears on the map at the location you set. The geo-registration is completed.

The coordinate systems listed on the 4DKanKan platform may not conclude the one you use, you can search the coordinate system in your region in https://epsg.io/, and contact the 4DAGE support team to add the coordinate system you need.

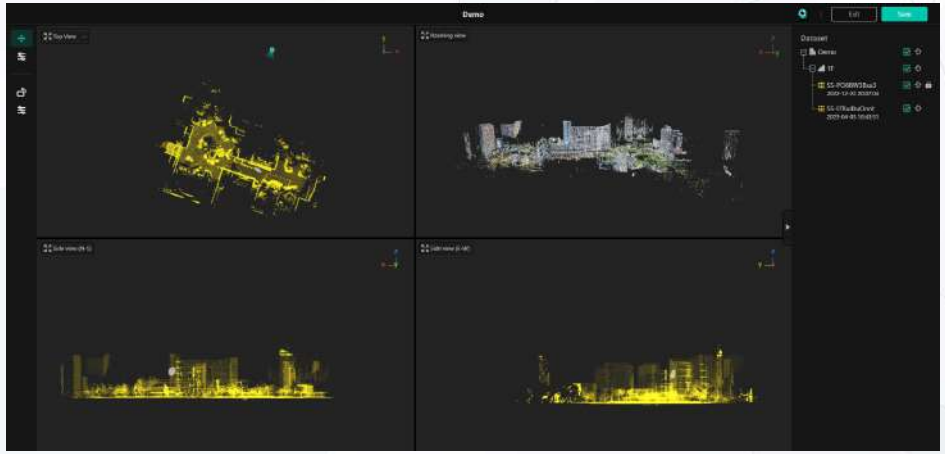
4DKanKan Point Cloud Editor

9.3 Datasets Calibration

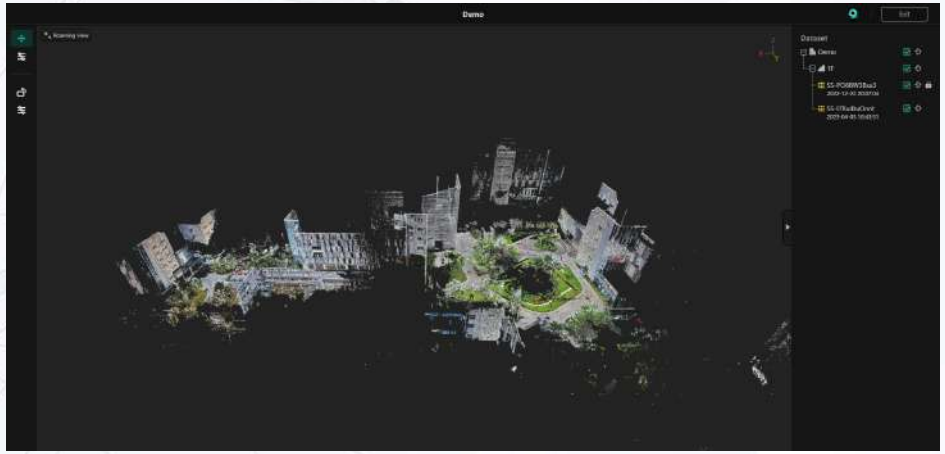
Dataset Calibration: This feature adjusts multiple datasets to achieve correct collocation of multiple datasets.

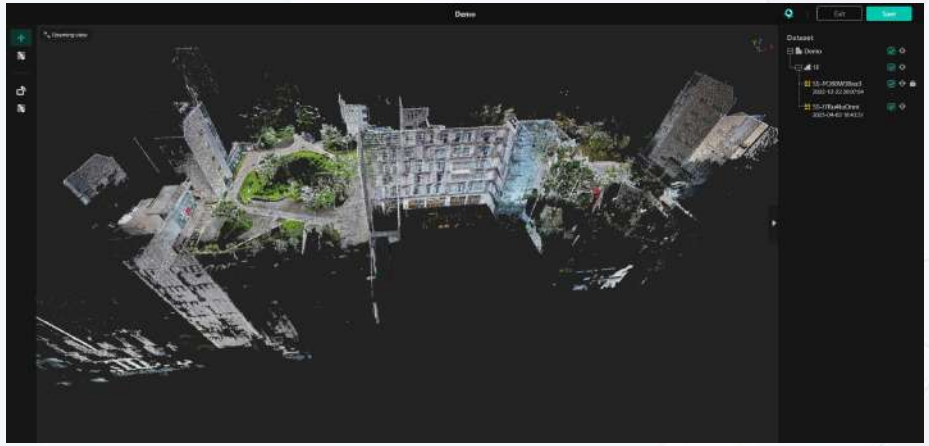


Before Datasets Calibration



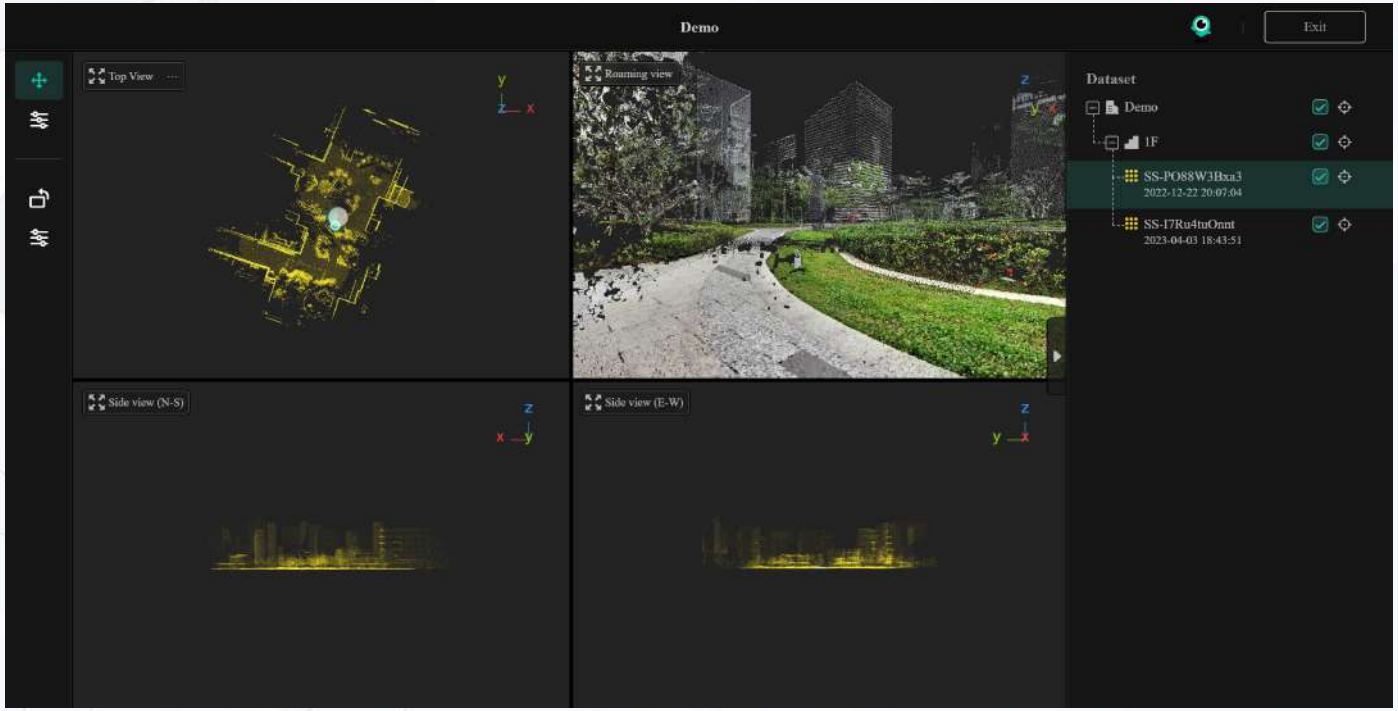
After Datasets Calibration





4DKanKan Point Cloud Editor

9.3 Datasets Calibration



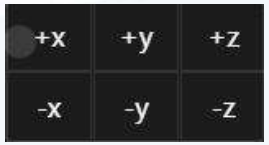
You can select the dataset to be calibrated on the right, which must be an unlocked dataset (the original dataset cannot be calibrated). Once selected, calibration can be performed by dragging with the mouse and using the tools on the left.

For fine tuning, click the Zoom button in the upper left corner of each view to zoom in and fine tune. Once calibrated, click on the Save button in the upper right corner and the page will refresh and the dataset calibration will take effect.

- **Functions Description:**

Move: Move dataset

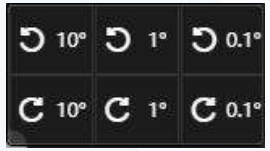
Fine-tune: When selected, the panel below expands



Coordinate axis fine-tuning, select and move 1cm each time along the x,y,z direction.

Rotate: Rotate dataset

Fine-tune: When selected, the panel below expands



Show/hide display dataset

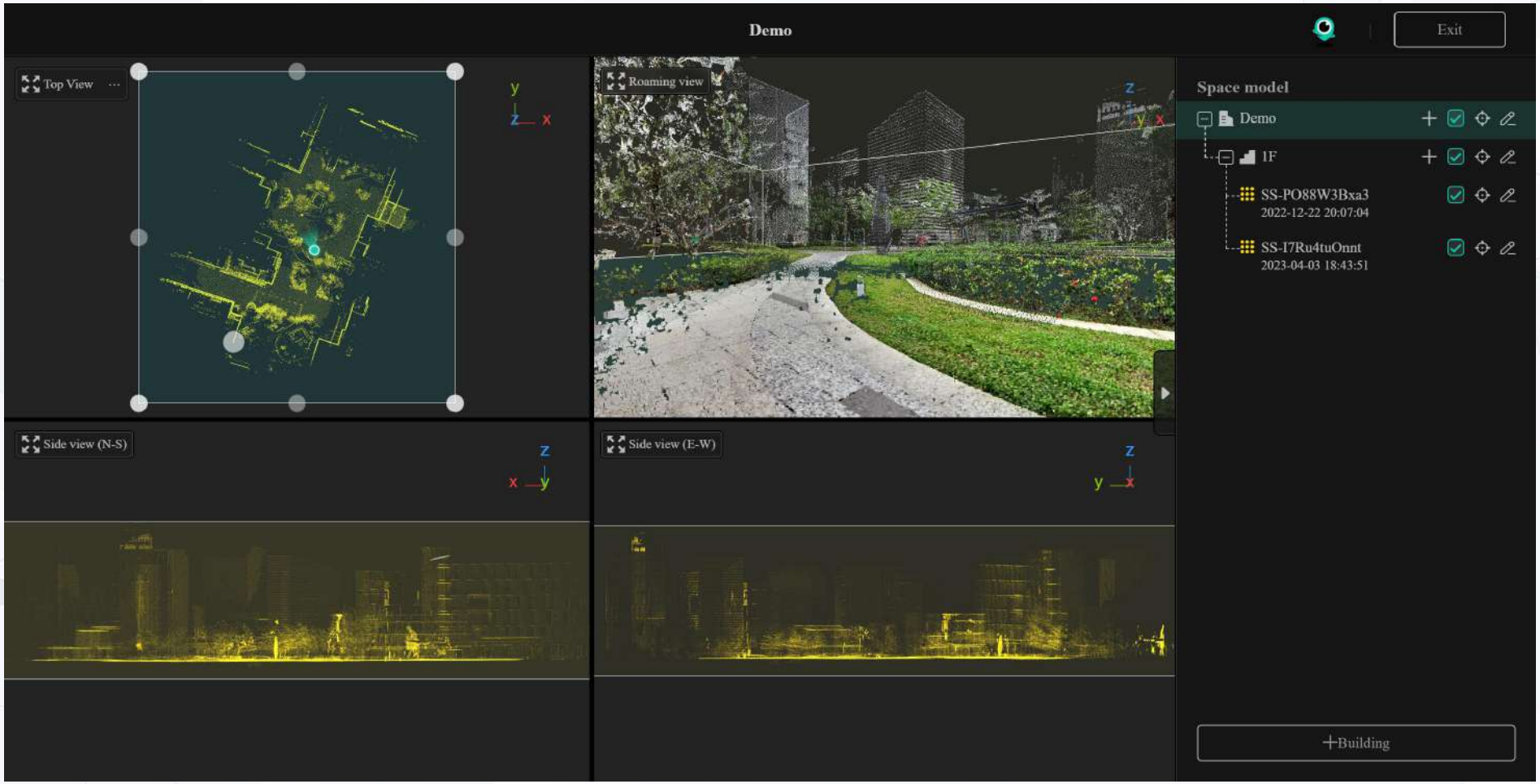
Navigate to this dataset

Dataset is locked and cannot be calibrated

4DKanKan Point Cloud Editor

9.4 Space Model

Space Model: Datasets can be divided and segmented into spatial data such as buildings, floors, and rooms.

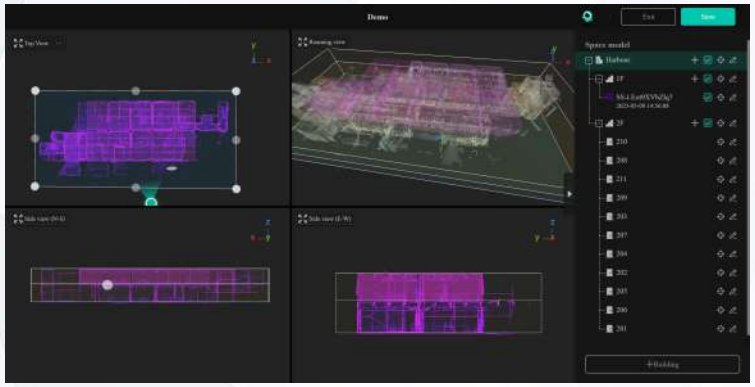


4DKanKan Point Cloud Editor

9.4 Space Model

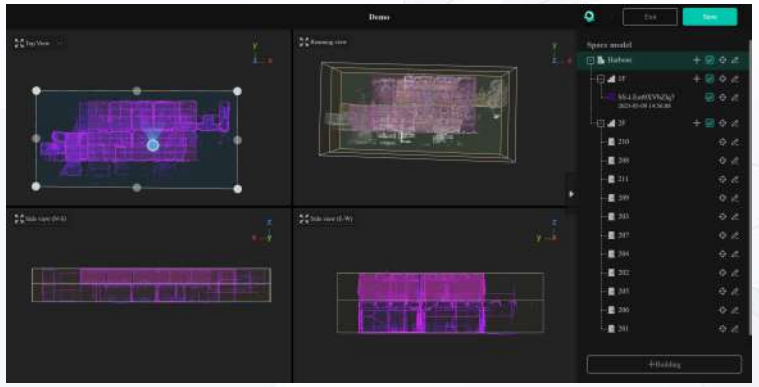
Add a new Building

1. After entering the Space Model page, you can click + Buildings to add a new building, after clicking, the right side of the dataset will show the newly added building.

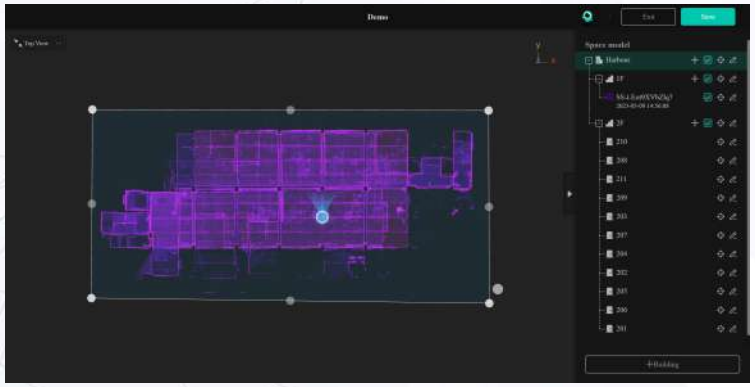


Note: Buildings need to be added to the dataset.

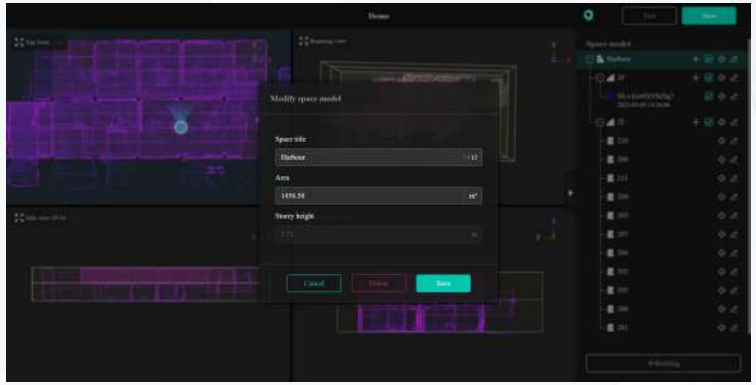
2. Determine the extent of the building in the point cloud by drawing a range box by clicking on the vertices in the top view.



3. For larger or more complex projects, you can zoom in on the top view and then carefully confirm the selected area.



4. After confirming that there is no error, you can click the  Edit button in the right column to modify the specific information of this building.

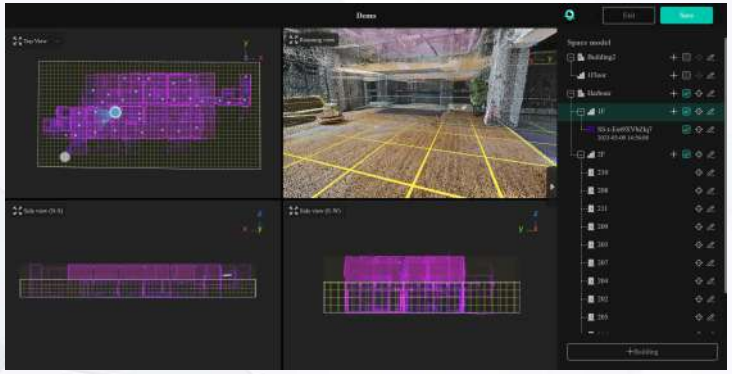


4DKanKan Point Cloud Editor

9.4 Space Model

Add a New Floor

1. The floor must be added under the building, and a floor is created by default when the building is created. Select the default floor in the right sidebar and drag the area box in the **side view** to set the area of the floor.

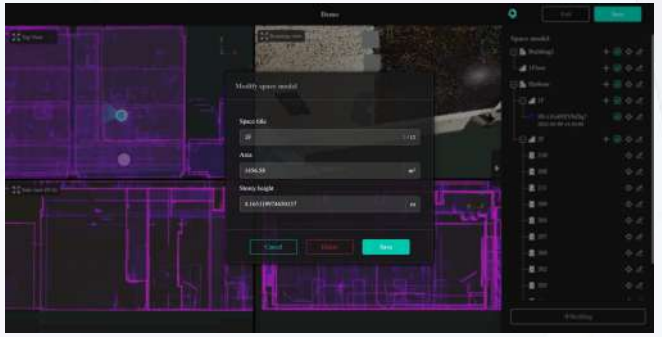


3. For multi-floor projects, you can click the plus sign on the right side of the building to choose to add floors at the top or bottom.

Note: Floors need to be added to the building

2. For larger or more complex projects, you can zoom in on the side view and then carefully confirm the selected area.

4. After adding a floor, you can click the Edit button on the right column to modify the specific information of the floor.

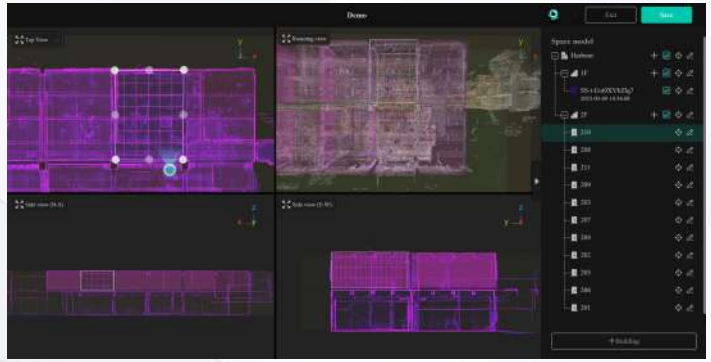


4DKanKan Point Cloud Editor

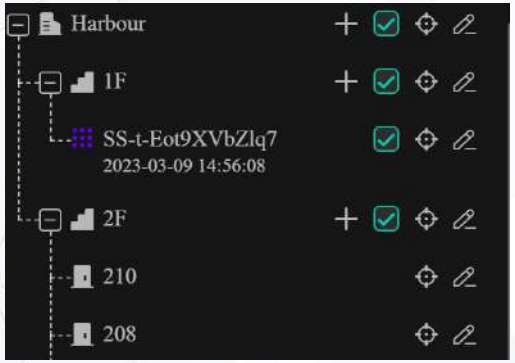
9.4 Space Model

Add a New Room

1. The room must be added under the floor, click on the plus sign to the right of the floor and a room will be created. Then draw an area box in the top view by clicking on the vertices with the mouse to define the area of the room.

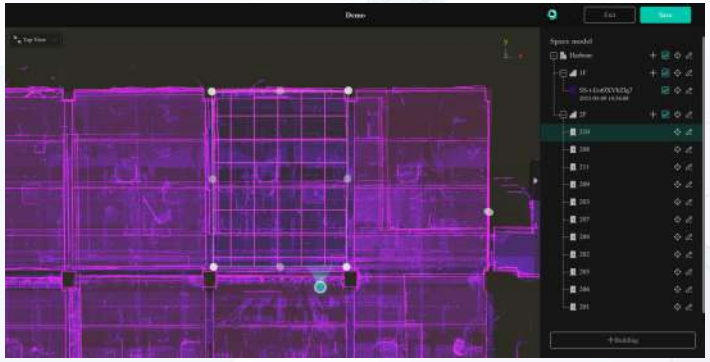


3. If you need to add multiple rooms, click on the right side of the floor to create multiple rooms.

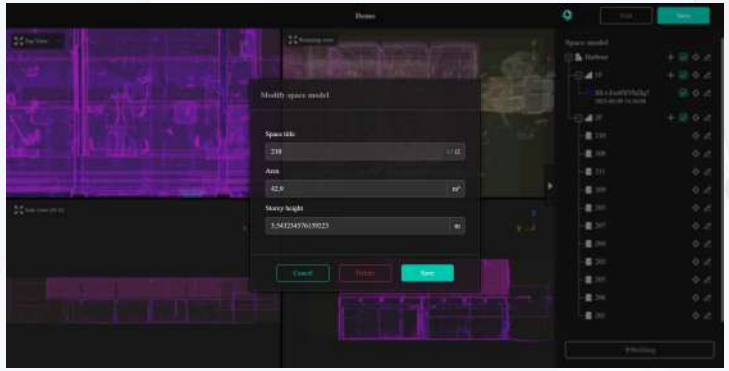


Note: Rooms need to be added to the floor

2. For larger or more complex projects, you can zoom in on the top view and carefully confirm the selected area. You can also check if the area is correct by roaming the view after drawing.



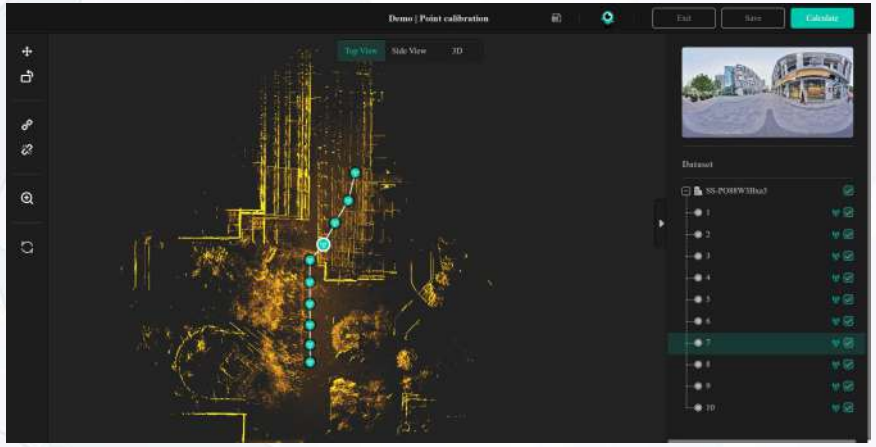
4. After adding a room, you can click the Edit button  in the right column to modify the specific information of the room.



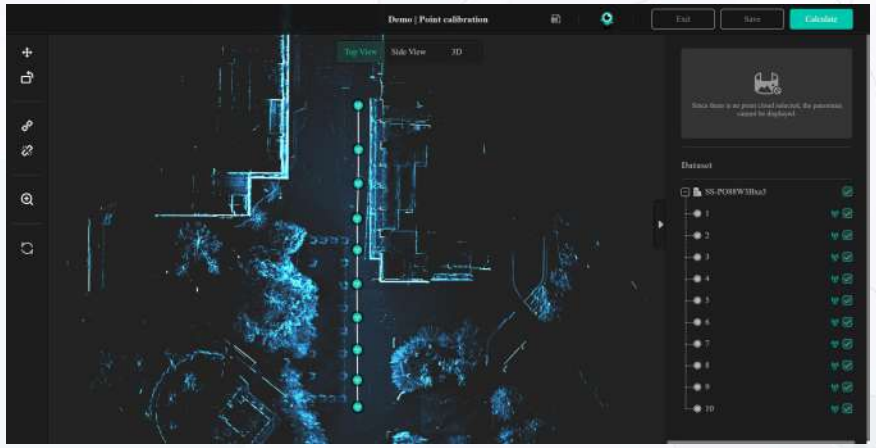
4DKanKan Point Cloud Editor

9.5 Point Calibration

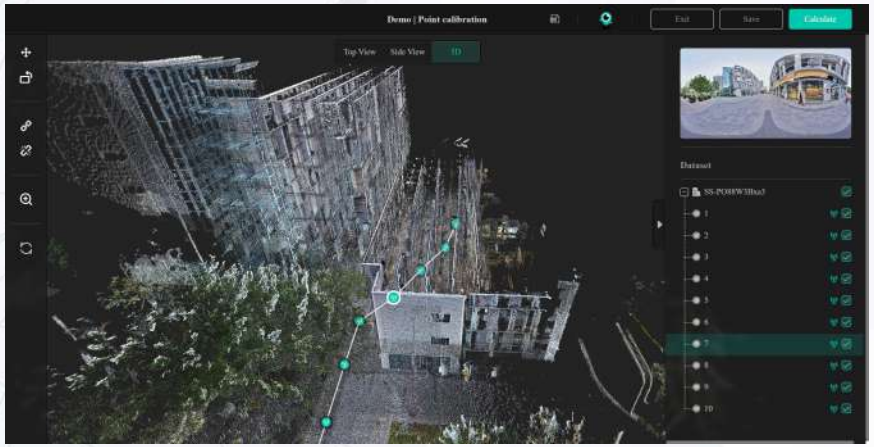
Point Calibration (projects captured in SLAM mode do not support point calibration): This feature allows you to manually calibrate the point cloud. It is often used to calibrate the wrong point position and overlap of the point cloud.

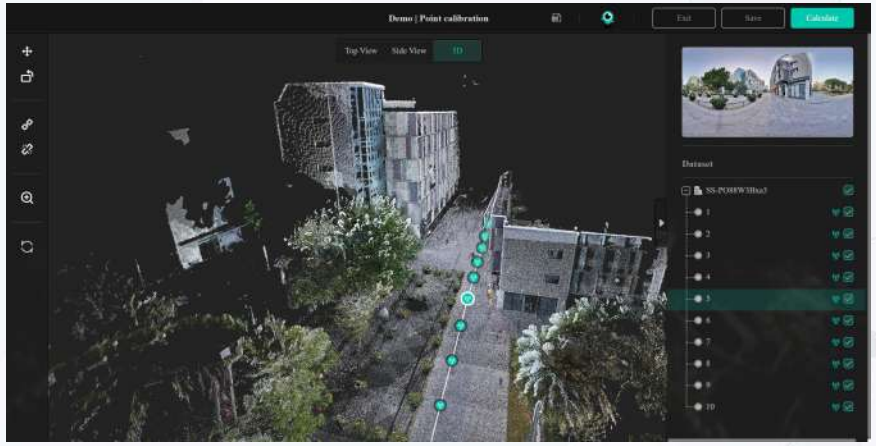


Before Datasets Calibration



After Datasets Calibration





4DKanKan Point Cloud Editor

9.5 Point Calibration

- **Functions Description:**

Move: Used to move points.

Rotate: Used to rotate points.

Connect: Used to connect the disconnected points.

Disconnect: Used to disconnect connected points.

Zoom: to zoom in to the right size

Restore Defaults: Clicking on this will restore the points to the last calculation.

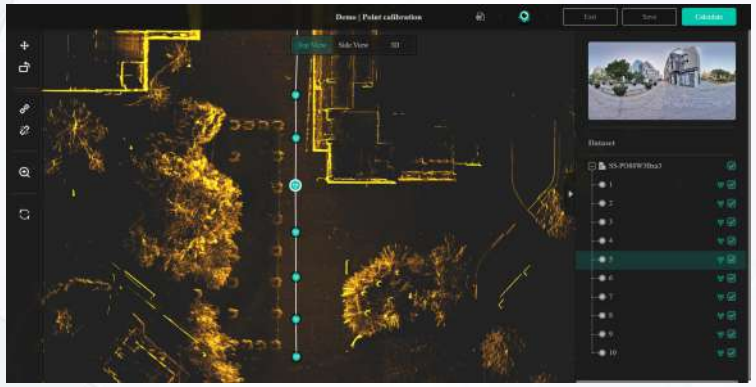
Show/hide dataset display

Points with GNSS data. Points cannot be calibrated unless this is turned off.

4DKanKan Point Cloud Editor

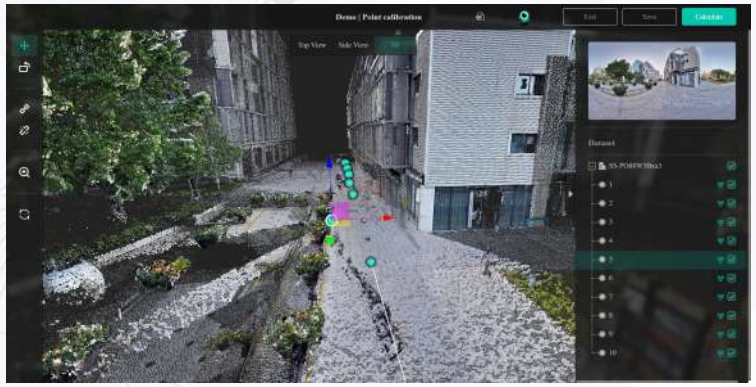
9.5 Point Calibration

1. Go to the Point Calibration page and first determine which point or part of the point needs to be adjusted.

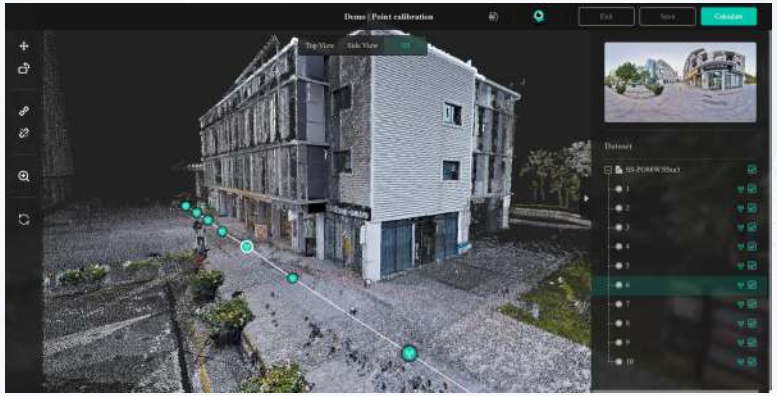


2. Select the Disconnect tool to disconnecr the part to be adjusted from the rest and select the part to be adjusted. The selected part is highlighted in yellow. The panorams of the selected point and the point number are displayed on the right side of the point column.

3. Calibrate the adjustment part by rotating and moving. During calibration, you can change different views to determine the effect of the adjustment.



4. After the adjustment, reconnect the disconnected part with the connecting tool. After switching views to see the effect and confirming that there is no error, you can click the Calculate button in the upper right corner. The scene will be recalculated according to your calibration.

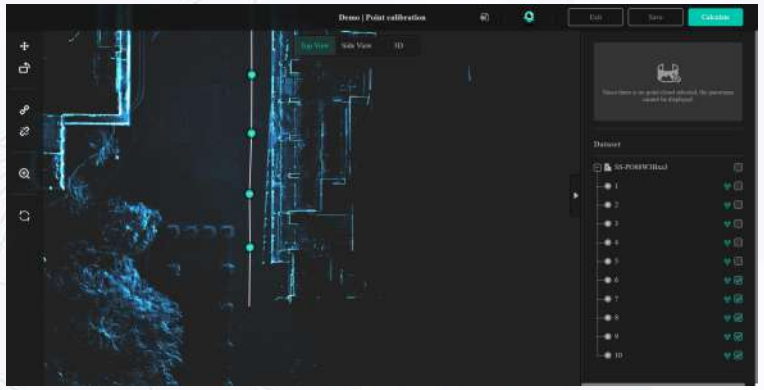


4DKanKan Point Cloud Editor

9.5 Point Calibration

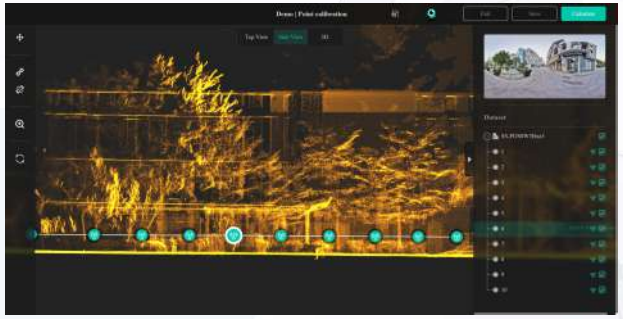
1. You can calibrate only one point individually by disconnecting all the lines of a point. Or, disconnect a part of th project and make an overall adjustment.

3. You can use the Show/Hide button on the right side of the point bar, to the right of the point, to hide some points that will interfere with your calibration. To make calibration easier. (This does not hide the points, only the display during calibration)



Tips

2. For projects with height difference errors. It can also be adjusted by point calibration, the viewpoint is switched to side view, and the height of the points can also be calibrated by disconnecting the connecting line.



4. For points with GNSS data, you need to turn off the GNSS data button before calibrating the point, otherwise the position with GNSS data will still be used to determine the point position after calibration.

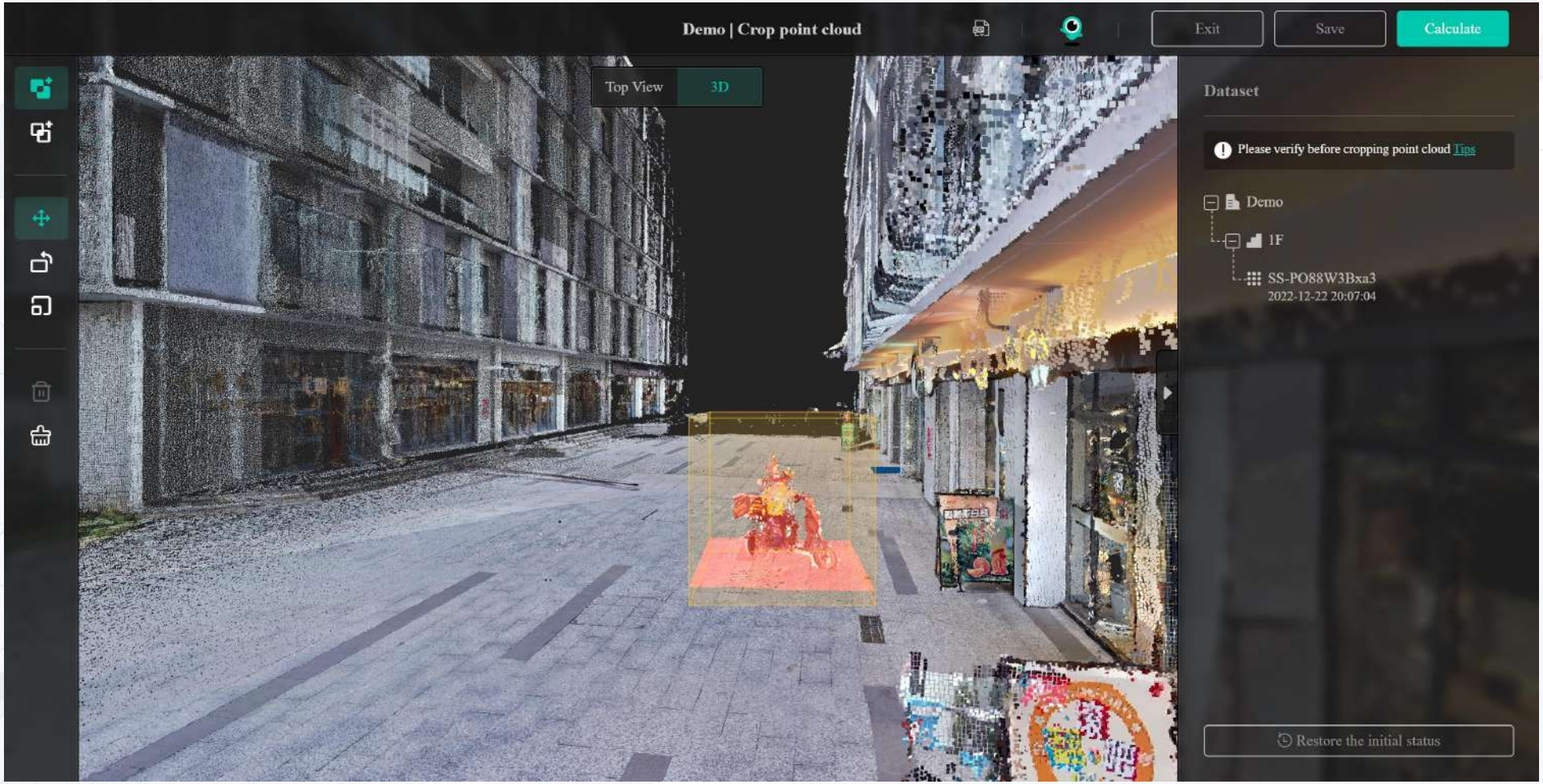
5. For more complex projects, if the point calibration cannot be completed at one time, you can click the upper right corner to save and close, the next time you enter the calibration will keep the saved results to continue calibration.

6. After the adjustment, please switch the viewpoint to confirm that there is no error before submitting the calculation. Because the project and model must be regenerated after calibration, you can't stop the calculation after confirming to calculate, you can only wait until the calculation is finished.

4DKanKan Point Cloud Editor

9.6 Crop Point Cloud

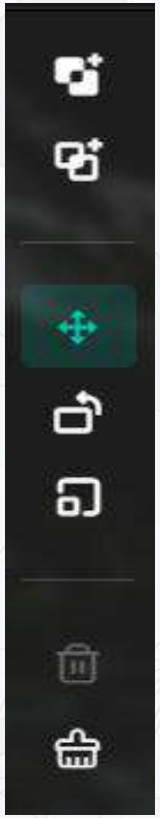
Crop Point Cloud: This function allows you to crop unwanted portions of the point cloud within the project.



4DKanKan Point Cloud Editor

9.6 Crop Point Cloud

- **Functions Description:**



Exclude: Create an "Exclude" cropping box that crops the point cloud inside the box.

Intersect: Create an "Intersect" cropping box that crops the point cloud outside of the box.

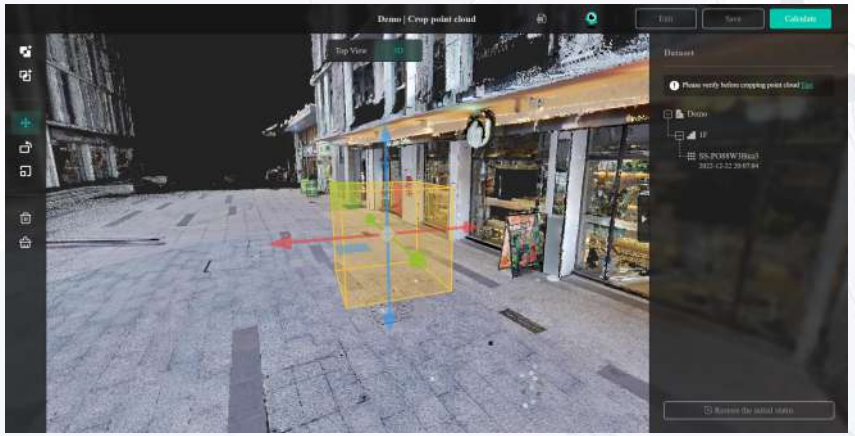
Move: Move the cropping box to change the position of the it.

Rotate: Rotate the cropping box to change the angle of it.

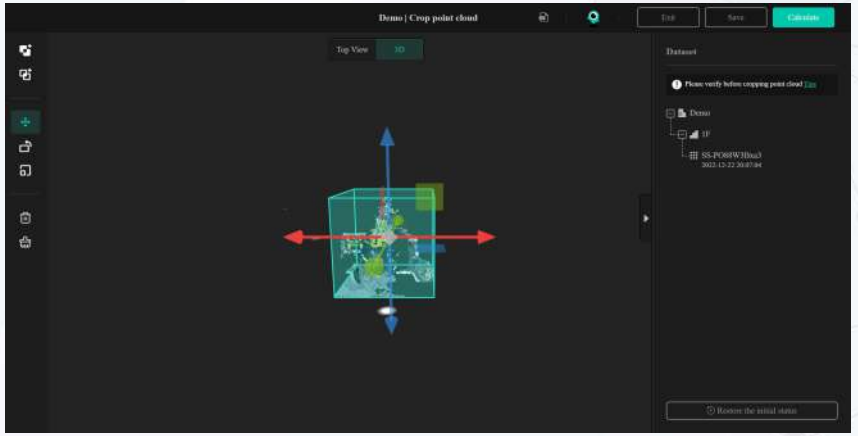
Scale: Scale the cropping box to change the size of it.

Delete: Deletes the specified cropping box

Clear: Clear all cropping boxes



"Exclude" cropping effect

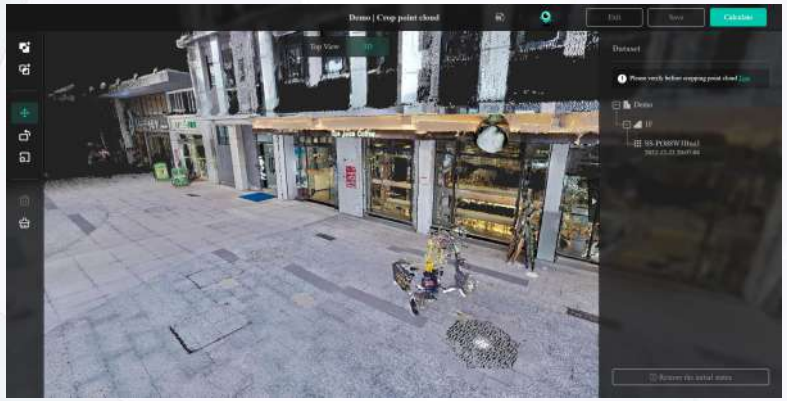


"Intersect" cropping effect

4DKanKan Point Cloud Editor

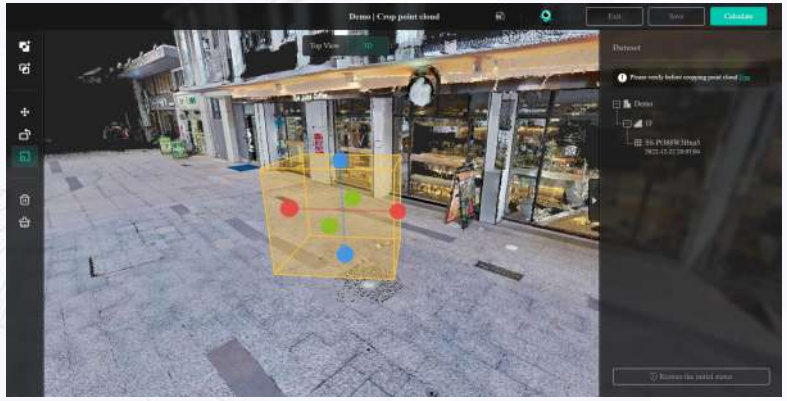
9.6 Crop Point Cloud

1. Enter into the Crop Point Cloud page, first observe the location of the point cloud that needs to be cropped by rotation.



2. Creates a cropping box (Selected here as "Exclude" from the box)

3. Edit the cropping box by moving, rotating and scaling tools to ensure the cropping effect. (Cropping effect can be seen in real time)



4. Multiple cropping boxes can be created to ensure that the parts that need to be cropped have all been cropped. After confirming that there are no errors from multiple angles, click Calculate in the upper right corner for point cloud calculation.

4DKanKan Point Cloud Editor

9.6 Crop Point Cloud

- **Cropping Point Cloud Notes**

1. Before cropping the point cloud, please make sure that the scene does not require any editing, point cloud calibration, or other operations involving calculations, or else the cropping effect will be restored;

2. Points cannot be cropped. If the point cloud around a point is cropped, the point and panorama will be retained;

3. The cropping function can't take effect on panorama and floor plan;

4. The cropping function does not work for obj models.

5. If you find that the point cloud is cropped incorrectly after calculation, you can restore the initial shot point cloud by <Restore Initial State> within the point cropping function, but after restoration, the added hotspots, measurements, space models, cropping effects, and merged/uploaded datasets will be cleared, so please be careful with the operation.

4DKanKan Point Cloud Editor

10.1 Change the Project Name\Set the Initial Screen

Change the name:

You can change the name of the project as shown in the red box in the image above. After changing the name, click Save in the upper right corner to save it. A maximum of 15 characters is supported.

Set initial screen:

You can set the initial screen of the project as shown in the yellow box in the image above. After clicking Settings, you will be directed to the Roaming/Point Cloud page, you can set the initial screen by clicking Set the Initial Screen after roaming to a suitable point and adjusting to a suitable angle. After setting, click Save in the upper right corner to save.

4DKanKan Point Cloud Editor

10.2 Viewable Settings

Visibility Settings (Functions):

In the right setting column, click "Open Settings" of Visibility Settings, at this time, "Dataset", "Hotspots", "Measurement", "Coordinate" in the left menu column, the upper right corner of the green eye icon is displayed, click the icon to turn off/on the corresponding function of the menu bar. After you close it, others who view this project will not be able to use the corresponding menu functions. Click Save in the upper right corner to save the changes.

Browse Settings (Project):

You can set whether the project is public or not, as shown in the yellow box above. If you choose to encrypt and set a password, other people will have to enter the correct password to access this project. Click Save in the upper right corner to save the settings.

4DKanKan Mesh Editor | Overview

1. Scene Info
1.1 Scene Name & Profile
1.2 Share Card Editor
1.3 Other Settings

2. Basic Settings
2.1 Starting Image
2.2 Visualization Settings
2.3 Other Settings

3. Scene Optimizer
3.1 Mosaics
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4. Add Hotspots
4.1 Multimedia Tag
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4.9 Multimedia Tags Visible
4.10 Modify Hotspots

5. Tour Planner
5.1 Tour Planner Effects
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5.4 Setup Clip
5.5 Subtitle
5.6 Tour Recording

6. Route Planner
6.1 Hide Points

7. Floor Plan
7.1 Drawing Floor Plan
7.2 Set the Compass
7.3 Import Floor Plan
7.4 Add Furniture
7.5 Labeling

8. Interior Design
8.1 Video
8.2 Poster
8.3 3D Model

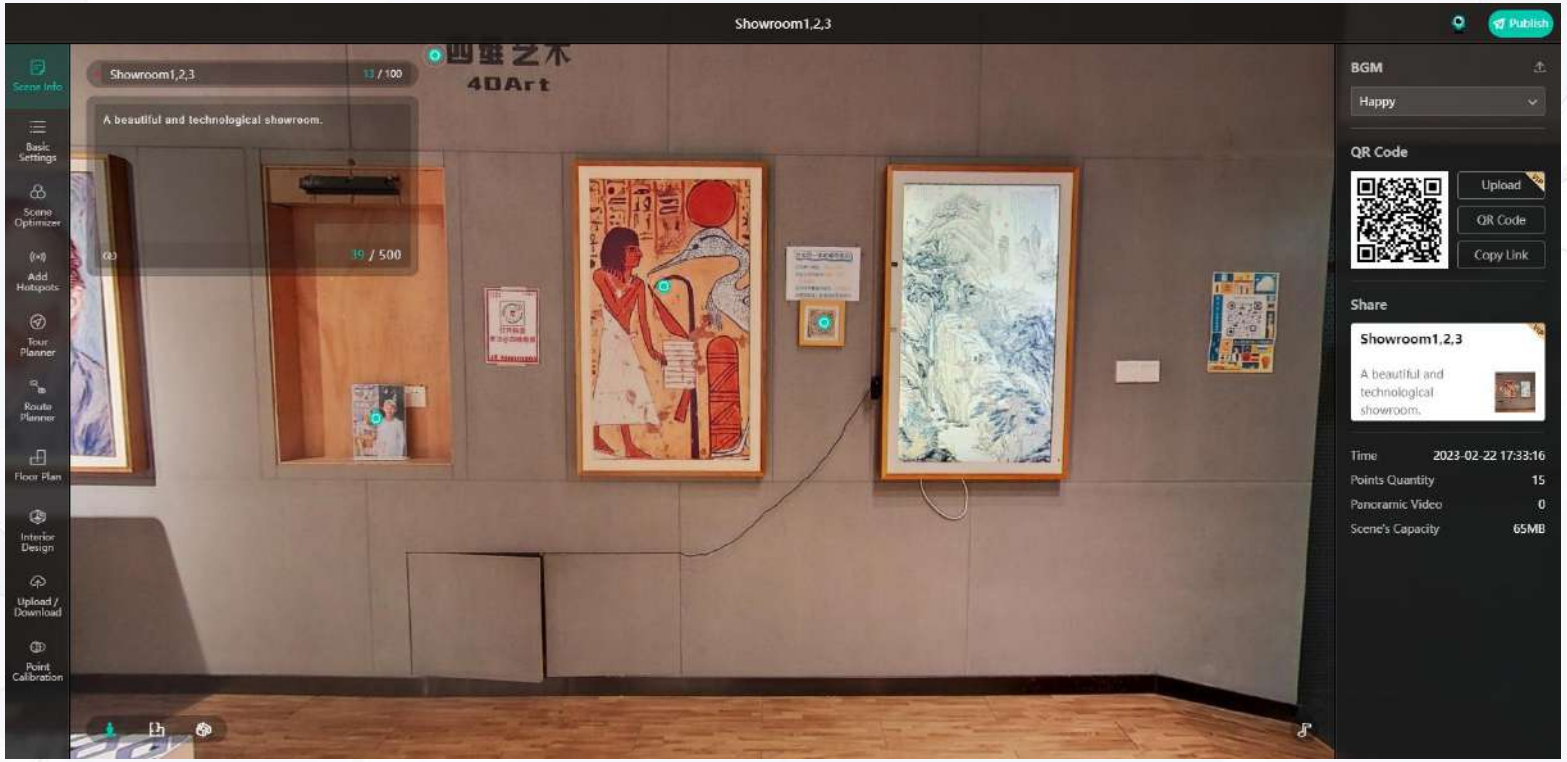
9. Upload / Download
9.1 Screenshot
9.2 Panoramas
9.3 3D Models & Videos

10. Crop Mesh

11. Point Calibration

4DKanKan Mesh Editor

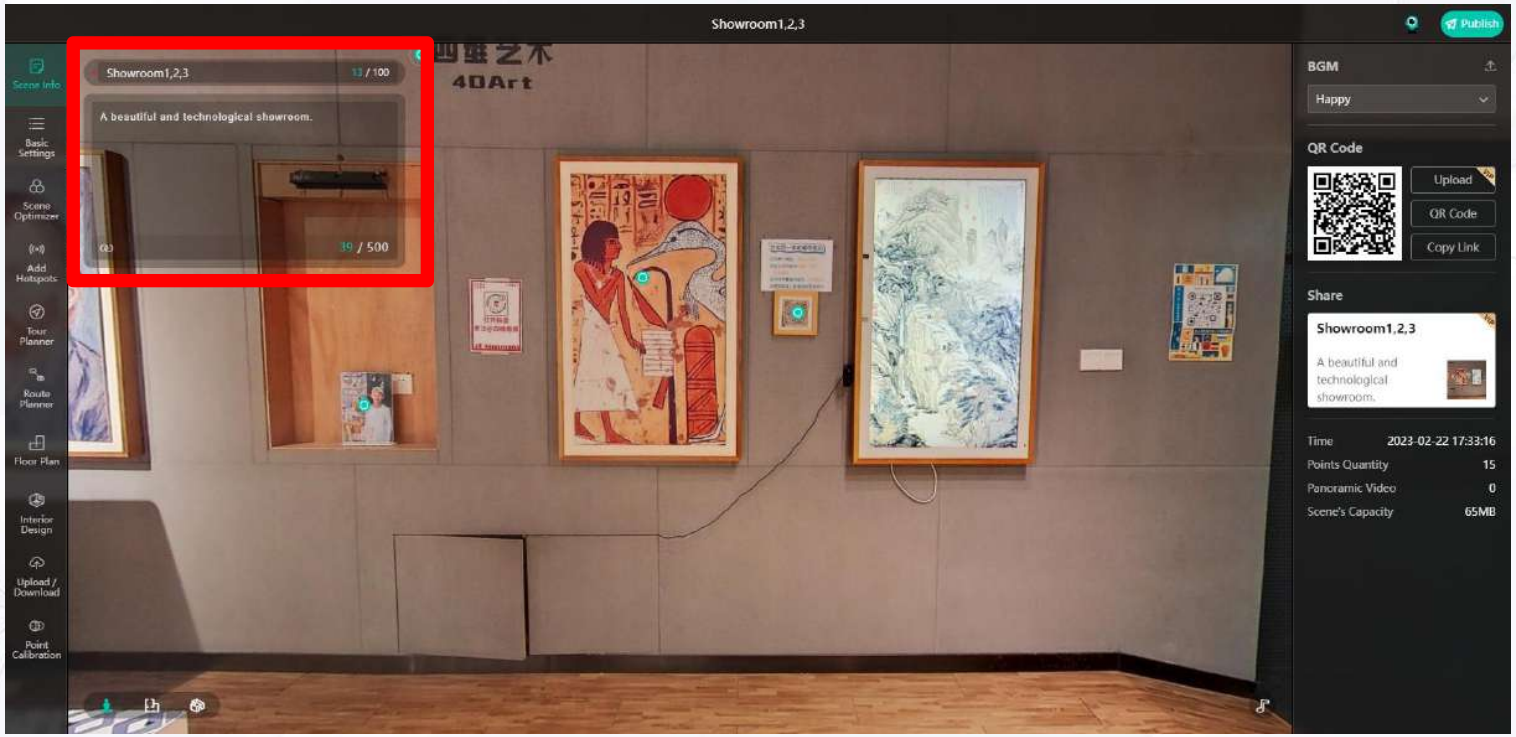
1. Scene Info



- **The Scene Information menu contains the following functions:**
  - Modify scene name and introduction
  - Setting scene background music
  - Modify and download the QR code of the scene
  - Scene address link copying
  - Scene Share Card NEW
  - Editing the scene's basic information

4DKanKan Mesh Editor

1.1 Scene Name & Profile



- **Modify scene name and profile**

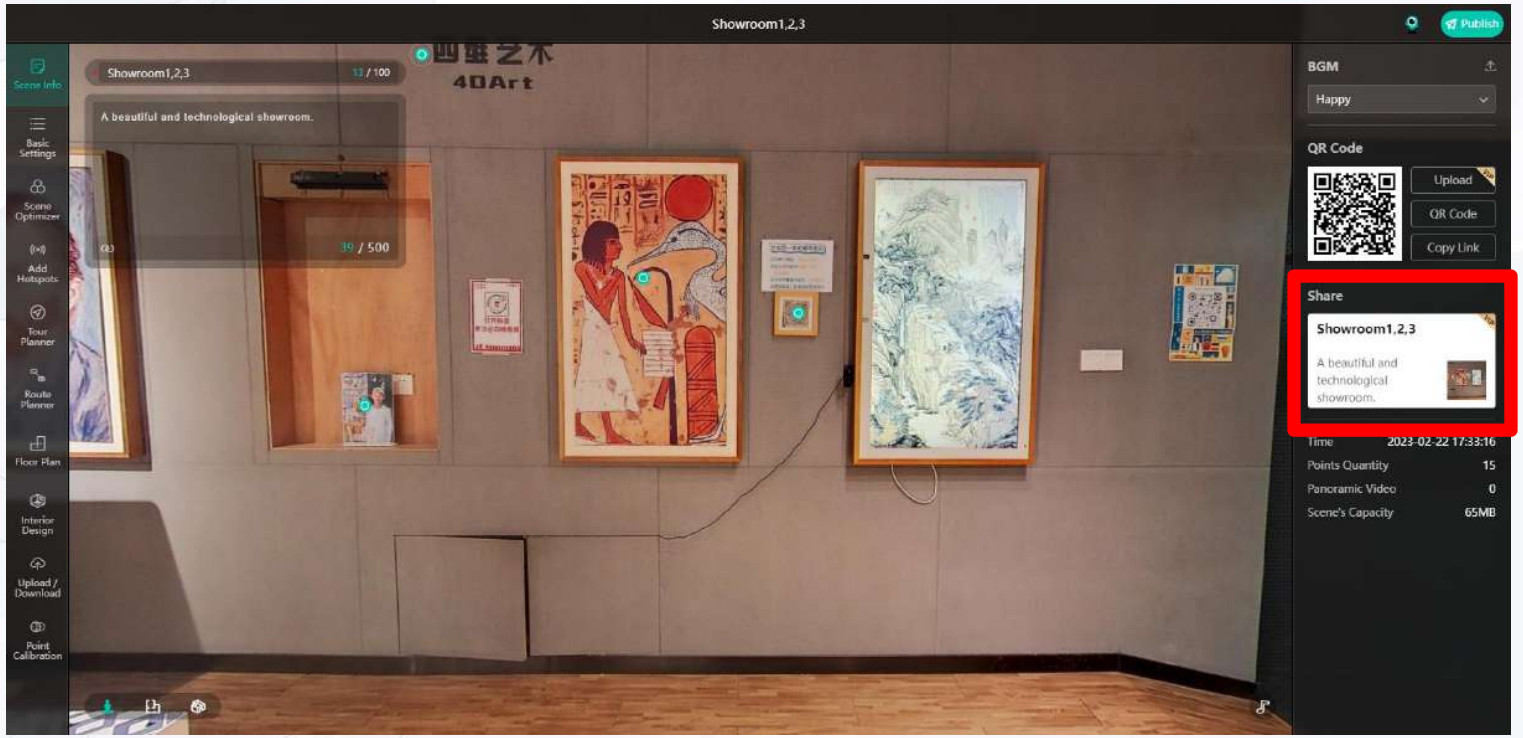
The red boxed area above allows you to modify the name of the scene and the scene profile.

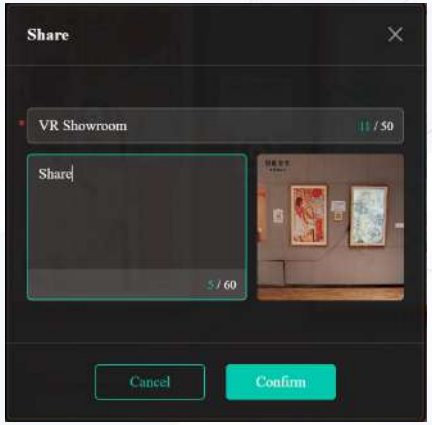
The bottom left button in the profile box generates a link to add to the profile. Viewers can click to jump.

A new limit of 50 characters has been added for scene names, and a new limit of 500 characters has been added for profiles.

4DKanKan Mesh Editor

1.2 Share Card Editor





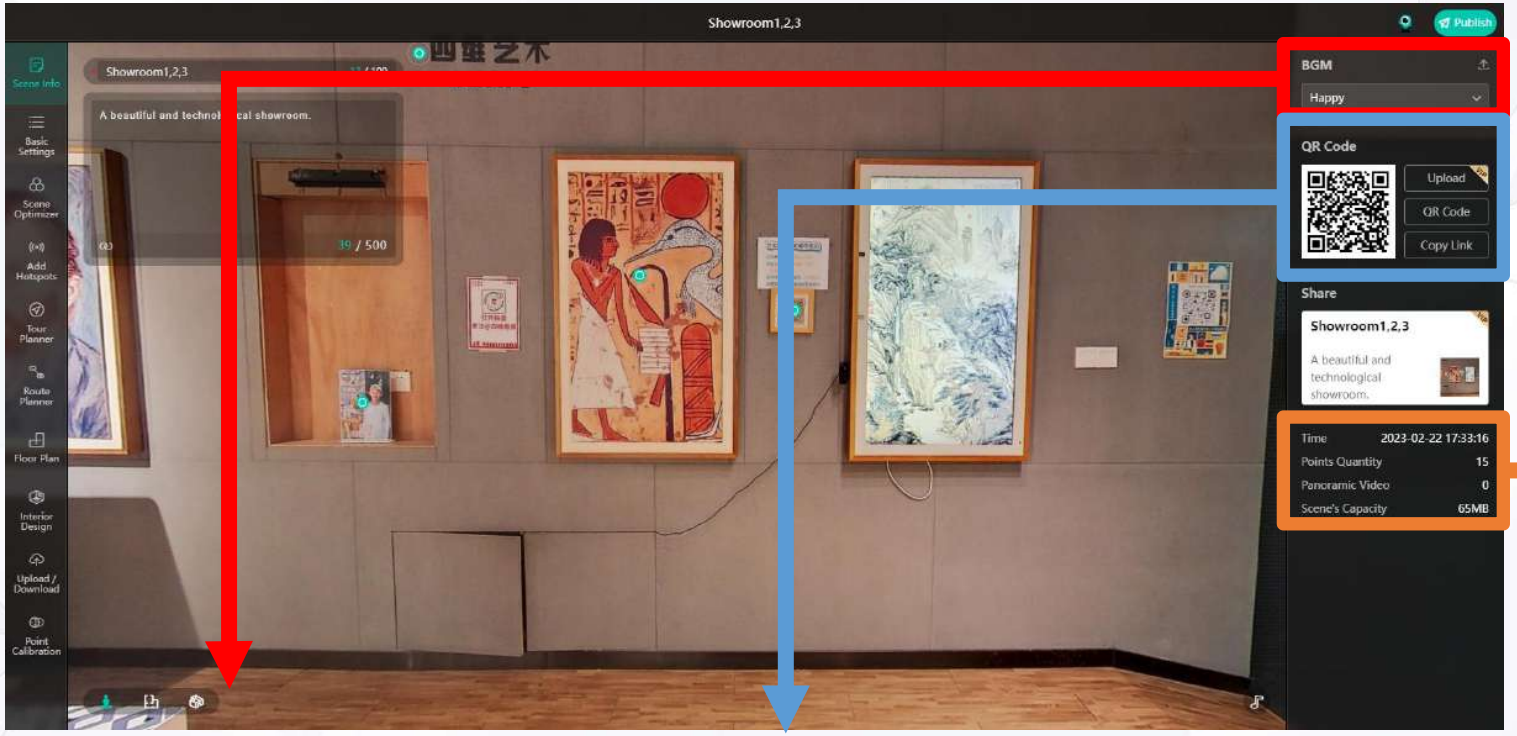
- **Share Card Editor**

The red-boxed area in the above image can modify the content of the WeChat sharing card for this scenario, including the sharing title, sharing profile and sharing thumbnail.

After placing the mouse in the red box, select Edit to enter the editing page. The editing page contains the title, introduction and thumbnail. When you are done, click OK to save. When you share the card link via WeChat, it will be displayed according to your settings.

4DKanKan Mesh Editor

1.3 Other Settings



- **Setting up scene background music**

The above red box area can be the background music of the scene device, we have preset music, you can also click on the red box in the upper right corner of the upload button to upload customized music. Note: Only mp3/wav files within 5MB are supported.

- **Scene QR code modification, scene address copying**

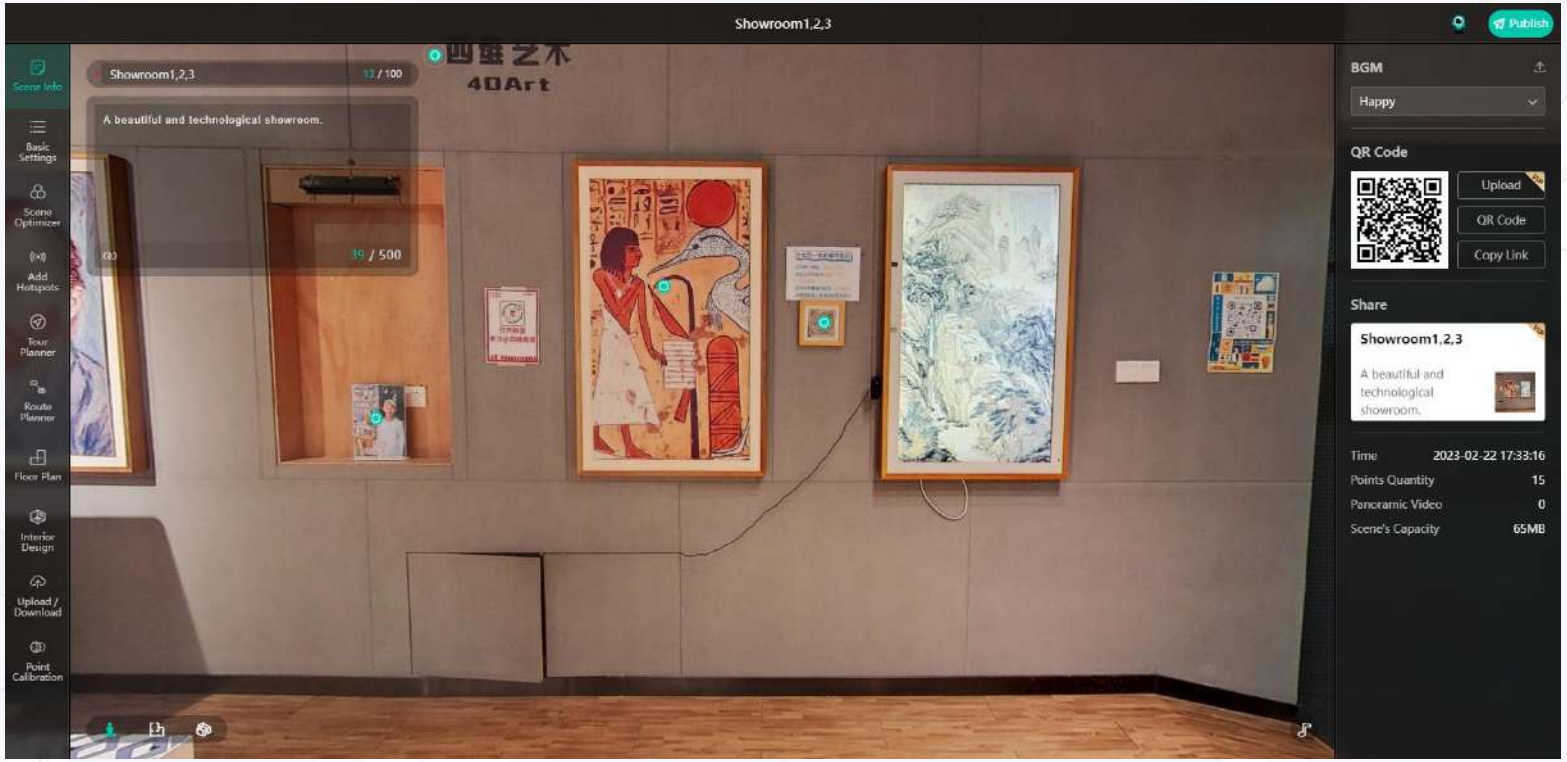
You can share this scene with others by downloading the QR code and copying the link in the blue box above.
Membership users can upload a customized logo to the middle area of the QR code via the "Upload Logo" button.

- **Basic information about the scene**

The orange boxed area above can be seen for this scene:
Upload time
points and dome videos the scene in total
cloud capacity the scene occupies

4DKanKan Mesh Editor

2. Basic Settings



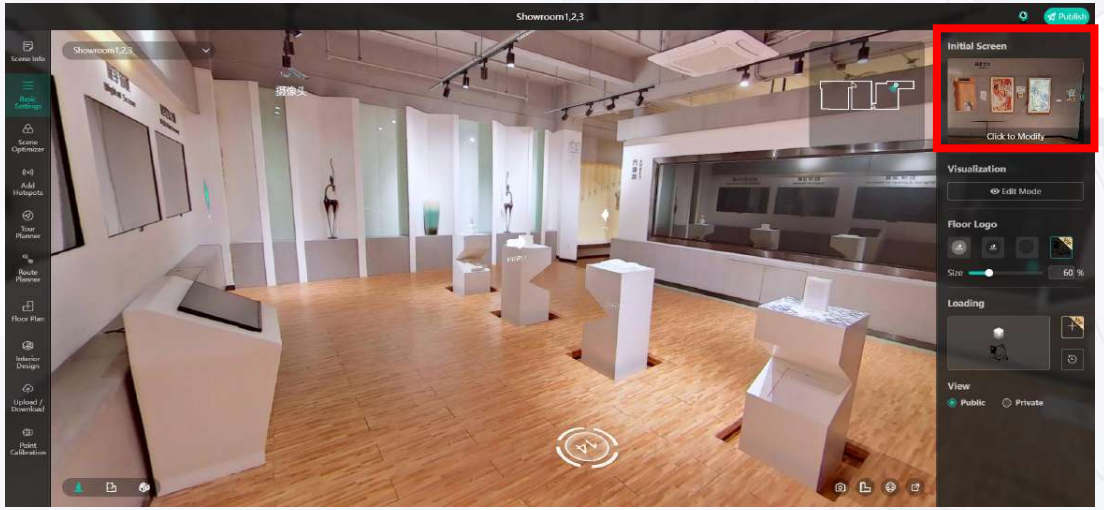
- **The Basic Settings menu contains the following functions:**
  - Setting the starting image
  - Function buttons for browsing page
  - Setting the parameters of the ground logo
  - Setting the logo for loading pages
  - Set or change the scene password

4DKanKan Mesh Editor

2.1 Starting Image

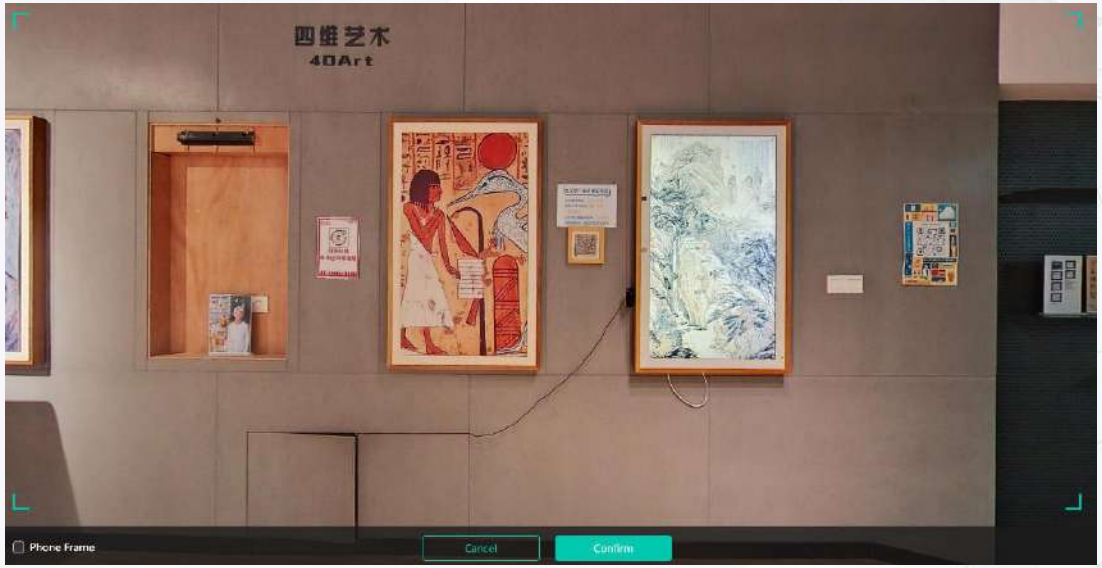
- **Starting image setting**

Starting image in the operation bar (shown in the red box on the left), select and click setup to enter the setup page.



- **Image setting**

You can roam to any point and any angle, and choose a suitable image as the starting image. Check "Show phone screen" in the lower left corner to display the initial screen setting box of the mobile device. Click OK to set up successfully.

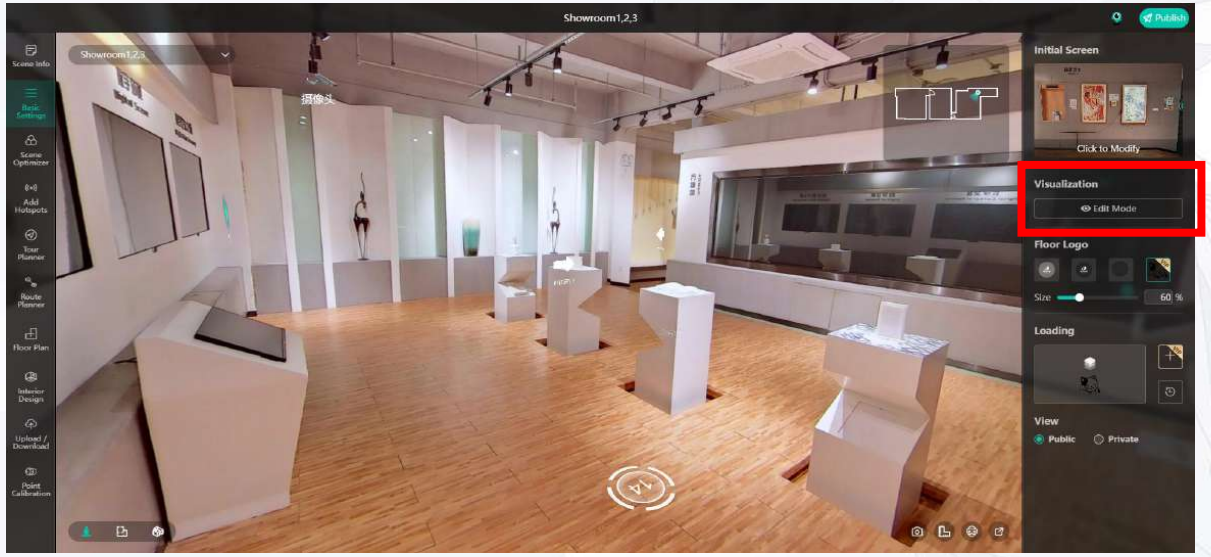


4DKanKan Mesh Editor

2.2 Visualization Settings

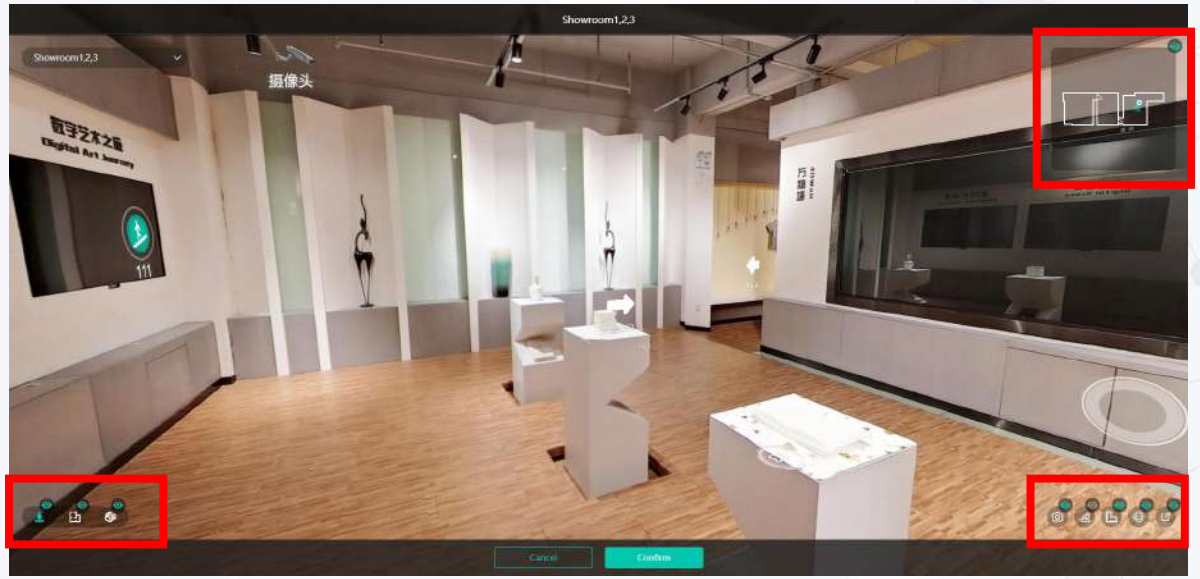
- **Setting the function buttons of the browse page**

"Visualization Settings" in the red box as shown in the left picture, and select to enter the editing mode.



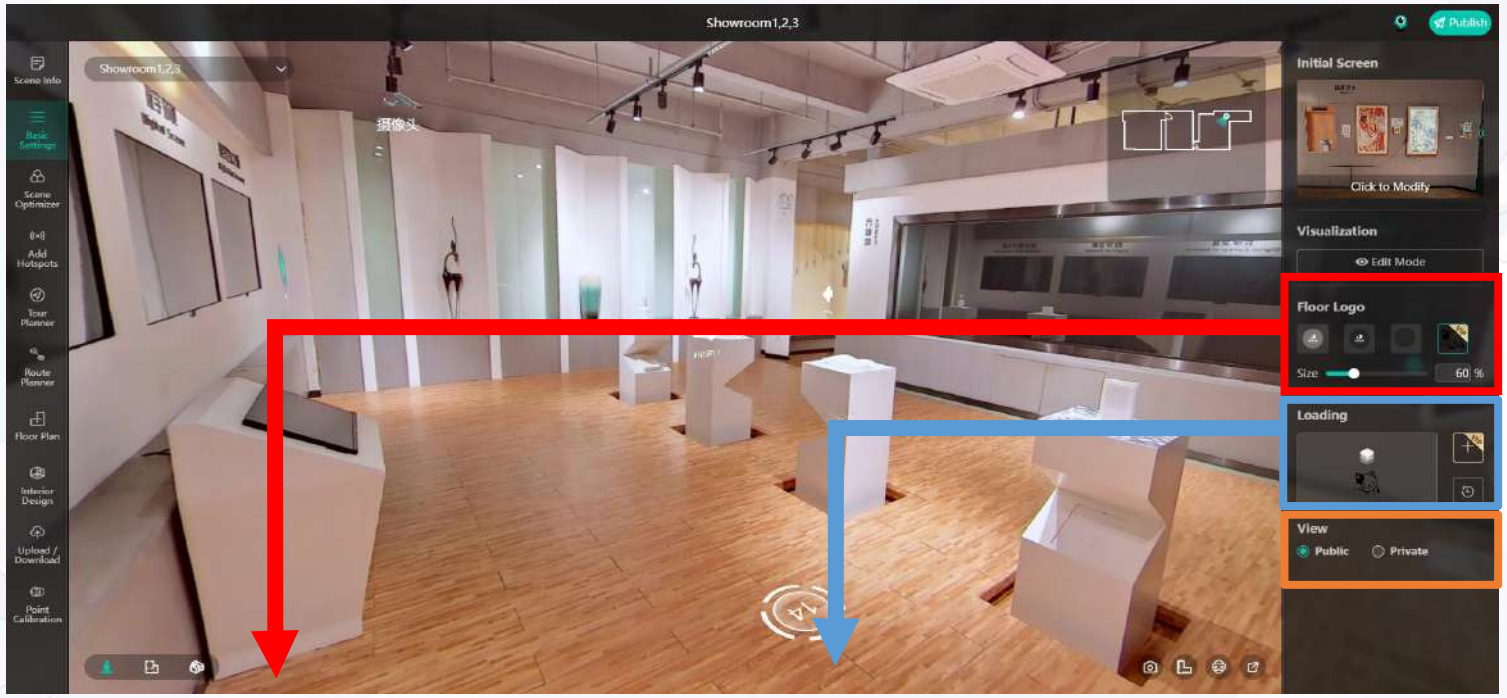
- **Visualization Settings - Edit Mode**

Once in edit mode, you can turn these buttons on/off by clicking on the little green eyes in the upper right corner of the buttons in the red box on the picture. When turned off, the buttons will be hidden when browsing the scene and you will not be able to access the corresponding function page.



4DKanKan Mesh Editor

2.3 Other Settings



- **Setting the parameters of the LOGO**

You can set the parameters of the ground logo as shown in the red box. The system has preset three ground logos to use, you can adjust the size of the logo to achieve a better browsing effect. Membership users can upload customized ground logos.

- **Setting the logo of the loading page**

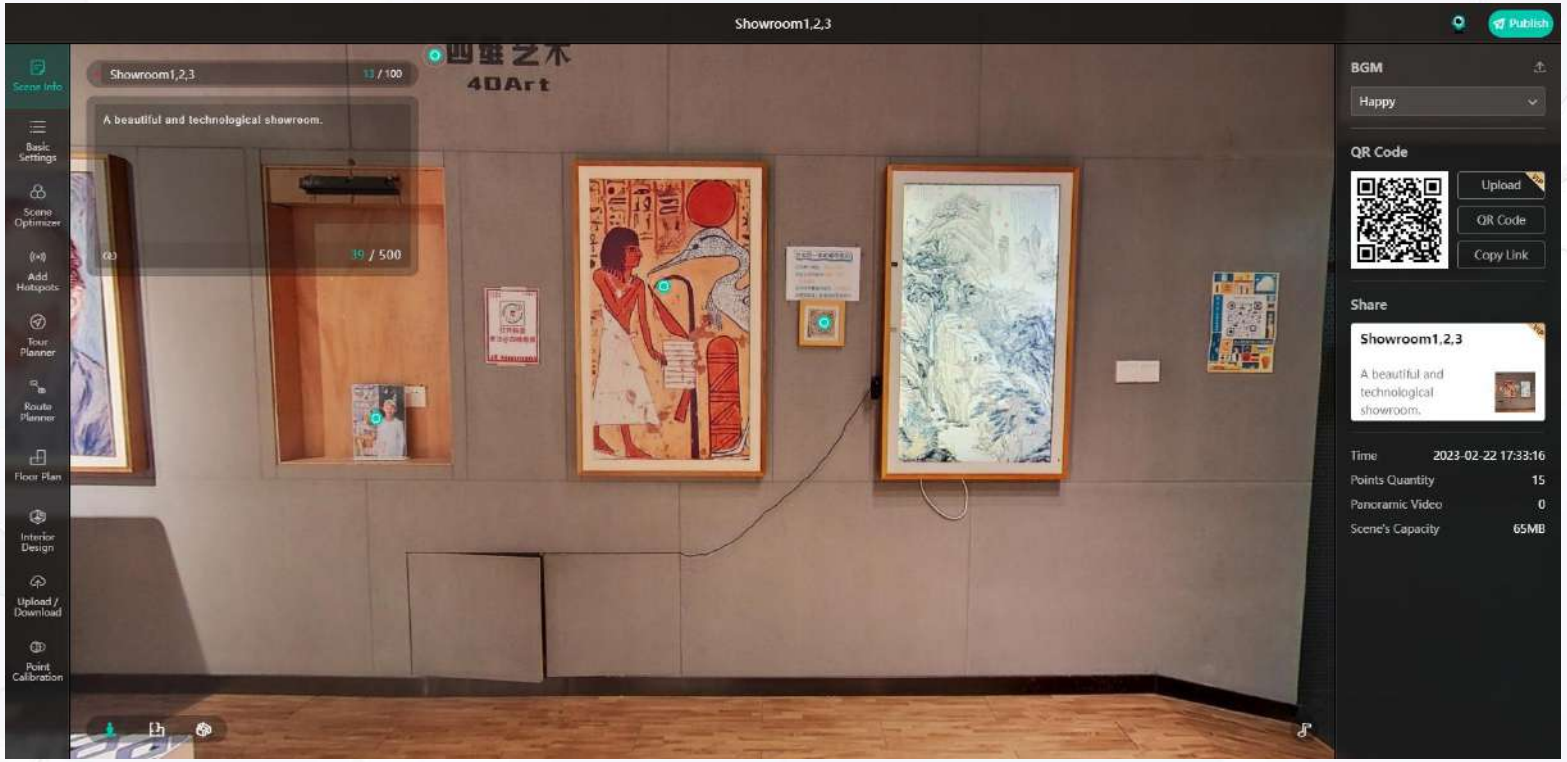
Membership benefits users can upload customized image to change the logo. By default, it shows 4DKanKan Pro's default logo.

- **Setting or changing the scene password**

It can be used to add a browsing password to your scene. When choosing Public, the viewer will have direct access to this scene; when choosing Encrypted, a four-digit password will be required. Only letters and numbers are supported.

4DKanKan Mesh Editor

3. Scene Optimizer



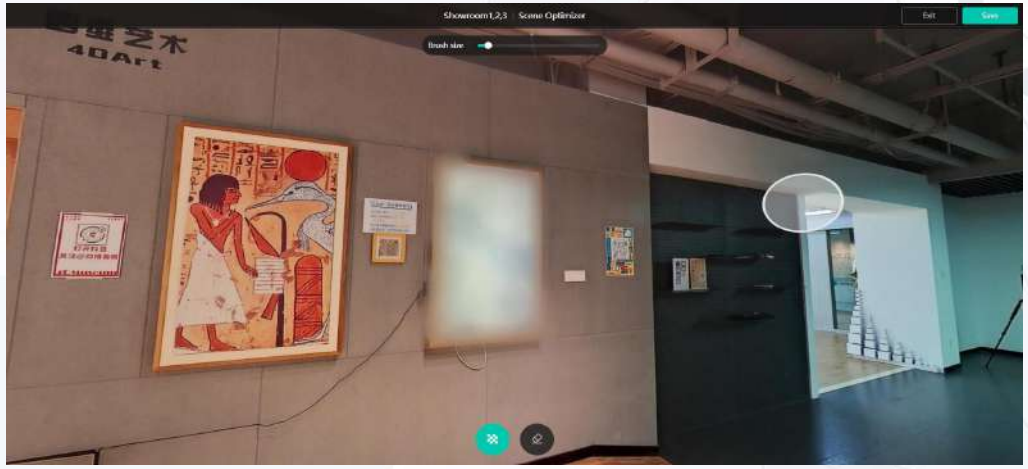
- **The Scene Optimizer menu contains the following functions:**
  - Adding and removing mosaics in panoramas NEW
  - Adjustment of brightness, contrast, color temperature, and saturation of panoramas NEW

4DKanKan Mesh Editor

3.1 Mosaics

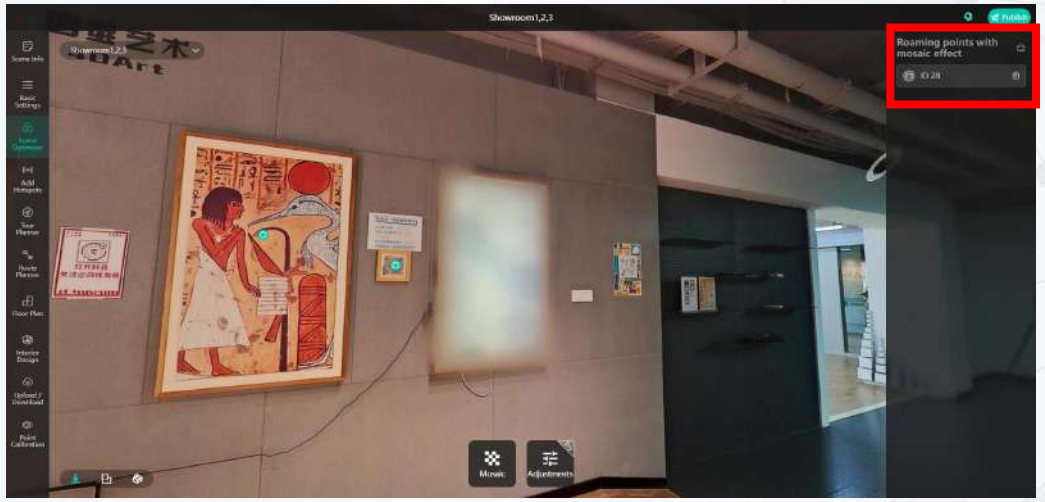
- **Adding mosaics in panorama**

Roam to the point where you need to add a mosaic and then select the Mosaic button, you can add a mosaic to the panorama.
The upper bar can modify the brush size,
the lower left button is the mosaic pen tool,
the lower right button is the mosaic eraser tool,
after adding, click the upper right corner to save to take effect.



- **Removing mosaics in panorama**

You can click on the "Mosaiced Roaming Points" on the right side (the red box on the right) to quickly reach the point where the mosaic has been added. You can remove a single mosaic by clicking the Delete button to the right of the corresponding panorama point. You can also delete all the mosaics in the scene by using the delete button on the right side of the "Mosaiced Roaming Points".



4DKanKan Mesh Editor

3.2 Color Adjustment

- **Adjustment of brightness, contrast, color temperature, and saturation of panoramas**

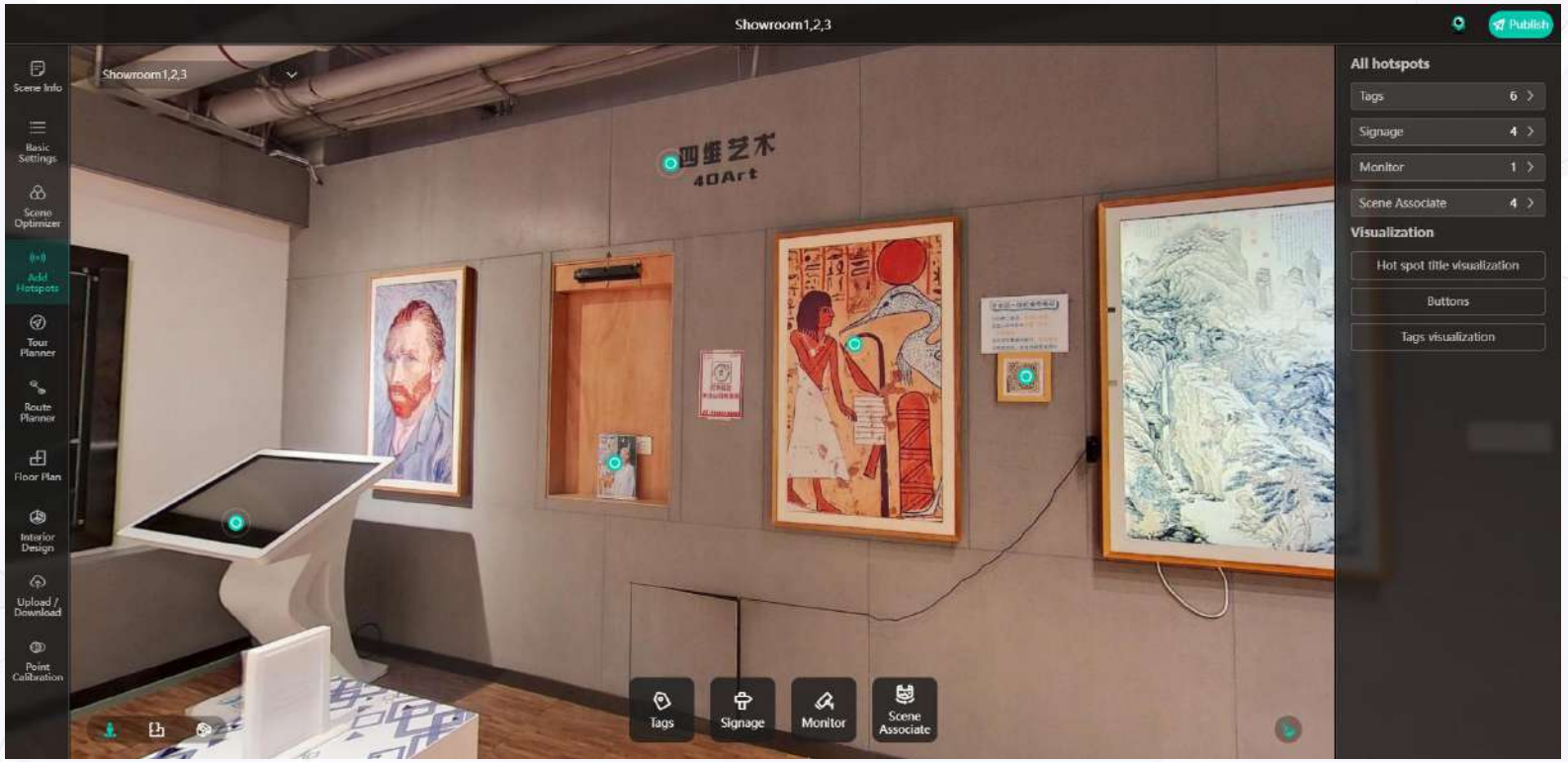
Roam to the point where you need to adjust the color and select the Adjust button, you can adjust the color of the panorama at that point. The color factors that can be adjusted are Brightness, Contrast, Color Temperature and Saturation; after adding them, click Save in the upper right corner to take effect.

- **Apply to all and restore to default**

By selecting Apply to All, the color adjustments above will be applied to all panoramas in the scene. Selecting Restore Default will restore all panoramas in the scene to their original color settings.

4DKanKan Mesh Editor

4. Add Hotspots

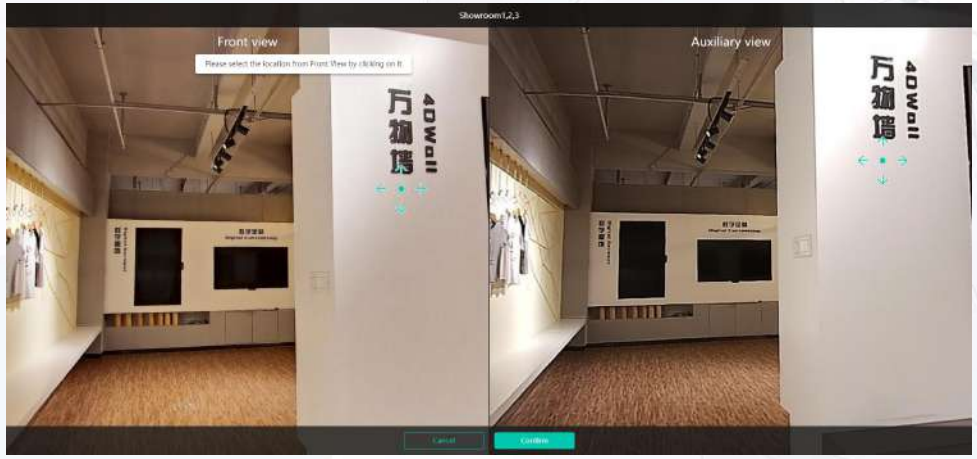


- **The Add Hotspot Menu contains the following functions:**
  - Add Multimedia Tagging Hotspot
  - Add Signage NEW
  - Add Video Monitoring NEW
  - Add scene association
  - Visible Settings NEW
  - Edit hotspot content, modify hotspot location, delete hotspot

4DKanKan Mesh Editor

4.1 Multimedia Tag

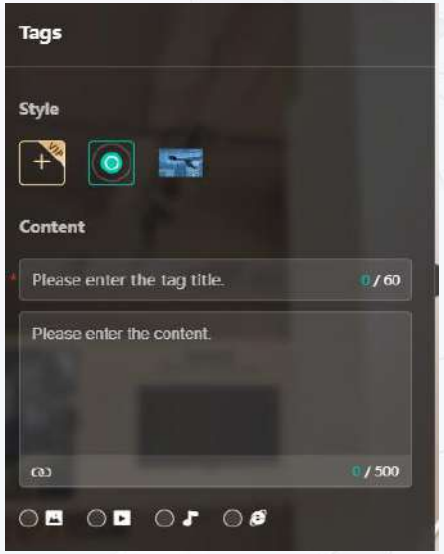
Add multimedia tagging hotspot



You can add multimedia tag hotspots to your scene. Select "Add Hotspot - Multimedia Tag" and enter Add Position view. (As shown in the left figure) Click the position of the hotspot you need to add in the main view with the mouse, and click Confirm to enter the hotspot editing page after correcting the position in the auxiliary view.

The auxiliary view can be used to correct the depth of the hotspot in the scene. If you find that the hotspot position is shifted too much at different points after adding the hotspot, you can adjust the auxiliary view to correct the depth of the hotspot in the scene.

Multimedia tag hotspot editing page



When you have determined the position where the hotspot will be added, you will enter the hotspot editing page. You can modify the display icon of the hotspot (Membership users can upload customized icon)

Input the title of the hotspot (required) and the text content (not required).

The four options below are picture, video, audio and URL.

You can select the corresponding content and upload the hotspot content. When you are done editing, click Save in the upper right corner.

Images should be in jpg/png format, no single one should be larger than 5MB, and you can upload up to 9 images.

Video upload should be in mp4/mov format, not larger than 20MB.

Audio upload should be in mp3/wav format, not larger than 5MB.

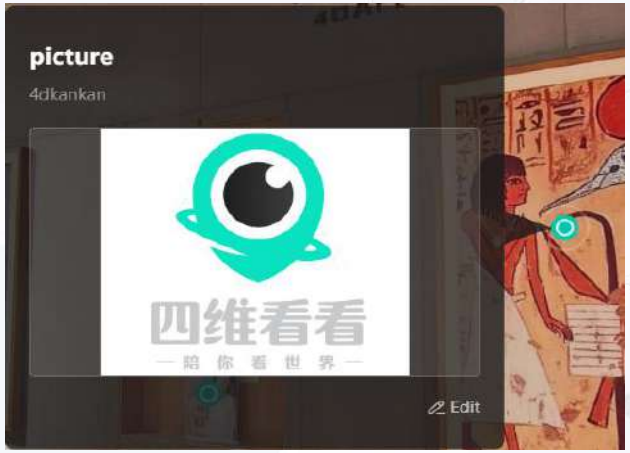
After entering the URL on the webpage, you need to click the verification button next to the URL input box to verify it.

4DKanKan Mesh Editor

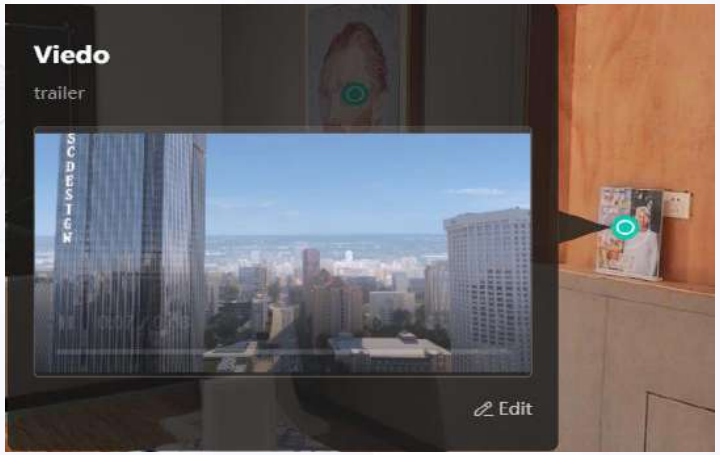
4.1 Multimedia Tag

- **Text & Audio**

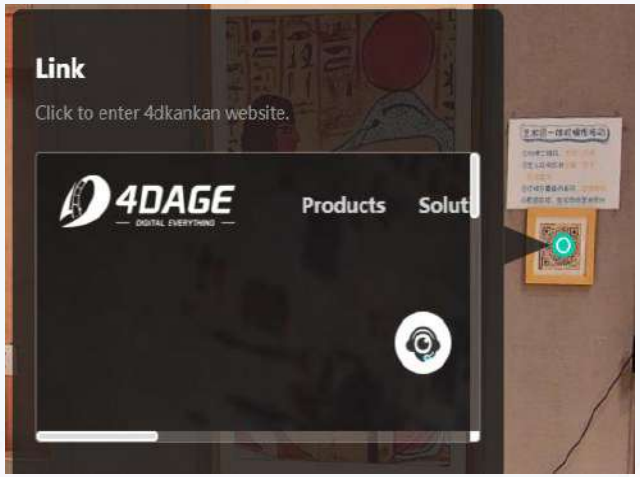
- **Image**



- **Video**

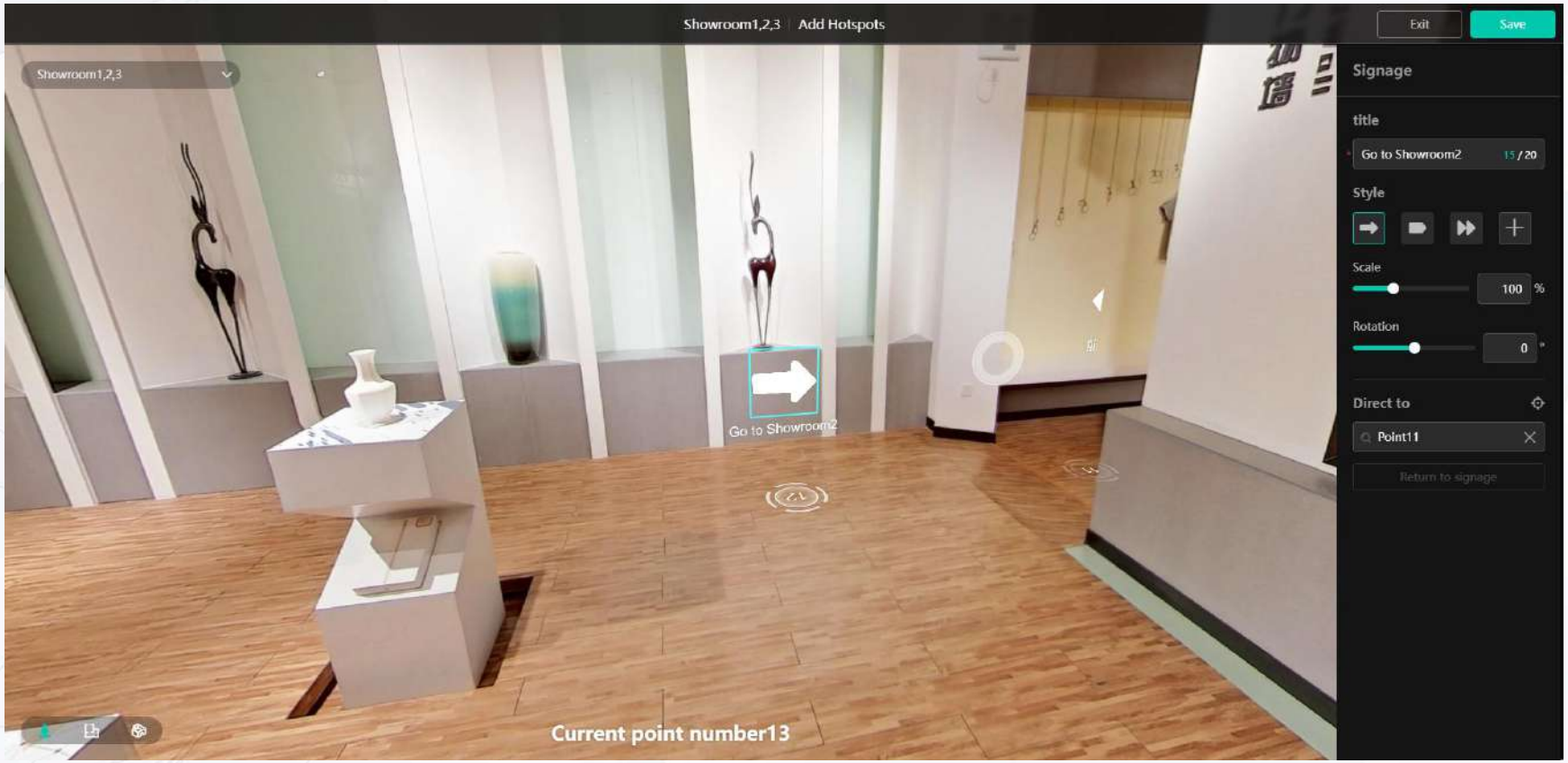


- **URL**



4DKanKan Mesh Editor

4.2 Signage



- **Add signage**

Signage can be added to the scene as a guide.

- **Signage Edit Page**

Selecting the signage and identifying the position on the image will take you to the signage editing page.

- **Edit page description**

Title: Enter the title of this signage.

Style: select the style of this signage, there are 3 preset styles, support customized upload.

Zoom: Zoom the size of the signage.

Rotate: rotate the signage, support -180° to +180°.

Point Jump: Click on the signage will jump to the selected point, when you enter the editing page, the point serial number will be displayed, you can select the corresponding point jump according to the point serial number.

4DKanKan Mesh Editor

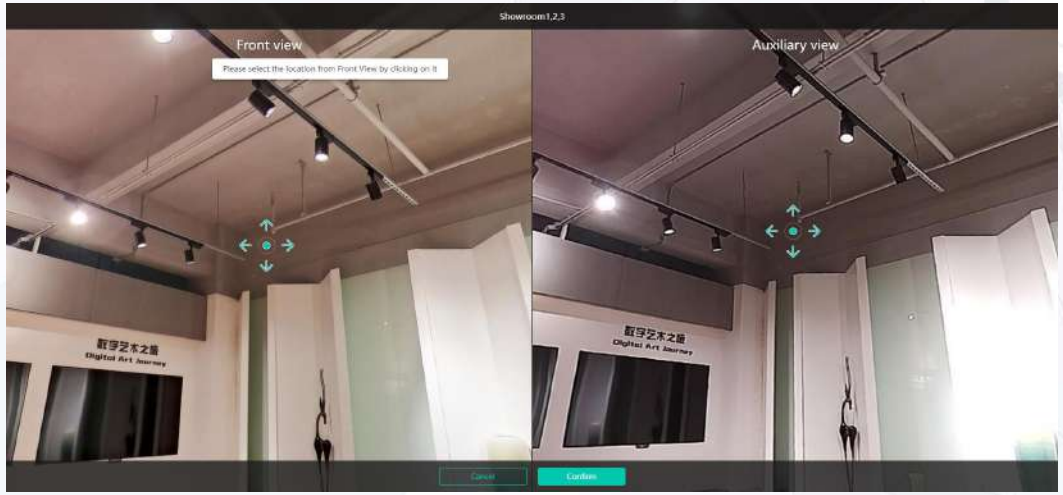
4.3 Video Monitor

Add Video Monitor

You can add video monitoring to your scene

Select "Add Hotspot--Video Monitor" to enter the Add Position view. (As shown on the left)

Click the position where you want to add video surveillance in the main view with your mouse, and then click "Confirm" in the auxiliary view to modify the position, and then enter the monitoring setting page.



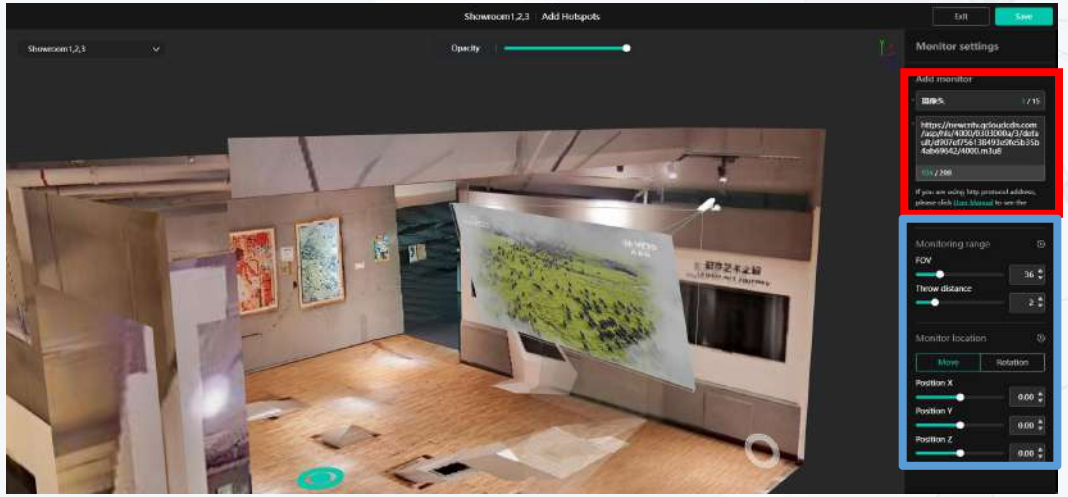
Setting up the monitor

Once the position where the video surveillance will be added has been determined, you will be taken to the Setup Monitor page. In the red box on the right side, you need to enter the name of the monitor and the address of the monitor.

In the blue box on the right side, you can adjust the FOV (visual range), projection distance and the position of the monitor. Click Save in the upper right corner after setting, then it will be added successfully. The monitoring address should be a valid monitoring address. Currently only m3u8 streams are supported. Video monitoring only supports offline package/local deployment.

How to add video monitoring? You can refer to the video tutorial at the following link::

http://showdoc.4dage.com/web/#/126?page_id=812



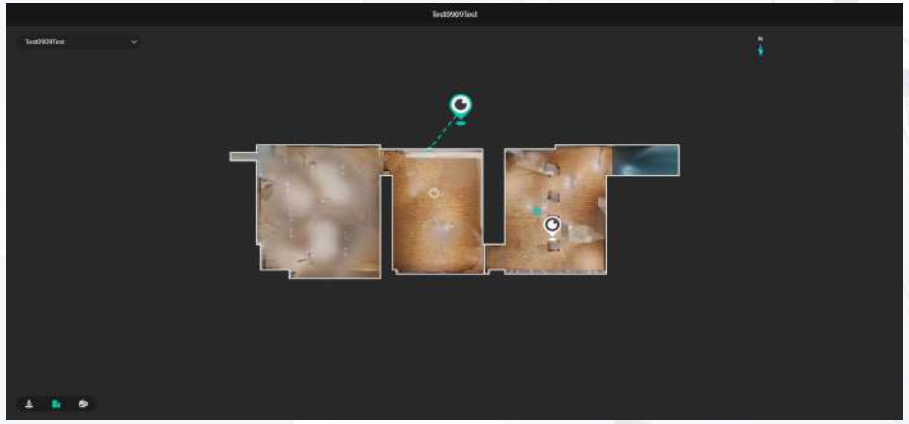
4DKanKan Mesh Editor

4.4 Scene Association

Add Scene Associations

Select “Add Hotspots - Scene Association” and enter the flat view of adding position. (As shown on the left)

Use the mouse to click the associated button (small green eye logo) in the scene to determine the basic position, you can also switch the lower left corner of the roaming view and 3D view for detailed adjustment of the scene associated button location.



Set the association point

After you have determined the approximate position of the scene association point, you will enter the setting page of association point. In the red box on the right side, you can set the name of the associated point, the logo type of the associated point (you can upload a customized logo), and the size of the button of the associated point.

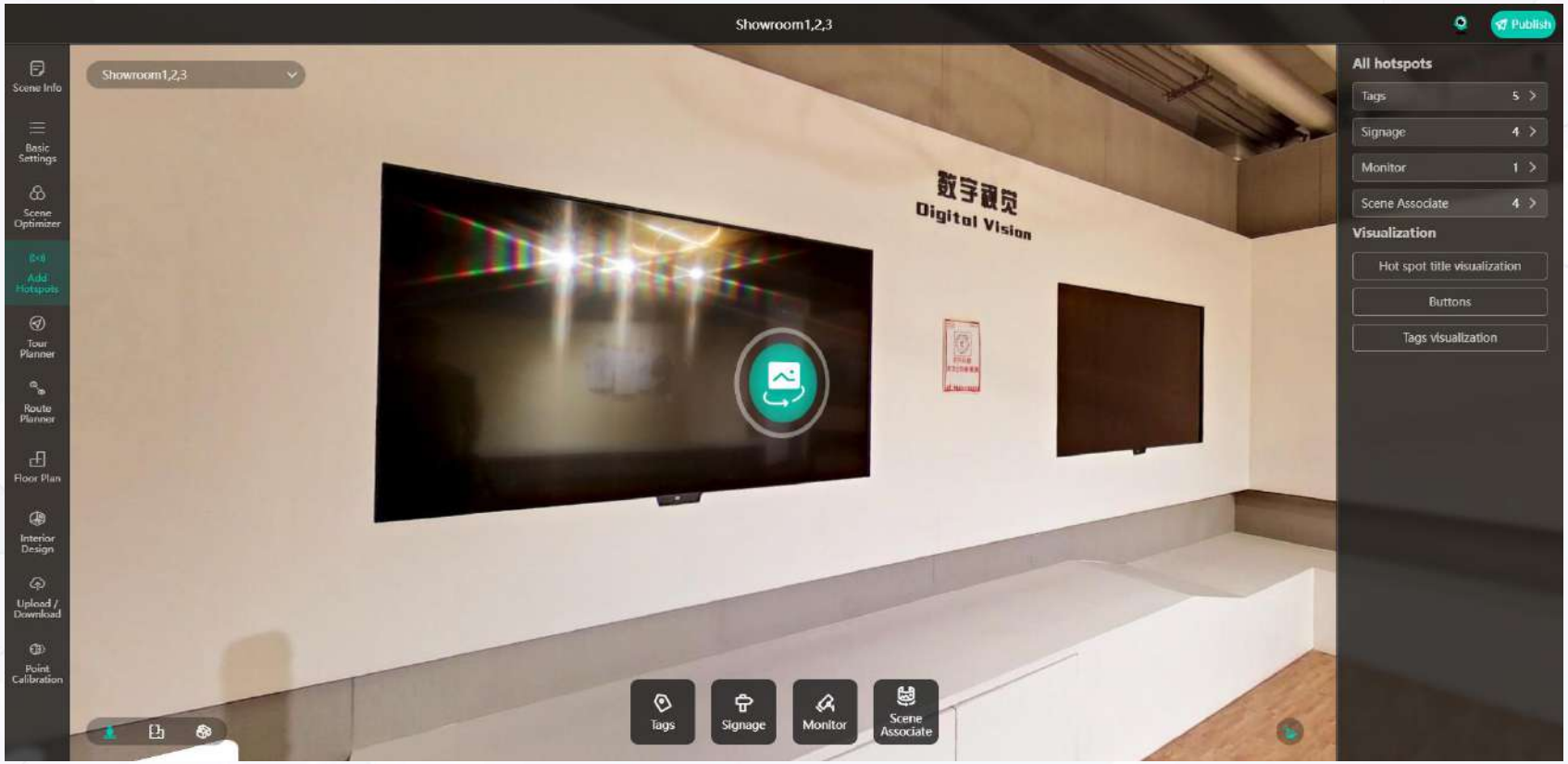
In the blue box on the right side, you can choose the type of associated point, the left option is panorama, and the right option is associated scene link. Click the upper right corner to save the link.

When selecting Panorama, you can upload a panorama with a recommended aspect ratio of 2:1, resolution ≥6000*3000, and size ≤120MB.

When choosing scene link, you can copy the link of your other scenes and paste it into the link field. After adding, when others browse, they can jump to your specified panorama or other 3D links by clicking the associated point button. As an expanded view or to connect two different scenes.

4DKanKan Mesh Editor

4.5 Number of Hotspots

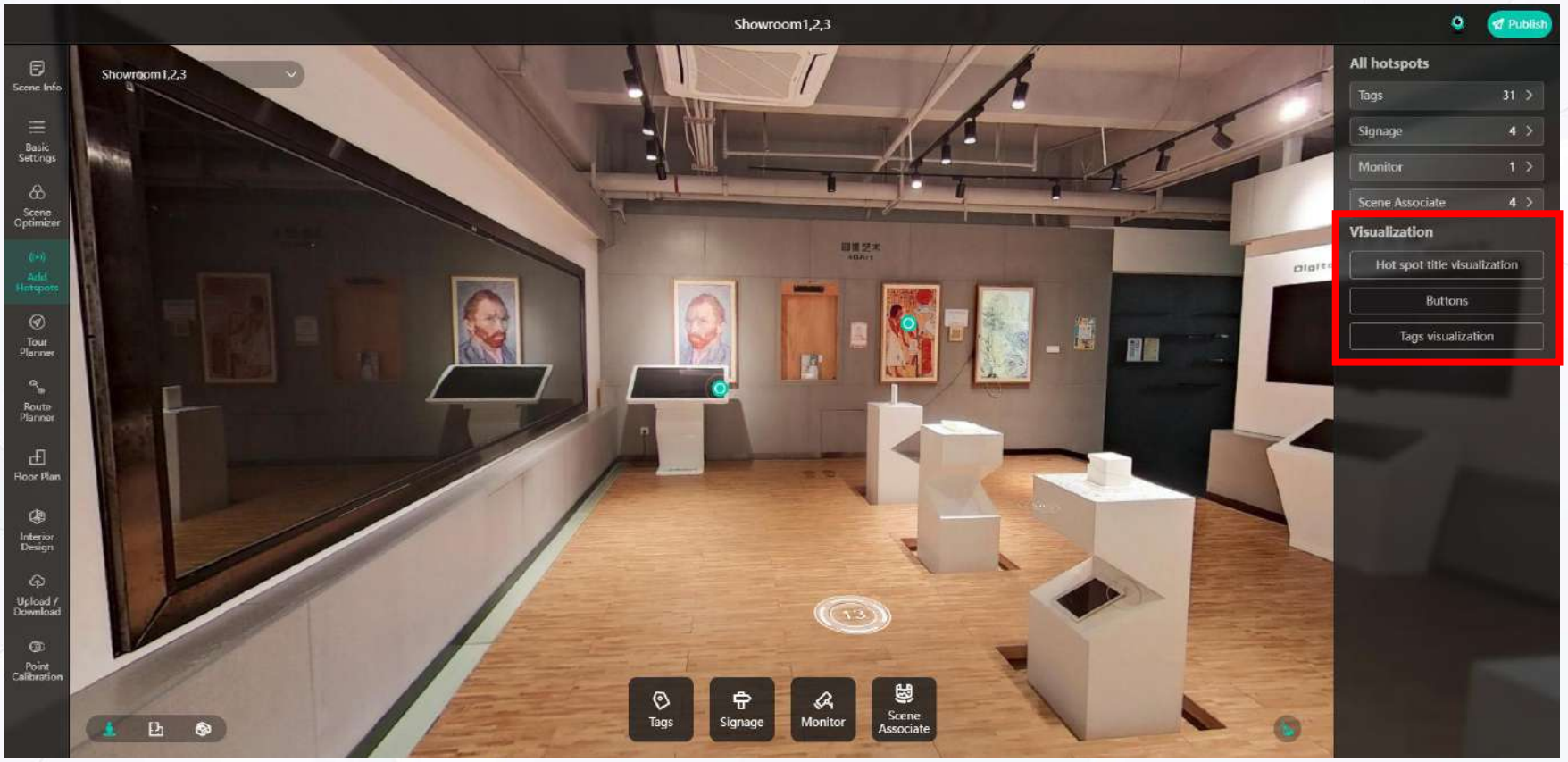


- **Number of hotspots**

In the Add Hotspot page, you can view the number of each of the four types (Multimedia Tag, Signage, Video Monitoring, and Scene Association) within the scene via the Hotspot list on the right, which will count the number separately and display it.

4DKanKan Mesh Editor

4.6 Visualization



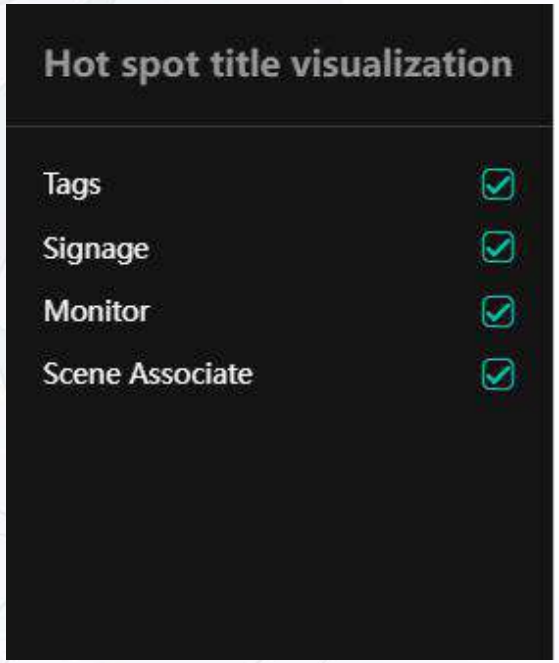
- **Visualization**

The visual settings are divided into: hotspots tag visual, share button visual and multimedia tag visual.

The red box in the above picture shows the location of visual settings, you can set the visible settings after entering the hotspot page.

4DKanKan Mesh Editor

4.7 Hotspots Visible

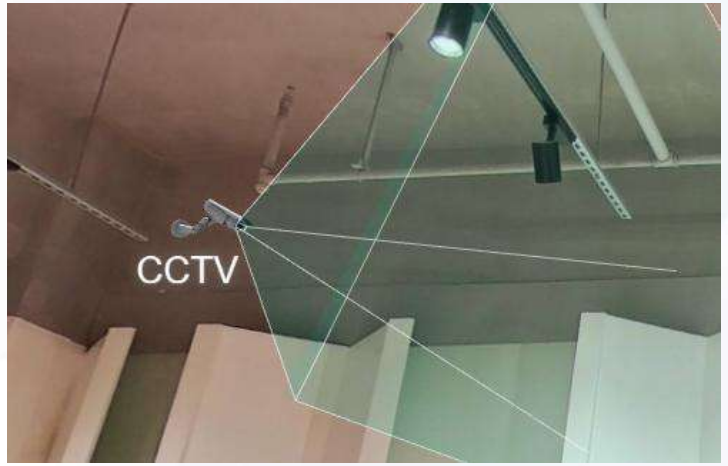


- **Hotspots tag visible**

Hotspot tags are visible and you can choose whether to show the name of the hotspots or not. It cannot be set individually, you can only choose to show/hide all.

Multimedia tag

Signage



Video monitor

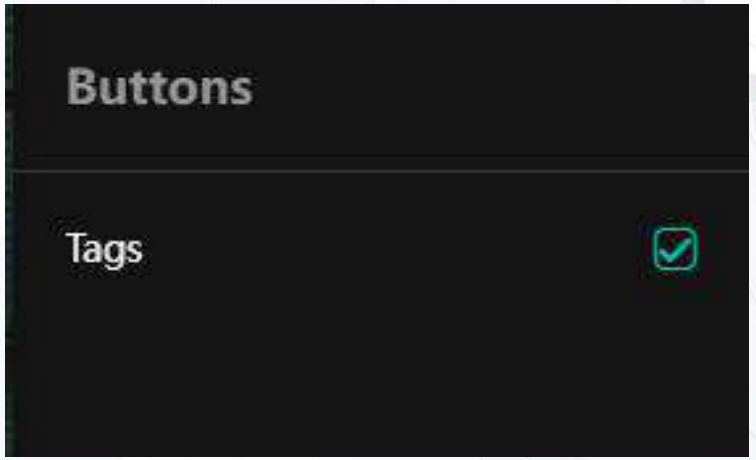
Scene association

4DKanKan Mesh Editor

4.8 Share Button Visible

- **Share button visible**

Once you have added at least one hotspot to your scene, turn on the share button visible within the visible settings. You can turn on the share button for the hotspot, making it easy to share the content of this hotspot with others.

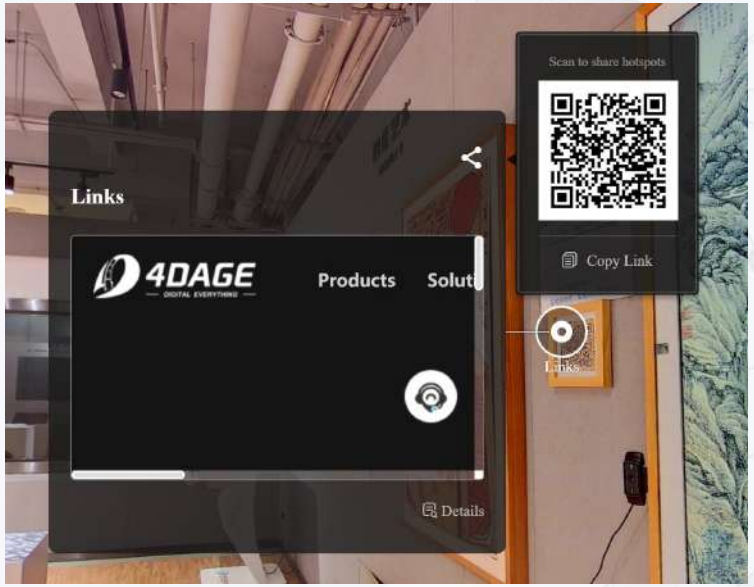


- **Hotspots share button**

When the <Multimedia tag> share button is selected, when visitors browse the scene, clicking on the hotspot will display the share button.

On the computer, when the mouse hovers over the share button, a QR code will pop up, and the user can scan the QR code to open the hotspot directly on the cell phone.

When clicking the share button on mobile devices, you can choose to generate a picture (as shown in the right picture) or copy the link. After that, you can share the image or URL with QR code to other people, who can browse the scene and open the hotspot directly by this way.

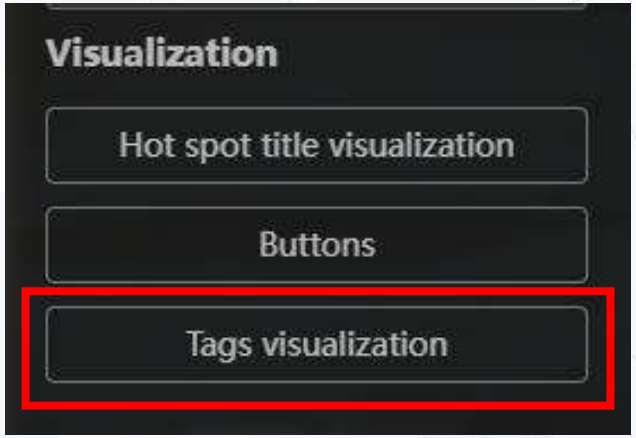


4DKanKan Mesh Editor

4.9 Multimedia Tags Visible

- **Multimedia tags visible**

When you have added at least one hotspot in your scene, the hotspots you have added will be displayed in the action bar, select <Multimedia Tag> visible, and you will enter the Multimedia Tag Visible Settings page.



- **Multimedia tag visible setup page**

When the Multimedia tags visible button is clicked. The viewing angle will be automatically transformed into floor plan mode. You can click the hotspots logo (small green dot if not customized) that you want to set roaming visibility, at this time, all the roaming spots in the scene will be displayed. You can turn on/off the roaming visibility by clicking on the roaming spots.

When you turn it on, it will be shown as a green roaming point (there will be a green line between the roaming point and the hotspot), when you roam to this point, you will be able to see and click to turn on this hotspot.

When you turn it off, it will be displayed as a gray roaming point (there will be no line between it and the hotspot), and you will not be able to see the hotspot when you roam to that point.

You can set the roaming feasibility according to your own needs to achieve better browsing effect of hotspots. After setting roaming feasible, please click the Save button on the upper right corner to save.

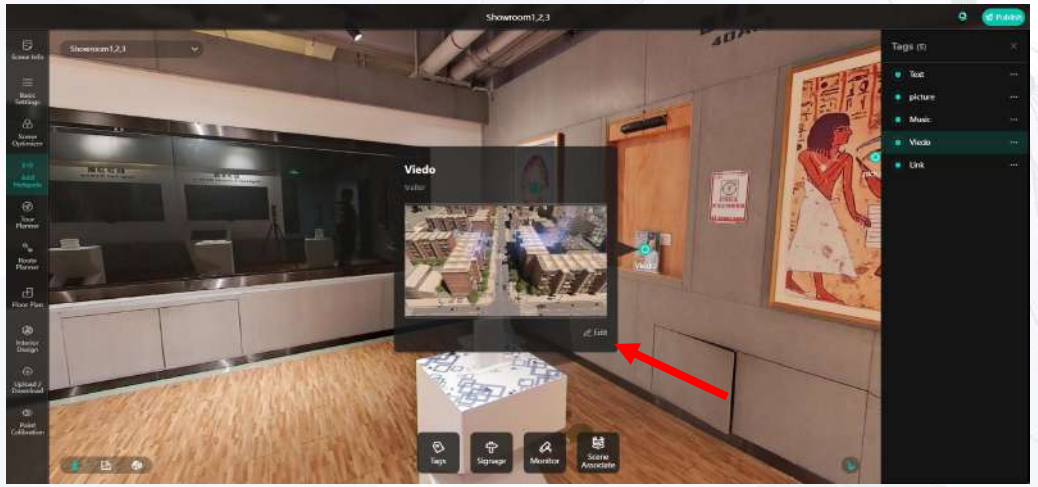
4DKanKan Mesh Editor

4.10 Modify Hotspots

- **Modify hotspots**

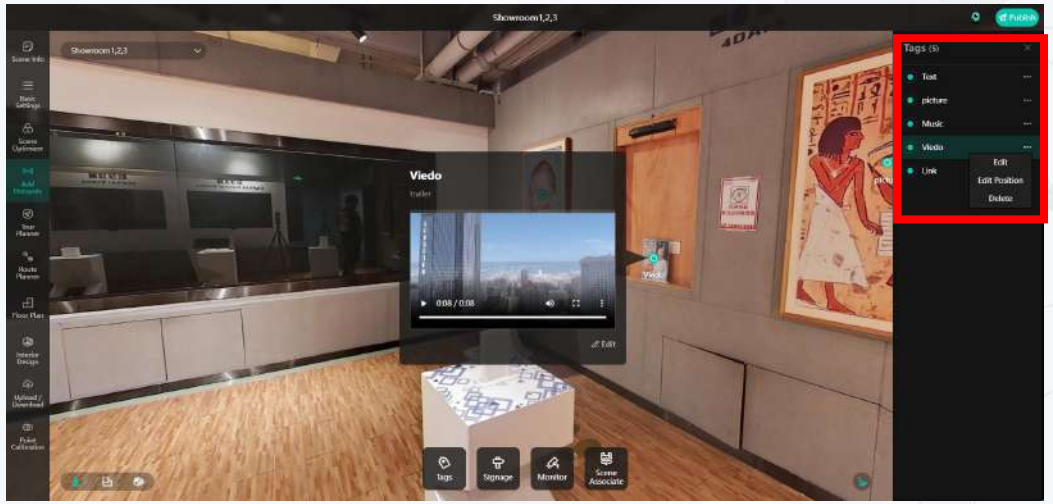
When you click on a hotspot in edit mode, a modify button will appear in the lower right corner of the floating window (shown in the red box in the left figure), and you will enter the edit page of the hotspot by clicking on the modify button. (Previously, Multimedia tags hotspot editing page)

You can modify the content of your hotspot and click Save again.



- **Modify hotspot position and delete hotspot**

When you need to modify the position of a hotspot or delete a hotspot, you can select Modify Hotspot Position or Delete from the option buttons on the right side of the individual hotspot corresponding to the list of hotspots. When you click Modify Hotspot Position, you will enter the Hotspot Position View page again (Add Multimedia Tags Hotspot in the previous section), select a different position and click OK to take effect.



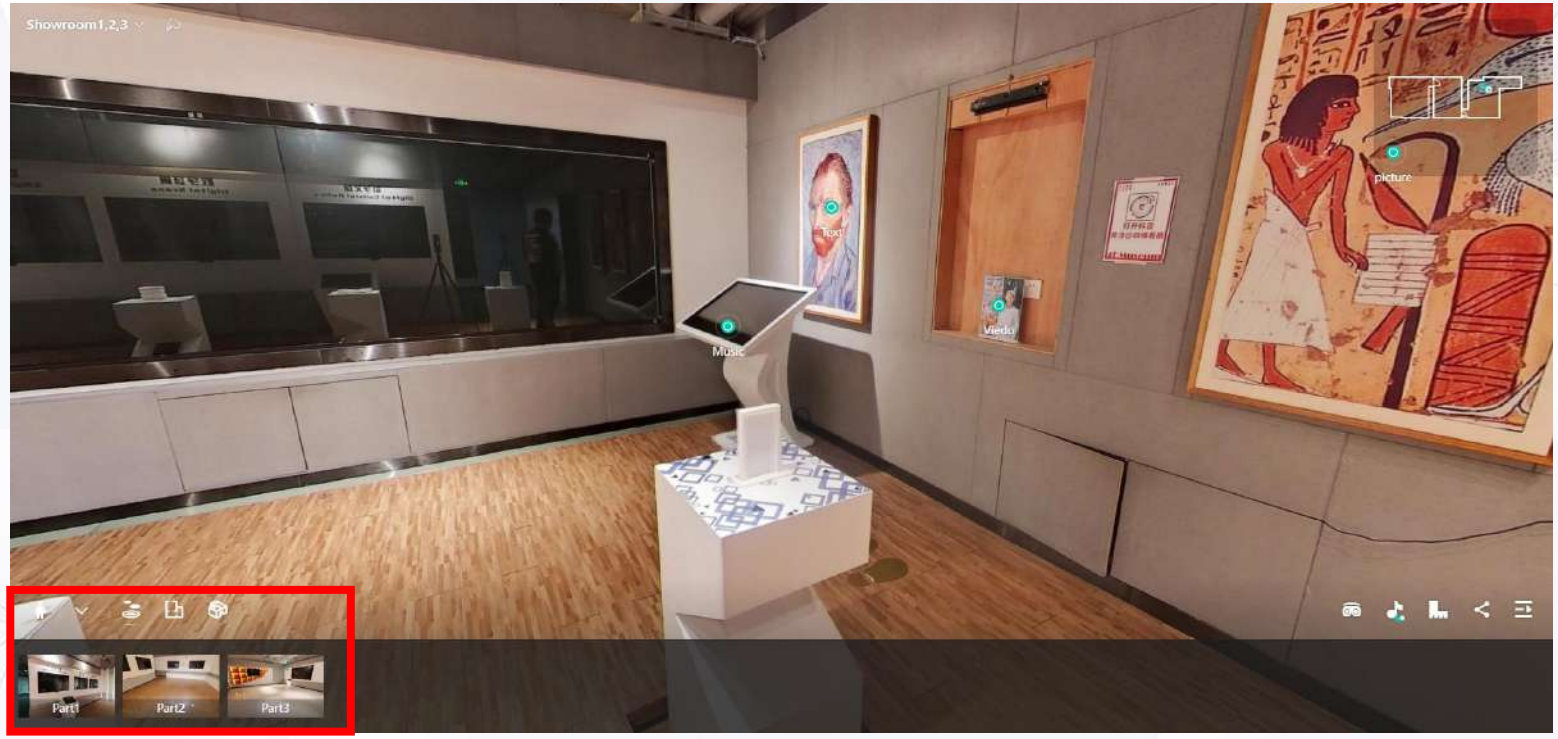
4DKanKan Mesh Editor

5. Tour Planner

- **The Tour Planner menu contains the following functions:**
  - Adding tour planner
  - Record a tour NEW
  - Add Subtitles NEW

4DKanKan Mesh Editor

5.1 Tour Planner Effects



- **Tour Planner Effects**

When a scene is added with a Tour Planner clip.

Tour Planner clips (shown in red above) are displayed at the bottom of the scene when someone else views it.

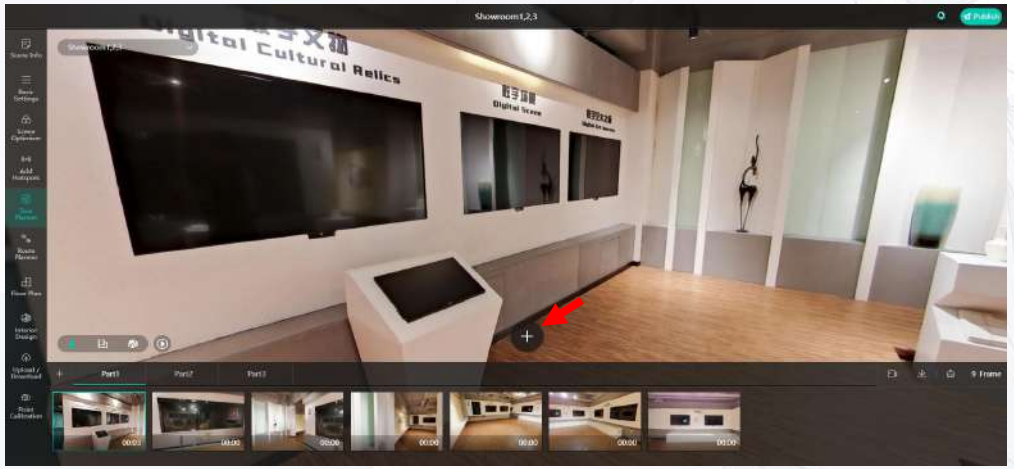
Click on the Tour Planner to automatically roam the scene according to the pre-recorded tour planner. Display the roaming path and content you want to show.

4DKanKan Mesh Editor

5.2 Add Tour Planner

- **Add Tour Planner - Record starting screen**

Under the Tour Planner menu, roam to the viewpoint where the Tour Planner starts and click the plus sign in the red box on the left to start recording the Tour Planner.



- **Add Tour Planner - Record a follow-up Tour Planner**

Continue to record the subsequent frames that you want to record.

Roam to the next roaming point where you need to stay, adjust the angle you need to show and click the plus sign. Record the next screen. Repeat this operation. Until you have recorded all the tours.

After recording, click Save in the upper right corner. The recording of Tour Planner is finished.

1. When recording, you can switch to the plan view and the 3D mode view. After switching to the corresponding viewpoint, click the plus sign to record.
2. When recording the screen, you can expand the hotspot to add the screen. The hotspot content will be displayed automatically when the screen is played.
3. If you need to delete the tour, you can hover the mouse over the screen and click the Delete button in the upper right corner to delete it.

4DKanKan Mesh Editor

5.3 Set Images

- **Add Tour Planner - Set Images**

Clicking on an individual screen under a clip will take you to the settings for that image.

The image settings are described in the Settings section on the right.

You can set the images to make the Tour Planner work the way you want it to.

- **Set the contents**

Dwell time: default is 3 seconds, minimum is 0 seconds.

Screen Rotation: When you select Static, the screen will not do any rotation, it will stand still in the current screen until jumping to the next screen; when you select Rotation, the screen will do perspective panning rotation, supporting -180°-180° rotation;

The screen will rotate clockwise for positive numbers and counterclockwise for negative numbers.

Transition Effect: Roaming and Shuttle Roaming: Simulate the character roaming as a transition method, which will be advanced according to the movement of the points. Shuttle: Simulate shuttle to the next point of transition, will not transition to the middle point, directly to the next screen specified point.

Transition speed: only available when roaming is selected, adjust the speed of the transition.

Apply to all: will apply the above settings to all shots under the clip.

4DKanKan Mesh Editor

5.4 Setup Clip

- **Set the content of the clip:**

Clip name: limited to 5 characters;

Upload audio: you can set the background sound to be played for this clip's Tour Planner, support uploading mp3/wav files within 5MB;

Add Subtitle: add subtitle for this clip, input the title and content of the subtitle. The title and content of the subtitle will be displayed in the lower left corner of the screen as the subtitle when the clip is playing. (The effect can be seen on the next page)

Delete clip: delete the current clip, please use it carefully.

- **Add Tour Planner - Tour Planner Menu Bar and Setting Clip**

The buttons from left to right in the red box in the above picture are:

"+": add a new tour clip;

"Clip name": click to enter the right side of the picture above to set the clip, will be set on the right side of the content of the details; the number of clips up to 30.

"Record" and "Download": record the video guide into a video file (how to use will be explained later); and recorded video files to download;

"Clear Tour Planner": all recorded tours (all clips and images) will be cleared, please be careful;

"Number of Recorded Images": at present, the maximum number of images that can be recorded is 100, beyond which no more images will be allowed to be added.

4DKanKan Mesh Editor

5.5 Subtitle

4DKanKan Mesh Editor

5.6 Tour Recording

- **Guided Tour Recording**

When the Tour Planner contains at least one clip that has already been added.

Click Record and select a screen to record. The clip will automatically play the Tour Planner clip as a showcase page.

The recording will end when it finishes playing (you can also stop the recording manually).

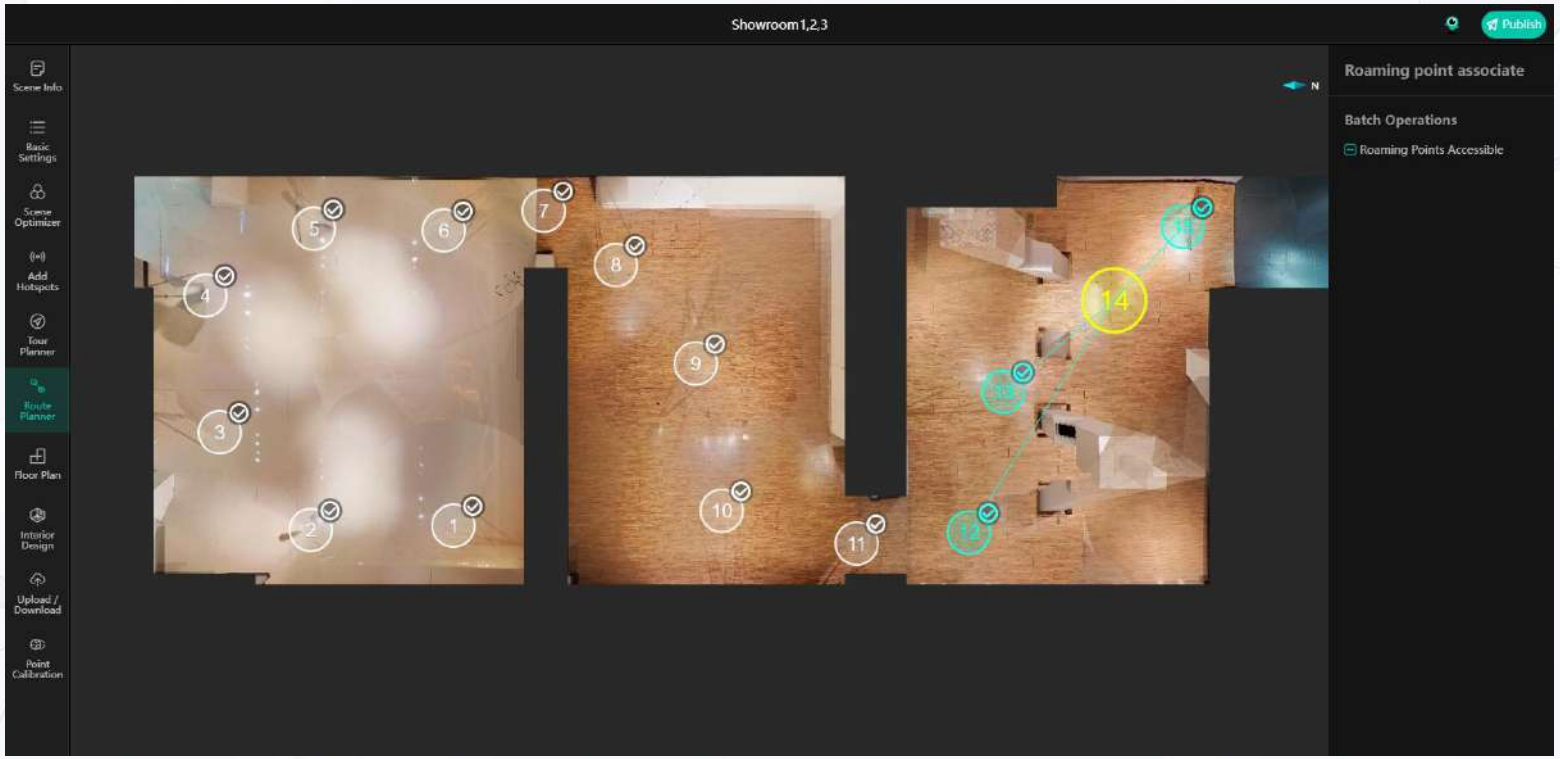
Click the Download button next to the Record button to download the recorded Tour Planner clip for playback.

- **Notices**

1. Please do not switch the window when recording, otherwise it will be recorded.
2.When you can't click record (grayed out), it means you can't record the Tour Planner clips.
3. Download the video file in .mp4 format.
4. After re-recording, the previously recorded video file will be updated to the latest recorded content after clicking Download.

4DKanKan Mesh Editor

6. Route Planner



- **The Route Planner Menu contains the following functions:**
  - Setting up Route Planner
  - Hiding Roaming Points

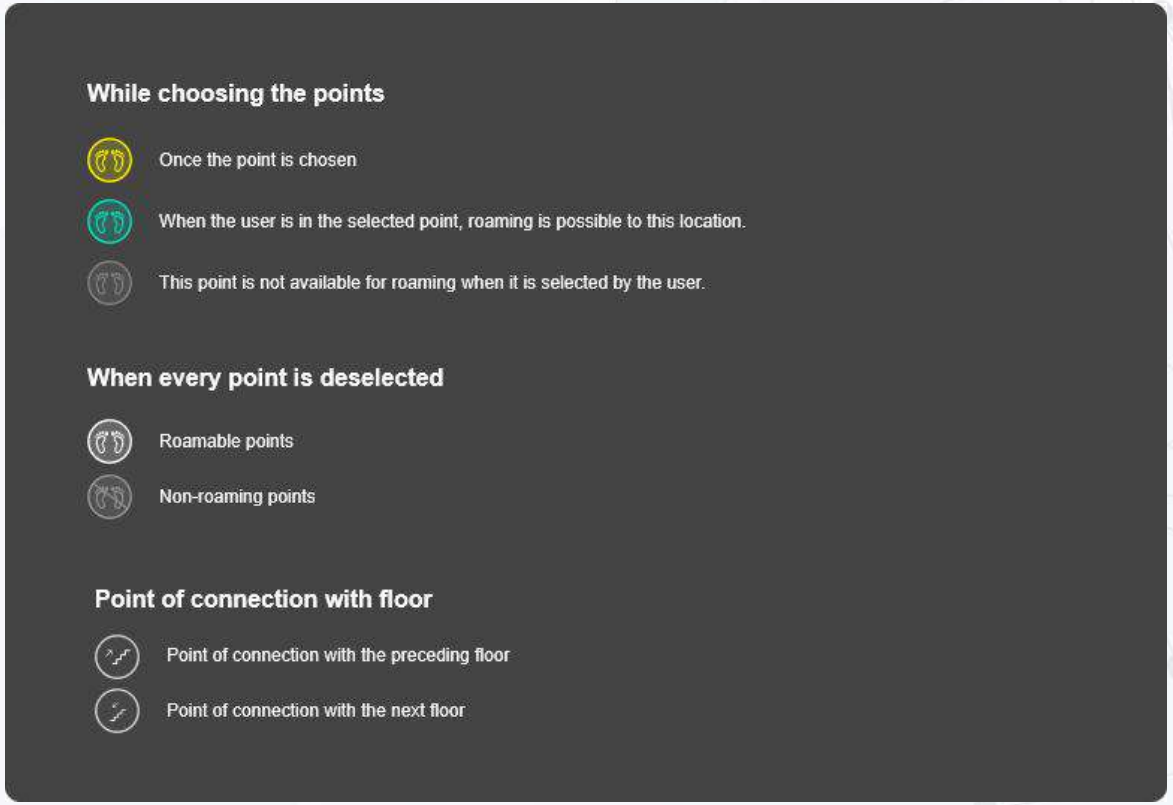
4DKanKan Mesh Editor

6. Route Planner

- **What is Route Planner?**

Route Planner further optimizes the experience that occurs while roaming by setting Route Planner:

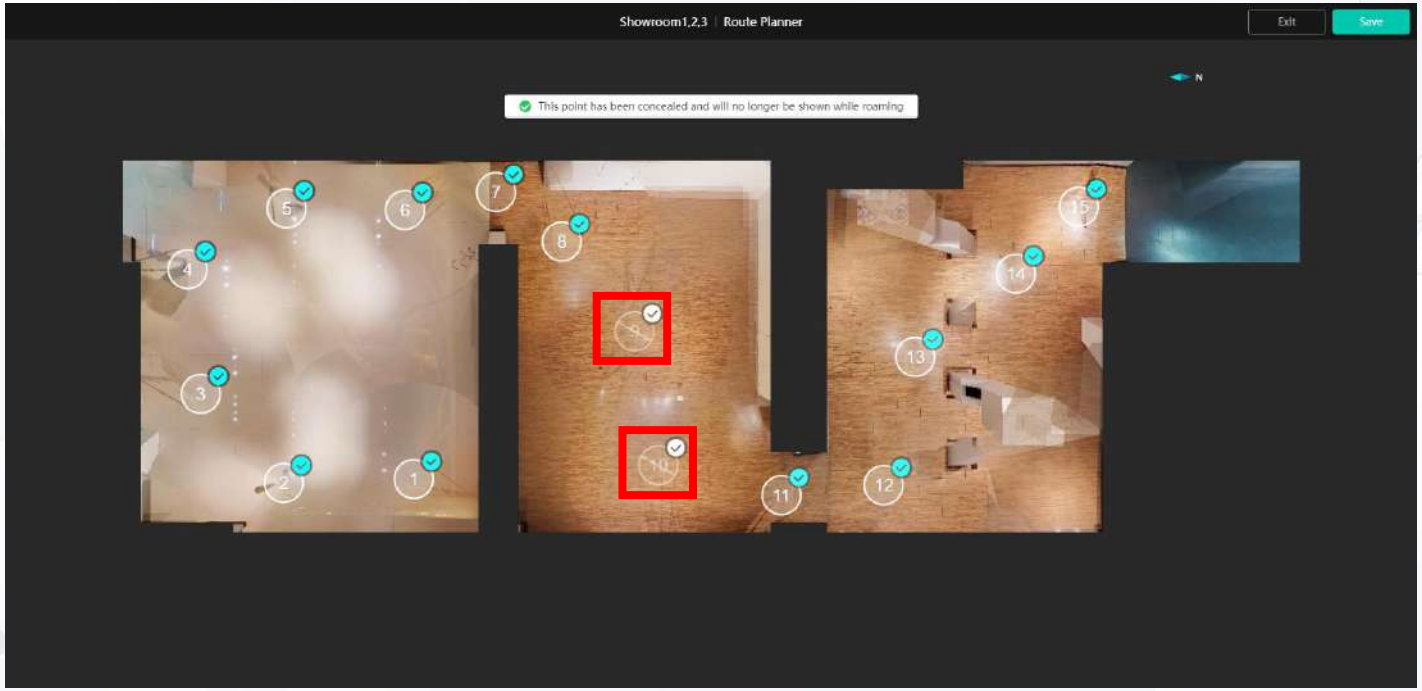
For example, if you are roaming and appear to penetrate a room; set the feasibility of a roaming point by tapping on the line connecting the various roaming points.



The Route Planner Symbols

4DKanKan Mesh Editor

6.1 Hide Points



- **Hiding roaming points**

In Route Planner page, if there is no point selected in the scene (no yellow selected point), you will enter the editing page to hide/show the roaming point.

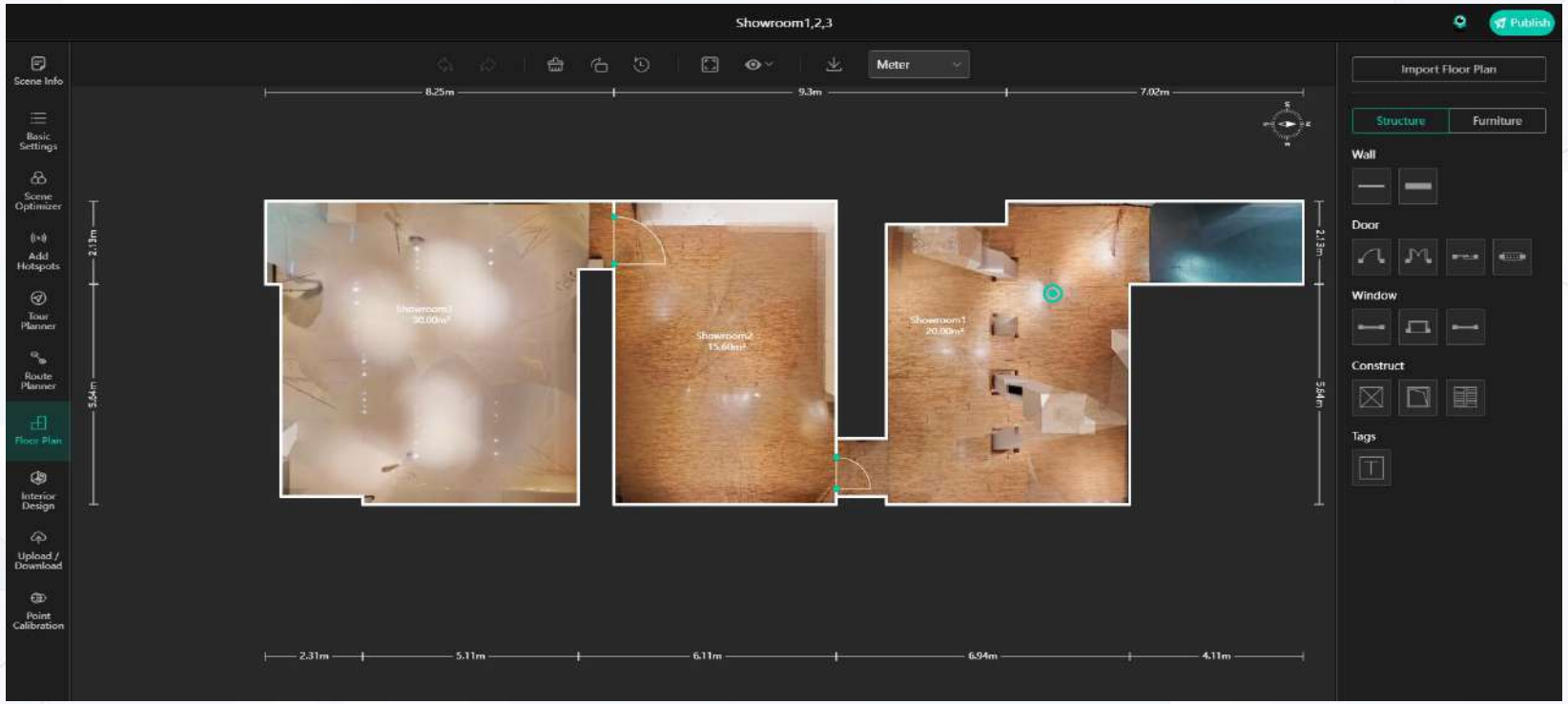
You can enter this page by clicking the yellow point (selected point) and unchecking the point.

After entering this interface, all green lines will be canceled and only the green √ button will be displayed in the upper right corner of the point. You can hide/show the roaming point by clicking the √ button on the top right corner of any point.

When the upper right corner of a point is grayed out and the point is a forbidden symbol (as shown in the red box in the above figure), the point is hidden and you can't roam to these points no matter you are at any point when roaming. After setting, click the upper right corner to save.

4DKanKan Mesh Editor

7. Floor Plan



- **The Floor Plan contains the following functions:**
  - Plotting a Floor Plan
  - Setting the Compass
  - Importing a Floor Plan NEW
  - Add labeling
  - Add Furniture NEW

4DKanKan Mesh Editor

7.1 Drawing Floor Plan

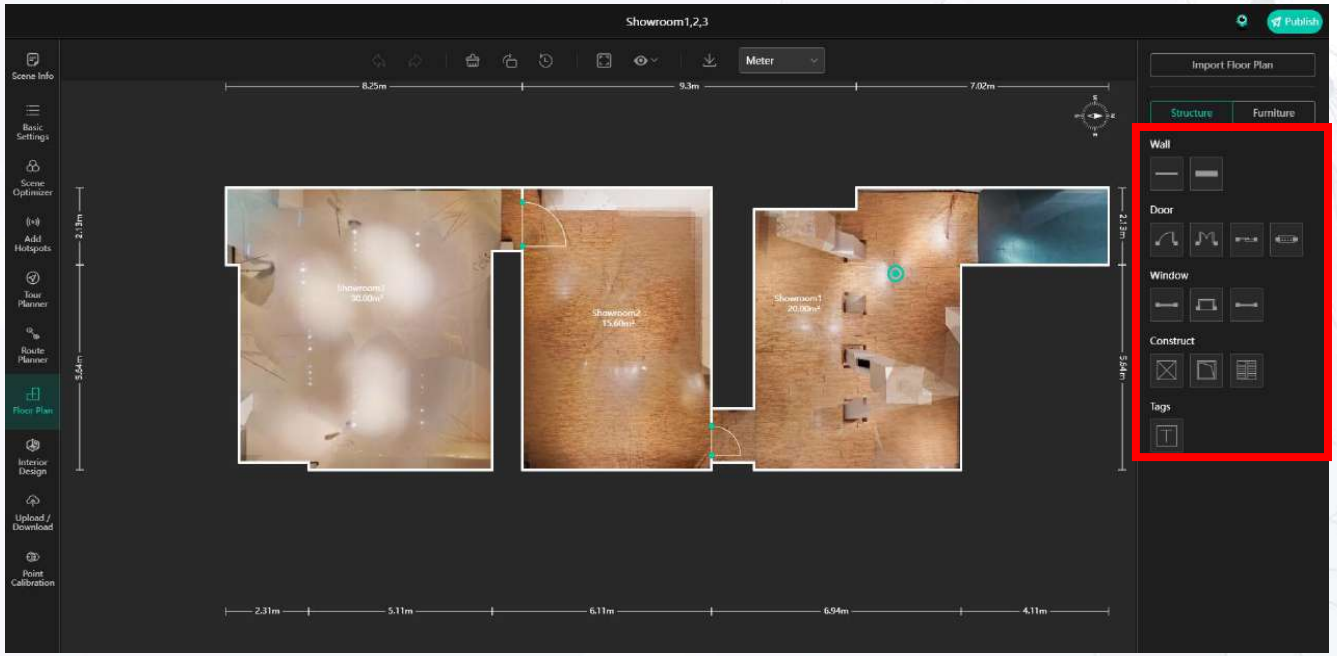
- **Drawing of floor plans**

When the scene is generated, the system will generate a default floor plan based on the shooting scene.

You can use the floor plan function to draw the floor plan you need.

You can draw in the editing area by checking the corresponding button on the right side.

You can also edit, move or delete the content of the drawing by selecting it in the editing area.



- **Drawing of floor plans**

You can make use of the functions at the top of the page to assist you in drawing floor plans. The functions are detailed in the figure on the below.

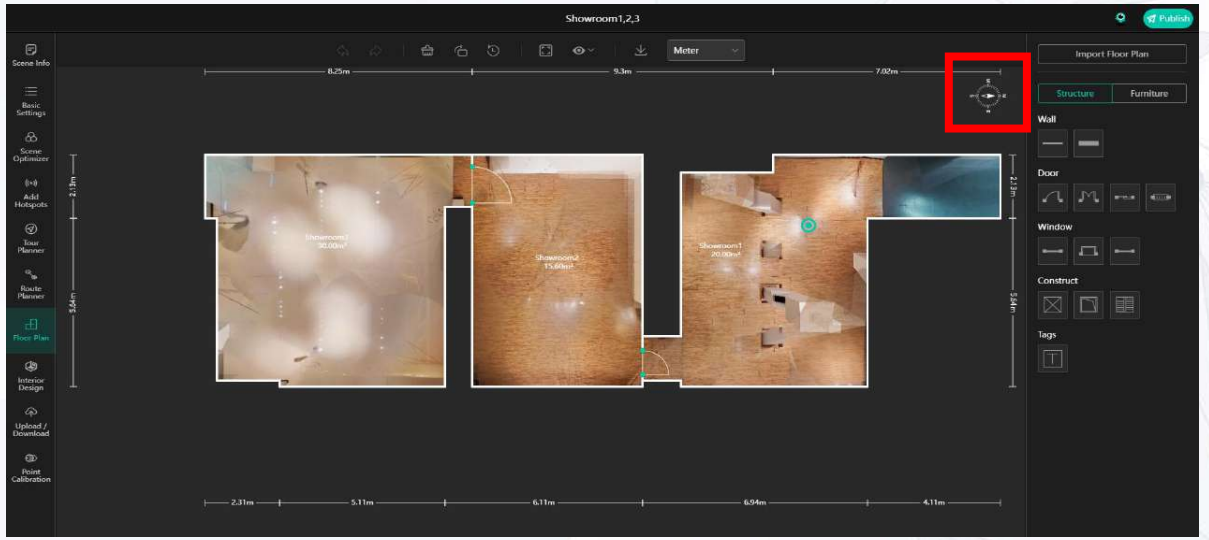
Undo **Restore** **Empty** **Rotate** **Restore the default** **Zoom** **Display: roaming point, base map** **Download Floor Plan** **Modify display units: metric (m), imperial (Ft)**

4DKanKan Mesh Editor

7.2 Set the Compass

- **Set the Compass**

Within the Floor Plan editing page. Click on the Compass button on the left to enter the Compass Setting page.



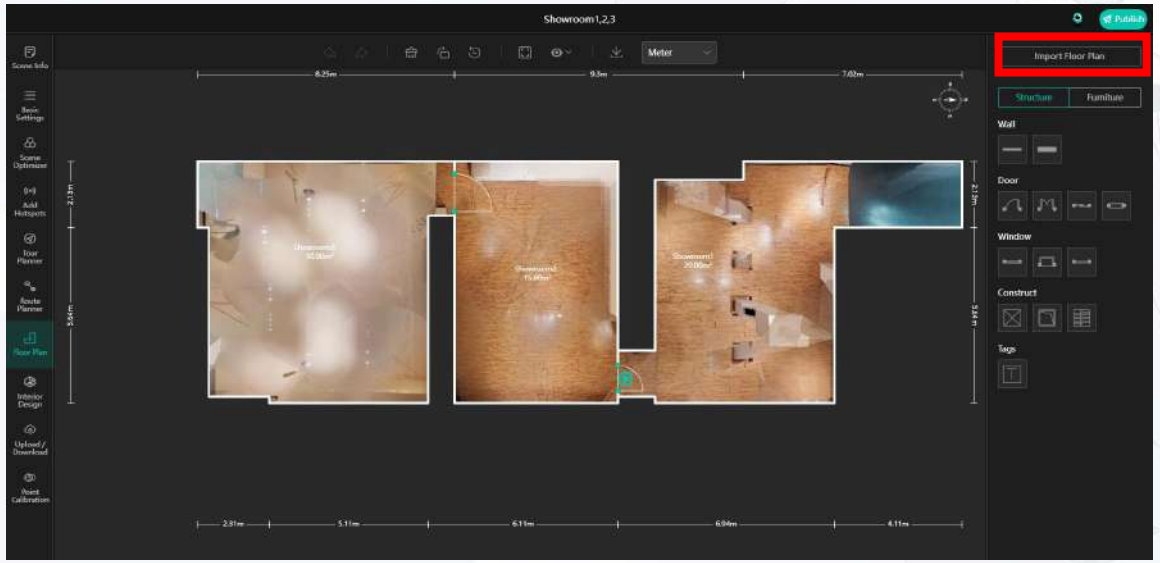
You can input the rotation angle to rotate the compass to the correct direction.

After setting the compass direction, the compass will point to the direction you set when browsing the floor plan or 3D model interface of this scene.

When you rotate the model in the 3D model viewing page, the compass will be rotated synchronously.

4DKanKan Mesh Editor

7.3 Import Floor Plan



- **Import Floor Plan**

Click Import Floor Plan on the right side to upload a customized floor plan for your scene to replace the original one.

Only images ≤5MB in .jpg/.png format are supported.

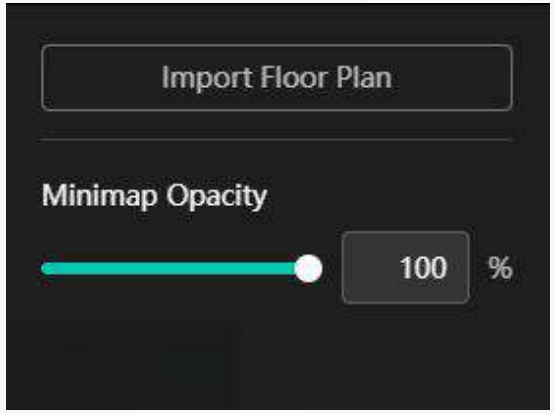
Multi-floor scenes do not support importing floor plans for some floors.

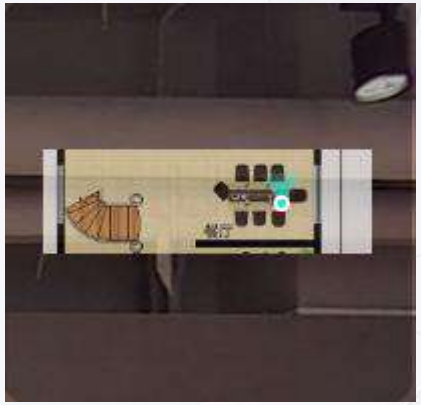
After importing, you can scroll and zoom the image with the mouse wheel and drag the image with the left mouse button.

- **Set the mini-map opacity**

After importing a floor plan, the right sidebar will add a small map opacity option.

By adjusting the opacity option, it will affect the transparency of the floor plan background of the top right mini-map during the tour. The range is 0%-100%.





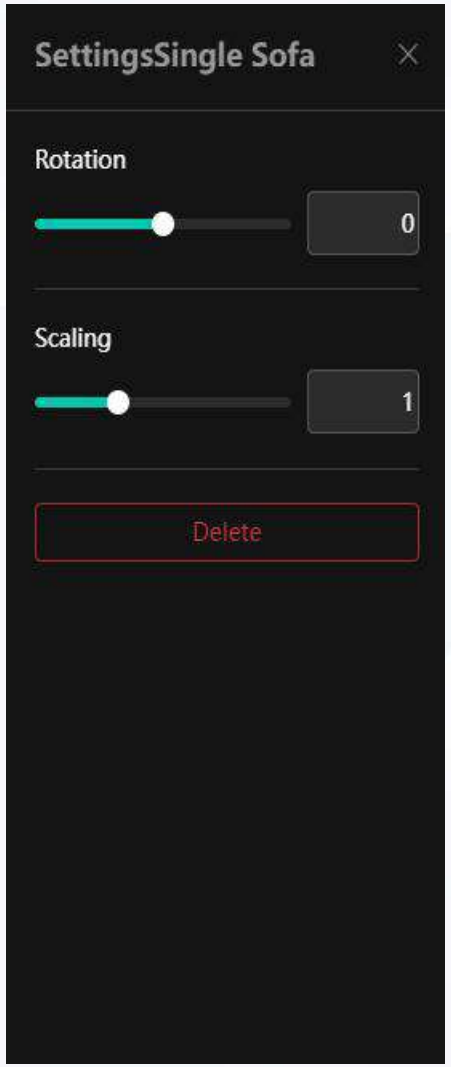
4DKanKan Mesh Editor

7.4 Add Furniture

- **Add Furniture**

On the right side of the drawing structure. We have added a new function to add furniture.

You can add furniture to the floor plan by clicking on the various pieces of furniture below and placing them in the corresponding positions on the floor plan.



- **Furniture Setting Page**

Select the furniture to be placed in the floor plan and enter the furniture setting interface.

Rotation angle: default is 0°, range is -180°-180°.

Zoom: default is 1, adjustable range is 0.1-3.

Left/Right Flip: Only some of the furniture has the option of left/right flip, the rest of the furniture does not have this option.

4DKanKan Mesh Editor

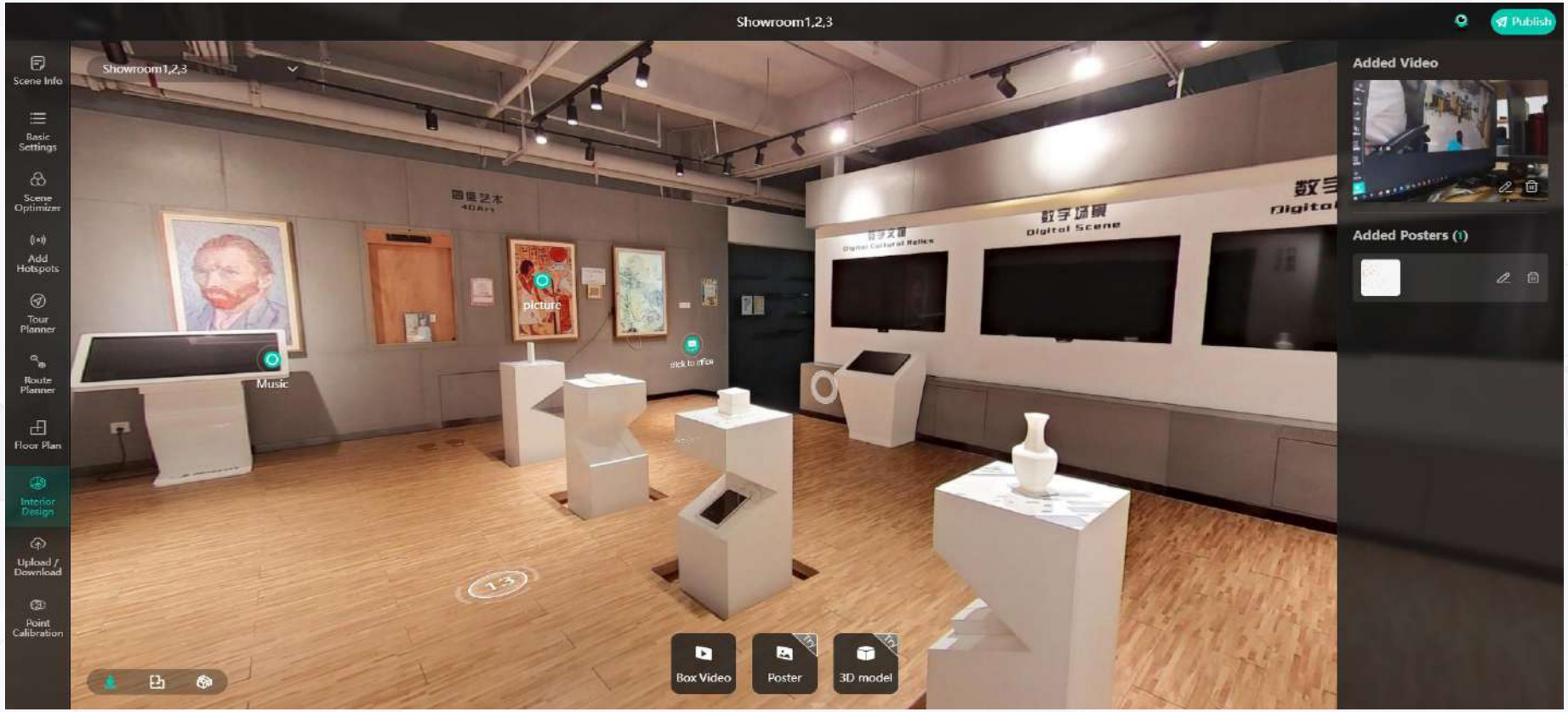
7.5 Labeling

- **Adding labels**

When you are drawing a floor plan. You can add annotations to your floor plan by using the Annotation button in the drawing area on the right.
You can add the name of the label and the area of the label.
After adding, when the viewer switches to the 3D model view, it will display your annotation and the annotated area in three-dimensional form. As shown in the picture above.

4DKanKan Mesh Editor

8. Interior Design



- **The Interior Design includes the following functions:**
  - Add Video
  - Add 3D Model NEW
  - Add Poster NEW

4DKanKan Mesh Editor

8.1 Video

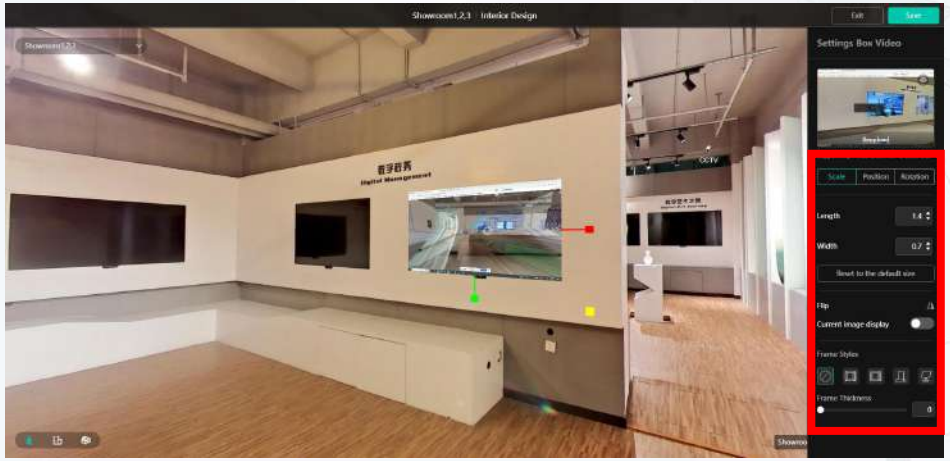
Add a Video

You can add some videos through the video button below the Interior Design module. In the main page, click on the position you want to add to enter the uploading interface. Click the position in the red box on the left to upload a video.

Support uploading .mp4 files, the file size should be ≤20Mb, ≤3000 bit rate, and you can add at most 1 space video for a single scene.

Video Editing Mode

After you upload a video file, you will enter the video editing mode.
You can use the zoom/shift in the red box on the right to enter the two modes of "video size zoom"/"position shift".
You can adjust the video size attribute by the length and width and thickness on the right side.
Adjust the video by dragging and dropping the red, green and blue axes (x,y,z) on the main view.
When you are done adjusting the video, click the Save button in the upper right corner to save it.
The box video is attached to the scene model, you can switch to 3D view to do so.
If it is not attached to the model, it is possible to see the video hovering outside the model at different points.
If the video is viewed through a wall, please check if there is a wall on the 3D model between the video and the roaming point.



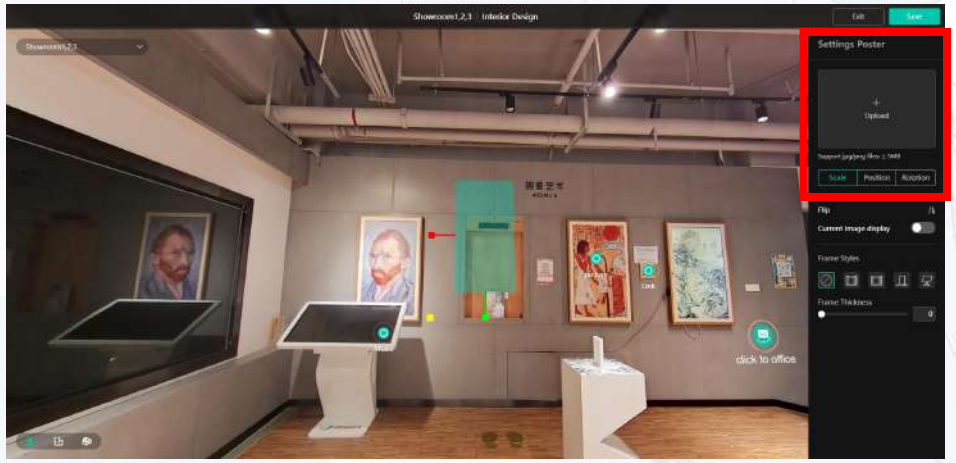
4DKanKan Mesh Editor

8.2 Poster

Add a Poster

You can add a poster through the Poster button at the bottom of the Interior Design module. In the main page, click the position you want to add to enter the uploading interface. Click the location in the red box on the left to upload the space map.

Support uploading .jpg/.png files, the file size should be less than 5Mb, and a single scene can support adding up to 5 posters.



Poster Editing Mode

After you uploaded the poster file, you will enter the poster editing mode.

You can use the zoom/shift in the red box on the right to enter the two modes of "Picture Size Zoom"/"Position Shift".

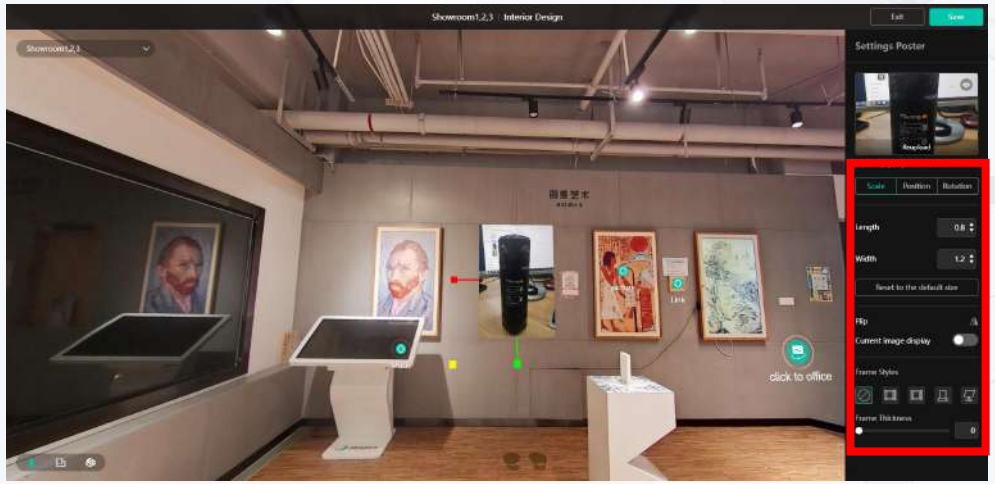
You can adjust the image size attribute by the length and width on the right side. Adjust the image by dragging the red, green and blue axes (x,y,z) of the video on the main view.

When you are done resizing, click the Save button in the upper right corner to save.

Posters are attached to the scene model, you can switch to 3D view to attach them.

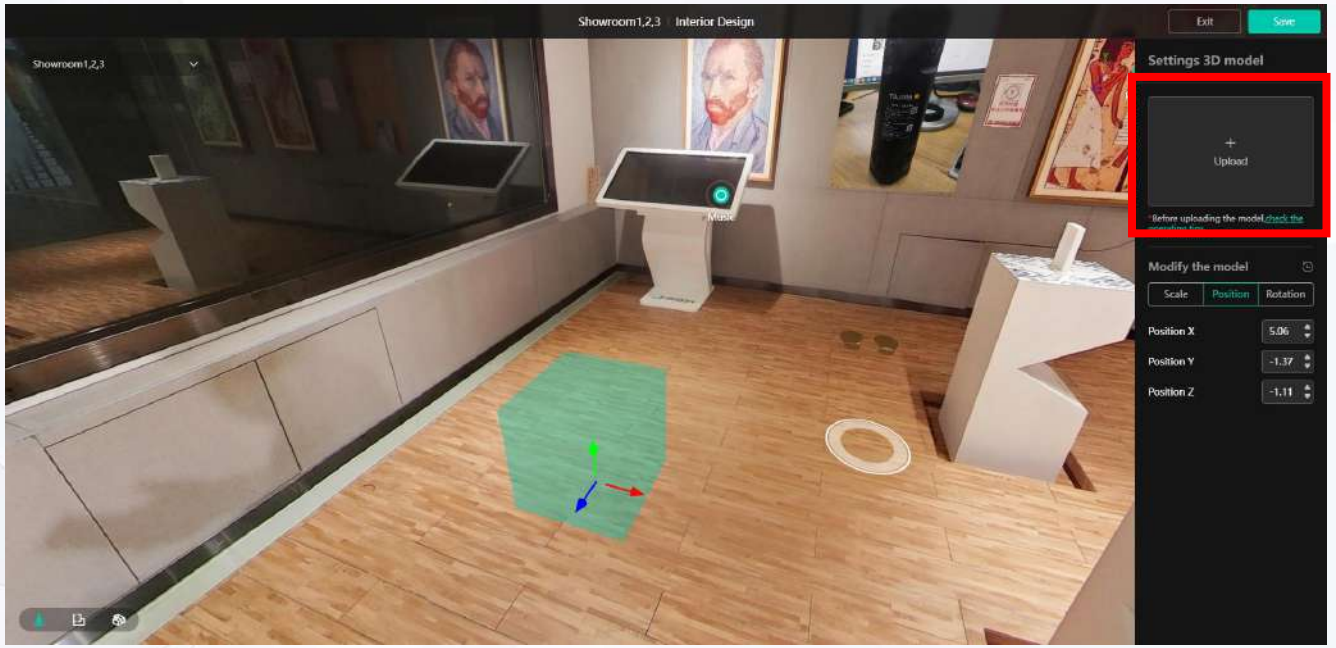
If it is not attached to the model, it is possible to see the posters hovering outside the model at different points.

If the poster is seen through a wall, please check if there is a wall between the poster and the roaming point on the 3D model.



4DKanKan Mesh Editor

8.3 3D Model



Add a 3D Model

You can add a 3D model through the 3D model button at the bottom of the Interior Design module.

In the main page, click the location you want to add to enter the uploading page.

Click the position in the red box in the above picture to upload the model file.

You can add up to 5 3D models for a single scene.

Notices

1、File size should be less than 5MB;

2、Only 3D models in obj format are supported;

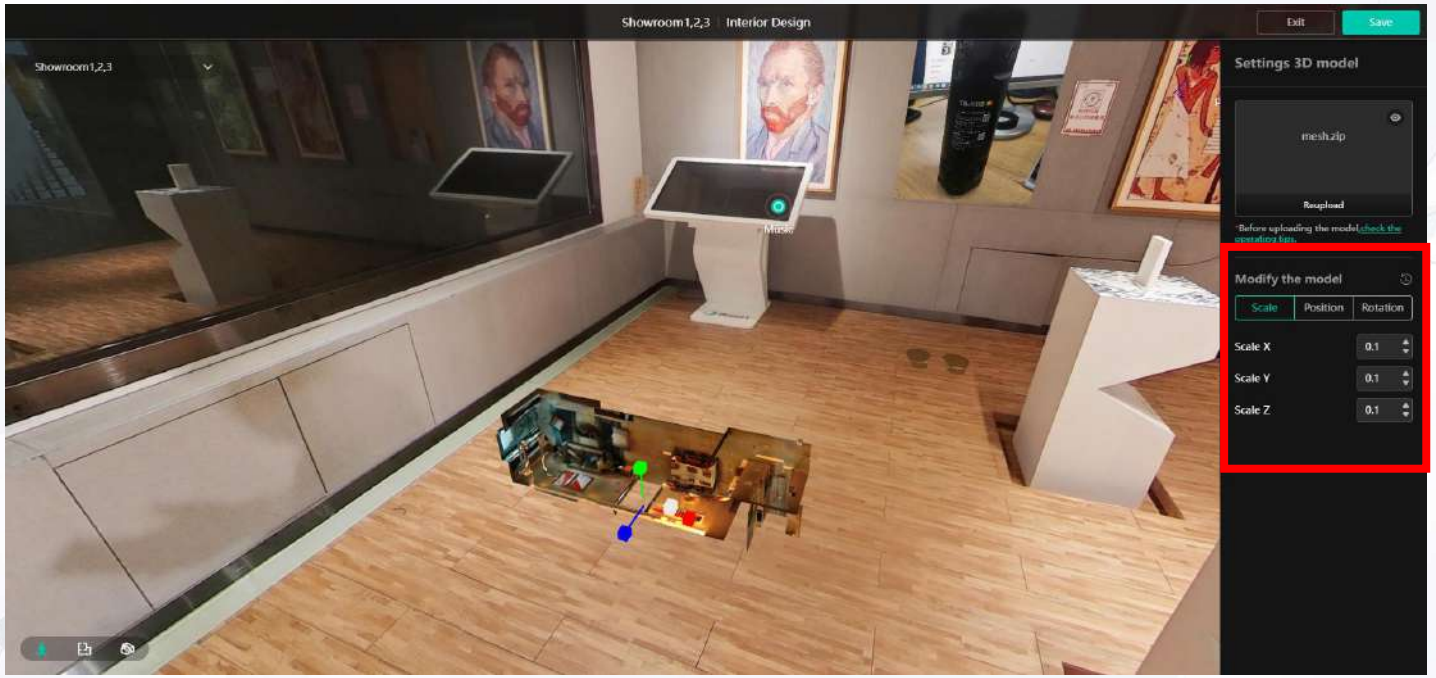
3、Package file format should be zip;

4、Package file should contain image, model, mtl file;

5, The package file must not contain folders. All files, such as image, model, mtl files, etc., should be placed in the root directory, as shown in the right figure.

4DKanKan Mesh Editor

8.3 3D Model



- **3D Model Editing Mode**

After you have uploaded the model file, you will enter the 3D model editing mode.

You can change the parameters of the model by zooming/displacing/rotating the model in the red box on the right (in the red box on the right).

You can also zoom and shift the model by dragging and dropping the red, green and blue axes (x,y,z) on the model in the main view.

You can also switch to the Rotation page and rotate the model by using the rotation ball on the model.

When you are done with the adjustments, please click the Save button in the upper right corner to save.

4DKanKan Mesh Editor

9. Upload / Download

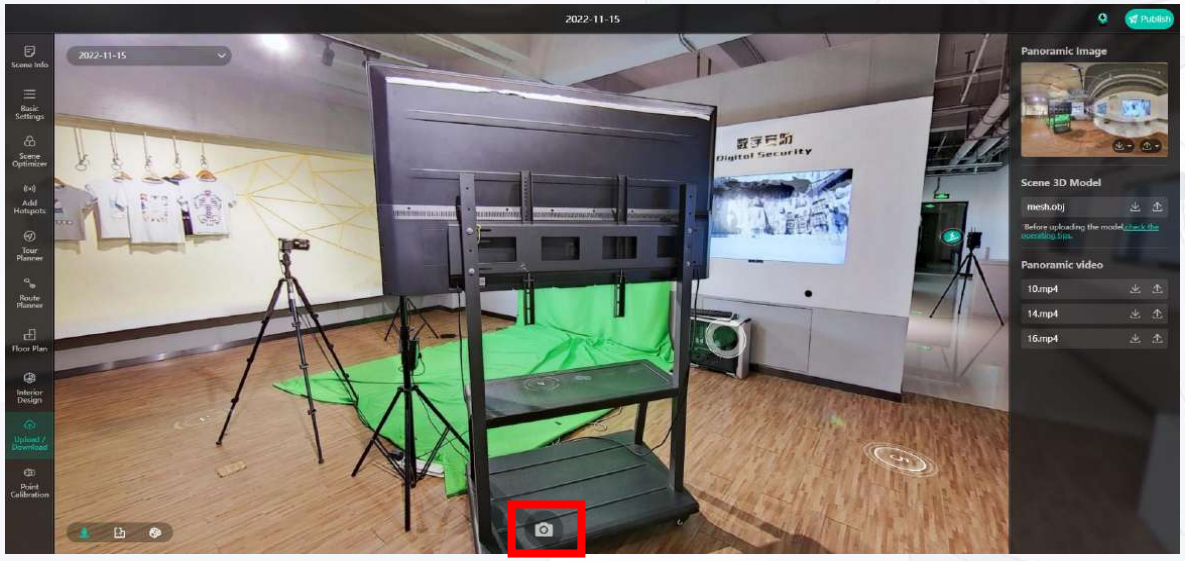
- **The Upload and Download module contains the following functions:**
  - Screenshots NEW
  - Upload/Download Panoramas
  - Upload/Download Scene Models
  - Upload/Download Scene Video

4DKanKan Mesh Editor

9.1 Screenshot

- **Screenshot**

You can access the screenshot function by using the screenshot button (shown in the red box on the left) below the upload and download module.
When you click on it, you will enter the viewfinder mode.

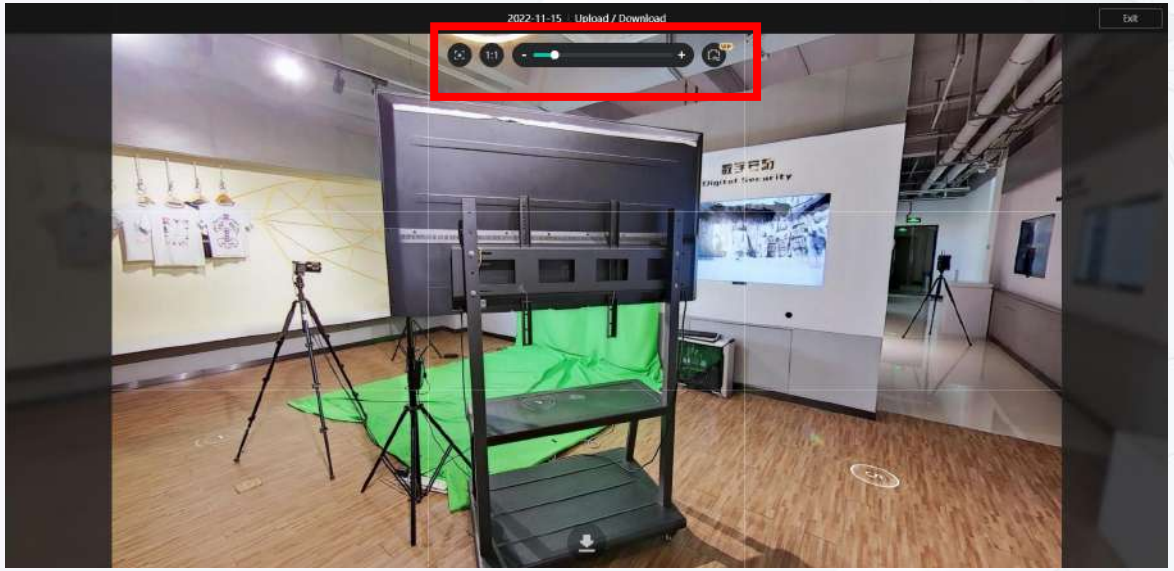


- **Viewfinder mode**

When you click the screenshot button, you will enter the viewfinder mode.
You can roam and move the camera to pick the right frame.
The area on top of the right picture (shown in red box) can help you to take a better view, you can change the scale of the picture and upload a watermark.

Membership users can upload a customized watermark.

Once you've taken the right view, click the Download button below to complete the screenshot. Your browser will download the screenshot.



4DKanKan Mesh Editor

9.2 Panoramas

Upload/Download Panoramas

Clicking the download button will bring up the current panorama/all panoramas.

Current Panorama: Only download the panorama photo of the current roaming point.

All Panoramas: You can download panoramic photos of all points in the scene.

Clicking the Upload button will upload a panorama photo to replace the corresponding panorama photo of the point.

You can modify the effect of the panorama photo by post-processing photo editing software (e.g. PS, etc.) after downloading the panorama photo, and then upload the replacement after modification.

Notices

1. After downloading, the point map will be named with a number. This number represents the corresponding point location. If you need to modify and upload, please keep the same naming of the image file as when you downloaded it. Otherwise, the panorama may be uploaded to the wrong point location, which may cause the splicing to fail when roaming.

2.Please try to keep the same resolution after modifying the panorama, it may be blurred after uploading with over-compressed resolution.

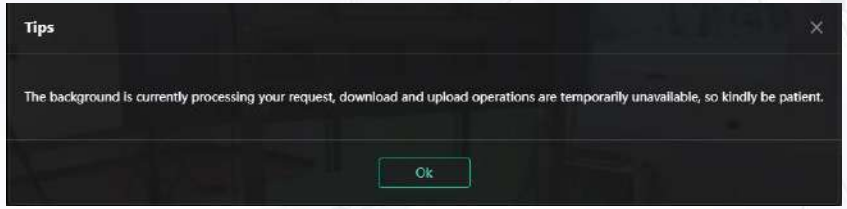
3. Support batch uploading of panoramas, please compress the panoramas into .zip format for batch uploading, and the image files still need to be named according to Note 1 above.

4DKanKan Mesh Editor

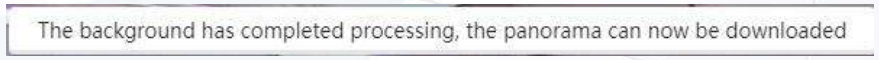
9.2 Panoramas

- **Panorama batch process flow - download**

1. When you select "All Panoramas" for panorama download, a prompt will pop up:



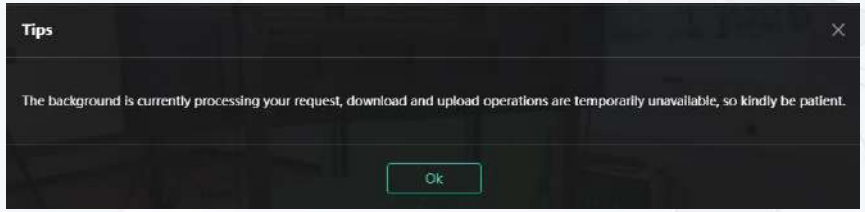
2. At this time, the batch download request will be processed in the background, the time depends on the number of panoramas in the scene, after processing, the page will prompt:



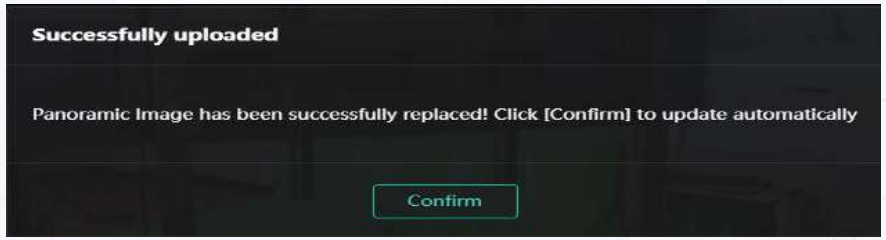
3. Click Download All Panoramas again and the browser will download it.

- **Panorama batch processing process flow - upload**

1. When you select "Batch Upload" for panorama upload, a prompt will pop up:



2. At this time, the batch download request will enter the background for processing, when the processing is complete, the following prompt will pop up, click to confirm. Upload successfully.



4DKanKan Mesh Editor

9.3 3D Models & Videos

Upload/Download 3D Models

You can upload/download 3D model via the 3D Models module on the right side of the Upload/Download module.

Clicking on the Download button will download the 3D model zip file.

Clicking the Upload button will upload the 3D model.

You can use post-production 3D modeling software (e.g. Maya, etc.) to refine the 3D model and modify it before uploading it as a substitute.

Notices

Upload 3D model format requirements

1. The file size should be less than 5MB;
2、Only 3D models in obj format are supported;
3、Package file format should be zip;
4、Package file should contain texture, model and mtl file;
5, the package file must not contain folders. All files such as image, model, mtl files should be placed in the root directory, as shown in the right picture.

4DKanKan Mesh Editor

9.3 3D Models & Videos

Upload/Download Panoramic Videos

You can upload/download dome videos through the Panoramic Video module on the right side of the Upload/Download module.

This module is for downloading/uploading dome videos.

If there is no such module, it means you did not shoot the dome video when you shot this scene.

You can download the dome video via the Download button. You can also upload the dome video via the Upload button.

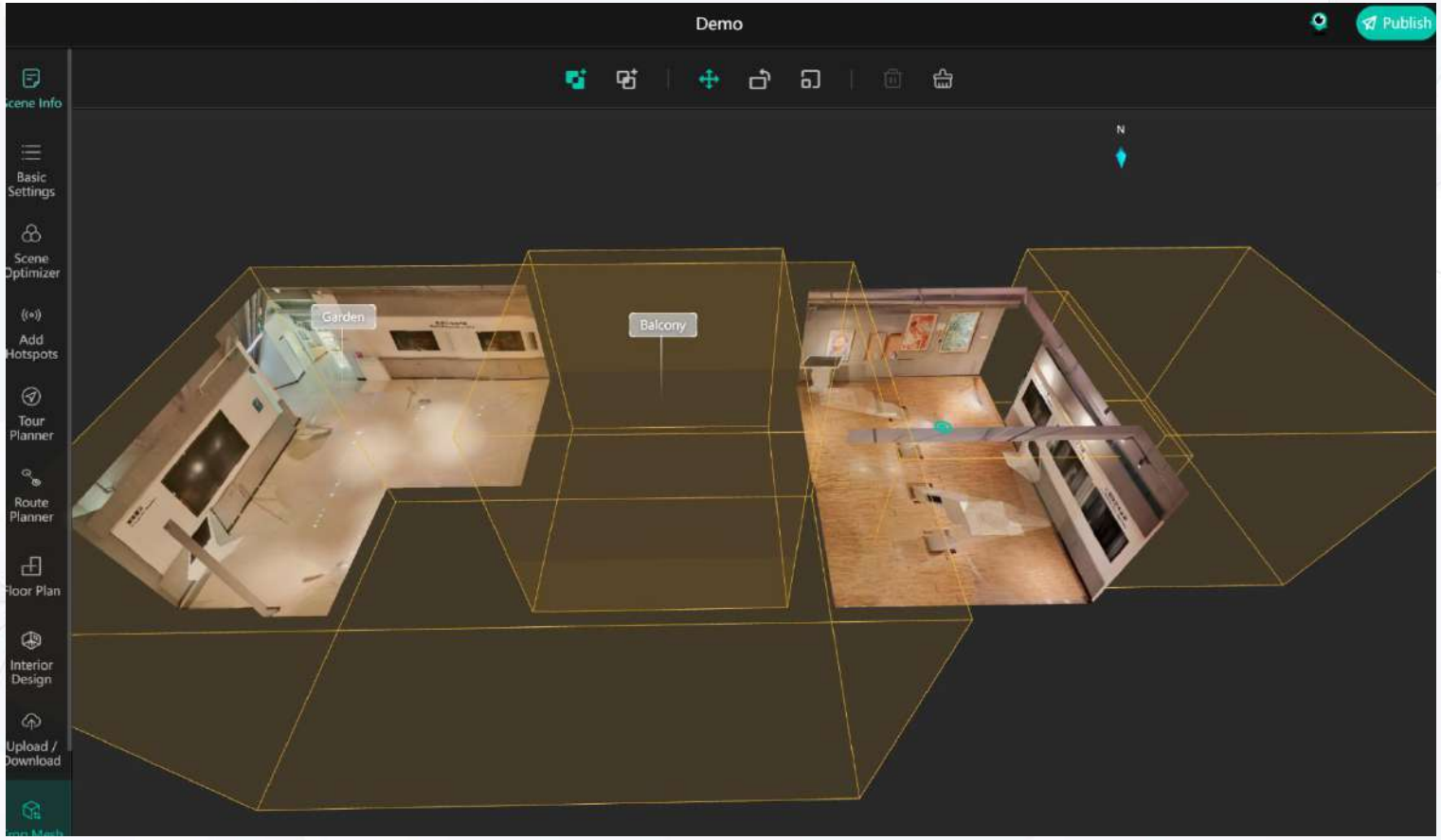
You can download the dome video and then process the dome video through post-processing software (such as PR, etc.), and then upload it instead. You can play the preview by roaming or clicking the name position of the video.

Notices

1. Please try to maintain a consistent resolution when dealing with dome videos, over-compressing the video resolution will likely result in blurring after uploading.
2. If you change the size of the video or crop it, it will not fit together after uploading. In order to make the dome video and panorama fit together, please don't change the size of the video easily.
3. Only .mp4 format is supported for uploading, please pay attention to the video export format.
4. We strongly recommend that you make a copy of the original video for backup. In order to avoid splicing problems after modification can not be recovered.

4DKanKan Mesh Editor

10. Crop Mesh



- **The Crop Mesh module contains the following functions:**
  - Crop Mesh NEW

4DKanKan Mesh Editor

10. Crop Mesh

Crop Mesh Model: Unwanted parts of the model can be easily cropped using a combination of toolbars.

- **Toolbar**

Exclude: Create an “Exclude” cropping box that crops the mesh model inside the box.

Intersect: Create an "Intersect" cropping box that crops the mesh model outside of the box.

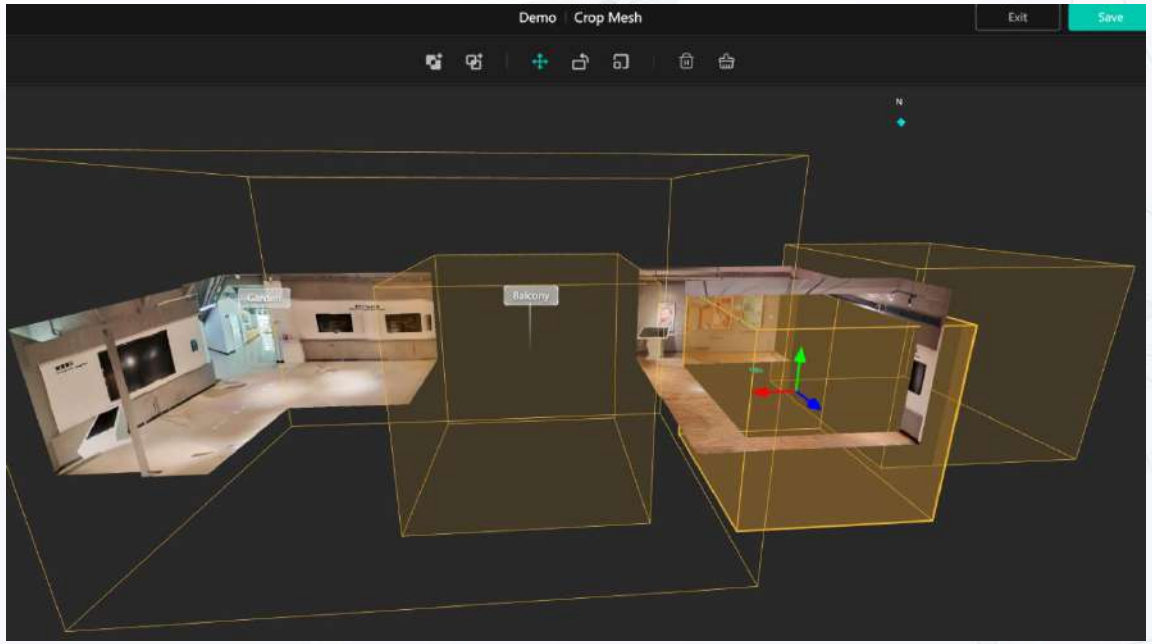
Move: Move the cropping box to change the position of the it.

Rotate: Rotate the cropping box to change the angle of it.

Scale: Scale the cropping box to change the size of it.

Delete: Deletes the specified cropping box

Clear: Clear all cropping boxes



4DKanKan Mesh Editor

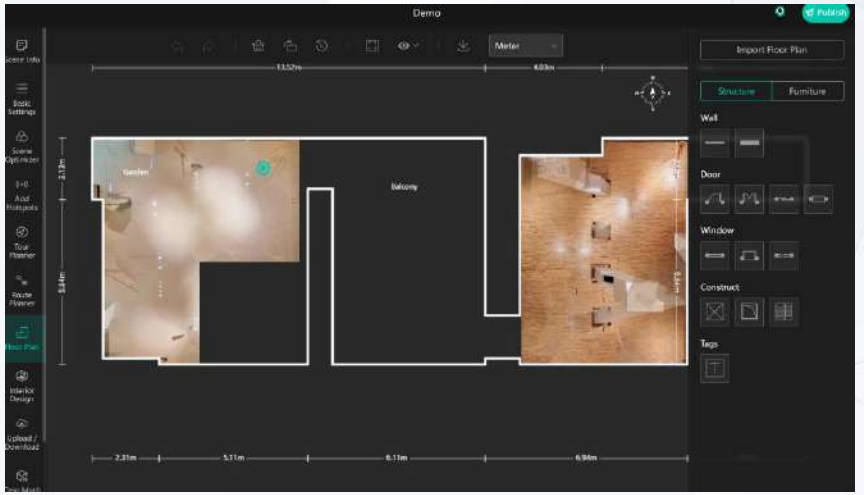
10. Crop Mesh

- **Cropping Tip 1**

You can create multiple crop boxes in the cropping function to achieve the desired cropping effect by combining multiple crop boxes.

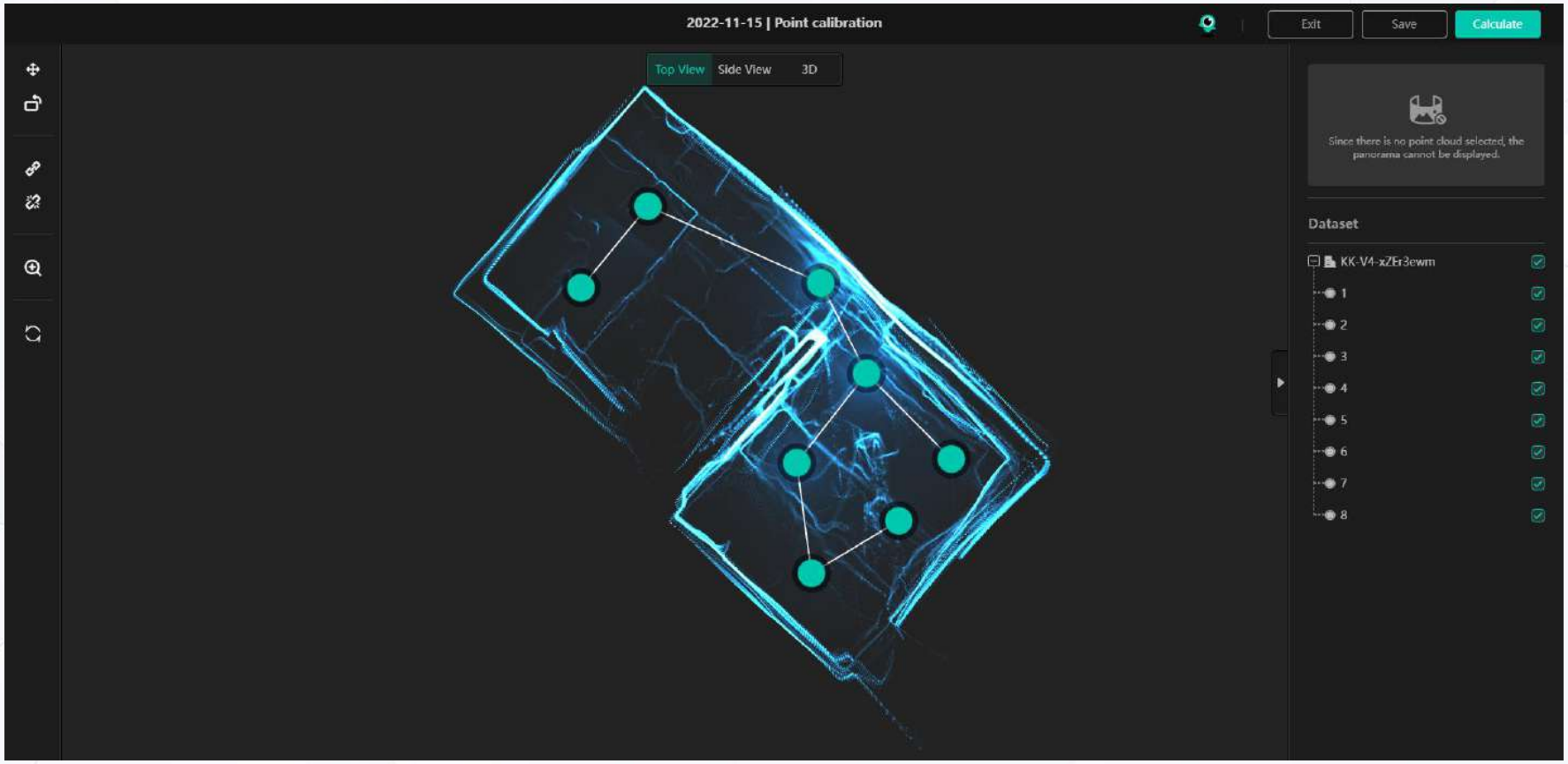
- **Cropping Tip 2:**

The plan view is a top view mapping of the model, if the model is cropped this will correspond to the mapping of the bottom view of the plan view.



4DKanKan Mesh Editor

11. Point Calibration



- **The Point Calibration module contains the following functions:**
  - Point Calibration NEW

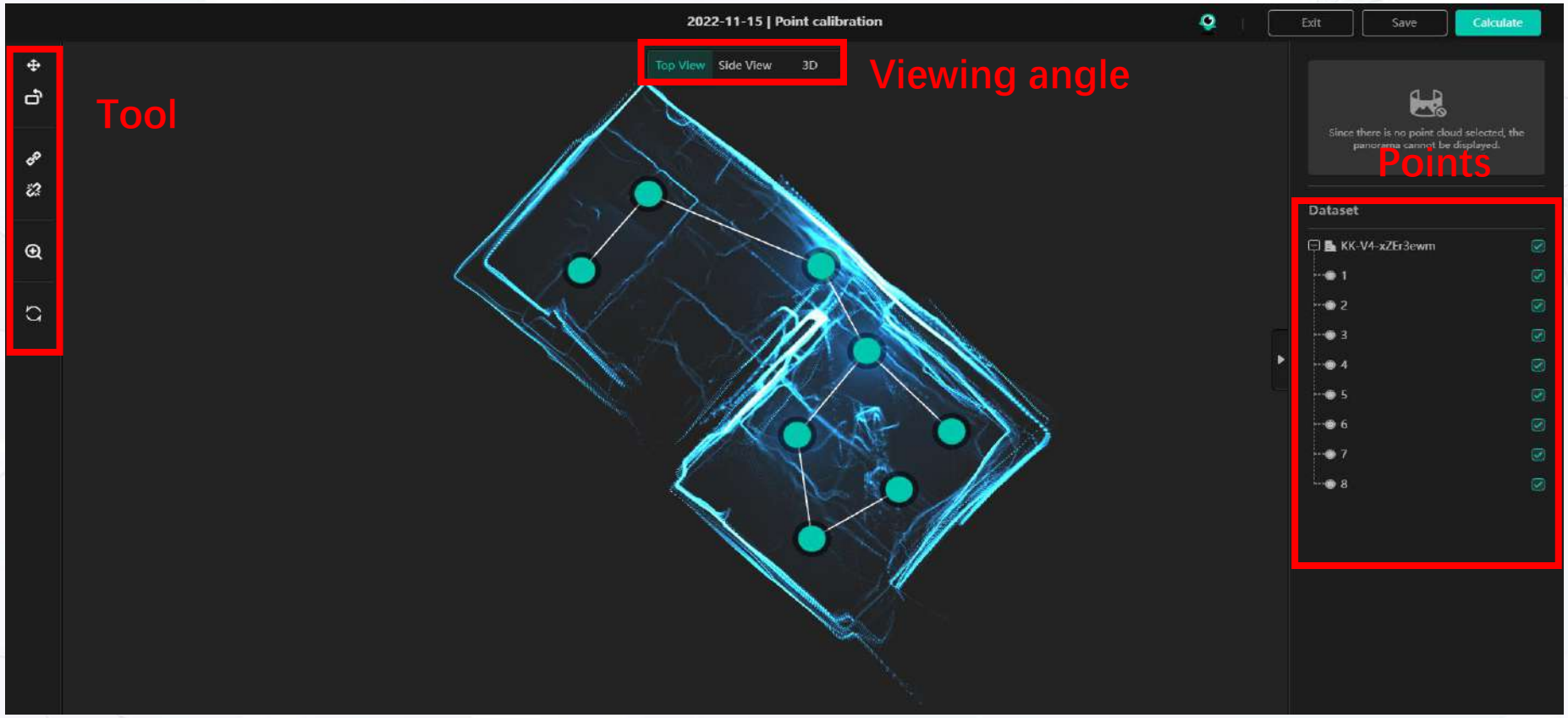
4DKanKan Mesh Editor

11. Point Calibration

Point calibration is mainly used for:

Point position deviations caused by calculation deviations that occur during shooting but are not manually adjusted correctly.

Point positions that do not match the expected ones in the calculation.



4DKanKan Mesh Editor

11. Point Calibration

- **Toolbar**

Move: Used to move points.

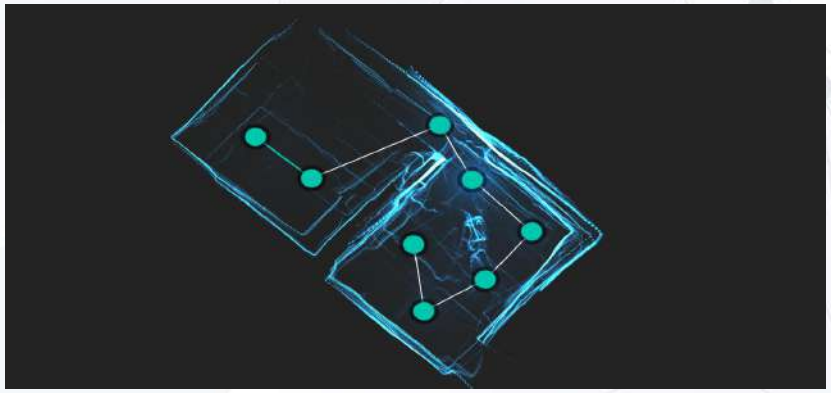
Rotate: Used to rotate points.

Connect:
Used to connect disconnected points.
Disconnect:
Used to disconnect connected points.

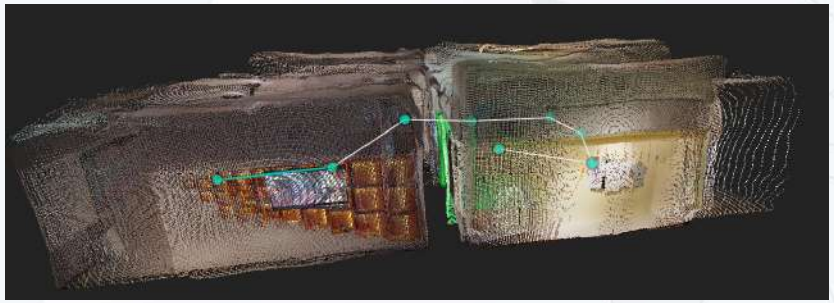
Zoom:
Used to zoom the image to the appropriate size (not to the maximum)

Restore Defaults:
Clicking on this will restore the points to the last calculation.

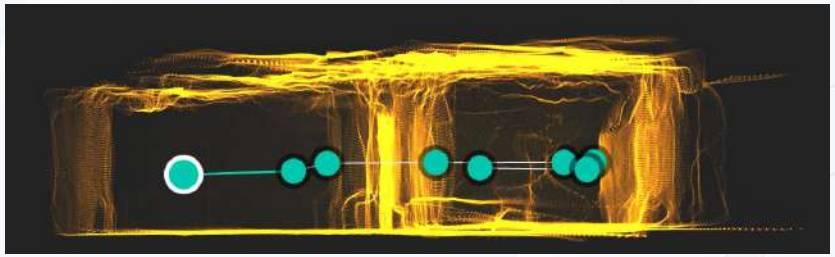
- **Top View**



- **3D View**



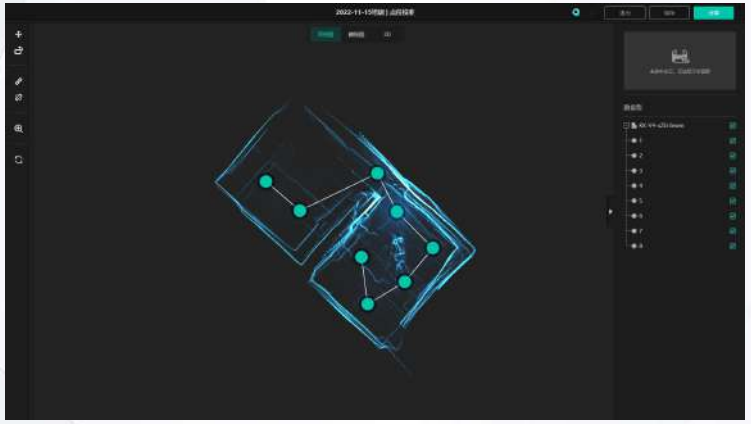
- **Side View**



4DKanKan Mesh Editor

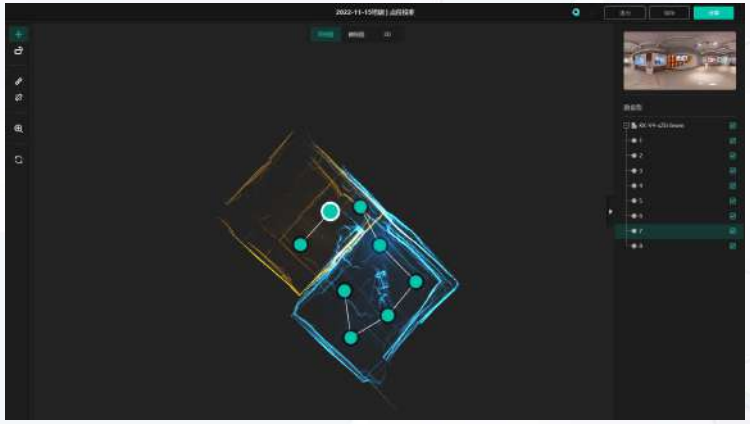
11. Point Calibration

1. Go to the Point Calibration page and first select which point or section needs to be adjusted.

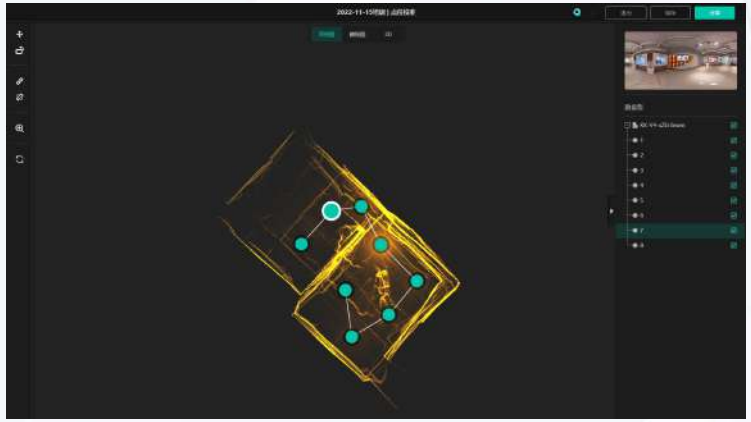


2. Select the Disconnect tool to disconnect the part that needs to be adjusted from the rest and select the part that needs to be adjusted. The selected part will be highlighted in yellow. The panoramic view of the selected point and the point number will be displayed on the right side of the point column.

3. Calibrate the adjustment part by rotating and moving. Calibration can be selected by the adjustment of the angle of view.



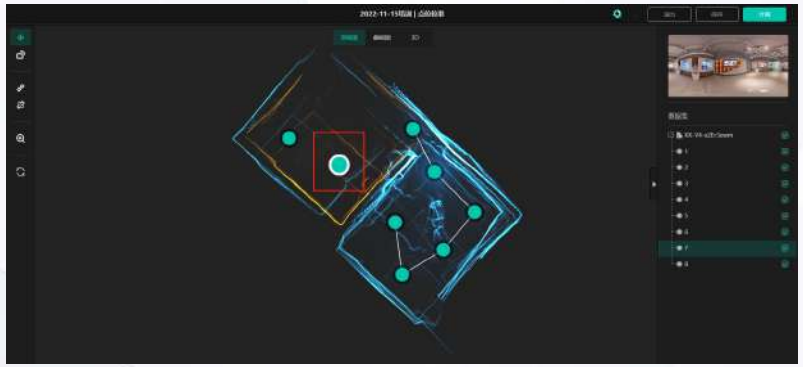
4. After adjusting, reconnect the disconnected part by connecting tool. After switching views to see the effect without error, you can click the Calculate button in the upper right corner. The scene will be recalculated according to your calibration.



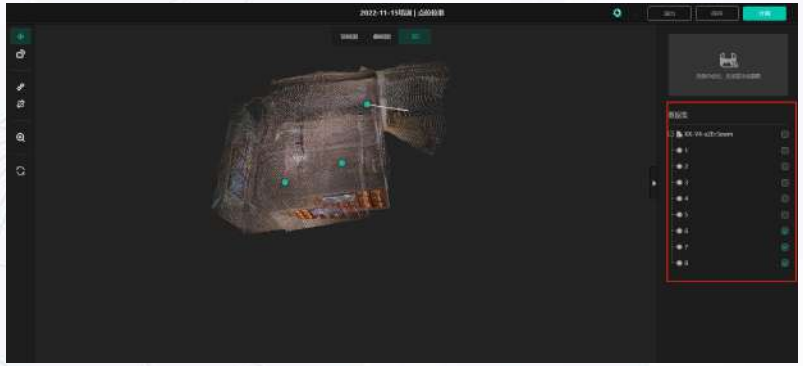
4DKanKan Mesh Editor

11. Point Calibration Tips

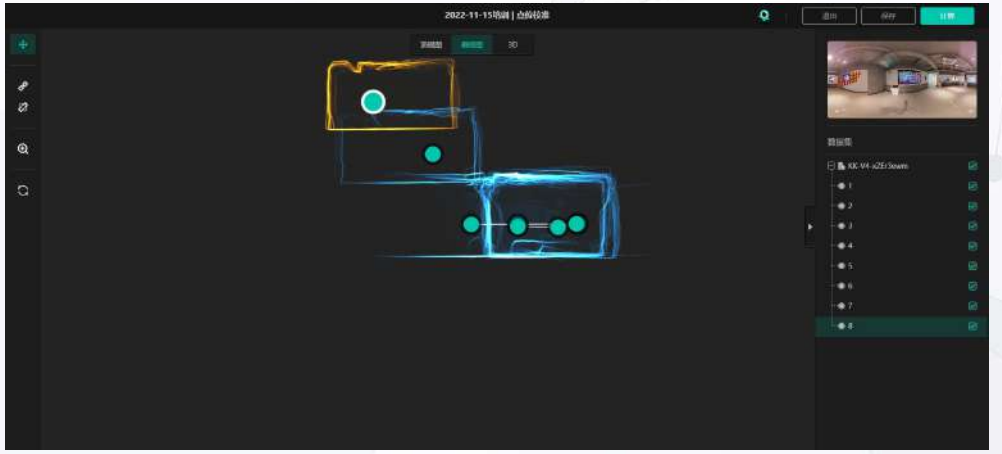
1. It is possible to calibrate only one point individually by disconnecting all the lines of a point. Or disconnect a part of it as in the previous tutorial and adjust the part as a whole.



2. You can hide some points that will interfere with your calibration by using the Show/Hide button on the right side of the points bar, to the right of the points. To facilitate calibration. (Not hide the points, just hide the display in the calibration)



3. For models with height difference errors. It can also be adjusted by point calibration, the viewpoint is switched to the side view, and the height of the points can also be calibrated by disconnecting the connecting line.



4. For more complex scenes, when the point calibration can not be completed at one time, you can click the upper right corner to save and then close, the next time you enter the calibration will retain the saved results to continue calibration.

5. After adjustment, please switch the viewpoint to confirm that there is no error before submitting the calculation. Because you need to regenerate the scene and model after calibration, you can't pause the calculation after submitting, you can only wait until the calculation is finished.

Thanks


4DAGE
DIGITAL EVERYTHING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CHINA-GERMANY
ARTIFICIAL INTELLIGENCE
INSTITUTE

Scan with 4DKanKan Minion

Overview

Scan with 4DKanKan Minion

1. Setup the Minion

- **Set up tripod**

Open the locking clips on the legs of the frame. Extend the legs, pull them down and make sure the legs are fully extended, then lock the locking clips back into place.

- **Set up wheeled dolly**

Take out the wheeled dolly and press the silver rivet to unfold the wheeled dolly. Insert the tripod stand into the snap that corresponds to the wheeled dolly and secure the tripod by tightening the screws on the snap.

- **Mount Minion on tripod**

Align the screw holes on the bottom of the Minion with the screws on the tripod, hold the Minion with one hand and tighten it with the other hand until it can no longer be screwed to ensure that it is firmly mounted on the tripod (normal tightening is sufficient).

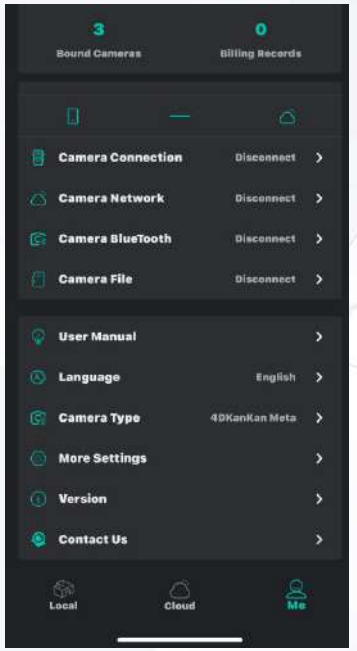
Note: You need to wipe the camera lens before scanning.

Scan with 4DKanKan Minion

2. Connect the Minion

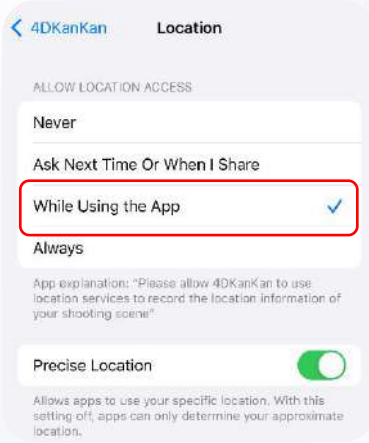
- **Select Camera Type**

In 4DKanKan App, click [My] - Camera Type - Select [4DKanKan Minion].



- **Allow Location Access**

Make sure location access is enabled and the application is authorized for location information.



Note: When using the Minion, **you must enable location access**; if the APP does not have authorized location information and location access is not enabled, your phone cannot connect to the Minion and cannot be used.

Scan with 4DKanKan Minion

2. Connect the Minion

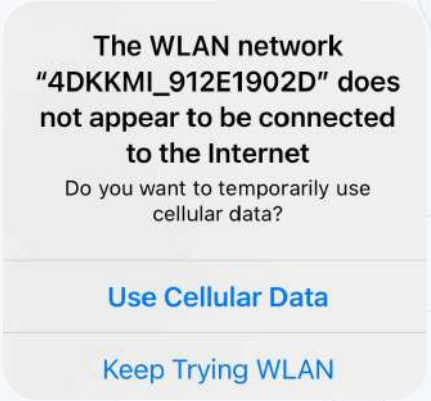
- **Turn on the Minion**

Press and hold the power button for 3 seconds, and when you see the 4DKanKan logo and four icons on the screen, it means that the self-test of the camera is completed, you can start connecting to it.

- **Connect the Minion**

3. Open the APP, on the **My** page, click **Camera Connection**, search for the Wi-Fi named **4DMI_XXXXXXXXX**, enter the password **12345678** to connect.

Note: If your phone prompts that this Wi-Fi network is not connected to the network and asks you to switch to cellular data, please select **[Keep Trying WLAN]**.



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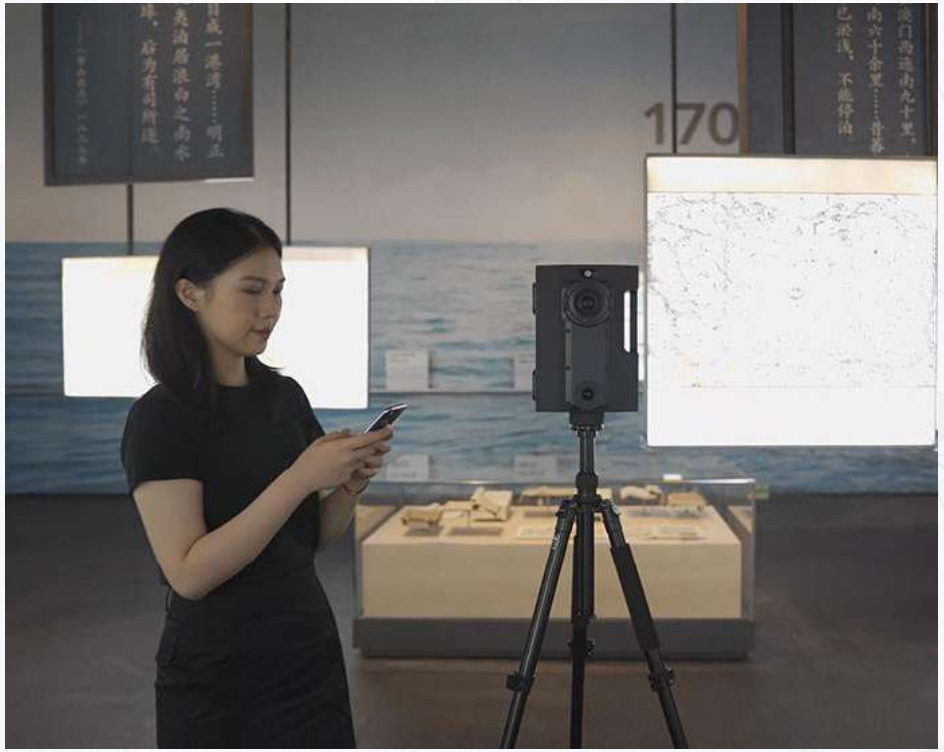
Scan with 4DKanKan Minion

3.1 Project Scanning - Preparing the Environment

1. Keep the door open to allow the Minion to move freely;
2. Turn on all the lights in the room and make sure the room is bright enough;
3. Tidy up and pack up the items you are not going to display;
4. If there is too much light outside, it is recommended to close the curtains to avoid overexposing the image;



Scan with 4DKanKan Minion

3.2 Project Scanning - Route Planning

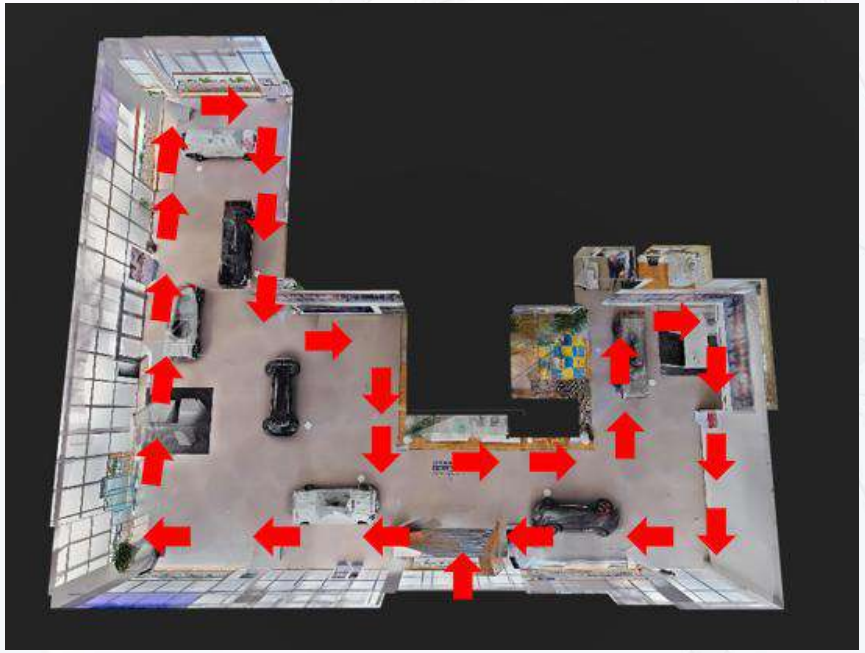
- **Route Planning**

Before scanning, please plan the route in advance to avoid repeated walking back and forth, which will affect scanning efficiency.

Principles of route planning: In the walkable area, set up scanning points according to the effective distance.

Make sure that the distance between the points is even, and the distance between two adjacent points is controlled between 1.5 meters and 2 meters.

Note: If there is a room transition, you must scan in front of the door and behind the door.



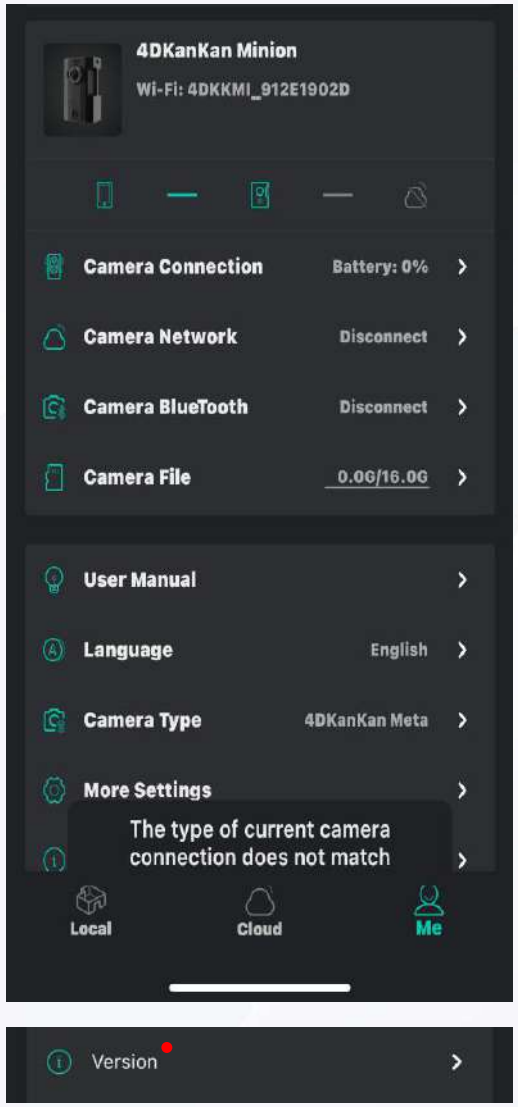
Scan with 4DKanKan Minion

3.3 Project Scanning - Check App Version

- **Check App Version**

Minion's features are constantly being updated, so it is important to make sure you are using the latest version of the **app and firmware** before scanning.

1. In the app, click My and Version Information, in the Version Information page, if you see "**This is the latest version**", then you can start scanning, otherwise please update the app version first.
2. If there is any app version update, there will be a **red dot reminder** in the version information, after clicking it, you can download and update it directly.

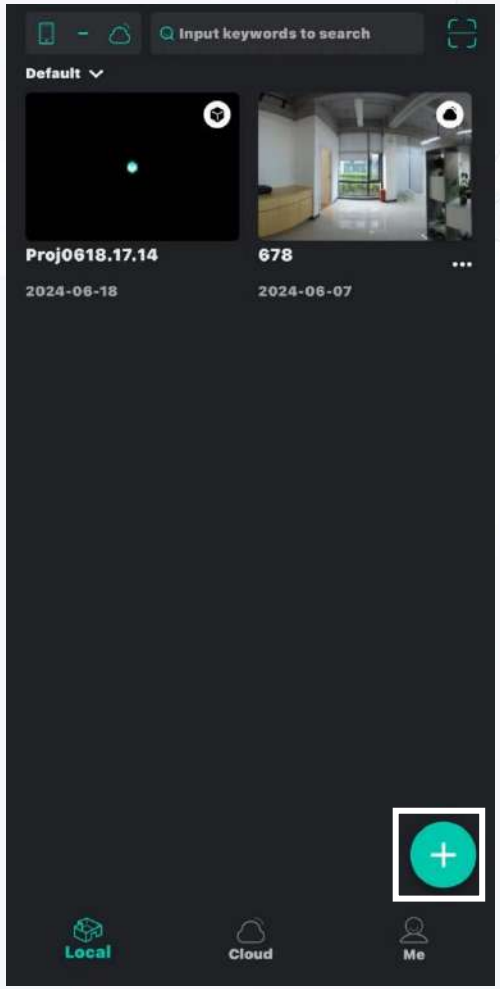


Scan with 4DKanKan Minion

3.4 Project Scanning - Scanning

- **Create a New Project**

Click Local - the + sign in the lower right corner to create a new scanning task.

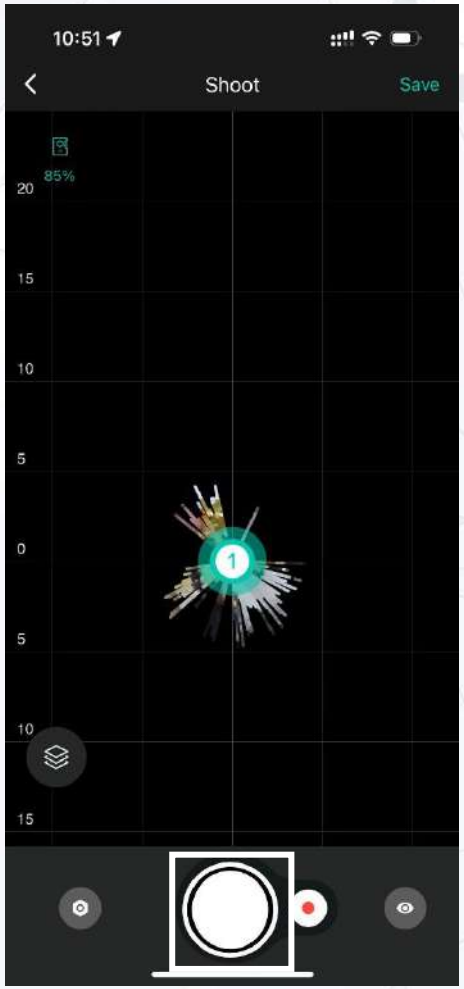


- **Scanning**

Move the camera to the desired location and click the shoot button to start scanning. The camera will scan in a clockwise direction, with each rotation being 60 degrees. This process will take six rotations to complete the shooting of a point.

Note: During the scanning process, the operator must follow the camera and look at the camera display to prevent getting into the panorama.

You can preview your scanning in the app. If you're satisfied with it, move the camera to the next point and scan. If you want to re-shoot, delete the current point and scan.



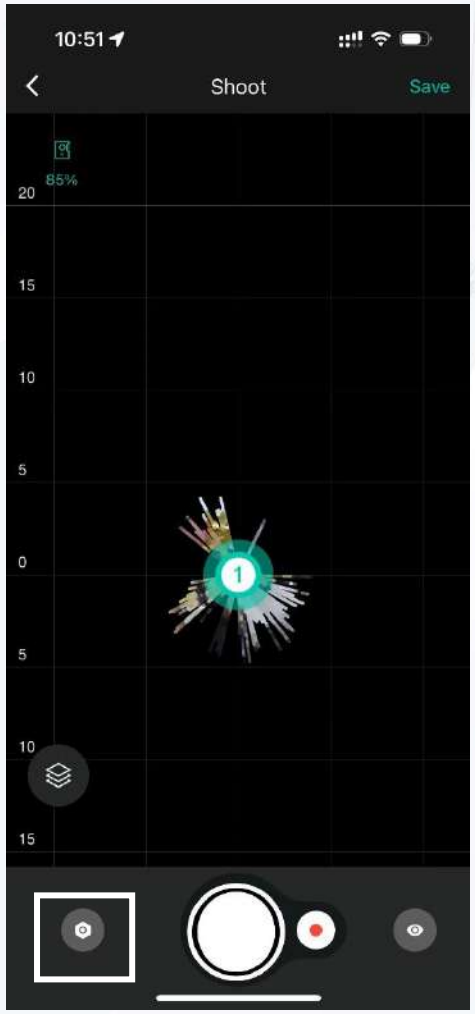
Scan with 4DKanKan Minion

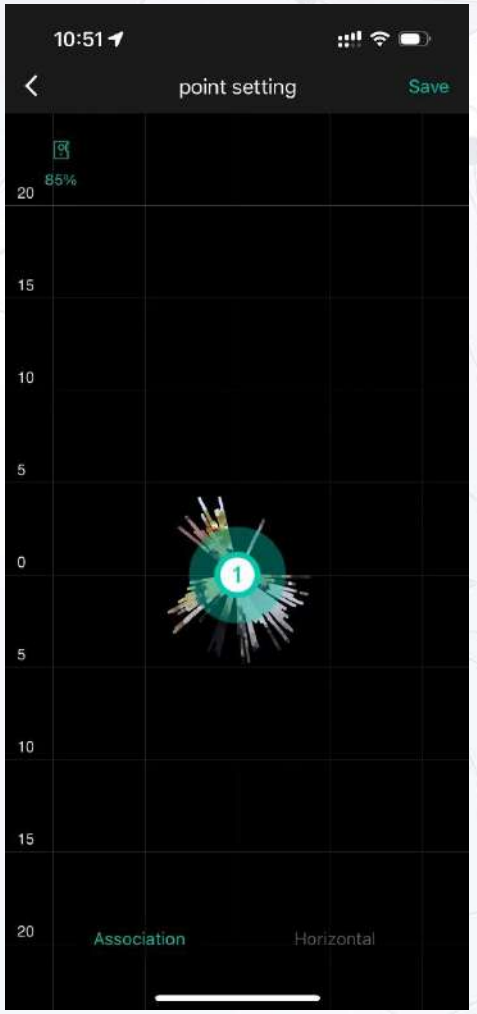
3.4.1 Point Association

- **Point Association**

If you want to go back to a point near the one you scanned earlier to continue scanning, you need to use point association.

(1) You need to click the **unlock button**  in the lower left corner first to unlock the point.
(2) Select **the closest associated point** to the point you want to scan, click the point, and when you see the point **flashing**, the selection is successful.
(3) Click the upper right corner to **save** and restore the locked point, you can continue scanning.





Scan with 4DKanKan Minion

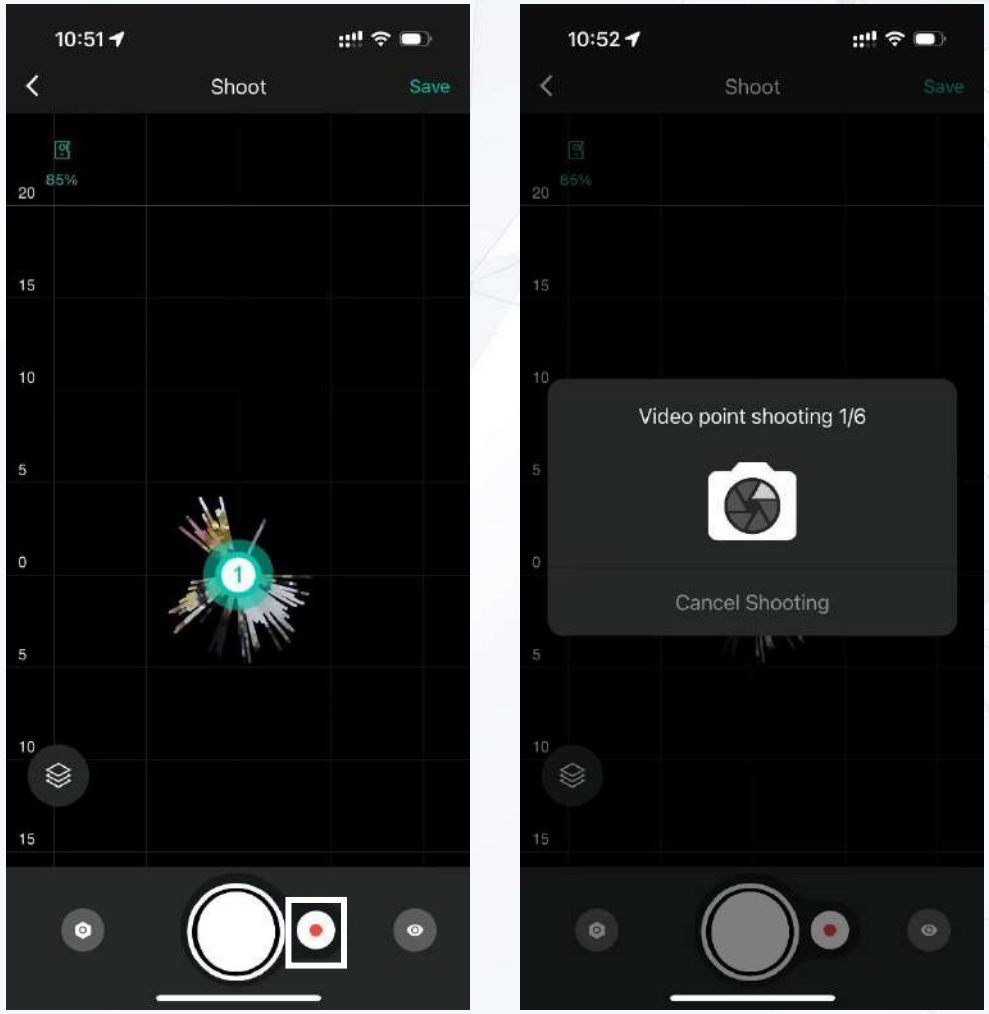
3.4.2 Video Recording

- **Video Recording**

(1). You need to plan the point and content of the video in advance, and the recording process does not support pause. The recording time of the whole video should not exceed 5 minutes.

(2). Place the camera about **2.5 meters** away from the speaker and adjust the direction of the camera to focus on the speaker.

(3). Click the **Record Video button**, the camera will automatically capture the panorama first, and then automatically switch to the video preview page. You will be prompted to connect a Bluetooth headset, please find the Bluetooth headset you want to connect in the list and click Connect. **You must use a Bluetooth headset for audio recording, otherwise the video will have no sound.**



Scan with 4DKanKan Minion

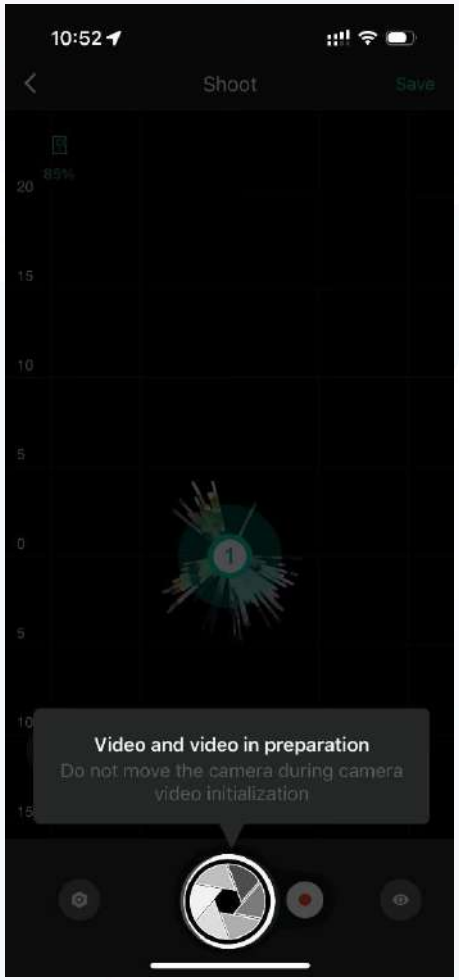
3.4.2 Video Recording

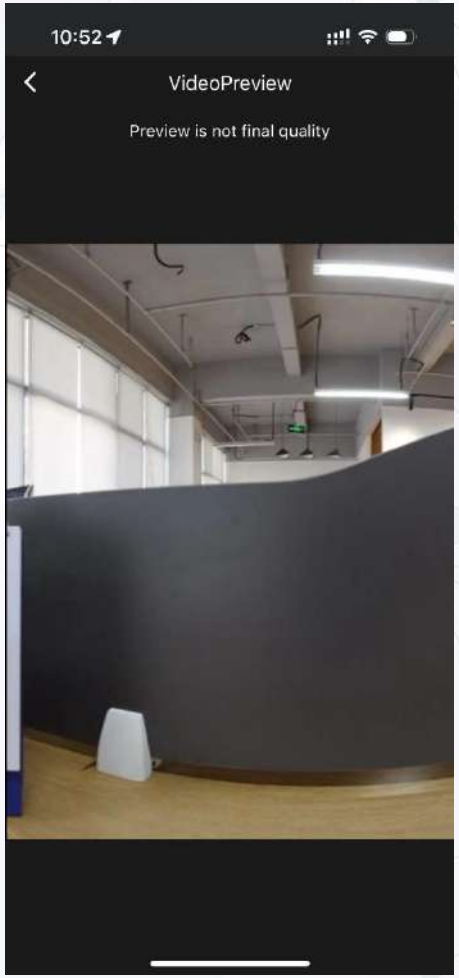
- **Video Recording**

(4). Please check the position of the subject to be captured in the frame. If you find that the distance is not enough and only half of the speaker's body is in the camera, you need to readjust the camera distance and repeat the operation of (2).

(5). When the speaker is ready to be recorded, click the Record Video button to start recording and click again to stop recording. **You cannot move the camera or adjust the direction of the camera during the whole recording process.**

(6). After recording, you can watch the video using the playback function of the app. If you want to record again, just click the Record Video button.





Scan with 4DKanKan Minion

3.4.2 Video Recording

- **Bluetooth Headset**

Note: The full range of **Apple Airpods** headphones **do not support the audio recording.** You can choose the recommended adaptive Bluetooth headset like **Honor Earbuds X1, Walker LolliPods, JEET ONE, Redmi Buds 3**.

Scan with 4DKanKan Minion

3.4.3 Multi-floor Project Scanning

- **Multi-floor Project Scanning**

(1). For multi-floor scanning, it is necessary to **scan along the stairs** to get to the other floor. When scanning the stairs, you need to keep the position of the camera in a **horizontal position**, please set a scan point **every 2-3 steps**, the distance between scan points can also be shortened to **50cm to 1m**.

(2). When you reach **the top of the stairs**, click the "**Add Floor**" button in the lower left corner of the scanning page to add a new floor, and then continue scanning the space of the new floor.

(3). After all floors are scanned, upload the data to the cloud to complete the multi-floor space scanning.

Scan with 4DKanKan Minion

4. Uploading Projects

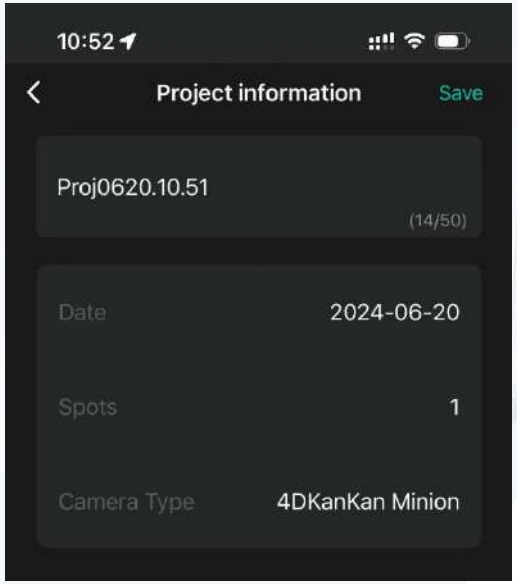
- **Save and Upload**

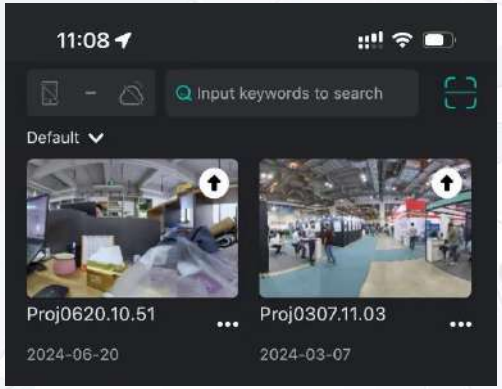
(1) After all the scanning is finished, click the Save button in the upper right corner, and then enter the project information to save it.

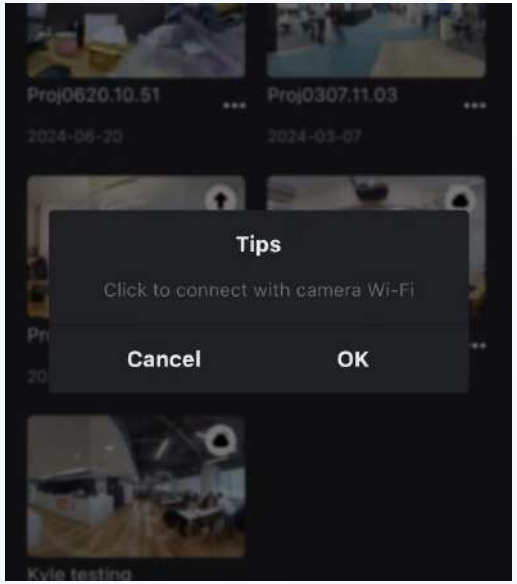
(2) Back to the Project List page, click the up arrow button in the upper right corner of the finished scene.

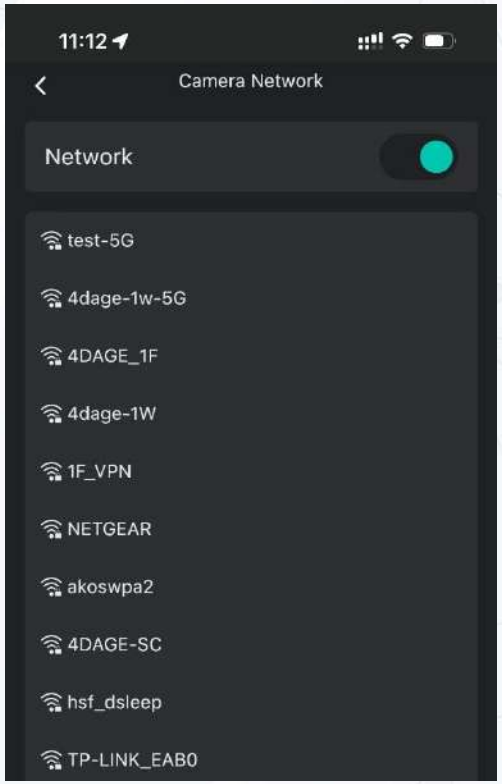
(3) In the Camera Wi-Fi Connection pop-up window, select the Wi-Fi network and connect, at this time the phone will be connected to the cloud through the camera.

(4) Click the Upload button again to start uploading. When the upload progress bar reaches 100%, you can turn off the camera and wait for the cloud to calculate and the result comes out.









Scan with 4DKanKan Minion

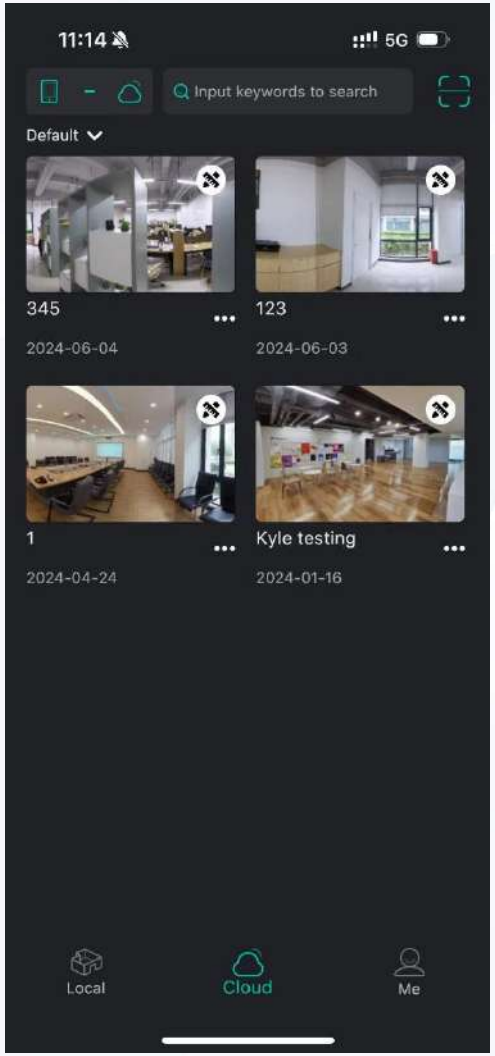
4.1 Checking Result on the App

- **View on the App**

(1) During the project calculation, the corresponding status is displayed as a cube.

(2) After the project calculation is finished, the app will send a notification to remind you that the calculation is finished. At the same time, the status icon will change to a cloud pattern.

(3) Go to Cloud in the navigation bar and click on the project cover to view the result.



Scan with 4DKanKan Minion

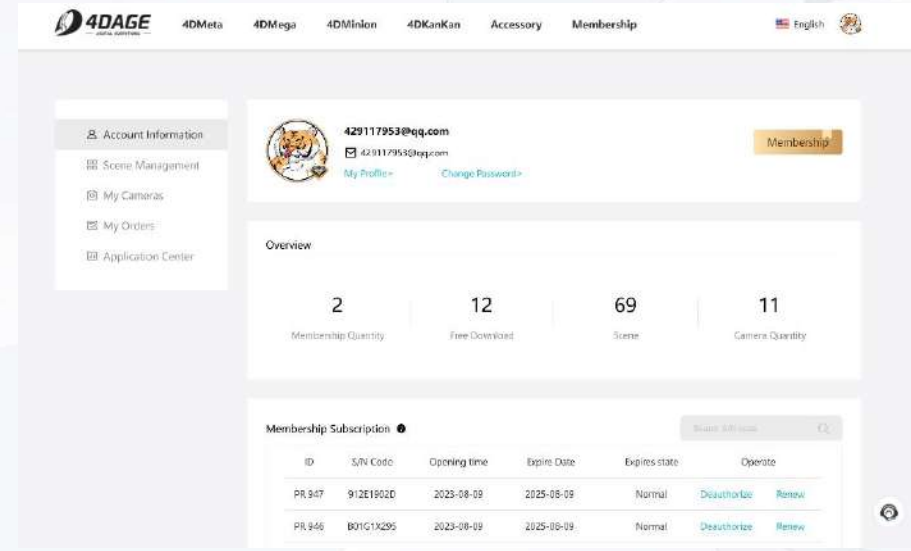
4.2 Checking Result on the website

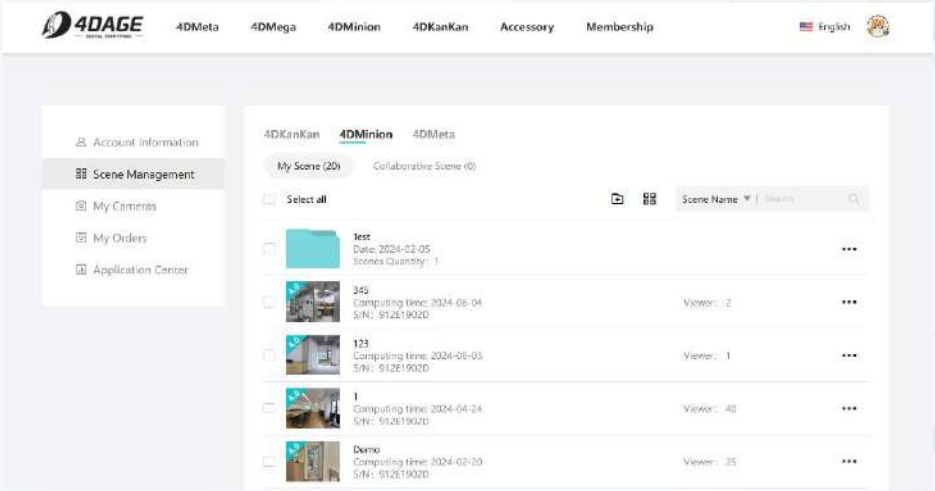
- **View on the website**

(1) For PC, log in to **eur.4dkankan.com**, click Login at the top right corner of the web page, and enter your account and password to log in.

(2) Select **Scene Management** on the left side, then select **4DKanKan Minion** on the top, and you can see the calculated projects in the list.

(3) Click the cover image of the list to **view** the scene.



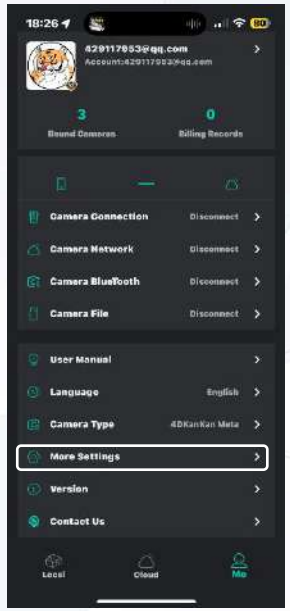


Scan with 4DKanKan Minion

5. FAQ

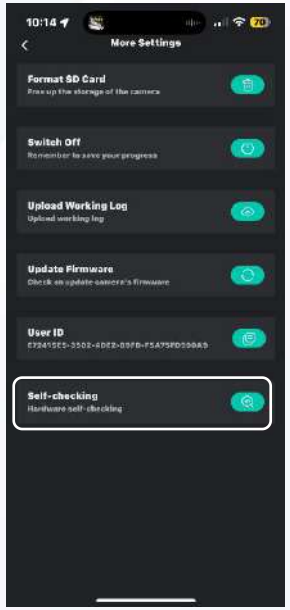
- **A. How to update the App firmware?**

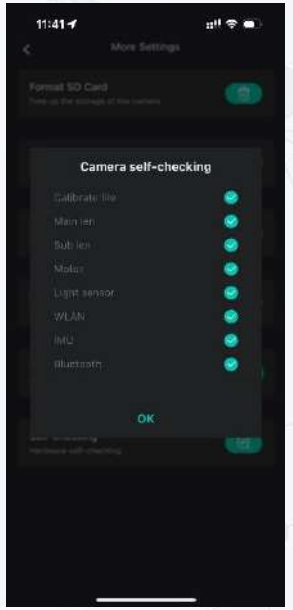
1. The camera will automatically update its firmware when necessary. When you open the app, a prompt will appear informing you of the update. You will not be able to use the camera if you do not update the firmware.
2. To update the firmware, click **My - More Settings - Update Firmware**.



- **B. How to perform the camera self-checking?**

1. During the use of the camera, if the camera has been bumped or placed improperly during transportation, it may result in damage to the camera lens or a lack of focus. If the camera takes a long time to scan a point or generates a blurred image, or if you click the shoot button but the image is not generated, you need to check the lens of the camera to identify any potential issues.
2. Please click **on My - More Settings - Camera Self-checking**.





Scan with 4DKanKan Minion

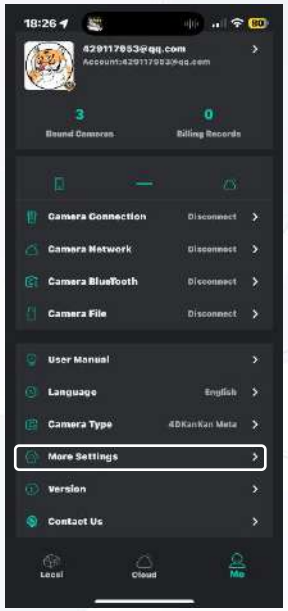
5. FAQ

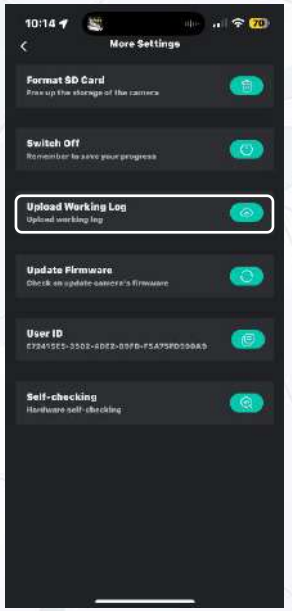
- **C. How do I upload logs for troubleshooting?**

If you encounter any problems while using the camera, you need to upload the camera log for technical support:

APP Upload Log:

1. Connect your mobile phone to the camera and the camera to the network;
2. Click **My - More Settings - Upload Log**;
3. After clicking "Upload", the application will prompt “Log uploaded successfully" when the progress bar is 100%.

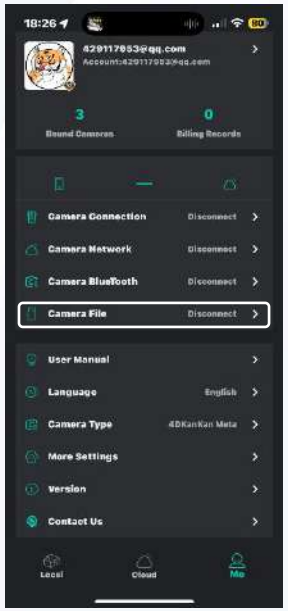


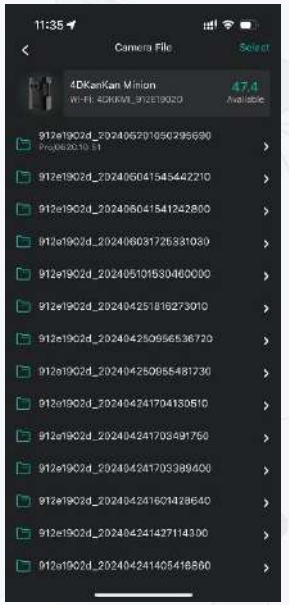


- **D. How do I clear the camera memory in the app?**

How do I clear the camera memory in the app?

1. Connect your mobile phone to the camera;
2. Make sure all projects are uploaded to the cloud;
3. Click **My - File Management - Select**, select the project files need to be deleted, if you are not sure about the files need to be deleted, you can follow the project scanning time, or click into the file to check the .JPG file to confirm it by checking the images.





Scan with 4DKanKan Minion

5. FAQ

- **E. Overexposure in video recording?**

Reason: The video recording does not have HDR photography, if the panorama of the scan point needs to turn on the HDR photography, there will be a problem in the video stitching, so the camera will not turn on the HDR photography during recording, leading to overexposure in it;

Solution:

1. Preview the video effect before recording;
2. Adjust the camera position when shooting, **don't shoot the light that is easily overexposed, or bring down the light a little.**

- **F. Calculation failure in stairs scanning?**

Reason: The camera works based on the recognition of spatial feature points, and the environment of stairs is highly similar while the lighting is uneven.

Solution:

1. Shorten the shooting distance between points;

2. Place **references** on both sides of the stairs to improve feature recognition (e.g. stickers, small objects and etc.);
3. If there is a sensor light in the stairs, it is recommended to **keep the light on all the time.**

Scan with 4DKanKan Minion

5. FAQ

- **G. Camera files are missing and scanning can't continue?**

Reasons:

1. Camera files saved in File Management have been deleted or formatted;
2. The project was not uploaded, or there is a rescan content that was not uploaded before the file was deleted.

Solution:

1. **Rescan the project**;
2. If it is a rescan project, **download the project from the cloud to Local and then upload it after rescanning.**

- **H. Project archived?**

Reason:

Insufficient cloud capacity.

Solution:

1. Delete the previous projects to release the capacity;
2. Purchase "Membership Benefits" to enjoy unlimited capacity.

- **I. Unable to connect to camera Wifi?**

Solution:

1. Check if the installed APP is correct;
2. Check if both network permissions and location permissions are turned on;
3. Check if the camera is connected from another phone (because the camera only allows one device to be connected);
4. The camera WiFi may deny access, you need to restart the camera.