

# NaviTiR System User Manual

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If you need the latest version of this manual or download the software, please visit our website <https://www.fotric.com/fotric-navitir> or contact us.

FOTRIC recommends that you use this manual under the guidance of a professional.

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## 1. Software Introduction

FOTRIC NaviTiR software offers digital ledgers for asset management, providing users with inspection data statistics, work reports, data queries, image analysis, historical trends, and other data management functions.

It helps users easily build a digital, standardized, and intelligent thermal image data platform, laying a solid foundation for the creation of an intelligent factory

## 2. Software installation

Step 1: Double-click the installation package and click "Next".

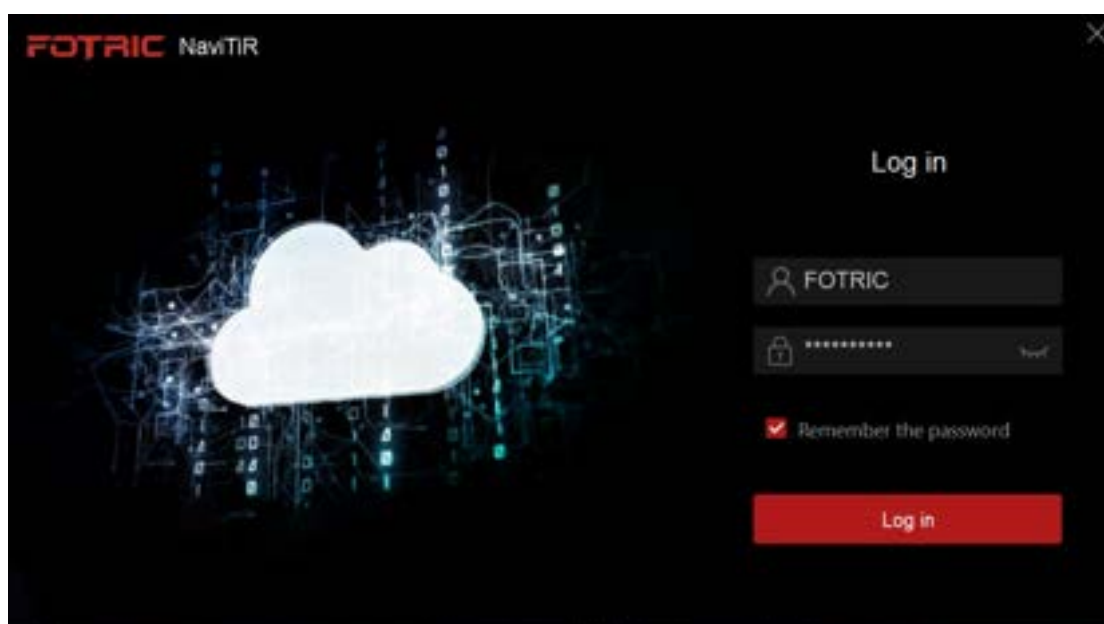
Step 2: Select the location where the software is to be installed or select the default installation location and click "Next".

Step 3: Choose whether to create a desktop shortcut and click "Next".

Step 5: Then click "Install", and when the installation is finished, check or uncheck the "Launch NavTiR" option and click "Finish".

## 3. PC software

### 3.1 Main interface



After successfully logging into the software, you will reach the main interface, which includes four sections: Overview section, Device library section, Thermal imager(s) section, and Settings.

## 3.2 Overview



- ① Section panel
- ② Asset list
- ③ Inspection point panel
- ④ Inspection diagnosis overview
- ⑤ Ledger information

The overview section allows users to check the result of each inspection and efficiently manage data.

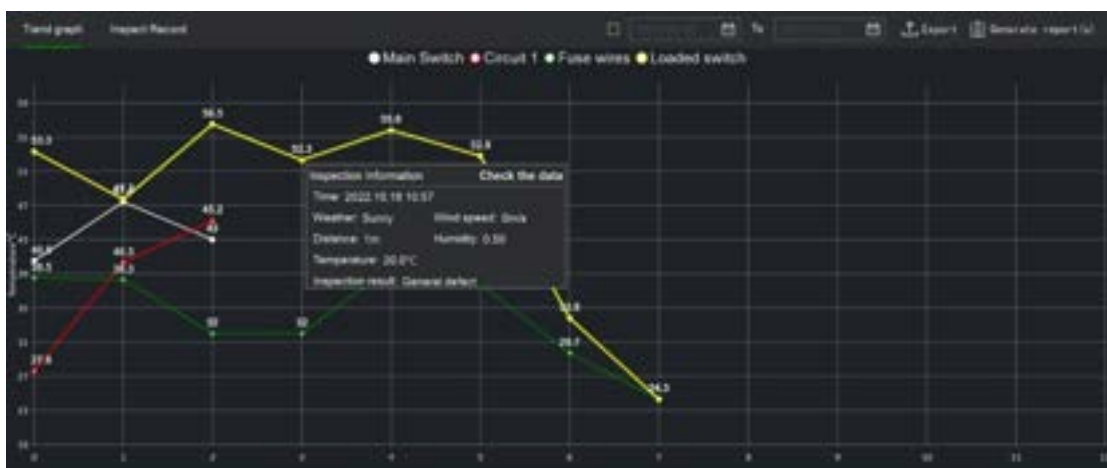
When double-clicking an individual record on the inspection point panel, users can access the 'inspection details' interface.



### 3.2.1 Inspection details

On this interface, users can read historical data of inspection points on a specific asset including trend graphs over time, inspection records, and modules. In addition, users can generate an inspection report with a single click.

#### 3.2.1.1 Trend graph

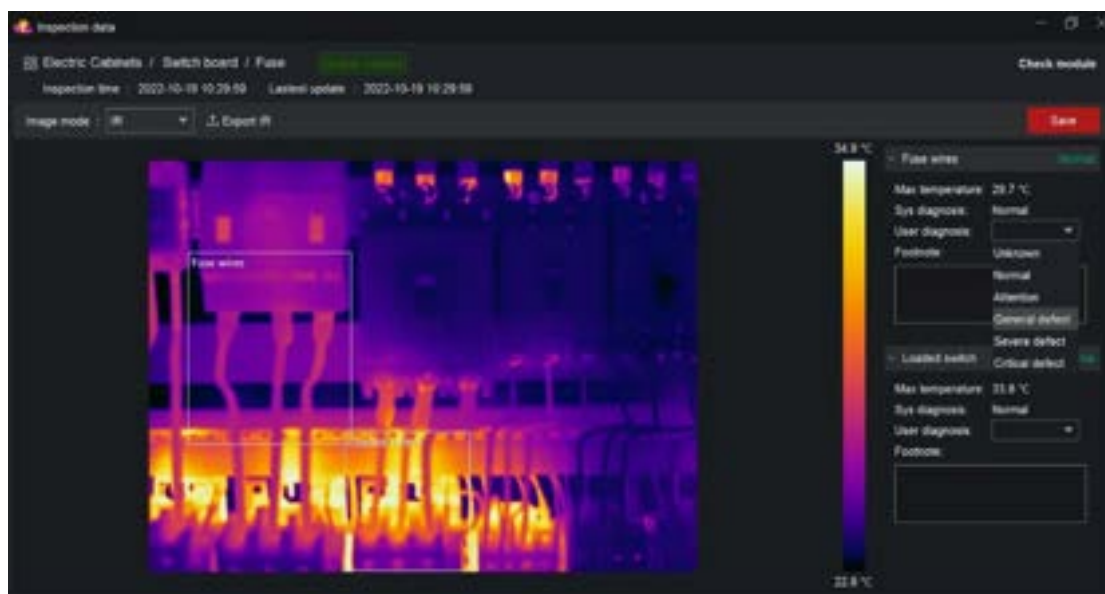


The trend graph panel is in display by default when users enter the “Inspection details” interface. Users can read not only the temperature fluctuation over time of an inspection point but also the diagnosis records.

### 3.2.1.2 Inspection record

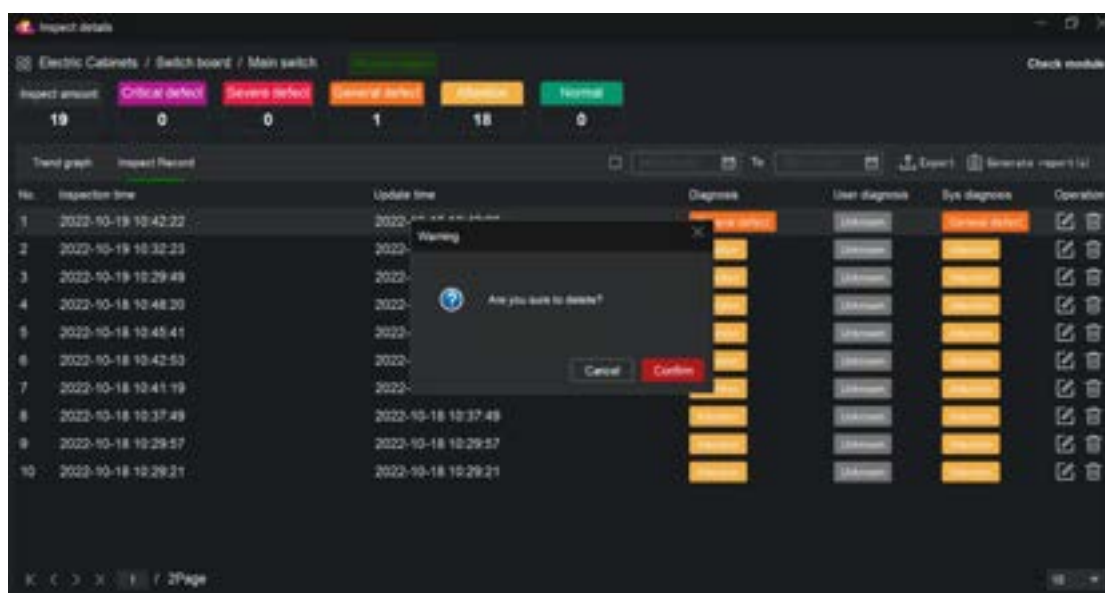
On this panel, users can manage inspection data e.g. access the data, check and modify the diagnosis, leave a comment(①), delete the inspection record(②), and generate a report(③)

No.	Inspection time	Update time	Diagnosis	User diagnosis	Sys diagnosis	Operation
1	2022-10-18 11:21:23	2022-10-18 11:21:23	Normal	Unknown	Normal	[Edit] [Delete]
2	2022-10-18 10:29:59	2022-10-18 10:29:59	Normal	Unknown	Normal	[Edit] [Delete]
3	2022-10-18 10:58:40	2022-10-18 10:58:40	Warning defect	Unknown	Warning defect	[Edit] [Delete]
4	2022-10-18 10:58:18	2022-10-18 10:58:18	Warning defect	Unknown	Warning defect	[Edit] [Delete]
5	2022-10-18 10:57:03	2022-10-18 10:57:03	Warning defect	Unknown	Warning defect	[Edit] [Delete]
6	2022-10-18 10:56:38	2022-10-18 10:56:38	Warning defect	Unknown	Warning defect	[Edit] [Delete]
7	2022-10-18 10:43:05	2022-10-18 10:43:05	Warning defect	Unknown	Warning defect	[Edit] [Delete]
8	2022-10-18 10:41:36	2022-10-18 10:41:36	Warning defect	Unknown	Warning defect	[Edit] [Delete]
9	2022-10-18 10:30:06	2022-10-18 10:30:06	Warning defect	Unknown	Warning defect	[Edit] [Delete]
10	2022-10-18 10:27:36	2022-10-18 10:27:36	Warning defect	Unknown	Warning defect	[Edit] [Delete]

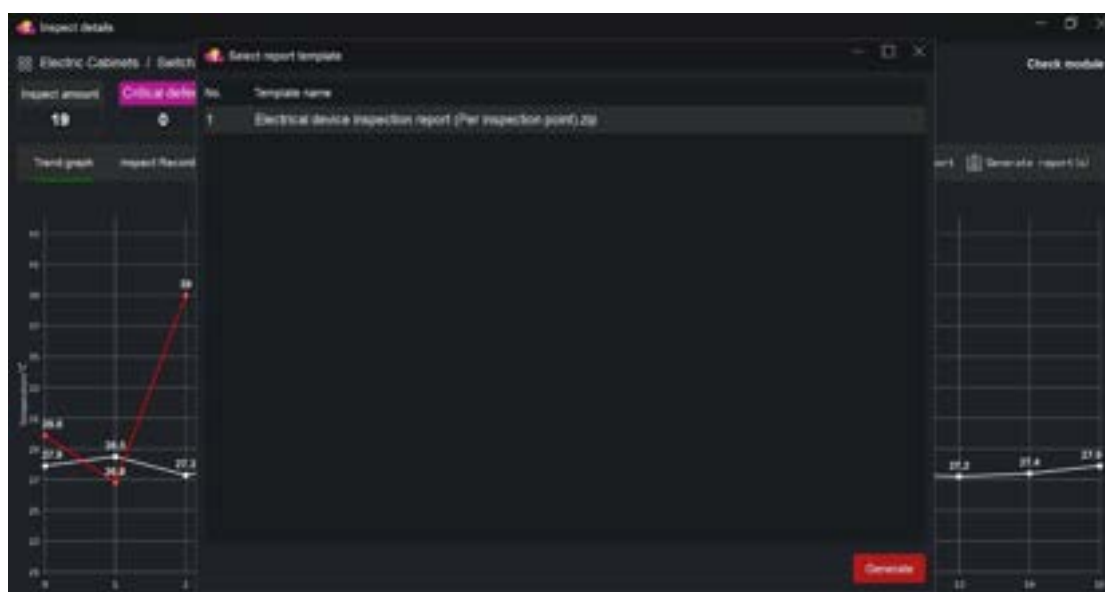


①





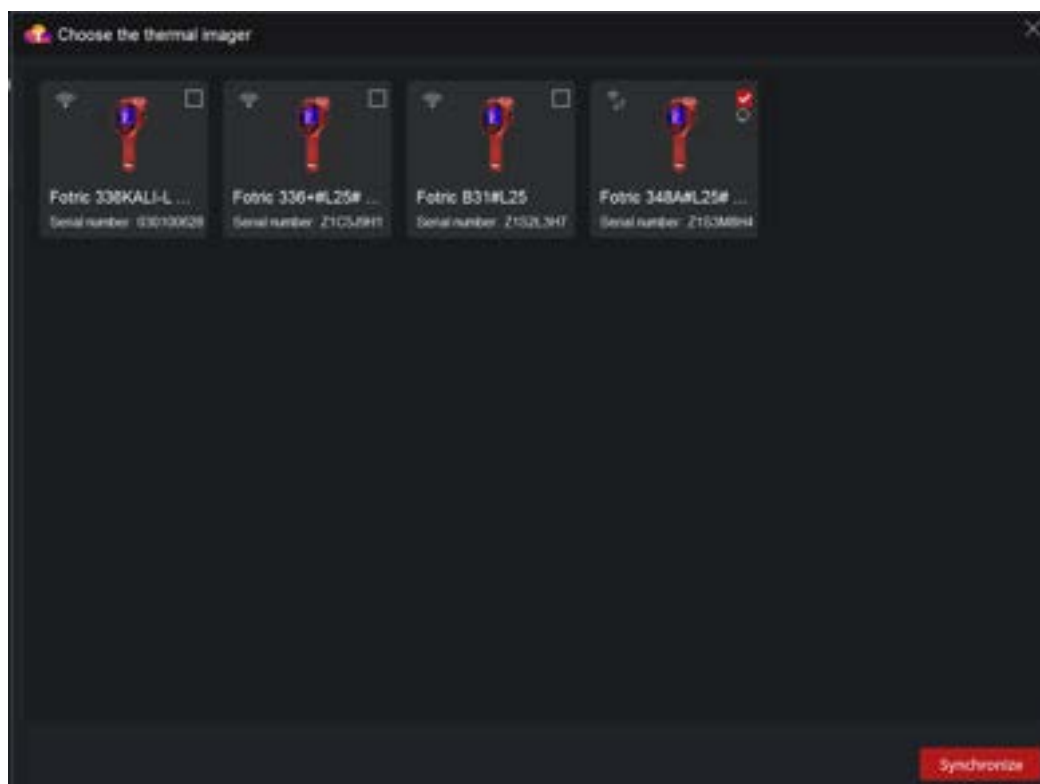
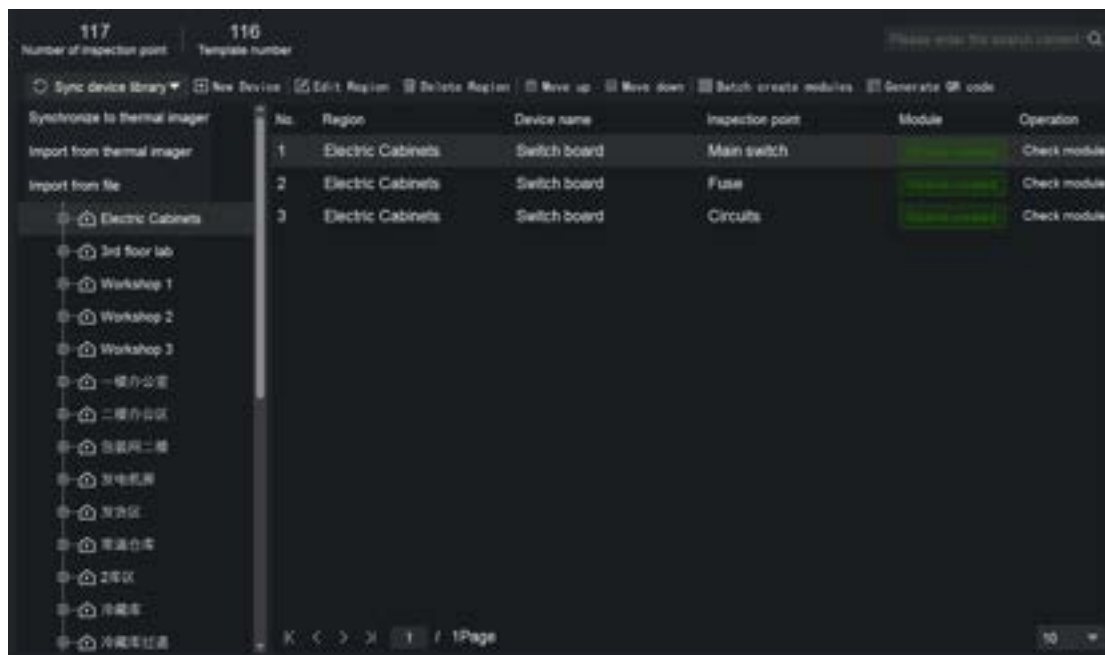
②



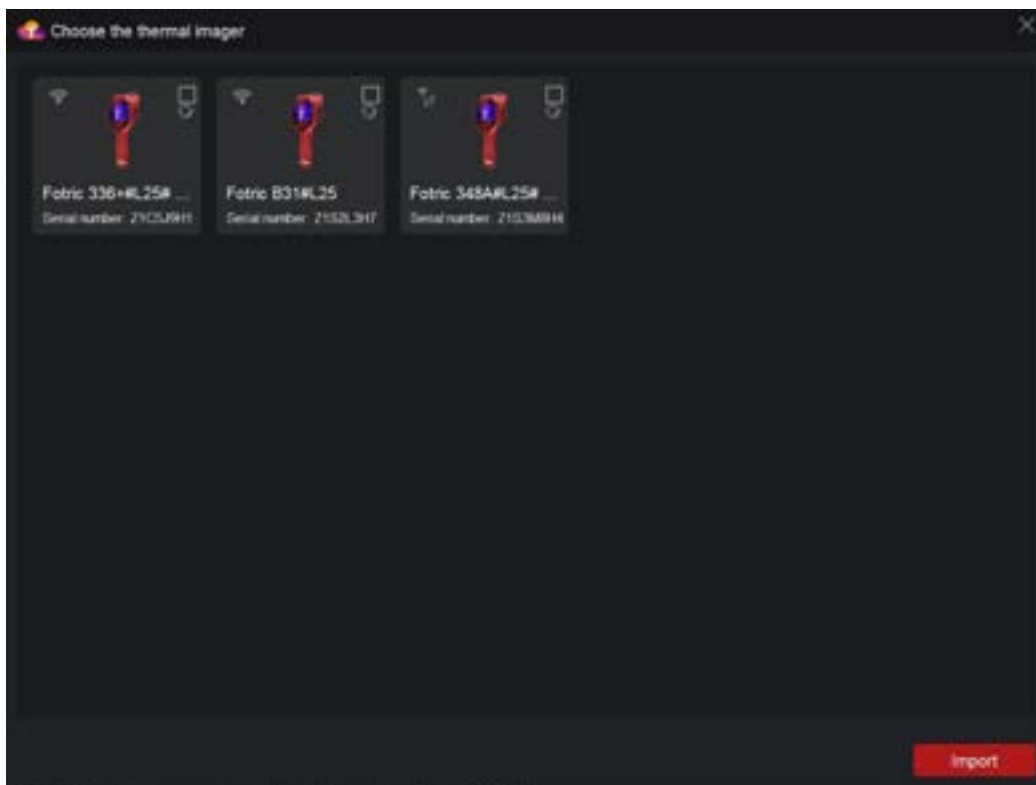
③

### 3.3 Device Library

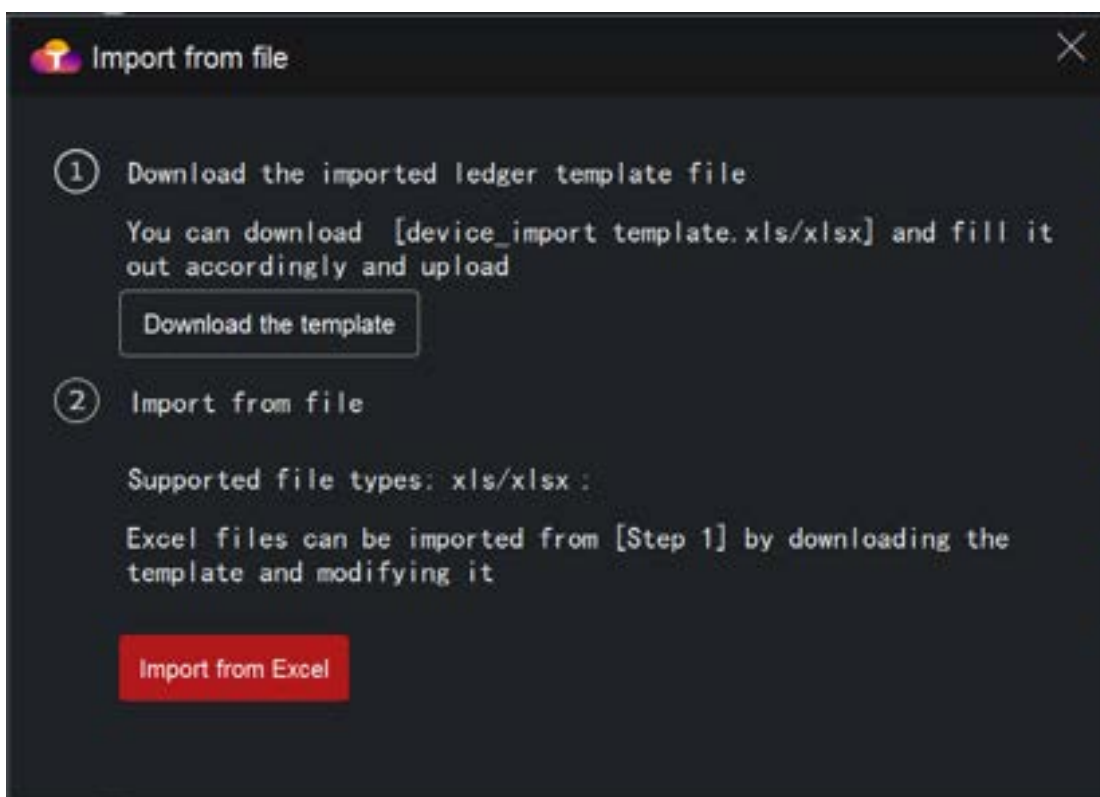
In this section, users can create an electronic inspection ledger, synchronize the ledger to a FOTRIC thermal imager ①, import inspection data from a FOTRIC imager ②, and import the ledger in Excel format from a PC ③.



①



②



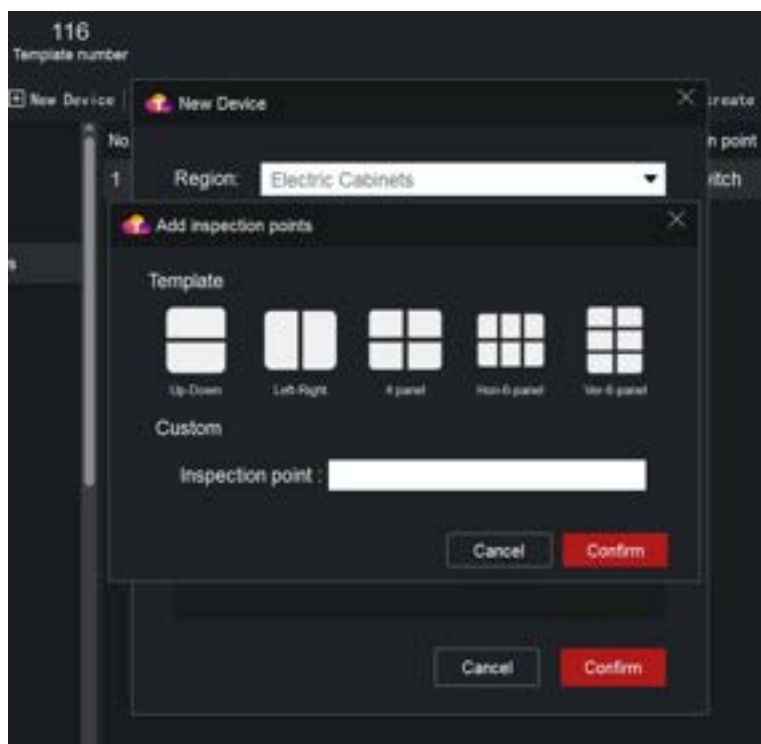
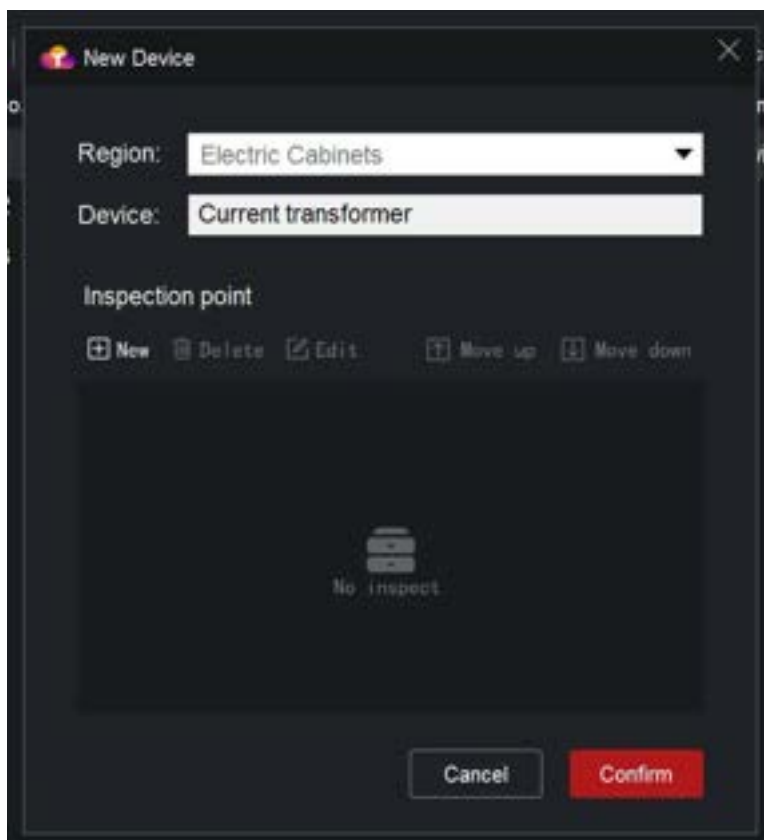
③

### 3.3.1 Ledger creation

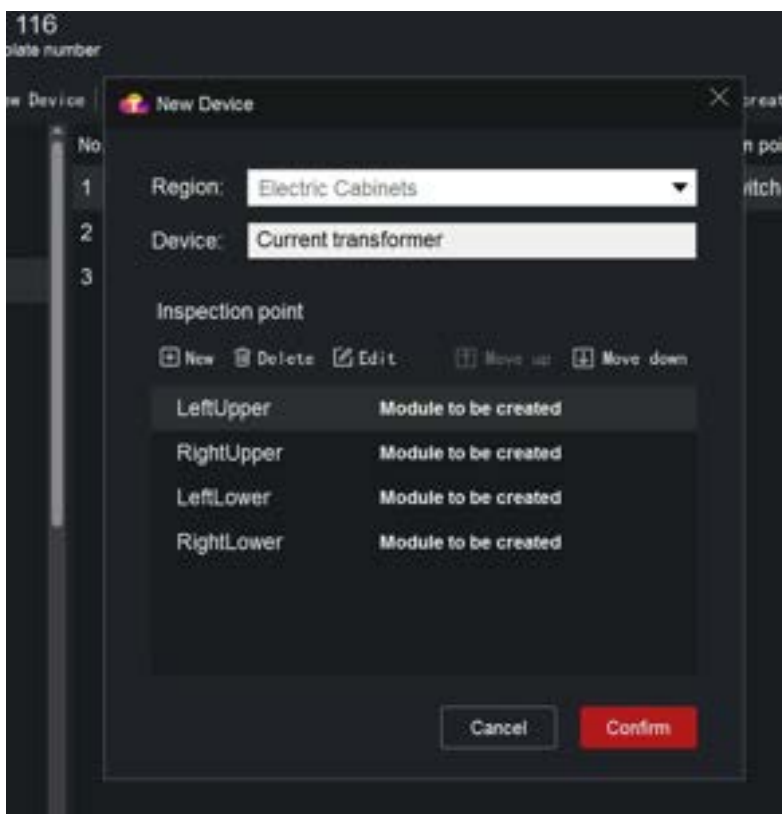
First, click the button 'New Device' on the interface to summon the new asset panel. Then input the region and device name, and click the button 'New' to summon the 'add inspection point' interface ①. Note that one could either select a specific template and have the inspection points automatically populated in ②, or manually add and name them ③.

After confirming, users could see the created empty object consisting of 3 attributes: Region, Device name, and Inspection point ④. Upon clicking on the newly created object, the button 'New Device' would transform into 'Edit device'. One can make adjustment to the newly created object by clicking this button ⑤.

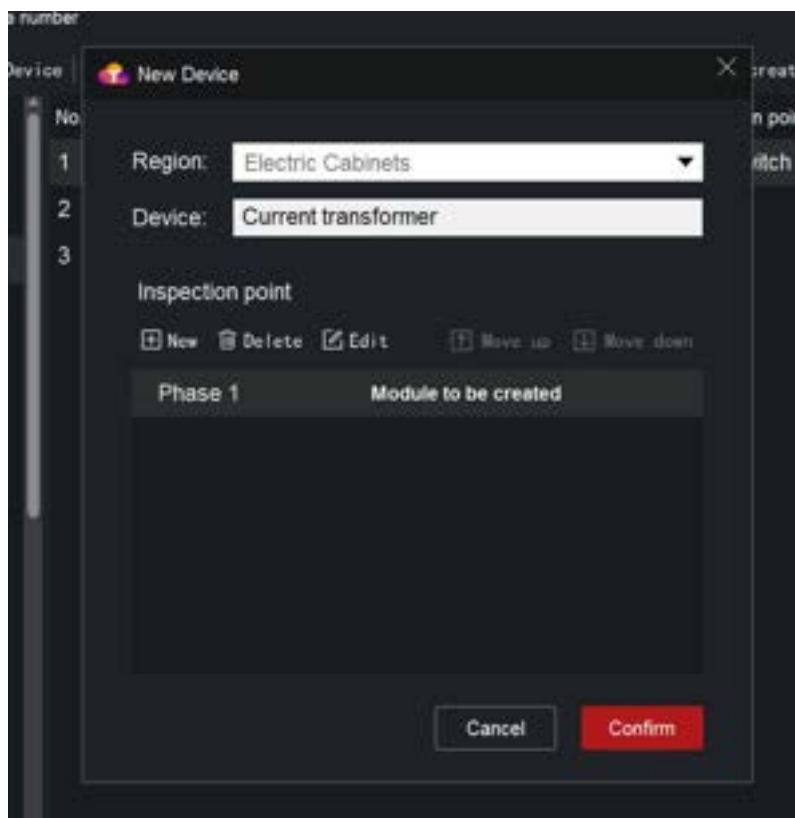




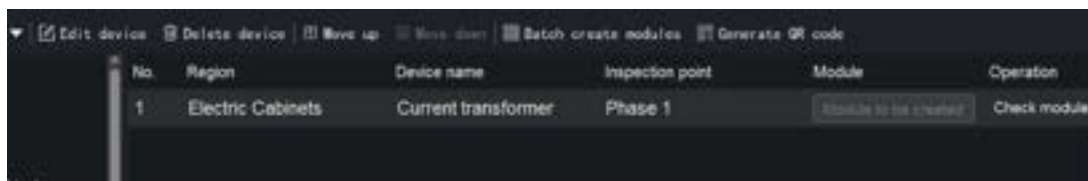
①



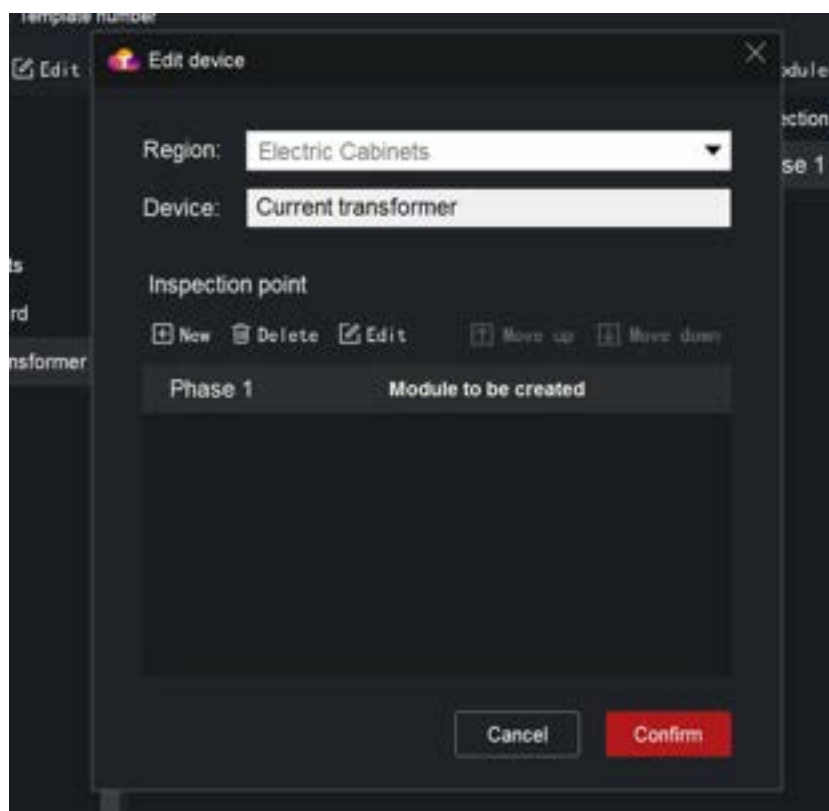
②



③

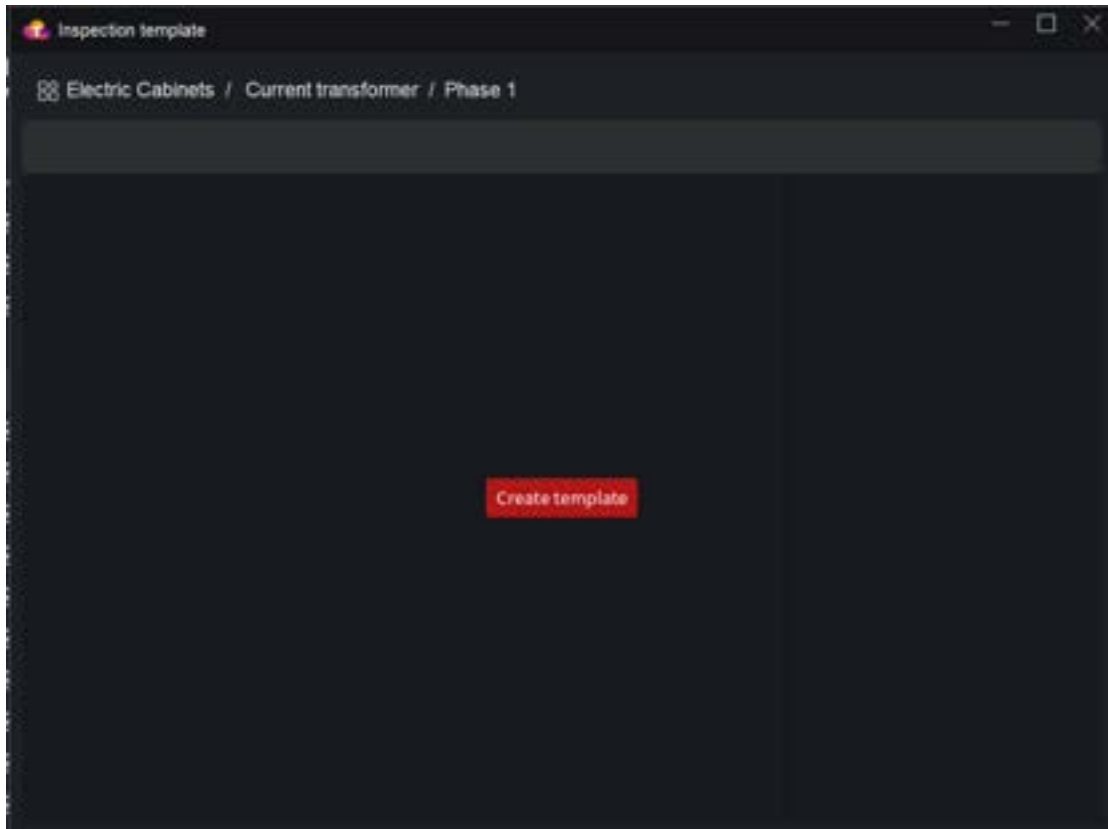


④



⑤

Double-clicking the newly created object will take users to the 'inspection template' interface ⑥, on which one could add a template ⑦ and apply diagnostic rules ⑧, which would later improve inspection efficiency by capturing asset components image using AI object recognition algorithm and conducting automatic diagnosis.

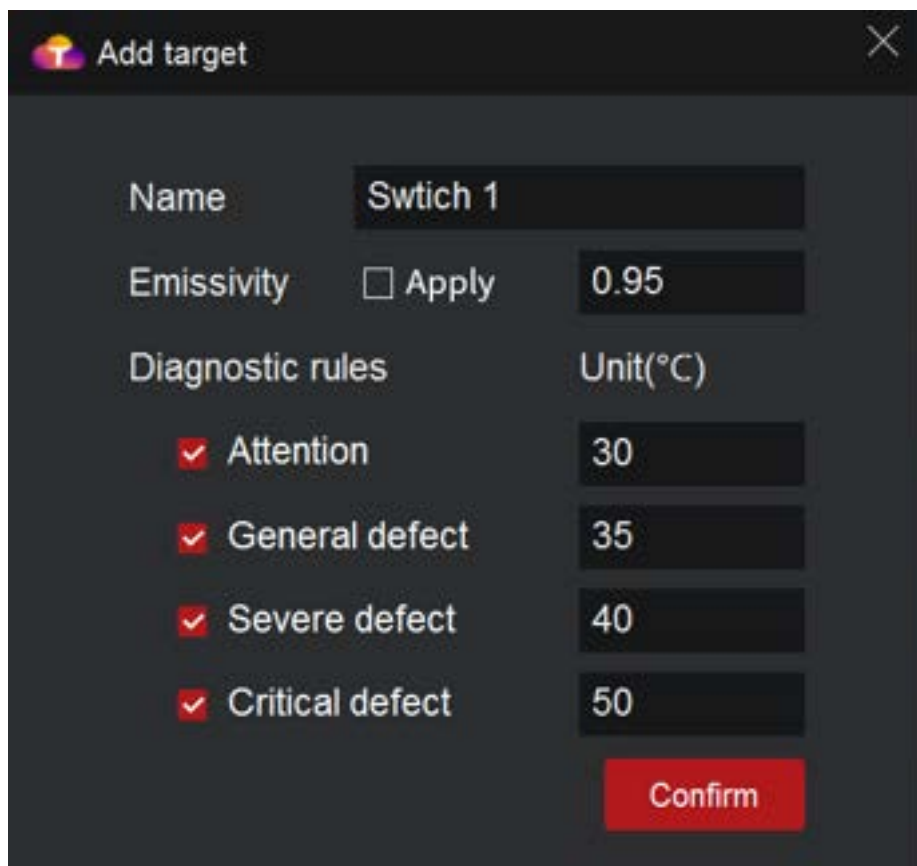


⑥



⑦





⑧



⑨

Upon finishing one 'target' on the template, it should look like ⑨, and users could add multiple targets on one template to complete the module.

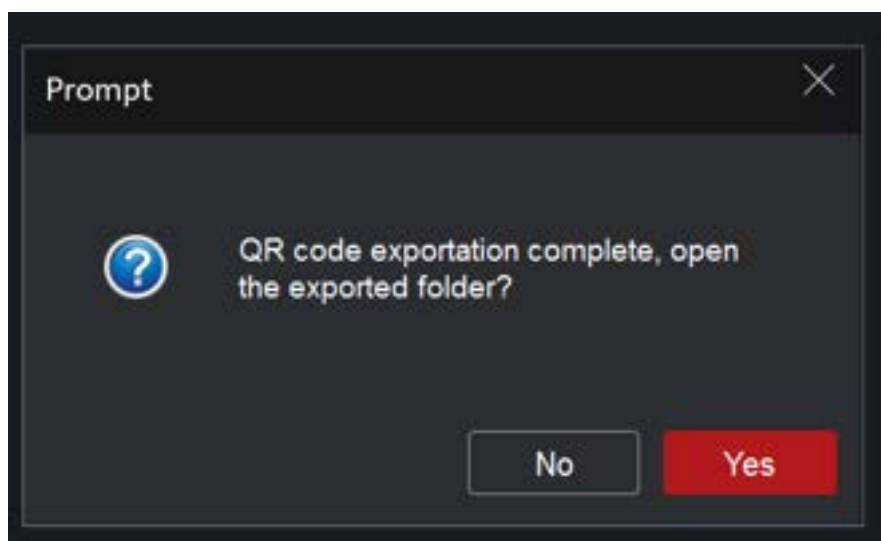
No.	Region	Device name	Inspection point	Module	Operation
1	Electric Cabinets	Current transformer	Phase 1	Module created	Check module

Once the module for an object in the ledger has been established, the 'Module' status will switch from 'Module to be created' to 'Module created'.

### 3.3.2 QR code generation

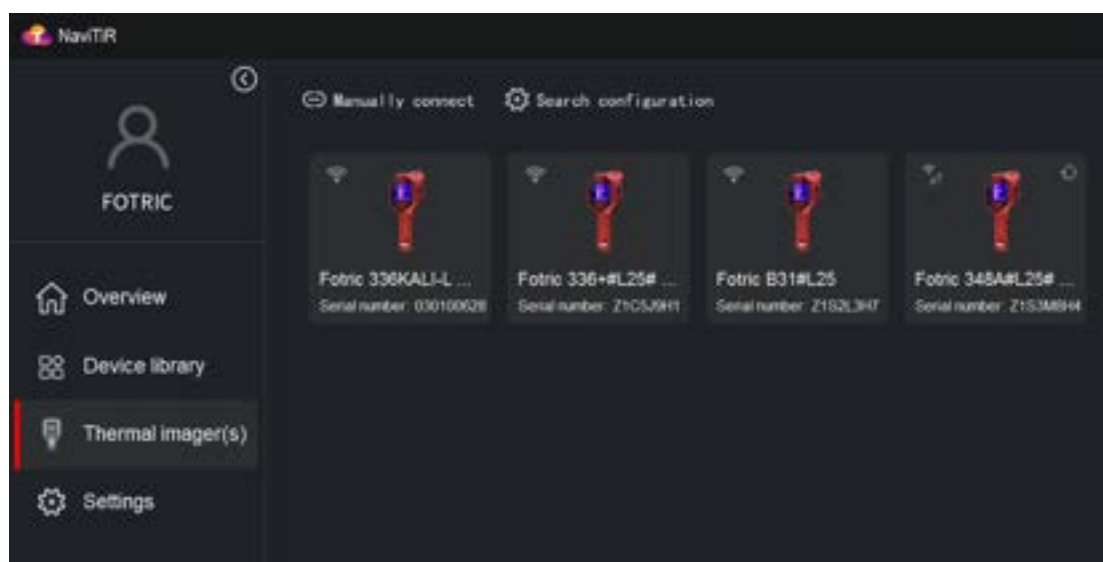
Upon finishing the ledger, users can create a QR code to link the asset with the object in the ledger by clicking the 'Generate QR code' button.

After selecting a destination folder, users can generate a label printer compatible QR code. Sticking the label on the target asset will make later data organization and inspection significantly easier..





### 3.4 Thermal imager(s)



In the 'Thermal imager(s)' section, users can see and connect to all FOTRIC thermal cameras in the same network as the PC.

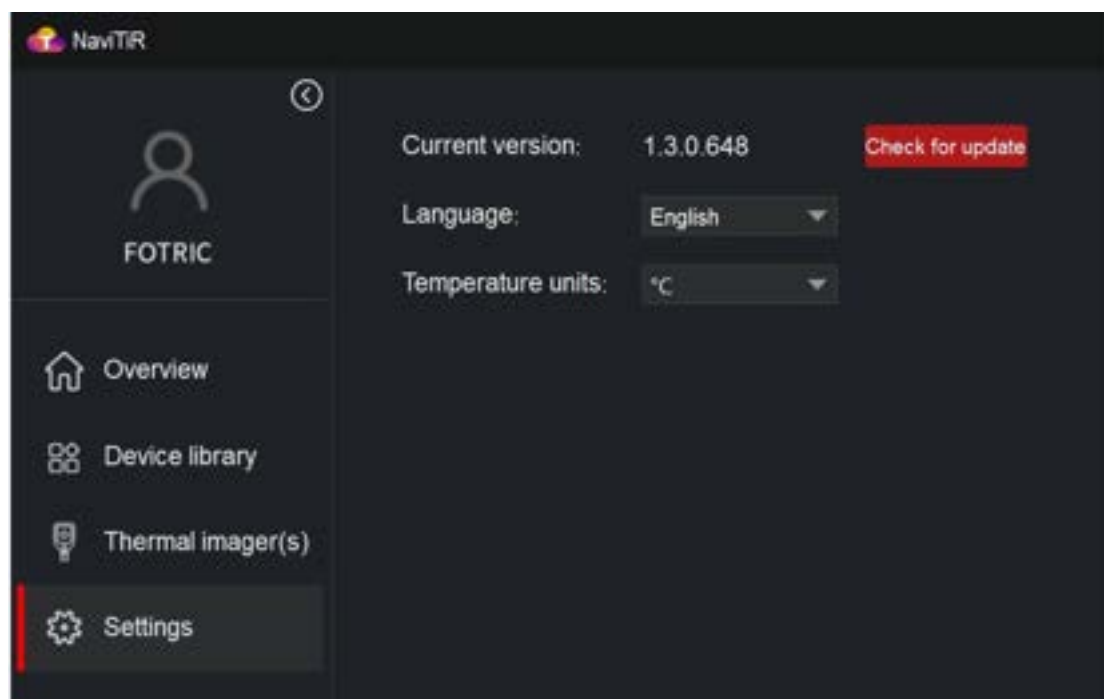
Once double-clicked the thermal camera icon, users can access the inspection data stored in the camera by WiFi and synchronize them into the PC.

Subject amount	Critical defect	Severe defect	General defect	Attention	Normal			
1	0	0	0	0	1			
No.	Region	Device name	Inspection	Module	Critical defect	Severe defect	General defect	Attention
1	宁夏银川	伊敏电站1# 炉内中温	...	...	0	0	0	0
2	山东烟台	1号炉内	1号炉内	...	0	0	0	0
3	山东烟台	2号炉内	2号炉内	...	0	0	0	0
4	山东烟台	3号炉内	3号炉内	...	0	0	0	0
5	山东烟台	4号炉内	4号炉内	东上部	0	0	0	0
6	山东烟台	4号炉内	4号炉内	中上部	0	0	0	0
7	山东烟台	4号炉内	4号炉内	东下部	0	0	0	0
8	山东烟台	4号炉内	4号炉内	东下部	0	0	0	0
9	山东烟台	4号炉内	4号炉内	中下部	0	0	0	0
10	山东烟台	4号炉内	4号炉内	东下部	0	0	0	0

①

Another option is to directly connect a FOTRIC thermal camera to a PC via a USB-to-USB-C cable, which is recommended if the WiFi signal is not strong enough.

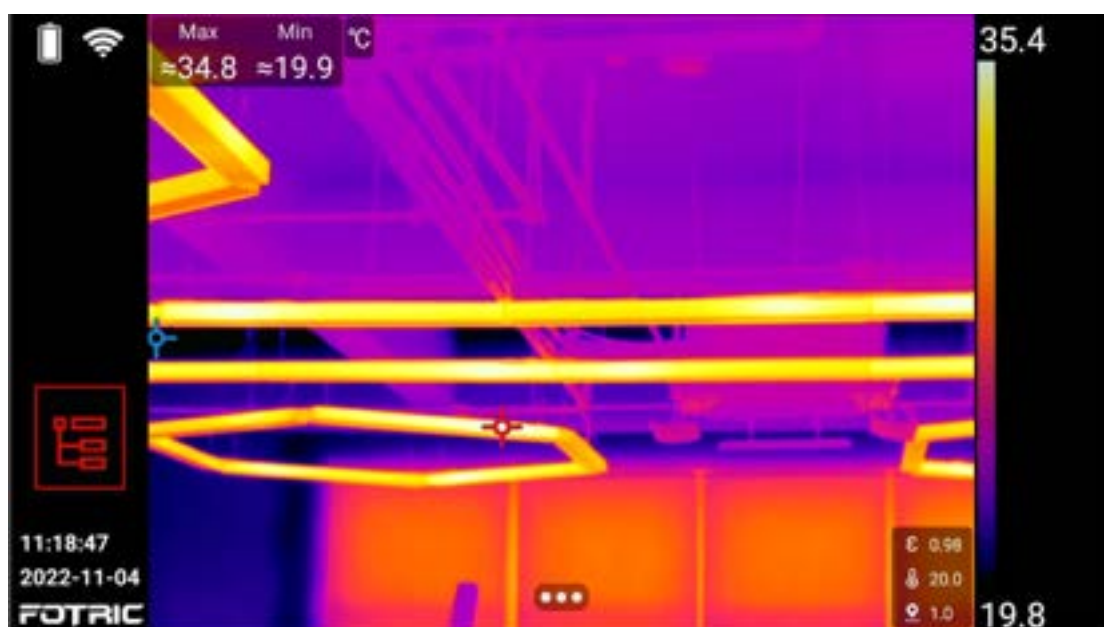
### 3.5 Settings



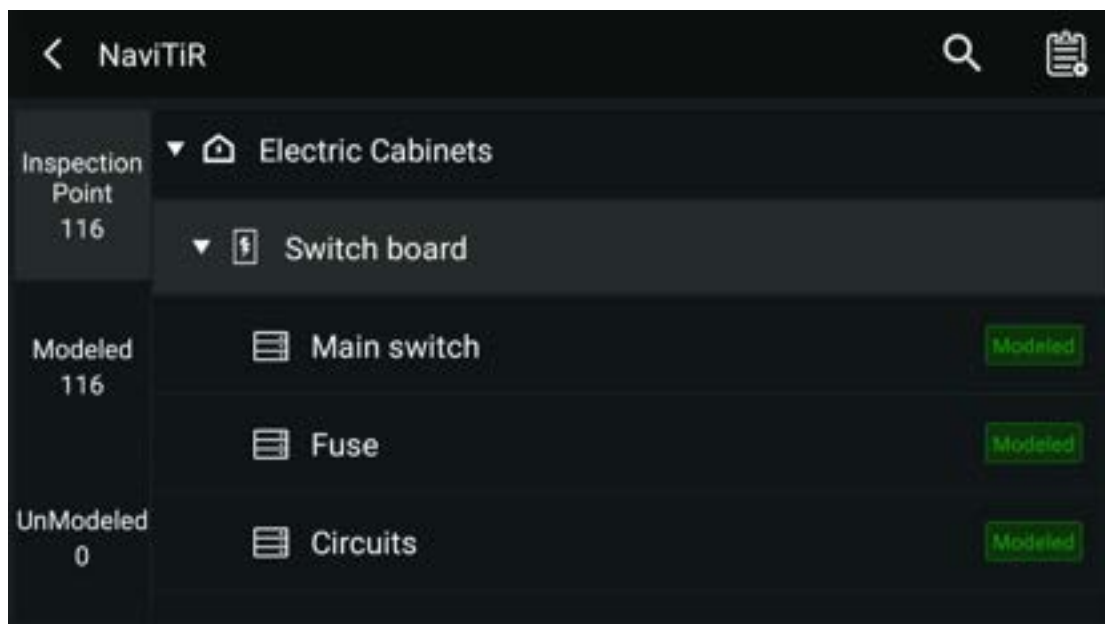
In the 'Settings' section, users can remotely update the software when available, and switch languages and temperature units.

## 4 On-device operation

### 4.1 Inspection procedure

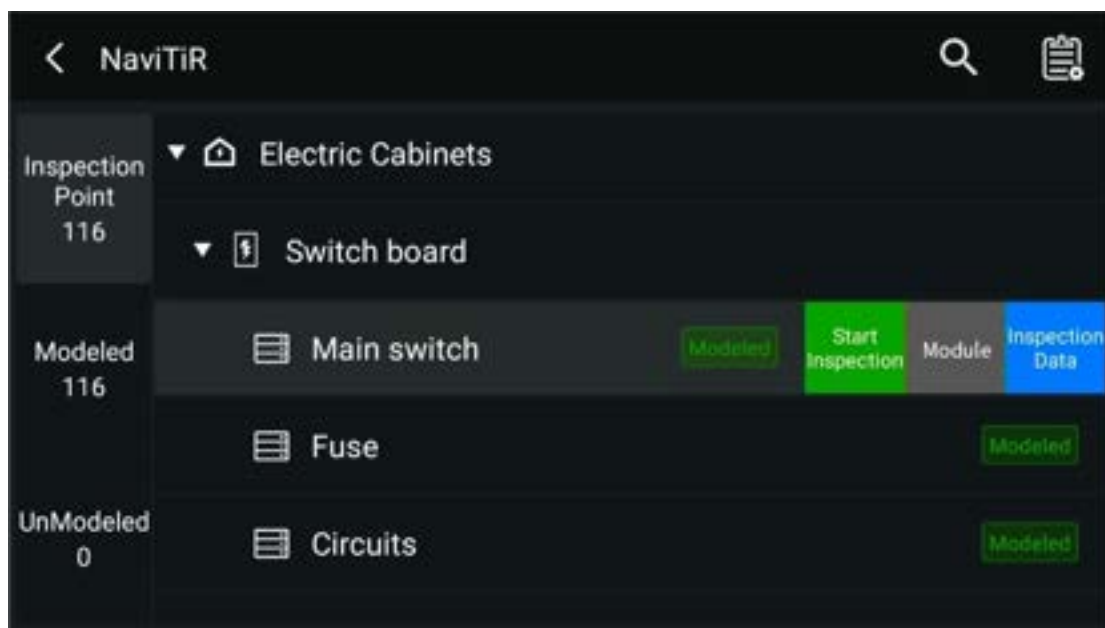


To access the NaviTiR system ① on a FOTRIC camera, click the red ledger icon on the left.

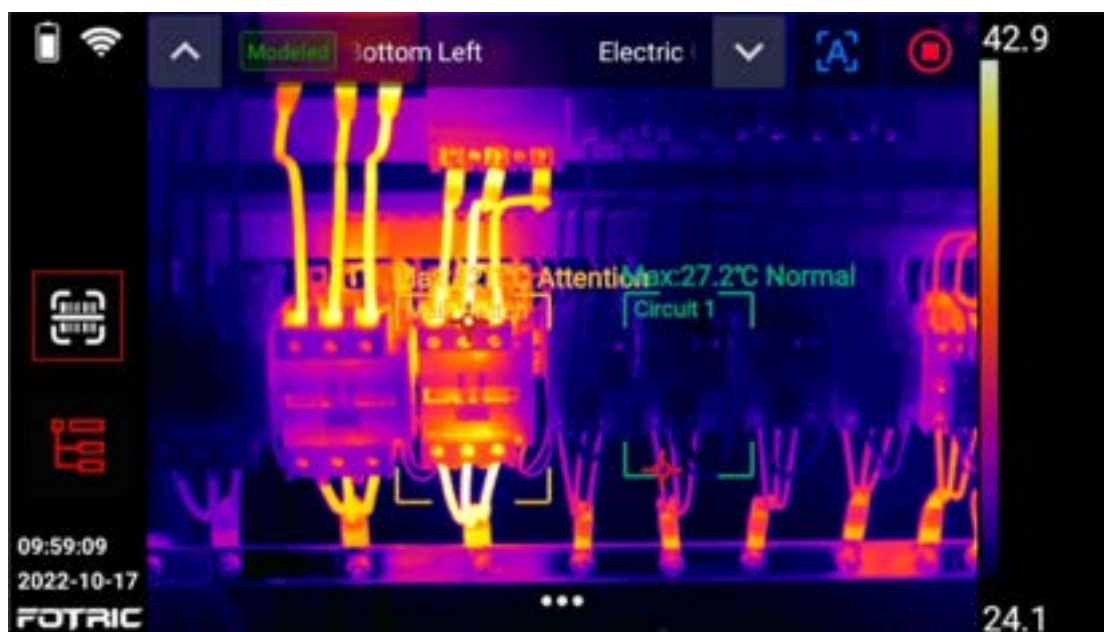


①

Users can initiate an inspection by tapping a target point and clicking the green button 'Start Inspection' ②.



③



④

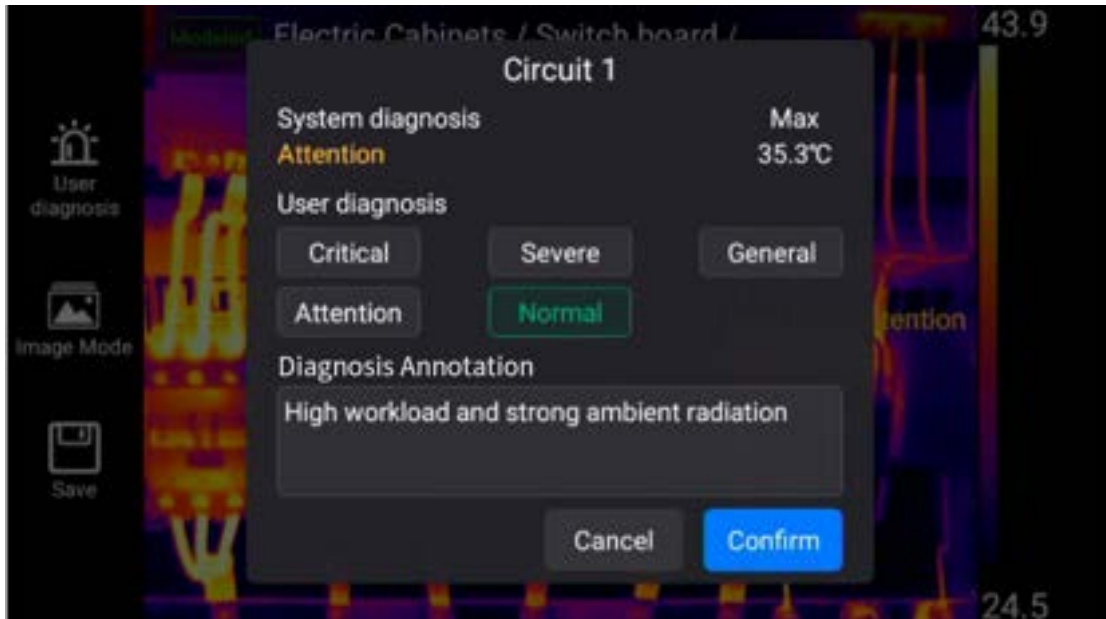
To accurately match target assets and objects in the ledger, users can take advantage of the QR code function on the left. Upon scanning the QR code that's labeled on the asset, FOTRIC thermal camera can automatically open the corresponding object in the electronic ledger and invoke the image template to help recognize the object and conduct a diagnosis③.

Upon clicking the capture button on the camera, the image will freeze, and users can choose to either proceed to the next inspection point or make a further adjustment to the current inspection point.

## 4.2 Post-inspection diagnosis

Although the camera can make a quick diagnosis based on preset rules, it's still up to the user to make the final judgment.

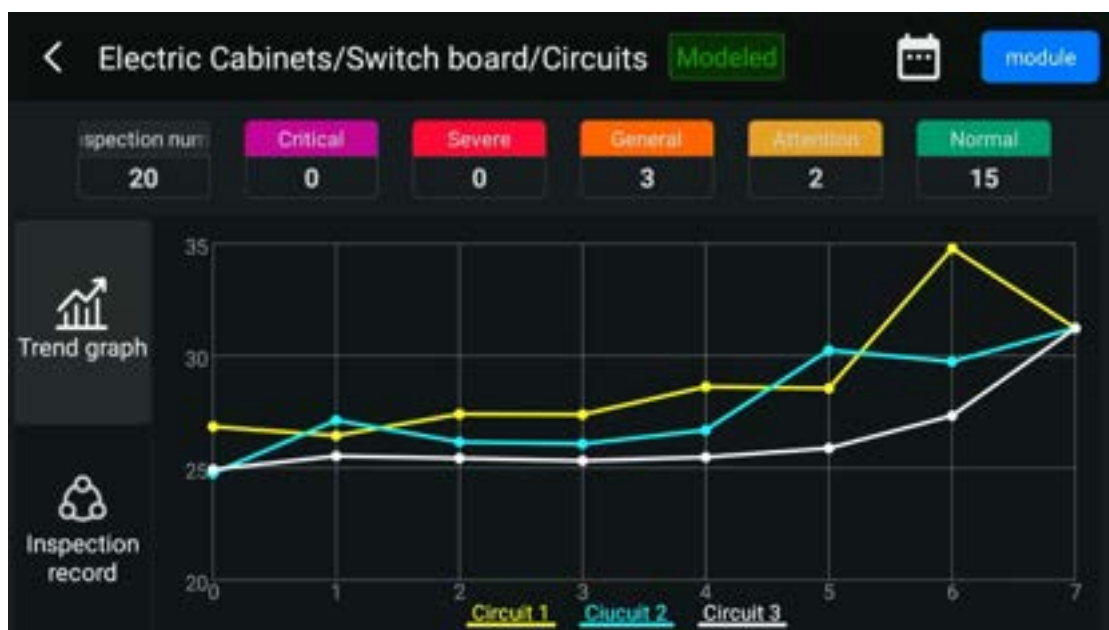
On the image freeze interface, users can click the button 'User diagnosis' to overwrite the system diagnosis ④.



④

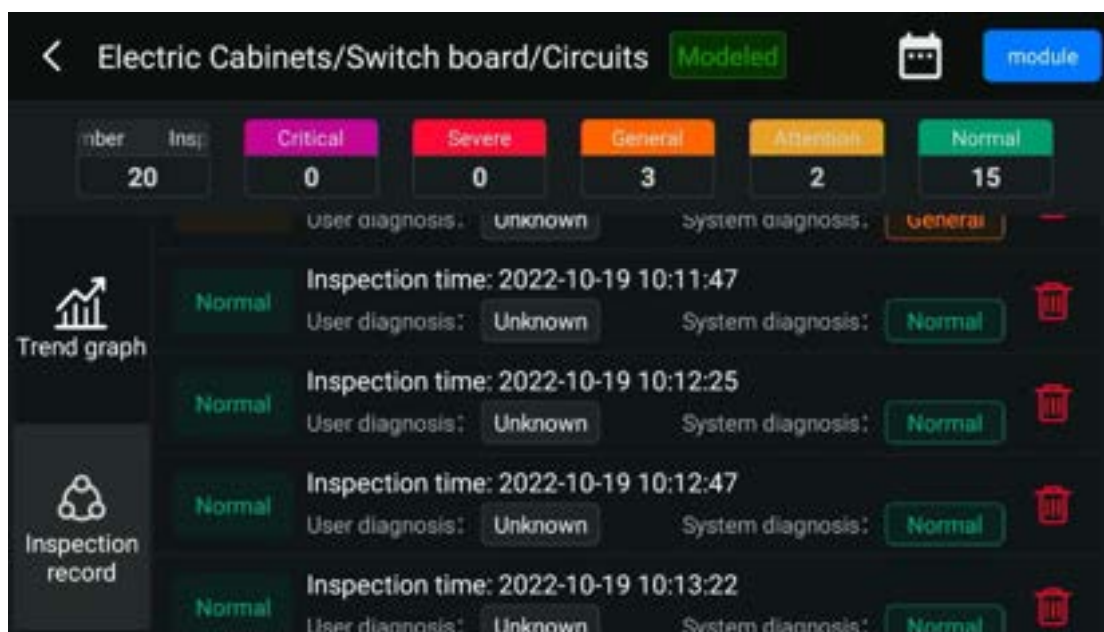
The diagnosis made by users will be updated for the ledger data and later in the final report.

Users can also access the historical data of any given asset by clicking the blue 'Inspection Data' ③. The device can not only generate a historical temperature trend graph ⑤ but also allow users to read each inspection record ⑦ and make deletions if necessary ⑥.

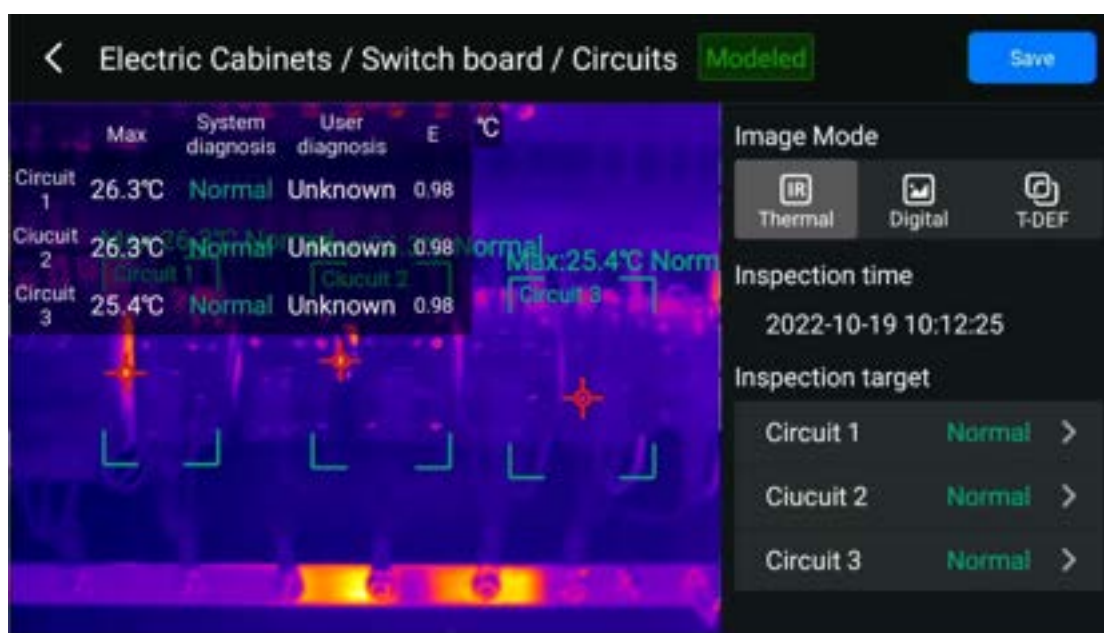


⑤





⑥



⑦

When the inspection is finished, users can synchronize the inspection data from FOTRIC thermal camera to a PC via WiFi or USB cable and make a report with one click on the 'Overview' section.