



Marvel Technology(China) Co.,Ltd

<http://www.marveltechgroup.com.com>

MARVEL TECHNOLOGY (CHINA) CO.,LTD

Global Outdoor LCD Maintenance Platform

User

Manual

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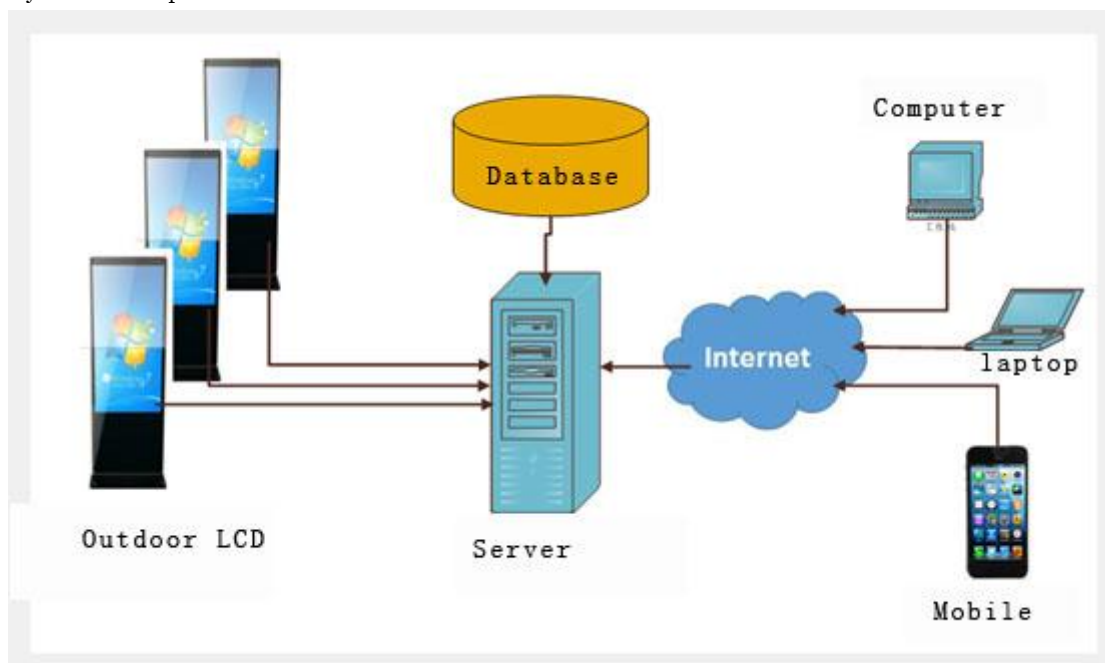
Description

Purpose of writing

This document describes the overall process of the system and function. To make it convenient for users to know what this system is used for, and how to use it.

The system collects sensor information in real time through various sensors installed inside the outdoor LCD device: temperature sensor, humidity sensor, smoke sensor, water immersion sensor, current sensor, door open sensor, Collision sensor (gyroscope), etc. The real-time sensor status information is transmitted to the system server (hereinafter referred to as the server side) through the communication module, and the user can monitor the real-time status information of the outdoor LCD device in real time through a computer, a tablet, a mobile phone (hereinafter referred to as a user terminal) via network, etc.: The user can also send commands directly to control the system of those specifications via login to the server system, Realize the purpose of remote monitoring and remote control.

System composition



Operating environment

Outdoor LCD equipment operating environment: Android 4.0 or above, network required.

Global Outdoor LCD Maintenance Platform operating environment: any version of computer & Windows operating system, also no limit to browsers used.

Mobile terminal operating environment: mobile phones, tablets, browsers.

The main function

1. **Multi-language supported** ----- This system supports both Chinese and English for now.

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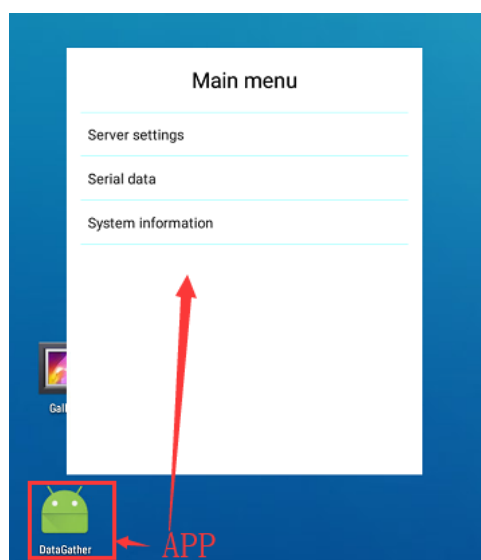
2. **Remote management of outdoor multimedia devices** ----- use the cloud platform to centrally manage, add, edit, and remove devices.
3. **Remote monitoring of outdoor LCD** ----- On the cloud platform, you can view real-time status information and alarm information of the device, and abnormal situations occur, which is convenient for timely detection and repair, save time and cost for maintenance.
4. **Remote maintenance of outdoor LCD** ----- You can check the overall operation and changes of the equipment through the cloud platform, Know all equipment conditions.
5. **Outdoor LCD self-protection function** ----- The heat dissipation function of the device changes with the temperature of the device. When the temperature is too low, the screen is automatically turned off, the heater is turned on, the screen is turned on after the temperature rises, and the temperature is automatically turned off when the temperature is too high. The screen increases the fan speed. When the temperature drops, the screen automatically turns on, and the device automatically shuts down after entering the water to maximize the protection of the device.
6. **Remote camera monitoring** ----- When the device is subjected to malicious damage (such as excessive impact), the device automatically takes photos and collects the certificate and uploads it to the cloud platform and plays the alarm voice.

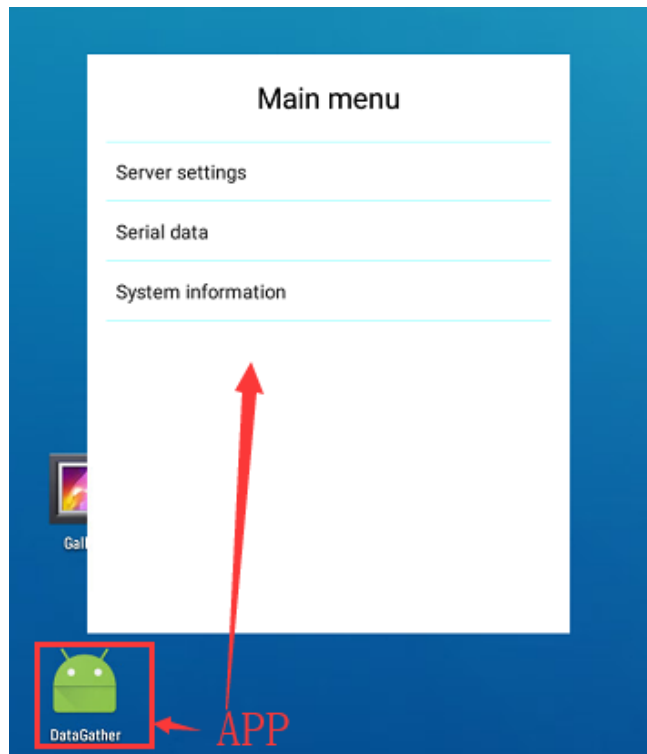
Use of outdoor multimedia equipment terminal software

Enter to terminal software

(it was been pre-installed from the factory, APP icon can been found from the android system)

(Boot automatically, if you don't need to view it, then no need to open it)





1. Click on the software of the device terminal to see the main menu interface.
2. The server settings are generally set by the professional and are set before leaving the factory and do not need to be changed.
3. **Serial port information:** You can view the current information of the sensor installed on the device.
4. **System Information:** You can view the device number and the version number of the terminal software.

Serial port information

- Serial communication verification: to verify whether the communication between each sensor and the micro-controller is smooth;
- **OLED screen:** displays the status of the current screen, on/off;
- **Fan speed:** displays the current speed of the configured fan;
- **Temperature:** displays the current temperature inside the device;
- **Humidity:** the current humidity inside the device;
- **Smoke:** Whether there is current smoke inside the equipment;
- **The angle is larger than 15 degrees:** used to judge whether the device is tilted, the tilt is: yes, not tilted to: no;
- **Impact:** Determines whether the device is currently suffering an impact that exceeds the warning value;
- **Inlet 1/2:** whether water is in the bottom of the equipment, 2 is low water level, 1 is high water level;
- **PWM:** Controls the wind speed of the fan. Under normal conditions, the higher the PWM, the faster the wind speed;
- **Filter pressure difference:** determine whether the filter is clogged and needs to be replaced;



Serial data	
Serial detection	>>
OLED screen	ON
Fan Speed (1)	1372
Fan Speed (2)	1373
Fan Speed (3)	0
Fan Speed (4)	0
Fan Speed (5)	0
Temperature	37

- **Door 1:** the switch state of the rear door of the device;
- **Door 2:** the switch state of the front door of the device;

View system information

- **Device terminal number:** The basis for adding and identifying devices in the background
- **Version number:** version of the software

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login in

- Use PC and browser to access the outdoor management system website:
<http://omc.marveltechgroup.com>
- Enter the account password, select the language (Chinese and English are supported by the system), and click Login;



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Log in : admin

Password :

☐ Save login status

Log in Cancel

Language

Chinese

English

English

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Device Monitoring

- 1) After the user logs in, the device monitoring list shows all the terminal devices under the user name.
- 2) On the device monitoring page, you can see the device ID, online status, power, temperature, wind speed, and humidity.
- 3) Alarm light: In addition to the value of each state, the status light is used to display the current device status.
(Green stands for normal, red for level 1 alarm, orange for level 2 alarm, gray for offline or invalid)
- 4) In the statistics below, you can display the total number of devices, the number of online devices, and the number of devices that are alerted.
- 5) Double-click the device to enter the device details page.
- 6) Online status: ON means online and OFF means offline.
- 7) Power status: This refers to the screen power supply, ON means the power is on, and OFF means the power is off.
- 8) Device temperature value, set 3 states according to temperature boundary: normal, first level alarm, second level alarm

The temperature boundary value and warning lights are as follows: (Depending on the region, there will be changes)

- **Ultra-low temperature:** such as: less than -10 degrees; (level one alarm, red light)
- **Low temperature:** eg -10 ~ -5 degrees; (secondary alarm, orange light)
- **Normal temperature:** eg -5 ~ 30 degrees; (normal, green light)
- **Slightly high temperature:** eg 30 ~ 55 degrees; (normal, green light)
- **High temperature:** eg 55 ~ 65 degrees; (secondary alarm, orange light)
- **Ultra high temperature:** if greater than 65 degrees; (level one alarm, red light)

Note: The above temperature boundary value can be set (default setting, user setting and



device setting, user setting priority, device setting second, if none is set, the default setting data is used. If there are special circumstances, please contact the merchant.)

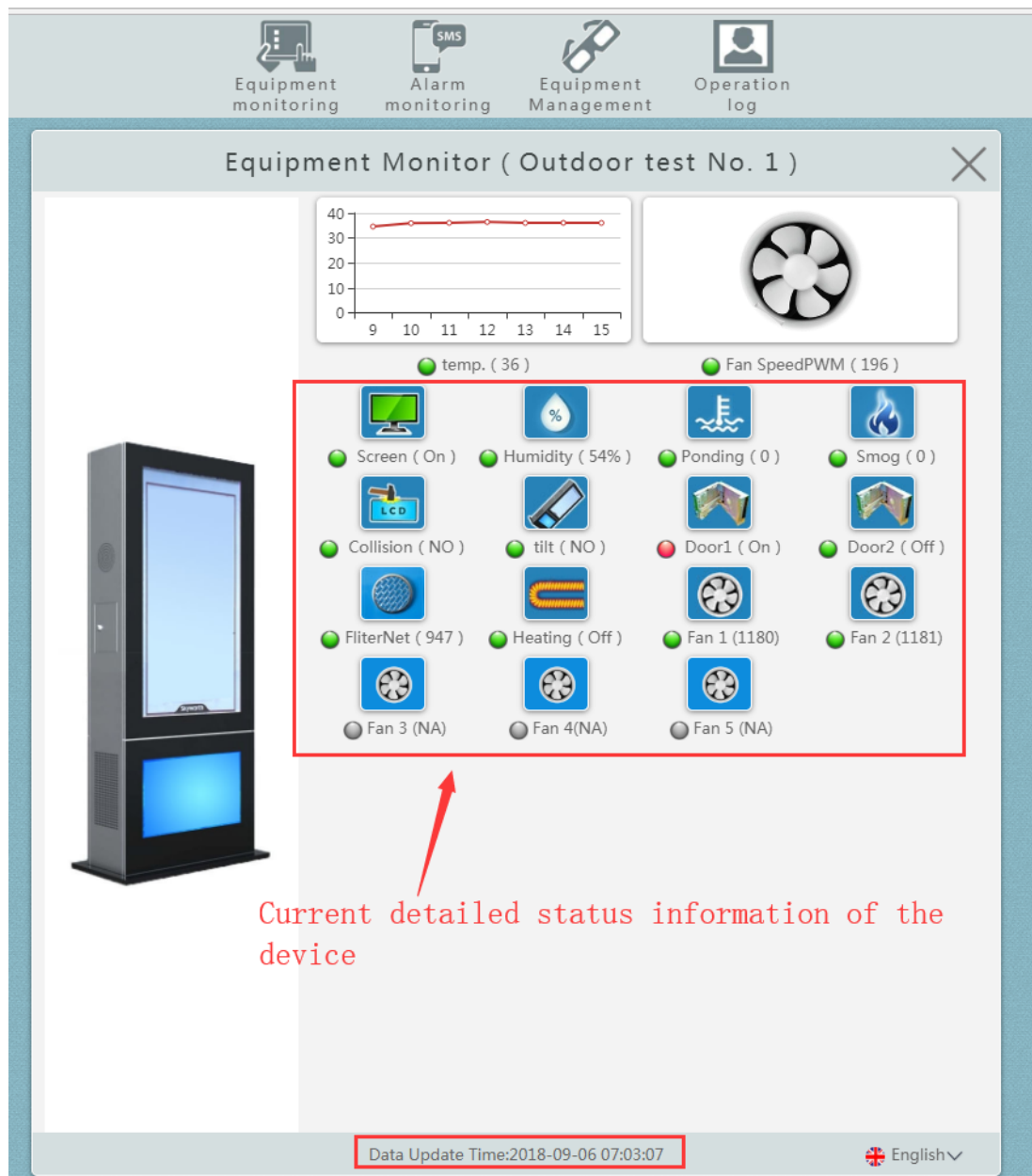
The screenshot shows the 'Equipment Monitor' web interface. At the top, there are navigation tabs: 'Equipment monitoring' (highlighted with a red box), 'Alarm monitoring', 'Equipment Management', and 'Operation log'. On the right side, there is a user profile section with a 'test' user, 'Settings', and 'Log Out' options (highlighted with a red box). The main content area is titled 'Equipment Monitor' and contains a table with the following data:

ID	Equipment	Equipment Address	Online	Power	temp.	Fan Speed	Humidity	Date and Time
CHW1002	Outdoor test No...	No. 27 Dafa Road, Ba...	ALM	ON	36	1440	54	9-06 06:59:16
CHW1003	Outdoor test No...	No. 27 Dafa Road, Ba...	OFF	41	OFF	47	8-17 11:39:26	

Below the table, there is a section for 'status messages' (indicated by a red arrow). At the bottom of the interface, there is a search bar with fields for 'Device ID', 'Keywords', and 'Inquire', and a 'Search' button. A summary bar at the bottom right shows 'Equipment : 2 , On Line : 1 , Alarming : 1' (highlighted with a red box). A 'Language' dropdown menu is also visible, showing 'Chinese' and 'English' options (indicated by a red arrow).

Detailed device monitoring information graphical interface

- On the device detailed monitoring information page, you can view the current status of the device.
- Screen:** Whether the screen is currently on (on/off)
- Humidity:** The current humidity of the device. If it is greater than 95, it displays the first level alarm light;
- Smoke:** "None" means no smoke, "Yes" means there is smoke, and when there is smoke, it shows a level 1 warning light;
- Water accumulation:** 0 means no water, 2 means a small amount of water, 1 means a lot of water; 2 shows an orange light 1 shows a red light;
- Impact:** "None" means no impact, "Yes" means impact or fall to the ground. If there is an impact, it will start photo monitoring and upload photos to the network server;
- Heater:** "Off" means the heater is off, and "on" means the heater is on ;
- Wind speed:** current speed of each cooling fan
- Tilt:** Is the device currently tilted (YES/NO)
- Data update:** the latest sensor information upload time, default update every 10S.



Alarm monitoring

- You can see what happens when the device is abnormal, including the source of the alert, the alert description, and the time the alert occurred.
- **Alarm time:** the time and duration of the alarm
- **Device details:** Click to jump to the detailed device monitoring page.

Source and condition of the alarm

- **Ultra-low temperature alarm:** the temperature is lower than the set minimum value (sub-level 2)
- **Ultra-high temperature alarm:** the temperature is higher than the set maximum value (sub-level 2)



- **Humidity alarm:** humidity reaches a critical value
- **Operating current abnormal alarm:** there is no operating current in the screen backlight
- Smoke alarm: smoke inside
- **Water accumulation alarm:** accumulated water reaches the alarm value (one level two)
- Impact warning: impact
- **Heater abnormal alarm:** if the heater is not turned on at a low temperature, the heater is not turned off at a high temperature.
- **Open door status alarm:** door is opened and an alarm occurs

Equipment Management

The device management page can see a list of all devices owned.

User ManagementEquipment monitoringAlarm monitoringEquipment ManagementData queryOperation log

Alarm Monitor

ID	Equipment Name	Alarm Source	Alarm Instruction	Alarm Time	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:39~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:39~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:39~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:38~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:37~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:37~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:37~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:37~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:37~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details
CHW1002	Outdoor test No....	Door 1 is open	Door 1 is open	9-6 11:36~1-1 00:00	Details

Device IDKeywordsInquire

Normal Condition1st-Class Alarm2nd-Class AlarmOff-Line

(Equipment : 2 , On Line : 0 , Alarming : 0)

Home12345678910LastEnglish



Device alert

After selecting the device, click “Device Alert” to enter the alarm page of the selected device. On this page, you can see all the alarm information of the selected device.

Alarm Monitor						
ID	Equipment Name	Alarm Source	Alarm Instruction	Alarm Time	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:39:20	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:20	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:30	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:40	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:50	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:39:00	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:39:10	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:37:20	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:37:30	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:37:40	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:37:50	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:00	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:38:10	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:36:19	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:36:29	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:36:39	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:36:49	Details	
CHW1002	Outdoor test No. 1	Door 1 is open	Door 1 is open	9-06 11:36:59	Details	

Handling Alarms

Normal Condition 1st-Class Alarm 2nd-Class Alarm Off-Line (Off-Line : Equipment : 2 , On Line : 0 , Alarming : 0)

Home 1 2 3 4 5 6 7 8 9 10 Last English

Disposal of Alarm	
User ID :	testadmin
Type of Alarm :	Door 1
Remarks :	
Disposal of Definite Cancel	

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After selecting the alarm information, click "Process Alert", where you can fill in the check and check of the alert.

Device log

can see the alert log and action log for the selected device

Such as opening the door, screen switch records, collision records, monitoring photo records, screenshot records, and so on.



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Returnback		Daily Record of Operation			
Number	Equipment	Name	Content	Time	Marking
128514	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128513	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128512	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128511	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128510	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128509	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:58:11	
128507	CHW1002	CommonScreenshot	CommonScreenshot	2018-09-06 07:57:49	
128506	CHW1002	风扇成功开启	风扇成功开启	2018-09-06 07:57:35	
128505	CHW1002	屏幕成功开启	屏幕成功开启	2018-09-06 07:57:24	
128504	CHW1002	风扇成功开启	风扇成功开启	2018-09-06 07:57:12	
128503	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128502	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128501	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128500	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128499	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128498	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:57:11	
128495	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:56:11	
128494	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:56:11	
128493	CHW1002	Alarm log	Door 1 is open	2018-09-06 07:56:11	

Home < 1 2 3 4 5 6 7 8 9 10 > Last

Normal Condition 1st-Class Alarm 2nd-Class Alarm Off-Line (Off-Line : Equipment : 2 , On Line : 1 , Alarming : 1)

Global Outdoor LCD Maintenance Platform V2.2 English

Editing device

Edit the name, address, and description of the device.



Edit Equipment

Equipment IMEI :	00815b4701b8a6d1
Equipment ID :	CHW1002
Equipment Mode :	GHWR15
Equipment Name :	Outdoor test No. 1
Equipment Address :	No. 27 Dafa Road, Bantian, Longgang Distric
Equip Sensor :	Temperature Sensor Humidity Sensor current sensor Smoke sensor Water sensor1 Collision sensor Door sensor1 Differential pressure sensor Heater Water sensor 2 Door sensor 2 PWM fan 1 PWM fan 2 PWM fan 3 PWM fan 4 PWM fan 5 DC fan
Equipment Description :	Outdoor test No. 1

Operation log

In the operation log module, you can view the operation record of the user, including the login status of the account and sub-accounts, and the operation history of the device. You can also query the operation log by role ID, number, operation content, operation time, and so on.



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Daily Record of Operation				
Number	Role ID	Name	Content	Time
128555	test	HomeLoginTitle	test HomeLoginTips	2018-09-06 08:04:45
128554	tid	TheDeviceIsSuccessfullyTurnedOn	TheDeviceIsSuccessfullyTurnedOn	2018-09-06 08:04:23
128548	tid	FanSuccessfullyTurnedOn	FanSuccessfullyTurnedOn	2018-09-06 08:04:00
128547	admin	CommonScreenshot	CommonScreenshot	2018-09-06 08:03:17
128540	tid	FanSuccessfullyShutDown	FanSuccessfullyShutDown	2018-09-06 08:03:05
128539	tid	DeviceSuccessfullyShutDown	DeviceSuccessfullyShutDown	2018-09-06 08:02:47
128508	test			2018-09-06 07:58:00
128507	admin	CommonScreenshot	CommonScreenshot	2018-09-06 07:57:49
128506	tid			2018-09-06 07:57:35
128505	tid			2018-09-06 07:57:24
128504	tid			2018-09-06 07:57:12
128496	test			2018-09-06 07:56:16
128107	test			2018-09-06 06:51:49
128056	test	CommonScreenshot	CommonScreenshot	2018-09-06 06:43:20
128043	test	HomeLoginTitle	test HomeLoginTips	2018-09-06 06:42:02
127922	test	HomeLoginTitle	test HomeLoginTips	2018-09-06 06:21:54
126271	admin	CommonScreenshot	CommonScreenshot	2018-09-06 01:44:43
126270	admin	CommonScreenshot	CommonScreenshot	2018-09-06 01:44:20
126077	test	HomeLoginTitle	test HomeLoginTips	2018-09-05 14:41:04
126076	test	HomeLoginTitle	test HomeLoginTips	2018-09-05 14:01:10

Normal Condition 1st-Class Alarm 2nd-Class Alarm Off-Line (Equipment : 2 , On Line : 1 , Alarming : 0)

Home < 1 2 3 4 5 6 7 8 > Last

English

Mobile browser

Login in

Global Outdoor LCD Maintenance
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admin

User

.....

Password

☐ Save login status

Log in

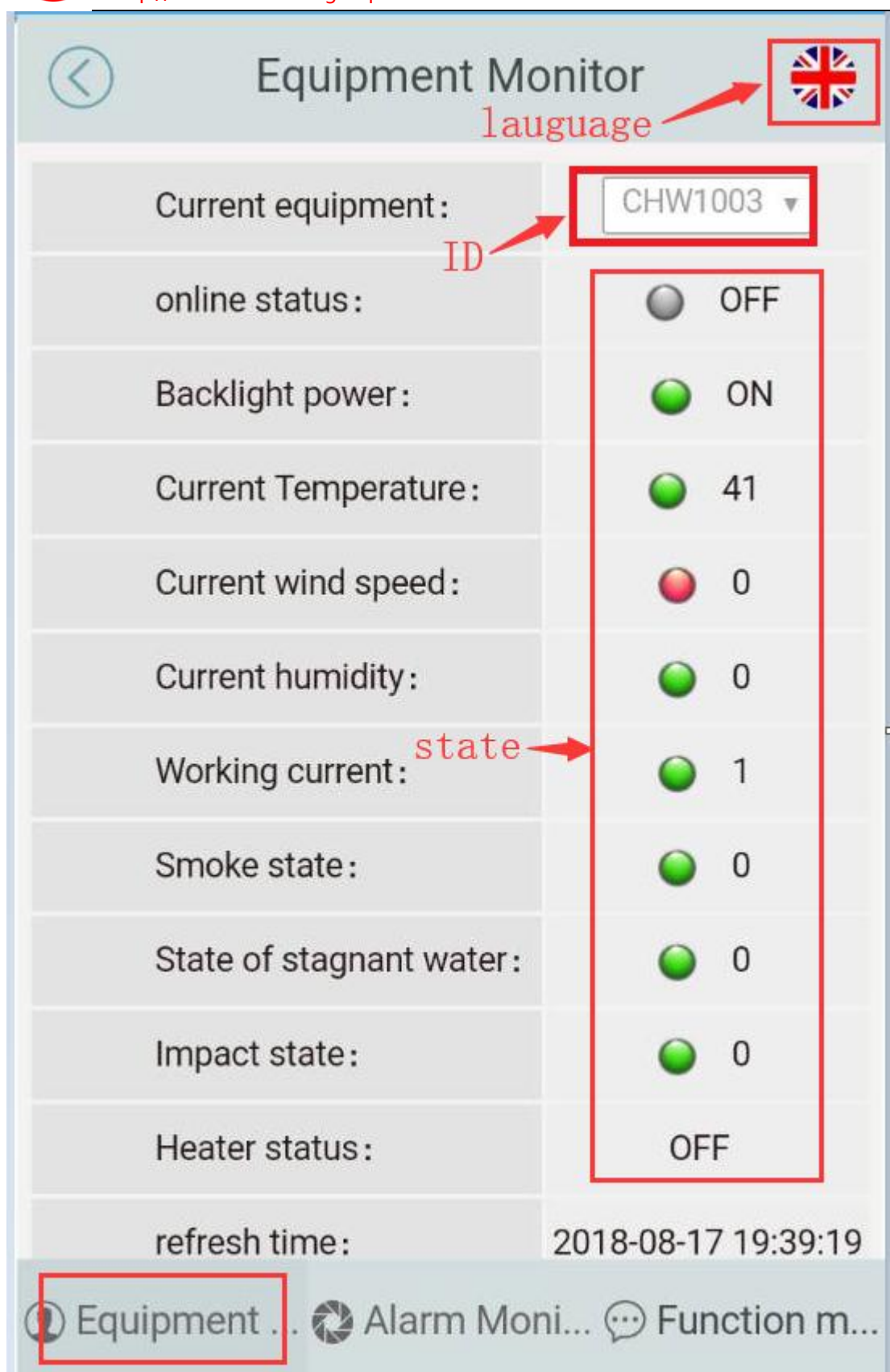
Enter the URL: omc.marveltechgroup.com in the mobile browser to enter the outdoor LCD system operation and maintenance cloud platform on the mobile phone, and enter the account and password to log in.

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Device monitoring page

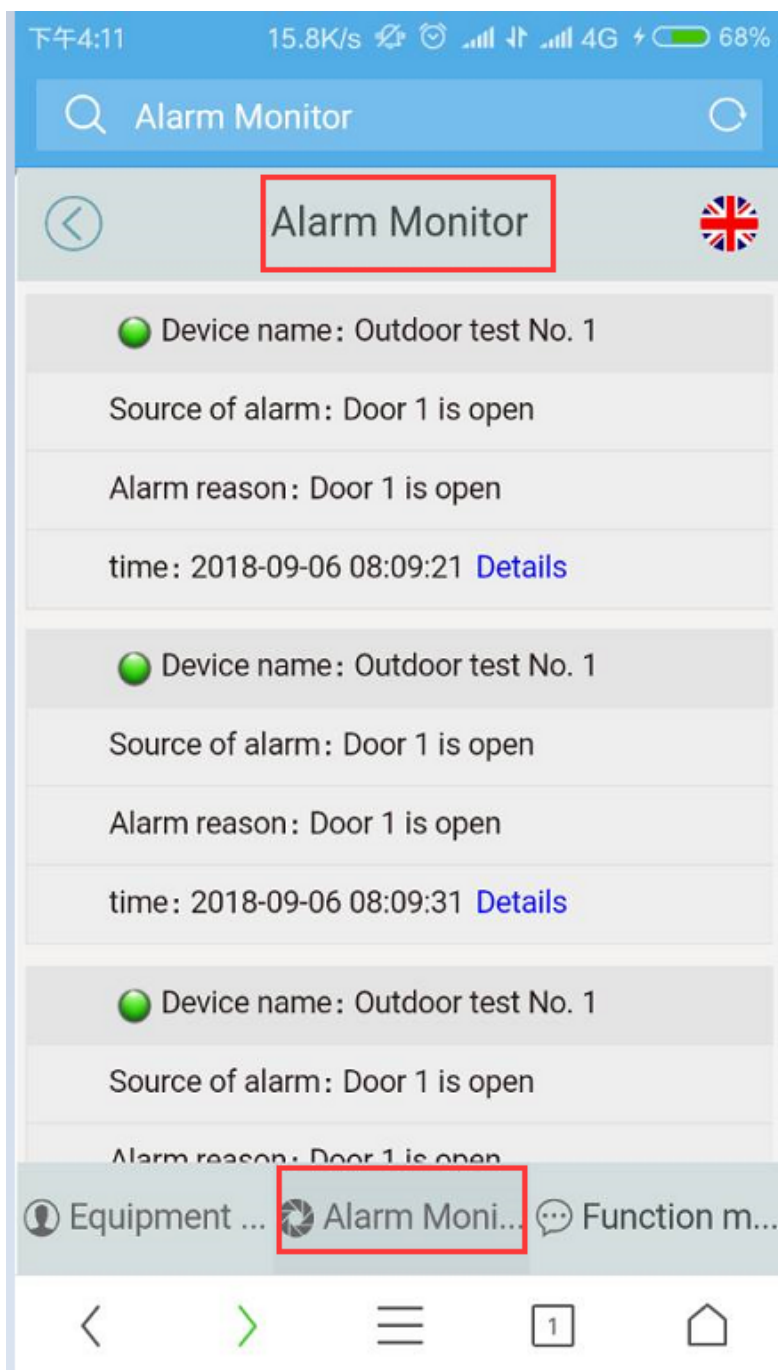
- You can select the device and check the status of the device to keep abreast of the current information of the device.
- Switch between Chinese and English by clicking the Switch Language button in the upper right corner of the device.
- **Current device:** Select the device to view based on the device ID.
- **Online status:** Check if the device is online, "Green Light ON" is online, "Gray Light OFF" is offline.
- **Backlight power:** "Green light ON" is the screen backlight on state, "gray light OFF" is the screen off state.
- **Current temperature:** The current temperature inside the device.
- **Current humidity:** The current humidity inside the device.
- **Current wind speed:** The current speed of the device cooling fan.
- **Working current:** 1: working current, 0: no working current.
- **Smoke status:** 0: no smoke alarm, 1: smoke alarm.
- **Water accumulation status:** 0: no stagnant water, 1: no stagnant water
- **Impact state:** 0: no impact alarm, 1: collision alarm.





Alarm monitoring

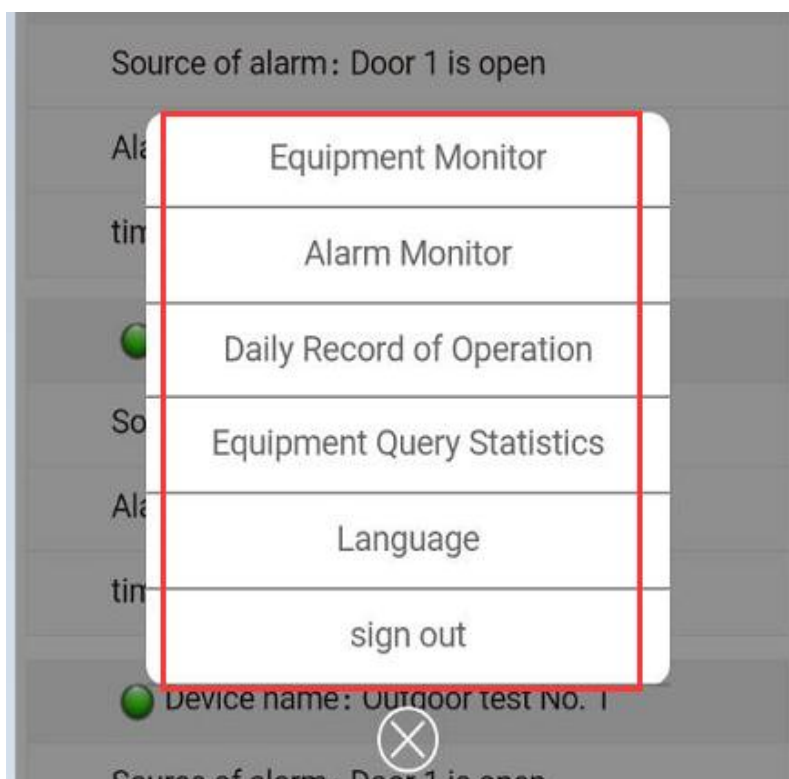
- You can view the device's alert information, including the source of the alert, the cause of the alert, the time of the alert, and more.
- **Source of the alarm:** The sensor that has the alarm, such as temperature, smoke, humidity, door is open, etc.
- **Alert Cause:** The cause of the alert.
- **Time:** The time when the alarm occurred.
- **Details:** Jump to the device's monitoring page to view the device's details.





Function menu

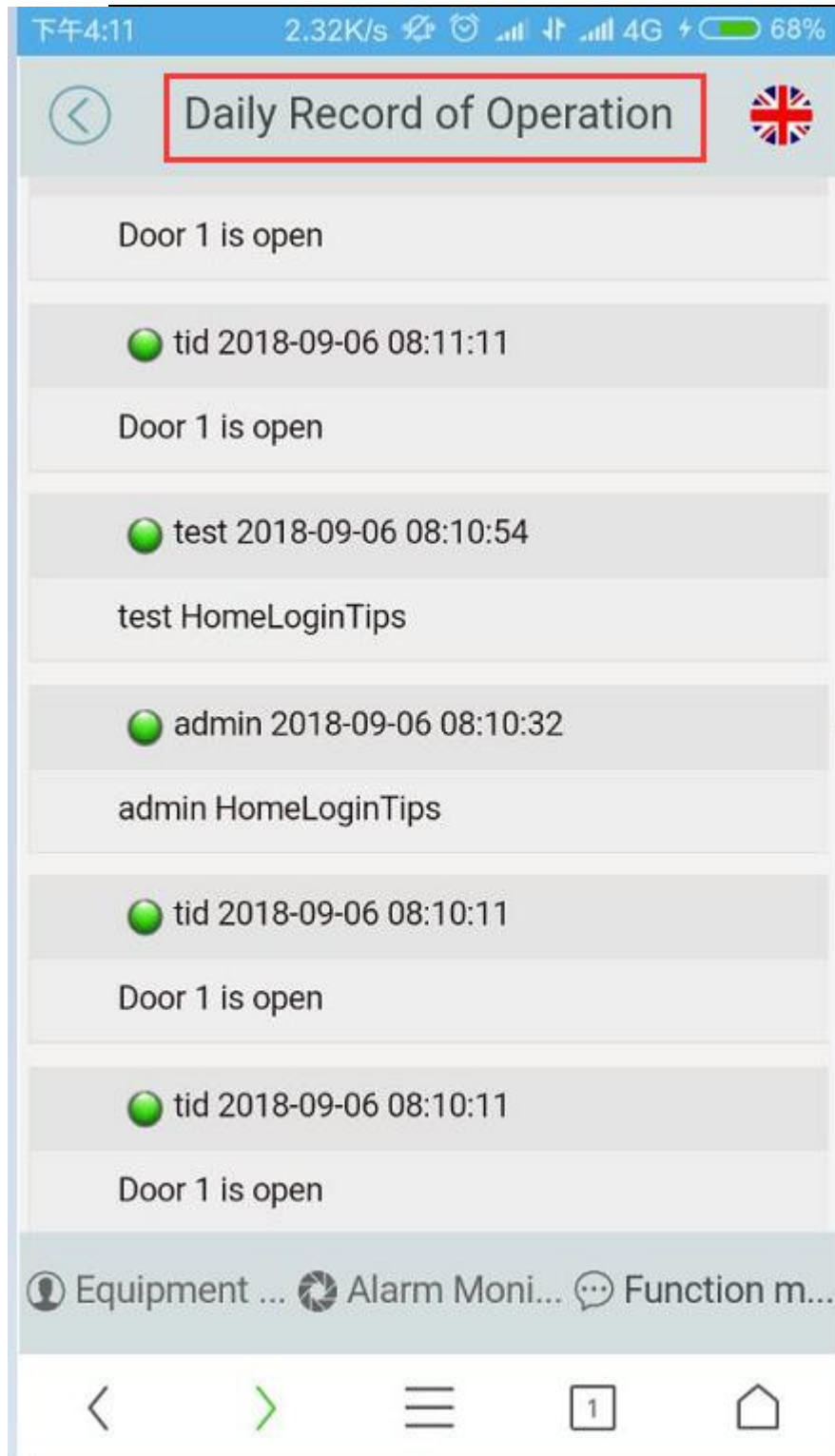
- You can jump to different function module pages, including device monitoring, alarm monitoring, operation log, query statistics and logout, and operate the device: switch screen, screenshot, etc.
- **Equipment Monitoring:** Jump to the device monitoring page.
- **Alarm Monitoring:** Jump to the Alarm Monitoring page.
- **Daily Record of Operation log:** Jump to the operation log page.
- **EquipmentQuery Statistics:** Jump to the query statistics page.
- **Sign out:** Exit the current account and return to the login page.



Operation log

Use this page to view user and device operational records and device alert records

The user who operates, the device being operated, the time when the operation occurred, the content of the operation, and the like can be clearly known.



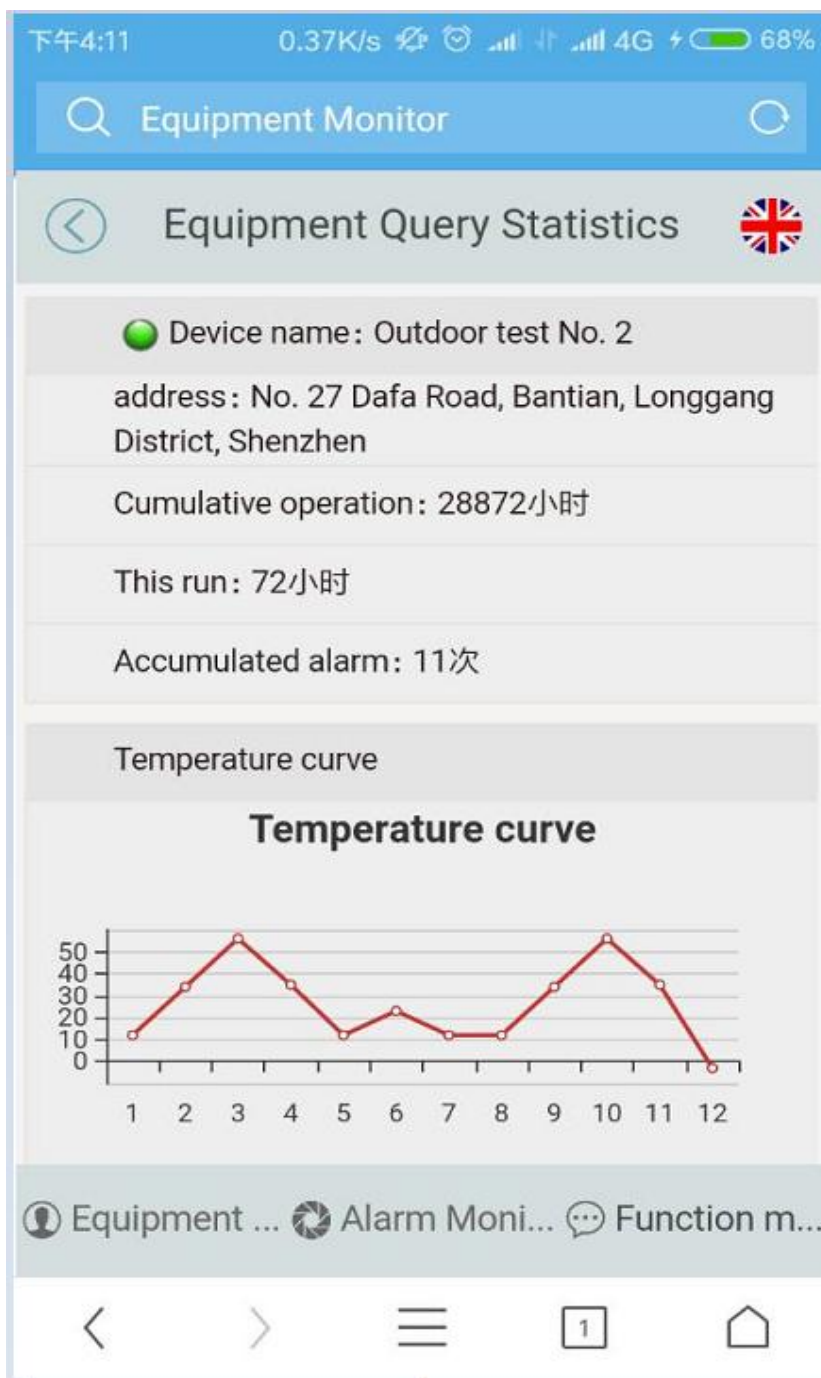
Query stats

Page description:

- **Device Name:** The name of the device.
- **Address:** The address of the device.
- **Cumulative run:** The total duration of the online run.



- **This run:** The duration of this online.
- **Cumulative alarm:** The number of times the device has accumulated an alarm.
- **Temperature curve:** The change in temperature of the device.



On this page, you can view the overall operation of the device, including the accumulated running time, the current online time, the cumulative number of alarms, and the temperature changes. This is convenient for users to understand the overall information of the device and facilitate maintenance and management.