

# Training of AI-Super Precision Face Recognition Machine

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Excellence  
EXCELLENCE

Innovation  
INNOVATION

Values  
VALUES

Integrity  
INTEGRITY

Dedication  
DEDICATION

R&D Center

Technical Support Dept

## **PART ONE**

# Selling point of the product

# Product Parameter

Product type: intelligent terminal 2000

Camera: 2 million cameras

Waterproof:IP66

Operating system: Linux

Display: 7 inch IPS hd 1024\* 600,300 CD /m<sup>2</sup>

Hardware interface: RS485, RS232, RJ45, relay

output Fill light lamp: infrared fill light, white light

fill light Rated voltage: dc 12V input

Panel size: 219x111x21.5mm

Stand size: 33x189mm

## Algorithm Capabilities

Temperature measuring distance: 0.5-1.0 m 0.75 m is the best

Face recognition distance: 0.5-2.2 m

Temperature error: temperature  $\pm 0.3^{\circ}\text{C}$

Human face capacity: 30,000

Identification accuracy: 99.5%

Recognition speed: approx. 200ms



# Product Advantages

- 1-The Traditional Temperature Measuring Gun Needs To Be Held By A Person, And The Efficiency Is Low;
- 2-All-in-one Face Temperature Measuring Machine, Automatic Temperature Measurement By Facial Scanning, Saving Manpower And Improving The Efficiency;
- 3-Among Mobile People, People Without Masks Can Be Accurately Detected;
- 4-By facial scanning, it can automatically record personal information and check the records of relevant people going in and going out, so that it is convenient for personnels to be checked again;
- 5-Automatically record abnormal temperature information of the human body and automatically count relevant person;
- 6-Adopt deep learning algorithm, support 30,000 face database, 200ms speed recognition, to achieve the rapid movement of personnel;
- 7-Support data network upload, the device comparison results and snapped photos can be uploaded to the platform for real-time storage, and data can be continuously uploaded even if the network is off.

## **PART TWO**

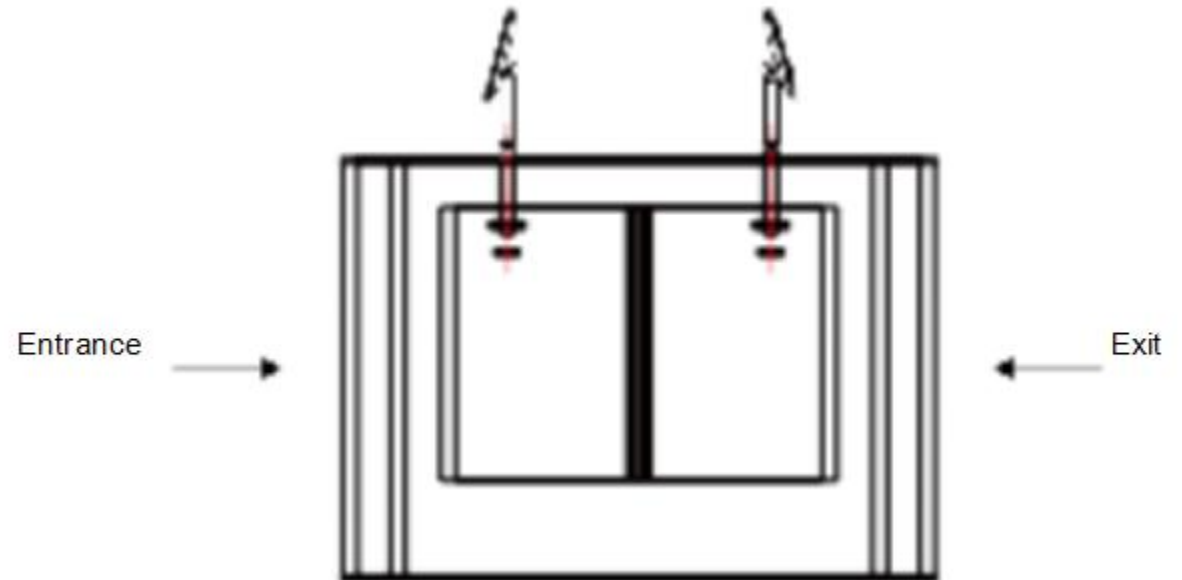
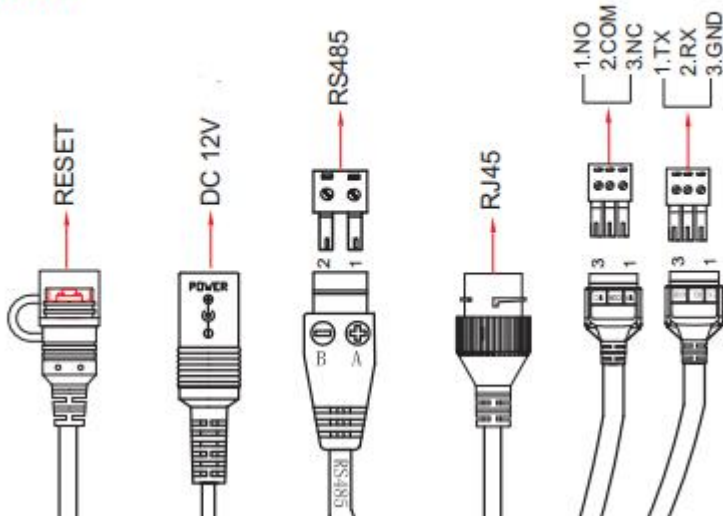
# **Introduction of installation & test**

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# Equipment Installation

- 1. Open a hole with a diameter of  $D = 35\text{mm}$  on the turnstile gate, and the recommended position of hole is on the  $1/3$  to  $1/4$  of the turnstile gate near to the entrance end ;
- 2. Insert the bracket of the ALL-IN-ONE Face temperature measuring machine into the hole of the turnstile gate, and fix the device nut from the inside of the Turnstile gate ;
- 3. Adjust the device to an appropriate angle (vertical angle of  $5^\circ - 15^\circ$ ) ;

## Wire Definition



# Requirements

- Distance: 0.5-1.5m, 0.75-1 meters test best
- The human face should be within the frame drawn by the recognition screen, and it is not necessary to fill the area inside the frame. You can adjust the angle according to the actual height.
- After installing and fixing, powered on and warmed up the machine for 20 minutes (maximum) and then tested.
- During testing, fix the terminal as much as possible and don't hold it, because there will be slight shaking in the hand, which will affect the accuracy of temperature detection.
- If you have bangs, please raise the bangs as much as possible. Do not leave hair on the forehead, because the temperature measurement area is the highest value, and the hair may be higher than the forehead.
- During testing and actual usage, the test object and the thermometer need to be far away from the heat source (air conditioner outlet, microwave oven, heater, etc.). If there is a heat source nearby, you must also keep a distance of at least 3 meters from the heat source during installation.



## **PART THREE**

# **Introduction of the operationg platform**

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# Installation and requirements to the platform

- 64-bit system is required, and it can't be used under a 32-bit system.
- Installation path: Other than C drive, English path is required.
- Browser: The latest version of Chrome or Firefox is recommended.
- If the anti-virus software prompts abnormally, please trust all operations of the software or close the anti-virus software in advance.



**3****2**

# Operation of the platform

Open the client homepage and log in through the browser.

Local login address.

http://http://127.0.0.1:8080 or

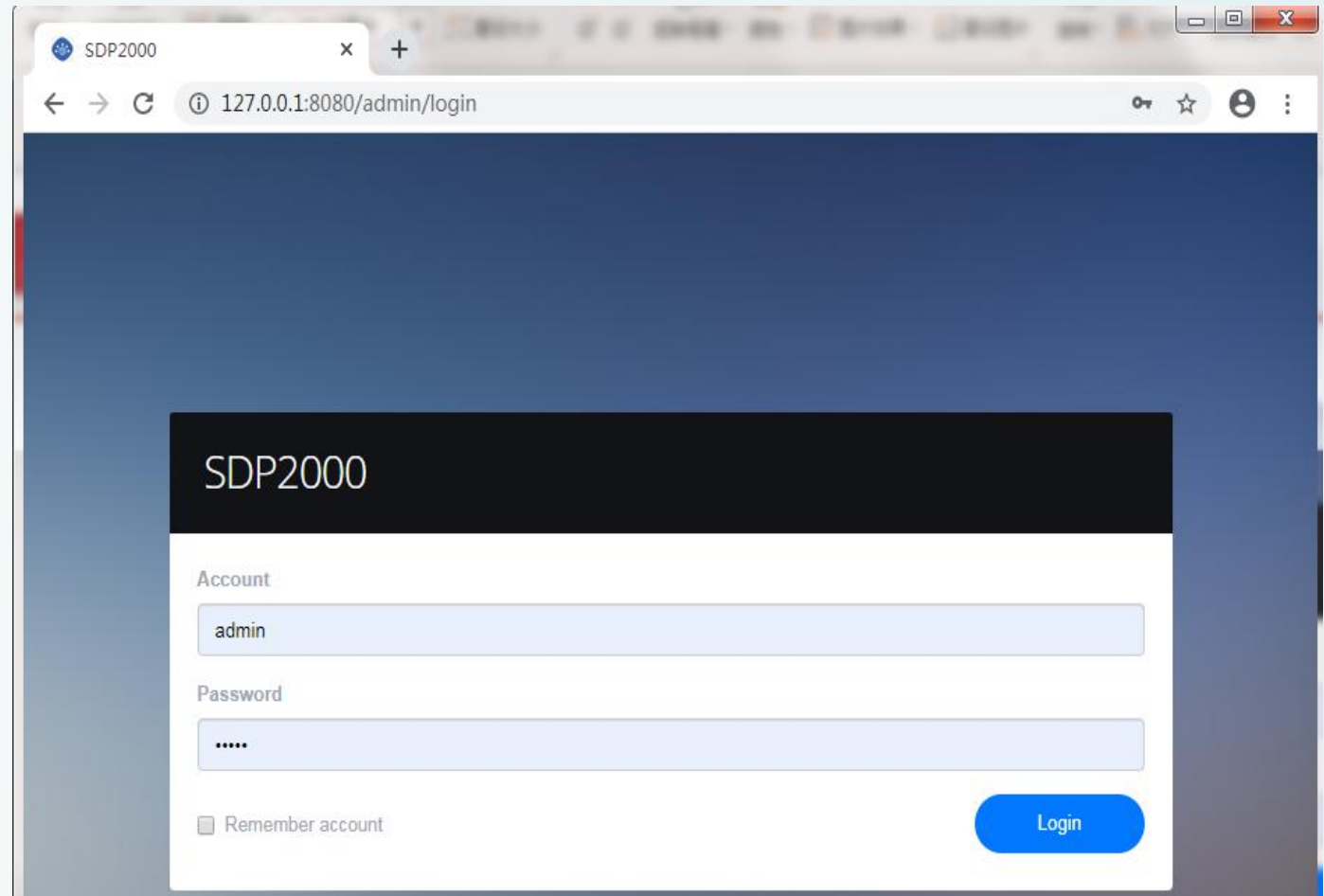
http://(nativeIP): 8080.

Login in LAN.

Server IP+ port8080:


http://172.18.186.55:8080/

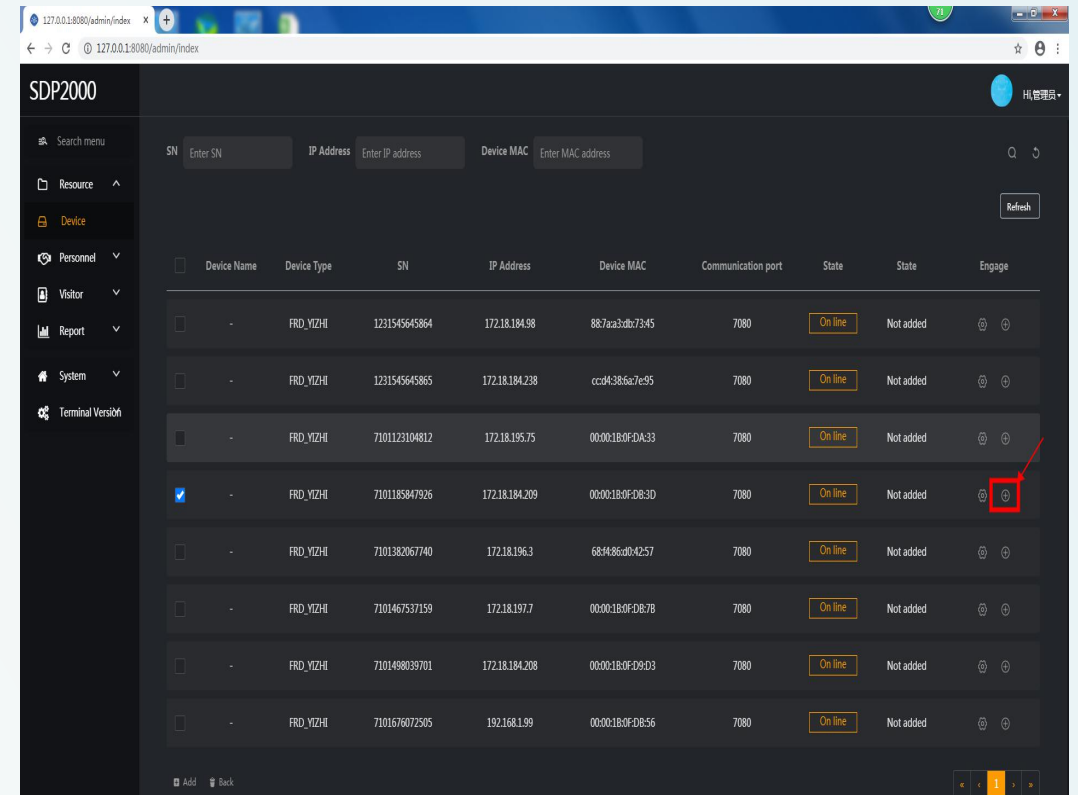
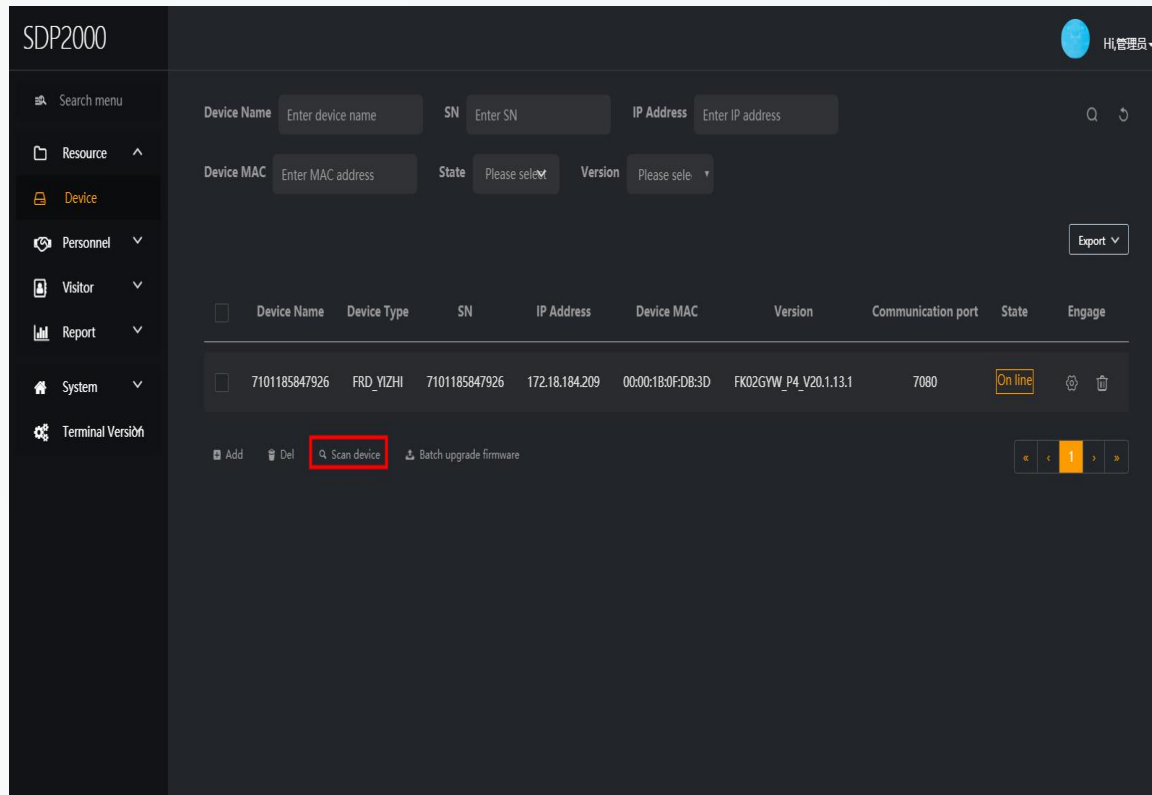
Client ID: **admin**, password:**admin**  
or **user/123456**



# Operation of the platform

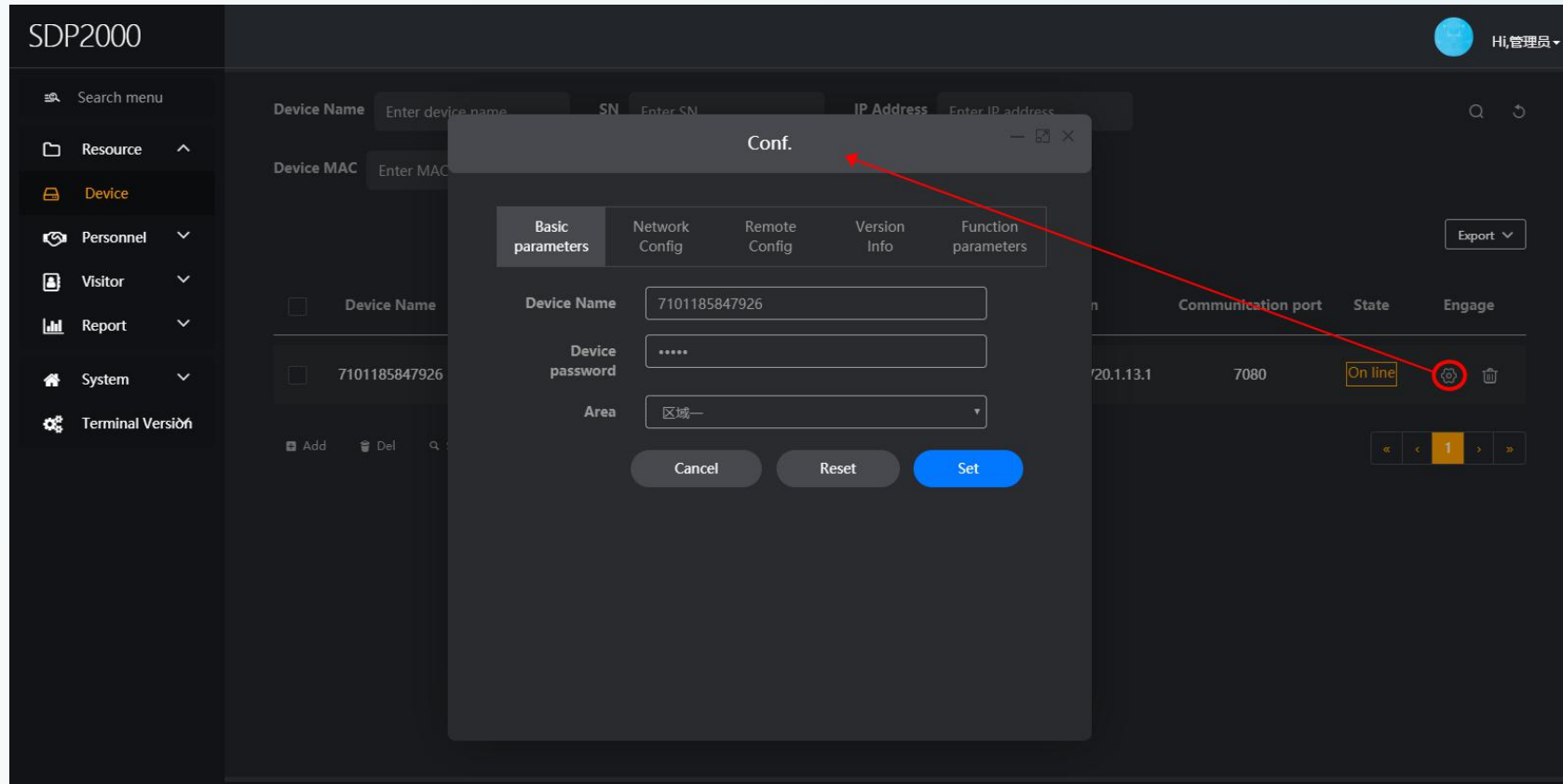
## Device search and add


The default IP address of the device is 192.168.1.88. Make sure that the computer has this network segment before adding. Click "Scan device" to search the device, then choose device, click 



# 3 4 Platform operating instructions

## Device function configuration



Click "  " for configuration

# 3 5 Platform operating instructions

## Device function configuration

### Basic parameters

Conf.

Basic parameters | Network Config | Remote Config | Version Info | Function parameters

Device Name: 7101185847926

Device password: ....

Area: 区域一

Cancel Reset Set

Device name, password, time

### Network Configuration

Conf.

Basic parameters | Network Config | Remote Config | Version Info | Function parameters

IP Address: 172.18.184.209

Network Mask: 255.255.248.0

Gateway: 172.18.189.189

DNS1: 172.18.189.189

DNS2: 8.8.8.8

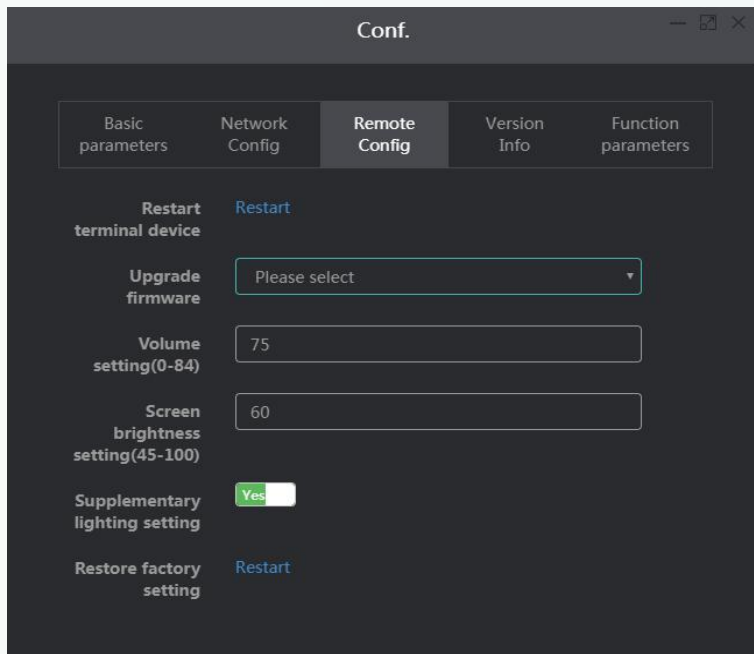
Cancel Reset Set

Network address configuration

# 3 6 Platform operating instructions

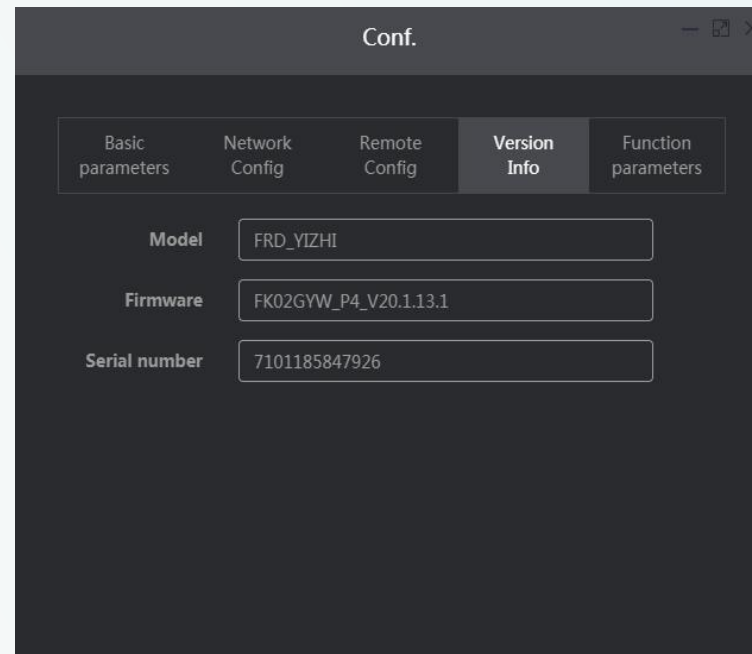
## Device function configuration

### Remote configuration



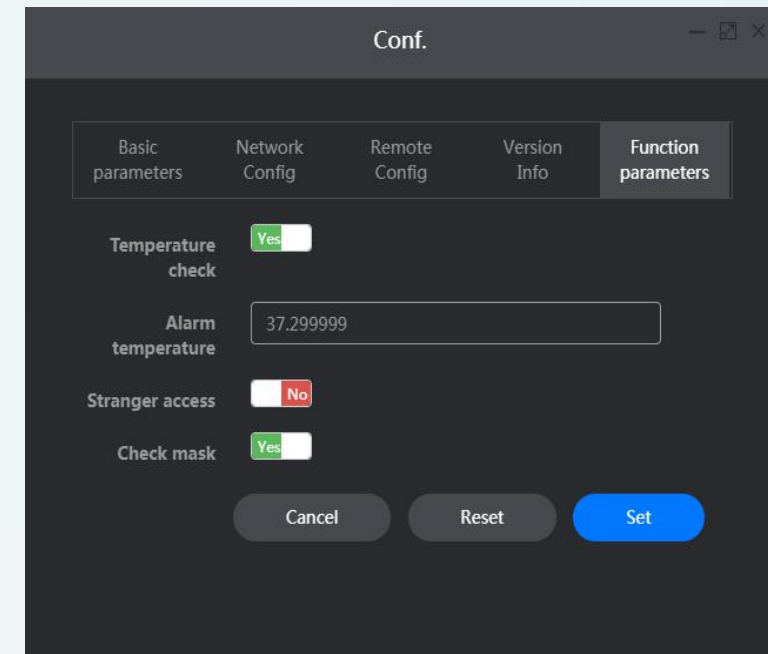
Restart, upgrade, volume, brightness

### Version Information



Version information

### Function parameter



Temperature measurement, alarm temperature, stranger, detection mask

# 3 7 Platform operating instructions

## Personnel management - organizational management

- Create an organizational structure, such as:
- Marketing center
- Research and development center
- Financial center
- Human resource centre

The screenshot shows the SDP2000 interface for organizational management. On the left is a navigation menu with options: Search menu, Resource, Personnel, Organizational, Personnel, Visitor, Report, System, and Terminal Version. The main area displays a table of departments with columns for Department No., Department name, Superior department, Creation date, and Engage. A red box highlights the 'Department' option in the left sidebar. Below the table are 'Add' and 'Del' buttons, with 'Add' highlighted by a red box. The table contains three entries:

Department No.	Department name	Superior department	Creation date	Engage
0000001	Department		2020-03-12 17:38:51	[Edit] [Del]
0000002	Subdepartment	Department	2020-03-24 09:01:06	[Edit] [Del]
0000003	Sales	Department	2020-03-24 09:40:56	[Edit] [Del]

The screenshot shows the 'Organization' form with the following fields:

- Organization No. : [Text input]
- Organization name : [Text input]
- Parent organization : [Text input, value: Department]
- Remarks : [Text input]

At the bottom, there are 'Off' and 'Submit' buttons.

The screenshot shows a tree view of the organizational structure. The root is 'Department', which contains a 'Subdepartment' folder. Under 'Subdepartment', there are four folders labeled '销售部一', '销售部二', '销售部三', and '销售部四'.

# 3 8 Platform operating instructions

## Personnel management - people management

- According to the level organization and the subordinate organization,
- Import relevant personnel information.
- Add personal information separately
- Can be imported in batches through excel.
- Upload person information
- named for the picture

SDP2000

Search menu

Resource

Personnel

Organizational

Personnel

Visitor

Report

System

Terminal Version

No. Search numbe Name Search name Mobile phone No. Search mobile Certificate No. Search certific State All Creation date

Export

No.	Name	Gender	Mobile phone No.	Department	Certificate type	Certificate No.	State	Creation date	Engage
duanxiansen	段贤森	Male	15013778605	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
lili	李莉	Female	15013778610	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
huangdongjie	黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
dengmin	邓敏	Male	15013778604	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
zhouliang	周亮	Male	15013778609	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
hongwei	洪伟	Male	15013778606	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
quanshaojun	全绍军	Male	15013778608	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	

Add Input personnel in batches Input personnel images in batches Reissue Del



# 3 9 Platform operating instructions

## People management - upload personal information

Separately add:

Fill in the uploaded personnel picture,  
personnel code, Name, gender, department,  
type of certificate (Id card, Driving license,  
residence permit, passport, Hong Kong and  
macau pass, Id number, mobile phone number,  
selection area.

Personnel

Personnel No. :

Name :

Gender :  Male  Female

Department :

Certificate type :

Face Library Upload

Certificate No. :

Mobile phone No. :

区域设备授权

Off Submit

# 3 10 Platform operating instructions

People management - upload personal information

Bulk import

Fill in the personnel correlation

according to the example

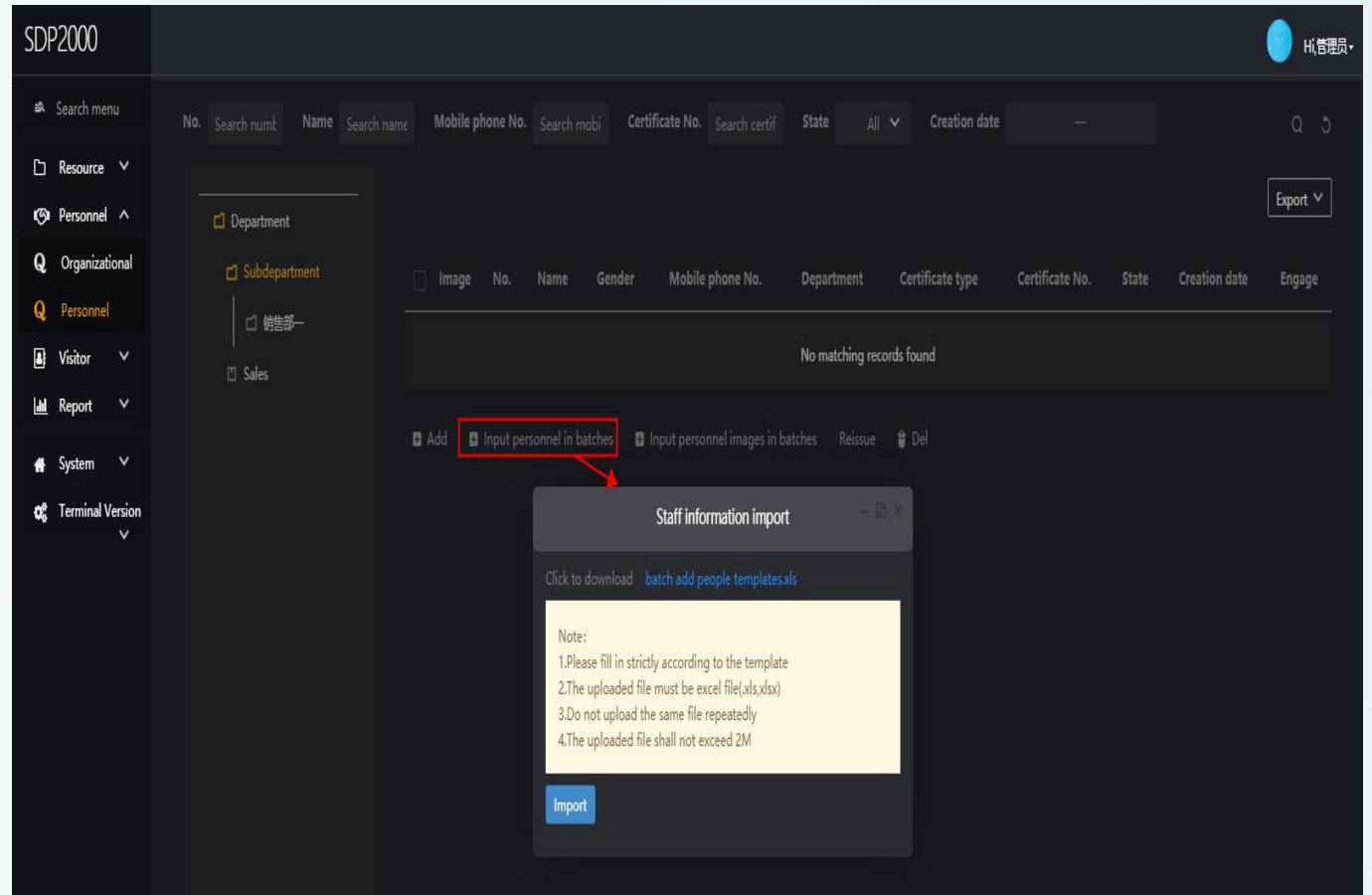
The uploaded file must be excel(XLS, XLSX)

Do not upload the same file repeatedly

The uploaded file cannot be greater

than 2M

example:  personImport.xls  
x



# 3 11 Platform operating instructions

## People management - upload personal information

### Upload Personal information

The screenshot shows the SDP2000 system interface. The main area displays a table with columns: No., Name, Mobile phone No., Certificate No., State, and Creation date. Below the table, there are buttons for 'Add', 'Input personnel in batches', 'Input personnel images in batches', 'Reissue', and 'Del'. A red box highlights the 'Input personnel in batches' button. A modal dialog box titled 'Staff information import' is open, showing a note with the following instructions:

- 1. Please fill in strictly according to the template
- 2. The uploaded file must be excel file(xls/xlsx)
- 3. Do not upload the same file repeatedly
- 4. The uploaded file shall not exceed 2M

An 'Import' button is located at the bottom of the dialog box.

### After Upload Personal information

The screenshot shows the SDP2000 system interface after uploading personal information. The main area displays a table with columns: Image, No., Name, Gender, Mobile phone No., Department, Certificate type, Certificate No., State, Creation date, and Engage. The table lists personnel information for the 'Sales' department.

Image	No.	Name	Gender	Mobile phone No.	Department	Certificate type	Certificate No.	State	Creation date	Engage
	quanshaojun	全骁军	Male	15013778608	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	duanxiansen	段贤森	Male	15013778605	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	lili	李莉	Female	15013778610	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	huangdongjie	黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	dengmin	邓敏	Male	15013778604	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	zhouliang	周亮	Male	15013778609	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	hongwei	洪伟	Male	15013778606	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	

At the bottom of the table, there are buttons for 'Add', 'Input personnel in batches', 'Input personnel images in batches', 'Reissue', and 'Del'. A pagination control shows '1' of 1 pages.

# 3 12 Platform operating instructions

## People management - upload personal information

### Upload Personal photos

Staff photo import

More than 500 pictures please use zip upload, pictures must be named "name!"

File size cannot exceed 80M, image must be "named!"

Cancel OK

Image	No.	Name	Gender	Mobile phone No.	Department	Certificate type	Certificate No.	State	Creation date	Engage
	quanshaojun	全绍军	Male	15013778608	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	duanxiansen	段贤森	Male	15013778605	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	lili	李莉	Female	15013778610	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	huangdongjie	黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	dengmin	邓敏	Male	15013778604	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	zhouliang	周亮	Male	15013778609	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	
	hongwei	洪伟	Male	15013778606	Subdepartment	ID card	440825198806202546	Exception	2020/3/24	

Add Input personnel in batches **Input personnel images in batches** Reissue Del

### After Upload Personal photos

Department

Subdepartment

Sales

研发中心

Image	No.	Name	Gender	Mobile phone No.	Department	Certificate type	Certificate No.	State	Creation date	Engage
	quanshaojun	全绍军	Male	15013778608	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	duanxiansen	段贤森	Male	15013778605	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	lili	李莉	Female	15013778610	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	huangdongjie	黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	dengmin	邓敏	Male	15013778604	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	zhouliang	周亮	Male	15013778609	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	
	hongwei	洪伟	Male	15013778606	Subdepartment	ID card	440825198806202546	Normal	2020/3/24	

Add Input personnel in batches **Input personnel images in batches** Reissue Del

# 3 13 Platform operating instructions

## People management - upload personal information

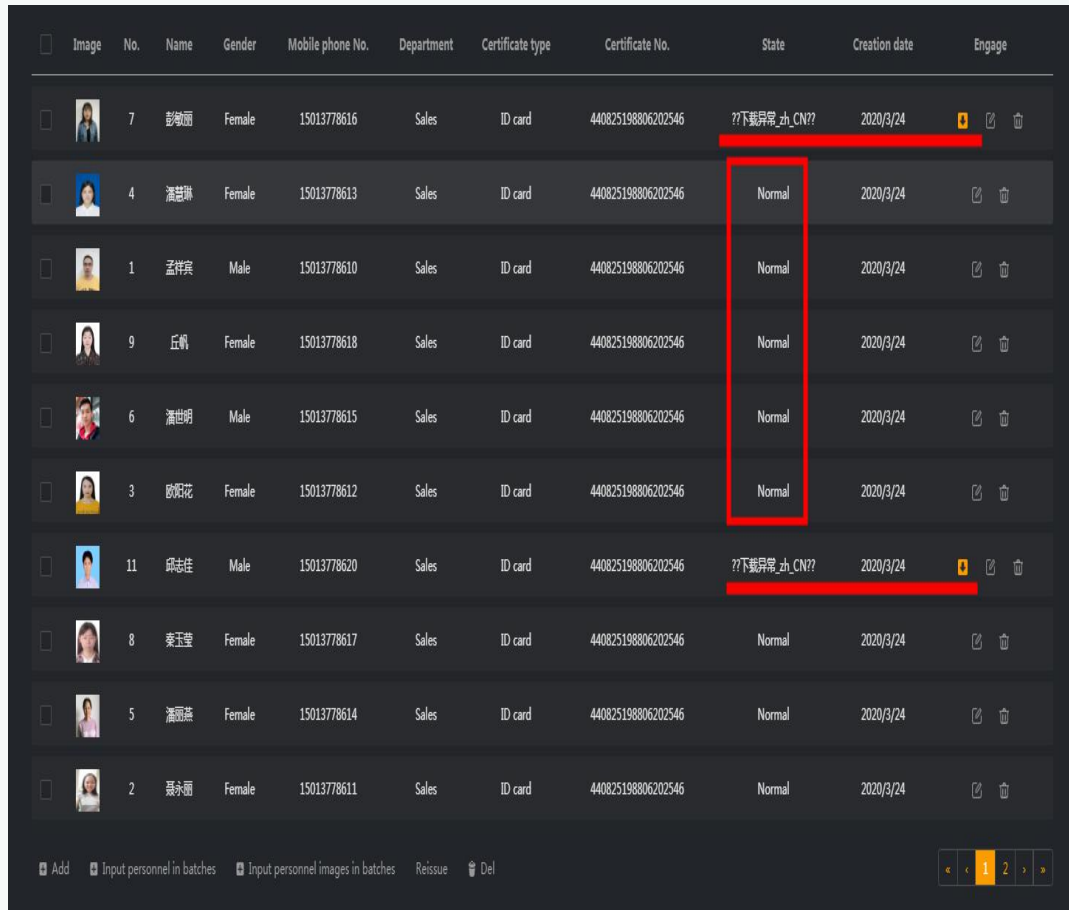


Image	No.	Name	Gender	Mobile phone No.	Department	Certificate type	Certificate No.	State	Creation date	Engage
	7	彭敏丽	Female	15013778616	Sales	ID card	440825198806202546	??下载异常_zh_CN??	2020/3/24	
	4	潘慧琳	Female	15013778613	Sales	ID card	440825198806202546	Normal	2020/3/24	
	1	孟祥宾	Male	15013778610	Sales	ID card	440825198806202546	Normal	2020/3/24	
	9	丘帆	Female	15013778618	Sales	ID card	440825198806202546	Normal	2020/3/24	
	6	潘世明	Male	15013778615	Sales	ID card	440825198806202546	Normal	2020/3/24	
	3	欧阳花	Female	15013778612	Sales	ID card	440825198806202546	Normal	2020/3/24	
	11	邱志桂	Male	15013778620	Sales	ID card	440825198806202546	??下载异常_zh_CN??	2020/3/24	
	8	秦玉莹	Female	15013778617	Sales	ID card	440825198806202546	Normal	2020/3/24	
	5	潘丽燕	Female	15013778614	Sales	ID card	440825198806202546	Normal	2020/3/24	
	2	聂冰丽	Female	15013778611	Sales	ID card	440825198806202546	Normal	2020/3/24	

If the status is abnormal. The picture needs to re-uploaded.

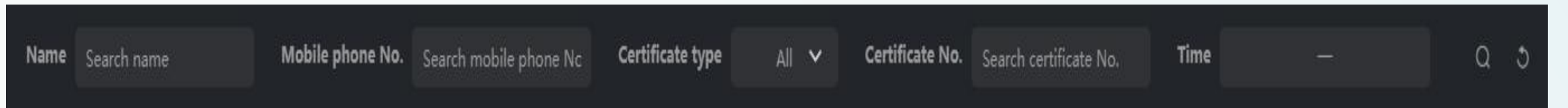
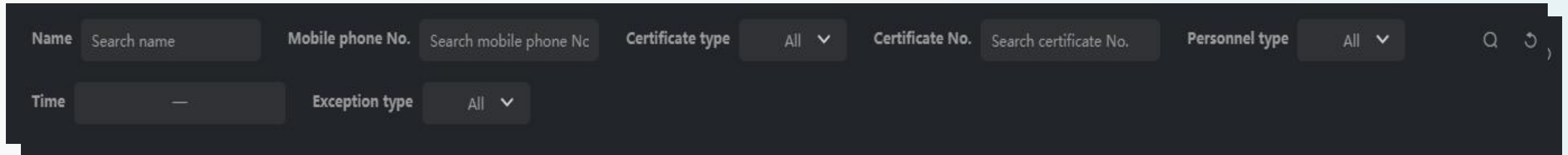
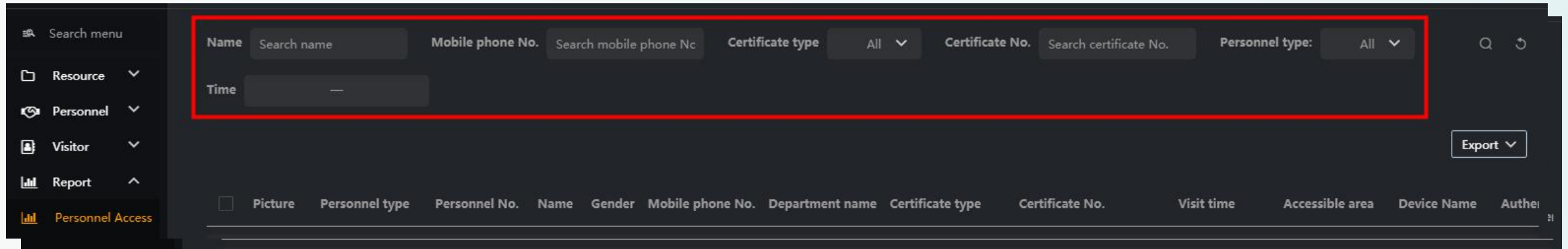
- Create gallery-upload pictures
- Create up to 800 galleries
- There are two types of upload methods:  
compressed files and folders
- The compressed package only supports ZIP  
format and is less than 500M
- Folder size does not exceed 80M

Note: Turn off your computer's firewall before uploading pictures. It is recommended to use Google Chrome to upload pictures. And please make the photos smaller to increase the photos upload success rerate.

# 3 14 Platform operating instructions

## Report management

Report management including three parts: personnel traffic record, abnormal traffic record and historical visitor record. All of them have a conditional search function, see below pictures.



# 3 15 Platform operating instructions

## Report Management-- Access records

All snapshot photos will be record

there is an active box at the bottom, and if you go to the right, you can see the temperature and other information.

(or zoom in and out)

Name	Gender	Mobile phone No.	Department name	Certificate type	Certificate No.	Visit time	Accessible area	Device Name	Authent
Stranger	-	-	-	-	-	2020-03-24 09:56:59	区域一	7101185847926	-
Internal personnel	huangdongjie 黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	2020-03-24 09:52:33	区域一	7101185847926
Stranger	-	-	-	-	-	2020-03-24 09:32:39	区域一	7101185847926	-
Stranger	-	-	-	-	-	2020-03-24 09:32:36	区域一	7101185847926	-
Stranger	-	-	-	-	-	2020-03-24 09:30:03	区域一	7101185847926	-
Stranger	-	-	-	-	-	2020-03-24 09:27:03	区域一	7101185847926	-
Stranger	-	-	-	-	-	2020-03-24 09:26:54	区域一	7101185847926	-

Name	Gender	Mobile phone No.	Department name	Certificate type	Certificate No.	Visit time	Accessible area	Device Name	Authentication Mode	Mask	Temperature (°C)	Engage
-	-	-	-	-	-	2020-03-24 09:56:59	区域一	7101185847926	Face	-	36.59	📄
黄东杰	Male	15013778607	Subdepartment	ID card	440825198806202546	2020-03-24 09:52:33	区域一	7101185847926	Face	-	36.62	📄
-	-	-	-	-	-	2020-03-24 09:32:39	区域一	7101185847926	Face	-	36.46	📄
-	-	-	-	-	-	2020-03-24 09:32:36	区域一	7101185847926	Face	-	36.42	📄
-	-	-	-	-	-	2020-03-24 09:30:03	区域一	7101185847926	Face	-	36.51	📄
-	-	-	-	-	-	2020-03-24 09:27:03	区域一	7101185847926	Face	-	36.64	📄
-	-	-	-	-	-	2020-03-24 09:26:54	区域一	7101185847926	Face	-	36.64	📄

# 3 16 Platform operating instructions

## Report management - abnormal traffic records

Only record the abnormal temperature and stranger information.

The screenshot displays the SDP2000 platform interface for report management. The sidebar on the left contains navigation options: Search menu, Resource, Personnel, Visitor, Report (highlighted with a red box), Personnel Access, Abnormal Access (highlighted with a red box), Visitor, System, and Terminal Version. The main area shows a table of records with the following columns: Name, Mobile phone No., Certificate type, Certificate No., Personnel type, Time, Exception type, State, and Reco. The table contains 10 rows of data, with two rows highlighted by red boxes. The first highlighted row shows an exception type of 'Stranger'. The second highlighted row shows an exception type of 'Abnormal temperature(37.59°C)'. The table also includes search filters for Name, Mobile phone No., Certificate type, Certificate No., Personnel type, Time, and Exception type, along with an Export button.

Name	Mobile phone No.	Certificate type	Certificate No.	Personnel type	Time	Exception type	State	Reco
-	-	-	-	-	2020-03-24 12:32:37	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:32:23	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:32:16	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:32:14	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:32:09	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:31:55	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:31:37	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:26:53	区域—	Unsolved	-
-	-	-	-	-	2020-03-24 12:26:35	区域—	Unsolved	-



# 3 17 Platform operating instructions

Report management - historical visitor records

Visitor information is recorded here.

SDP2000

Hi, 管理员

Search menu

Resource

Personnel

Visitor

Report

Personnel Access

Abnormal Access

Visitor

System

Terminal Version

Name Search name Mobile phone No. Search mobile phone No. Certificate type All Certificate No. Search certificate No. Time

Export

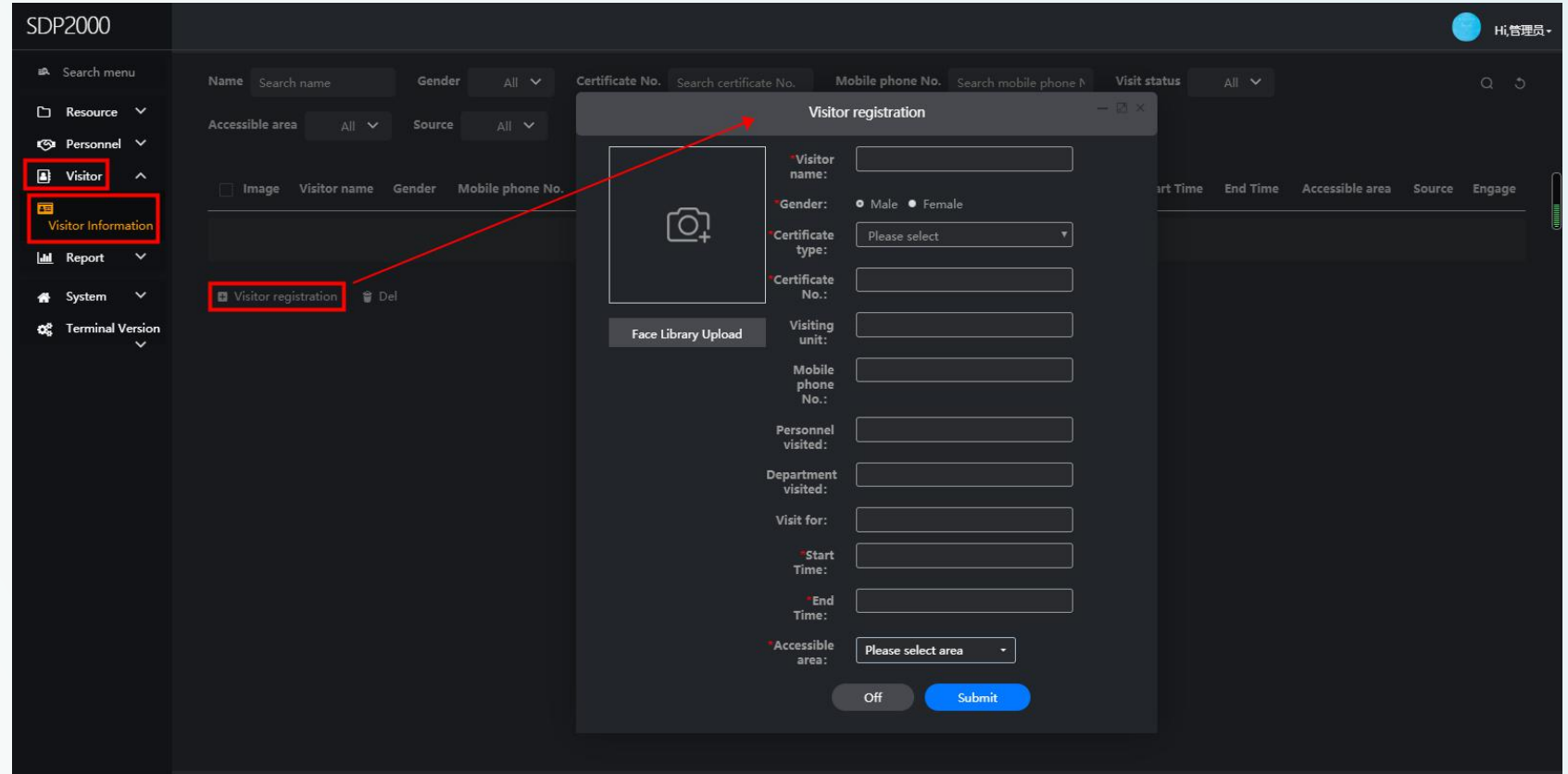
<input type="checkbox"/> Image	Visitor name	Gender	Mobile phone No.	Certificate type	Certificate No.	Visit for	Department visited	Personnel visited	Visit time	Accessible area	Visit status	Source	Engage
--------------------------------	--------------	--------	------------------	------------------	-----------------	-----------	--------------------	-------------------	------------	-----------------	--------------	--------	--------

No matching records found

# 3 18 Platform operating instructions

## Visitor registration

Visitors who need temporary entry and exit can register as visitors, and the collection method of portraits can be uploaded via taking photos and uploaded locally. Set the allowed time and the corresponding device according to the actual situation, and then click Add.



## **PART FOUR**

# Common problem introduction



## 4 1 Installation & Testing Problem:

### Questions:

Q: It needs other server to support when using this device?

A: Need to install intelligent terminal platform software on PC.

Q: What's the speed of temperature measuring?

A: The people who is registered can be measured no more than 2 seconds.

Q: Abnormal temperature always showing 35.8°

A: 1) Firstly need to check the firmware version,

if version is below V20.1.12.2 pls contact technical to upgrade the device.

2) If confirm the firmware version is the latest one,

need to disconnect the power and power on again for 5mins then device can be used normally.

## Platform problem

common problem:

Question: The image delivery fails which may cause the device not working properly, you need to restart the device.

Answer:

- 1) If the version is lower than V20.1.12.2, please contact our technicians to upgrade the device program.
- 2) We need to use pre-processing software tools to process the pictures before importing them to the device. The picture pre-processing software tools can be obtained by contacting the relevant sales or technical person.
- 3) Enter the computer control panel and turn off the computer's network firewall.

Question: The function parameters are blank in the web client device configuration.

Answer: You need to confirm that you are using the latest version of Google or Firefox browser, and clear the browser Caching, then reopen the web client to enter.

Problem: The web client clicks the device configuration and fails to get the data.

Answer:

- 1) Removed the network cable from the device, delete the device on the smart terminal platform, and then press the hard reset button to restore the factory. Then you can search and add the device again on the smart terminal platform.
- 2) If the data acquisition failure still occurs after trying the operation of step 1), after deleting the device on the smart terminal platform, reinstall the smart terminal platform and search and add the temperature measuring device again.

## FAQ

**Problem:** The device scanned the human face but don't any response, cannot recognize the face, and cannot detect the temperature.

**Answer:** Check the firmware version of the device. If the version is lower than V20.1.12.2, please contact our technicians to upgrade the device firmware.

**Question:** The device keeps prompting "please aim at the face frame" when scanning the face, the temperature is not displayed.

**Answer:** Check the program version of the device. If the version is lower than V20.1.12.2, please contact our technicians to upgrade the device program.

**Problem:** There is no sound from the device.

**Answer:** Go to the computer site of intelligent management terminal, enter the setting interface: Device Management-Configuration-Remote Configuration, and check if the volume is setted to a low value. It is recommended to set it to 75 (factory default). If you confirm that the parameter has a setting of 75 , also tried to press the hard-reset button on the device's waterproof cables to restore the device, but there is still no sound, then the device has speaker failure, and needs to be send to us for RMA.

# THANK YOU FOR LISTENING

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R&D Center

Technical Support Dept

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Innovation

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Values

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Integrity

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