

Quick operation manual for smart tablet camera with temperature detection + face recognize



Version: V4.0

Content

1.Product description.....	3
1.1 Product intruduce.....	3
1.2 Appearance.....	3
2.device installation.....	4
2.1 Installation location selection.....	4
2.2 Installation environment specifications.....	4
3.Quick instructions.....	5
3.1 Device connection.....	5
3.2 Intelligent access control management software operation.....	5
3.2.1 Homepage introduce.....	5
3.2.2 Face database management.....	7
3.2.2.1 Add operation.....	7
3.2.2.2 Single import face database operation.....	8
3.2.2.3 Batch import face database operation.....	8
3.2.2.4 Refresh operation.....	9
3.2.2.5 Manual synchronization operation.....	9
3.2.3 Log View & Attendance Record.....	9
3.2.4 Parameter configuration.....	10
4.Device program upgrade.....	11
4.1 Web upgrade program:	11

1.Product description

1.1 Product intruduce

2MP temperature measurement face recognition smart panel machine series products , adopting LCD display screen , Embedded deep learning face recognition algorithm,Integrated high-precision thermal imaging temperature measurement chip , AI intelligent access control products with ISP image processing and other technologies.This product has powerful functions such as face detection, mask detection, face recognition comparison, body temperature detection, living body judgment etc.Accurately captures personal information (such as facial information, identity information, whether wearing a mask, etc.) through the camera's field of view, and body surface temperature.Can effectively help users manage access rights and monitor body temperature status, help prevent epidemics.Users can manage the access rights offline by loading the face database to the device.Can also be used with attendance software to achieve employee attendance management.Can be widely used in residential access control, barrier gate passage, office buildings and other scenarios!

1.2 Appearance



1.3 Device interface definition

Numb er	Interface name	Interface Description
1	Power interface	12VDC
2	Network interface	RJ45 interface
3	Relay interface	+ : NO Normally open port - : COM common port
4	Wiegand interface	1: 12VDC 2: Wigan protocol data port D1

		3: Wigan protocol data port D0
		4: Signal ground

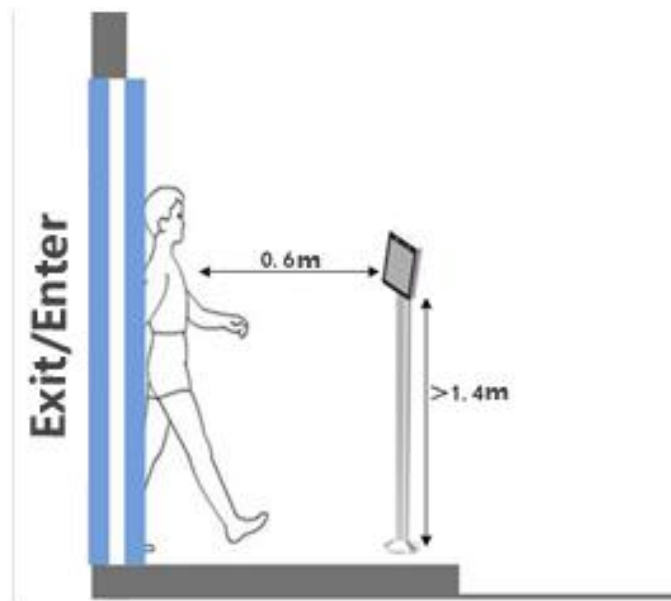
2.device installation

2.1 Installation location selection

- 1、 The camera is set directly in front of the channel, and the face is captured in front;
- 2、 The recommended height h is about 1.4 meters to 1.6 meters; the recommended camera angle is 0 to 10 degrees;
- 3、 In order to ensure the temperature detection effect, the distance of the device from the personnel collection point is 0.6 meters (range 0.4 ~ 0.7 meters), and the face pixel is not less than 1MP.

2.2 Installation environment specifications

1. Illumination requirements: No backlight, no obvious reflection on the face, uniform light and no shadow. In addition, in order to ensure that the scene lighting is sufficient when capturing human faces, it is recommended that if the human face in the lens picture is not bright enough, additional lighting equipment needs to be added to fill the human face (generally 250 ~ 800 Lux).
- 2、 Light and wind requirements: It is recommended that the device be installed indoors to ensure that there is no wind between the device and personnel, and no direct sunlight, and avoid the temperature measurement that is too low or too high caused by air cooling and direct sunlight.

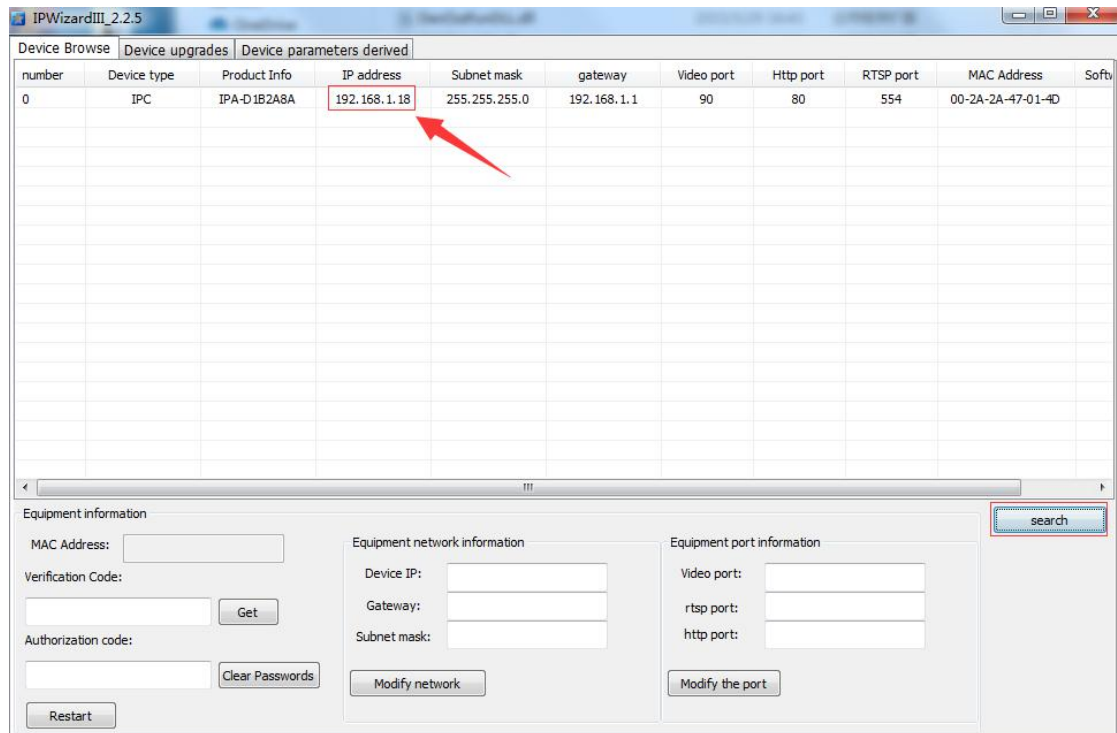


3.Quick instructions

3.1 Device connection

Connect the device to the PC through a network cable. After the device is powered on, open the search tool on the computer and search for the device IP address. At the same time, you can also modify the device IP address through the tool.

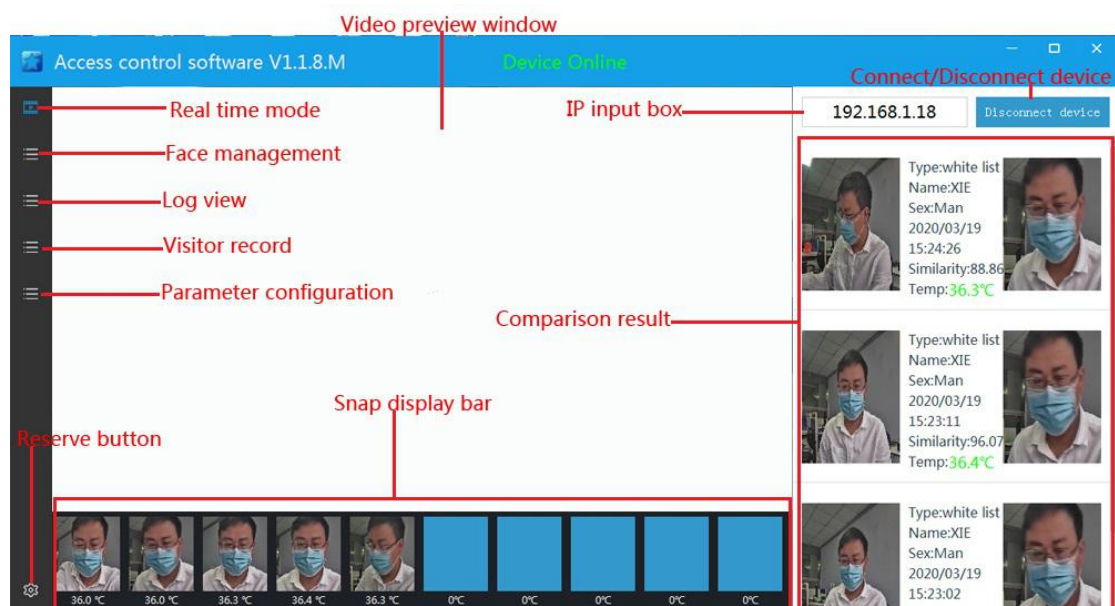
Note: The default factory IP address is 192.168.1.18



3.2 Intelligent access control management software operation

After the device is powered on, use the intelligent access control management software to set up the face database, preview real-time video, display real-time comparison results, read device logs, and configure device parameters.

3.2.1 Homepage introduce



【Video preview window】: After connecting the device, play live video from the camera.

【IP input box】: Enter the IP address of the device.

【Connect / disconnect device button】: Click [Connect Device] to connect to the device, you can view the preview real-time video, upload real-time snapshot pictures, display recognition results, etc.
Click [Disconnect Device] to disconnect and close the preview.

【Comparison result】: When the captured face matches the face database in the device, it will be displayed here, and basic information, similarity, temperature and other information of the face will be displayed. If the face database is not matched, it will not be displayed.

【Snap display bar】: In the video preview mode, the captured face picture of the current screen and the body surface temperature are displayed.

【Face management】: Click to enter the face database management interface, you can add, subtract, delete, check, change and other operations on the face database.

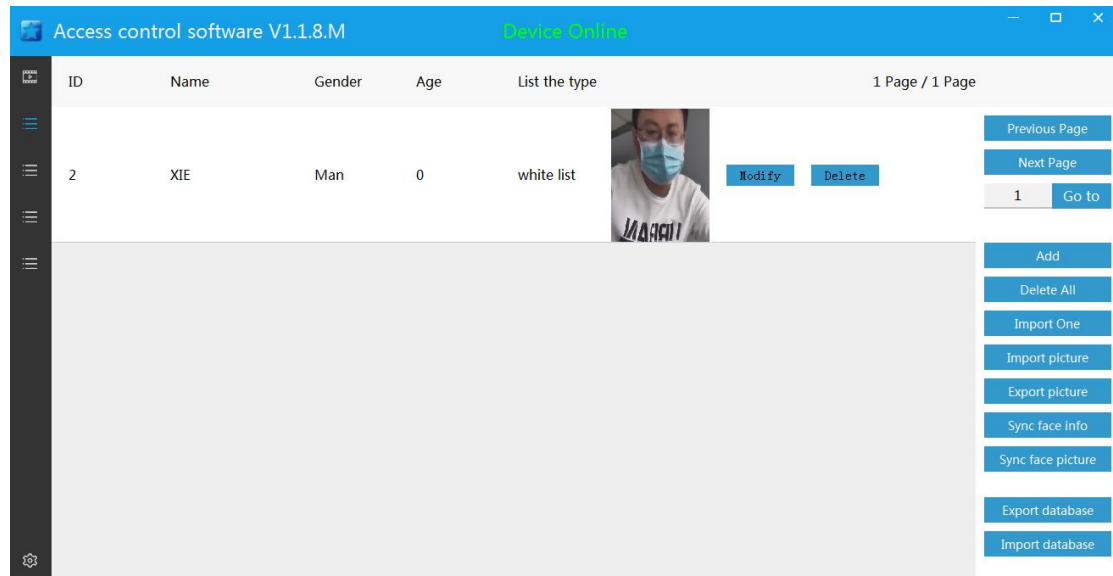
【Log view】: View and export the face recognition record information saved by the device, and generate a staff attendance record form.

【Parameter configuration】: Device face recognition key parameter configuration interface, you can modify parameters in this interface.

【Reserve button】: Functions are not defined yet, software setting functions will be added later.

3.2.2 Face database management

Users can perform operations such as adding, subtracting, deleting, checking, and modifying the face database on this interface.



【Add to】: Add face library to the device by snapshot

【Delete all】: Click the button to delete all face libraries in the device

【Single import】: Import a single picture to the device face library

【Batch Import】: Batch import multiple photos to device face library

【Refresh】: Click refresh to automatically upload the basic information of the device face database

【Manual synchronization】: Device uploads face library to PC software

【Send on simulation platform】: Reserve...

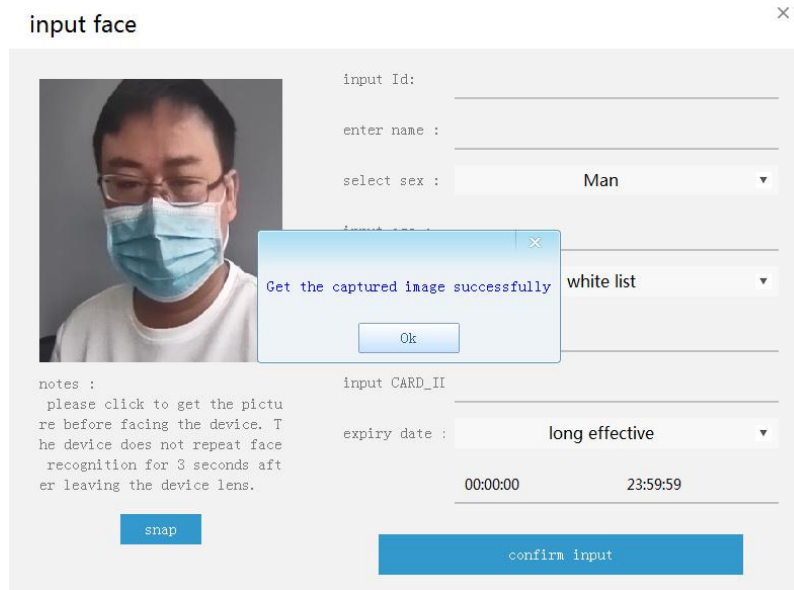
【modify】: Modify the personal attribute information of the current face

【delete】: Delete the current face database information from the device

3.2.2.1 Add operation

Click the [Add] button to enter the interface. Face is directly facing the camera. Click the [Capture Picture] button to capture the face picture and enter the personnel information. Click the [OK] button to prompt the formal entry of the face successfully.

input face



The screenshot shows the 'input face' window. On the left is a video feed of a man wearing a blue surgical mask. To the right of the video are input fields: 'input Id:', 'enter name:', 'select sex:' (with a dropdown menu showing 'Man'), 'input CARD_ID', 'expiry date:' (with a dropdown menu showing 'long effective'), and a time range from '00:00:00' to '23:59:59'. Below the video feed is a 'snap' button. A blue dialog box in the center says 'Get the captured image successfully' with an 'Ok' button. At the bottom right is a 'confirm input' button. A 'white list' dropdown menu is also visible.

input Id: _____

enter name : _____

select sex : Man

input CARD_ID _____

expiry date : long effective

00:00:00 23:59:59

notes :
please click to get the picture before facing the device. The device does not repeat face recognition for 3 seconds after leaving the device lens.

white list

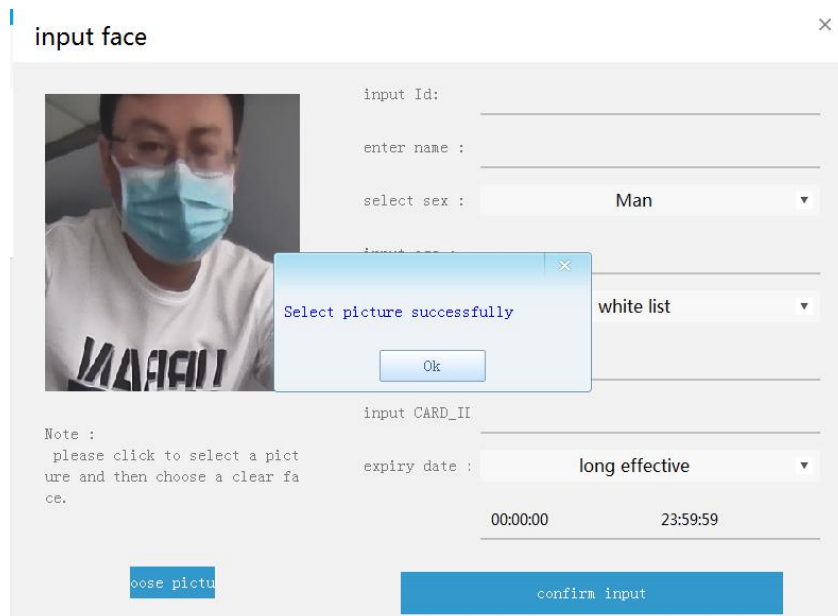
Ok

confirm input

3.2.2.2 Single import face database operation

Click [Single Import] to pop up the input face interface, click [Select Picture], select the face picture file, enter the personnel information, and click [Enter] to complete the single face import.

input face



This screenshot is similar to the previous one but shows a different state. The video feed on the left shows the same man, but he is now wearing a white t-shirt with 'MARFAN' printed on it. The blue dialog box in the center says 'Select picture successfully' with an 'Ok' button. The 'snap' button at the bottom left is now labeled 'choose picture'. The 'confirm input' button is at the bottom right. The input fields and dropdown menus are the same as in the previous screenshot.

input Id: _____

enter name : _____

select sex : Man

input CARD_ID _____

expiry date : long effective

00:00:00 23:59:59

Note :
please click to select a picture and then choose a clear face.

white list

Ok

confirm input

3.2.2.3 Batch import face database operation

Click [Batch Import], pop-up interface, click [Choose Directory], select the face picture folder, and click [Start Import]. The import progress bar will complete the batch import of faces.

Importe faces

Rules:

1."name.jpg"

2."ID_name.jpg"

3."ID_name_gender.jpg"

4."ID_name_gender_age.jpg"

5."ID_name_gender_age_phonenumber.jpg"

Select the image path of face to be imported:

0%

0/0

Select directory

Start importing

3.2.2.4 Refresh operation

Click the [Refresh] button to synchronize the basic information of the face database, and you can view the statistics of the number of entered faces.

3.2.2.5 Manual synchronization operation

Upload the face database from the device to the management software. After replacing the new device, you must first manually sync the face database. Otherwise, the personnel information on the management software and the device's face database may be inconsistent, resulting in incorrect display of the identification comparison information.

3.2.3 Log View & Attendance Record

Click [Log View], enter the interface to select the search start and end time, and click the [🔍] button to search the log.

Quick instructions

Access control software V1.1.8.M Device Online						
	Datetime	2020/03/19 13:54	2020/03/20 13:54	Export attendance record		
ID	Name	Time	Temperature	Wear a mask	Event description	
008	XIE	2020-03-19 18:15:14	36.3°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 11:53:57	36.0°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 11:56:05	36.3°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 11:56:17	36.2°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 13:52:16	36.5°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 13:52:20	36.7°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 13:52:20	36.7°C	Yes	Recognized and Passed	
008	XIE	2020-03-20 13:52:25	36.7°C	Yes	Recognized and Passed	

[Export Attendance Record]: Click the button to select the save path to automatically export the attendance record to save EXCEL.



A	B	C	D	E	F	G	H
姓名	日期	上班	上班体温	上班戴口罩	下班	下班体温	下班戴口罩
XIE	2020-03-19	NULL	NULL	NULL	18:15:14	36.3	yes
XIE	2020-03-20	NULL	NULL	NULL	NULL	NULL	NULL

3.2.4 Parameter configuration

You can set the key parameters of face capture as shown below.

Access control software V1.1.8.M Device Online	
Capturing interval(s):	3
Snap picture quality parameters(0-1):	0.70
Blur parameter(0-1):	0.30
Living-body threshold(0-1):	0.20
Face recognition (0-100):	70.00
Identified Times (1-10):	3
Recognition distance threshold:	0.5m
Face exposure threshold (0-100):	0
Temperature compensation coefficient:	0.00
Switch delay time:	0
Face recognition association relay:	Unrelated
Normal temperature threshold:	0.00
Temperature detection switch:	Close
Temperature related relay:	Unrelated
Mask detection switch:	Close
Mask associated relay:	Unrelated
Refresh Save	

Face snapshot time interval: Set the face capture interval to avoid repeated snapping of

pictures in a short time.

Living threshold for face recognition: Set the face recognition biometric threshold, 0-1. The larger the value, the stricter and more secure the biometric detection.

Snapshot picture quality parameter settings: Set the quality of the captured picture. 0 is the worst and 1 is the best.

Score threshold for face recognition: Set the threshold for face recognition matching, compare the captured face picture with the face database, and the similarity exceeds this threshold, that is, the same person is identified. The threshold is recommended to be set above 70. The greater the matching, the higher the similarity requirement. , The safer

Snapshot image blur parameters: Set the sharpness of the captured picture. The range is 0-1. The smaller the value, the clearer it will be.

Threshold of the same person identification: Set the number of times that the face is repeatedly recognized within the camera recognition range. After this number of times, the face is no longer recognized. You need to exit the camera's field of view and re-enter the screen to continue recognition.

Compensation temperature: In the harsh environment, increase the compensation temperature to improve the temperature measurement accuracy.

4.Device program upgrade

Users can use the browser or PC tools to upgrade the program;

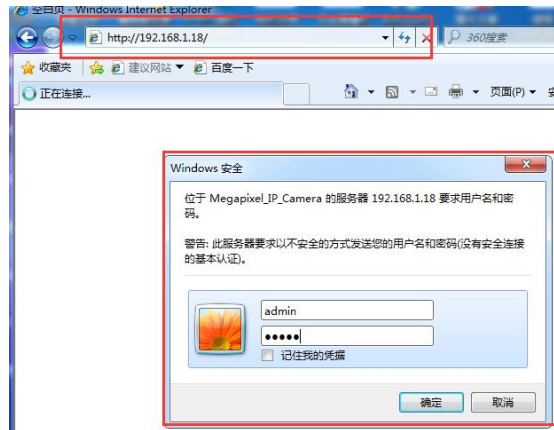
Note: Browser upgrade package suffix is .ifu, PC tool upgrade package suffix is .bin

4.1 Web upgrade program:

Note: The browser can only use IE browser, QQ browser and 360 secure browser. IE Edge browser and 360 fast browser cannot be used.

Step 1: Open the browser, enter the device IP address, and enter the username admin and password admin.

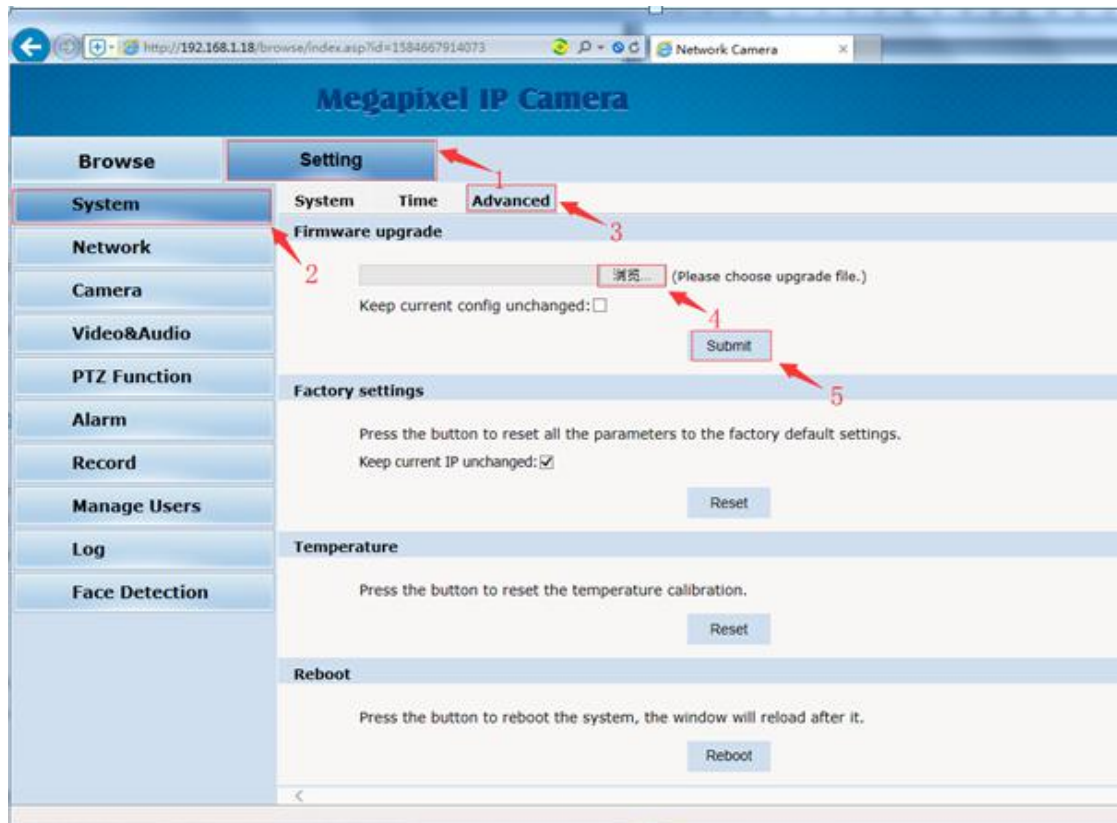
Quick instructions



Step 2: Click Settings-> System-> Maintenance in order to enter the upgrade interface.

Step 3: Click Browse to select the app.ifu upgrade package.

Step 4: Click the [Upload] button to start the
upgra



de. Wait for the upgrade to complete and the web page will refresh automatically.