



AT1280H Series
InfiRay Intelligent Infrared Temperature Screening System
Operation Manual
V1.0.0

Yantai IRay Technology Co., Ltd.

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Version History

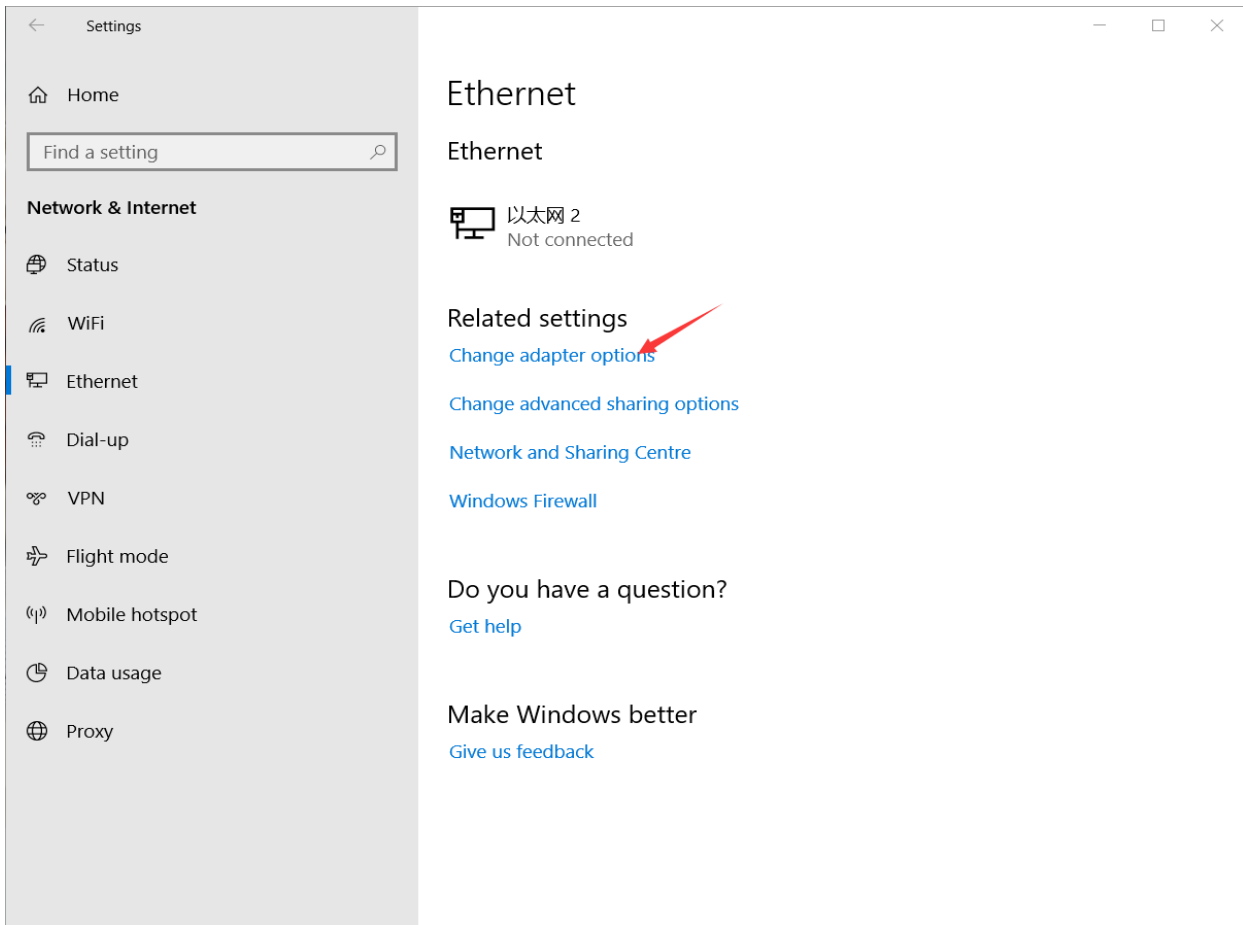
Version	Date	Description	Revised by	Checked by
V1.0.0	2020-8-4	Initial version	Wu Changhao Lin Wenjuan	Lu Fengjuan

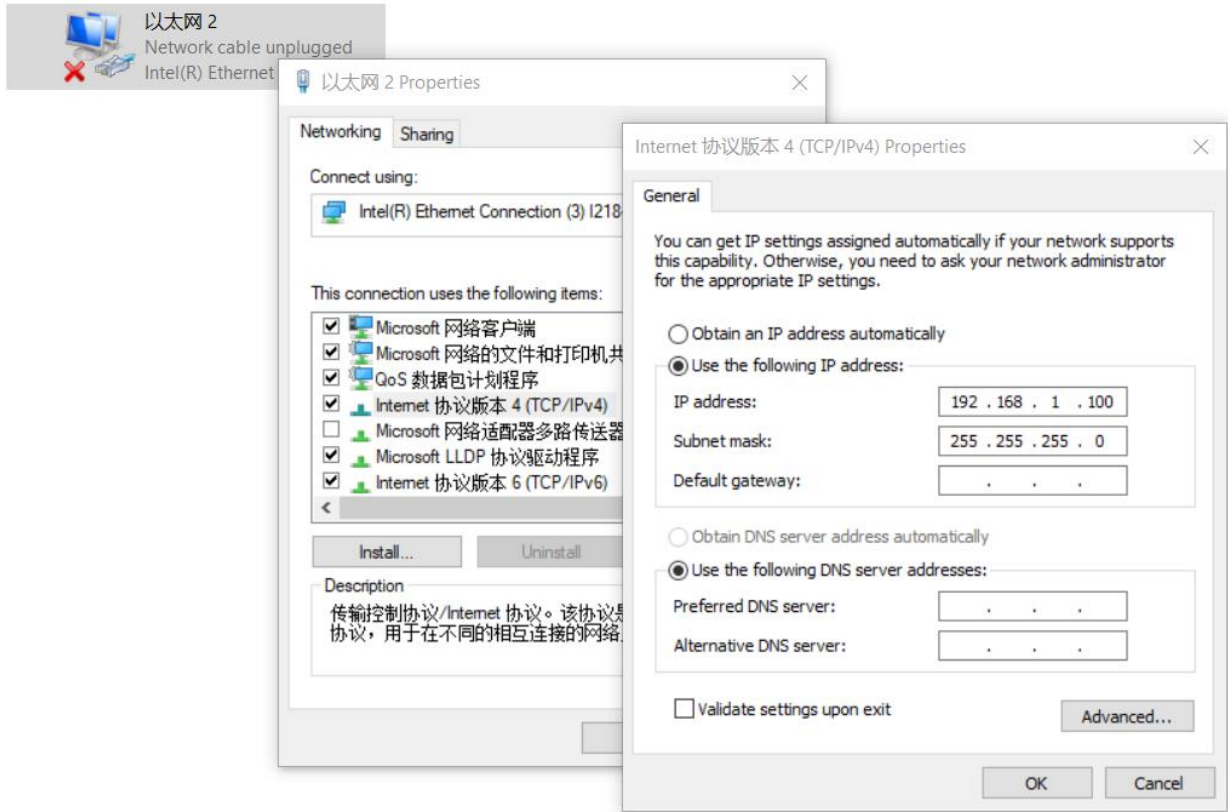
Application Range

“Intelligent Infrared Temperature Screening System Operation Manual” mainly introduces the method of using the software of the intelligent infrared temperature screening system when the AT1280H series of module is used, including environmental parameter configuration, system configuration, shielding area configuration, temperature measurement mode configuration, imaging display, temperature analysis, and other operations.

Preparations

1. A computer equipped with " Intelligent Infrared Temperature Screening System Software ";
 - The computer should meet the following requirements:
 - Transmit buffers and receive buffers could set the max value 2048, giant frame packets could set the max 9014 bytes.
 - The detailed location is:
 - Network→Property→Ethernet→Configuration→Advanced→Find transmit buffers, receive buffers and giant frame packets





2. A dedicated cable for normal product connection;
3. A monitor or other compatible display equipment

1. Software Connection

Firstly, connect the product with specific cable to the PC. Then, connect the software according to the following steps:

1. Double click on the “IRAYBodyTemperatureScreening” application icon, and camera connection interface will pop out as shown in Figure 1.2.

alarmRing	2020/3/10 8:45	文件夹	
CaptureBmp	2020/3/10 8:45	文件夹	
AlarmRing	2020/2/1 15:16	应用程序	3,251 KB
CamSearch.dll	2019/8/15 20:29	应用程序扩展	56 KB
config	2020/3/10 11:05	配置设置	1 KB
faceDetcet.param	2020/3/6 10:51	PARAM 文件	5 KB
faceDetect.bin	2020/3/4 10:34	BIN 文件	33,892 KB
HyvStream.dll	2020/3/6 13:06	应用程序扩展	12,404 KB
HyvStream.lib	2020/1/13 16:00	LIB 文件	16 KB
IRAYBodyTemperatureScreening	2020/3/10 19:20	应用程序	18,062 KB
IRNetSDK.dll	2019/8/15 20:29	应用程序扩展	4,812 KB
opencv_annotation	2020/2/26 20:50	应用程序	43 KB
opencv_calib3d400.dll	2020/2/26 20:51	应用程序扩展	1,640 KB
opencv_core400.dll	2020/2/26 20:49	应用程序扩展	2,491 KB
opencv_createsamples	2020/2/26 20:52	应用程序	50 KB
opencv_dnn400.dll	2020/2/26 20:50	应用程序扩展	4,079 KB
opencv_features2d400.dll	2020/2/26 20:50	应用程序扩展	737 KB
opencv_flann400.dll	2020/2/26 20:49	应用程序扩展	428 KB
opencv_highgui400.dll	2020/2/26 20:50	应用程序扩展	171 KB
opencv_imgcodecs400.dll	2020/2/26 20:50	应用程序扩展	2,575 KB
opencv_imgproc400.dll	2020/2/26 20:49	应用程序扩展	2,978 KB
opencv_interactive-calibration	2020/2/26 20:52	应用程序	109 KB
opencv_ml400.dll	2020/2/26 20:49	应用程序扩展	644 KB
opencv_objdetect400.dll	2020/2/26 20:50	应用程序扩展	525 KB
opencv_photo400.dll	2020/2/26 20:50	应用程序扩展	774 KB
opencv_shape400.dll	2020/2/26 20:51	应用程序扩展	332 KB
opencv_stitching400.dll	2020/2/26 20:51	应用程序扩展	913 KB
opencv_superres400.dll	2020/2/26 20:52	应用程序扩展	266 KB
opencv_traincascade	2020/2/26 20:52	应用程序	261 KB
opencv_version	2020/2/26 20:49	应用程序	32 KB
opencv_version_win32	2020/2/26 20:49	应用程序	31 KB
opencv_video400.dll	2020/2/26 20:51	应用程序扩展	469 KB
opencv_videoio400.dll	2020/2/26 20:50	应用程序扩展	389 KB
opencv_videostab400.dll	2020/2/26 20:51	应用程序扩展	569 KB
opencv_visualisation	2020/2/26 20:50	应用程序	49 KB

Figure 1.1 System software operation icon

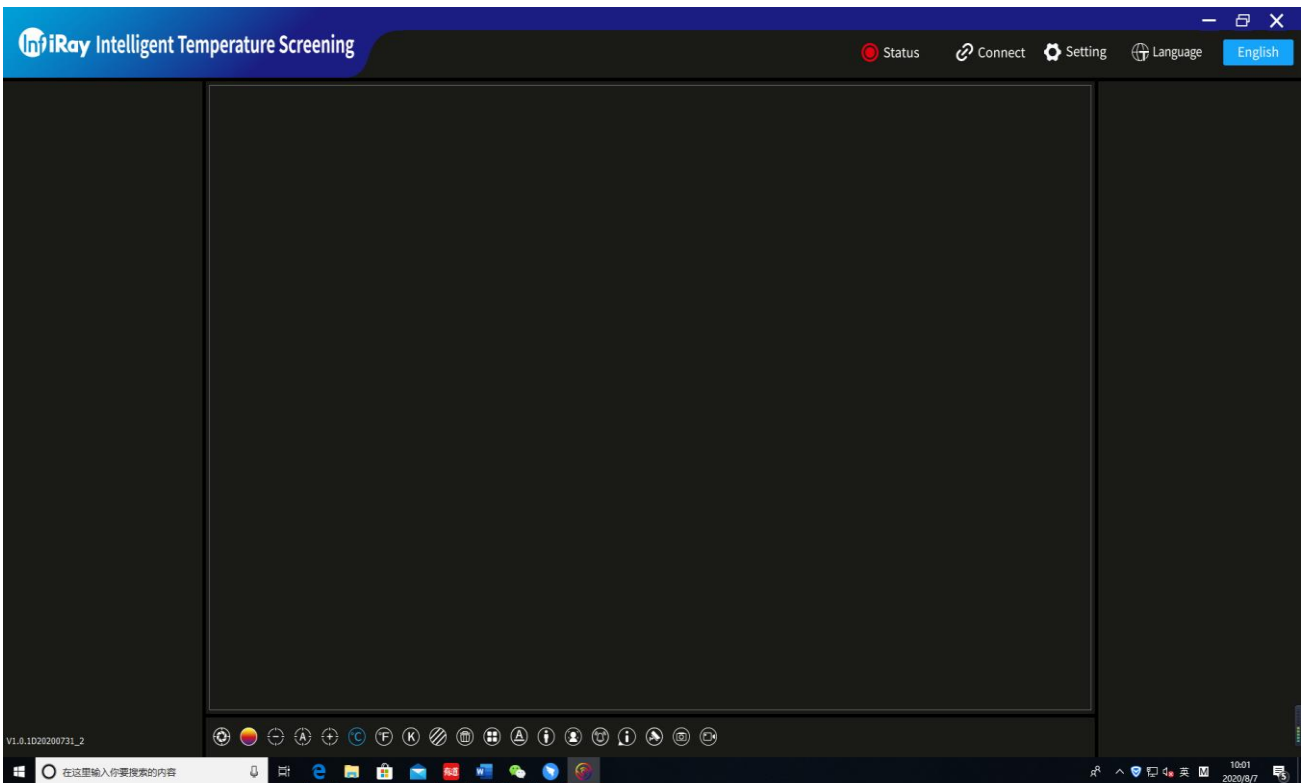














Figure 1.2 The system software connection setting interface

-  **Calibration:** device shutter correction
-  **Change color palette:** switch the image palette
-  **Focus - and focus +:** fine focus
-  **Auto focus:** auto focus
-  **Celsius:** switch the temperature unit to Celsius
-  **Fahrenheit:** switch the temperature unit to Fahrenheit
-  **Kelvin:** switch the temperature unit to kelvin
-  **Set the measurement rectangle:** mark the rectangular area on the image
-  **Remove measurement tool:** delete the marked rectangular area
-  **Whole frame temperature measurement switch:** turn on and off whole frame


temperature measurement

 **Select drawing color:** Select the color of the brush to mark the temperature measuring area


 **Temperature mode switch:** standard and human body


 **Capture:** turn on and off face mode


 **Alarm ring switch:** turn on and off the alarm ring

 **Alarm pop-up switch:** turn on and off the alarm window

 **Alarm snap switch:** turn on and off alarm snap

 **Picture:** Click this button to take a picture of current imaging

 **Video:** Click this button to start record a video, and click again to stop recording

2. In the connection setting interface as shown in figure 1.2, click the connection button  and the connection interface will pop up as shown in figure 1.3.

Please click “Search” to conduct automatic search after choosing “P”, then PC Software will search for IP automatically.

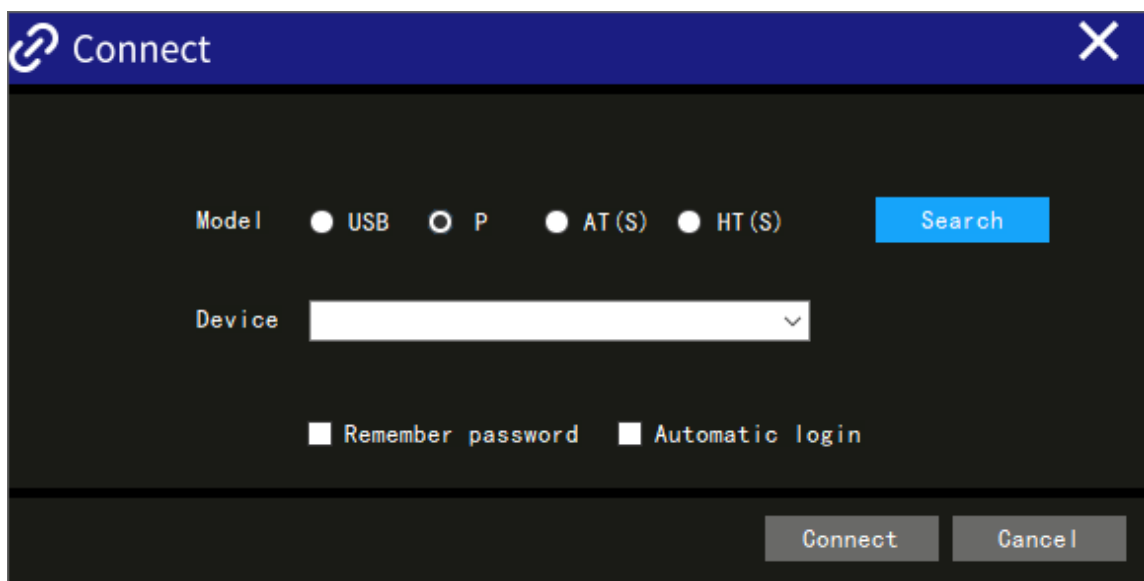


Figure 1.3 The system software connection interface

3. After selecting the IP of the device to be connected, click the “Connect” button and the login page will pop up as shown in Figure 1.4. After entering the correct password (password: **admini**), click login to image and conduct temperature screening analysis. The user must change the password when conducting the first login.

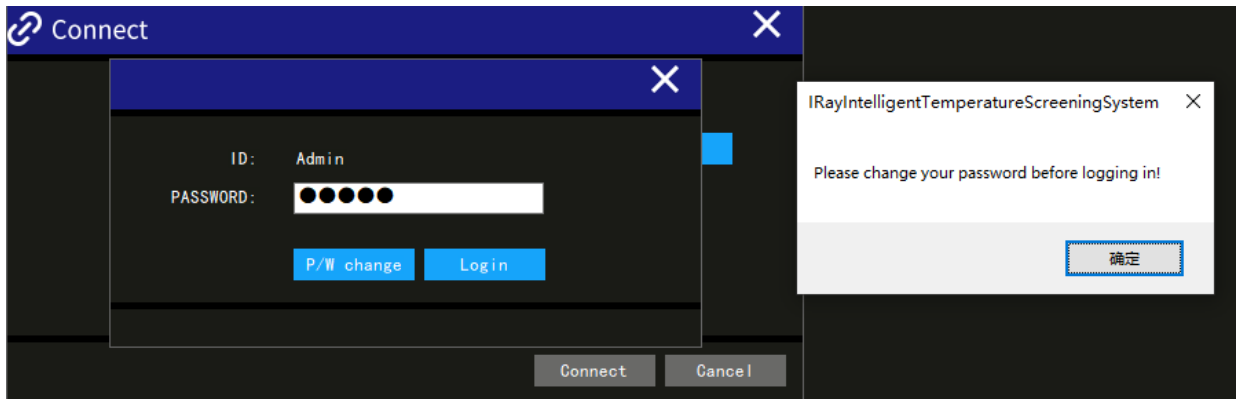


Figure 1.4 System software login interface

4. The user can change the login password on the login interface, click “P/W change” button, the interface like figure1.5 will pop up.

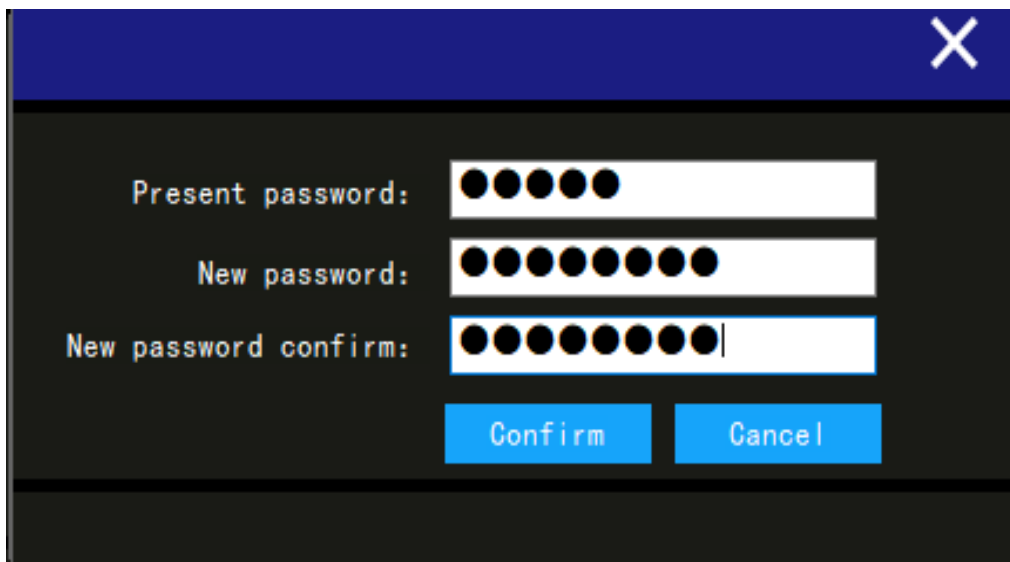


Figure1.5 Password change interface of system software

5. In the upper right corner of the home page, you can click the language button to switch the display language of the system software, as shown in Figure 1.6.

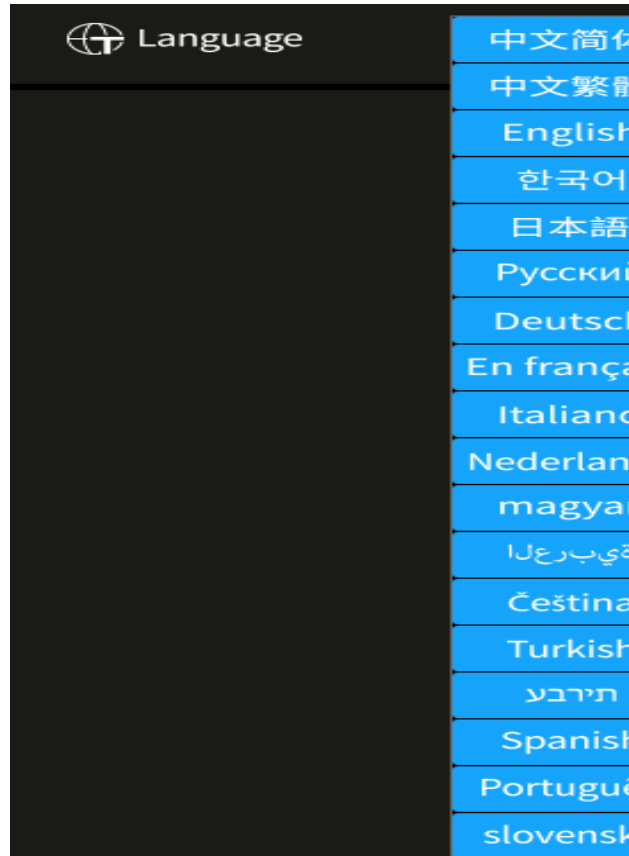


Figure 1.6 System software language selection interface

2. Setting

Click the Setting button, and the Setting page will pop up as shown in figure 2.1.



Figure 2.1 The system software setting interface

1. **Environment parameter configuration:** enter the parameters in the right edit box to take effect. To save the parameters currently set after the device is power off, click the environment variable take effect button.

2. **System configuration:** the set IP can be modified, as shown in figure 2.2.

After IP is modified, the gateway will generate automatically. Click “Set” and “Ok” to finish IP modification. At the same time, you can set the Alarm snapshot picture/global picture /Video storage path, select Alarm/Capture/Video in the option box below the “set” button, “Path Selection” is used to select the saving path of files including image , recorded videos, and the capture images during alarming.

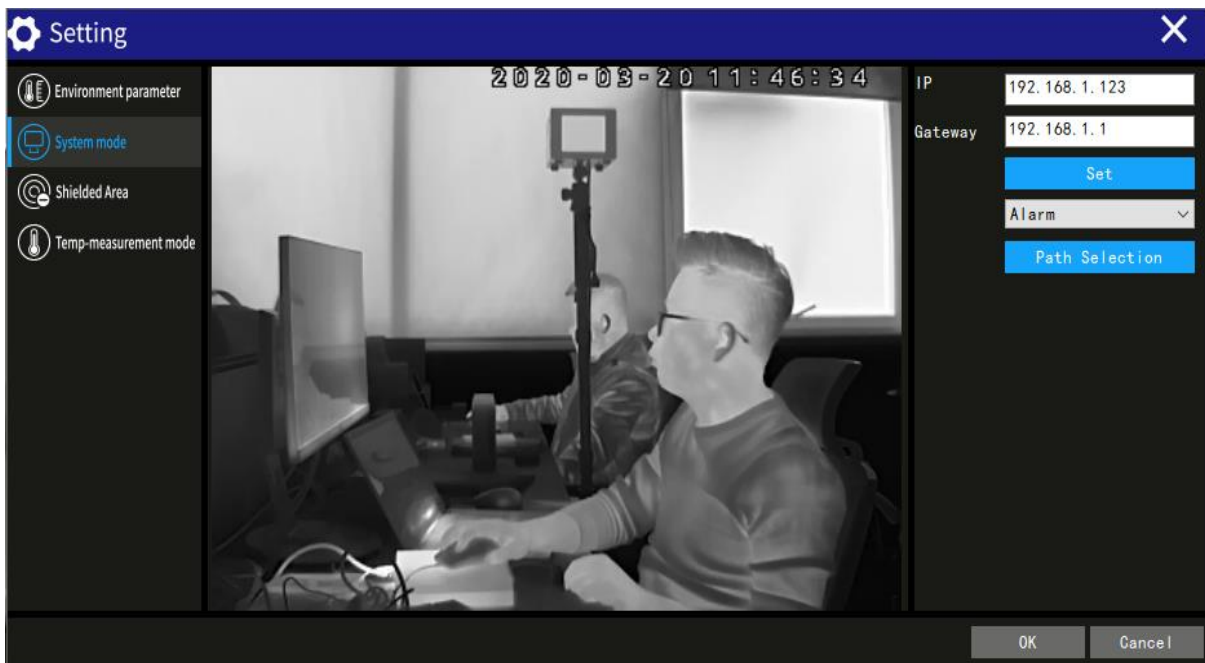





Figure 2.2 System software system configuration interface

3. **Shielding Area Selection:** click the shielding area switch button, the status of switch button turns blue , click the draw rectangle button to make it blue , select the area that needs to be shielded in the image area. Multiple shielded areas can be selected. The selected area can be edited, including moving, changing the size,

deleting and other operations. After determining the selected area, turn off the shielding area switch , the selected shielded area will take effect as shown in Figure 2.3.

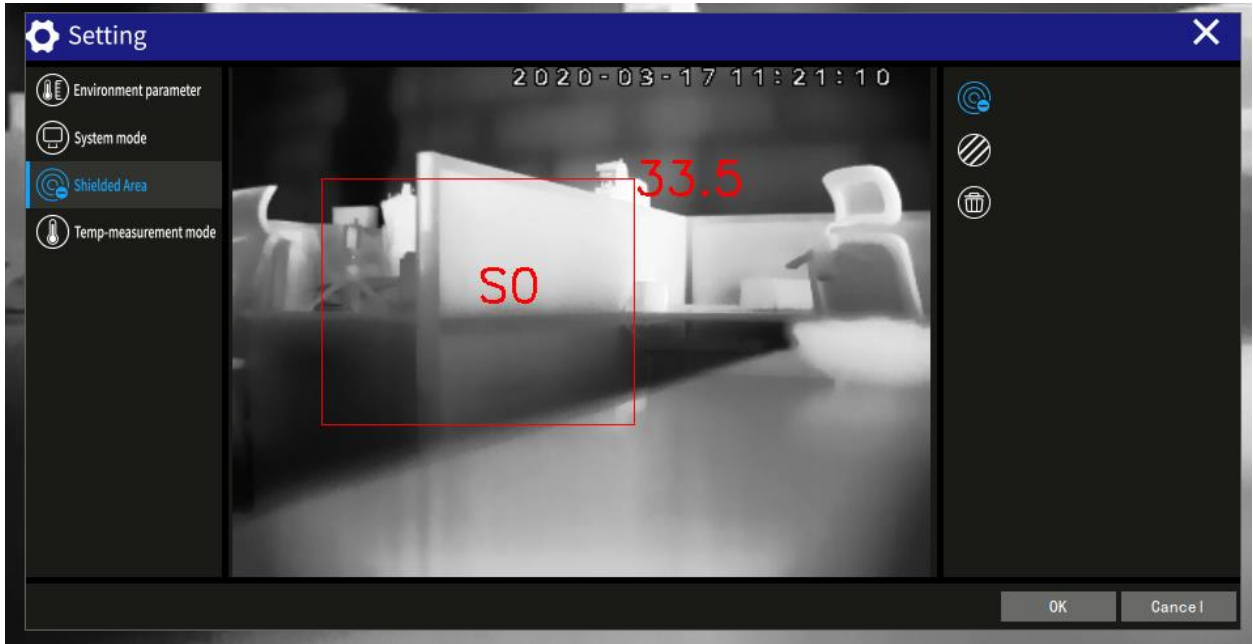


Figure 2.3 System software shielding area interface

4. Temperature measurement mode configuration: as shown in Figure 2.4.

Temperature measuring mode: standard (N) and human body (C) can be selected

Temperature alarm: high temperature alarm on and off

Snapshot time interval. When the snapshot switch is on, every set time interval captures an alarm picture to the folder of the day in the local CaptureBmp folder, unit: second.

High temperature threshold: when the detected target temperature is higher than the high temperature threshold, an alarm will be given. The alarm form can be selected at the bottom of the home page for ring alarm and bounding alarm

Face mode high and low threshold: for face detection mode based on temperature.

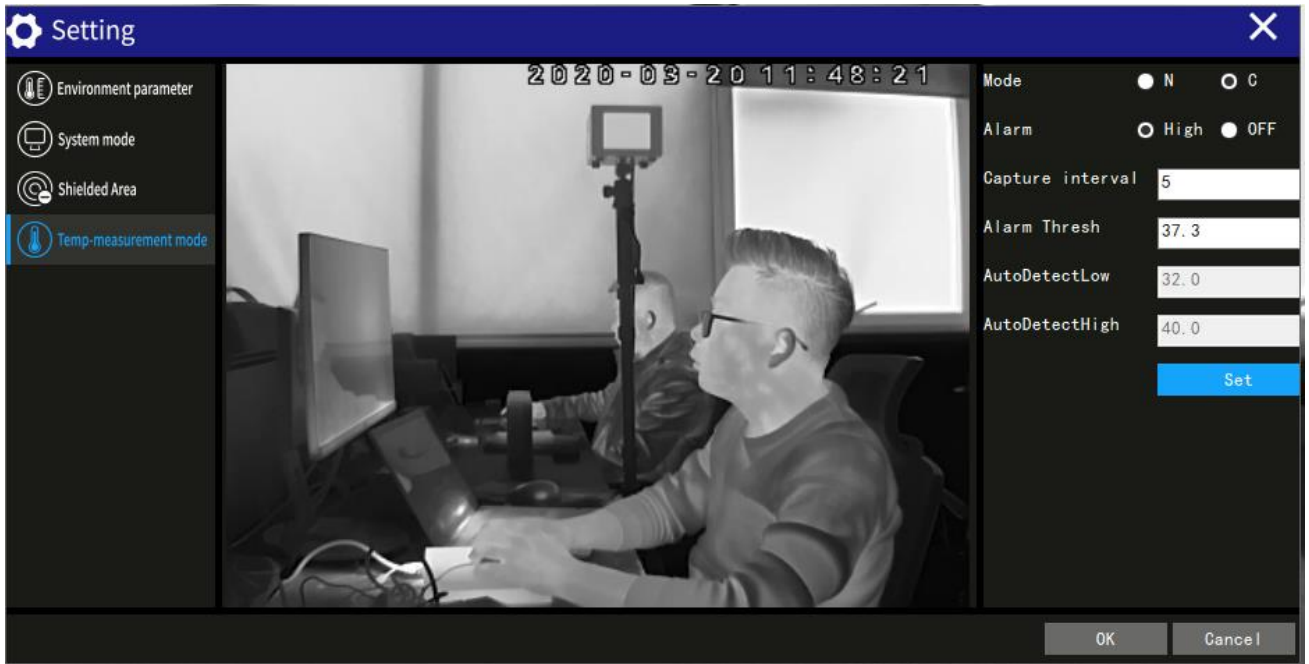


Figure 2.4 System software temperature measurement mode configuration interface

5. At the same time, press **Ctrl + Shift + R** to enter the page of advanced function password input. After entering the correct password (**password: www.iraytek.com.cn**), you can use the blackbody correction function, as shown in Figure 2.5 and 2.6.



Figure 2.5 System software enters the password input interface of advanced functions

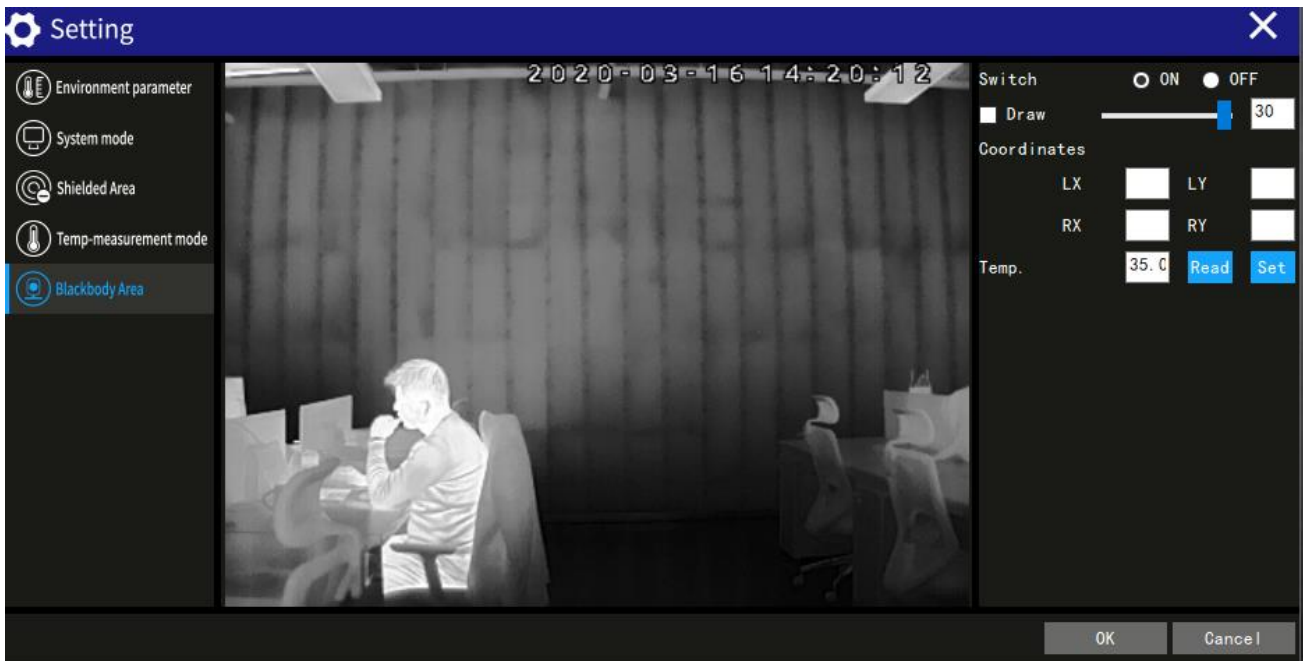


Figure 2.6 System software blackbody area configuration interface

6. Blackbody correction: select the blackbody drawing box and mark the area where the black body is located on the image with maker rectangle, please try to keep the rectangle in the center of the blackbody area. And you can also change the size of the rectangle by moving the slider. Generally, we set this value to 5, after determining the size and position of the rectangle, click the left mouse button to confirm, then cancel the marker on drawing box to exit drawing mode, keep the switch on, click “SET”, “OK” , the blackbody correction function will take effect.

If the blackbody is blocked during the blackbody correction, or the mark area is not within the blackbody area or the blackbody position on image is changed then the page will pop up as shown in Figure 2.7. If the state of blackbody blocking lasts for about 10 seconds, another page will pop up as shown in Figure 2.8 and if you click ok button the function of blackbody correction will be off automatically later.



Figure 2.7 The interface of blocking the blackbody

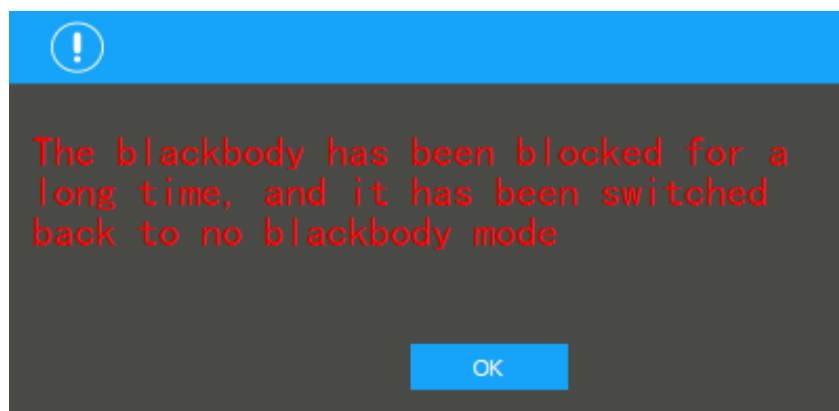


Figure 2.8 The interface of blocking the blackbody for long time

Note:

If the blackbody position on imaging is changed, users have to repeat the above operation and make sure the maker rectangle on blackbody entirely.