



DTS
Intelligent Temperature Screening System
Operation Manual
V1.0.7

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Version History

Version	Date	Description	Revised by	Checked by
V1.0.0	2020-3-18	Initial		
V1.0.1	2020-3-25	Modify the interface		
V1.0.2	2020-4-08	Add driver installation		
V1.0.3	2020-4-17	Modify driver, add auto connect function		
V1.0.4	2020-5-09	Add logo replace and blackbody block switch		
V1.0.5	2020-06-17	Change the picture in Figure 6(on Page 5) Add more explanation in “Temperature measurement mode switching” (on Page 7)		
V1.0.6	2020-06-19	Add advance function		
V1.0.7	2020-07-14	Add the function of video, photo, left-right flip and push notifications, etc.	Xu Jiajun	Lu Fengjuan

Application Range

This manual is mainly used to introduce the operation method of “Intelligent Temperature Screening System” when connecting with DTC camera. It includes functions such as environment parameters setting, system setting, shielding area setting, temperature measuring setting, imaging display, temperature analysis etc.


Preparation

1. A computer installed with “Intelligent Temperature Screening System”;
2. Two dedicated USB cables;
3. A monitor or other compatible displays;

1 Software Connection

Firstly, please connect the camera with computer with dedicated cables, and then operate on computer referring to the following steps.

1.Installing driver

- a.Run  ARSirius-UVC-HID-Interface2-InstallID as administrator , and click “next” in default.
- b.The driver is installed successfully, until the window shown as figure 1 pops out, click “finish” to complete the installation.

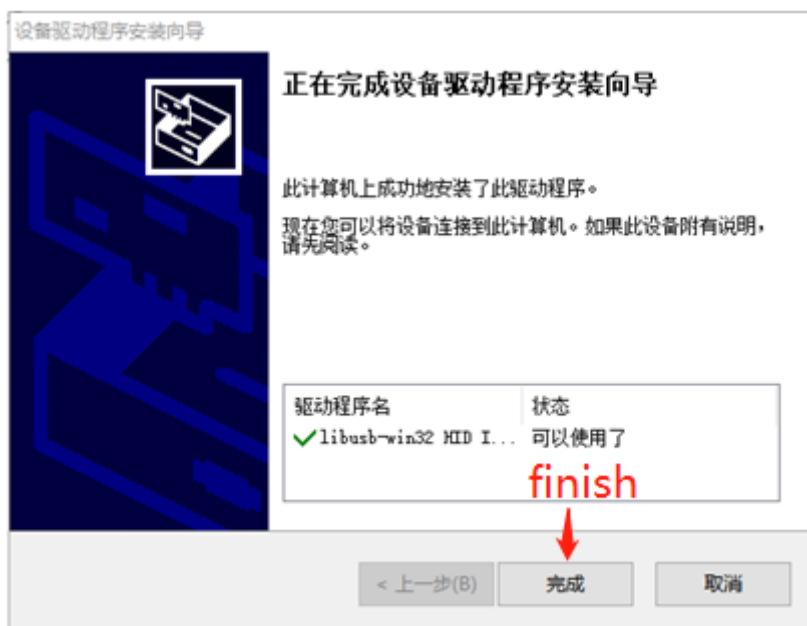
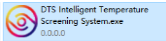


Figure 1 Selecte “HID Interface”

- 2.Double click the application icon  “DTS Intelligent Temperature Screening System” to run the software as shown in figure 2, the software interface is shown in figure 3.

avuii-700.dll	2019/12/13 21:01	JPG 文件	21 KB
cap.jpg	2019/12/26 14:44	应用程序扩展	1,550 KB
compare.dll	2015/6/25 23:34	应用程序扩展	584 KB
concr140d.dll	2020/3/6 15:30	配置设置	1 KB
config.ini	2019/9/19 10:29	JSON File	20 KB
contentjson	2020/3/4 6:43	应用程序扩展	1,439 KB
dcomp.dll	2020/2/24 9:43	应用程序	158 KB
demo.exe	2020/2/28 12:08	LOG 文件	2 KB
demo2.Build.CppClean.log	2020/3/10 13:35	应用程序	639 KB
demo2.exe	2020/2/28 13:32	LOG 文件	3 KB
demo2.log	2003/3/25 0:15	应用程序	627 KB
Depends.Exe	2020/3/17 13:51	应用程序	943 KB
DTS Intelligent Temperature Screenin...	2020/2/24 10:32	应用程序	256 KB
FaceMatch.exe	2019/9/20 16:32	文件	1,097 KB
hid_service	2020/3/4 6:43	应用程序扩展	308 KB
IEShims.dll	2020/3/7 11:18	应用程序扩展	202 KB
IRUVCLib.dll	2019/1/12 11:44	应用程序扩展	538 KB
libfreetype-6.dll	2020/2/27 21:10	应用程序扩展	70 KB
libwinpthread-1.dll	2019/12/16 11:11	TXT 文件	0 KB
log.txt	2020/3/10 14:49	文件	18 KB
Makefile	2019/3/19 12:45	应用程序扩展	111 KB
msoert2.dll	2015/6/25 23:34	应用程序扩展	735 KB
msvc140d.dll	2009/6/11 4:43	TrueType 字体文件	21,258 KB
msyh.ttf	2009/6/11 4:43	TrueType 字体文件	14,261 KB
msyhbd.ttf	2018/2/22 8:37	应用程序扩展	3,512 KB
opencv_core2413d.dll	2018/2/22 8:38	应用程序扩展	3,770 KB
opencv_highgui2413d.dll	2018/2/22 8:37	应用程序扩展	3,154 KB
opencv_imgproc2413d.dll	2020/3/9 14:39	应用程序扩展	8,981 KB
Qt5Cored.dll	2017/10/14 14:37	应用程序扩展	10,308 KB

Figure 2 Software Running Icon

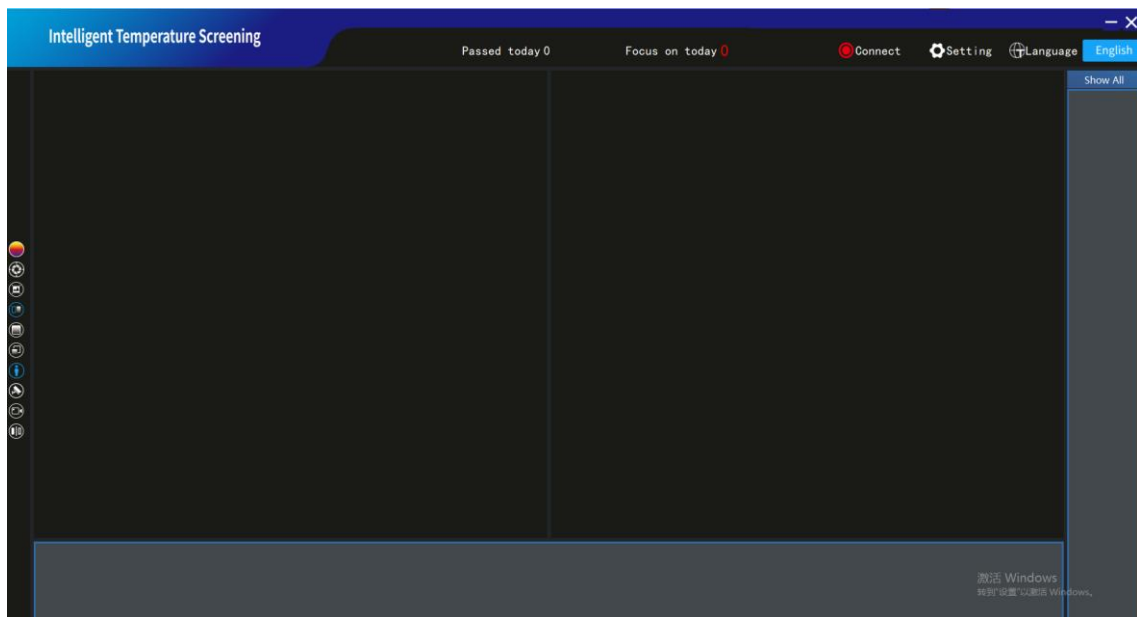
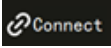


Figure 3 Software Interface

3. Click “Connect” button , the pop-up interface is shown in figure 4.

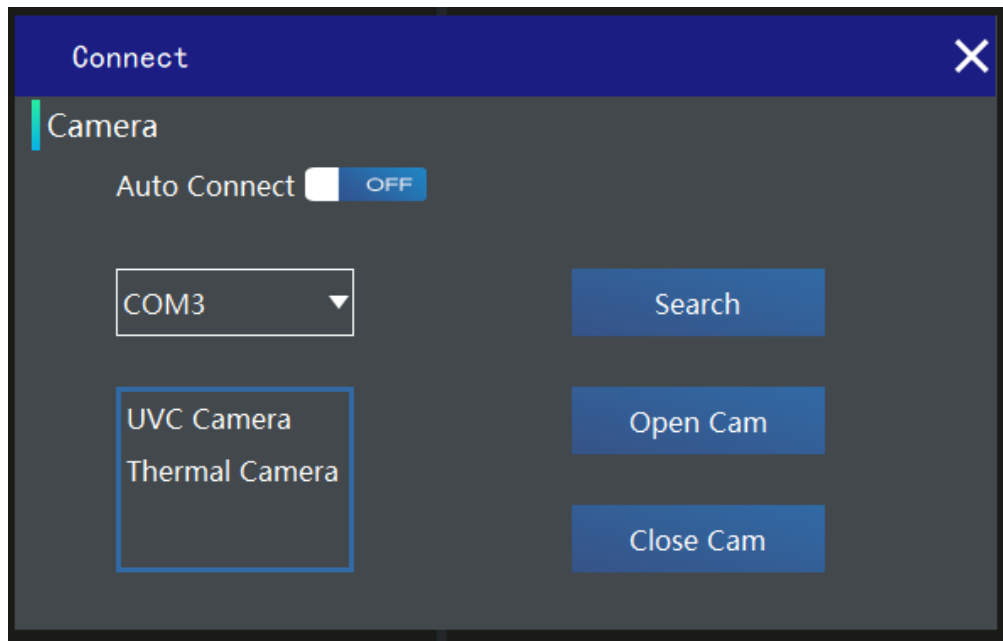

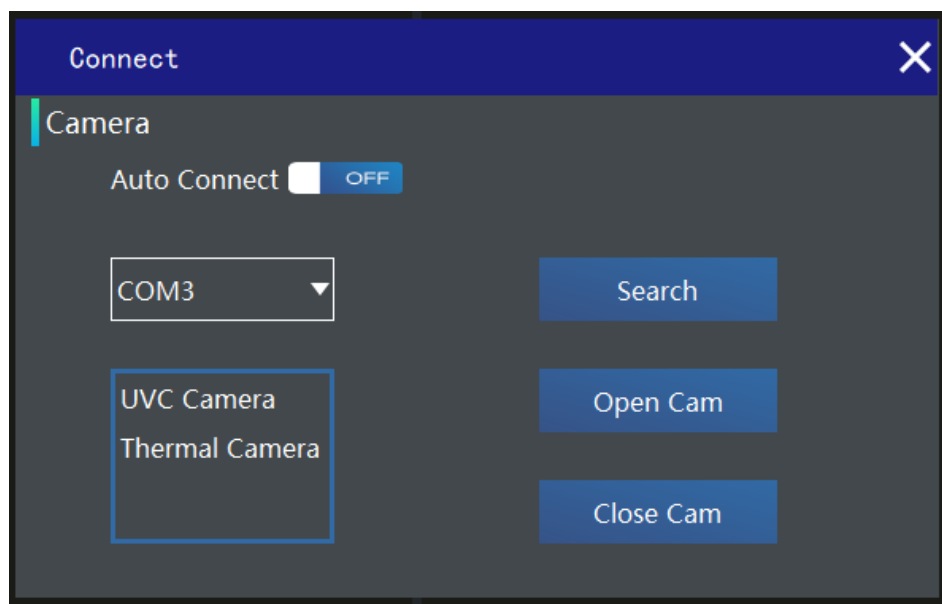


Figure 4 Software Connection

4. Click “Search” button , the device name appears at the left side of interface, and the device information can be examined in the device manager. “AT600” is the device of infrared camera, and the “UVC” is the device name of visible camera, “USB Serial Device (COM3)” is used for the serial communication of infrared camera. COM3 will be different in different PC.



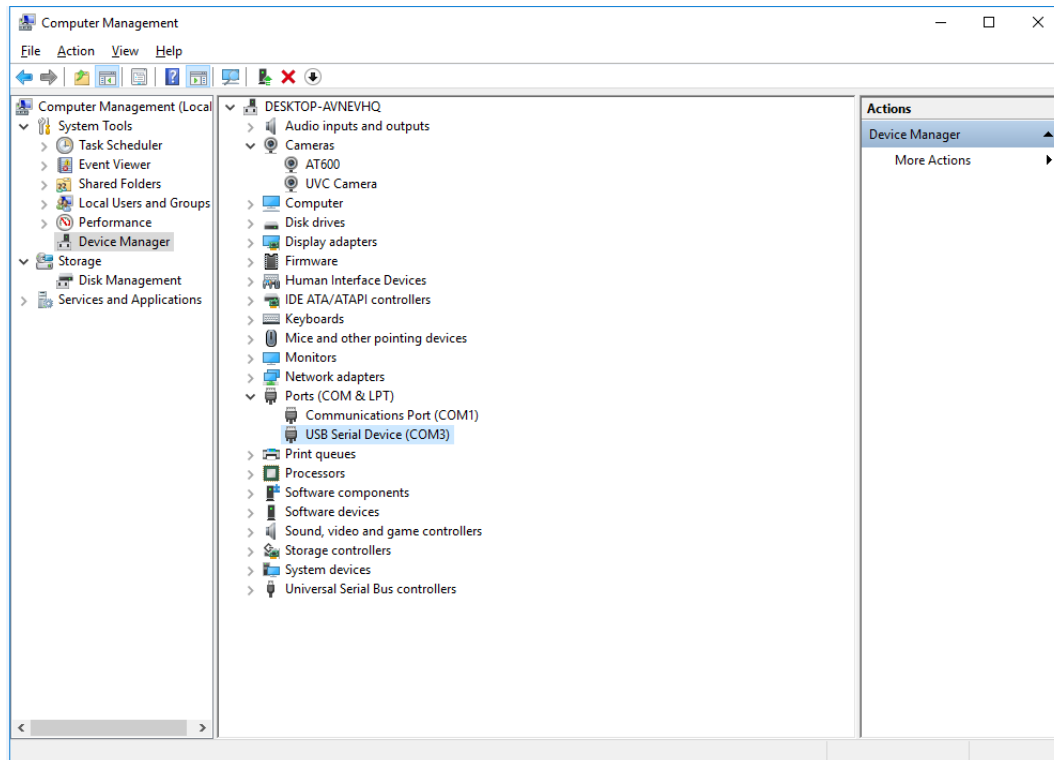
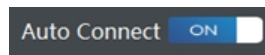


Figure 5 Device Manager

If Auto Connect is switched to “ON”, the software will connect to camera automatically in next startup.



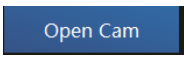

5. Select “COM3” and click “Open Cam” button  to switch on the infrared camera and visible camera, then click Close button  to close the Connect window. The software imaging interface is shown in figure 6.



Figure 6 Software Imaging

5. At the upper right corner, click “language” to switch the language of software. As shown in figure 7.

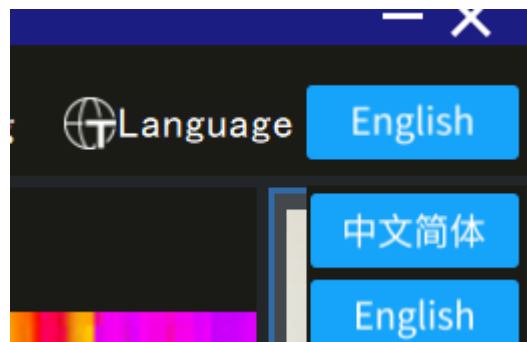


Figure 7 Language Selection

2 Function Introduction

DTS Intelligent temperature screening system user interface is shown in figure 8.

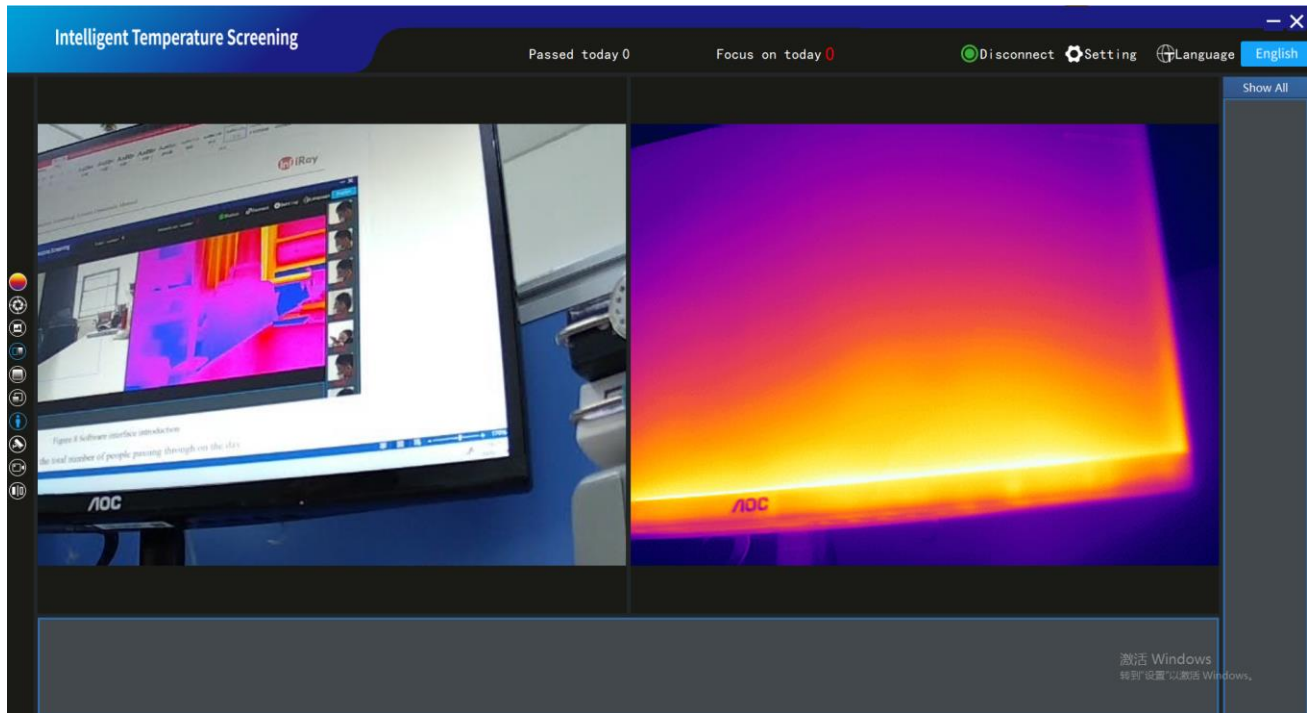












Figure 8 Software Interface Introduction

- 1.**Total number:** Display the total number of people passing through on the day.
- 2.**Attention number:** Display the total number of people whose temperature exceeds the high threshold; the capture image is displayed at right side of interface.
- 3.**Status:** The indicator displays in green color if the camera is connected successfully, or it displays in red color.
- 4.**Connect:** Used to callout the window for device connection.
- 5.**Setting:** Used to callout the system setting which includes environment parameters setting, blackbody correction and alarm mode.
- 6.**Language:** Used to switch the language.
- 7.**Functional buttons:**
 - Correction: Used to perform shutter correction.
 - Palette: Used to switch the palette.


- Temperature measurement mode switching : Switch between standard temperature measurement mode and body temperature measurement mode. If this mode on stands for body temperature measurement, mode off stands for standard temperature measurement.
- Optical image : Displays optical image only.
- Infrared image : Displays infrared image only.
- Bi-spectrum mode : Displays optical image and infrared image at the same time.
- PIP mode : Displays the infrared image and optical image at the same time, and the infrared image displayed at the bottom right corner.
- “Screen Shot” : it is used to snap the current optical images and thermal images.
- “Video” : simultaneously recording optical video and thermal video, save path is in the “Capture BMP” file of the program root directory.
- “Left-right flip” : it can make the optical video and thermal video flip from left to right.

8. Image capture area: At the bottom of interface, it displays the human face in normal temperature (not exceed alarm threshold).


9. Alarm capture: At the right side of the interface, it displays the human face that exceeds temperature threshold.

10. Imaging area: It display different image through selecting the different buttons at left side.

 Displays optical image only

 Displays optical image and infrared image at left side and right side individually

 Displays infrared image only

 Infrared image is displayed on visible image at the right bottom corner in PIP mode

3 Setting

Click setting , the window pops out, as shown in figure 9.

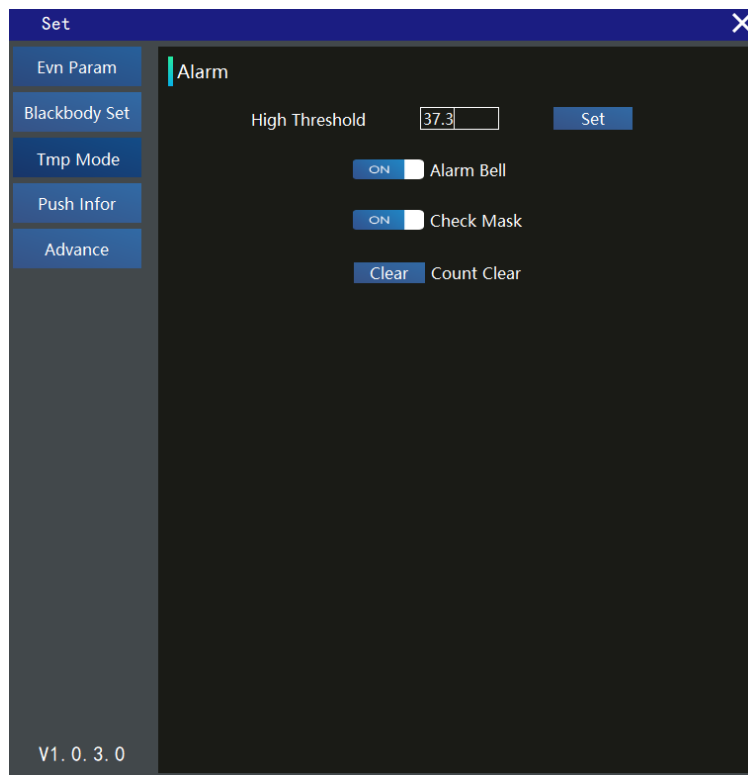

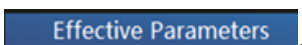



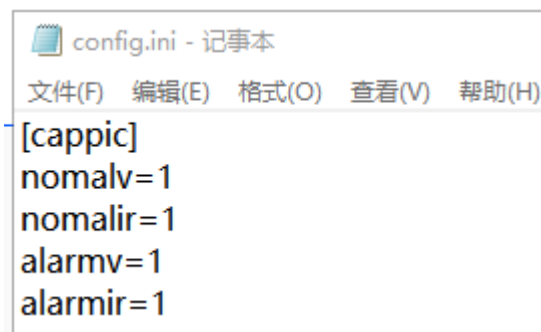
Figure 9 Environment Setting

1.Environment setting: enter the setting parameters in the edit box at right side, the click button . If the set parameters need to be saved after powering off, click button .

2.Temperature measurement mode configuration: as shown in figure 10.

- High temperature threshold: it will alarm when the target temperature exceeds high temperature threshold. It can alarm in the way of ring bell or alarm image saving;
- Alarm Bell: When switch the slider at “ON”, the computer bell will ring, if the target image exceeds the high temperature threshold.

- Click clear button , the people counting information at home page will be reseted
- “Temperature Compensation” can compensate face temprature of detected.
- “config.ini” file, the path of software root. There are four kind of picture you can choose to save. “nomalv” is visible light picture of normal face,”nomalir” is ir picture of normal face ,”alarmv” is visible light picture of alarm face,”alarmir” is ir picture of alarm face. If you want to save normal face, set “nomalir” value to 1, else set the value to 0. Others are the same as “nomalir”. If you change the file you need restart the software.



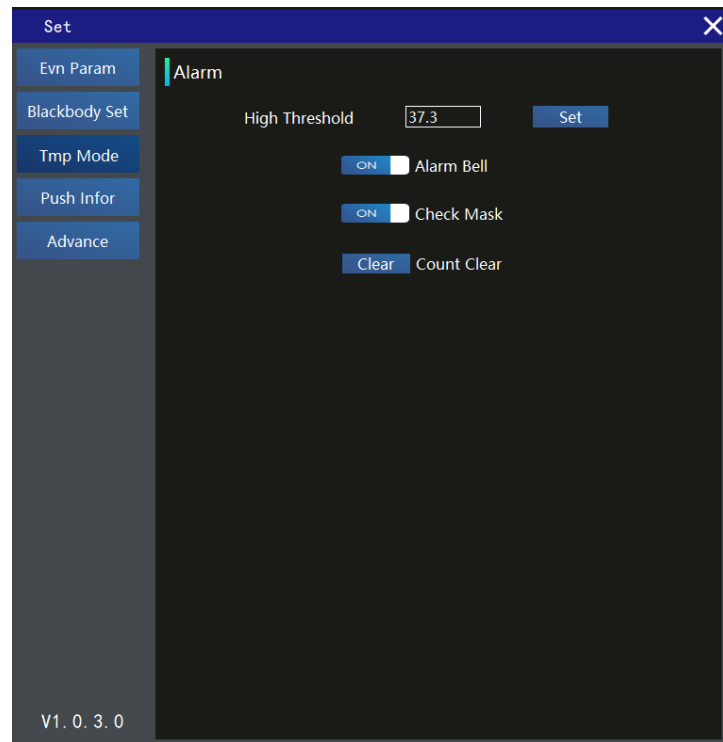


Figure 10 Temperature Measurement Setting

3.Information push mode, as shown in figure 11:

“Alarm Pic Path” can change the path of alarm face picture.

“Nomal Pic Path”can change the path of nomal face picture.

“Push Infor” is used to push information to http server, pls contact Product Manager if this function is needed.

“Identification” is used to register the face information in the software, input the name of the person sign-in in the “Name” edit box, click“Register”to finish the registration. When the registered face is detected next time,

“Name+Temperature”information will be displayed in the snapped iamges.

“Camera ID” is used to set up the device ID, the default value is the PN code.

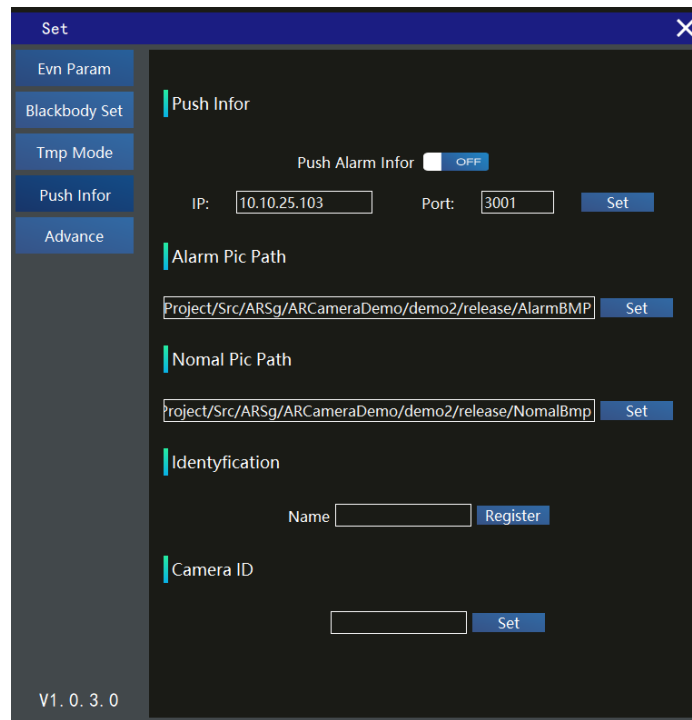


Figure 11

4.Blackbody Calibration: as shown in figure 12.

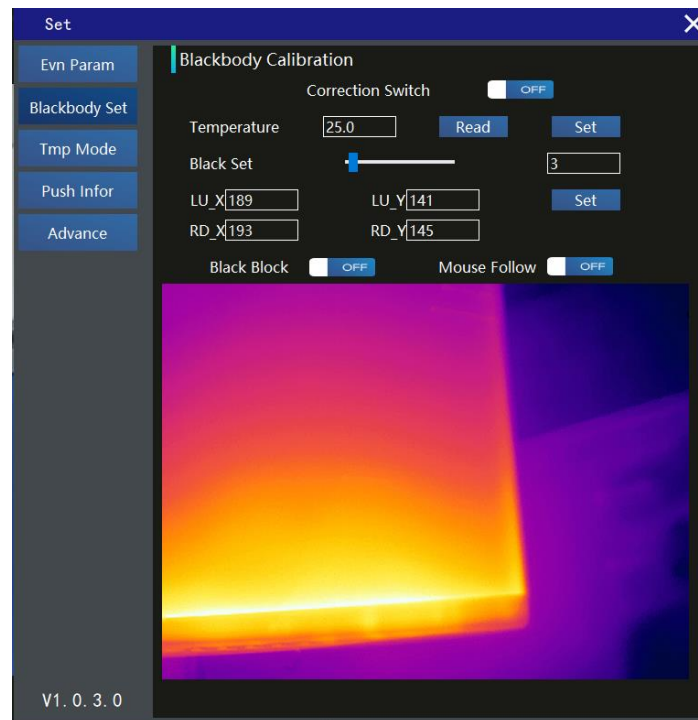

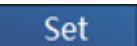




Figure 12 Blackbody Area Setting

Operation steps:

- a. Switch on the slider beside “Correction switch”.
- b. Move the cursor in the infrared imaging area.
- c. Click the left button of mouse, put the rectangle on blackbody effect area. And then the rectangle coordinates will be displayed. Adjusting the slider  can increase or decrease the size of rectangle, the smallest size of rectangle is 1*1, the largest rectangle size is 30*30. The rectangle size should be less than the black effect area.
- d. Enter the blackbody temperature value in edit box (35°C), then click button  beside  .
- e. Click button  beside black area coordinates, then finish the setting of blackbody calibration.
- f. Switch on the slider beside “Black Block”. When blackbody is blocked, a messagebox will pop up.

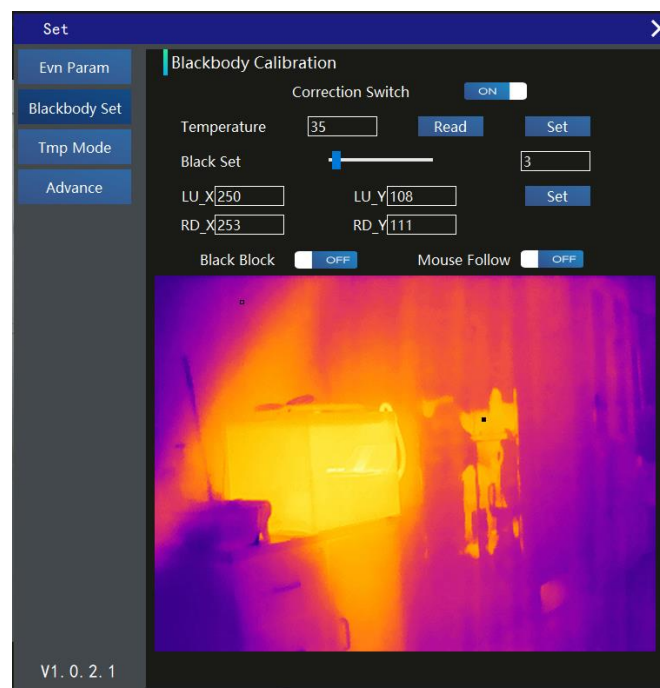


Figure 13 Blackbody Calibration Setting

5.Advance function: as shown in figure 14.

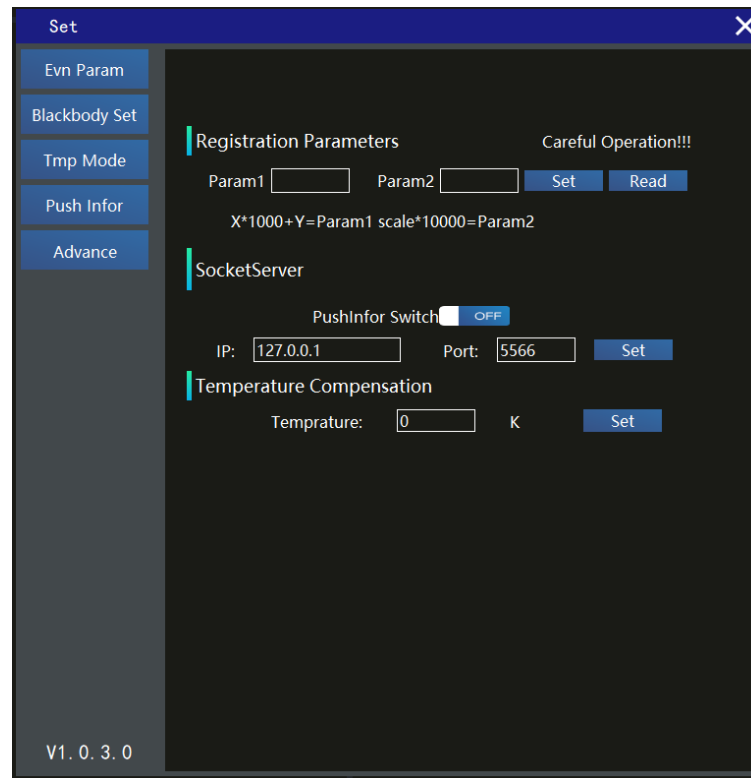


Figure 14 Advance Function

Never use the function of Registration Parameters.

SocketServer: When switch the slider at “ON”,the software can push the name of picture to your socketserver.You need set you own server IP and port. The name is “Camera ID+time(14byte)+Num of Passed Today(4Byte)+Temperature(4 Byte)+Temperature Unit(1Byte)+VisibleLight/IR(1Byte)”.

For example: B0080329_2020_061910482600010368CV.jpg

“Temperature Compensation” is used to correct the temperature and it is not recommended for use.

4 Attentions

Make sure the computer has been set according the following steps before running

software.

1. Enter “Setting”-“System”-“Power & sleep” , set the “Screen” and “Sleep” as “Never”;

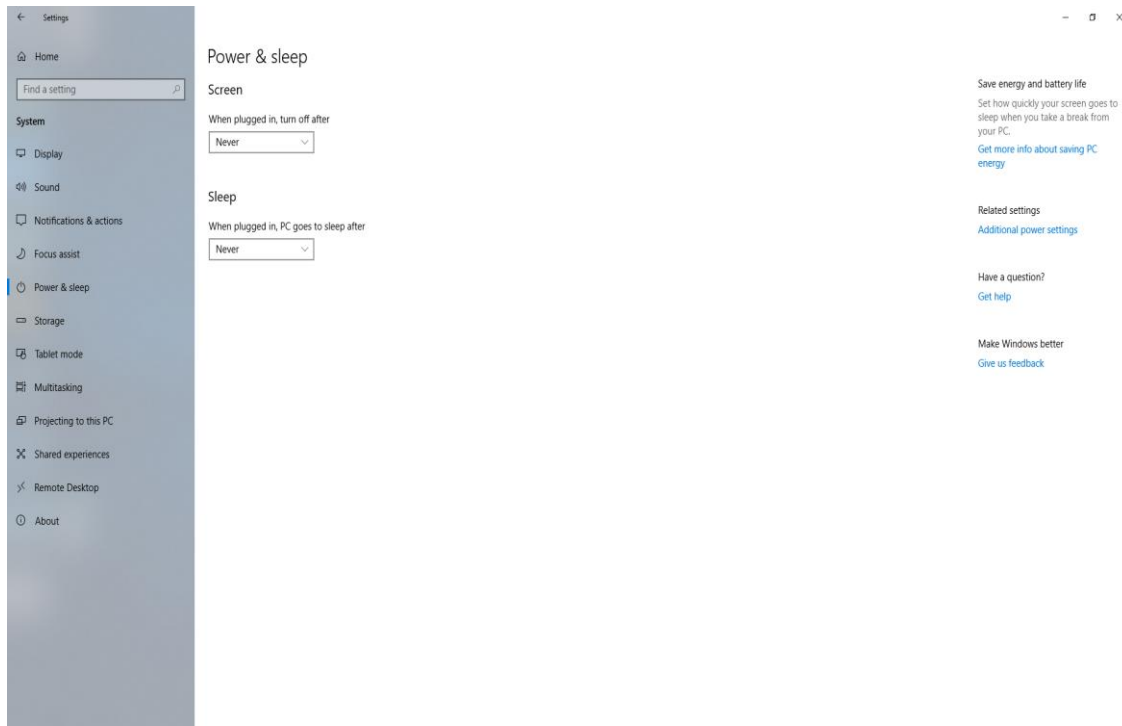


Figure 14 Setting Screen and Sleep Mode as “Never”

2. Click “Power Option” – “Edit plan settings”, select “Never” as shown in figure 15.

Then click “Change advanced power settings”.

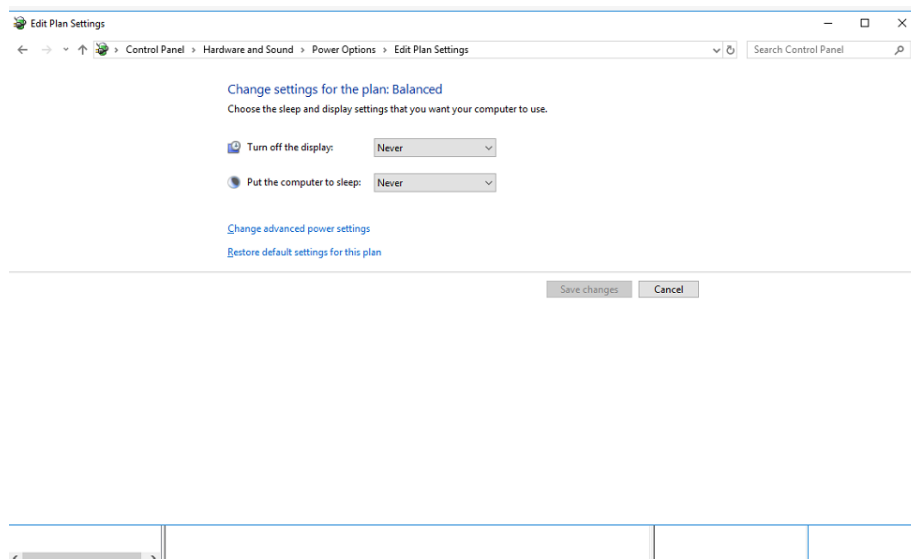


Figure15 Select Advanced Power Settings

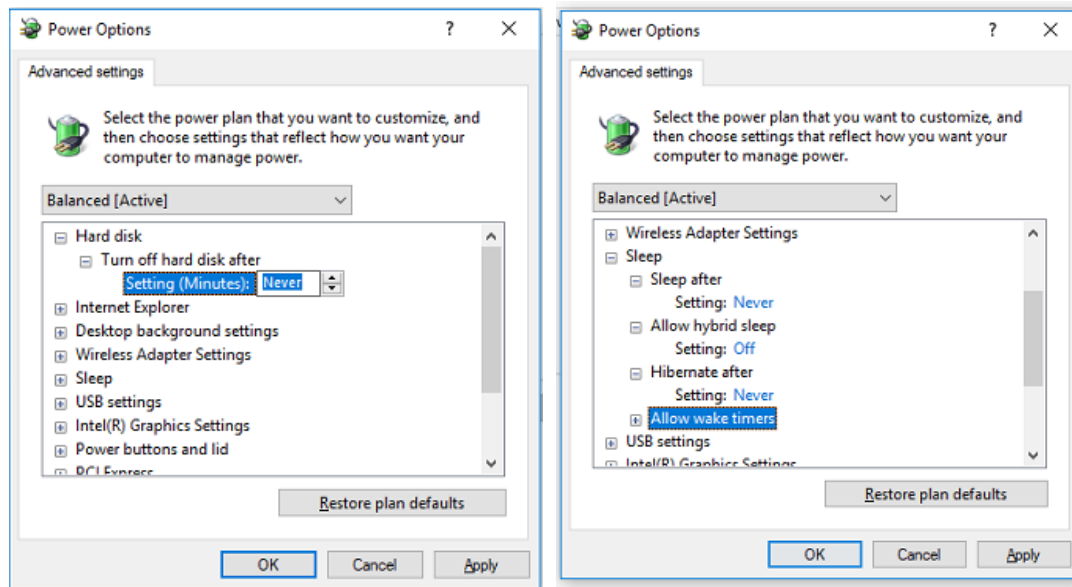


Figure 16 Modify Power Settings

5 User Logo

If you want to use your own logo, you need to replace “logo.png” where the picture is in the root directory.

Your own picture needs to meet the following conditions:

- 1.the type of logo is png
- 2.the size of logo is 500*43, including your logo and title. Your logo should be transparent.

