RICHTECH®

Automated AI Temperature Screening System (AATSS)

Model V3 USER MANUAL

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Operation Guidelines

Notice

Please follow the recommendations listed below for optimal performance.

Please make sure that the system is deployed in a well-lit area

Avoid direct sunlight when possible

Please stay still during the scanning process

Do not place unit outside in rain or inclement weather

The system detects skin surface temperature which is typically 1°F lower than internal body temperature

If you have trouble setting up the device, please refer to the tutorial videos located on our website: https://www.richtech-ai.com/tutorial-videos

Warranty Information can be found at https://www.richtech-ai.com/product-warranty

Certifications

CE inspection test, certificate number BKC200507AC, in line with the following standards:

EN 55032:2015

EN IEC 61000-3-2:2019,

EN 61000-3-3:2013+A1:2019

EN 55035:2017

FCC inspection test, certificate number BKC200508AC, in line with the following standards:

FCC PART 15 Subpart B

RoHS test, certificate number BKC200509AC, in line with the following standards:

IEC 62321-4:2013+A1:2017

IEC 62321-5:2013

IEC 62321-6:2015

IEC 62321-7-1:2015

IEC 62321-7-2:2017

IEC 62321-8:2017

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1. Introduction

The Automated AI Temperature Screening System (AATSS) V3 is your company's first line of defense against COVID-19 and other infectious diseases. As a fully automated system, the AATSS V3 provides extremely accurate temperature readings, immediate temperature alerts through multiple notification channels, and automatically records data for easy recordkeeping and reporting. It can also integrate with access control systems to enforce company temperature, identity, and PPE policies.

Both the CDC and FDA recommend having routine temperature screening for employees upon arriving at work. When deployed as part of a multilayered preventative response to COVID-19, the AATSS V3 will protect your employees and facilitate the re-opening of your business.

The AATSS V3 is the ultimate all-in-one solution for contactless temperature screening.

◆ 1.1 Features

- ADA Compliant – full customization of data storage and display
- RTSP live feed for security camera integrations
- Adjustable confidence levels for facial recognition
- Advanced facial recognition software allows for temperature screening and facial recognition even when user is wearing a face mask
- Multiple access control options – Temperature, Identity, Face mask
- Automated data collection through facial recognition and temperature screening
- Dual fill lights provide illumination to improve face recognition accuracy
- Deep thermal sensor housing provides resistance against sunlight interference, providing better outdoor performance
- Database level high-security encryption and secured HTTPS data transmissions for HIPAA Compliance
- Email, SMS and desktop push notifications to a secretary/security desk upon abnormal temperature screening

◆ 1.2 Setup

Software Requirements

Operating System: Windows 10 or above
Internet Explorer: Version 10 or above

Please follow the network setup tutorial on our website:

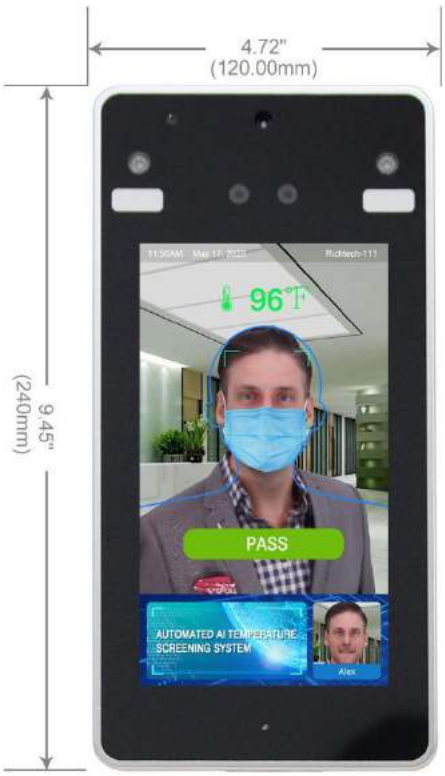
https://www.richtech-ai.com/tutorial-videos

Once the system is set up on your network, simply open IE 10+ and navigate to the static IP address you assigned to the system to access its settings.

◆ 1.3 Product overview

1.3.1 Device structure

Front view



Side view

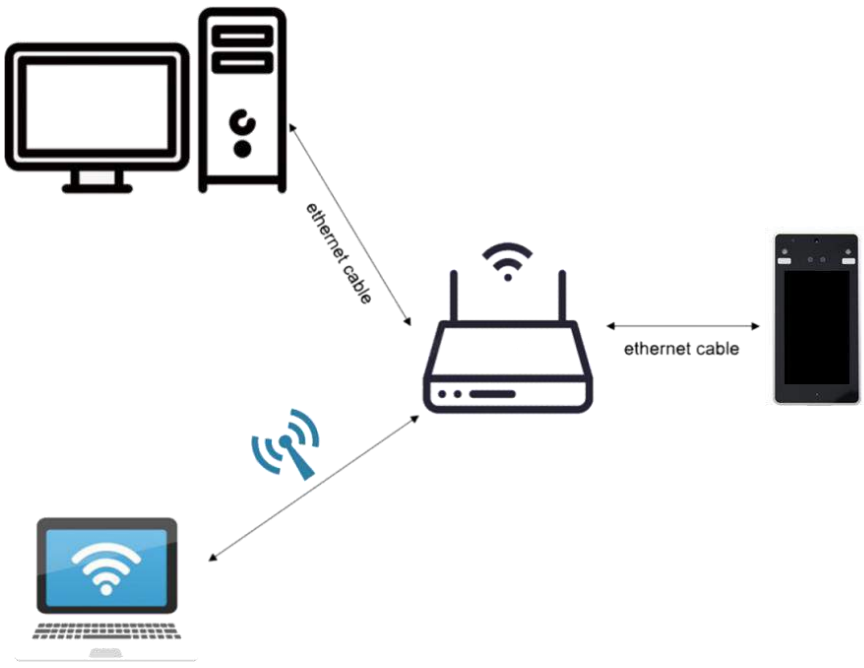
1.3.2 Screen and icon

2.Software

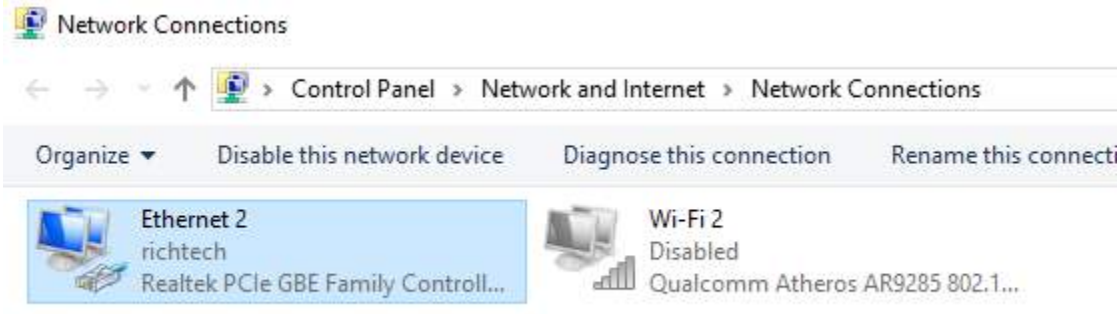
Note: We recommend using Windows 10 to manage the AATSS V3.

◆ 2.1 V3 connect to the network

If you need to manage the V3 through a network, please connect the base to your router through an ethernet cable, see below example:

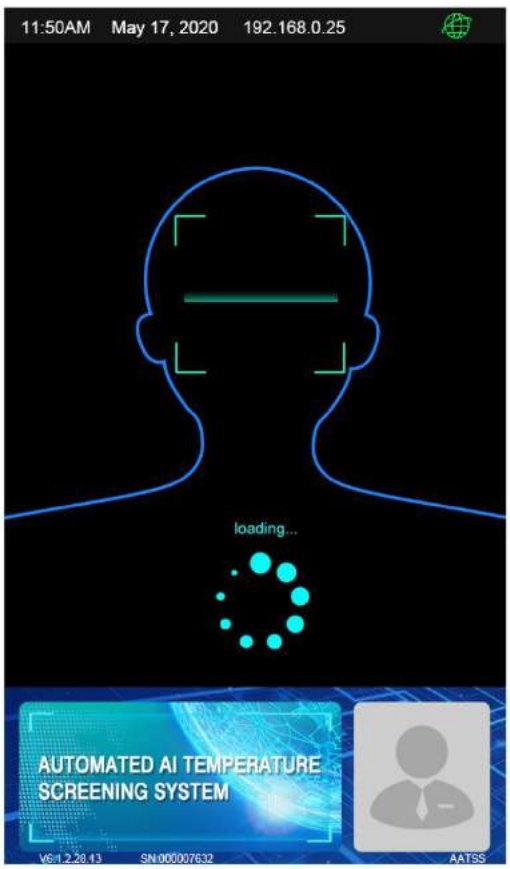


If there is more than one network interface card (NIC) in your PC, please choose the same network that connected to V3, and disable the other NIC, see below.



The default mode of the V3 to connect to the Internet is DHCP (Dynamic Host Configuration Protocol). The device will obtain the IP address automatically.

How to check the IP address: the IP address will appear on the screen 20 seconds after the device is switched on, and it will display for up to 1 minute. See below example when the IP address is 192.168.0.25



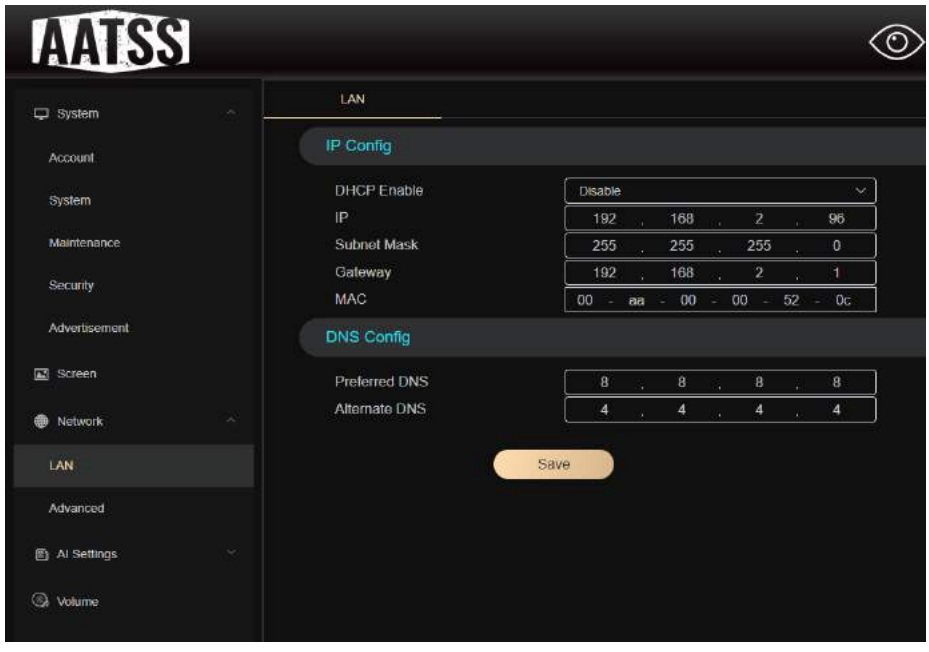
◆ 2.2 Setting of the V3 IP address

Please visit the IP address as shown on your Internet Explorer (10 or above) screen, follow the guide to download the plug-in and log into the web terminal.

Default username: Admin

Password: 123456

In Network - LAN, please close the enabling of DHCP. Then click the Save button to save the settings.



The V3 will reboot again, the IP address will be adjusted to a static IP address, e.g. 192.168.0.25. Gateway is 192.168.0.1

3. Management terminal(web)

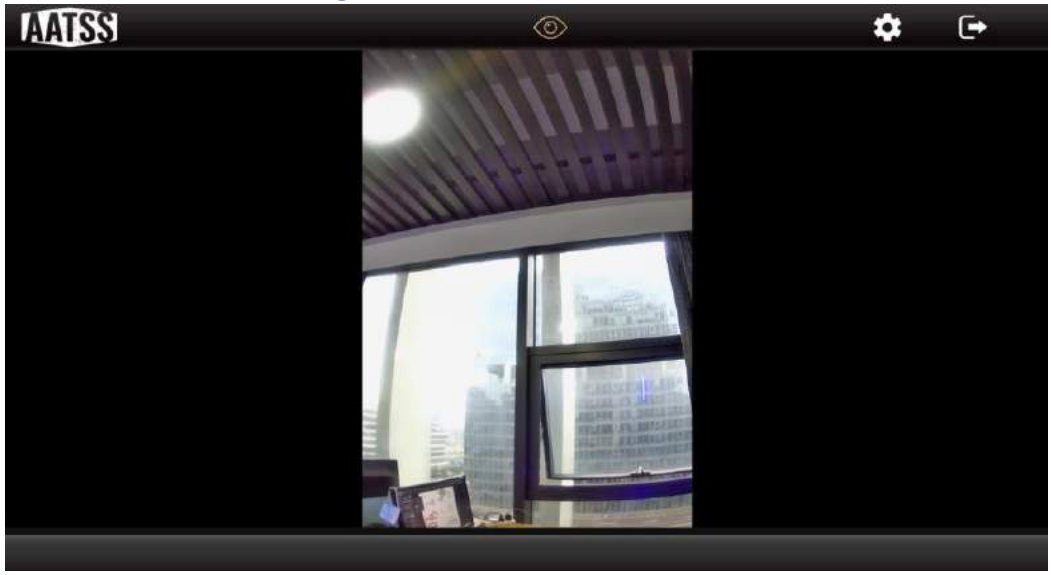
Supported browsers:

Firefox v. 42 +

Chrome v. 23 +

MS Edge v. + 13

◆ 3.1 Video monitoring

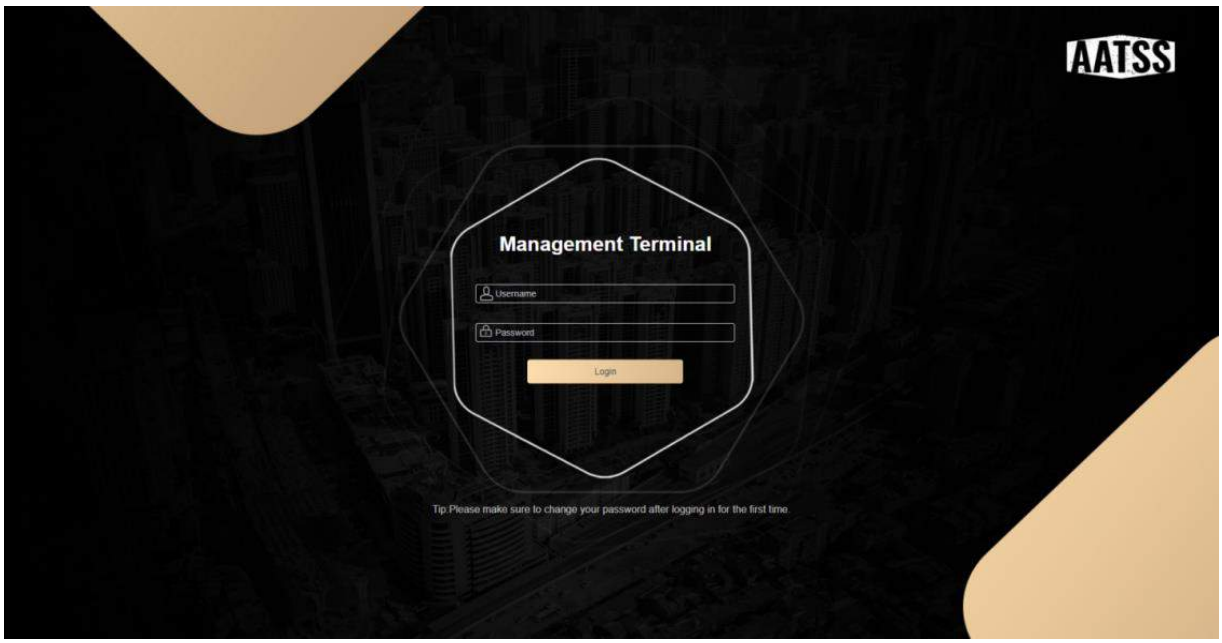


◆ 3.2 Login interface

When you open the management terminal (web) for the first time, please input the device IP address, e.g. http://192.168.0.8

Default username: admin

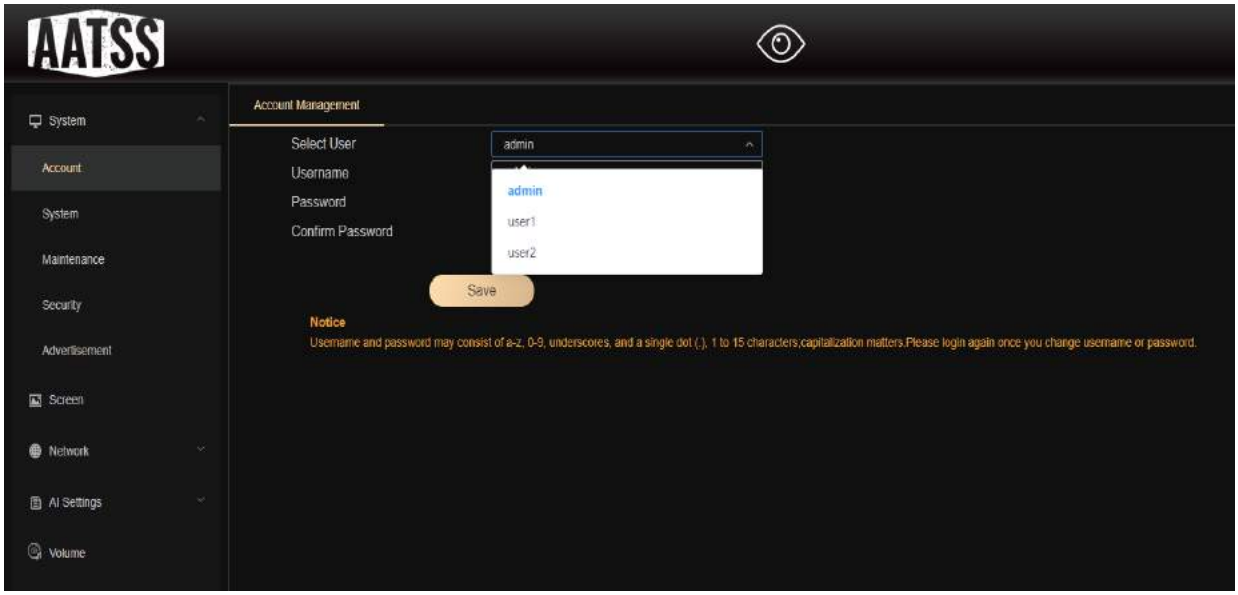
Password:123456



◆ 3.3 Settings

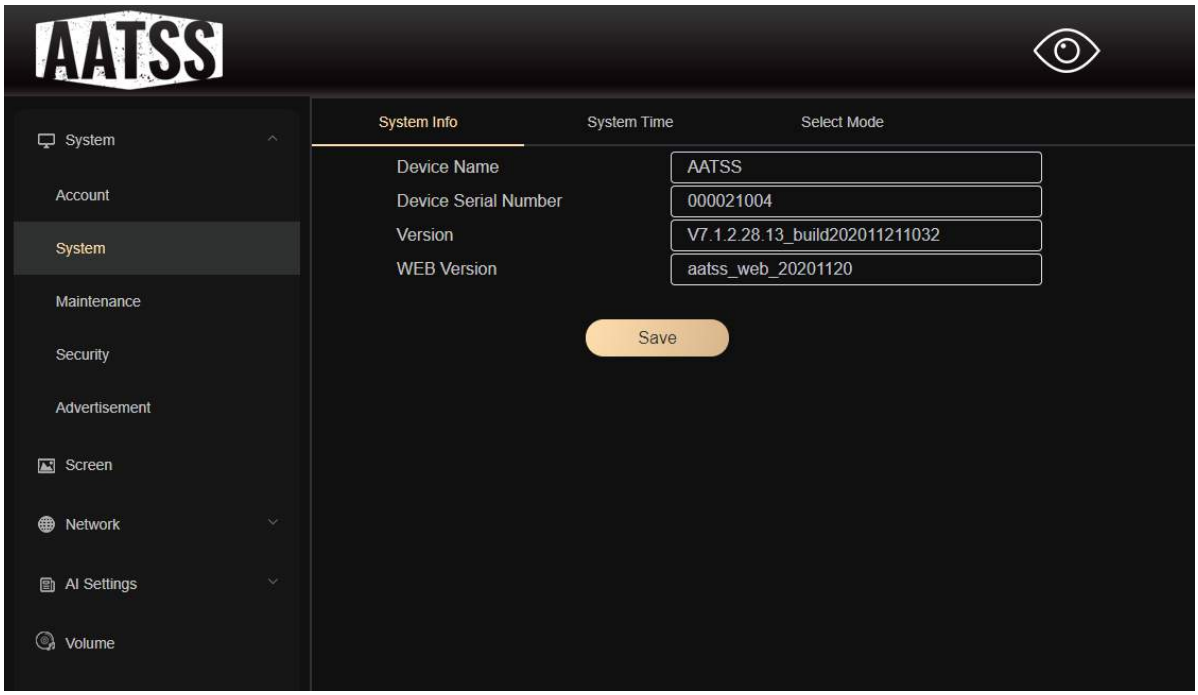
3.3.1 Account

You may change the username and password, and add two users that only have access to browse data but have no permission to change settings.

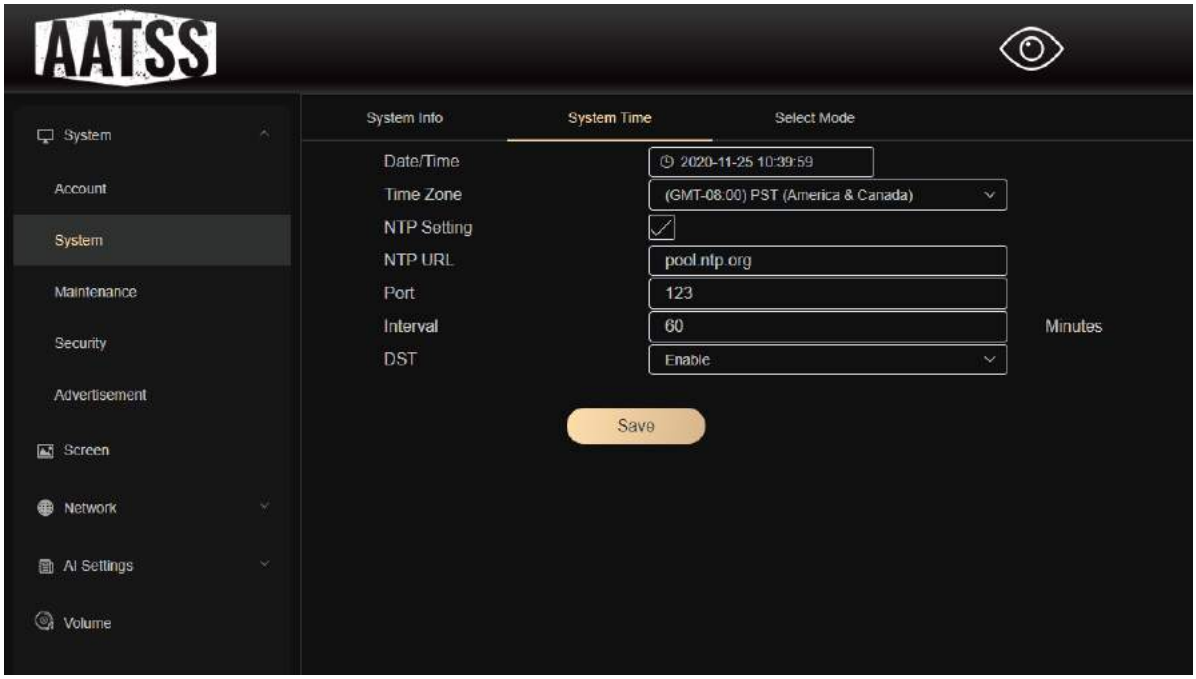


3.3.2 System

a. System Info. You can change the device name here.

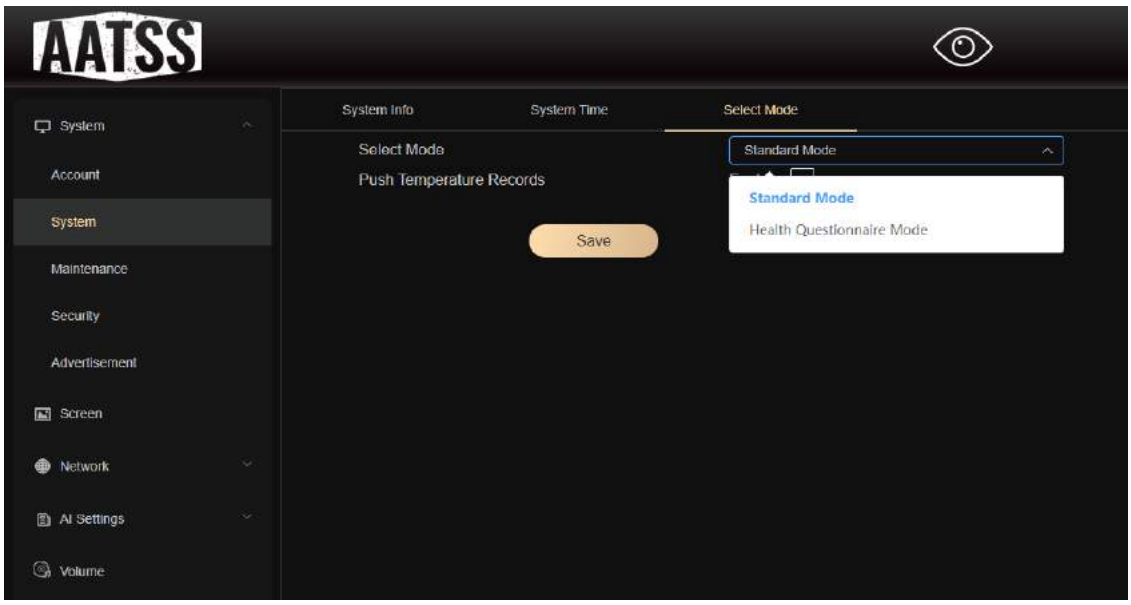


b. System Time. You can change the time zone and set time preferences.



c. Select Mode. You can choose among Standard Mode, Health Questionnaire Mode.

Push Temperature Records: You can push the Temperature Records (SignObject) in to a specific website.



3.3.3 Maintenance

a. Upgrade

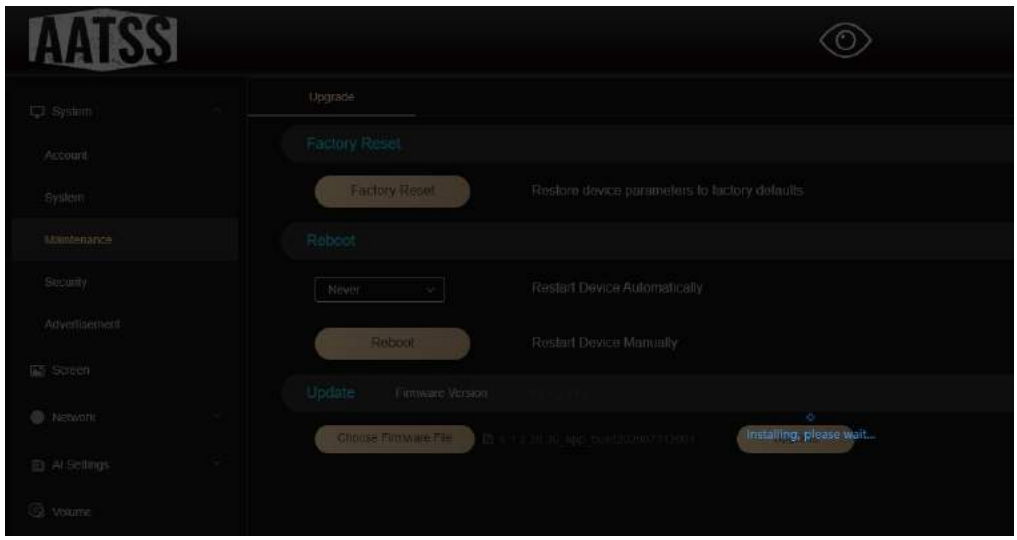
For Windows, browsers that are supported are Google Chrome, Firefox and Microsoft Edge.

Under MacOS, Firefox is supported.

Step 1: Log into the Web Management Terminal and go to “System\Maintenance”

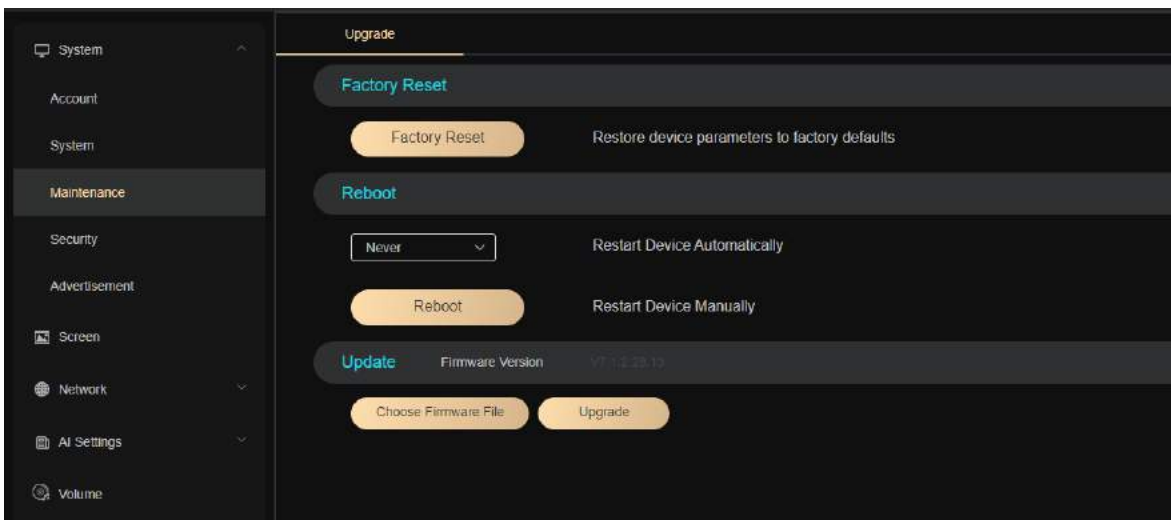
Click “Browse” and select the firmware update file(s), then client upgrade button to upgrade.

Step 2: Click “client upgrade” to update the system.



Step 3: Then perform a Factory Reset to restart the system and finish the upgrade.

Reboot – Choose how often you wish to refresh the system.

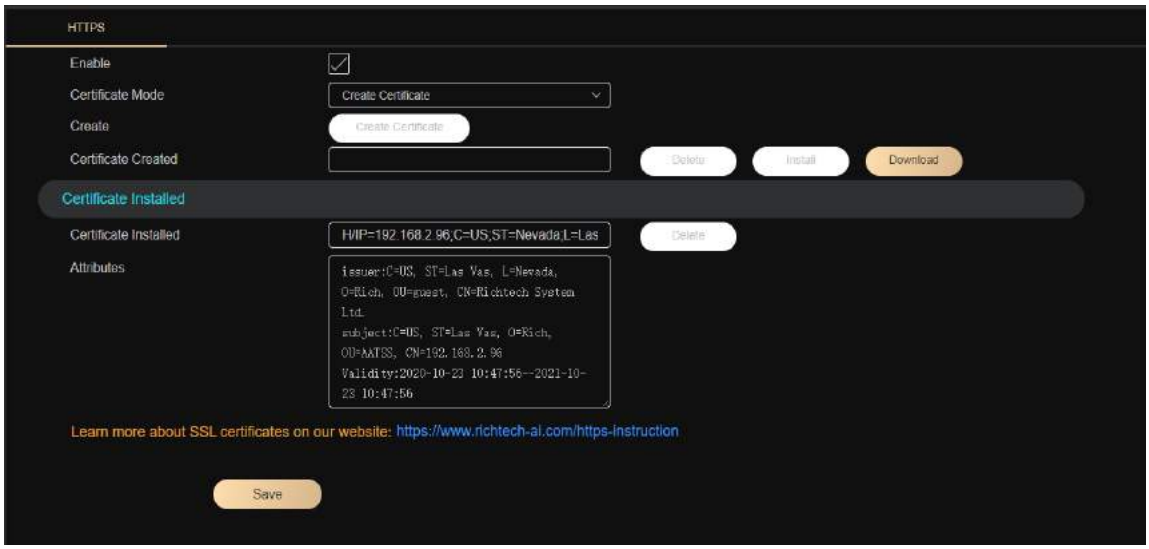


3.3.4 Security

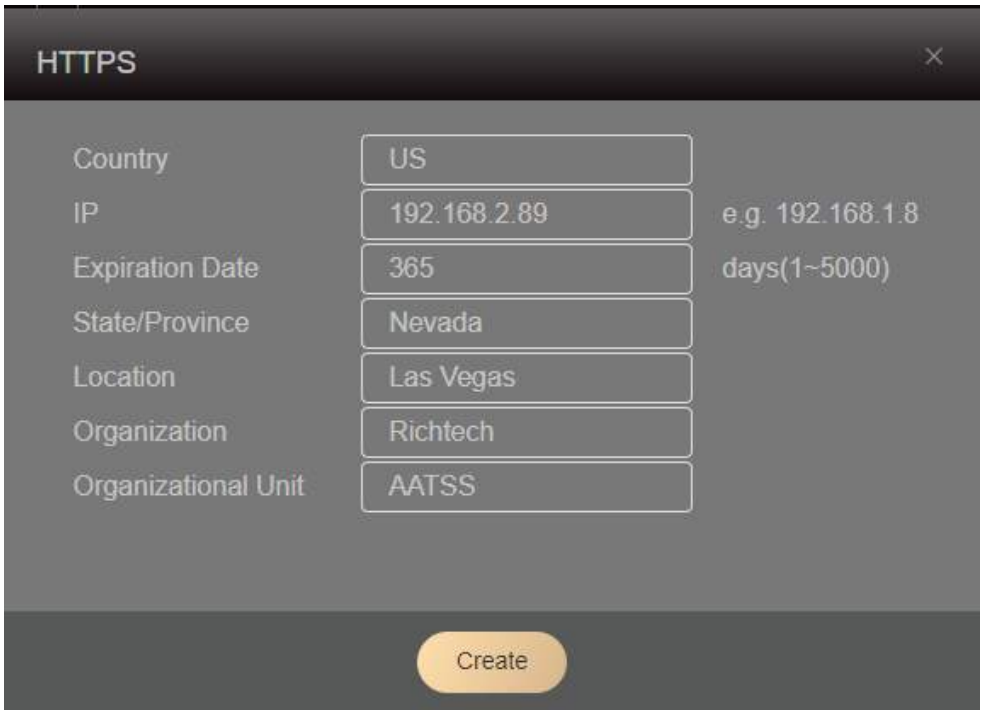
HTTPS configuration for Google Chrome, Firefox, Microsoft Edge (latest version).

1.Create Certificate

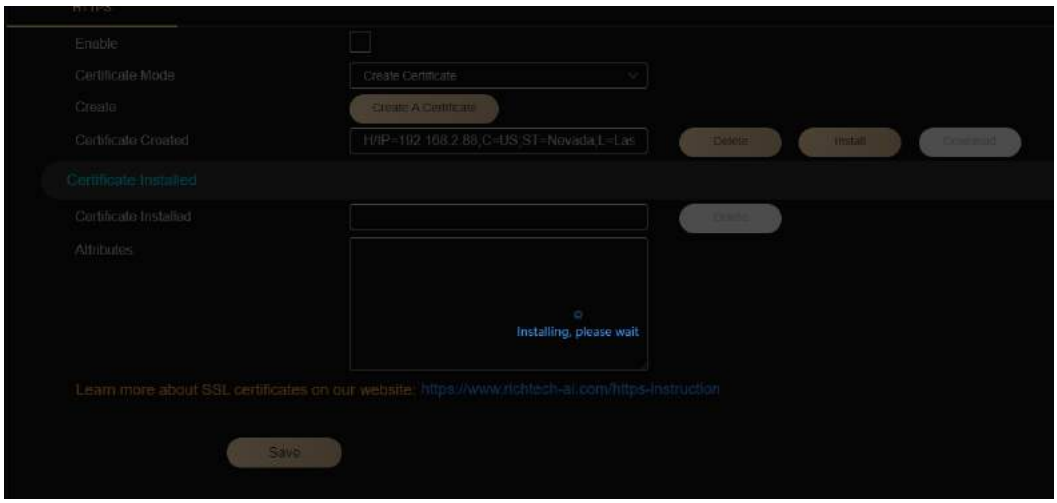
Open the page under System\Security



Click “Create Certificate” and the following page will pop up. Fill in the information and click “Create” after finishing.



Upon completion, click the “Install” button to install.



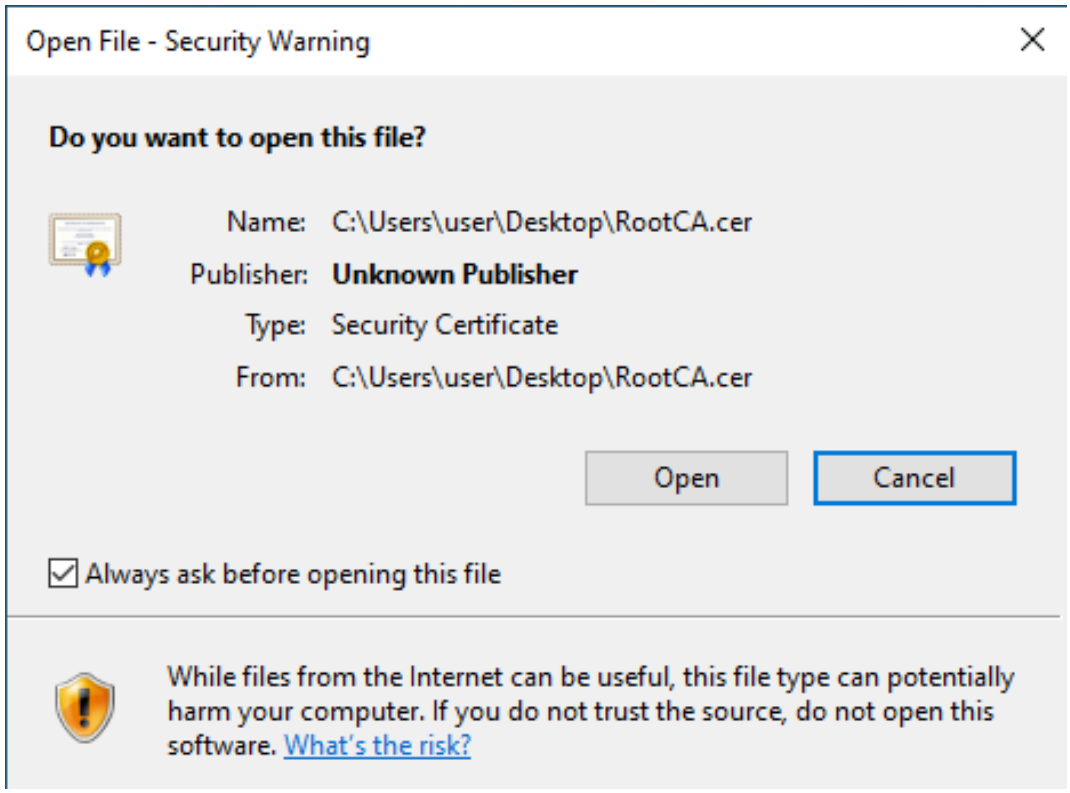
After installation we will get the following page:

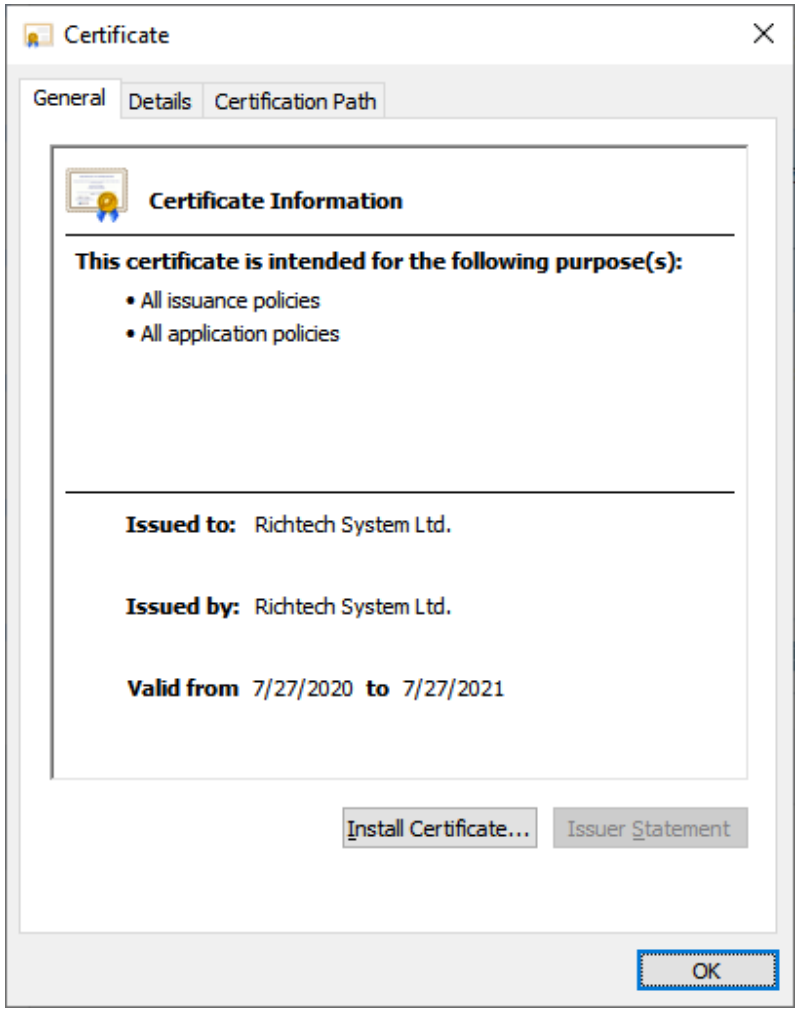
Click the "Download" button to download the certificate.

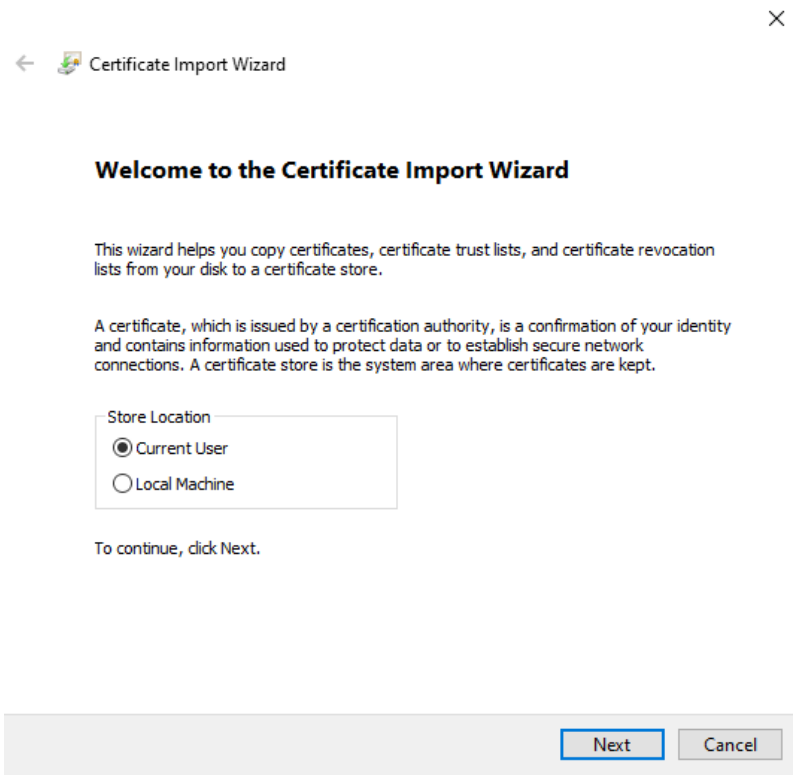
2. Install the certificate.

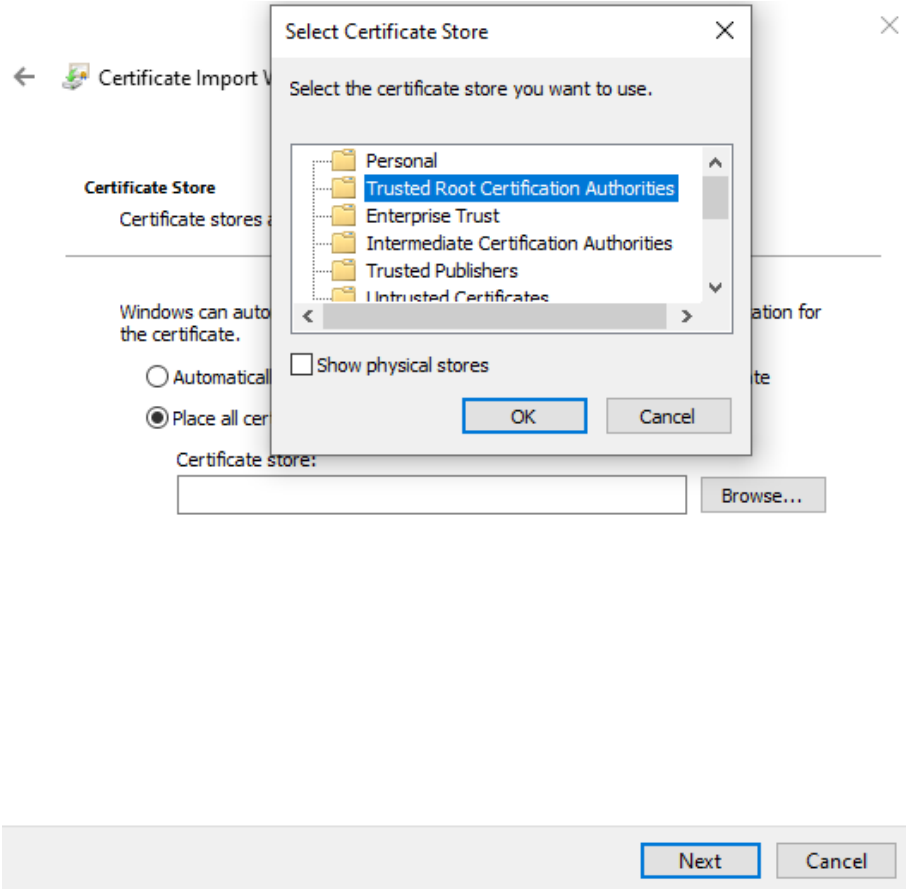
Windows Installation

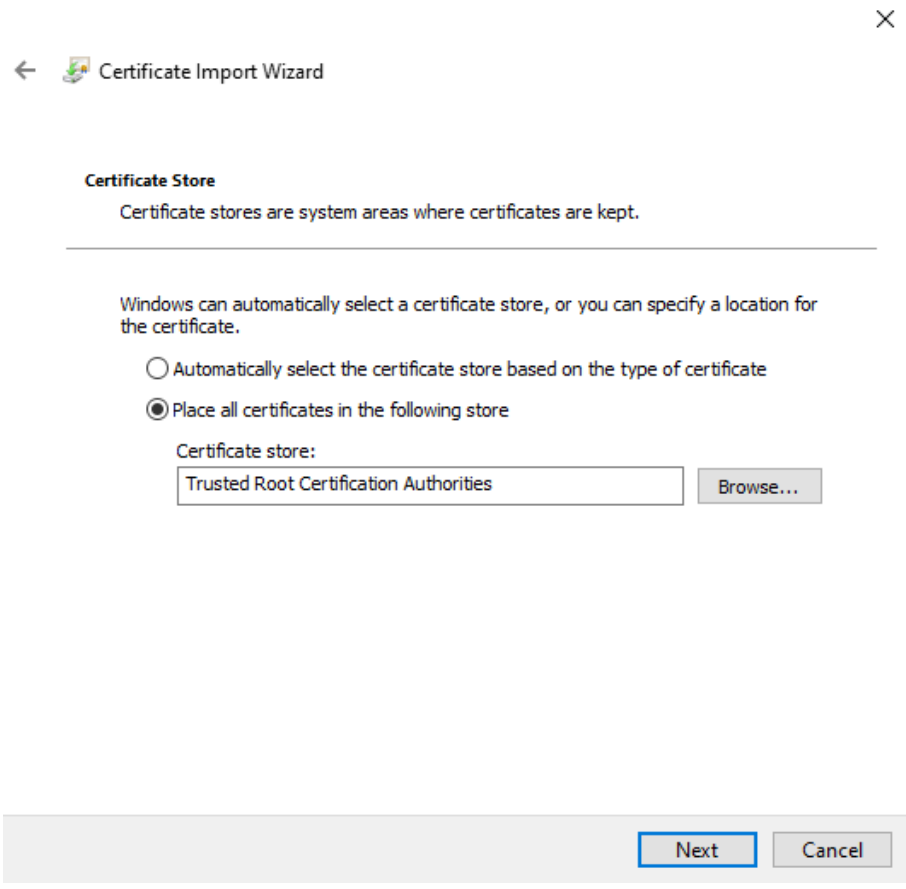
Double-click on the certificate downloaded and install according to the reference picture below.

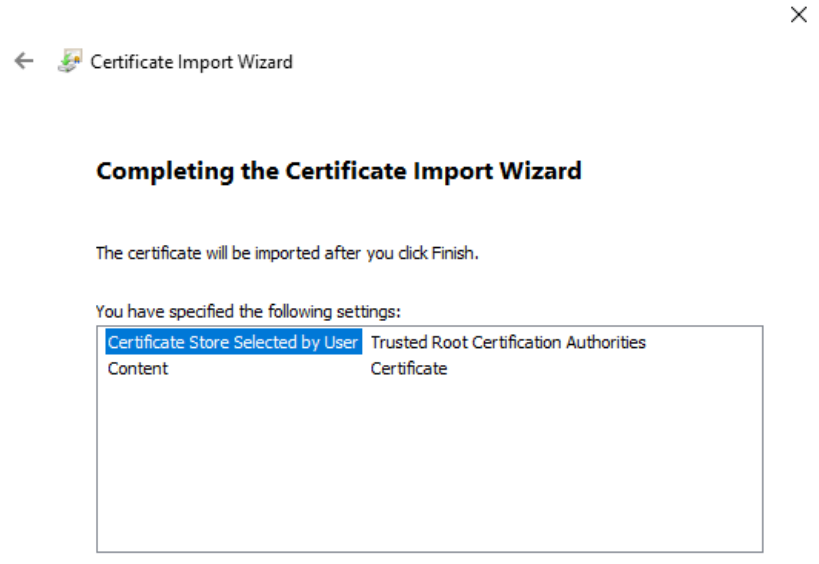



Certificate
General
Details
Certification Path
Certificate Information
This certificate is intended for the following purpose(s):
• All issuance policies
• All application policies
Issued to: Richtech System Ltd.
Issued by: Richtech System Ltd.
Valid from 7/27/2020 to 7/27/2021
Install Certificate...
Issuer Statement
OK

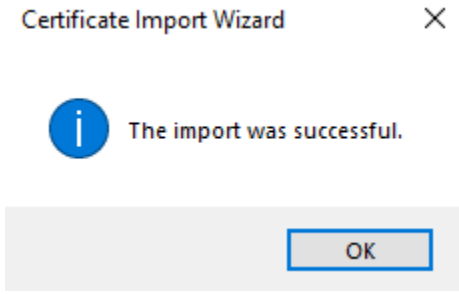

Certificate Import Wizard
Welcome to the Certificate Import Wizard
This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.
A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.
Store Location
Current User
Local Machine
To continue, click Next.
Next
Cancel


Select Certificate Store
Select the certificate store you want to use.
Personal
Trusted Root Certification Authorities
Enterprise Trust
Intermediate Certification Authorities
Trusted Publishers
Show physical stores
OK
Cancel
Certificate Import
Certificate Store
Windows can auto
the certificate.
Place all cer
Certificate store:
Browse...
Next
Cancel


Certificate Import Wizard
Certificate Store
Certificate stores are system areas where certificates are kept.
Windows can automatically select a certificate store, or you can specify a location for the certificate.
Automatically select the certificate store based on the type of certificate
Place all certificates in the following store
Certificate store:
Trusted Root Certification Authorities
Browse...
Next
Cancel


Certificate Import Wizard
Completing the Certificate Import Wizard
The certificate will be imported after you click Finish.
You have specified the following settings:
Certificate Store Selected by User
Trusted Root Certification Authorities
Content
Certificate
Finish
Cancel

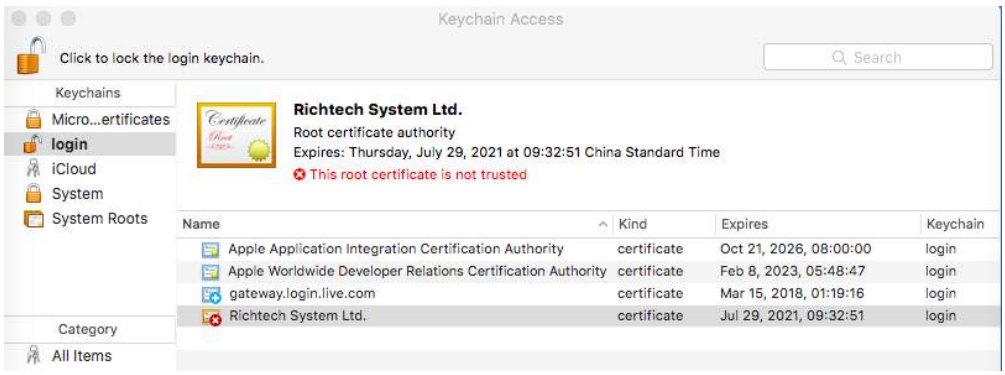
Security Warning
You are about to install a certificate from a certification authority (CA) claiming to represent:
Ordinary
Windows cannot validate that the certificate is actually from "Ordinary". You should confirm its origin by contacting "Ordinary". The following number will assist you in this process:
Thumbprint (sha1): 11073A88 712CF114 E3AFA76F B49AAF60 72F6F6FA
Warning:
If you install this root certificate, Windows will automatically trust any certificate issued by this CA. Installing a certificate with an unconfirmed thumbprint is a security risk. If you click "Yes" you acknowledge this risk.
Do you want to install this certificate?
Yes
No

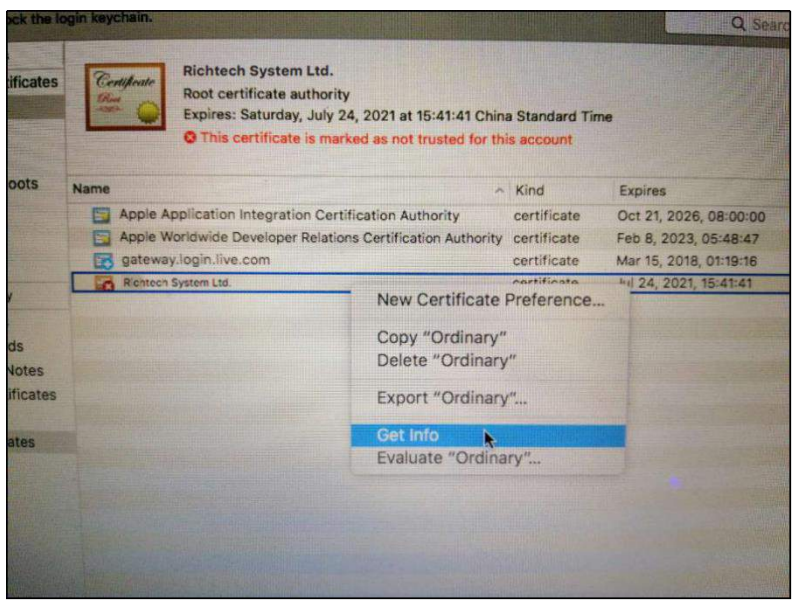


Mac OS Installation

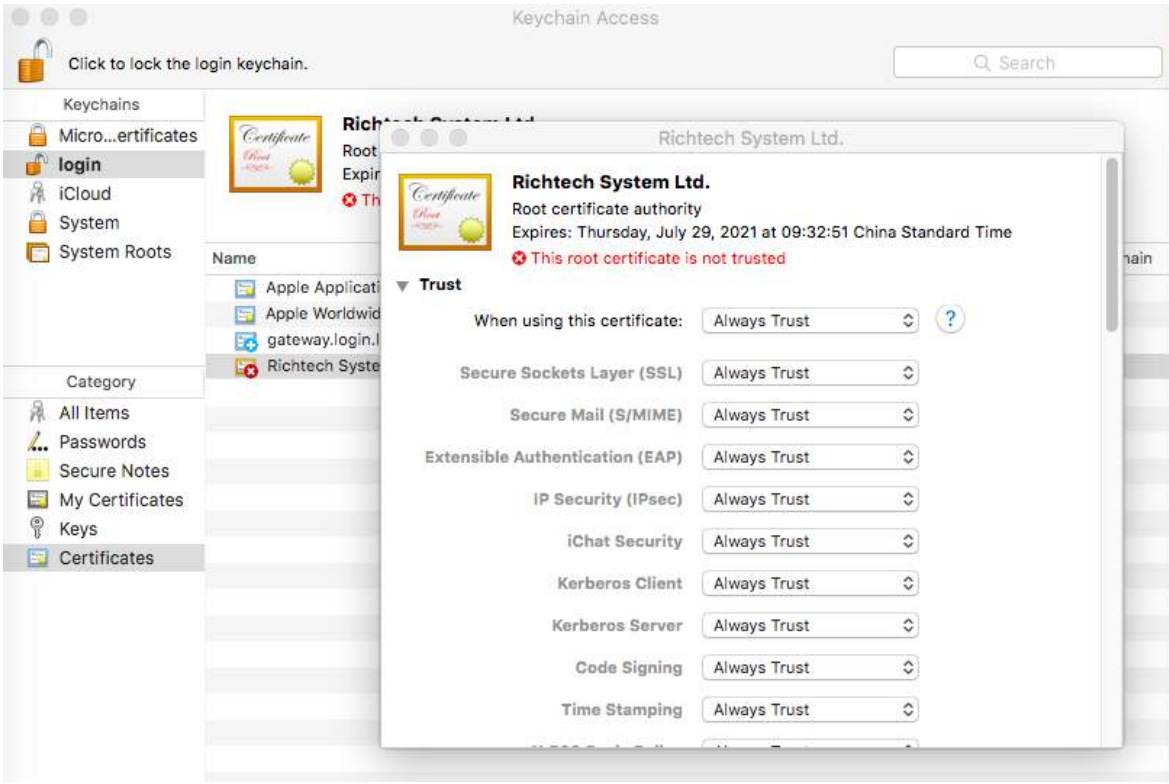
1) Double-click the certificate

2) Open the window shown below. Choose the new certificate in the list and right-click to open the menu.
3) Select “Get info”.

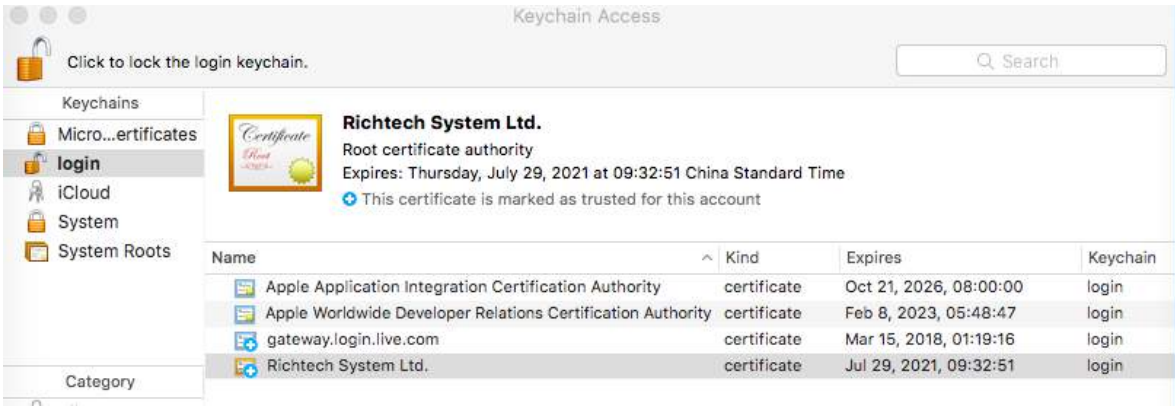




Select “Always Trust” for the following:



If all settings are correct, we will get the following result：



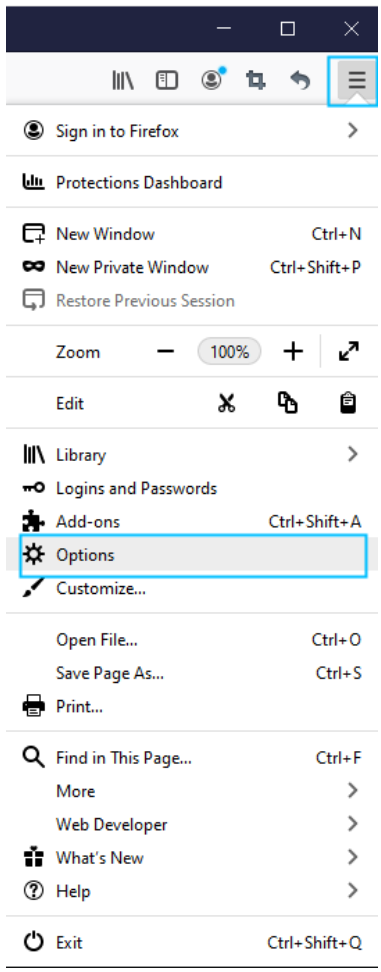
Reboot your Mac and it will work.

3.Enable https mode access.

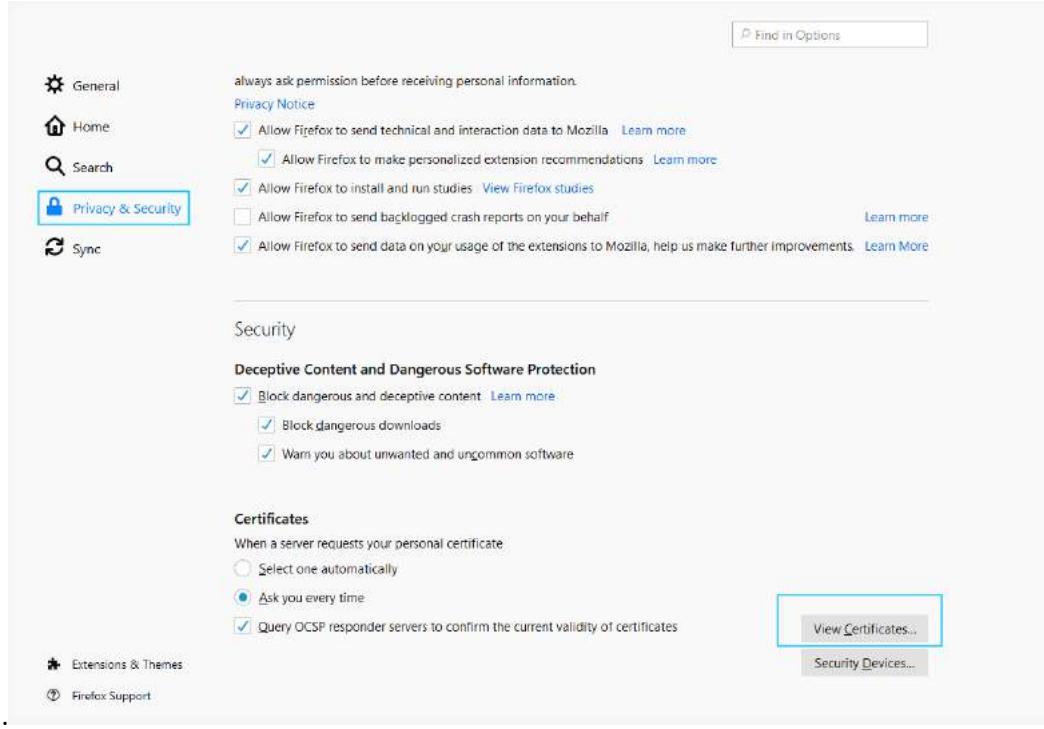
Select the box for Enable. Click “Save” and the AATSS will reboot and enable Https mode.

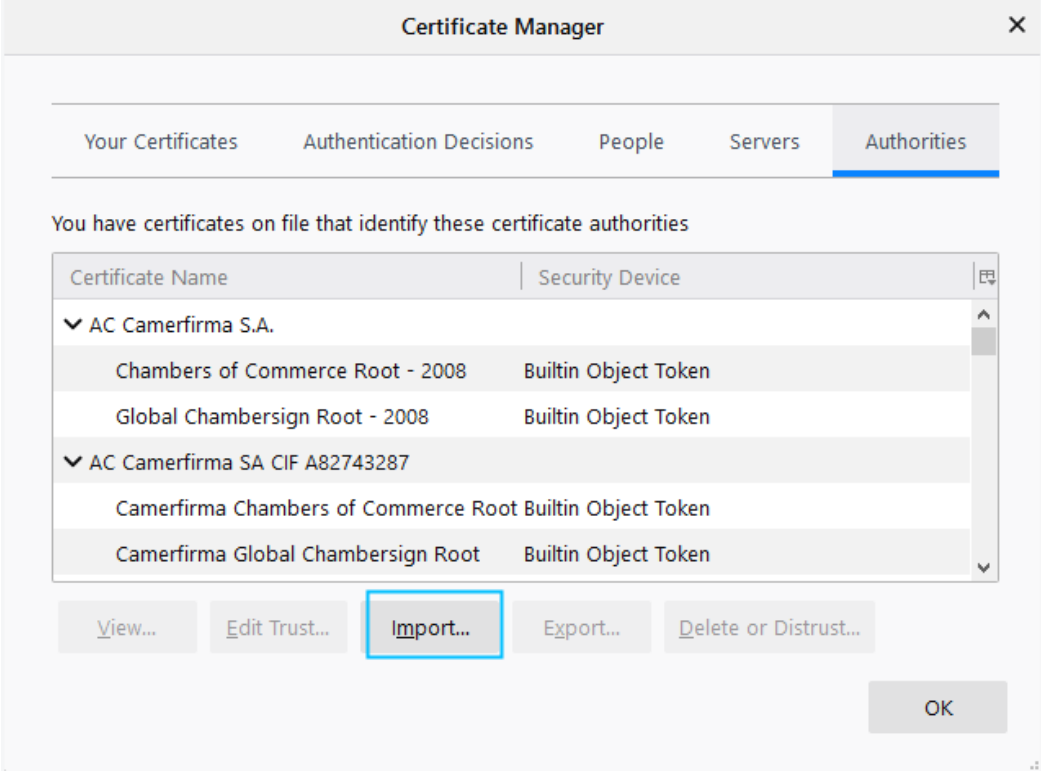
4.Firefox Settings

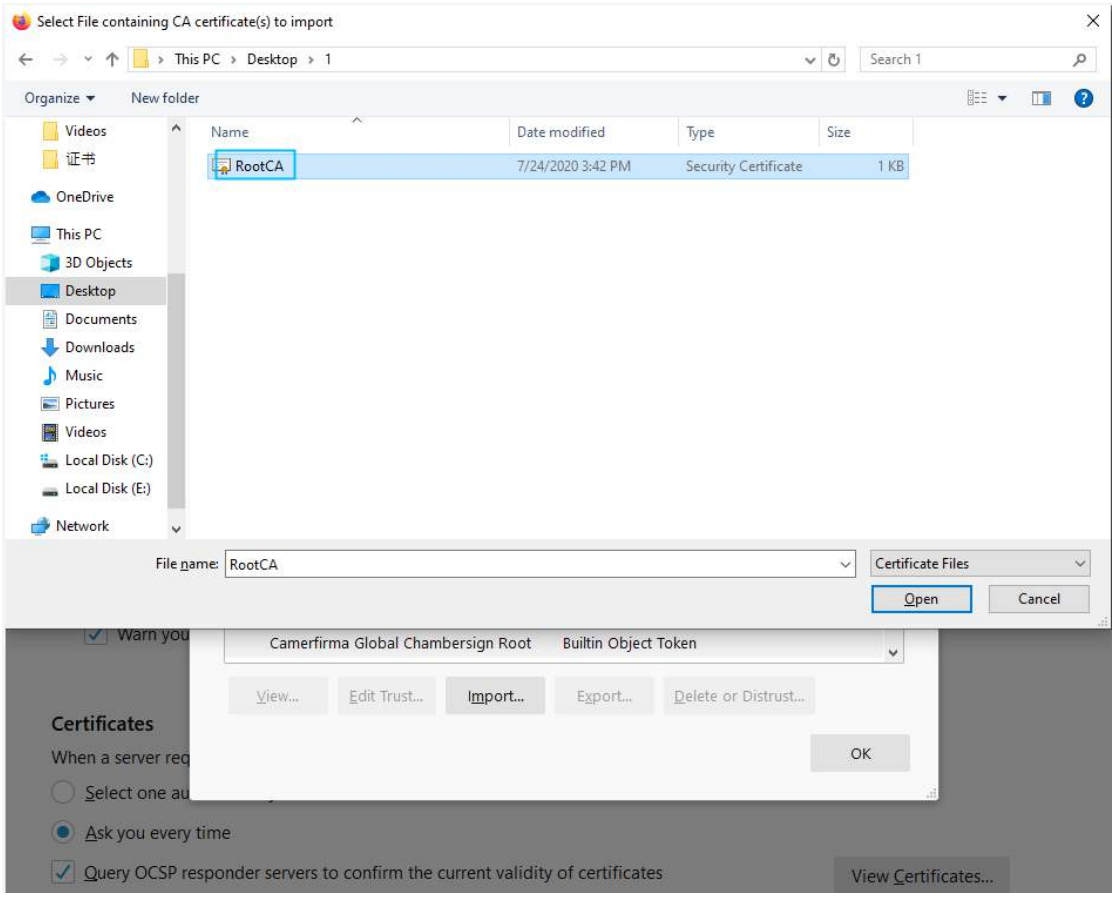
Click the Settings button and open the menu. Then click “Options”.

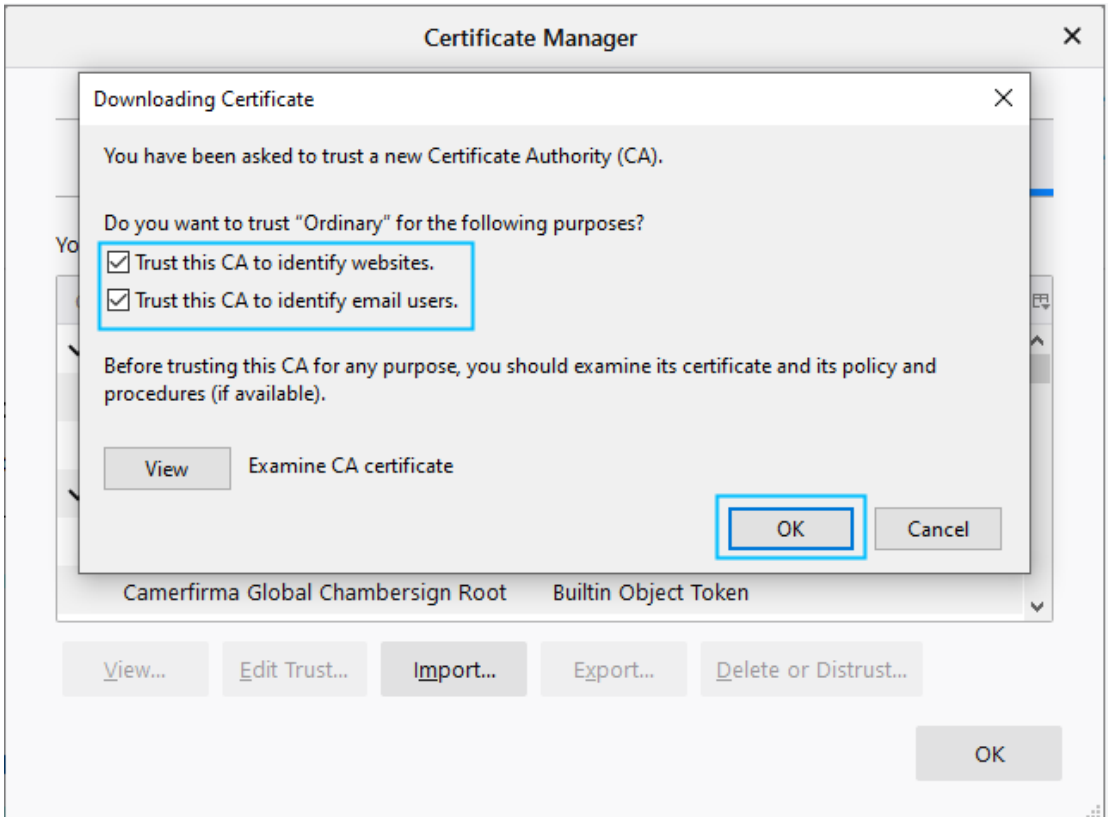


Under “Privacy & Security” click “View Certificates”. Follow the steps shown below to import certificate.






Select File containing CA certificate(s) to import
This PC › Desktop › 1
Search 1
Organize
New folder
Videos
证书
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Local Disk (E:)
Network
Name
Date modified
Type
Size
RootCA
7/24/2020 3:42 PM
Security Certificate
1 KB
File name: RootCA
Certificate Files
Open
Cancel
Camerfirma Global Chambersign Root
Builtin Object Token
View...
Edit Trust...
Import...
Export...
Delete or Distrust...
OK
Certificates
When a server req
Select one au
Ask you every time
Query OCSP responder servers to confirm the current validity of certificates
View Certificates...

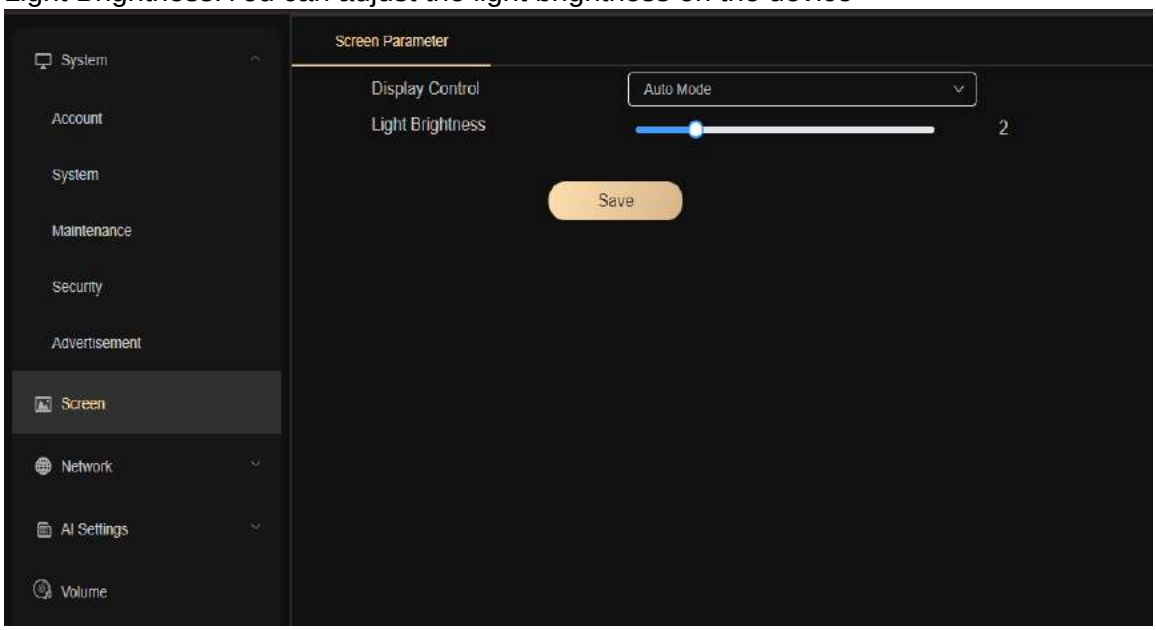

Certificate Manager
Downloading Certificate
You have been asked to trust a new Certificate Authority (CA).
Do you want to trust "Ordinary" for the following purposes?
Trust this CA to identify websites.
Trust this CA to identify email users.
Before trusting this CA for any purpose, you should examine its certificate and its policy and procedures (if available).
View
Examine CA certificate
OK
Cancel
Camerfirma Global Chambersign Root
Builtin Object Token
View...
Edit Trust...
Import...
Export...
Delete or Distrust...
OK

3.3.5 Advertisement

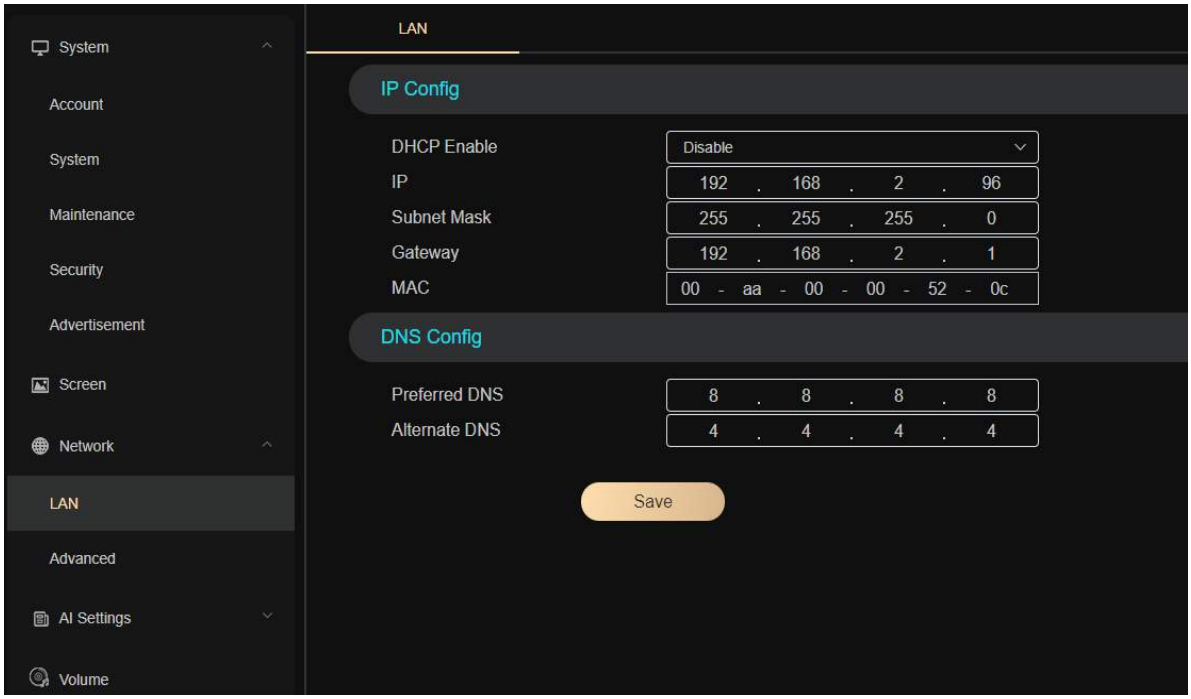
3.3.6 Screen

Screen Parameter Options: Auto mode, Always bright, Time.

Light Brightness:You can adjust the light brightness on the device



3.3.7 Network



3.3.8 Advanced

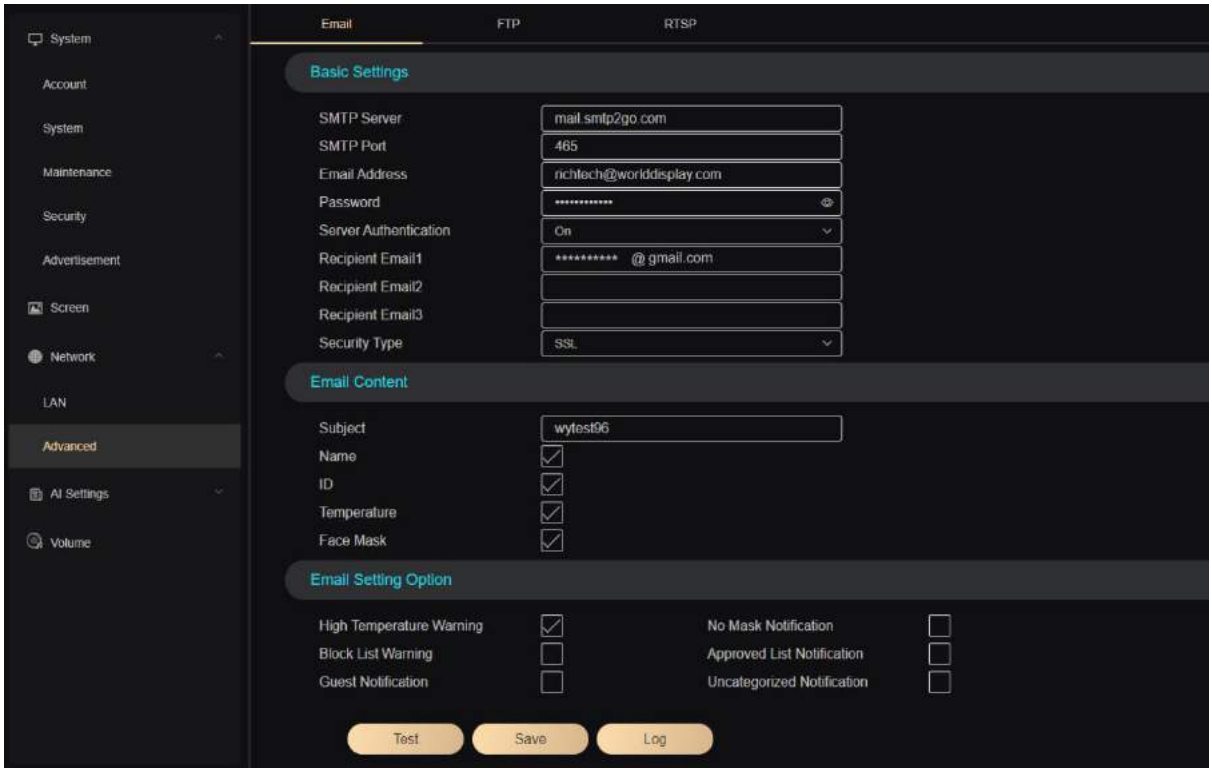
a. Email - An alert will be sent to the recipient email addresses when an abnormal temperature is detected.

SMS alerts can also be sent using this function by using your wireless carrier's email-to-SMS function. Please see the chart below for how to format the SMS email address. (Not all carriers are listed)

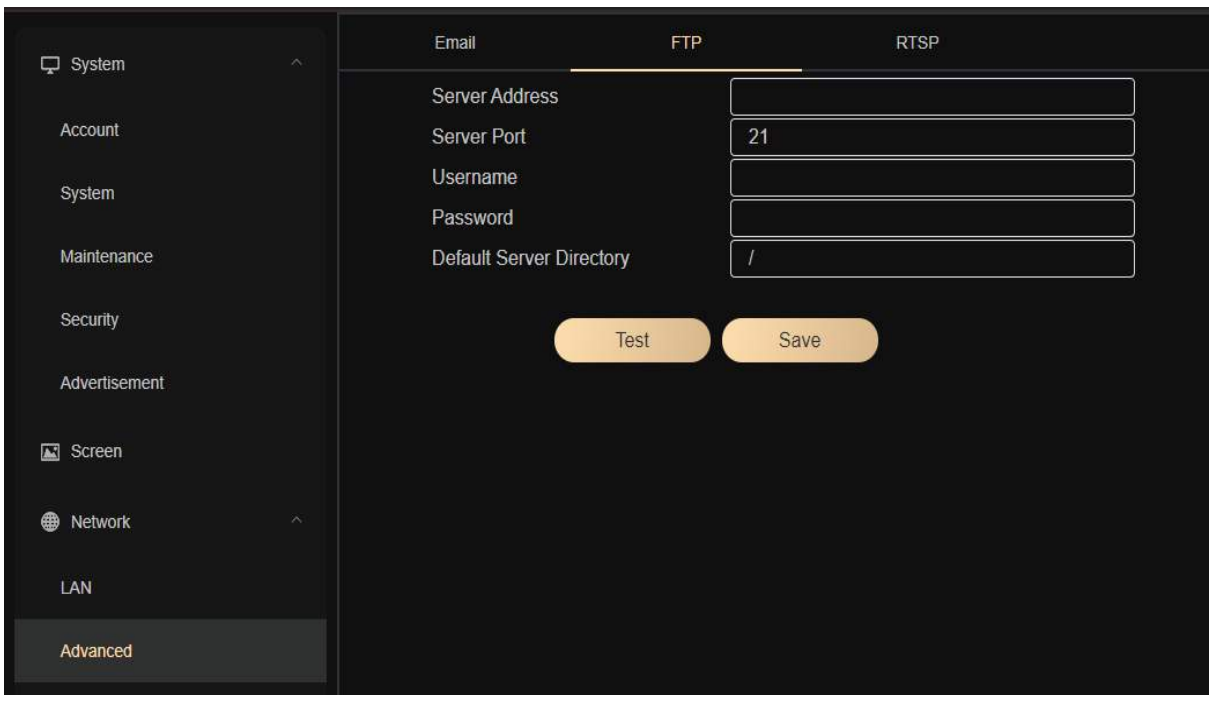
Carrier	**Email Format**
AT&T	number@txt.att.net
T-Mobile	number@tmomail.net
Verizon	number@vtext.com
Sprint	number@messaging.sprintpcs.com
Xfinity Mobile	number@vtext.com
Virgin Mobile	number@vmobl.com
Metro PCS	number@mymetropcs.com
Boost Mobile	number@sms.myboostmobile.com
Cricket	number@sms.cricketwireless.net
Google Fi (Project Fi)	number@msg.fi.google.com
Ting	number@message.ting.com
U.S. Cellular	number@email.uscc.net

Server Authentication：Server verification switch, can be turned on and off.

Click the “Log” button to check the email log information.

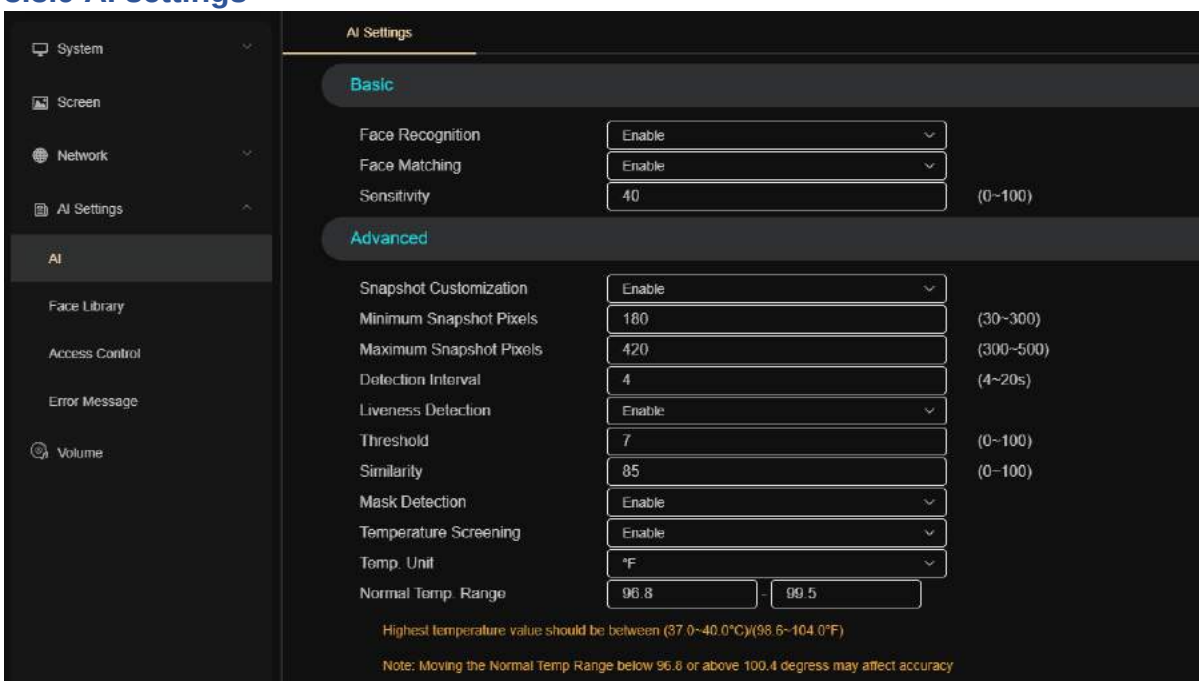


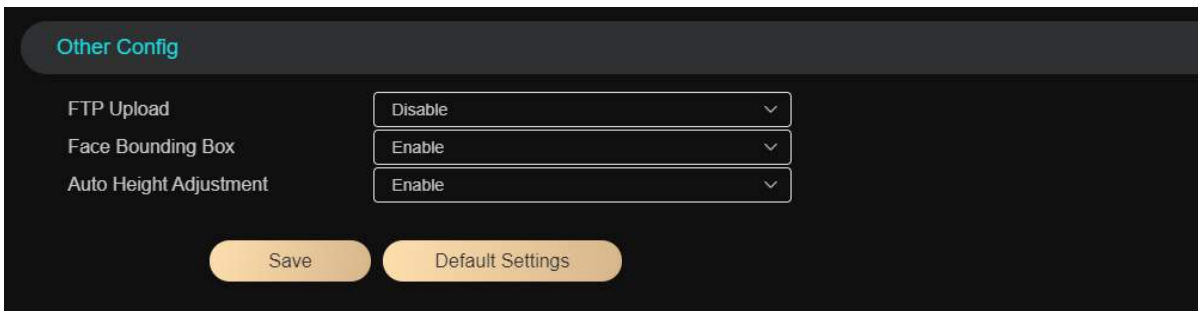
b. FTP - Can be used to transfer files from the device to your PC



c. RTSP - Full camera feed streaming, provides easy integration into existing security camera systems

3.3.9 AI settings





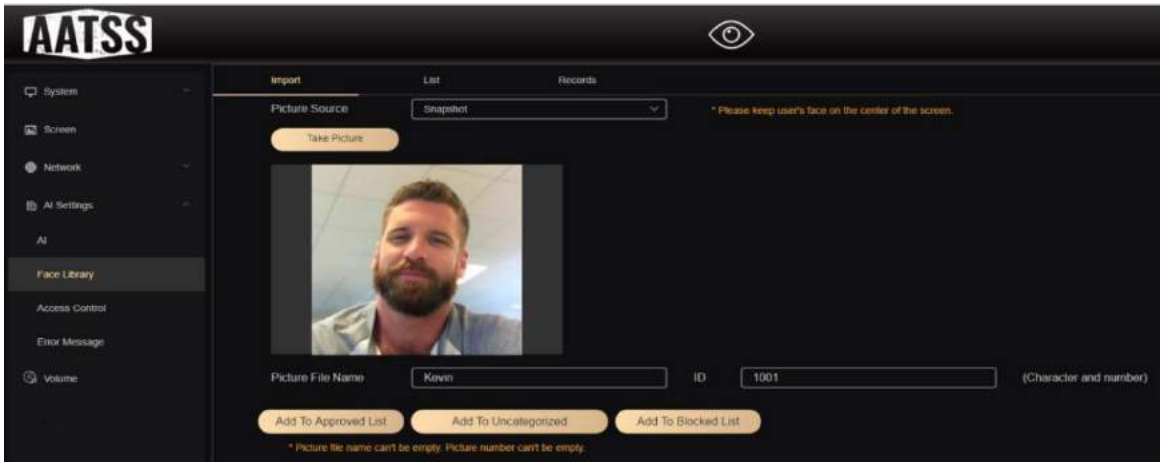
Basic	Default	Options

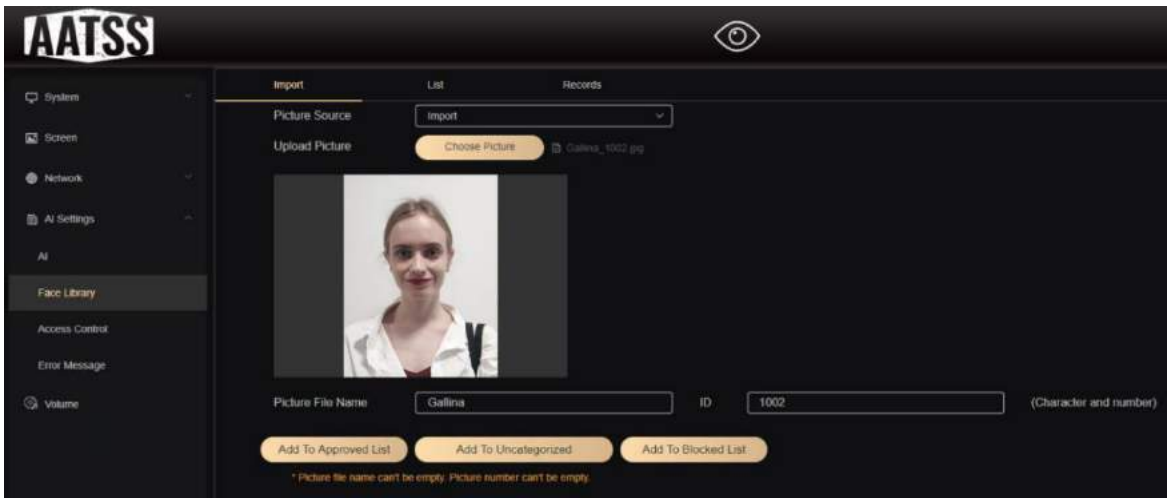
Face Recognition	Enable	Enable Disable
Face matching	Enable	Enable Disable (You must enable face matching in order to see this option under Integration)
Sensitivity	40	0-100 (The lower the setting, the faster the system can recognize faces. However, it may recognize other objects as faces if the setting is too low)
Snapshot pixels	Enable/ Disable	
Minimum Snapshot Pixels	220	(30-300)
Maximum Snapshot Pixels	420	(300-500)
Advanced		
Detection Interval	4	(4-20) s
Liveness Detection	Enable	Enable: Anti-spoofing feature, requires a real live person and not just a picture of a person's face Disable
Threshold	7	
Similarity	85	Facial similarity
Mask Detection	Enable	Enable: Detect face masks Disable
Temperature Screening	Enable	Enable: Disable:
Temp. Unit		Celsius or Fahrenheit
Normal Temp. Range	Lowest:95.0 Highest:99.5	Lowest：(32.0-35° C)/(89.6-95.0° F) Highest: (37.0-40.0°C)/(98.6-104.0°F)
Other Config		
FTP Upload	Enable	
Face Tracking	Enable	Enable: Green square will be shown on the screen to display face tracking Disable
Face and Screen	Disable	Camera moves up and down to track

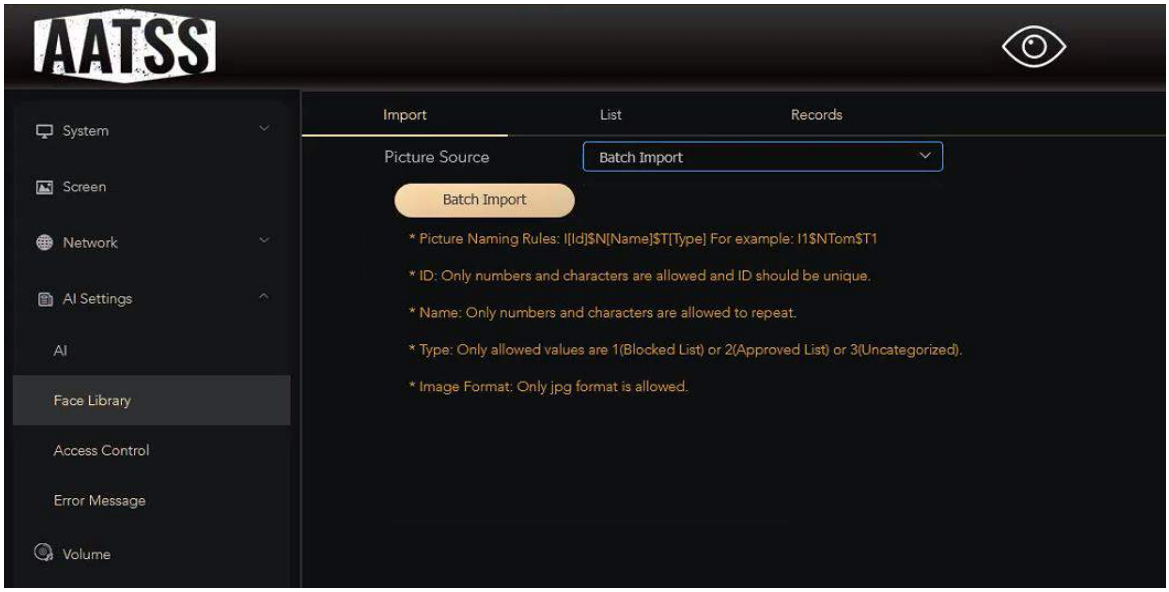
		faces

3.3.10 Face library

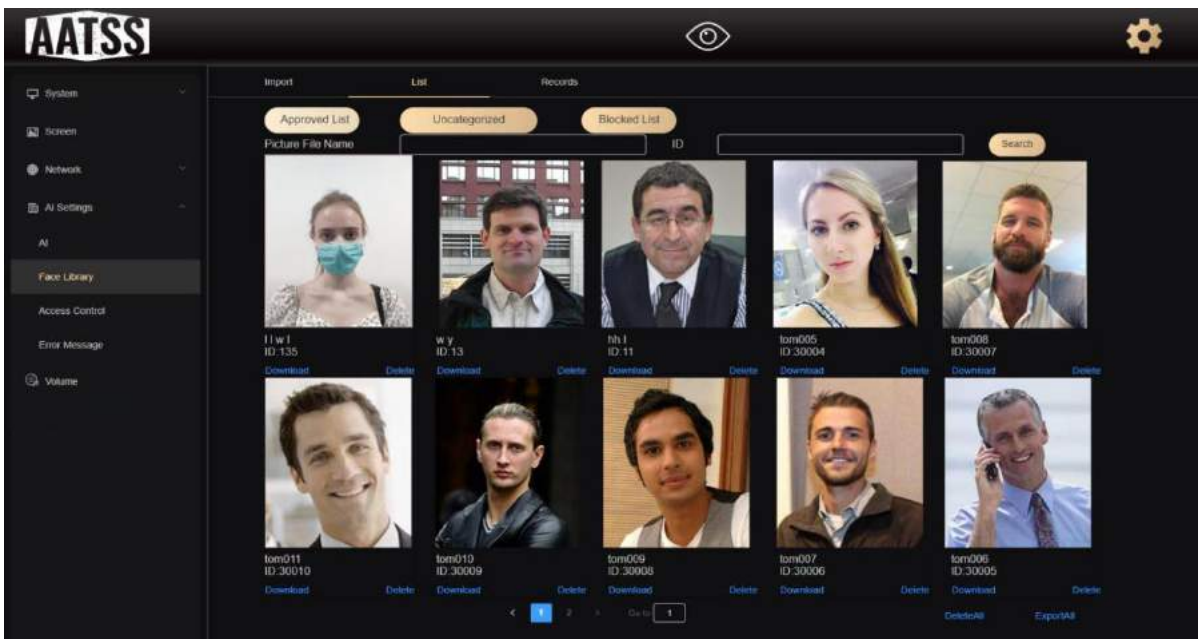
You can import pictures from your PC, or use a snapshot directly. Fill out the picture's information below it to add to the whitelist, uncategorized or blacklist database.







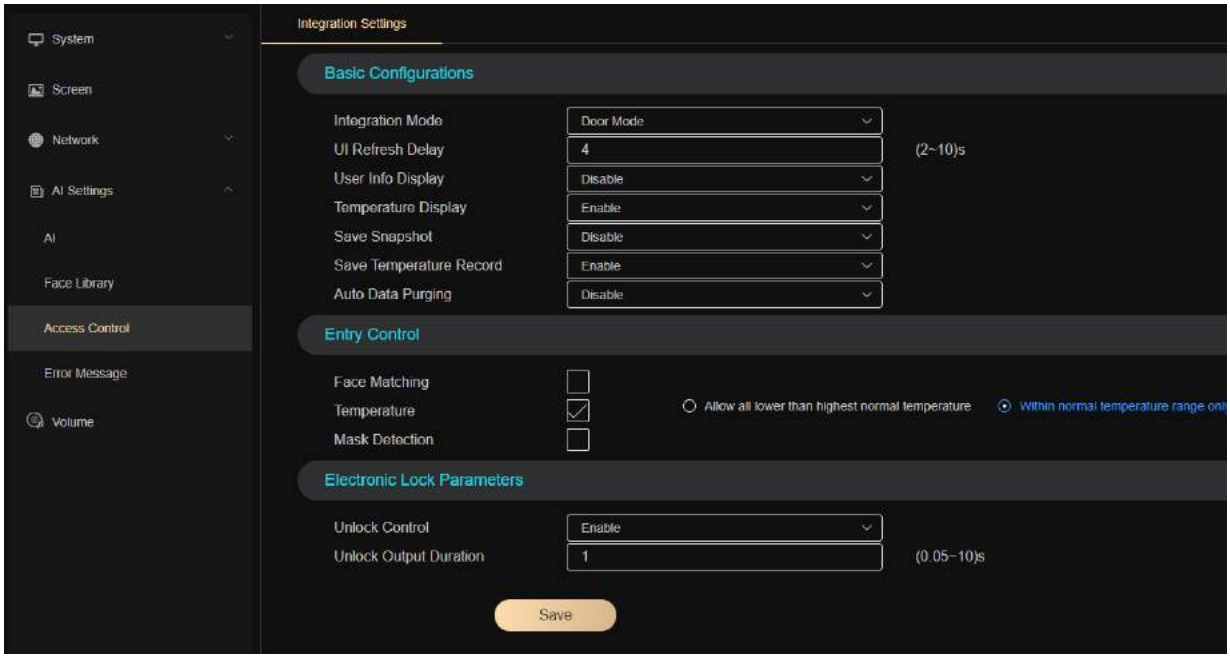
You can preview the image here



You can check all the saved records here.

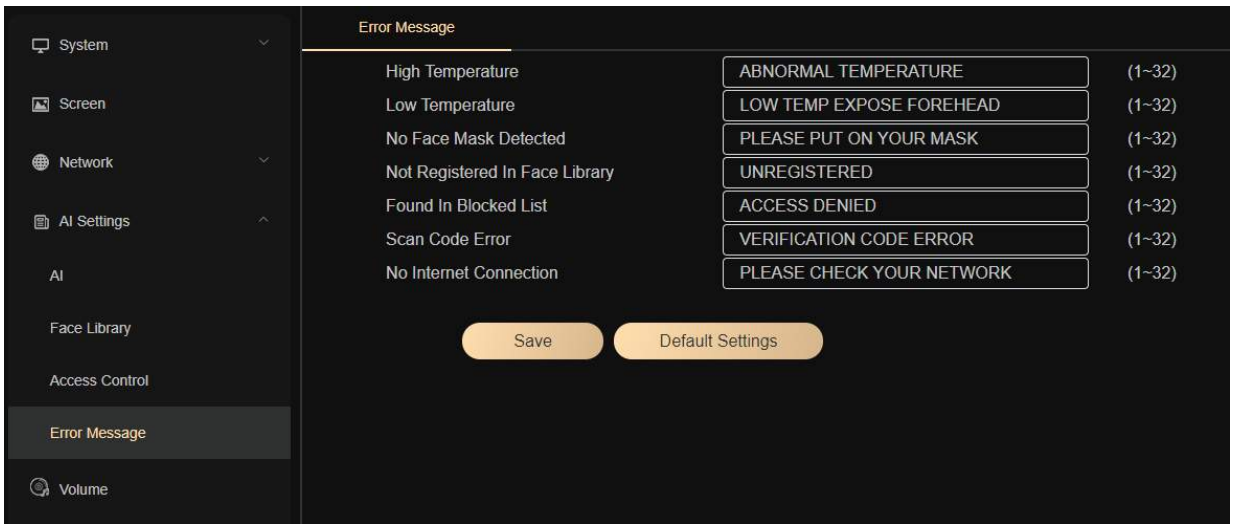
3.3.11 Integration

Basic Configurations	Default	Description
Integration Mode	Door Mode	
UI Refresh Delay	4	(2-10s)
User info Display	Disable	Option to display user's info
Temperature display	Enable	Option to display the temperature
Save Snapshot	Disable	Option to save snapshot
Save Temperature Record	Enable	Option to save temperature
Entry Control		
Face Matching		Identity verification
Temperature	Enable	Temperature verification
Mask Detection		Mask verification



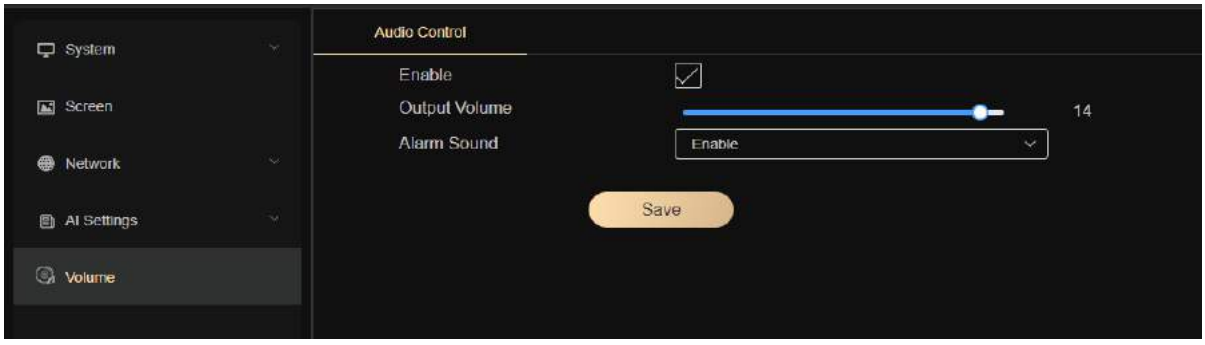
3.3.12 Error Message

You can set error messages as you will.

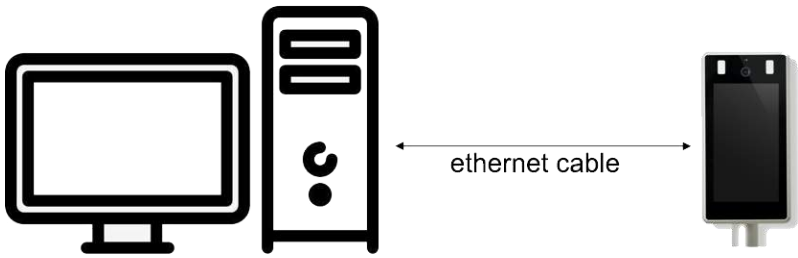


3.3.13 Volume

Here you can adjust the volume settings, enable audio, or disable it.

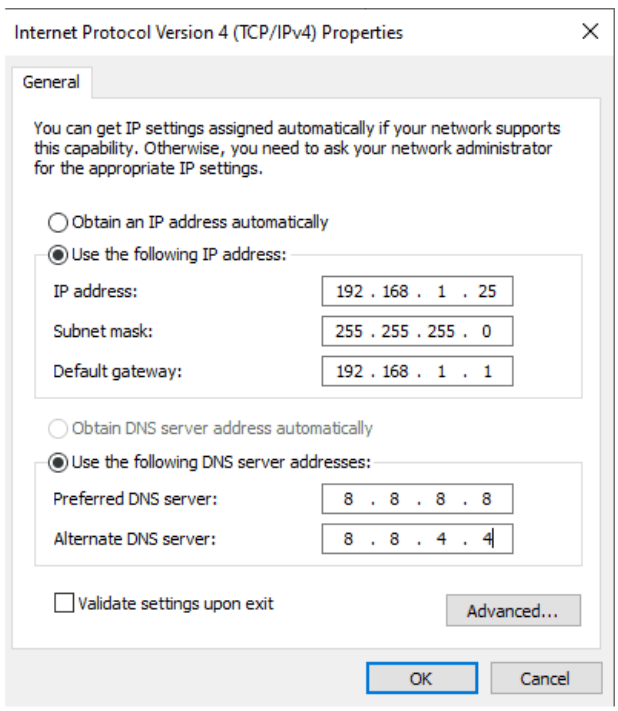


3.3.14 V3 connected to PC directly via ethernet cable



To connect the V3 directly to your PC, in case there is no network or in an emergency, please see below steps:

1. Use the ethernet cable to connect your V3 to PC.
2. Open the Desktop Management Terminal, obtain the V3 IP address and gateway address, e.g. 192.168.1.8
3. The PC IP address should be static address. Gateway should be same as the V3 IP address



4. Type http://192.168.1.8 in IE Explorer or Chrome to open the webpage to manage your device.

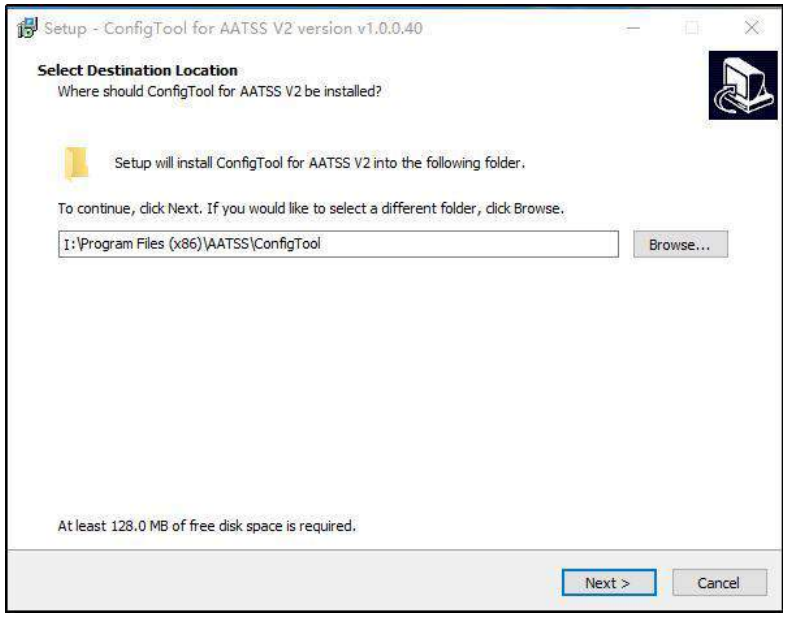
4. Desktop Management Terminal

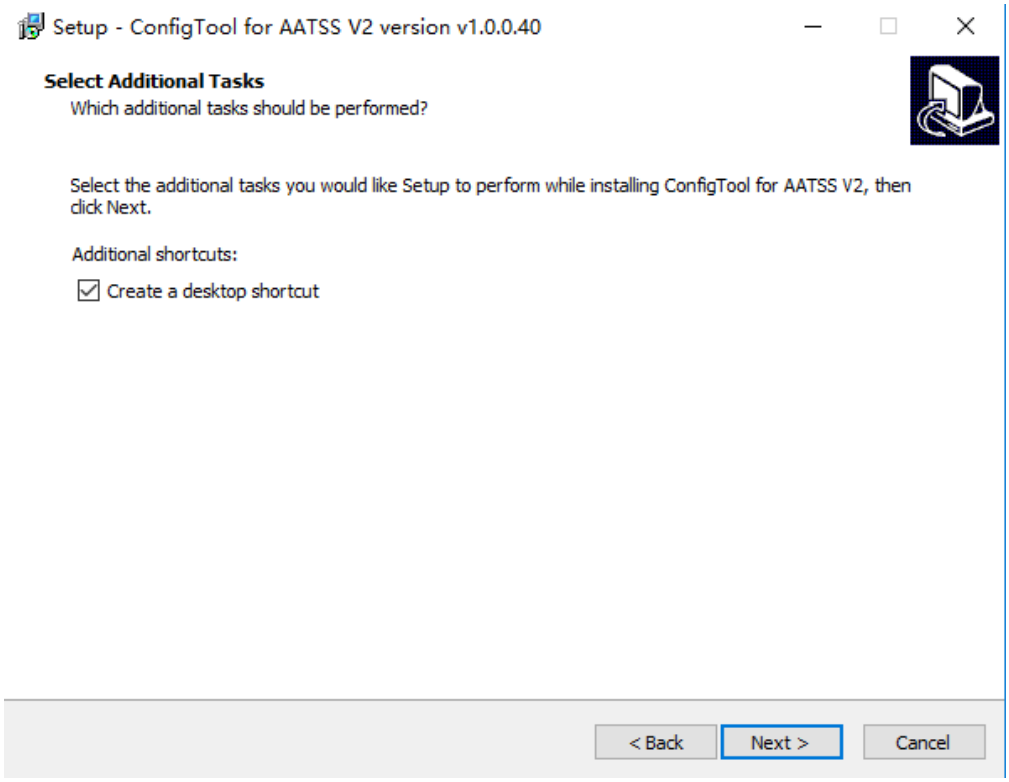
◆ 4.1 Setup

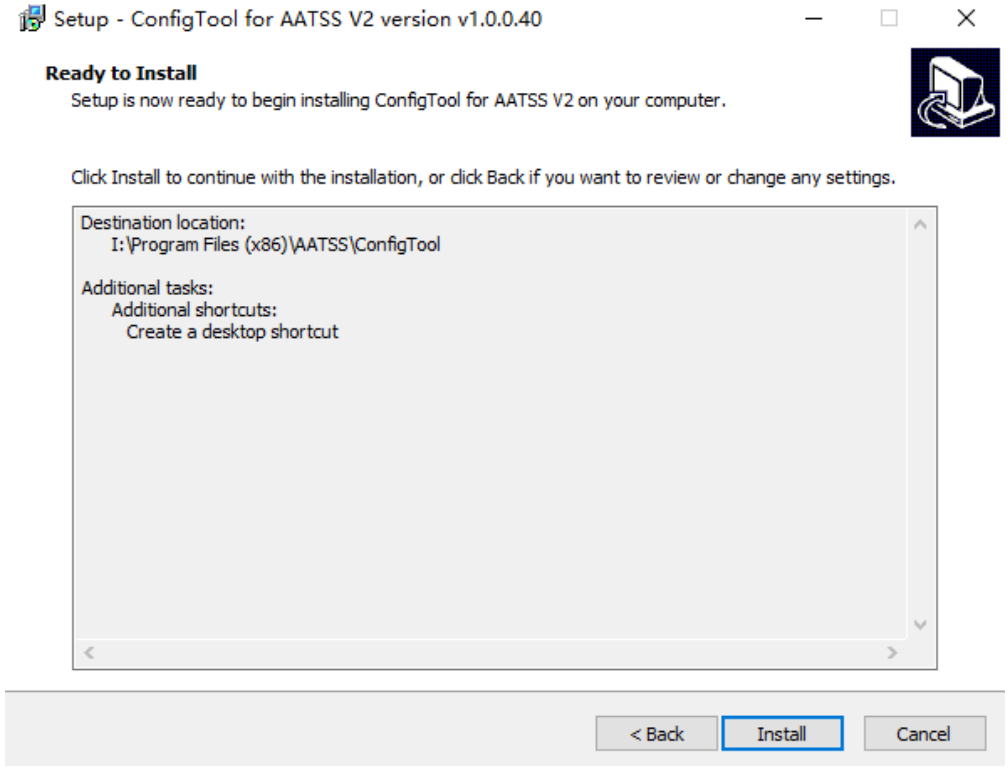
Please install the ConfigTool for AATSS V3 on your PC.

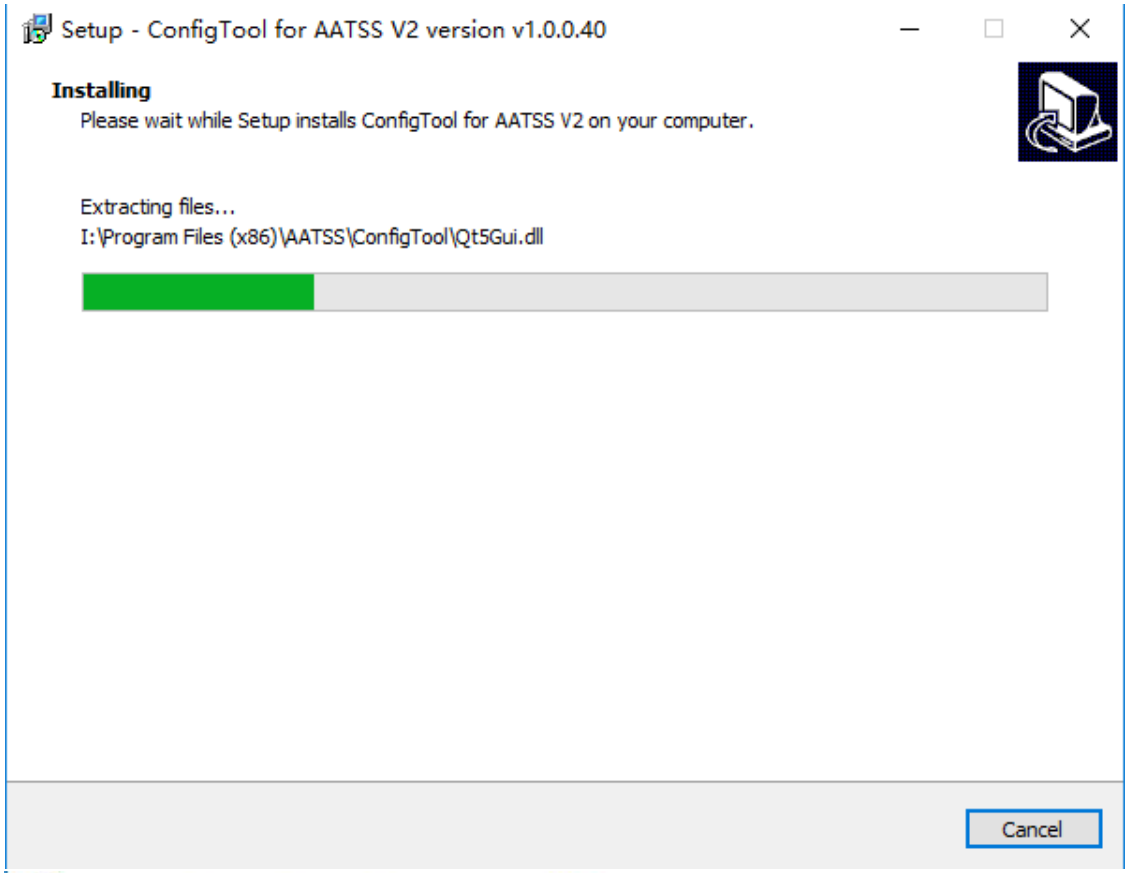
Installation steps:

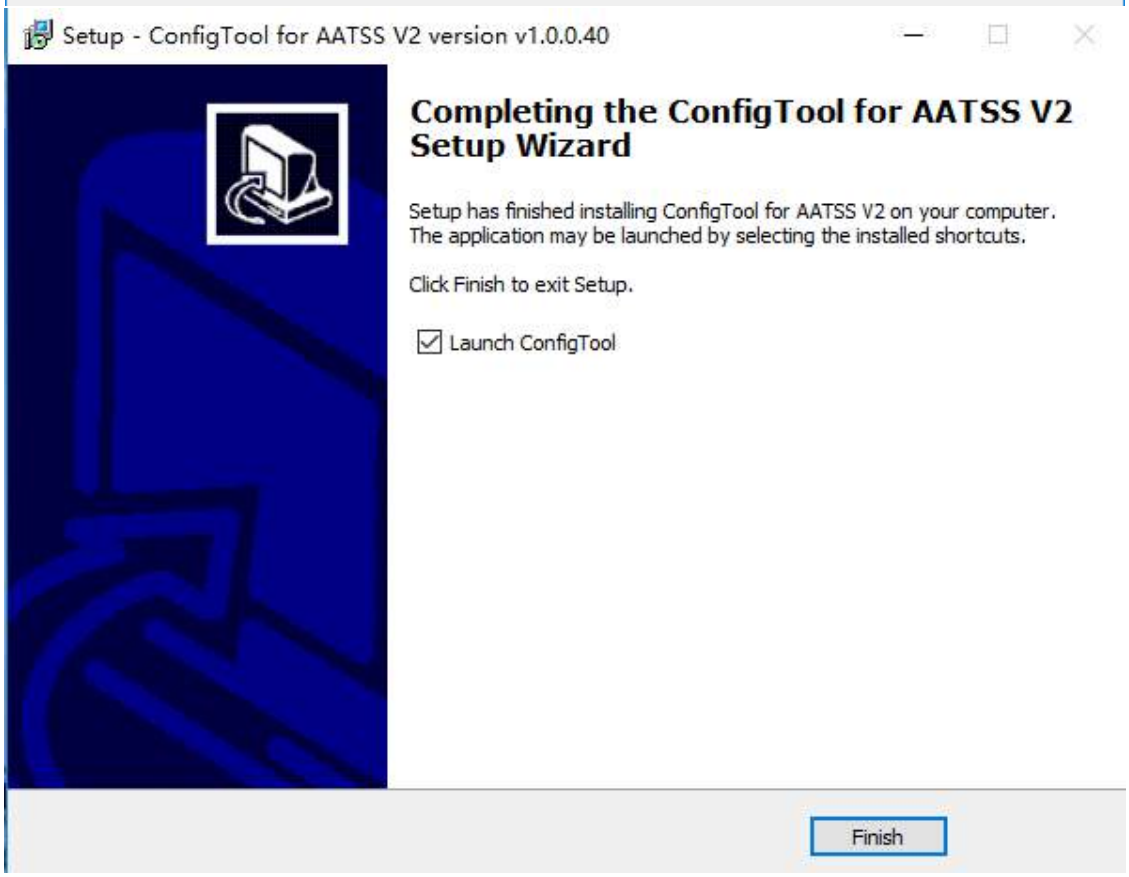
Download the ConfigTool, then install it like below:




Setup - ConfigTool for AATSS V2 version v1.0.0.40
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing ConfigTool for AATSS V2, then click Next.
Additional shortcuts:
Create a desktop shortcut
< Back
Next >
Cancel

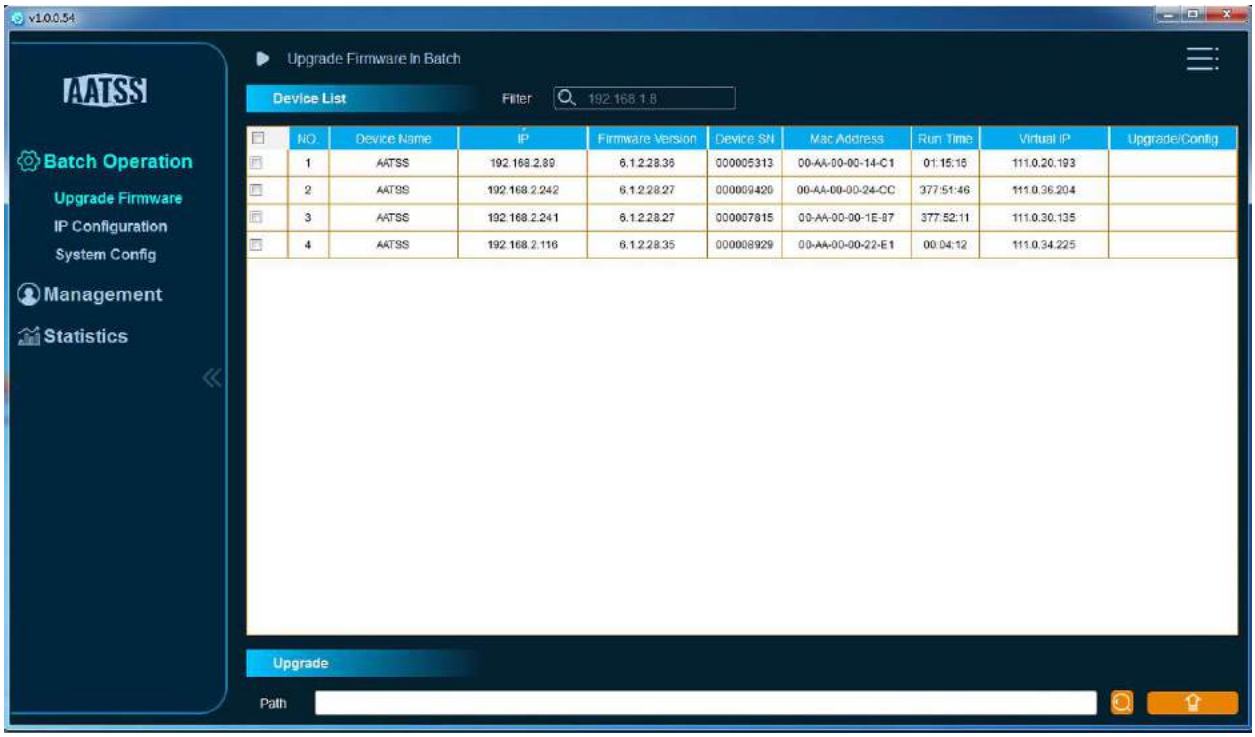

Setup - ConfigTool for AATSS V2 version v1.0.0.40
Ready to Install
Setup is now ready to begin installing ConfigTool for AATSS V2 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
I:\Program Files (x86)\AATSS\ConfigTool
Additional tasks:
Additional shortcuts:
Create a desktop shortcut
< Back
Install
Cancel


Setup - ConfigTool for AATSS V2 version v1.0.0.40
Installing
Please wait while Setup installs ConfigTool for AATSS V2 on your computer.
Extracting files...
I:\Program Files (x86)\AATSS\ConfigTool\Qt5Gui.dll
Cancel


Setup - ConfigTool for AATSS V2 version v1.0.0.40
Completing the ConfigTool for AATSS V2 Setup Wizard
Setup has finished installing ConfigTool for AATSS V2 on your computer.
The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch ConfigTool
Finish

◆ 4.2 Main interface

Here you can see a list of all your AATSS V3 devices, IP addresses, firmware versions and other details. You can apply updates to multiple devices through this terminal, as well as view data and adjust settings for individual devices.

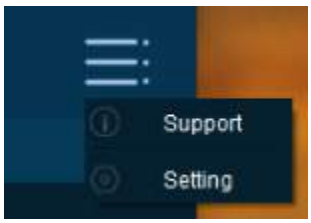


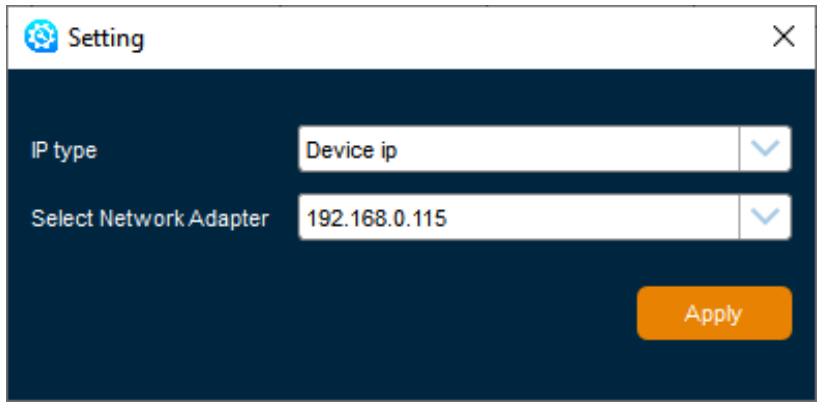
4.2.1 Support

Click “Support” to display software information.

4.2.2 Setting

Click “Settings”; if there is more than one NIC, and devices couldn’t be shown on the list, you need to change the IP address using Select Network Adapter, see below.

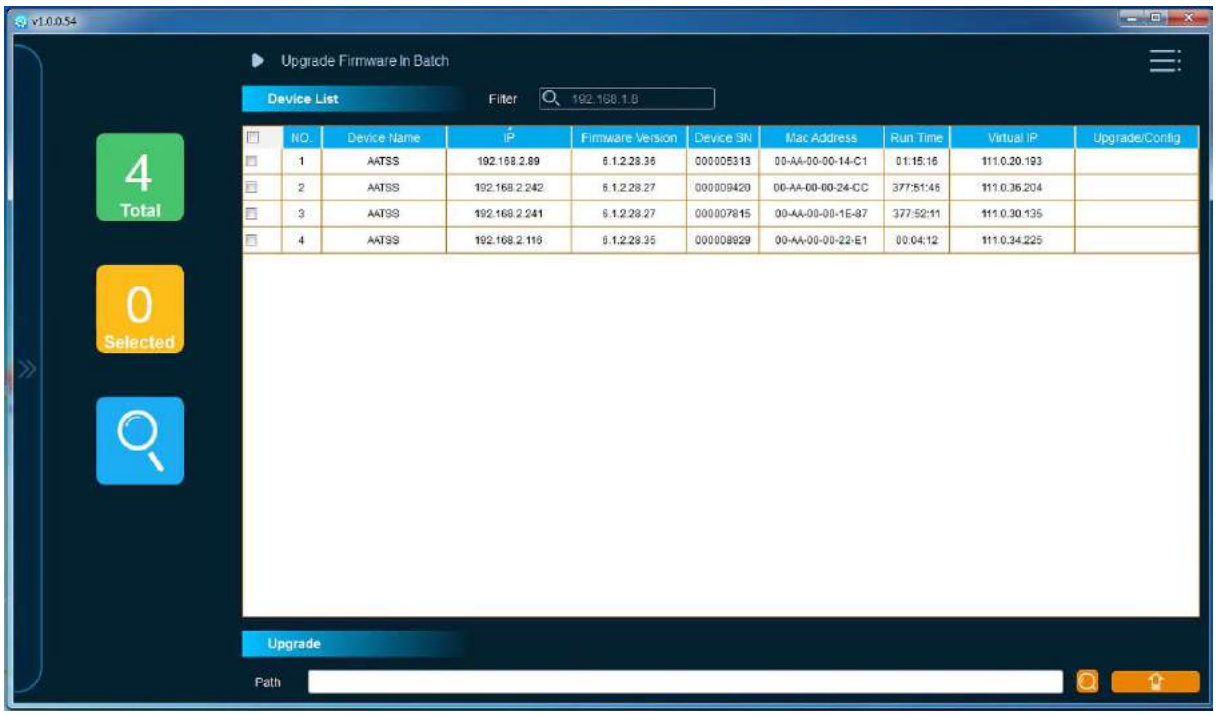




◆ 4.3 Batch Operation

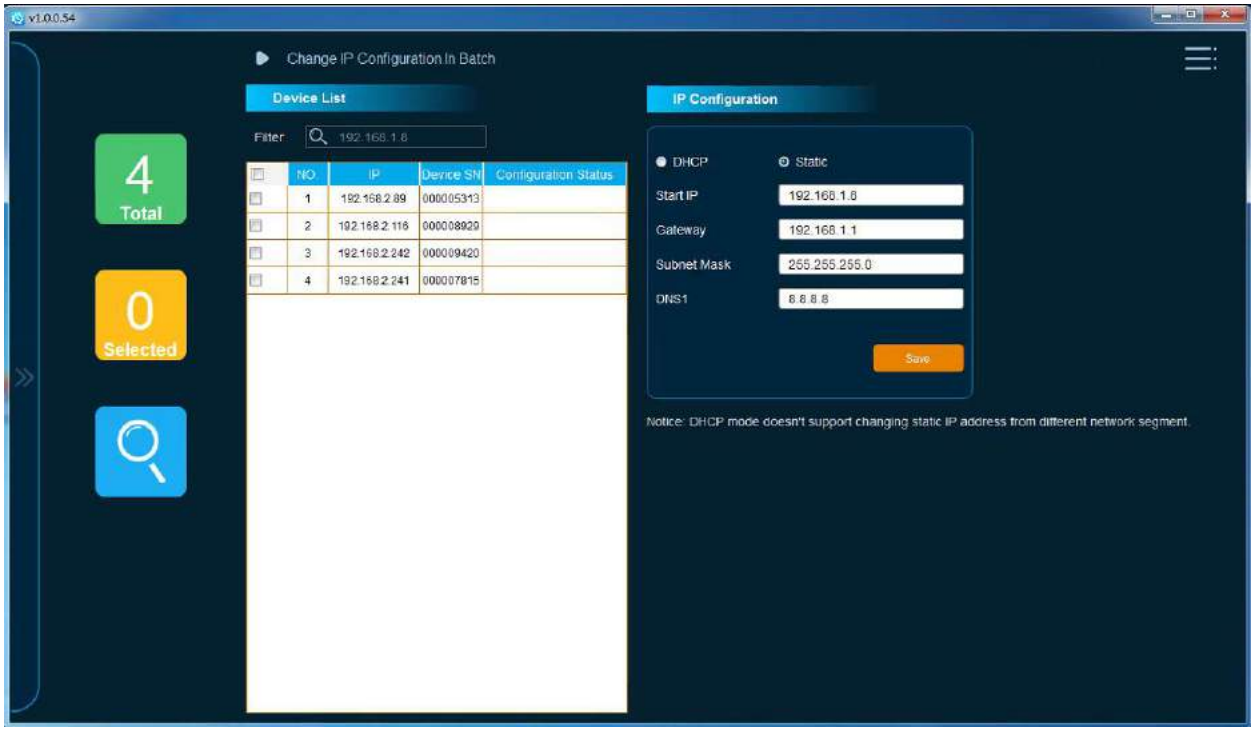
4.3.1 Upgrade Firmware in Batch

You can select multiple devices in the same network segment to upgrade the firmware. If there are devices in the multiple network segment, you can upgrade them in batches.



4.3.2 Change IP Configuration in Batch

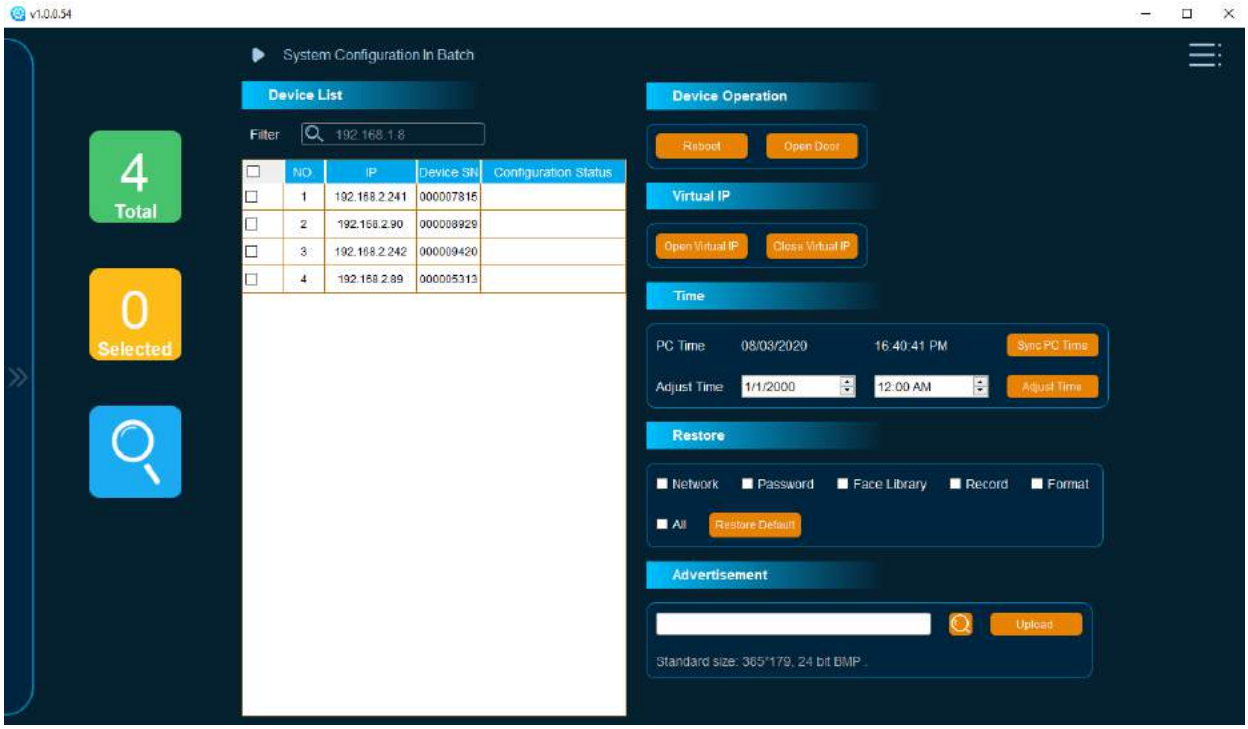
Select multiple devices to set the fixed IP address, enter the starting gateway IP and other IP parameters. The selected devices will be collected in order to configure the IP address.

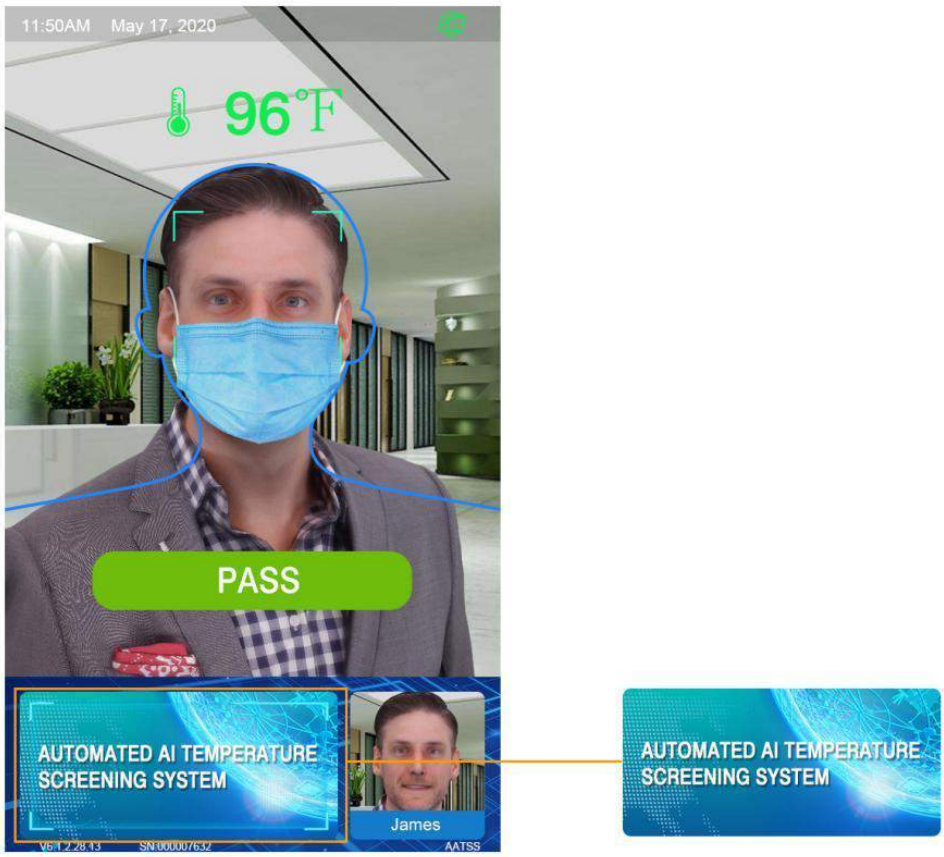


4.3.3 System Configuration in Batch

Select devices to batch operate the following functions:

Device Operation	Reboot	
	Open Door	
Virtual IP	Open Virtual IP	Virtual IP will be turned on when system cannot find the device
	Close Virtual IP	Close is the default setting
Time	Sync PC Time	Sync PC time
	Adjust Time	Automatically correct the device time according to the selected time zone (default automatic correction)
Restore		Restore factory setting of selected items
Advertisement	Upload	Customize the advertising image in the lower right corner of the device. Size: 385x179, 24-bit BMP

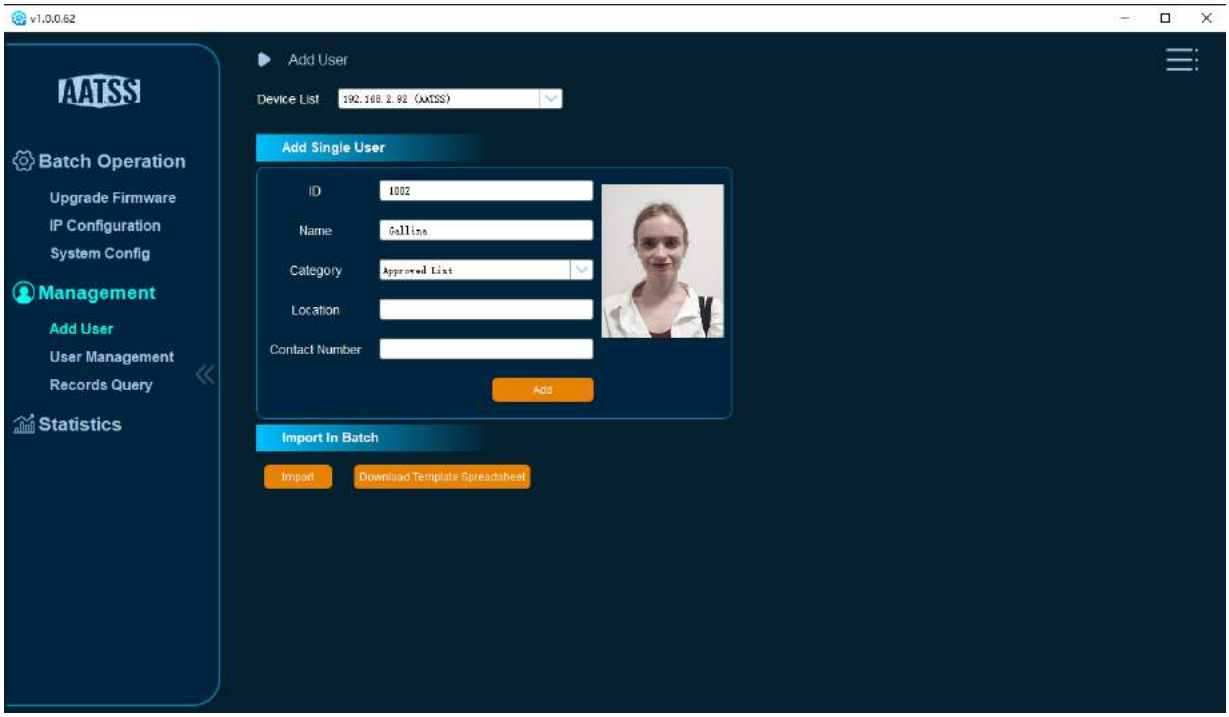




◆ 4.4 User

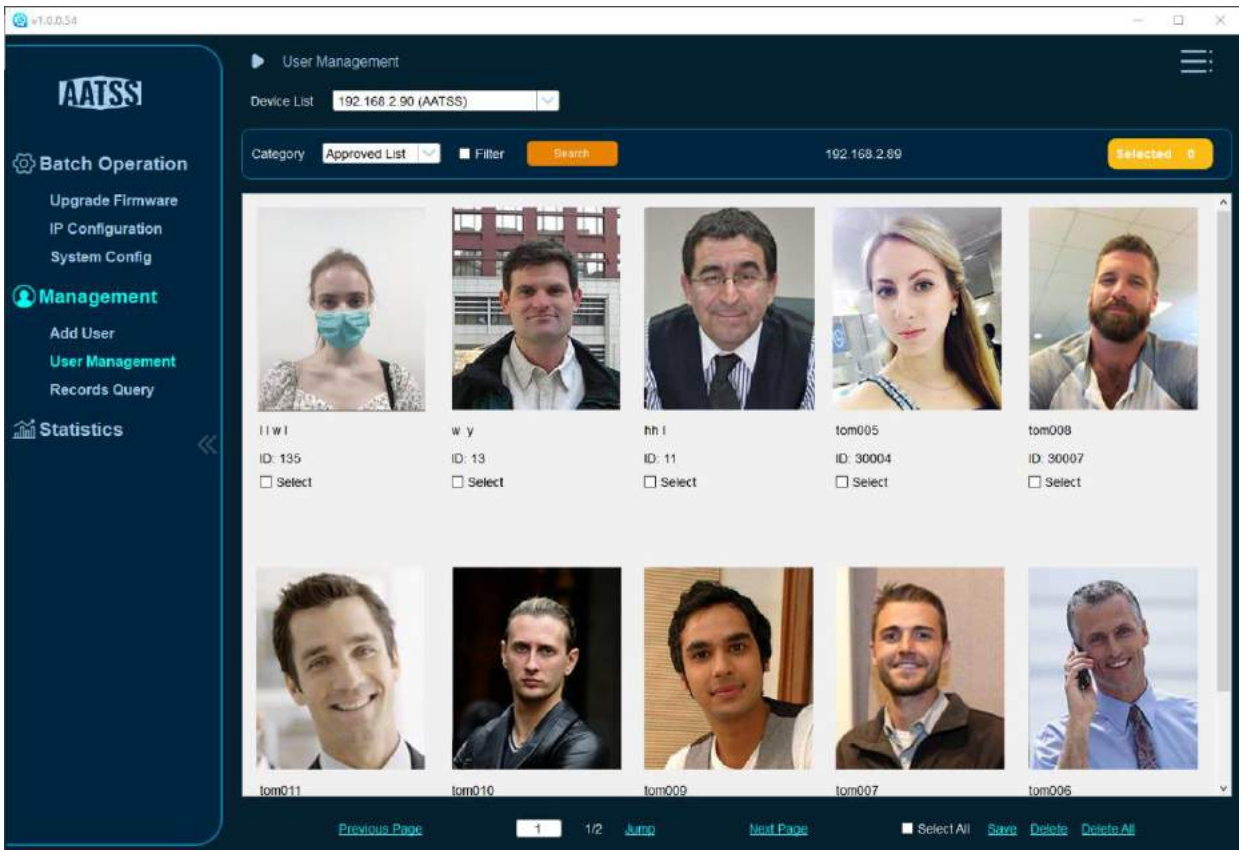
4.4.1 Add user

Here you may add users to the whitelist, blacklist and uncategorized databases.



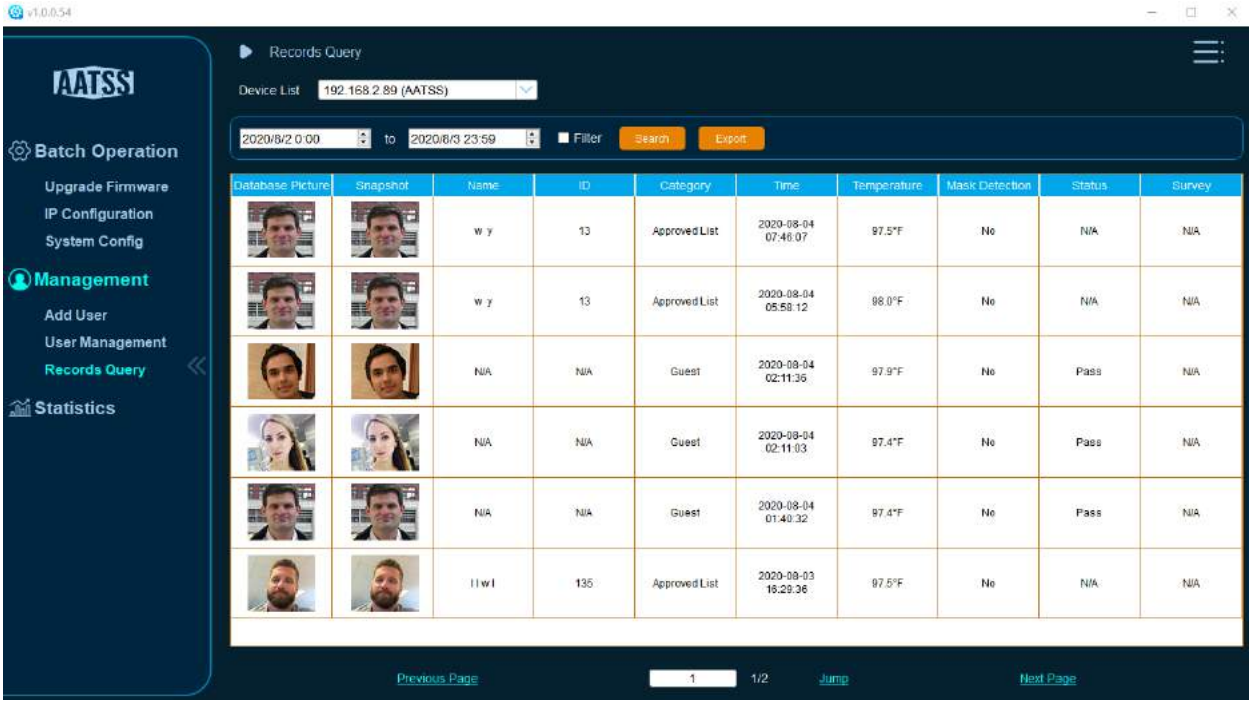
4.4.2 User management

Here you can edit user information.



4.4.3 Records query

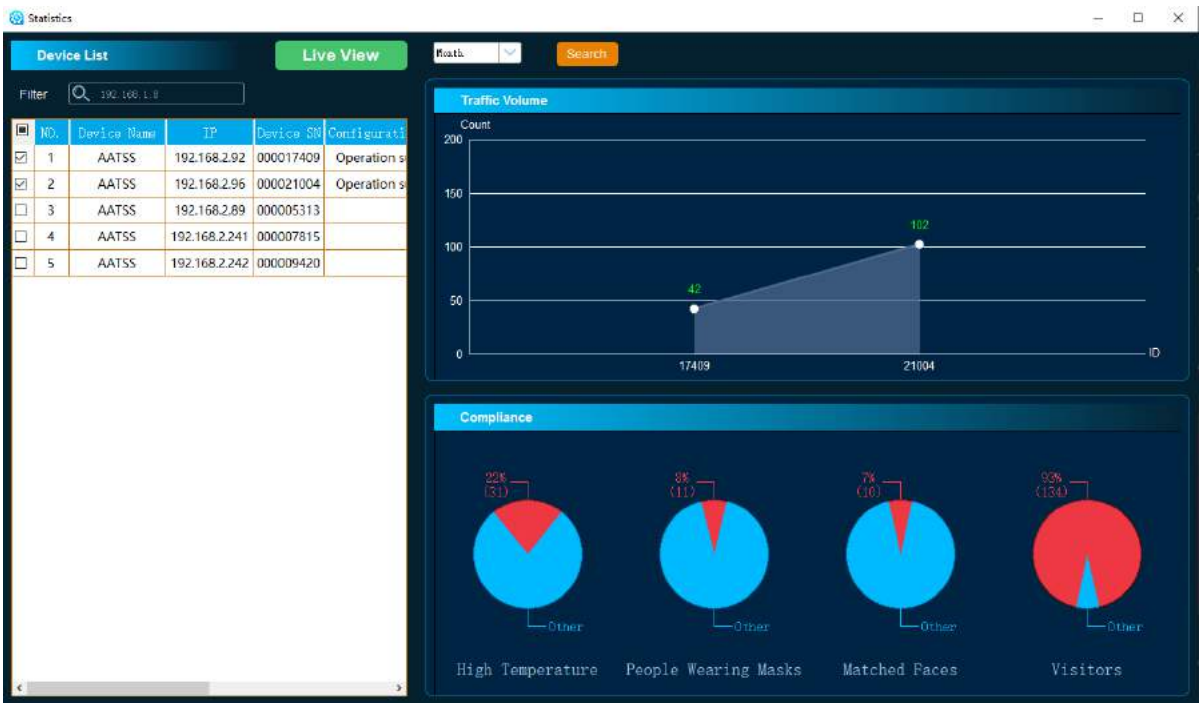
You can find all records here.



◆ 4.5 Statistics

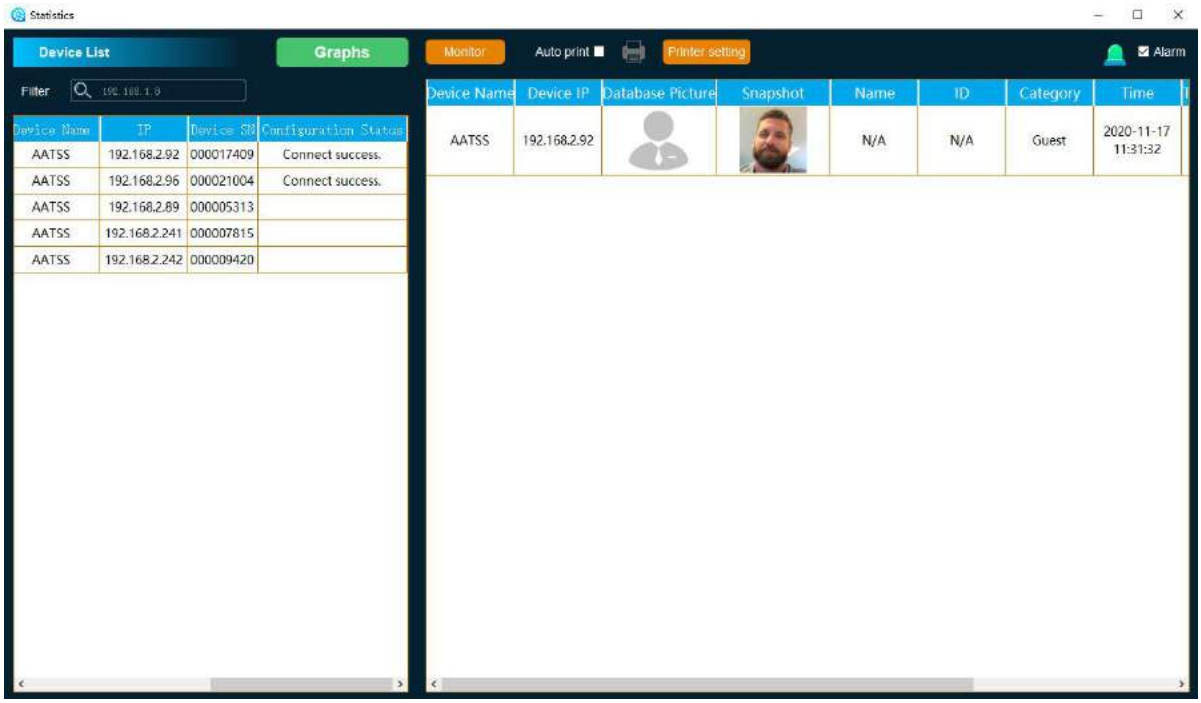
4.5.1 Graphs

Select one or more devices, then select a period of time (day, week, month), click “search”, and the total number of temperature scanning of the selected device during this period of time will be counted in the line chart.



4.5.2 Live View

This screen provides a live feed of all temperature screenings currently being conducted. If an abnormal temperature is detected, the system will provide an audible alarm to notify the person viewing the screen.



5. Maintenance

- Thermal infrared detection works best indoors. The AATSS V3 is resistant to sunlight interference and can be used outdoors, however, please avoid direct sunlight on the device or the face of the person being screened when possible. We recommend a well shaded area for best performance. Limit exposure to weather and rain.

- When installing the AATSS V3, please avoid heat sources such as vents and hot electronic equipment.

- Standard cleaning products can be used to clean the system.

- We recommend restarting the device once a day to ensure normal function

6. Specification

CAMERA	
Resolution	2 million pixels 1920x1080P
Type	120° wide-angle dynamic
Focusing Distance	3.6 mm

White Balancing	AUTO
SCREEN	
Resolution	600 x 1024
Size	7.0-inch IPS LCD Display
PROCESSOR	
CPU	Artosyn AR9021
Internal Storage Capacity	4 GB eMMC Automatic memory management. Can store 10000 log entries and 10,000 individual identities.
ACCESSORIES	
Fill Light	Dual fill light
INTERFACE	
Operating System	Linux
Network Module	Network Module Ethernet (Wi-Fi coming soon)
Audio	8R/1W
Relay Output	1 open door signal output (Dry contact)
LAN	1 RJ45 Ethernet socket
INFRARED THERMAL MODULE	
Temperature Detection Distance	0.5M – 1M
Measurement Resolution	0.018 °F
Temperature Measurement Accuracy	≤ ± 0.3°F (Medical Grade)
Temperature Measurement Range	96.8°F ~ 104°F
Abnormal Temperature Alarm	Customizable – Email/ SMS/ Push notification (Default is audible alarm)
GENERAL	
Power Supply	DC 12V
Operating Temp.	32°F - 95°F
Storage Temp.	60°F - 140°F
Power Consumption	6W
Dimensions	240x120x30mm
Weight	1.2kg/2.6 pounds

POE Splitter Input	DC 48V - 57V
POE Splitter Output	IEEE802.3AT IEEE802.3AF

7. Warranty

Full 1-year manufacturer warranty. (Extendable up to 3 years) More information.

Return within 14 days of receiving shipment for a full refund minus return shipping. If return is due to manufacturing defect all shipping costs will be covered.

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