RICHTECH®

Automated AI Temperature Screening System (AATSS)

Model V2 PRO
User Manual

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Second edition, June, 2020, revised by Jane Li.

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 the unit outside in the 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 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) V2 Pro is your company's first line of defense against COVID-19 and other infectious diseases. As a fully automated system, the AATSS V2 Pro 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 V2 Pro will protect your employees and facilitate the re-opening of your business.

The AATSS V2 Pro 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
- Security system integration capability through relay interface
- 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 higher
Internet Explorer: Version 10 or higher

Please follow the network setup tutorial on our website:

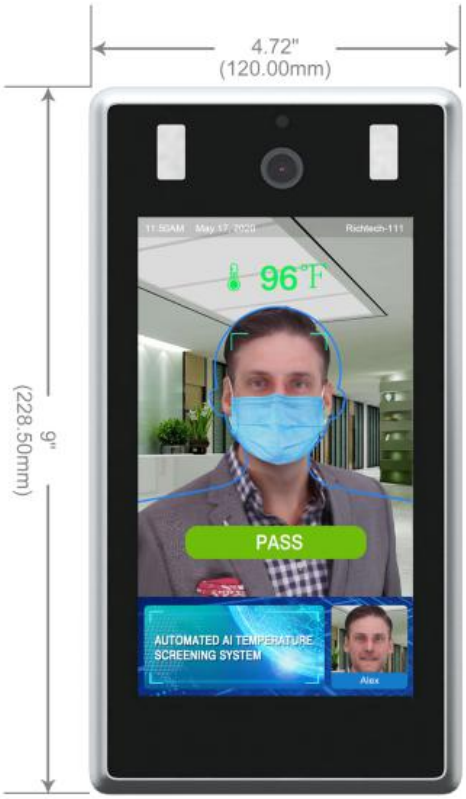
https://www.richtech-ai.com/tutorial-videos

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

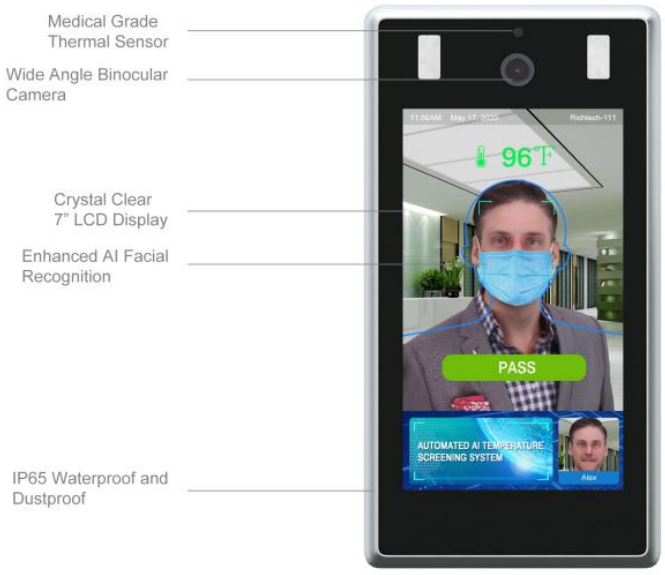
1.3.1 Device Structure

Front view



Side view

1.3.2 Screen and Icon

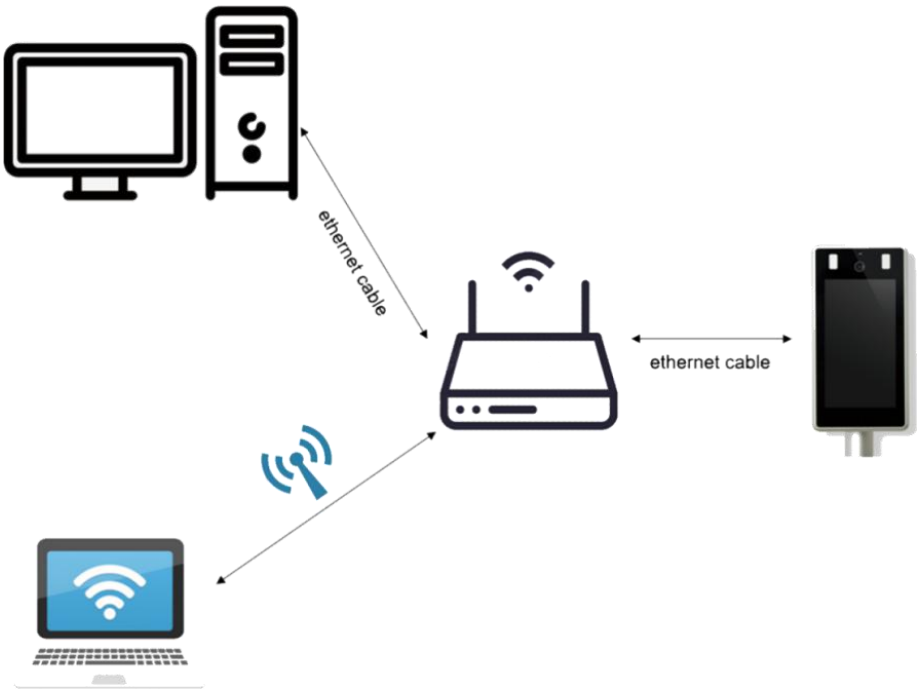


2. Software

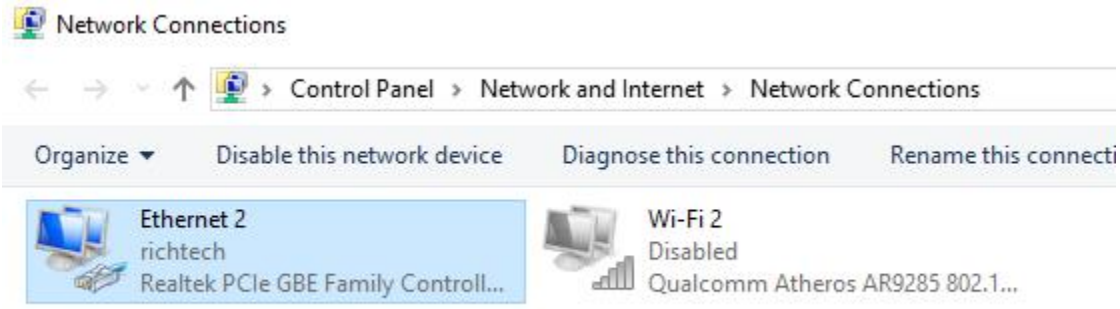
Note: We recommend using Windows 10 the manage the AATSS V2 Pro.

◆ 2.1 V2 Pro - Connect to the Network

If you need to manage the V2 Pro through a network, please connect the base to your router using an ethernet cable. See below:

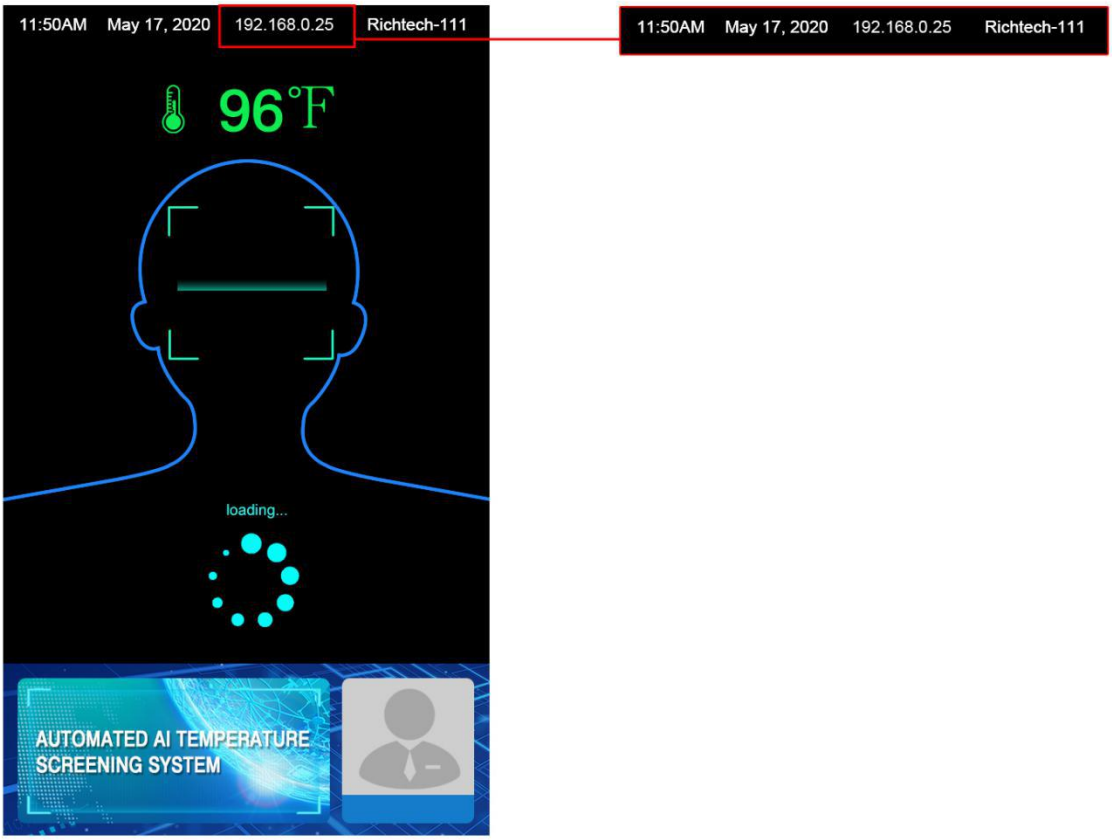


If there is more than one network interface card (NIC) in your PC, please choose the same network that connected to your V2 Pro, and disable the other NIC. See below.



For units purchased in June 2020, the default IP address of the V2 Pro unit is **192.168.1.8** (Sometimes it may be 192.168.0.8)

Newer versions will show the IP address on the screen 20 seconds after the device is switched on. The IP address will be shown for 1 min at most. See the below example where the IP address is 192.168.0.25



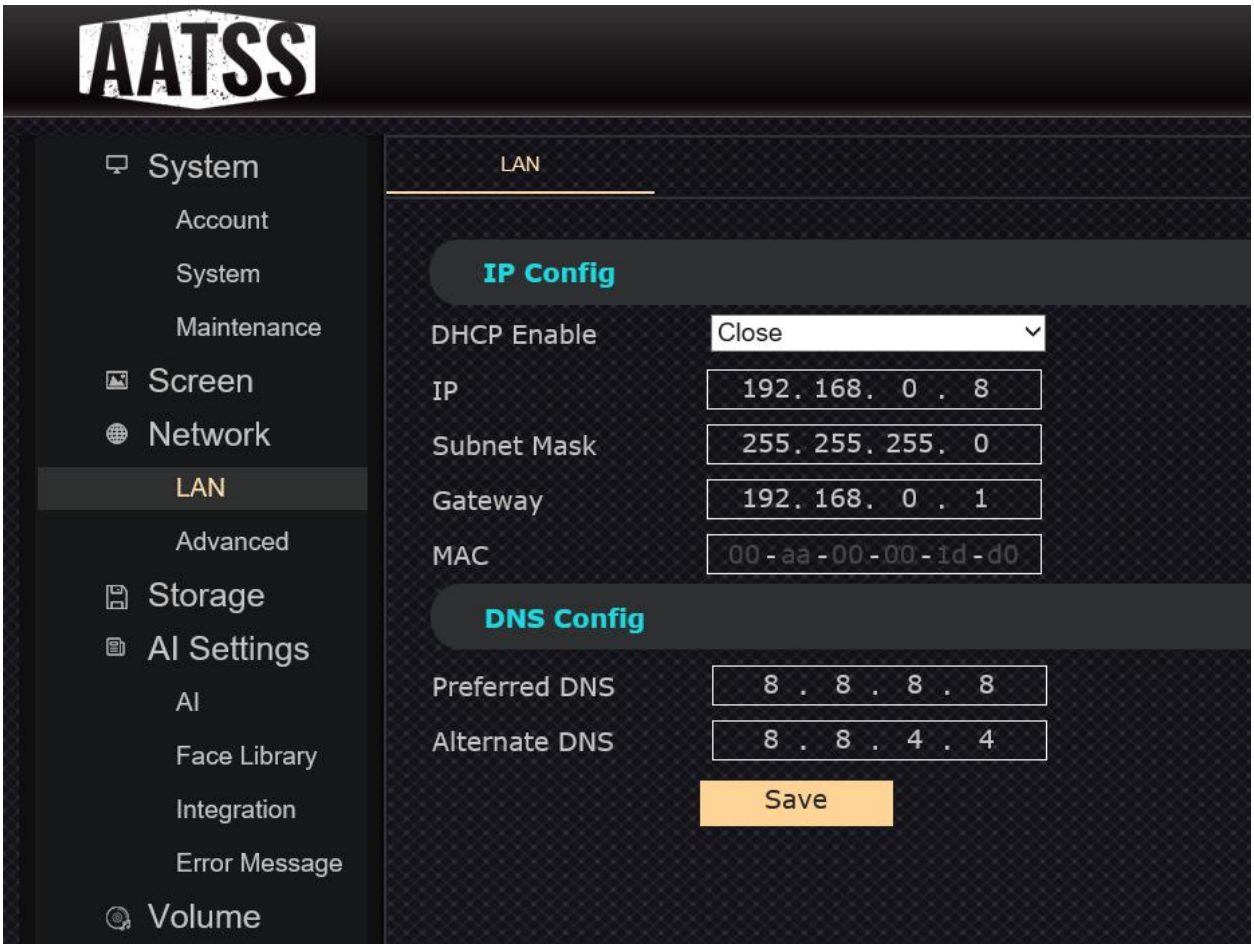
◆ 2.2 Setting of V2 Pro IP address

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

Default username: admin

Password: 123456

In Network-> LAN, please select "Close" in DHCP Enable. Then click the "Save" button to save the new settings.

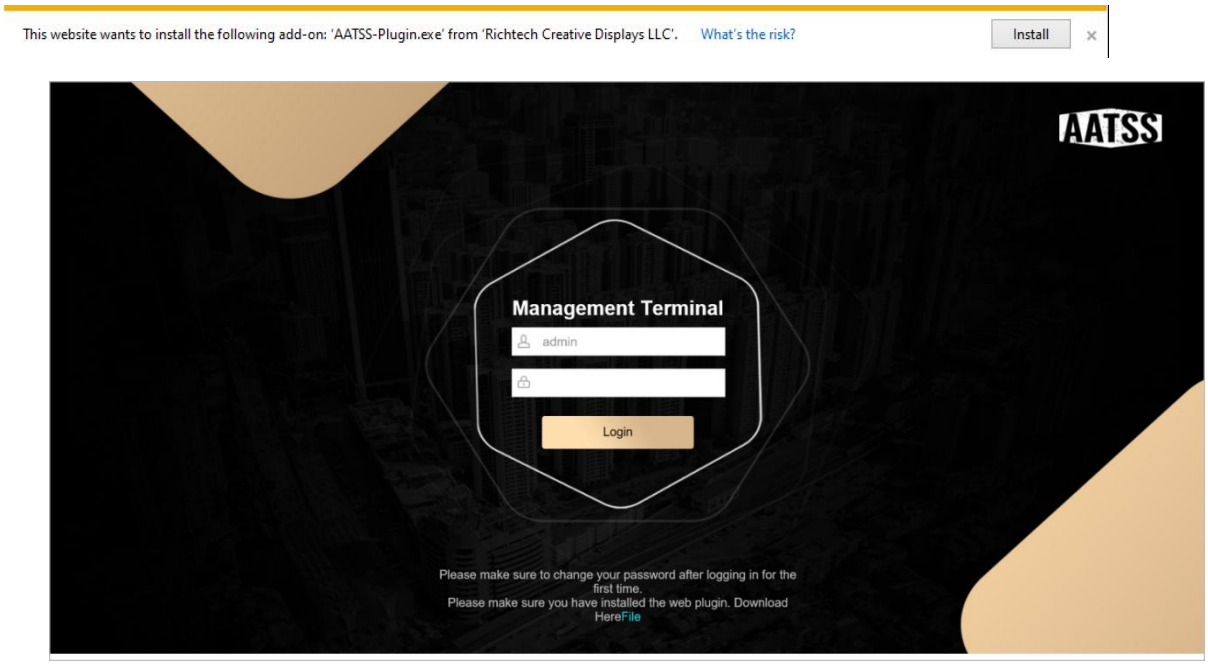


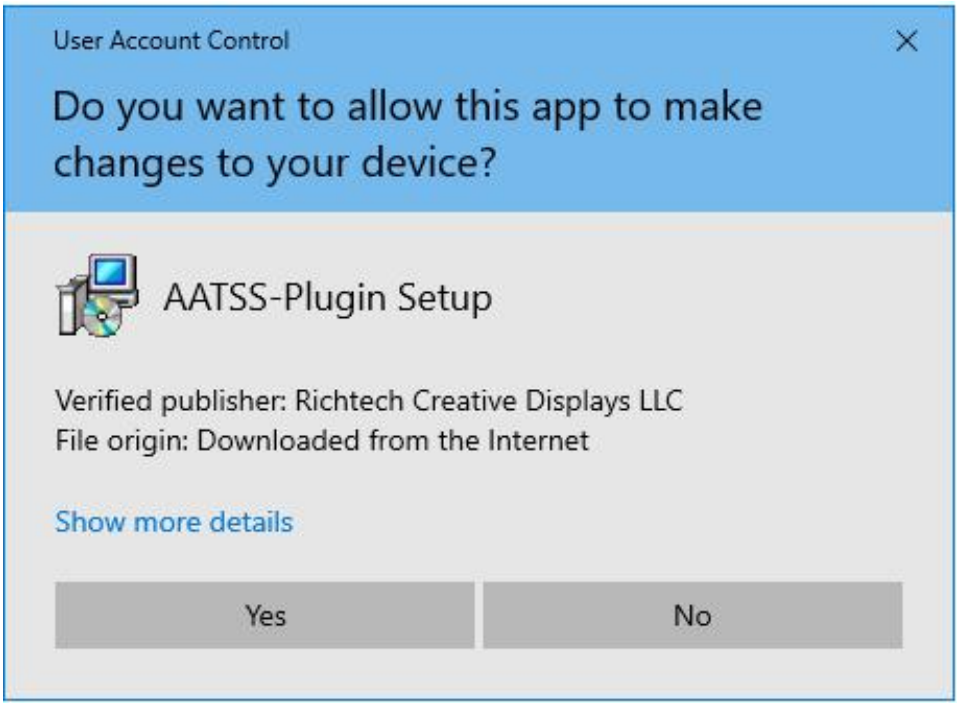
The V2 Pro will reboot again, and the IP address will be adjusted to the static IP address, e.g. 192.168.0.25. Gateway is 192.168.0.1

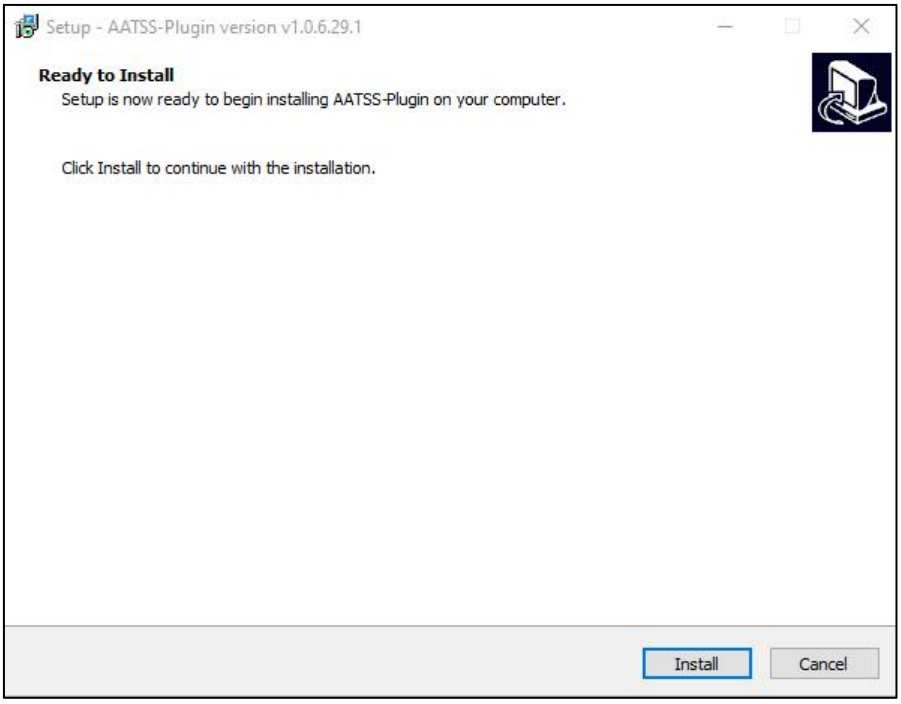
3. Management Terminal (Web)

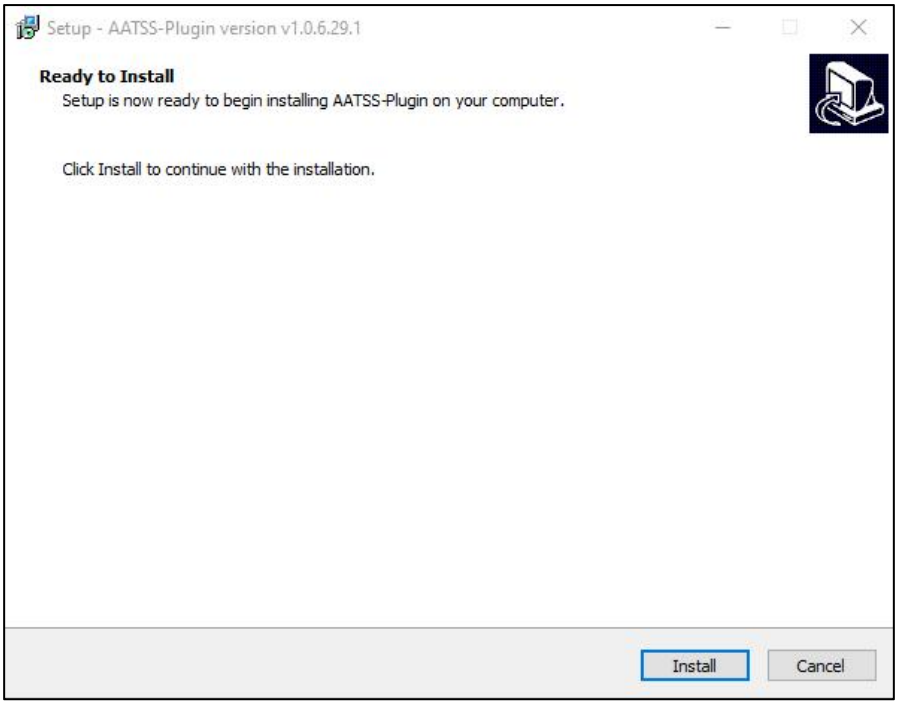
◆ 3.1 Login Interface

When you launch the Management Terminal (web) for the first time, please input the device IP address, e.g. http://192.168.0.8 It will then prompt you to install the extension, please click "Install" to complete the installation as follows.



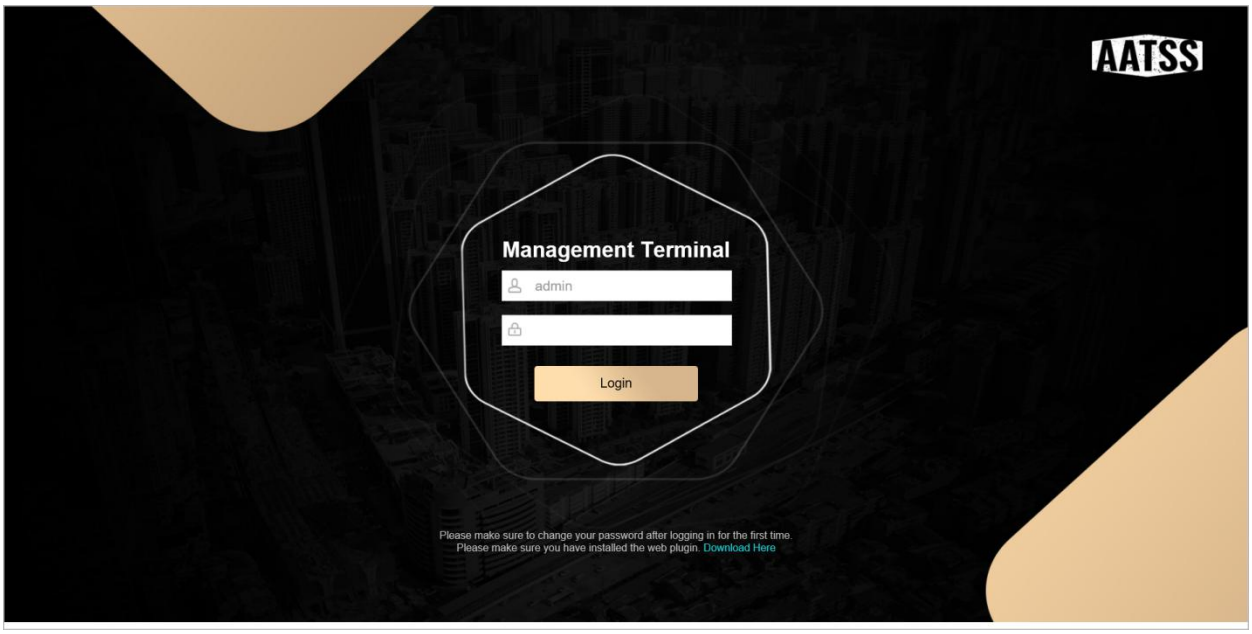



Setup - AATSS-Plugin version v1.0.6.29.1
Ready to Install
Setup is now ready to begin installing AATSS-Plugin on your computer.
Click Install to continue with the installation.
Install
Cancel

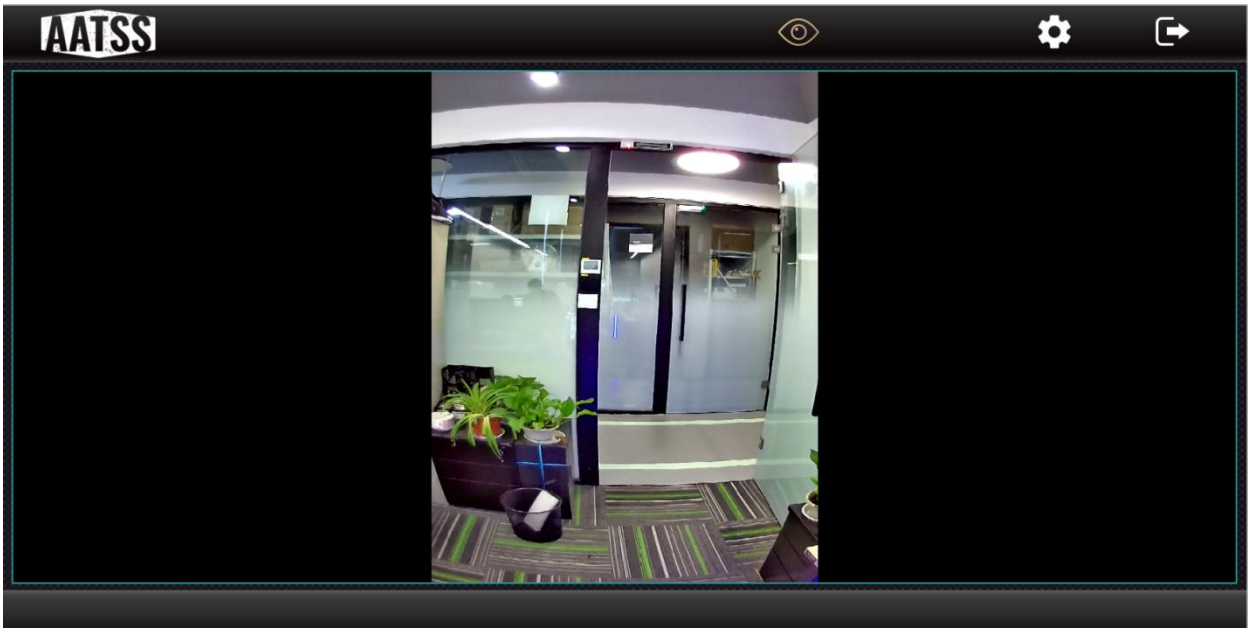

Setup - AATSS-Plugin version v1.0.6.29.1
Ready to Install
Setup is now ready to begin installing AATSS-Plugin on your computer.
Click Install to continue with the installation.
Install
Cancel

Default username: admin

Password:123456



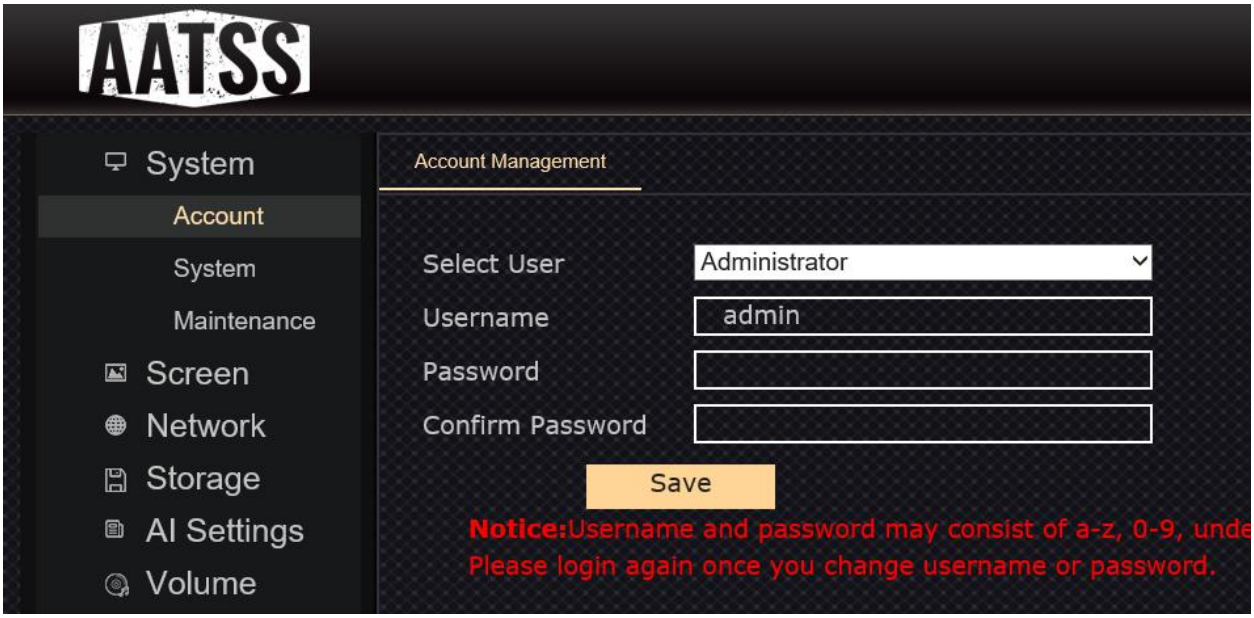
Camera live feed: real-time monitoring screen



◆ 3.2 Settings

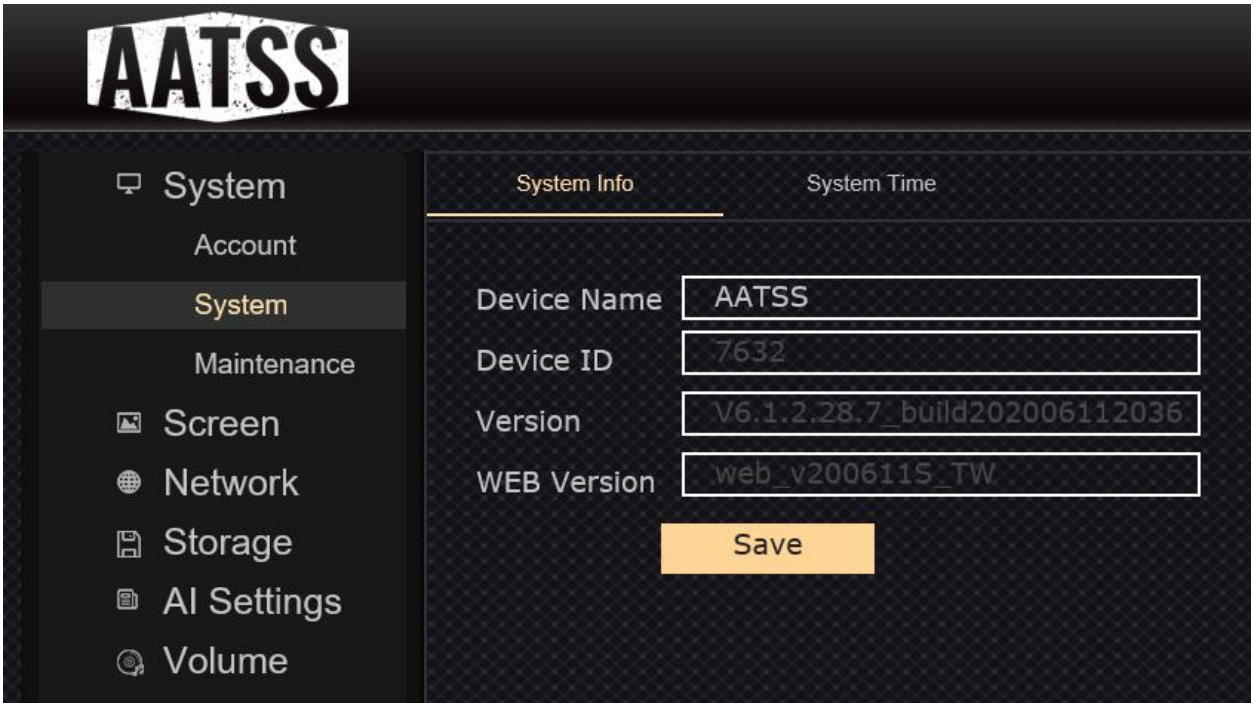
3.2.1 Account

You may change the username and password, and add a user that only has access to the browse date, with no permission to change settings.

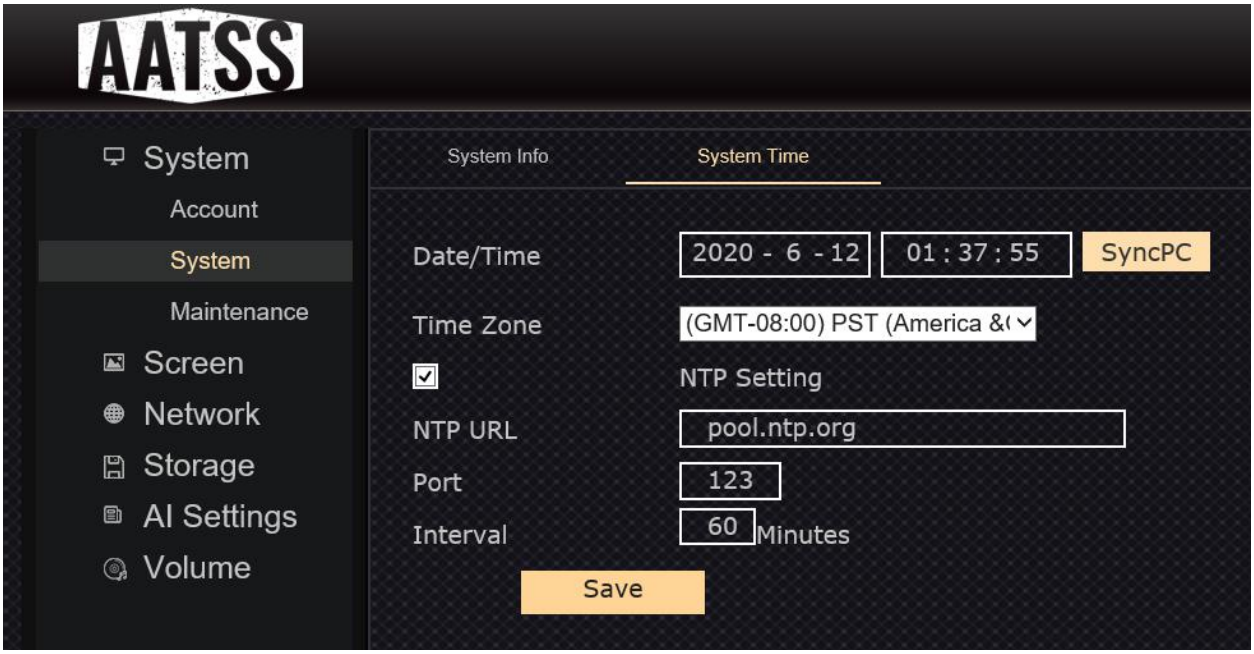


3.2.2 System

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



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



3.2.3 Maintenance

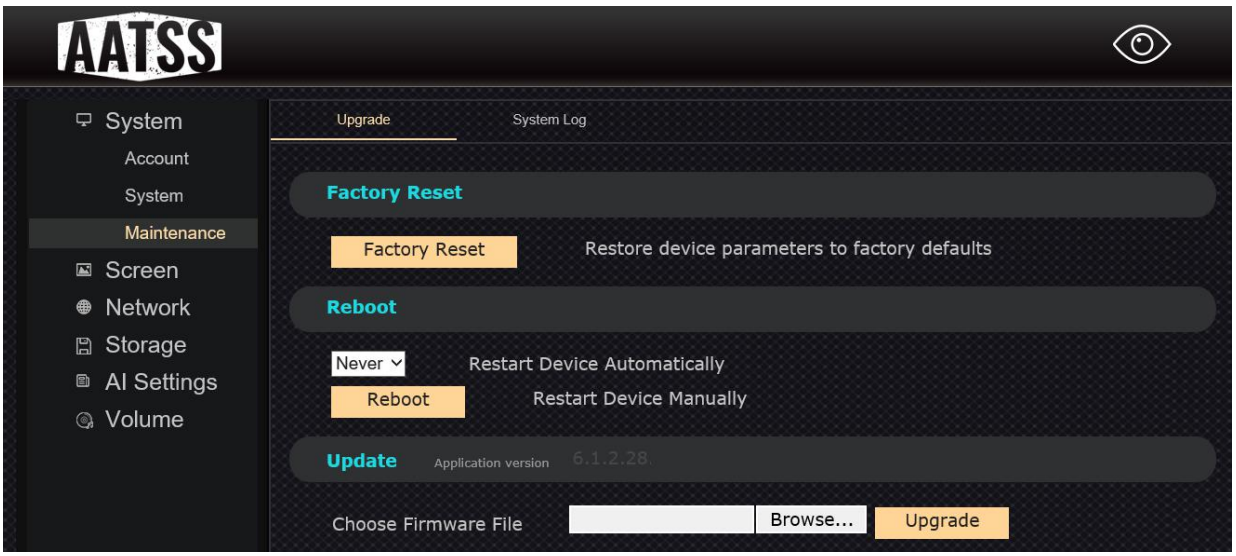
a. Upgrade

Step 1: Click “Browse” and select the firmware update file(s)

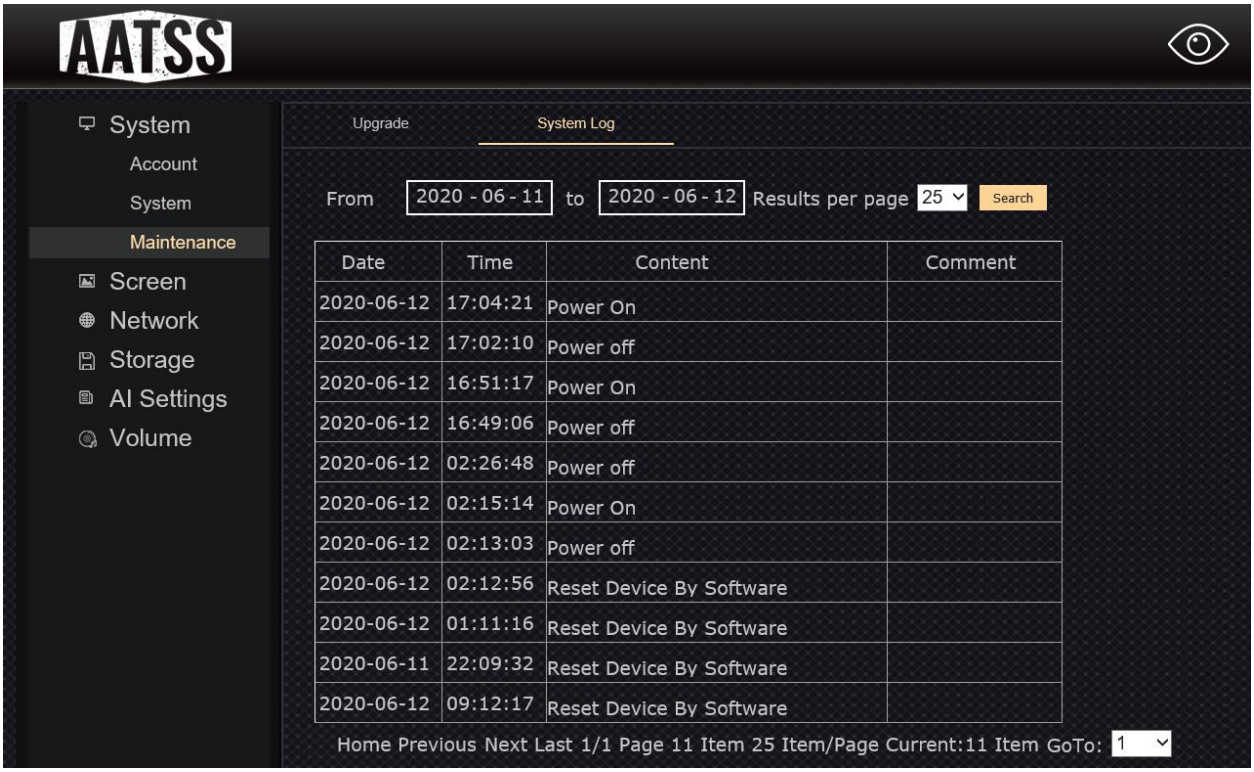
Step 2: Click “client upgrade” to update the system

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

Reboot – Choose how often you wish to refresh the system

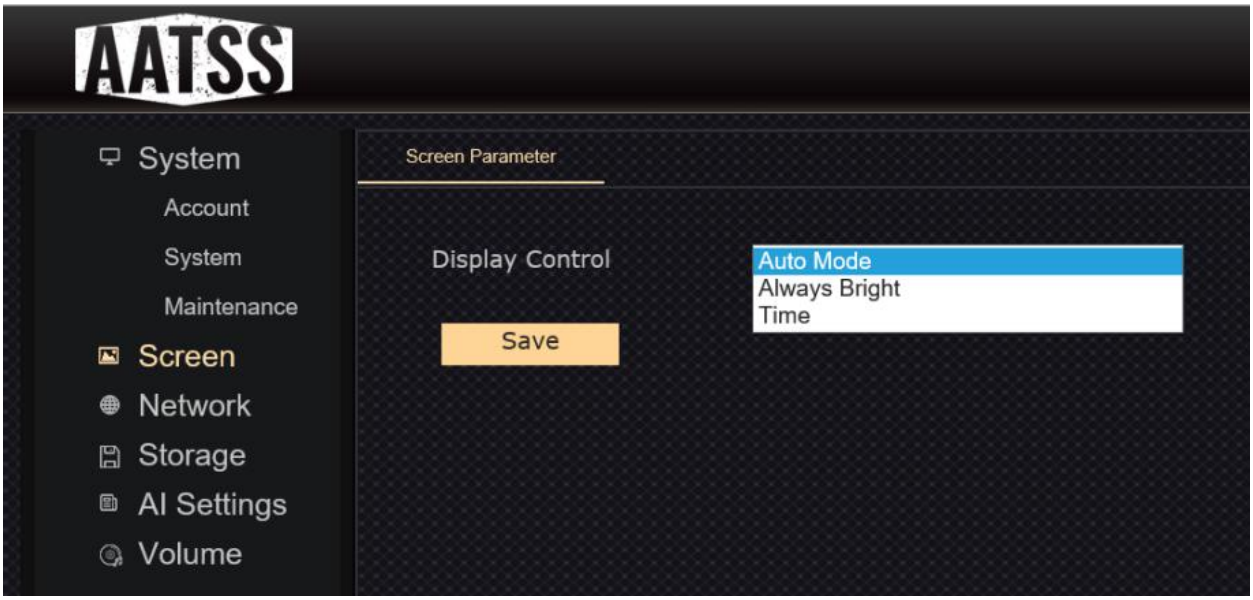


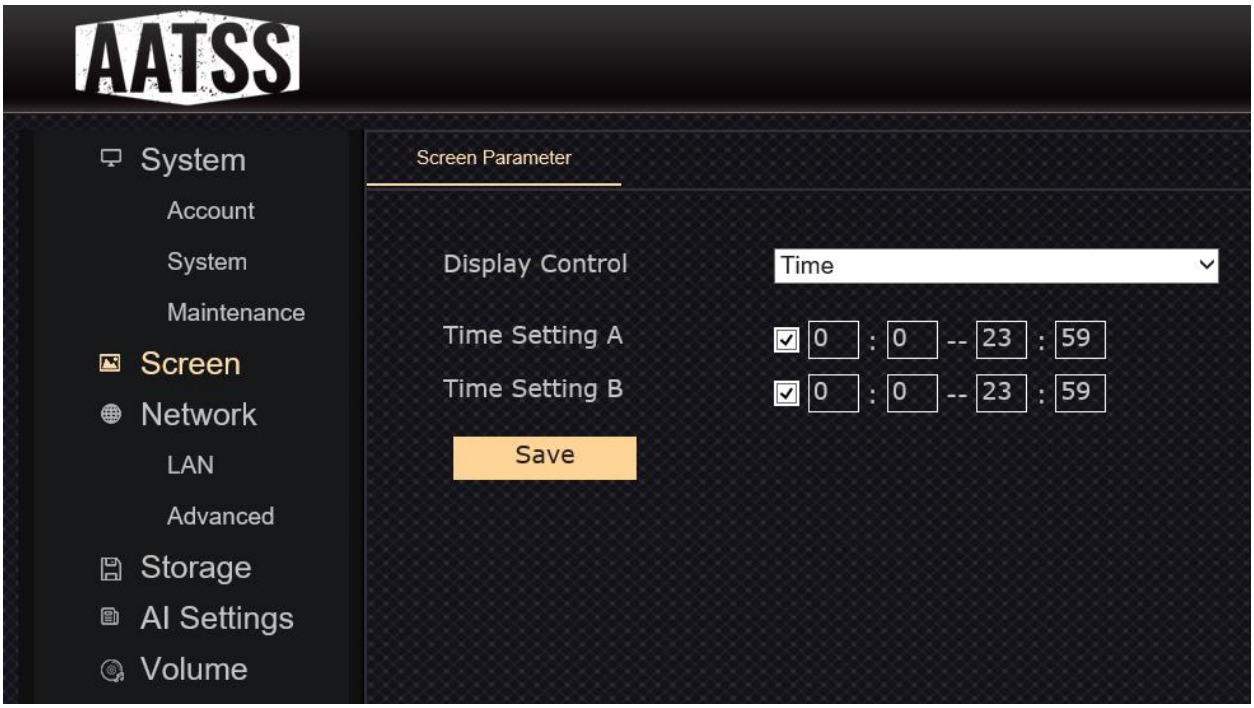
b. System Log



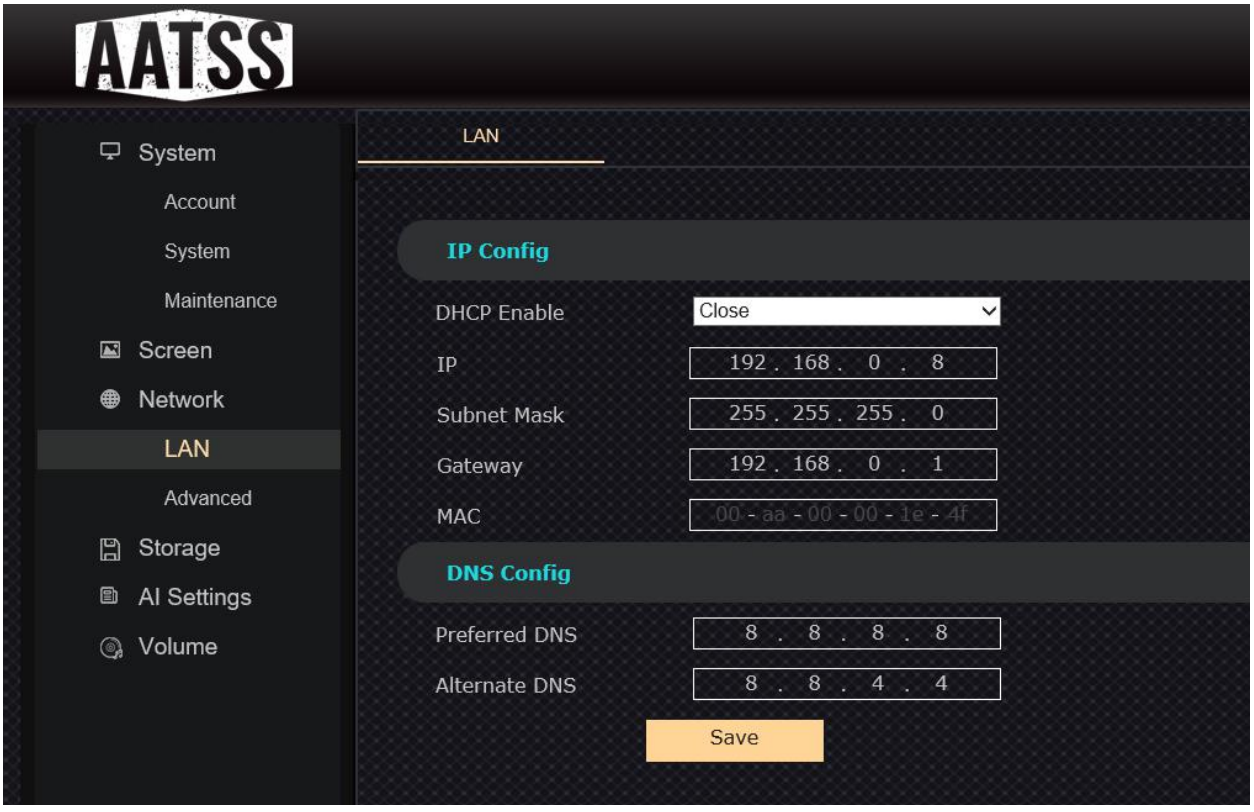
3.2.4 Screen

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




AATSS
System
Account
System
Maintenance
Screen
Network
LAN
Advanced
Storage
AI Settings
Volume
Screen Parameter
Display Control
Time
Time Setting A
0 : 0 -- 23 : 59
Time Setting B
0 : 0 -- 23 : 59
Save

3.2.5 Network

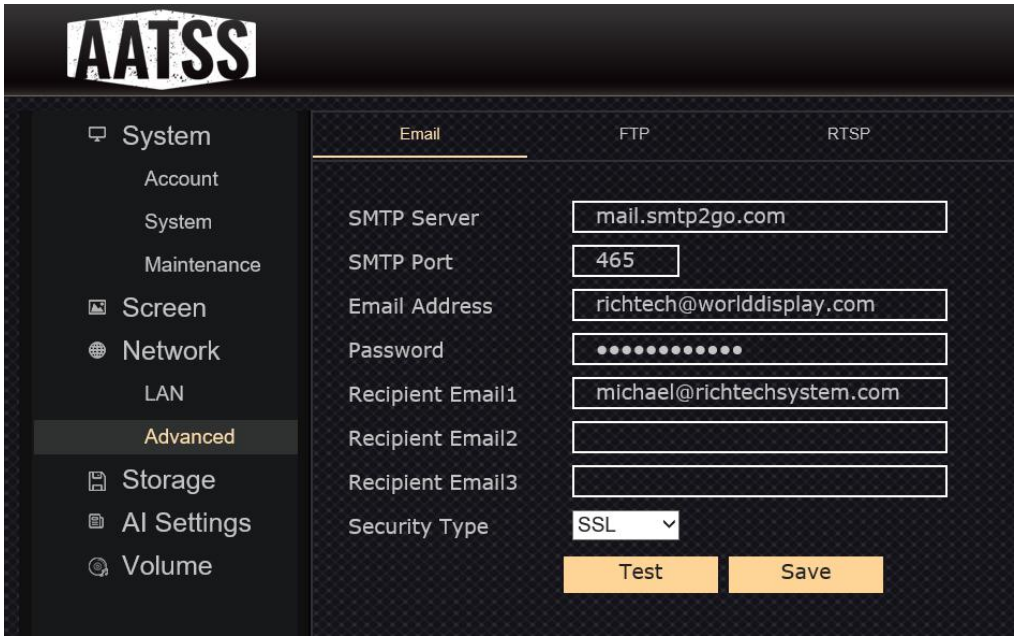

AATSS
System
Account
System
Maintenance
Screen
Network
LAN
Advanced
Storage
AI Settings
Volume
LAN
IP Config
DHCP Enable
Close
IP
192 . 168 . 0 . 8
Subnet Mask
255 . 255 . 255 . 0
Gateway
192 . 168 . 0 . 1
MAC
00 - aa - 00 - 00 - 1e - 4f
DNS Config
Preferred DNS
8 . 8 . 8 . 8
Alternate DNS
8 . 8 . 4 . 4
Save

3.2.6 Advanced

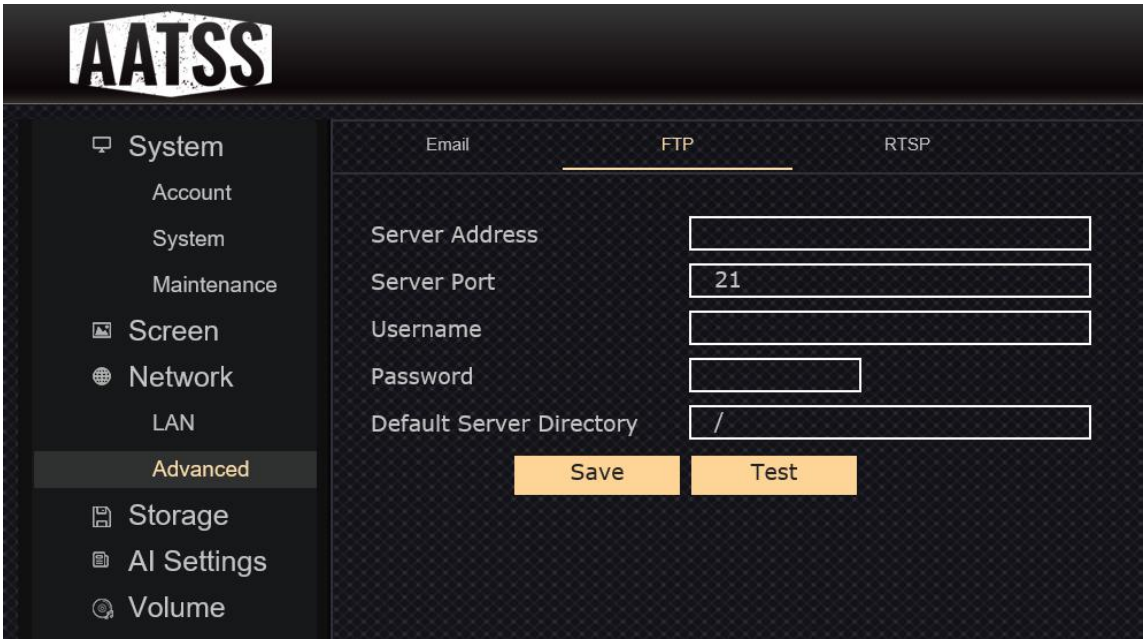
a. Email – An alert will be sent to the recipient email addresses when an abnormal temperature is detected.

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).

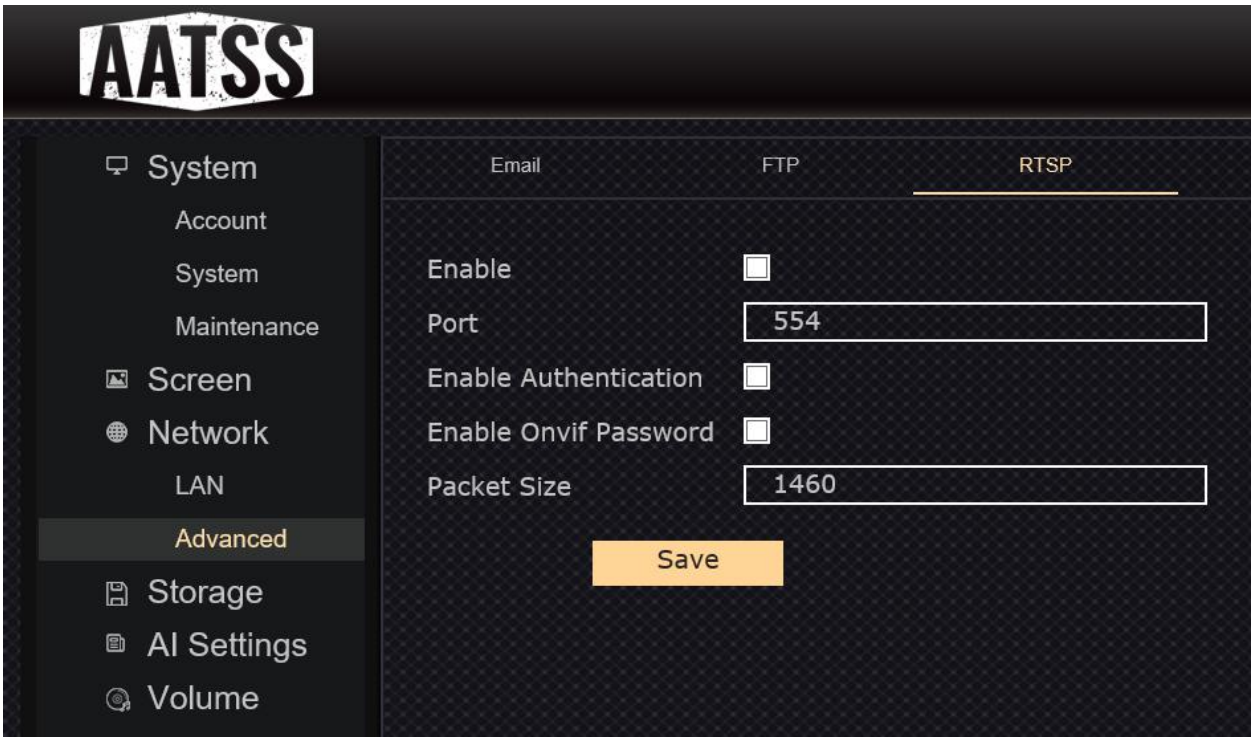
Carrier	Email Format
AT&T	number@txt.att.net
T-Mobile	number@tmomail.net
Verizon	number@vtext.com
Sprint	number@messaging.sprintpcs.com
Xfinity Mobile	number@vtext.com
Virgin Mobile	number@vmobl.com
Metro PCS	number@mymetropcs.com
Boost Mobile	number@sms.myboostmobile.com
Cricket	number@sms.cricketwireless.net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



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

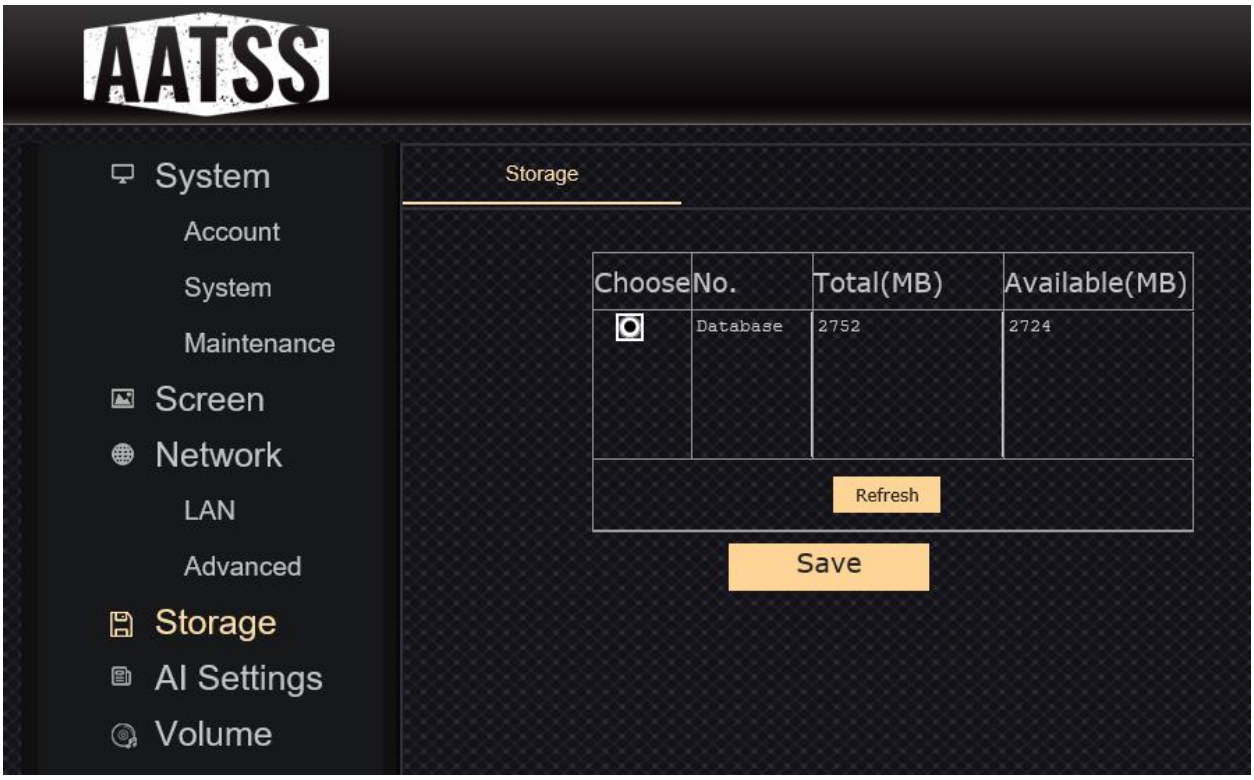


c. RTSP – Full camera feed streaming; provides easy integration with existing security camera systems.

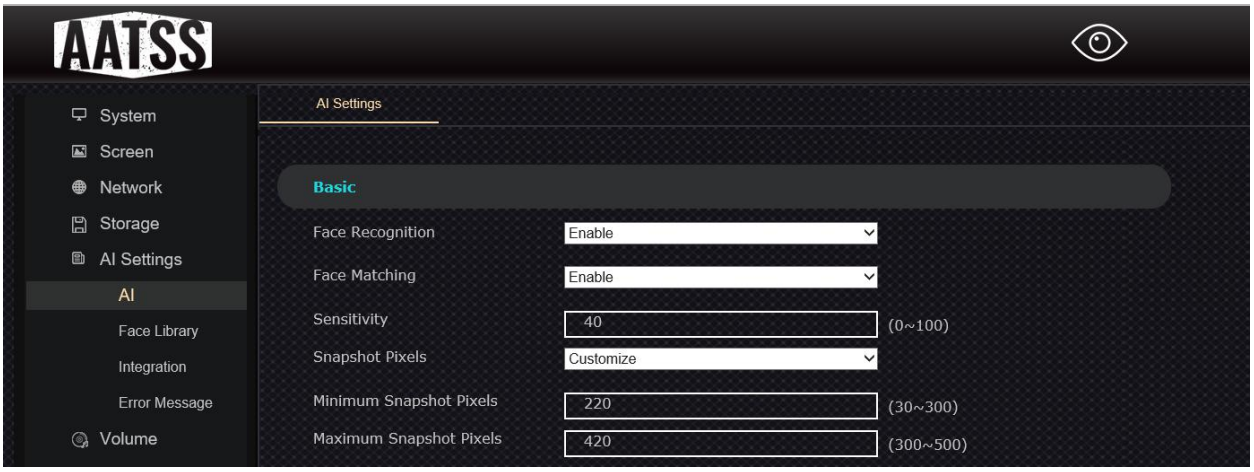


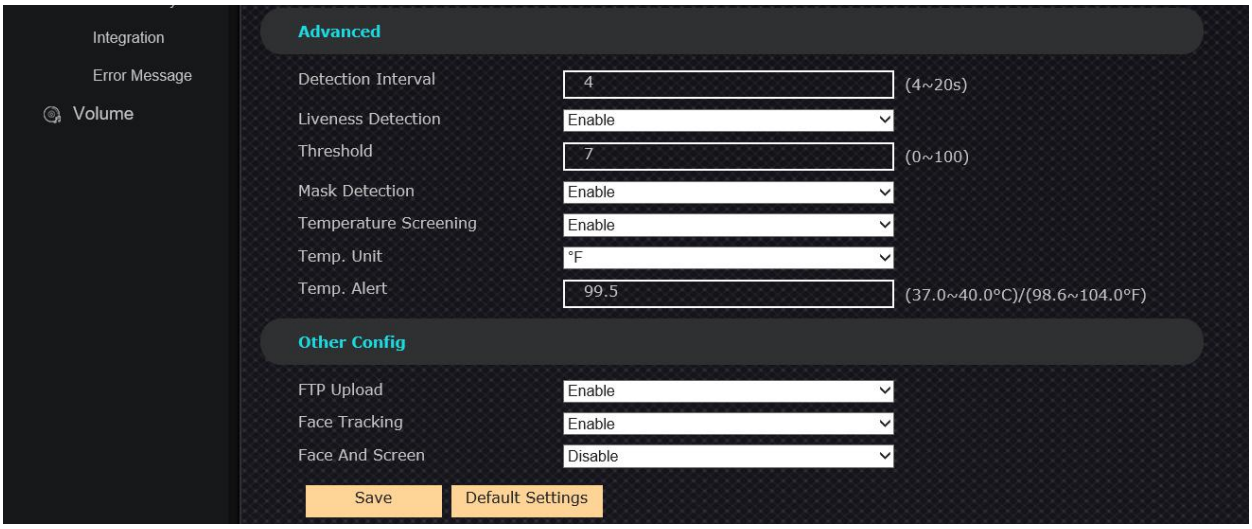
3.2.7 Storage

You can view the device's available storage here.



3.2.8 AI settings



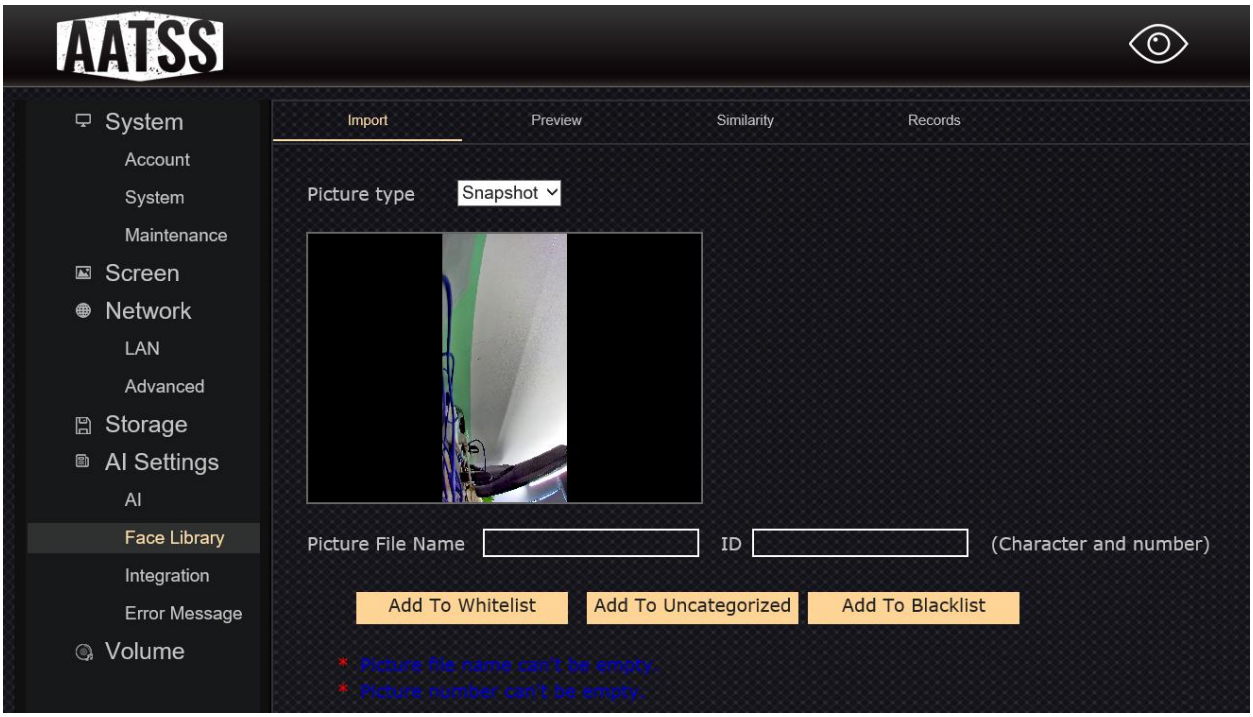


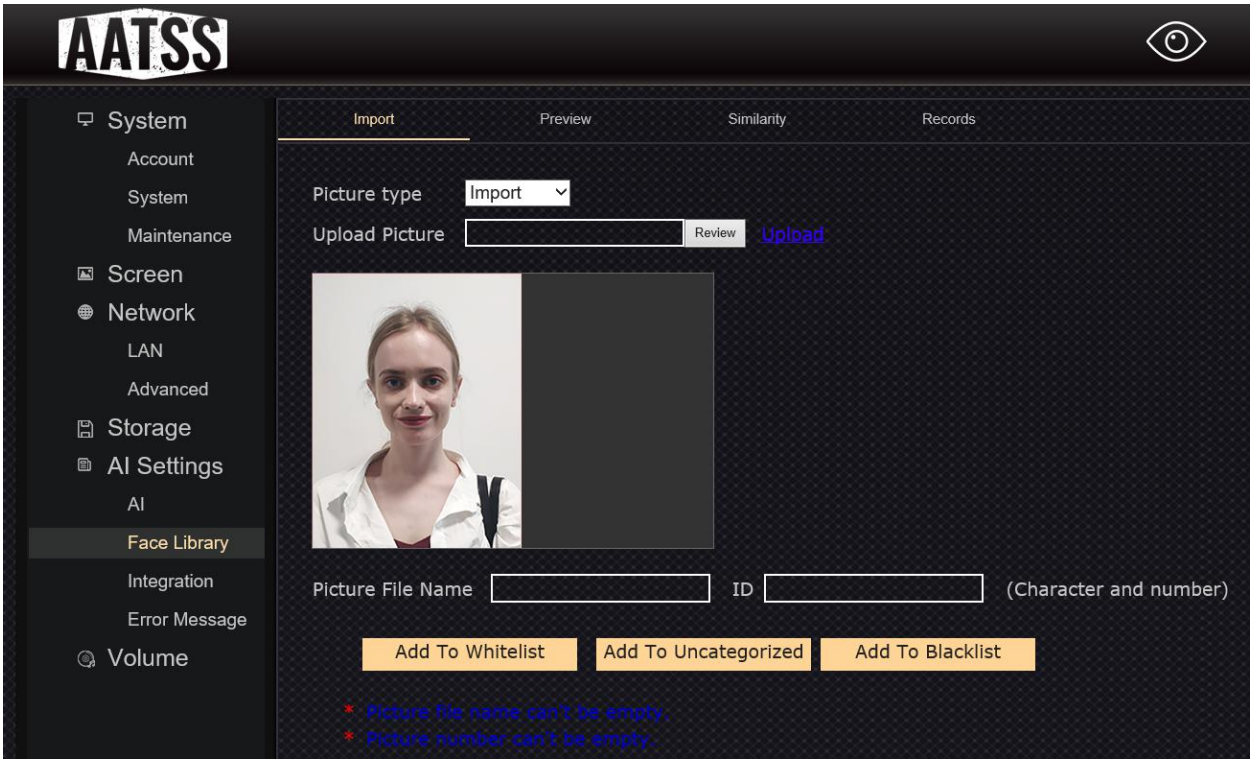
Basic	Default	Options
Face Recognition	Enable	Enable Disable
Face matching	Enable	Enable Disable (You must enable face matching in order to see this option under Integration)
Sensitivity	40	0-100 (The lower the setting, the faster the system can recognize faces. However, it may recognize other objects as faces if the setting is too low)
Snapshot pixels	Customize/Automatic	
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	

Mask Detection	Enable	Enable: Detect face masks Disable
Temperature Screening	Enable	Enable: Disable:
Temp.Unit		Celsius or Fahrenheit
Temp.Alert		Range： (98.6-99.5°F) (37.0-37.5°c)
Other Config		
FTP Upload	Enable	
Face Tracking	Enable	Enable: Green square will be shown on the screen to display face tracking Disable

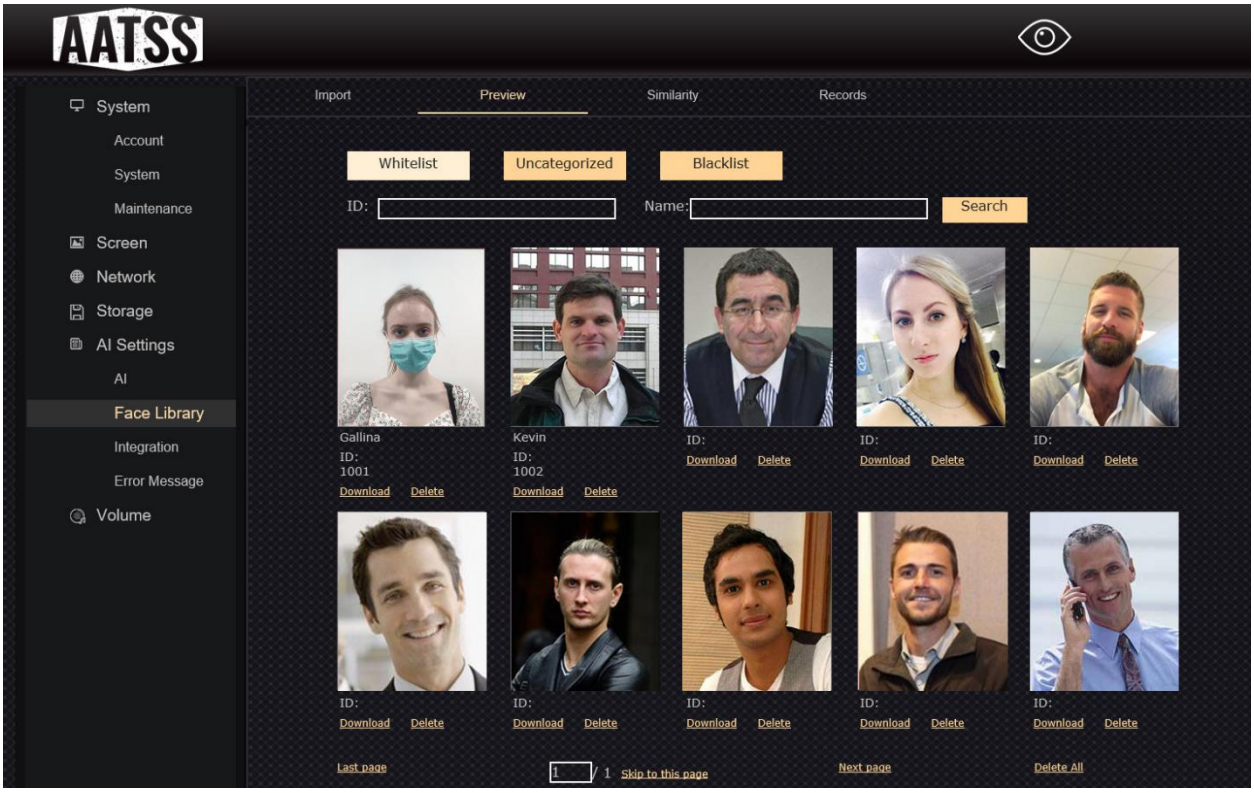
3.2.9 Face Library

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

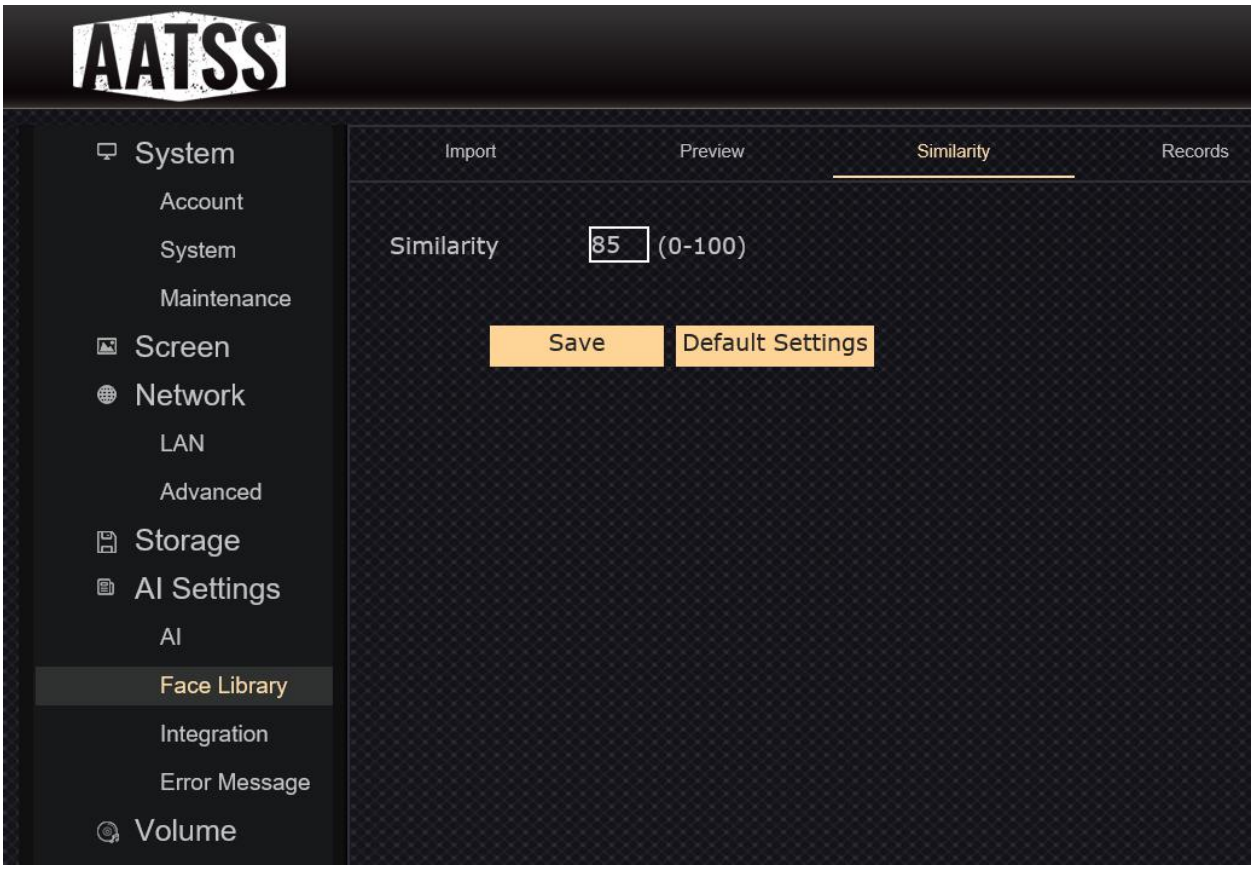




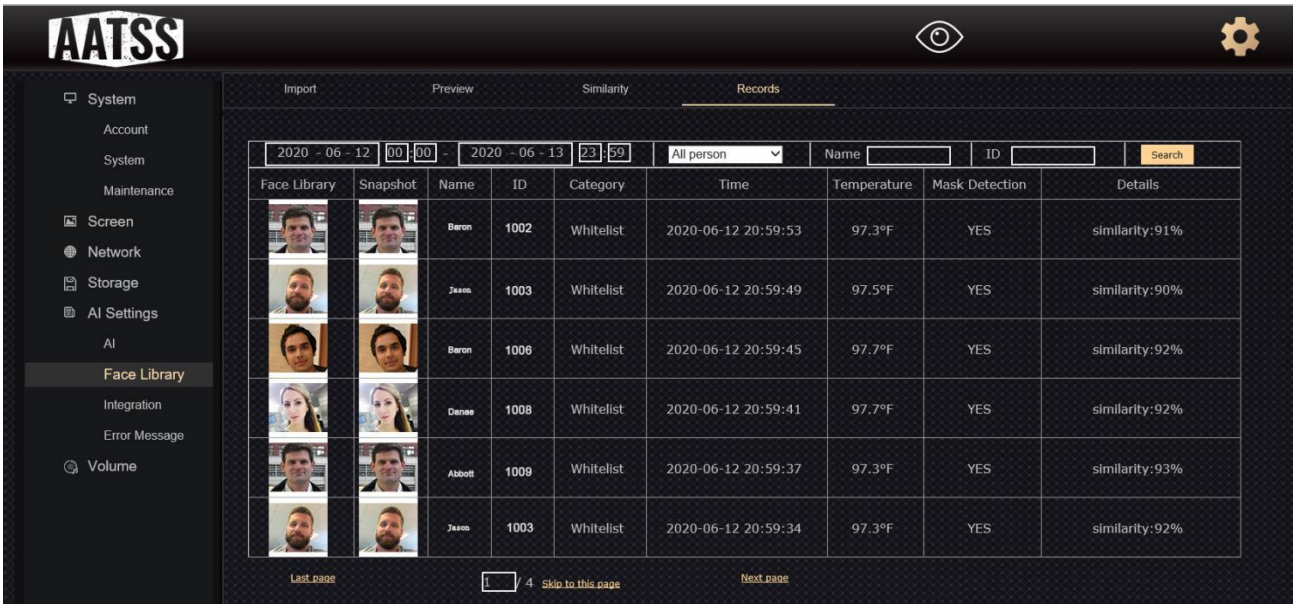
You can preview the image here.



You can change the similarity range from 0 (easier to recognize) to 100 (difficult to detect. The default setting at 85 provides strong security while allowing reliable and consistent recognition.

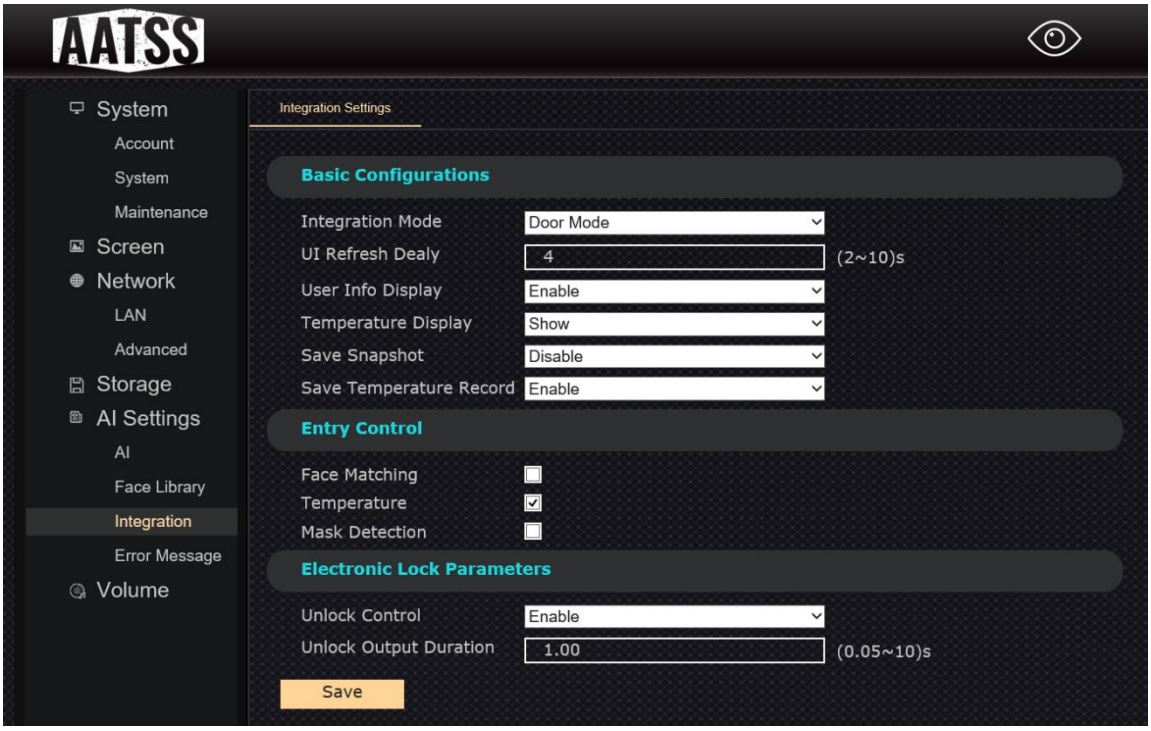


You can check all the saved records here.



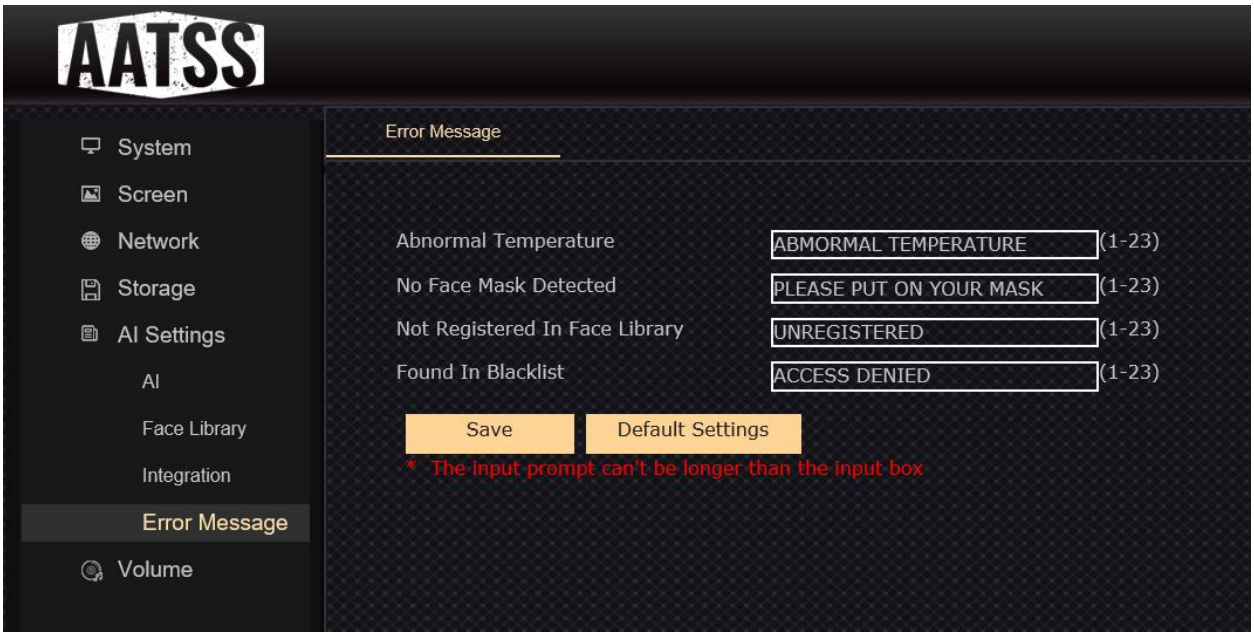
3.2.10 Integration

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	Show	Option to display the temperature
Save Snapshot	Enable	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



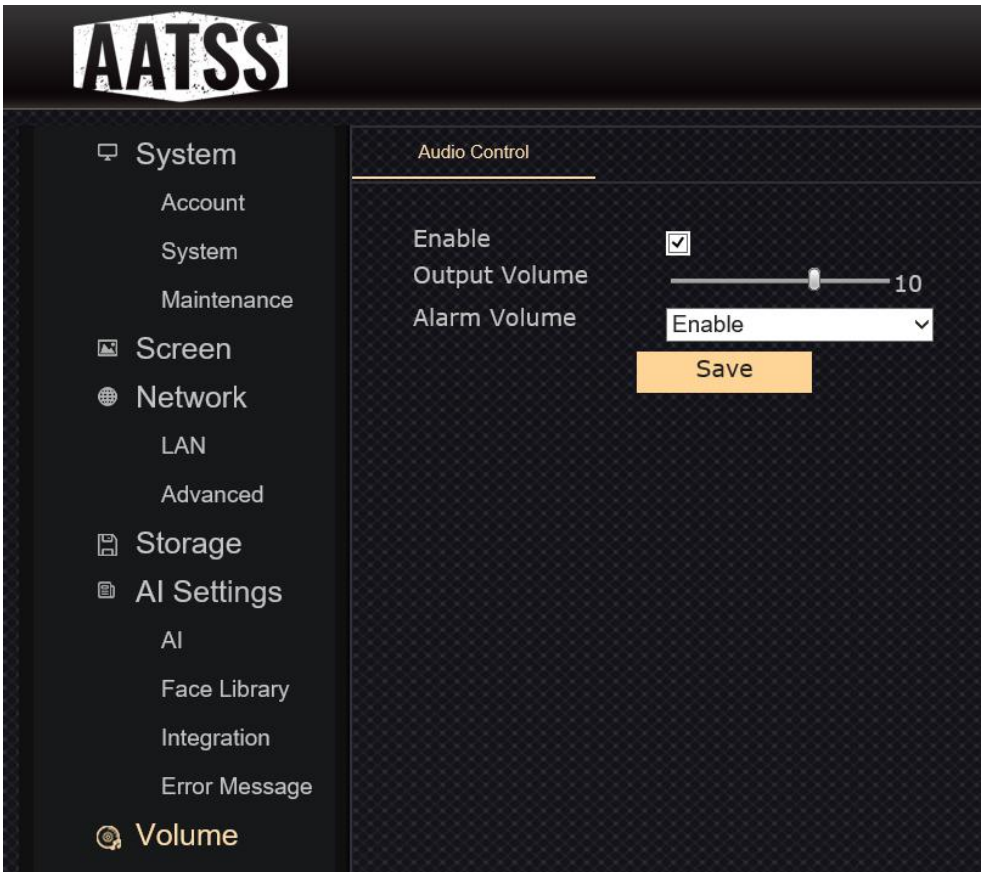
3.2.11 Error Message

You can customize the error message as you'd like.

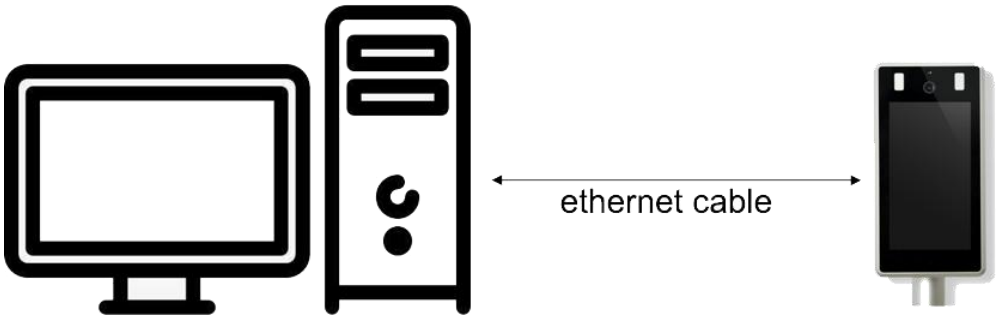


3.2.12 Volume

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

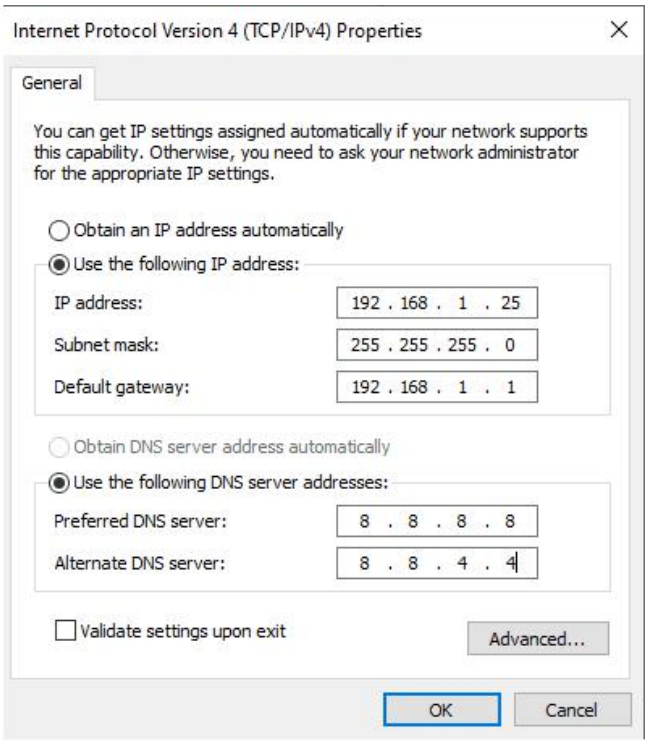


3.2.13 V2 Pro connected to PC directly by ethernet cable



How to connect the V2 Pro directly to your PC, in the case of an emergency network failure. Please see the steps below:

1. Use the ethernet cable to connect V2 Pro and PC.
2. Open the Desktop Management Terminal, obtain the V2 Pro IP address and gateway address, e.g. 192.168.1.8
3. The PC IP address should be a static address. Gateway should be same as the V2 pro IP address.



4. Go to http://192.168.1.8 in IE explore or Chrome to access the web page to manage your device.

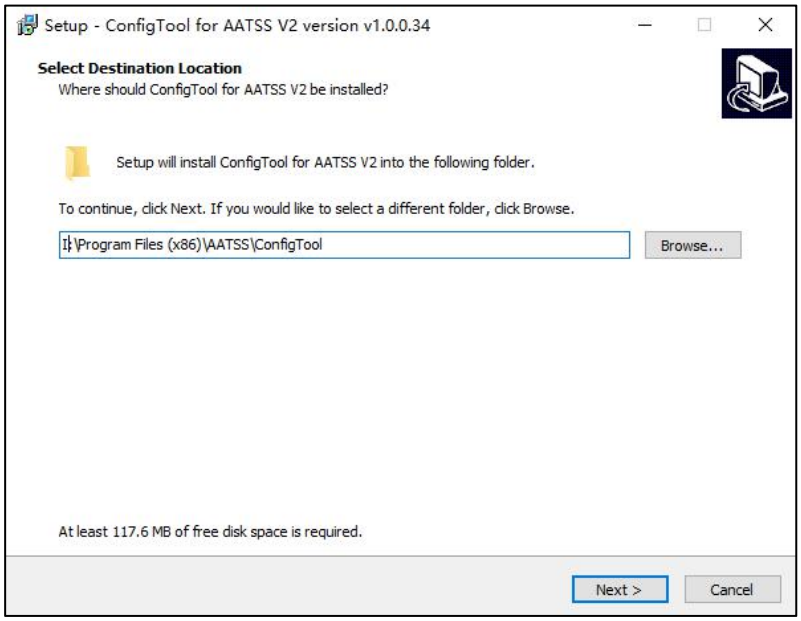
4. Desktop Management Terminal

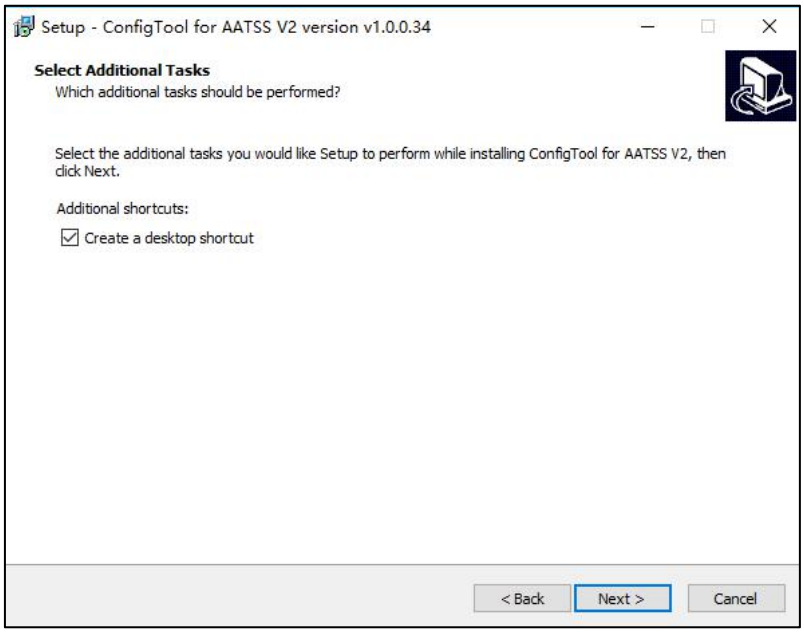
◆ 4.1 Setup

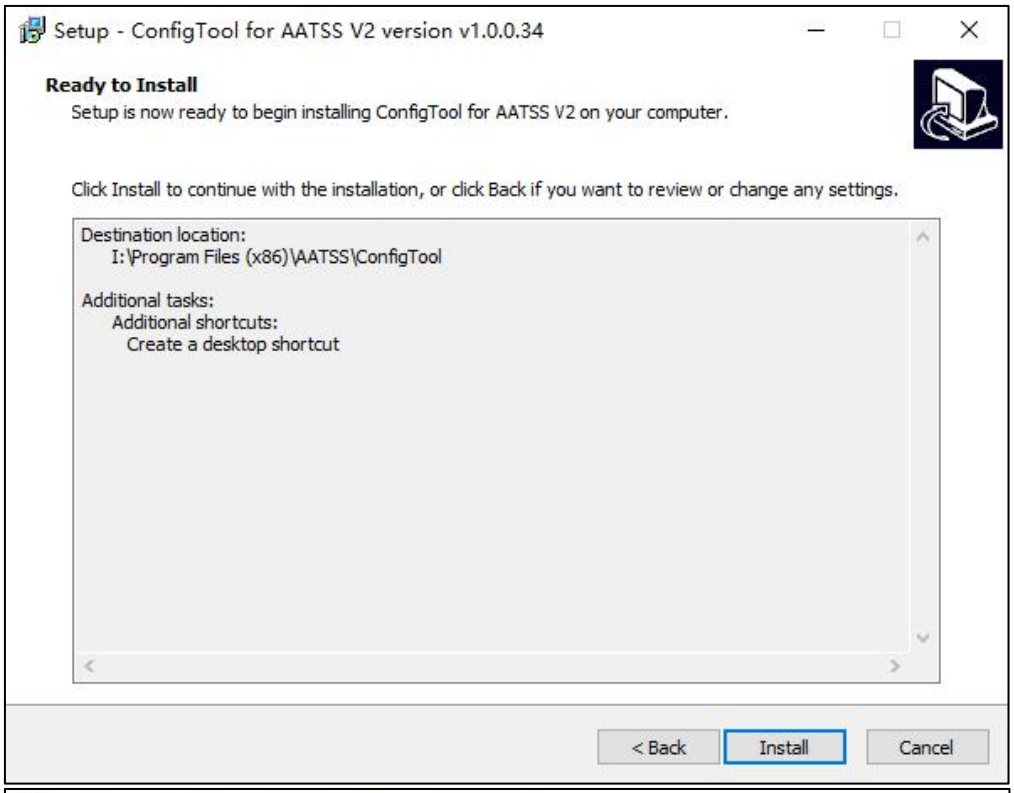
Please install the ConfigTool for AATSS V2 Pro on your PC.

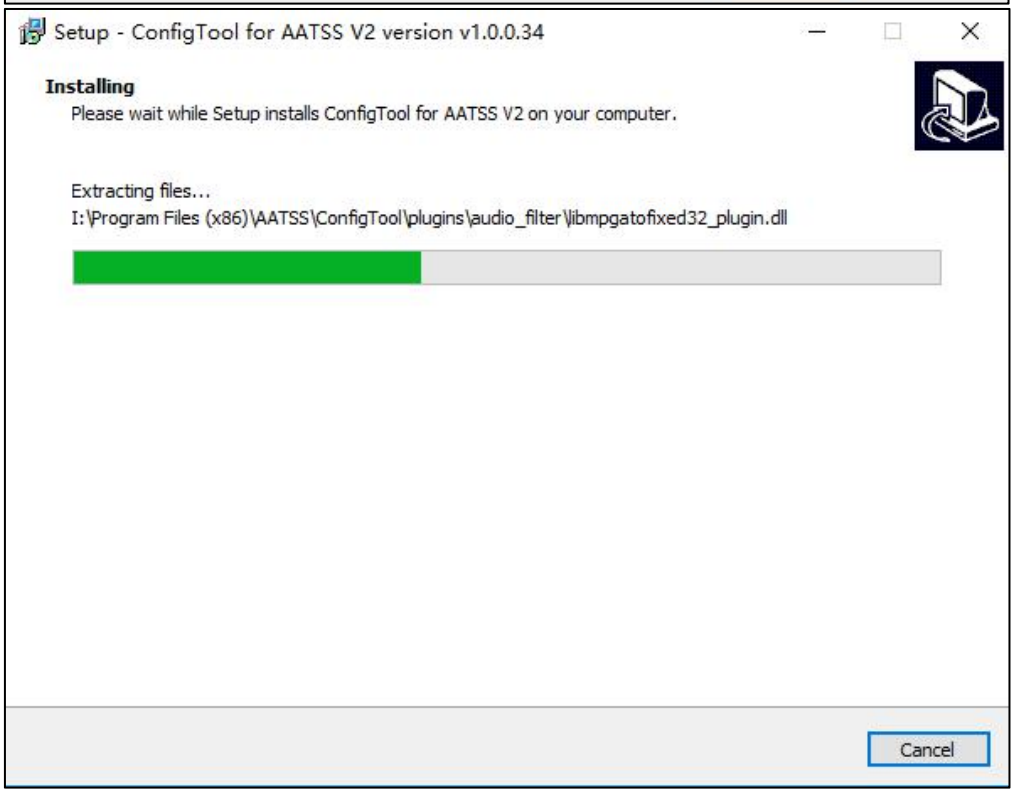
Installation steps:

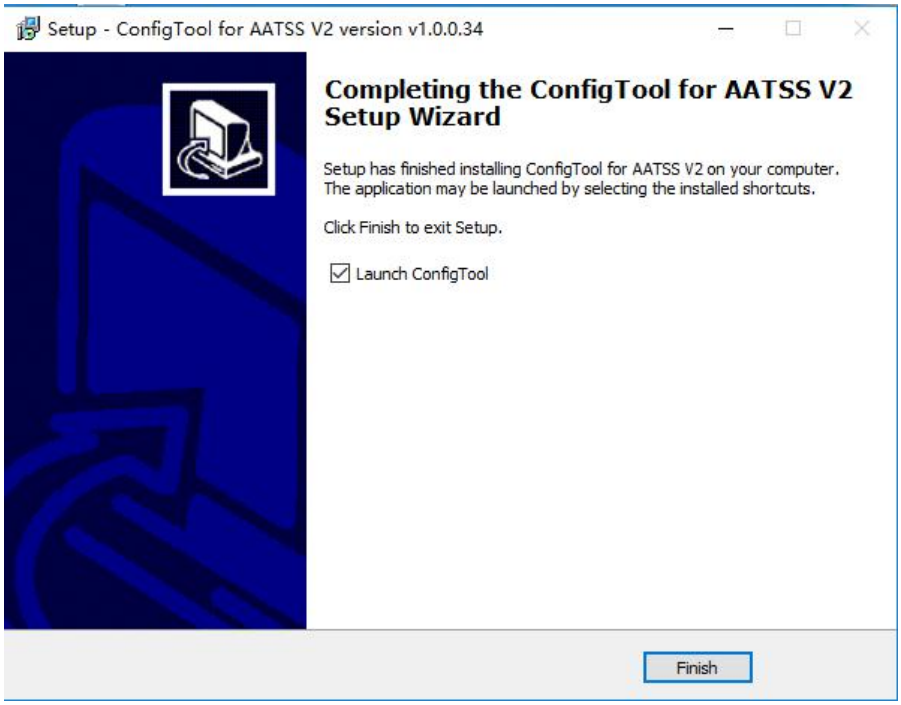
Download the ConfigTool, then install it as follows:





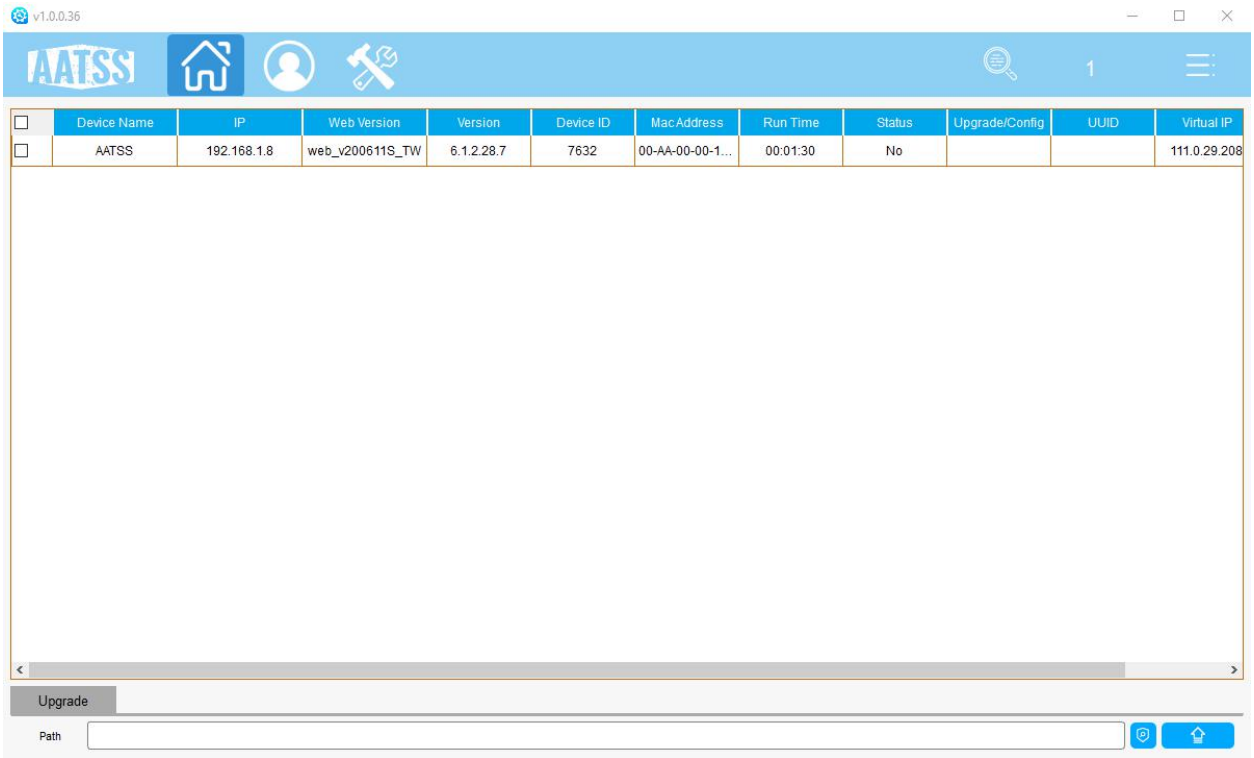

Setup - ConfigTool for AATSS V2 version v1.0.0.34
Ready to Install
Setup is now ready to begin installing ConfigTool for AATSS V2 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
I:\Program Files (x86)\AATSS\ConfigTool
Additional tasks:
Additional shortcuts:
Create a desktop shortcut
< Back
Install
Cancel


Setup - ConfigTool for AATSS V2 version v1.0.0.34
Installing
Please wait while Setup installs ConfigTool for AATSS V2 on your computer.
Extracting files...
I:\Program Files (x86)\AATSS\ConfigTool\plugins\audio_filter\libmpgatofixed32_plugin.dll
Cancel



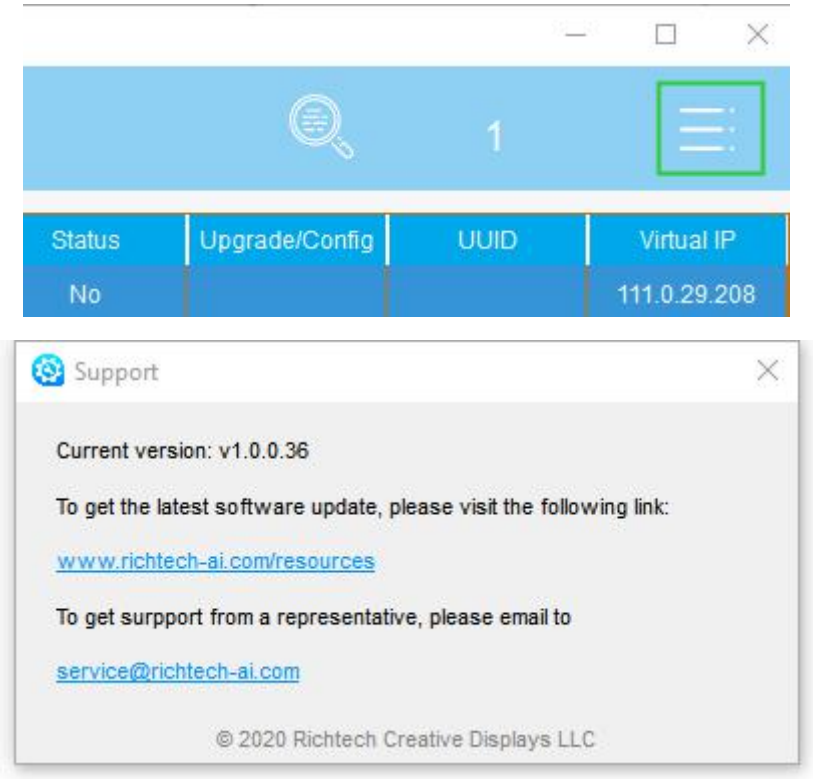
◆ 4.2 Main Interface

Here, you can see a list of all your AATSS V2 Pro 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.



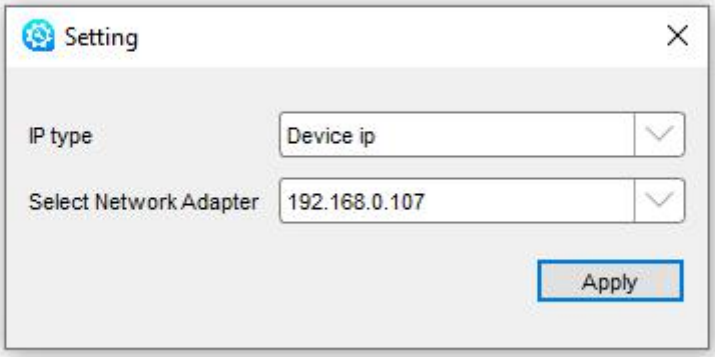
4.2.1 Support

Click “Support” to display software version and update information.



4.2.2 Setting

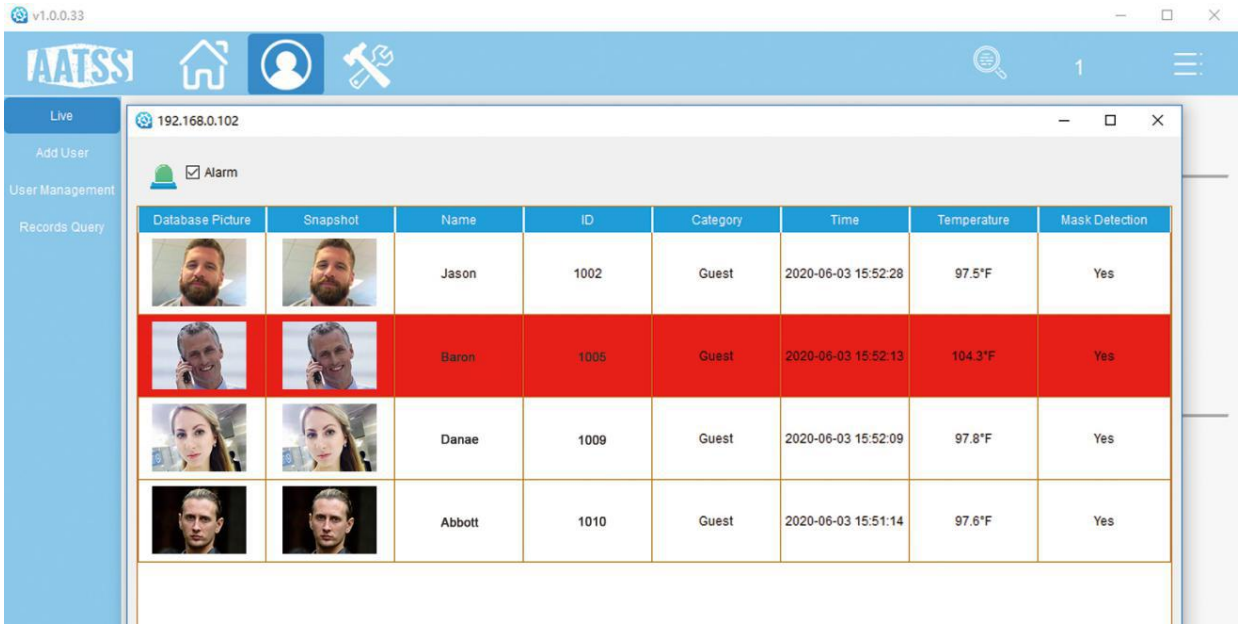
Click “Settings”. If there is more than one NIC, and the devices can't be showed on list, you need to change the IP address with Select Network Adapter, as follows:



◆ 4.3 User

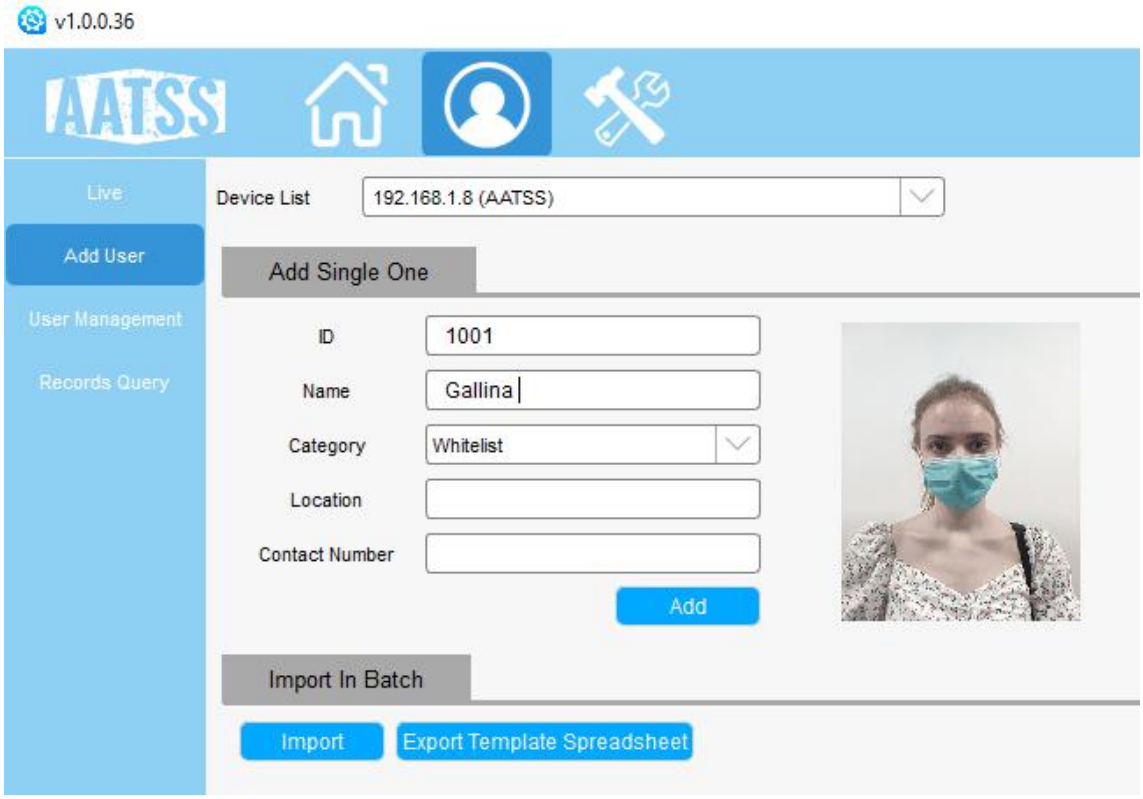
4.3.1 Live

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.



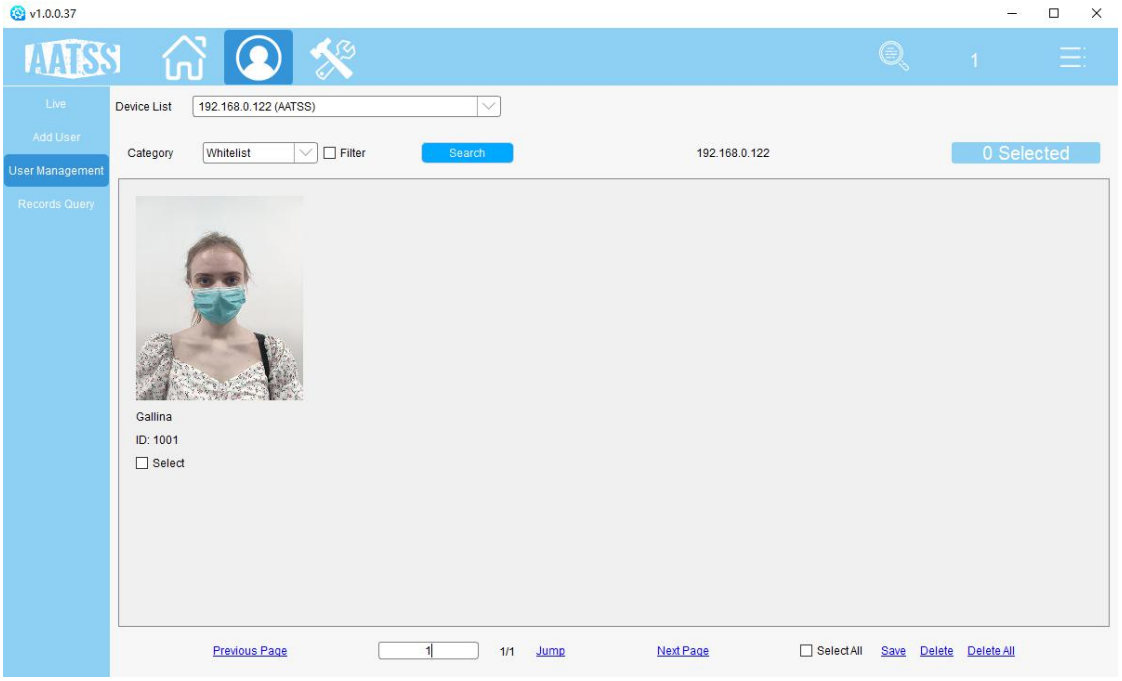
4.3.2 Add User

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



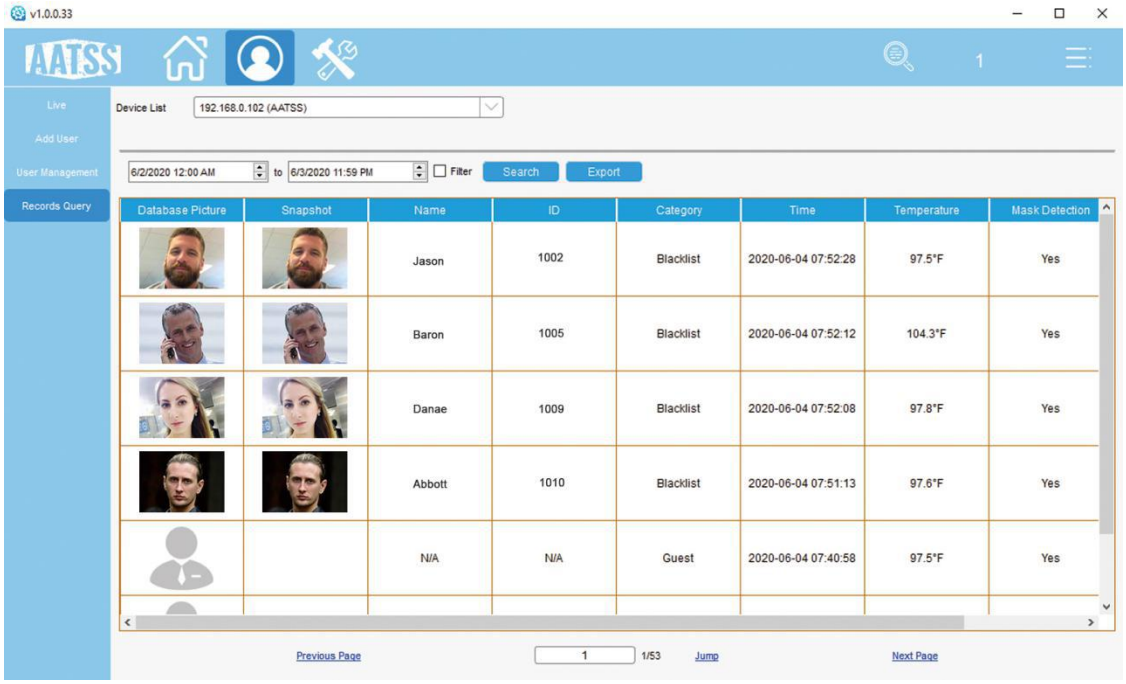
4.3.3 User Management

Here, you can edit user information.



4.3.4 Records Query

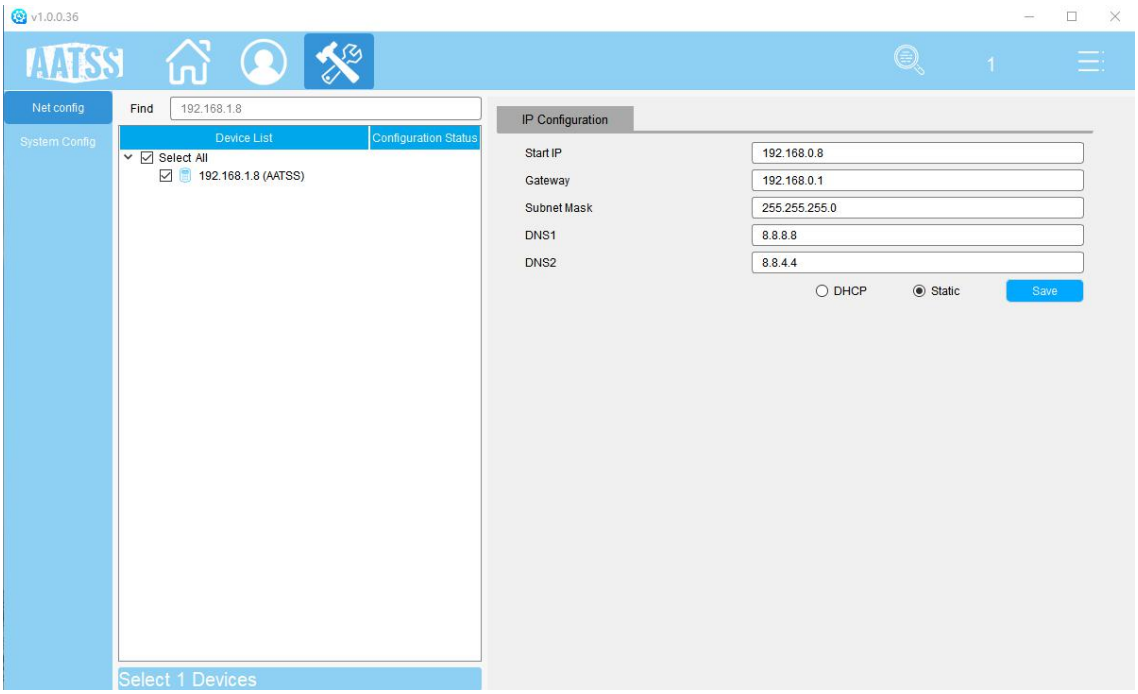
You can find all records here.



◆ 4.4 Settings

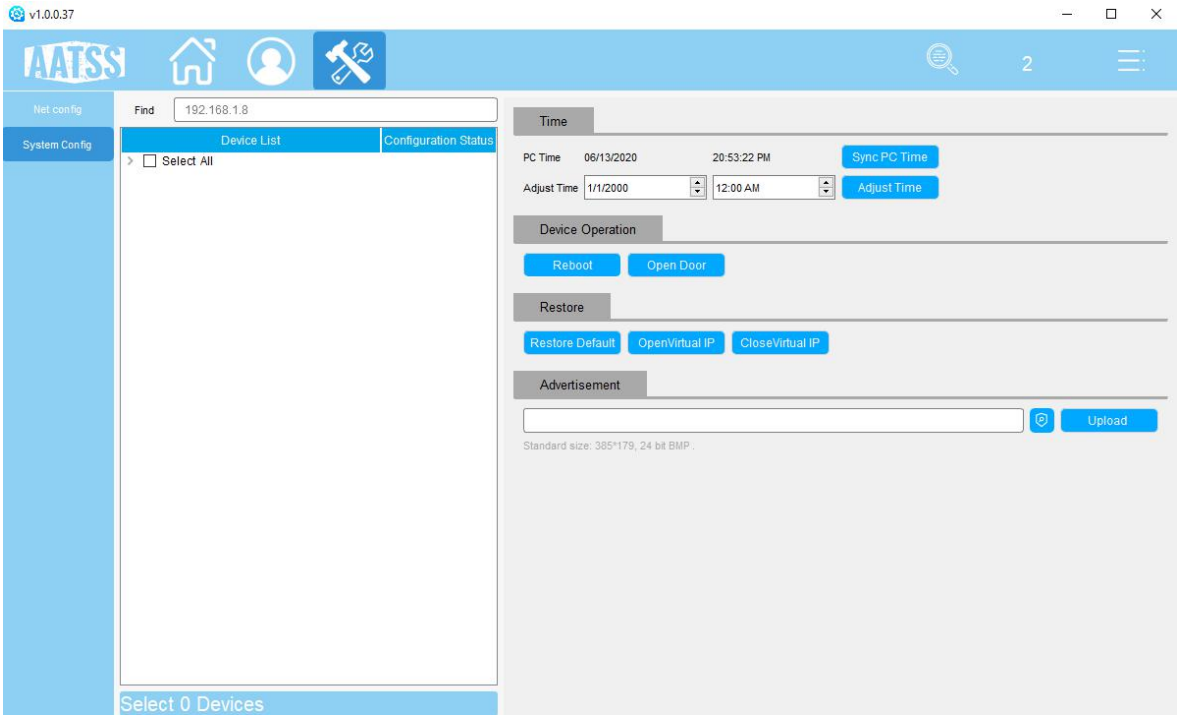
4.4.1 Net config

You can set the IP address here. Please use a static IP address.

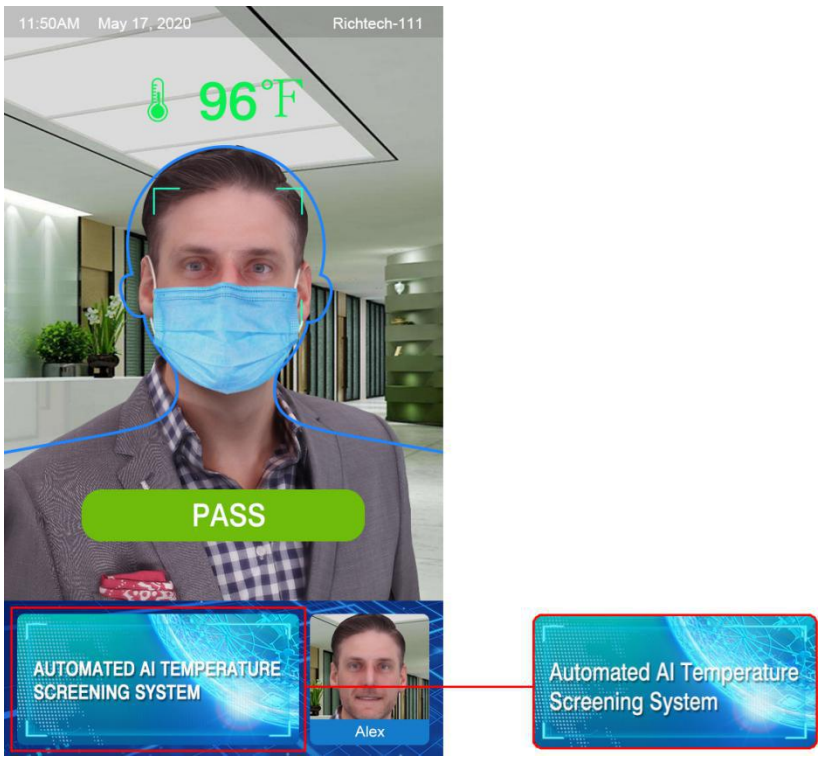


4.4.2 System Config

You may adjust system settings and reboot the device here.



You may change the photo right below the screen; format: 24 bit BMP, resolution: 285x179. See below.



5. Maintenance

- Thermal infrared detection works best indoors. The AATSS V2 Pro 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 whenever possible. We recommend a well-shaded area for optimal performance. Limit exposure to weather and rain.

- When installing the AATSS V2 Pro, please avoid heat sources such as vents and hot electronic equipment.

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

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

6. Specifications

CAMERA	
Resolution	2 million pixels 1920x1080P
Type	120° wide-angle dynamic
Focusing Distance	50 - 80 cm
White Balancing	AUTO
SCREEN	
Resolution	600 x 1024
Size	7.0-inch IPS LCD Display
PROCESSOR	
CPU	RK3288 Quadcore
Internal Storage Capacity	4 GB eMMC Automatic memory management. Can store 100,000 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	Audio 2.5W / 4R Speakers
Serial Communication	Serial Communication 1 RS232 serial port
Relay Output	1 open door signal output (Dry contact)
Wiegand	One Wiegand 26/34 output, one Wiegand 26/34 input (Dry contact)
LAN	1 RJ45 Ethernet socket
INFRARED THERMAL MODULE	
Temperature Detection Distance	1.6 – 2.6 ft
Measurement Resolution	0.018 °F
Temperature Measurement Accuracy	≤ ± 0.5°F (Medical Grade)
Temperature Measurement Range	93.2°F ~ 107.6°F
Abnormal Temperature Alarm	Customizable – Email/SMS/Push notification (Default inaudible alarm)
GENERAL	
Power Supply	DC12V
Operating Temp.	50°F - 140°F
Storage Temp.	60°F - 140°F
Power Consumption	4W (Min)
Dimensions	9” x 4.72” x 1.18”
Weight	2.2 pounds

7. Warranty

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

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

RICHTECH®

www.richtech-ai.com

service@richtech-ai.com

+1-866-204-2158