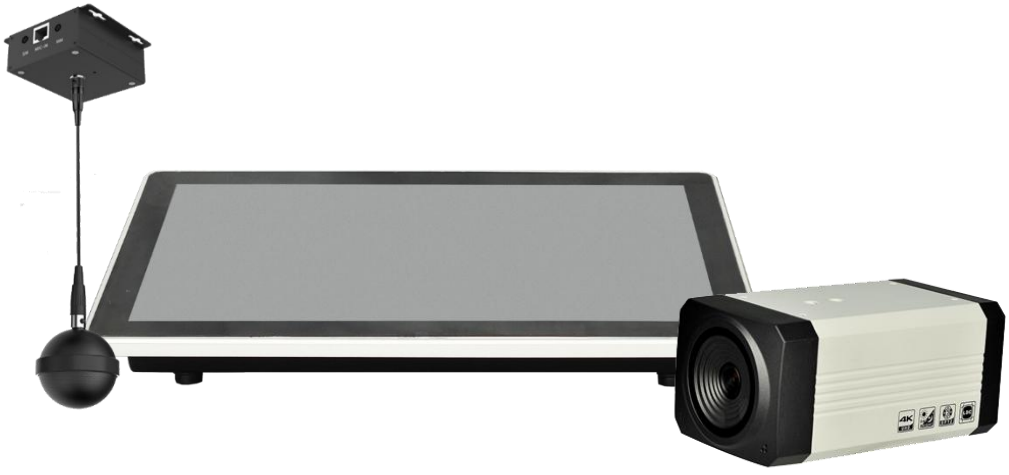
IQVideo

Lecture Capture System

LCS610

——User Manual——



Returnstar Interactive Technology Group Co., Ltd.

FUTURE CLASS, IQ CLASS

Contents

Chapter 1 System Components..... 5

1.1 Video Station Interface Description.....6

1.2 Teacher Camera/Student Camera Interface Description.....7

1.3 Microphone Audio Processor Interface Description..... 7

1.3.1 Front Interface..... 7

1.3.2 Back Interface..... 8

Chapter 2 Installation Preparation.....8

Chapter 3 Device Connection..... 9

Chapter 4 Video Station IP Settings..... 9

Chapter 5 Camera IP Settings..... 11

5.1 Configuration Software Installation.....11

5.2 Network Parameters Setting..... 12

Chapter 6 Video Station Operation Instructions.....13

6.1 Local Recording.....13

6.1.1 Network Settings..... 13

6.1.2 Director Settings.....14

6.1.3 Local Recording.....15

6.1.4 Video Review and Export.....16

6.2 Remote Recording..... 16

6.2.1 Log in to the Remote Director System.....16

6.2.2 Remote Director Settings..... 16

6.2.3 Watch Videos and Downloads Remotely..... 18
6.3 Live streaming over Internet..... 18
Chapter 7 Recording System Parameter Settings..... 19
7.1 Video Station Configuration..... 19
7.2 External interface..... 24
7.3 Intelligent Control..... 26
7.4 User Management..... 27
7.5 System Management..... 29
Chapter 8 Abnormal problems and solutions..... 31

Chapter 1 System Components

Video Station

Auto-tracking Camera (Teacher)

Auto-tracking Camera (Student)

Ceiling MIC

Microphone Audio Processor

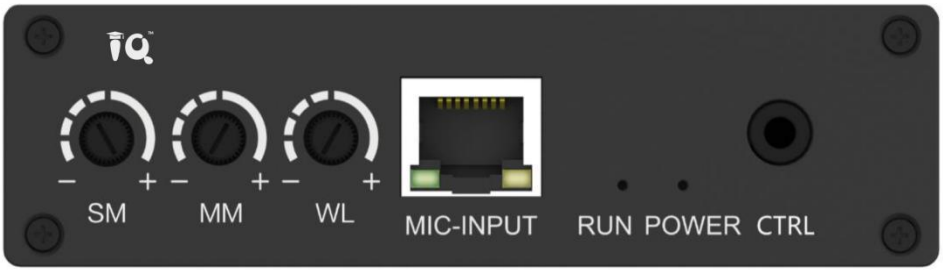
1.1 Video Station Interface Description

1. DC-48 IN
   Video Station Power In
2. 4-port POE 1000Mbps
   4 Gigabit Ethernet POE Power Supply and Access to Webcam
3. COM
   RJ45 Control Port, Support RS-232 Communication Protocol
4. HDMI-OUT2
   Local Director Screen Output
5. HDMI-OUT1
   Recorded Video Screen Output
6. HDMI-IN
   Support Access to the Teacher's Computer or Visual Presenter and Other HDMI Video Signals
7. USB
   Local Recording Video Export
8. AUDIO-OUT
   Audio Recording Output to Audio Processor
9. AUDIO-IN
   Audio Signal Input Such as Microphone

1.2 Teacher Camera/Student Camera Interface Description

1. DC 12V, Camera Power Interface
2. RS485 Device Control Port
3. RJ45, Gigabit Network Interface, POE Supported
4. 3-Pin Phoenix Contact Audio Line in
5. SDI Video Signal Transmission Interface

1.3 Microphone Audio Processor Interface Description



1.3.1 Front Interface

1. SM Input volume adjustment knob of wired vice microphone.
2. MM Input volume adjustment knob of wired main microphone.
3. WL Input volume adjustment knob of wireless main microphone.
4. MIC-INPUT Input interface of network port microphone.

5. RUN Device running indicator, flashing slowly indicates normal operation.
6. POWER Power indicator, keep it on after power on.
7. CTRL Debugging port.

1.3.2 Back Interface

8. AEC-REF Acoustic echo cancellation audio signal input interface, 3.5mm audio interface.
9. AEC-REF Rotate the AEC-REF volume adjustment.
10. SPK-OUT Stereo output to external amplifier or speakers, 3.5mm audio interface.
11. SPK-OUT Rotate the SPK-OUT volume adjustment .
12. AEC-OUT Stereo acoustic echo cancellation processed signal output interface, 3.5mm audio interface.
13. AEC-OUT Rotate the AEC-OUT volume adjustment knob.
14. DC-12V Power port.

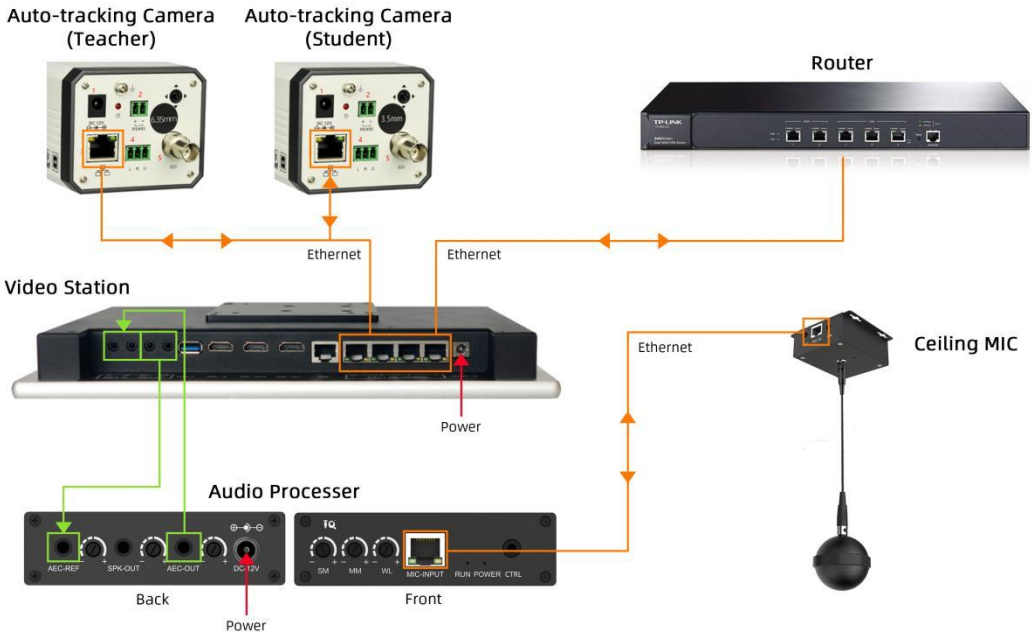
Chapter 2 Installation Preparation

Before setting, please prepare a computer (installed with tracking debugging software), video station, tracking camera, and ceiling microphone.

There are two tracking cameras: teacher camera and student camera. The tail plate marked 6.35mm is the teacher tracking camera (teacher camera default IP: 192.168.2.88), and 3.5mm is the student tracking camera (student camera default IP: 192.168.2.89). The installation height is preferably between 2.2 meters and 2.5 meters.

Connect all devices and network cables, make sure all devices are in the same LAN, and ready for setting.

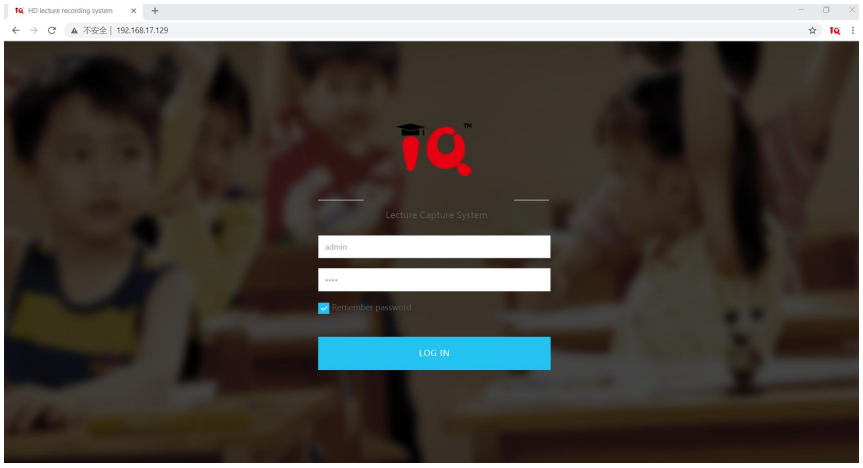
Chapter 3 Device Connection



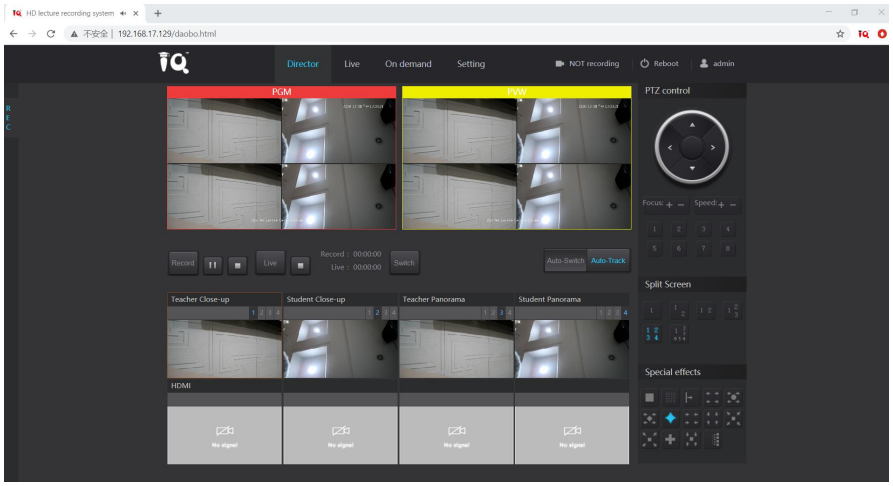
Chapter 4 Video Station IP Settings

Connect the computer to the video station with a network cable. Check if the default IP address of the video station is 192.168.1.212. Change the computer' s IPv4 address to the same network segment with the video station (e.g. 192.168.1.112). Access the video station's default IP address through a computer browser (Google browser is recommended).

Enter username：admin password：8888



Pic：Access video station IP address

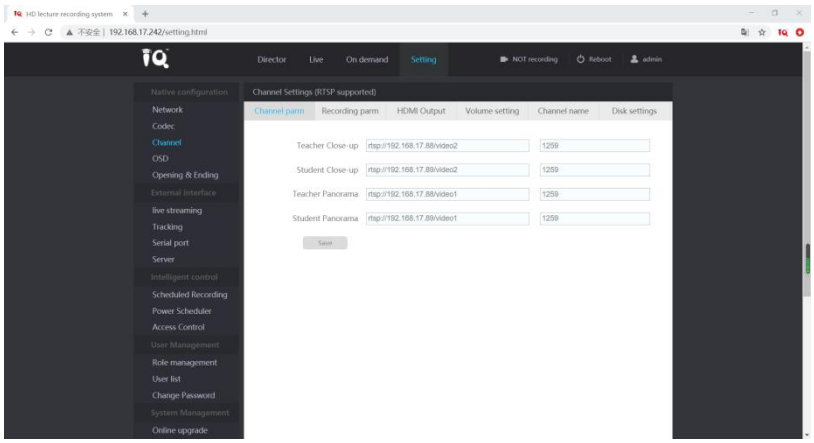


Pic：Home page after login

Enter the settings page to modify the network address of the Video Station to: 192.168.XXX.XXX (depending on the local area network), re-enter the modified IP address on the web page, and enter the settings page to add the camera network address:

rtsp://192.168.XX.88/video1（Teacher Panorama）
rtsp://192.168.XX.88/video2（Teacher Close-up）
rtsp://192.168.XX.89/video1（Student Panorama）
rtsp://192.168.XX.89/video2（Student Close-up）

The camera IP address setting ensures that the network segment is consistent with the video station. Restart the video station after saving the parameters.



Pic：Connect the camera in the settings

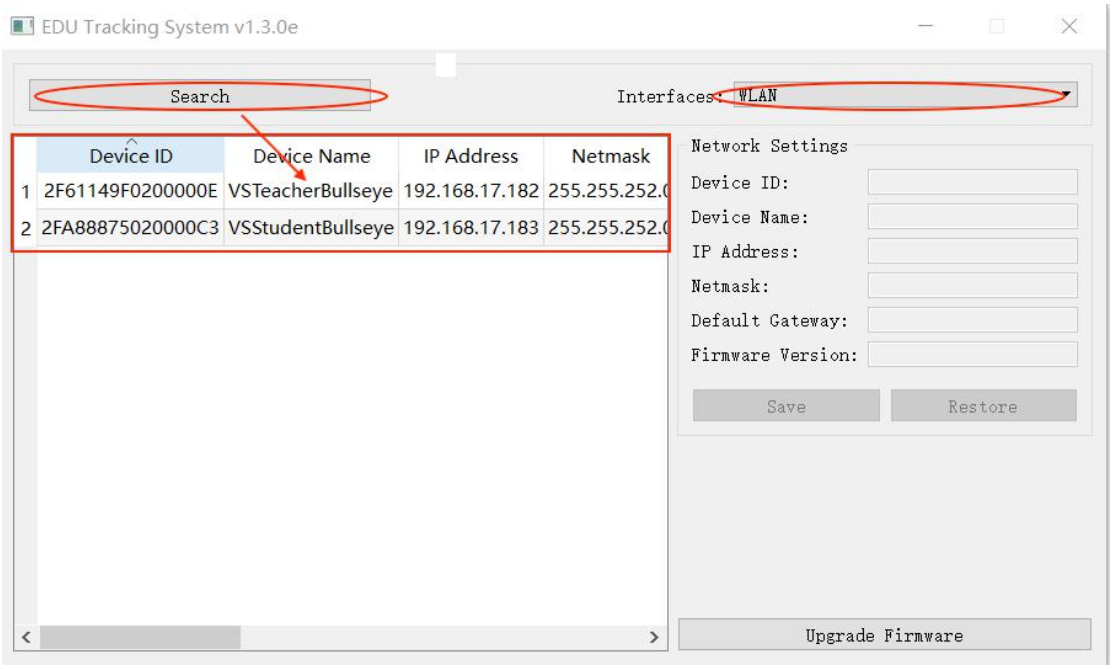
Chapter 5 Camera IP Settings

5.1 Configuration Software Installation

EDUTrackerClient1.4.4.zip

Unzip the Camera Configuration Software to the specified location, double-click to open the software as shown in the figure below;

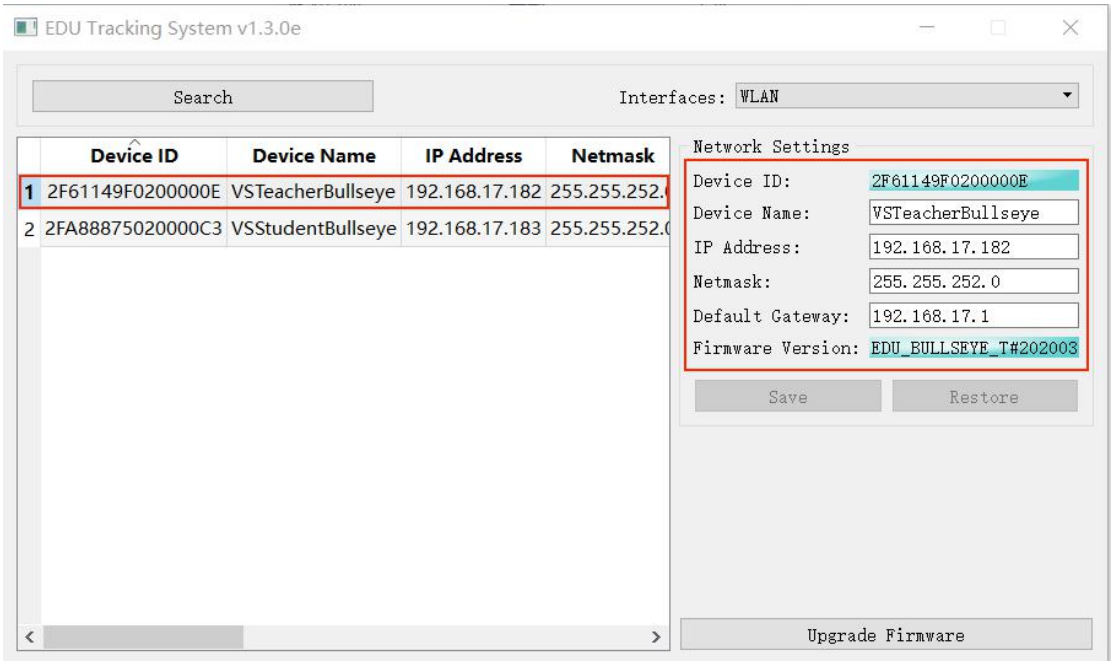
Name	Date modified	Size
platforms	2020/12/4 16:32	
EDUBullseyeClient.exe	2020/11/26 15:06	363 KB
icudt52.dll	2014/1/22 21:30	22,957 KB
icuin52.dll	2014/1/22 21:30	1,790 KB
icuuc52.dll	2014/1/22 21:30	1,315 KB
MessageList.txt	2017/3/22 17:05	1 KB
msvcp110.dll	2012/7/26 19:08	522 KB
msvcr110.dll	2012/7/26 19:08	843 KB
opencv_core244.dll	2013/8/7 14:47	1,969 KB
opencv_highgui244.dll	2013/8/7 14:58	1,920 KB
Qt5Core.dll	2014/7/10 9:44	4,018 KB
Qt5Gui.dll	2014/6/19 18:52	4,270 KB
Qt5Network.dll	2014/6/19 18:51	827 KB
Qt5Widgets.dll	2014/6/19 18:55	4,270 KB



Pay attention to select the corresponding Network Connection, click search to display all devices in the current network.

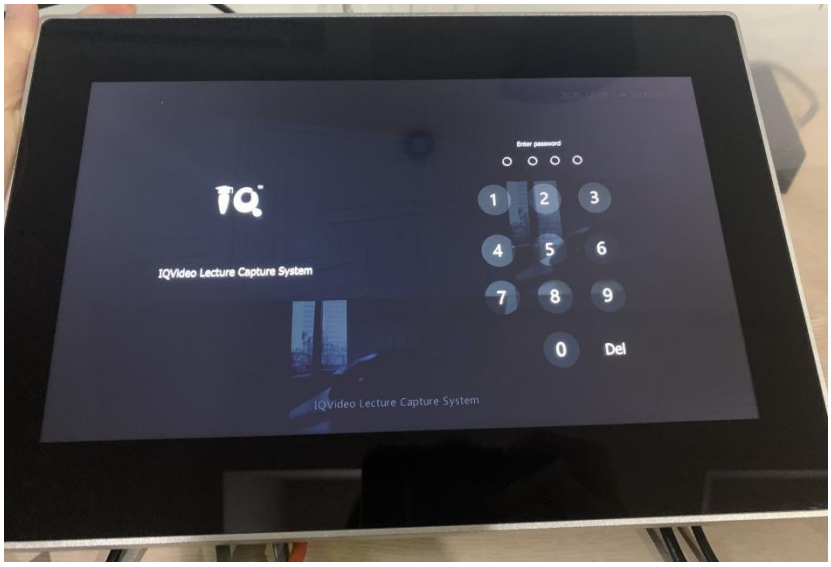
5.2 Network Parameters Setting

Click to select the camera in the device list on the left, the network parameters and software version information of the current device are displayed on the right, and click to modify the IP address to make it consistent with the video station settings. After the modification is completed, saving the settings without restarting, as shown below:



Chapter 6 Video Station Operation Instructions

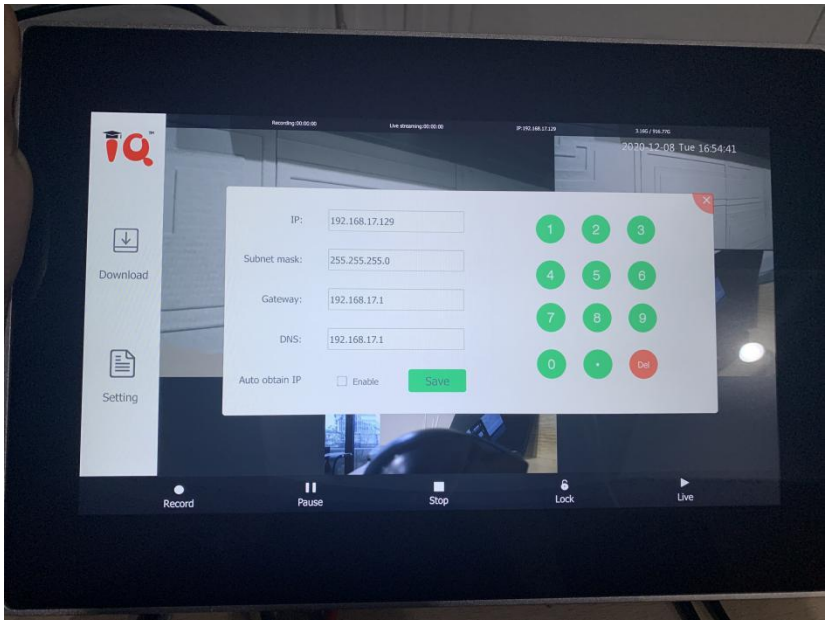
6.1 Local Recording



Pic：Video station power on state

The login interface will be displayed after power-on, and the system default login password 8888.

6.1.1 Network Settings

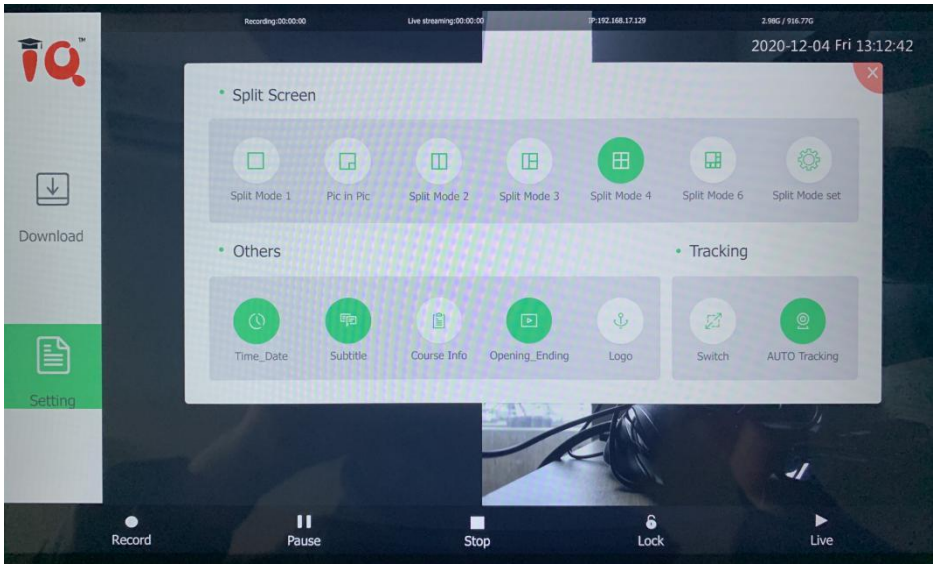


Pic：Network setting interface

Click the logo icon in the upper left corner to pop up the network settings page. Support manual input of IP information and automatic acquisition of router DHCP settings. Click “Save” to take effect.

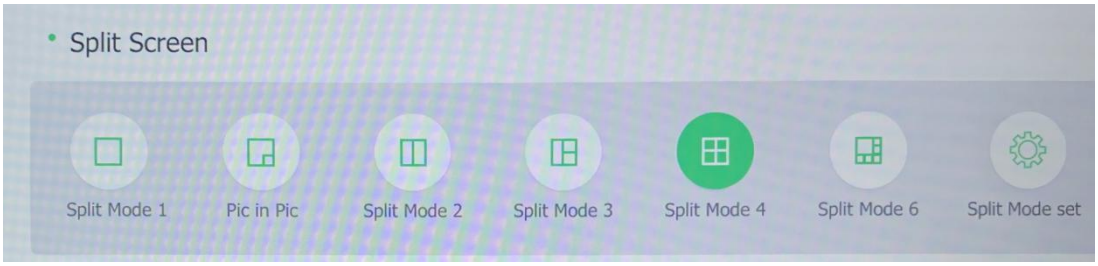
6.1.2 Director Settings

Click "Setting" to enter the director settings



Pic：Director page

Split-screen: Before class, teachers can choose a suitable split-screen mode according to class needs .

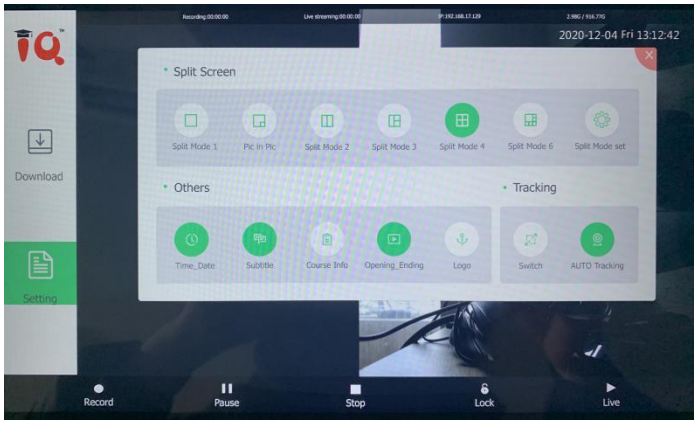


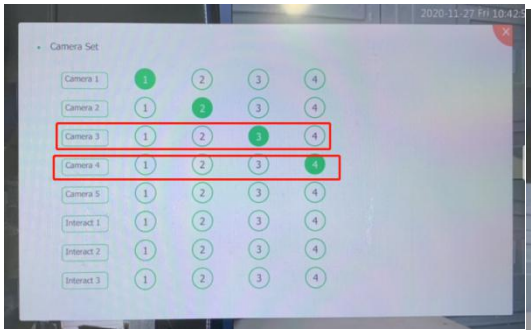
Pic：Split screen selection

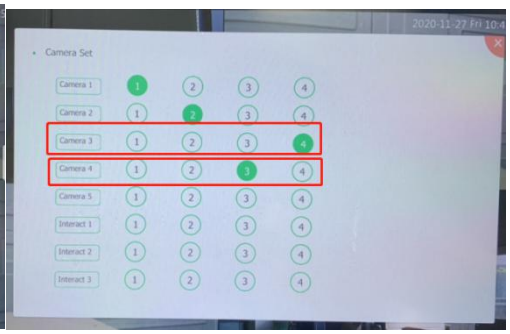
1. Select the split screen mode you want

2. Enter "split screen settings", select the camera image to be displayed on each split screen

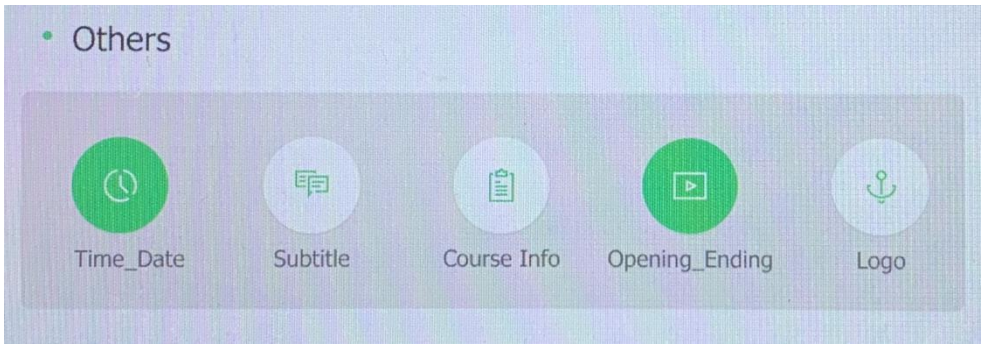
For example: in the case of four-split screen, there are four numbers 1/2/3/4 in the split-screen setting, corresponding to the four split-screen pictures. If you want to display camera 3 on screen 4, select 4 in this row.







Others: The application module mainly sets the information added in the video.



Pic：One-click apply button

Including adding subtitles, time, course information, recorded opening and ending , logo, etc. to the video.

Tracking: Select "Switch"——the recording system will automatically switch the screen, at this time the manual split screen cannot be changed.

Select "Tracking" —— the camera automatically tracks the movement of the teacher, it is recommended to keep the selected state.

6.1.3 Local Recording

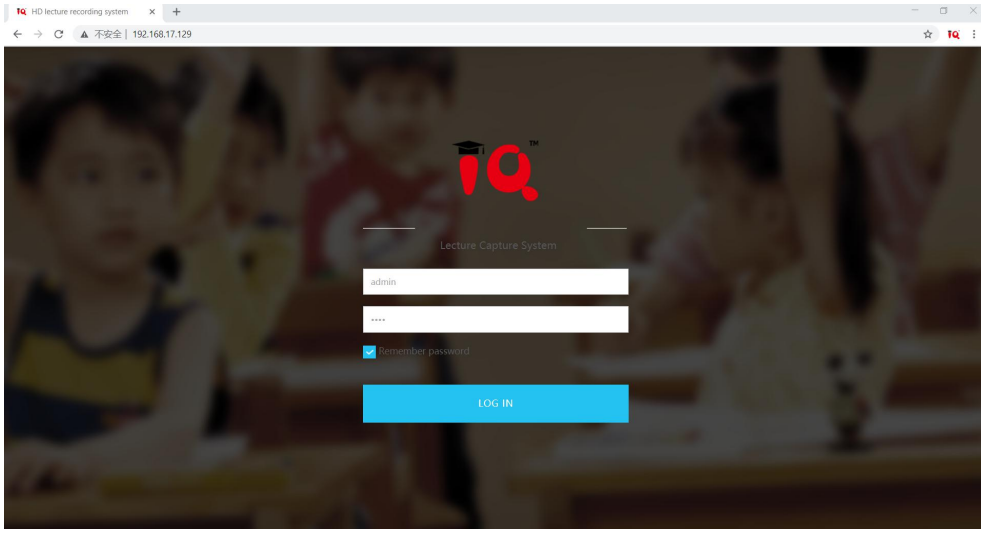
Click "Record" to start recording video, click "Stop" to stop recording, click "Lock" to freeze the HDMI input source screen when there is HDMI video source input

6.1.4 Video Review and Export

Export: Insert a U disk, and export the video in "Download"

6.2 Remote Recording

6.2.1 Log in to the Remote Director System



Pic：Remote director login interface

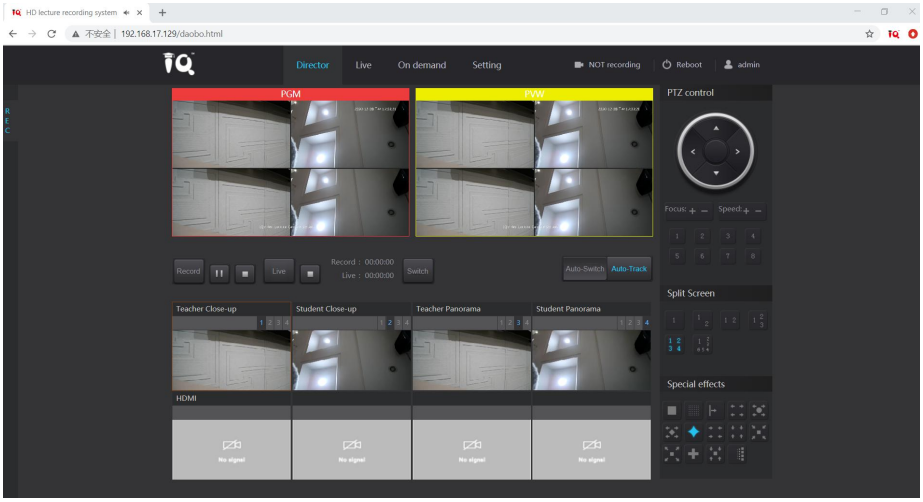
Make sure that the computer and the video station are in the same LAN. Open the browser and enter the IP address of the video station in the browser.

(default IP: http://192.168.1.212, you can view the existing IP on the Video Station)

Enter the login interface of the Remote Director System, as shown in the figure above.

Enter the username: admin Password: 8888 (same as the password of the local director), and then Login to enter.

6.2.2 Remote Director Settings



Through the preview window, you can view the teacher panorama, teacher close-up, student panorama, student close-up, HDMI input screen.

Select the split-screen mode you want, and view the effect of split-screen in the "Preview Screen".

The position of each lens in the split screen can be modified by setting the number of each lens.

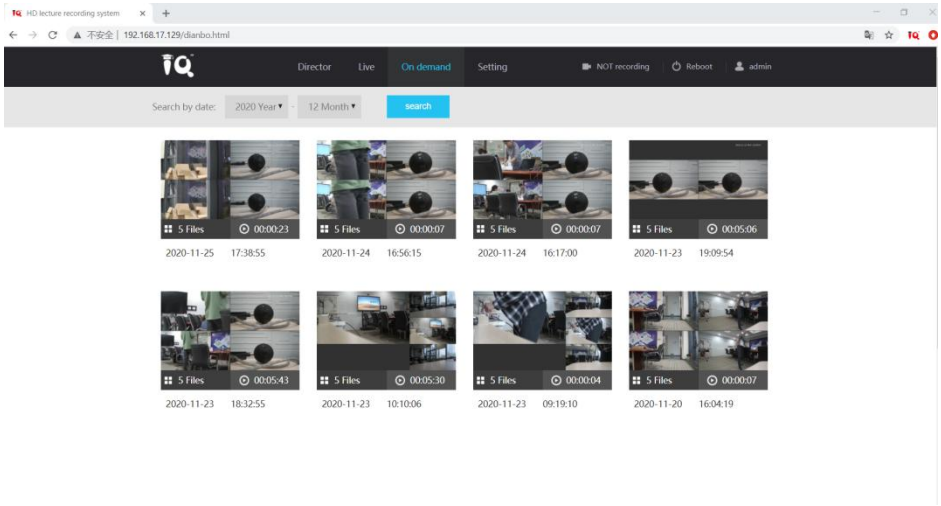
Click "Switch" to switch the preview screen to the PGM screen. At this time, the screen of the video station will change synchronously.

The actual recording screen is subject to the PGM screen.

The "smart switch" button is a toggle switch. When the button is turned off, the tracking will not be switched, and when the button is turned on, the camera will switch automatically.

The "Smart Tracking" button is a tracking switch. When this button is turned off, smart tracking is not performed. When this button is turned on, automatic lens tracking is performed.

6.2.3 Watch Videos and Downloads Remotely



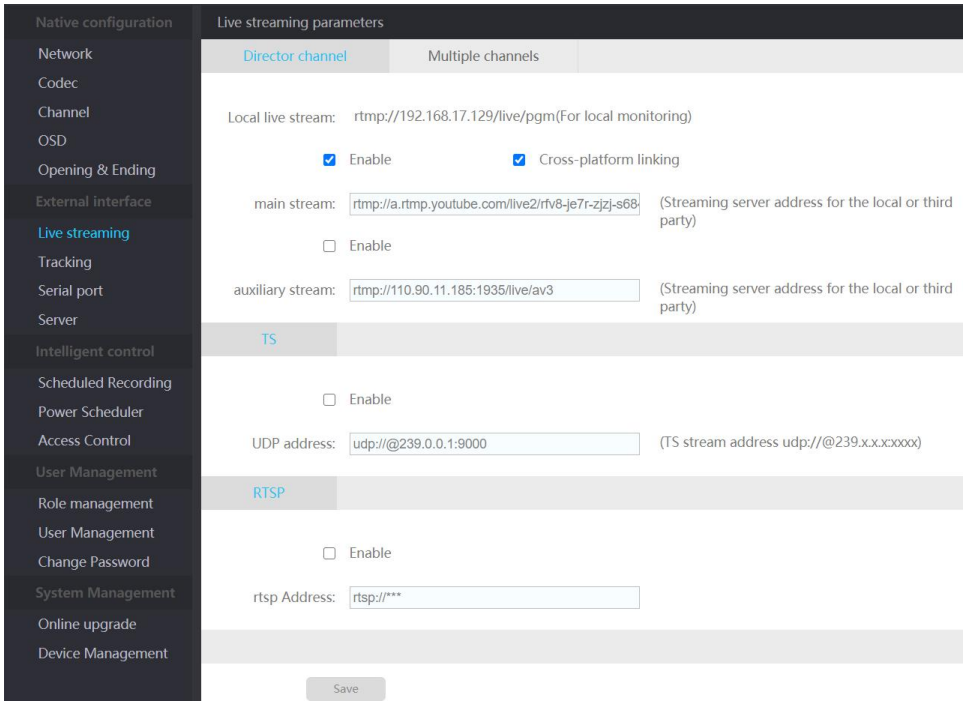
Pic：Video on demand page

The recorded video is automatically maintained to the “On demand” page.

A single video automatically displays video screenshots, the number of simultaneous recording channels, time recording duration, and recording time information.

Search toolbar that supports searching videos by date.

6.3 Live streaming over Internet



Pic：Streaming address setting

In the Remote Director System -> External interface -> Live streaming -> RTMP fills

in the third-party live broadcast address and saves it.

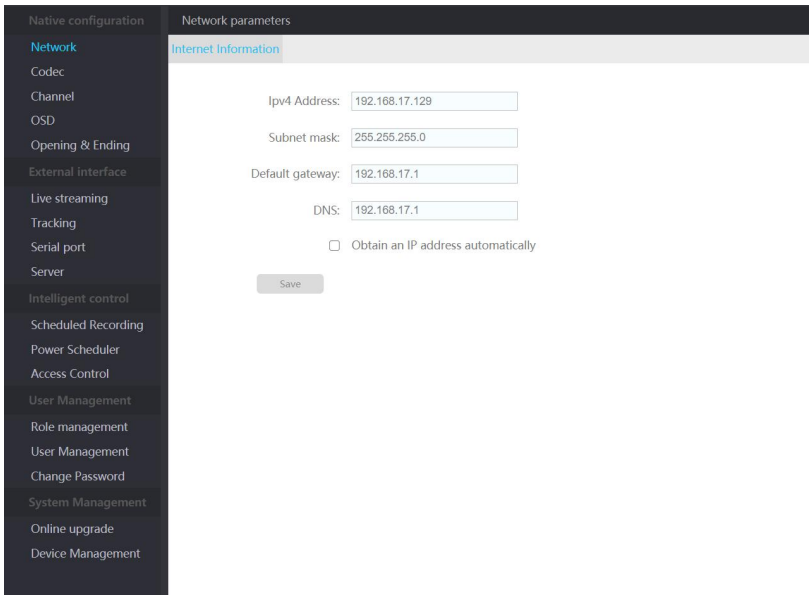
Click “Live” on the main interface of the video station, or click “Live” on the Remote Director System to start streaming to the live broadcast platform. In this time enter the Remote Director System -> Live, when you can view the live preview on the live page, it means the streaming is successful.

Chapter 7 Recording System Parameter Settings

7.1 Video Station Configuration

- Network

Display the network card information and IP information of the current video station, support manual setting of the video station address; support automatic acquisition of the IP address.

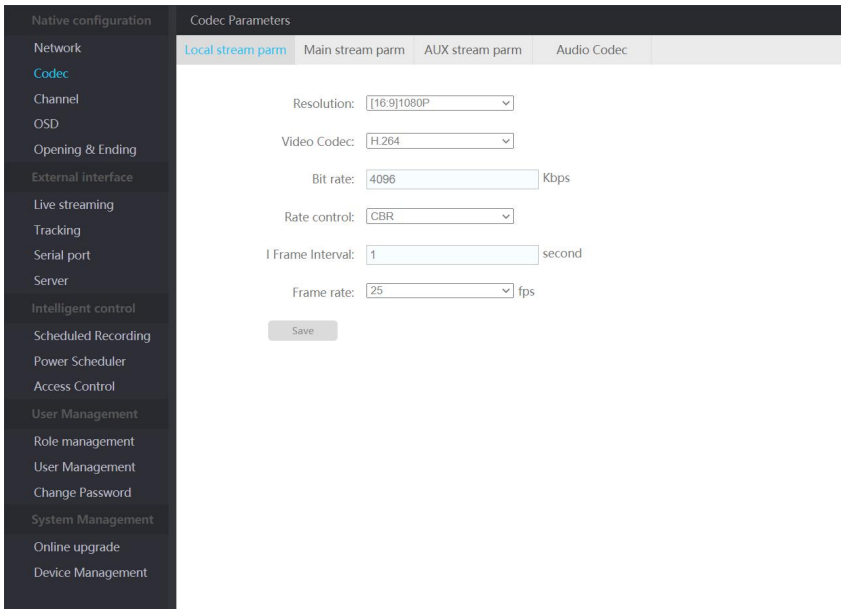


Pic：Network settings page

- Codec

Local Stream Parameters

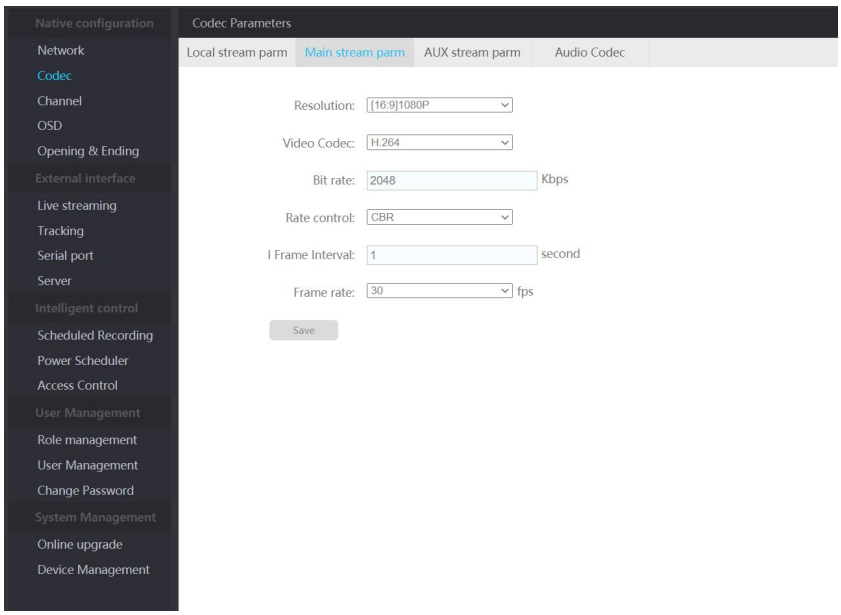
Mainly used to set the code rate of the recorded video, and generally do not modify it;



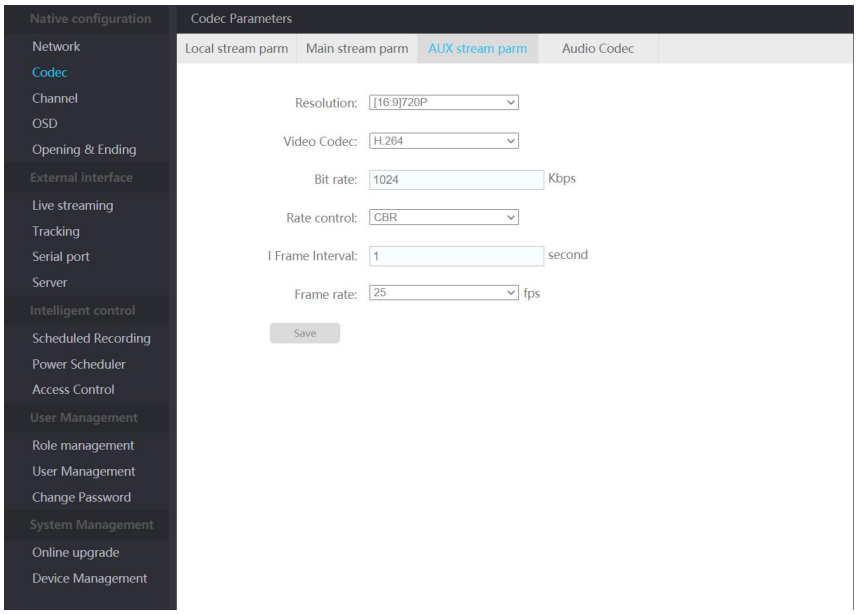
Pic：Local live broadcast and recording parameter settings

Local Remote Live Broadcast Parameters

If you use public network live broadcast, you can freely adjust the code rate according to the school's bandwidth, and generally do not modify it;



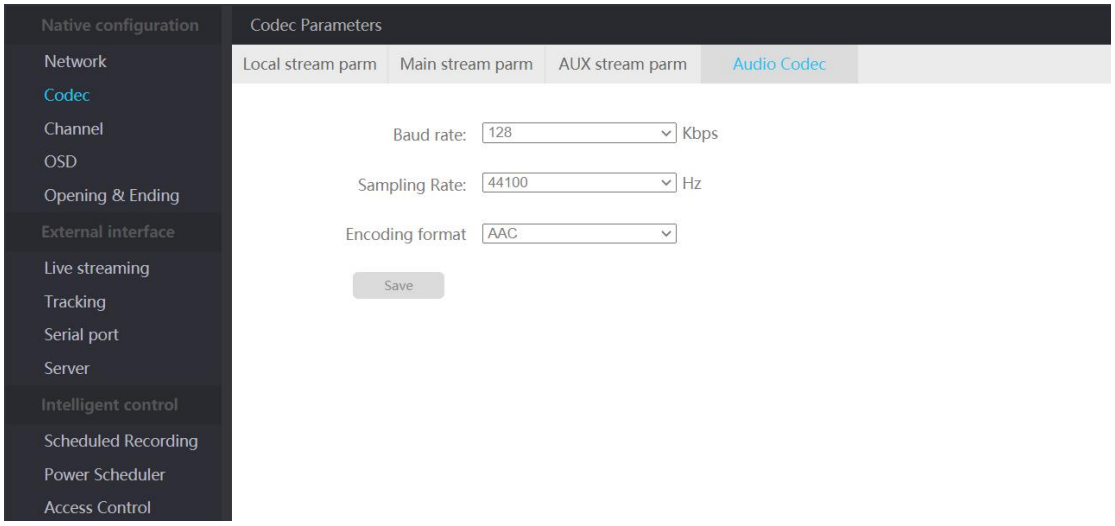
Pic：Remote live broadcast main stream parameter setting



Pic：Remote live broadcast AUX stream parameter setting

Audio Codec Parameters

Display the current audio acquisition format;

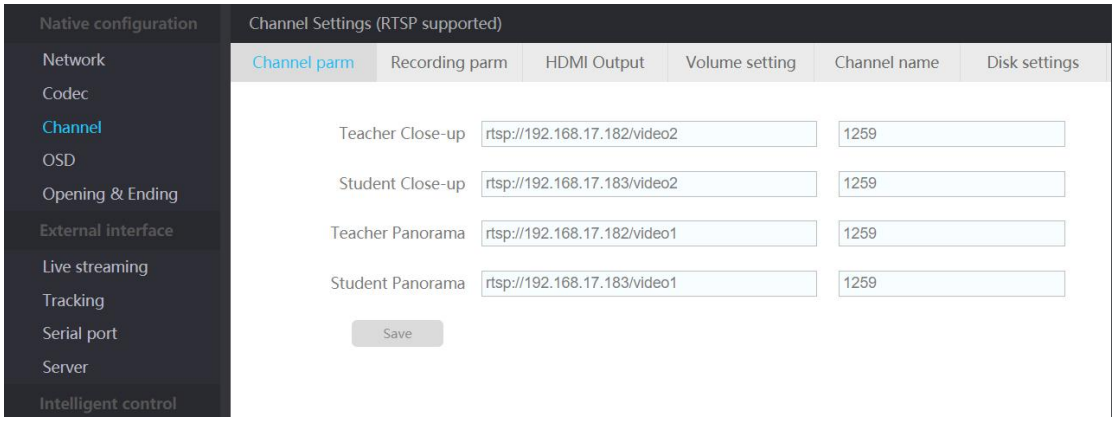


Pic：Audio codec parameter settings

- Channel

Channel parameters

The channel parameters are used to dock the video information of the camera, and each modification needs to be restarted to take effect;



Pic：Channel parameter setting

Recording Parameters

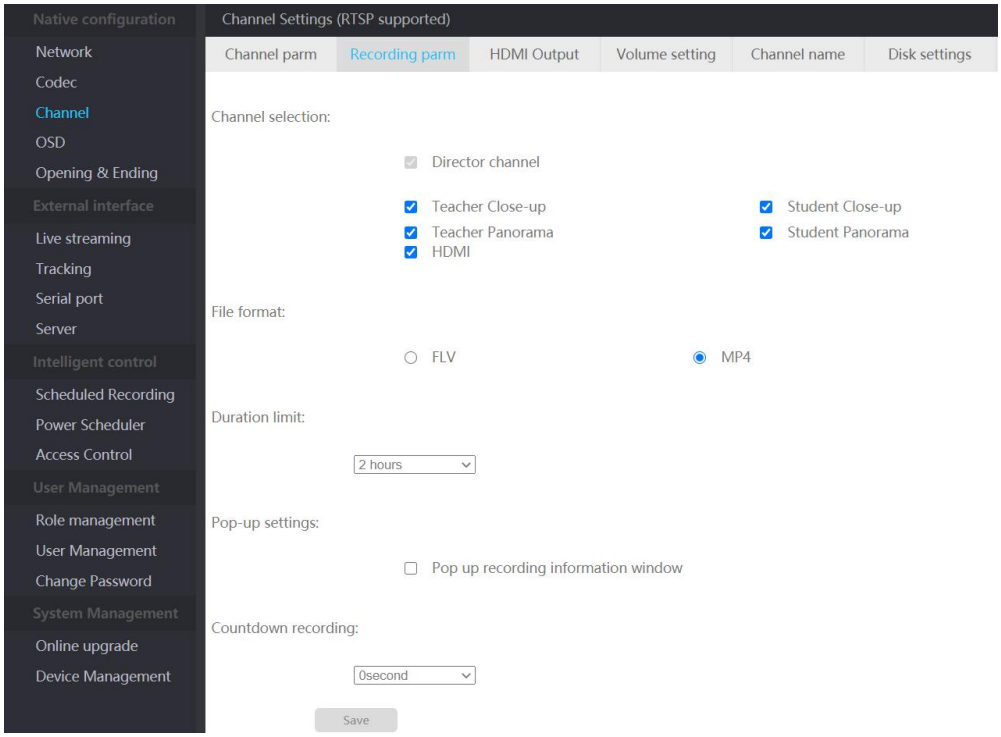
Channel selection — set multi-channel recording, the default recording director channel, the director channel is not selectable, support up to 5 channels to record at the same time.

File format — choose to record files in FLV/MP4 format, and use MP4 format to record by default

Duration limit—in the case of long-term recording, the video will be automatically cut, which can be set to 1/2/3 hours

Pop-up settings—after clicking the record button, whether to pop up a confirmation dialog box

Countdown recording — after clicking the “Record” button, whether to prompt to start recording countdown, 0 means no timing, can be set to 3/5/8/10 seconds

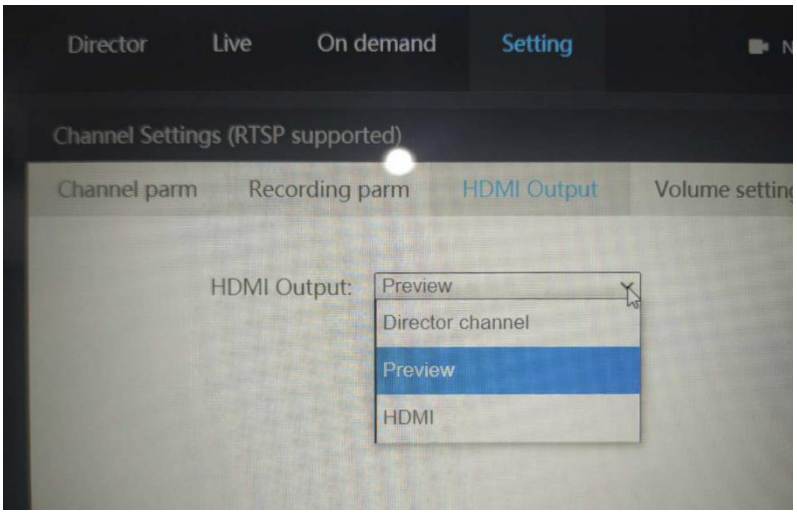


Pic：Recording parameter settings

Output Settings

Mainly used to set the video content output by the HDMI output interface (corresponding

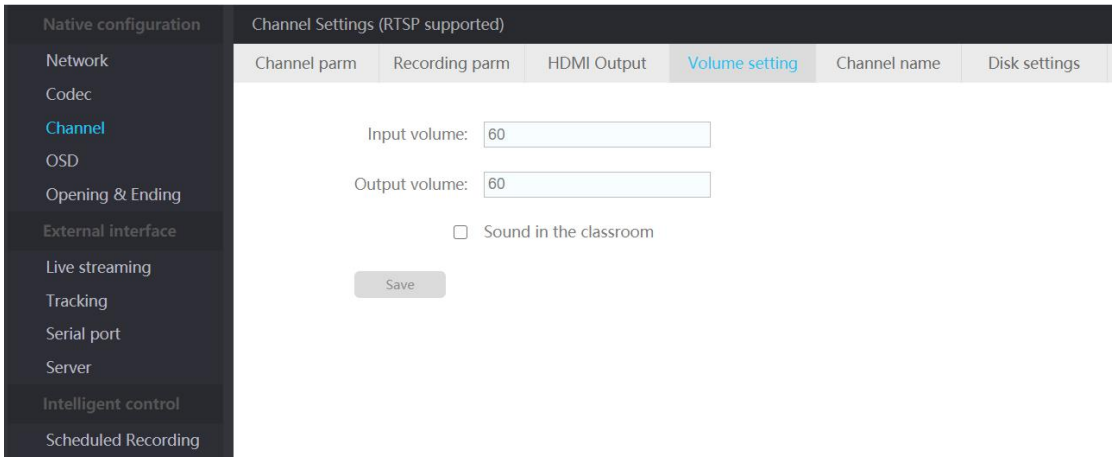
to the recording host interface HDMI out 1). It supports three options: director, preview, and HDMI.



Pic：HDMI output settings

Volume Settings

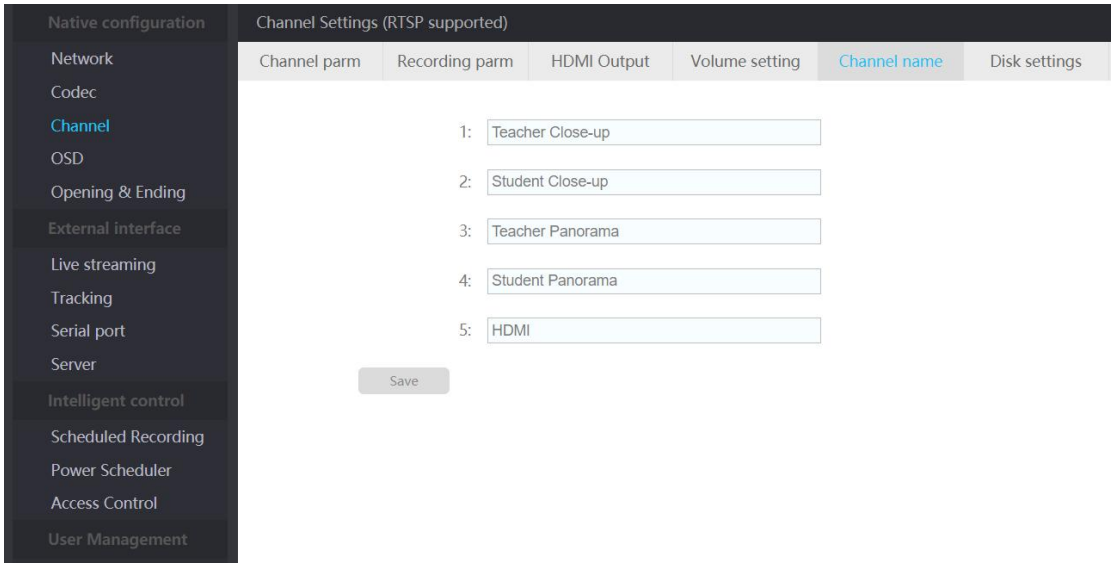
Adjust the input and output volume. If you need to use the interactive function, don't select the "Sound in the classroom" function；



Pic：Volume parameter settings

Channel Name

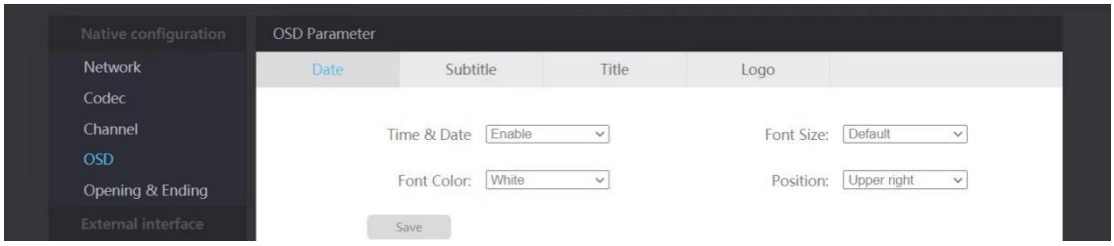
The name of each channel can be named manually



Pic：Channel name settings

- OSD Parameter

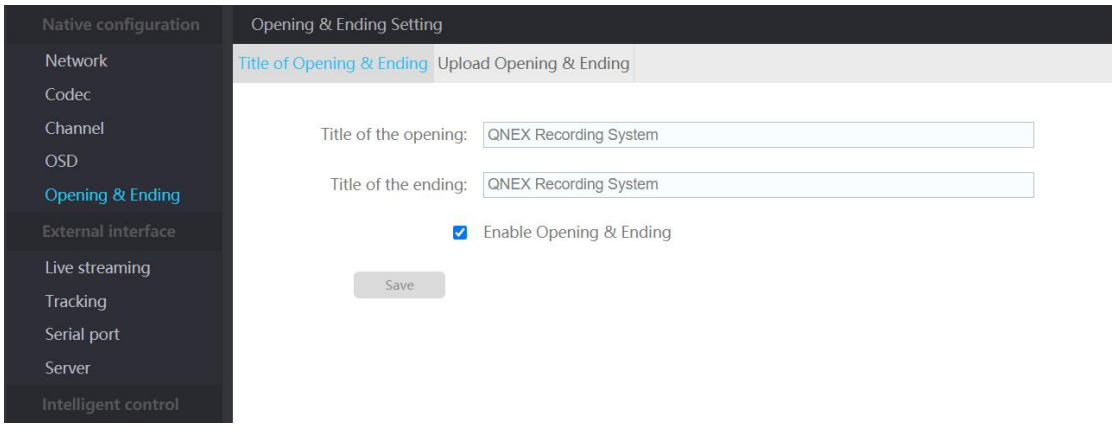
Used to edit the settings of subtitles, logo, time, and title information and select the display position, font size and color;



Pic：OSD Parameter settings

- Opening & Ending

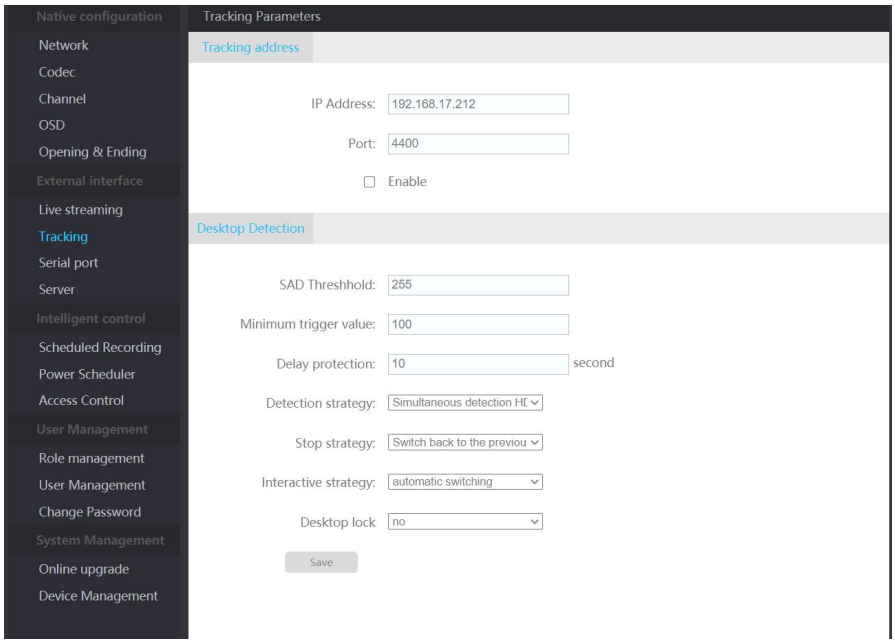
Mainly used to upload the opening and ending and set the titles of them. It is recommended to upload pictures in 1920*1080p.jpg format;



Pic：Settings of Opening & Ending

7.2 External interface

- Tracking Parameters



Pic：Tracking parameters settings

Computer Desktop Detection

SAD threshold: computer desktop detection sensitivity, the smaller the value, the more sensitive, the recommended value range is 600

Lowest trigger value: computer desktop detection sensitivity, the smaller the value, the more sensitive, the recommended value range is 300

Delay protection: the minimum hold time when the computer desktop has been switched to the desktop without operation

Detection strategy: whether to enable computer desktop detection, HDMI detection/no detection

Stop strategy: after the computer desktop exceeds the hold time, it automatically switches channels and switches back to the previous channel/switch to track the last triggered channel/specified channel (customizable selection)

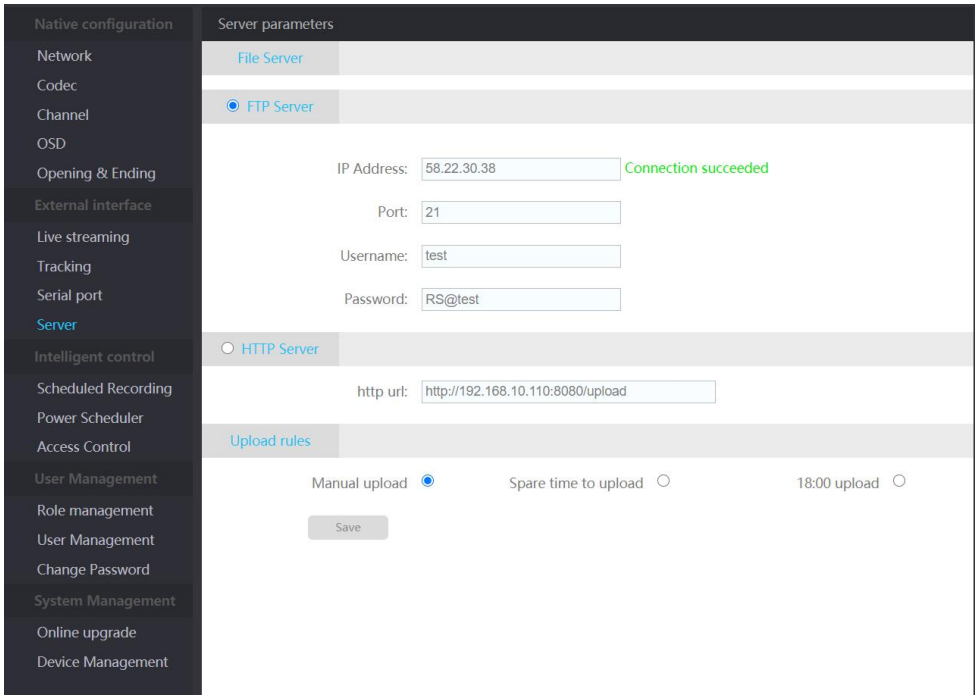
Interactive strategy: whether to automatically switch to multi-screen layout after interactive connection, no switch/auto switch

Computer desktop lock: whether the PGM screen has been kept on the computer desktop, yes/no

- Server

Mainly used to connect the video station with other platforms.

FTP service: upload the video to the settings on the FTP server, fill in the address IP that needs to be uploaded to the specified server.

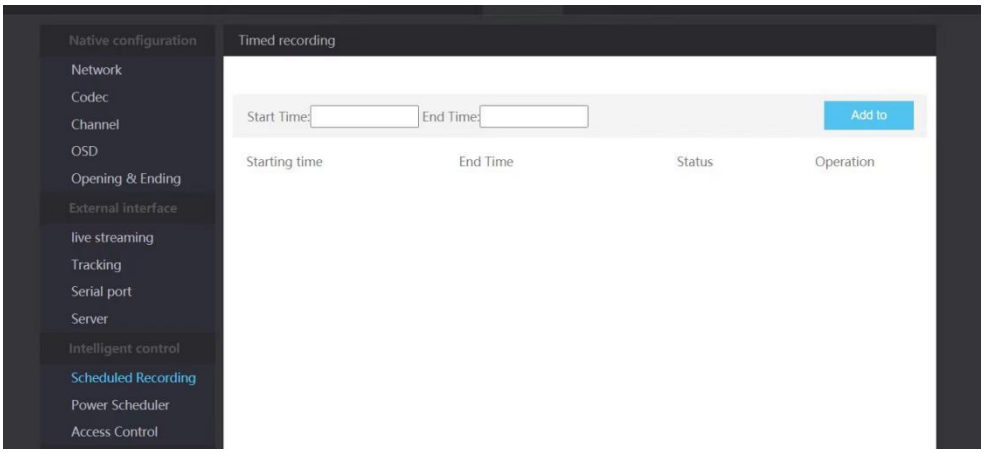


Pic：Server parameter settings

7.3 Intelligent Control

- Scheduled Recording

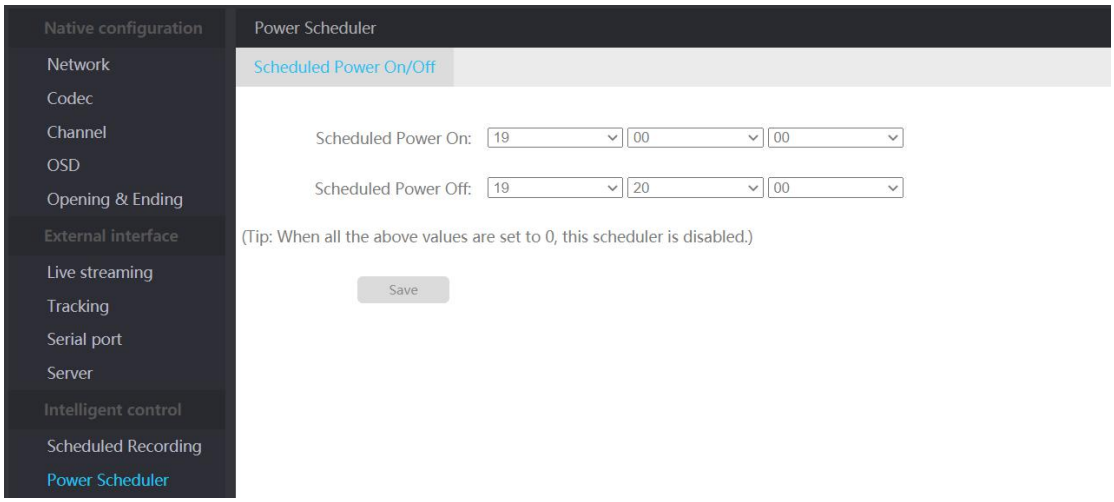
Scheduled recording function, support single recording time



Pic：Scheduled recording settings

- Power Scheduler

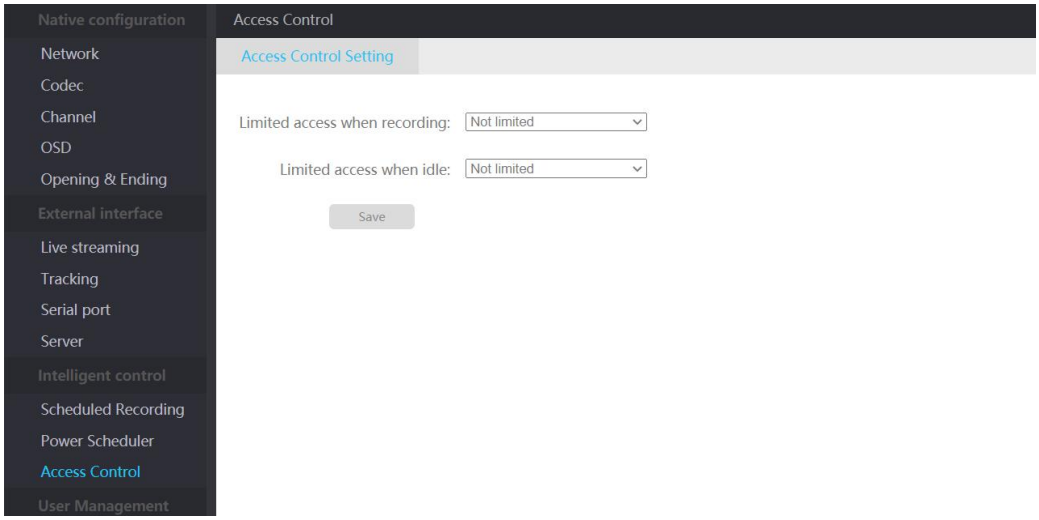
Schedule power on/off



Pic：Power scheduler settings

- Access Control

There is a limit that an account cannot have more than two logins at the same time to prevent data loss caused by human misoperation;

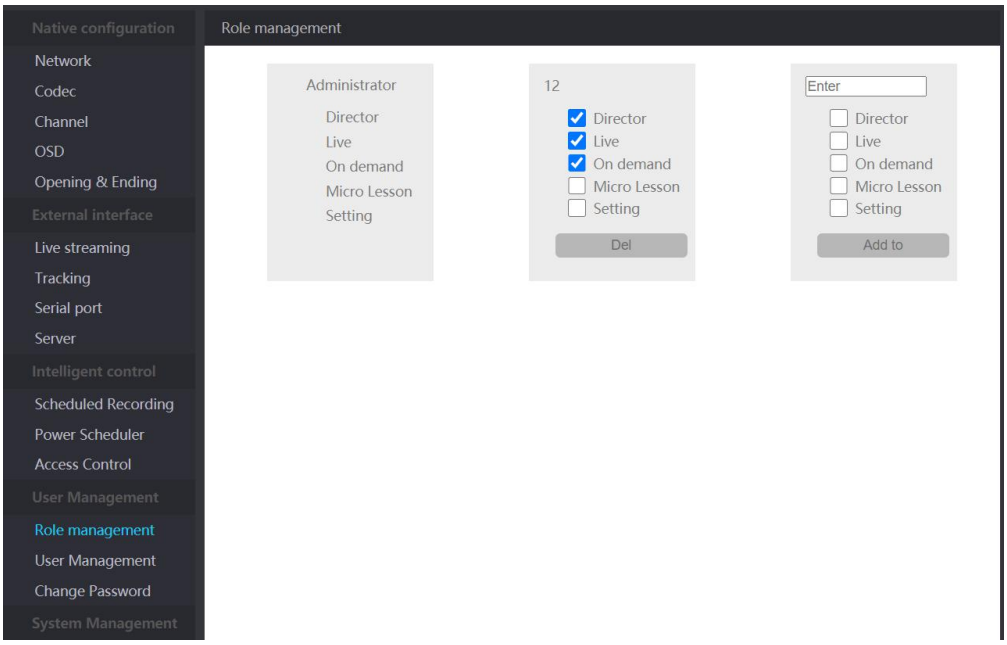


Pic：Access control settings

7.4 User Management

- Role management

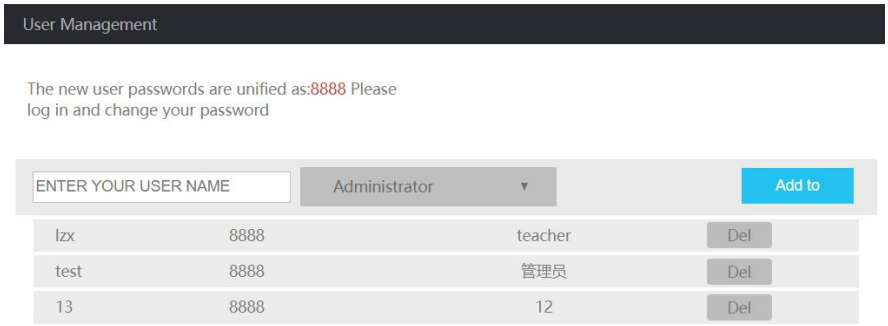
You can add administrator and user permissions to operate this system.



Pic：User permission settings

- User Management

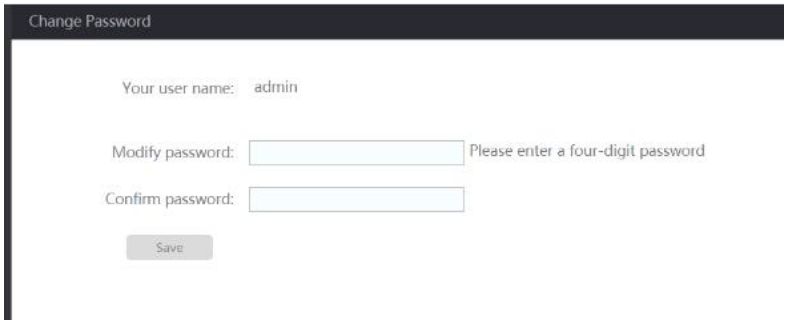
Create a new login user, the default password is 8888. Based on the normal operation of the system, it supports up to 8 new users.



Pic：Add user

- Change Password

Modify the password of the current login account

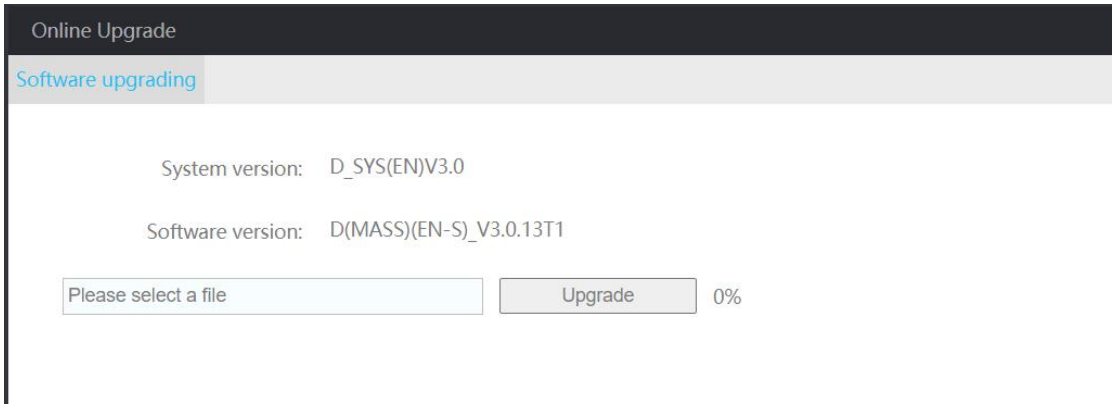


Pic：Change password

7.5 System Management

- Online Upgrade

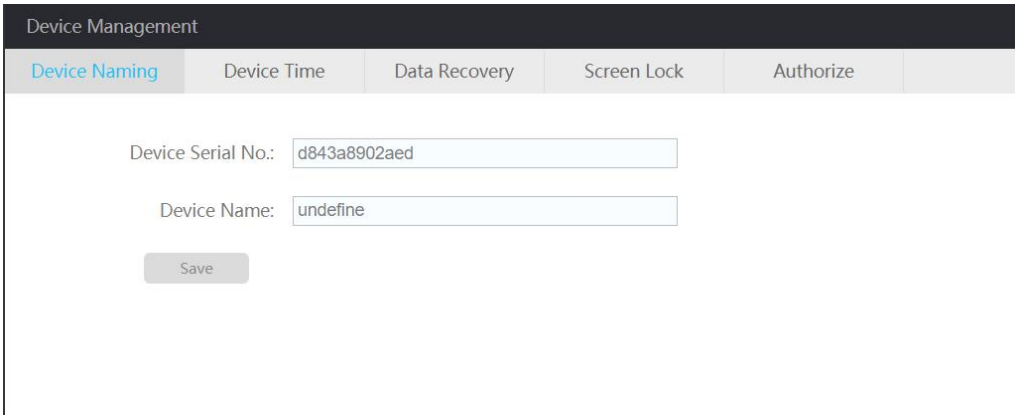
To upgrade the version of the system, select the file that needs to be updated and click the "Update" button. Please keep the power on when the system is upgraded.
After the upgrade is successful, the system will automatically restart.



Pic: Software upgrading

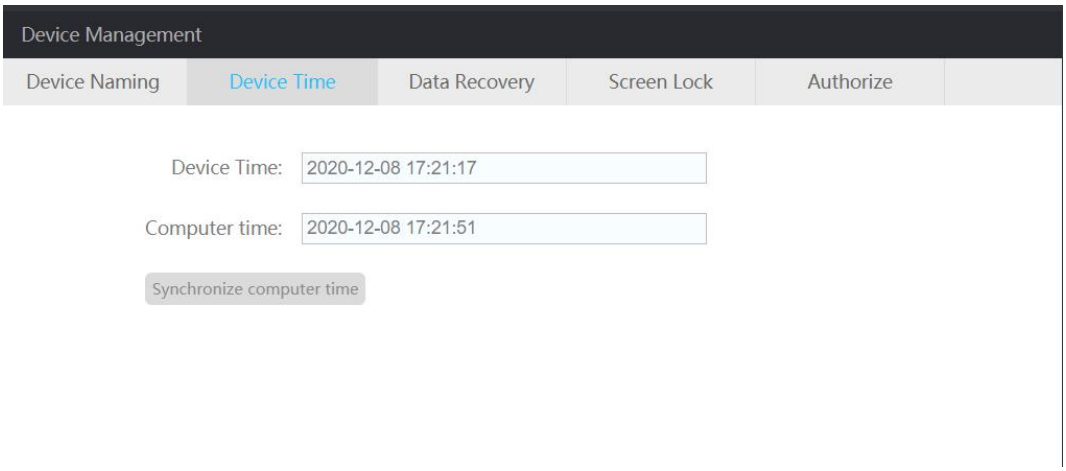
- Equipment management

Device Naming



Pic: Device naming

Mainly display the video station serial number (not writable)
Video station name (modifiable, used for classroom identification when docking with the platform)
Device Time

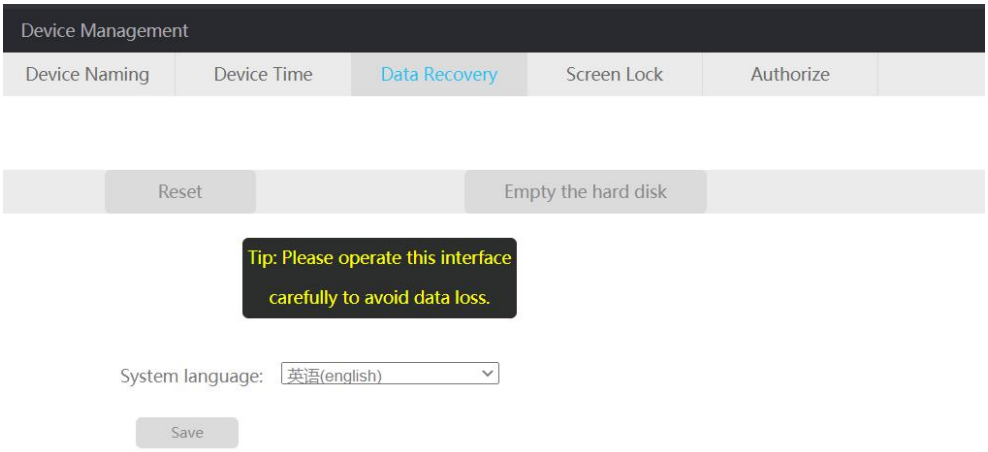


Pic：Device time settings

If the current time of the device is inconsistent with the current network time, you can click the "Sync Network Time" button.

Data Recovery

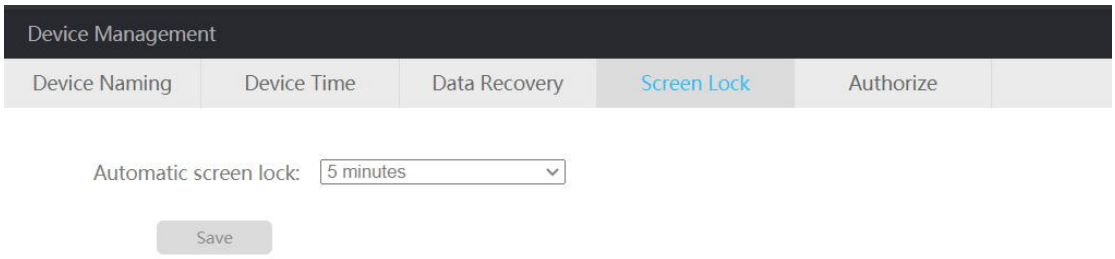
Click the "Format hard disk" button to format the system hard disk, and all data will be cleared; click the "Reset" button to restore the setting fields to the default parameters (if necessary, please contact the debugging personnel, do not operate without authorization. Otherwise, you should bear the responsibility if data loss caused by your misoperation.)



Pic：Data recovery page

Screen Lock

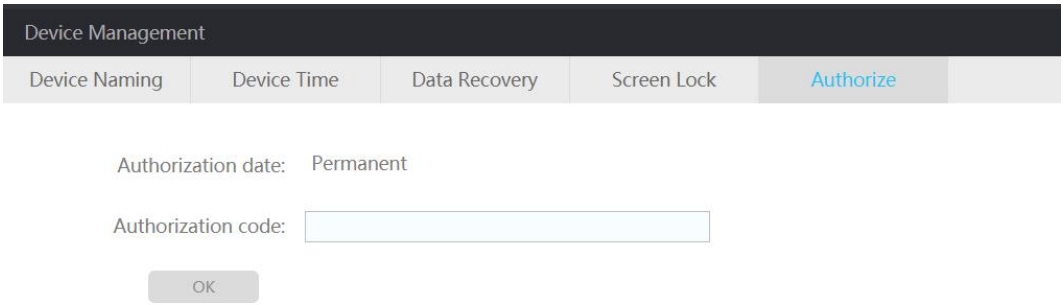
The lock screen management is used to define the cooling time when the touch screen is automatically locked. In the unlocked state, if the touch screen is not touched within the specified time, the screen is automatically locked.



Pic：Set automatic screen lock time

Authorize

The device can be authorized to operate. If the authorized time is exceeded, the video station will not be able to be used normally (if the device is found to indicate that the authorization information has expired, please contact the manufacturer's engineer)



Pic：Authorization settings

Chapter 8 Abnormal problems and solutions

1. The channel address is set correctly, but the director does not display the image;

a. After the channel address is set, do you restart the video station (the video station be restarted to take effect).

b. Whether the IP of the camera and the video station are in the same network segment (the network segment must be the same).

c. Whether the camera is normally powered on and the network is normally connected.

2. There is tracking effect, but it cannot be switched automatically;

a. Whether the smart switching and smart tracking are on at the same time.

b. whether the tracking correctly docks the tracking IP, it can be checked in Settings—

Tracking.

c. Whether the correct video station address and switching instruction are set on the tracking software.

3. Set the correct IP address for interaction, but the interactive connection cannot be made；

a. Whether the networks of both parties are interoperable

b. After the IP address is set, the video stations of both parties must be restarted to take effect

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