



# **Reach Bee9+ System User's Manual**



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### **Note**

This Manual is formulated in order to ensure that you can better install and configure this product. Before using this product, please read this Manual carefully to make full use of all functions of this product.

The contents of this Manual will be updated irregularly without prior notice. If you can't solve the problem in accordance with the manual, please contact us to inquire a relevant operation method, thank you!



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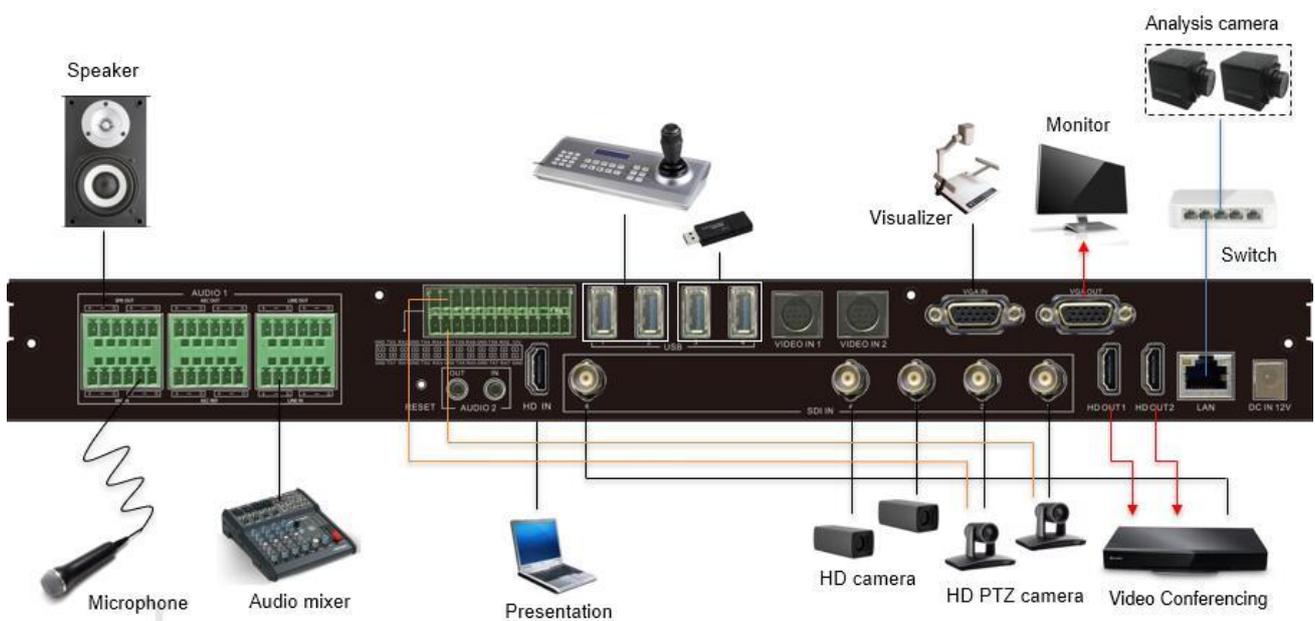


# 1 Product Introduction

The Bee9+ recorder system is a device used for front-end teaching and the release and application of back-end video resources. It is able to track the positioning of teachers, and includes a four-camera tracking scheme: a close of view of the teacher, panoramic view of students, panoramic view of teachers and students' close-up.

With build-in input and output interfaces such as HD video, audio, VGA, USB, etc., the Bee9+ recorder system automatically identifies signal sources, records and generates universal MP4 video files. The system can be easily managed and controlled by Web, directing console, professional media center, panel buttons and third-party central control devices.

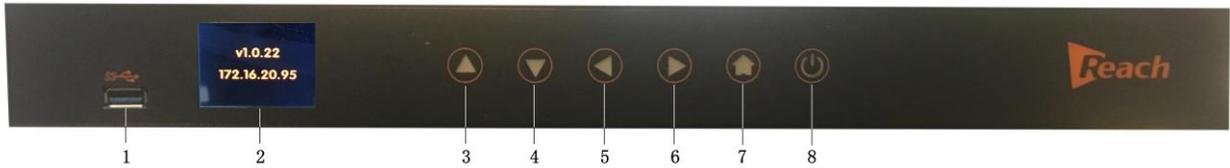
## 1.1 System connection diagram



## 1.2 Bee9+ host

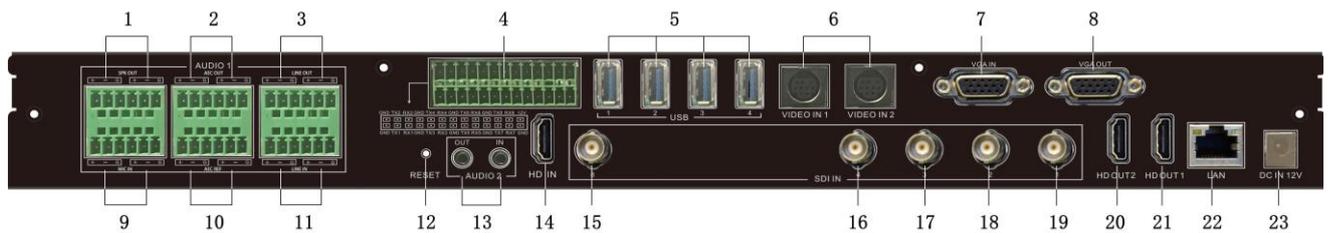
The front panel of the tracking recorder host is shown below:





1	USB interface	2	2 inch LCD panel (display version number, IP information)
3	Option key	4	Option key
5	Option key	6	Option key
7	Main interface key	8	ON/OFF key, touch to display IP

The interface on the back of the tracking recorder host are shown below:



1	SPK OUT output AEC REF +LINE sound	2	AEC OUT output MIC IN+LINE sound
3	LIN OUT output MIC IN+LINE IN+AEC REF sound	4	Control interface. The last 12V power supply interface is the external 4.3-inch control panel
5	USB interface	6	VIDEO input (reserved)
7	VGA input	8	VGA output (director picture)
9	Audio MIC input (microphone)	10	Echo suppression/remote reference signal
11	Audio LINE input (laptop, DVD)	12	Reset to Factory Defaults
13	Audio input/output (reserved)	14	HDMI input
15	3G-SDI input (video conference input)	16	3G-SDI input (student panorama input)
17	3G-SDI input (platform panorama input)	18	3G-SDI input (student close-up input)
18	3G-SDI input (teacher close-up)	19	HDMI output (video conference)



19	HDMI output (video conference)	21	Network interface
22	Power input	23	

### 1.3 4.3-inch serial port touch screen CS-100 (standard)

4.3-inch touch screen is shown as follows:



- It is a standard 4.3-inch serial port touch screen - connect to 12V power supply on Line 8 of Bee9+ serial port.
- The screen automatically opens after starting up, and allows control of the device's On/Off, VGA lock and video dotting.
- Also controls the start, pause, and stop of video recording.
- Note: the connection line sequence of serial port center control and Line 8 of serial port on the back panel of the recorder host is: the G/T/R/V at the serial port remains unchanged, and the T/R at the recorder host port needs to be crossed. Serial port G/T/R/V----- -- -G /R/T/V recorder port.



## 2. Supporting software of recorder host

### 2.1 ReachDirector

ReachDirector is a recording control tool that integrates the view of the access signal source, recording control, PTZ control, director mode setting, multi-image synthesis and switching animation effects. The integrated machine can be used to direct output image and other operations. For details, please refer to the *Introduction of Director System*.

### 2.2 ReachDownload

Reachdownload is used for file downloading and deleting of those recorded.

#### 2.2.1 Login operation



Sign in

Server IP: 172.25.100.88

User name: admin

Password: \*\*\*\*\*

Remember password

Language: English

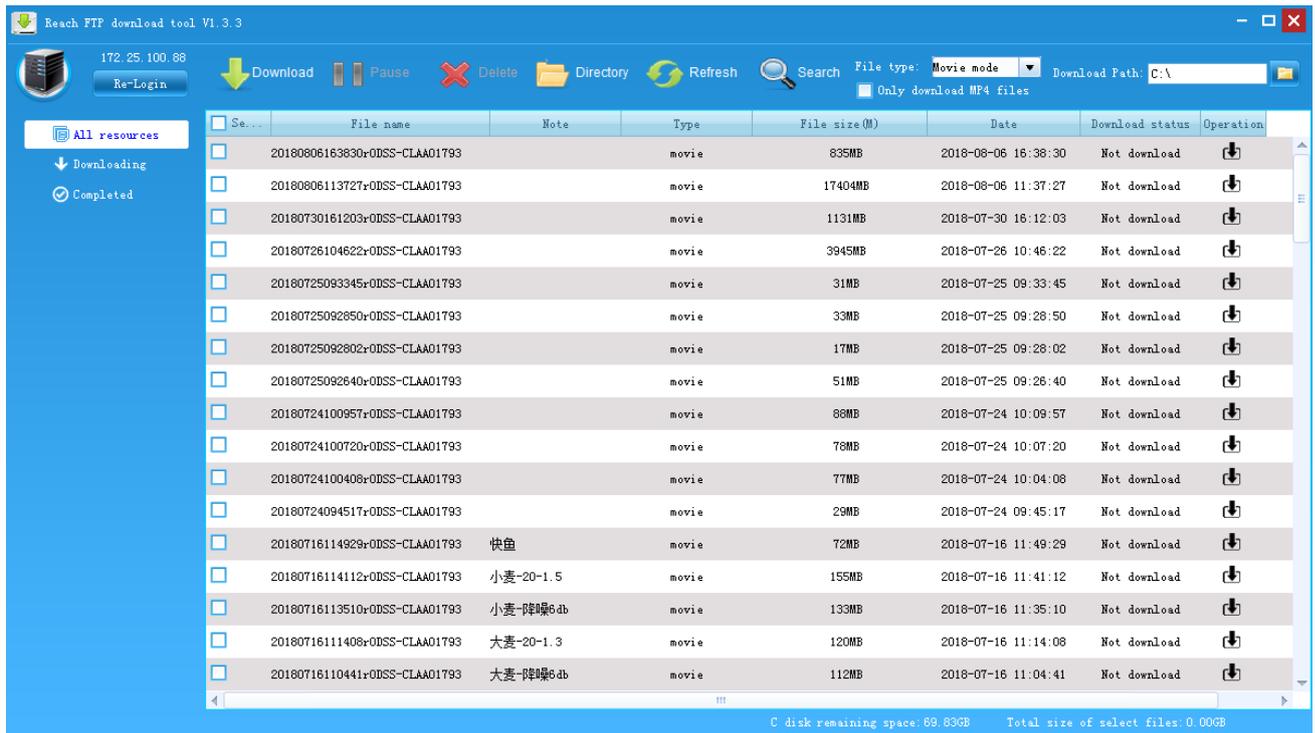
Login

- (1) Server IP address: the IP address of matching recorder;
- (2) User name and password: the login user name and password for the matching recording;



(3) Language: either simplified Chinese or English can be selected.

## 2.2.2 Stored files management



1. Download: download the selected file to device;
2. Pause: suspend the downloading process;
3. Delete: delete the file from recordings;
4. Directory: open the directory for currently downloaded files;
5. Refresh: real-time files list;
6. Search: search files according to it's name;
7. Resource types: resource mode, movie mode and resource & movie mode are optional for downloading.
8. Download mp4 files only: download mp4 files only instead of the entire file directory.



9. Download path: choose to download the files to the local directory or disk C, which is the default;
10. Downloading: the file you are downloading can be viewed on the “Downloading” page. Click “Cancel” to cancel the download if needed.
11. Completed: the downloaded file is displayed on the “Completed” page.

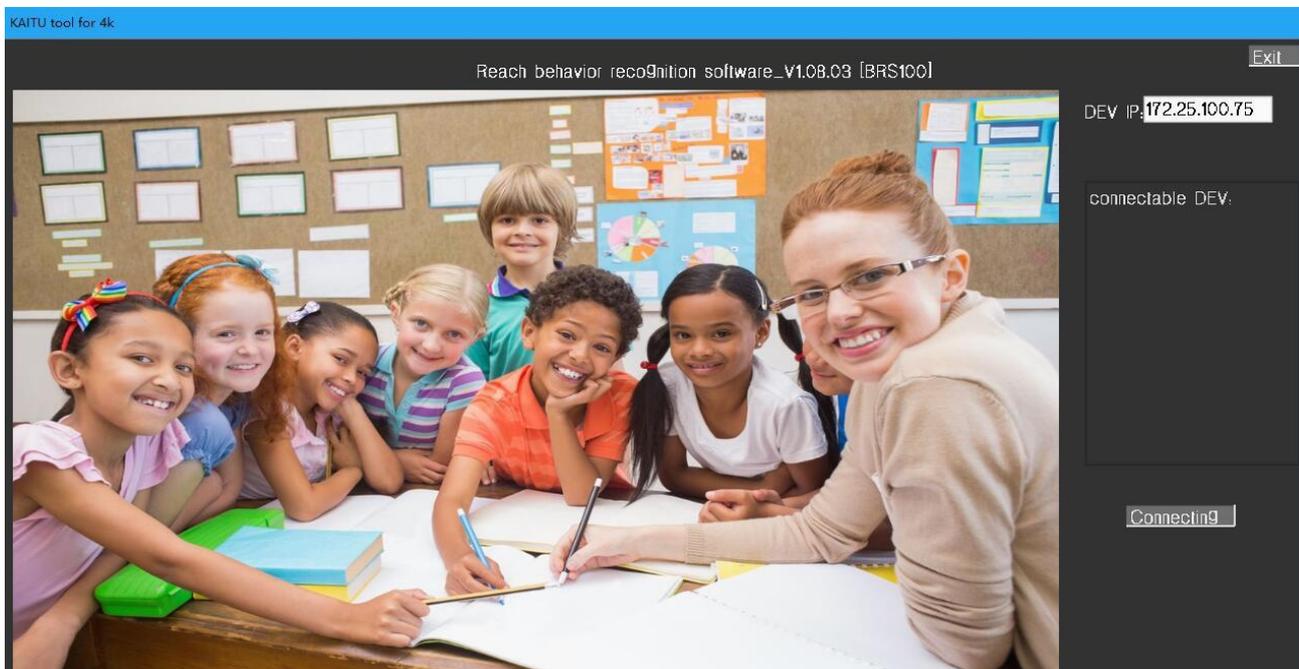
## 2.3 KiteTool

An automatic tracking software debugging tool.

Double-click to run the kt\_tools.sfx.exe file after downloading KiteTool.



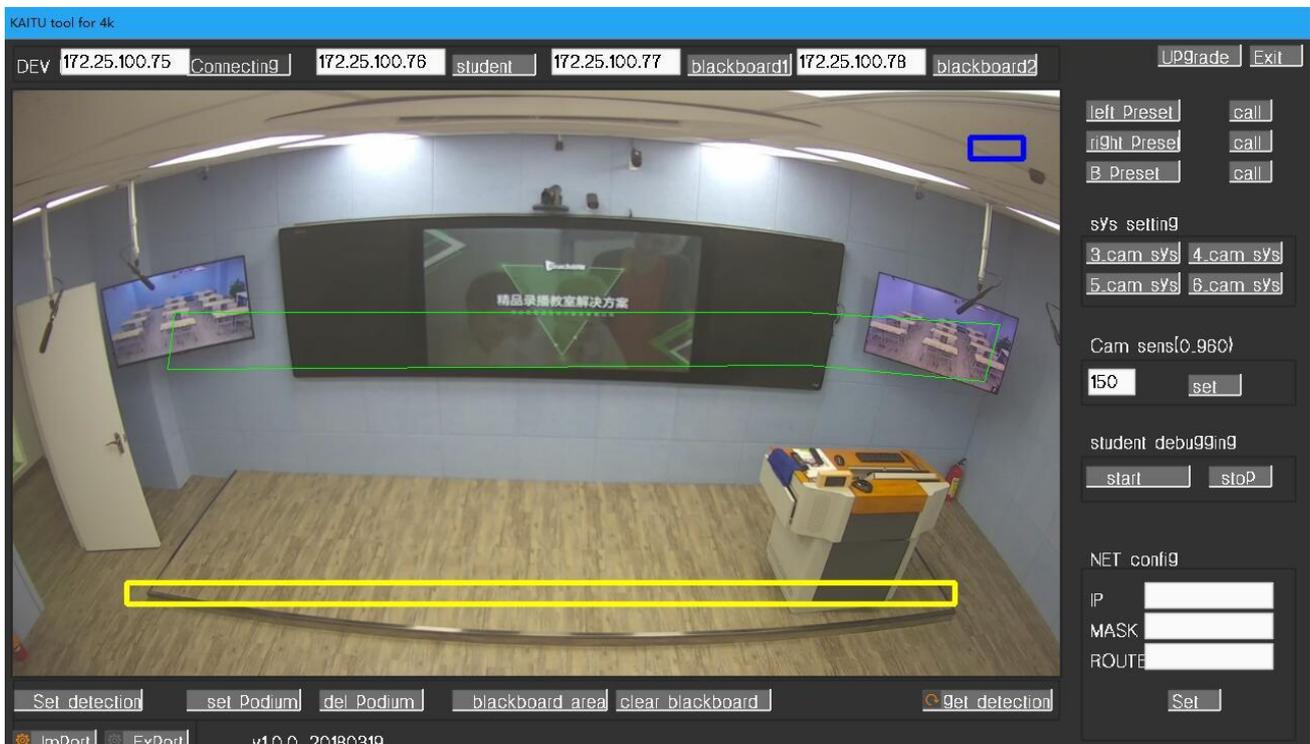
## 2.3.1 Login operation



1. The debugging tool can be set after adding its IP.



## 1.3.2 Interface operation



1. Device IP: click to display the IP address connected to the teacher tracker;
2. Students, blackboard 1, blackboard 2: add the IP address of the tracking cameras for the students and blackboards.
3. Set the detection area: set the detection area of the current tracker. If the teacher tracking camera is connected, use the mouse to draw the activity area of the teacher.
4. Indicate the detection area: indicate the detection area of the current tracker, such as the green and yellow boxes in the figure above;
5. Set the off-platform area: set the trigger box of the off-platform of the teacher, as shown in the yellow box;
6. Delete the off-platform area: delete the off-platform area;
7. Set & call the left/right preset position: set the left/right preset position of the tracker so that it can be called directly without resetting it;
8. Set the tracking sensitivity: set the sensitivity of the tracker - the higher the value, the more sensitive the



tracker to movement

9. Set the camera number: set the camera number of an integrated camera, and restart the integrated it after setting;
10. Import: import the locally set tracking parameters into the kitetool;
11. Export: export the set tracking parameters to a local file;
12. Restart: restart the kitetool;
13. The upgrade symbol on the upper right corner is to upgrade for tracking camera.

## 3 Web configuration of micro recorder host

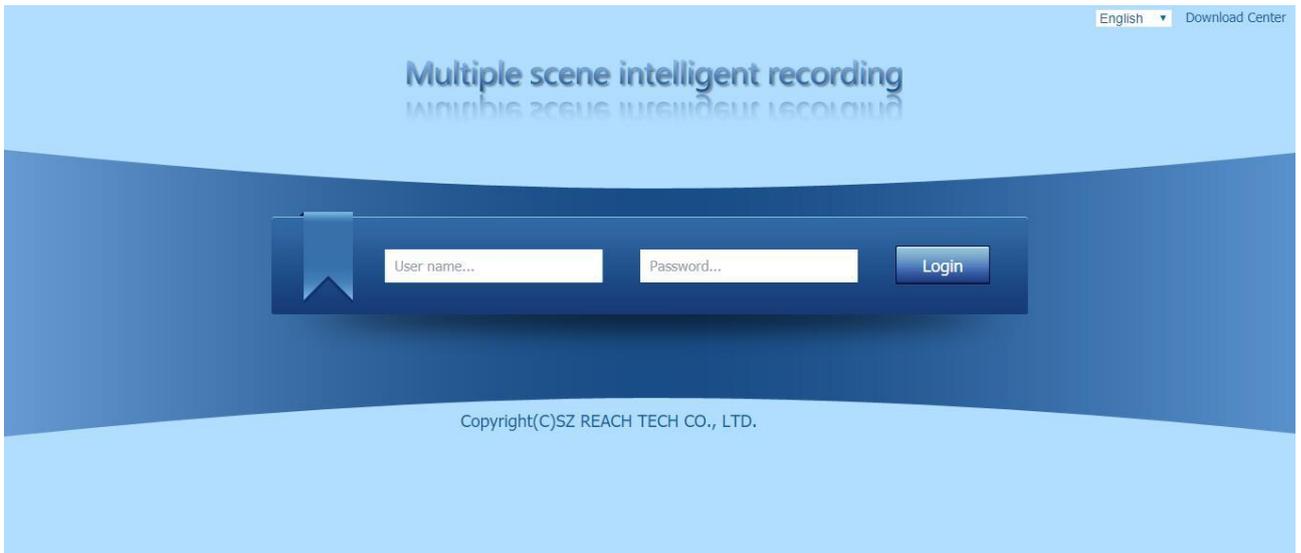
### 3.1 Login device

The Bee9+ host is configured with a factory-set default IP address. After the device is powered on, the user can get the IP address of the device from the display information on the LCD screen.

Users can log into the device through Google browser. The login steps are as follows:

1. Enter the device's IP address in the browser's address bar and press Enter to pull up the login screen.





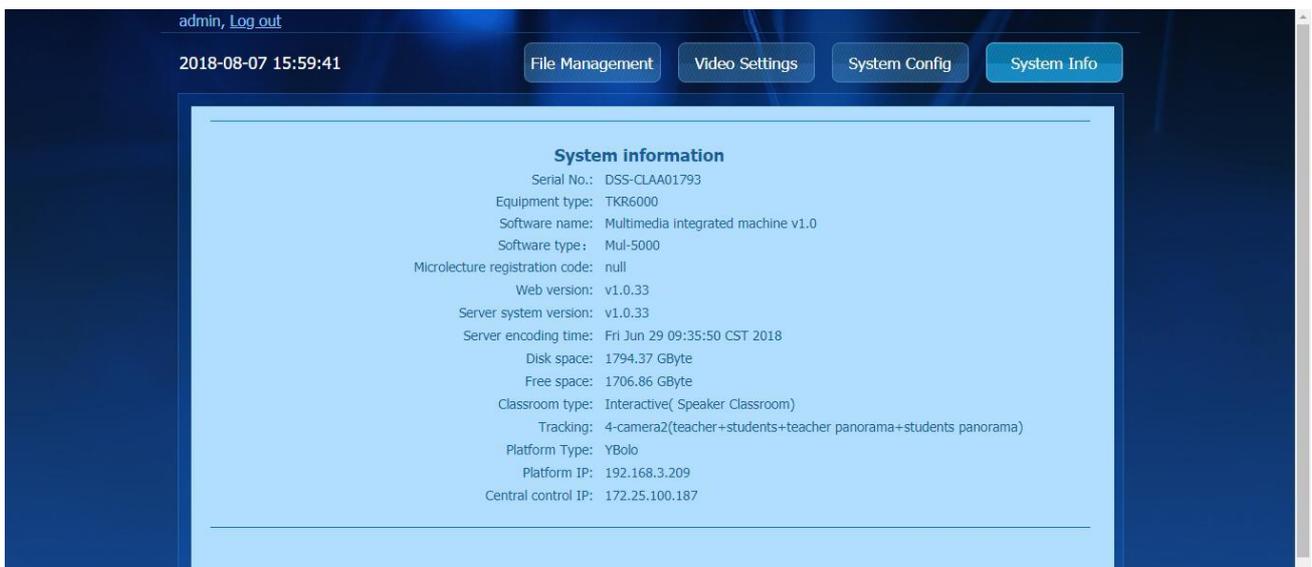
2. Enter the user name and password at the login screen and click "Login" to log into the device.

Bee9+ supports 2 users, with the user description as follows:

User type	User name	Password	Description
Preview user	guest	guest	Users may log in Bee9+ to view and download the recording files.
System user	admin	admin	Users may log in Bee9+ to perform all configuration operations, such as configuring all parameters, managing recording files, etc.

Log in Bee9+ with preview user and enter the following page:





In the page above, there are 5 function buttons. The description of 5 function buttons is as follows:

Function button	Description of function buttons
File management	Click button to perform the following operations: 1. Search, upload, download, delete, and record all files. 2. Repair and play recordings. 3. Copy file with USB drive (the first in the directory)
Audio setting	Click button to perform the following operations: 1. Echo elimination setting. 2. Noise elimination setting. 3. Time delay setting. 4. Volume setting.
Video setting	Click button to perform the following operations: 1. Check the signal status of each scene and VGA image trimming. 2. Tracking camera's IP settings. 3. Check dual HDMI output status (main and sub stream). 4. Video classroom setting (lecture-giving room, lecture-receiving)



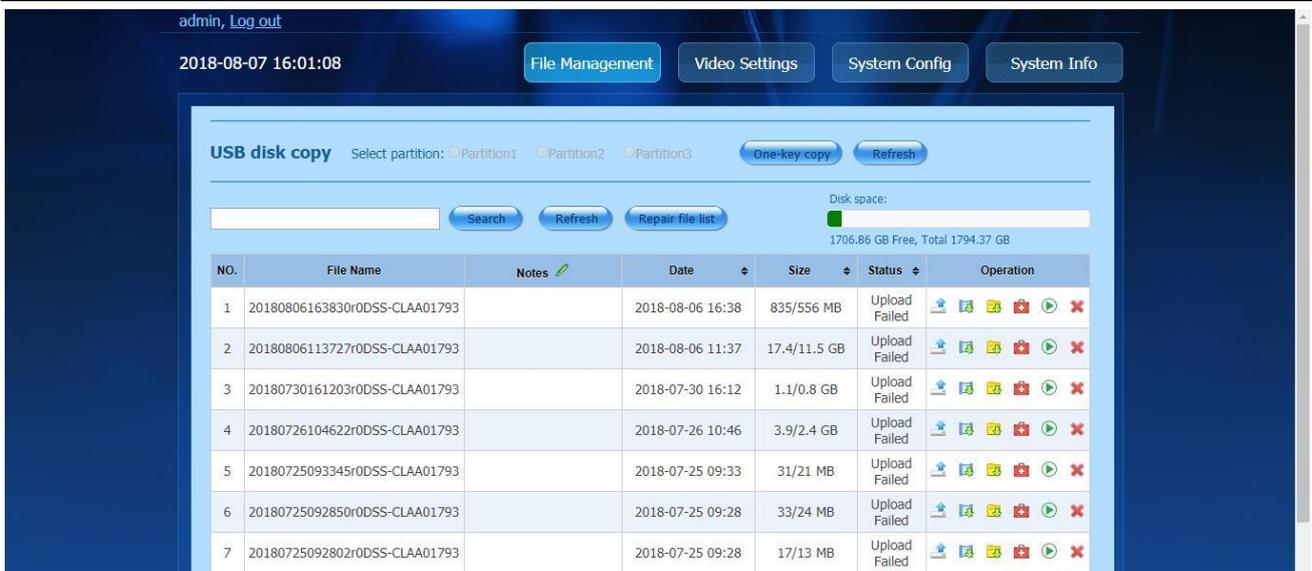
Function button	Description of function buttons
	room). 5. Interactive classroom setting. 6. RTSP, RTMP, HTTP live streaming setting.
System configuration	Click button to perform the following operations: 1. Manually configure or obtain the IP address of Bee9+. 2. Modify the password for admin user or guest user. 3. Connect center control and serial port center control device, such as MCH7000B, CS-100. 4. Enable or disable third-party FTP servers and docking platforms. 5. Update, restart Bee9+ and synchronize system time.
System information	Click button to view system information.

## 3.2 File management

### File management

1. Click the [File management] button to enter the page
2. File management operations are divided into:
  - USB copy: One-key copying of video files to external storage partitions.
  - Status-checking: For the files uploading to the platform; a prompt will show if there is a successful, failed, still uploading, or abnormal status of the file being uploaded. Operators can respond to relevant operations according to prompts.
  - Operation: the recording can be uploaded/downloaded, repaired, played and deleted.





### 3.3 Video setting

#### Input settings:

1. Click the "Video setting" button to enter the video setting page.
2. Display the HDMI/VGA signal status of Line 5 SDI and Line 1 VGA interface in "Input setting".
3. Image trimming (optional).

If the VGA image is coming from 'output' with the VGA image being offset or a green screen, adjust the VGA image by the following methods.

A: Choose to adjust the speed to "High", "Medium" or "Low".

Bee9+ supports the following two modes of trimming.

➤ Horizontal trimming

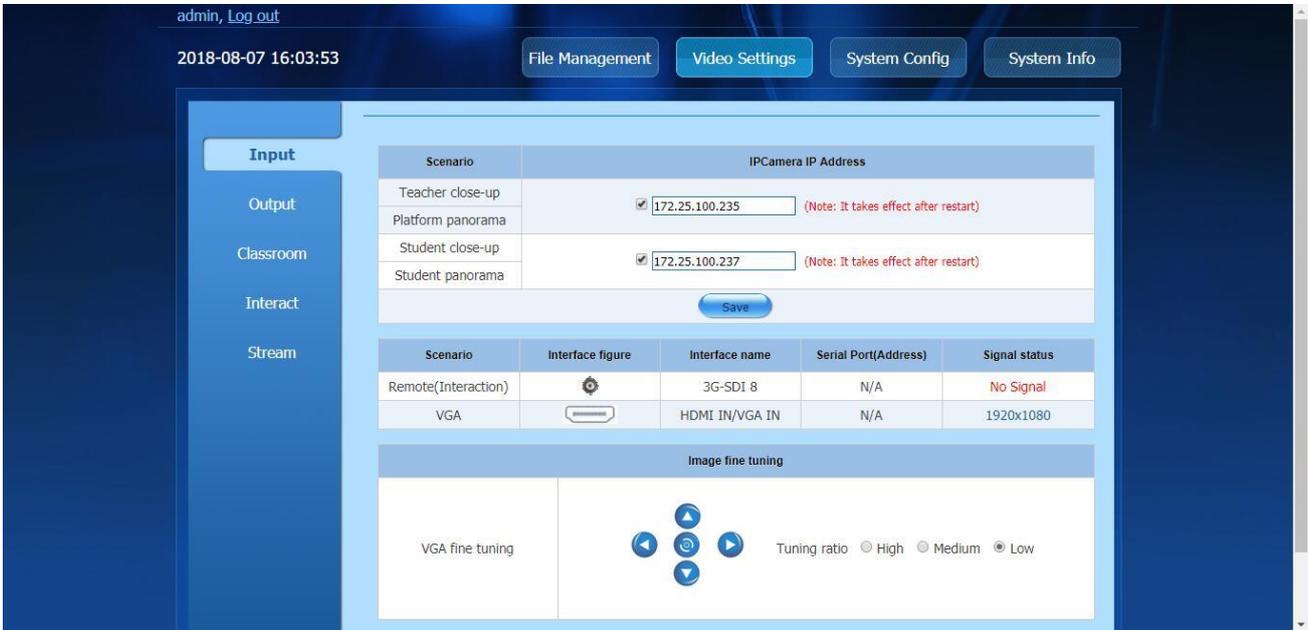
The horizontal trimming at high, medium and low levels can be adjusted by 10, 6 and 1 pixel respectively.

➤ Vertical trimming

Vertical trimming at high, medium and low levels can be adjusted by 4, 2, 1 pixel respectively.

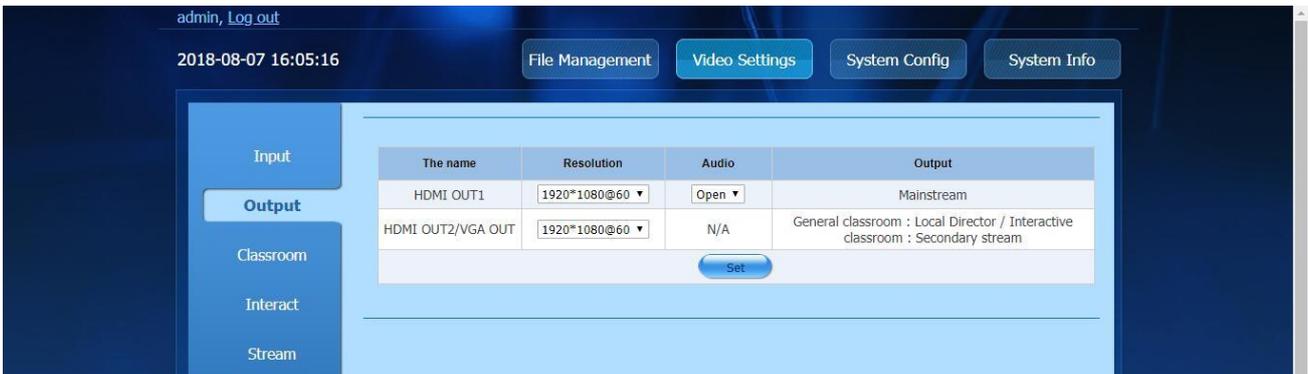


B: Click , , ,  to adjust the image.



## Output setting:

1. HDMI1, HDMI2 output resolution setting.

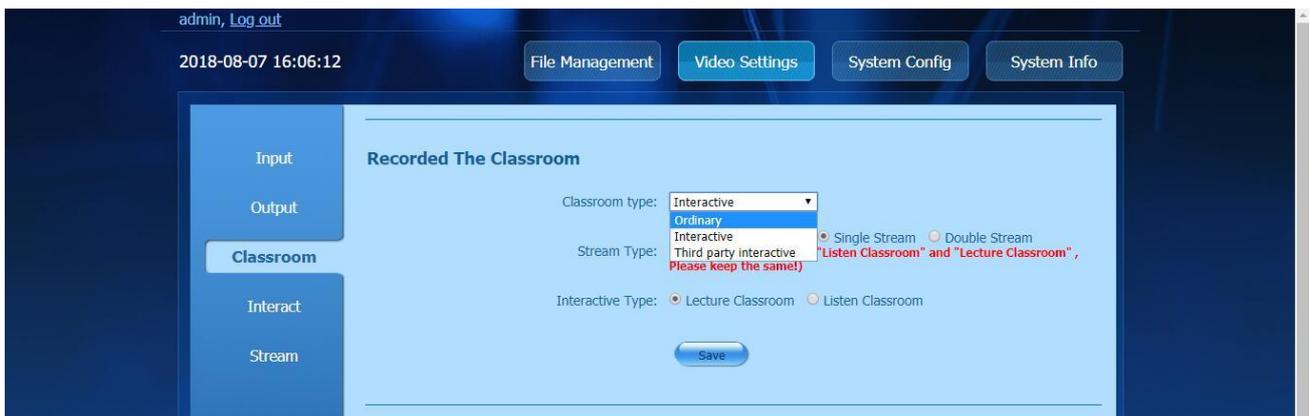


## Classroom setting:

1. Click the "Video setting" button to enter the "Classroom setting" page.
2. The 'classroom' is divided into regular video classroom, interactive video classroom and third-party interactive video classroom.



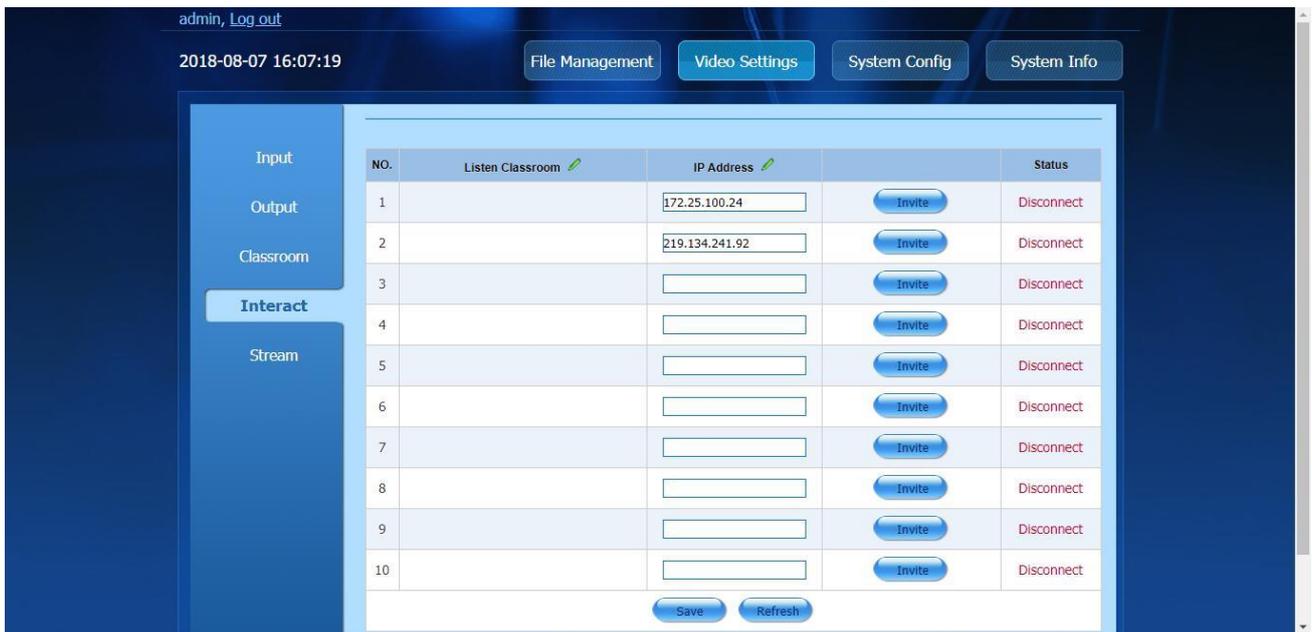
- Regular video classroom is a separate video classroom.
- Interactive video classroom (with its own interaction) supports a maximum of one lecture-giving room and four lecture-receiving rooms.
  - Lecture-giving room
  - Lecture-receiving room
- Third party interactive video classroom needs to be connected with the third party video conference.
  - Lecture-giving room (mainstream + sub-stream + remote video resources)
  - Lecture-receiving room
- Restart Bee9+ after setting.



### Interaction setting:

1. Click the "Video setting" button to enter the "Interaction setting" page.
2. As many as 10 interactive classrooms can be set.

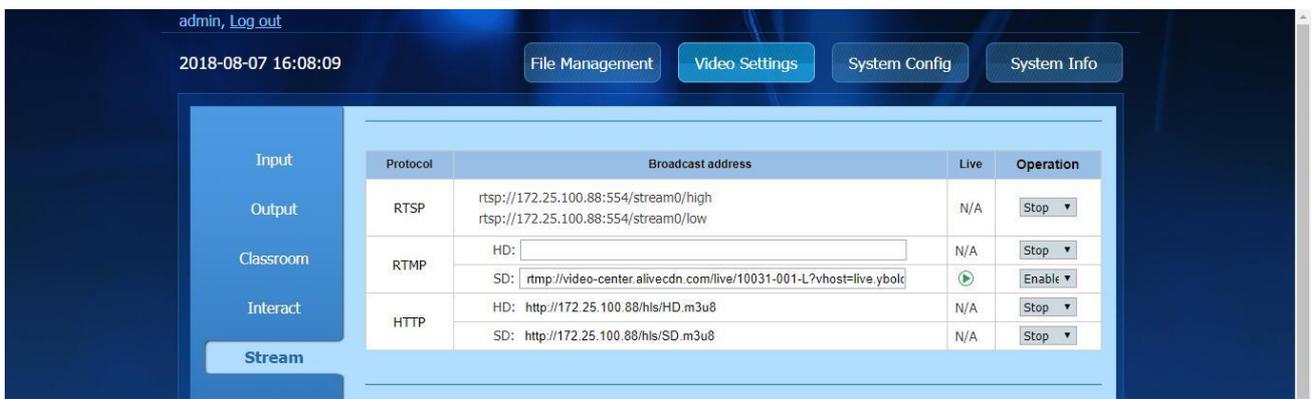




## Flow setting:

1. Click the “Video setting “button and enter the “Flow setting” page.
2. The flow setting is divided into the following: RTSP, RTMP standard flow setting, HTTP live setting.
  - The RTSP function needs to be enabled through the "Operation - detailed setting" tab. Enter the host IP, and select Enable. It is required to refresh the page after setting. There are two viewing effects: HD and Standard.
  - RTMP function can be enabled in the play address dialog box by filling in the channel number (provided by the third-party platform). Upon setting, the device needs to be restarted. There are two viewing effects: HD and Standard.
  - HTTP web page can be viewed in 2 ways: HD and Standard. It is required to restart the device after enabling / disabling the function.





### 3.4 System configuration

#### Network setting

1. Click the "System configuration" button to enter the "Network setting" interface.
2. Network setting is divided into: LAN setting.

There are two ways to configure the IP address of Bee9+: Manually or DHCP, as follows:

If...	Then...
Configure manually	<ol style="list-style-type: none"> <li>1) Fill in the "Network" page with the "IP address", "Mask" and "Gateway" of Bee9+.</li> <li>2) Click the setting button.</li> </ol>
Configure by DHCP	<ol style="list-style-type: none"> <li>1) Click "Enable" on the "Web" page.</li> <li>2) Click the setting button.</li> </ol>





## User setting

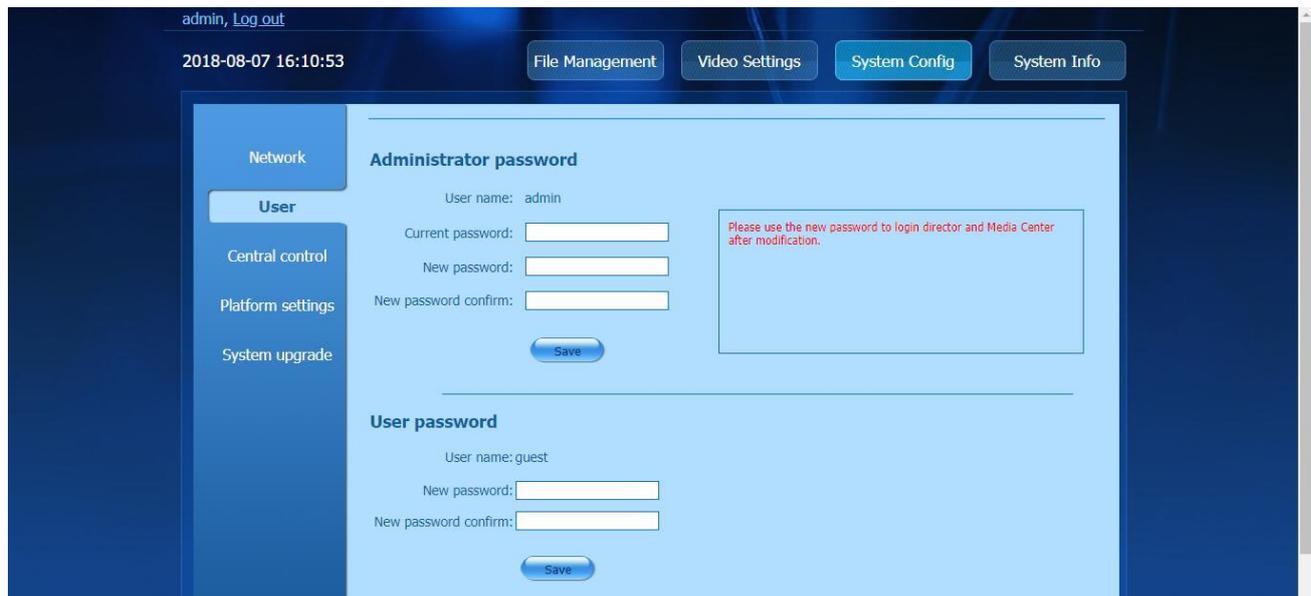
1. Click the "System configuration" button to enter the "User setting" interface.
2. After logging in as the admin user, the passwords of admin user and guest user can be modified as follows:

follows:

<p>Modify the password of the admin user</p>	<ol style="list-style-type: none"> <li>1) Click the "System configuration" button to enter the system parameter configuration page.</li> <li>2) Fill in the "Old password", "New password" and "Password confirmation" of admin user in the "Modify system user password" section in the "User" page.</li> <li>3) Click the "Save" button.</li> </ol>
<p>Modify the password of the guest user</p>	<ol style="list-style-type: none"> <li>1) Click the "System configuration" button to enter the system parameter configuration page.</li> <li>2) Fill in the "Old password", "New password" and "Password confirmation" of guest user in the "Preview user password" section in the "User" page.</li> <li>3) Click the "Save" button.</li> </ol>

Note: Passwords must also be changed for the connections of the director console and the media center.

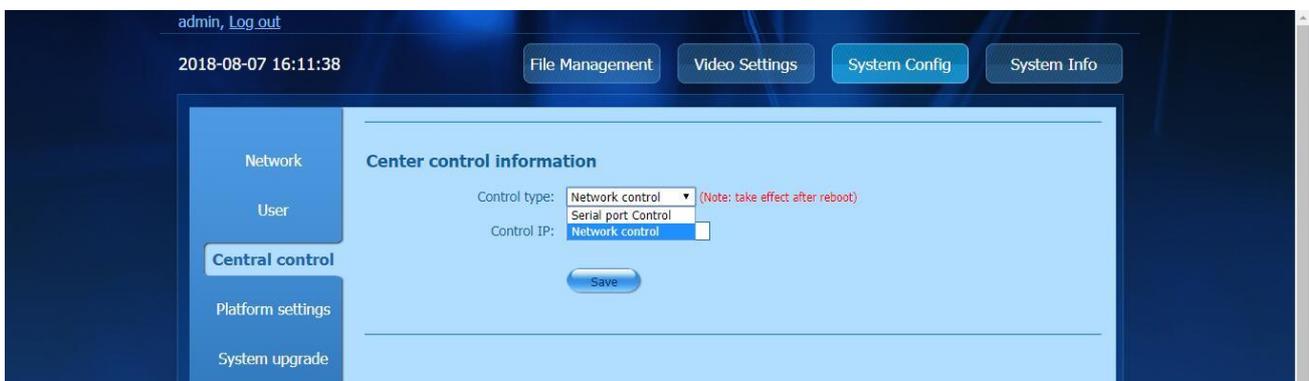




## Center control settings

1. Click the "System configuration" button to enter the "Center control setting" interface.
2. Select "Network center control" or "Serial port center control" in the "Center control setting" page.
3. If 'network center control' is chosen, fill in CL-X8 , and the IP will restart. If it is serial port center control, restart after checking.
4. Click the "Setting" button.

After "Confirm" to restart Bee9+, Bee9+ can establish a connection with MCH7000B.



## Platform setting

1. Click the “System configuration” button to enter the “Platform setting” interface.
2. “Platform setting” is a configurable type of access platform.
  - Ybolo
  - Sola server (need to fill in the platform IP address)
  - Jinkun server (need to fill in the platform IP address, platform access code)
  - Third party FTP
    - Set the “Server address”, ”Server port”, “Server path”, “Server username” and “Server password” of the FTP server.

“Server path” is the storage path for recording files on the FTP server.

- Click the “Setting” button. If the Bee9+ is successfully connected to the FTP server, Bee9+ can no longer connect to the Reach education cloud resource management platform.

- Ybolo



## System upgrade

1. Click the “System configuration” button to enter the “System upgrade” interface.
2. The "System upgrade" screen is divided into “system upgrade”, “system time synchronization” and “system



restart”.

- System update
- Click  button for system update.
- Select update file
- Click "Update" button.

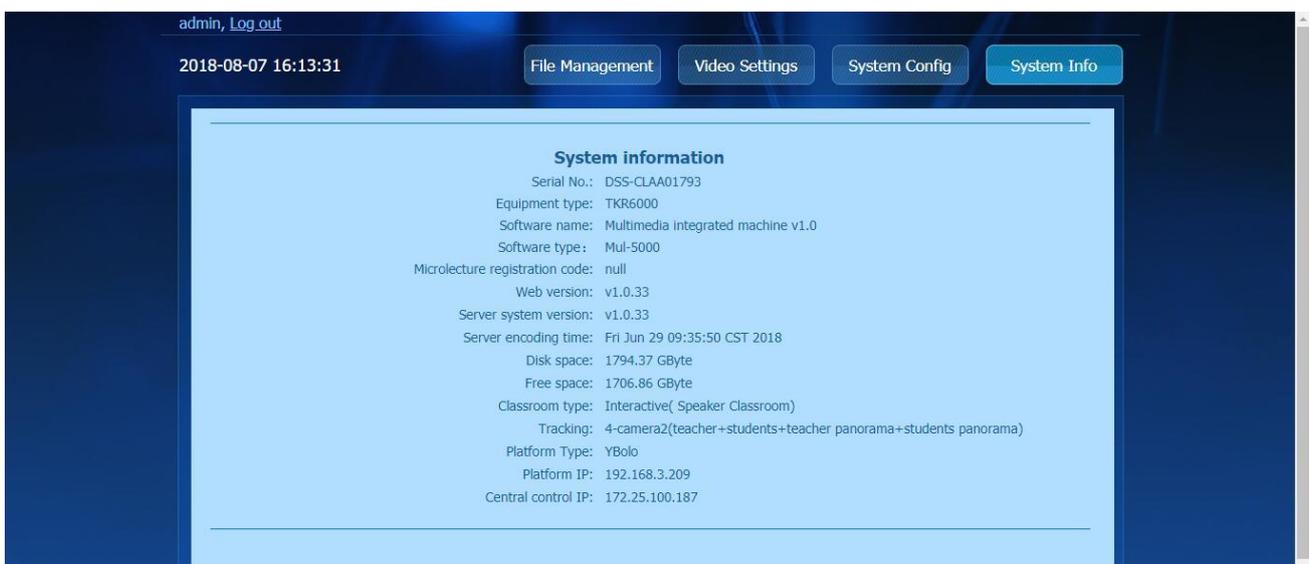
When the update completes, the device will restart automatically to validate the new version.

- System time synchronization
- Click the “Synchronize time” button in the page.
- Click “OK” and the system will automatically restart and synchronize the computer time.
- System restart
- Click the “System restart” button in the page to restart Bee9+.

## 3.5 System information

1. Click the “System information” button to view the system information.

The details are shown as follows:



The screenshot shows the admin interface with the 'System Info' button selected. The system information page displays the following details:

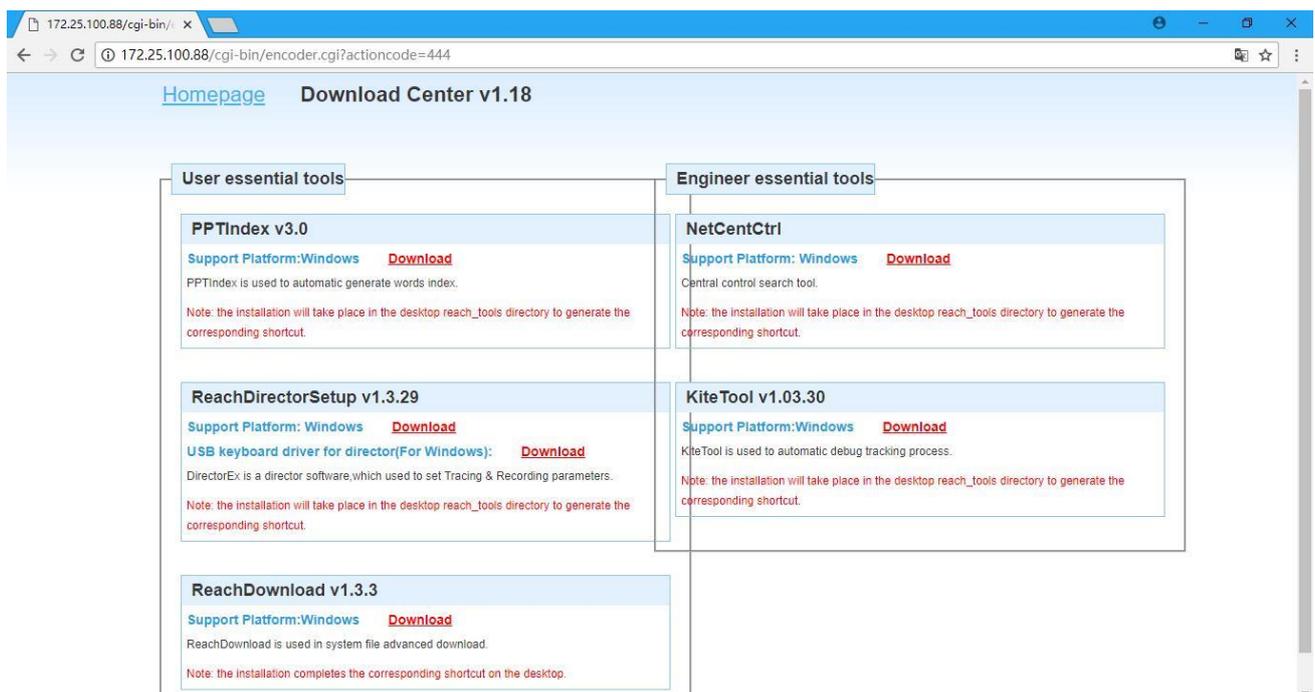
System information	
Serial No.:	DSS-CLAA01793
Equipment type:	TKR6000
Software name:	Multimedia integrated machine v1.0
Software type:	Mul-5000
Microlecture registration code:	null
Web version:	v1.0.33
Server system version:	v1.0.33
Server encoding time:	Fri Jun 29 09:35:50 CST 2018
Disk space:	1794.37 GByte
Free space:	1706.86 GByte
Classroom type:	Interactive( Speaker Classroom)
Tracking:	4-camera2(teacher+students+teacher panorama+students panorama)
Platform Type:	YBolo
Platform IP:	192.168.3.209
Central control IP:	172.25.100.187



## 3.6 Log out

Click the “Log out” button on the top left corner of the Web page to exit the Web management screen

## 3.7 Download center



Note: the software used for recording can be downloaded from the download center.

# 4 Type and configuration of classroom

## 4.1 Regular video classroom

The regular video classroom is used for teachers and students to have a normal class (without interaction). There are three-camera type and four-camera type for the classroom.





❖ Courseware recording

Movie mode output: Movie picture output by program director, support SD and HD

Three-camera source mode: Four video shots including close-up of teacher, panoramic view of teacher, panoramic view of student and VGA

Four-camera source mode: Five video shots including close-up of teacher, panoramic view of teacher, close-up of student, panoramic view of student and VGA.

❖ Output content

(1) HDMI OUT1: Use for 4-way image, close-up of teacher, panoramic view of teacher, panoramic view of student and VGA. Only 1-way image can be output depending upon manual or automatic director output.

(2) HDMI OUT2/VGA OUT: It outputs the interface of local directing console

(3) Output of directing console: The directing console has mainstream output and preview control. The director can switch between the mainstream output and preview control according to the situation.

## 4.2 Interactive video classroom

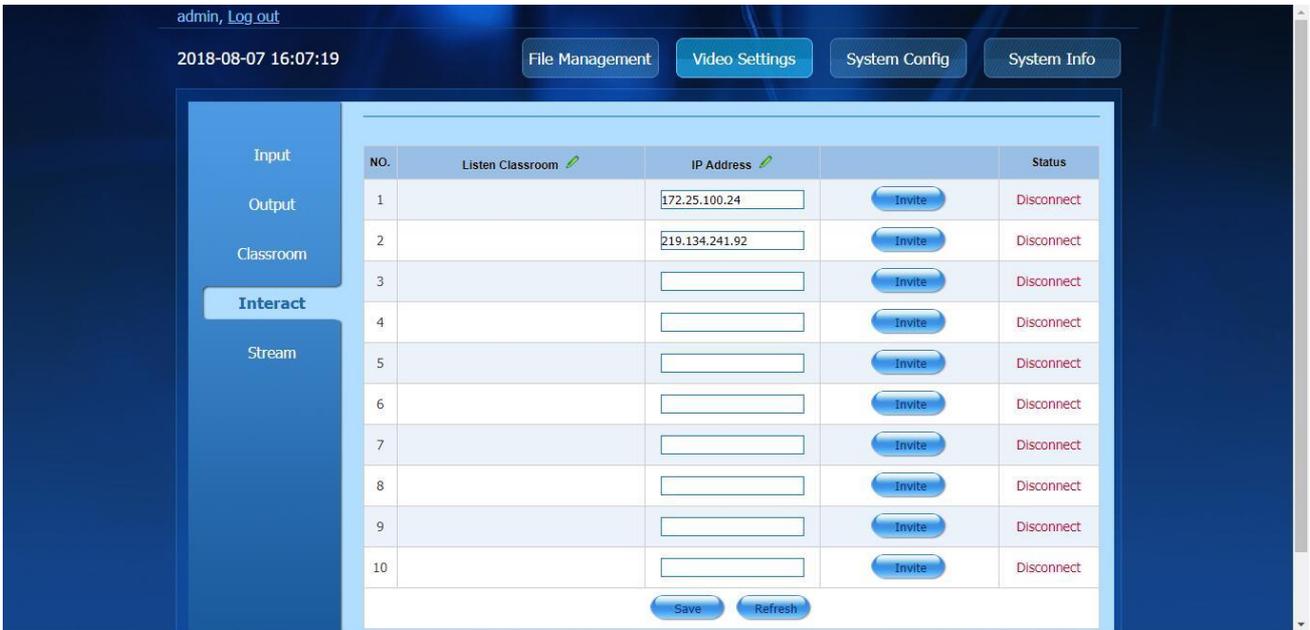
### 4.2.1 Configuration of interactive classroom

(1) First, open the classroom settings page on the video recording web page and switch the classroom type to the lecture-giving room or lecture-receiving room for the interactive video classroom.



(2) Add the IP address of either the lecture-giving or receiving room in the interaction setting and save it.

(3) Add the IP address of the lecture-giving room to the lecture-receiving room, and match the lecture-giving room and the lecture-receiving room for interaction.



(4) Either the lecture-giving room invites the lecture-receiving room to the call or the lecture-receiving room calls the lecture-giving room. Both rooms can then interact with each other after the connection succeeds.



## 4.2.2 Purpose of interactive classroom

- (1) The interactive classroom is mainly used for open class and multiparty video conference, to which all parties connect for interaction.
- (2) The ability for multi-party interaction has significantly improved the utilization of educational resources, making the academic exchange and communication more convenient.

Note: The lecture-giving room or lecture-receiving room can support at most 10 classroom IPs. The actual application scene can support at most one lecture-giving room connected with four lecture-receiving rooms for interaction.

## 4.2.3 Lecture-giving room

❖ Output image of lecture-giving room

- (1) HDMI OUT1: Output mainstream picture (composed of output movie pictures from the lecture-giving room and the lecture-receiving room); when the teacher is lecturing in one of the classrooms, it will be switched automatically to the largest display window in the composite screen.
- (2) HDMI OUT2/VGA OUT: Output auxiliary flow picture (Composed of 1/4 of the teacher's picture or student's picture as well as two-blackboard pictures of the lecture-giving room or 1/3 of the VGA output image, i.e. the lecture-receiving room)

❖ Sound output of the lecture-giving room

- (1) It outputs the sound from the lecture-receiving room and the local VGA sound through a magnifier.

## 4.2.4 Lecture-receiving room

❖ Output image of the lecture-receiving room



- (1) HDMI OUT1: It outputs its own video.
  - (2) HDMI OUT2/VGA OUT: outputs the auxiliary flow composed of the lecture-giving room (1/4 of the teacher's picture or student's picture as well as two-blackboard pictures of the lecture-giving room, or 1/3 of the VGA output)
- ❖ Output sound of the lecture-receiving room
- (1) Outputs the sound from the lecture-giving room and other lecture-receiving rooms through a magnifier

## 4.3 Third-party interactive video classroom



### 4.3.1 Third-party interactive lecture-giving room

- ❖ Courseware recording
- (1) Movie mode: Movie picture outputs by program director
  - (2) Three-camera resource mode: It includes mainstream video, auxiliary flow video and movie video
    - a) The auxiliary flow video is VGA while the mainstream video is one of the three following videos: close-up of the teacher, panoramic view of the teacher and panoramic view of the student.
  - (3) Four-camera resource mode: Includes five videos: a close-up of the teacher, panoramic view of the teacher, close-up of the student, panoramic view of the student and VGA



a) Auxiliary flow video is VGA while the mainstream video is one the following videos: close-up of the teacher, panoramic view of the teacher, close-up of the student and panoramic view of the student.

❖ Output content

(1) HDMI OUT1 (mainstream) output image: Includes close-up of the teacher, close-up of the student, panoramic view of the teacher, panoramic view of the student and VGA. Only 1 picture can be outputted at one time depending upon manual or automatic director output.

(2) HDMI OUT2 (auxiliary flow) and VGA output image: VGA picture

### **4.3.2 Third-party-involved lecture-receiving room**

❖ File recording:

(1) Movie mode: Movie picture outputted by program director

(2) Three-camera resource mode: panoramic view of the student and VGA

(3) Four-camera resource mode: Close-up of the student, panoramic view of the student and VGA

❖ Output content

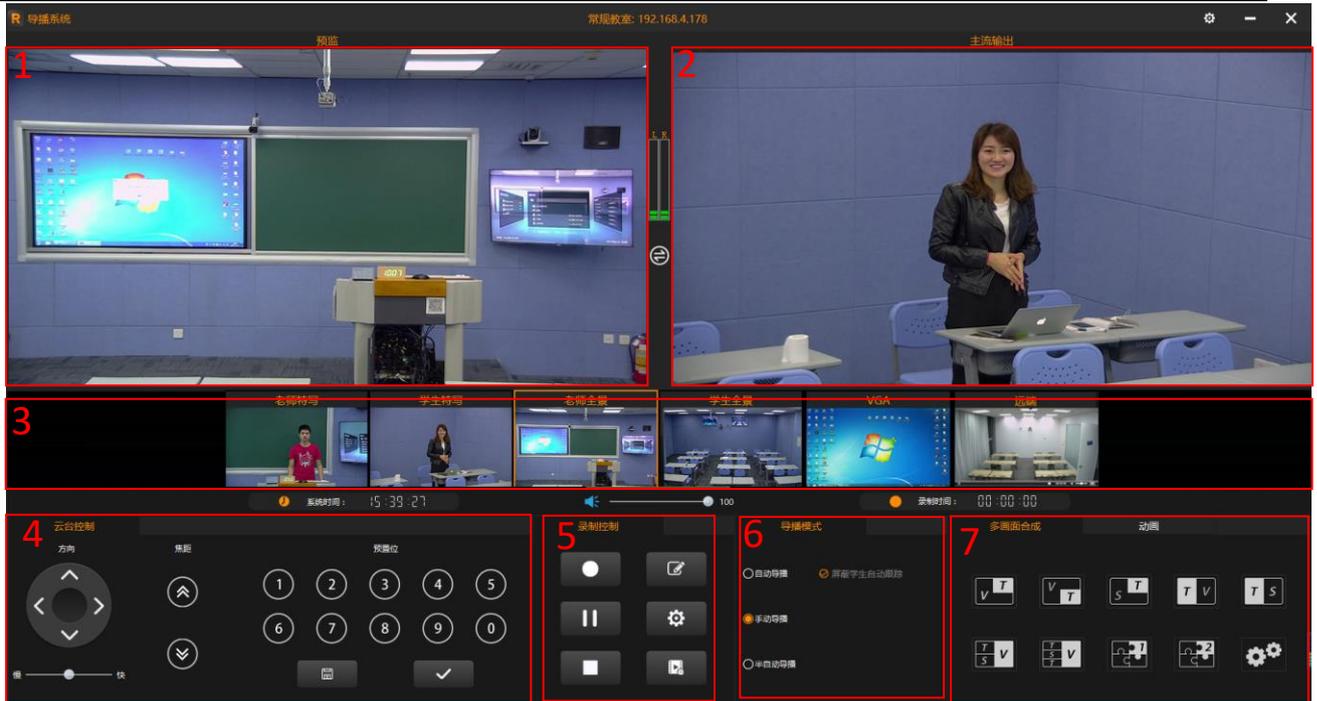
(1) HDMI OUT1, HDMI OUT2 and VGA OUT picture: Movie picture

## **5 Director system**

### **5.1 Network director system**

#### **5.1.1 Login the network director system**





1	Bee9+ network directing preview (single click for output to the mainstream video)	2	Bee9+ mainstream output (monitor and remote video conference)
3	Place where Bee9+ receives pictures (Double click for output to the mainstream video and single click for preview)	4	PTZ control (saving and calling of the camera preset position setting as well as the adjustment speed)
5	Recording control (start, pause, stop, recording information setting and output mode defining)	6	Directing mode setting
7	Switch between multi-picture composite and video (including custom layout and special effect mode)		

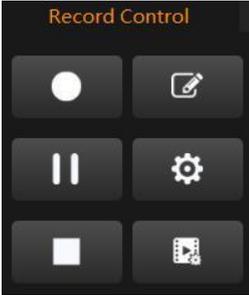


### 5.1.2 PTZ control

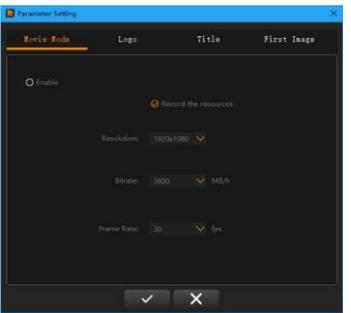


1. Use to rotate the PTZ camera upward, downward, leftward and rightward with buttons and set the speed of the rotation.
2. Use to zoom in or out with focus length button.
3. Use to save the preset position of the PTZ camera with digital buttons so that the preset position can be called later.

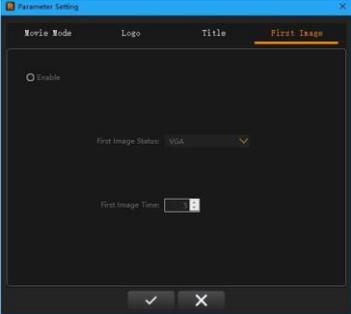
### 5.1.3 Recording control

Picture pattern	Description
	<p>Recording control screen: Start, Pause, End, recording information setting, parameter setting (including movie mode setting, station logo setting, caption setting, and first picture setting)</p>

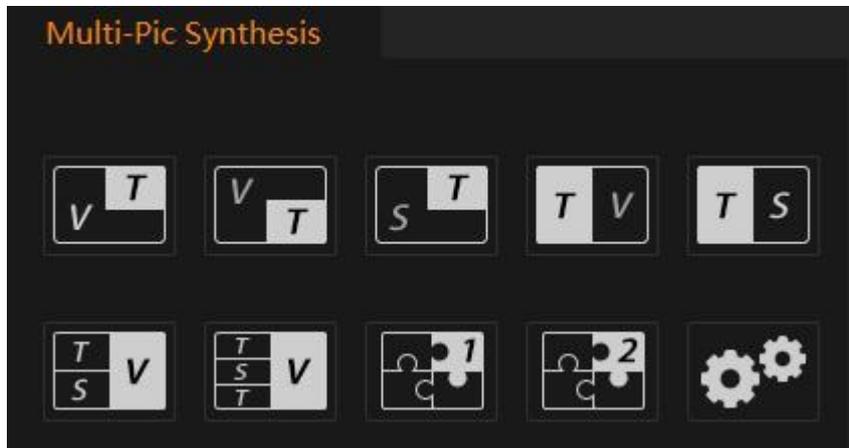


 <p>The screenshot shows a 'Record Info Setting' dialog box with a dark background. It contains several text input fields: Room Name, Alias Name, Teacher Name, Course Name, Subject Name, and Class Name. At the bottom, there are two buttons: a checkmark (✓) and a close (X) button.</p>	<p>Recording information setting screen: Name of the classroom for recording, alias of the classroom, teacher's name, name of course, name of subject and name of class. The set information will be displayed on the corresponding recording video information of the ybolo platform.</p>
 <p>The screenshot shows the 'Parameter Setting' dialog box with the 'Movie Mode' tab selected. It features an 'Enable' checkbox and a 'Record the resources' checkbox. Below these are three dropdown menus: Resolution (set to 720x1280), Bitrate (set to 3600), and Frame Rate (set to 30). At the bottom are checkmark (✓) and close (X) buttons.</p>	<p>Recording parameter setting</p> <p>Movie mode: Output resolution setting (changes the clarity of the picture), frame rate setting (changes the smoothness of the picture), code rate setting (the larger the frame rate is, the larger the corresponding code rate.)</p> <p>Resource mode: whether to record in resource mode</p>
 <p>The screenshot shows the 'Parameter Setting' dialog box with the 'Logo' tab selected. It includes an 'Enable' checkbox and a 'Display Logo' checkbox. There are two coordinate input fields: X (0-1920) and Y (0-1080). A 'Logo File Path' field with a 'Browse...' button is also present. A note at the bottom states: '(The picture format must be PNG, with the size less than or equal to 512x512 and width a multiple of 8)'. Checkmark (✓) and close (X) buttons are at the bottom.</p>	<p>Station logo setting: Used mainly for movie mode of the mainstream output and displayed in the form of overlapping screens. The position and transparency of the logo picture can be adjusted through coordinates and transparency.</p>
 <p>The screenshot shows the 'Parameter Setting' dialog box with the 'Title' tab selected. It has an 'Enable' checkbox and two options: 'Display Title' and 'Display Server Time'. There are X and Y coordinate input fields (0-1920 and 0-1080). A 'Transparency' slider is set to 50%. A 'The Content' text area contains '(0/20)' and a note: '(All the characters, except these ones: &amp;, &lt;, &gt;, ., ', ')'. Checkmark (✓) and close (X) buttons are at the bottom.</p>	<p>Caption setting: Includes the caption display and server time display. Access this for movie mode of the mainstream output and is displayed in the form of overlapping screens. The position and transparency of the logo picture can be adjusted through coordinates and transparency.</p>



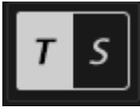
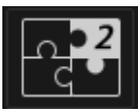
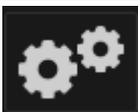
	<p>First picture setting: The picture displayed before recording and the duration of the picture. Use to set a certain picture as the first picture for that file.</p>
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### 5.1.4 Multi-picture composite



Picture pattern	Description
	Two-picture composite: 'V' means VGA picture, which occupies the whole picture. 'T' indicates the picture tracking the teacher, located at the top right corner of the output image.
	Two-picture composite: 'V' means VGA picture, which occupies the whole picture. 'T' indicates the picture tracking the teacher, located at the lower right corner of the output image.
	Two-picture composite: 'S' indicates the picture tracking the student, and occupies the whole screen. 'T' means the picture tracking the teacher, located



	at the lower right corner of the output image.
	Two-picture composite: 'V' means VGA picture, and occupies the whole picture. 'T' indicates the picture tracking the teacher, located at the left side of the whole output image.
	Two-picture composite: 'S' indicates the picture tracking the student, and occupies the right side of the whole output image. 'T' indicates the picture tracking the teacher, located at the lower right corner of the output image.
	Three-picture composite: 'T' indicates the picture that is tracking the teacher, located at the top left corner of the output image. 'S' indicates the picture that is tracking the student, occupying the lower left corner of the whole output image. 'V' indicates VGA picture, located at the right side of the output image.
	Four-picture composite: 'T' indicates the picture tracking the teacher, located at the top left corner of the output image. 'S' indicates the picture tracking the student, occupying the lower left corner of the whole output image. 'V' indicates VGA picture, located at the right side of the output image.
	Custom layout 1: The multi-picture composite setting is able to be customized. The setting can be saved as Layout 1 and called after being set.
	Custom layout 2: The multi-picture composite setting is able to be customized. The setting can be saved as Layout 2 and called after being set.
	Custom multi-picture composite layout setting: The button used to set the custom multi-picture layout.



## **5.2 Local director system (based on conventional classroom)**

### **5.2.1 Operation of local director system**

(1) The local director system is different from the network director system. It does not need to be installed separately because it is a function embedded in the recording host. It is more convenient to operate because it is directly connected to the HDMI OUT2 of the recorder host or directly outputs from VGA OUT to the display. The local director system interface is hereinafter abbreviated as local director system.

(2) You may operate the local director system by connecting the mouse and keyboard via the USB ports at the rear panel of the tracking recording host.

### **5.2.2 Difference between the local director system and the network director system**

(1) The local director system requires no log-in and allows direct output from HDMI OUT2 or VGA OUT in the conventional classroom mode.

(2) The local director system can upload logos or the first and final pictures of a video by inserting a U disc directly into the recording host.

(3) Unlike the network director system, the local director system allows you to hover the mouse over the button and right click the mouse to select the prompt.

**Remark:** As the other functions of the local director system are the same as those of the network director system, we will skip the introduction. If you want to know more, please refer to 7.1 Introduction of Network Director System.



## 6 Auto tracking

### 6.1 Configuration of the tracker

(1) Configure the IP address of the tracking camera in the tracking settings under 'Video Setting' on the webpage, and then restart the host.

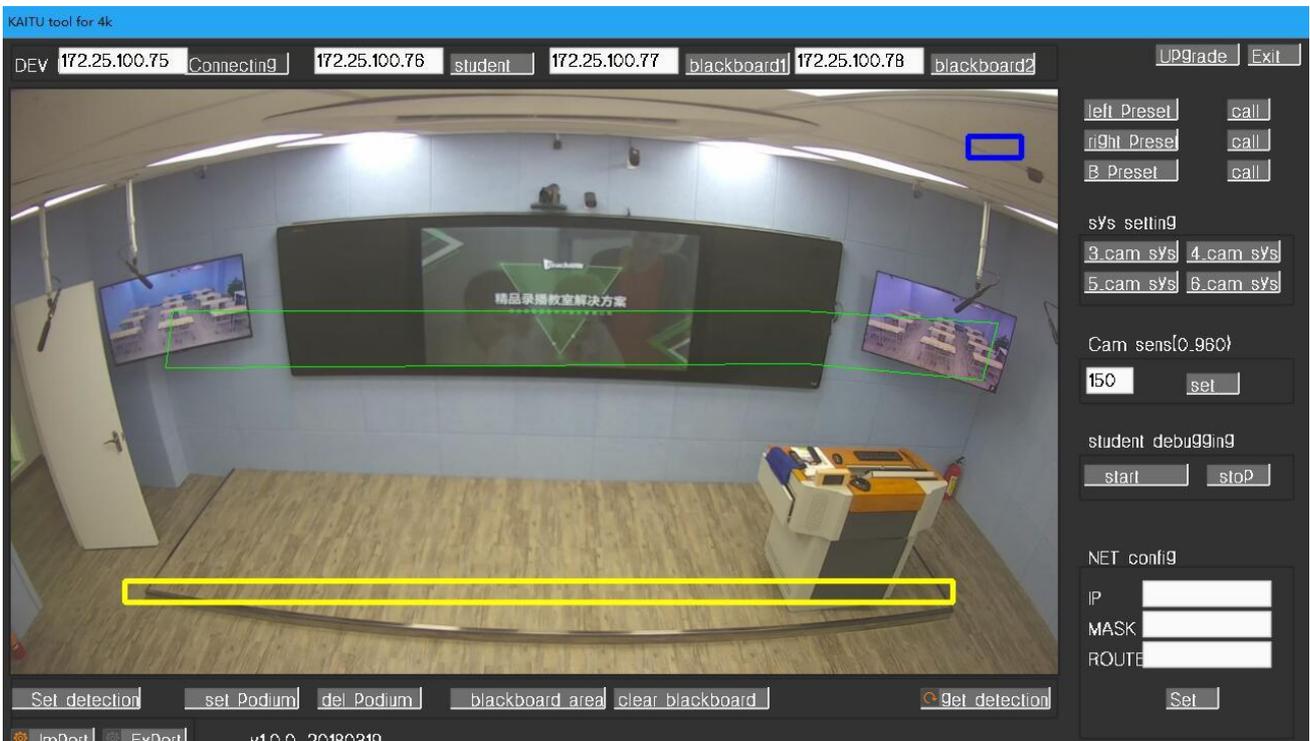
(2) Log in the KiteTool to set the tracking parameter. For more details, please refer to the introduction of KiteTool.

**Remark:** Please modify the tracking camera's IP as an accessible IP before configuring the tracking camera on the webpage. Modification of the camera's IP must be done on the same local area network.

### 6.2 KiteTool

(1) First, download and install the Kite Tool.

(2) Connect the tracking recorder host as shown in the following picture:



(3) Configure the area to trigger the tracking camera for teachers, students and blackboards.

Note:

- ❖ When connecting the tracker for teachers, be sure to set and call the left and right detection areas, set and call the border of the platform, and set both the position and sensitivity of the tracker.
- ❖ Be sure to cover the all of the student classroom you wish to include in being tracked.

(4) Select camera's positions, such as three-camera, four-camera and five-camera arrangements. After selecting, restart the recording software.

## 6.3 Auto tracking

(1) It supports three-camera and four-camera arrangements.

(2) Once the target enters the teacher's and student's tracking area, the triggering conditions are met and the tracking is enabled - the camera will follow the target.

Teacher's front and lateral side can be tracked effectively and even tracked auxiliary when multiple targets are detected.

Note: Targets can vary in sizes and heights and still effectively be tracked within the tracking area. The target which moves in all directions can be effectively tracked by the camera which can move along with the target. The target will be no longer tracked once it moves beyond the tracking range.

