

AVer

AI Auto Tracking PTZ Cameras and integration



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Table Of Content

01. Overview Product 2025

02. AI Auto Tracking Camera

03. PTZ Management

04. Voice Tracking Solutions

05. NDI Protocol

06. Dante Protocol

07. Quizes

Overview Product Line up 2025

PROFESSIONAL CAMERA



● PTZ211 / PTZ231

Resolution 1080P 60fps

12X Optical /30X Optical



● PTZ310UV2/PTZ330UV2

Resolution 4K 60fps

12X Optical /30X Optical

PTZ CAMERA SPECS ✓

- Sony Exmor CMOS
- Video Out : 3G-SDI, HDMI, IP, USB
- MIC in, Line in
- Preset Positions up to 256 (RS-232, RS-422, IP)
- Support : VISCA (RS-232 / RS-422 / IP) , PELCO-D & PELCO-P (RS-232 / RS-422), CGI (IP) ,ONVIF
- Multi-Stream Capability* RTSP, HDMI, USB & NDI / Dante AV-H
- Add Value : PTZ Management software control 254 Cameras

Overview Product Line up 2025

AI AUTO TRACKING CAMERA

AI AUTO TRACKING CAMERA SPECS ✓



● TR211

Resolution 1080P 60fps
12X Optical



● PTC310UV2

Resolution 4K 60fps
12X Optical



● TR315 / TR335

Resolution 4K 60fps
12X Optical / 30X Optical

- Sony Exmor CMOS
- Video Out : 3G-SDI, HDMI, IP, USB
- MIC in, Line in
- Preset Positions up to 256 (RS-232, RS-422, IP)
- Presenter Mode, Zone Mode, Hybrid Mode
- Support : VISCA (RS-232 / RS-422 / IP), PELCO-D & PELCO-P (RS-232 / RS-422), CGI (IP), ONVIF
- Multi-Stream Capability* RTSP, HDMI, USB & NDI / Dante AV-H
- Add Value : PTZ Management software control 254 Cameras

Overview Product Line up 2025

TR535 AI AUTO TRACKING CAMERA



DUAL LENS AI AUTO TRACKING CAMERA SPEC ✓

NEW

- 1/2.8" 4K Sony Exmor CMOS
- Resolution 4K 60fps
- Zoom 30X Optical / 1X Digital
- Video Out : **3G-SDI, HDMI x 2, IP, USB**
- MIC in, Line in
- Preset Positions up to 256 (RS-232, RS-422, IP)
- **Presenter Mode / Zone Mode / Hybrid Mode / Segment Mode**
- Support : VISCA (RS-232 / RS-422 / IP) , PELCO-D & PELCO-P (RS-232 / RS-422) ,CGI (IP) ,ONVIF
- **Multi-Stream Capability*** 4K (NDI® Mode): RTSP (x2), HDMI (x2), USB (x2), **NDI® High Bandwidth (x1)**, & NDI® HX2 (x2)
- Add Value : PTZ Management software control 254 Cameras

Overview Product Line up 2025

MT300 MATRIX TRACKING BOX

MATRIX TRACKING BOX SPECS



- NDI® Matrix Tracking Box
- Up to 4K Output Resolution
- Input : HDMI x 3 , USB 2.0 x3, RS-422, RJ45, POE+
- Supports NDI® HX2 Cameras Outputs*
- Output : HDMI x2, USB 3.0 x 2
- Supports NDI® HX2 Cameras Outputs*
- Auto Detection for Video Sources
- Built-in PTZ Link Premium to Work with Microphone Systems
- Supported Microphone Systems: Audio-Technica, ClearOne, Nureva, Sennheiser, Shure, Yamaha, Biamp and Bosch



Pro AV Cameras, Distance Learning Tracking Cameras

Certified by Zoom, Barco & Microsoft Teams

	TR335(N)	TR315(N)		TR211		PTC330UV2	
							
	PTC320U(N)V2		PTC310UV2			PTC310HWV2	
							
	PTZ330U(N)V2	PTZ310U(N)V2		PTZ231	PTZ211		
							

(Version 2024Q3)

AI Auto Tracking Camera

HOW TO INSTALLATION AND CONFIGURATION

GET STARTED →

Product Appearance TR535



Front

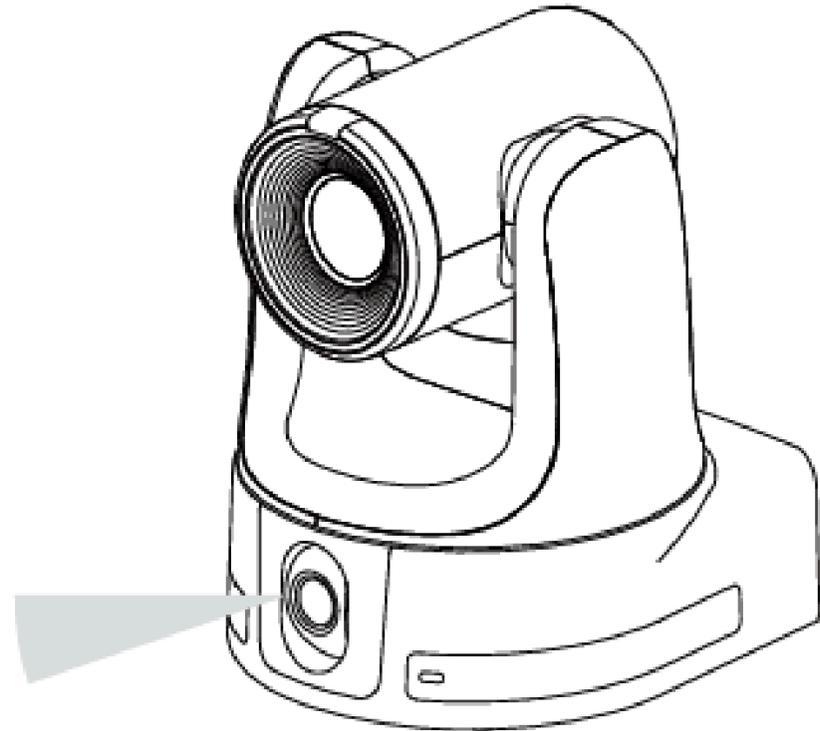


Back

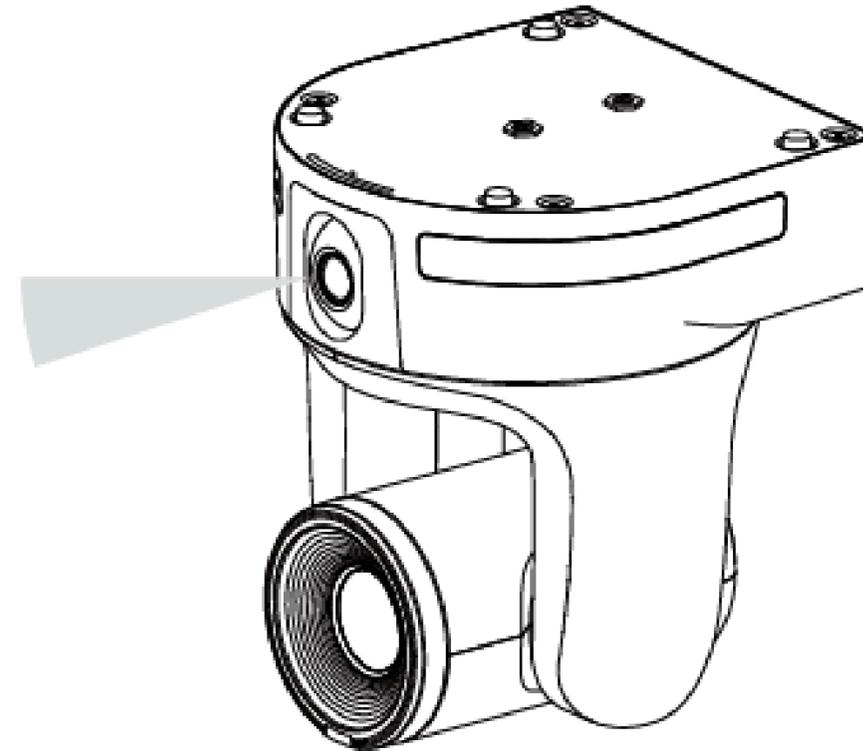


WIDE-ANGLE LENS TILT ANGLE

- The wide-angle lens has a 110-degree field of view and a continuous tilt.
- The wide-angle lens tilts automatically based on how it's installed:



Downward

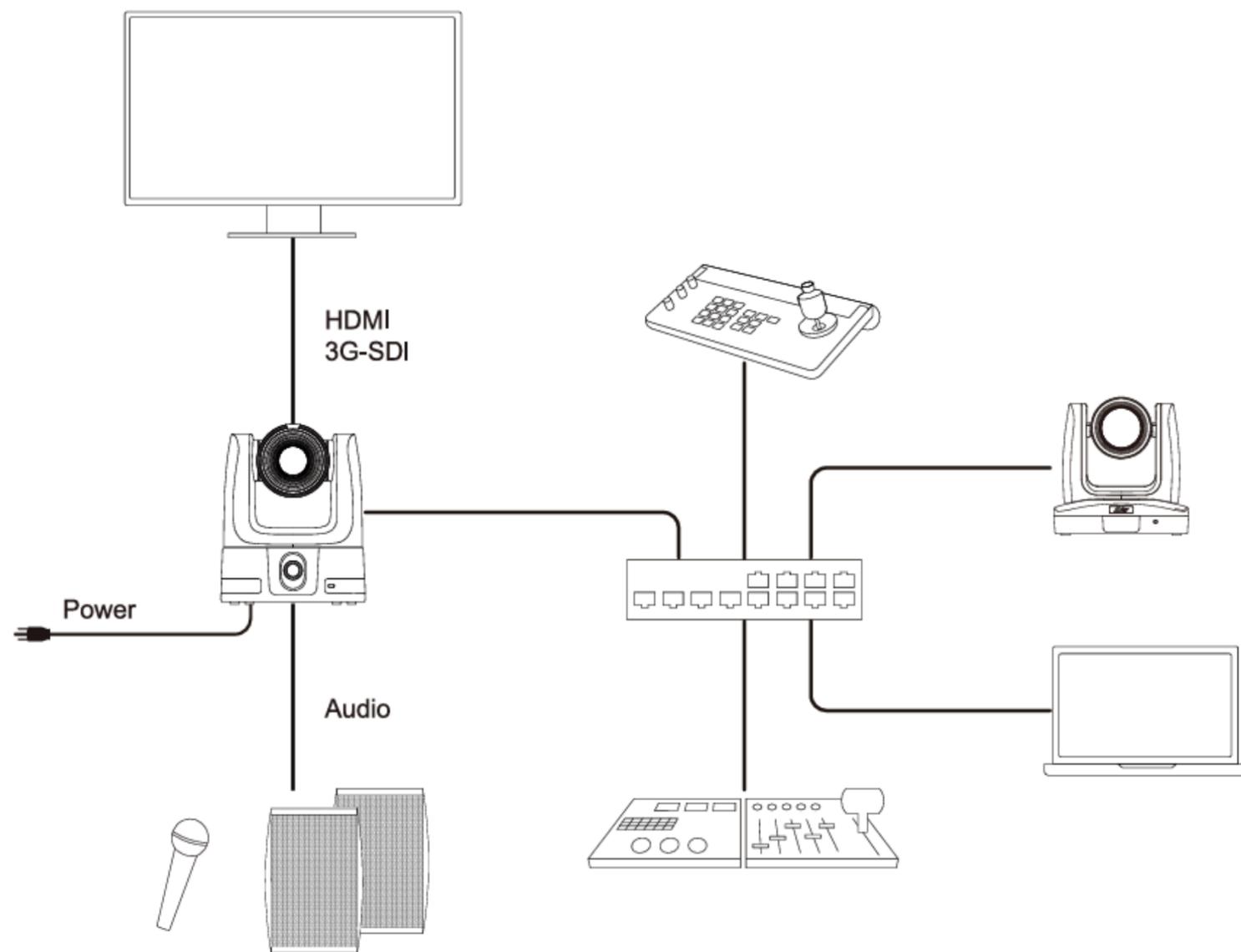


Upward

Both image mirror and flip must be turned on.

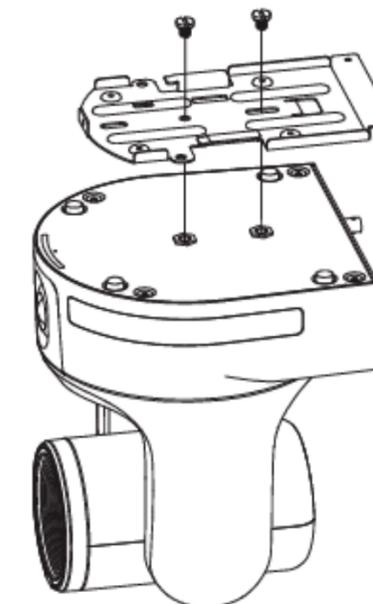
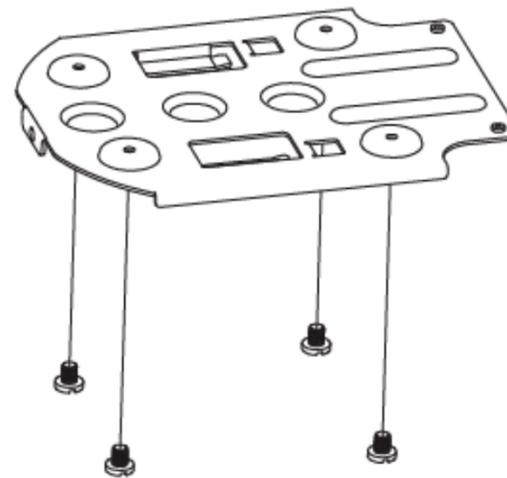
- To adjust the tilt angle, do any of the following:
 - When accessing the camera web interface for the first time, you will be prompted to calibrate.
 - Go to **System > Wide-Angle Camera Setting** on the camera web interface.

Connections

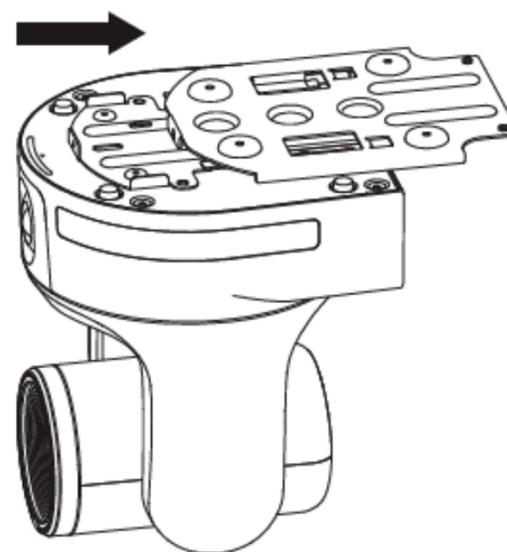


Ceiling Mount Installation

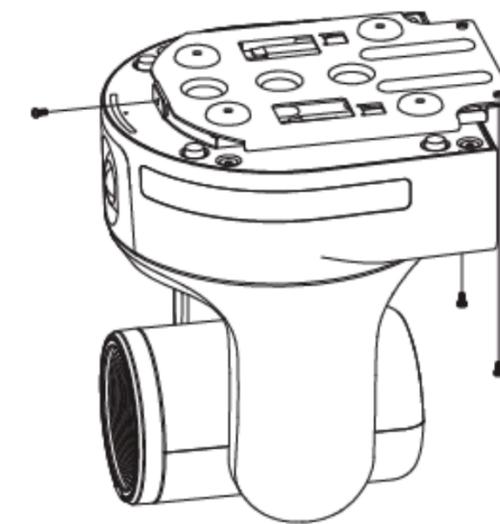
1. Secure the mount bracket to the ceiling.
Screw: 4 screws, M4 x 10 mm (not Included)
2. Secure the mount bracket to the camera.
Screw: 2 screws, 1/4"-20 L=6.5 mm (included)



3. Slide the mount bracket with the camera into the mount bracket secured to the ceiling. Then connect the cables.



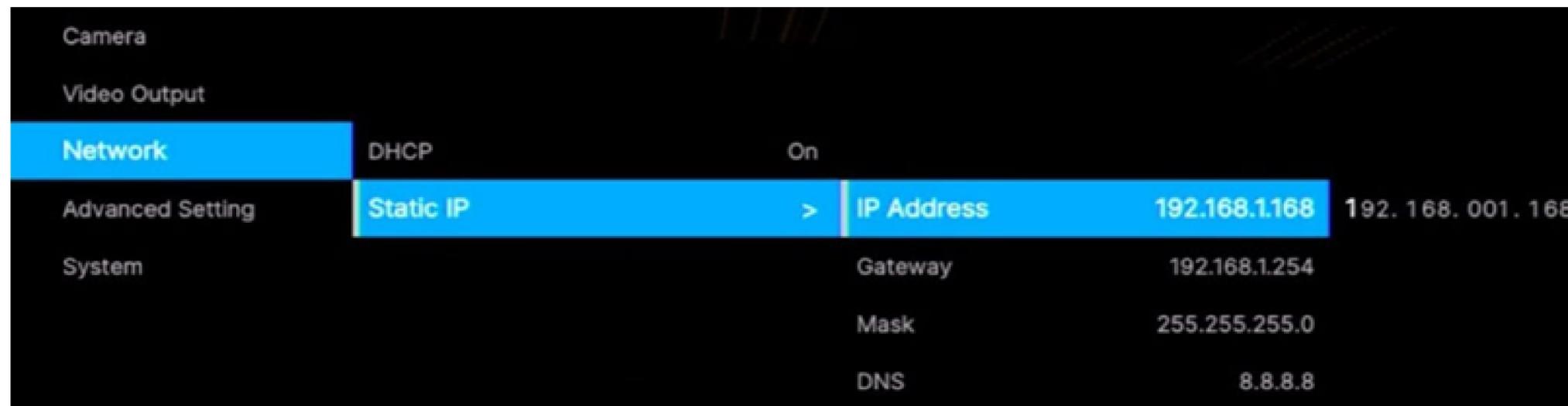
4. Secure the two mount brackets with screws.
Screw: 3 screws, M3 x 6 mm (included)



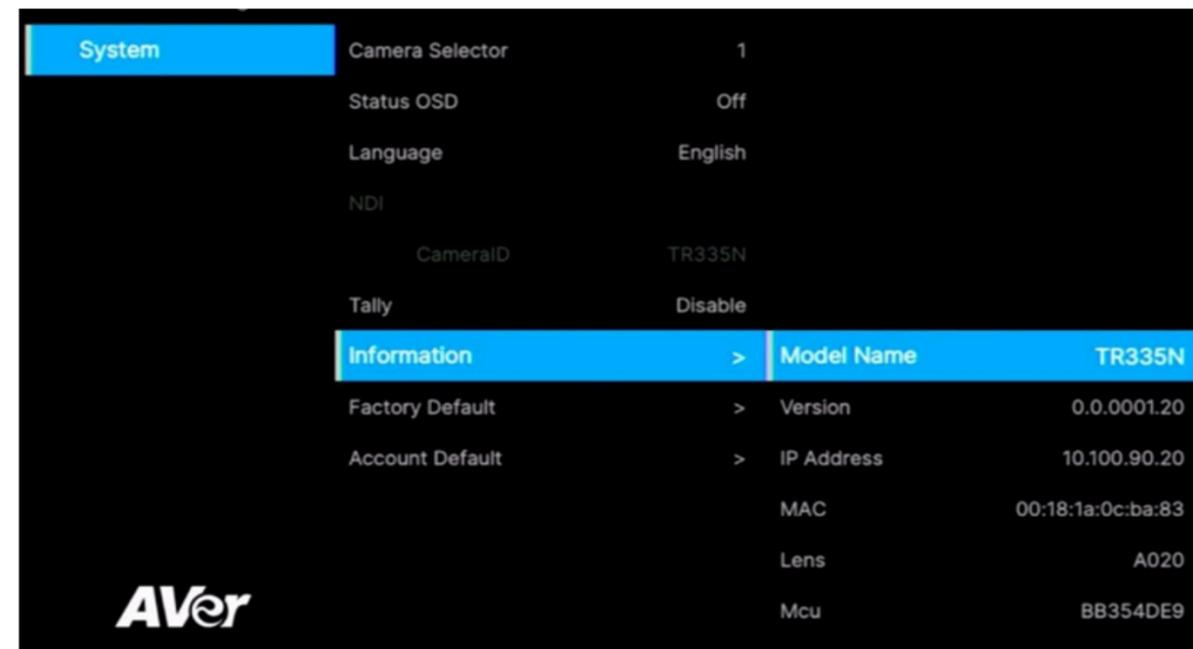
Set Up the Camera

You can configure camera settings on the OSD menu or the web interface.

- During HDMI output, Press the Menu button **Menu** on remote control to open the OSD menu.
- Change Your Network Setting - Network > DHCP > On. (The camera's default network is DHCP.) // When you receive IP go to Off
- Then go to Network > Static IP. Select and enter IP Address, Gateway, Mask and DNS to configure. (If you want to static IP)

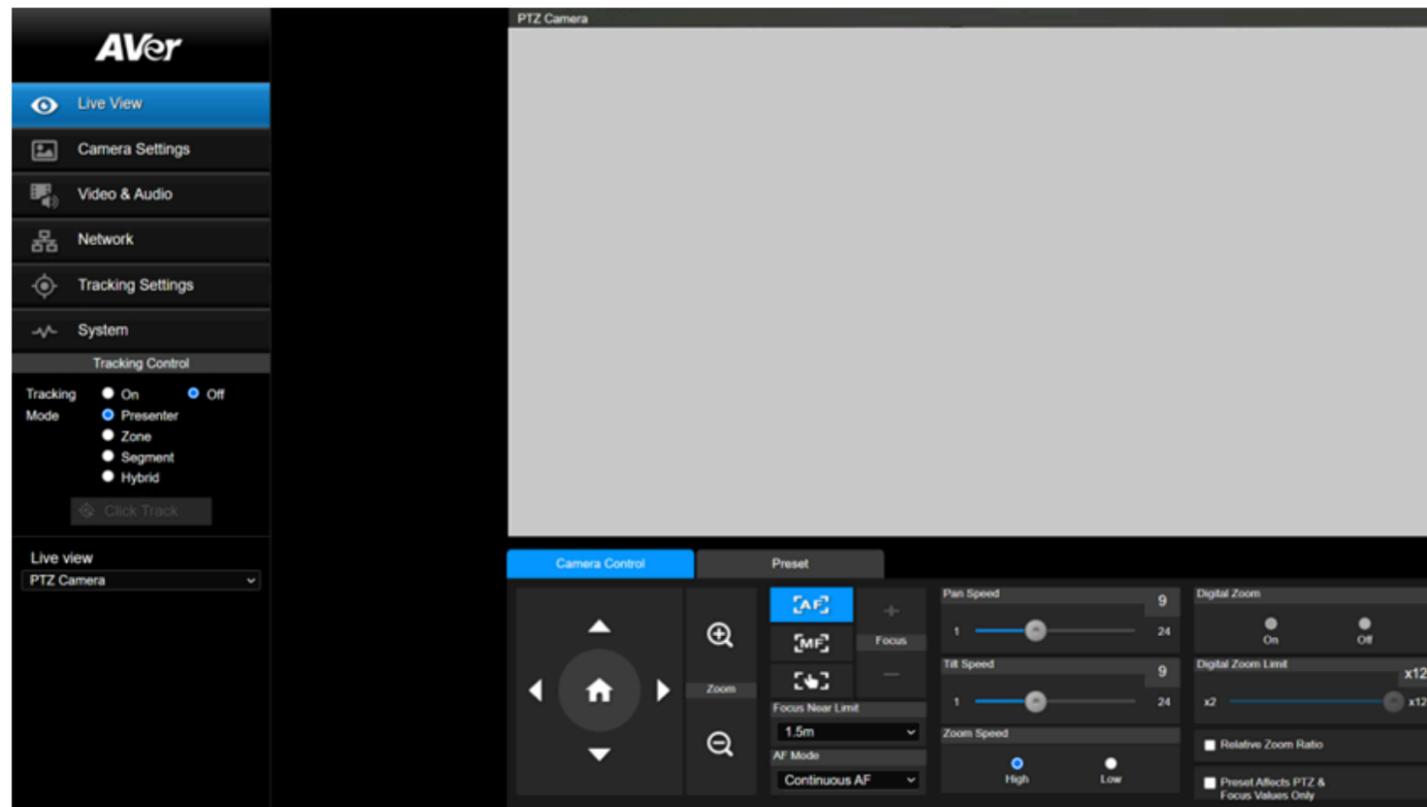


Then go to System > Information to see the IP address.

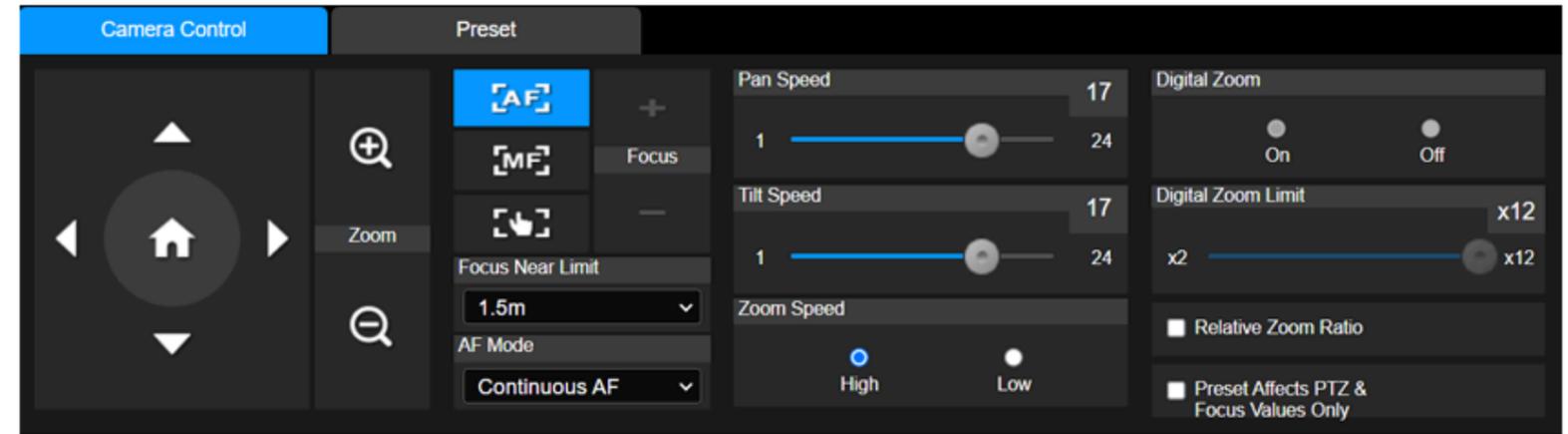


Web Interface

Live View



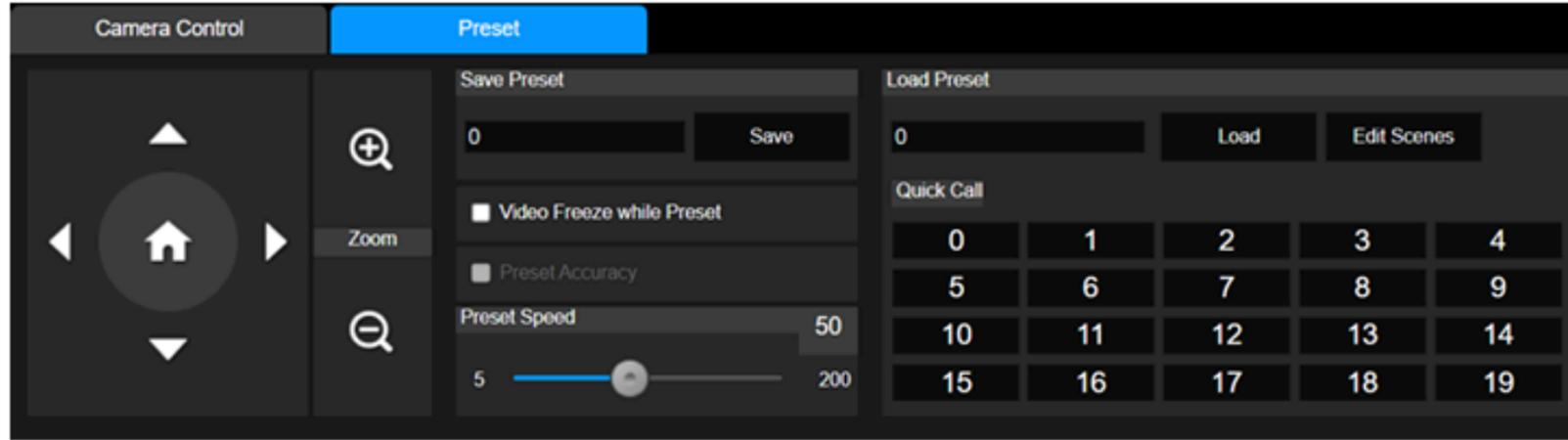
Camera Control



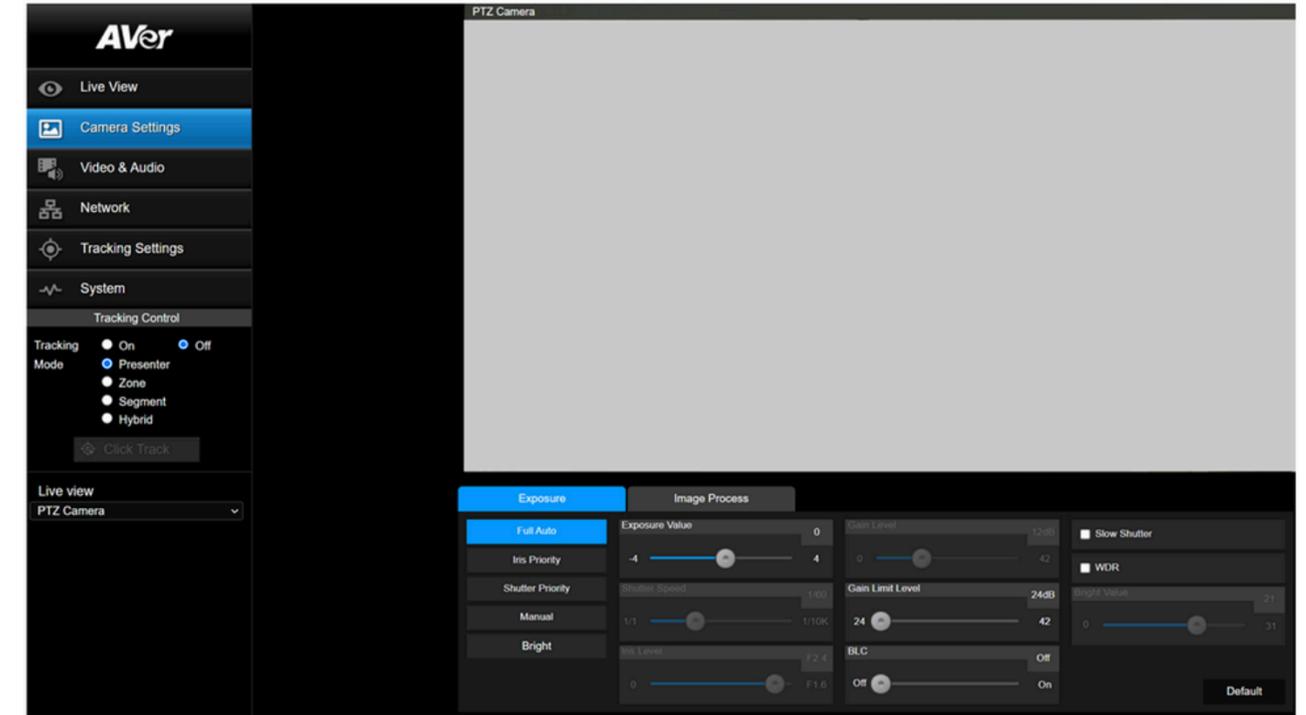
Item	Description
Pan and Tilt Controls	Position the camera. Drag the slider to adjust Pan Speed and Tilt Speed .
Home Position 	Move the camera to the Home position.
Zoom  	Zoom in or zoom out the live view and select Zoom Speed .
Auto Focus 	Select Auto Focus and then choose an AF mode : <ul style="list-style-type: none"> AF Trigger after PTZ: Automatically focus after each pan, tilt or zoom. Continuous AF: Automatically focus continuously.

Manual Focus 	Click to manually focus. Adjust the focus with + - buttons.
One Push Focus 	Click to automatically focus once.
Focus Near Limit	Set up the nearest focus limit.
Digital Zoom	Turn digital zoom on or off.
Digital Zoom Limit	Adjust the digital zoom.
Relative Zoom Ratio	Select to automatically adjust pan and tilt speeds based on the zoom ratio.
Preset Affects PTZ & Focus Values Only	A preset typically includes pan, tilt, zoom, focus, and 3A (autofocus, autoexposure, auto white balance) values. Select to save only pan, tilt, zoom and focus values for presets.

Preset



Item	Description
Save Preset	<ol style="list-style-type: none"> 1. Position the camera using pan, tilt and zoom controls. 2. Enter a preset number (0–255) in the Save Preset field and click Save.
Load Preset	<ol style="list-style-type: none"> 1. Enter a preset number (0–255) in the Load Preset field and click Load. 2. Or click a preset number (0–19) in the Quick Call section.
Video Freeze while Preset	Select to display only the live view from presets. The live view from the moving path will not be displayed.
Preset Accuracy	Select to improve the accuracy of moving to presets.
Preset Speed	Adjust the camera speed when moving to presets.
Edit Scenes	<p>To customize camera functions for preset 0–9:</p> <ol style="list-style-type: none"> 1. Click Edit Scenes. 2. Select Scenes 0–9 from the Scenes List to add up to 10 CGI commands. 3. Select a scene from the Set Scenes drop-down list for each preset.



Exposure

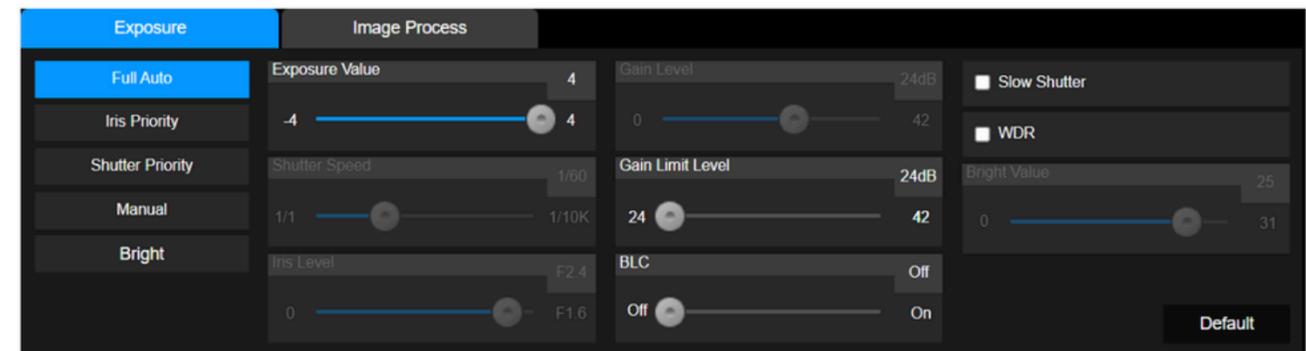
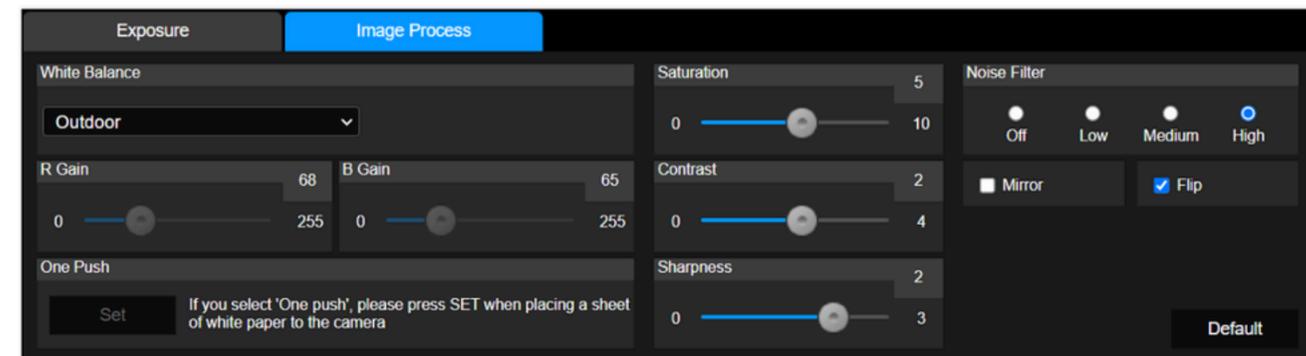


Image Process



Tracking Settings

Tracking Setting > Tracking Control > Tracking: Turn tracking on or off.

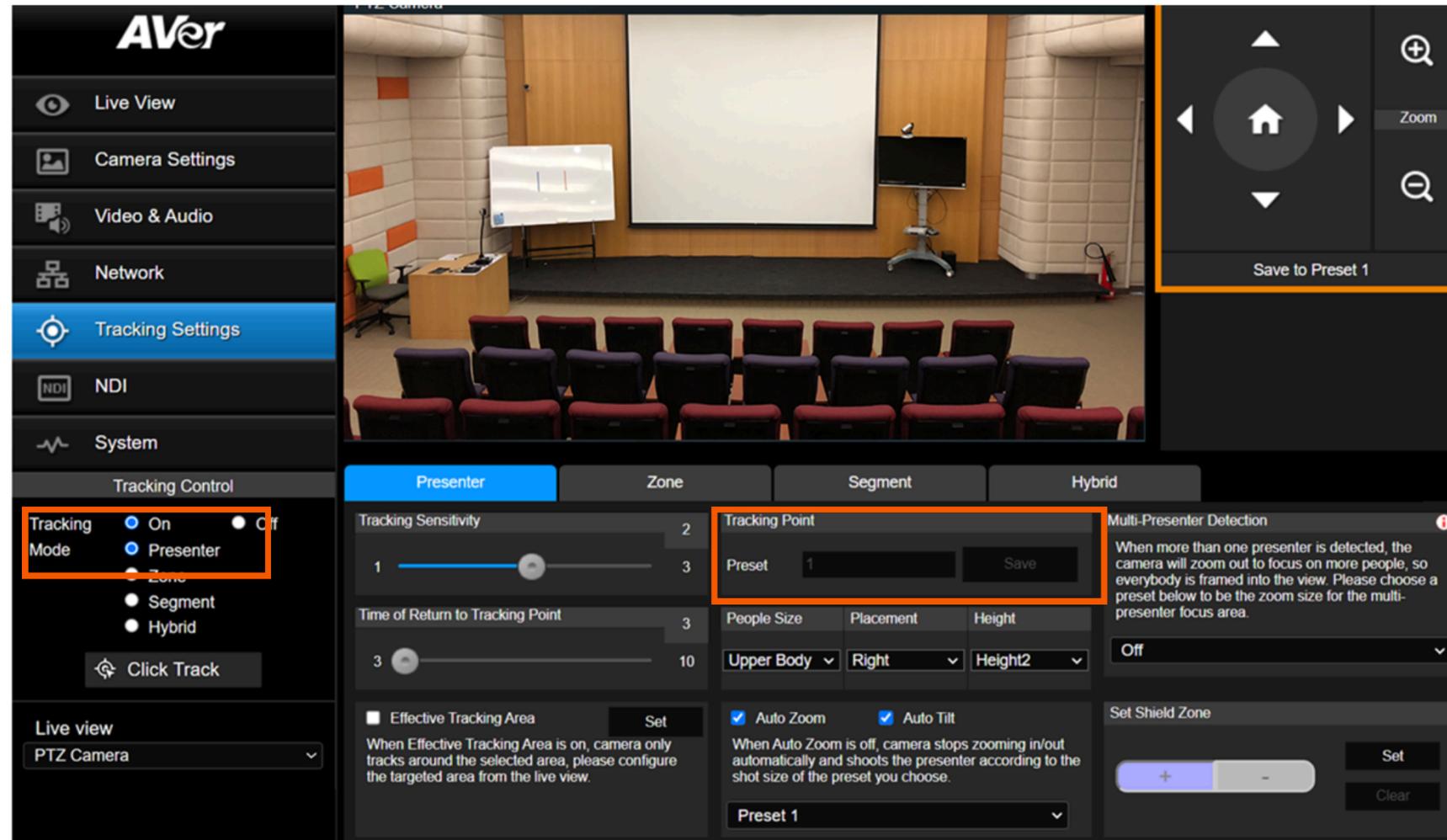
Mode: Select a tracking mode to frame and follow the presenter in real time as they move. For details on tracking settings, please refer to respective chapters.

Click Track: Presenter Mode lets you switch the presenter you want to track. Click the **Click Track** button to frame everyone on screen in bounding boxes and click to select the presenter you want to track. Selected presenter will be in a red frame.



- Live view: Select the PTZ lens or the wide-angle lens.

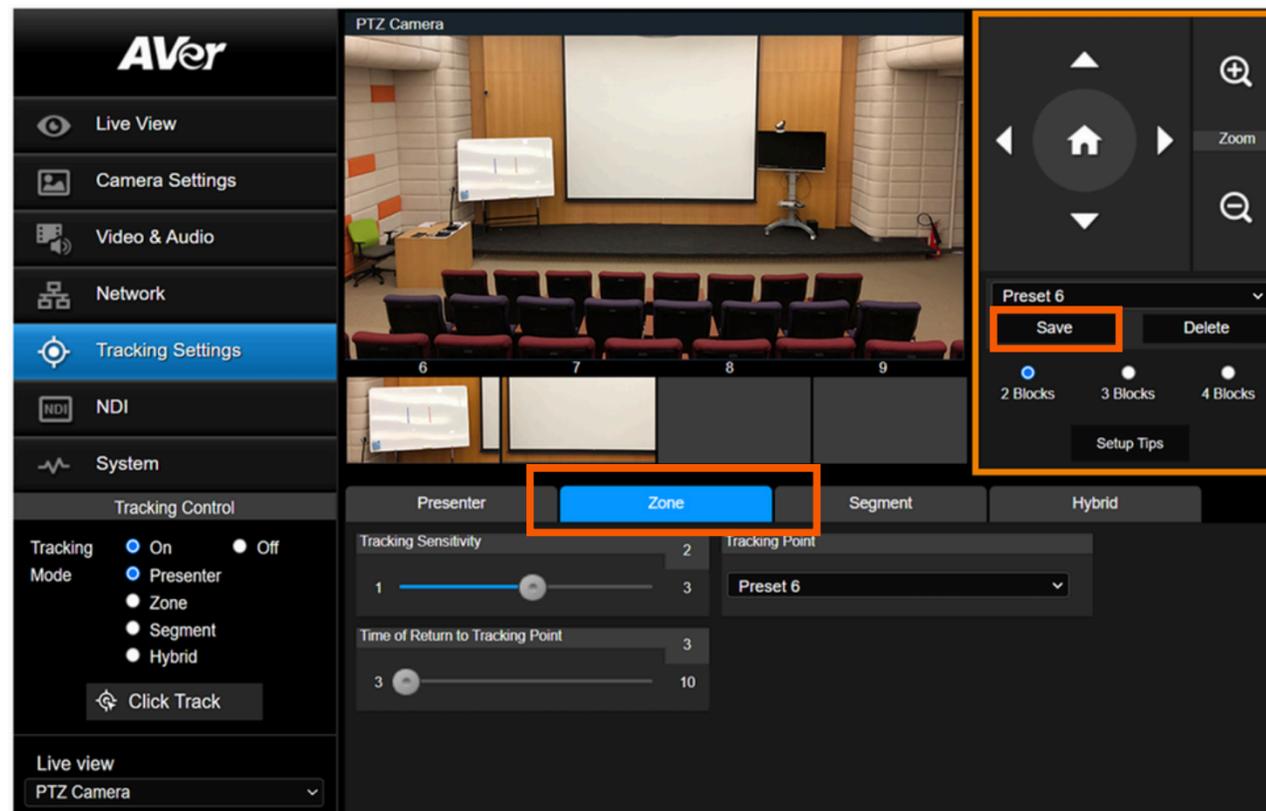
Tracking Setting < Presenter Mode



Presenter Mode frames and follows the presenter on screen, and returns to the tracking point (Preset 1) when no one is on

- Go to Tracking Settings > Presenter > Off
- Use pan, tilt and zoom controls to position your camera and click **Save to Preset 1** to save the **Tracking Point**.
- Turn on Tracking and select Presenter Mode on the Tracking Control panel.

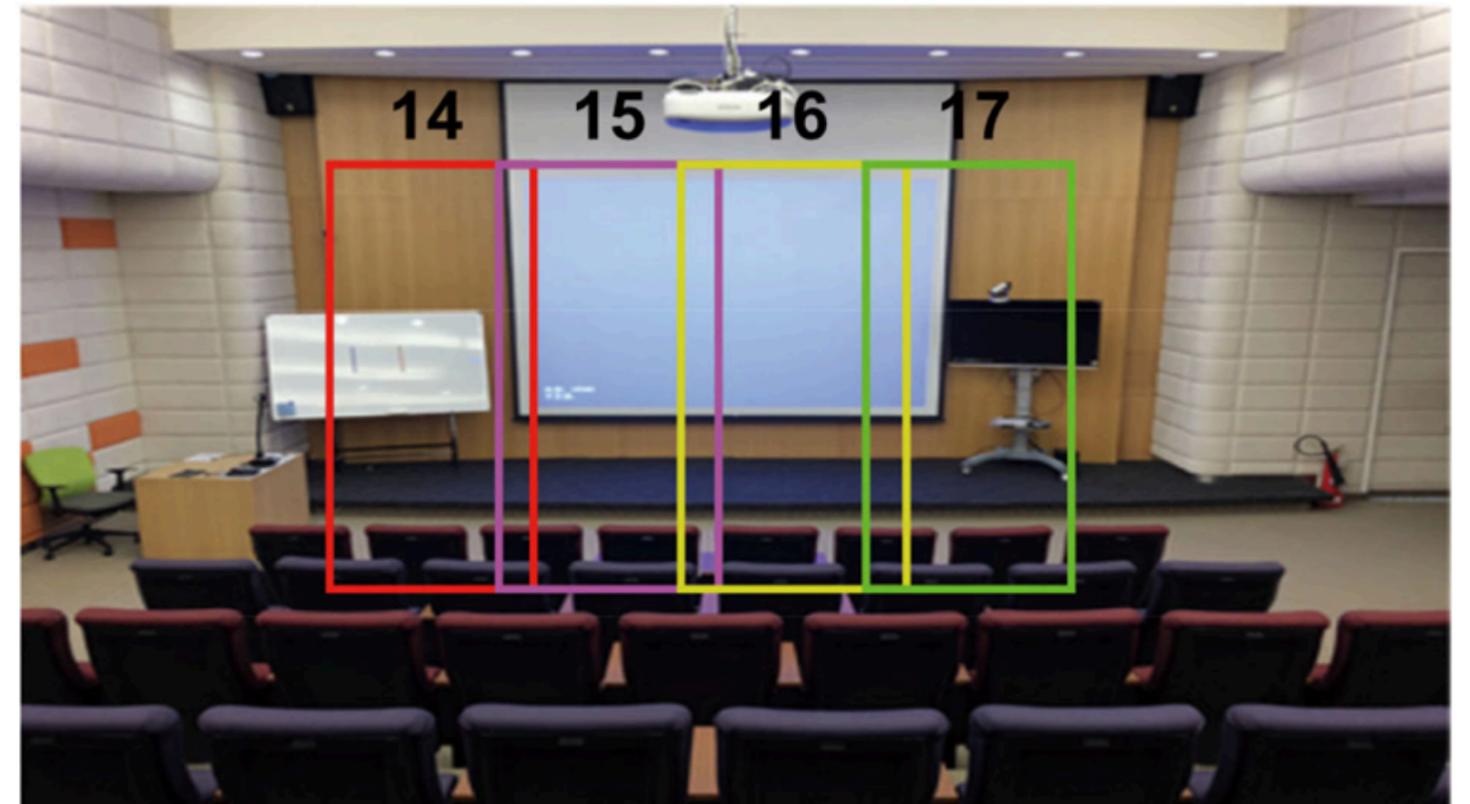
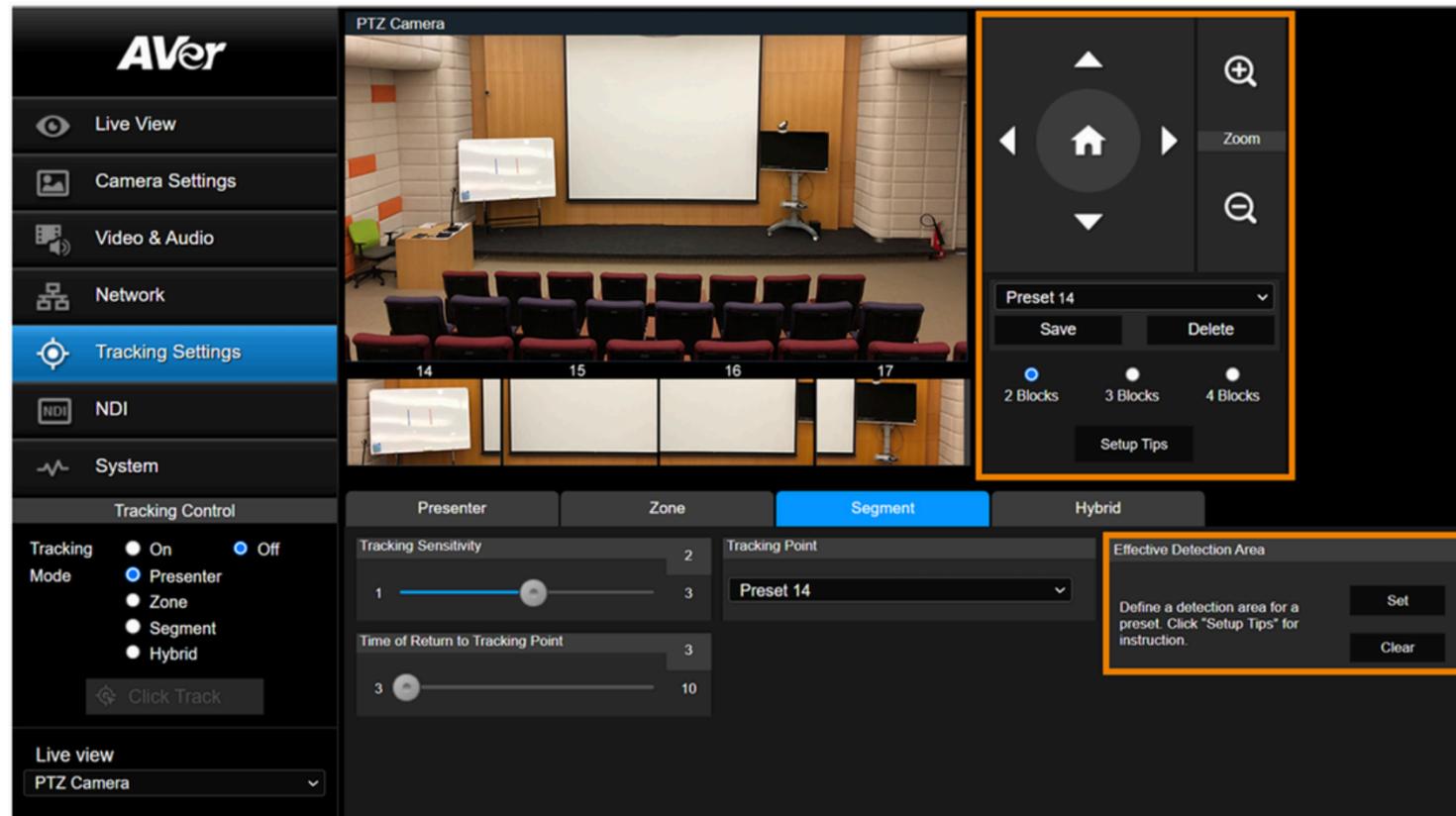
Tracking Setting < Zone Mode



Zone Mode Setup (Tracking Settings > Zone):

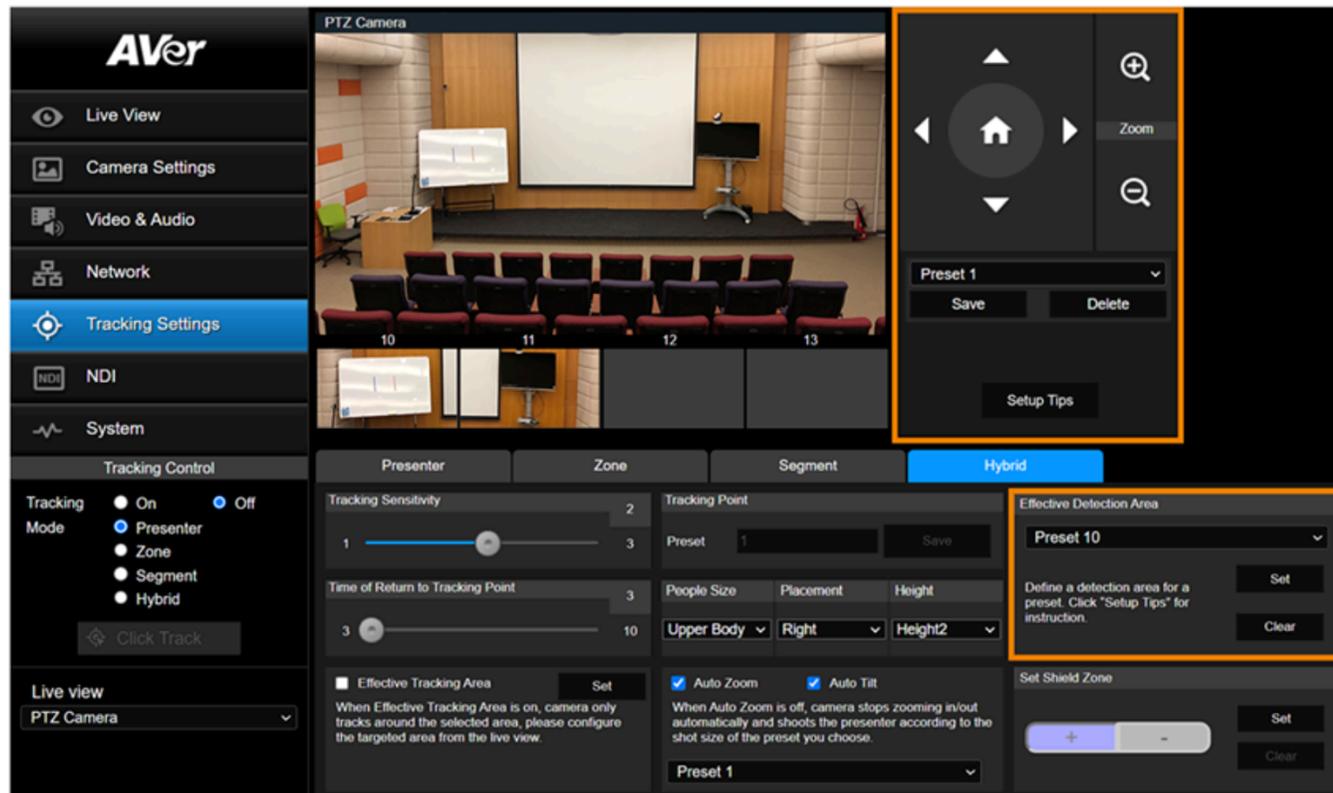
1. Go to **Tracking Settings > Zone**
2. Select the number of **Blocks (Presets)** to track (up to 4)
3. Choose **Presets 6–9** from the dropdown menu
4. Use **pan, tilt, and zoom** to adjust the camera view, then click Save (a thumbnail will appear)
5. Turn on **Tracking** and select **Zone Mode** from the **Tracking Control** panel

Tracking Setting < Segment Mode



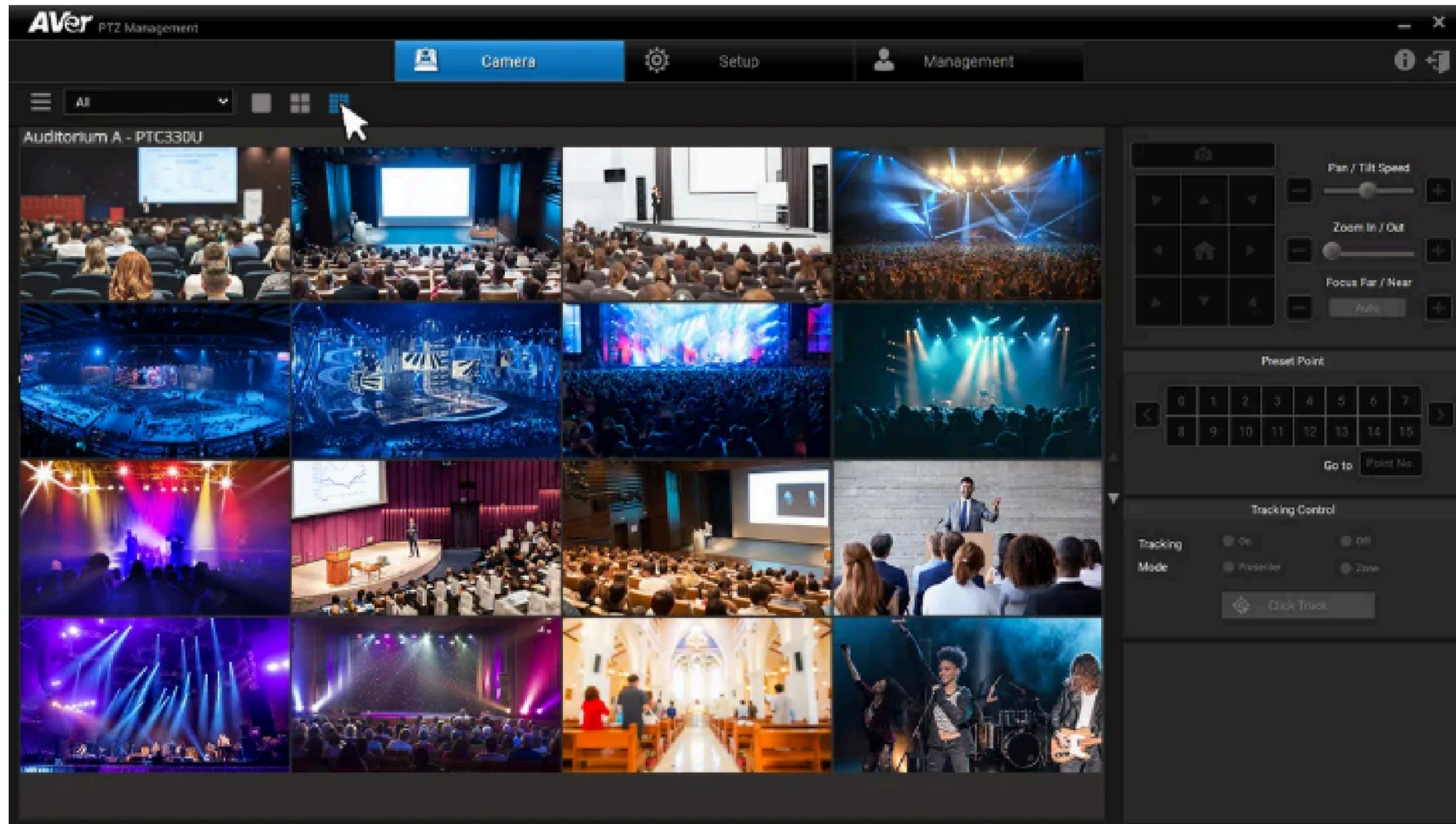
1. Go to **Tracking Settings > Segment**
2. Set the detection area: Click Set and draw a box on the wide-angle live view
3. Select the number of **Blocks (Presets)** and click Save
4. Define Presets (14–17): Select from the dropdown, adjust camera position, then click Save
5. Turn on **Tracking** and select **Segment Mode** in the Tracking Control panel

Tracking Setting < Hybrid Mode



1. Go to **Tracking Settings > Hybrid**
2. From **Effective Detection Area**, select a preset (10–13) and define the detection area by clicking Set, then draw a box on the wide-angle view.
3. Click **Save** to confirm the area (camera will auto-switch to PTZ lens).
4. Define presets using pan, tilt, zoom, then click Save (repeat for each preset).
5. Select **Preset 1** as the default tracking point and save its position. and config any additional setting as need
6. Turn on **Tracking** and select **Hybrid Mode** in the **Tracking Control** panel.

AVer PTZ Management



HOW TO SET UP

PTZ Management

AVer PTZ Management is a network-based software for managing and controlling multiple AVer devices remotely.

AVer PTZ Management can connect up to 256 devices in the same LAN.

Camera Compatibility

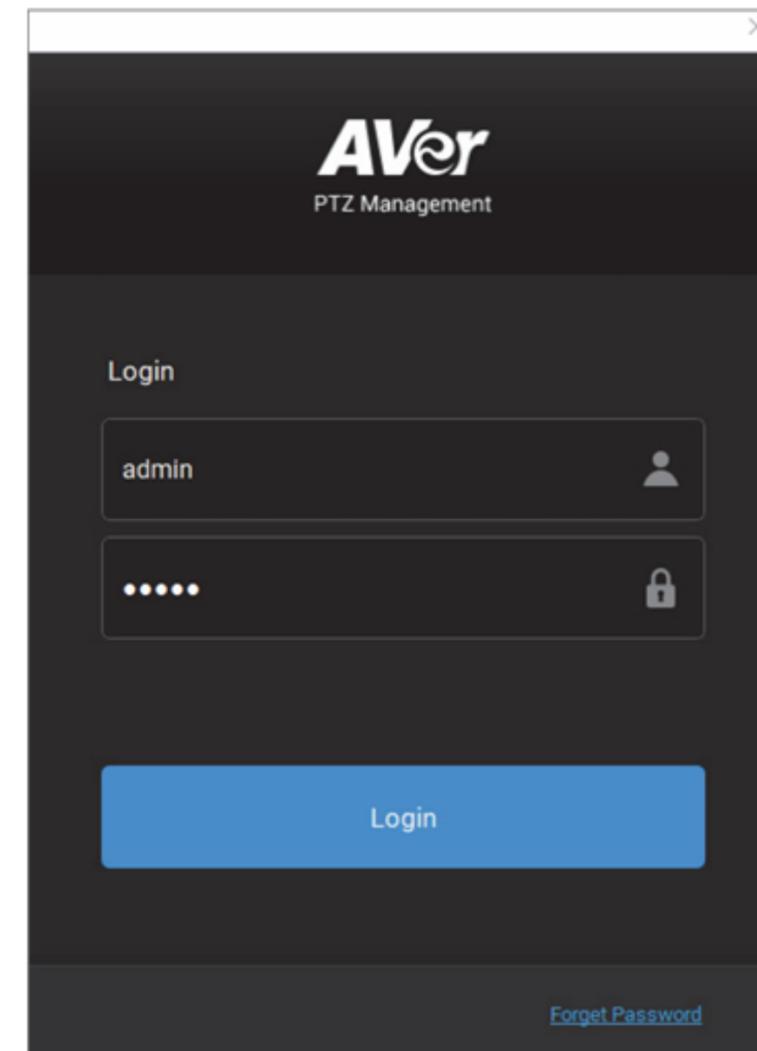
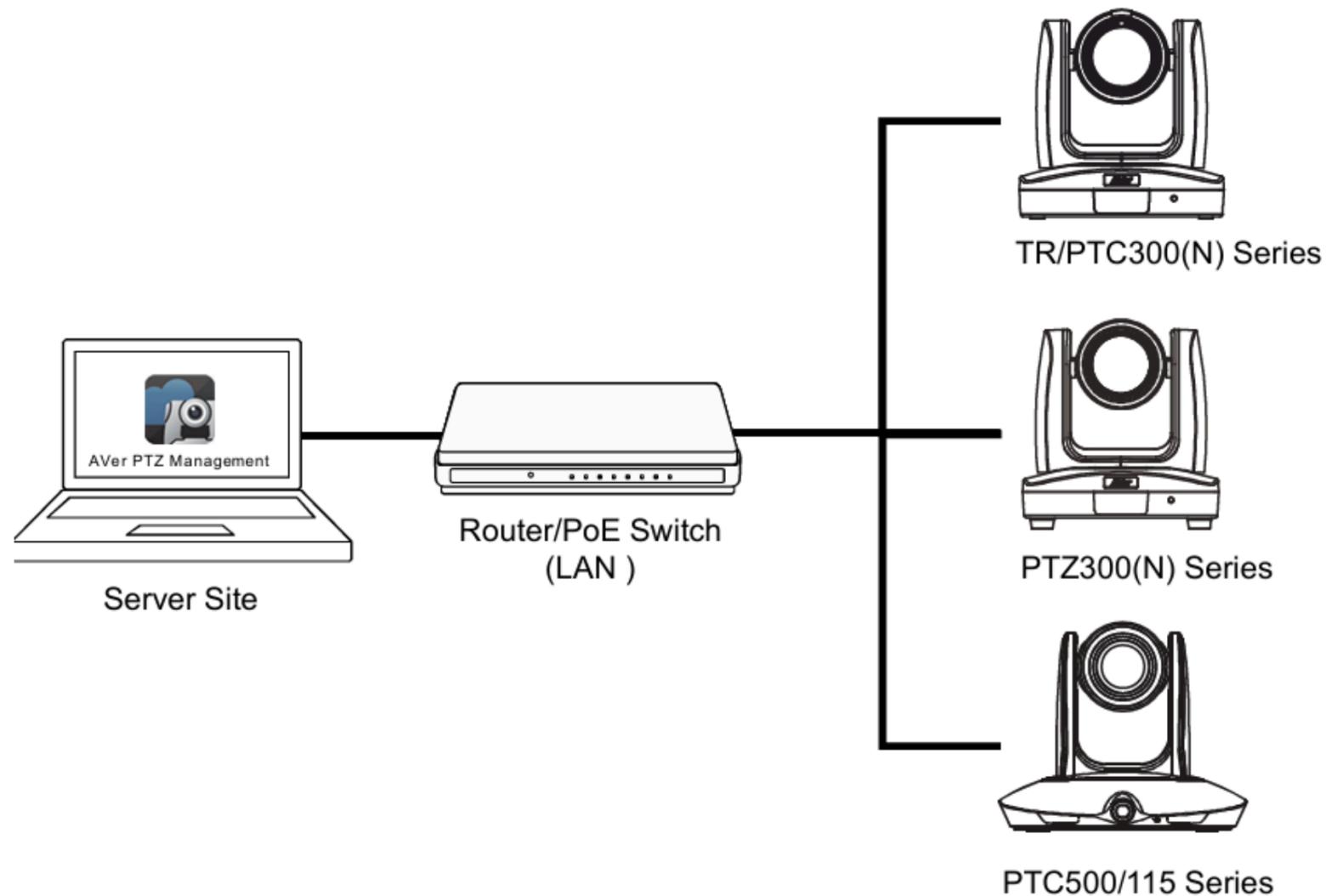
- TR310/TR311/TR311HN/TR313/TR331/TR333 V0.0.0000.16 or above
- PTC500S/TR530/TR320 V0.0.1000.45 or above
- PTZ310(W)/PTZ310N/PTZ330(W)/PTZ330N V0.0.0000.56 or above
- DL30 V7.0.0010.13 or above
- TR313V2 V0.1.0000.18 or above
- TR333V2 V0.1.0000.19 or above (Estimated Mid Feb 2022 Release Date )
- CAM550/CAM570

Supported Devices - Windows® PC & laptop (Windows® 10 or 11)

PTZ Management

AVer PTZ Management is a network-based software for managing and controlling multiple AVer devices remotely. It allows updates, setup, and grouping as long as the network is available.

1. Download AVer PTZ Management to your computer from AVer Download Center. (<https://www.aver.com/download-center>).
2. Follow the instructions to install and Launch AVer PTZ Management. (Enter the default username and password admin/admin)



PTZ Management

8. Mic Setting

Two-Way Audio

The screenshot shows the PTZ Management software interface. At the top, there is a navigation bar with tabs for 'Device', 'Setup', and 'Management'. Below this is a 'Device List' section with a dropdown menu set to 'All' and a 'Layout Grid' showing a 2x2 grid of device thumbnails. The thumbnails are labeled 'PTC310HWV2', 'TR535', and 'DL10'. A 'Live View' window is open on the left, showing a grey placeholder for the selected device. On the right, there is a 'Control Panel' with various controls: 'Pan / Tilt Speed' slider, 'Zoom In / Out' buttons, 'Focus Far / Near' buttons, a 'Preset' keypad, 'Save to' and 'Go to' fields, 'Cruise', 'Disable', and 'Record' buttons, and 'Tracking Control' options for 'Tracking', 'Mode', and 'Auto Zoom'. A 'Mute/Unmute' button is also visible. Numbered callouts (1-10) point to specific features: 1. Live View, 2. Device List, 3. Device Group, 4. Layout Grid, 5. Page Turn Button, 6. Group Record, 7. Two-Way Audio, 8. Mic Setting, 9. Mute/Unmute, and 10. Control Panel.

Device List 2 3 4 Device Group Layout Grid Page Turn Button 5 6 7 8 9 Mute/Unmute

Live View 1

Group Record

10 Control Panel

PTZ Management

Add Device

PTZ device: AVer PTZ NDI Auto Search

Device Name:

Device Address: IP Hostname

CGI Ports:

RTSP Ports:

RTSP Ports 2:

VISCA Ports:

Device Account:

Device Password:

Remarks:

Group: Group Auditorium Lecture hall

Cancel Save

Add a Device

Add devices manually, automatically, via NDI Manager or by importing device data.

Manually

1. Go to Setup > Device > Add.
2. Enter device information.
3. Click Save.

Auto Search

All AVer PTZ NDI

Item	IP Address	Ports	Camera Name	Camera Model	Added
4	10.100.105.28	80	DL30	DL30	
5	10.100.105.34		NDIHX-PTZUHD (chan 1, 10.100.105.34)	NDI	
6	10.100.105.18	80	Tracking Camera	Tracking Camera	
7	10.100.105.34		NDIHX-PTZUHD (chan 1, 10.100.105.34)	NDI	

Cancel OK Refresh

Automatically

1. Go to Setup > Device > Add.
2. Click Auto Search to search for devices on the same LAN as the computer running AVer PTZ Management.
3. A list of available devices will appear. A list of available devices will appear.
4. Click to select a device. Then click OK
5. Enter device information.
6. Save

PTZ Management < Group Devices

The screenshot shows the AVer PTZ Management interface. The top navigation bar includes 'Device', 'Setup' (selected), and 'Management'. Below this, there are tabs for 'Device', 'User', and 'System'. The 'Device' tab is active, showing a 'Group' dropdown menu with options 'All Devices', 'Auditorium', and 'Lecture hall'. The 'Add' button is highlighted. Below the dropdown is a table of devices:

Item	Device Name	IP Info.	Device Model	Hostname	Status	Remarks
1	PTC310HWV2	10.100.90.22	PTC310HWV2		On	
2	TR535	10.100.90.42	TR535		Off	
3	DL10	10.100.90.17	DL10		On	

1. Go to **Setup > Device**. Make sure you have added devices.

2. To create a group, click **Group**, click **Add** on the pop-up window, enter a name, then click **OK**. (Note: You can create up to 64 groups)

3. To add devices to a group, select a group, then click **Add**.

Add New: Add a new device.

From the List: Add an existing device from the device list.

This screenshot shows the same AVer PTZ Management interface as the first image. The 'Add' button in the 'Group' dropdown menu is highlighted with an orange box. The table of devices is also visible, showing the same three devices as in the first image.

PTZ Management < Add a User

Add, edit or delete user accounts and assign account privileges.

1. Go to Setup > User.
2. Click Add. Enter username, password, email for password recovery, and assign account privilege by selecting a group or a device to grant control.
3. Save

Add User

User Name

Password

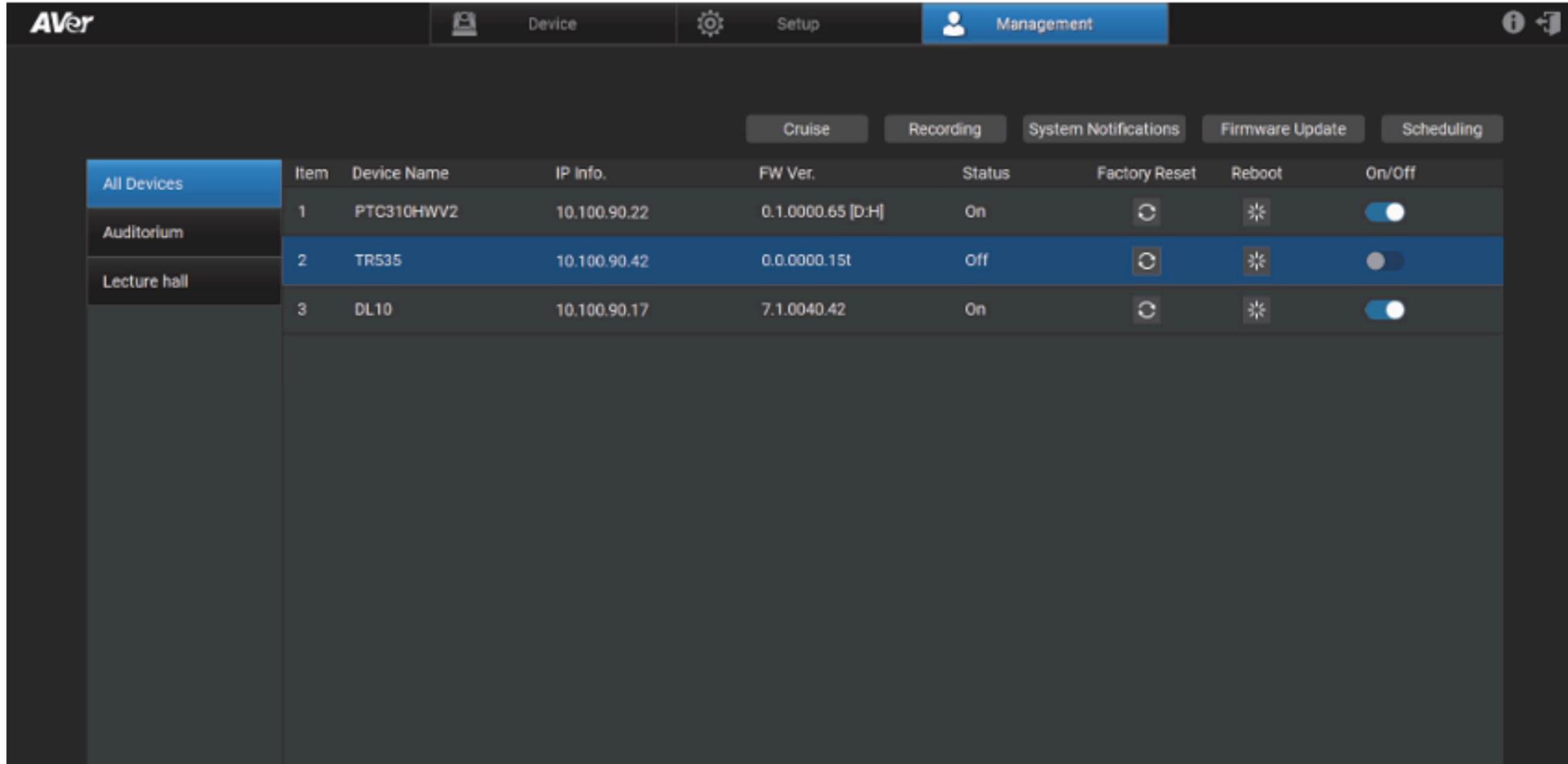
Confirm Password

E-Mail

Type

<input checked="" type="checkbox"/> Group	<input checked="" type="checkbox"/> Device
<input checked="" type="checkbox"/> Building 9F	<input checked="" type="checkbox"/> TR311N
<input checked="" type="checkbox"/> Building 8F	<input checked="" type="checkbox"/> DL10
<input type="checkbox"/>	<input type="checkbox"/>

PTZ Management < Management



The screenshot shows the AVer PTZ Management web interface. The top navigation bar includes 'Device', 'Setup', and 'Management' (selected). Below the navigation bar are tabs for 'Cruise', 'Recording', 'System Notifications', 'Firmware Update', and 'Scheduling'. On the left, there is a sidebar with 'All Devices' (selected), 'Auditorium', and 'Lecture hall'. The main content area displays a table with the following data:

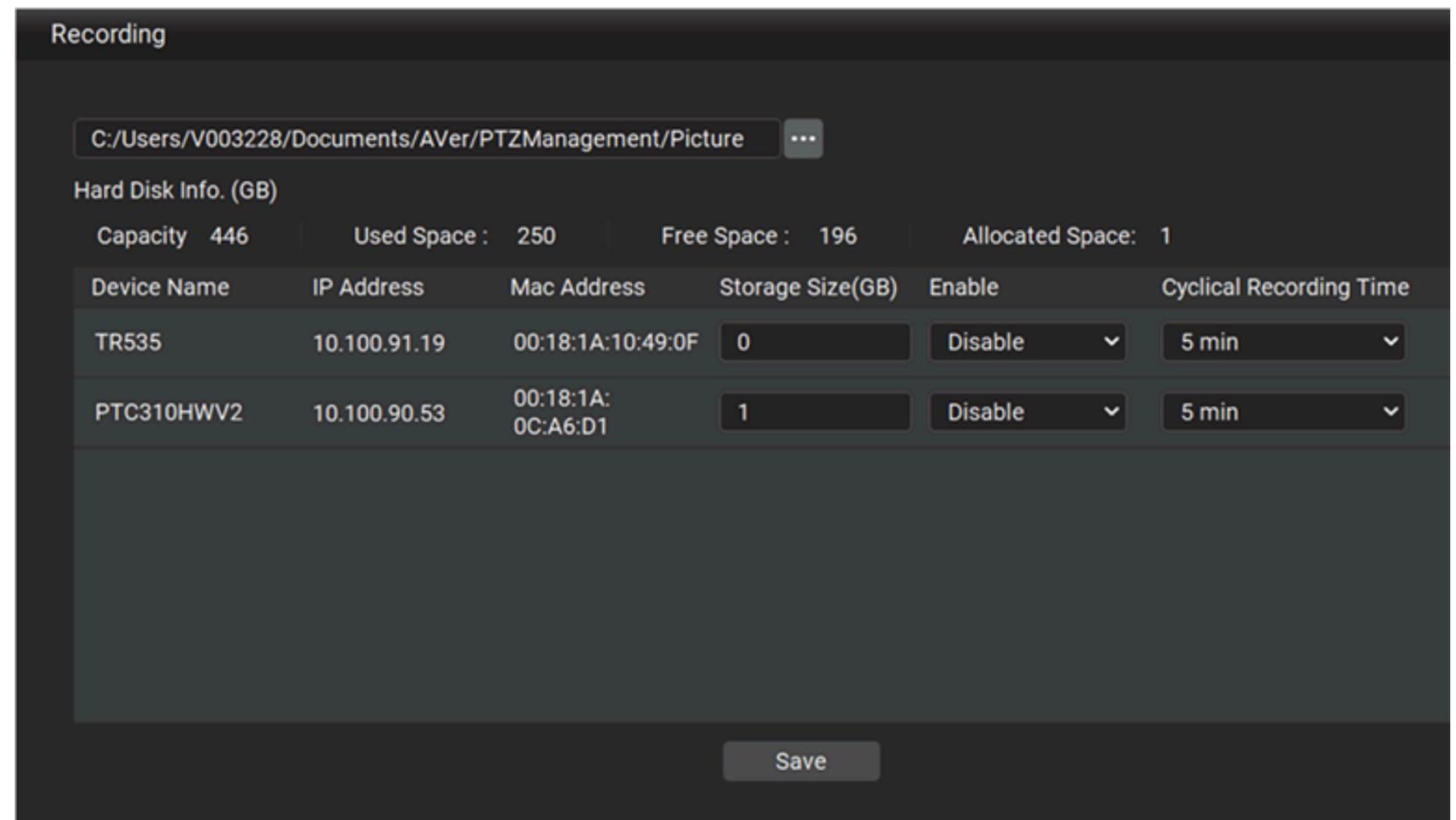
Item	Device Name	IP Info.	FW Ver.	Status	Factory Reset	Reboot	On/Off
1	PTC310HWV2	10.100.90.22	0.1.0000.65 [D:H]	On			<input checked="" type="checkbox"/>
2	TR535	10.100.90.42	0.0.0000.15t	Off			<input type="checkbox"/>
3	DL10	10.100.90.17	7.1.0040.42	On			<input checked="" type="checkbox"/>

Note:

- Make sure scheduled devices are connected to a network using an Ethernet cable.
- AVer PTZ Management must be running. Turn on Wake-on-LAN (WoL) for PTC500+, PTC115, TR530 and TR320.
- To prevent CAM Series from going offline, turn off Sleep Timer or select to connect via RTSP on the device web interface.
- Recording, System Notifications, and Scheduling are unavailable for CAM series.

PTZ Management < Recording

1. Go to Management > Recording
2. Click the folder icon and choose a directory for video storage
3. Set the Storage Size (GB) for the device – recording stops when the limit is reached
4. To start recording:
 - a. Select Enable from the dropdown and click Save
 - b. Or select Disable and manually start recording from the Device page or live view panel
5. Use Cyclical Recording Time to save 1, 3, 5, or 10-minute video clips in loops.
 - a. When storage is full, the oldest video is deleted
 - b. Choose No limit to record until full, then receive
6. an alert



PTZ Management < Scheduling

Device Control Schedule

Repeat: Every Day Mon. Tue. Wed. Thu. Fri. Sat. Sun.

On Time HR : MIN Reboot Time HR : MIN Off Time HR : MIN

All Group Select Device

Filter Device Name

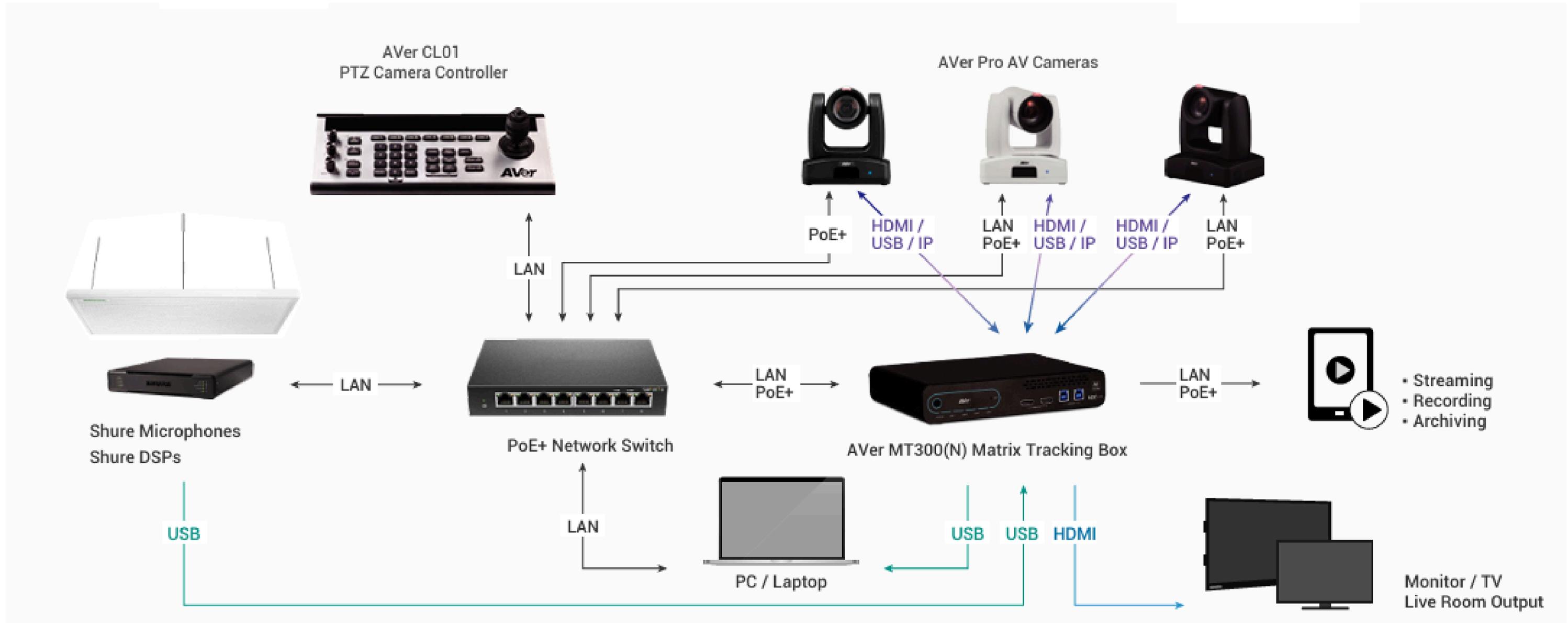
<input type="checkbox"/>	Device Name	IP Address	Mac Address
<input type="checkbox"/>	CAM550	10.100.90.15	00:55:7B:B5:7D:F7
<input checked="" type="checkbox"/>	TR311N	10.100.90.75	00:18:1A:0A:E1:3C

1. Go to Management > Scheduling > Add Schedule.
2. Configure the schedule settings and click Save.
3. Select from the Enable drop-down list to enable or disable your schedule on the list.

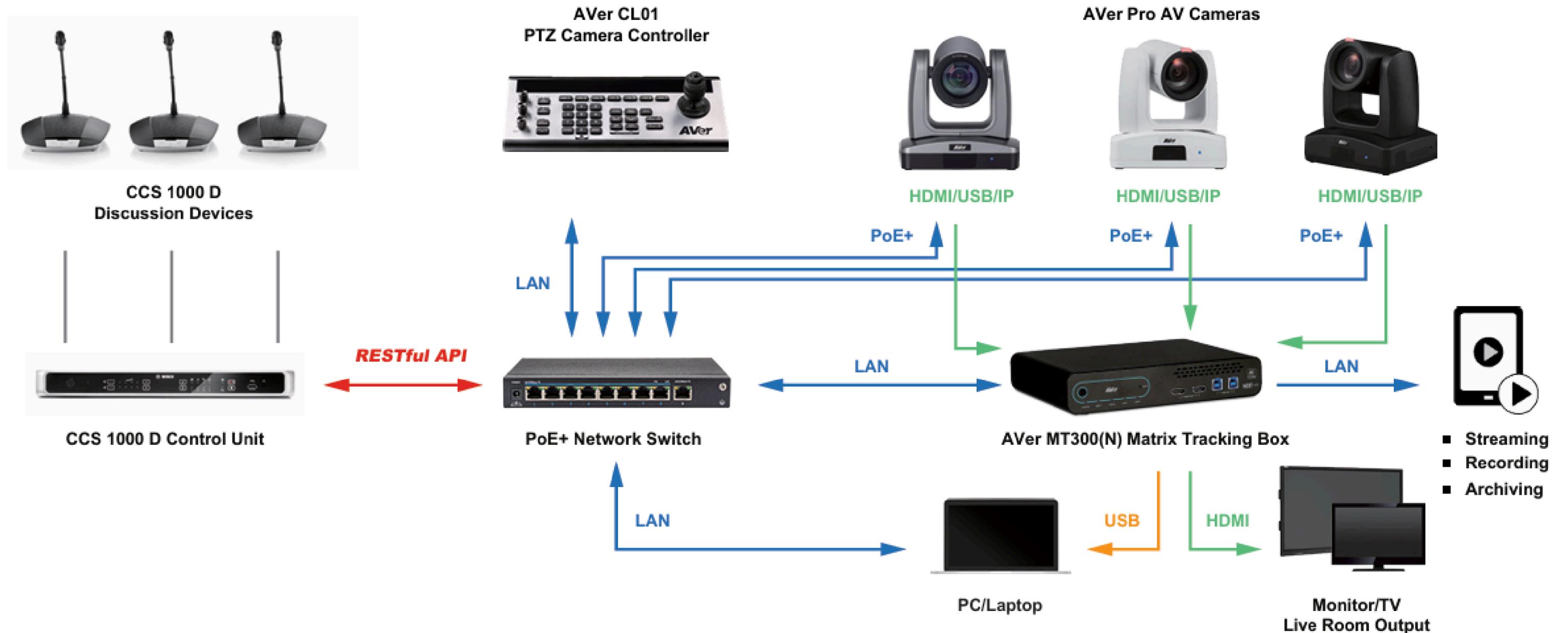
Voice Tracking Solution

[GET STARTED →](#)

Voice Tracking Solution AVer PTZ Camera x MT300 x Shure Diagram



Voice Tracking Solution AVer PTZ Camera x Bosch CCS 1000 D Diagram



NDI Protocol

[GET STARTED →](#)

NDI® HX3 Compatibility



With NDI® HX3 capability, the TR300/PTZ300V2 Series provide flexibility and extensive applications through a single

IP cable, simplifying live-production workflows by transmitting various video and audio signals efficiently and rapidly.

NDI® High Bandwidth Compatibility

NDI® High Bandwidth offers almost lossless compression, ultra-low latency, and pristine image quality that simplify even the most intricate setups, effortlessly redefining the landscape of modern video content sharing and production.

Comparing NDI Compression Options

	NDI HX2	NDI HX3	NDI High Bandwidth
Video Quality	Good	Great	Great
Bandwidth	Low (~18Mbps)	Medium (~80Mbps)	High (~250Mbps)
Latency	Medium	Very Low	Very Low
Network Requirement	Reliable low-latency connections	Limited bandwidth scenarios	Requires high-speed network
Ideal Use Cases	Suitable for remote production environments, education, and corporate communications	Suitable for remote production environments, education, and corporate communications	High-end studios, live broadcasts

Aver TR335 using NDI vs USB Cable Video Quality and Delay Comparison



Dante Protocol

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AUDINATE

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Pioneering the future of AV

We make products and services for exceptional AV experiences.

4000+

Products from Dante-enabled
Manufacturers

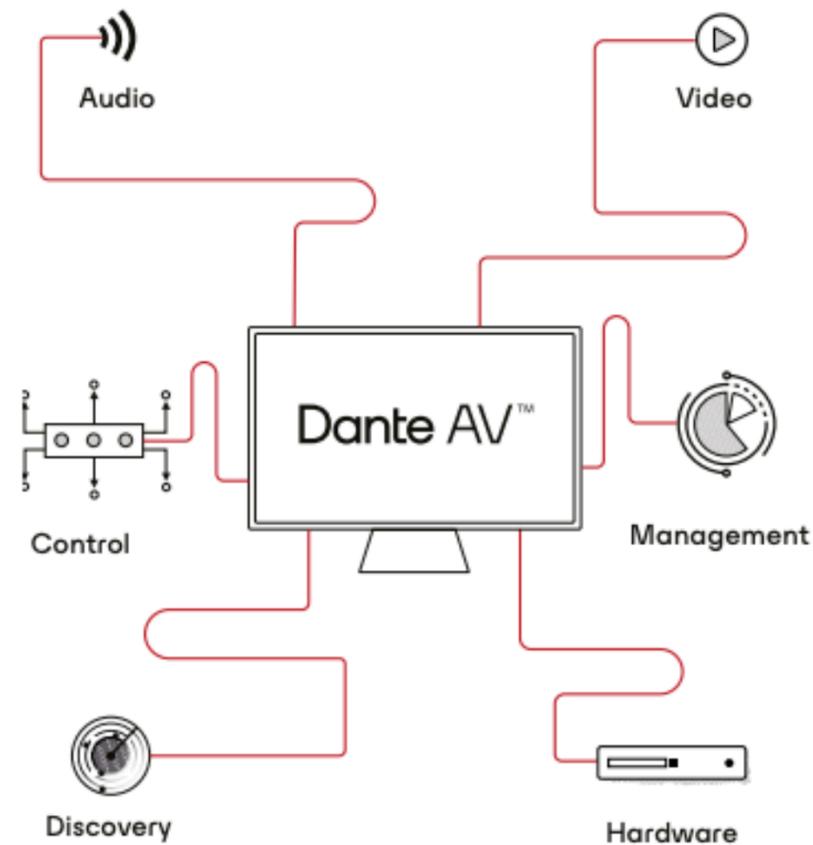
600+

Manufacturers of Dante-enabled Products

1,000,000+

Over 1 million Dante units shipped in 2023

Everything AV professionals love about Dante now for video



Dante – Easy To Integrate, Install & Use

Dante replaces point-to-point physical connections and single-purpose cables that previously connected audio and video systems with a network. With Dante, audio, video, synchronization, and control are all sent over a single, slender network cable. Connections are managed with software, making routes fast, readable, and reliable. When all devices share the same network, signals can be sent between any device, no matter where they are located, without changes to cabling. Dante AV devices join the vast Dante ecosystem, which includes over 500 OEM partners, more than 4,000 products, and a network of over 250,000 vcertified users.

Dante AV – Audio and Video Together at Last

Dante AV is a family of networked video solutions that allows users to choose products that meet their application needs, ranging from high-performance solutions where low latency and ultra-high-quality video matter to cost-effective solutions that deliver compatibility and flexibility. All Dante AV devices are interoperable with products using the same video codec, and audio channels are instantly compatible with any Dante device, reducing system complexity. Dante AV is designed to run alongside Dante audio devices on standard 1 GbE networking infrastructure.

	Dante AV Ultra	Dante AV-A	Dante AV-H
Resolution Support	Up to 4Kp60 4:4:4	Up to 4Kp60 4:4:4	Up to 4Kp60 4:2:0
Latency	Sub frame	Sub frame	A few frames
Bandwidth	High Up to 700 Mbps	High Up to 700 Mbps	Low Up to 50 Mbps
Audio Channels Supported	8x0 or 0x8	2x2	2x2
Interoperability of product based on the same codec	•	•	•
Dante Studio Software Support	•		•
HDCP Support	•	•	
Common AV Clock	•		
Best for	Any real time or live interactive application where tight audio and video sync is required such as video production and live events.	One-to-many visually lossless and ultra-low latency commercial AV distribution for hospitality, corporate, and education.	Limited bandwidth environments and applications that incorporate software including conferencing, lecture capture, streaming and recording.