Integrated Software　Operation Manual (PTZ Control)

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About the PTZ Control Function

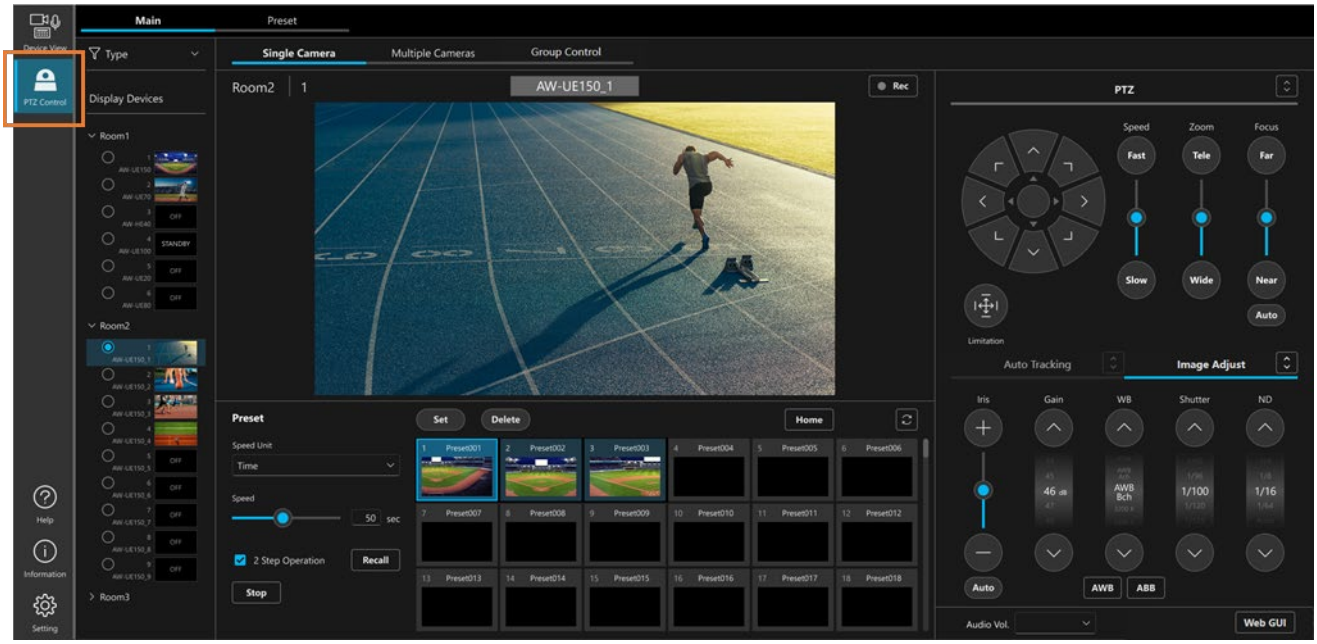
Function Overview

The PTZ Control function offers functionality to operate remote cameras.

- With the PTZ Control function, you can:
  - Pan, tilt and zoom remote cameras
  - Operate remote camera presets
  - Adjust remote camera image quality
  - Start/stop remote camera video recording
  - Adjust remote camera audio volume
  - Open the remote camera web screen
  - Set and operate the auto tracking function for remote cameras
  - Operate multiple remote cameras simultaneously

Selecting the PTZ Control Function

Click the [PTZ Control] button in the function selection area on the left of the screen to display the PTZ Control function screen.



PTZ Control Function Screen

The PTZ Control function has multiple screens, and you can switch between them in accordance with use.

[Main] tab

[Single Camera] screen

This screen is to control a single remote camera.

For details, see [Single Camera Screen] in this document.

[Multiple Cameras] screen

Multiple remote cameras are arranged next to each other on this screen to control them at the same time.

For details, see [Multiple Cameras Screen] in this document.

[Group Control] screen

This screen allows you to have the same operation take place across multiple remote cameras simultaneously.

For details, see [Group Control Screen] in this document.

[Preset] tab

This screen allows you to control a single or multiple remote cameras, primarily with presets.

For details, see [Preset Screen] in this document.

Single Camera Screen

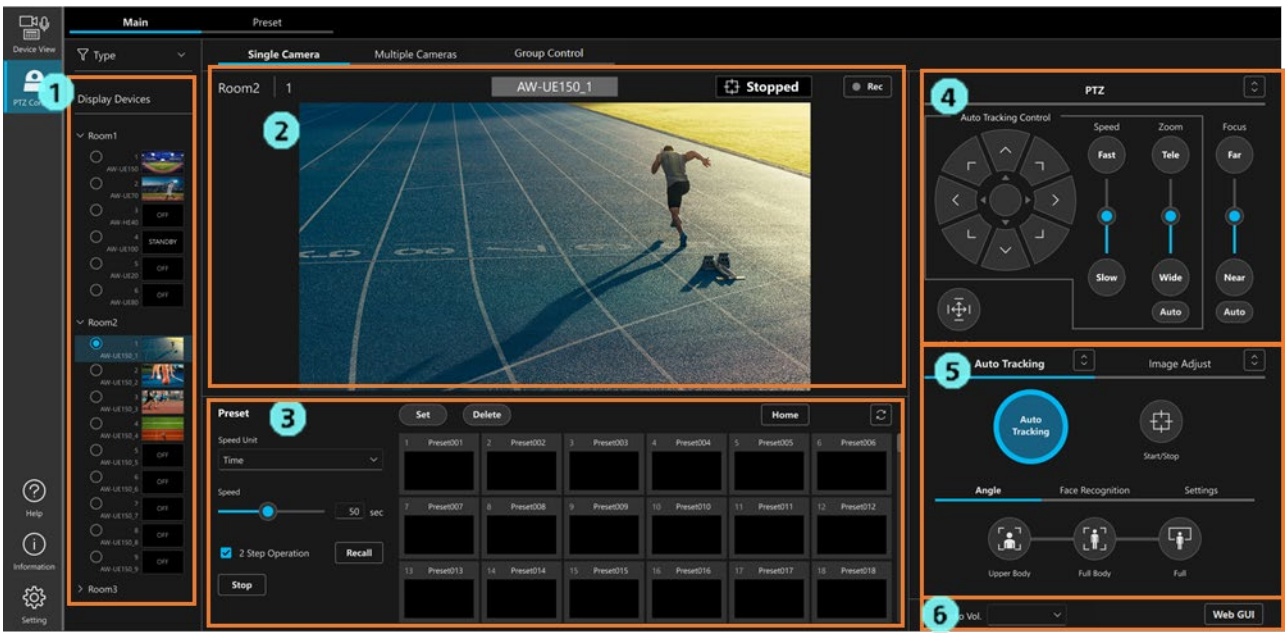
Screen Characteristics

This screen is to control a single remote camera.

From this screen, you can:

- Operate pan, tilt and zoom
- Operate presets
- Adjust focus/camera image quality
- Start/stop video recording
- Adjust audio volume
- Open the web screen
- Set and operate the auto tracking function

Screen Explanation



1. Camera selection area

   Select the camera you want to operate from the tree on this screen.

2. Camera view area

   This shows information like the camera name and the video being recorded by the camera.

3. Preset operation area

You can operate camera presets.

4. Camera controller PTZ operator

You can operate camera pan, tilt and zoom, and focus.

5. Camera controller Auto Tracking/Image Adjust operator

This area is split between the [Auto Tracking] tab and the [Image Adjust] tab.

[Auto Tracking] tab

You can operate camera auto tracking.

<NOTE>

- The current version only supports operation of the auto tracking function built into cameras.
- The [Face Recognition] tab and the [Settings] tab are reserved for future expansions. They are not supported in the current version.

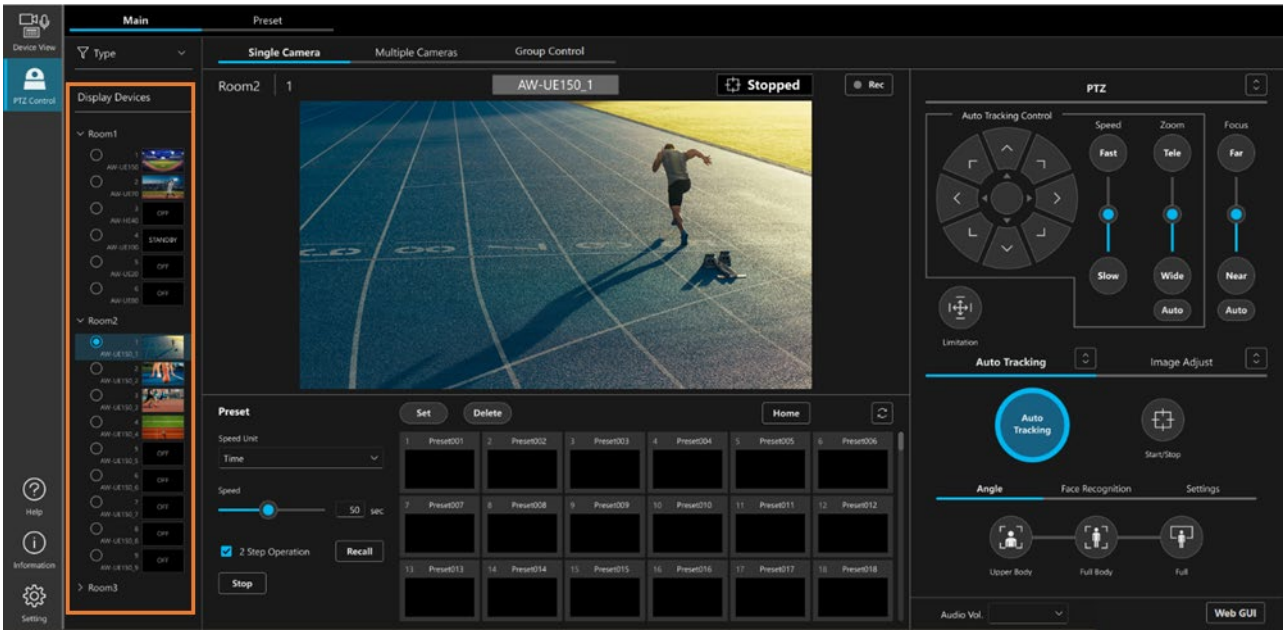
[Image Adjust] tab

You can adjust camera image quality.

6. Audio volume adjuster and web screen display operator

You can adjust camera audio volume and display the web screen.

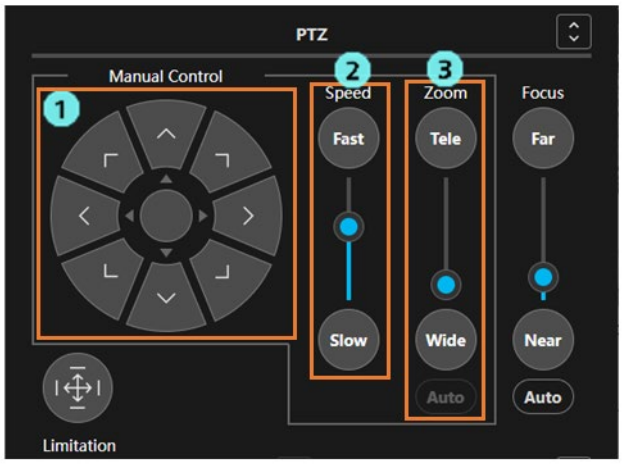
Select Camera to Operate

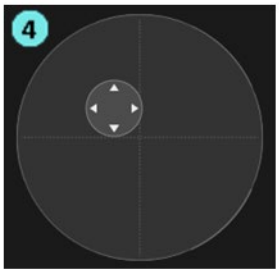


Select the camera you want to operate from the camera selection area (area in the above figure surrounded by a bounding box).

Pan, Tilt and Zoom Camera

Pan, Tile and Zoom with the Camera Controller





1. Pan/Tilt operator

   Pressing any of the directional buttons will pan and tilt the camera in that direction.

   Click the round button in the middle to switch to joystick mode (Fig. ④ above).

2. Pan/Tilt/Zoom speed setting slider/button

   The speed of panning, tilting and zooming can be set with a slider or a button.

3. Zoom operation slider/button

   Clicking and dragging the knob on the slider, or holding the [Tele] or [Wide] button down, will change the zoom position of the camera.

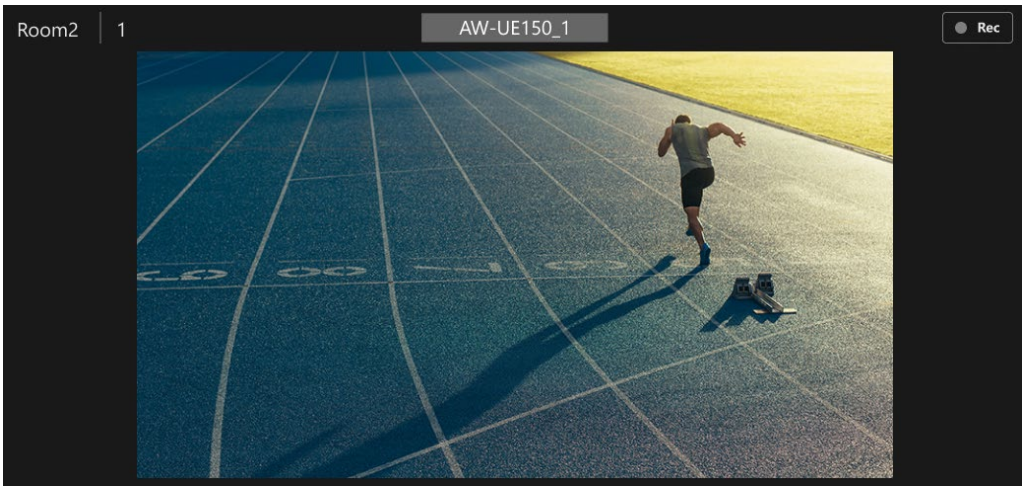
   If the camera is not compatible with zoom position controls, the Zoom operator slider will not be shown and movement direction will only be controllable with the [Tele] and [Wide] buttons.

   The Auto button is reserved for future expansions. It is not supported in the current version.

4. Pan/Tilt operator (during joystick mode)

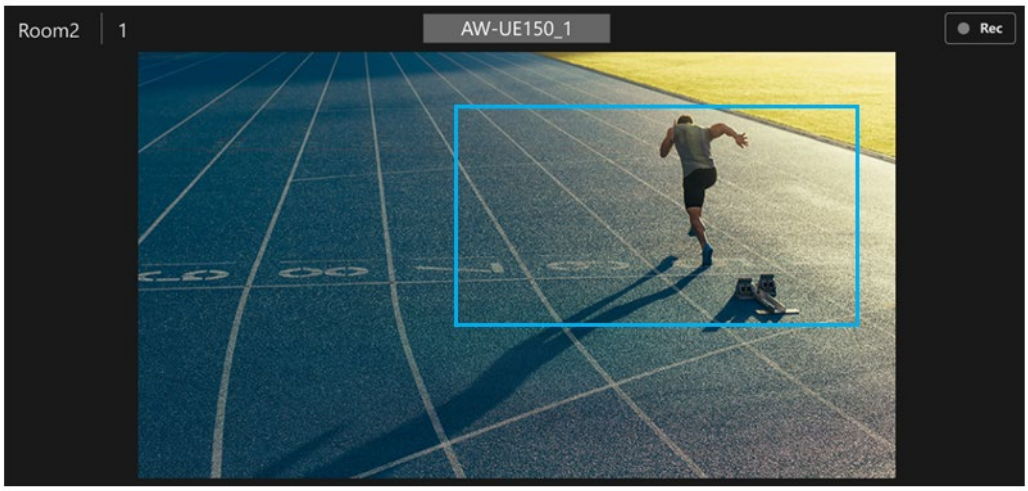
   Dragging the round button in a direction will allow you to pan and tilt the camera in that direction.

Pan/Tilt by Designating a Position in the Video



Click anywhere in the camera's video to pan and tilt the camera with that position as the center of focus.

Pan/Tilt/Zoom to Record the Range Specified in the Video

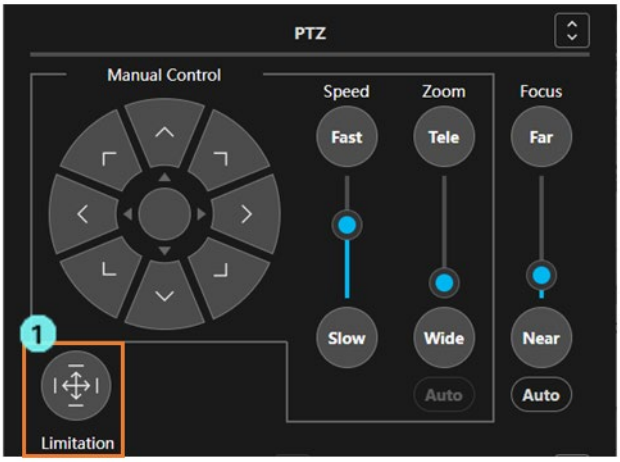


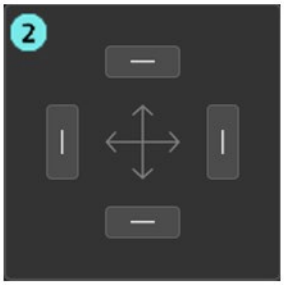
Click and drag the mouse over the camera's view to display a square shape in the video.
Letting go of the mouse button while the square shape is displayed will set that as a range of recording in which the camera pans, tilts and zooms.

Zoom with the Mouse Wheel

Use the mouse wheel while hovering over the camera's view to zoom that camera in and out.

Configuring Pan/Title Range





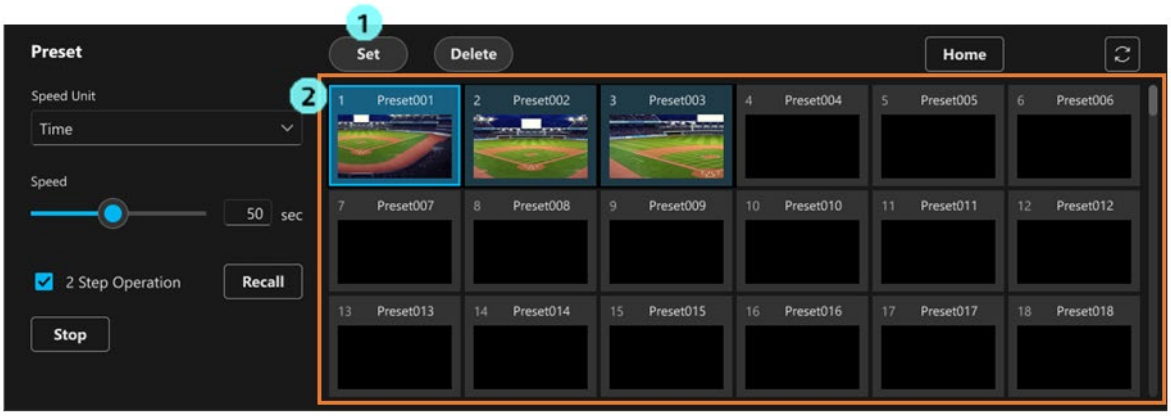
Click the [Limitation] button (Fig. 1 above) in the PTZ operator to display the Pan/Tilt range setting panel (Fig. 2 above).

Click any of the direction buttons of the operation panel and turn it ON to save the current camera position and the moveable limit position of that direction to the camera. Click again to turn OFF and delete the saved moveable limit position.

Configuring Camera Presets

You can register presets such as camera positions and call them up at any time.
- Up to 100 presets can be registered.
- Preset contents are stored in the camera.

Registering Presets

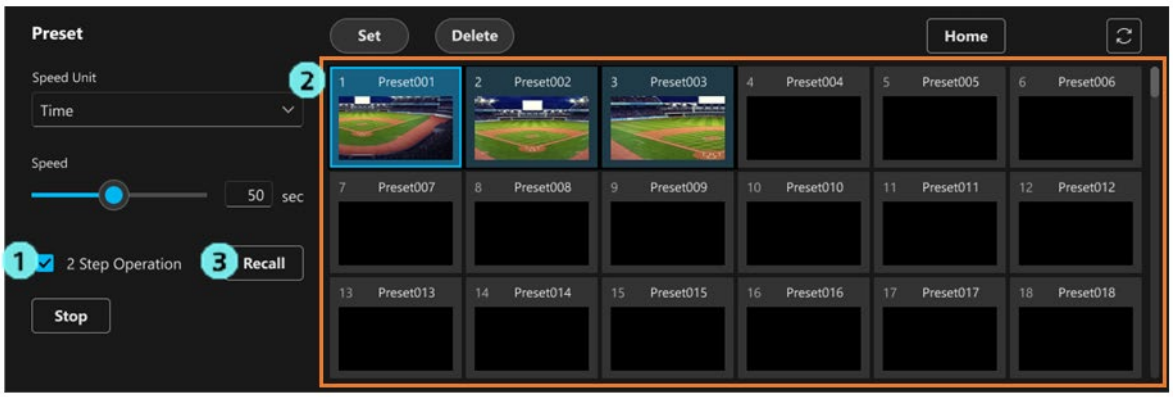


1. Click the [Set] button in the preset operator to turn the button ON.
2. Click the preset number’s thumbnail of the preset you want to register from the preset list display area.
3. The preset will be registered.

Deleting Presets

1. Click the [Delete] button in the preset operator to turn the button ON.
2. Click the preset number’s thumbnail of the preset you want to delete from the preset list display area.
3. The preset will be deleted.

Calling Presets

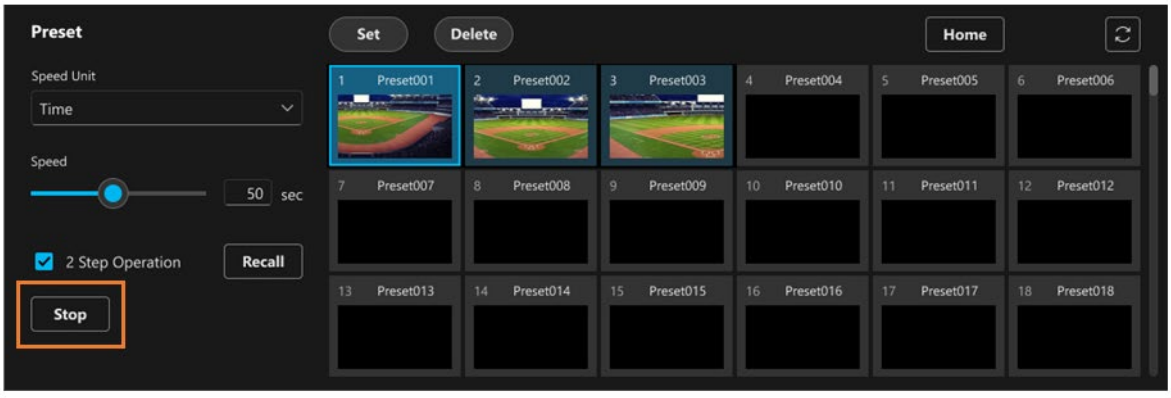


Presets can be called using either of the two following methods.

1) Click a preset number's thumbnail to call it immediately.
    1. Uncheck the [2 Step Operation] checkbox.
    2. Click the preset number's thumbnail of the preset you want to call from the preset list display area to call that preset.

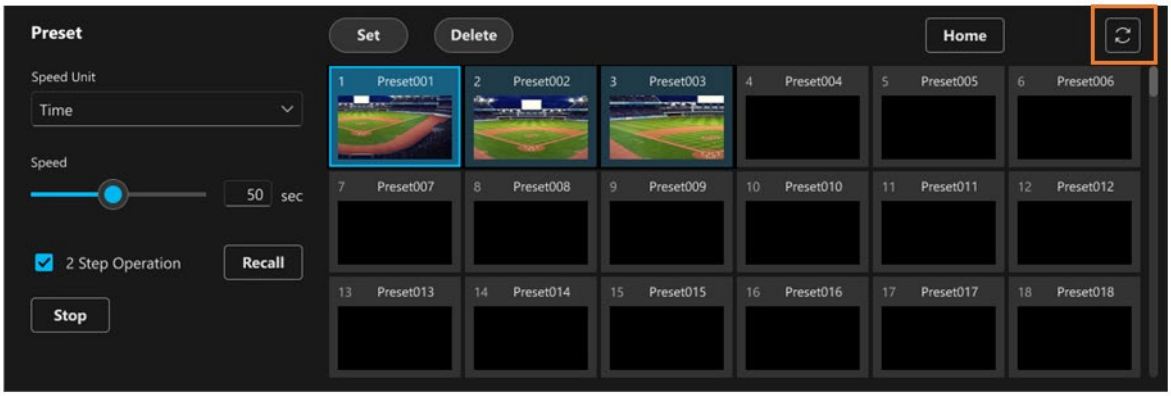
2) After clicking a preset number's thumbnail and selecting it, click the [Recall] button to call it
    1. Check the [2 Step Operation] checkbox.
    2. Click the preset number's thumbnail of the preset you want to call from the preset list display area.
    3. Click the [Recall] button to call a preset.

Cancelling Preset Calls



Click the [Stop] button during the calling of a preset to cancel the calling of that preset.

Updating Preset to Latest

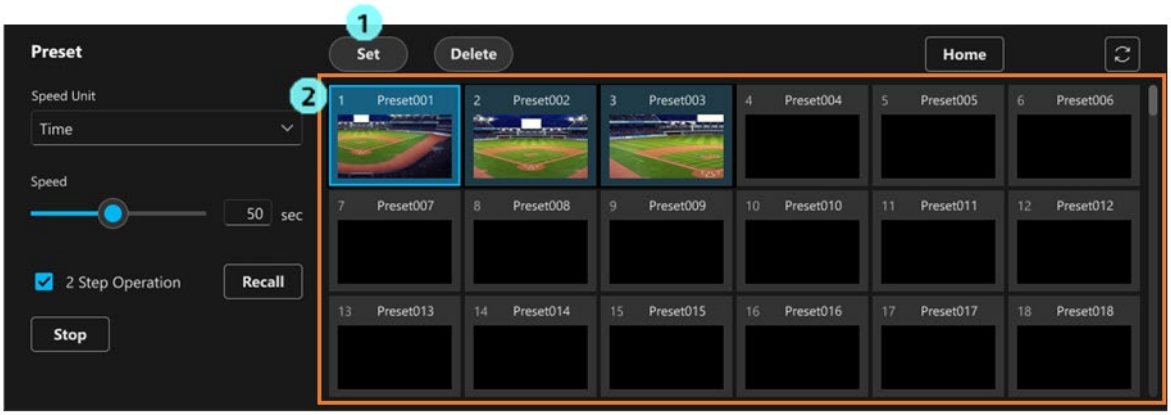


Click the preset update button (area in the above figure surrounded by a bounding box) to load the latest preset from the camera and update the screen display.

<NOTE>

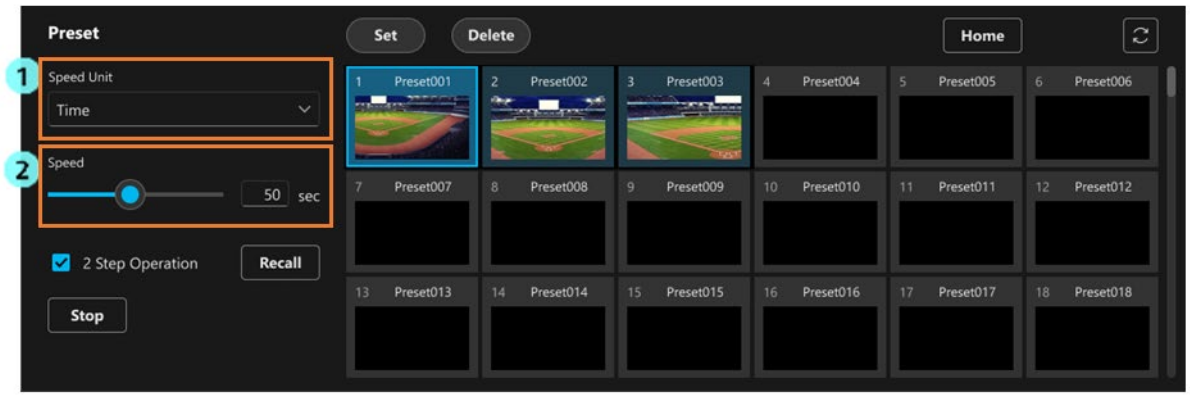
• Camera preset information registered for the first time and preset information registered with other software will not automatically display, so follow this procedure to change the preset information display.

Changing Preset Names



1. Click the [Set] button in the preset operator to turn the button ON.
2. Click the preset number’s name of the preset you want to change names for from the preset list display area.
3. This will make the name editable, so change the name.
4. Change the focus to another control to confirm that name.

Configuring Preset Movement Speed



1. With [Speed Unit], you can select the unit used for preset movement speed.

   Speed Table (Fast)

   The speed table value (fast) set for the camera is the unit.

   The higher the value, the higher the movement speed will be.

   Speed Table (Slow)

   The speed table value (slow) set for the camera is the unit.

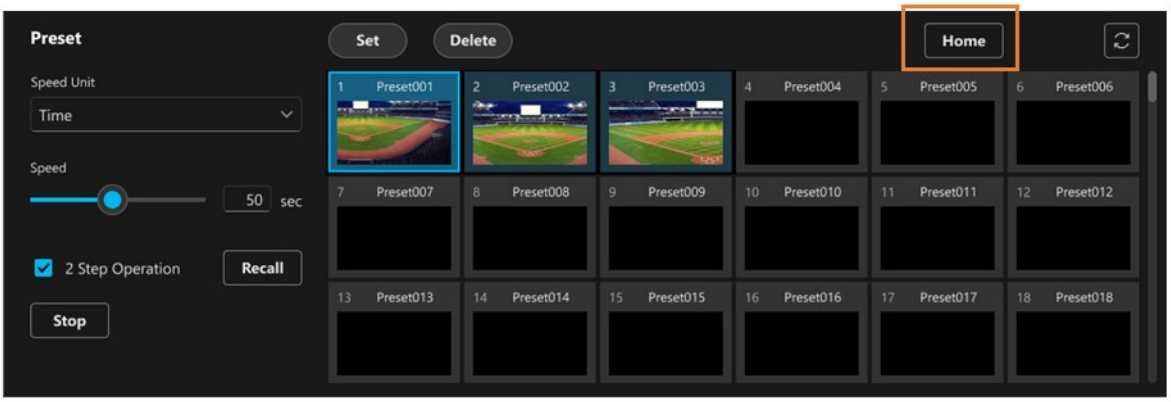
   The higher the value, the higher the movement speed will be.

   Time

   The number of seconds required from the start of the preset to the end of the preset is the unit.

2. Set the preset movement speed with the [Speed] setting slider or directly with the input value.

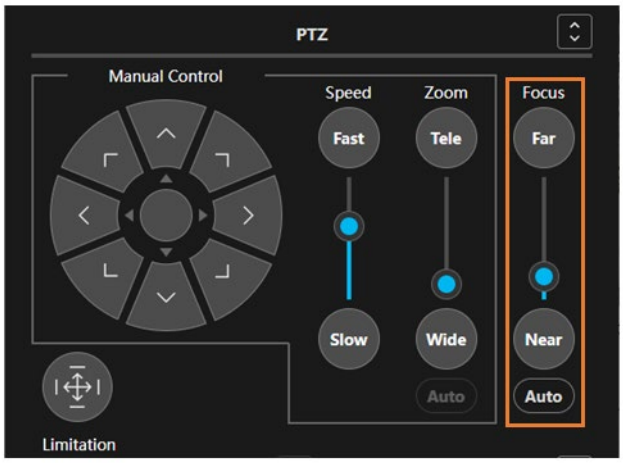
Calling Home Position



Click the [Home] button (area in the above figure surrounded by a bounding box) to call the camera's home position.

Adjusting Focus/Camera Image Quality

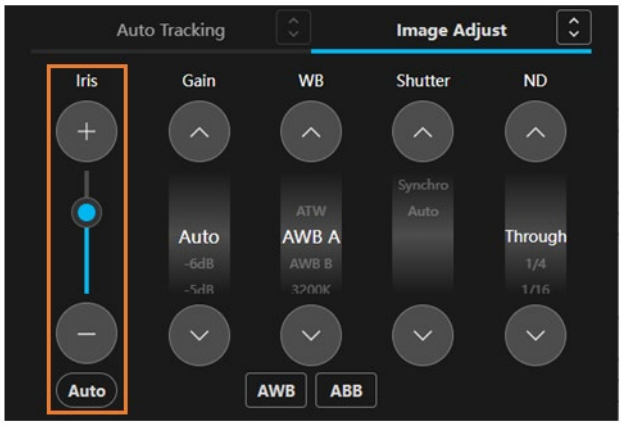
Adjusting Focus



The Focus for the camera can be adjusted with the Focus part (area in the above figure surrounded by a bounding box) in the camera controller PTZ operator.
Click and drag the knob on the slider, or push the [Far] or [Near] button, to change the focus position of the camera.
Click the [Auto] button to turn the camera's Auto Focus Function ON and OFF.

<NOTE>
• If the focus position changes on the camera, the position of the knob on the slider will change automatically to align with that.

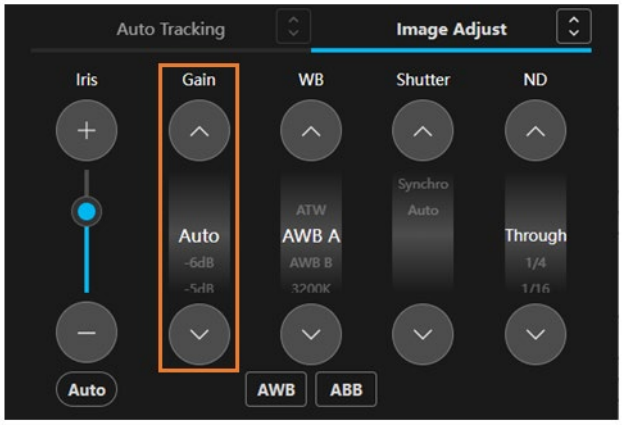
Adjusting Iris



The Iris for the camera can be adjusted with the Iris part (area in the above figure surrounded by a bounding box) in the camera controller Image Adjust operator.
Click and drag the knob on the slider, or push the [+] or [-] button, to change the iris position of the camera.
Click the [Auto] button to turn the camera's Auto Iris Function ON and OFF.

<NOTE>
• If the iris position changes on the camera, the position of the knob on the slider will change automatically to align with that.

Configuring Gain



The Gain for the camera can be configured with the Gain part (area in the above figure surrounded by a bounding box) in the camera controller Image Adjust operation part.
Click the up and down arrow buttons to change setting values.
Click a displayed setting value to display a list of settable values, from which you can select setting values directly.

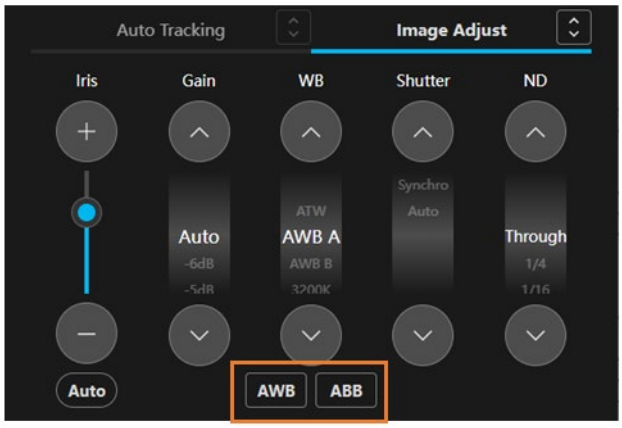
<NOTE>
• If setting values change on the camera, the displayed setting value will change automatically to align with that.

Configuring White Balance Mode

The White Balance mode for the camera can be configured with the WB part (area in the above figure surrounded by a bounding box) in the camera controller Image Adjust operator.
Click the up and down arrow buttons to change setting values.
Click a displayed setting value to display a list of settable values, from which you can select setting values directly.

<NOTE>
• If setting values change on the camera, the displayed setting value will change automatically to align with that.

Executing AWB/ABB



Click the [AWB] button in the camera controller Image Adjust operator to execute AWB on the camera. Click the [ABB] button to execute ABB on the camera.

Configuring Shutter Mode

The Shutter mode for the camera can be configured with the Shutter part (area in the above figure surrounded by a bounding box) in the camera controller Image Adjust operator.

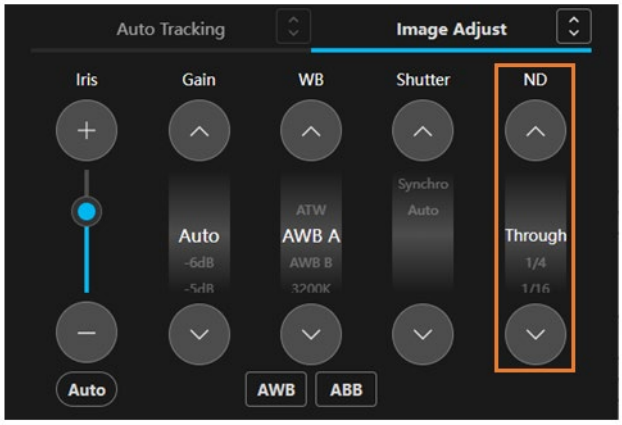
Click the up and down arrow buttons to change setting values.

Click a displayed setting value to display a list of settable values, from which you can select setting values directly.

<NOTE>

• If setting values change on the camera, the displayed setting value will change automatically to align with that.

Configuring ND Filter



The ND Filter for the camera can be configured with the ND part (area in the above figure surrounded by a bounding box) in the camera controller Image Adjust operator.

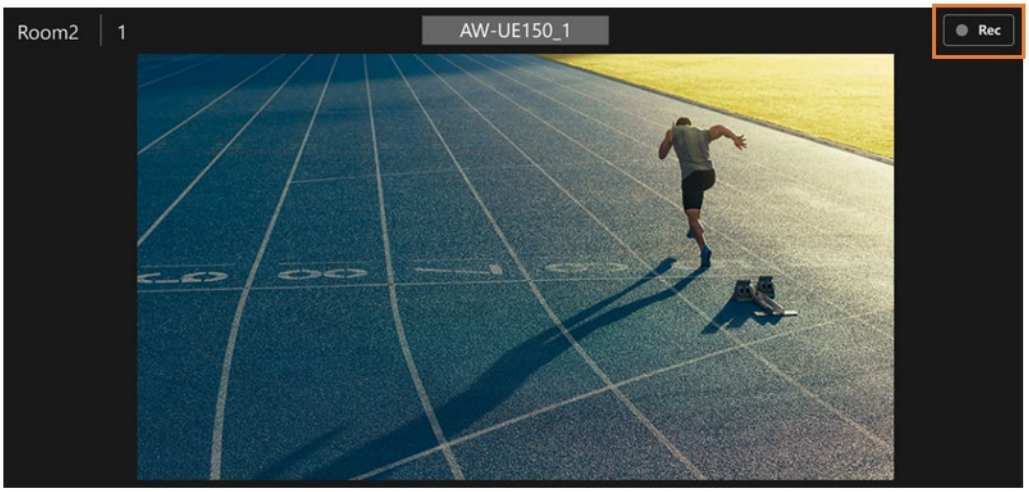
Click the up and down arrow buttons to change setting values.

Click a displayed setting value to display a list of settable values, from which you can select setting values directly.

<NOTE>

• If setting values change on the camera, the displayed setting value will change automatically to align with that.

Starting/Stopping Camera Video Recording



If the camera supports the video recording function, you can click the [Rec] button (area in the above figure surrounded by a bounding box) in the camera video area to start and stop video recording.

Adjusting Camera Audio Volume

The audio volume for the camera can be adjusted with the audio volume adjuster (area in the above figure surrounded by a bounding box) in the lower part of the camera controller.

If the camera supports multiple audio channels, the volume value for Channel 1 will be displayed and settings will be applied to both Channel 1 and 2.

Opening Camera Web Screen

Click the [Web GUI] button in the lower portion of the camera controller to open a camera's web screen with a web browser.

Configuring/Operating Auto Tracking Function

About the Auto Tracking Function

This function allows a camera to automatically detect and track a subject.

The current version only supports operation of the auto tracking function built into cameras.

If the camera does not have a built-in auto tracking function, the auto tracking function will be disabled and unavailable.

Turning Auto Tracking Function ON/OFF

The Auto Tracking Function can be turned ON/OFF with the [Auto Tracking] button (area in the above figure surrounded by a bounding box) in the camera controller Auto Tracking operator.

<NOTE>

• When the auto tracking function of the camera is switched between ON and OFF, the displayed [Auto Tracking] button will change automatically to align with that.

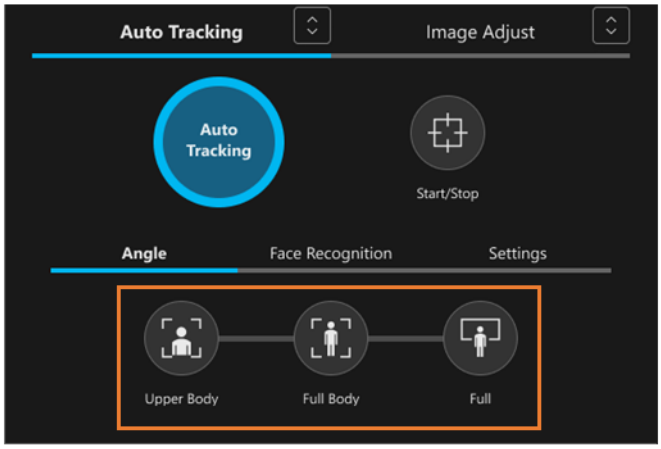
Starting/Stopping Auto Tracking Function

You can start and stop auto tracking for cameras with the [Start/Stop] button (area in the above figure surrounded by a bounding box) in the camera controller Auto Tracking operator.

<NOTE>

• If the movement status of the camera is changed through auto tracking, the [Start/Stop] button display will change automatically to align with that.

Configuring Auto Tracking Camera Angle



The camera angle during auto tracking can be configured with the [Upper Body], [Full Body] and [Full] buttons (area in the above figure surrounded by a bounding box) in the [Angle] tab of the camera controller Auto Tracking operator.

[Upper Body] button is ON

The angle will be automatically adjusted so that the upper half of the subject's body is in the screen.

[Full Body] button is ON

The angle will be automatically adjusted so that the subject's whole body is in the screen.

[Full] button is ON

The angle will be automatically adjusted so that the subject and the background are in the screen.

All buttons are OFF

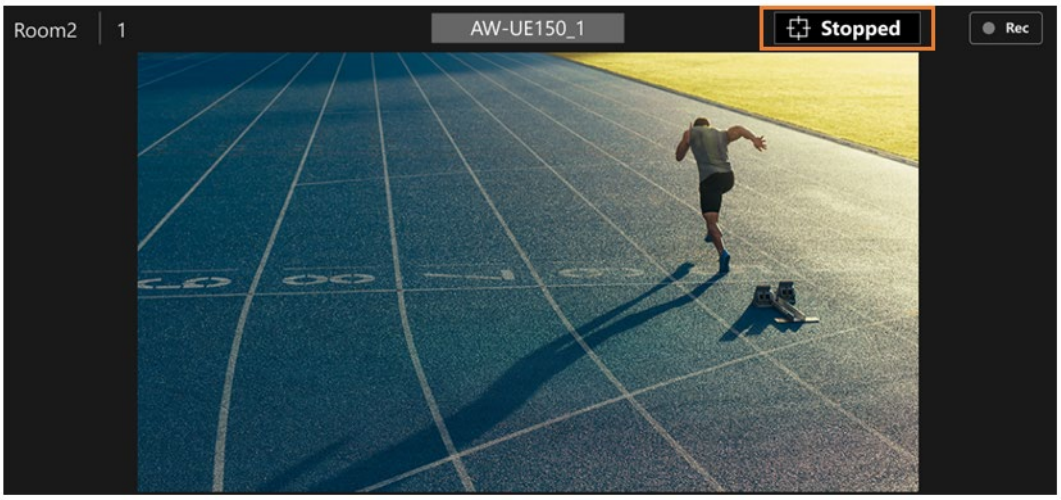
The angle will not be automatically adjusted. The angle can be adjusted from the Zoom operator.

<NOTE>

• If the angle changes on the camera, the button display will change automatically to align with that.

• The [Face Recognition] tab and the [Settings] tab are reserved for future expansions. They are not supported in the current version.

Checking Status of Auto Tracking



During auto tracking, the status will be shown in the upper right hand corner of the camera's view.

Tracking

A subject has been detected and is being automatically tracked

Lost

A subject has been lost and is no longer being automatically tracked

Stopped

Auto tracking is OFF or a subject has not been designated, and auto tracking is suspended

<NOTE>

• The tracking status is also shown in the device list view of the Device View function.

Multiple Cameras Screen

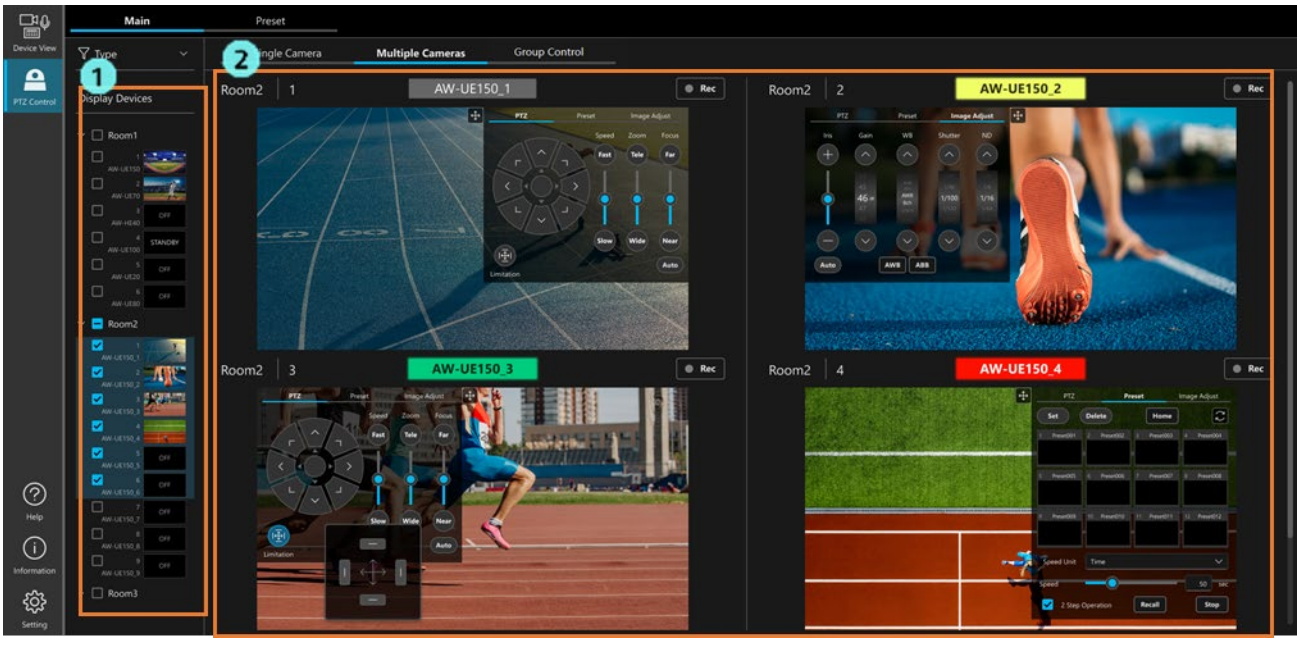
Screen Characteristics

This screen displays operation screens for multiple remote cameras next to each other to operate them at the same time.

From this screen, you can:

- Operate pan, tilt and zoom
- Operate presets
- Adjust focus/camera image quality
- Start/stop video recording
- Set and operate the auto tracking function

Screen Explanation



1. Camera selection area

   Select the camera you want to operate from the tree on this screen.

   Up to four cameras can be selected.

2. Camera view area

   The selected camera’s live view and the camera controller are arranged and displayed next to each other.

   The camera controller has PTZ, Preset and Image Adjust tabs. The functionality of each tab is the same as the

Single Camera Screen.

Additionally, if you can use the auto tracking function, the Auto Tracking tab will be displayed in the lower part of the camera controller. The Auto Tracking tab functionality is also the same as the Single Camera screen.

<NOTE>

You can show/hide the camera controller by clicking the cross button on the camera controller.

Group Control Screen

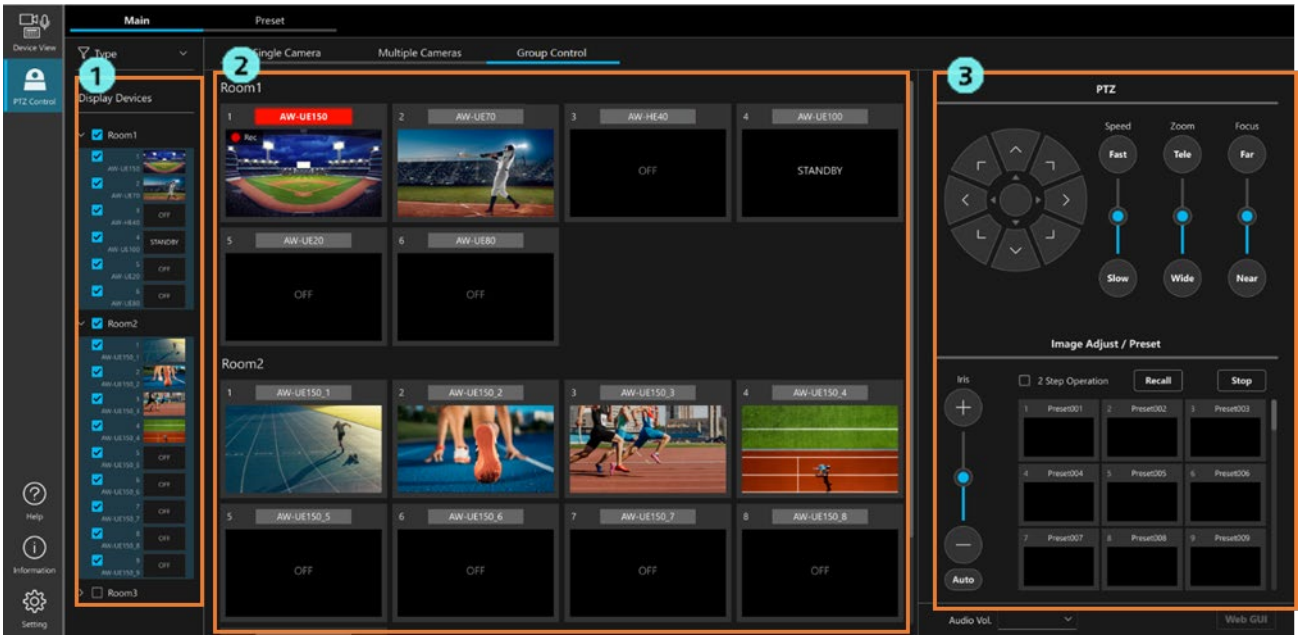
Screen Characteristics

This screen allows you to have the same operation take place across multiple remote cameras simultaneously.

This screen allows you to perform the following operations simultaneously for multiple remote cameras.

- Operate pan, tilt and zoom
- Call a preset
- Adjust focus/iris

Screen Explanation



1. Camera selection area

   Select the camera you want to operate from the tree on this screen.

   Up to 16 cameras can be selected.

2. Camera view area

   Displays the selected camera as a thumbnail.

3. Camera controller

   It allows you to perform the same operation for all selected cameras.

   The operation method of each part is the same as on the Single Camera screen.

Preset Screen

Screen Characteristics

This screen allows you to control a single or multiple remote cameras, primarily with presets.
The Single screen is optimized for the operation of a single camera, whereas the Multiple screen is optimized for the control of multiple cameras.

Screen Explanation

Operations such as preset registration/deletion and speed settings, as well as camera controller operation are the same as the Single Camera Screen.

Single screen

1. Display screen selection button

   Switch between the Single screen and the Multiple screen.

2. Camera selection area

   Select the camera you want to operate from the tree on this screen.

3. Preset register/delete button

   Used when you are registering or deleting presets.

4. Home position call button

   This will call the Home position of the camera.

5. Preset update button

   Loads the preset information for the selected camera and updates the screen display.

6. Preset list display area

   Displays all presets for the selected camera.

7. Camera information display area

   Displays the name and video of the selected camera.

8. Preset speed, calling area

   You can set the speed of presets and call them.

9. Camera controller

   You can pan, tilt and zoom cameras and control their image quality.

Multiple screen

1. Display screen selection button

   Switch between the Single screen and the Multiple screen.

2. Camera selection area

   Select the camera you want to operate from the tree on this screen.

   Up to 16 cameras can be selected.

3. Preset register/delete button

   Used when you are registering or deleting presets.

4. Home position call button

   You can call the Home position of the camera selected in the preset list display area.

5. Preset update button

   You can load preset information for all cameras displayed in the preset list display area and update the screen displays in the list.

6. Preset list display area

   Displays the thumbnail and all presets of the camera selected in the camera selection area.

7. Camera information display area

Displays the name and live view of the camera selected from the preset list display area.

8. Preset speed, calling area

   You can control the speed and calling of presets for the camera selected from the preset list display area.

9. Camera controller

   You can pan, tilt and zoom cameras and image quality of the cameras selected from the preset list display area.

Camera Operation Using Peripheral Devices

Operating Camera with a Keyboard

You can perform various operations on the remote camera using a keyboard connected to the PC.
The operations assigned to keys are as shown below.

Key	Operation
1	Call preset 1
2	Call preset 2
3	Call preset 3
4	Call preset 4
5	Call preset 5
6	Call preset 6
7	Call preset 7
8	Call preset 8
9	Call preset 9
↑	Tilt camera upward
↓	Tilt camera downward
←	Pan camera to left
→	Pan camera to right
↑ + →	Pan/tilt camera up and right
→ + ↓	Pan/tilt camera down and right
↓ + ←	Pan/tilt camera to down and left
← + ↑	Pan/tilt camera up and left
Shift + ↑	Tilt camera upward (high speed)
Shift + ↓	Tilt camera downward (high speed)
Shift + ←	Pan camera to left (high speed)
Shift + →	Pan camera to right (high speed)
Shift + ↑ + →	Pan/tilt camera up and right (high speed)
Shift + → + ↓	Pan/tilt camera down and right (high speed)
Shift + ↓ + ←	Pan/tilt camera to down and left (high speed)

Shift + ← + ↑	Pan/tilt camera up and left (high speed)
Ctrl + ↑	Tilt camera upward (low speed)
Ctrl + ↓	Tilt camera downward (low speed)
Ctrl + ←	Pan camera to left (low speed)
Ctrl + →	Pan camera to right (low speed)
Ctrl + ↑ + →	Pan/tilt camera up and right (low speed)
Ctrl + → + ↓	Pan/tilt camera down and right (low speed)
Ctrl + ↓ + ←	Pan/tilt camera to down and left (low speed)
Ctrl + ← + ↑	Pan/tilt camera up and left (low speed)
Z	Zoom in, T side
X	Zoom out, W side
Shift + Z	Zoom in, T side (high speed)
Shift + X	Zoom out, W side (high speed)
Ctrl + Z	Zoom in, T side (low speed)
Ctrl + X	Zoom out, W side (low speed)
Alt + ↑	Switch currently selected camera to previous one
Alt + ↓	Switch currently selected camera to next one

Function Restrictions by Role

List of Function Restrictions by Role

Among the roles Administrator, Super User, and User, the User role is subject to restrictions on the functions available for use.

Functions indicated with a circle (○) in the table below are available for use.

		Administrator	Super User	User
Operable cameras		All	All	Only authorized cameras
PTZ	Pan/Tilt	○	○	○
	Zoom	○	○	○
	Pan/Tilt Limitation	○	○	
Preset operation	Preset registration	○	○	
	Preset deletion	○	○	
	Preset call	○	○	○
	Cancel preset call	○	○	○
	Update preset display	○	○	○
	Set preset name	○	○	
	Set preset speed units	○	○	○
	Set preset speed	○	○	○
	Call Home position	○	○	○
Adjust focus/camera image quality	Focus	○	○	○
	Iris	○	○	○
	Gain	○	○	
	White Balance	○	○	
	AWB/ABB	○	○	
	Shutter	○	○	
	ND Filter	○	○	
Other operations	Start/stop video recording	○	○	○
	Adjust audio volume	○	○	○
	Display the camera web screen	○	○	○
Auto Tracking Function	Auto Tracking Function ON/OFF	○	○	○
	Tracking Start/Stop	○	○	○
	Angle setting	○	○	○