

PTZ Control Center Operations Manual

Introduction

PTZ Control Center is an application software that runs on Windows.

By running this software on a Windows PC, you can remotely operate the Panasonic cameras present on the network in a very easy manner.

Main features

Following are the main features of this software.

1. It allows remote operation of cameras

You can perform the following operations on Panasonic cameras.

- Pan/Tilt the camera by clicking/touching the screen
By clicking/touching the camera screen that is displayed, you can directly specify the movement position of the camera and perform Pan/Tilt operations.
- Pan/Tilt/Zoom the camera with range specification on screen
Specify an area on the camera screen displayed to Pan/Tilt/Zoom so that the specified area is displayed in a full screen.
- Pan/Tilt/Zoom the camera with buttons/slider
You can use the buttons/slider GUI of the software to perform Pan/Tilt/Zoom operations of the camera.
- Pan/Tilt/Zoom the camera using a keyboard/game controller
You can Pan/Tilt/Zoom the camera from a keyboard or game controller connected to the PC.
- Register/Call/Delete a preset for the camera
You can register, call, and delete the Pan/Tilt/Zoom position preset of the camera.
- Image quality adjustment of the camera
You can adjust Focus/Iris/Gain/WB/Shutter/ND Filter of the camera.
- Start/Stop SD card recording of the camera
You can Start/Stop recording of a camera that has the SD card recording function.

2. You can simultaneously operate multiple cameras

You can simultaneously perform the following operations on multiple Panasonic cameras.

- Pan/Tilt/Zoom the camera with buttons/slider
- Call a preset for the camera
- Image quality adjustment of the camera (Focus, Iris only)

3. Multiple camera types are supported

The following three camera types are supported.

- PTZ camera + SUB Camera

Image of the PTZ camera is displayed on the top screen and image of the control assist camera AW-HEA10 or AW-UE4 is displayed on the bottom screen, and PTZ operation is performed.

- PTZ camera + Panorama still image

Image of PTZ camera is displayed on the top screen and panorama still image considering the usage environment is displayed on the bottom screen, and PTZ operation is performed.

You can create the panorama still image by using the PTZ camera.

- Standalone PTZ camera

You can display the image of PTZ camera only and perform PTZ operation.

4. Display of H.264 streaming images from camera

You can have full screen display of H.264 streaming images from the PTZ camera.

5. It allows network setting of cameras

You can automatically detect the cameras present on the network and perform network settings.

6. It allows function restrictions by each user

You can set function restrictions such as the cameras that can be accessed are restricted by each user.

7. It allows migration of setting data

You can copy the setting data of this software between multiple PCs.

8. Support for touch panel operation

This software supports touch panel based operation. You can perform operations described with “click” in this manual as touch operations.

9. It includes the EasyIP Setup Tool Plus application

This software includes the EasyIP Setup Tool Plus application for easy PTZ camera setup and updates.

10. It allows camera SDI output image display using the SDI to UVC converter (paid option)

You can display SDI output image from the camera by using a commercially available SDI to UVC converter.

11. It provides a GUI that allows you to easily call presets for multiple cameras at the same time (paid option)

It provides a GUI that allows you to easily call presets for multiple cameras at the same time.

You can assign presets for multiple cameras by placing the preset call icon anywhere on the screen.

Operating environment

The following environment is required for using this software.

- OS

- Windows 8.1 64bit

- Windows 10 64bit

- PC

- CPU: Core i5-2520M 2.50GHz and above

- Memory: 4GB and above

- Display: 1280×960 and above (1920×1080 and above is recommended)

The following cameras are supported by this software.

- Panasonic Network supported cameras

- PTZ camera

- AW-UE150/155

- AW-UE100

- AW-HE130/AW-HN130

- AW-HR140

- AW-UE70/AW-UN70

- AW-HE40/70/65, AW-HN40/70/65

- AW-HE42/68/75

- AW-UE4

- Control Assist Camera

- AW-HEA10

- POVCAM

- AG-UMR20/AG-UCK20

- AG-MDR25/AG-MDC20

<Note>

- Please update the firmware to the latest version before using the camera. You may download the firmware from the following website.

- <http://pro-av.panasonic.net/en/>

Description given in this file

- Illustrations and screens given in this file may differ from the actual items.
- In this file, a personal computer is mentioned as "PC."

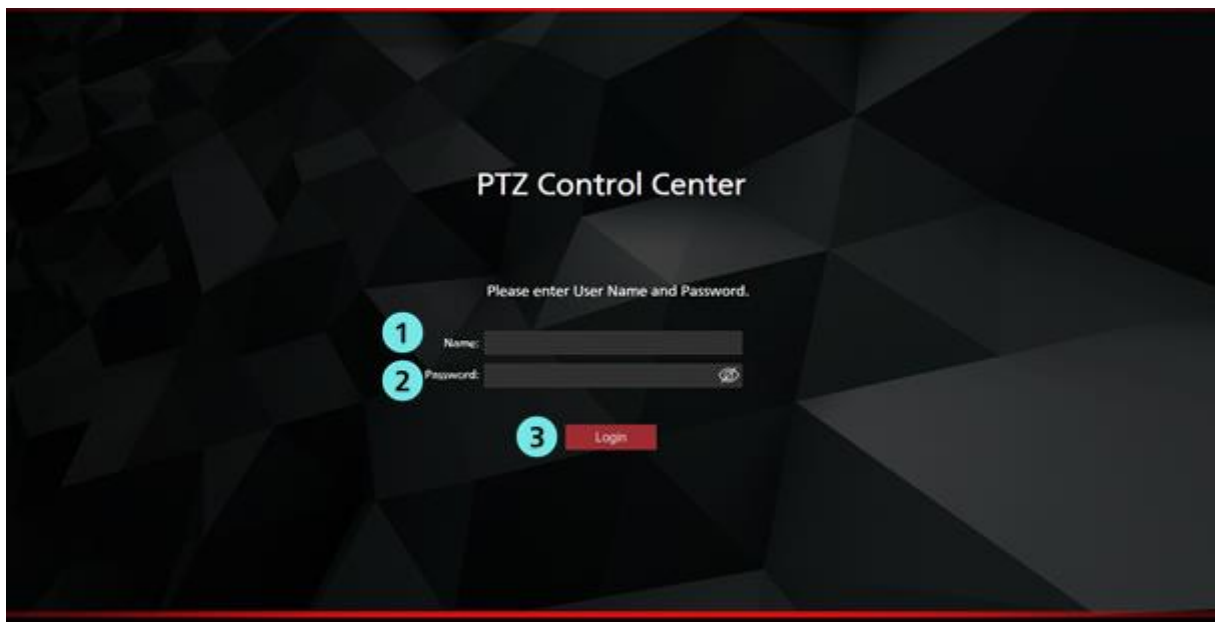
Registrations and registered trademarks

- Microsoft, Windows, and Internet Explorer are the registered trademarks of Microsoft Corporation of the United States.
- Intel and Intel Core i5 are the registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.
- In addition, names, company names, product names, etc. mentioned in this document are the trademarks or the registered trademarks of the respective company. In the document, TM and the®mark are not clearly specified.

Description of screens

Login screen

The following login screen appears after starting this software.



①User ID

Enter the user ID for logging on to this software.

②Password

Enter the password of the user.

③Login button

Login to the software with the user name and the password you entered.

<Note>

- For initial user name and password, and user account registration, please refer to "Administrator Settings" in the installation procedures manual.

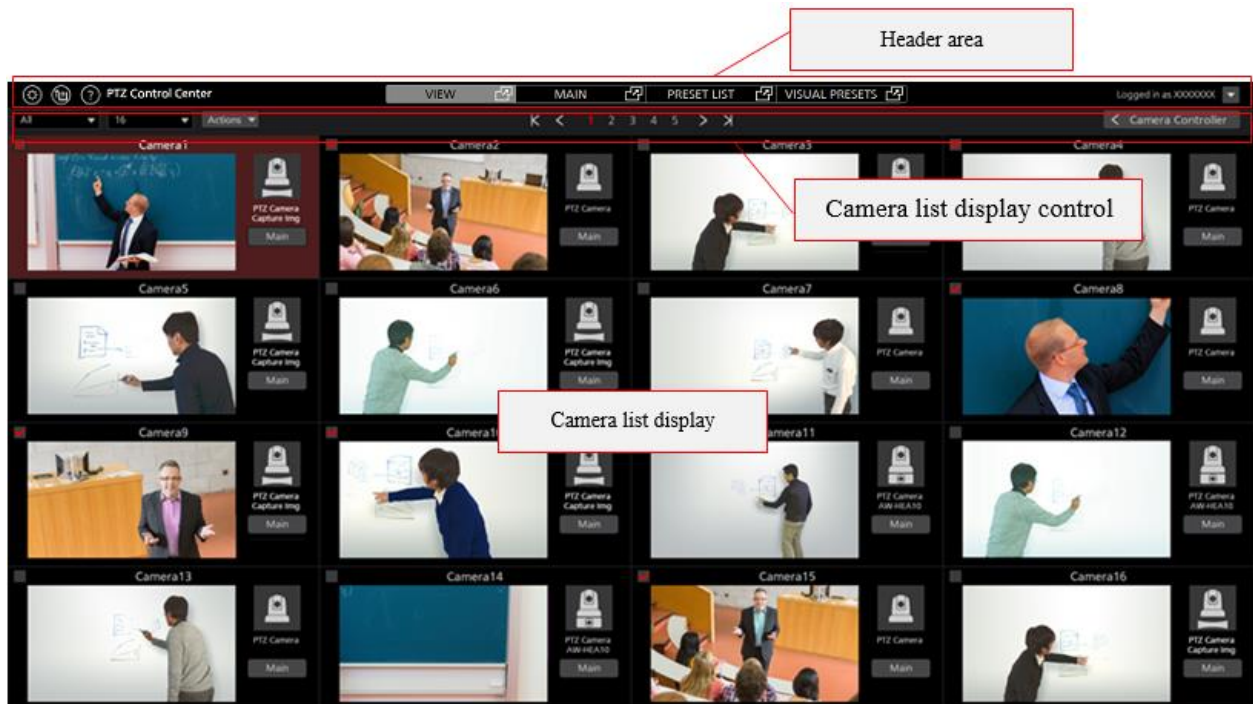
View screen

The following View screen appears after logging on the software.

On the View screen, list of the registered cameras will appear with information such as thumbnail.

The View screen is made of the following four areas.

- Header area
- Camera list display control part/Camera list display
- Camera controller (when display is ON)



View screen (Camera controller display OFF)



View screen (Camera controller display ON)

• Header area

The top part of the screen remains common for each screen.



① Settings button

It changes the display to the Settings screen.

② EasyIP Setup Tool Plus application launch button

It launches the EasyIP Setup Tool Plus application included with this software.

③ Help button

It shows the help file (this document) in a separate tab of the web browser.

④ Screen switching tab

It switches the View / Main / Preset List / Visual Presets screen.

The switching tab on the Visual Presets screen is displayed only when the paid option AW-SF300 is enabled.

⑤ Camera controller display switchover button

It switches the display type of the camera controller.

⑥ Logout/Version menu

Clicking ▼ will display the following menu.

Logout: You will logout from the software and the display will return to the Login screen.

Version: It will display the version information of the software.

• Camera list top part

In the top part of the camera list display, there are various buttons including the button for switching the list display.



① Display refine list

With the drop-down list, you can refine the cameras to be displayed.

You can refine the list with the following conditions.

All: Display all cameras

PTZ+SUB: It will display only those cameras where the Camera Type is [PTZ Camera + SUB Camera]

OTHER: It will display only those cameras where the Camera Type is [PTZ Camera + Image] or [PTZ Camera]

Check: It will display only those cameras where the check field in the camera list display is ON

[Category name]: It will display only those cameras that belong to the categories registered in Category of the Settings screen

② Display count switchover list

With the drop-down list, you can change the number of cameras displayed per page.

③ Check status switchover list

With the drop-down list, you can turn ON/OFF the check status of all cameras that are displayed.

④ Page switchover button

It switches the camera list display page.

⑤ Camera controller show/hide switchover button

You can switch between show/hide the camera controller.

• Camera list display

It shows the display details of each camera in the camera list display.

Background of the cameras that are selected will appear in red color.



① Camera check field

Clicking this will switch the check status between ON/OFF.

You can perform the following operations on the cameras whose check status is ON.

- Cameras to be displayed when [Check] is selected in refining the camera list display
- Cameras to be operated when [Checked Multiple Camera] is selected on the Main screen

② Camera name display

It shows the name of the registered camera.

③ Thumbnail image display

It shows thumbnail image of the camera image.

When no camera is found (power supply is switched off, not connected to the network etc.), it will appear as "OFF."

④ Icon and name display of Camera Type

It shows the set Camera Type in the form of icon and type name.

⑤ Main screen display button

The display will change to the Main screen.

• Camera controller

It provides various operation functions of cameras.

For the details of operation method, refer to "Camera operation - Camera controller" in this document.

Main screen

Clicking the Main tab in the top part of the screen will display the Main screen.

The Main screen is made of the following three areas.

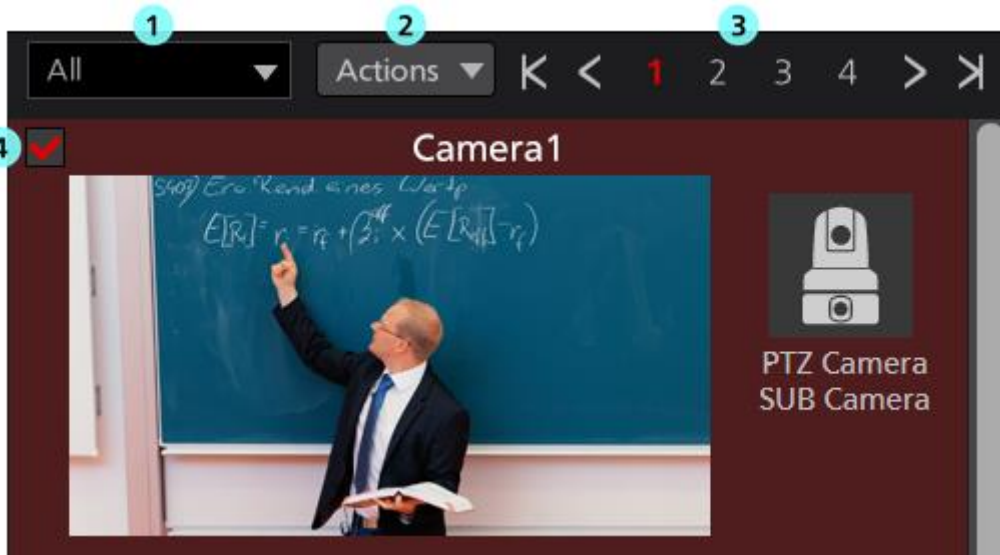
- Camera list display
- Camera image display area
- Camera controller



Main screen

- **Camera list display**

In the camera list display of the Main screen, each camera is arranged and placed vertically.



① Display refine list of the camera list

With the drop-down list, you can refine the cameras to be displayed.

Its function is same as that of the View screen.

② Check status switchover list

From the drop down list, you can turn ON/OFF the check status of all cameras that are displayed.

③ Page switchover button

It switches the camera list display page.

④ Camera list display

It shows the status of each camera.

It is same as that in the View screen except that the Main button is not there.

• Camera image display area

Image of the camera subject to operation is displayed in this area.

With the camera operation mode selection tab located at the top part, you can select whether to operate only one camera or multiple cameras simultaneously.

When [Selected Single Camera] is selected: Only one selected camera will be operated.

When [Checked Multiple Camera] is selected: All cameras whose check status is ON will be operated.

- Screen when [Selected Single Camera] is selected



① Top screen (PTZ camera image display)

Image of the PTZ camera selected in the camera list display will appear.

Clicking on the camera image will move the PTZ camera such that the clicked position comes at the center of the image.

② Bottom screen (sub-camera image/still image display)

Details that are displayed would differ depending on the Camera Type.

[PTZ Camera + SUB Camera]: Image of the control assist camera AW-HEA10 or AW-UE4 specified on the camera settings screen will appear.

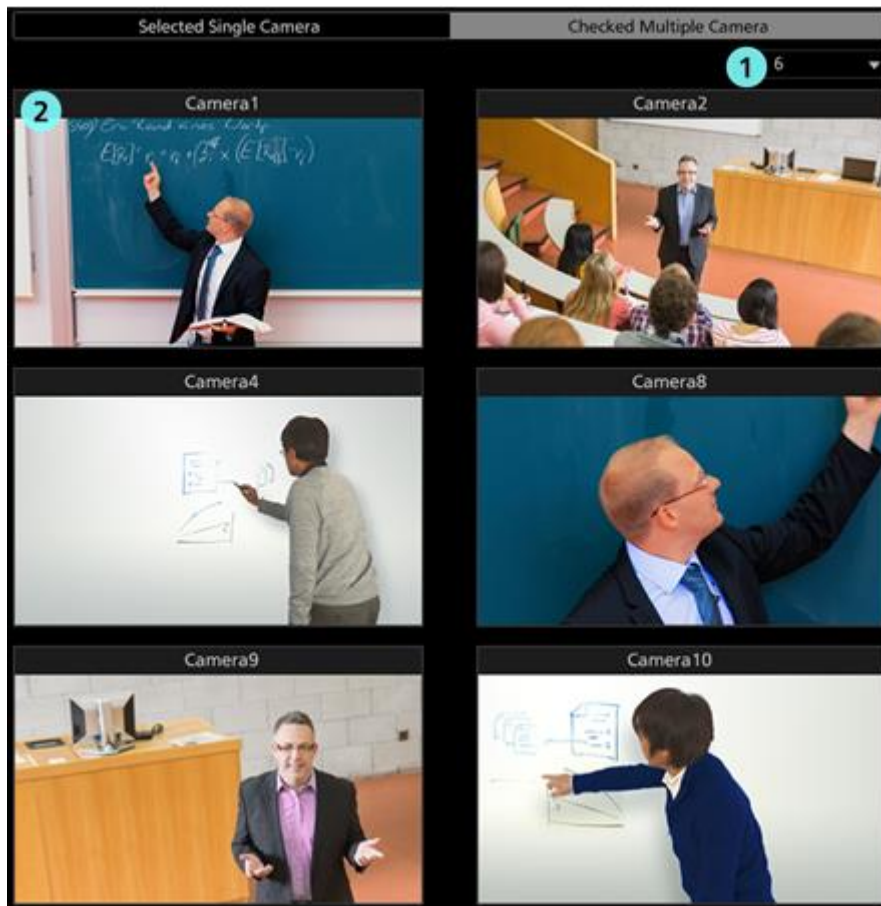
[PTZ Camera + Image]: Panorama still image specified on the camera settings screen will appear.

[PTZ Camera]: The display of bottom screen will not appear.

When the Camera Type is [PTZ Camera + SUB Camera] or [PTZ Camera + Image],

clicking on the image/still image will move the PTZ camera such that the clicked position comes at the center of the image.

- Screen when [Checked Multiple Camera] is selected



① **Camera image count switchover list**

With the drop-down list, you can switch the number of camera image to be displayed on one screen.

② **Camera image**

Image of the cameras whose check status is ON will appear.

• **Camera controller**

Its function is same as that of the View screen.

Preset List screen

Clicking on the PRESET LIST tab at the top of the screen will display the Preset List screen.

For the details of operation method, refer to “Using the Preset List screen” in this document.

Visual Presets screen

When the paid option AW-SF300 is enabled, the VISUAL PRESETS tab is displayed at the top of the screen.

Clicking on the VISUAL PRESETS tab will display the Visual Presets screen.

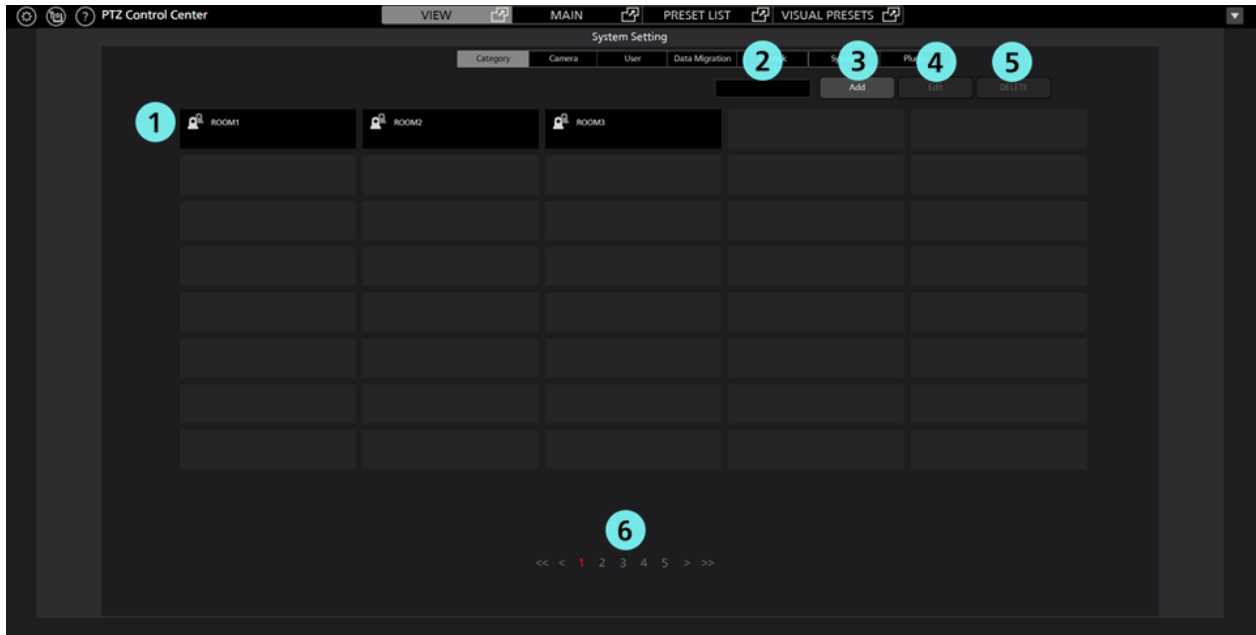
For details on how to use it, refer to “Paid optional features” → “Visual preset call feature” in this document.

Settings – Category screen

This screen is for the category (group) settings of the cameras that are registered.

Clicking the Settings button located at the top left of the screen and selecting the Category tab at the center of the screen will change the display to this screen.

For the details of category settings, refer to "Default Settings 2 - Category Settings of Camera" in this document.



①Category list display

It shows the list of registered categories.

②Search box

It is used when searching categories.

Entering a string will show the list of only those categories where the string is included in the name.

For going back to the original display, clear the string that you entered.

③Add button

The display will change to the Register Category screen.

④Edit button

The display will change to the Edit Category screen.

⑤Delete button

It will delete the selected categories.

⑥Page switchover button

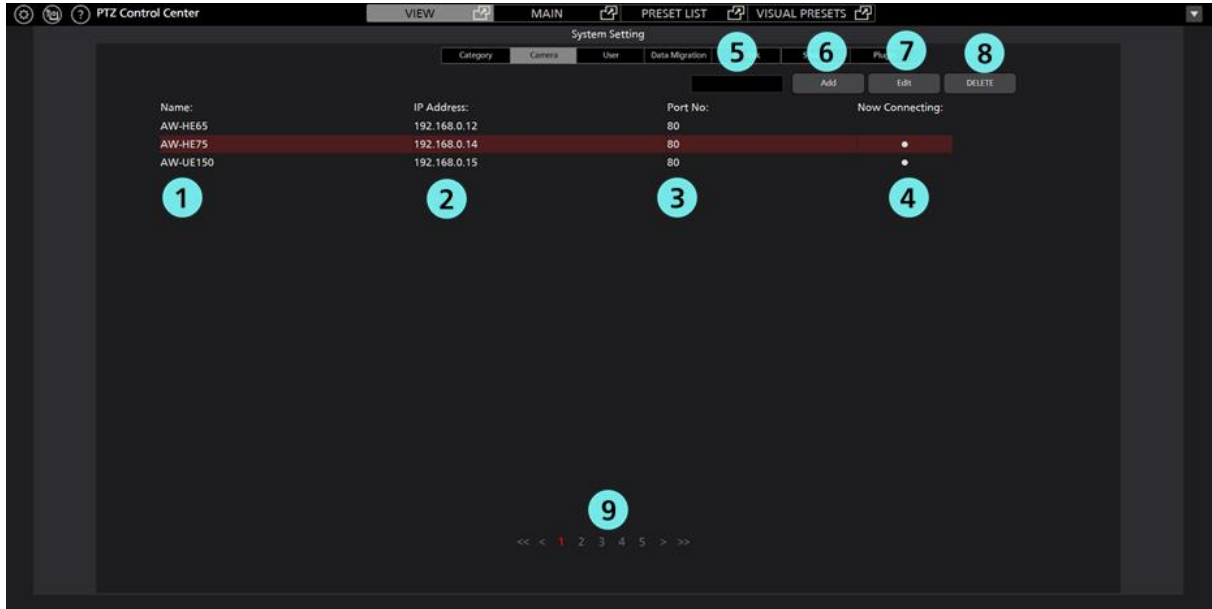
You can switchover to the page you want to see.

Settings – Camera screen

This screen is for registering and setting the cameras to be used with the software.

Clicking the Settings button located at the top left of the screen and selecting the Camera tab at the center of the screen will change the display to this screen.

For the details of camera settings, refer to "Default Settings 1 (Camera Settings)" in this document.



①Name

It shows the name of the registered camera.

②IP Address

It shows the IP address of each camera.

③Port No.

It shows the port number to be used by each camera for communication.

④Now Connecting

The • sign will appear against the cameras that are in the process of connecting.

⑤Search box

It is used when searching the cameras with name.

Entering a string will show the list of only those cameras where the string is included in the name.

For going back to the original display, clear the string that you entered.

⑥Add button

The display will change to the Register Camera screen.

⑦Edit button

The display will change to the Edit Camera screen.

⑧Delete button

It will delete the selected camera.

⑨Page switchover buttons

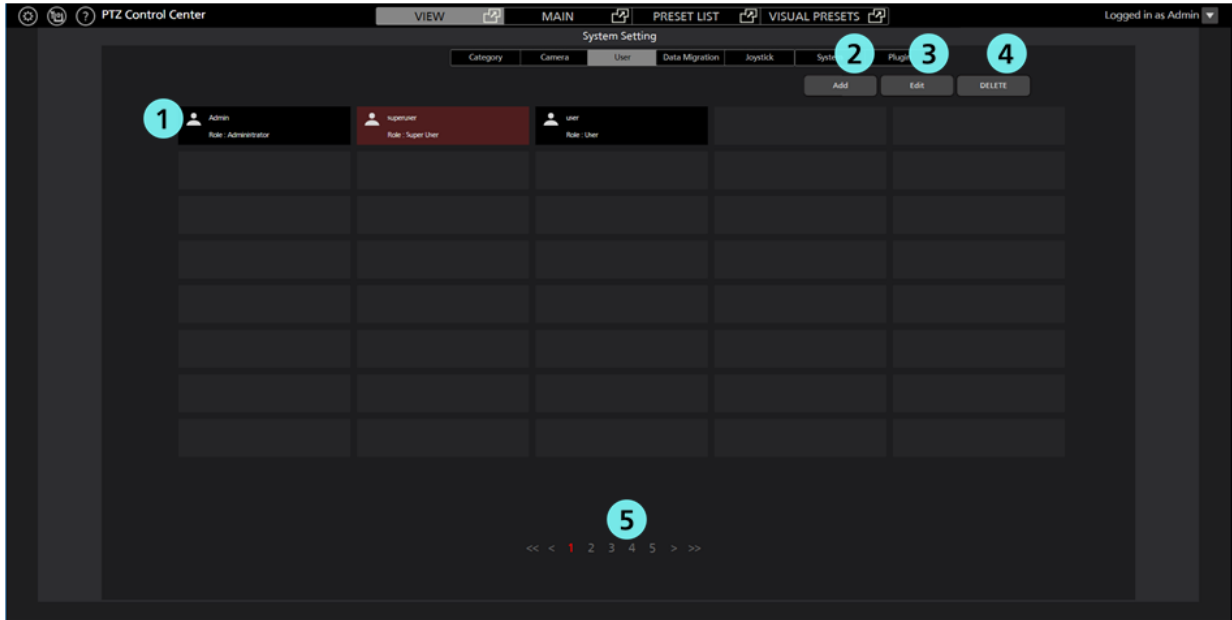
You can switchover to the page you want to see.

Settings – User screen

This screen is for setting accounts of the users who would use the software.

Clicking the Settings button located at the top left of the screen and selecting the User tab at the center of the screen will change the display to this screen.

For the details of account settings, refer to "Default Settings 2 - User Account Settings" in this document.



① Account list display

It shows the list of accounts registered in the software.

Account name will appear in the upper half of each account, while privilege will appear in the lower half.

② Add button

The display will change to the Register Account screen.

③ Edit button

The display will change to the Edit Account screen.

④ Delete button

It will delete the selected accounts.

⑤ Page switchover buttons

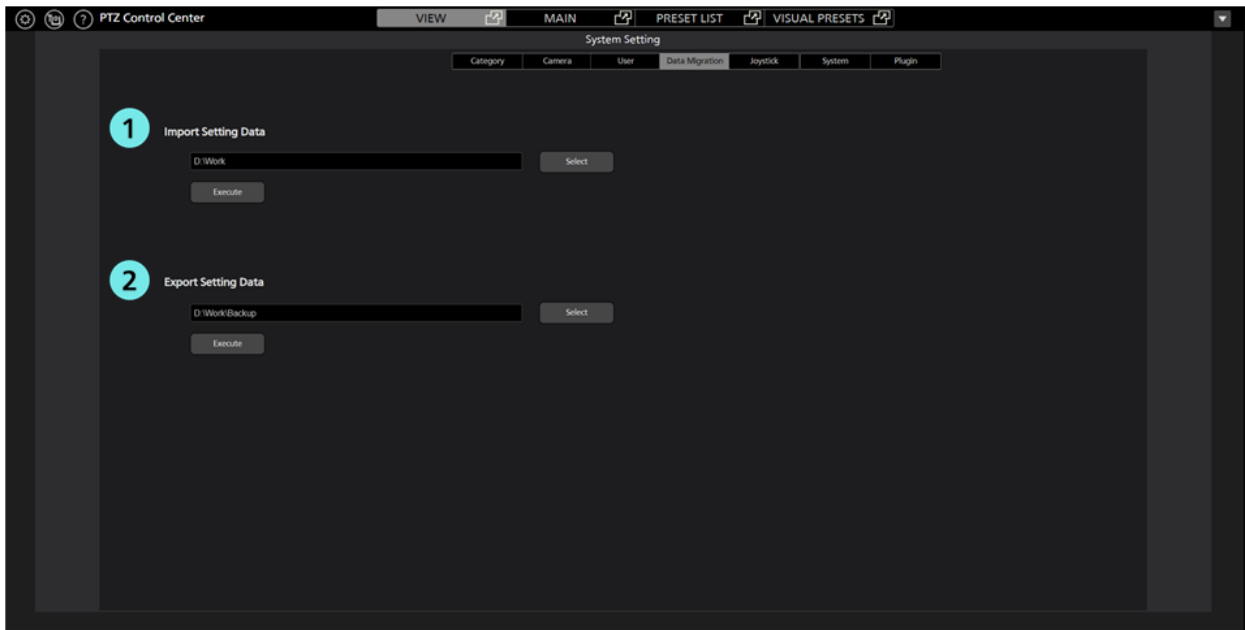
You can switchover to the page you want to see.

Settings – Data Migration Screen

This screen is for copying the setting data between the software programs running on another PC.

Clicking the Settings button located at the top left of the screen and selecting the Data Migration tab at the center of the screen will change the display to this screen.

For the details of copying the settings data, refer to "Copying the settings data" in this document.



① Import Setting Data field

This is used when importing setting data from other PC.

② Export Setting Data field

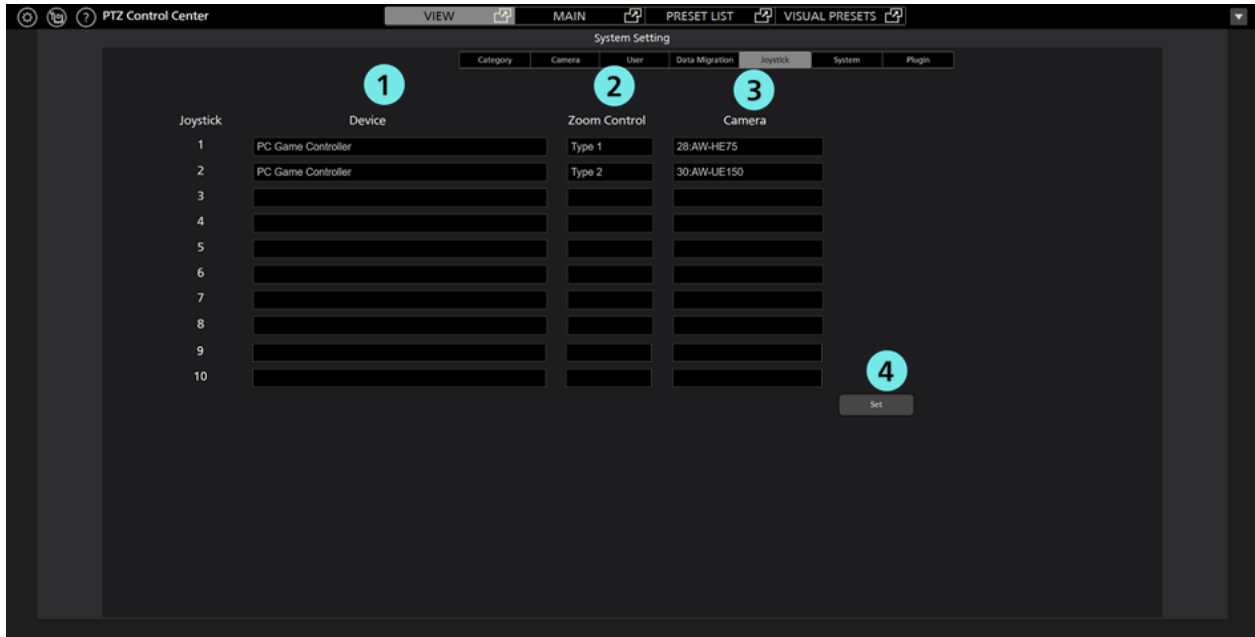
This is used when exporting setting data to other PC.

Settings – Joystick screen

This screen allows you to configure settings when operating the PTZ camera with a game controller connected to your PC.

Click the Settings button at the top left of the screen and select the Joystick tab to move to this screen.

For details of the settings, refer to “Operation of cameras” → “Operating the Camera with a Game Controller” in this document.



① Game controller device setting field

Select the game controller device that will operate the PTZ camera.

② Game controller zoom operation setting field

Select from 5 ways to operate the PTZ camera zoom with the game controller.

③ Setting field for PTZ camera to be operated

Select the PTZ camera to be operated by the game controller.

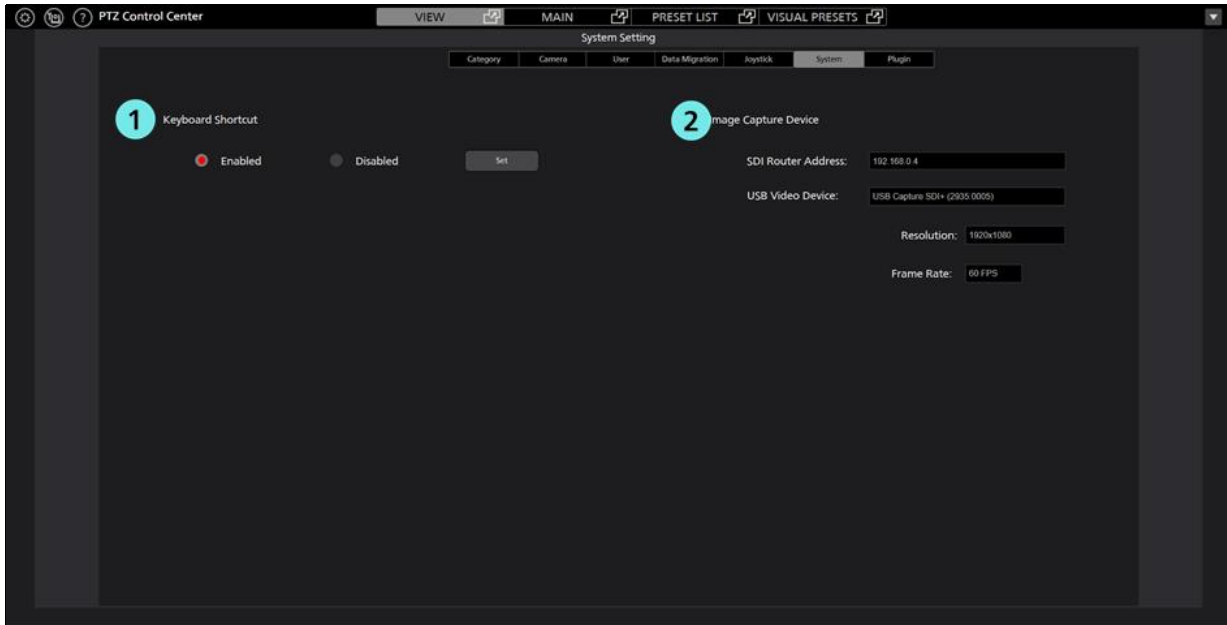
④ Set button

Applies the settings.

Settings - System Screen

This screen is for configuring the settings of the keyboard and image capture device connected to the PC.

Click the Settings in the top left of the screen and then select the System tab in the middle of the screen to get to this screen.



① Keyboard operation settings field

This sets whether to enable or disable PTZ camera operation from the keyboard.

② Image capture device setting field

This setting field is displayed only when the paid option AW-SF300 is enabled.

Set the image capture device to use when displaying the SDI output image from the PTZ camera with this software.

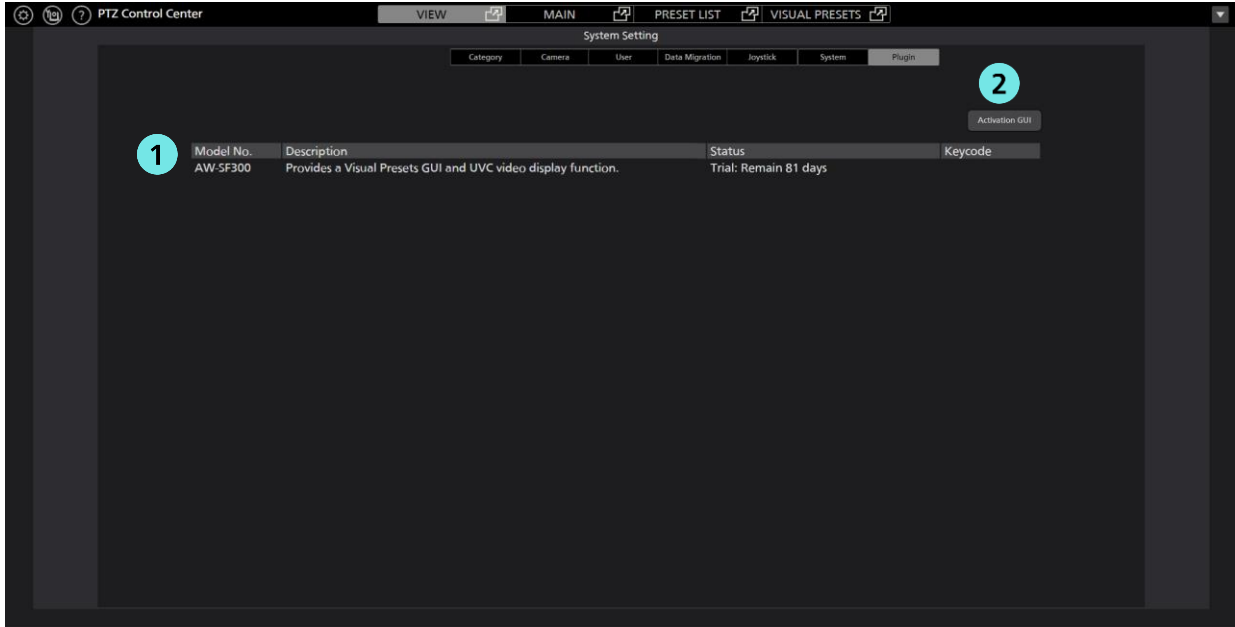
For details, refer to “Paid optional features” → “Camera SDI Output Image Display” in this document.

Settings – Plugin Screen

This screen manages the licenses for the paid options (plugins) used with this software.

Click the Settings button at the top left of the screen and select the Plugin tab to move to this screen.

For details, refer to “Paid Options” → “License Management” in this document.



① Status display field for paid options

Displays the license status of paid options (plugins) used with this software.

② Activation GUI button

Launches the activation application.

Default Settings 1 (Camera Settings)

Please set the camera before using the software.

The following three camera types are supported.

- PTZ Camera + SUB Camera

Image of the PTZ camera is displayed on the top screen and image of the control assist camera AW-HEA10 or AW-UE4 is displayed on the bottom screen, and PTZ operation is performed.

- PTZ Camera + Image

Image of PTZ camera is displayed on the top screen and panorama still image considering the usage environment is displayed on the bottom screen, and PTZ operation is performed. Panorama still image can be created by using PTZ camera.

- PTZ Camera

You can display the image of PTZ camera only and perform PTZ operation.

Details required to be set differ depending on the Camera Type. Procedure for each Camera Type is explained here.

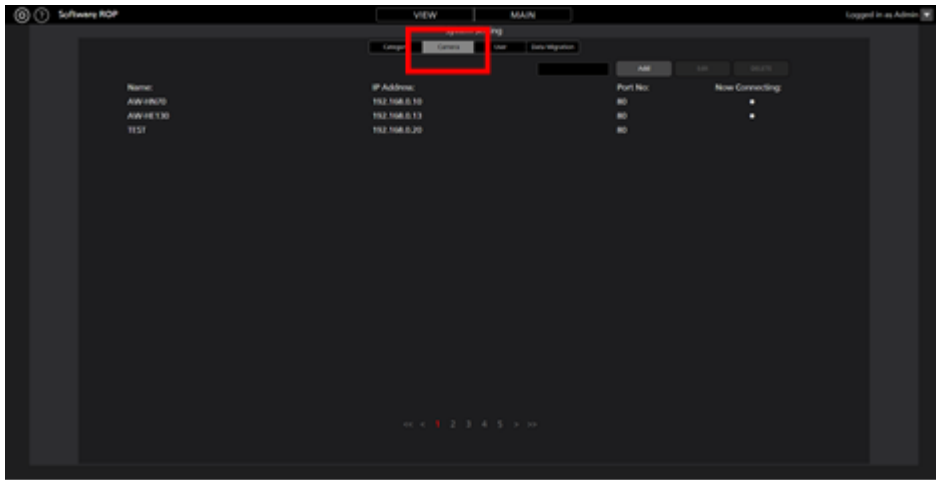
Setting of PTZ Camera + SUB Camera

- **Camera setting procedure**

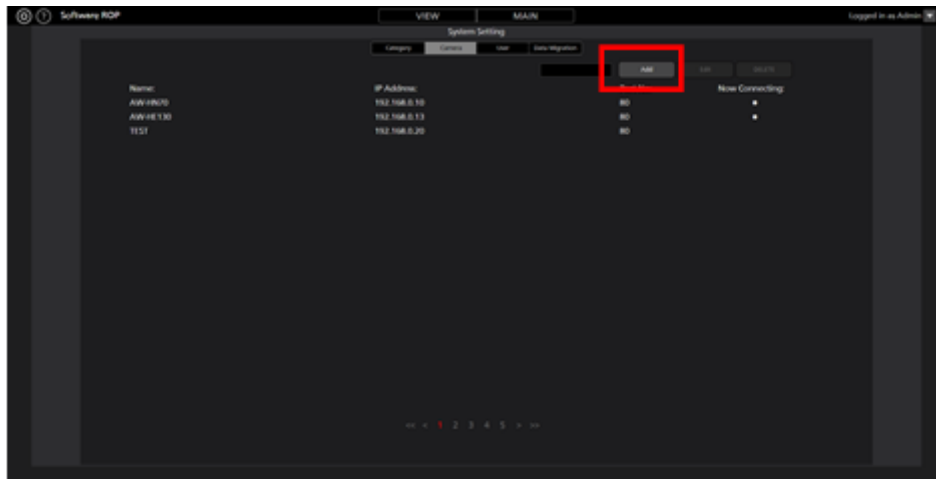
1. Login to the software.
2. The View screen will appear. Click the Settings button located at the top left of the screen.



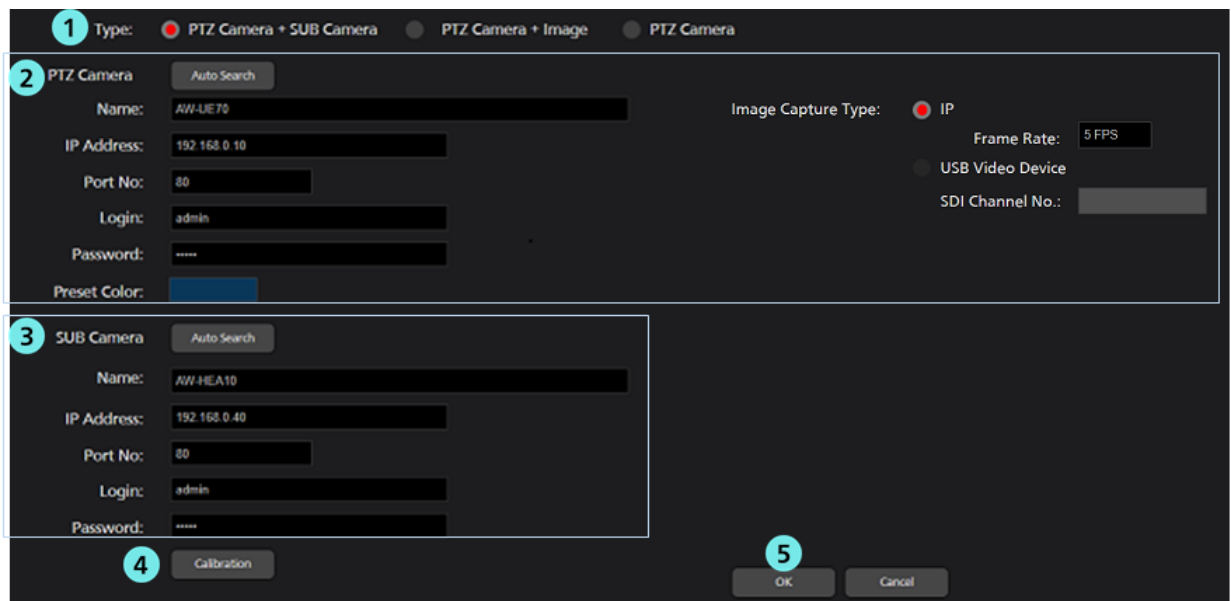
3. Click the Camera tab at the center of the Settings screen.



4. Click the Add button and go to the Register Camera screen.



5. Set the information of PTZ camera and Sub camera respectively.



(1) In the Type field, select [PTZ Camera + SUB Camera].

(2) Enter the information of PTZ camera in the PTZ Camera field.

Name: Name of camera

IP Address: IP address of camera

PortNo: Port number used by the camera (default is 80)

Login: Camera's account

Password: Camera's password

Preset Color: Select an effective preset display color

Image Capture Type : Select the acquisition method for the PTZ camera image to be displayed with this software.

[IP]: Displays the image acquired from the PTZ camera via the network.

Select this for normal operation.

Set the frame rate of the camera image displayed on the Main screen using Frame Rate.

[USB Video Device]: Select when displaying the SDI output image from the PTZ camera using a commercially available SDI to UVC converter.

This item is displayed only when the paid option AW-SF300 is enabled. For details, refer to "Paid optional features" → "Camera SDI Output Image Display" in this document.

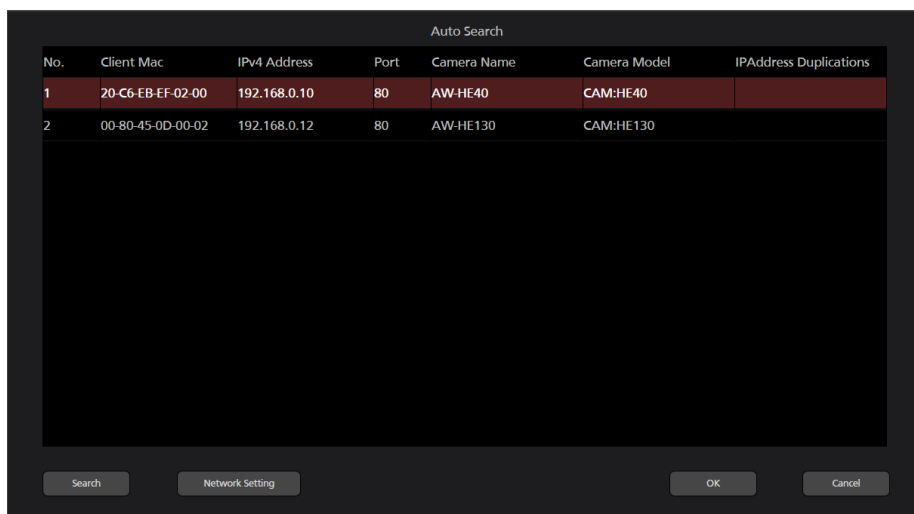
You can manually enter the items or search the camera and automatically enter the items.

- When entering manually

Move to the box of each item and enter the value.

- When entering automatically

Clicking the Auto Search button of the PTZ Camera field will display the list of cameras present on the network. Selecting either of the cameras from the list and closing the window by pressing the OK button will automatically enter some of the items.



(3) Enter the information of the control assist camera AW-HEA10 or AW-UE4 in the Sub Camera field.

Input method is same as the PTZ Camera field.

(4) Click the Calibration button and go to the Calibration screen for doing calibration. Refer to "Default Settings 1 - Calibration" in this document for more details.

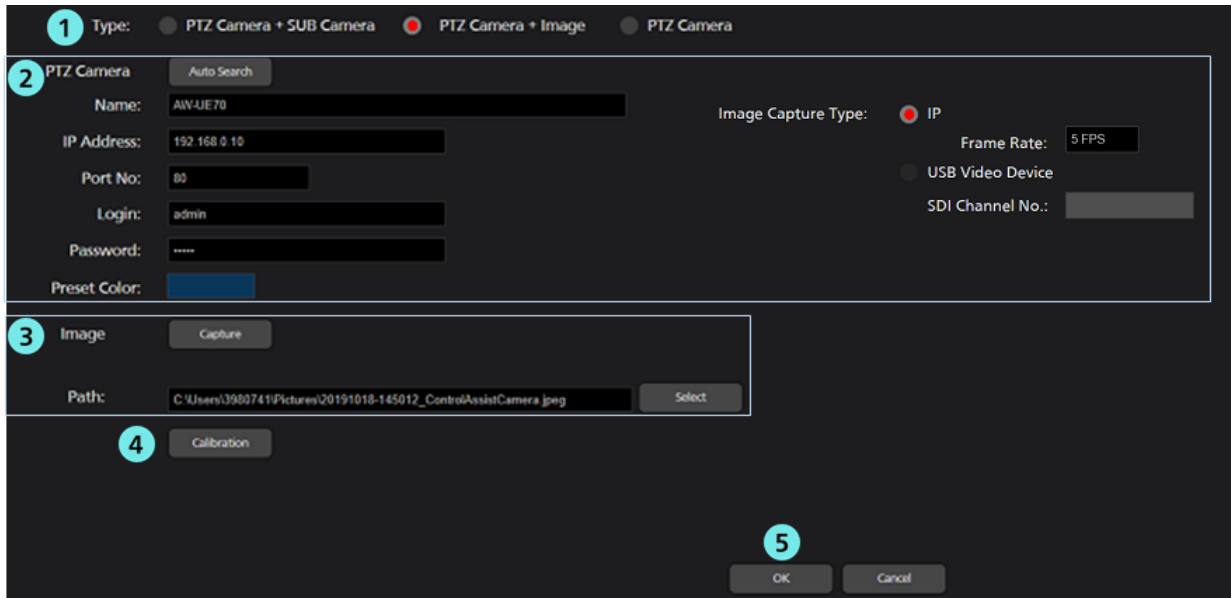
(5) Click the OK button to come out of the Register Camera screen.

6. With this, the setting is complete.

Setting of PTZ Camera + Image

• Camera setting procedure

1. Go to the Register Camera screen following the same steps as steps 1 through 4 described in "Setting of PTZ Camera + SUB Camera" above.
2. Set the information of PTZ camera and still image respectively.



(1) In the Type field, select [PTZ Camera + Image].

(2) Enter the information of PTZ camera in the PTZ Camera field.

Input method is same as the "Setting of PTZ Camera + SUB Camera."

(3) Set the still image to be displayed in the bottom screen in the Image field.

There are two ways of setting the still image, namely, setting an existing image available on PC, and creating and setting a panorama image considering the usage environment by using the PTZ camera.

- When setting an existing image available on PC

Clicking the Select button will show the file selection dialog window. Select the still image that you want to display in the bottom screen.

- When creating and setting a panorama image

Refer to "Procedure of creating panorama images" described later.

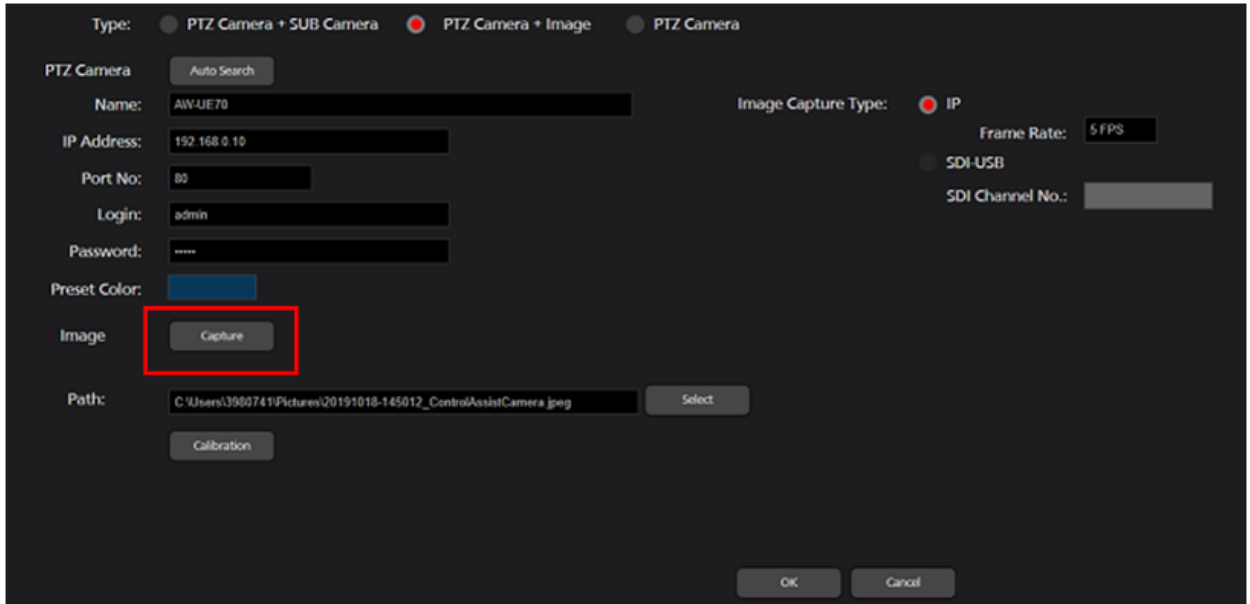
(4) Click the Calibration button and go to the Calibration screen for doing calibration. Refer to "Default Settings 1 - Calibration" in this document for more details.

(5) Click the OK button to come out of the Register Camera screen.

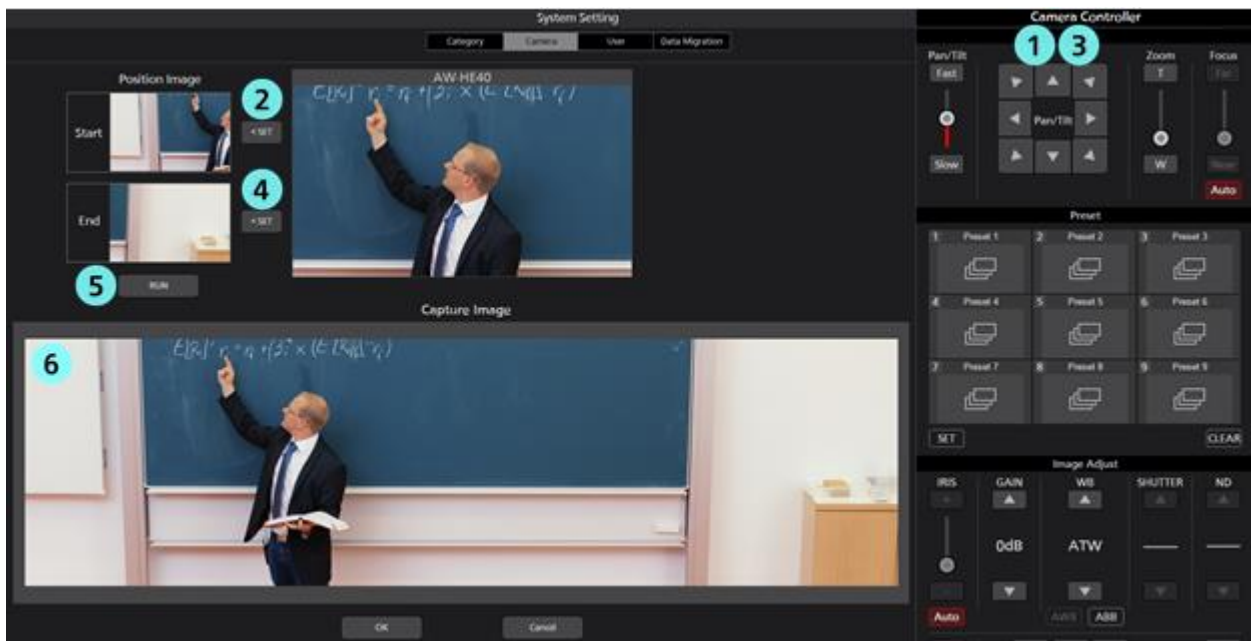
6. With this, the setting is complete.

- Procedure of creating panorama images

1. Click the Capture button on the Register Camera screen.



2. The Create Panorama Image screen will open. Create a panorama image with the following steps.



- (1) Use the Pan/Tilt buttons of the camera controller and move the PTZ camera to the starting position of the panorama image.
- (2) Click the SET button of the Position Image - Start field.
Image of the starting position will be set (it may take about few second before the setting is complete).
- (3) Use the Pan/Tilt buttons of the camera controller and move the PTZ camera to the ending position of the panorama image.
- (4) Click the SET button of the Position Image - End field.
Image of the ending position will be set (it may take about few second before the setting is complete).
- (5) Clicking the RUN button located at the bottom of the Position Image field will automatically move the PTZ camera from the starting position until the ending position you set, and panorama image will be created.

(6) Once creation of the panorama image is complete, the panorama image created will appear in the Capture Image field.

3. Click the OK button at the bottom of the screen to come out of the Create Panorama Image screen.

File of the panorama image you created will be automatically set in the Image - Path field of the Register Camera screen.

<Note>

- Check the following points when the panorama image is not created correctly.
 - When there is a moving object between the starting position and the ending position, remove this object and recreate the image.
 - Recreate the image after changing the starting position and the ending position.
- A panorama image cannot be created with the AW-UE4 PTZ camera.

Setting of PTZ Camera

1. Go to the Register Camera screen following the same steps as steps 1 through 4 described in "Setting of PTZ Camera + SUB Camera" above.

2. Enter the information of PTZ camera.

The screenshot shows a dark-themed interface for registering a PTZ camera. At the top, there are three radio buttons for 'Type': 'PTZ Camera + SUB Camera', 'PTZ Camera + Image', and 'PTZ Camera'. The 'PTZ Camera' option is selected. Below this, there is a section for 'PTZ Camera' with an 'Auto Search' button. The fields are: Name (AW-UE70), IP Address (192.168.0.10), Port No. (80), Login (admin), Password (masked with asterisks), and Preset Color (a blue color swatch). To the right, there are settings for 'Image Capture Type' (IP selected, SDI-USB unselected) and 'Frame Rate' (5 FPS). An 'SDI Channel No.' field is also present but empty. At the bottom right, there are 'OK' and 'Cancel' buttons.

(1) In the Type field, select [PTZ Camera].

(2) Enter the information of PTZ camera in the PTZ Camera field.

Input method is same as the "Setting of PTZ Camera + SUB Camera."

(3) Click the OK button to come out of the Register Camera screen.

3. With this, the setting is complete.

Calibration

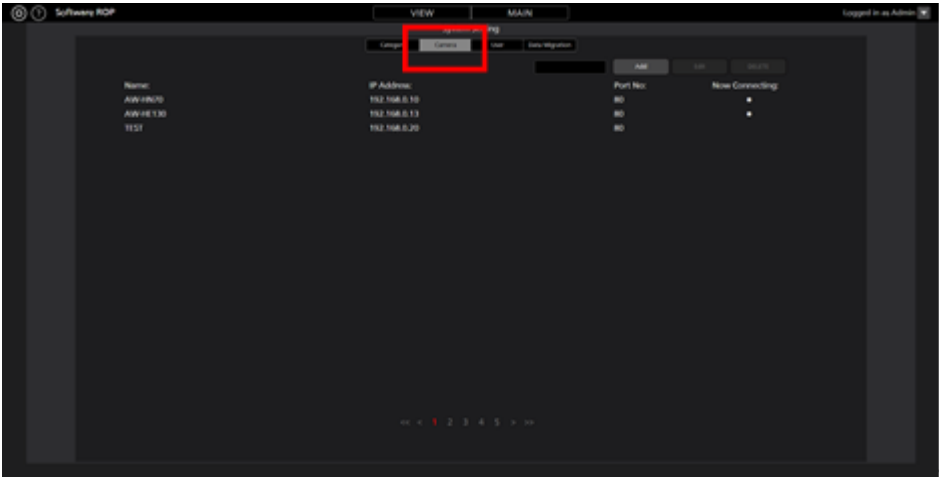
When either [PTZ Camera + SUB Camera] or [PTZ Camera + Image] is selected in Camera Type, it is necessary to perform calibration for correctly adjusting the positional relation of the top screen and the bottom screen.

Perform calibration as per the following steps.

- 1. Login to the software.
- 2. The View screen will appear. Click the Settings button located at the top left of the screen.



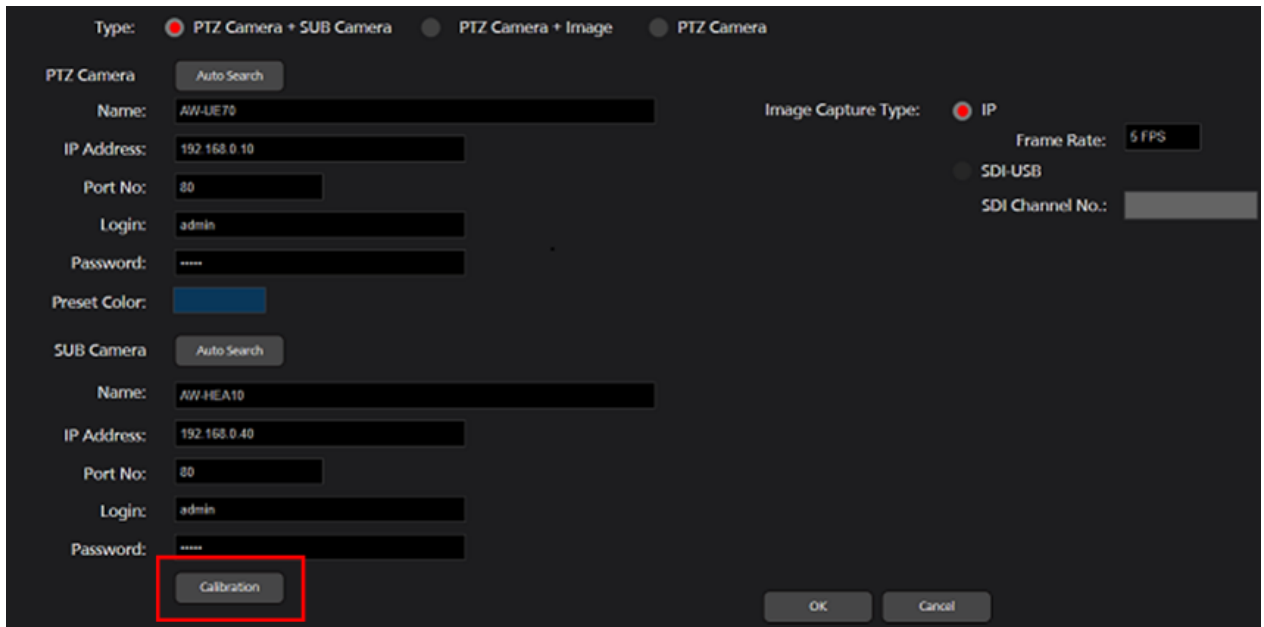
- 3. Click the Camera tab at the center of the Settings screen.



- 4. After selecting the target camera, click the Edit button and move to the Edit Camera screen.



- 5. Click the Calibration button on the Edit Camera screen.



6. The Calibration screen will appear. Perform calibration as per the following steps.



- (1) Click either of the white crosses appearing on the bottom screen and turn it into the selected state shown in yellow color.
- (2) Use the Pan/Tilt buttons of the camera controller and move the PTZ camera such that the center of the cross selected in the bottom screen in step (1) and the center of the cross in the top screen come to the same position.
- (3) Click the Confirm button. Yellow color cross will turn blue.
- (4) For all white crosses appearing in the bottom screen, perform steps (1) through (3) above.
- (5) Click the Finish button to come out of the Calibration screen.

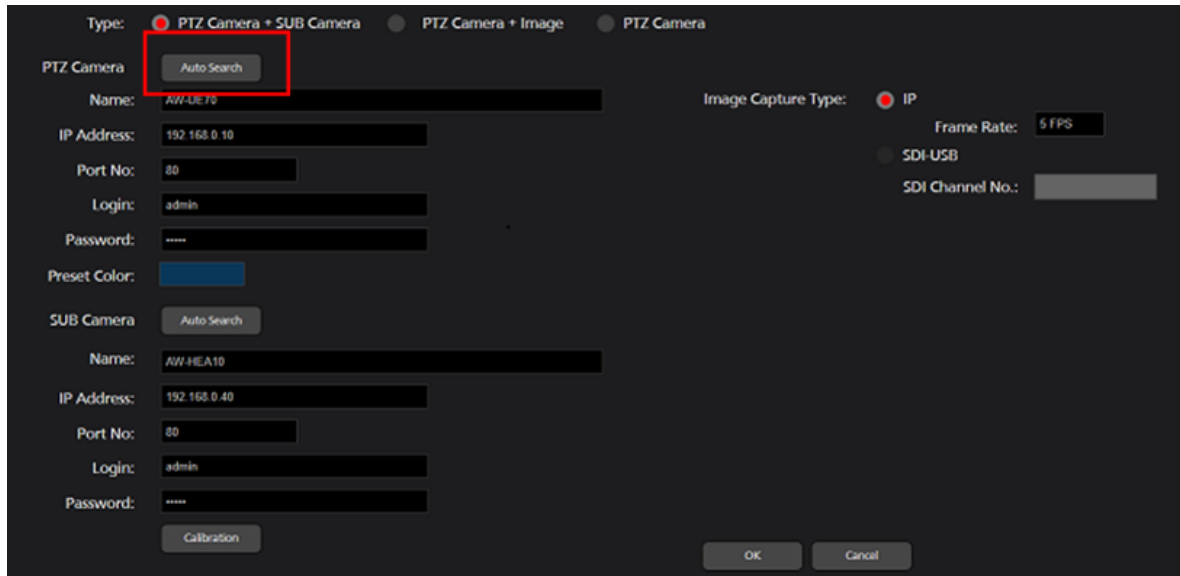
7. With this, the calibration is complete.

Changing network settings

You can change the network settings of the camera from the software.

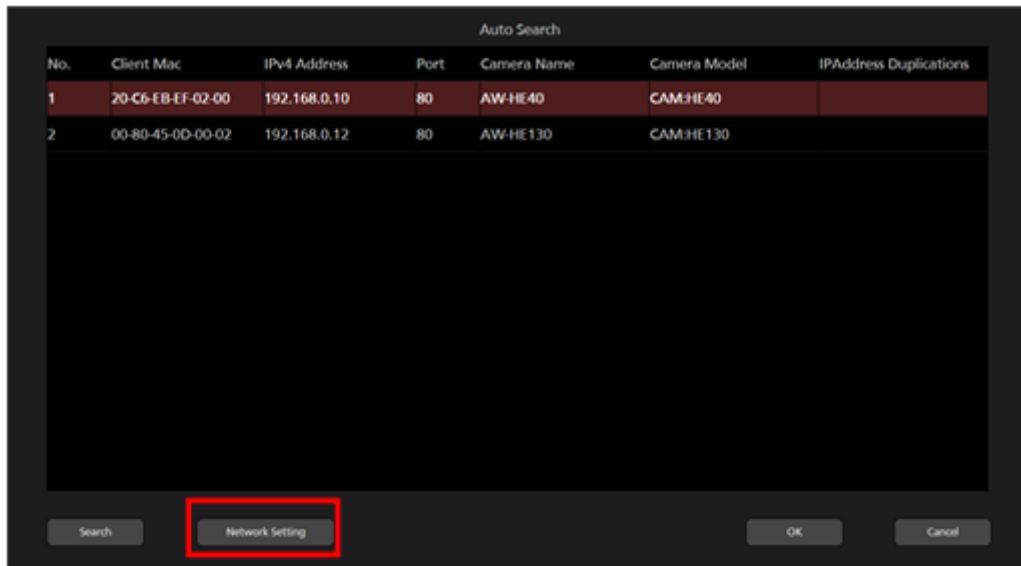
You can make settings as per the following steps.

1. Go to the Edit Camera screen following the same steps as steps 1 through 4 of "Default Settings 1 - Calibration."
2. Click the Auto Search button on the Edit Camera screen.

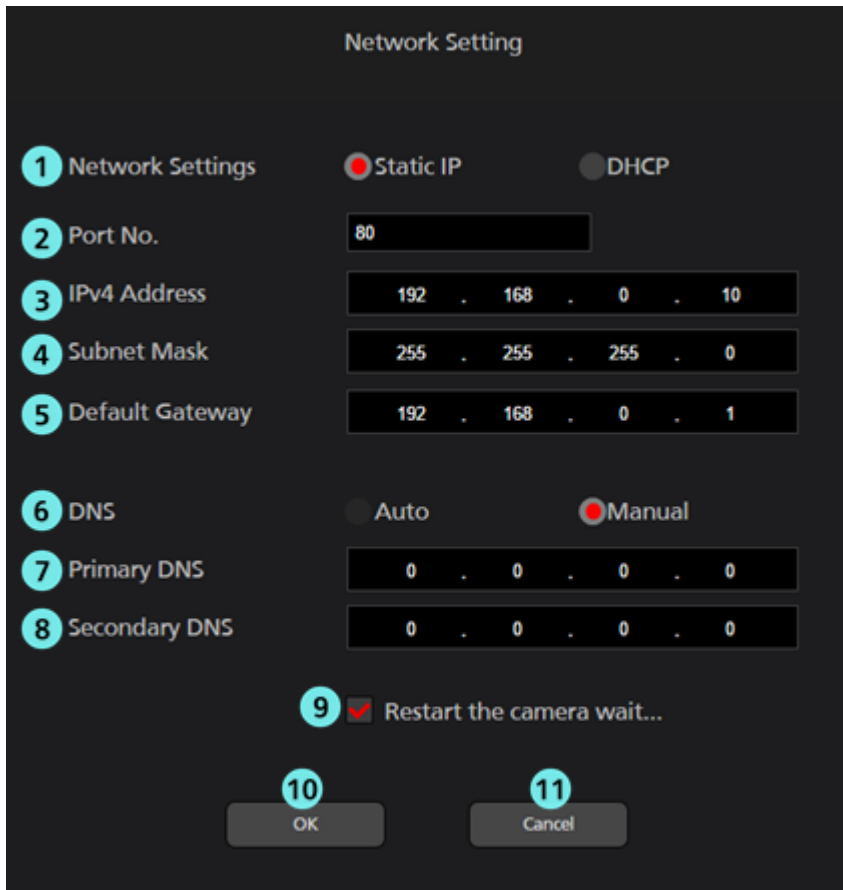


3. List of cameras present on the network will appear.

Select the cameras to be set and click the Network Setting button.



4. The Network Settings screen will open. Changing each item and clicking the OK button will change the network settings of the camera.



① Network Settings

You can select the setting method of IP address.

Static IP: Setting is done with fixed IP.

DHCP: Setting is done with DHCP.

② Port No.

It sets the port number to be used by the camera.

③ IPv4 Address

It sets the IP address of the camera.

This can be set only when Static IP is selected in Network Settings.

④ Subnet Mask

It sets the subnet mask of the camera.

This can be set only when Static IP is selected in Network Settings.

⑤ Default Gateway

It sets the gateway of the camera.

This can be set only when Static IP is selected in Network Settings.

⑥ DNS

You can select the setting method of DNS server.

Auto: It automatically sets the DNS server.

Manual: You can directly specify the address of the DNS server.

⑦ Primary DNS

It sets the address of the primary DNS.

This can be set only when Manual is selected in DNS.

⑧ Secondary DNS

It sets the address of the secondary DNS.

This can be set only when Manual is selected in DNS.

⑨ Restart the camera wait

When this box is checked and when the setting is changed by clicking the OK button, the camera will standby until the setting is completed.

⑩ OK button

It will apply the settings and close the screen.

⑪ Cancel button

It will cancel the settings and close the screen.

<Note>

- When EasyIpSetup software and this software are used at the same time, network setting from this software is not available.

Default Settings 2 (Other Settings)

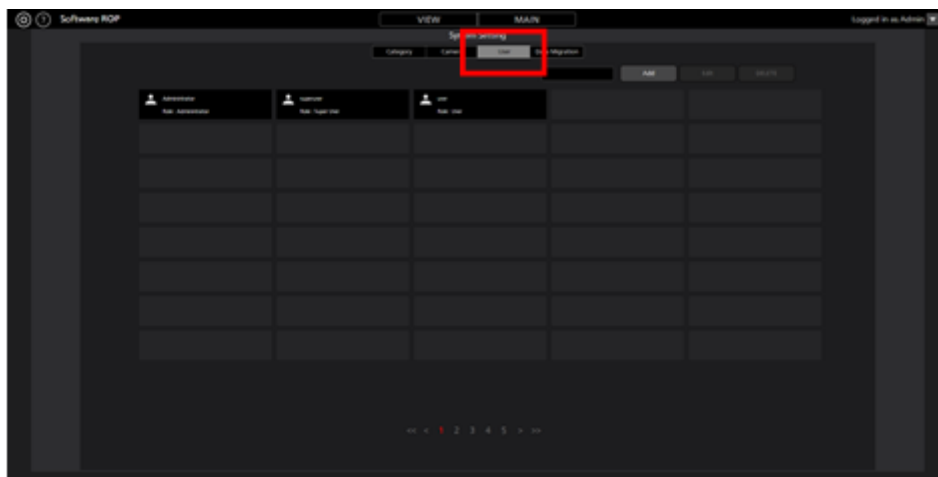
User account settings

Please set the user account before using the software.

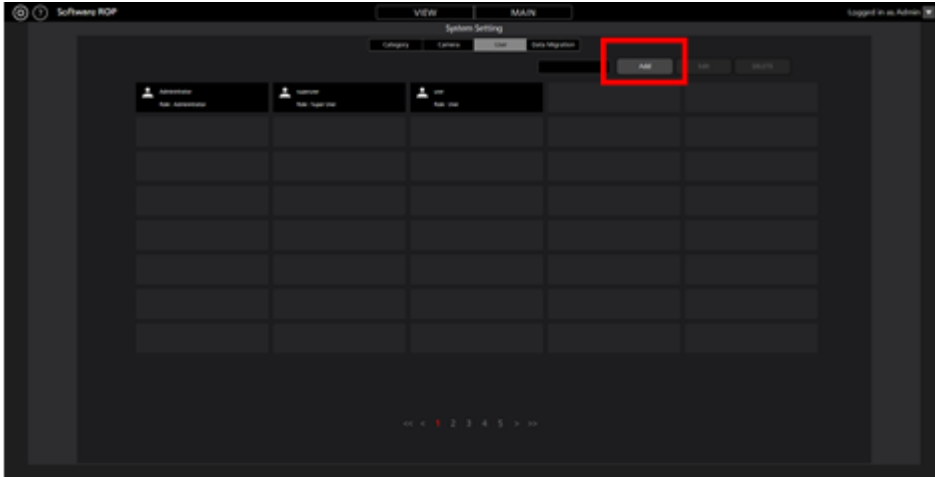
1. Login to the software.
2. The View screen will appear. Click the Settings button located at the top left of the screen.



3. Click the User tab at the center of the Settings screen.



4. Click the Add button and go to the Register User screen.



5. On the Register User screen, enter the information of the user account to be registered.

A screenshot of the 'Add User' form. The form has a title 'Add User' at the top left. Below the title, there are four input fields: 'Login:', 'Password:', 'Password(Retype):', and 'Role:'. The 'Role:' field has a dropdown menu with 'Administrator' selected. The form is set against a dark background.

Login: User account name

Password: Password

Password (Retype): Password (for confirmation)

Role: Account's privilege. You can select from the following three types.

Administrator:

Access to cameras: It can access all cameras.

Camera operation: It can perform all operations.

Settings on the Setting screen: It can make all settings.

Super User:

Access to cameras: It can access all cameras.

Camera operation: It can perform all operations.

Settings on the Setting screen: It can only make Category settings. It cannot access any other settings.

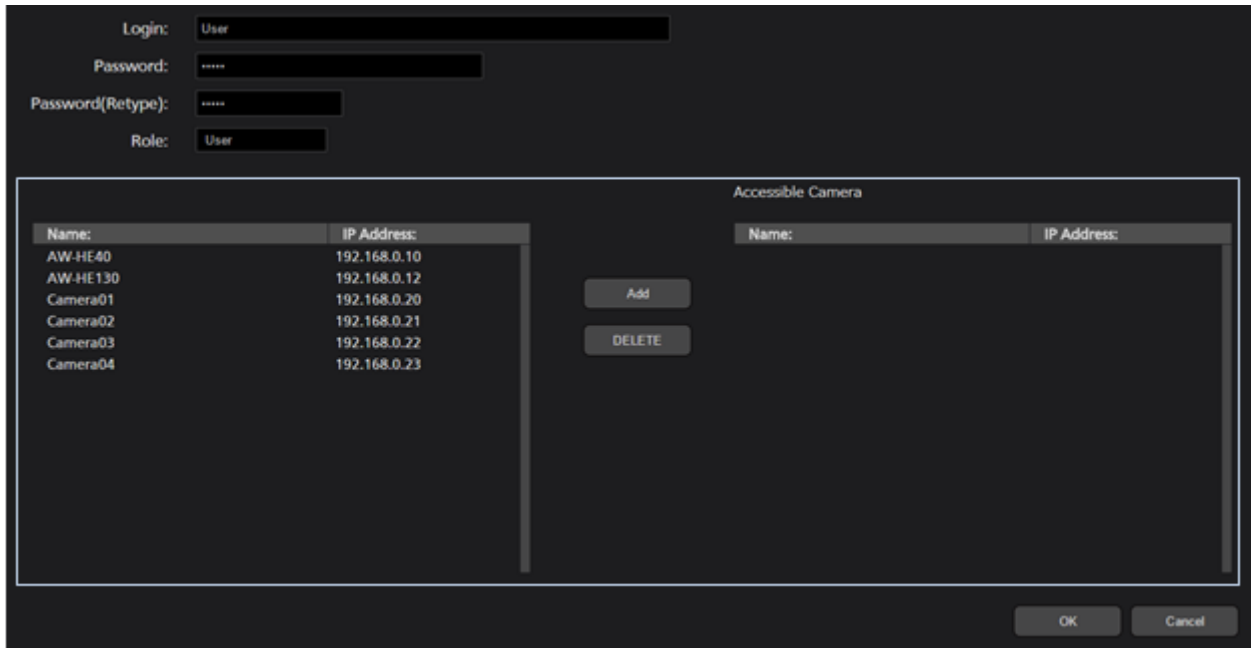
User:

Access to cameras: It can access only the permitted cameras.

Camera operation: Restricted (image quality adjustment, preset registration/deletion are not allowed).

Settings on the Setting screen: Not allowed to access the Setting screen.

6. When User is selected in Role of the user account, access permission setting areas (blue frame in the following figure) of the camera will appear at the bottom of the Register User screen. Here, you can set the cameras that the user is allowed to access.



- (1) List of the cameras registered at present would appear in the list on the left side of the setting area. Select the cameras to which you want to allow the access.
- (2) Clicking the Add button at the center of the setting area will move the camera selected in step (1) to the list on the right side of the setting area.

When the user subjected to registration at present has logged in, only those cameras that are there in the list on the right side of the setting area will appear in the list of cameras on the View/Main screen.

- (3) When deleting the cameras to which you had allowed the access, select the cameras from the list on the right side of the setting area and click the DELETE button in the center of the setting area.

7. Click the OK button to come out of the Register User screen.

8. With this, the setting is complete.

<Note>

- For the details of the functions that the respective user privilege can use, refer to "Appendix - List of restrictions for each account privilege" in this document.

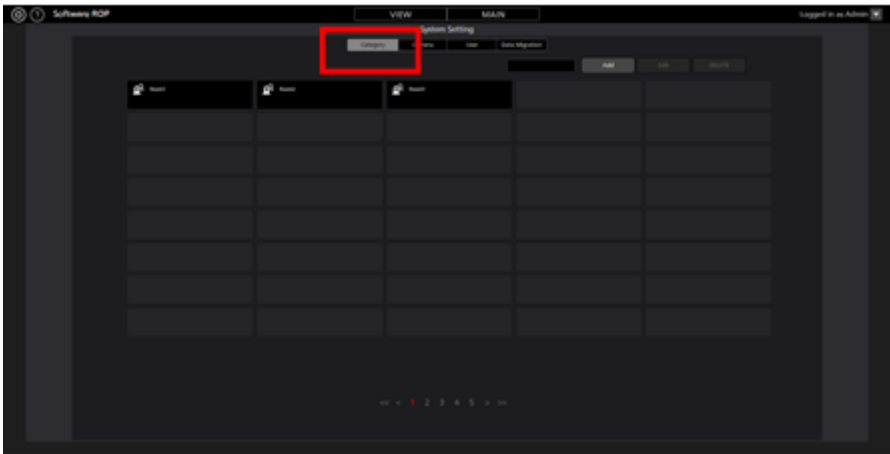
Category settings of camera

If required, set the category of the camera (group of the camera).

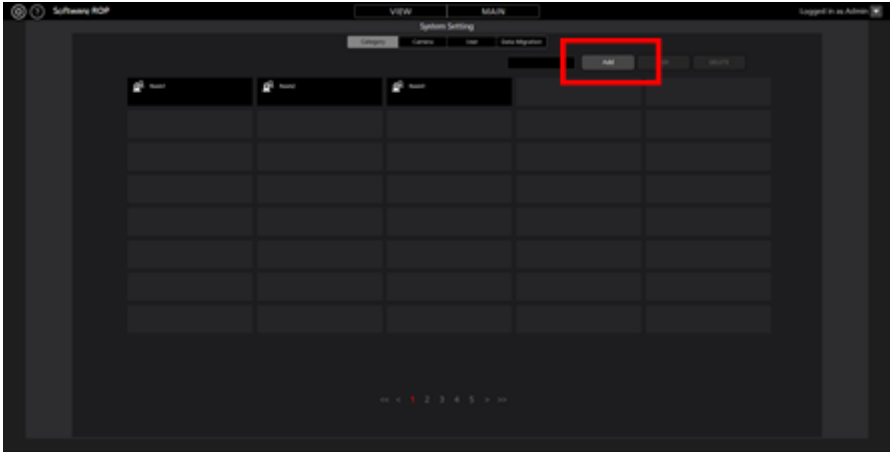
- 1. Login to the software.
- 2. The View screen will appear. Click the Settings button located at the top left of the screen.



- 3. Click the Category tab at the center of the Settings screen.



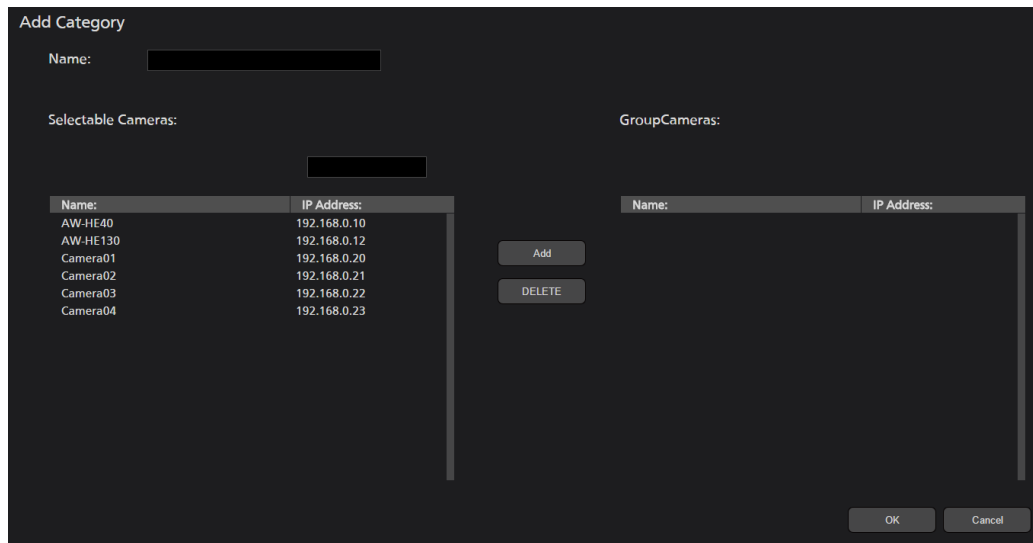
- 4. Click the Add button and go to the Register Category screen.



5. Register categories on the Register Category screen.

(1) Enter the name of the category to be registered in Name.

(2) From the list of cameras on the left side, select the cameras that you want to register in the category and click the Add button. This will add the cameras to the category (cameras will move to the list on the right side).



6. Click the OK button to come out of the Register Category screen.

7. With this, the setting is complete.

Operation of cameras

The method of operation of only one camera with the software is explained here.

Camera selection

Use the following procedure to select the camera you wish to control.



1. Click the Main tab located in the center at the top of the software and go to the Main screen.
2. In the list of cameras on the left side of the Main screen, click and select the camera you want to operate.
You can also select a camera on the View screen.
3. Click the [Selected Single Camera] tab located at the top of the Main screen.
4. Image of the camera you selected will appear in the center of the Main screen.

Details that are displayed would differ depending on the Camera Type.

- For PTZ Camera + SUB Camera

Top screen: Image of PTZ camera

Bottom screen: Image of the control assist camera AW-HEA10 or AW-UE4

- For PTZ Camera + Image
Top screen: Image of PTZ camera
Bottom screen: Still image that is set
- For PTZ Camera
Top screen: Image of PTZ camera
Bottom screen: None

5. The camera is operated using the methods noted in “Operating the Camera from the Camera Image,” “Operating the Camera with the Camera Controller,” “Operating the Camera with a Keyboard,” and “Operating the Camera with a Game Controller” below.

<Note>

- When thumbnails are OFF in the camera list display and when image does not appear even after selecting a camera, check that the network connection between the PC and the camera is correctly done.

Operating the Camera from the Camera Image

You can perform the following operations with the image from the selected camera displayed in the center of the main screen.

- Pan/Tilt the PTZ camera by clicking on the upper screen or lower screen
By clicking on the upper screen or lower screen, the PTZ camera performs Pan/Tilt operations so that the point you clicked is in the center of the screen.
- Pan/Tilt/Zoom the PTZ camera by specifying an area on the upper screen or lower screen
By clicking and dragging on the upper screen or lower screen, you can specify an area with a yellow box. When you stop dragging and fix the area, the PTZ camera performs Pan/Tilt/Zoom operations so that the specified area is displayed in a full screen.
- Zoom the PTZ camera by using the mouse wheel on the upper screen
When the mouse cursor is on the upper screen, you can zoom the PTZ camera by using the mouse wheel.

<Note>

- If the movement position of the PTZ camera when clicking the bottom screen is not accurate, refer to "Default Settings 1 - Calibration" in this document and perform calibration.

Operating the Camera with the Camera Controller

With camera controller, you can perform various operations of cameras.

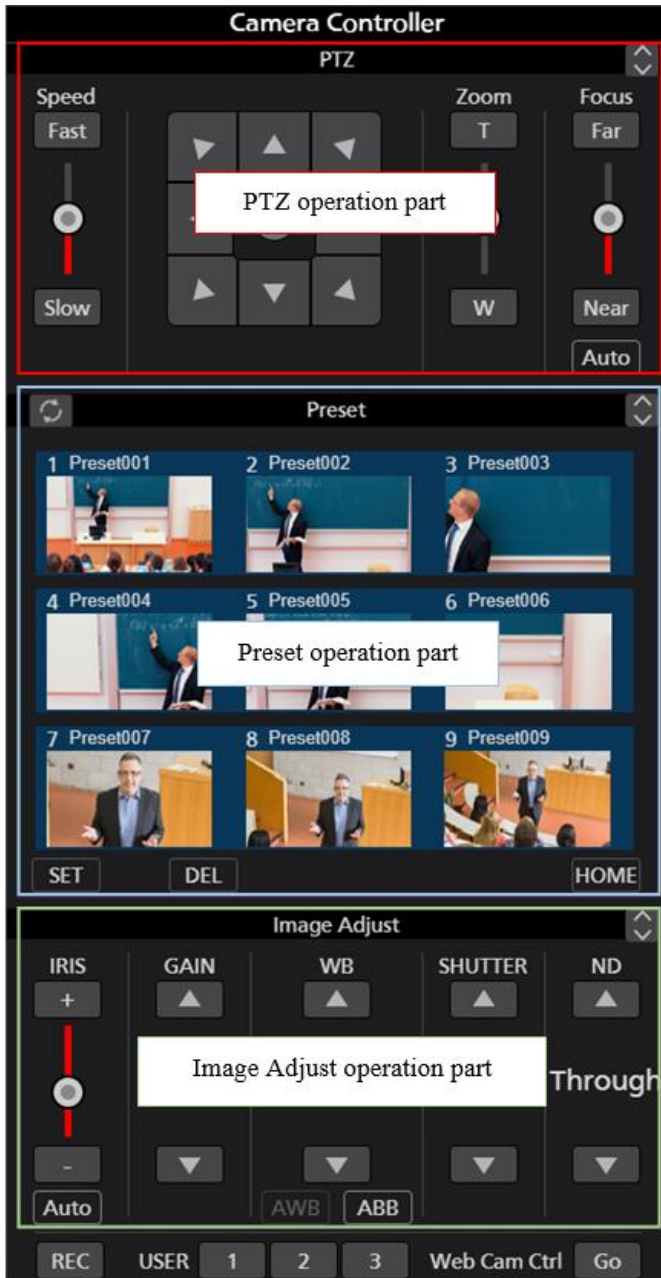
The following operations are supported.

- PTZ operation
- Preset operation
- Image quality adjustment
- Start/Stop SD card recording
- Web screen calling

<Note>

The USER button at the bottom of the camera controller does not function in the current version.

- **Descriptions of each operation part**



PTZ operation part:

You can operate the Pan/Tilt, Zoom, Focus of the PTZ camera.


Preset operation part:


You can register, call, or delete a preset for the PTZ camera.

Image Adjusting operation part:

You can adjust the image of the PTZ camera.

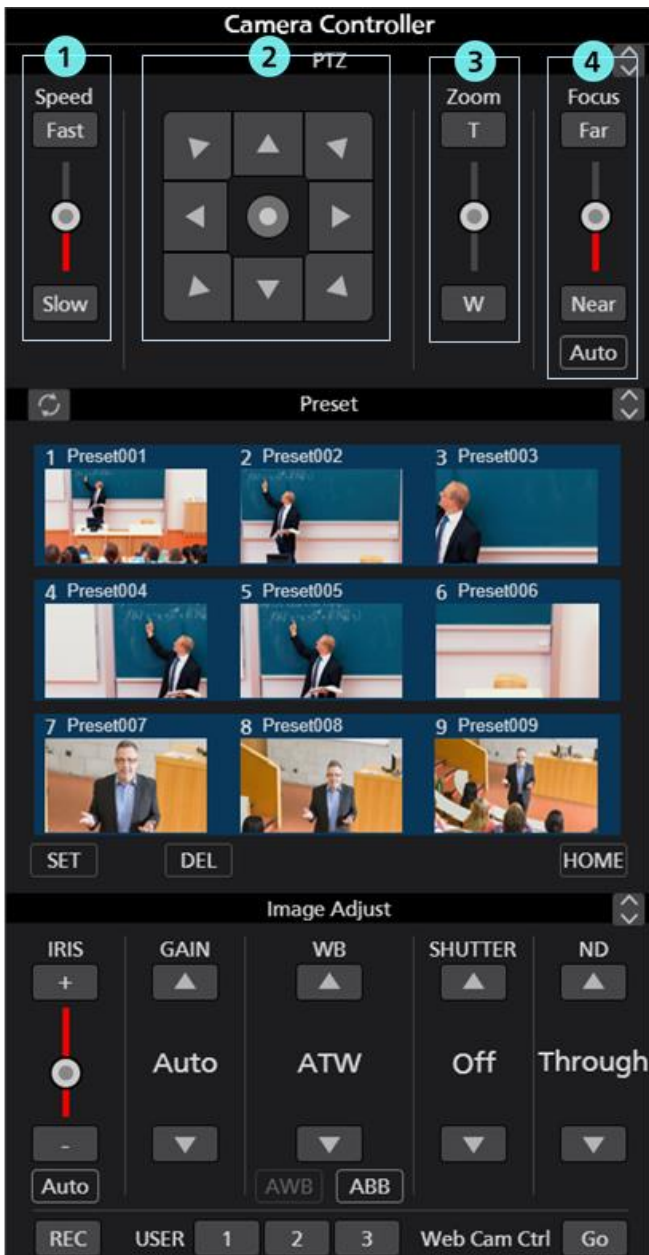
<Note>

- Clicking the  button on the top right of each operation part will enlarge the display.

- Clicking the  button with the enlarged display will return the display to normal.

• PTZ operation

You can operate the Pan/Tilt, Zoom, Focus of the PTZ camera.



① Pan/Tilt speed control part

You can set the moving speed when moving the camera with the Fast/Slow buttons or the slider. Red color bar in the slider shows the current setting value.

② Pan/Tilt buttons

Clicking any of the arrow buttons will move the camera in the directions corresponding to the arrow.

Clicking on the slider in the middle will change the display and enables moving the camera in an optional direction.

③ Zoom position control part

You can set the Zoom position of the camera with the T/W buttons or the slider.

Red color bar in the slider shows the current setting value.

④ Focus control part

Clicking Auto will switch AutoFocus between ON/OFF.

When AutoFocus is ON, the camera will automatically set the Focus.

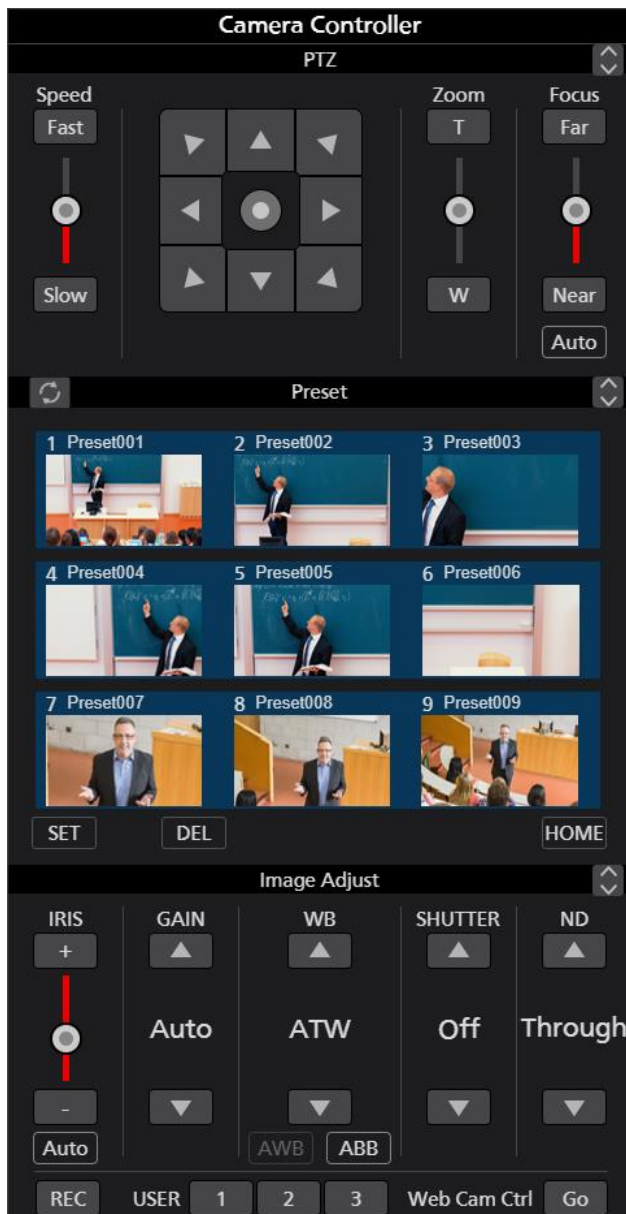
When AutoFocus is OFF, you can set the Focus of camera with the Far/Near buttons and the slider.

• Preset operation

You can register, call, or delete a preset for the PTZ camera.

In addition, each of the presets may optionally be given a name.

When a preset is registered, the background color of the thumbnails is displayed with the color set in the Preset Color settings of the camera.



• Preset registration

1. Use the Pan/Tilt buttons and Zoom position control slider/buttons and move the camera to the position you want to register.
2. Turn ON (red color) the SET button located at the bottom left of the Preset area.

3. Clicking either of the thumbnails of Preset 1 through Preset 9 in the Preset area will register the current camera position in preset. Thumbnail at the time of registration will appear in the button.

• **Preset calling**

1. Turn OFF (gray color) the SET button and the DEL button located at the bottom left of the Preset Area.
2. Clicking either of the buttons of Preset 1 through Preset 9 in the Preset area will call the corresponding preset.


• **Preset deletion**

1. Turn ON (red color) the DEL button located at the bottom left of the Preset area.
2. Clicking either of the buttons of Preset 1 through Preset 9 in the Preset area will delete the corresponding preset.

• **Changing preset names**

1. Change the SET button in the bottom left of the Preset area to ON (red).
2. Clicking on the name displayed on the thumbnail launches name editing and enables input of any name.

• **Update preset display**

Clicking on the  button in the top left of the Preset area will retrieve the latest preset data from the camera and update the display.

• **Image quality adjustment**

You can adjust the image quality of the camera.

You can adjust the following items.

Iris / Gain / White Balance / Shutter / ND Filter



① Iris control part

Clicking Auto will switch AutoIris between ON/OFF.

When AutoIris is ON, the camera will automatically set the Iris.

When AutoIris is OFF, you can set the Iris of camera with the +/- buttons and the slider.

② Gain control part

You can set the Gain of the camera with the up/down buttons.

③ White Balance control part

You can set the white balance mode of the camera with the up/down buttons.

By clicking the AWB button, the camera will automatically adjust white balance.

By clicking the ABB button, the camera will automatically adjust black balance.

④ Shutter control part

You can set the Shutter of the camera with the up/down buttons.

⑤ ND Filter part

You can set the ND Filter of the camera with the up/down buttons.

<Note>

- You may not be able to adjust some of the items depending on the combination of camera type and operating mode. Refer to the operations manual of each camera for more details.

• **Start/Stop SD card recording**

You can Start/Stop recording of a camera that has the SD card recording function.

Clicking the REC button located at the bottom left of camera controller with the camera in the recordable state will switch between recording start/stop at every click. When the camera is recording, the REC button will turn red, and when the recording is stopped, the REC button will turn gray.

• **Web screen calling**

You can call the Web screen of the camera.

Clicking the Go button located at the bottom right of camera controller will open the Web Cam Management screen of the camera in the web browser.

<Note>

- A part of the Web Cam Management screen of the camera may not appear properly depending on the web browser you are using.

Operating the Camera with a Keyboard

You can perform a range of operations for a PTZ camera from a keyboard connected to the PC.

Keys and operation allocation are as 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
↑	Camera tilt upward
↓	Camera tilt downward
←	Camera pan left
→	Camera pan right
↑ + →	Camera pan/tilt up and right
→ + ↓	Camera pan/tilt down and right
↓ + ←	Camera pan/tilt down and left
← + ↑	Camera pan/tilt up and left
Shift + ↑	Camera tilt upward (high speed)
Shift + ↓	Camera tilt downward (high speed)
Shift + ←	Camera pan left (high speed)
Shift + →	Camera pan right (high speed)
Shift + ↑ + →	Camera pan/tilt up and right (high speed)
Shift + → + ↓	Camera pan/tilt down and right (high speed)
Shift + ↓ + ←	Camera pan/tilt down and left (high speed)
Shift + ← + ↑	Camera pan/tilt up and left (high speed)
Ctrl + ↑	Camera tilt upward (low speed)
Ctrl + ↓	Camera tilt downward (low speed)
Ctrl + ←	Camera pan left (low speed)
Ctrl + →	Camera pan right (low speed)
Ctrl + ↑ + →	Camera pan/tilt up and right (low speed)
Ctrl + → + ↓	Camera pan/tilt down and right (low speed)
Ctrl + ↓ + ←	Camera pan/tilt down and left (low speed)
Ctrl + ← + ↑	Camera pan/tilt up and left (low speed)
Z	Camera zoom T side
X	Camera zoom W side
Shift + Z	Camera zoom T side (high speed)
Shift + X	Camera zoom W side (high speed)
Ctrl + Z	Camera zoom T side (low speed)
Ctrl + X	Camera zoom W side (low speed)
- in numeric keypad	Camera zoom T side
+ in numeric keypad	Camera zoom W side

Shift and - in numeric keypad	Camera zoom T side (high speed)
Shift and + in numeric keypad	Camera zoom W side (high speed)
Ctrl and - in numeric keypad	Camera zoom T side (low speed)
Ctrl and + in numeric keypad	Camera zoom W side (low speed)
Alt + ↑	Switch selected camera to next one up
Alt + →	Switch selected camera to next one to the right
Alt + ↓	Switch selected camera to next one down
Alt + ←	Switch selected camera to next one to the left
Page UP	Switch camera page forward
Page DOWN	Switch camera page backward

<Note>

- You can enable and disable keyboard operation using [Keyboard Shortcut] settings in [Settings - System Screen]

Operating the Camera with a Game Controller

You can use up to 10 game controllers connected to the PC to perform various operations on the PTZ camera.

• Supported operations

The operations supported are as follows.

- Camera Pan/Tilt/Zoom
- Preset call
- Switch selected camera

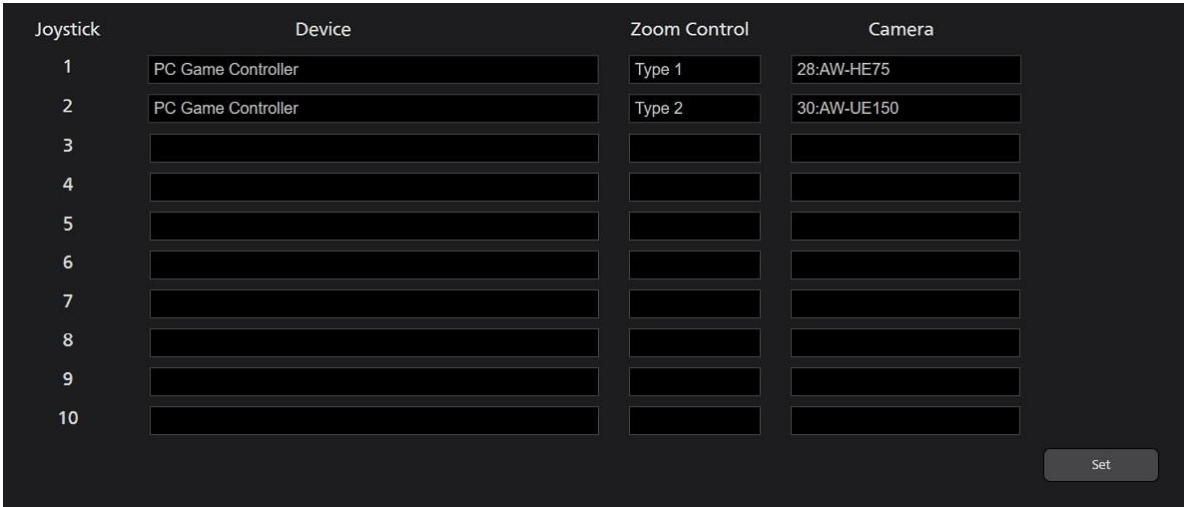
The allocation of operations to each axis/button on controllers is as below.

- X axis: Camera pan
- Y axis: Camera tilt
- Z axis: Camera pan/tilt speed change
- Rotate: Camera zoom (the rotation axis to be used can be set on the Settings – Joystick screen)
- Button: Camera preset call according to button number
- Hat switch: Switch selected camera

• Operation settings

Configure the settings on the Settings – Joystick screen.

After changing the settings, click the Set button to apply them.



- Device settings

Click the setting field to display a list of game controllers connected to the PC. Select the game controllers to use for operation.

- Zoom Control settings

Select from five types, Type 1 to Type 5, to decide the part of the joystick to which you wish to assign the zoom operation of the camera. The optimum settings differ depending on the model of the game controller. If the camera zoom does not work properly with the game controller you are using, try another Type.

- Camera settings

Select the camera to operate with the joystick.

Click the setting field to display the “Active Camera” item and a list of PTZ camera names registered in this software.

When “Active Camera” is selected, the camera selected on the VIEW/MAIN screen will be operated. When a specific camera is selected, only that camera can be operated regardless of the camera selection status on the VIEW/MAIN screen.

<Note>

- If you connect the joystick to the PC after starting this software, this software may not recognize the joystick. In this case, please restart the software.
- You can check the axes, rotation, and button numbers allocated to the sticks and buttons of game controllers on the properties screen displayed by selecting Windows [Devices and Printers], right clicking on the controller icon, and selecting [Game Controller Settings] → [Properties].
- Please use Game Controller with DirectInput compatible products. If a game controller is switchable between Xinput and DirectInput, chose DirectInput.
- This software is not guaranteed to work on all game controllers

Please see the download website for this software to check which game controllers are confirmed to work.

Display of H.264 streaming images from camera

You can have full screen display of H.264 streaming images from the PTZ camera selected for operation.

The resolution and frame rate of H.264 streaming images displayed depend on the H.264 streaming settings for PTZ cameras.

The order of priority for H.264 streaming used for display is H.264 (1) → H.264 (2) → H.264 (3) → H.264 (4).

Please set one of the H.264 streams as follows on the PTZ camera web screen beforehand.

- H.264 transmission
Set one or more from H.264 (1) - H.264 (4) to On
- Image capture size
Specify one of the resolutions below.
3840x2160 / 1920x1080 / 1280x720 / 640x360 / 320x180
- Transmission priority
Set in frame rate
- Frame rate
Specify one of the frame rates below.
60fps / 50fps / 30fps / 25fps / 24fps / 15fps / 12.5fps / 5fps

To display H.264 streaming images, follow the procedure below.

1. Select a camera using the procedure in [Camera Selection] above to display the images from that camera on the main screen.
2. Double click the PTZ camera image displayed on the upper screen.
3. The H.264 streaming images from the PTZ camera are displayed full screen on the PC's primary display.
4. To end the display of H.264 streaming images, double click again or press ESC or Enter on the keyboard.

Simultaneous Operation of Multiple Cameras

You can simultaneously operate multiple connected cameras.

Operation procedure

The operations for which simultaneous operation is possible are as follows.

- Pan/Tilt/Zoom the camera with buttons/slider
- Call a preset for the camera
- Image quality adjustment of the camera (Focus, Iris only)

You can perform operations as per the following steps.



1. Click the Main tab located in the center at the top of the software and go to the Main screen.
2. In the list of cameras on the left side of the Main screen, turn ON the check of the cameras you want to operate.

You can also check on the View screen.

3. Click the [Checked Multiple Camera] tab located at the top of the Main screen.
4. Image of the cameras selected for operation will appear in the center of the Main screen.
5. Operate the camera with one of the following methods.

The operation methods are the same as when using one camera. For the details, refer to the items in “Operation of cameras” in this document.

- Operate the camera using the camera controller in this software
- Operate the camera using a keyboard connected to the PC
- Operate the camera using a game controller connected to the PC

<Note>

- When thumbnails are OFF in the camera list display and when image does not appear even after selecting a camera, check that the network connection between the PC and the camera is correctly done.
- Cameras that are in the selected state in the camera list display can be operated irrespective of the check status.

Using the Preset List screen

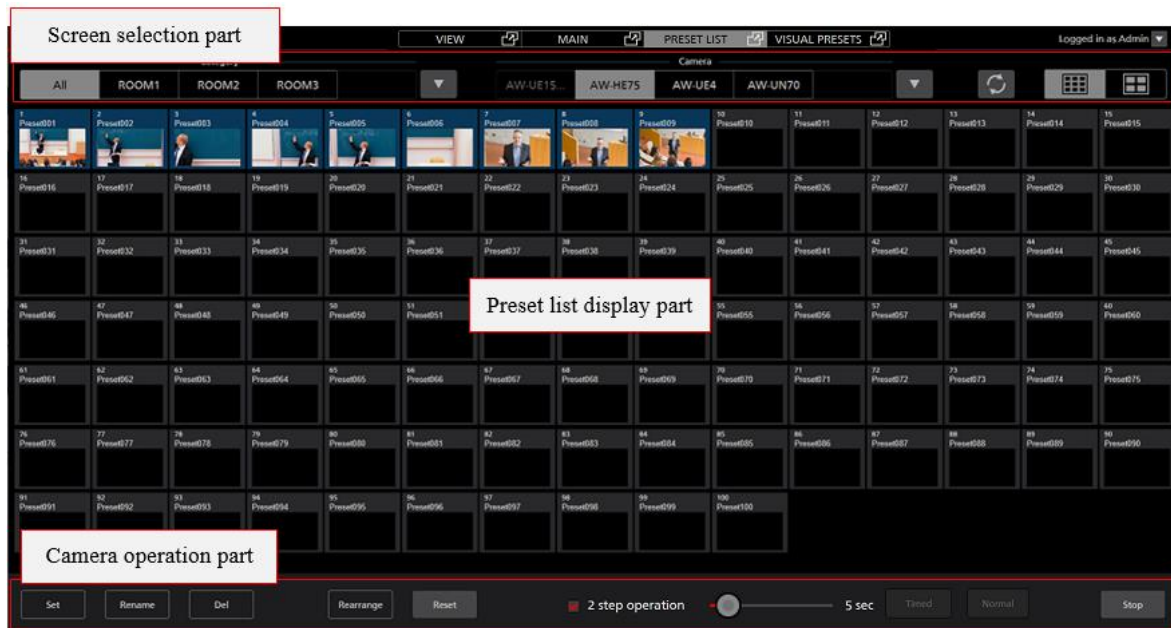
Clicking on the PRESET LIST tab at the top of the screen will display the Preset List screen.

This displays the camera presets in a list and makes it possible to call the presets.

Description of the screen

The screen is made up of three areas as listed below.

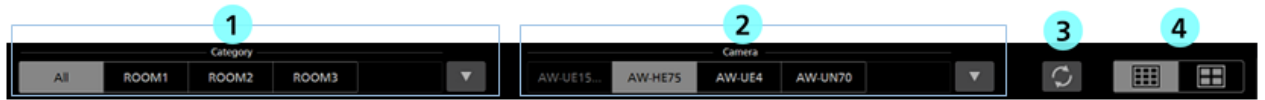
- Screen selection part
- Preset list display part
- Camera operation part



Preset List Screen

- **Screen selection part**

This is the area to select the camera to be displayed.



① **Camera category selection tab**

Select the camera category for the cameras to be displayed in the “② Camera selection tab.”

The tab will display a list of camera category names registered in “All” and in the Settings - Category screen.

If “All” is selected, all cameras registered in the software will become display targets.

If one of the categories is selected, only the cameras that are in that category are displayed.

If there are 5 or more categories, click the ▼ button to display the category selection window and select a category in the window.

② **Camera selection tab**

Select a camera to be targeted for the preset list display.

If there are 5 or more cameras, click the ▼ button to display the camera selection window and select a camera in the window.

③ **Preset display update button**

When clicked, the preset list display is updated with any new preset data retrieved from the camera.

④ **Switchover button for number of presets displayed**

It switches the number of presets displayed in the preset list display part.

Select from either displaying 100 presets or 50 presets.

- **Preset list display part**

It displays a list of the camera presets. The background color of thumbnails for registered presets are displayed using the color set in the Preset Color settings of the camera.

- **Camera operation part**

This is the area to select the camera to be displayed.



① **Set button**

Clicking on any preset in the preset list display part with this in the ON position (red) will register the current camera position as the preset.

② **Rename button**

Clicking on any preset in the preset list display part with this in the ON position (red) will allow changing the name of the preset.

③ Del button

Clicking on any preset in the preset list display part with this in the ON position (red) will delete the preset data selected.

④ Rearrange button

Turning this ON (red) enters into a mode enabling rearranging the presets in the preset list display part.

Left clicking on any preset in this mode and dragging it to another preset will exchange the display position.

⑤ Reset button

It resets the current preset order that was rearranged using the Rearrange button and returns the presets to their initial order.

⑥ 2 step operation checkbox

It selects the preset call operation.

When the check is ON: After selecting a preset from the preset list display part, clicking the “⑦ Timed button” or the “⑧ Normal button” will call a preset.

When the check is OFF: Selecting a preset in the preset list display part will call a preset. The call speed for presets depends on the settings of the camera.

⑦ Timed slider/button

The time taken from calling the preset to camera movement completion can be specified.

Use the slider to specify the time through camera movement finishing. Clicking the Timed button will call a preset.

*This operation is only possible with the AW-UE150/AW-UE100 camera.

⑧ Normal button

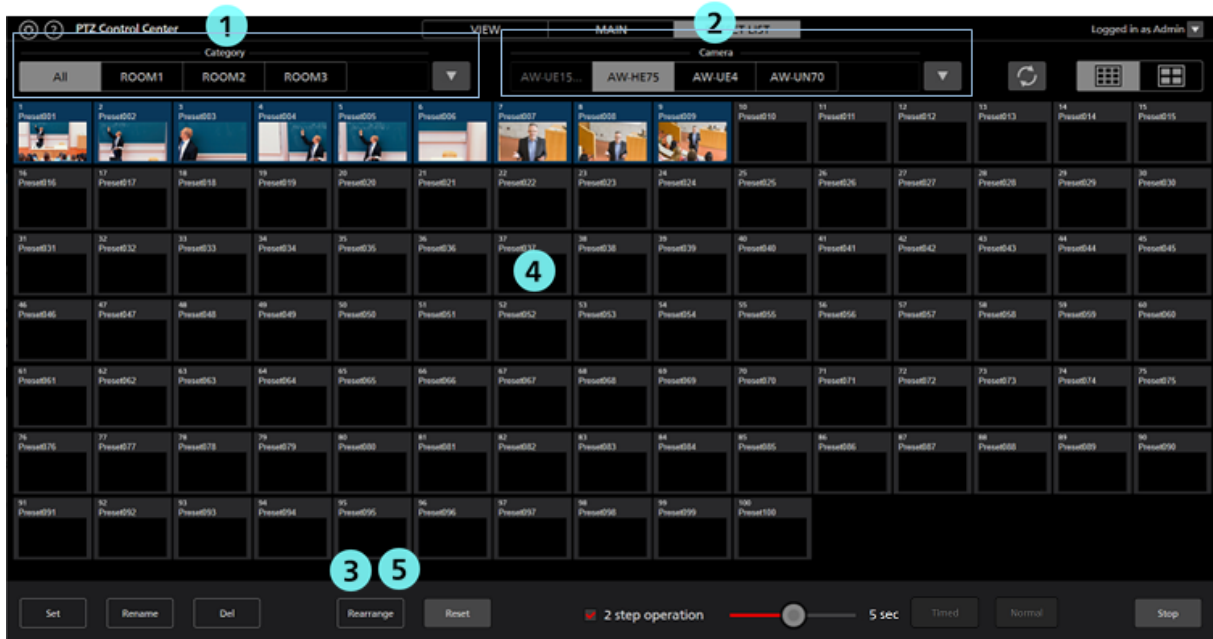
The preset will be called at the speed set in the camera.

⑨ Stop button

It stops the preset call operation.

Rearranging presets

You can use the procedures below to rearrange the presets in the preset list screen.



1. Select a category in the camera category selection tab.
2. Select a camera you wish to operate in the camera selection tab. The preset list of the camera is displayed on the preset list display part.
3. Click on the Rearrange button to turn it ON (red).
4. Clicking on a preset in the preset list display part and dragging it to another preset will exchange the each other's position.
5. Click on the Rearrange button to turn it OFF (black).

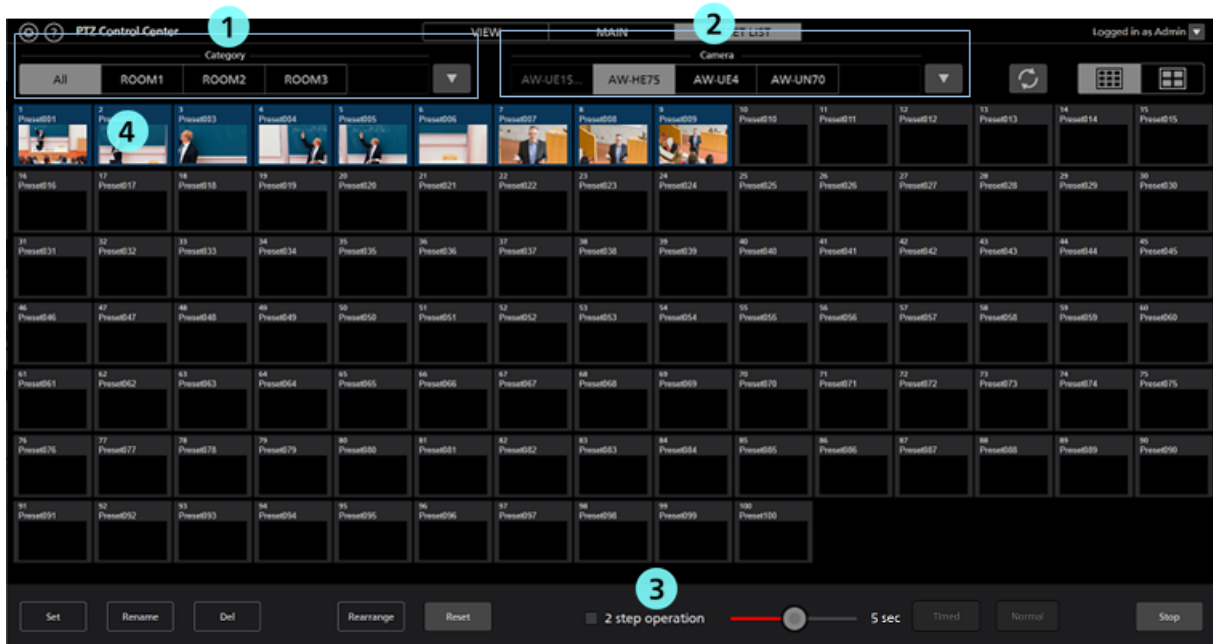
<Note>

- To return the rearranged order to the initial state, click on the Reset button to the right of the Rearrange button.

Calling presets

Use the procedures below to call a preset.

- When calling a preset immediately after selection



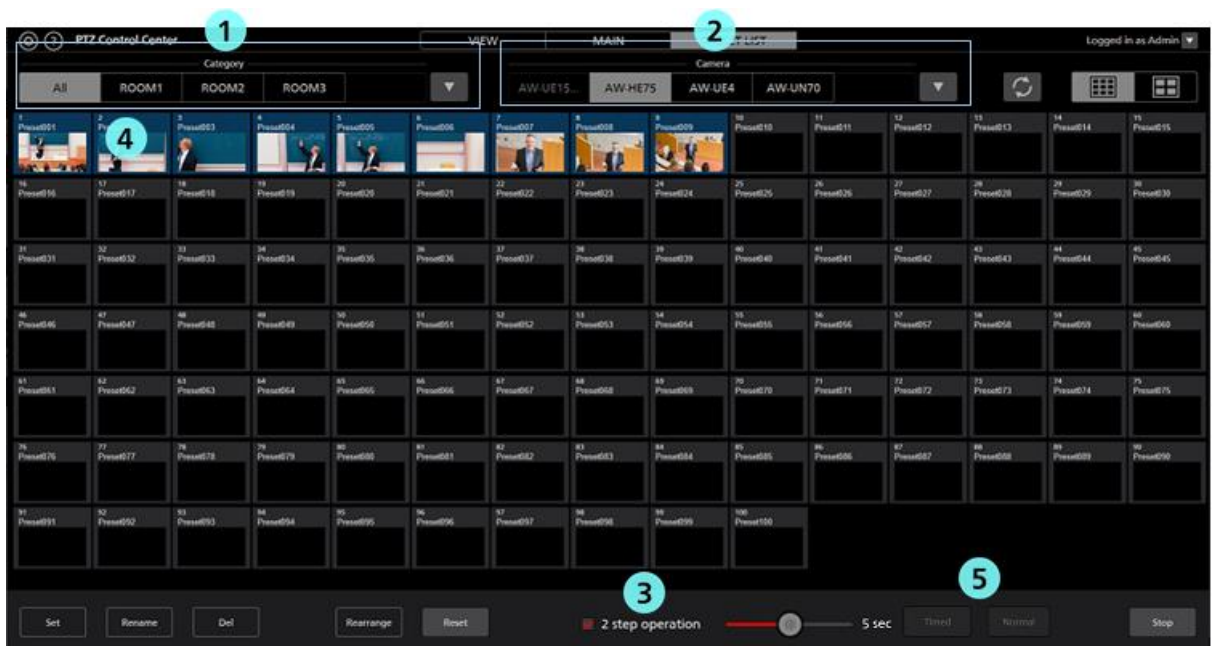
1. Select a category in the camera category selection tab.

2. Select a camera you wish to operate in the camera selection tab. The preset list of the camera is displayed on the preset list display part.

3. Set the “2 step operation” checkbox to OFF.

4. Clicking on any preset in the preset list display part will immediately call the preset. The call speed for presets depends on the settings of the camera.

- When calling a preset with a 2-step operation of preset selection → button operation



1. Select a category in the camera category selection tab.

2. Select a camera you wish to operate in the camera selection tab. The preset list of the camera is displayed on the preset list display part.

3. Set the “2 step operation” checkbox to ON.

4. Click on any preset in the preset list display part to select it.

5. Call the preset with one of the operations below.

- Click on the Normal button

The preset will be called at the speed set in the camera.

- Click on the Timed button after setting the time with the Timed slider

The preset is called to complete camera movement in the time set by the slider. This is only valid with the AW-UE150/AW-UE100 camera.


<Note>

- Clicking on the Stop button during a preset call will stop the call.

Screen separation function

You can separate each screen of View/Main/PresetList/Visual Presets and operate it as an independent window.

Screen separation


Click the separation button  at the right end of the function tab of View/Main/PresetList/Visual Presets to separate the screen of the clicked function tab into a separate window.

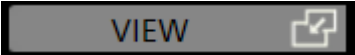


<Note>

The position of the separated window is saved for each user account of this software.


Screen combination

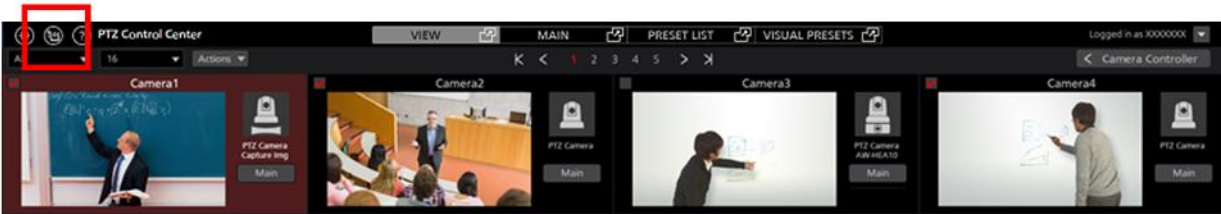
Click the combine button  at the right end of the function tab of the separated window, or click the X button at the upper right of the window to combine the separated windows with the original window.



EasyIP Setup Tool Plus application

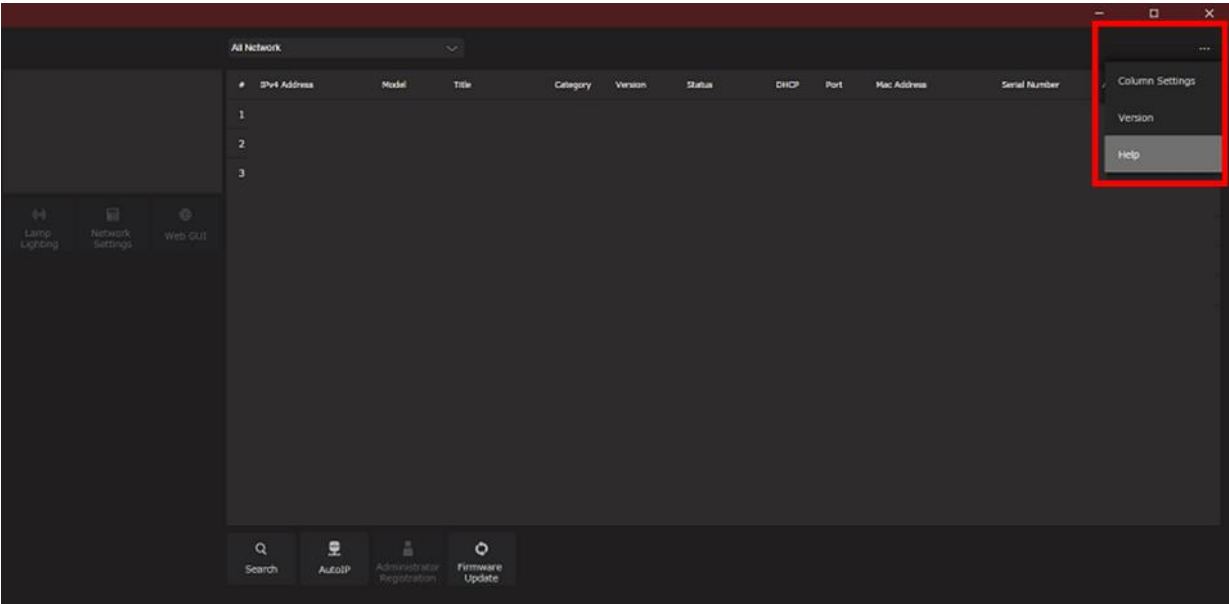
This software includes the EasyIP Setup Tool Plus application that allows you to easily set up and update your PTZ camera.

Click the EasyIP Setup Tool Plus launch icon  at the top left of the screen of this software to launch the EasyIP Setup Tool Plus application.



For details on the EasyIP Setup Tool Plus application, refer to the help file in the EasyIP Setup Tool Plus application.

Click the menu button at the top right of the EasyIP Setup Tool Plus application screen and select Help from the menu that appears to display the help file.



Copying the settings data

You can copy the settings data between the software programs running on another PC.

Procedure for copy the settings data is explained here.

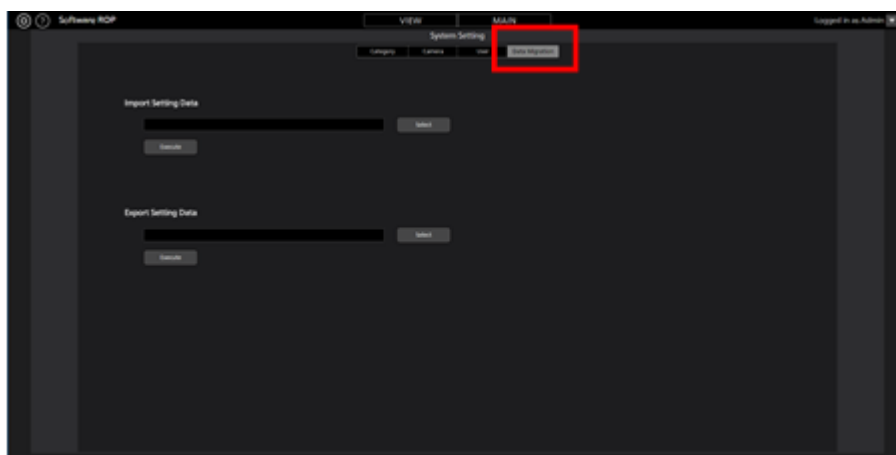
Exporting the settings data

You can export the settings data with the following steps.

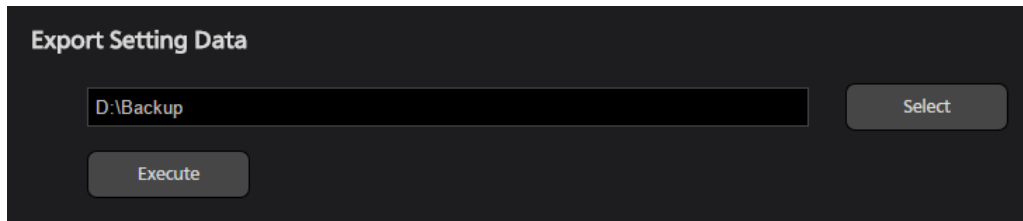
1. Login to the software.
2. The View screen will appear. Click the Settings button located at the top left of the screen.



3. Click the Data Migration tab at the center of the Settings screen.



4. Clicking the Select button of the Export Setting Data field will display the folder selection dialog box. Here, select the place where you want to export the settings data of the software.



5. Clicking the Execute button of the Export Setting Data field will create the folder called SoftROP at the place specified in step 4, and the settings data will be exported to this folder.

<Note>

- When using the exported settings data in another PC, copy the entire SoftROP folder.

Importing the settings data

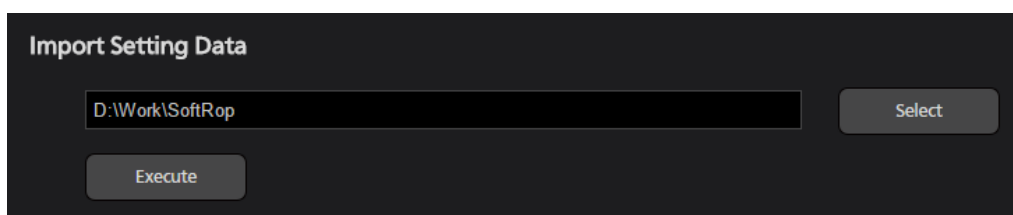
You can import the settings data with the following steps.

<Note>

- Importing the settings data with this procedure will overwrite all current settings data.

If it is necessary to retain the current settings data, export and save the settings data as per "Exporting the settings data" procedure described above.

1. Go to the Data Migration screen following the same steps as steps 1 through 3 described in "Exporting the settings data" above.
2. Clicking the Select button of the Import Setting Data field will display the folder selection dialog box. Here, select the folder (SoftROP folder) where the settings data exported from the software.



3. Clicking the Execute button of the Import Setting Data field will show the confirmation message.
Clicking YES will import the settings data and it will overwrite all current settings data.
4. After import of the settings data is complete, a confirmation message asking for restarting the software will appear.
Clicking YES will automatically restart the software.
5. Once the software restarts, import of the settings data will complete.

Paid optional features

This software provides paid optional features (plugins).

Optional features have a specified free trial period, within which you can use them free of charge after the trial starts.

If you wish to continue using the feature after the trial period ends, it needs activating by purchasing a key code.

Optional features provided

The following paid optional features (plugins) are provided.

Model number: AW-SF300

Free trial period: 90 days

Features: It provides the following features.

- A feature to display the SDI output image from the camera using a commercially available SDI to UVC converter
- A GUI that allows you to easily call presets for multiple cameras at the same time

License management

• About license management

You can manage your paid plugin licenses from the Settings - Plugin screen of this software.

On the Settings-Plugin screen, you can do the following:

- Check the contents and status of the paid plugins provided by this software
 - Model number display
 - Summary display of provided features
 - License status display

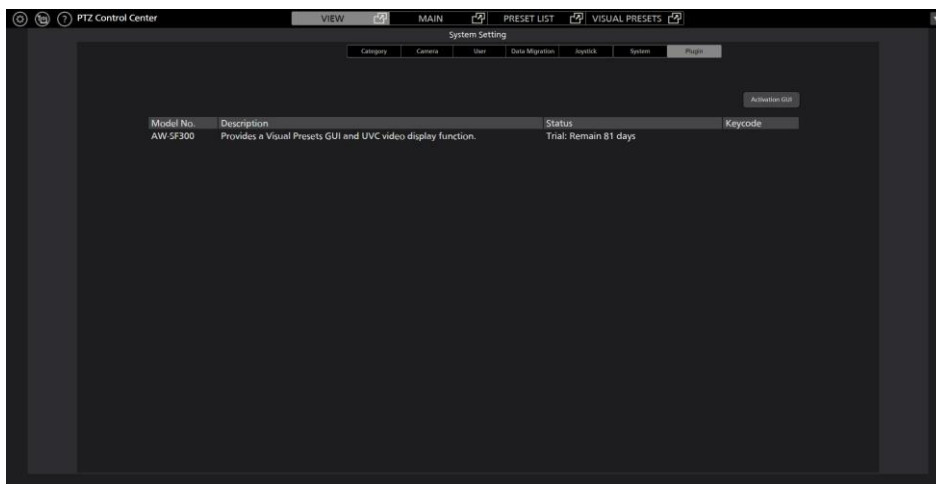
- Start of trial for paid plugins
- Activation/deactivation of paid plugins

You can enter the Settings - Plugin screen by following the steps below.

1. Click the Settings button at the top left of the screen of this software.

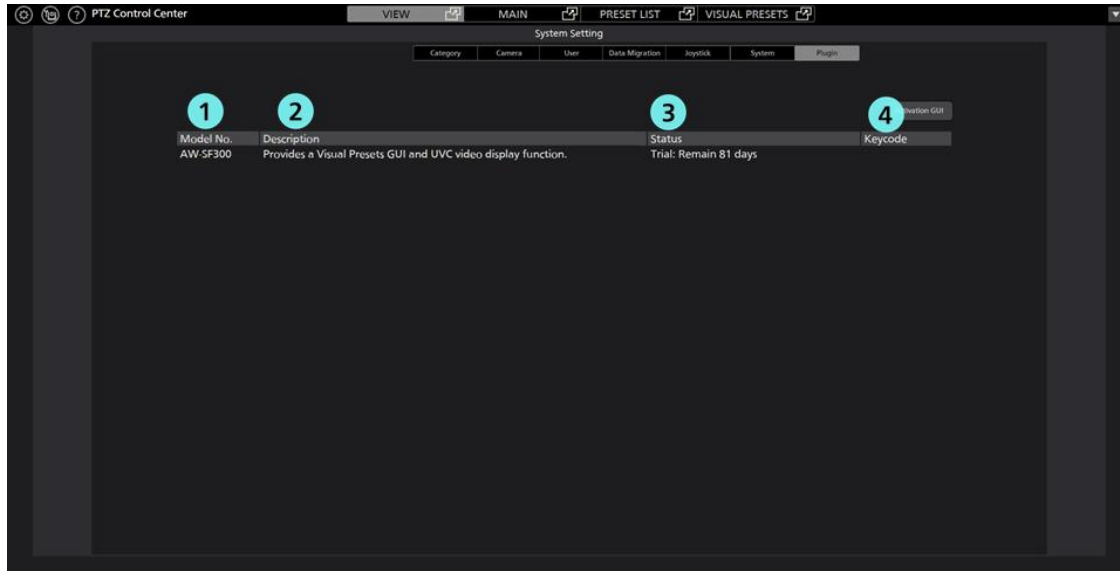


2. Click on the Plugin tab in the center of the Settings screen to display the Plugin screen.



• Check the status of paid plugins

The status of paid plugins is displayed in the center of the Plugin screen.



① Model number

Displays the model number of the plugin.

② Description

Displays a description of the features provided by the plugin.

③ Status

Displays the license status of the plugin.

One of the following statuses is displayed.

Initial: Initial state (state in which trial start and activation have not been performed)

Activated: Plugin activated

Deactivated: Plugin deactivated

Trial: Remain ** days: During the trial period (the number after Remain is the number of days until the end of the trial)

Trial: Expired: End of trial period

④ Key code

When the plugin is activated, the key code is displayed.

• Procedure to start trial for paid plugin

The procedure for starting a trial for a paid plugin is as follows.

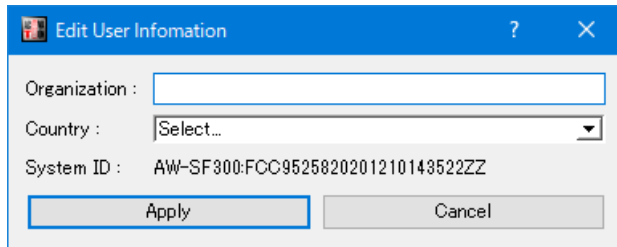
After starting the trial, you can use the features of the paid plugin free of charge for the specified period.

1. Click the Settings button (gear icon) at the top left of the PTZCC screen to enter the Settings screen.
2. Select the Plugin tab on the Settings screen to enter the Plugin screen.
3. Click the Activation GUI button at the top right of the Plugin screen to launch the activation application.
4. The following screen will be displayed when the activation application is launched for the first time.

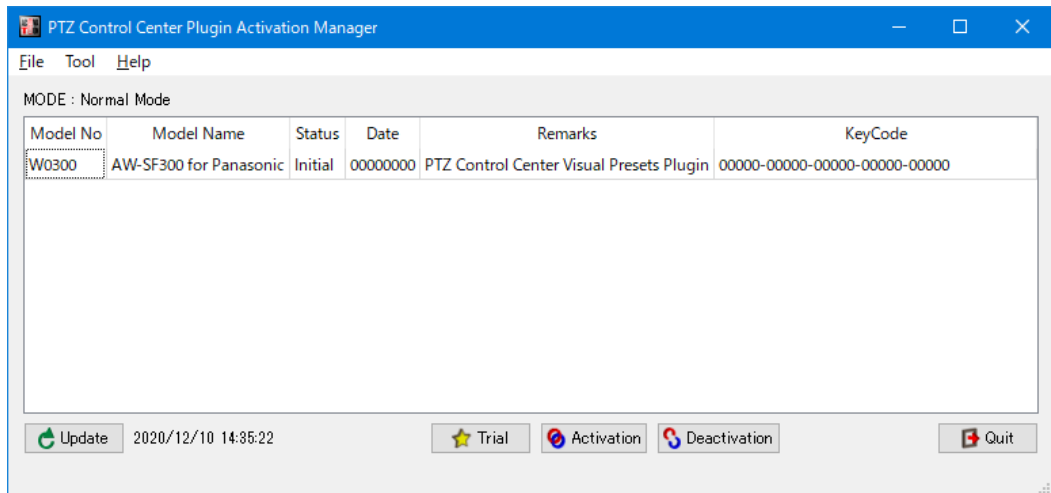
Enter the following items and click Apply.

Organization: Enter the organization name

Country: Select the country



5. Click the W0300 row in the activation application to select it.



6. Click the Trial button at the bottom of the activation application screen.

7. The trial start process is performed. When the processing is updated, the [VISUAL PRESET] tab appears.

It may take up to about 1 minute for processing to be reflected.

• Activation procedure for paid plugins

The procedure for activating a paid plugin is as follows.

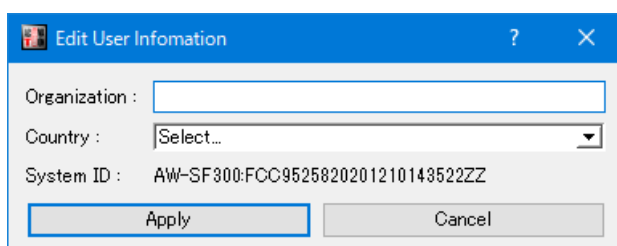
After activation, you can use the features of the paid plugin indefinitely.

1. Connect the PC to the internet.
2. Click the Settings button (gear icon) at the top left of the PTZCC screen to enter the Settings screen.
3. Select the Plugin tab on the Settings screen to enter the Plugin screen.
4. Click the Activation GUI button at the top right of the Plugin screen to launch the activation application.
5. The following screen will be displayed when the activation application is launched for the first time.

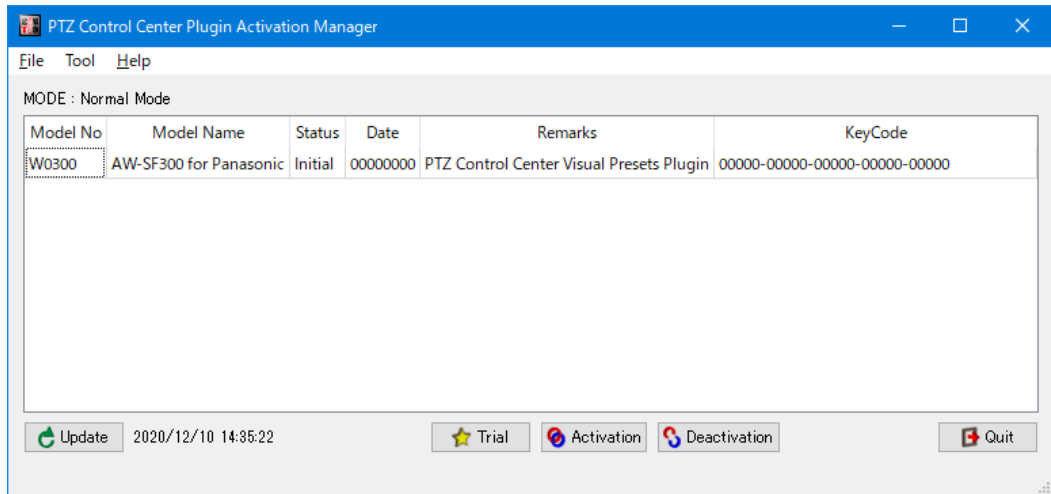
Enter the following items and click Apply.

Organization: Enter the organization name

Country: Select the country



6. Click the W0300 row in the activation application to select it.



7. Click the Activation button at the bottom of the Activation application screen.

8. The key code entry screen appears. Enter the key code.

9. If the activation is successful, the Status display on the W0300 row changes to Activated.

When the activation status is updated, the [VISUAL PRESET] tab appears.

It may take up to about 1 minute for processing to be reflected.

<Note>

If the Status display on the W0300 row does not change to Activated even after entering the key code, check the status message displayed at the bottom left of the activation application.

When Invalid Key is displayed: The entered key code is incorrect

When NoMoreLicense is displayed: The entered key code has been activated on another PC

• Procedure for deactivating paid plugins

If you want to transfer the license for a paid plugin to another PC, you will first need to deactivate it on the PC on which it is activated.

The procedure for deactivating is as follows.

1. Launch the activation application by following the same procedure as steps 1 to 5 of “Activation procedure for paid plugins.”
2. Click the W0300 row in the activation application to select it.
3. Click the Deactivation button at the bottom of the activation application screen.

Camera SDI Output Image Display

A commercially available SDI to UVC converter and SDI router can be used to display the PTZ camera image with low latency and a high frame rate.

System Configuration

To use this function, in addition to a PC with this software installed and a camera, a commercially available SDI to UVC converter is required.

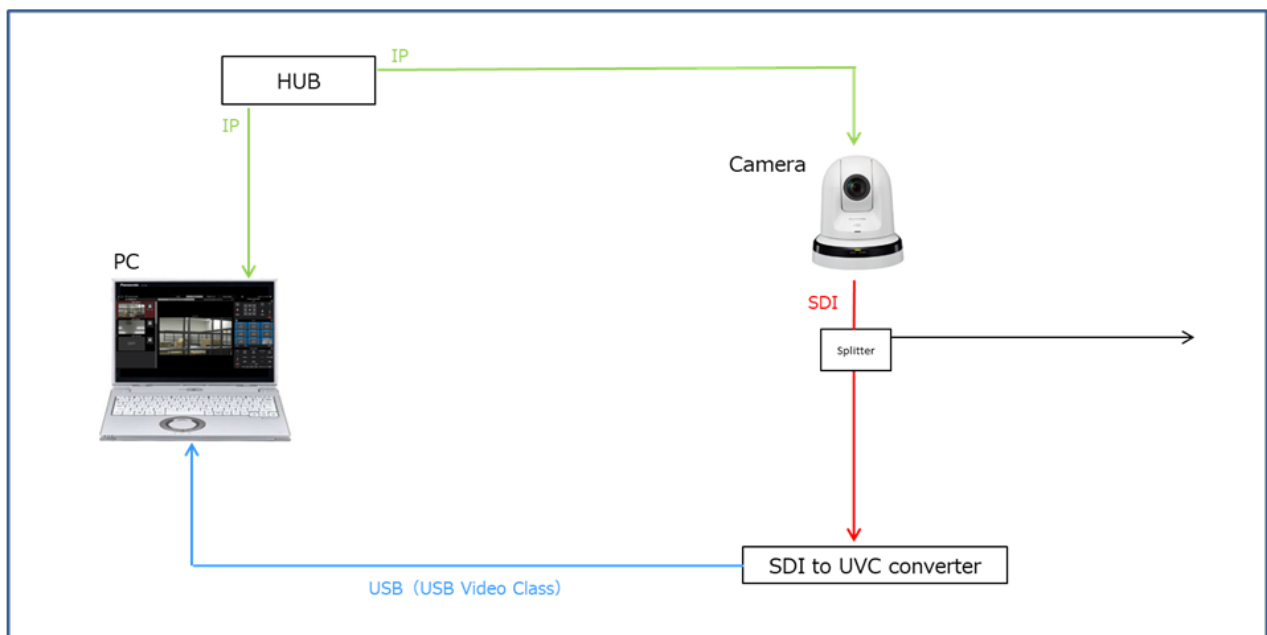
AJA SDI Router is also required to switch and display the SDI output video of multiple PTZ cameras.

[Configuration example when using the camera alone]

Necessary equipment

- SDI to UVC converter

Operation confirmed model: USB Capture SDI Plus from MAGEWELL



[Configuration example when using with multiple cameras]

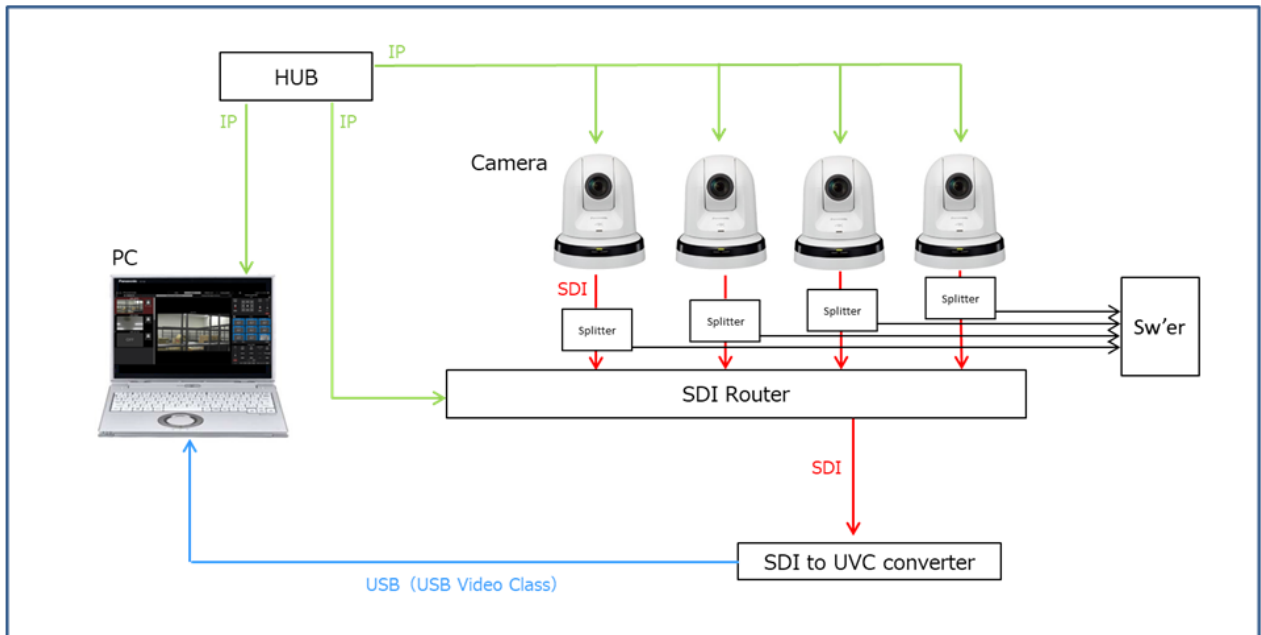
Necessary equipment

- SDI to UVC converter

Operation confirmed model: USB Capture SDI Plus from MAGEWELL

- AJA SDI Router (optional)

Operation confirmed model: AJA KUMO 1604 (Firmware Version: 4.5.0.30)



Setup for each device

Setup each device using the steps below.

• Camera setup

Set the camera SDI output format to be within the support scope of the SDI router and the SDI to UVC converter.
If there are multiple cameras, it is recommended to set the camera output formats to be the same to the extent possible.

• SDI to UVC converter setup

Set the SDI input settings and output settings as needed.

Set the SDI output settings (USB VIDEO Class image settings to be input to the PC) as follows.

Image Resolution: One of the following: 1920 x 1080 / 1280 x 720 / 640 x 360

Frame Rate: One of the following: 25 fps / 30 fps / 50 fps / 60 fps

• AJA SDI Router setup

Set the following in the AJA SDI Router.

- Set the [IP Address Type] to a [Static IP] and assign an IP address
- Set the [User Authentication] setting to [Disable]

Each device connection

Connect each device as follows.

When using SDI Router

- Network connection for each device

Connect the PC, camera, and SDI Router on the same network.

- Connection between the camera and the SDI Router

Connect the SDI output of the camera to one of the SDI inputs of the SDI Router.

- Connecting the SDI Router and SDI to UVC converter

Connect the SDI output Ch. 1 of the SDI Router to the SDI input of the SDI to UVC converter.

*No other SDI output than Ch. 1 is supported.

- PC and SDI to UVC converter setup

Connect the PC and the SDI to UVC converter with a USB cable.

When not using SDI Router

- Network connection for each device

Connect the PC and camera on the same network.

- Connection between the camera and the SDI to UVC converter

Connect the SDI output of the camera to SDI input of the SDI to UVC converter.

- PC and SDI to UVC converter setup

Connect the PC and the SDI to UVC converter with a USB cable.

Software setup

Set up the following in the software.

1. Open the Settings - System screen.
2. Set up the Image Capture Device item as follows.

SDI Router Address: When using SDI Router, enter the IP address of the SDI Router.

When not using SDI Router, leave blank.

USB Video Device: As the USB Video Class devices connected to the PC are displayed as a list, select the SDI to UVC converter device.

Resolution: Set the resolution to that of the USB Video Class image input from the SDI to UVC converter to the PC.

Frame Rate: Set the frame rate to that of the USB Video Class image input from the SDI to UVC converter to the PC.

3. Open the Settings - Camera screen.

4. Setup each camera you want to output SDI using the following procedure.

- 1) Click on the target camera in the Settings - Camera screen to select.
- 2) Click on the Edit button on the top right of the Settings - Camera screen and open the Edit Camera screen.
- 3) Select USB Video Device as the Image Capture Type.
- 4) (When using SDI Router) Set the SDI Channel No. of the Image Capture Type to the SDI input Ch. number of the SDI Router that is the SDI output destination of that camera.
- 5) Click on the OK button to exit the Edit Camera screen.

<Note>

- Leave the IP setting for the Image Capture Type item for cameras that do not output SDI.

Camera image display

After connecting and setting up each device, select the applicable camera on the MAIN screen of this software, and the image input from the SDI to UVC converter will be displayed in the PTZ camera image part.

Double-click the PTZ camera image section on the MAIN screen to display the image in full screen.

You can perform the following operations on the full-screen displayed image.

- Pan/Tilt the PTZ camera by clicking on the camera image

By clicking on the camera image, the PTZ camera performs Pan/Tilt operations so that the point you clicked is in the center of the screen.

- Pan/Tilt/Zoom the PTZ camera by specifying an area on the camera image

By clicking and dragging on the camera image, you can specify an area with a yellow box. When you stop dragging and fix the area, the PTZ camera performs Pan/Tilt/Zoom operations so that the specified area is displayed in a full screen.

- Zoom the PTZ camera by using the mouse wheel on the camera image

When the mouse cursor is on the camera image, you can zoom the PTZ camera by using the mouse wheel.

Check the following points if the image does not appear properly in the PTZ camera image part.

Problem: No image appears in the PTZ camera image part.

Action: Check that the SDI to UVC converter is properly identified by the PC, and that the SDI to UVC converter device is selected in the setting for Image Capture Device → USB Video

Problem: The image on the PTZ camera image part does not change even after changing the applicable camera on the MAIN screen.

Action: Check that the SDI Router is properly connected to the PC, and that the IP address of the SDI router is set correctly in the setting for Image Capture Device → SDI Router Address on the Settings - System screen.

Problem: Selecting an applicable camera on the MAIN screen displays an image from a different camera in the PTZ camera image part.

Action: Check that the SDI Router is properly connected to the PC, that the Image Capture Type settings are set to USB Video Device in the Settings - Camera screen, and that the Ch. number of the SDI Channel No. is the same as the SDI input Ch. number of the SDI Router which is the access point of the target camera.

Visual preset call feature

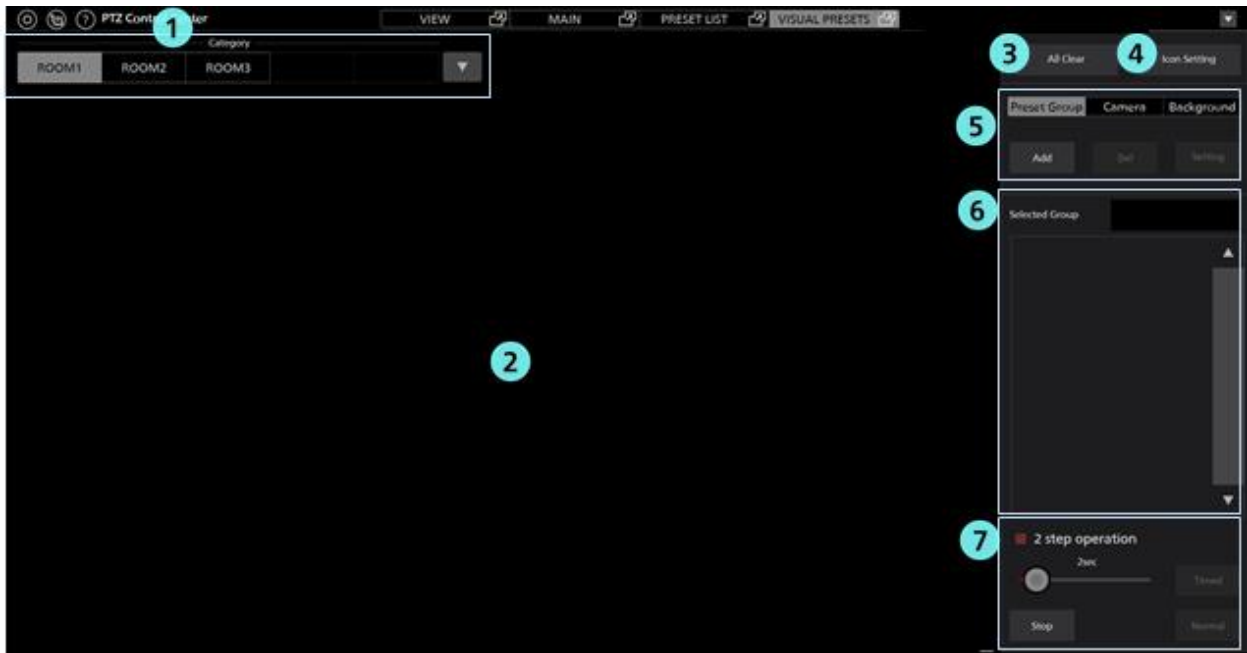
This feature makes it easy to call presets for multiple cameras at the same time.

You can assign presets for multiple cameras by placing the preset call icon anywhere on the screen.

To give an example of operation, you can set the icon of each member on the screen that shows a parliamentary hall, then click the icon of the member you want to pay attention to so that all cameras point to that member.

• Description of screens

Click the VISUAL PRESETS tab at the top of the screen to display the screen for this feature.



① Camera category selection field

A list of registered camera categories appears.

Select the camera category you want to configure/operate here.

② Icon placement area

You can place the camera icons and preset call icons in this area.

The set background image is also displayed here.

③ All Clear button

Clicking this button will clear all preset group icons, camera icons and background images on the screen.

④ Icon Setting button

Clicking this button will display the screen for setting the initial size of the camera icons and preset call icons.

⑤ Setting operation area

This area displays the preset call icons, camera icons, and buttons for setting a background image.

⑥ Preset call data display area

When a preset call icon is selected, a list of the assigned presets appears.

⑦ Preset call operation area

You can call the presets assigned to the selected preset call icon in this area.

• Flow when using this feature

The flow when using this feature is shown below.

1. Set the camera category (group) on the Setting - Category screen.
2. Select the camera category (group) for which you want to set this feature.
3. Set the background image you wish to display on the screen for this feature. (Optional)

4. Set the icon display size. (Optional)
5. Place the camera icon on the screen. (Optional)
6. Place the preset call icon on the screen.
7. Assign a camera preset to the preset icon you have placed.
Assign as many cameras as you need.
8. Repeat steps 6 and 7 to set up as many preset call icons as you need.
9. Click the preset call icon that you placed to call the presets of the assigned cameras all at once.

• Setting procedure for this feature

1. Camera category (group) settings

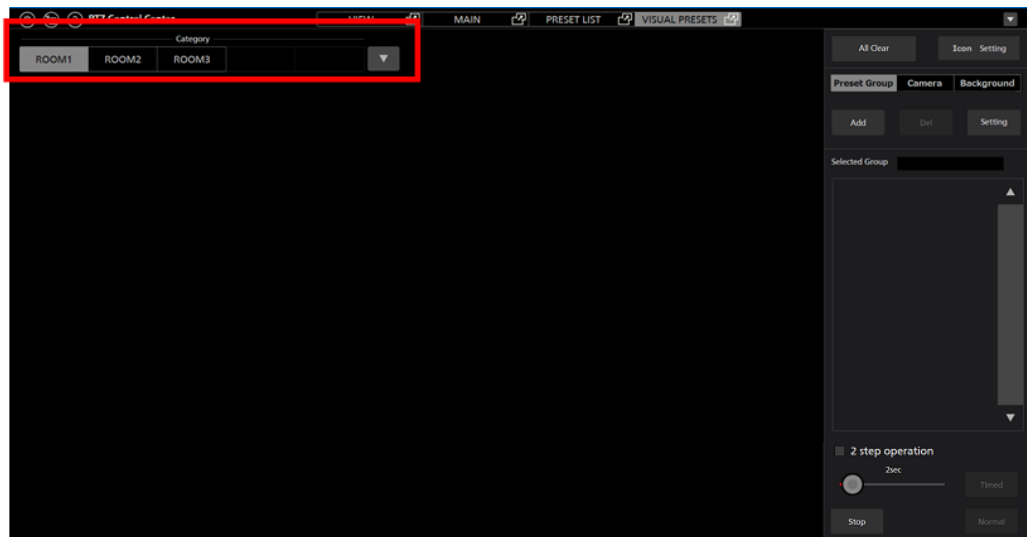
To use this feature, one or more camera categories (groups) must be set, so be sure to set the camera categories (groups) before using this feature.

For details on how to set the camera categories, refer to “Default Settings 2 - Category Settings of Camera” in this document.

2. Select the camera category (group) to be set

The settings of this feature (camera icon settings, preset call icon settings, background image settings) are stored for each camera category.

A list of camera categories set in “1. Camera category (group) settings” is displayed at the top left of the screen of this feature. Select the camera category you want to set from the list.

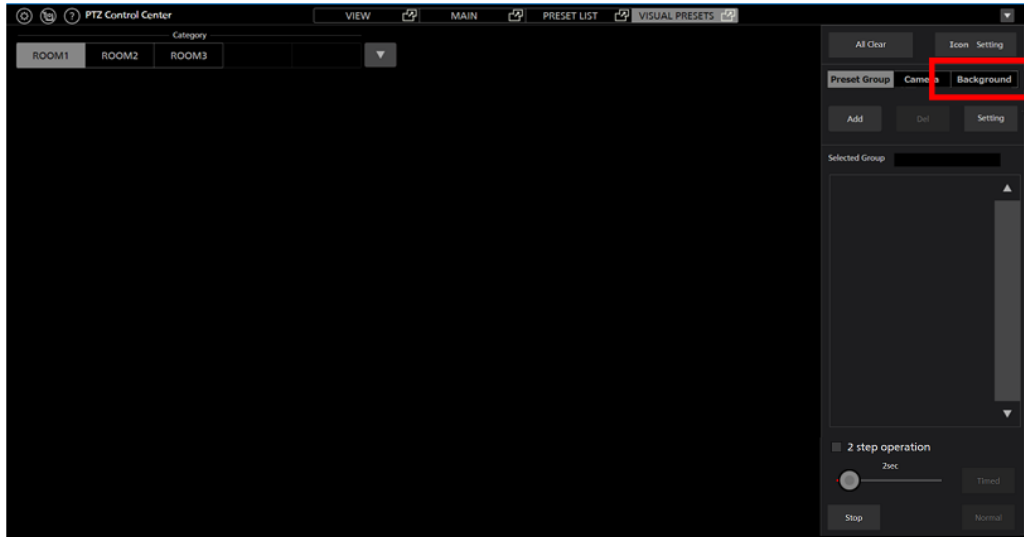


3. Background image settings (optional)

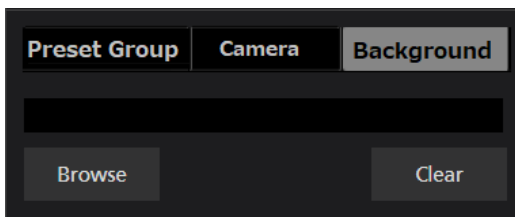
You can display a background image on the screen of this feature. Displaying a background image is not required, but by displaying one, you can use it as a guide for the positions when placing the camera icons and preset call icons.

Use the procedure below to configure the settings.

- 1) Click the “Background” tab in the setting operation area of this screen.



2) Click the Browse button and select the image to display. The image is displayed on the screen.



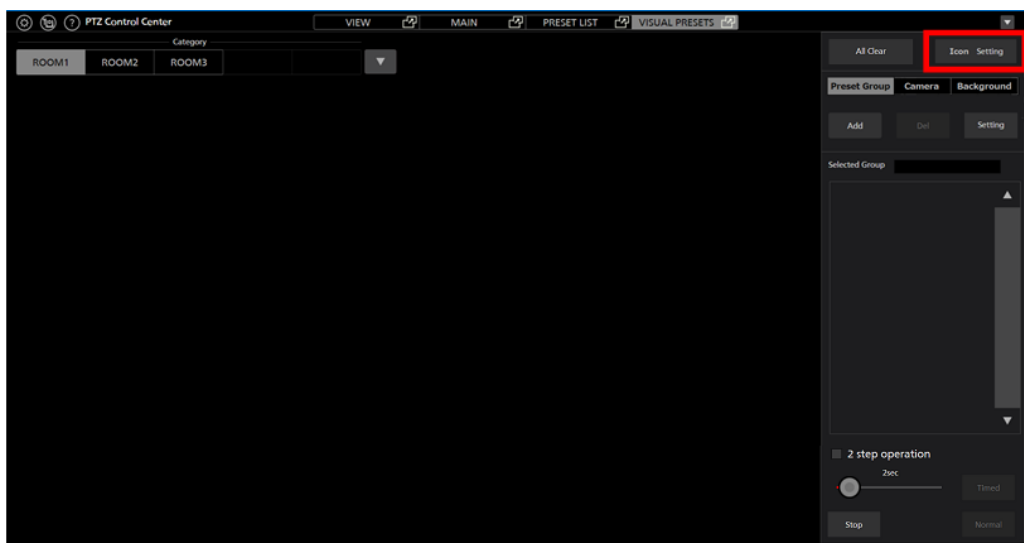
<Note>

- Click the Clear button to clear the image display.

4. Settings such as the size of the camera icon and preset call icon (optional)

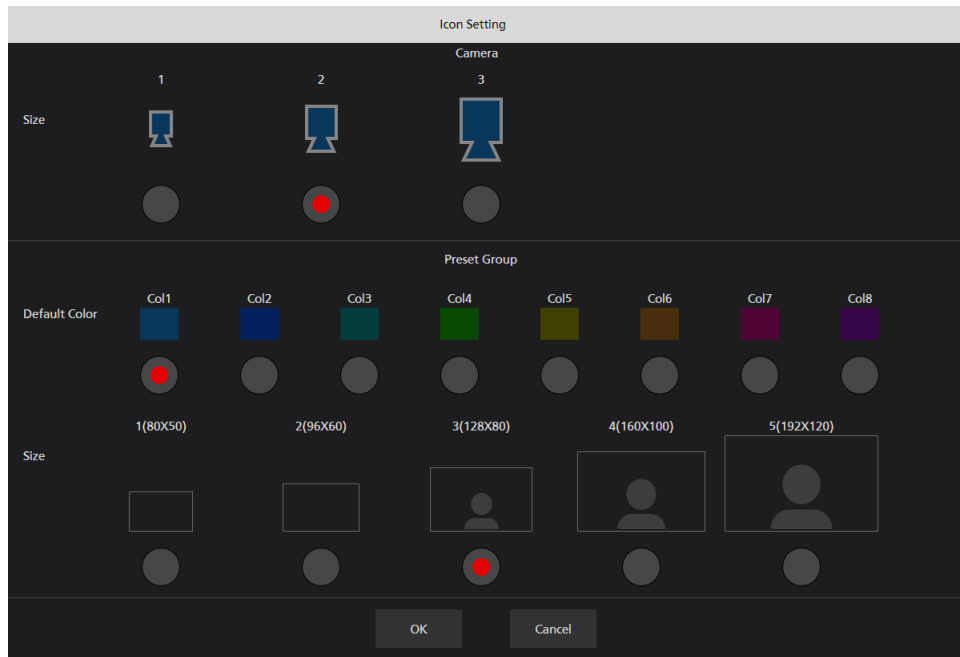
You can set the size of the camera icon, the size of the preset call icon, and the initial color when placing. Use the procedure below to configure the settings.

1) Click the “Icon Setting” button on this screen.



2) The Settings window appears. Configure the settings.

The size settings for the camera icons and preset call icons are also applied to the placed icons. The initial color settings for the preset call icons are only applied to newly added icons.

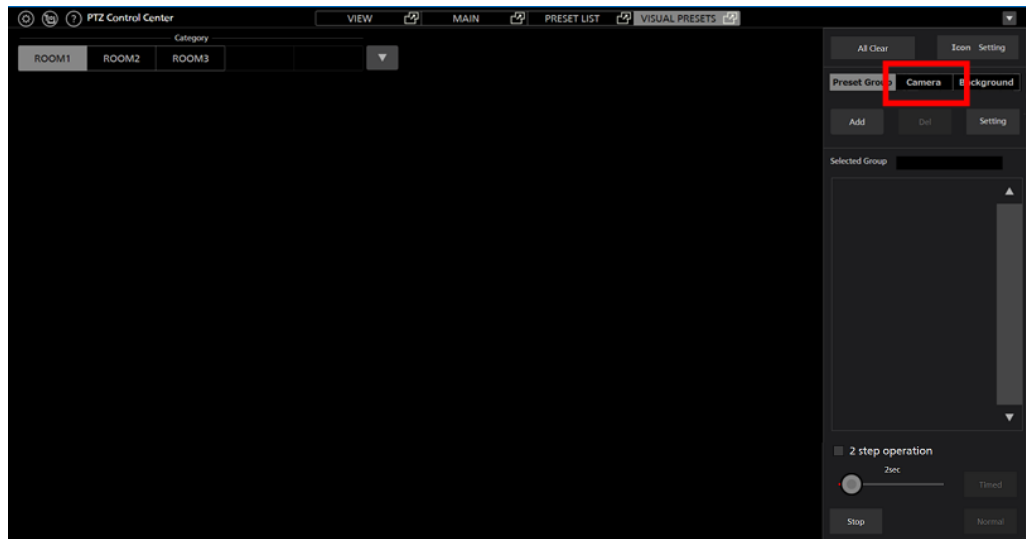


5. Placement of camera icons (optional)

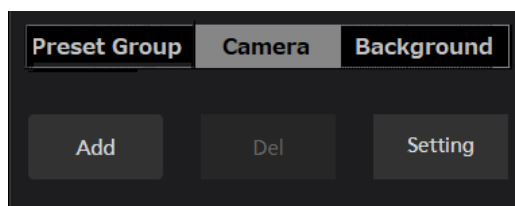
You can place camera icons anywhere on the screen. Placement is not required, but it makes it easier to visually understand where the cameras are located in space.

Use the procedure below for placement.

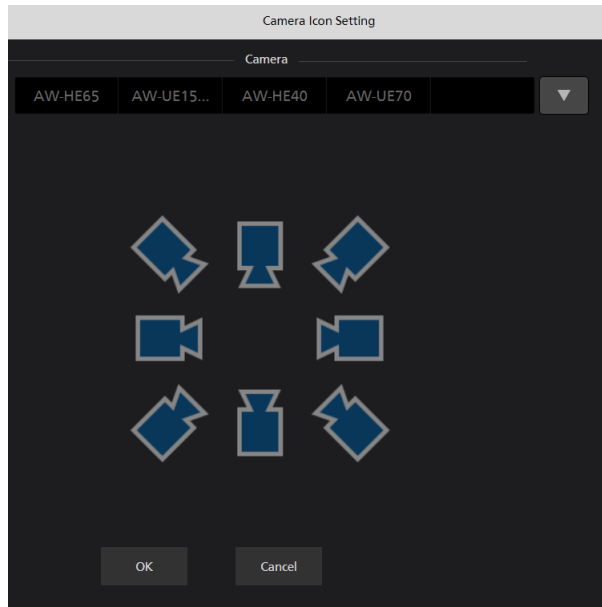
- 1) Click the “Camera” tab in the setting operation area of this screen.



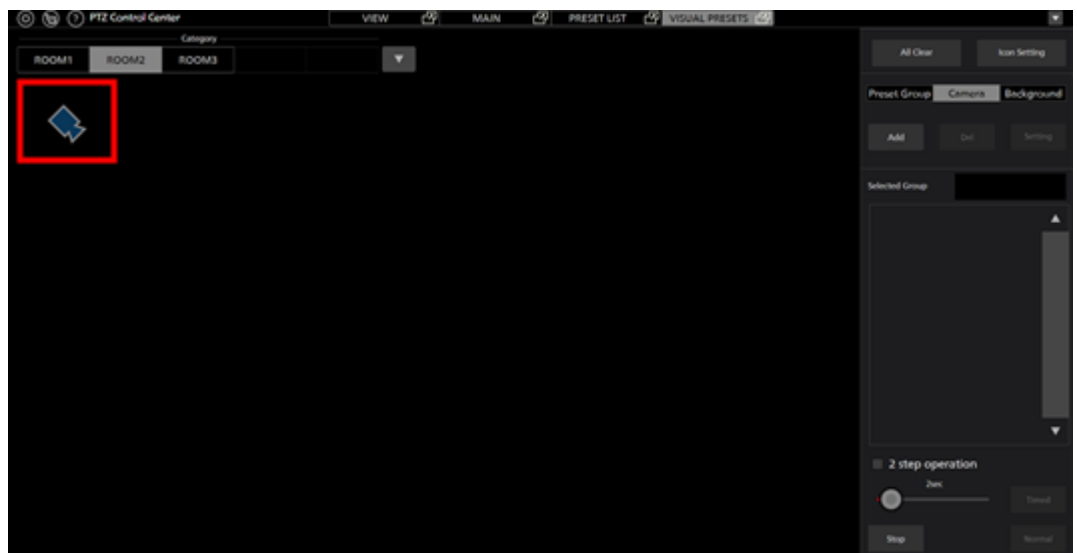
- 2) Click the Add button to display the Settings screen.



- 3) Select the cameras to be assigned to the camera icons and the icons to be used for display on the Settings screen, then click the OK button to add the camera icons on the screen.



4) You can change the positions of the placed camera icons by clicking and dragging them.



<Note>

- To delete a camera icon, click the icon and then click Del in the “Camera” tab in the setting operation area.
- To change the settings of the camera icon, click the camera icon and then click Setting in the “Camera” tab in the setting operation area.

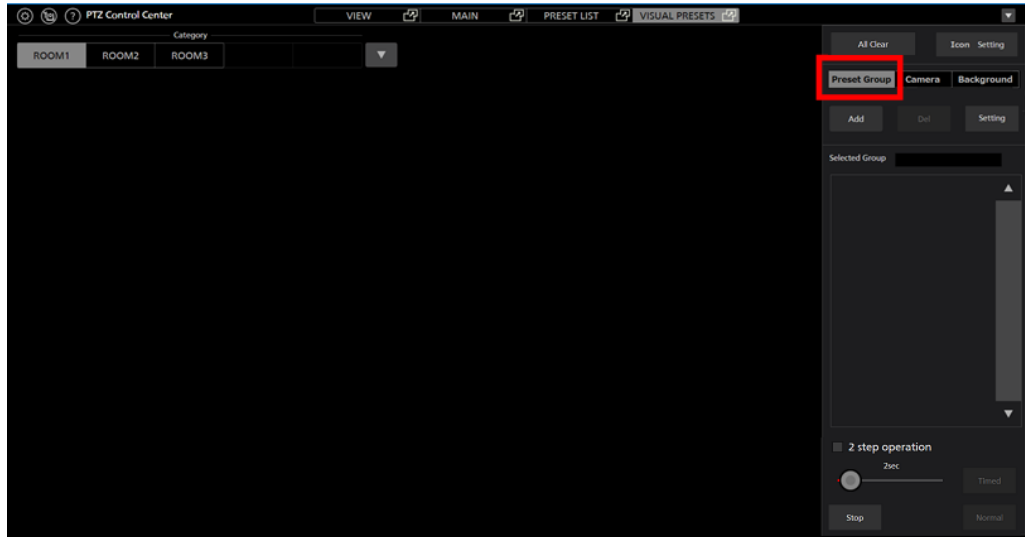
6. Placement of preset call icons

You can place preset call icons anywhere on the screen.

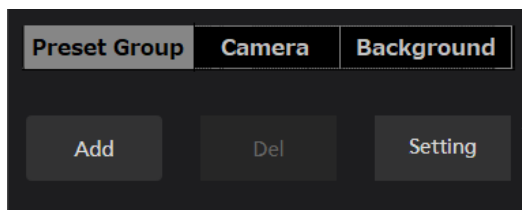
By assigning presets of cameras to a placed preset call icon, you can call the presets of multiple cameras at the same time when the icon is clicked.

Use the procedure below for placement.

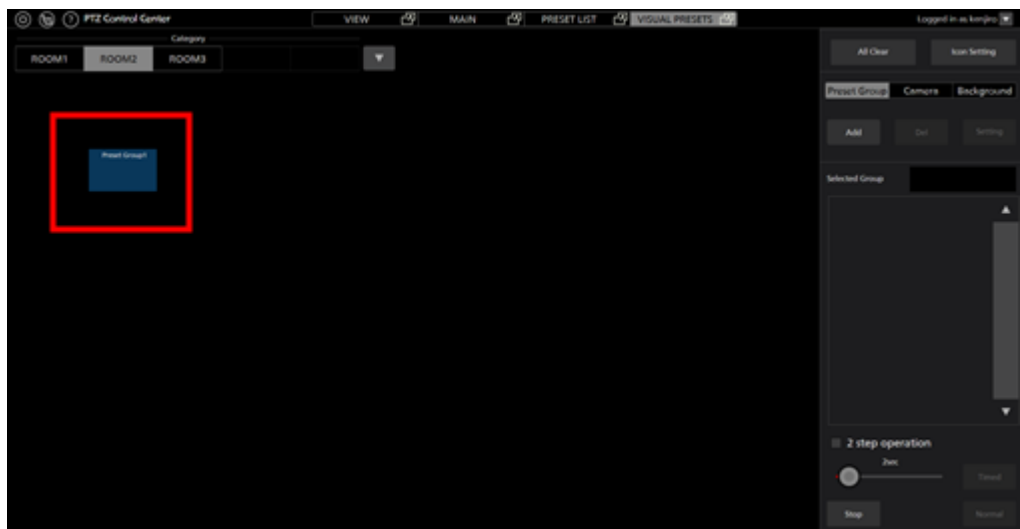
- 1) Click the “Preset Group” tab in the setting operation area of this screen.



2) Click the Add button to place a preset call icon on the screen.



3) You can change the positions of the placed preset call icons by clicking and dragging them.



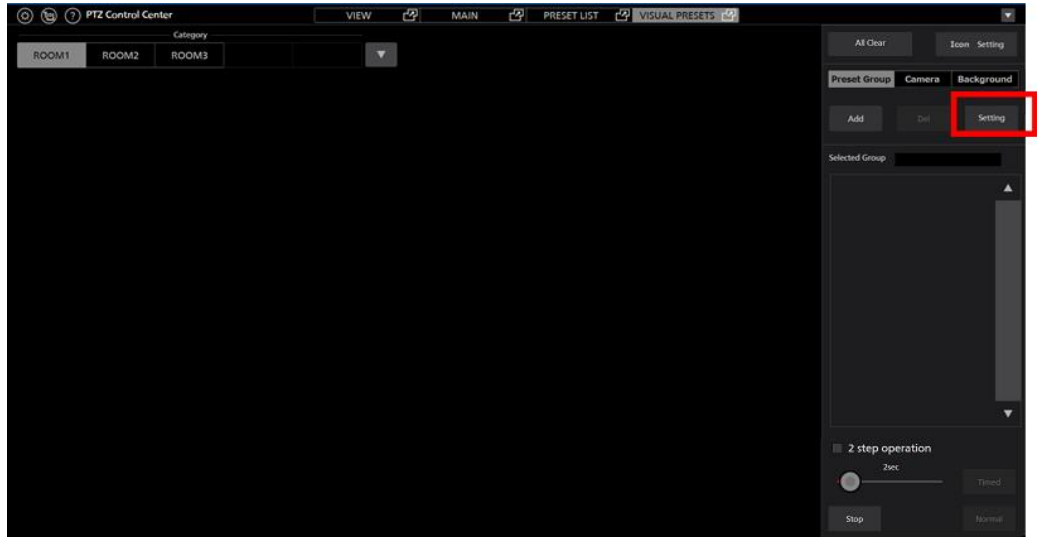
<Note>

- To delete a preset call icon, click the icon and then click Del in the “Preset Group” tab in the setting operation area.

7. Assigning camera presets to preset call icons

Use the procedure below to assign camera presets to placed preset call icons.

- 1) Click the preset call icon to be assigned to select it.
- 2) Right-click the preset call icon or click the Setting button in the “Preset Group” tab of the setting operation area to display the Settings screen.

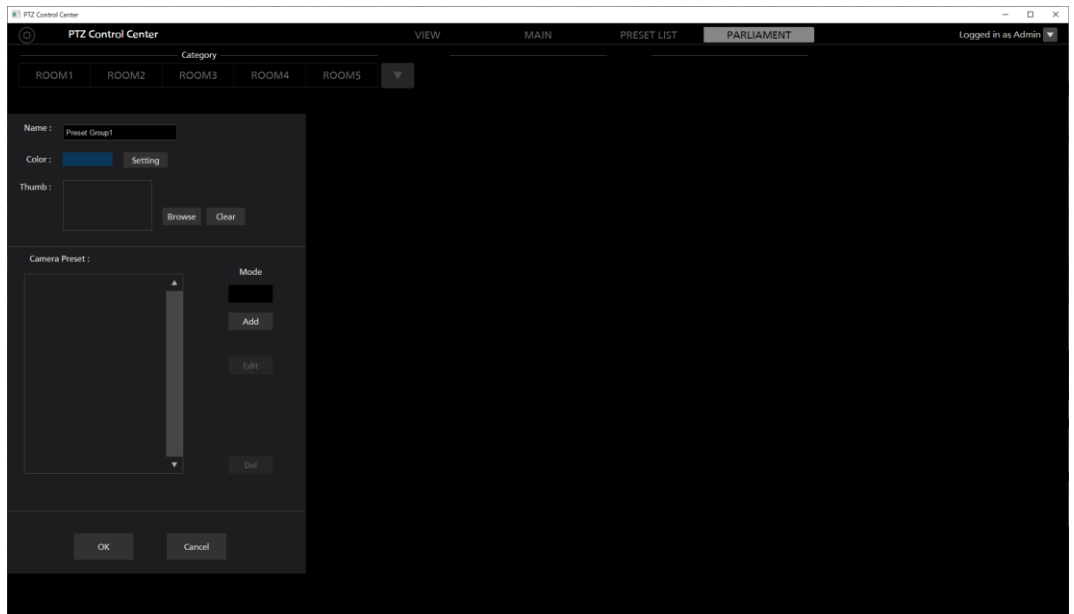


3) Configure the following settings on the Settings screen.

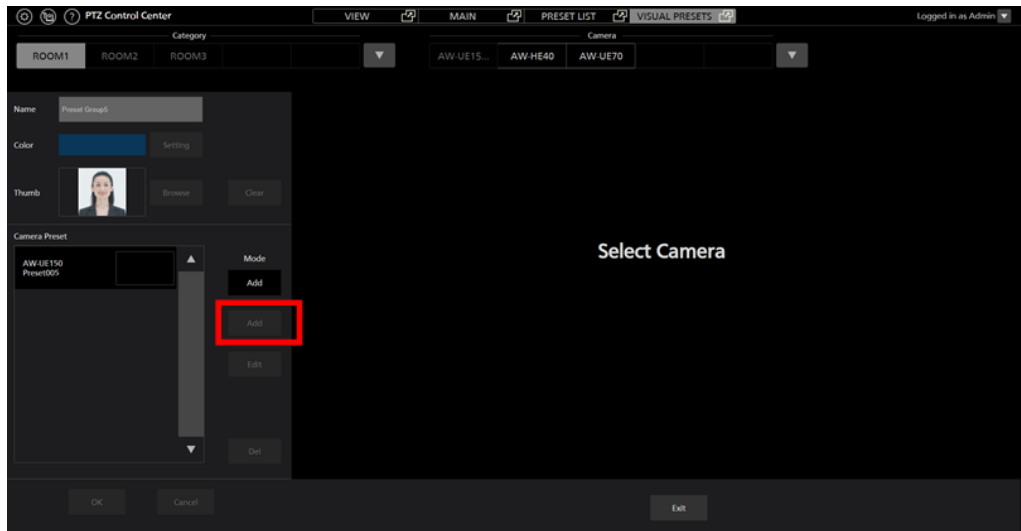
Name: Enter the display name of the preset call icon

Color: Select the display color of the preset call icon with the Setting button

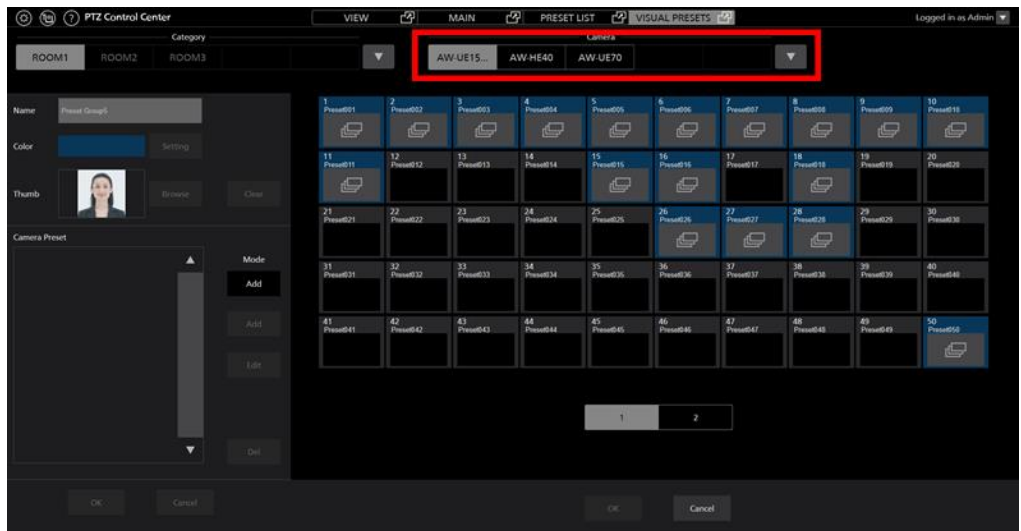
Thumb: Select the image to be displayed on the preset call icon with the Browse button



4) Click the Add button on the Settings screen to switch to camera selection mode. A list of cameras appears at the top center of the screen.

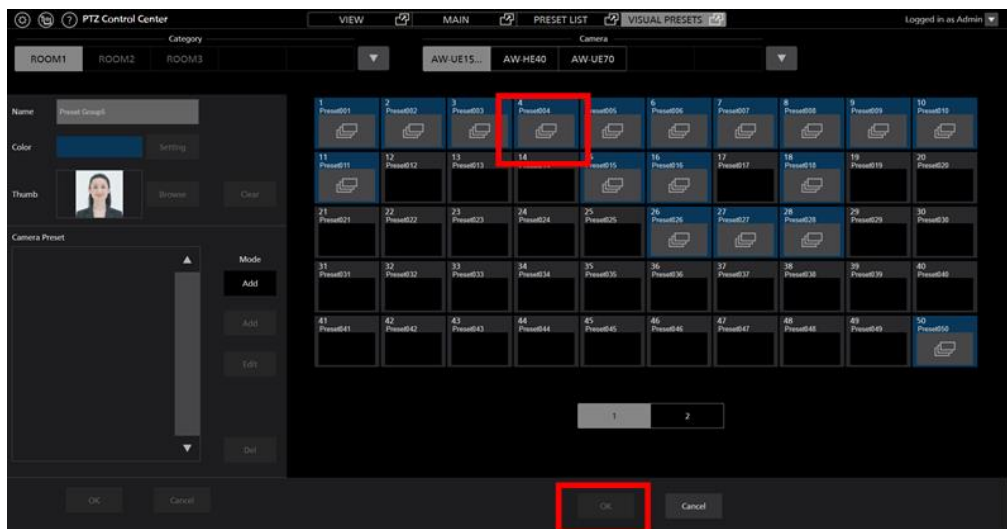


5) Click the camera to which you want to assign the preset in the camera list at the top center of the screen. A list of presets appears in the center of the screen.



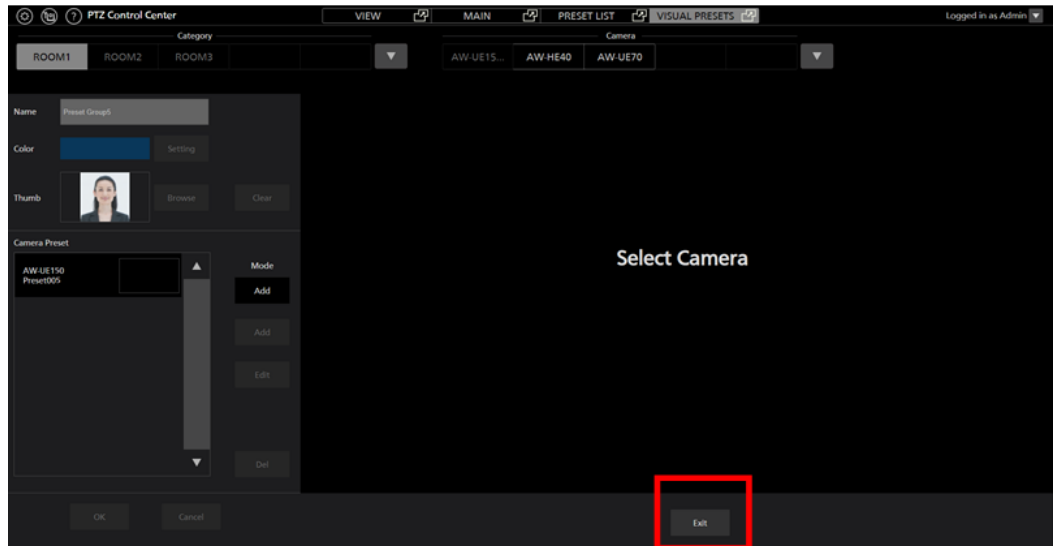
6) Click the preset you want to assign in the preset list to select it. Then click the OK button at the bottom of the screen to assign the preset.

The assigned presets are listed in the Camera Preset field on the left side of the screen.

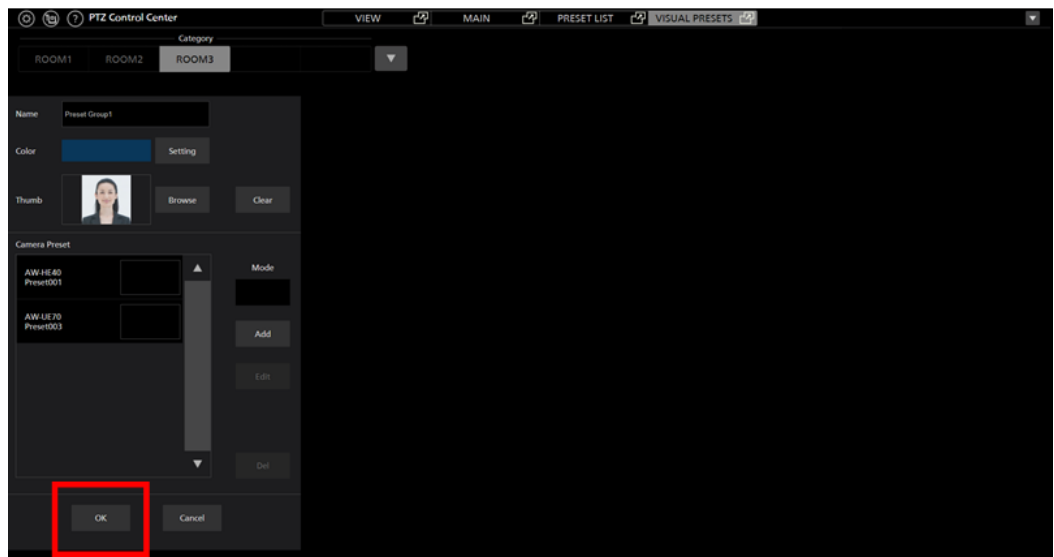


7) Repeat steps 5 and 6 for the number of cameras you want to assign presets to.

8) To finish the assignment, click the Exit button at the bottom center of the screen.



9) Click the OK button to close the Settings screen.



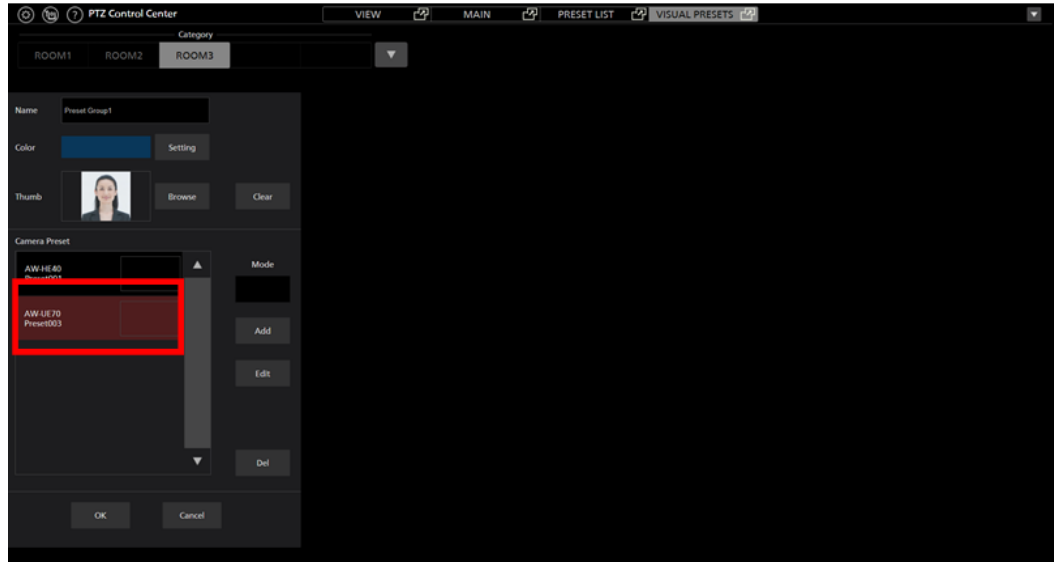
<Note>

You can instantly display the preset assignment screen by dragging a camera icon and dropping it on a preset call icon.

8. Change/delete a camera preset assigned to a preset call icon

Use the procedure below to change/delete presets assigned to a preset call icon.

- 1) Click the preset call icon to be assigned to select it.
- 2) Right-click the preset call icon or click the Setting button in the “Preset Group” tab of the setting operation area to display the Settings screen.
- 3) Select the preset you want to change/delete from the list of presets displayed in Camera Preset on the Settings screen.



4) To make changes, click the Edit button on the Settings screen to display the list of camera presets. Select the preset you want to change and click the OK button.

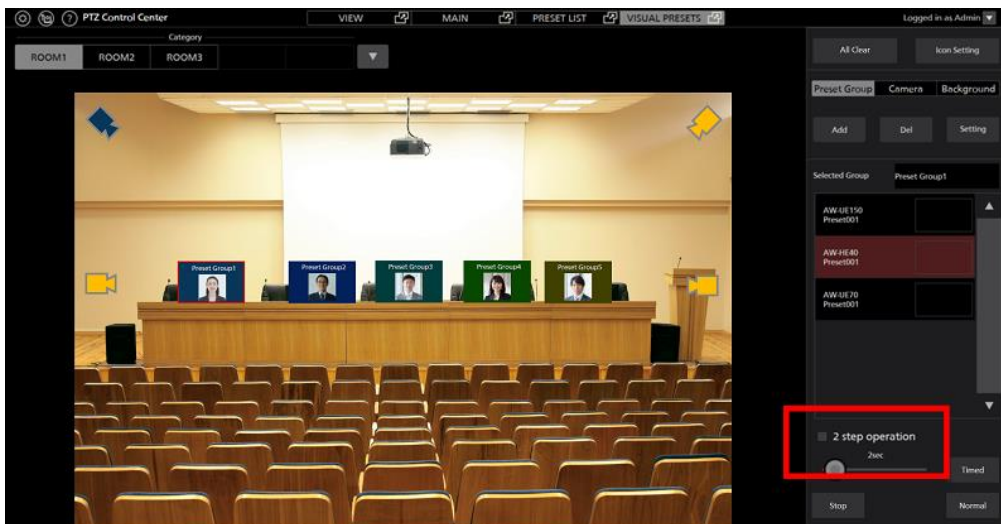
If you want to delete a preset, click the Del button on the Settings screen. When the confirmation message appears, click the OK button to delete it.

• Calling assigned presets

Use the procedure below to call the preset assigned to a preset call icon.

• To call presets immediately by clicking the preset call icon

1) Uncheck the “2 step operation” check box at the bottom right of the screen.



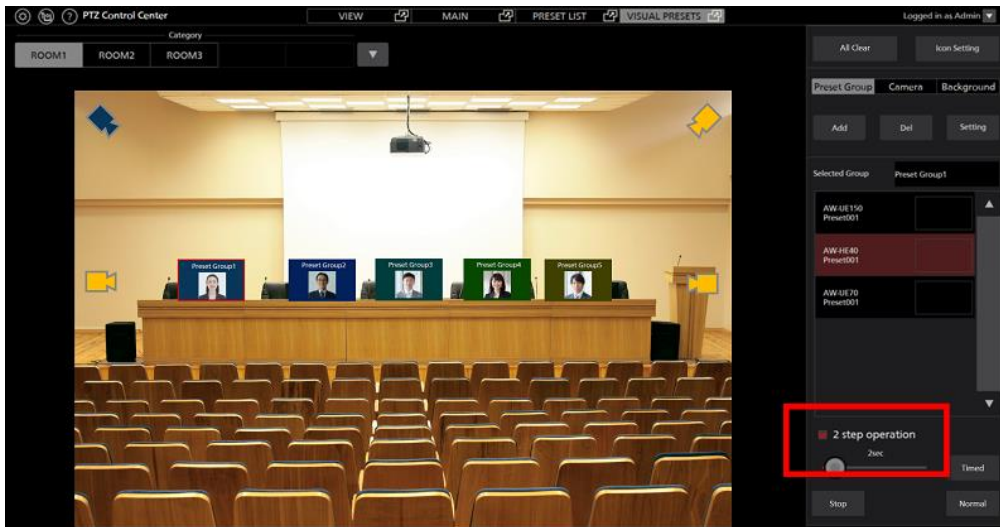
2) Click the preset call icon to call all assigned presets at the same time.

<Note>

When a preset is called, the movement speed of the camera depends on the Preset Speed setting of the camera when this software is launched.

- To call presets using another button operation after clicking the preset call icon

1) Check the “2 step operation” check box at the bottom right of the screen.



2) Click the Normal button or Timed button at the bottom right of the screen to call all assigned presets at the same time.

When clicking the Normal button:

The movement speed of all cameras depends on the camera's Preset Speed setting when this software is launched.

When clicking the Timed button:

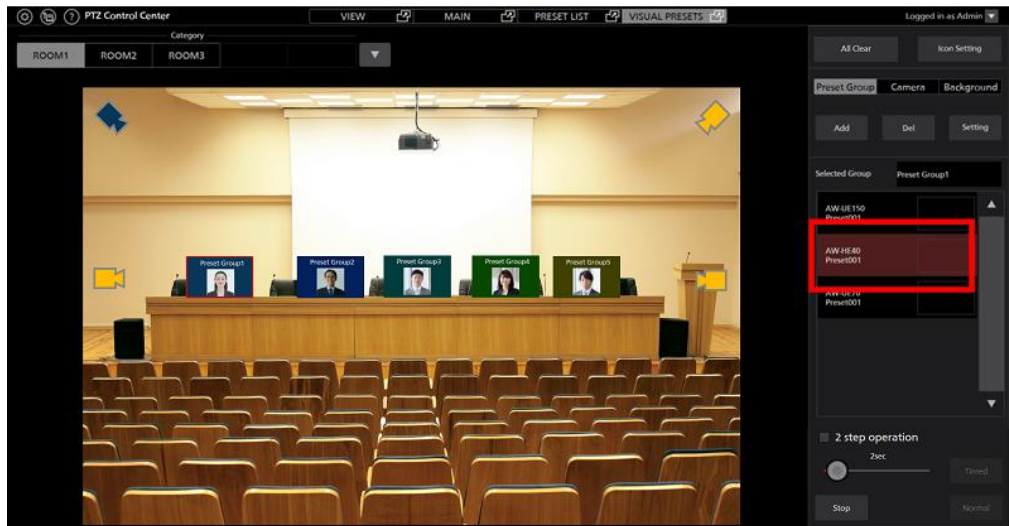
When the camera is AW-UE150/AW-UE100, preset call is completed in the time set by the slider next to the Timed button.

The movement speed of other cameras depends on the camera's Preset Speed setting when this software is launched.

• Fine adjustment operation after calling a preset

Use the procedure below to fine-tune the position of a specific camera after calling a preset.

- 1) Refer to the “Screen separation function” in this document and set the Main screen and this screen as separate windows.
- 2) From the list of camera presets displayed in Selected Group on the right side of the screen, click to select the camera preset you want to fine-tune.



- 3) The camera selected in step 2 is selected on the Main screen. Fine-tune the position using the camera controller.

Appendix

List of restrictions for each account privilege

The software has three types of account privileges, namely, Administrator/Super User/User. There are restrictions on the functions that can be used by privileges other than Administrator.

Functions marked with ○ in the following table are functions that can be used, and functions marked with × are functions that cannot be used.

	Administrator	Super User	User
View screen			
Cameras that can be operated	All	All	Permitted cameras only
Refine camera display	○	○	○
Change the number of thumbnails	○	○	○
Show help file	○	○	○
Show Setting screen	○	○	×
Main screen			
Cameras that can be operated	All	All	Permitted cameras only
Refine camera display	○	○	○
Change the number of thumbnails	○	○	○
Show help file	○	○	○
Show Setting screen	○	○	×
Top screen operation	○	○	○
Bottom screen operation	○	○	○
Preset List screen			
Set	○	○	×
Rename	○	○	×
Del	○	○	×
Rearrange	○	○	×
Reset	○	○	×
Timed	○	○	○
Normal	○	○	○
Stop	○	○	○

Visual Presets screen				
Icon Setting		○	○	×
All Clear		○	○	×
Background setting/clear		○	○	×
Preset Group setting (Add, Del, Setting)		○	○	×
Change camera icon position		○	○	×
Edit camera icon		○	○	×
Delete camera icon		○	○	×
Preset Group icon Position change		○	○	×
Preset Group icon Edit		○	○	×
Preset Group icon Delete		○	○	×
Timed		○	○	○
Normal		○	○	○
Stop		○	○	○
Setting screen				
Category setting		○	○	×
Camera setting		○	×	×
User setting		○	×	×
Data Migration setting		○	×	×
Joystick setting		○	×	×
System setting		○	×	×
Plugin setting		○	×	×
Camera controller				
PTZ operation	Pan/Tilt speed control	○	○	○
	Pan/Tilt control	○	○	○
	Zoom	○	○	○
Preset operation	Name setting	○	○	×
	Registering a position	○	○	×
	Calling a position	○	○	○
	Deleting name and position	○	○	×
Image quality adjustment	Focus	○	○	○
	Iris	○	○	○
	Gain	○	○	×
	WhiteBalance	○	○	×
	ShutterSpeed	○	○	×
	ND Filter	○	○	×
Other	Start/Stop SD recording	○	○	○
	User Button	○	○	×
	Display camera web screen	○	○	○
Simultaneously control multiple cameras		○	○	○

Uninstallation procedure

1. Select "Program and functions" from the control panel of Windows.
2. Selecting "Panasonic PTZ Control Center" from the list of programs and clicking "Uninstall" will show the confirmation screen.
3. Clicking "Yes" on the confirmation screen will uninstall the software.

Software information concerning this product

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).
2. Software licensed in accordance with the OpenBSD License is included in this software.
3. Software licensed in accordance with the BSD License is included in this software.

By downloading, copying, installing or using the software you agree to this license.
If you do not agree to this license, do not download, install,
copy or use the software.

License Agreement
For Open Source Computer Vision Library
(3-clause BSD License)

Redistribution and use in source and binary forms, with or without modification,
are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice,
this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice,
this list of conditions and the following disclaimer in the documentation
and/or other materials provided with the distribution.
- * Neither the names of the copyright holders nor the names of the contributors
may be used to endorse or promote products derived from this software
without specific prior written permission.

This software is provided by the copyright holders and contributors "as is" and
any express or implied warranties, including, but not limited to, the implied
warranties of merchantability and fitness for a particular purpose are disclaimed.
In no event shall copyright holders or contributors be liable for any direct,

indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

FFmpeg

- License information

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be

consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating

system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated

interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses

the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2,

instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file

that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that

uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally

accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the

Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR

PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

- source code

You can download the source code from the following URL.

https://www.pass.panasonic.co.jp/pro-av/support/content/download/EN/ep2main/ptzctl_e.htm