Operating Instructions

Video Surveillance Software

Model No. WV-ASM300, WV-ASM300W

Extension Software

Model No. WV-ASE202, WV-ASE203
WV-ASE204, WV-ASE205
WV-ASE231, WV-ASE306
WV-ASE202W, WV-ASE203W
WV-ASE204W, WV-ASE205W
WV-ASE231W, WV-ASE306W

Concurrent User License Kit

Model No. WJ-NXC05W

This document is converted from the help file included in the product.
It is an unofficial manual and the file is not included in the product.
The model number is abbreviated in some descriptions in this manual.
This manual describes the software version 6.00.

CONTENTS

1. Preface ····· 8
1.1. About the user manual ····· 8
1.2. Preface ····· 8
1.3. System configuration diagram ····· 9
1.4. System specifications ····· 9
1.5. Compatible devices ····· 11
1.5.1. Compatible recorders ····· 11
1.5.2. Compatible encoder ····· 12
1.5.3. Compatible cameras ····· 12
1.5.4. Compatible microphones ····· 19
1.5.5. Compatible decoder (The license for the WV-ASE204 is required) ····· 20
1.5.6. Compatible system controller ····· 20
1.6. Features ····· 20
1.7. Standard accessories ····· 21
1.8. System requirements ····· 21
1.9. Recommended camera settings when monitoring MPEG-4, H.264 or H.265 images ····· 24
1.9.1. Recommended camera setup ····· 24
1.9.2. Restrictions ····· 25
1.10. Restriction when using Smart Coding ····· 27
1.11. About use of open source software ····· 27
1.12. License ····· 30
1.13. Trademarks and registered trademarks ····· 31
1.14. Abbreviations ····· 31
1.15. Precautions for use ····· 31
1.15.1. Transfer/disposal ····· 31
1.16. Document convention ····· 32
2. Preparation ····· 41
2.1. From installation to start operation ····· 41
2.2. Installation/uninstallation ····· 43
2.2.1. Installation ····· 43
2.2.2. Uninstallation ····· 44
2.3. Launching and terminating this software ····· 45
2.3.1. Launch this software ····· 45
2.3.2. Login/Logout ····· 49
2.3.3. Terminating this software ····· 54
2.4. Upgrade this software ····· 55
2.5. ASM300 main screen description ····· 55
2.5.1. Title bar ····· 56
2.5.2. Tab and Window ····· 59
2.5.3. Set the display magnification ····· 61
2.6. Operation window description ····· 63
2.6.1. Tool bar ····· 65
2.6.2. Status bar ····· 67
2.6.3. Function panel ····· 70
2.6.4. Pop-up menu ····· 71
2.6.5. Information display area ····· 78
2.6.6. Operation panel ····· 79
2.6.7. Display/Hide the function panel and the operation panel ····· 93

2.6.8. Alarm/event notification message ····· 94
2.6.9. License registration message ····· 95
2.6.10. Failover notification message ····· 95
3. Setup Instructions ····· 96
3.1. Setup window description ····· 96
3.2. Settings relating to the system ····· 101
3.2.1. Basic setup ····· 101
3.2.2. Drawing and audio setup ····· 105
3.2.3. 3D Dewarp setting ····· 112
3.2.4. GUI display setup ····· 116
3.2.5. Layout setup ····· 118
3.2.6. Performance ····· 121
3.2.7. Timeline ····· 122
3.2.8. Directory Service ····· 124
3.2.9. Recorder HDD analysis information acquisition ····· 125
3.2.10. Performance monitoring setting ····· 126
3.2.11. Text display setting ····· 127
3.3. Settings relating to the device management ····· 128
3.3.1. Restriction when setting device ····· 130
3.3.2. Initial setup ····· 132
3.3.3. Advanced setup ····· 141
3.3.4. Device setup ····· 193
3.3.5. External device connection ····· 243
3.4. Settings relating to the user management ····· 250
3.4.1. Basic setup ····· 250
3.4.2. Administrator setup ····· 252
3.4.3. User level setup ····· 253
3.4.4. User setup ····· 256
3.5. Settings relating to folder ····· 267
3.5.1. Add a folder ····· 267
3.5.2. Edit a folder ····· 270
3.5.3. Delete a folder ····· 275
3.5.4. Change the order of the folder list ····· 275
3.6. Settings relating to group ····· 278
3.6.1. Register a group ····· 278
3.6.2. Edit group information ····· 284
3.6.3. Delete a group ····· 284
3.6.4. Manage groups with folders ····· 285
3.6.5. Change the order of the group list ····· 287
3.7. Settings relating to sequence ····· 290
3.7.1. Register a sequence ····· 290
3.7.2. Edit a sequence ····· 294
3.7.3. Delete a sequence ····· 294
3.7.4. Manage sequences with folders ····· 295
3.7.5. Change the order of the sequence list ····· 297
3.8. Settings relating to the default screen ····· 300
3.8.1. Operation window ····· 300
3.8.2. Live window ····· 302
3.9. Settings relating to map ····· 303
3.9.1. Register a map ····· 303
3.9.2. Edit the map ····· 308

3.9.3. Delete the map ····· 308
3.9.4. Change the order of the map list ····· 309
3.9.5. Change the order of the set list ····· 309
3.9.6. Change the settings for the camera icon ····· 310
3.9.7. Change the map image display magnification ····· 313
3.10. Settings relating to the face search ····· 313
3.10.1. Add a facial recognition server ····· 313
3.10.2. Correct the facial recognition server ····· 320
3.10.3. Delete the facial recognition server ····· 320
3.10.4. Configure the behavior setting of the face search ····· 321
3.10.5. Register a category name ····· 322
3.10.6. Edit the registered category name information ····· 324
3.10.7. Delete the registered category name ····· 325
3.11. Settings relating to AI camera ····· 325
3.12. Settings relating to the event action ····· 328
3.12.1. Alarm setting ····· 329
3.12.2. Alarm action ····· 331
3.12.3. Error ····· 340
3.13. Settings relating to the communication ····· 341
3.13.1. Basic setup ····· 341
3.13.2. TCP alarm notification reception ····· 342
3.13.3. Secure communication setup ····· 342
3.14. Settings relating to the controller ····· 344
3.14.1. Basic setup ····· 344
3.14.2. Set a camera number ····· 345
3.14.3. Set a group number ····· 348
3.14.4. Set a sequence number ····· 351
3.14.5. Set a customized key ····· 354
3.15. Settings relating to maintenance ····· 359
3.15.1. Display version information ····· 359
3.15.2. Display/save an application log ····· 359
3.15.3. Recorder log ····· 371
3.15.4. Automatically delete operation logs ····· 376
3.15.5. Save/load/initialize the setup data and initialize logs ····· 377
3.15.6. Save/load/initialize the timeline data ····· 381
3.15.7. Save/load/initialize the recorder HDD analysis information ····· 383
3.16. Settings relating to the license registration ····· 385
3.16.1. Add a license ····· 386
3.17. Exceptional settings of Windows Firewall ····· 388
3.18. Set the installation method of fisheye cameras ····· 392
3.18.1. When installing on a ceiling ····· 392
3.18.2. When installing on a table ····· 394
3.18.3. When installing on a wall ····· 395
4. Operating Instructions ····· 396
4.1. Use the operation window ····· 396
4.1.1. Search for registered device name, folder name, group name, sequence name and download target device name ····· 397
4.1.2. Confirm the registered devices ····· 400
4.1.3. Monitor images from the selected camera ····· 408
4.1.4. Use the fisheye image display change function ····· 418
4.1.5. Use the 3D Dewarp function ····· 423

4.1.6. Use cropping function ····· 430
4.1.7. Display images from the cameras registered as a group (group display) ····· 434
4.1.8. Configure the user's group ····· 438
4.1.9. Switch groups automatically and display images from each group sequentially (sequence)443
4.1.10. Device operation ····· 445
4.1.11. Camera image pan/tilt operation ····· 447
4.1.12. Camera image zoom operation ····· 449
4.1.13. Set the preset position name ····· 454
4.1.14. Set the AUX terminal name ····· 455
4.1.15. Record/Play using a recorder ····· 457
4.1.16. Management of logs ····· 464
4.1.17. Save a still picture ····· 469
4.1.18. Print ····· 471
4.1.19. Display/edit text information ····· 473
4.2. Use the SD log display/playback window ····· 474
4.2.1. Download recorded images ····· 475
4.2.2. Playback of images recorded on the SD memory card ····· 479
4.3. Use the live window ····· 481
4.3.1. How to launch the live window ····· 481
4.3.2. Live window description ····· 483
4.3.3. Display images from cameras registered as a group using the function panel/Display images while switching groups automatically ····· 488
4.3.4. Search for group name/sequence name ····· 488
4.4. Use the map window ····· 490
4.4.1. How to launch the map window ····· 490
4.4.2. Map window description ····· 491
4.4.3. Display live images from the map window ····· 499
4.4.4. Switch maps ····· 499
4.4.5. Search for a camera icon on a map ····· 500
4.4.6. Search for a map/camera name ····· 501
4.5. Use the search window ····· 503
4.5.1. REC event search ····· 503
4.5.2. VMD search ····· 513
4.5.3. Thumbnail search ····· 519
4.6. Use the visibility enhancement function ····· 526
4.6.1. Enhance images ····· 526
4.6.2. Customize the user settings ····· 533
4.6.3. In the following cases ····· 541
4.7. Use the face search monitor ····· 542
4.7.1. Search face ····· 543
4.7.2. Check the alarm notification ····· 552
4.7.3. Search the alarm notification ····· 558
4.7.4. Set area ····· 566
4.7.5. Search for designated people ····· 572
4.7.6. Check the details of people search ····· 576
4.7.7. Register a face for the alarm notification ····· 578
4.7.8. Register 2 or more face images of a same person ····· 595
4.7.9. Display the statistical graphics of age/gender/head-count ····· 601
4.7.10. Change the display setting (Hide the display) ····· 605
4.8. Use the heat map display function ····· 605
4.8.1. Precautions ····· 605

4.8.2. Use the heat map function ····· 606
4.8.3. Use people count function ····· 611
4.8.4. Set the heat map/people count functions ····· 618
4.9. Control a decoder ····· 621
4.9.1. Select a decoder ····· 621
4.9.2. Switch the screen pattern of the decoder ····· 623
4.9.3. Display live images using the decoder ····· 623
4.9.4. Start the audio output from the camera ····· 623
4.9.5. Stop the audio output from the camera ····· 624
4.9.6. Display recorded images using the decoder ····· 624
4.10. Use the download function ····· 625
4.10.1. Download recorded images ····· 625
4.10.2. Download while playing recorded images ····· 635
4.10.3. Download using the search panel ····· 635
4.10.4. Use the quick download ····· 635
4.10.5. About the downloaded files ····· 636
4.10.6. Operate the downloaded file ····· 637
4.11. Use the viewer software ····· 644
4.11.1. Install the viewer software ····· 645
4.11.2. Uninstall the viewer software ····· 645
4.11.3. How to use the viewer software (NX_Viewer) ····· 645
4.12. Alarm/event notification ····· 650
4.12.1. Alarm/event notification message ····· 651
4.12.2. Alarm mode display of the live window ····· 655
4.12.3. Alarm mode of the map window ····· 660
4.13. Performance monitoring warning message ····· 660
5. System controller ····· 663
5.1. Set a system controller (CU950) ····· 663
5.1.1. MODE Switch Setting ····· 663
5.1.2. Set a controller number ····· 663
5.1.3. Network Setting ····· 664
5.2. Set a system controller (CU980) ····· 665
5.2.1. Network Setting ····· 665
5.3. Operation using the system controller ····· 668
5.3.1. Basic ····· 668
5.3.2. Operation of cameras ····· 673
5.3.3. Operation of a recorder ····· 675
6. Concurrent User License Kit (WJ-NXC05W) ····· 676
6.1. Precautions ····· 676
6.1.1. Functions of “Concurrent User License Kit” ····· 677
6.1.2. From installation to start operation ····· 677
6.2. Setting relating to the license recorder ····· 678
6.2.1. Local login (setup window) ····· 678
6.2.2. Recorder setup ····· 680
6.2.3. Communication setup ····· 687
6.2.4. Registration of license ····· 689
6.3. Login to this software with Concurrent User License ····· 692
7. Troubleshooting ····· 693
8. Displayed messages and solutions ····· 704
8.1. When this software is launched ····· 704
8.2. When the [OK] button on the login window is clicked ····· 705

8.3. When the [OK] button on the "Change password" window is clicked ····· 706
8.4. When the [Go to date] button on the "Quick playback" panel is clicked ····· 706
8.5. When the [Download] button on the "Download" panel is clicked ····· 707
8.6. When the [OK] button is clicked on the “Select folder” window ····· 707
8.7. When the [Audio transmission] button is clicked ····· 708
8.8. When an error occurred ····· 708
8.9. When the [Image display] button on the VMD search tab is clicked ····· 708
8.10. When the [List/Play] button of the [SD] tab page is clicked or when [Event] ([Alarm], [Manual/Schedule]) on the playback window is selected ····· 708
8.11. When the [Set] button is clicked ····· 710
8.12. When the [Delete] button is clicked ····· 711
8.13. When downloading the device information ····· 712
8.14. When the live image source is selected on the "Camera setup" window ····· 714
8.15. When the [OK] button on the camera setup page is clicked ····· 714
8.16. When dragging and dropping the icon on the map creation window ····· 715
8.17. When the [Download] button on the "Recorder log" window is clicked ····· 715
8.18. When the [Save] button on the "Save As" window is clicked ····· 716
8.19. When determined the entered number on the setting pages of "Controller" ····· 716
8.20. When using File conversion ····· 717
8.21. When the [Load] button is clicked ····· 717
8.22. When an error for the security certificate occurred ····· 718
8.23. When launching the browser from the right-click menu on the device tree ····· 718
8.24. When monitoring performance ····· 719

1. Preface

1.1. About the user manual

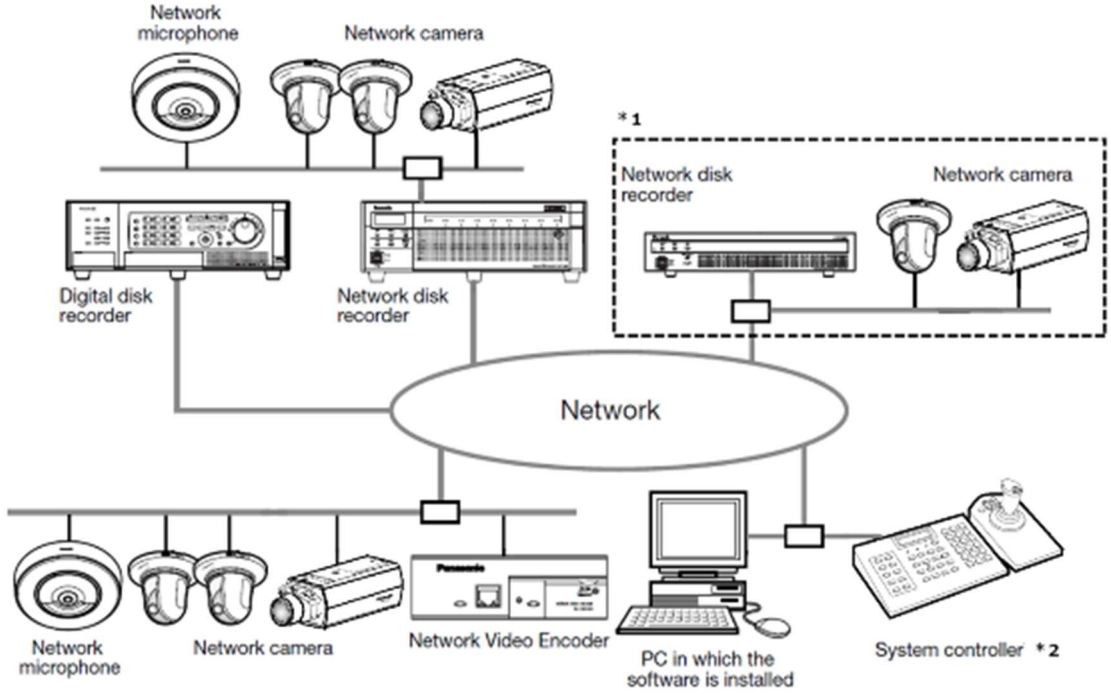
- This document refers WVASE202 and WVASE202W as WVASE202, WVASE203 and WVASE203W as WVASE203, WVASE204 and WVASE204W as WVASE204, WVASE205 and WVASE205W as WVASE205, WVASE231 and WVASE231W as WVASE231, WVASE306 and WVASE306W as WVASE30
- The descriptions in the following pages are based on the assumption that Microsoft® Windows® 10 Professional runs on a PC. Operation windows may not be the same as those appearing on the pages when a different OS is used or different settings are applied. When using other OS, refer to the operating instructions of the respective OS.
- This manual explains using this software outside Japan. When using this software in Japan, please read the instruction manual for Japan.

1.2. Preface

Video Surveillance Software WV-ASM300 series (hereinafter, this software) is designed for integrated management of multiple devices (Refer to "☞1.4. System specifications” for the maximum number of registration of each device.) of Panasonic Connect/i-PRO network disk recorders and digital disk recorders (hereinafter, recorder (s)), network interface units (hereinafter, encoder (s)), network cameras (hereinafter, camera (s)) connected to a LAN (Local Area Network, hereinafter, network), and runs on Microsoft® Windows® operating system. Refer to "☞ 1.5. Compatible devices) for the devices compatible with this software.

By using this software on a personal computer (hereinafter PC) via a network, it is possible to display live images of the cameras on monitors, to play audio from microphones on a PC, to play images and audio stored on the recorder, and to download image files to the hard disk drive of the PC.

1.3. System configuration diagram



*1 When a system that is surrounded by the dash-lines in the above diagram is configured, it is possible to directly monitor images from cameras that is connected to recorders without processing through recorders. In this case, check and set the following items.

- Register cameras in the recorder.
- The recorder should be used with a single port.

*2 A system controller is to be purchased separately.

Important:

- Do not use cross cables to connect the PC and each device.
- When connecting multiple system controllers, operation of this software is not guaranteed.

1.4. System specifications

- Number of recorder registration: Up to 100 recorders
- Number of encoder registration: Up to 64 encoders
- Number of camera registration: Up to 256 cameras
- Number of microphone registration: Up to 256 microphones
- Number of user registration: Up to 32 users
- Number of user levels: 6 levels
- Number of group registration:
- Number of sequence registration: Up to 20 sequences (Up to 64 steps can be registered per sequence)
- Number of map registration: Up to 100 maps (Up to 128 camera icons can be assigned on a map, up to 20 registered map icons can be used. The file size shall be less than 10 MB. Available file types are JPEG, BMP and PNG.)
- Number of the alarm logs that can be stored (Number that can be displayed): Up to 30000 logs (Up to 1000 logs)

- Number of the device error logs that can be stored (Number that can be displayed): Up to 1000 logs (Up to 1000 logs)
- Number of the network error logs that can be stored (Number that can be displayed): Up to 1000 logs (Up to 1000 logs)
- Number of the system logs that can be stored (Number that can be displayed): Up to 1000 logs (Up to 1000 logs)
- Number of the operation logs that can be stored (Number that can be displayed): Up to 100000 logs (Up to 1000 logs)
- Number of search results: Up to 1000 results (Up to 200 results for VMD search)

Note:

- However, when setting “On” to “Timeline display”, the number of connectible PCs will be a number made by subtracting 1 more from the number in the table below. Refer to "System" - "Timeline" for further information about the "☞3.2.7. Timeline ”.
- When using download function, the number of connectible PCs will be a number made by subtracting 1 more from the number in the table below. Refer to "☞4.10. Use the download function ” for further information about the download function.
- The number of PCs that can concurrently access a single recorder differs, as shown in the table below, depending on choosing whether or not to use “Live window” and the model of the device in use.
  The PC(s) can be connected, if the total number of operation windows and the live windows is less than the maximum number of connected PCs when the live window is not used.

Device	The number of PCs that can access a single recorder when using a single “Live window”.	The number of PCs that can access a single recorder when not using a “Live window”.
WJ-HD309A, WJ-HD316A (*3)	2(*1)	3 (*2)
WJ-HD616K, WJ-HD716K	4	8
WJ-ND200	2	4
WJ-ND300, WJ-ND300A	4	6
WJ-ND400, WJ-ND400K	8	16
DG-NV200 series	1	1
WJ-NV300 series	4	8
WJ-NX100 series (*4)	8	16
WJ-NX200 series (*4)	8	16
WJ-NX300 series (*4)	8	16
WJ-NX400 series (*4)	8	16
WJ-NU101 series (*4)	8	16
WJ-NU201 series (*4)	8	16
WJ-NU300 series (*4)	8	16

WJ-NU301 series (*4)	8	16
Video Insight Server	(*5)	(*5)

*1 When displaying images on a 16-screen or 9-screen, only a single PC can access.
*2 When displaying images on a 16-screen, 2 PCs can access.
*3 Under the following conditions, connection to the recorder may be interrupted and a black screen may be displayed.
- When event recording and sequence are being operated
- The total live rate for each WJ-HD309A, WJ-HD316A is 15 ips or more

*4 By selecting “Camera” for “Live image source” does not include the live window in the number of users even when using the live window.
*5 Note that it varies depending on the system configuration in use.

- When exceeding the maximum number of concurrent access due to an increase in the number of accesses using web browsers or FTP accesses, connection to the recorder may be interrupted and a black screen may be displayed.
- By adding the license for the Extension Software WV-ASE203 (option), it will become possible to expand the maximum numbers of registered recorders, encoders, cameras and microphones to 100, 64, 256 and 256 respectively. This license can be used for up to 4 registrations.

1.5. Compatible devices

The following devices are compatible with this software.

Important:
- Some functions may not work depending on the firmware version of the compatible device. Refer to the i-PRO support website for further information.
https://i-pro.com/global/en/surveillance/training-support/support

Note:
- Refer to the operating instructions of the recorder in use for the cameras and microphones that can be connected to the recorder in use.
- Recorders that support use of microphones are NV300 series, NV250 series, ND400, NX400 (version 2.0 or later), NX300 and NX200 (version 1.1 or later). The available functions vary depending on the firmware version of the recorder. Refer to the operating instructions of the recorder for further information.
- For cameras that can be interlocked with the microphone, please read the owner's manual of your camera.
- Please check "☞1.5.3. Compatible cameras ” to see if your camera is compatible. For unsupported cameras, functions common to supported cameras may work properly, but some functions may not work. Unsupported cameras may be officially supported in future versions of this software. Please see the support page for this software and update to the latest version.

1.5.1. Compatible recorders

Model	Appears in this document as	Version	Compression
WJ-HD309A, WJ-HD316A	HD300	3.45 or later	Model-specific
WJ-HD616K, WJ-HD716K	HD600	2.70 or later	H.264
WJ-ND200	ND200	3.35 or later	MPEG-4, M-JPEG, H.264
WJ-ND300, WJ-ND300A	ND300	5.20 or later	MPEG-4, M-JPEG, H.264
WJ-ND400, WJ-ND400K	ND400	5.50 or later	MPEG-4, M-JPEG, H.264
DG-NV200 series	NV200	2.60 or later	MPEG-4, M-JPEG, H.264
WJ-NV300 series	NV300	1.70 or later	M-JPEG, H.264
WJ-NX100 series	NX100	4.40 or later	M-JPEG, H.264, H.265
WJ-NX200 series	NX200	1.00 or later	M-JPEG, H.264, H.265
WJ-NX300 series	NX300	1.00 or later	M-JPEG, H.264, H.265
WJ-NX400 series	NX400	1.01 or later	M-JPEG, H.264, H.265
Video Insight Server	Video Insight Server	6.xx.xx	H.264

1.5.2. Compatible encoder

Model	Appears in	Version	Compression
WJ-NT304	NT304	1.32 or later	MPEG-4, M-JPEG
WJ-NT314	NT314	1.32 or later	MPEG-4, M-JPEG
WJ-GXE500	GXE500	2.41 or later	H.264, MPEG-4, M-JPEG
WJ-GXE100	GXE100	2.40 or later	H.264, M-JPEG

1.5.3. Compatible cameras

Series	Model	Version
New S-series camera	WV-S1110V	1.00 or later
	WV-S1111	1.20 or later
	WV-S1112	1.20 or later
	WV-S1131	1.20 or later
	WV-S1132	1.20 or later
	WV-S1136	1.10 or later
	WV-S1511LN	1.20 or later
	WV-S1531LN/ WV-S1531LTN/ WV-S1531LNS	1.20 or later

WV-S1536L/ WV-S1536LN	1.11 or later
WV-S1536LT	2.00 or later
WV-S1536LTN	1.21 or later
WV-S15500-F3L/ WV- S15500-F6L	1.00 or later
WV-S15500-V3L/ WV-S15500-V3LN/ WV-S15500-V3LN1/ WV-S15500-V3LK	1.00 or later
WV-S1550L	1.02 or later
WV-S1552L	1.00 or later
WV-S15600-V2L/ WV-S15600-V2LN	1.00 or later
WV-S15700-V2L/ WV-S15700-V2LN/ WV-S15700-V2LK	1.00 or later
WV-S1570L	1.00 or later
WV-S1572L	1.00 or later
WV-S2110	1.20 or later
WV-S2111L	1.20 or later
WV-S2130	1.20 or later
WV-S2131/ WV-S2131L	1.20 or later
WV-S2136/ WV-S2136L	1.10 or later
WV-S2211L	1.20 or later
WV-S2231L	1.20 or later
WV-S2236L	1.10 or later
WV-S22500-F3L/ WV-S22500-F6L	1.00 or later
WV-S22500-V3L/ WV-S22500-V3LG/ WV-S22500-V3L1	1.00 or later
WV-S2250L	1.02 or later
WV-S2252L	1.00 or later
WV-S22600-V2L/ WV-S22600-V2LG	1.00 or later
WV-S22700-V2L/ WV-S22700-V2LG/ WV-S22700-V2L1	1.00 or later
WV-S2270L	1.00 or later
WV-S2272L	1.00 or later
WV-S2511LN	1.20 or later
WV-S2531LN/ WV-S2531LTN	1.20 or later
WV-S2536L/ WV-S2536LN	1.11 or later
WV-S2536LTN	1.21 or later
WV-S2536LT	2.00 or later
WV-S25500-F3L/ WV-S25500-F6L	1.00 or later
WV-S25500-V3L/ WV-S25500-V3LN/	1.00 or later

	WV-S25500-V3LG/WV-S25500-V3LN1	
	WV-S2550L	1.02 or later
	WV-S2552L	1.00 or later
	WV-S25600-V2L/ WV-S25600-V2LN/ WV-S25600-V2LG	1.00 or later
	WV-S25700-V2L/ WV-S25700-V2LN/ WV-S25700-V2LG/WV-S25700-V2LN1	1.00 or later
	WV-S2570L	1.00 or later
	WV-S2572L	1.00 or later
	WV-S3111L	4.01 or later
	WV-S3131L	4.01 or later
	WV-S3511L	4.01 or later
	WV-S3531L	4.01 or later
New S-series PTZ camera	WV-S6110	1.35 or later
	WV-S6111	1.13 or later
	WV-S6130	1.35 or later
	WV-S61301-Z2	1.00 or later
	WV-S61302-Z4	1.00 or later
	WV-S6131	1.13 or later
	WV-S6530N	1.35 or later
	WV-S6532LN/ WV-S6532LNS	1.00 or later
	WV-S65340-Z4N/WV-S65340-Z2N/WV-S65340-Z4K/WV-S65340-Z2K	1.00 or later
	WV-S71300-F3	1.00 or later
	WV-S61300-ZY/ WV-S61300-ZYG	2.10 or later
	WV-S61301-Z1	2.10 or later
	WV-S65300-ZY/ WV-S65300-ZYG	2.10 or later
	WV-S65301-Z1/ WV-S65301-Z1-1/ WV-S65301-Z1G/ WV-S65301-Z1S	2.10 or later
	WV-S65302-Z2/ WV-S65302-Z2-1/ WV-S65302-Z2G	2.10 or later
	WV-S65340-Z2G/ WV-S65340-Z2N1/ WV-S65340-Z4G/ WV-S65340-Z4N1	2.10 or later
9M Fisheye cameras	WV-S4176	1.00 or later
	WV-S4576L	1.00 or later
	WV-SFN480	2.52 or later
	WV-SFV481	2.52 or later
	WV-X4170	1.30 or later

	WV-X4171	1.30 or later
	WV-X4571L	1.30 or later
	WV-X4172	1.00 or later
	WV-X4573L	1.00 or later
	WV-X4173	1.00 or later
5M Fisheye cameras	WV-S4150	1.00 or later
	WV-S4151	1.00 or later
	WV-S4156	1.00 or later
	WV-S4550L	1.00 or later
	WV-S4551L	1.00 or later
	WV-S4556L	1.00 or later
3M Fisheye cameras	WV-SF438	2.43 or later
	WV-SF448E	2.43 or later
Multi-Sensor Camera	WV-S8530N	1.10 or later
	WV-S8531N	1.00 or later
	WV-X8570N	1.10 or later
	WV-X8571N	1.00 or later
AI multi-sensor camera	WV-S8543/ WV-S8543G	1.00 or later
	WV-S8543L/ WV-S8543LG	1.00 or later
	WV-S8544/ WV-S8544G	1.00 or later
	WV-S8544L/ WV-S8544LG	1.00 or later
	WV-S8563L/ WV-S8563LG	1.00 or later
	WV-S8564L/ WV-S8564LG	1.00 or later
	WV-S8573L/ WV-S8573LG	1.00 or later
	WV-S8574L/ WV-S8574LG	1.00 or later
New 3-series camera	WV-SFN310/ WV-SFN310A	2.52 or later
	WV-SFN311/ WV-SFN311L	2.52 or later
	WV-SFN311A	2.52 or later
	WV-SPN310/ WV-SPN310A	2.52 or later
	WV-SPN310V	2.52 or later
	WV-SPN311	2.52 or later
	WV-SPN311A	2.52 or later
	WV-SPW311AL	2.52 or later
	WV-SPW312L	4.00 or later
	WV-SFR310/ WV-SFR310A	4.00 or later

	WV-SFR311/ WV-SFR311A	4.00 or later
	WV-SFV311/ WV-SFV311A	2.52 or later
New 5-series camera	WV-SFV531	2.52 or later
	WV-SFR531	4.00 or later
	WV-SPN531	2.52 or later
	WV-SPN531A	2.52 or later
	WV-SPW531AL	4.00 or later
	WV-SPW532L	4.00 or later
	WV-SFN531	2.52 or later
7-series camera	WV-SFV781L	2.52 or later
	WV-SPV781L	2.52 or later
6-series camera	WV-SFN611L	2.52 or later
	WV-SFN631L	2.52 or later
	WV-SFR611L	4.00 or later
	WV-SFR631L	4.00 or later
	WV-SFV611L	2.52 or later
	WV-SFV631L/ WV-SFV631LT	2.52 or later
	WV-SPN611	2.52 or later
	WV-SPN631	2.52 or later
	WV-SPW611L/ WV-SPW611	2.52 or later
	WV-SPW631L/ WV-SPW631LT	2.52 or later
X-series PTZ camera	WV-X6511N	1.22 or later
	WV-X6531N/ WV-X6531NS	1.22 or later
	WV-X6533LN/ WV-X6533LNS	1.00 or later
V-series camera	WV-V1170	1.00 or later
	WV-V1330L1	1.00 or later
	WV-V1330LK	1.00 or later
	WV-V2530L1	1.00 or later
	WV-V2530LK	1.00 or later
	WV-V6430L	1.00 or later
AI camera	WV-X1551LN	1.00 or later
	WV-X1571LN	1.00 or later
	WV-X2251L	1.00 or later
	WV-X2271L	1.00 or later
	WV-X2551LN	1.00 or later

	WV-X2571LN	1.00 or later
U-series camera	WV-U1130	1.00 or later
	WV-U1130A	1.30 or later
	WV-U1132	1.00 or later
	WV-U1132A	1.30 or later
	WV-U1142	1.00 or later
	WV-U1142A	1.30 or later
	WV-U1532L	1.00 or later
	WV-U1532LA	1.30 or later
	WV-U1542L	1.00 or later
	WV-U1542LA	1.30 or later
	WV-U2130L	1.00 or later
	WV-U2130LA	1.30 or later
	WV-U2132L	1.00 or later
	WV-U2132LA	1.30 or later
	WV-U2140L	1.00 or later
	WV-U2140LA	1.30 or later
	WV-U2142L	1.00 or later
	WV-U2142LA	1.30 or later
	WV-U2530L	1.00 or later
	WV-U2530LA	1.30 or later
	WV-U2532L	1.00 or later
	WV-U2532LA	1.30 or later
	WV-U2540L	1.00 or later
	WV-U2540LA	1.30 or later
	WV-U2542L	1.00 or later
	WV-U2542LA	1.30 or later
	WV-U61300-ZY/WV-U61300-ZYG	1.00 or later
	WV-U61301-Z2/WV-U61301-Z1	1.00 or later
	WV-U65300-ZY/WV-U65300-ZYG	1.00 or later
	WV-U65301-Z1/WV-U65301Z1G	1.00 or later
	WV-U65302-Z2/WV-U65302-Z2G	1.00 or later
New 1-series camera	WV-SFN110	2.53 or later
	WV-SFN130	2.53 or later
	WV-SFV110(M)	2.53 or later

	WV-SFV130(M)	2.53 or later
Older Models	RP-NP1000/ RP-NP1004 (*1)	1.25 or later
	RP-NP244 (*1)	1.81 or later
	WV-NF282 (*1)	1.61 or later
	WV-NF284 (*1)	1.64 or later
	WV-NF302 (*1)	1.61 or later
	WV-NP304 (*1)	1.61 or later
	WV-NP502	2.41 or later
	WV-NS202 (*1)	1.11 or later
	WV-NS202A (*1)	2.74 or later
	WV-NS950/ WV-NS954 (*1)	1.64 or later
	WV-NW484 (*1)	1.64 or later
	WV-NW502S	2.44 or later
	WV-NW960 (*1)	1.64 or later
	WV-SC384	2.44 or later
	WV-SC385	2.42 or later
	WV-SC386	2.41 or later
	WV-SC387/ WV-SC387A	2.43 or later
	WV-SC588/ WV-SC588A	2.43 or later
	WV-SF132	2.41 or later
	WV-SF135	2.41 or later
	WV-SF138	2.43 or later
	WV-SF332	2.44 or later
	WV-SF335	2.42 or later
	WV-SF336	2.42 or later
	WV-SF342	2.44 or later
	WV-SF346	2.44 or later
	WV-SF538	2.48 or later
	WV-SF539	2.48 or later
	WV-SF548	2.48 or later
	WV-SF549	2.48 or later
	WV-SFV310/ WV-SFV310A	4.00 or later
	WV-SP102	2.50 or later
	WV-SP105	2.50 or later
	WV-SP302	2.44 or later

WV-SP305	2.42 or later
WV-SP306	2.44 or later
WV-SP508	2.48 or later
WV-SP509	2.43 or later
WV-ST162	4.62 or later
WV-ST162A	4.62 or later
WV-ST165	4.62 or later
WV-ST165A	4.62 or later
WV-SUD638	2.50 or later
WV-SW115	2.50 or later
WV-SW152	2.50 or later
WV-SW155/ WV-SW155MA	2.41 or later
WV-SW158	2.43 or later
WV-SW172	4.62 or later
WV-SW174W	4.62 or later
WV-SW175	4.62 or later
WV-SW314	2.41 or later
WV-SW316/ WV-SW316L	2.41 or later
WV-SW352	2.44 or later
WV-SW355	2.41 or later
WV-SW395/ WV-SW395A	2.50 or later
WV-SW396/ WV-SW396A	2.41 or later
WV-SW397/ WV-SW397A/ WV-SW397B	2.43 or later
WV-SW458/ WV-SW458MA	2.43 or later
WV-SW558	2.48 or later
WV-SW559	2.43 or later
WV-SW598/ WV-SW598A	2.43 or later

(*1) Depending on a recorder registered camera, MPEG-4 images cannot be received regardless of the live image source. MPEG-4 images can be received only when registered as an independent camera.

1.5.4. Compatible microphones

Model	Appears in this document as	Version
WV-SMR10	SMR10	50 or later

1.5.5. Compatible decoder (The license for the WV-ASE204 is required)

Model	Appears in this document as	Version	Compression
WJ-GXD400	GXD400	2.21 or later	H.264, MPEG-4, M-JPEG

1.5.6. Compatible system controller

Model	Appears in this document as
WV-CU950	CU950
WV-CU980	CU980

1.6. Features

Important:
- To use the “Face search monitor” functions, it is necessary to add the license for the Extension Software (WV-ASE231 (option)).
- To use the “Image Enhancement” functions, it is necessary to add the license for the Extension Software (WV-ASE205 (option)).
- To use the “Heat map” functions, it is necessary to add the license for the optional extension for Video Analytics (option).

Remote operation of devices

It is possible to operate the recorder, encoder, cameras and microphones via a network using this software. Displaying live images, playback of recorded images, camera operation, microphone operation, status indication, searching, etc. are available.

Refer to "☞ 4.1.3. Monitor images from the selected camera", "☞ 4.1.10.1. Operate the cameras", "☞ 4.1.10.2. Operate the microphones", "☞ 4.1.15.1. Play", "☞ 2.6.2. Status bar", and "☞ 4.5. Use the search window" for further information.

Download function

It is possible to download recorded images by designating the time range and the target recorders or cameras.

Refer to "☞ 4.10. Use the download function" for further information.

Alarm/event notification and management of logs

- Pop-up notification
  The alarm description will be displayed in a pop-up window (alarm notification window) on the operation window when an alarm occurrence is notified from the recorder.
  The alarm description will also be displayed as a log in the alarm log panel.

- Event notification
  The error description will be displayed in a pop-up window (error notification window) on the operation window upon a recorder error occurrence or upon a network error occurrence.
  The error description will also be displayed as a log in the device error log panel or in the network error log panel.
- Management of logs
  Each time an alarm or an error occurred, a log will be filed automatically.
  When a log displayed in the log panel is clicked, playback of the respective recorded images will start.
  Refer to "☞ 4.1.16. Management of logs" for further information.

Security function

It is possible to enhance security by using the user authentication function (requires entering a user name and password).
This software manages the administrator (who can administrate this software) and the registered users (who can operate this software except configurations). It is also possible to restrict operable functions by applying the user level to each registered user. Refer to "☞ 3.4.3. User level setup" for further information.

Important:
- Check if the model in use is compatible with each function.
- Refer to the i-PRO support website for further information.
  https://i-pro.com/global/en/surveillance/training-support/support

1.7. Standard accessories

DVD-ROM .....1 pc.
Installation guide .....1 pc.
Activation Key Card.....1 pc.

Important:
- The provided DVD-ROM contains the installer of this software, the operating instructions (this document), and the Readme.txt.
- Prior to installation, read the "Readme".
- Registration of the license is required before using this software.
- After installing the software on the PC in use, register the license.

1.8. System requirements

Important: * Please be mindful of the following when preparing a PC.
- The “System requirements” described in this manual describes the general system environment required for this software to operate independently, and does not guarantee operation on all PCs.
- The required PC environment differs between WV-ASM200 and WV-ASM300. If the PC specifications are not sufficient, the operation may be restricted, so when using the WV-ASM300UGW, please check the operating environment of the WV-ASM300.
- If a 2-byte character (an em character) is used for a user account of a PC to use, files required to install this software may not be installed and a normal operation cannot be expected.
  Use alphanumeric characters for the user account.

This software can be installed on a PC that meets the following system requirements:

OS (*1)	Microsoft® Windows® 11 Pro 64-bit (*2)(*3) Microsoft® Windows® 10 Pro 64-bit (*2)(*3)
OS language	English, French, Spanish, German, Italian, Russian, Chinese (Simplified Chinese)
Computer	IBM PC/AT Compatible
CPU	Intel® Core i5-7500 or more, Intel® Core i7-7700 or more (*4) Core i7 Recommendations: When displaying with 49/64-screen, when using a Fisheye camera other than 3M, when using the visibility enhancement function, when using When the image capture size is over Full-HD, when using an H.265 camera
Memory	8GB or more (*5)
Graphics accelerator	VRAM 512 MB or more (256 MB minimum), compatible with DirectX® 9.0c When using a Live window: NVIDIA NVS 510, NVIDIA Quadro P1000, NVIDIA T1000 (*6) When using the visibility enhancement function: GeForce GTX 660 or more , NVIDIA Quadro P1000, NVIDIA T1000 (*7)(*8) When using the visibility enhancement function (2048x1536 or more): NVIDIA GeForce GTX 770 or more, NVIDIA Quadro P1000, NVIDIA T1000 (The version GeForce 332.21 or later is recommended for the driver software.) When using 4K monitor: NVS510, NVIDIA Quadro P1000 (using a display port cable), NVIDIA T1000 (using a display port cable) (*9) (*10)
DVD-ROM drive	Necessary to install this software
Required hard disk space	Required approx.3 GB (*11)
Window	1280x800 pixels or more (1920x1080 pixels recommended for live window), 24-bit True color or better (Full color recommended)
Interface	Must have a 100/1000 Mbps network port (*12)
Web browser (*13)	Microsoft Edge (Chromium) (*14) Google Chrome (*14) Mozilla Firefox (*14)

*1 This software is designed based on the default style or the font size of Microsoft® Windows® 10 and Microsoft® Windows® 11.
Caution is required when changing the style or font size.
If using a convertible tablet PC (a PC equipped with both functions of tablet's and PC's) whose default font size is "Normal", change it to "Smaller".
Also, if a vulnerability is found in the OS, update the OS as needed.

*2 When using Microsoft® Windows® 10 or Microsoft® Windows® 11, refer to "Readme.txt" for further information about the precautions, etc.

*3 Operates in WOW64 (32-bit mode).

*4 CPUs for servers such as Xeon® are excluded.

*5 It is recommended to use a memory of the same performance on a dual channel compatible PC in pairs. When using a single memory, the image display performance may be degraded in the following cases.
- When the image display method is scaling mode

- When using a live window

*6 When not using the Live window or the visibility enhancement function, use the PC onboard graphics.

*7 When using the visibility enhancement function, prepare and use a power supply unit compatible with the graphics card in use.

*8 When using the visibility enhancement function, do not use two or more graphics cards.

*9 When using a display port cable, due to the nature of the cable, the monitor may not be recognized temporarily when the power of the monitor is turned on/off. Occurrence of this phenomenon can vary position of the operation window and the live window.

*10 When using QSV, make sure that Intel HD Graphics version is 21.20.15.4528 or later. When using hardware decoder (H.265), make sure that Intel HD Graphics version is 21.20.15.4528 or later. The latest version of the driver can be downloaded from the following URL. Download a driver corresponding to the CPU in use and install it on the PC.
URL: https://downloadcenter.intel.com

*11 It is necessary to prepare other disk space exclusively as storage for database and files downloaded from the recorder in addition to the required disk space for installation of this software.

*12 The network settings on the PC must meet those of the network environment where the PC is connected. Operation of this software on a PC with multiple network ports is not guaranteed.

*13 Supported versions of the web browser and restrictions will vary depending on the connected devices. Refer to the operating instructions of the devices for further information.

*14 Use to display web pages of a device that does not support the Internet Explorer.
The Microsoft Edge can be used also when displaying web pages of devices that supports Internet Explorer.
Refer to the following support web site for support status of browsers.
https://i-pro.com/global/en/surveillance/training-support/support/technical-information

Important:

- This software must be installed by the administrator. Otherwise, any problems will not be covered by the warranty.
- Operation of this software on remote desktop is not guaranteed.
- While running (including starting and ending) this software, do not log out of the PC nor shut down the PC, or accidentally turn off the power. Otherwise, operation of this software may become unstable or the data may be initialized.
- If multiple applications are simultaneously operated together with this software, operation may become unstable due to a shortage of resources such as memory and CPU.
- When no sound card is installed, the buzzer will not sound at an alarm/error occurrence. The audio transmission/reception function is also unavailable.
- When using this software, set the PC so that it does not enter sleep mode.
- When the OS is updated from Windows 8.1 to Windows 10 with this software installed, the program of this software will not run normally.
- If used concurrently with applications that change the access to the hard disk, such as HDD encryption, performance may be degraded. If there is a problem with the operation, do not use these software at the same time.
- This software is an application that runs on Windows OS. For stable operation, please restart the PC regularly. Please terminate this software before restarting the PC. If you restart your PC without terminating this software, the next time you start this software, you may be automatically logged in due to problems with the OS, etc., even though the user authentication setting is “ON”. When this phenomenon occurs, “An unexpected error has occurred. The operation software has been restarted to continue monitoring.” will be recorded in the system log.
- When using multiple displays, the display position of windows other than the operation window may change automatically after the PC is restarted. In that case, change it to any position manually.
- If you use multiple graphic cards, please use Microsoft® Windows® 10 Pro 64-bit or Microsoft®

Windows® 11 Pro 64-bit.
- When installing a graphics card, make sure that the structure of the expansion slot of the PC is appropriate.
- When using multiple graphics cards, be sure to use the same model.
  Also, prepare a PC or a power supply unit having enough power supply capacity so that the total power consumption including that of the HDDs and other devices connected to the PC can be kept within the allowable power supply capacity.

<Restrictions when using the 32-bit OS>
32-bit OS is no longer supported due to the following restrictions occurred with the functional enhancement of WV-ASM300 and the camera. When using 32-bit OS, take note of the following.

- Physical memory is only recognized up to 4GB by the OS.
  Low memory capacity may cause some images to not be displayed.
  In this case, restart the PC.
- Only 1 graphics accelerator can be added.
  When using only 1 graphics accelerator, up to 4 monitors will be connected.
- Cameras that support the H.265 compression method cannot be used.
  It is also not possible to use the cameras with the H.264 compression method setting.
- When using the live window, the compression method must be set to H.264, and the image capture size must be set to QVGA.
- When the live window is set to 25-screen or more, the image capture size must be set to QVGA.
- When running on Windows 11, time & date selection may be displayed by switching from a tab other than the [Alarm] tab to the [Alarm] tab. The functions of face search monitor will not be affected. In this case, switch from a tab other than the [Alarm] tab to the [Alarm] tab again.

1.9. Recommended camera settings when monitoring MPEG-4, H.264 or H.265 images

1.9.1. Recommended camera setup

Set the "Max bit rate (per 1 client)" setting of the camera as below according to the PC in use. If a higher bit rate than the specified value is set, operation of this software may not be operated correctly, for example, the mouse cursor remains as hourglass and became inoperable. In this case, please terminate this software forcibly, and then set an appropriate bit rate. The recommended bit rate differs for each camera. For details, please read the instruction manual of your camera.

■ **When monitoring MPEG-4 images**

CPU	Resolution	Recommended bit rate
Intel® Core™ i5-7500/ Intel® Core™ i7-7700	VGA	2048 kbps (30 fps)

■ **When monitoring H.264 images**

CPU	Resolution	Recommended bit rate
Intel® Core™ i7-7700	2992×2992	14336 kbps (15 fps)
	4000×3000/3840×2160	14336 kbps (15 fps/30 fps) *

Intel® Core™ i5-7500/ Intel® Core™ i7-7700	1920×1080	4 Mbps (30 fps)
	1280×720	3 Mbps (30 fps)
	VGA	1 Mbps (30 fps)
	QVGA	768 kbps (30 fps)

■ **When monitoring H.265 images**

CPU	Resolution	Recommended bit rate
Intel® Core™ i7-7700	2992×2992	12288 kbps (30 fps)
	3840×2160	12288 kbps (15 fps)
Intel® Core™ i5-7500/ Intel® Core™ i7-7700	1920×1080	3 Mbps (30 fps)
	1280×720	2 Mbps (30 fps)
	VGA	768 kbps (30 fps)
	QVGA	512 kbps (30 fps)

* When "4K" (☞3.2.2. Drawing and audio setup) is selected for "PC diagnosis (4K camera)". When “Normal” is selected, recommended bit rate is “8Mbps(30fps)”.

■ **When adding the license for WV-ASE202 and displaying images on a 64-screen**

When displaying images in 64-screen, set the image capture size of the camera to QVGA and use.

1.9.2. Restrictions

There are following restrictions for each function when MPEG-4, H.264 or H.265 images are used with this software. Read the following before operating this software.

(1) When displaying live images

- Black screen may be displayed for the first few seconds (*) when the following operations are performed while displaying live images in MPEG-4, H.264 or H.265 format.
  When trying to display live images in MPEG-4, H.264 or H.265 format.
  (By switching camera channel, etc.)
  When MPEG-4, H.264 or H.265 image is enlarged
  Example: When "3 seconds" is selected for the refresh interval on the camera, MPEG-4 or H.264 images will be refreshed in 3 seconds intervals.
- When selecting a screen having areas more than 6-/9-/16-screen and also displaying SXVGA or higher images on a small image size area of any of 3A-screen, 3B-screen, 5-screen, 6A-screen, 7-screen, 7A-screen, 10-screen and 13-screen, images will be displayed at an interval (*) of the refresh cycle. (All images will be kept displayed for several seconds from the moment when the images are displayed.)
- When displaying FULL HD or higher images on 1-/2A-/2B-/3C-screen or on an area other than the large area of 3B-/5-/7A-screen or on a screen that has many areas than these screen, FULL HD images will be displayed at an interval (*) of the refresh cycle. (All images will be kept displayed for several seconds from the moment when the images are displayed.)
- Depending on the camera, if the frame rate is set to 60 ips, audio may be interrupted or the frame rate may be lowered.

(2) When playing recorded images

- Displayed playback time may be fast for several seconds (*) when the following operations are performed while playing recorded MPEG-4, H.264 or H.265 images.
  When trying to display playback images in MPEG-4, H.264 or H.265 format.
  (By switching camera channel, etc.)
  When MPEG-4, H.264 or H.265 image is enlarged
  (When operating to enlarge a paused image, image of several seconds later than the paused image may be enlarged.)

When the [PLAY] button is clicked again while playing MPEG-4, H.264 or H.265 images

- When playing images using the following special playback functions, images will be played at several seconds interval (*) from the camera.
  REV PLAY
  Fast playback/Fast reverse playback
  PREV IMAGE
  Example: When "3 seconds" is selected for the refresh interval on the camera, MPEG-4 or H.264 images will be played in 3 seconds intervals.
- When two records are played sequentially, the last few frames of the former record and the first few frames of the next record may be displayed overlapped.
- When the [SKIP] button or the [REV SKIP] button is clicked, a skipped point may be a few seconds later (*) from a point to be skipped with the selected amount of time. Sometimes, playback may start from the beginning of the next record.
- When a black screen is being displayed, the following operations are inoperable.
  Playback/Reverse playback
  Fast playback/Fast reverse playback
  Frame playback/Reverse frame playback
  Skipping to the next/previous recorded image
  SKIP/REV SKIP
  PAUSE
- When playing images by designating time & date, playback may start from a point several seconds (*) after the designated time & date. Sometimes, playback may start from the beginning of the next record.
- The ON/OFF setting of “Detection frame information” will be applied from the next image.
- When selecting a screen having areas more than 6-/9-/16-screen and also displaying SXVGA or higher images on a small image size area of any of 3A-screen, 3B-screen, 5-screen, 6A-screen, 7-screen, 7A-screen, 10-screen and 13-screen, images will be displayed at an interval (*) of the refresh cycle. (All images will be kept displayed for several seconds from the moment when the images are displayed.)
- When displaying FULL HD or higher images on 1-/2A-/2B-/3C-screen or on an area other than the large area of 3B-/5-/7A-screen or on a screen that has many areas than these screen, FULL HD images will be displayed at an interval (*) of the refresh cycle.
  (All images will be kept displayed for several seconds from the moment when the images are displayed.)
- Depending on the camera, if you set the recording frame rate to 60 ips, audio may be interrupted or the recording frame rate may be lowered.

(3) Download function

Download of recorded images may start from a point several seconds (*) after the designated start time.
Set the time range for download longer than the refresh interval set on the camera.

Important:

- Time (seconds) and intervals with an asterisk (*) differ depending on the refresh interval set on the camera. (Valid entry range: Differs depending on the model number of the camera.)
- To shorten time lag, set the refresh interval on the camera shorter.
- Refer to the operating instructions of the camera for how to configure the refresh interval.
- When a removable HDD formatted on the 32-bit OS is connected to a PC whose OS is the 64-bit edition, it may fail to designate the removable HDD as a saving destination.

1.10. Restriction when using Smart Coding

There are following restrictions when "Smart Coding mode" is set to "ON" in the "Transmission priority" setting of the camera. Read the following before operating this software.

(1) When displaying live images

- It may take 8 seconds at maximum for images to be displayed.
- In the sequence operation, the subsequent sequence may start without displaying video of the current sequence depending on the set interval.

(2) When playing recorded images

- For playback operations such as date playback, jump, and skip, it may take time for images to be displayed. (8 seconds at maximum)
- Display intervals during the fast forward playback may become longer if compared with operation without using the smart coding.
  (For example, images will be forwarded 32 seconds at maximum in Step 2.)
- The images may be seen stopped for 8 seconds at maximum in the frame playback or reverse frame playback.
- In the alarm playback, alarm images may not be displayed during pre- or post-playback.
- The display speed may delay for 24 seconds at maximum during visibility enhancement.

1.11. About use of open source software

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Software name	Copyright	License name
OpenCV	Intel Corporation Willow Garage Inc.	License Agreement For Open Source Computer Vision Library (BSD License)
Dynamic Json	neuecc <ils@neue.cc>	Ms-PL
Extended WPF Toolkit	Xceed Software Inc.	Ms-PL
System.Data.SQLite	System.Data.SQLite	Ms-PL
libjpeg	Thomas G .Lane	IJG
MahApps.Metro	Mahapps	MIT License (MIT)
MahApps.Metro.IconPacks	Mahapps	MIT License (MIT)
ControlzEx	Jan Karger, Bastian Schmidt	MIT License (MIT)
MaterialDesignThemes	James Willock, Mulholland Software and Contributors	MIT License (MIT)
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1.14. Abbreviations

The following abbreviations are used in this document.
Microsoft® Windows® 10 Pro (64-bit) is described as Windows 10.
Microsoft® Windows® 11 Pro (64-bit) is described as Windows 11.

1.15. Precautions for use

1.15.1. Transfer/disposal

- Transfer this software according to the “Software License Agreement” to be displayed on the installation screen.
- When disposing of a PC on which this software has been installed, be sure to initialize the settings and uninstall this software. If this software is uninstalled without initializing the settings, there is a risk of information leakage due to the setting information being remained inside the PC. Even in the case of transfer or repair, carry out the above procedure as necessary.
- If the PC on which this software is installed or the storage device connected to the PC is to be passed to someone for transfer, disposal, repair and other reasons, pay careful attention to the data handled there, and it is your responsibility to transfer, dispose, and repair. When abandoning the storage media, it is recommended to destroy data physically after deleting it.

1.16. Document convention

These are descriptions of the basic terms used in these operating instructions.

- **Administrator**

  Indicates a person responsible for management and operation of this software.

- **User**

  Indicates a person who operates this software. Each user should be defined as an administrator or a registered user in this software.
  Only a user who is registered as an administrator can configure and maintain this software.

- **Local user**

  Indicates a user registered locally.

- **LDAP user**

  Indicates users registered to ASM300 after searching users managed by the Active Directory.

- **LDAP group**

  Indicates users registered to ASM300 after searching groups which contains users managed by the Active Directory.

- **User’s group**

  Indicates a group that a user can make in combination with the number of windows to be possibly displayed and the cameras to be used. The “User’s group” can only be used by the creator.

- **FTP（File Transfer Protocol）**

  Indicates a typical protocol used when transferring files over a network.

- **DHCP（Dynamic Host Configuration Protocol）**

  Indicates a protocol for automatically acquiring the information necessary for the PC to connect to the network from the server.

- **NTP（Network Time Protocol）**

  Indicates a protocol that correctly adjusts the internal clock of the equipment connected to the network.

- **Primary server**

  Indicates the server of the main system when two or more servers are prepared.

- **Secondary server**

  Indicates a sub system server when two or more servers are prepared. We will take over the process when trouble happens to the server of the main line (primary).

■ **Recorder**

Indicates Panasonic Connect/i-PRO network disk recorders or digital disk recorders.
Refer to "☞ 1.5.1. Compatible recorders” for the devices compatible with this software.

■ **Encoder**

Indicates Panasonic Connect/i-PRO network interface unit.
Refer to "☞ 1.5.2. Compatible encoder” for the devices compatible with this software.

■ **Fixed camera**

Indicates cameras without the panning and tilting functions.
Refer to "☞ 1.5.3. Compatible cameras” for the devices compatible with this software.

■ **PTZ camera**

Indicates cameras featuring the panning, tilting and zooming functions.
Refer to "☞ 1.5.3. Compatible cameras” for the devices compatible with this software.

■ **Fisheye camera**

Indicates Panasonic Connect/i-PRO Fisheye network cameras.
Refer to "☞ 1.5.3. Compatible cameras” for the devices compatible with this software.

■ **Network microphone**

Indicates Panasonic Connect network microphones.
Refer to "☞ 1.5.4. Compatible microphones” for the devices compatible with this software.

■ **Linked camera**

Indicates fisheye cameras to which the microphone linkage setting is applied.

■ **7-series camera**

It represents the following models: WV-SFV781L, WV-SPV781L

■ **6-series camera**

It represents the following models: WV-SPN611, WV-SPN631, WV-SFN611L, WV-SFN631L, WV-SFV611L, WV-SFV631L, WV-SFV631LT, WV-SPW631LT, WV-SPW631L, WV-SPW611, WV-SPW611L

■ **New 5-series camera**

It represents the following models: WV-SFV531, WV-SFN531, WV-SPN531, WV-SPN531A

■ **New 3-series camera**

It represents the following models: WV-SPN311, WV-SPN310V, WV-SFN311, WV-SFV311, WV-SFN310, WV-SPW310, WV-SPN311A, WV-SPN310AV, WV-SPW311AL, WV-SFV311A, WV-SFN311A, WV-SFN310A

■ **New 1-series camera**

It represents the following models: WV-SFN110, WV-SFV110, WV-SFN130, WV-SFV130

■ **V-series camera**

It represents the following models: WV-V1330LK, WV-V1330L1, WV-V2530LK, WV-V2530L1, WV-V1170, WV-V6430L

■ **U-series camera**

This is a generic name for EXTREME series cameras beginning with the part number U.
Refer to "☞ 1.5.3. Compatible cameras" for the devices compatible with this software.

■ **Multi-sensor camera**

It is Panasonic Connect/i-PRO network camera with two or more camera units (sensors) in one camera.
Refer to "☞ 1.5.3. Compatible cameras" for the devices compatible with this software.

■ **AI Multi-sensor camera**

It is i-PRO multi-sensor camera equipped with an AI processor.
Refer to "☞ 1.5.3. Compatible cameras" for the devices compatible with this software.

■ **AI camera**

It is Panasonic Connect/i-PRO network camera with a dedicated AI processor.
Refer to "☞ 1.5.3. Compatible cameras" for the devices compatible with this software.

■ **New S-series camera**

This is a generic name for EXTREME series cameras beginning with the part number U.
Refer to "☞ 1.5.3. Compatible cameras" for the devices compatible with this software.

■ **3M Fisheye cameras**

It is Panasonic Connect fisheye network camera which can provide image capture size of 3M (2048×1536).

■ **5M Fisheye cameras**

It is Panasonic Connect/i-PRO fisheye network camera which can provide image capture size of 5M (2192x2192).

■ **9M Fisheye cameras**

It is Panasonic Connect/i-PRO fisheye network camera which can provide image capture size of 9M (2992×2992).

■ **Fisheye image display change**

This is a function that changes fisheye images captured by our fisheye camera to a desired format and display them.

■ **3D Dewarp function**

This is a function that corrects distortion of an arbitrary position in the fisheye images captured by our fisheye camera by operating the mouse, system controller (CU980) or camera operation panel.

■ **Decoder**

Indicates Panasonic Connect network video decoders. Refer to "☞ 1.5.5. Compatible decoder (The license for the WV-ASE204 is required)" for the devices compatible with this software.

■ **NX-series recorder**

It represents the following models: WJ-NX400 series, WJ-NX300 series, WJ-NX200 series, WJ-NX100 series.

■ **NU-series recorder**

It represents the following models: WJ-NU101 series, WJ-NU201 series, WJ-NU300 series, WJ-NU301 series.

■ **Live image**

Indicates live images from the camera.

■ **Smart Coding(GOP control)**

This is a control method of the camera that reduces the amount of data to be delivered by lengthening the image refresh interval when there is little movement in the image.

■ **AI privacy guard**

This is a control method on the camera that detects a face or person in the camera image by AI processing and performs mosaic processing or filling processing on that area so that individual cannot be identified. This function requires the AI privacy guard application (WV-XAE201W) to be installed on the camera. The AI privacy guard application for 360-degree fisheye (WV-XAE301W) is not supported. Also, set [Privacy Guard target] and [Target stream] on the "AI Privacy Guard setting" screen of the camera. When using the AI privacy guard function with this software, it is necessary to set [Target stream] to "Stream(2)&Stream(4)". For AI Privacy Guard settings, refer to the instruction manual of the AI privacy guard application.

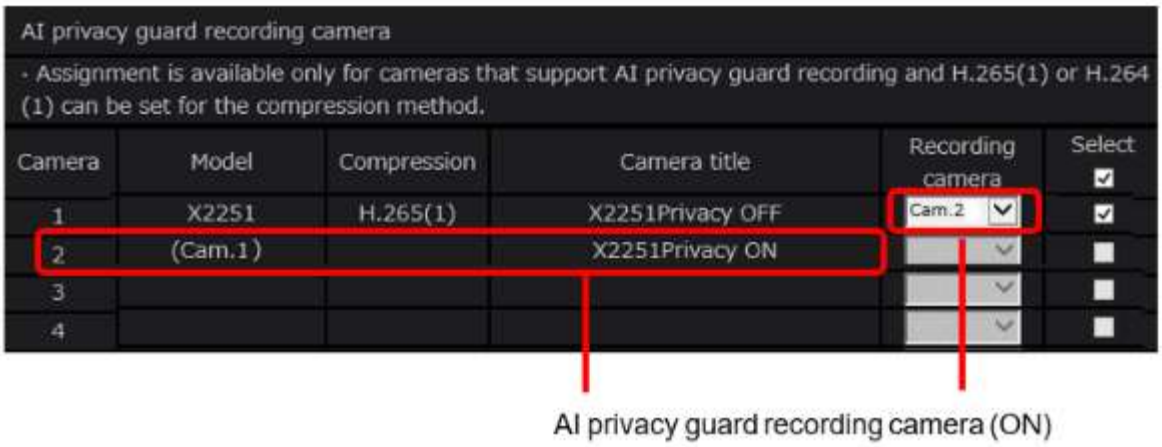
■ **AI privacy guard independent camera**

It is an independent camera with the AI privacy guard function enabled and [Privacy Guard target] and [Target stream] set.

■ **AI privacy guard recording camera (ON)**

The camera on which AI privacy guard is turned on is the camera that is set as [Recording camera] on the recorder's [AI privacy guard recording camera] setting screen. AI privacy guard may not be activated depending on the camera settings. For AI privacy guard recording camera setting screen, refer to the instruction manual of the supported recorder.

Example: The AI privacy guard recording camera (ON) of camera 2 is associated to camera 1.



■ **AI privacy guard recording camera (OFF)**

This is a camera with AI privacy guard off associated to the AI privacy guard recording camera (ON). AI privacy guard may be activated depending on the camera settings.

Example: Camera 2 is associated to AI privacy guard recording camera (OFF) of camera 1.



■ **Independent camera**

Indicates cameras registered independently in this software.

■ **Direct image reception**

Indicates that image reception directly from a camera registered in the network disk recorder, not through the recorder.

■ **Group display**

Images from cameras can be registered as a group and displayed by groups.

■ **Sequence**

Images of each registered group can be displayed sequentially in the order determined in advance. The sequence function of this software is available only for live image display.

■ **EL-zoom**

Indicates the zoom function available when displaying live or recorded images. While the zoom function of the camera enlarges images using the zoom lens of the camera, the EL-zoom function

enlarges images by processing images on this software. Clicking a point in the EL-zoomed image moves the displayed EL-zoomed image by positioning the clicked point as the center point.

■ **Camera operation**

Indicates the operations of the camera connected, such as panning/tilting, zooming, focusing, starting the preset function (move to the preset position), starting the selected auto mode function, brightness adjustment, preset registration and AUX control.

■ **Click centering**

It is a function to change the camera direction so that the clicked point in the displayed camera image becomes the center of the display.

■ **Drag zooming**

It is a function to change the camera direction so that the area selected by dragging the mouse in the displayed camera image becomes the center of the display. In this case, the zoom ratio will be adjusted automatically.

■ **Mouse wheel zooming**

It is a function to adjust the zoom ratio by operating the mouse wheel in the displayed camera image.

■ **Network playback**

Recorded images on the recorder can be played via a network.

■ **Timeline**

Indicates the function that can display recording/event information of devices such as recorders along a time axis.

■ **Manual recording**

Indicates recording that is performed by clicking the [REC START] button and the [REC STOP] button.

■ **Download**

Indicates file (recorded image on the recorder) transfer from the recorder to a PC using the FTP function.

■ **Occupancy detection alarm**

This alarm will be issued when the AI Occupancy Detection application (WV-XAE207W) or the AI-VMD/AI People Counting application for 360-degree fisheye (WV-XAE300W) detects that the people congestion (occupancy) status reached a specified condition.
Refer to the operating instructions of the extension software for further information about the occupancy detection.

■ **AI-VMD alarm**

Indicates the following alarms detected by AI motion detection application WV-XAE200W, Intruder, Loitering, Direction and Cross line. For details on AI-VMD, refer to the instruction manual of the supported device.

■ **Extension software alarm**

It means alarms of the extension function sent from a camera or recorder such as occupancy detection alarm, AI-VMD alarm and audio detection alarm.

■ **i-VMD alarm**

Indicates the following alarms detected by the i-VMD function expansion software WV-SAE200W, Intruder, Loitering, Direction, Cross line, Removal and left behind, and Scene change. For details on i-VMD, refer to the instruction manual of the supported device.

■ **i-VMD(HD600) alarm**

Indicates the following alarms detected by some analog cameras, Terminal alarm, Removal and left behind, Motion, Scene change, Direction and Loitering. For details on i-VMD(HD600), refer to the instruction manual of the supported device.

■ **AVMD alarm**

Indicates the following alarms: Intruder, Removal and left behind detected by DG-NT314.

■ **Detection frame information**

Indicates frame borders or traces displayed on the image when an AI-VMD alarm, i-VMD alarm, or AVMD alarm is received. Also, this indicates the frame displayed on an image when received an occupancy detection alarm.

■ **Image file**

Indicates downloaded recorded image from the recorder.

■ **File playback**

Indicates playback of image files using the viewer software.

■ **Notification function using the TCP alarm notification**

Indicates the function that uses alarm/event notification transmitted from the device using TCP alarm notification.

■ **Application log**

Indicates logs filed each time when this software obtains information about an alarm or a device error occurrence from the recorder, or when an operation of this software is made, etc. The application log includes the following types.
Alarm log, Device error log, Network error log, System log, Operation log

■ **Recorder log**

Indicates logs filed each time when a recorder error or a network error occurred in the recorder. The recorder logs are generated in the recorder. The recorder log includes the following types.
Error log, Access log, Event log, Network log

■ **M-JPEG**

Indicates a video codec that compresses video fields from the camera into independent JPEG images sequentially. Network load will be reduced comparing with the method that obtains JPEG images independently from the camera. However, the transmission rate will fluctuate depending on the state of the camera. Some cameras phrase this video codec as just "JPEG".

■ **H.264**

Indicates one of compression methods of video data.

■ **H.265**

Indicates one of the compression methods of video data and has a higher video compression ratio than H.264.

■ **REC event**

Indicates the reason (an event or an operation) why the recording started. The recording event will be described as follows.
Manual, schedule, emergency, site alarm, terminal alarm, command alarm, VMD, video loss, SD memory backup

■ **SD memory data (SD memory recording)**

Indicates the function featured in some Panasonic Connect's/i-PRO's cameras that transfers images saved on the SD memory card on the camera to the recorder. "SD memory data" indicates image data transferred by the SD memory recording. The recording time of SD memory data will be displayed based on the clock of the camera.

■ **Operation window**

Indicates the window used to operate all functions except for configurations of this software.

■ **Live window**

Indicates the window used only for the group or sequence display of live images.

■ **Map window**

Indicates the window that displays a map with the registered camera icons. It is possible to display live images from the desired camera by clicking the respective camera icon on the map.

■ **SD memory download**

Indicates the function featured in some Panasonic Connect's/i-PRO's cameras that transfers H.264 or H.265 video files (mp4 files) saved on the SD memory card equipped with the camera to a PC.

■ **High-speed playback smooth mode**

Indicates the mode that can play back all the frames without skipping during fast play back of Step 2 and Step 3.

■ **License**

Registration is surely required before using this software. Refer to the provided "Activation Key Card" to obtain and register the "Registration Key". The obtained "Registration Key" can be used only on the PC in which the software is installed.

■ **Demo edition**

It is possible to use all the functions of the designated software for 90 days by registering the license for the demo edition.

■ **Face search monitor**

This window is used to perform operation relating to the face search. The real time alarm display, face/alarm search, people search and age/gender report will be executed on this window.

■ **Registered face detection mode**

It is an operation mode that in which an alarm will be issued when a person registered by the face search monitor is detected by a camera.
(Selectable with WV-ASF950 version 2.00 or later)

■ **Registered face/unregistered face detection mode**

It is an operation mode that enables selecting per area whether to issue an alarm when a registered person is detected or when an unregistered person is detected by a camera.
(Selectable with WV-ASF950 version 2.00 or later)

■ **Image Enhancement**

This function removes snowfall or rainfall from images to make them easily viewable.

■ **Heat map**

This function visualizes the passing and loitering density of people.

■ **Hardware decoder (QSV)**

This is a function that is built into the Intel® Core processor and the formal name is Intel® Quick Sync Video. This function is used to process high-resolution H.264 video. Refer to "https://www.intel.com/content/www/us/en/architecture-and-technology/quick-sync-video/quick-sync-video-general.html" for further information.

■ **Hardware decoder (H.265)**

This function can perform H.265 image processing at high-speed.

■ **Cropping**

This is a function that makes images easy-to-see by cropping a part or 5 parts on a panorama image.

■ **Failover**

This is a function of the recorder. Even when an error occurred in the recorder during operation, recording will continue by switching to a recorder in the standby mode.

■ **Security certificate**

This is an electronic certificate used by the device registered in this software for secure communication (SSL / HTTPS communication).

■ **Self-signed certificate**

This is an electronic certificate that is signed and issued with your own private key, not a certification authority.

■ **Edge(IE mode)**

It is a function of the Microsoft Edge that can directly access to websites for the Internet Explorer (IE).

Refer to the following website for details. (As of November 2021)
https://docs.microsoft.com/en-us/deployedge/edge-ie-mode

2. Preparation

2.1. From installation to start operation

1 Installation of this software

Refer to "☞2.2.1. Installation".

↓

2 Launching of ASM300

Refer to "☞2.3.1. Launch this software".

↓

3 Obtain the license (Registration Key)

Acquire the Registration Key by following the instructions described on the provided Activation Key Card.

↓

4 Register the license (Registration

If necessary, register the "Registration Key" for the Extension Software (option).
Refer to "☞2.3.1.1. Registration of license when launching the first time".

Important:

- Be sure to perform the registration procedure on the PC in use.
- To use the demo edition (available for 90 days), it is required to register the registration key of the demo edition. Refer to "Readme.txt" on the DVD-ROM about the Registration Key for the demo version.

↓

5 Register the administrator

Refer to "☞2.3.1.2. Registration of the administrator account when launching the first time".

↓

6 Login

Refer to "☞2.3.2.1. Log in".

Setting

7 System setting

Refer to "☞3.2. Settings relating to the system".

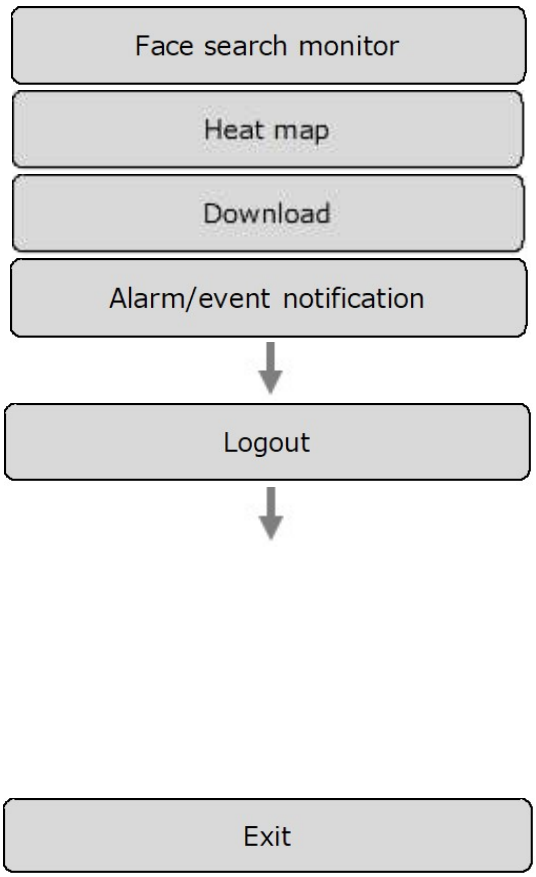
Device setting

Refer to "☞3.3. Settings relating to the device management".

	User management setting	Refer to "☞3.4. Settings relating to the user management".
	Folder setting	Refer to "☞3.5. Settings relating to folder".
	Group	Refer to "☞3.6. Settings relating to group".
	Sequence	Refer to "☞3.7. Settings relating to sequence".
	Map setting	Refer to "☞3.9. Settings relating to map".
	Default screen setting	Refer to "☞3.8. Settings relating to the default screen".
	Face search setting	Refer to "☞3.10. Settings relating to the face search".
	AI camera setting	Refer to "☞3.11. Settings relating to AI camera".
	Event action setting	Refer to "☞3.12. Settings relating to the event action"
	Communication setting	Refer to "☞3.13. Settings relating to the communication".
	Controller setting	Refer to "☞3.14. Settings relating to the controller".
	Maintenance setting	Refer to "☞3.15. Settings relating to maintenance".
	↓	
	Registration of license	Refer to " ☞ 3.16. Settings relating to the license registration".
	↓	
8	Exceptional settings of Windows Firewall	When using the download function or the TCP alarm notification function (alarm notification, event notification), configure the exceptional settings of Windows Firewall. Refer to "☞3.17. Exceptional settings of Windows Firewall".

Operation

9	Operation window	Refer to "☞4.1. Use the operation window".
	Live window	Refer to "☞4.3. Use the live window".
	Map window	Refer to "☞4.4. Use the map window".
	Search window	Refer to "☞4.5. Use the search window".
	Visibility Enhancement	Refer to "☞4.6. Use the visibility enhancement function".



Refer to "☞4.7. Use the face search monitor".

Refer to "☞4.8. Use the heat map display function".

Refer to "☞ 4.10. Use the download function".

Refer to "☞4.12. Alarm/event notification".

Refer to "☞2.3.2.3. Log out (Switch to another user)".

Note:

- For frequent users, it is unnecessary to log in at start-up of the software when using the auto login function.
- Only an administrator can configure the settings for the auto login function.

Refer to "☞2.3.3. Terminating this software".

2.2. Installation/uninstallation

2.2.1. Installation

Install this software.

Important:

- Before installing this software, it is necessary to uninstall WV-AS65, WV-ASM100 series, WV-ASM200 series, and WV-ASM10. The warranty will not be applied if being operated in the state that this software and any of WV-AS65, WV-ASM100 series, WV-ASM200 series, and WV-ASM10 are installed on the same PC.
- When reinstallation is necessary, uninstall the existing software before starting the reinstallation. An overwrite installation may cause unstable operations. When the setup data is necessary, save the setup data before uninstalling this software.

Step 1

Insert the provided DVD-ROM into the DVD-ROM drive on the PC.

Step 2

Double-click "setup.exe" in the folder "1 Video Surveillance Software".
When Microsoft®.NET Framework 4.6.x is not installed on a PC on which this software is installed, the installation of it will start automatically. Please wait until the installation is complete. Then, the installer of

"Video Surveillance Software" will be launched. Install the software by following the instructions displayed on the monitor.
When installing in a standard setting, the executable files, etc. will be copied on a newly created folder "C:¥Program Files¥i-PRO¥ASM300" for 32-bit OS, and "C:¥Program Files(x86)¥i-PRO¥ASM300" for 64-bit OS.

Caution

- When Microsoft® .NET Framework 4.6.x is not installed on the PC in use, the installer of Microsoft® .NET Framework 4.6.2 will automatically be launched. Install the software by following the instructions displayed on the monitor. After installation is complete, the PC will be rebooted automatically.
- After rebooting, the installer of "Video Surveillance Software" will be launched automatically.
- Microsoft® .NET Framework recommends that you regularly upgrade and install updates for security reasons.

Step 3
Configure the firewall exception setting. Refer to "☞ 3.17. Exceptional settings of Windows Firewall" for further information.

Step 4
Reboot the PC. When completing steps 1 - 3, reboot the PC to complete the installation.

Important:

- Before starting operation, set the required information such as user registration, device registration, etc. on the setup window.

2.2.2. Uninstallation

Important:

- When this software is uninstalled, the setup data (data base) will not be deleted.
- The data downloaded from the recorder and camera will not be deleted even when this software is uninstalled.
- Microsoft® .NET Framework 4.6.x will not be deleted even when this software is uninstalled. When it is necessary to uninstall them after uninstalling this software, uninstall them in the following order.
- If a message window is displayed to ask you to exit other applications when uninstalling this software, click the [Cancel] button to cancel the uninstallation. Then, terminate the corresponding services and try to uninstall this software again. Refer to the manuals of the operating system separately in use for how to stop the services.
- Even when this software is uninstalled, the registries created by this software will not be deleted.

Step 1
Open "Uninstall a program" or "Programs and Features" in "Control Panel".

Step 2
Select "WV-ASM300 Series" from the presently installed programs and click the [Uninstall] button.
→ The uninstall program will be launched and the wizard will be displayed.

Step 3
Uninstall the program by following the displayed instructions.

2.3. Launching and terminating this software

2.3.1. Launch this software

Important:
- Registration of the license is required before using this software. This software will not work if the license is not registered.
- Register the license for the software after confirming that the network adapter of the PC is enabled.
- The setup window can be started up only by a user who is registered as an administrator.
- Before using this software, check to be sure that Easy IP Setup Tool (version 4.5 or later) is not running.
- When this software is started immediately after PC startup, it may not start correctly depending on the startup timing of other OS-related services. If the software fails to start up, it will start up normally by starting it up again about 2 minutes after PC startup. (Starting this software from Windows Startup is not recommended.)

Select "Operation Software" from "Start" menu ("All apps" - "i-PRO" - "Operation Software") or double-click the "Operation Software" icon on the desktop to launch this software.



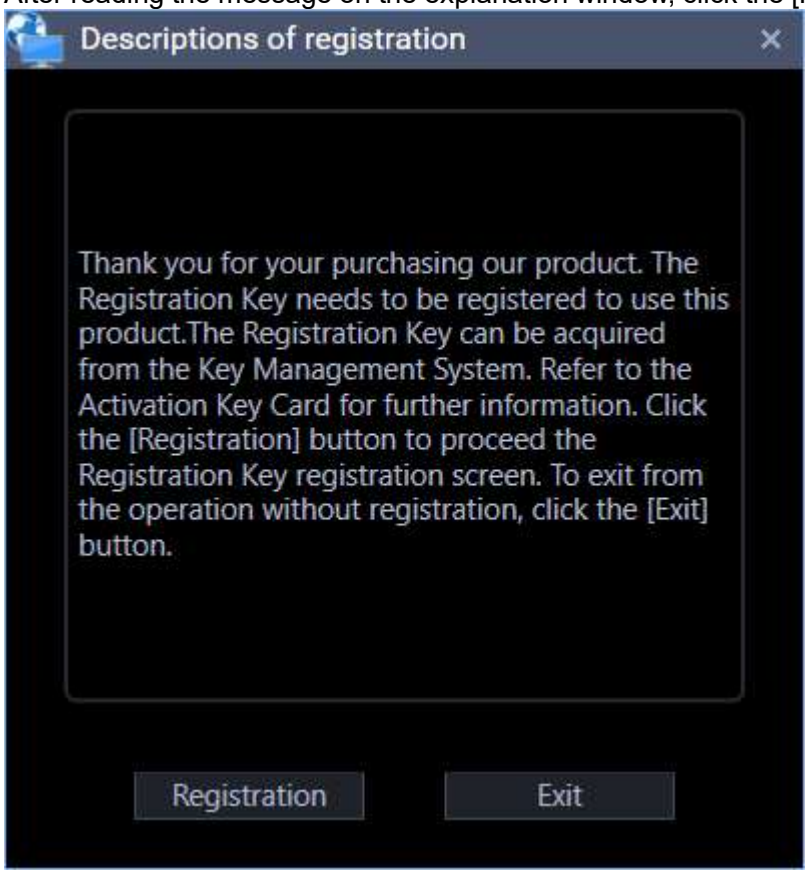
→ When launching the first time after the installation, the explanation window for registration will be displayed.
Refer to "☞2.3.1.1. Registration of license when launching the first time".

→ When the registration of license and administrator account is already completed, the log-in window will be displayed.
Refer to "☞2.3.2.1. Log in".

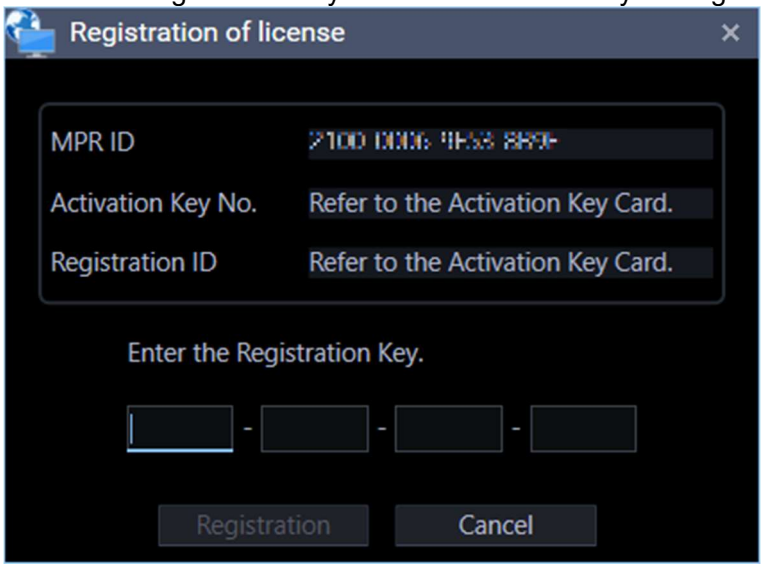
2.3.1.1. Registration of license when launching the first time

When launching the first time after the installation, the explanation window for registration will be displayed. Follow the instructions displayed on the monitor and register the license.

Step 1
After reading the message on the explanation window, click the [Proceed to the registration screen.] button.



Step 2
Enter the "Registration Key" obtained from the Key Management System.

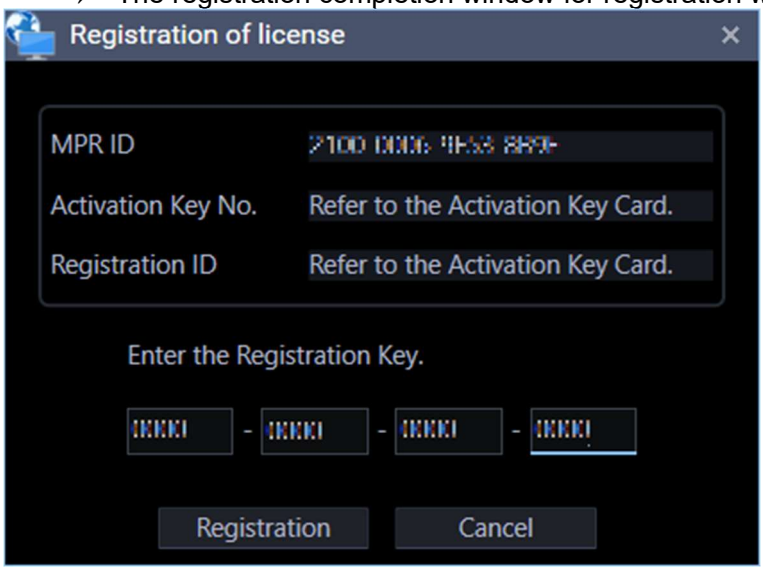


Important:
- The Registration Key can be used only on a PC that displays MPR ID (used to obtain the key) on its screen.
- It cannot be used on other PCs.

Step 3

Click the [Registration] button.

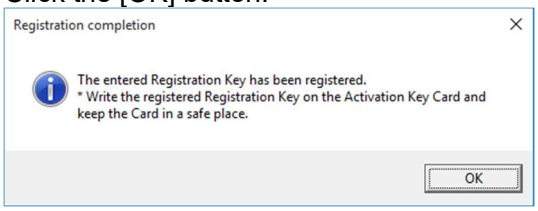
→ The registration completion window for registration will be displayed.



Important:
- It is impossible to register the "Registration Key" of the extension software (option).
- Be sure to perform the registration procedure on the PC in use.

Step 4

Click the [OK] button.



→ The license registration will be completed. The registration window for the administrator account will be displayed.
Refer to ☞ 2.3.1.2. Registration of the administrator account when launching the first time.

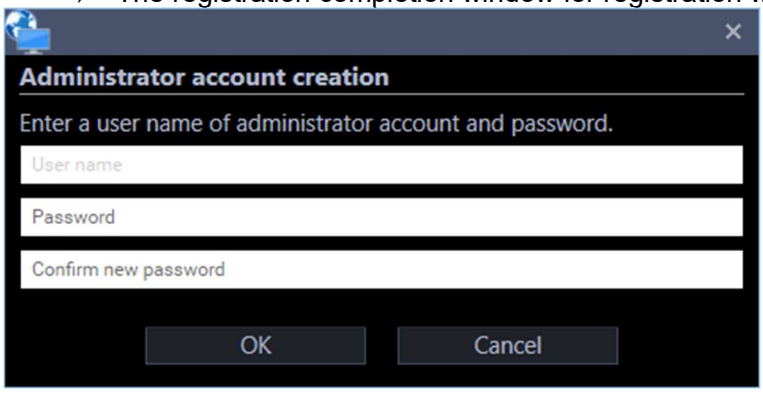
2.3.1.2. Registration of the administrator account when launching the first time

If no administrator account is registered, register an account that has an administrator authority.

Step 1

Enter a user name (administrator name) and a password, then click the [OK] button.

→ The registration completion window for registration will be displayed.



■ **User name**

Enter a user name to be registered for the administrator account.
Enter 4 - 32 alphanumeric characters for the administrator name.
Symbols, special characters cannot be used. The administrator name already in use cannot be used.

■ **Password**

Enter a password to be registered for the administrator account.
Enter 8 - 32 alphanumeric characters and special character for the password.
The entered password will be displayed as "●".

Important:

- Set a password that includes three of the following four character types.
  - Upper-case alphabet character
  - Lower-case alphabet character
  - Number
  - Special character(!#$%’()-=^~¥|@`[]{}+*,.<>/?_)
- ”&:; and a space is unavailable.
- A password consists of the same character string as “user name” is unavailable.

■ **Confirmation entry for password**

Enter a password to be registered for the administrator account.
Check the typing error for password.
The entered password will be displayed as "●".

■ **[OK] button**

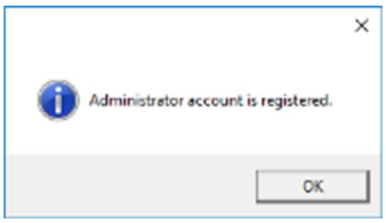
Click this button to apply and save the new password. (The window will close.)
The [OK] button cannot be clicked unless all entries are completed.

■ **[Cancel] button**

Click this button to cancel the entries. (The window will close.)

Step 2

Click the [OK] button.



→ The registration of the administrator account will be completed.

2.3.2. Login/Logout

2.3.2.1. Log in

Step 1
Enter the registered "user name" and "password".



Important:
- It is recommended to change the password for the administrator periodically.

Note:
- It is possible to register a user as the auto login user when the same user name is used each time to log in to the software. Also, login by Single Sign-On function is available based on information of a Windows user who logged on to the domain in association with the Active Directory Server. The default setting of "User authentication" is "ON" (Not log in automatically). Change of the "User authentication" setting is made on the setup window by an administrator.
- Refer to "☞ 3.4.1. Basic setup" for further information.
- If Single Sign-On failed, the usual authentication window will be displayed after the error message.

Step 2
Click the [OK] button.

→ The operation window including the operation screen will be displayed.



Note:

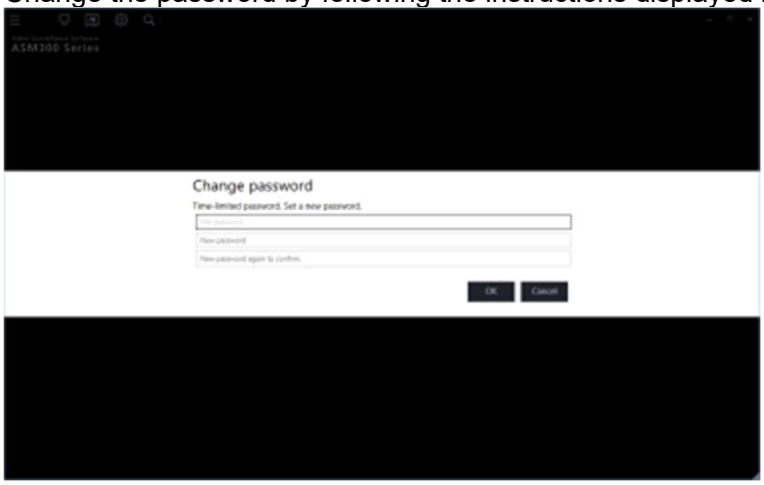
- Unless otherwise mentioned, the screenshots of the operation window in this document are in the state that the license for the Extension Software WV-ASE202 is not being added.
- For the icon display of the tool bar of the operation window in case that the license of the Extension Software is added, refer to “☞2.6.1. Tool bar”.

Validation period of password

An administrator can set the expiration date (31days/92days/184days/Time-limited password OFF) of the password.

When trying to log in after the set period passed, the message window saying "Please change the password." will be displayed.

Change the password by following the instructions displayed in the window.



■ Old password

Enter the current password. The entered password will be displayed as "●".

■ New password

Enter the new password. The entered password will be displayed as "●".

Enter 8 - 32 alphanumeric characters and special character.

■ Enter the new password again to confirm.

Enter the new password. Check the typing error for password.

The entered password will be displayed as "●".

■ **[OK] button**

Change the password by following the entered content and shift to the operation screen.
The [OK] button cannot be clicked unless all entries are completed.

■ **[Cancel] button**

Click this button to cancel the entries, and then return to the login window.

Important:
- Set the password using the characters following the selected password policy.
- ”&:; and a space is unavailable.
- A password consists of the same character string as “user name” is unavailable.
- The same password as the old password cannot be set as a new password.

Note:
- It is impossible to log in using an expired password.

2.3.2.2. Change the password

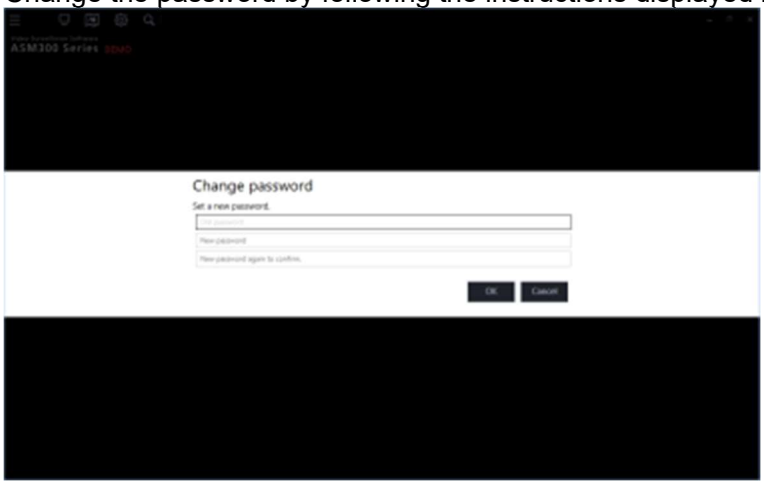
Step 1

After entering for “User name” and “Password” on the login window, check the check box of “Change password” and click the [OK] button.

→ The "Change password" window will be displayed.

Step 2

Change the password by following the instructions displayed in the window.



■ **Old password**

Enter the current password. The entered password will be displayed as "●".

■ **New password**

Enter the new password. The entered password will be displayed as "●".
Enter 8 - 32 alphanumeric characters and special character.

■ **Enter the new password again to confirm.**

Enter the new password. Check the typing error for password.
The entered password will be displayed as "●".

■ **[OK] button**

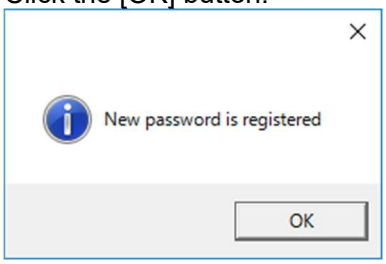
Change the password by following the entered content and shift to the operation screen.
The [OK] button cannot be clicked unless all entries are completed.

■ **[Cancel] button**

Click this button to cancel the password change and shift to the operation screen.

Important:
- Set the password using the characters following the selected password policy.
- ”&:; and a space is unavailable.
- A password consists of the same character string as “user name” is unavailable.
- The same password as the old password cannot be set as a new password.

Step 3
Click the [OK] button.

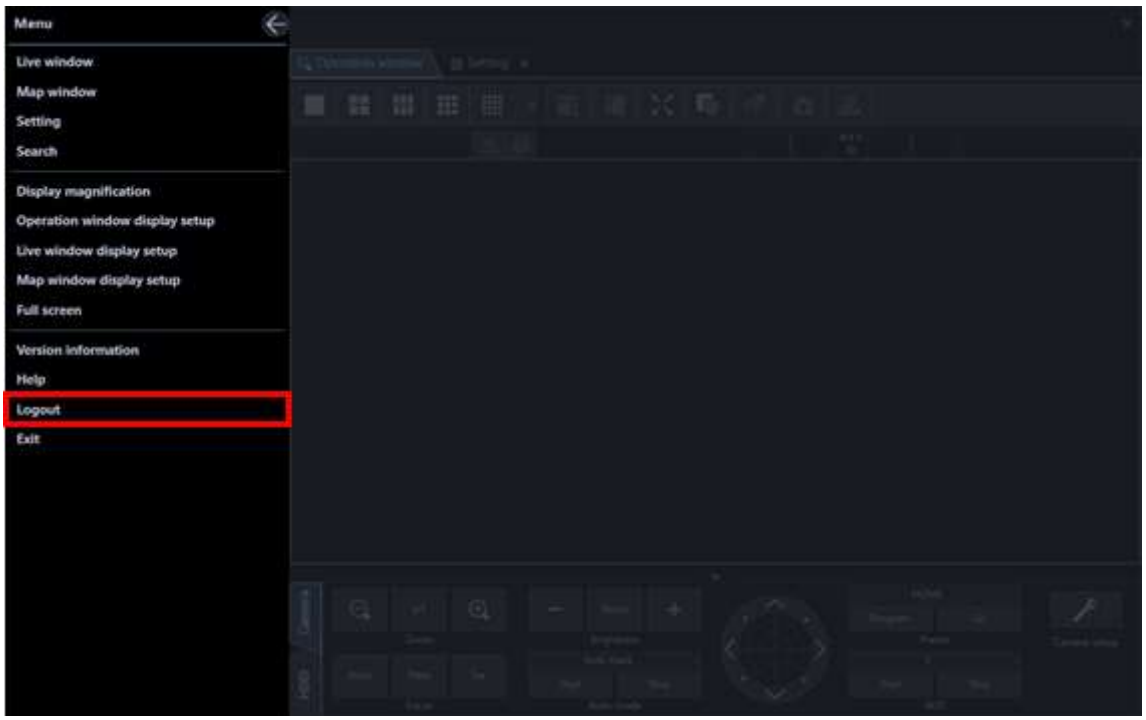


→ The password change will be completed.

2.3.2.3. Log out (Switch to another user)

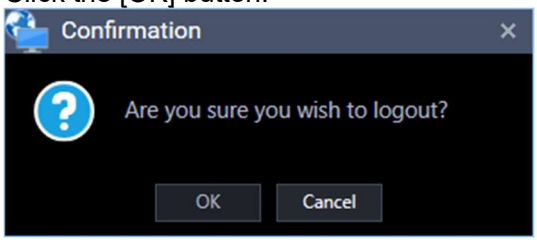
After logged out, by logging in using a different user name, it is possible to switch to another user.

Step 1
Select the "Logout" on the menu.



Step 2

Click the [OK] button.



Step 3

The login window will be displayed. To exit, click the [Cancel] button. To log in as another user, continue the operation by following the instructions below.

Enter the registered "user name" and "password".



Step 4

Click the [OK] button.

→ The operation window including the operation screen will be displayed.



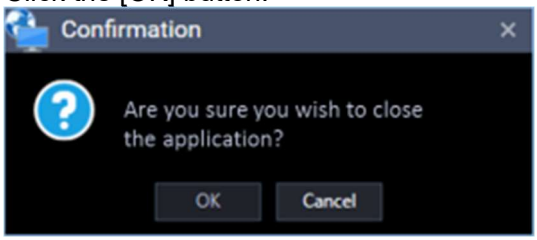
2.3.3. Terminating this software

Step 1
Select "Exit" on the menu or click the [×] button at the top right of the operation window.



→ The completion window will be displayed.

Step 2
Click the [OK] button.



→ This software will be terminated.

2.4. Upgrade this software

Important:
- Check regularly the i-PRO support website and update to the latest version.
- When upgrading, contact the dealer and follow its instructions.
- After upgrading, it is impossible to restore the previous version.

Step 1
Contact the dealer and download the latest installer of this software from the following URL.
URL: https://i-pro.com/global/en/surveillance/training-support/documentation-database-list

Step 2
Save the configuration data of this software to a folder following the procedure described in "☞3.15.5.1. Save the setup data as a backup".

Step 3
Uninstall this software following the procedure descried in "☞2.2.2. Uninstallation".

Step 4
Double-click the downloaded "setup.exe" file. The installer of Video Surveillance Software will be launched. Install the software by following the instructions displayed on the monitor.

Step 5
Reboot the PC. When completing steps 1 - 3, reboot the PC to complete the installation.

2.5. ASM300 main screen description

The following are descriptions about the main screens of ASM300.



■ **Title bar**

Displays the shortcut icons of screens that can be displayed by the menu items and the tabs.
Refer to "☞ 2.5.1. Title bar" for further information.

■ **Tab**

Displays the tabs of “operation window”, “live window”, “map window”, “setup window” and “search window” to be used on this software.
Display order of the tabs can be changed and each tab can be opened separately from ASM300 as an independent window.
Refer to "☞ 2.5.2. Tab and Window" for further information.

2.5.1. Title bar



The following are the descriptions of icons located from the left to the right.

■ **[Menu] icon (**  **)**

The menu items are located on the menu bar. Refer to "☞2.5.1.1. Menu" for further information.

■ **[Live window] icon (**  **)**

Displays the Live window. Refer to "☞ 4.3. Use the live window" for further information.

■ **[Map window] icon (**  **)**

Displays the Map window. Refer to "☞ 4.4. Use the map window" for further information.

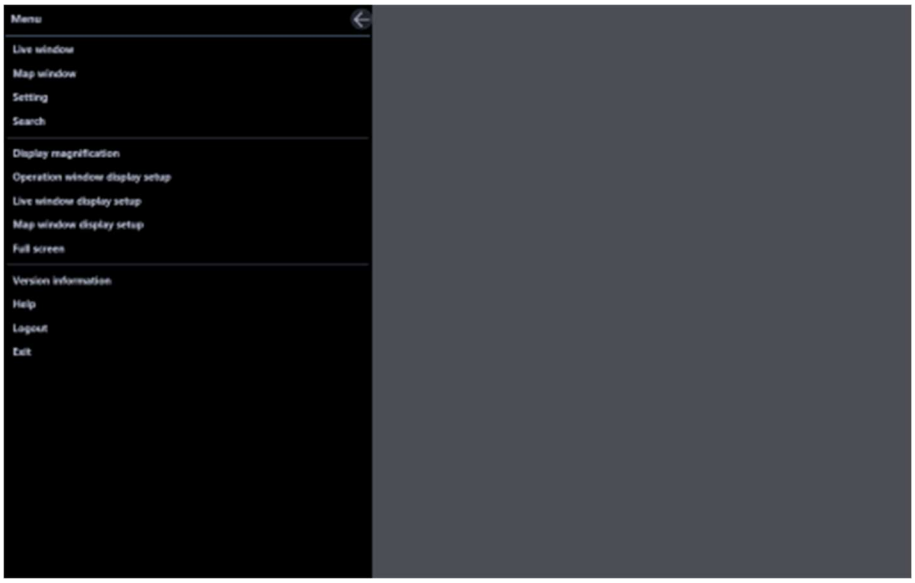
■ **[Setting] icon (**  **)**

Displays the Setting window. Refer to "☞ 3. Setup Instructions" for further information.

■ **[Search] icon (**  **)**

Click this button to display the "Search" window. Refer to "☞ 4.5. Use the search window" for further information.

2.5.1.1. Menu



■ **[Close] button ( )**

Closes the menu.

■ **Live window**

Displays the Live window. Refer to "☞ 4.3. Use the live window" for further information.

■ **Map window**

Displays the Map window. Refer to "☞ 4.4. Use the map window" for further information.

■ **Setting**

Displays the Setting window. Refer to "☞ 3. Setup Instructions" for further information.

■ **Search**

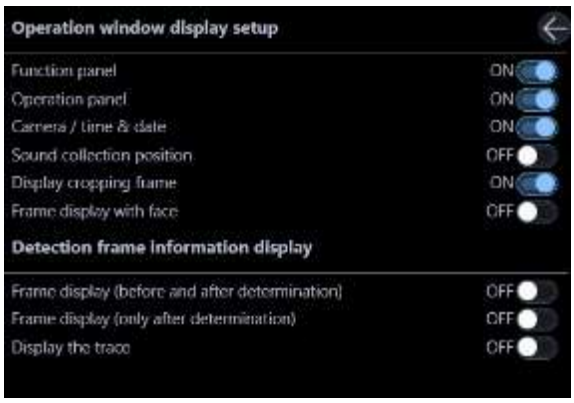
Click this button to display the "Search" window. Refer to "☞ 4.5. Use the search window" for further information.

■ **Display magnification**

Set the size of the operation window. Refer to "☞ 2.5.3. Set the display magnification" for further information.

■ **Operation window display setup**

It is possible to display/hide function panel, operation panel, camera / time & date, sound collection position, cropping frame, face frame and detection frame information of the operation window.



<Detection frame information display>
Determine whether to display the frame or trace on an image when detected an alarm.

Frame display (before and after determination)
- ON: Display the detection frame.
  Detection frames before determining AI-VMD alarm/i-VMD alarm/AVMD alarm (blue frames) and detection frames after determining (red frames) will be displayed.
  Detection frames before determining occupancy detection alarm (blue frames, light blue frames) and detection frames after determining (red frames) will be displayed.
  - ➢ People in the detection area where an alarm occurred will be displayed with red frames.
  - ➢ People in the detection area will be displayed with blue frames.
  - ➢ People out of the detection area will be displayed with light blue frames.
- OFF: Not display the detection frame.

Default: OFF

Frame display (only after determination)
- ON: Display the detection frame.
  Detection frames after determining occupancy detection alarm/AI-VMD alarm/i-VMD alarm/AVMD alarm (red frames) will be displayed.
- OFF: Not display the detection frame.

Default: OFF

Display the trace
- ON: Display the trace.
  Trace of movement of the detected object will be displayed with a green line.
  In case of occupancy detection, trace will not be displayed.
- OFF: Not display the trace.

Default: OFF

Note:
- Face frame function will become available after the license for the WV-ASE231 is added.
- If the software version is less than 3.00, detection frame information will become available after the license for the WV-ASE231 is added.
- Face frame and detection frame information function is supported by some models only.
- Face frame and detection frame information will be displayed only when displaying images on 1-screen.
- For fisheye cameras, when “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), the face frame and detection frame information will not be displayed.

- The AI motion detection application (WV-XAE200W) does not support the additional information type “With detected object information (AI frame information)”.
- When the number of people being captured by the camera exceeds 40 during the occupancy detection, some people may not be detected and the occupancy detection may not work correctly. For other precautions, refer to the operating instructions of the extension software (AI Occupancy Detection Software).
- When displaying images (MPEG-4) via ND300 or ND200, detection frame information will not be displayed.
- When displaying images via ND300, ND200, NV200, or NV300, i-VMD information will not be displayed.
- To display i-VMD information while displaying images via ND400, it is necessary to update the firmware of ND400 to V3.40 or later.
- The sound collection position will be displayed only when a network microphone is used.
  If this function is displayed, the sound collection position will also be displayed except when setting up the microphone.
  If this function is disabled, the sound collection position will be displayed only when setting up the microphone.

■ **Live window display setup**

It is possible to switch to display or hide the function panel of the operation window.

■ **Map window display setup**

It is possible to switch to display or hide the function panel of the map window.

■ **Full screen**

Display the image currently being displayed on a full screen.
Refer to "☞ 4.1.3.6. Monitor images on a full screen" for further information.

■ **Version information**

Displays the version information.

■ **Help**

Displays the operating instructions (help file).

■ **Logout**

Enables logout, and displays the login window.
Refer to "☞ 2.3.2.3. Log out (Switch to another user)" for further information.

■ **Exit**

This software will be terminated.

2.5.2. Tab and Window

Display order of the tabs of “live window”, “map window”, “search window” and “setup window” can be changed and each tab can be opened as an independent window.

Note:

- If you have Microsoft® .NET Framework 4.8.x or later installed, refer to “☞4.5. Use the search window” for the operation of search window tab.

2.5.2.1. Open the tab/Close the tab

■ **Open the tab**

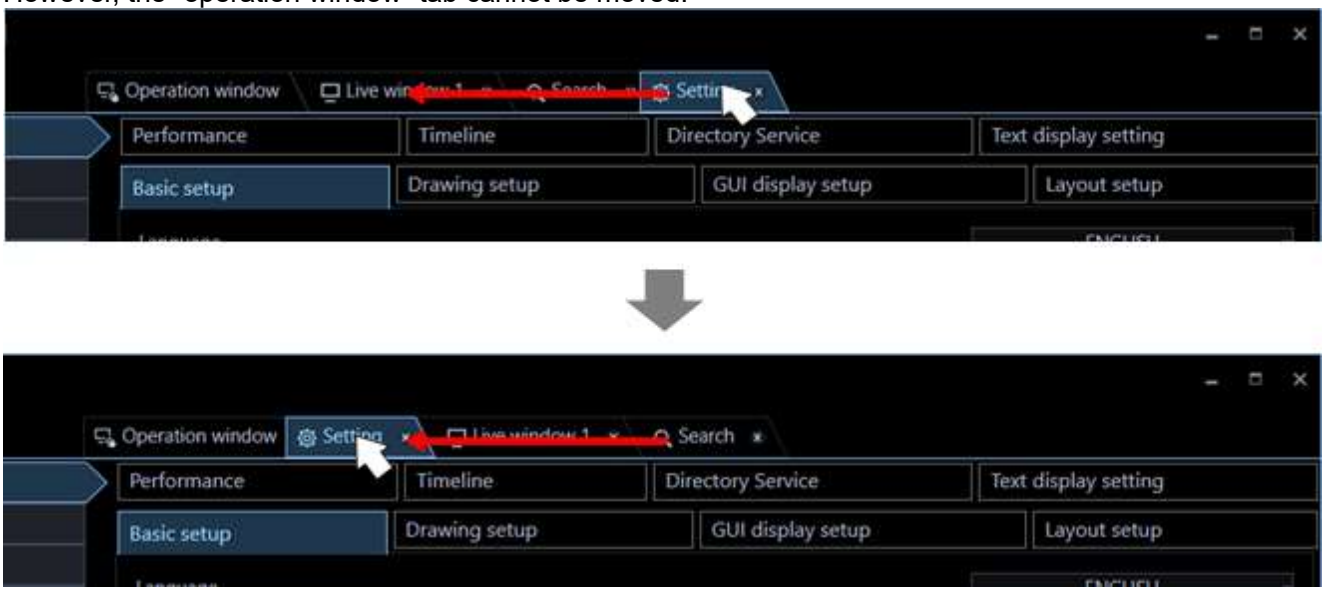
To display “Live window”, “map window”, “setup window” and “search window” as a tab page, click a shortcut icon on the title bar or select a corresponding item from the menu. Refer to "☞2.5.1. Title bar" and "☞2.5.1.1. Menu" for further information.

■ **Close the tab**

A tab can be closed by clicking the [×] button net to a tab title.

2.5.2.2. Change display order of tabs

Display order of tabs on the window can be changed by dragging a tab onto the next tab.
However, the “operation window” tab cannot be moved.



2.5.2.3. Separate a tab/Combine a tab with the window

■ **Separate a tab**

It is possible to separate a tab from the window by dragging and moving the tab.
However, the “operation window” tab and the “setup window” cannot be separated from the window.
The tabs can be set inseparable in the system setup. Refer to "☞3.2.1. Basic setup" for further information.



■ **Combine a tab with the window**

It is possible to combine a separated tab with the window by dragging the tab onto the window in which the tab was originally located.



Note:

- A state whether the tab is separated or combined will be held until the next time this software is launched.

2.5.3. Set the display magnification

Set the display size of each window.

Step 1

Click the [Menu] icon on the title bar.

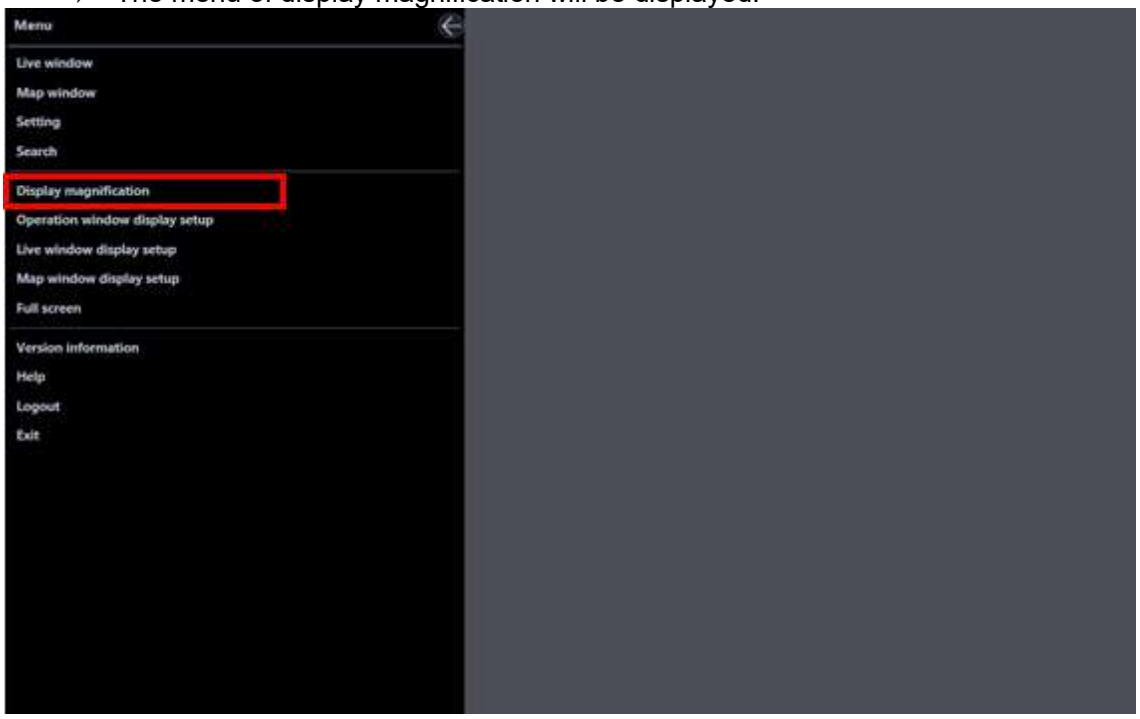
→ The menu will be displayed.



Step 2

Select the [Display magnification] of menu.

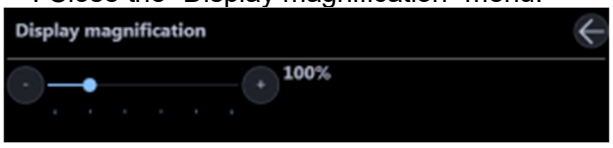
→ The menu of display magnification will be displayed.



Step 3

■ **[Display magnification] menu**

Perform enlargement or reduction of the display magnification by operating position of the slider.
The display magnification ratio can be selected from 75%/100%/125%/150%/175%/200%.
+: Increases the display magnification.
-: Reduces the display magnification.
←: Close the ”Display magnification” menu.



Note:

- The minimum size in case when “75%” is selected for “Display magnification” is 960×600.
  The minimum size in case when “100%” is selected for “Display magnification” is 1280×800.
  The minimum size in case when “125%” is selected for “Display magnification” is 1600×1000.
  The minimum size in case when “150%” is selected for “Display magnification” is 1920×1200.
  The minimum size in case when “175%” is selected for “Display magnification” is 2240×1400.
  The minimum size in case when “200%” is selected for “Display magnification” is 2560×1600.
- “200%" is suited for a monitor screen resolution of 4K (3840x2160).
  When using a monitor whose resolution is less than 4K, it is recommended to set to “100%”.
  Regardless of the selected ratio for the display magnification setting, a breakage of the screen layout may occur depending on the settings of Windows.
  Check if the settings of Windows are set as follows.

■ **For Microsoft® Windows® 10**

1. Click [Setting] - [System] - [Display].
2. Set [Change the size of text, apps, and other items] to [100%].

■ **For Microsoft® Windows® 11**

1. Click [Setting] - [System] - [Display].
2. Set [Change the size of text, apps, and other items] to [100%].

- The face search monitor (available when the license for WV-ASE231 is applied), the heat map window (available when the extension option for image analysis is applied), the standard format conversion window, the visibility enhancement control (available when the license for WV-ASE205 is applied), the text information window and the viewer software are not applicable.
- This function is not applicable to the title bar on the top of the window, software name, minimize and maximize buttons, exit button, message windows, and other Windows-specific windows.
- The thickness of the borders of image selection frame border, screen parting border, detection frame information, face frame, sound collection position, cropping frame, drag & zoom frame and VMD search frame may vary depending on the display magnification.
- Depending on display magnification, some Windows desktop items (display magnification is 100%) may look different from the screen when displaying with "Normal". However, there is no difference in functions.

2.6. Operation window description

The following are descriptions about each item displayed on the operation window.

Note:

- The operation window display size can be changed between the range of 960×600 (smallest) and 3840×3840 (largest) with the mouse operation. Refer to "☞ 2.5.3. Set the display magnification" for further information.
  The minimum size in case when “75%” is selected for “Display magnification” is 960×600.
  The minimum size in case when “100%” is selected for “Display magnification” is 1280×800.
  The minimum size in case when “125%” is selected for “Display magnification” is 1600×1000.
  The minimum size in case when “150%” is selected for “Display magnification” is 1920×1200.
  The minimum size in case when “175%” is selected for “Display magnification” is 2240×1400.
  The minimum size in case when “200%” is selected for “Display magnification” is 2560×1600.
- The function panel and the image display area will become smaller/larger in accordance with the

change of the operation window display size.

- Image distortion may occur during the change of the operation window display size.



■ Tool bar

Displays the shortcut icons of each function.
Refer to "☞ 2.6.1. Tool bar" for further information.

■ Status bar

Displays a display status of images currently being displayed, playback speed, recorder name (encoder name) camera name, a status of recorder, status of alarm/error occurrence, presence or absence of SD memory data and time and date.
Refer to "☞ 2.6.2. Status bar" for further information.

■ Function panel

The function panel is provided on the left of the operation window. When the desired function bar on the function panel is clicked, the respective function panel will be displayed.
Refer to "☞ 2.6.3. Function panel" for further information.

■ Image display area

Displays images on 1-/ 2A-/ 2B-/ 3A-/ 3B-/ 3C-/ 4-/ 4A-/ 4B-/ 4C-/ 4D-/ 4E-/ 5-/ 6-/ 6A-/ 7-/ 7A-/ 9-/ 10-/ 13-/ 16-/ 25-/ 36-/ 49-/ 64-screen. (25-/ 36-/ 49-/ 64-screen will become available by adding licenses of WV-ASE202. The screen type can be changed simply by clicking the buttons displayed on “☞2.6.1. Tool bar”.
When right-clicking on this area, the pop-up menu will be displayed.
Refer to "☞ 2.6.4. Pop-up menu" for further information.
The descriptions of the alarm/error will be displayed in a pop-up window (notification window) on the operation window upon an alarm/error occurrence.

Refer to "☞ 4.12.1. Alarm/event notification message" for further information.

■ **Information display area**

Displays recording status of images, camera title and time & date.
Refer to "☞ 2.6.5. Information display area" for further information.

■ **Operation panel**

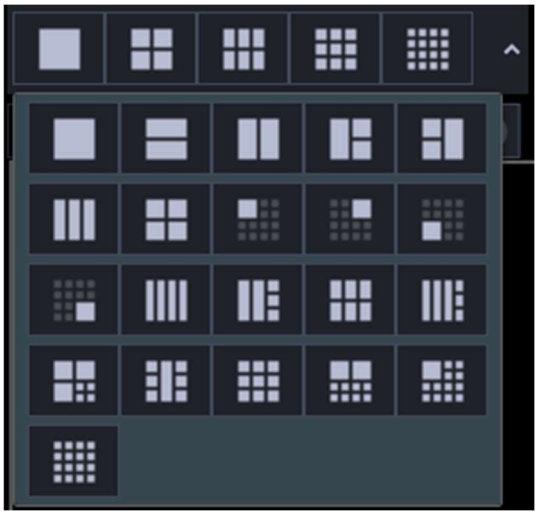
The cameras and recorders are operable with this panel. Refer to "☞ 2.6.6. Operation panel" for further information.

2.6.1. Tool bar



The following are the descriptions of icons located from the left to the right.

■ **[Screen layout] icon**



Selectable from the pull-down menu and the image display area can be changed.
Refer to "☞ 4.1.3.3. Switch the pattern of the screen" for further information.
An icon to be displayed at the top line of the pull-down menu can be set on the setup window.
Refer to "☞ 3.2.5. Layout setup" for further information.

■ **Icon move button ( ) ( )**



It may be displayed depending on the state of the shortcut icon.

An icon will slide to the left by clicking . An icon will slide to the right by clicking .

■ **[5 Cropping] icon ( )**

Click this icon to display the image display area with 5 cropping areas.

Note:
- The available screen pattern is 1-screen.
- This function is available only with the cameras (☞ 4.1.6. Use cropping function) activating the cropping function.
- It is impossible to select [5 Cropping] icon only from the system controller CU950 or CU980.

■ [1 Cropping] icon ( )

Click this icon to display the image display area with 1 cropping areas.

Note:
- The available screen pattern is 1-screen.
- This function is available only with the cameras (☞ 4.1.6. Use cropping function) activating the cropping function.
- It is impossible to select [1 Cropping] icon only from the system controller CU950 or CU980.

■ [Full screen] icon ( )

Display the image currently being displayed on a full screen.
Refer to "☞ 4.1.3.6. Monitor images on a full screen" for further information.

■ [Image Enhancement] icon (Available after the license for the WV-ASE205 is added) ( )

The image enhancement window will be displayed.
Refer to "☞ 4.6. Use the visibility enhancement function" for further information.

■ [Face search] icon (Available after the license for the WV-ASE231 is added) ( )

Click this icon to launch the face search monitor.
Refer to "☞ 4.7. Use the face search monitor" for further information.

■ [Heat map] icon (Available after the optional extension for Video Analytics is registered) ( )

Launch the Map window.
Refer to "☞ 4.8. Use the heat map display function" for further information.

■ [File conversion] icon ( )

The screen to be used to convert n3r files to playable files on the media player, etc. will be displayed.
Refer to "☞ 4.10.6.1. Convert a file to the standard format" for further information.

■ [Fisheye Control] icon ( )

When displaying fisheye images in the single PTZ or quad PTZ format, a number icon appears on the fisheye control screen to indicate the position where images are being displayed on the operation window.
Refer to "☞ 4.1.4.4. Use the fisheye control" for further information.

Note:
- This is applied only to images on 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of

3A-screen, on right area of 3B-screen, and on large areas of 7-/10-/13-screen.
- When [Fisheye] is selected for [Fisheye display menu], it is impossible to select [Fisheye Control].
- This function is available only for cameras that support the fisheye image display change function.
- Depending on the position of the number icon of [Fisheye Control], it may not be located at the center of displayed images.
- It is impossible to select [Fisheye Control] only from the system controller CU950 or CU980.
- When “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), [Fisheye control] cannot be selected. However, if “3D Dewarp” is turned on / off, it will not be reflected in the display state of the [Fisheye control] icon until you select a camera from the device tree again.

■ **[Decoder control] icon ( )**

Click this icon to display the "Decoder control" window.
Refer to the descriptions about the "☞ 4.9. Control a decoder" for further information.

■ **[Save a still picture] icon ( )**

Select this to save the image currently being displayed as a JPEG or BMP file.
Refer to "☞ 4.1.17. Save a still picture" for further information.

■ **[Print] icon ( )**

Select this to print the image currently being displayed.
Refer to "☞ 4.1.18. Print" for further information.

2.6.2. Status bar



Important:
- Check if the model in use is compatible with each function.

■ **Recorder title/camera title**

Source (recorder (encoder) title and the camera title) of the image currently being displayed will be displayed in this area.

■ **[ALM] button**

Indicates that an emergency recording is being performed or an event occurred. When the button is clicked, the alarm action will be cancelled.

Note:
- In case of ND300 (Version 4.69 or earlier) or HD300, the error action also will be cancelled.
- In case of ND300 or HD300, nothing will change even when an emergency recording is being performed.
- This button will not be displayed when using Video Insight Server.

■ **[ERR] button**

Indicates that an error occurred. When the button is clicked, the error action will be cancelled.

Note:
- In case of ND300 (Version 4.69 or earlier) or HD300, the alarm action also will be cancelled.
- In case of HD300, the error action will not be cancelled even when the button is clicked.
  In this case, refer to the operating instructions of the recorder in use for how to cancel an error action.

■ [SD] button (Button to obtain the SD memory data)

Indicates that the SD memory card in the camera connected to the recorder contains recorded images. When the button is clicked, the recorded images on the SD memory card will be transferred to the recorder.

Important:
- When the recording rate for the SD memory recording is not set, the SD memory data obtain button will not be displayed. Refer to the operating instructions of the recorder in use for how to set the recording rate for the SD memory recording.
- When using NX-series recorder, NU-series recorder or the recorder that does not support obtain of SD memory data manually, the SD memory data obtain button will not be displayed.
- The SD memory data cannot be obtained during the emergency recording. Refer to the operating instructions of the recorder in use for further information about the emergency recording.
- Depending on the recorder in use, all login users will be forcibly logged out when obtainment of the SD memory data starts. In addition, all cameras currently being performed will stop.

Note:
- The [SD memory data acquisition (letters "SD" in blue)] button will be displayed when there is no recorded image in the SD memory card.
- When the [SD memory data acquisition (letters “SD” in blue] button is clicked, checking if there is recorded image in the SD memory card or not will start. When there is, the letters “SD” will change to red. Images saved on the SD memory card will be transmitted to the recorder depending on the model of the recorder in use.
- When the [SD memory data acquisition (letters “SD” in red)] button is clicked, recorded images on the SD memory card will be transferred to the recorder.

■ [Mic input] button

Click this button to turn on/off the audio reception (from camera to PC). When this button is clicked, the button will turn into  and audio from the camera will not be heard.

Note:
- When right-clicked on the button, a pop-up menu will be displayed. Volume of audio reception can be adjusted by selecting Strong/Middle/Weak from this pop-up menu.
- When displaying images on a multi-screen, audio will be output from the camera which is the source of images displayed in the upper-left area of the multi-screen. When another area is selected, audio associated with images displayed in the upper-left area of the multi-screen will still be heard, though this button will disappear.
- When audio is being transmitted to the same camera by another user, this button will turn to  and become invalid. In addition, audio from cameras will not be heard for some cameras.
- This button will not be displayed when using Video Insight Server.

■ **[Audio output] button**

Click this button to turn on/off the audio transmission (from PC to camera). When this button is clicked, the button will turn to  and audio from the PC will not be sent.

Note:

- Volume level of audio transmission cannot be changed. (Depending on the camera in use, volume level of audio transmission can be adjusted by configuring the settings of the camera.)
- When displaying images on a multi-screen, audio will be transmitted to the camera which is the source of images displayed in the upper-left area of the multi-screen. When another area is selected, audio will still be transmitted to the camera which is the source of images displayed in the upper-left area, though this button will disappear.
- When audio is being transmitted to the same camera by another user, this button will turn to  and become invalid. In addition, the audio from the PC will not be sent.
- It is possible to transmit audio up to 5 minutes per transmission. When 5 minutes elapsed, the audio reception will be turned on automatically. To transmit audio again, click the [Audio transmission] button.
- In the case of a camera that receives images via the recorder, there is no sending function, so the [Audio output] button is not displayed.

■ **[LIVE]/[PLAY]/[SD PLAY]**

Indicates the type (live/playback/SD memory data playback) of the images currently being displayed.

■ **[Step 1] - [Step 7]**

Indicates the playback speed. Values in the brackets () is in the high-speed playback smooth mode.
[Step 1]: Normal playback speed
[Step 2]: Approx.4x playback speed (Approx.2x playback speed)
[Step 3]: Approx.8x playback speed (Approx.4x playback speed)
[Step 4]: Approx.16x playback speed (Approx.8x playback speed)
[Step 5]: Approx.32x playback speed (Approx.16x playback speed)
[Step 6]: Approx.48x playback speed (Approx.32x playback speed)
[Step 7]: Approx.96x playback speed (Approx.64x playback speed)

Note:

- Video Insight Server plays recorded images in the high-speed playback smooth mode. The maximum playback speed using Video Insight Server is [Step 5].
- When the image capture size and the frame rate of the recorded image are high, when the processing load is too heavy on the recorder or on the PC, or when the network traffic is heavy, the playback speed of the high-speed playback may become lower than the described value.

■ **REC lamp**

This indicator will light red when the recording of the images currently selected is being performed.

Note:

This button will not be displayed when using Video Insight Server.

■ **[COPY]/[DELETE]**

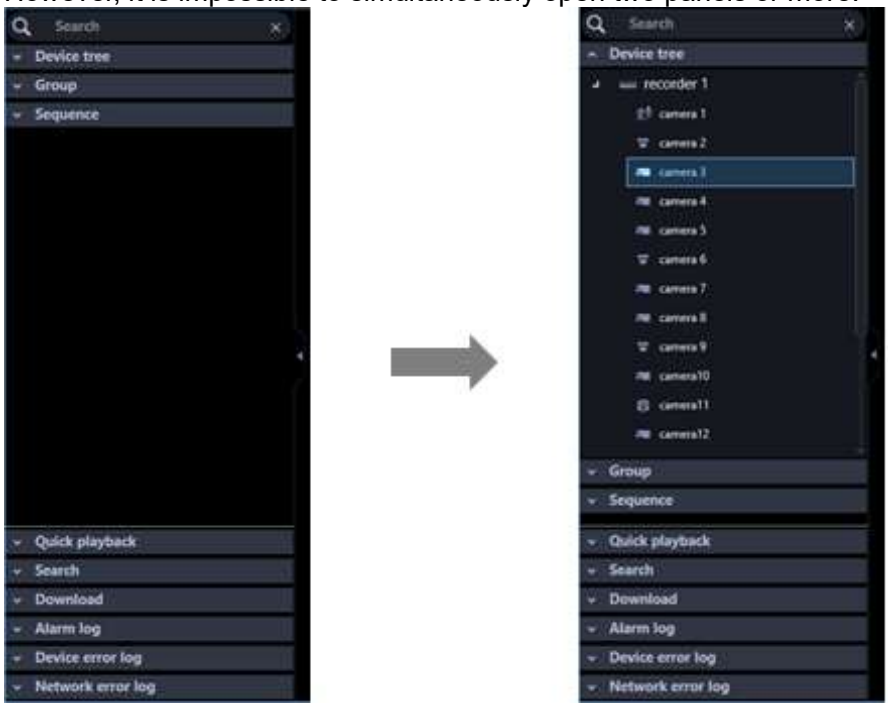
[COPY]: Indicates that copying of image data is being performed.
[DELETE]: Indicates that deletion of image data is being performed.

■ **Time & date**

When displaying live images, the time & date of the selected device will be displayed. (For some devices, Time & date will not be displayed when displaying images from camera that is not registered in the recorder or when images are directly being received.) When displaying recorded images, the recording time & date will be displayed. In case of 24h display, [AM]/[PM] will not be displayed.
The time & date will be followed by an asterisk "*" when the daylight saving time is applied.

2.6.3. Function panel

Operations of live/ playback/ search/ download/ alarm and error information can be performed using the function panels on the left of the operation window.
Each panel can be opened/closed by clicking the bar of the panel.
However, it is impossible to simultaneously open two panels or more.



Note:

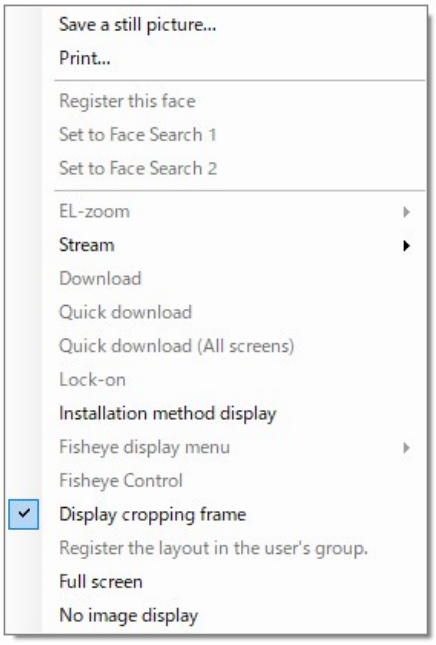
- Refer to the following about the descriptions of how to operate each function panel.
  Name search “☞4.1.1. Search for registered device name, folder name, group name, sequence name”
  Device tree panel "☞ 4.1.2. Confirm the registered devices"
  Group panel "☞ 4.1.7. Display images from the cameras registered as a group (group display)"
  Sequence panel "☞ 4.1.9. Switch groups automatically and display images from each group sequentially (sequence)"
  Quick playback panel "☞ 4.1.15.2. Play images using the "Quick playback" panel"
  Search panel "☞ 4.5.1.3.2. Play recorded images using the "Search" panel"
  Download panel "☞ 4.10.1. Download recorded images"
  Alarm log panel "☞ 4.1.16.1. "Alarm log" panel"
  Device error log panel "☞ 4.1.16.2. "Device error log" panel"
  Network error log panel "☞ 4.1.16.3. "Network error log" panel"
- As for the device tree panel, in case of HD300 and HD600, all channels of the camera will be

displayed in the tree regardless of the camera connection status.

- The device tree display can be changed to display sorted by group in each folder.
  The device tree on the search panel and the download panel will also change in the same manner. However, in case of the search panel and the download panel, only cameras registered in the recorder will be displayed.
  Refer to "☞ 3.2.2. Drawing and audio setup" for the setting to sort by group in each folder.
- When “ON” is selected for “Display the panel open/close button”, the panel open/close button will be displayed at the side of the menu panel. Displaying/hiding of the menu panel can be operated by clicking the icon [Δ] on the panel open/close button.
  Refer to "☞ 2.6.7. Display/Hide the function panel and the operation panel" for further information.
  Refer to the "☞ 3.2.4. GUI display setup" for information about “Display the panel open/close button”.

2.6.4. Pop-up menu

When right-clicking on the image display area, the pop-up menu will be displayed.
* 1 Selecting is available only when displaying images on a 1-screen.



■ Save a still picture*

If the license of WV-ASE231 is not registered, select this to save the currently displayed image as a JPEG file.
If the license of WV-ASE231 is registered, select this to save the currently displayed image as a BMP file. Resolution of images to be saved can be changed on the setup window. Refer to "☞ 3.2.2. Drawing and audio setup" for further information.

Note:

- "Save a still picture" on the pop-up menu will not be displayed when the user is restricted by the user level determined by the administrator to save an image as a still picture.

■ Print*

Select this to print the image currently being displayed.

Note:

- "Print" on the pop-up menu will not be displayed when the user is restricted by the user level determined by the administrator to print images.

■ Register this face (Available after the license for the WV-ASE231 is added)

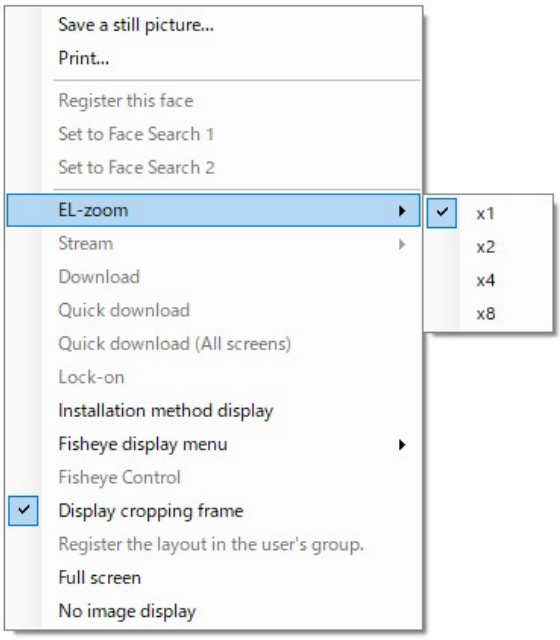
It is possible to newly/additionally register face thumbnail images from playback images on the recorder. Refer to "☞ 4.7.7.2. Register from recorded images" and "☞ 4.7.8.2. Additionally register from recorded images" for further information.

■ Set to Face Search 1/Set to face Search 2 (Available after the license for the WV-ASE231 is added.)

Playback images from the recorder can be set to "Faces" of "Face search".
Refer to "☞ 4.7.1. Search face" for further information.

■ EL-zoom*

Select this to enlarge the image currently being displayed. Zoom factor can be selected from “x1", "x2", "x4", and "x8".



Note:

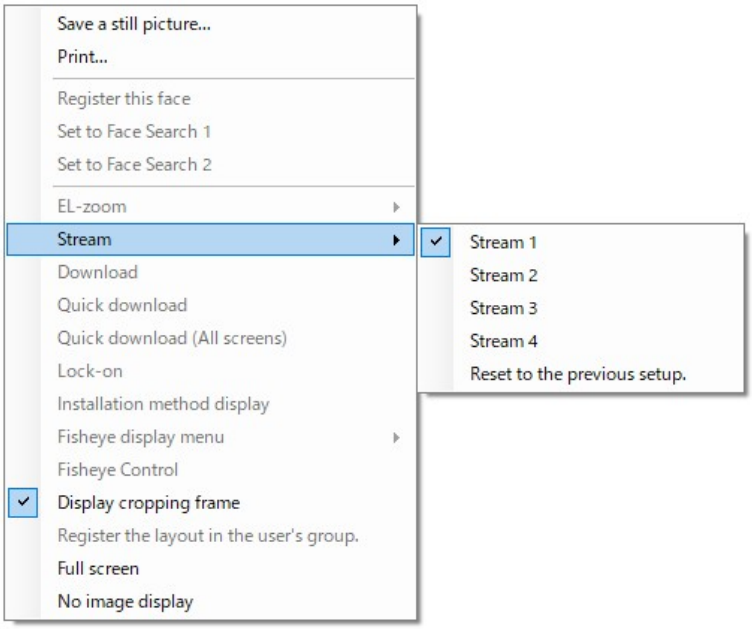
- A black screen may sometimes be displayed when keeping on clicking around the edge of the screen to enlarge MPEG-4, H.264 or H.265 images using the EL-zoom function.
- The [EL-zoom] button will not be displayed during playback of recorded images.
- The [EL-zoom] button will not be displayed when using Video Insight Server.
- For the cameras that can use this function, refer to "☞4.1.12. Camera image zoom operation".

■ Stream

Either of streams of live images or playback images in the selected area can be selected.
It can be selected from Stream 1/Stream 2/Stream 3/Stream 4/Reset to the previous setup.

Stream 1: Selects “Stream1”
Stream 2: Selects “Stream2”

Stream 3: Selects “Stream3” (Not be displayed in case of a recorder or a camera with 2 streams)
Stream 4: Selects “Stream4” (Not be displayed in case of a recorder or a camera with 2 streams)
Return to the previous setup: Returns to the stream previously set in “Device setup” on the setup window.



The stream when using the AI camera is as follows.

- **Independent camera**

If the camera in the selected area is the AI privacy guard independent camera, it can be selected from Stream 1/2, Stream 3/4 and Reset to the previous setup.

Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.
Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.
Return to the previous setup: Returns to the stream previously set in “Device setup” on the setup window.

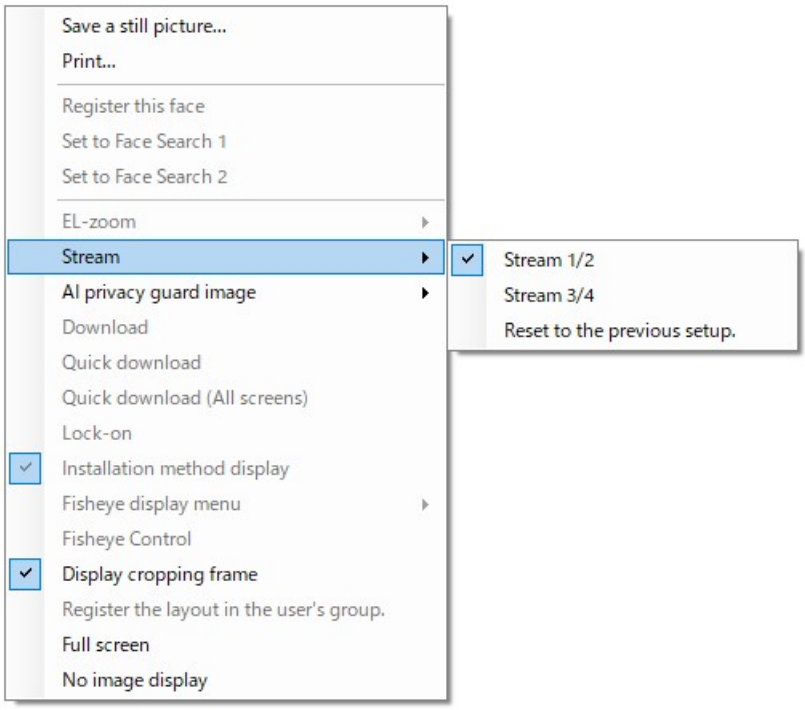
- **A camera registered by recorder (live image source: camera)**

If the camera in the selected area is the AI privacy guard recording camera, it can be select from Stream 1/2, Stream 3/4 and Reset to the previous setup.

Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.
Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.
Return to the previous setup: Returns to the stream previously set in “Device setup” on the setup window.

- **A camera registered by recorder (live image source: recorder)**

If the camera in the selected area is the AI privacy guard recording camera, it is impossible to select for “Stream”.



Note:

- Selection of live image stream is available only when directly receiving from a camera.
  When live images are being obtained via a recorder, it is impossible to select for “Stream”.
- Playback stream of images recorded in a recorder can be selected only when NX-series is in use.
  When a recorder other than NX-series is being used, it is impossible to select for “Stream”.
- If failed to receive the selected stream images, a black screen will be displayed.

■ AI privacy guard image

It can be switched between images by selecting whether to display images with AI privacy guard or normal images.

ON: Displays a normal image without AI privacy guard set.
OFF: Displays an image with AI privacy guard set.

Note:

- Only cameras with the AI privacy guard application (WV-XAE201W) installed are applicable.
- If a user without authorization of "AI privacy guard Image switching" is logged in, “AI privacy guard image” will be not displayed.
- If the AI camera registered in the recorder is not set to "AI privacy guard recording camera", [AI privacy guard image] will be not displayed. For AI privacy guard recording camera setting, refer to the instruction manual of the supported recorder.
- When the image of the AI privacy guard recording camera (OFF) associated to the image of the AI privacy guard recording camera (ON) is displayed on the multi-screen, switching one image on/off clears the image in the other image area that is associated.
- Image changes made by [AI privacy guard image] are temporary and will not be saved. However, this excludes cameras for which [Live image source] is set to [Recorder].

■ Download*

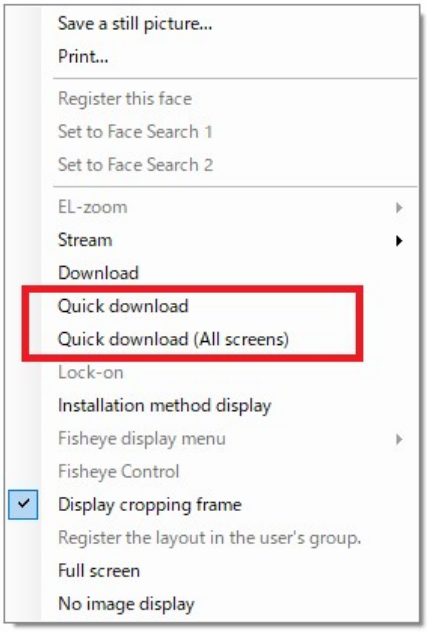
The download panel will open and display information (recorder/camera/time & date) of the recorded image currently being played.

Refer to "☞ 4.10. Use the download function" for further information.

Note:
- "Download" on the pop-up menu will not be displayed when the user is restricted by the user level determined by the administrator to download recorded images.
- When displaying live images, it is impossible to select "Download" on the pop-up menu.

■ Quick download

Download of images currently being played in the selected area will start.
Refer to "☞ 4.10.4. Use the quick download" for further information.



Note:
- "Quick download" on the pop-up menu will not be displayed when the user is restricted by the user level determined by the administrator to download recorded images.
- When displaying live images, it is impossible to select "Quick download" on the pop-up menu.
- The downloaded file will be saved on the desktop.

■ Quick download (All screens)

Download of images currently being played in all areas will start.
Refer to "☞ 4.10.4. Use the quick download" for further information.

Note:
- "Quick download (All screens)" on the pop-up menu will not be displayed when the user is restricted by the user level determined by the administrator to download recorded images.
- When displaying live images, it is impossible to select "Quick download (All screens)" on the pop-up menu.
- The downloaded file will be saved on the desktop.

■ Lock-on*

Select this to start auto track for the object on the clicked point only when "Camera" is selected for "Live image source". Depending on the target object or surrounding environment, this function may not work correctly.

Note:

• This function is available only when the camera in use is WV-SC386, WV-SW396/WV-SW396A, WV-SC588/WV-SC588A, WV-SW598/WV-SW598A, WV-SW397/WV-SW397A/WV-SW397B, WV-SC387/WV-SC387A, WV-X6533LN, WV-S6532LN, WV-S65340-Z4N, WV-S65340-Z2N, WV-S65340-Z4K, WV-S65340-Z2K, WV-S61302-Z4 or WV-S61301-Z2.

• This function is disabled when WV-X6533LN/WV-S6532LN is set into the “Insert/Remove SD memory card” mode.

■ Installation method display

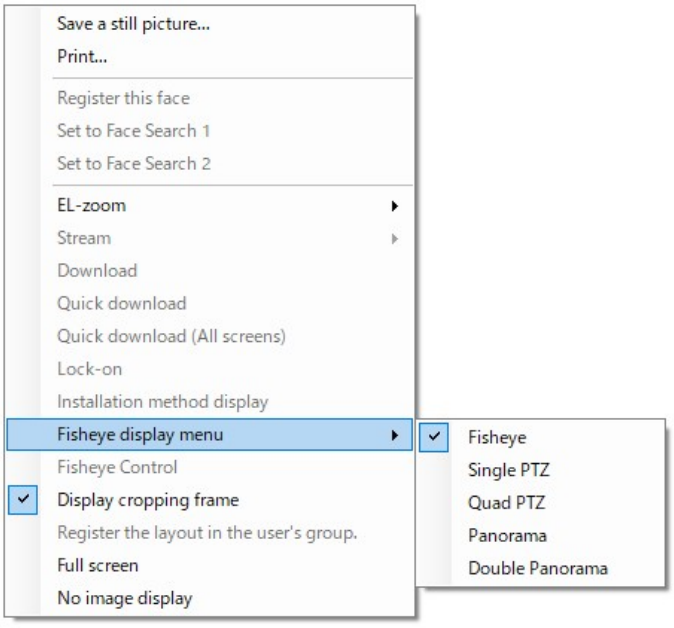
Determine whether to display the installation method of the fisheye camera at the upper left corner of the image display area of the operation window.
Refer to "☞ 3.18. Set the installation method of fisheye cameras" for further information.

Note:

• When “OFF” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), “Installation method display“ cannot be selected.

■ Fisheye display menu

Change the display format of fisheye images.
The display format is selectable from Fisheye, Single PTZ, Quad PTZ, Panorama and Double Panorama.



Note:

• This is applied only to images on 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large areas of 7-/10-/13-screen.

• This function is available only for live images or recorder playback images. SD playback images are not supported.

• This function is available only for cameras that support the fisheye image display change function.

• It is impossible to select [Fisheye display menu] only from the system controller CU950 or CU980.

- When “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), “Fisheye display menu” cannot be selected.

■ **Fisheye Control**

When displaying fisheye images in the single PTZ or quad PTZ format, a number icon appears on the fisheye control screen to indicate the position where images are being displayed on the operation window.

Note:

- This is applied only to images on 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large areas of 7-/10-/13-screen.
- When [Fisheye] is selected for [Fisheye display menu], it is impossible to select [Fisheye Control].
- This function is available only for cameras that support the fisheye image display change function.
- Depending on the position of the number icon of [Fisheye Control], it may not be located at the center of displayed images.
- It is impossible to select [Fisheye Control] only from the system controller CU950 or CU980.
- When “Recorder” is selected for “Live image source” of a fisheye camera registered in the recorder, images from the preset position of a camera in the default state will be displayed.
- When “Single PTZ” or “Quad PTZ” is selected for “Fisheye display menu”, “Auto pan”, “Preset sequence” and “Preset position registration” will not be supported. As for recorded images, “Brightness” will not be supported.
- It is impossible to select [Fisheye display menu] only from the system controller CU950 or CU980.
- When “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), “Fisheye control” cannot be selected.

■ **Display cropping frame**

Determine whether or not to display the cropping frame.

■ **Register the layout in the user's group**

A combination of the number of screens displayed in the operation window and the cameras in the image display area can be registered as a user’s group. The user’s group can be registered up to 10 groups per user. Refer to "☞ 4.1.8. Configure the user’s group" for further information.

Note:

- In the following cases, [Register the layout in the user's group] cannot be selected.
  - A user whose [Use user’s group] in the “User setting” window is disabled.
  - A user only registered to the software as the LDAP group.
  - When no camera is displayed in the 1-screen or multi-screen display in the image area.
  - When displaying the cropping window.
  - When displaying 4M group exclusive use for the multi-sensor camera.

■ **Full screen**

Display the image currently being displayed on a full screen.
Refer to "☞ 4.1.3.6. Monitor images on a full screen" for further information.

■ **Image rotation**

Adjust the display position when displaying fisheye images in the panorama or double panorama format.

<When displaying in the Panorama format>

- 30° clockwise: Rotates the display position 30° clockwise.
- 1° clockwise: Rotates the display position 1° clockwise.
- 30° counterclockwise: Rotates the display position 30° counterclockwise.
- 1° counterclockwise: Rotates the display position 1° counterclockwise.
- Reset to the initial value: Reset the initial display position to the previous position before rotation.

<When displaying in the Double Panorama format>

- 0° (Off): The image will not be rotated.
- 180° (Upside down): The image will be flipped upside down.

Note:

- This item is selectable only when a fisheye image is displayed in the panorama format or the double panorama format. In other cases, this item will not be displayed.

■ **No image display**

Clear the currently displayed image.

2.6.5. Information display area

Information of the images currently displayed, such as time & date, camera title and the recording status, will be displayed in this area.



■ **REC indicator/Mark of recorder in communication**

This indicator will light when a recording of images is being performed.

Note:

- It may take time to play depending on the operating environment of the recorder.
- Turn the disks other than the disk currently being accessed and its peripheral disks to the stand-by control mode (hibernation) to achieve life prolongation of the disks of NX400 (version 2.0 or later) and NX300. (Refer to the operating instructions of the recorder for further information about the HDD stand-by control mode.) When the inactive disk is accessed at the time of playback of recorded images, the mark  indicating that the recorder is in communication will be displayed in the information display section instead of the REC indicator until the disk responds.

■ **Camera name**

Indicates the camera name.

■ **Time & date**

Time and date of images will be displayed. For some devices, time & date will not be displayed when displaying images from a camera that is not registered in the recorder or when images are directly being received.

2.6.6. Operation panel

2.6.6.1. Camera operation panel



Important:
- Check if the model in use is compatible with each function.
- To operate the newly registered camera, restart this software before starting operation.

Note:
- Operation of the camera operation panel works only for the camera respective the selected image.
- The camera operation panel will not be displayed when the user is restricted by the user level determined by the administrator to operate the cameras.

■ Zoom

Zooming can be adjusted by clicking the [-] (wide) button or the [+] (tele) button.
When clicking the [x1] button, the zoom ratio will be reset.

Note:
- Zooming is available operating the mouse wheel on the camera image.
- For the cameras that can use this function, refer to "☞4.1.12. Camera image zoom operation".

■ Focus

When the [Auto] button (auto focus) is clicked, the focus will automatically be adjusted.
Focusing can be manually adjusted by clicking the [Near] button or the [Far] button.

■ Auto mode

Select the auto function from the following.
- Auto track: The camera automatically tracks motion of the subject displayed in the image display area.
- Auto pan: The camera automatically moves from the start point to the end point set in advance.
- Preset sequence: The camera automatically moves to the preset positions in numerical order of the preset position numbers.
- Sort: The camera automatically moves to the closest preset position from the current position.
- Patrol1 - Patrol4: Manual operation of the camera that recorded in advance will automatically be executed.

Clicking the [Start] button performs restart.
Clicking the [Exit] button performs restart.

Note:
- “Auto mode” are available only when the camera in use has these functions. Refer to the operating

instructions of the camera in use for further information about the auto function of the camera. When executing the auto mode with a fisheye camera on which “Quad PTZ” is selected for the image capture mode, images displayed in the upper left area of 4-screen will be operated.
- This function is disabled when WV-X6533LN/WV-S6532LN is set into the “Insert/Remove SD memory card” mode.
- When performing the auto mode while "Cropping" is selected for the image capture mode of 7-series cameras, only CH1 among CH1 - CH4 will work.
- When acquiring images from the recorder, the operation of patrol differs depending on the recorder model. When using the network recorder, only patrol 1 works.

■ Control pad

Clicking the buttons around the control pad can move (pan/tilt) a camera in the clicked direction. Clicking inside the control pad also can adjust the vertical/horizontal position (pan/tilt) of the displayed live images. Panning/tilting speed will be faster if a clicked point gets farther from the center point of the control pad.

Note:
- Panning and tilting are available only when the camera in use is a PTZ camera.
- For the cameras that can use this function, refer to "☞4.1.11. Camera image pan/tilt operation".

■ Brightness

By clicking the [–] (darker) button or the [+] (brighter) button to adjust the lens iris.
It is possible to reset the set brightness by clicking the [Standard] button.

■ Preset

Select a preset number from the following.
Default: HOME/1 - 256
When the [Move] button is clicked, the camera will move to the selected preset position.
When the [Registration] button is clicked, the current position will be registered as the preset position of the selected preset position number.

Note:
- Preset position function is available only when the camera in use is a PTZ camera.
- Registration is unavailable when [HOME] is selected.
- It is possible to register the preset position only when the user is not restricted by the user level determined by the administrator to operate the cameras.
- Refer to the operating instructions of the recorder and the camera in use for further information about the available preset position numbers.
- When executing the preset registration using a fisheye camera with the image capture size of "Quad PTZ", different action may be taken depending on the model of camera. Refer to the operating instructions of the devices for further information.
  When a 3M fisheye camera is used, the position of the camera from which images are displayed on the upper left screen of 4-screen will be registered.
  When a 5M fisheye camera or 9M fisheye camera is used, all of positions of the cameras from which images are displayed on 4-screen will be registered. The preset numbers will be handled in increments of 4.
  (Example) When an action is registered in preset number 2 (same action for preset number 1, 3 and 4), the action will be registered as the preset action of 1-4 (in order from the upper left screen).
- When performing the preset registration while "Cropping" is selected for the image capture mode of 7-series cameras, the position displayed on CH1 will be registered regardless of the currently

displayed channel (among CH1 - CH4).
Display images on CH1 when performing the preset registration.

- The preset position name (Preset No.) can be changed to a desired one. For details, refer to “☞ 4.1.13. Set the preset position name”.

■ AUX

Select an AUX connector from the following.
Default: 1/2/3
When the [Open] button is clicked, the selected AUX connector will be opened.
When the [Close] button is clicked, the selected AUX connector will be closed.

Note:

- AUX terminal name (Terminal No.) can be changed to a desired one. For details, refer to “☞4.1.14. Set the AUX terminal name”.

■ Camera setup

Moves to the panel on which each setting of camera can be configured. Refer to "☞ 2.6.6.4. Camera setup panel" for further information.

■ Mic setup

Moves to the panel on which each setting of microphone can be configured. Refer to "☞ 2.6.6.5. Mic setup panel" for further information.

Note:

- This button will be displayed when a linked camera is in use.

2.6.6.2. Playback operation panel



Important:

- Check if the model in use is compatible with each function.

Note:

- The playback operation panel will not be displayed when the user is restricted by the user level determined by the administrator to play recorded images.
- The playback operation panel will not be displayed when displaying images from a camera that is not registered in the recorder.
- When displaying images on a multi-screen, images displayed in all areas of a multi-screen will be controlled simultaneously using the playback operation panel.

■ [PREV RECORD] button

Playback will start after skipping to the previous recorded image.

Note:
- This function is not supported by Video Insight Server.

■ [REW] button

Playback speed for fast reverse playback will be changed in the following order each time this button is clicked: Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)

Note:
- When fast reverse playback is performed while playing images on HD600, the step of playback speed above will start from “Step1 (1x)”.
- When the image capture size and the frame rate of the recorded image are high, when the processing load is too heavy on the recorder or on the PC, or when the network traffic is heavy, the playback speed of the fast reverse playback may become lower than the described value.

■ [REV PLAY] button

Reverse playback of a recorded image will be performed. When this button is clicked during fast playback or fast reverse playback, reverse playback at normal speed will start.

Note:
- When playing MPEG-4, H.264 or H.265 images, some frames of recorded images may not be displayed. Reverse playback will be performed with the set refresh interval of the camera.

■ [PLAY] button

Playback of a recorded image will be performed. When this button is clicked during fast playback or fast reverse playback, playback at normal speed will start.

■ [FF] button

Playback speed will be changed in the following order each time this button is clicked: Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)

Note:
- In the high-speed playback smooth mode, playback speed will be changed in the following order: Step 2 (Approx. 2x) → Step 3 (Approx. 4x) → Step 4 (Approx. 8x) → Step 5 (Approx. 16x) → Step 6 (Approx. 32x) → Step 7 (Approx. 64x)
- The high-speed playback smooth mode is available only when NX-series, NU-series and the firmware of the ND400 is Version 2.5 or later. When the firmware of ND400 is use is 2.3 or earlier, or another recorder is used, frames will be skipped even in the high-speed playback smooth mode.
- When [Playback speed priority during high-speed playback] is enabled and if the image size is over Full-HD, some frames will be skipped in the playback after Step 4 so that the playback speed becomes closer to the specified value.
- When using Video Insight Server, the maximum playback speed is [Step 5].
- When the image capture size and the frame rate of the recorded image are high, when the processing load is too heavy on the recorder or on the PC, or when the network traffic is heavy, the

playback speed of the high-speed playback may become lower than the described value.

■ [NEXT RECORD] button

Playback will start after skipping to the next recorded image.
When there is no next/previous recorded image to be skipped to, the current playback will continue.

Note:
- This function is not supported by Video Insight Server.

■ [REV SKIP] button

Playback will start after skipping to the point of the set amount of time backward.

Note:
- This button will not work when the playback point is at the start point or the end point of the recorded images.
- When clicking this button while playing MPEG-4, H.264 or H.265 images, a skipped point may be a few seconds later from a point to be skipped with the selected amount of time.

■ [PREV IMAGE] button

The previous frame will be displayed when this button is clicked during pausing.

Note:
- When playing MPEG-4, H.264 or H.265 images, some frames of recorded images may not be displayed. Reverse frame by frame playback will be performed with the set refresh interval of the camera.

■ [PAUSE] button

Playback will stop when this button is clicked during playback. Playback will resume when this button is clicked during pausing.

■ [STOP] button

Playback will stop and live images will be displayed.

■ [NEXT IMAGE] button

The next frame will be displayed when this button is clicked during pausing.

■ [SKIP] button

Playback will start after skipping to the point of the set amount of time.

Note:
- This button will not work when the playback point is at the start point or the end point of the recorded images.
- When clicking this button while playing MPEG-4, H.264 or H.265 images, a skipped point may be a few seconds later from a point to be skipped with the selected amount of time.

■ SKIP TIME

Select an amount of time to skip from the following.
30s/ 1min/ 5min/ 10min/ 30min/ 60min

■ **Speed**

Click the [–] button or the [+] button while displaying playback recorded images on the WJ-HD300 on a 1-screen to adjust the image refresh intervals of playback images. When the [–] button is clicked, the image refresh intervals will become longer. When the [+] button is clicked, the image refresh intervals will become shorter.

■ **[Text] button**

When playing recorded images on a 1-screen, text information can be added. The "Edit text" window will be displayed when this button is clicked during pausing playback.

Note:
- This function is available only when the recorder in use is HD300, ND300 or ND200.

■ **[REC START]/[REC STOP] button**

Manual recording will start or stop.

Note:
- This function is not supported by NV200, NV300, NX-series and NU-series.

■ **[Mic setup] button**

Moves to the panel on which each setting of microphone can be configured. Refer to "☞ 2.6.6.5. Mic setup panel" for further information.

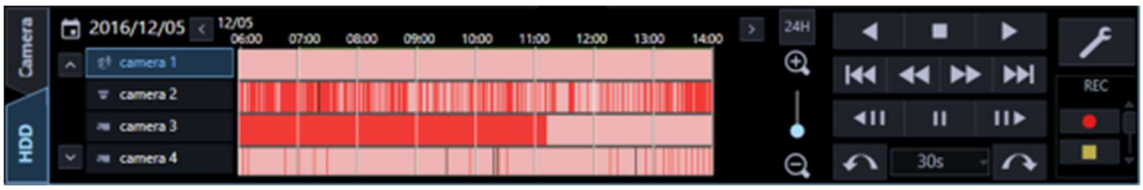
Note:
- This button will be displayed when a linked camera is in use.

2.6.6.3. Timeline playback operation panel

Important:
- The timeline function is not available on HD300 and the cameras not registered in the recorder.

Note:
- The timeline playback operation panel will be displayed when "ON" is selected for "Timeline display" on the setup window. Refer to "☞ 3.2.7. Timeline" for further information.
- Timeline will not be displayed if it is out of the period specified on "Number of acquired days" on the setup window.
- Make sure that "Master" is set for "Timeline DB" on the setup window on the PC in use. When "Slave" is set for "Timeline DB", make sure that an address is specified in "Master Address".
- The timeline playback operation panel will not be displayed when the user is restricted by the user level determined by the administrator to play recorded images.
- Images from cameras for which the timeline can be displayed are up to 16 areas on the upper left side of the multi-screen.

- On the timeline playback operation panel, the speed buttons (– and +) and the TEXT button will not be displayed. When operation of the buttons above is needed, select "OFF" for "Timeline display" on the setup window first and then operate the playback operation panel again.
- Face matching alarm can be displayed on the timeline of only the PC that has received the alarm.
- Depending on the status of the recorder, the timeline may have cut line even the recorded images exist. The timeline bar is just an indication and is not completely in accord with the recorded images.
- The display interval of the timeline may be different depending on the model of the recorder.



■ Time & date

Time and date indicated by timeline will be displayed. The calendar will be displayed by clicking . When time and date are selected, timeline of the designated time and date will be displayed.

■ Change time axis button ( ) ( )

Timeline of the past will be displayed by clicking . Timeline of the future will be displayed by clicking .

■ Change time axis scale slider

Perform enlargement display or reduction display of the time axis by operating position of the slider. When the slider is moved to the [+] direction, the time axis display will be enlarged in order. When the slider is moved to the [–] direction, the time axis display will be reduced in order.

■ [24H] button

By clicking this button, the time axis will be displayed in 24-hour format.

■ Timeline bar

Camera title and recording/event information of the camera from which images are currently being displayed will be displayed. When double-clicked on the designated timeline, playback will start from the clicked point. Color coding of the timeline bar is as follows:

	Site alarm
	Terminal alarm, command alarm, VMD, video loss, emergency
	Manual recording
	Schedule recording
	Face matching alarm, Unregistered face detection alarm
No color	No recording/event data

Note:

- VMD event of V-series camera will not be displayed.

■ **Timeline display change button () ()**

By clicking  or  , it is possible to change the camera for which timeline is to be displayed.

■ **Timeline seek bar**

By operating the seek bar, it is possible to start playback from a desired time. The seek bar will automatically be updated during playback according to the status.

■ **REV PLAY button ()**

Reverse playback of a recorded image will be performed. When this button is clicked during fast playback or fast reverse playback, reverse playback at normal speed will start.

Note:

- When playing MPEG-4, H.264 or H.265 images, some frames of recorded images may not be displayed. Reverse playback will be performed with the set refresh interval of the camera.

■ **STOP button ()**

Playback will stop and live images will be displayed.

■ **PLAY button ()**

Starts playback from the point designated by the timeline seek bar.

■ **PREV RECORD button ()**

Playback will start after skipping to the previous recorded image.

■ **REW button ()**

Playback speed for fast reverse playback will be changed in the following order each time this button is clicked: Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)

Note:

- When fast reverse playback is performed while playing images on HD600, the step of playback speed above will start from “Step1 (1x)”.
- When the image capture size and the frame rate of the recorded image are high, when the processing load is too heavy on the recorder or on the PC, or when the network traffic is heavy, the playback speed of the fast reverse playback may become lower than the described value.

■ **FF button ()**

Playback speed will be changed in the following order each time this button is clicked: Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)

Note:

- In the high-speed playback smooth mode, playback speed will be changed in the following order: Step 2 (Approx. 2x) → Step 3 (Approx. 4x) → Step 4 (Approx. 8x) → Step 5 (Approx. 16x) → Step 6 (Approx. 32x) → Step 7 (Approx. 64x)

- The high-speed playback smooth mode is available only when NX-series, NU-series and the firmware of the ND400 is Version 2.5 or later.
  When the firmware of ND400 is use is 2.3 or earlier, or another recorder is used, frames will be skipped even in the high-speed playback smooth mode.
- When the image capture size and the frame rate of the recorded image are high, when the processing load is too heavy on the recorder or on the PC, or when the network traffic is heavy, the playback speed of the high-speed playback may become lower than the described value.

■ NEXT RECORD button ()

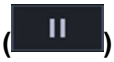
Playback will start after skipping to the next recorded image. When there is no next/previous recorded image to be skipped to, the current playback will continue.

■ PREV IMAGE button ()

The previous frame will be displayed when this button is clicked during pausing.

Note:

- When playing MPEG-4, H.264 or H.265 images, some frames of recorded images may not be displayed. Reverse frame by frame playback will be performed with the set refresh interval of the camera.

■ PAUSE button ()

Playback will stop when this button is clicked during playback. Playback will resume when this button is clicked during pausing.

■ NEXT IMAGE button ()

The next frame will be displayed when this button is clicked during pausing.

■ PREV RECORD button

Playback will start after skipping to the previous recorded image.

■ SKIP button

Playback will start after skipping to the point of the set amount of time.

Note:

- This button will not work when the playback point is at the start point or the end point of the recorded images.
- When clicking this button while playing MPEG-4, H.264 or H.265 images, a skipped point may be a few seconds later from a point to be skipped with the selected amount of time.

■ SKIP TIME

Select an amount of time to skip from the following.

30s/ 1min/ 5min/ 10min/ 30min/ 60min

■ REC START/REC STOP button () ()

Manual recording will start or stop.

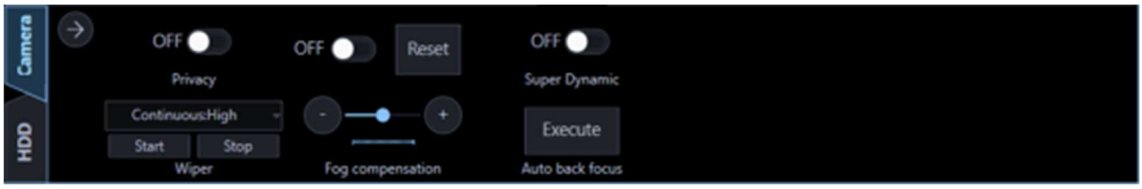
Note:
- This function is not supported by NV200, NV300, NX-series and NU-series.

■ Mic setup button ( )

Moves to the panel on which each setting of microphone can be configured. Refer to "☞ 2.6.6.5. Mic setup panel" for further information.

Note:
- This button will be displayed when a linked camera is in use.

2.6.6.4. Camera setup panel



Important:
- Check if the model in use is compatible with each function.
- To operate the newly registered camera, restart this software before starting operation.

■ Super Dynamic

Select whether to use the Super Dynamic function of the camera or not.

ON: Use the Super Dynamic function.

OFF: Stop the Super Dynamic function.

Note:
- Cameras that have the Super Dynamic function or the Wide Dynamic Range function support the Super Dynamic function. The mode set for each camera is different.
- The Super Dynamic function is supported only when the camera direct reception is selected at the time of recorder registration.

■ Auto back focus

When the [Execute] button is clicked, the auto back focus function of the camera will be activated to automatically adjust the back focus against to a photographic subject at the center of the screen.

Note:
- The auto back focus function supports cameras having the auto back focus function.
- The auto back focus function is supported only when the camera direct reception is selected at the time of registration of recorder.

■ Fog compensation

Select “ON” or “OFF” to determine whether to use or the fog compensation function of the camera or not.

ON: Use the fog compensation function of the camera.

OFF: Stop the fog compensation function of the camera.
+/–: Adjust the fog compensation level. When moved in the "+" direction, the compensation level will become stronger. When moved in the "–" direction, the compensation level will become weaker.
Reset: Reset the fog compensation level to the default.

Note:
- Cameras supporting the fog compensation function are compatible with this setting.
- The fog compensation function is supported only when the camera direct reception is selected at the time of registration of recorder.
- When the fog compensation function is not effective, download the camera information again.
- This software sets this function in 128 levels. The strength of the compensation level to be set depends on cameras.
  Example) H.265 compatible cameras divide the 128 levels into 9 levels and set.
- Depending on the setting condition of the camera, the fog compensation function may not be effective on some models. Refer to the operation manual of the camera.

■ Privacy

Privacy mode allows you to protect your privacy by hiding the lens inside the camera, preventing camera images from being seen.
ON: Use the privacy mode.
OFF: Not use the privacy mode.

Note:
- The privacy mode is available only when using WV-SF448.
- The privacy mode is supported only when the camera direct reception is selected for the recorder registration.

■ Wiper

Controls the washer and wiper of WV-SUD638.
Continuous: High: Wipes the front cover at a fast interval.
Continuous: Low: Wipes the front cover at a slow interval.
1shot: Wipes the front cover a certain times.
Washer: Applies a preset action of the washer/wiper. Refer to the operating instructions of WV-SUD638 for further information.
When the [Start] button is clicked, the selected action will start.
When the [Stop] button is clicked, the action will stop.

Note:
- This item will be displayed only when WV-SUD638 is in use.
- The following operations are not available during the washer is in action.

The start and stop operations of the wiper.
Pan/ tilt/ zoom/ focus control.
The start operation of "Auto mode".
The move operation [Go] of "Preset".
- The washer action needs to be set by the camera.
  Refer to the operating instructions of WV-SUD638 for further information.

■ [Close] button ( )

Click this button to close the camera setup panel.

2.6.6.5. Mic setup panel



Important:
- The mic setup panel can be displayed only when the displayed camera is the linked camera.
- To operate the newly registered camera, restart this software before starting operation.

■ Mic volume

Changes the volume of the microphone.

+: Increases the audio volume.

–: Decreases the audio volume.

Note:
- The greater volume has lower audio quality. Set the volume as low as possible.
- If audio volume is too small or its quality is low, the audio sensitivity of the network microphone may not be set appropriately. Check and change the setting as required.

■ Sound collection position 1, Sound collection position 2

Sets up where to pick up the sound (sound collection position).

ON: Enables sound collection position setting.

OFF: Disables sound collection position setting.

When "ON" is selected, the sound collection position marker will be displayed and audio will be collected in the direction of the marker.

It is possible to move the sound collection position by dragging the sound collection position marker.

■ Noise reduction

Selects the noise reduction level for the microphone.

High: High level noise reduction.

Low: Regular noise reduction.

OFF: Disables noise reduction.

Note:
- When "High" is selected, the noise will be reduced comparing to "Low". However the audibility may drop due to sound strain. Select the level according to the audibility.

■ Voice clearness

Selects the audio compensation level for the microphone in order to make better sound.

High: High level compensation.

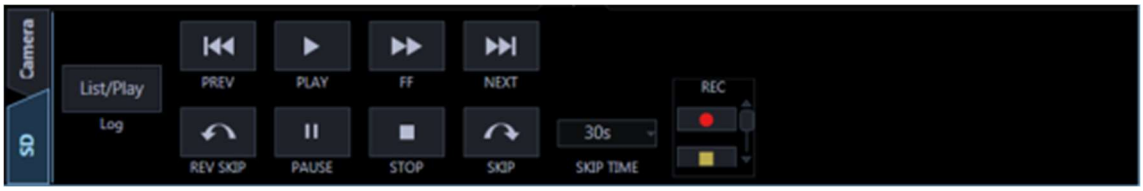
Low: Regular compensation.

OFF: Disables compensation.

■ **[Close] button ( )**

The microphone setting panel will close.

2.6.6.6. SD operation panel



Note:

- The SD operation panel will not be displayed if displaying images from an encoder.
- If logs in as a user who does not have authority to operate the SD memory card, the SD operation panel will not be displayed.
- The SD operation panel will not be displayed when displaying images from a camera that is registered in the recorder.
- The SD operation panel will not be displayed when displaying images from WV-NP244, WV-NP1000/NP1004, WV-NS202, WV-NS202A, WV-NF284, WV-NW484, WV-NS950/NS954, WV-NW960/NW964, WV-NP304, WV-NF302.
- The playback of recorded images are not available with WV-NP502 and WV-NW502.
- When using the AI privacy guard function of the AI camera, if a user with authorization of "AI privacy guard image switching" is logged in, the SD operation panel will not be displayed.

■ **PREV RECORD button**

Playback will start after skipping to the previous recorded image.

■ **[PLAY] button**

Playback of a recorded image will be performed. When this button is clicked during fast playback, playback at normal speed will start.

■ **[FF] button**

Each time the button is clicked, the playback speed will change.

Note:

- The maximum speed of fast playback varies depending on the "Bit rate" setting of SD memory card.
- Playback images during fast playback may not be displayed smoothly depending on the photographic subject or the settings.
- When “ON” is selected for [Smooth display (buffering)] under [System] - [Drawing and audio setup], the high-speed playback is unavailable.

■ **[NEXT RECORD] button**

Playback will start after skipping to the next recorded image. When there is no next/previous recorded image to be skipped to, the current playback will continue.

■ **[REV SKIP] button**

Playback will start after skipping to the point of the set amount of time backward.

■ [PAUSE] button

Playback will stop when this button is clicked during playback.

■ [STOP] button

Playback will stop and live images will be displayed.

■ [SKIP] button

Playback will start after skipping to the point of the set amount of time.

Note:

- This button will not work when the playback point is at the start point or the end point of the recorded images.
- A skipped point may be a few seconds later from a point to be skipped with the selected amount of time.

■ SKIP TIME

Select an amount of time to skip from the following. 30s/ 1min/ 5min/ 10min/ 30min/ 60min

■ [REC START]/[REC STOP] button

Manual recording onto the SD memory card will start or stop.

Note:

- This button is operable only when "Manual" is selected for "Save trigger" under "JPEG/H.264" of "SD memory card".

■ [List/Play] button

When the [List/Play] button is clicked, the SD log display/playback window will be displayed in a newly opened window.



Set the display condition ("SD memory card", "Recording stream", "Event", "Recording time") in the "SD log display/playback" window, and click the [Search] button.

→ An event list matched with the conditions will be displayed in the list.

Note:

- When "SD log display/playback" window is displayed, the event lists "Alarm" and "Manual/Schedule" will be displayed.
- For how to download and play images recorded in the SD memory card, refer to “☞ 4.2. Use the SD log display/playback window4.2. Use the SD log display/playback window”.

2.6.7. Display/Hide the function panel and the operation panel

On the operation window, displaying/hiding of the operation panel and the menu panel can be switched by operating the panel open/close button or the menu.
When the operation panel or the menu panel is hidden by operating the menu, the panel open/close button will also be hidden.
Displaying/hiding of the operation panel or the menu panel can be operated by clicking the icon [Δ] on the panel open/close button.
Refer to "☞2.5.1.1. Menu" for further information about the menu.

■ **With the operation panel and the function panel**



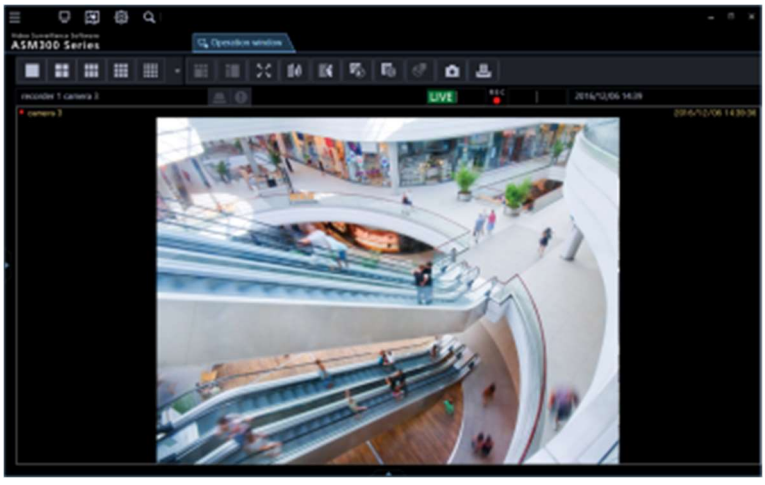
■ **Without the operation panel**



■ **Without the function panel**



■ **Without the operation panel and the function panel**

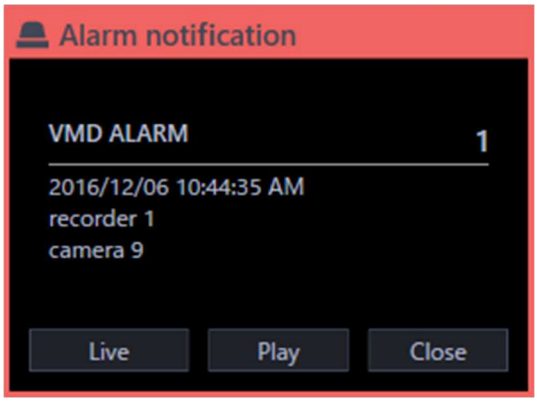


2.6.8. Alarm/event notification message

A pop-up window (notification window) will be displayed when an alarm or an error occurred.
Refer to "☞ 4.12.1. Alarm/event notification message" for further information.

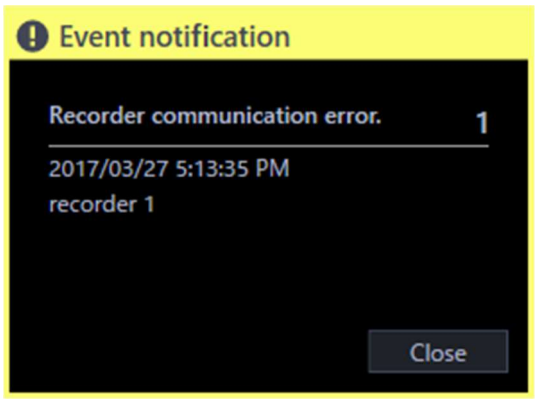
■ **Alarm notification message**

Notifies of an alarm occurrence.



■ **Event notification message**

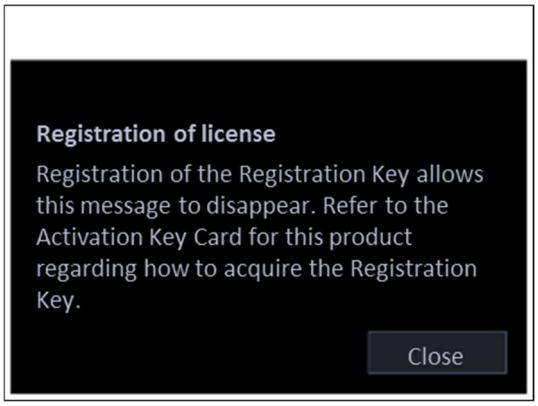
Notifies of a device error occurrence or a network error occurrence.



2.6.9. License registration message

■ **License registration message**

Notifies that the license for this software has not been registered.



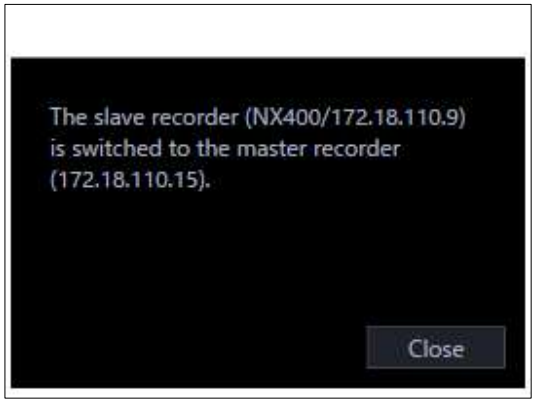
2.6.10. Failover notification message

Refer to the operating instructions of the failover function for further information.

■ **Failover execution notification message**

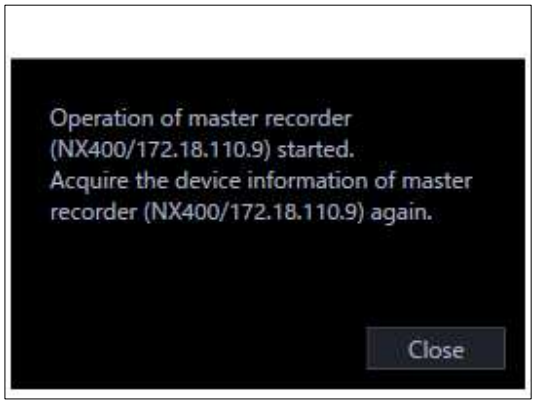
Sends a notification that the failover function of the recorder is executed.

The slave recorder will be switched over the stopped master recorder and work as the master recorder.



■ **Alternate recorder switching notification message**

Notifies that the master recorder started recording. Operation will become available by acquiring the device information of the master recorder again.



3. Setup Instructions

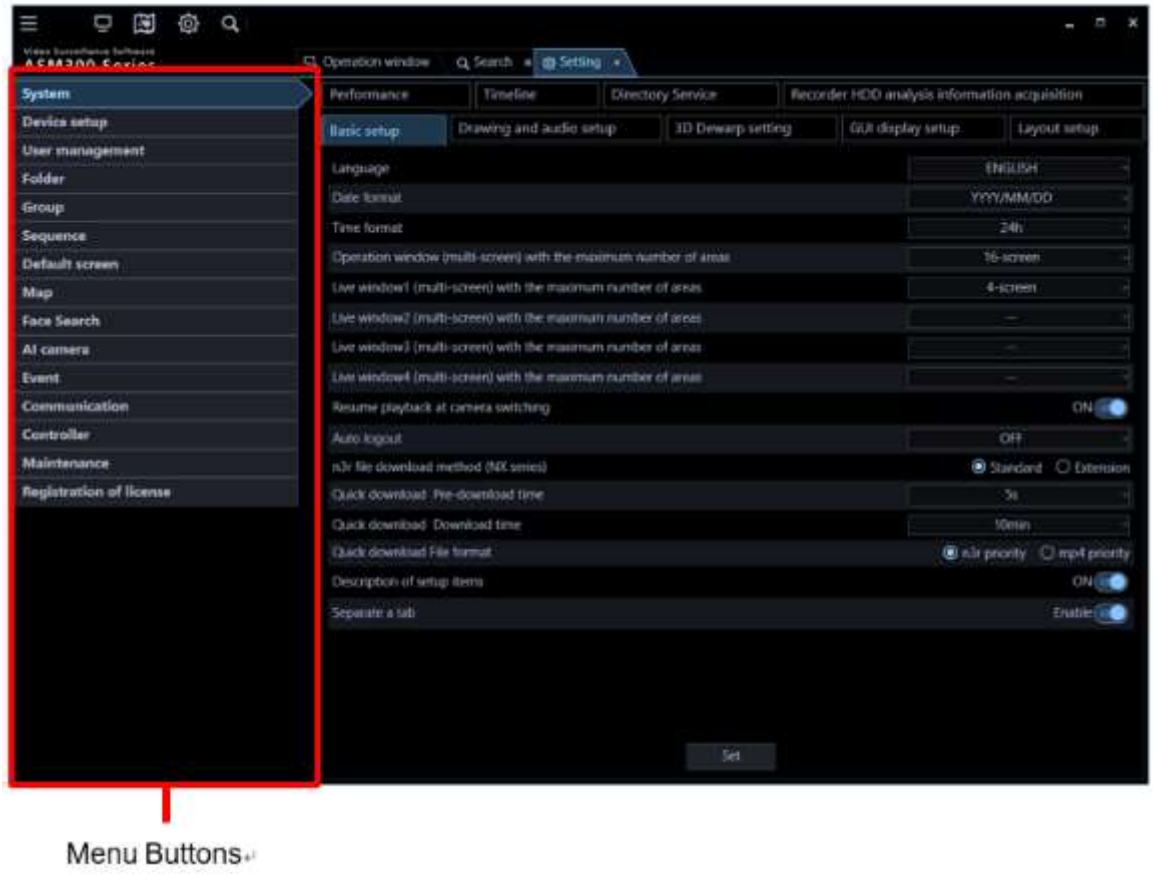
3.1. Setup window description

The setup window will be launched when the [Setup] icon on the title bar of the ASM300 main page is clicked or when [Setup] is selected from the menu.
Refer to “☞2.5.1. Title bar“ and “☞2.5.1.1. Menu“ for further information about the title bar and the menu of the ASM300 main page.

Important:

- The setting window can be launched only by an administrator or a registered user who has authority. When logged in as a user other than these, the [Setting] icon on the title bar and [Setting] of the menu will not be displayed.
- Only administrators and LV0 users can configure the settings.
  However, LV0 users are not allowed to configure “Basic setup” on the “User mng.” screen and the settings on the “Administrator setup” and “License regist.” screens.
- When the sequence display is being executed, stop the sequence before changing the settings. If you change the settings without stopping, the video display may be temporarily disturbed. In operations where camera compression methods (H.264/H.265) are mixed, an error pop-up indicating “incorrect image transmission type” may be displayed.

The following are descriptions about the setup window.



■ **Menu buttons**

When a menu button is clicked, each of the setup window will be displayed.

■ **Each setup window**

A setup window of the setup menu corresponding to the clicked menu button will be displayed.
When a page consists of multiple tabs, click each tab.

Important:

- To save the contents set on each setup window, it is necessary to click the [Set] button.
  When the [Set] button is not clicked, the edited settings will not be saved and applied.
- When the edited setting is invalid, the setup item for which the invalid setting is entered/selected will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
- Some setup items will be displayed after purchasing the Extension Software WV-ASE202, WV-ASE205, WV-ASE231 and adding the license.
- For the following setup window, restart this software after clicking the [Set] button.
  After restarting the software, the setting contents are reflected on the window.
  - [System] - [Basic setup]
  - [Device setup]
  - [Face Search] - [Server registration] (It is displayed after license addition of WV-ASE231.)
  - [Face Search] - [Behavior setting] (It is displayed after license addition of WV-ASE231.)
  - [Face Search] - [Category setting] (It is displayed after license addition of WV-ASE231.)
  - [Event] - [Alarm]
  - [Event] - [Alarm action]
  - [Event] - [Error]
  - [Communication] - [Basic setup]

- [Communication] - [Secure communication setup]
- [Controller]
- [Maintenance] - [Auto delete]

The following are descriptions about each setup window.

■ **System**

Contains settings required for basic operation of this software.
Refer to "☞3.2. Settings relating to the system" for further information.

■ **Device setting**

Contains settings required to display live images or play recorded images, such as information of the recorders, the encoders, the cameras and the microphones.
Refer to "☞3.3. Settings relating to the device management" for further information.

■ **User management**

Contains settings relating to the user management.
Refer to "☞3.4. Settings relating to the user management" for further information.

■ **Folder**

Contains settings relating to the camera folder.
Refer to "☞3.5. Settings relating to folder" for further information.

■ **Group**

Contains settings relating to the camera group.
Refer to "☞3.6. Settings relating to group" for further information.

■ **Sequence**

Contains settings relating to the camera sequence can be configured.
Refer to "☞3.7. Settings relating to sequence" for further information.

■ **Default screen**

Contains settings relating to status of the operation window and the live window at the time of launching this software.
Refer to "☞3.8. Settings relating to the default screen" for further information.

■ **Map**

Contains settings relating to the map window.
Refer to "☞3.9. Settings relating to map" for further information.

■ **Face Search**

Contains settings relating to the face search monitor. (It is displayed after license addition of WV-ASE231.)
Refer to "☞3.10. Settings relating to the face search" for further information.

■ **AI camera**

Contains settings relating to AI camera.
Refer to "☞3.11. Settings relating to AI camera" for further information.

■ **Event**

Contains settings relating to the event action such as displaying of the alarm notification window, sounding the buzzer, the alarm camera direct window function, displaying of the error notification window together with sounding the buzzer, etc.
Refer to "☞3.12. Settings relating to the event action" for further information.

■ **Communication**

Contains the settings relating to the communication and the alarm notification using the TCP alarm notification.
Refer to "☞3.13. Settings relating to the communication" for further information.

■ **Controller**

Configures the camera number, group number, sequence number, all of which are used when controlling through the system controller.
Refer to "☞3.14. Settings relating to the controller" for further information.

■ **Maintenance**

Displaying of the version of this software and management of the logs/the setup data are available.
Refer to "☞3.15. Settings relating to maintenance" for further information.

■ **Registration of license**

Registers the license to use this software and to add extension options.
Refer to "☞ 3.16. Settings relating to the license registration" for further information.

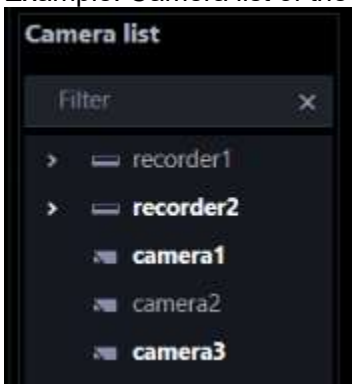
< How to operate the filter function on the setup page >

The use of the filter function on the setup page makes possible to search device names containing partial match with the name entered in the search field.

Step 1

Enter a device name, group name, sequence name, folder name, user name or map name to be searched in the search field of each list.

Example: Camera list of the folder setting

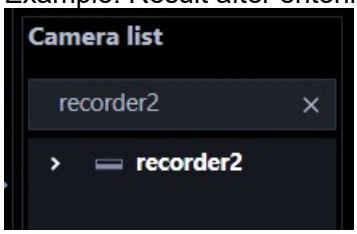


Note:

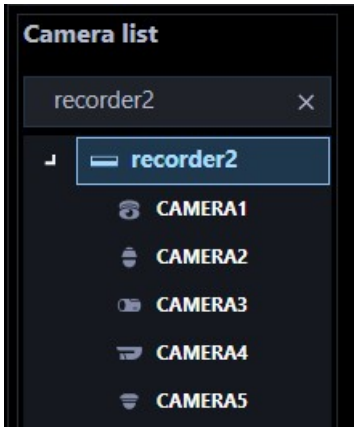
- Search will be executed with partial match of a name, and en space, em space, upper-case and lower-case will not be distinguished.

→ When the search is ended, the search result shows only items that partially matched with the name entered in the search field.

Example: Result after entering recorder name in the search field



Example: Display the camera registered in the recorder listed in the search result
Double-click the recorder icon or clicking the left side ( ) of the recorder icon.



Note:

- The search result shows only items that partially matched with the name entered in the search field. The other items will not be displayed. However, if the partially matched device is a device registered in a recorder, etc., the higher device name (recorder, etc.) / folder name is also displayed.
- On the following setup pages, display will be as follows.
  - Camera list of the folder setting
  - Camera list of the group setting
  - Camera/map list of the map setting
  - Camera list of displayable camera selection on the “User management” page

  When searched by entering only a recorder name, encoder name or folder name and the partial matches are displayed as the search result, double-clicking the corresponding icon or clicking the left side ( ) of the corresponding icon will display a list of all the registered camera icons.
- If you uncheck the check box of the recorder name in the search results on the camera list of displayable camera of “User management” page, all cameras will be deselected regardless of whether the camera name registered in the recorder is displayed or hidden. If you want to deselect only the searched cameras, uncheck the camera name check box instead of the recorder name. If you uncheck the check box of the folder name the operation will be the same as the recorder name.

Step 2

When the name entered in the search field is deleted, it returns to the previous state before the search. However, regarding the open / closed state of recorders, encoders, and folders in the upper layer of the tree display, the state at the time of search or the open / close operation after the search will continue. Camera list of displayable camera selection on the “User management” page is open in the upper hierarchy.

Note:

- It is possible to delete the name entered in the search field by clicking the [×] button on the right side of the search field.

3.2. Settings relating to the system

Configure the settings of language to use, display format of time & date, maximum number of areas, audio and image display method.

3.2.1. Basic setup

Click the [System] button, and then click the [Basic setup] tab to display the "Basic setup" page.



■ Language

Select the operating language.

JAPANESE
ENGLISH
FRANÇAIS
ESPAÑOL
DEUTSCH
ITALIANO
RUSSIAN
CHINESE
THAI

Default: JAPANESE

■ Date format

Select a date format from the following.

Example: In case of April 1, 2011

YYYY/MM/DD: 2011/04/01
MM/DD/YYYY: 04/01/2011
Mmm/DD/YYYY: Apr/01/2011
DD/MM/YYYY: 01/04/2011

DD/Mmm/YYYY: 01/Apr/2011
Default: YYYY/MM/DD

■ **Time format**

Select a time format from the following.
Example: 3 o'clock in the afternoon
12 h: 3:00:00 PM
24 h: 15:00:00
Default: 12 h

Note:

- The date format and time format will be applied in the following case. Refer to "☞ 4. Operating Instructions“ for each part.
  Status bar, information display area, alarm notification message screen, event notification message screen, each log list
- "Mmm" in "Date display format" may be replaced with "MM" for some functions such as calendar.

■ **Operation window (multi-screen) with the maximum number of areas**

Select a multi-screen pattern of the operation window from the following.
1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen
Default: 16-screen
After the license for the Extension Software WV-ASE202 is added, select a setting value from the following.
1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

■ **Maximum number of areas of live window (Available when the license for the WV-ASE202 is not added)**

Select a multi-screen pattern of the live window from the following.
--/ 1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen
Default: 4-screen

Note:

- When not using the live window, select "--".
- When the license of WV-ASE202 is not added, up to 20 areas as a total number of areas of the operation window and live window can be set.
- When the license of WV-ASE202 is added, up to 68 areas as a total number of areas of the operation window and live window can be set.

■ **Live window1 (Available after the licenses for the WV-ASE202 are added)**

Select a maximum number of areas (multi-screen pattern) of Live window 1 from the following.
--/ 1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen
Default: 4-screen

■ **Live window2 (Available after the licenses for the WV-ASE202 are added)**

Select a maximum number of areas (multi-screen pattern) of Live window 2 from the following.

--/ 1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

Default: --

■ **Live window3 (Available after the licenses for the WV-ASE202 are added)**

Select a maximum number of areas (multi-screen pattern) of Live window 3 from the following.

--/ 1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

Default: --

■ **Live window4 (Available after the licenses for the WV-ASE202 are added)**

Select a maximum number of areas (multi-screen pattern) of Live window 4 from the following.

--/ 1-screen/ 2-screen/ 3-screen/ 4-screen/ 5-screen/ 6-screen/ 7-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

Default: --

■ **Resume playback at camera switching**

Determine whether to continue playback or not when the camera is switched to the other camera during displaying playback images recorded on the recorder on the operation window.
For restrictions on “Resume playback at camera switching”, refer to “☞4.1.15.1.1. Restrictions during playback continuation".

ON: Display playback images from a newly selected camera.

OFF: Display live images from a newly selected camera.

Default: ON

■ **Auto logout**

When a login user is inactive for a certain period of time, this software automatically terminates this session. This is called as the auto log out.
Select a time period until the auto log out is triggered from the following. When “OFF” is selected, the auto log out function will be deactivated.

OFF/ 1min/ 5min/ 10min/ 15min/ 30min/ 60min

Default: OFF

■ **n3r file download method (NX series)**

Select a method to download the n3r-format images recorded in the NX series recorder to the PC.
Refer to “☞4.10.1. Download recorded images" about n3r file download.

Standard: Up to 1.9 GB file size is supported.

Extension: A file size exceeding 1.9 GB is supported.

Default: Extension

Note:

- The standard method uses FTP. If it exceeds 1.9 GB during downloading, download will end at that point.
- The extension method uses HTTP/HTTPS. The file will be automatically divided if the file size exceeds 1.9 GB.
- The available download method differs according to the recorder model or versions.

recorder	version	n3r file download method
NX200, NX300, NX400	5.00 or later	Extension

	2.50 or later	Extension
		Standard
	Below 2.50	Standard
NX100	5.00 or later	Extension
	-	Extension
		Standard
ND200, ND300, ND400, HD300, HD600, NV200, NV250, NV300	-	Standard
NU-series	1.00 or later	Extension

- If the NX series recorder is version 5.00 or later, you cannot download even if “Standard” is selected.
- If the recorder does not support the extension method, the standard download will be executed even if “Extension” is selected.
- In the case of extension method, the user connection is maintained until download is completed. When the number of users exceeds the limit, the connection with the recorder drops and downloading will be cancelled at that point.

■ Quick download Pre-download time

Select a pre-download time from the following to determine how many seconds before a pre-download starts before starting a quick download.
Refer to "☞ 4.10.4. Use the quick download“ for the quick download.

0s/ 5s/ 10s/ 15s

Default: 5s

■ Quick download Download time

Select a download time from the following to determine the download time of the quick download.
Refer to "☞ 4.10.4. Use the quick download“ for the quick download.

30s/ 1min/ 5min/ 10min/ 15min/ 30min/ 60min

Default: 10min

■ Quick download File format

Select the file format of the image to be downloaded by the quick download from the following.
Refer to "☞ 4.10.4. Use the quick download“ for the quick download.

n3r priority: Downloads an image file in n3r format.

mp4 priority: Downloads an image file in mp4 format. If download of an image file in mp4 format is unavailable, an image in n3r format will be downloaded.

Default: n3r priority

Important:

- Download of images files in mp4 format is available if using NX400 (version 2.0 or later), NX300, NX200 (version 1.1 or later), NX100 (version 4.4 or later) and NU-series. If using another model or a firmware version that is not supported to use this function, image files in n3r format will be downloaded even if “mp4 priority” is selected. The available functions vary depending on the firmware version of the recorder. Refer to the operating instructions of the recorder for further information.
- In the same manner, if download of an image in the specified format is unavailable, the image will be downloaded in a format supported by the recorder in use.

■ Description of setup items

Determine whether to display the description of the item using the tool tip when the cursor is moved over the buttons on "Basic setup", "Drawing and audio setup", "3D Dewarp setting" or "GUI display setup".

ON: Displays the description using the tool tip.

OFF: Does not display the description using the tool tip.

Default: ON

■ Separate a tab

Determine the tab separation availability for the live monitor, map monitor, and search screen.

Enable: The tab can be separated into a different window.

Disable: The tab cannot be separated into a different window.

Default: Enable

Note:

- When this software is restarted while the tab is separated and "Disable" is selected, the tab will be combined with the window. At that time, the order of the tabs is "Operation", "Setup" (displayed before exiting the software), "Live window", "Map window", and "Search window" from the left.

■ [Set] button

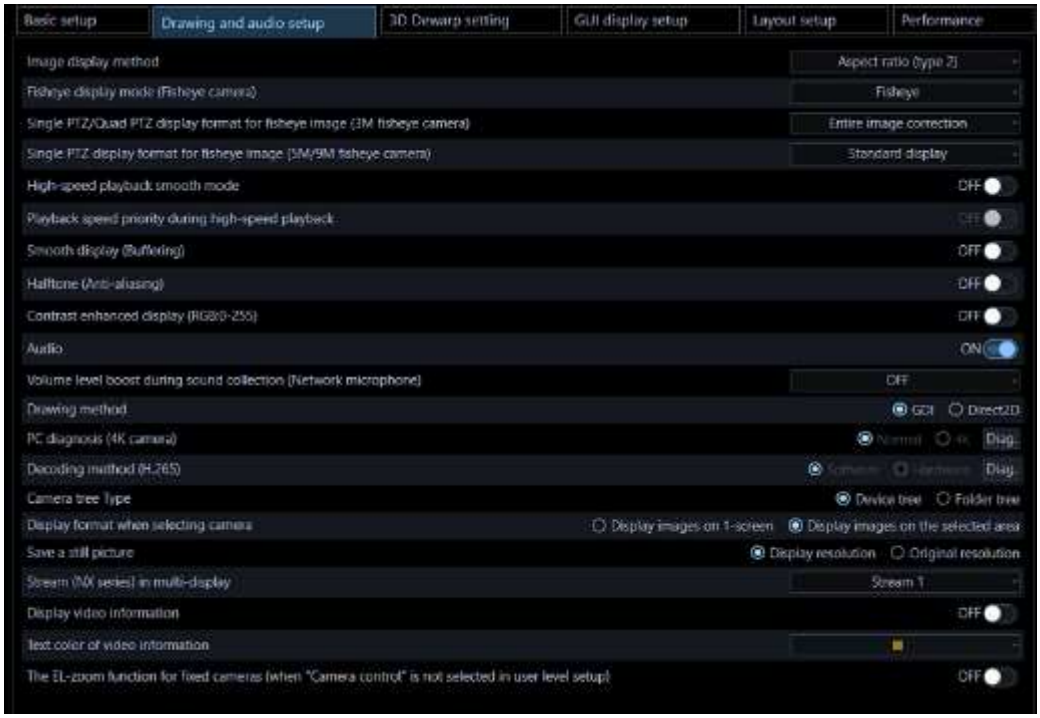
The configured settings will be saved.

Important:

- After clicking the [Set] button, restart this software to apply the settings.

3.2.2. Drawing and audio setup

Click the [System] button, and then click the [Drawing and audio setup] tab to display the "Drawing and audio setup" page.



■ **Image display method**

Select how to display the image area.

- Aspect ratio: The aspect ratio of images will be maintained.
- Scaling: The displayed images will be enlarged/reduced to fit in the whole of the image area.
- Pixel by Pixel: The images will be displayed in the original size without enlargement/reduction.
- Aspect ratio (type 2): The aspect ratio of images will be maintained. This is the function improved version that improved the image display area assignment method. Display of images with a larger size is available, although the CPU load will increase.

Default: Aspect ratio (type 2)

Note:

- When receiving images from Video Insight Server, "Aspect ratio" will automatically be applied to display Images in the image display area even if selecting "Scaling" or "Pixel by Pixel".

■ **Fisheye display mode (Fisheye camera)**

Select a display mode to determine how to display images captured by a fisheye camera whose image capture mode is “Fisheye” when receiving them.

Fisheye: Display images without any change.
Single PTZ: Fisheye images will be displayed in the Single PTZ format.
Quad PTZ: Fisheye images will be displayed in the Quad PTZ format.
Panorama: Fisheye images will be displayed in the Panorama format.
Double Panorama: Fisheye images will be displayed in the Double Panorama format.

Default: Fisheye

Note:

- It may be possible that “Fisheye” is applied even though other parameter is selected for [Fisheye display mode (Fisheye camera)] depending on the live window in use. The selected parameter will be correctly applied only when displaying on the following monitor.
  - When an option of WV-ASE202 is not added: Operation window/Live window
  - When an option of WV-ASE202 is added: Operation window/Live window 1
- It may be possible that “Fisheye” is applied even though other parameter is selected for [Fisheye display mode (Fisheye camera)] depending on the number of areas on a multi-screen in use. The selected parameter will be correctly applied only when displaying on 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large area of 7-/10-/13-screen.
- [Fisheye image format (Fisheye)] is available only for live images or playback of recorded images. SD playback images are not supported.
- When the display format is changed on [Fisheye display menu] of the operation window, the changed display format will be applied to images after the change.
- Even when [Single PTZ], [Quad PTZ], [Panorama] or [Double Panorama] is selected, depending on the network device environment or the PC in use, fisheye images may be displayed for a moment when displaying images from the camera.
- When [Single PTZ] or [Quad PTZ] is selected, the display position of images from the camera may be momentarily different from the previous display position at the time of displaying images from the camera.

■ **Single PTZ/Quad PTZ display format for fisheye image (3M fisheye camera)**

Select a correction method for when displaying fisheye images received from 3M fisheye camera in the single PTZ display or in the quad PTZ display.

Entire image correction: Method that averagely corrects distortion of an entire image.
Center part correction: Method that mitigates distortion especially around the center of an image. Peripheral edges of image will be displayed distorted when compared with the entire image correction."

Default: Entire image correction

■ **Single PTZ display format for fisheye image (5M/9M fisheye camera)**

Select a correction method to be used when displaying fisheye images received from a 5M/9M fisheye camera in single PTZ format.

Standard display: Standard correction method considering compatibility between different models. Area to be displayed may vary depending on the image capture size.
Wide area display: Correction method that displays a wide area of images. Periphery of images may sometimes be distorted.
Center area display: Correction method that displays the center area of images. When compared with “wide area display”, area to be displayed may become narrower but distortion in the periphery of images will be reduced.

Default: Standard display

■ **High-speed playback smooth mode**

Select whether or not to use the high-speed playback smooth mode.

ON: Use
OFF: Not use

Default: OFF

Note:

- If both the resolution and the recording frame rate are high, it may take some time to pause.
- When a high-speed playback is performed in a state where “ON” is selected, the CPU load may increase in proportion to the playback speed and more memory may be required.
  Depending on the conditions such as playback speed, high resolution, high frame rate, number of image display screens and PC environment, the playback speed may become slow, playback may not be possible or the PC may freeze.

■ **Playback speed priority during high-speed playback**

Select whether or not to prioritize the playback speed in “High-speed playback smooth mode”.

ON: If the image size is over Full-HD, the playback speed is prioritised skipping frames.
OFF: Plays back without skipping frames. If the image delays due to large image capture size or the high frame rate, select “ON” to reduce the load.

Default: OFF

■ **Smooth display (Buffering)**

Select whether or not to use the buffer for images.

ON: Images will temporarily be stored in the PC for smooth display.
OFF: Images will not be stored in the PC and be displayed in real time.

Default: OFF

Note:

- The setting will be validated only when using the operation window in 1-/4-/9-/16-screen.
- When “ON” is selected, a large amount of memory will be required. Depending on the conditions such as high resolution, high frame rate, number of image display screens and PC environment, a

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delay may occur in live or playback video, playback may not be possible or the PC may freeze. When running on a 32-bit OS, it is recommended to set this setting to “OFF”.

■ **Halftone (Anti-aliasing)**

Determine whether to display images while reducing jaggies (stair-like lines that often appear on a diagonal or a curved line) or not when displaying images.

ON: Display images while reducing jaggies.

OFF: Display images without any processing.

Default: OFF

Note:

- The setting will be validated only when using the operation window in 1-/4-/9-/16-screen.
- When “On” is selected, CPU load will become high. Delays may be observed in live video or playback video or it may have difficulty in displaying live video or playback video or the PC may freeze if operation is performed under an environment with a high resolution, a high frame rate and number of image display screens or depending on the PC environmental conditions.
- When “ON” is selected, contour of images may sometimes be blurred.

■ **Contrast enhanced display (RGB:0-255)**

Determine whether or not to enhance the contrast of images to display.

ON: Displays images by expanding RGB signal range from "16-235" to "0-255".

OFF: Displays images with RGB signal range of "16-235".

Default: OFF

Note:

- The setting will be validated only when "H.264" or "H.265" is set for the image format.
- Depending on a subject to display, blown-out highlights may appear in high bright areas.

■ **Audio**

Determine whether to use or not use the audio function.

ON: Use the audio transmission/ reception function.

OFF: Not use the audio transmission/ reception function.

Default: OFF

Note:

- When displaying images on a multi-screen, audio will be output from the camera displayed in the upper-left area of the multi-screen.

■ **Volume level boost during sound collection (Network microphone)**

Select the volume compensation level for the network microphone when the sound collection position is enabled.

OFF: Disables compensation.

Low: Slightly boosts the volume.

High: Greatly boosts the volume.

Default: OFF

■ **Drawing method**

Select the image drawing method.

GDI: A common method for Windows OS.

Direct2D: Reduces non-smooth movement and provides fast drawing.

Default: GDI

Important:

- Use “Direct2D” on a PC with the latest graphic driver.
- Use "Direct2D” after setting “ON” to “Smooth display (Buffering)”.
- “Direct2D” is available for up to 16-screen of the operation window. For 25-screen and more or for the live window, use “GDI”.

■ PC diagnosis (4K camera)

Diagnose whether the PC in use is suitable to display H.264 images in 4K resolution transmitted from the camera and set according to the result. When the [Diag.] button is clicked and the diagnosis ends, a pop-up window will appear and display diagnosis result.

The setting can be changed only when the following condition is met:

- The OS of the PC in use is Microsoft® Windows® 8.1 or later.
- The OS of the PC in use is 64-bit.
- The memory of the PC in use is more than 8 GB.
- The PC in use supports Hardware decoder (QSV).

- Normal: Supports display of images with up to 9M (2992×2992).
- 4K: Supports display of images with up to 12M (4000×3000).

Default: Normal

Note:

- This diagnosis function checks only availability of the above functions on the PC in use. Even when the diagnosis conditions are fulfilled, it does not mean that display ability of 4K images is guaranteed.
- When displaying images whose image capture size is larger than 9M (2992x2992) in the "Normal" mode, image quality may become lower than the actual image quality since the image capture size is reduced.
- If a pop-up screen saying “Hardware decoder (QSV) is not available.” is displayed, check the following items.
  - The CPU is Core i7 7700 or faster.
  - The version of Intel HD Graphics is 15.36.21.64.4222 or later.
  - The latest version of the driver can be downloaded from the following:
    URL: https://downloadcenter.intel.com/
  - Download a driver corresponding to the CPU in use and install it on the PC.
- "Graphic function built-in the PC (built-in video)" is enabled on the BIOS setting.
  The name of the BIOS setting differs depending on the PC in use.
- Even if “4K” is selected, H.265 images will be decoded by software.
  Set “Decoding method (H.265)” for the H.265 image decoding method.
- This setting will not be included when performing “Save as a backup” and “Load the setup file” on the “Maintenance” screen. Refer to "☞ 3.15. Settings relating to maintenance“ for the maintenance.

■ Decoding method (H.265)

Diagnose whether the PC in use supports the hardware decoding of H.265 images transmitted from the camera and set according to the result.

Turn off all images on the live window and the operation window and then click the [Diag] button. A pop-up window will appear and display diagnosis result.

- The OS of the PC in use is Microsoft® Windows® 10 or later.
- The PC in use shall support the hardware decoder (for H.265).

• Software: Decodes H.265 images using software. Supports display of images with up to 9M (2992×2992).
• Hardware: Decodes H.265 images using hardware. Supports display of images with up to 12M (4000×3000).

Default: Device tree

Important:
- In order to use this function, you need to connect at least one of the internal display output of the PC to the display. This function cannot be used when the display is output only from the graphic accelerator.
- In this case, connect the display to the built-in video output of the PC and restart this software and then click the [Diag] button again.

Note:
- This diagnosis function checks only availability of the above functions on the PC in use. Even when the diagnosis conditions are fulfilled, it does not mean that display ability of H.265 images is guaranteed.
- If a pop-up screen saying “The CPU may be a model that does not support the hardware decoder (for H.265).” is displayed, check the following items.
  - The CPU shall be the 7th generation Intel® Core processor or later.
  - The version of Intel HD Graphics is 22.20.16.4574 or later.
  - The latest version of the driver can be downloaded from the following:
    URL: https://downloadcenter.intel.com/
  - Download a driver corresponding to the CPU in use and install it on the PC.
- If a pop-up screen saying “The built-in display output of the PC may not be connected with the display.” is displayed, check the following items.
  - To use this function, it is necessary to connect at least one of the built-in display output of the PC with a display.
  - If outputting to the display only from the video card, this function is unavailable."
- "Graphic function built-in the PC (built-in video)" is enabled on the BIOS setting.
  The name of the BIOS setting differs depending on the PC in use.
- This setting will not be included when performing “Save as a backup” and “Load the setup file” on the “Maintenance” screen. Refer to "☞ 3.15. Settings relating to maintenance“ for the maintenance.
- When using multiple displays, connect the display that displays the operation window to the graphic accelerator, and connect one display that displays the live window to the display output built into the PC, and the other to the graphic accelerator.

■ Camera tree type

The following two tree display formats are available.
Device tree: Display the registered devices in tree format.
Folder tree: Display cameras in folder tree format.
Default: Device tree
Refer to “☞3.5. Settings relating to folder” for editing of folders and cameras displayed in folder tree form.

■ Display format when selecting camera

Select a live image display method in case that a camera icon in the device tree or the map is clicked.
1-screen display: Display live images on 1-screen.

Display images on the selected area: Display live images on the area with the selection frame.
Default: Display on the selected area

■ **Save a still picture**

Select a resolution of still image to be saved.

Display resolution: Save with the resolution at the time when the image was being displayed on the live window or the operation window.

Original resolution: Save with the resolution at the time when the image was transferred from the camera.

Default: Display resolution

Note:

- When the license of WV-ASE231 is being added, it will automatically be changed to “Original resolution”.
- When [Display resolution] is selected, a still image will be saved as a JPEG image.
- When [Original resolution] is selected, a still image will be saved as a BMP image.
- Even if “Original resolution” is selected, a still image with resolution larger than 9M (2992 x 2992) will be saved with reduced resolution when “Standard” is selected for “PC compatibility diagnosis (4K)”. When “4K” is selected for “PC compatibility diagnosis (4K)”, a still image with resolution larger than 9M (2992 x 2992) will be saved without reducing the resolution.

■ **Stream (NX series) in multi-display**

It selects the recording stream for displaying images recorded with NX-series in multiple display.

Stream 1：It plays with "Stream 1".

Stream 2：It plays with "Stream 2". Note that a black screen may be displayed if the recorder is set to not use sub-stream recording. When the black screen is displayed, the status bar will show [LIVE].

Default: Stream 1

Note:

- When displaying on 1-screen, "Stream 1" will be selected.
- For more information on sub-stream recording, refer to the recorder's instruction manual.

■ **Display video information**

Select whether to display the information of the image displayed on the live window or operation window. When "ON" is selected, the image information from the top will be displayed.

Received bit rate: Indicates the bit rate when the image distributed from the device is received by this software.

Received frame rate: Indicates the frame rate when the image distributed from the device is received by this software.

Displayed frame rate: Indicates the frame rate of the image displayed with this software.

Note:

- The image information to be displayed is for reference. The actual value may be different depending on the network status.
- When “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), the image information of the following fisheye cameras will not be displayed on the operation window.
  WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173, WV-X4573L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L,

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WV-SFN480 or WV-SFV481.

■ **Text color of video information**

Select the text color to display the information of the image displayed on the live window or operation window.

■ **The EL-zoom function for fixed cameras (when "Camera control" is not selected in user level setup)**

Determine whether users at levels where camera control operations are restricted can operate the drag zoom function and the mouse wheel zooming of the fixed camera.

On: Drag zoom / Mouse wheel zooming will be available

Off: Drag zoom / Mouse wheel zooming will be unavailable.

Default: OFF

■ **[Set] button**

The configured settings will be saved.

3.2.3. 3D Dewarp setting

Display the 3D Dewarp setting page by clicking the [System] button and then the [3D Dewarp setting] tab.



■ **3D Dewarp**

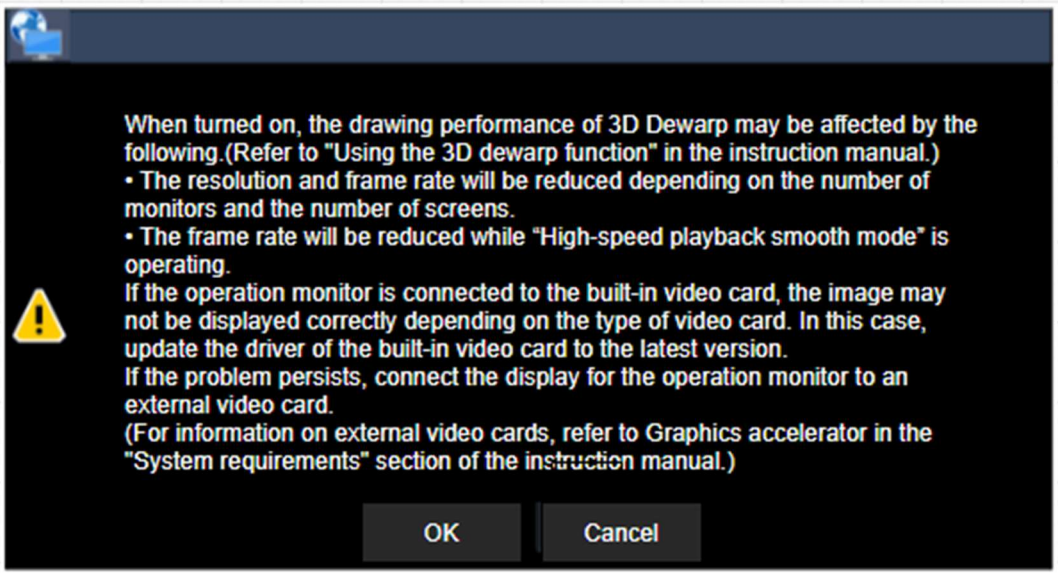
Determine whether to perform 3D Dewarp.

ON: Fisheye images corrected by 3D Dewarp will be displayed.
Smooth pan/tilt/zoom operation using a mouse or controller (CU980) will become available.

OFF: Fisheye images in the format selected from “Fisheye display menu” on the pop-up menu of the operation window will be displayed without displaying 3D Dewarp.

Default: OFF

When changing the setting from “OFF” to “ON”, the following confirmation screen is displayed.
Click the [OK] button to turn the setting “ON”.



Note:

- 3D Dewarp will not work if the operating system of the PC in use is not either Microsoft® Windows® 10 or Microsoft® Windows® 11.
- This function is available only when the camera in use is Fisheye camera.
- This function is available only for a camera of which the image capture size is set to 1280×1280 or higher.
  Refer to "☞ 4.1.5. Use the 3D Dewarp function" for other restrictions.
- Make the following settings when displaying high-resolution images of 3D Dewarp.
  - When displaying images with a resolution of 2992×2992 at a frame rate of 30 fps, set to H.265 and set the decoding method (H.265) to hardware decoding. For the setting of the decoding method (H.265), refer to "Decoding method (H.265)" in "☞ 3.2.2. Drawing and audio setup".
  - When displaying images with a resolution of 2992×2992 set to H.264, set the frame rate of the camera to 15 fps or less.

■ Motion image display during pan/tilt/zoom operation

Determine whether to refresh images during pan/tilt/zoom operation.
Refer to "☞ 4.1.5. Use the 3D Dewarp function" for pan/tilt/zoom operation.

ON: Images being displayed will be refreshed even during pan/tilt/zoom operation.
When delay of image display occurs, set to OFF to reduce the load.

OFF: Images being displayed will not be refreshed during pan/tilt/zoom operation.

Default: ON

■ Display position movable range restriction during pan/tilt operation

Determine whether to restrict movement of the display position during pan/tilt operation.

ON: The display position during pan/tilt operation will be restricted not to go beyond the center of the displayed image.

OFF: The display position during pan/tilt operation will go beyond the center of the displayed image. When the camera is installed on a ceiling or desktop, images being displayed will be flipped upside down when going beyond the center. When "ON" is selected, images will not be flipped upside down since it does not go beyond the center.

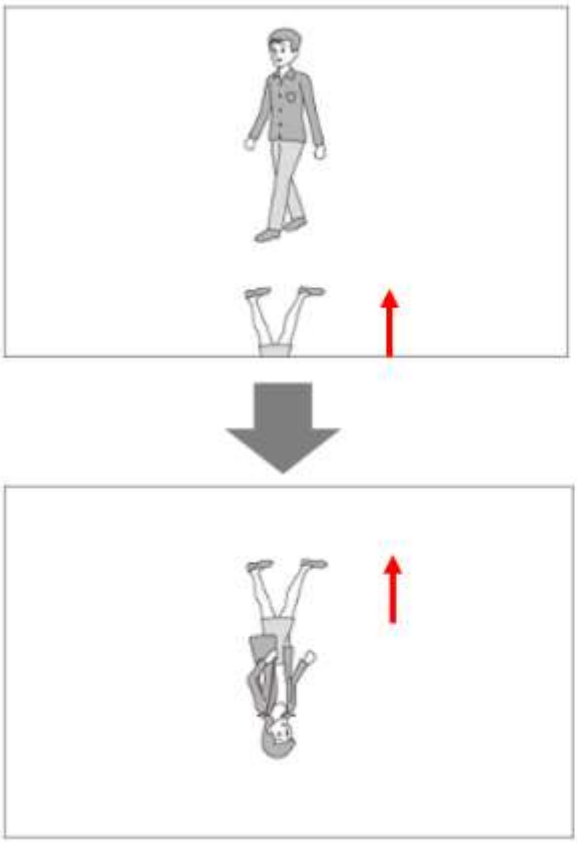
Default: OFF

Note:

- The movable range restriction is applied when “Ceiling” or “Desktop” is set for the installation method of the camera.

(Example 1) When the installation method is “Ceiling” and "Display position movable range restriction during pan/tilt operation" is “OFF”.

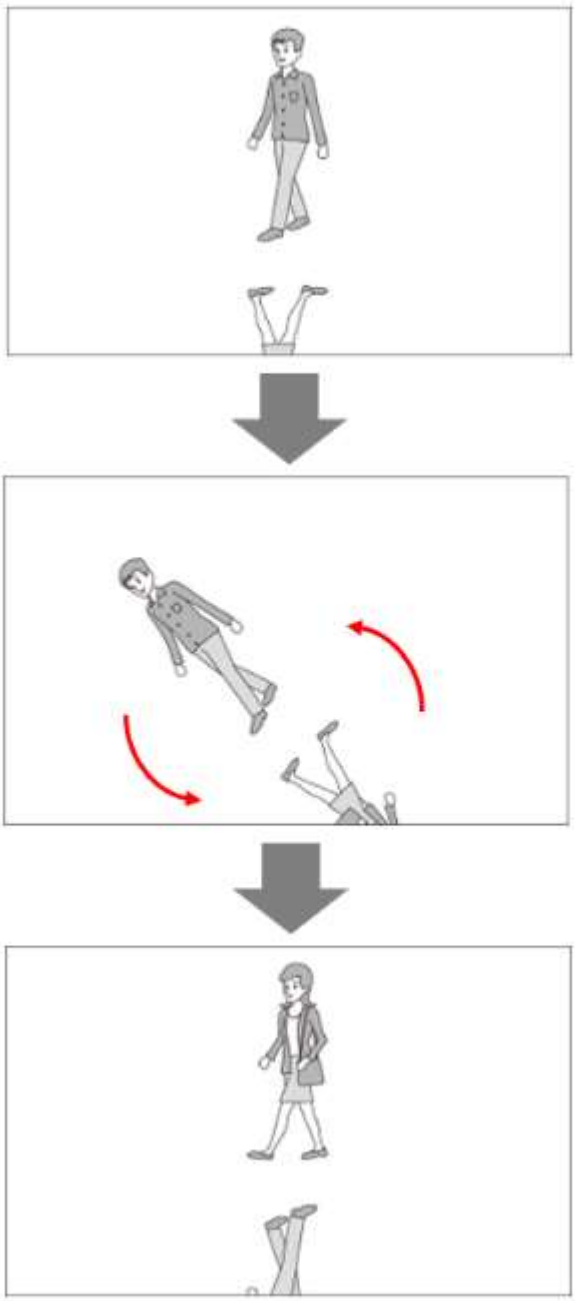
Since the center of the fisheye image can be moved beyond the center of the displayed image by the tilt operation, images will be flipped upside down. Refer to "☞ 4.1.5. Use the 3D Dewarp function“ for the operation.



Images can be moved beyond the center of the displayed image by the tilt operation.

(Example 2) When the installation method is “Ceiling” and "Display position movable range restriction during pan/tilt operation" is “ON”.

Since the center of the fisheye image cannot be moved beyond the center of the displayed image by the tilt operation, images will not be flipped upside down. To display images positioned beyond the center, rotate the image. Refer to "☞ 4.1.5. Use the 3D Dewarp function“ for the operation.



Images cannot be moved beyond the center of the displayed image by the tilt operation.

Rotate to display the image beyond the center.

■ **Moving speed of images during pan/tilt operation (CU980)**

Select a moving speed of the display position during pan/tilt operation using the joystick (CU980).
Select the moving speed from the following five speeds.

Slow / Slower / Normal / Faster / Fast

Default: Normal

- Fast: Move the display position faster. Selecting "Fast" will move the display position the fastest.
- Slow: Move the display position slower. Selecting "Slow" will move the display position the slowest.

■ **Priority to image refresh speed during 3D Dewarp**

Determine whether to give priority to refresh speed when displaying images from the camera to which 3D Dewarp is applied.

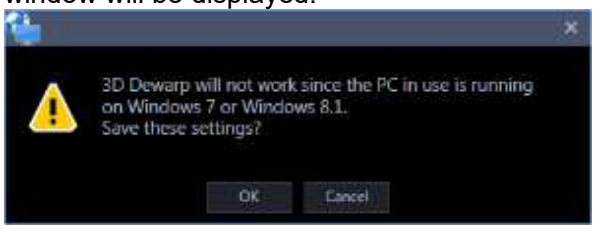
ON: Delay of image display will be reduced since image capture size and frame rate are automatically adjusted according to the load status of the PC.

OFF: Images will be displayed with the original image capture size and frame rate. When delay of image display occurs, it can sometimes be improved by setting to ON.

Default: ON

■ **[Set] button**

The configured settings will be saved.
When the PC in use is running on other OS than Microsoft® Windows® 10, the following confirmation window will be displayed.



3.2.4. GUI display setup

Click the [System] button, and then click the [GUI display setup] tab to display the "GUI display setup" page.



■ **Full screen display when opening the operation window**

Select whether or not to automatically provide full screen display of the operation window immediately after logging in. This item is enabled when a group is set as a default screen.

ON: Full screen display enabled
OFF: Full screen display disabled

Default: OFF

■ **Display the panel open/close button**

Determine whether to display or hide the panel open/close button on each of the operation window and live window.

ON: The open/close button will be displayed. Displaying/hiding of the menu panel and the operation panel of the operation window and the live window can be operated by this open/close button.
OFF: The open/close button will be hidden.

Default: ON

■ **Alarm log display**

Determine whether to display or hide the alarm log panel of the operation window.

ON: Display the alarm log panel.
OFF: Hide the alarm log panel.
Default: ON

Note:

- When “OFF” is selected for “Alarm log display”, the panel name will be changed from [Alarm log] to [Buzzer] and only the [Buzzer stop] button will be displayed.

■ **Device error log display**

Determine whether to display or hide the device error log panel of the operation window.
ON: Display the device error log panel.
OFF: Hide the device error log panel.
Default: ON

■ **Network error log display**

Determine whether to display or hide the network error log panel of the operation window.
ON: Display the network error log panel.
OFF: Hide the network error log panel.
Default: ON

■ **Display of map icon name on the map**

Determine whether to display the map icon name under the icon in the map of the map monitor window and map setup window.
ON: Displays the map icon name.
OFF: Not display the map icon name.
Default: ON

■ **Display of camera icon name on the map**

Determine whether to display the camera icon name under the icon in the map of the map monitor window and map setup window.
ON: Displays the camera icon name.
OFF: Not display the camera icon name.
Default: ON

■ **Map window preview image display**

Determine whether to display preview images of a camera or not when the mouse cursor is moved onto the camera icon arranged on the map of the map monitor window.
ON: Display a preview image
OFF: Not display a preview image
Default: ON

■ **Icon frame display on the map setting window**

Determine whether to display a frame border around the camera icon arranged on the map of the map setting window or not.
ON: Displays a frame border around the camera icon.
OFF: Not display a frame border around the camera icon.
Default: OFF

■ **Designate a web browser app**

From the pop-up menu [Browser start] in the device tree, select a browser to display the web pages of the device supporting Microsoft Edge, Google Chrome and Firefox.

Default app: Use the app selected as web browser of PC.
Edge(Chromium): Use the Microsoft Edge (Chromium version).
Chrome: Use the Google Chrome.
Firefox: Use the Mozilla Firefox.

Note:

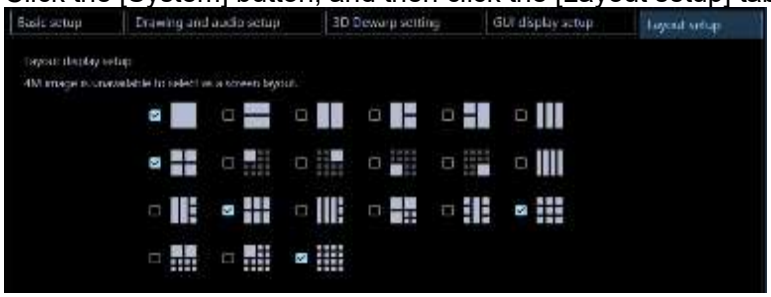
- When selecting a web browser, check that the selected browser is already installed on the PC.
- When selecting an existing app, set a browser other than the Internet Explorer as the default app of Windows.
- When the connected device is a recorder, or when the connected device is a camera, an encoder or a microphone that does not support Microsoft Edge, Google Chrome and Firefox, launch the Microsoft Edge (IE mode).
- Supported versions of the web browser and restrictions will vary depending on the connected devices. Refer to the operating instructions of the devices for further information.

■ **[Set] button**

The configured settings will be saved.

3.2.5. Layout setup

Click the [System] button, and then click the [Layout setup] tab to display the "Layout setup" page.



■ **Page layout icon**

Select 5 or less icons on the top line of the pull-down menu of the page layout icon to display them on the tool bar of the operation window.

Icon	Description	Icon	Description
	Display images on 1-screen.		Display images on 2A-screen.
	Display images on 2B-screen.		Display images on 3A-screen.
	Display images on 3B-screen.		Display images on 3C-screen.
	Display images on 4-screen.		Display images on 4E-screen.

Icon	Description	Icon	Description
	Display images on 5-screen.		Display images on 6-screen.
	Display images on 6A-screen.		Display images on 7-screen.
	Display images on 7A-screen.		Display images on 9-screen.
	Display images on 10-screen.		Display images on 13-screen.
	Display images on 16-screen.		

The following are available after the license for the WV-ASE202 is added.

Icon	Description	Icon	Description
	Display images on 25-screen.		Display images on 36-screen.
	Display images on 49-screen.		Display images on 64-screen.

Selectable layout varies depending on the setting for [Operation window (multi-screen) with the maximum number of areas] of [☞3.2.1. Basic setup] under [System setup].

- In case that the maximum number of areas of the operation window is 1-screen
  1-screen

Default: 1

- In case that the maximum number of areas of the operation window is 2-screen
  1-screen/ 2A-screen/ 2B-screen

Default: 1-screen/ 2A-screen/ 2B-screen

- In case that the maximum number of areas of the operation window is 3-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen

Default: 1-screen/ 2A-screen/ 3A-screen/ 3B-screen/ 3C-screen

- In case that the maximum number of areas of the operation window is 4-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen

Default: 1-screen/ 2A-screen/ 2B-screen/ 4-screen/ 4E-screen

- In case that the maximum number of areas of the operation window is 5-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen

Default: 1-screen/ 2A-screen/ 2B-screen/ 4-screen/ 5-screen

- In case that the maximum number of areas of the operation window is 6-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen

Default: 1-screen/ 2A-screen/ 4-screen/ 6-screen/ 6A-screen

- In case that the maximum number of areas of the operation window is 7-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen

Default: 1-screen/ 4-screen/ 6-screen/ 7-screen/ 7A-screen

- In case that the maximum number of areas of the operation window is 9-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen

Default: 1-screen/ 2A-screen/ 4-screen/ 6-screen/ 9-screen

- In case that the maximum number of areas of the operation window is 10-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen

Default: 1-screen/ 4-screen/ 6-screen/ 9-screen/ 10-screen

- In case that the maximum number of areas of the operation window is 13-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen

Default: 1-screen/ 4-screen/ 6-screen/ 9-screen/ 13-screen

- In case that the maximum number of areas of the operation window is 16-screen
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4A-screen/ 4B-screen/ 4C-screen/ 4D-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen

Default: 1-screen/ 4-screen/ 6-screen/ 9-screen/ 16-screen

- When the maximum number of areas of the operation window is 25-screen (Available when the license for the WV-ASE202 is added)
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4A-screen/ 4B-screen/ 4C-screen/ 4D-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen

Default: 1-screen/ 4-screen/ 9-screen/ 16-screen/ 25-screen

- When the maximum number of areas of the operation window is 36-screen (Available when the license for the WV-ASE202 is added)
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4A-screen/ 4B-screen/ 4C-screen/ 4D-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen

Default: 1-screen/ 4-screen/ 9-screen/ 16-screen/ 36-screen

- When the maximum number of areas of the operation window is 49-screen (Available when the license for the WV-ASE202 is added)
  1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4A-screen/ 4B-screen/ 4C-screen/ 4D-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen

Default: 1-screen/ 4-screen/ 9-screen/ 16-screen/ 49-screen

- When the maximum number of areas of the operation window is 64-screen (Available when the license for the WV-ASE202 is added)

1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4A-screen/ 4B-screen/ 4C-screen/ 4D-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

Default: 1-screen/ 4-screen/ 9-screen/ 16-screen/ 64-screen

Note:

- When the setting for [Operation window (multi-screen) with the maximum number of areas] is changed, [Page layout icon] will automatically be changed to the default in accordance with the maximum number of areas.
- 4M-screen is not displayed on the screen layout of the toolbar of the operation monitor because it is a layout dedicated to group display where only the multi-sensor camera can be placed.

■ **[Set] button**

The configured settings will be saved.

3.2.6. Performance

Click the [System] button, and then click the [Performance] tab to display the "Performance setup" page.
Enter a number of images to be refreshed per second.



Note:

- Change the setting value for the maximum refresh interval of JPEG/VGA (live/playback) according to your operation environment.
  Intel® Core™ i5: 240 ips
  Intel® Core™ i7: 300 ips

(For reference) Intel® CoreTM 2 Duo 2.66GHz: 160 ips

- The maximum refresh interval per screen is calculated by dividing the maximum refresh interval by the number of screens of VGA conversion.

Ex. 1) When displaying VGA (640×480) image while "60 ips" is set for "Maximum refresh interval", the maximum refresh interval per area will be 60 ips when displaying in 1-screen, and 15 ips when displaying in 4-screen.
Ex. 2) When displaying SXVGA (1280×960, 4VGA conversion) image while "120 ips" is set for "Maximum refresh interval", the maximum refresh interval per area will be 30 ips when displaying in 1-screen, and 7.5 ips when displaying in 4-screen.

- In a similar manner, the maximum refresh interval of "JPEG/VGA (Live/Playback)" will be x1/21, x1/19, x1/16, x1/10, x1/4, x2/3, and x4 of the set value respectively when the resolution is 9M (2992×2992), 8M (2816×2816), 5M (2560×1920), QXGA (2048×1536), SXVGA*1 (1280×960), SVGA (800×600), QVGA (320×240).
  *1 When "Partial" is selected for the scan mode of NP100x, the resolution will be 960x720.
- When displaying images directly from the cameras, the smallest value among the refresh intervals set on the "Camera setup" window will be the maximum refresh interval per area.
- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the maximum refresh interval set on the "System" page.
- The maximum refresh interval of MPEG-4, H.264 or H.265 images cannot be controlled with this

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software.
- Refer to "☞ 1.9.1. Recommended camera setup" for further information.
- When a program of the recorder changed the recording rate, images sometimes may not be refreshed exactly at the set refresh interval.
- Select a value that is 15 ips or less for the live rate per HD300 (Number of ASM300 x HD300 (Live)).

■ **JPEG/VGA (Live/Playback)**

Enter a number among the following for the maximum refresh interval of 1 second for the whole system when displaying JPEG images of VGA size (640x480).

1 ips - 500 ips

Default: 200 ips

Note:
- When receiving images from Video Insight Server, images will be displayed at the image refresh rate of the camera or the recorder.

■ **HD300 (Live)**

Enter a number among the following for the maximum refresh interval of 1 second for the whole system when displaying JPEG images of VGA size (640x480).

1 ips - 15 ips

Default: 5 ips

■ **[Set] button**

The configured settings will be saved.

3.2.7. Timeline

Click the [System] button, and then click the [Timeline] tab to display the Timeline setup window.



Note:
- When the timeline setting is changed, it may become inoperable for several minutes due to the pause of the service.
- When setting the timeline, first synchronize the PC clock with the recorder. When the clocks are not synchronized, or when the PC clock has been changed, the timeline will not be displayed correctly. If this happened, initialize the timeline after synchronizing the PC clock with the recorder. Refer to "☞ 3.15.6. Save/load/initialize the timeline data" for how to initialize the timeline.
- For NX series version 5.00 or later, the timeline is only available with this software version 4.00 or later.

■ **Timeline display**

Select to determine whether or not to display timeline on the playback operation panel of the operation window.

ON: Displays the timeline playback operation panel.

OFF: Displays the playback operation panel.
Default: OFF

■ Timeline database

Determine whether the PC in which this software is installed is to be used as the master PC that manages the timeline database or not.

Master: Use as the master PC.
Slave: Use as the slave PC.
Default: Master

Note:

- When using a plurality of this software, set only a single one as "Master".
- The maximum number of slave PCs that can be connected simultaneously to the Master is limited to 16 PCs.

■ Number of acquired days

Set number of days to acquire recording information from the recorder.
Selection of number of days to acquire recording information will become available by setting "Master" for "Timeline database".

3 days: Acquire recording information of the last 3 days.
7 days: Acquire recording information of the last 7 days.
14 days: Acquire recording information of the last 14 days.
30 days: Acquire recording information of the last 30 days.
90 days: Acquire recording information of the last 90 days.
Default: 14 days

Note:

- Depending on number of the registered recorder or number of the recording event, it may sometimes be impossible to acquire recording information due to the limitation of storage capacity.

■ Master address

Set the master destination address. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-” (hyphen) Setting of the master address will become available by setting "Slave" for "Timeline database".

Note:

- It is impossible to connect the master address via WAN. Make connection via LAN.

■ Port number

Enter a number among the following for the port number.

1 - 65535
Default: 8080

■ [Set] button

The configured settings will be saved.

3.2.8. Directory Service

User management can be performed associated with Windows Server 2012 Active Directory function.
Click the [System] button, and then click the [Directory Service] tab to display the "Directory Service" page.

Important:
- Register the group to which one user belongs to the LDAP Server within 1000 or less.



■ Directory Service

Select to determine whether to use the Directory Service.
ON: Use
OFF: Not use
Default: OFF

■ LDAP Server Address

Enter the address of Windows Server on which Active Directory is running (IP address or the host name in FQDN format) using 255 characters at maximum.

■ LDAP Server Port

Enter the port number for the Active Directory Service.
Default: 389

■ LDAP Schema

Select LDAP Schema. Currently only "Active Directory" can be selected.

■ LDAP Base DN

Enter the domain name of the Active Directory Server by LDAP DN (255 characters at maximum).
Multiple LDAP relative distinguished names are listed in the comma delimited format.
Example: In the case of a fictitious domain "i-pro.com"
DC=i-pro, DC=com

■ LDAP Binding DN

Enter the user name to be connected to the Active Directory Server by LDAP DN (255 characters at maximum).
Example: In the case of "i-PRO User" that belongs to a user group registered in the fictitious domain "i-pro.com"
CN=i-PRO User, CN=Users, DC=i-pro, DC=com

■ LDAP Password

Enter the password of the user to be connected to the Active Directory Server.
The entered password will be displayed with asterisks (*). Enter 1 - 128 characters for the password.

Note:
- Regarding Active Directory and LDAP, it is necessary to understand the functions of Windows Server 2012. Set up the Directory Service properly according to your environment.
- Microsoft® Windows® Server 2012 Standard, Microsoft® Windows® Server 2012 R2 Standard are supported.
- When accessing the Active Directory, “Windows Server 2012 CAL” is required.

■ **[Set] button**

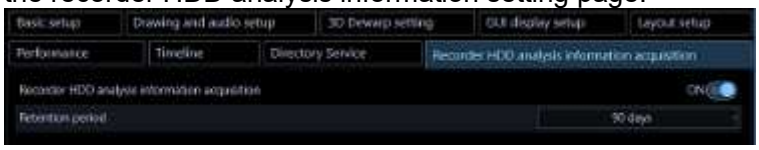
The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.2.9. Recorder HDD analysis information acquisition

This software saves the HDD analysis information periodically acquired from the recorder in the PC. This information will be required when a repair is needed.

Click the [System] button and then click the [Recorder HDD analysis information acquisition] tab to display the recorder HDD analysis information setting page.



■ **Recorder HDD analysis information acquisition**

Determine whether to acquire HDD analysis information from the connected recorder.
ON: Acquire
OFF: Not acquire
Default: ON

■ **Retention period**

Select the retention period of the recorder HDD analysis information from the following. This setting is not available if “ON” is not selected for “Recorder HDD analysis information acquisition”.
14 days/ 30 days/ 90 days/ 180 days
Default: 90 days

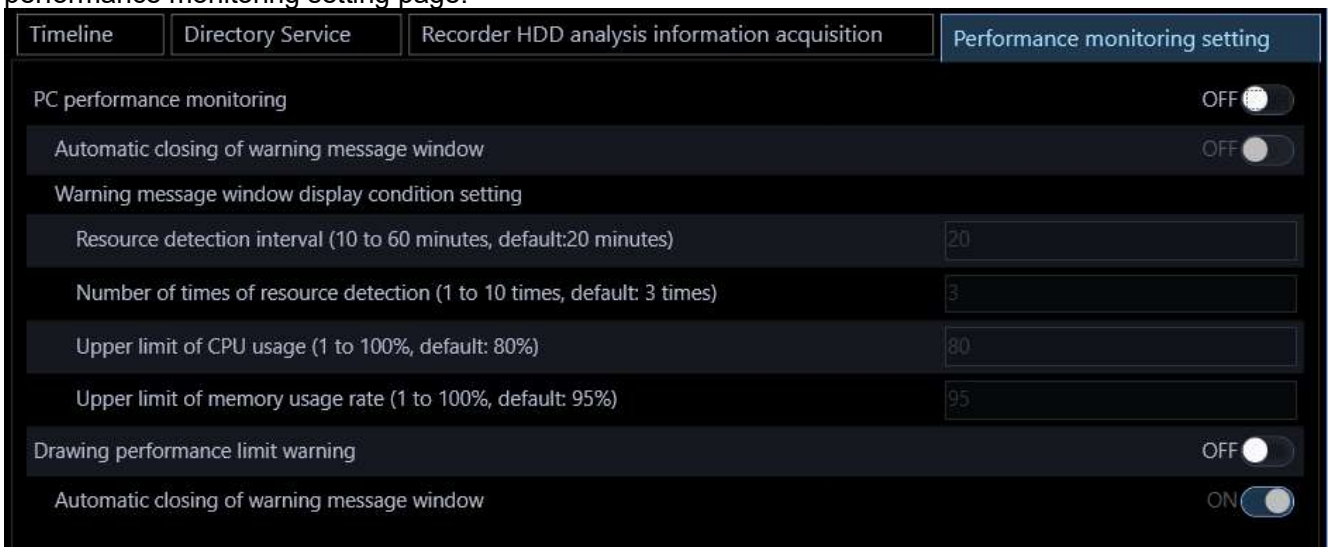
■ **[Set] button**

The configured settings will be saved.

3.2.10. Performance monitoring setting

Make the settings for PC performance monitoring and drawing performance limit warning of this software.

Click the [System] button and then click the [Performance monitoring setting] button to display the performance monitoring setting page.



Important:

- The confirmation window asking whether to turn on the PC performance monitoring function will be displayed at the time of installation of this software. When “Yes” is selected, the following “PC performance monitoring” and “Drawing performance limit warning” will be set to “ON”.
- It does not mean that phenomenons including delay of video and freezing of the PC will not occur at all even though no warning message appears as a result of turning on this performance monitoring function.

■ PC performance monitoring

Determine whether to monitor the PC resources and display a message when certain conditions are exceeded.

ON: Monitors the PC resources and displays a message.
OFF: Does not monitor the PC performance.

■ Automatic closing of warning message window

Determine whether to close a warning message window displayed as a result of the performance monitoring in 60 seconds.

ON: A warning message window will automatically close.
OFF: A warning message window will not automatically close.

Default: OFF

■ Resource detection interval (10 to 60 minutes, default: 20 minutes)

Set the monitoring interval of the PC performance by entering a value in the following range.
10 to 60 minutes
Default: 20 minutes

■ Number of times of resource detection (1 to 10 times, default: 3 times)

Enter a value in the following range to determine the number of times that the CPU usage or the memory usage rate continuously reaches the upper limit (resource detection) to display a warning message window.
1 to 10 times
Default: 3 times

■ **Upper limit of CPU usage (1 to 100%, default: 80%)**

Enter a value in the following range for the upper limit of the CPU usage.
1 to 100 %
Default: 80 %

■ **Upper limit of memory usage rate (1 to 100%, default: 95%)**

Enter a value in the following range for the upper limit of the memory usage rate.
1 to 100 %
Default: 95 %

■ **Drawing performance limit warning**

Determine whether to display a warning message window saying that the frame rate has been reduced when displaying an image.

ON: The message window will be displayed.
OFF: The message window will not be displayed.

■ **Automatic closing of warning message window**

Determine whether to close a warning message window displayed by the drawing performance limit warning in 5 seconds.

ON: A warning message window will automatically close.
OFF: A warning message window will not automatically close.

Default: ON

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.2.11. Text display setting

This setting will be displayed when the license for the extension software (WV-ASE205) is added.
Click the [System] button, and then click the [Text display setting] tab to display the "Text display setting" page.



■ **Visibility Enhancement Text Display**

Select ON or OFF to determine whether to display the text indicating that the visibility enhancement is on.

ON: Display

OFF: Not display
Default: ON

Note:
- This "text" indicates "This image is enhanced." displayed in image.

■ **Display position**

Select a position of the text indicating that the visibility enhancement is on.
Upper left: The text will be displayed at the upper left of the image.
Upper middle: The text will be displayed at the upper middle of the image.
Upper right: The text will be displayed at the upper right of the image.
Lower left: The text will be displayed at the lower left of the image.
Lower middle: The text will be displayed at the lower middle of the image.
Lower right: The text will be displayed at the lower right of the image.
Default: Upper left

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.3. Settings relating to the device management

Adds/ corrects/ deletes devices. Automatically detect devices connected to the same network as this software and set the device from this software.

There are the following types of device setup.

Setting window	Description
Initial setup	Use when setting devices that are in the initial state. Sets an IP address and administrator information of a camera or recorder that is in the initial state. Also automatically associates a camera with a recorder and registers in this software.
Advanced setup	Use when setting devices in more detail. Associates a camera with a recorder, changes settings of a device and registers a microphone or a stand-alone camera in this software.
Device registration	Use when registering devices already set up in advance to this software.
External device connection	Register an external device that can be registered by an optional license to this software.

The items that can be set on each screen are as follows.

○: Settable, ×: Unsettable

Setting function	Initial setup	Advanced setup	Device registration
Auto device detection	○	○	○

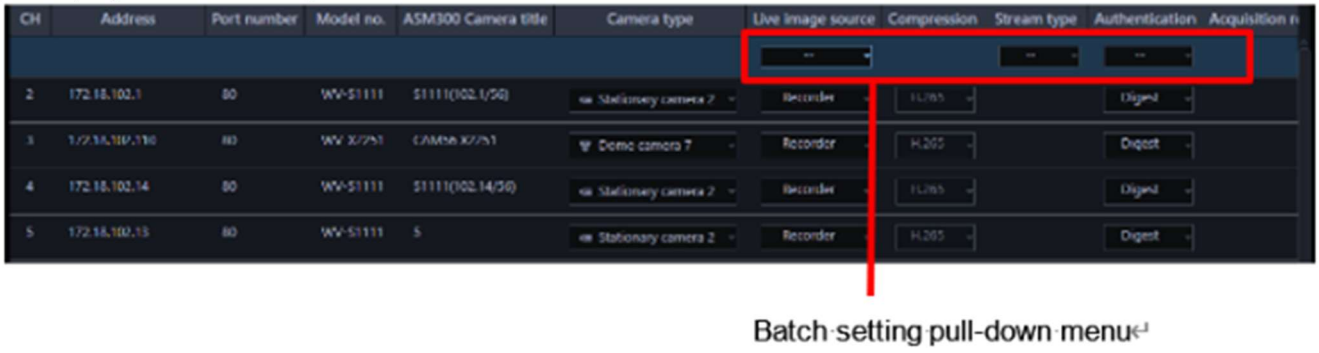
Registration of recorders and devices that are registered in the recorder to this software	○	○	○
Registration/deletion of cameras and encoders to/from a recorder	○	○	×
Batch setup of administrator information of cameras or recorders that are in the initial state	○	○	×
Batch setup of IP addresses of cameras or recorders that are in the initial state	○	×	×
Registration of a camera alone to this software	×	○	○
Registration of an encoder alone to this software	×	○	○
Deletion of device information from this software	×	○	○
Interlocking registration of a camera and a network microphone	×	○	○
Setup of a device that is not detected by the auto detection	×	○	○
Individual setup of IP address of device	×	○	×
Recording setup of recorder	×	○	×
Change of setting information of devices	×	○	×

<Operating method of the batch setting pull-down menu>

On the device setting screen, the device information in the device list can be set collectively to the same value selected from the pull-down menu.

The operation of the collective setting pull-down menu is described below using the “Camera setting screen” as an example.

(Example) Camera setting screen



■ **When setting the [Live image source] to “Camera” collectively**

*“Camera” is the option displayed in the pull-down menu

Open the batch pull-down menu and select “Camera”.

→ The Live image source will be collectively updated to “Camera”.
After updating, the batch setting pull-down menu will return to “--“.



■ **When setting the [Live image source] to “Recorder” collectively**

*When you open the pull-down menu, “Recorder” is displayed only in the confirmation area of the pull-down menu.

Open the batch pull-down menu and select “Recorder”.

→ The Live image source will be collectively updated to “Recorder”.
After updating, the batch setting pull-down menu will return to “--“.

Note:

- The following setting screens using the collective setting pull-down menu are targeted.
  - Initial setup: Step1 Device detection
  - Advanced setup: Step1 device detection, Step2 Camera registration, Step3 Recording setup
  - Device setup: Detect and register device, Register a camera individually

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3.3.1. Restriction when setting device

There are following restrictions for each function when configuring device with this software.
Read the following before operating this software.

(1) Corresponding function of recorder

The supported recorders for the automatic detection function (automatically detect the device connected to the same network as this software) and the setting transmission function (the function to set the device from this software) are as follows.

○：Supported, ×：Not supported

Automatic detection	Setting transmission	Recorder model
○	○	NV300, NX100, NX200, NX300, NX400 NU101、NU201、NU300、NU301
○	×	NV200
×	○	ND400
×	×	ND200, ND300, HD600, HD300, Video Insight Server

When using NV300, NX200, NX300 or NX400, connect to the “Camera/PC port”. If connected to the “PC port”, detection will not be performed. Also, when using the NX100 and NU-series, connect it to the

“PC port”. If connected to the “Camera port”, detection will not be performed. Refer to the operating instructions of each recorder for further information about the network port.

(2) Supported functions of devices other than recorder

The following are devices (other than recorder) that support the auto detection function and the setting transmission function.

Device type	Model
Encoder	GXE100
	GXE500
Camera	i-Pro camera (*Excluding some models.)
Microphone	SMR10

*Multi-sensor camera cannot change setting from this software.

(3) Notes on AI camera

If you are using the "AI privacy guard function" of the AI camera with this software, please check the following.

- Only cameras for which the AI privacy guard application (WV-XAE201W) is installed are subject. The AI privacy guard application for 360-degree fisheye (WV-XAE301W) is not supported.
- Set [Privacy Guard target] and [Target stream] on the "AI Privacy Guard setting" screen of the camera. For the settings related to AI Privacy Guard, refer to the instruction manual of the AI privacy guard application.
- It is necessary to set [Target stream] of the camera to "Stream (2) & Stream (4)". If you select another stream, unexpected AI privacy guard images or AI privacy guard off images may be displayed.
- After configuring the AI privacy guard setting on the camera side, be sure to acquire the device information again at "Device setup".

Important:

- When the image capture mode of the camera is set to 16:9 (60 fps mode)/16:9 (50 fps mode)/4:3 (15 fps mode)/4:3 (12.5 fps mode), the functions of the extension software including the AI privacy guard extension software will become unavailable. Refer to the operating instructions of the camera for further information.

(4) Other notes

- To add a device not compatible with the automatic detection function, use Off-line addition (Refer to " ☞ 3.3.3.1.3. Manually add a device")
- Cannot detect devices connected wirelessly.
- When using other tools (i-PRO Security System Configuration Tool, Easy IP Setup Tool etc.) with automatic detection function at the same time, the detection function of this software cannot be used. Do not start other tools when detecting devices.
- In the setting window, input items not supported by each device may be displayed. For the corresponding function of each device, please refer to the owner's manual of your device.
- Depending on the communication environment and the state of the target device, device connection may fail.
- If the setting made by this software is inconsistent on the device side, that setting will not be reflected on the device.

- When using V-series camera, change of the settings is unavailable except for some items. To change the settings of the camera, perform using the browser of the camera or the recorder in use.
- When using V-series camera, it may take several minutes for the change to be reflected on the camera after changing "Compression". During that time, even if the setting is correct, "Image reception error" etc. may occur.
- If the user authentication with V-series camera failed four times, login to the camera will become unavailable temporarily. In this case, retry to log in after waiting for a while or log in after rebooting the camera. Refer to the operating instructions of the camera for further information.
- The authentication method for devices registered in this software will not be updated by re-acquiring the device information. Therefore, when changing the authentication method, be sure to change it manually.
- To enhance the network security, it is recommended to set the authentication method with the device to “Digest” authentication and the communication method to “SSL/HTTPS”.
- The following cameras do not support secure communication (SSL/HTTPS communication).
  WV-SP509, WV-SW559, WV-SF539, WV-SF438, WV-SF458/ WV-SW458MA, WV-SF138, WV-SW158, WV-SW598/ WV-SW598A, WV-SC588/ WV-SC588A, WV-SC387/ WV-SC387A, WV-SW397/ WV-SW397A/ WV-SW397B

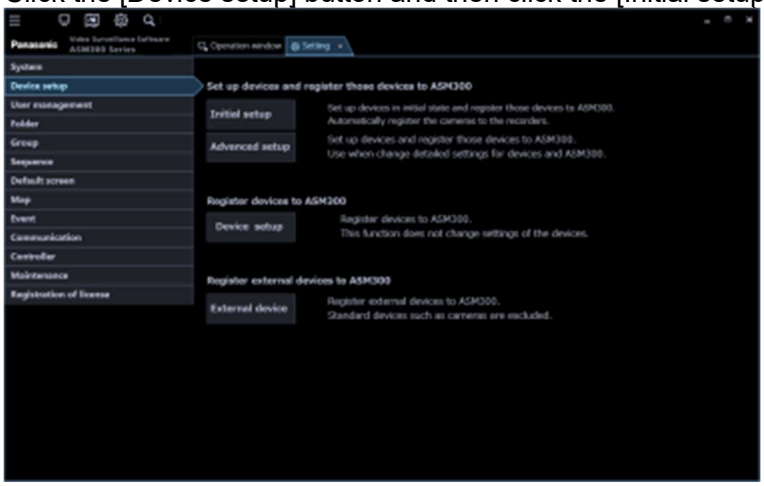
3.3.2. Initial setup

Set the device in the initial state. Sets an IP address and administrator information of a camera or recorder that is in the initial state. Also automatically associates a camera with a recorder and registers in this software.

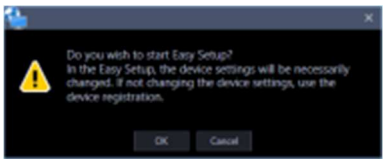
Important:

- To register independent cameras or network microphones in this software, do from "☞ 3.3.3. Advanced setup" or "☞ 3.3.4. Device setup".
- When the SSL communication is used between the recorder and the PC, configuration of the device setting using the “Initial setup” is unavailable. In this case, configure the setting from “Advanced setup” or “Device setup” in the same way.
- When changing a device, re-acquire device information from “Device registration” window. Refer to "☞ 3.3.4.6. Replace a device" for further information.

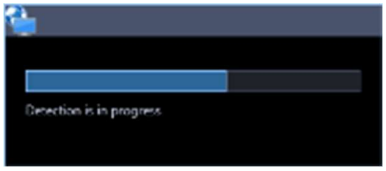
Click the [Device setup] button and then click the [Initial setup] button.



Since the start confirmation message of "Initial setup" is displayed, click the [OK] button.



The detection progress window will be displayed and detection of devices connected to the network will start.



When the device detection is completed, the detection progress window will close.

→ “☞ 3.3.2.1. Step1 Device detection“ will be displayed.

Important:

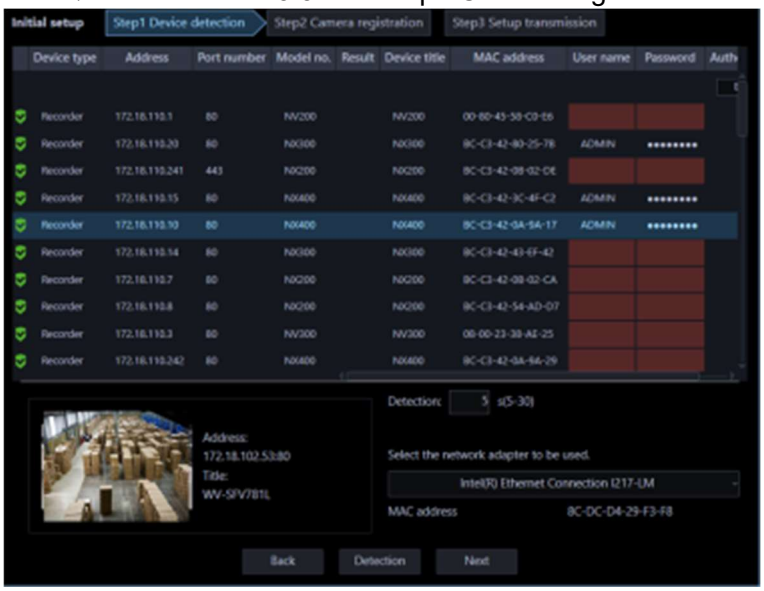
- When using NV200, NV300 or NX-series, connect to the “Camera/PC port”. If connected to the “PC port”, detection will not be performed. When using the NX100 and NU-series, connect it to the “PC port”.
- Refer to the operating instructions of each recorder for further information about the network port.

3.3.2.1. Step1 Device detection

When the “Step1 Device detection” window is displayed, information of devices connected to the network will automatically be acquired and be displayed in list form.

Enter the user name and password for device to be registered to “User name” and “Password” of “Device list” respectively and then click the [Next] button.

→ Shifts to “☞ 3.3.2.2. Step2 Camera registration”.



The details of the window are as follows.

■ **Device list**

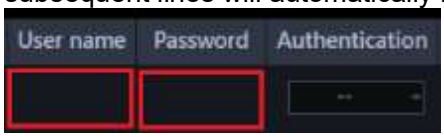
Information of devices connected to the network will be displayed in list form.

Item	Description
Icon	Registration status of administrators will be displayed with icons. : Administrator information is already set in device : Administrator information is not yet set in device (Device requires initial registration of administrator) : Device that is in condition of being uniquely unable to identify the administrator status (Device outside the network segment)
Device type	Device type will be displayed. One of camera/ recorder/ microphone/ encoder will be displayed.
Address	Address of a device will be displayed.
Port number	A Port number of a device will be displayed.
(Recorder icon)	When the failover function of the recorder registered in this software is enabled, the following icons are displayed.  It indicates that a recorder having the failover function is monitoring an error.  It indicates that a recorder having the failover function is executing a failover.
Model no.	A model number of a device will be displayed.
Result	(A blank for “Step1　Device detection”)
Device title	A title of a device will be displayed.
MAC address	A MAC address of a device will be displayed.
User name	Enter the administrator name registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, a user name will be displayed.)
Password	Enter the password for the administrator registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, the password will be displayed in “●”.)
Authentication	Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings. When the recorder authentication method is “Digest or Basic” and the authentication method of the camera registered in the recorder is “Digest”, set the authentication method of this software to “Digest”. • Digest: Uses “Digest” authentication. • Basic: Uses “Basic” authentication.

Note:

- **About batch input of user name and password**
  When the user name and password entry fields on the first line of “Registered device” are double-clicked and filled, the user name and password entry fields of the device on the second and

subsequent lines will automatically be filled with the same values.



- When the mouse is moved onto “Device list”, the tool tip will appear and display the number of the registered devices.



■ Preview

A preview image from the camera selected from the "Device list" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400, NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting “Recorder” for [Live image source], the preview display is unavailable.
- When [SSL] is set to “ON” and [Live image source] is set to “Recorder” for the NX-series recorder, the preview image will not be displayed.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.
- When the recorder is selected, the preview image of the camera set for CH1 is displayed. However, even if the CH1 camera is the AI privacy guard recording camera (ON), the preview image of the associated AI privacy guard recording camera (OFF) is displayed.

■ Detection time

Enter a number for the detection time (second) per device.

5 - 30

Default: 5 (s)

■ Network adapter

Select the network adapter to be used for connecting with the device.

■ MAC address

A MAC address of a PC in use will be displayed.

■ [Back] button

The "Initial setup" window will be closed.

■ **[Detection] button**

Re-detection of devices connected to the network will be executed and detected devices will be displayed in the device list.

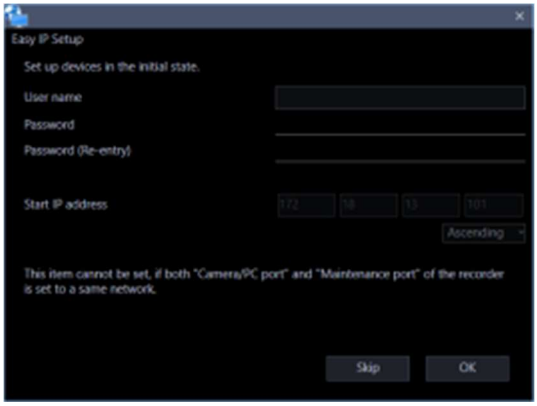
■ **[Next] button**

Shifts to the “☞ 3.3.2.2. Step2 Camera registration” window.
When there is a device for which the initial settings are not yet configured, “☞ 3.3.2.1.1. Easy IP Setup window” will be displayed.

3.3.2.1.1. Easy IP Setup window

If there is a device for which the initial settings are not yet configured at the moment when the [Next] button is clicked on “☞ 3.3.2.1. Step1 Device detection”, the Easy IP Setup window will be displayed. The initial settings for all the corresponding cameras and recorders will be set by batch.

Important:
- If the same network segment is set for “Camera/PC port” and “Maintenance port” of a recorder when setting an IP address of the recorder, connection to the recorder from this software will become impossible. Set an IP address of a different network segment from the one that is set for “Maintenance port” of the recorder. Refer to the operating instructions of the recorder in use for “Camera/PC port” and “Maintenance port”.



The details of the window are as follows.

■ **User name**

Enter a user name of a device for which the initial settings are not yet configured.
Enter 1 - 32 alphanumeric characters for the user name.

Note:
- The same user name will be set to all the devices for which the initial settings are not yet configured by batch.
- It is impossible to set different user names to each device.

■ **Password**

Enter a password of a device for which the initial settings are not yet configured.
The entered password will be displayed as "●".

- Enter 8 - 32 characters for the password.
- It is required to set a password that includes three or more of the following four character types.
  - Upper-case alphabet character
  - Lower-case alphabet character
  - Number
  - Special character (!#$%'()-=^~\|@`[]{}+*,.<>/?_:;)
- The full-sized characters and half-sized marks of " (double quotes) & (and) and space (blank) are unavailable.
- The password it contains the same string as the user name cannot be set.

Note:

- The same password will be set to all the devices for which the initial settings are not yet configured by batch.
- It is impossible to set different passwords to each device.

■ Password (re-entry)

Enter a new password to be registered. Check the typing error for password.
The entered password will be displayed as "●".

■ Start IP address

The same IP address will automatically be given to all the devices for which IP address settings are not yet configured by batch.
Enter the first IP address to be given automatically.

■ Ascending/Descending order selection

Select the ascending order or the descending order to be applied to IP addresses starting from "Start IP address" when automatically giving sequential IP addresses.

Note:

- When automatically giving IP addresses, in case that a given IP address is duplicated with an IP address that is already set to other device, this duplicated IP address will be skipped and unused subsequent IP addresses will be given.
- The Port number of the device will automatically be set to "80".

■ [Skip] button

Shifts to the "☞ 3.3.2.2. Step2 Camera registration" window without automatically giving IP addresses to devices.

■ [OK] button

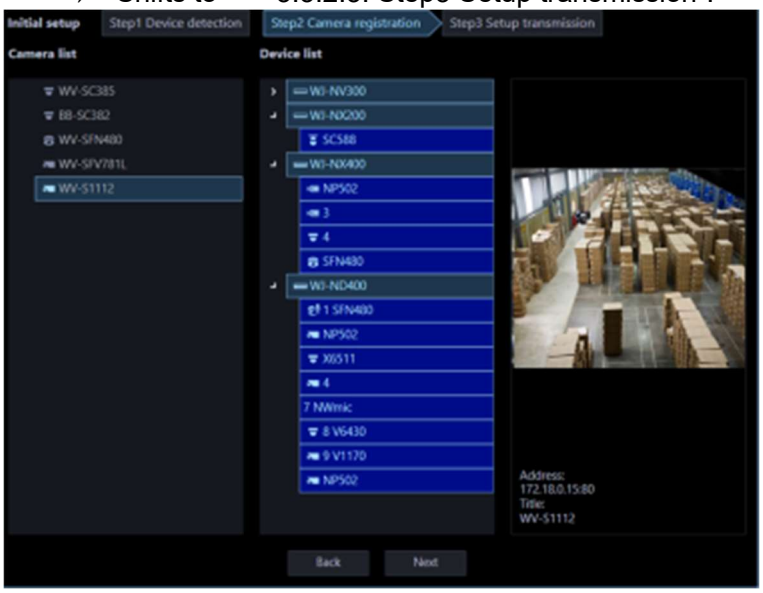
Shifts to the "☞ 3.3.2.2. Step2 Camera registration" window after automatically giving IP addresses to devices.

3.3.2.2. Step2 Camera registration

Automatically associates the cameras detected on the “Step1 Device detection” window with recorders and displays them.

If necessary, edit the contents and click the [Next] button.

→ Shifts to “☞ 3.3.2.3. Step3 Setup transmission”.



The details of the window are as follows.

■ **Camera list**

Cameras that can be registered in a recorder will be displayed in list form.

■ **Device list**

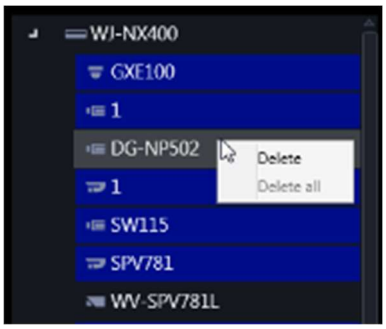
Recorders, registered cameras and cameras that can be registered in a recorder will be displayed in tree format. Click to select the device to register.



Note:

- Cameras that are already registered will be displayed with blue background.
- Cameras in the “Camera list” will be associated with available channels of recorders in the “Device list” in order and will be displayed.
- If the same camera is already registered in a recorder, association will not be executed.
- It is possible to register the same camera in multiple recorders.
- If there is no available channel on all recorders (reached the recorder registration limit), association will not be executed.

- When right-clicking on a recorder in the device list, the pop-up menu [Delete all] will be displayed. When [Delete all] is selected, all cameras associated with the right-clicked recorder will be deleted from the device list.
- When right-clicking on a camera in the device list, the pop-up menu [Delete] will be displayed. When [Delete] is selected, the right-clicked camera will be deleted from the device list. However, [Delete] cannot be selected for the associated AI privacy guard recording camera (OFF) and AI privacy guard recording camera (ON).



- When dragging a camera in the camera list and dripping onto a recorder in the device list, the camera will be associated with the first available channel of the recorder. However, the camera cannot be associated to the channel of the recorder that performs AI privacy guard recording from this software.



- When Fisheye camera is set to “4 stream mode”, link each camera channel one by one.
- When Multi-sensor camera, link each camera one by one.
- Cameras set to “Cropping mode” can only register CH1.

■ Preview

A preview image from the camera selected from the "Camera list" will be displayed.

Important:
- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder

- In case of directly receiving live images from a camera registered in a recorder, not through the recorder
- In case of acquiring live images via ND400, NX-series or NU-series or NX-series

• When using a recorder other than ND400 , NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
• If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
• In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **[Back] button**

Shifts to the “☞ 3.3.2.1. Step1 Device detection” window.

■ **[Next] button**

Shifts to the “☞3.3.2.3. Step3 Setup transmission” window.

3.3.2.3. Step3 Setup transmission

Transmits the setting values to a device. Put a check mark on the check box of a device to which the setting values are to be transmitted from the device list and click the [Setup transmission] button. When applying the settings to this software without transmitting the setting values to the device, click the [Save] button.



The process progress window will be displayed and transmission of the setting values of the device information will start.
When the transmission is completed, the setting result will be displayed in list form.



The details of the window are as follows.

■ **Transmission result list**

Information of devices for which the setup was made will be displayed in list form.

Item	Description
Icon	Result of transmission of setting values will be displayed with icons. : Transmission successful : Transmission failed
Check box	Select a transmission target device. Default: (All items check)
Model	A device model will be displayed.

Address	Address of a device will be displayed.
Port number	A Port number of a device will be displayed.
MAC address	A MAC address of a device will be displayed.
Device title	A title of a device will be displayed.
Version	Firmware version of a device will be displayed.
Result	If failed to transmit the setting values, the transmission result will be displayed.

■ **[Back] button**

Shifts to the “☞ 3.3.2.2. Step2 Camera registration” window.

■ **[Setup transmission] button**

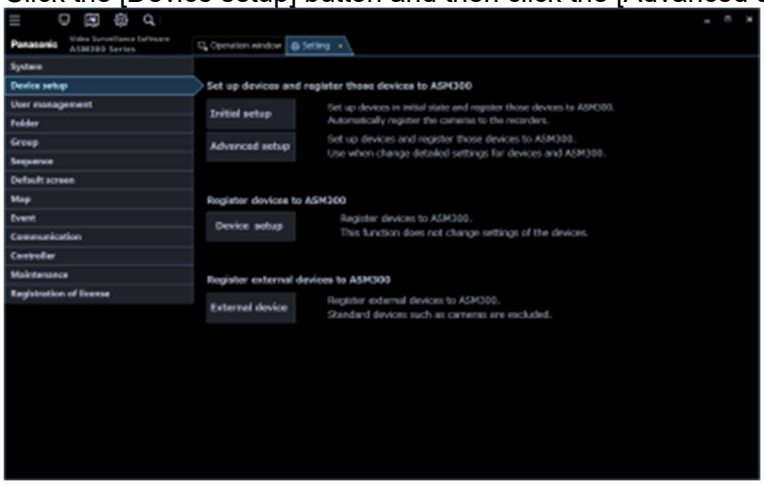
Transmits the setting values to a device and save the setting to this software.

3.3.3. Advanced setup

Detects/adds/edits/deletes devices, sets IP addresses and checks connections.
Associates a camera with a recorder, changes settings of a device and registers a microphone or a stand-alone camera in this software.

Important:
- When changing a device, re-acquire device information from “Device registration” window. Refer to " ☞ 3.3.4.6. Replace a device" for further information.

Click the [Device setup] button and then click the [Advanced setup] button.



→ “☞ 3.3.3.1. Step1 Device detection“ will be displayed.

When there is a device for which the initial settings are not yet configured, go to “☞ 3.3.3.1.1. Default setting of administrator”.
When you press the [Re-detection] button, the information on the devices connected to the network is automatically acquired and displayed as a list.

Important:

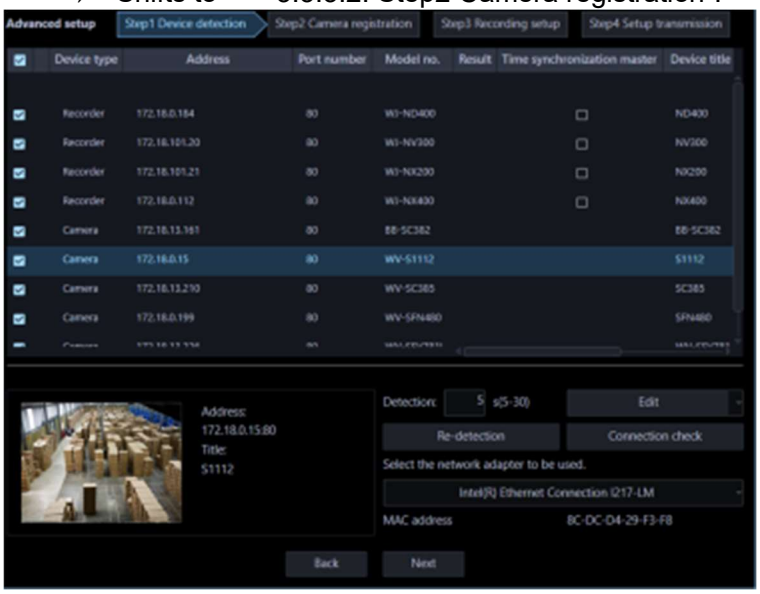
- When using NV200, NV300 or NX-series, connect to the “Camera/PC port”. If connected to the “PC port”, detection will not be performed. When using the NX100 and NU-series, connect it to the “PC port”.
- Refer to the operating instructions of each recorder for further information about the network port.

3.3.3.1. Step1 Device detection

When the “Step1 Device detection” window is displayed, the registered devices are displayed in list form. When there is a device for which the initial settings are not yet configured, go to “☞ 3.3.3.1.1. Default setting of administrator”.

When you press the [Re-detection] button, the information on the devices connected to the network is automatically acquired and displayed as a list.
Put a check mark for a device to be set in the device list and enter information and then click the [Next] button.

→ Shifts to “☞ 3.3.3.2. Step2 Camera registration”.



The details of the window are as follows.

■ **Device list**

Information of devices connected to the network will be displayed in list form.
The setting values of some items can be changed. The display contents are as follows.

Item	Description
Check box	Select an operation target device. Default: (Checked)
Icon	Registration status of administrators will be displayed with icons. : Administrator information is already set in device : Administrator information is not yet set in device (Device requires initial registration of administrator) : Device that is in condition of being uniquely unable to identify the administrator status

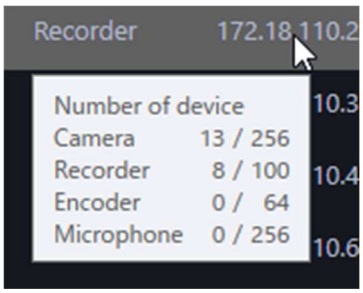
	(Device outside the network segment)
Device type	Device type will be displayed. One of camera/ recorder/ microphone/ encoder will be displayed.
Address	Address of a device will be displayed.
Port number	A port number of a device will be displayed.
(Recorder icon)	When the failover function of the recorder registered in this software is enabled, the following icons are displayed.  It indicates that a recorder having the failover function is monitoring an error.  It indicates that a recorder having the failover function is executing a failover.
Model no.	A model number of a device will be displayed.
Result	If an error occurred during “Connection check” or “Setup transmission”, an error message will be displayed.
Time synchronization master	This will be displayed only when the device is a recorder. Select and determine which recorder is to be used as a master to synchronize the time with when registering multiple recorders.
Device title	A title of a device will be displayed.
MAC address	A MAC address of a device will be displayed.
Version	Firmware version of a device will be displayed after completing “Connection check”.
Serial number	A serial number of a device will be displayed after completing “Connection check”.
User name	Enter the administrator name registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, a user name will be displayed.)
Password	Enter the password for the administrator registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, the password will be displayed in “●”.)
FTP port number	An FTP port number of a device will be displayed.
Authentication	Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings. • Digest: Uses “Digest” authentication. • Basic: Uses “Basic” authentication.

Note:

- **About batch input of user name and password**
  When the user name and password entry fields on the first line of “Registered device” are double-clicked and filled, the user name and password entry fields of the device on which check box is checked on the second and subsequent lines will automatically be filled with the same values.



- When the mouse is moved onto “Device list”, the tool tip will appear and display the number of the registered devices.



■ **Preview**

A preview image from the device selected from the "Device list" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400, NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting “Recorder” for [Live image source], the preview display is unavailable.
- When [SSL] is set to “ON” and [Live image source] is set to “Recorder” for the NX-series recorder, the preview image will not be displayed.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.
- When the recorder is selected, the preview image of the camera set for CH1 is displayed. However, even if the CH1 camera is the AI privacy guard recording camera (ON), the preview image of the associated AI privacy guard recording camera (OFF) is displayed.

■ **Detection time**

Enter a number for the detection time (second) per device.

5 - 30

Default: 5 (s)

■ **[Off-line addition] menu**

Manually adds a device that is not connected to the network or not detected by the auto detection to “Device list”.

Refer to "☞ 3.3.3.1.3. Manually add a device" for further information.

■ **[Edit] menu**

Edits registration information of a device displayed in the “Device list”. To add a device, it is necessary to enter a user name and password of the device on the device edit screen.

Refer to "☞ 3.3.3.1.4. Edit the device information" for further information.

■ **[Delete] menu**

Deletes a device displayed in the “Device list”.

Refer to "☞ 3.3.3.1.5. Delete a device" for further information.

■ **[IP address individual setup] menu**

Sets IP addresses of devices displayed in the “Device list” individually.
Refer to "☞ 3.3.3.1.6. Set an IP address of a device (IP address individual setup)" for further information.

Note:
- [IP address individual setup] can be set only for cameras, NX-series, and NU-series recorder.

■ **[Re-detection] button**

Re-detection of devices connected to the network will be executed and detected devices will be displayed in the device list.

Important:
- When using NV200, NV300 or NX-series, connect the camera to the “Camera/PC port”. If connected to the “PC port”, detection will not be performed. When using the NX100 and NU-series, connect it to the “PC port”.
- Refer to the operating instructions of each recorder for further information about the network port.

■ **[Connection check] button**

Checks if the device whose check box in the “Device list” is checked is connected to the network or not.
Refer to "☞ 3.3.3.1.7. Connection check of a device" for further information.

Note:
- If a device that is not connected to the network is added, the operation window is unavailable until “Connection check” is completed and device information is acquired.

■ **Network adapter**

Select the network adapter to be used for connecting with the device.

■ **MAC address**

A MAC address of a PC in use will be displayed.

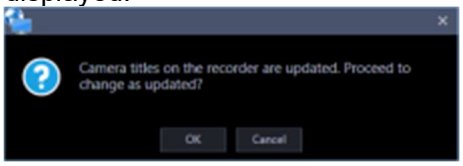
■ **[Back] button**

The "Advanced setup" window will be closed.

■ **[Next] button**

Shifts to the “☞ 3.3.3.2. Step2 Camera registration” window.

Note:
- When a camera title on the recorder side is changed on the recorder registered in this software at the time of shifting to the “Step 2. Camera registration” window, the change confirmation window will be displayed.

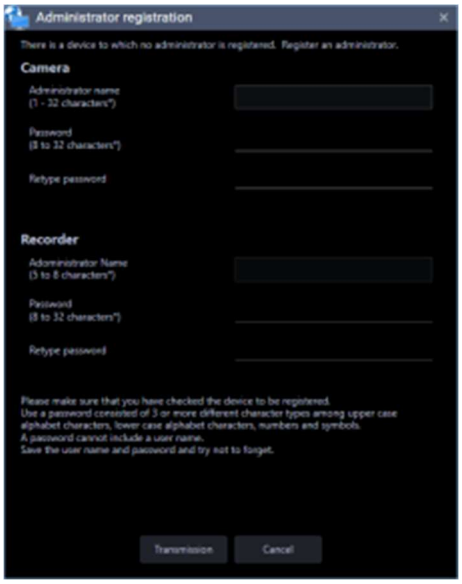


When the [OK] button is clicked, the camera title that was set on the recorder side will be overwritten by the camera title that was set by this software and then the acquisition of the device information will be completed. If the following characters are used for the camera title on the recorder, they will be replaced with spaces.
! $ % ’ < = > @ [¥] ^ _ ` { | } ~
When the [Cancel] button is clicked, the device information will be completed without changing the camera title.

3.3.3.1.1. Default setting of administrator

If there is a device for which the initial settings are not yet configured, the initial setup window for administrator will be displayed.
The initial settings for all the corresponding devices will be set by batch.

Important:
- Before setting the user name and password for a device in the initial state, set the IP address first in advance. The administrator setting will become unavailable.
- Strictly manage the set user name and password to not to forget.



The details of the window are as follows.

■ **User name <Camera>**

Enter a user name of a camera for which the initial settings are not yet configured.
Enter 1 - 32 alphanumeric characters for the user name.

■ **Password <Camera>**

Enter a password of a camera for which the initial settings are not yet configured.
The entered password will be displayed as "●".
- Enter 8 - 32 characters for the password.
- It is required to set a password that includes three or more of the following four character types.
  - Upper-case alphabet character

    - Lower-case alphabet character
    - Number
    - Special character (!#$%’()-=^~\|@`[]{}+*,.<>/?_:;)
- The full-sized characters and half-sized marks of “ (double quotes) & (and) and space (blank) are unavailable.
- The password it contains the same string as the user name cannot be set.

■ **Password (re-entry) <Camera>**

Enter a new password to be registered. Check the typing error for password.
The entered password will be displayed as "●".

■ **User name <Recorder>**

Enter a user name of a recorder for which the initial settings are not yet configured.
Enter 5 - 8 alphanumeric characters for the user name.

■ **Password <Recorder>**

Enter a password of a recorder for which the initial settings are not yet configured.
The entered password will be displayed as "●".

- Enter 8 - 32 characters for the password.
- It is required to set a password that includes three or more of the following four character types.
    - Upper-case alphabet character
    - Lower-case alphabet character
    - Number
    - Special character (!#$%’()-=^~\|@`[]{}+*,.<>/?_:;)
- The full-sized characters and half-sized marks of “ (double quotes) & (and) and space (blank) are unavailable.
- The password it contains the same string as the user name cannot be set.

■ **Password (re-entry) <Recorder>**

Enter a new password to be registered. Check the typing error for password.
The entered password will be displayed as "●".

■ **[Transmission] button**

Registers the set contents in a device and closes the initial setup window for administrator.

■ **[Cancel] button**

Cancels to register the set contents in a device and close the initial setup window for administrator.

Note:

- The same user name and password will be set to all the cameras and recorders for which the initial settings are not yet configured by batch. It is impossible to set different user names and passwords to each camera or recorder.

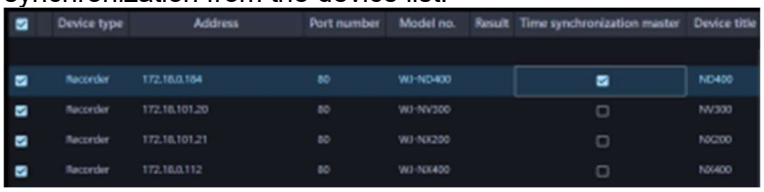
3.3.3.1.2. Synchronize the time of recorder

Adjust the time of multiple recorders displayed in the “Device list” with a recorder.

Step 1
Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

Step 2
Click the [Re-detection] button to display a list of the devices connected to the network.

Step 3
Put a check mark on [Time synchronization master] of a recorder to be used as a master of time synchronization from the device list.



Step 4
Select a recorder to be time-synchronized with the recorder selected in Step 3 and proceed to “3.3.3.4. Step4 Setup transmission” and then transmit the settings to the recorder.

→ The time of all other recorders is automatically synchronized to the recorder selected for [Time synchronization master].

Important:
- When “Time synchronization master” is selected, the NTP time synchronization setting for recorders other than the selected recorder will become valid and the NTP primary server address will be set as the address of “Time synchronization master”. Refer to the operating instructions of the recorder in use for NTP.
- Time synchronization of devices other than recorder is unavailable.

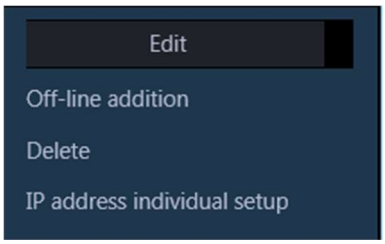
3.3.3.1.3. Manually add a device

Manually adds a device. Use this function to register a device when a device is not detected by the auto detection or when a device is located in a different segment.

Important:
- The devices added with this setting cannot be used with this software until saving or transmitting settings after checking the connection.
  For details on the connection check, refer to "☞ 3.3.3.1.7. Connection check of a device".
  For details on the setup transmission, refer to "☞ 3.3.3.4. Step4 Setup transmission".

Step 1
Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

Step 2
Click and select [Off-line addition] from the pull-down menu at the lower right of the window.



→ The "Off-line addition" window will be displayed.



The details of the window are as follows.

■ **Device type**

Select a device type from the following.

Camera/ Recorder/ Microphone/ Encoder

■ **Model no.**

Select a model number of a device.

■ **Address (Entry type)**

Select an entry type of address of a device.

Enter IP address: Specify a device to be registered using IP address.

Enter host name: Specify a device to be registered using FQDN type host name.

Default: IP address enter



■ **Address (Entry field)**

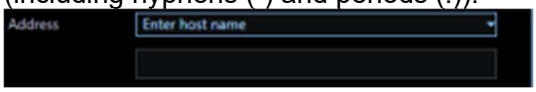
< When the entry type is “Enter IP address”>

Set an IP address range of a device. The entered IP address range will be added with serial numbers.
Enter the first IP address and the last IP address.



Note:
- If entered only the first IP address, only this IP address will be added.
- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>
Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:
- Entering "http://" is not necessary if the host name is entered.

■ Device title
Enter up to 60 characters for the device title.

■ User name
Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ Password
Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password. The following characters, space (blank) and 2-byte characters are unavailable.
" &

Note:
- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ Authentication
Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.
Digest: Uses “Digest” authentication.
Basic: Uses “Basic” authentication.
Default: Basic

■ Port number
Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.
1 - 65535
Default: 80

Note:

- The default HTTP port number set for Video Insight Server is"4011". When using without changing the default, change to "4011" from "80".

■ Use a proxy server

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server

OFF: Not use a proxy server

Default: OFF

Important:

- When displaying images directly from cameras, live images will be received without using a proxy server.

■ FTP port number

Enter a number among the following for the FTP port number.

1 - 65535

Default: 21

Note:

- This setting is not displayed when NU series is selected for "Device type".
- This setting is effective only when "Recorder" is selected for "Device type"

■ Internet mode

Select this item when receiving H.264, H.265 or MPEG-4 images via the Internet.
It is possible to transmit H.264, H.265 or MPEG-4 images while maintaining the same setting of the broadband router without changing the setting used for JPEG image transmission.

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.

OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.

Default: OFF

■ SSL

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.

OFF: Not execute the SSL communication.

Default: OFF

Note:

- This setting is valid only when the camera , NX-series or NU-series is selected as the device type.
- This setting is invalid when a recorder other than NX-series or NU-series is selected as the device type.
- To turn on SSL, set "port number" to 443.

■ [OK] button

Adds the set contents to “Registered device” and closes the off-line addition window.

■ [Cancel] button

Cancels to add the set contents to “Registered device” and closes the off-line addition window.

Step 3
Enter information and click the [OK] button.

→ The off-line addition window will close and the contents set to “Device list” will be displayed.

3.3.3.1.4. Edit the device information

Edits registration information of a device displayed in the “Registered device”.

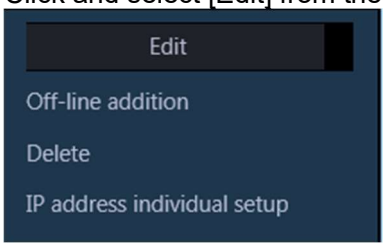
Important:
- The setting information entered in this setting is a setting to be used when this software executes the connection authentication with devices. Note that the settings are not to be sent to devices.
- Use a web browser of a device and edit the user name, password, etc. of the device.

Step 1
Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

Step 2
Click the [Re-detection] button to display a list of the devices connected to the network.

Step 3
Put a check mark on the check box of a device whose registration information is to be edited.

Step 4
Click and select [Edit] from the pull-down menu at the lower right of the window.



→ The device edit window will be displayed.



The details of the window are as follows.

■ **Device type**

Device type will be displayed.
One of camera/ recorder/ microphone/ encoder will be displayed.

■ **Address (Entry type)**

Select an entry type of address of a device.
Enter IP address: Specify a device to be registered using IP address.
Enter host name: Specify a device to be registered using FQDN type host name.
Default: IP address enter



■ **Address (Entry field)**

< When the entry type is “Enter IP address”>

Set an IP address range of a device. The entered IP address range will be added with serial numbers.
Enter the first IP address and the last IP address.



Note:
- It is impossible to use IP addresses that are already added.
- The entered address cannot be changed after the device connection check is executed.

<When the entry type is “Enter host name”>

Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:
- Entering "http://" is not necessary if the host name is entered.

■ **Device title**

Enter up to 60 characters for the device title.

■ **Version information**

Firmware version of a device will be displayed. If “Connection check” is not yet executed, the field will be displayed in blank.

■ **User name**

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ **Password**

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password. The following characters, space (blank) and 2-byte characters are unavailable.
" &

Note:
- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ Authentication

Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.

Digest: Uses “Digest” authentication.
Basic: Uses “Basic” authentication.

Default: Basic

■ Port number

Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.

1 - 65535

Default: 80

Note:
- The default HTTP port number set for Video Insight Server is"4011". When using without changing the default, change to "4011" from "80".

■ Use a proxy server

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server
OFF: Not use a proxy server

Default: OFF

Important:
- When displaying images directly from cameras, live images will be received without using a proxy server.

■ FTP port number

Enter a number among the following for the FTP port number.

1 - 65535

Default: 21

Note:
- This setting is effective only when "Recorder" is selected for "Device type".

■ Internet mode

Select this item when receiving H.264, H.265 or MPEG-4 images via the Internet.

It is possible to transmit H.264, H.265 or MPEG-4 images while maintaining the same setting of the broadband router without changing the setting used for JPEG image transmission.

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.

OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.

Default: OFF

■ **SSL**

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.

OFF: Not execute the SSL communication.

Default: OFF

Note:

- This setting is valid only when the camera , NX-series, or NU-series is selected as the device type.
- This setting is invalid when a recorder other than NX-series or NU-series is selected as the device type.
- To turn on SSL, set "port number" to 443.

■ **[Back] button**

Shifts to an item above the currently selected item among the items whose check box is checked in the “Registered device”.

■ **[Next] button**

Shifts to an item below the currently selected item among the items whose check box is checked in the “Registered device”.

Note:

- If the entered setting value is illegal, it is impossible to shift to items even by clicking the [Back] button and the [Next] button.

■ **[OK] button**

Saves the edited contents and displays them in the “Registered device”, and then closes the device edit window.

■ **[Cancel] button**

Cancels to save the set contents and closes the device edit window.

Step 5

Enter information and click the [OK] button.

→ The device edit window will close and the contents set to “Registered device” will be displayed.

3.3.3.1.5. Delete a device

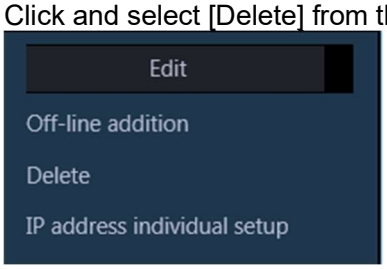
Deletes a device displayed in the “Registered device”.

Step 1

Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

Step 2
Put a check mark on the check box of a device whose information is to be deleted.

Step 3
Click and select [Delete] from the pull-down menu at the lower right of the window.



→ The deletion confirmation window will be displayed.



Step 4
Click the [OK] button.
→ The device information will be deleted.

3.3.3.1.6. Set an IP address of a device (IP address individual setup)

Sets IP addresses of devices displayed in the “Registered device” individually.

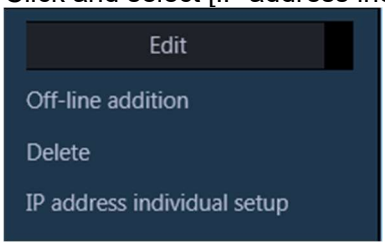
Important:
- If the same network segment is set for “Camera/PC port” and “Maintenance port” of a recorder when setting an IP address of the recorder, connection to the recorder from this software will become impossible. Set an IP address of a different network segment from the one that is set for “Maintenance port” of the recorder. Refer to the operating instructions of the recorder in use for “Camera/PC port” and “Maintenance port”.
- The IP address of the device registered using the host name cannot be changed.

Note:
- [IP address individual setup] can be set only for NX-series, NU-series and cameras whose validation period set by “Easy IP Setup” is not expired.
- Refer to the operating instructions of the camera in use for the validation period set by “Easy IP Setup”.
- To set the IP address of a device not registered in this software, input the "User name" and "Password" of the device on the device edit window in advance. Refer to "☞3.3.3.1.4. Edit the device information".

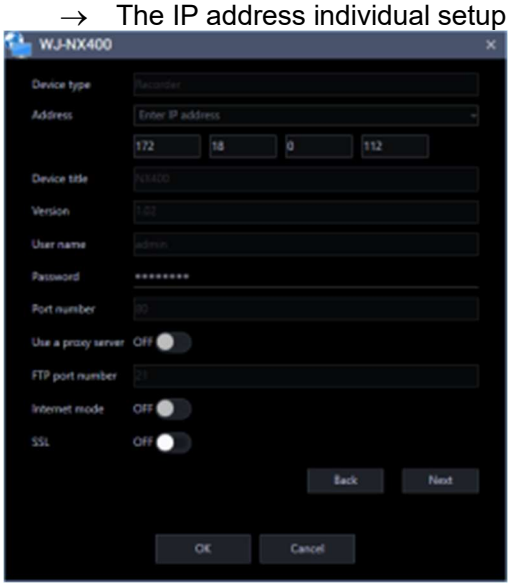
Step 1
Click the [Device setup] button and then click the [Advanced setup] button to display "☞ 3.3.3.1. Step1 Device detection".

Step 2
Put a check mark on the check box of a device whose IP address is to be set.

Step 3
Click and select [IP address individual setup] from the pull-down menu at the lower right of the window.



→ The IP address individual setup window will be displayed.



The details of the window are as follows.

■ **Device type**

Device type will be displayed.
One of camera/ recorder/ microphone/ encoder will be displayed.

■ **IP address**

When not using the DHCP function, enter an IP address of a device.
Do not enter an IP address that is already set for a PC or other network cameras.

Note:

- Even when using the DHCP function, it is impossible to use multiple IP addresses.
- Contact the network administrator for how to configure the DHCP server.

■ **Device title**

Device title will be displayed.

■ **Version information**

Firmware version of a device will be displayed. If “Connection check” is not yet executed, the field will be displayed in blank.

■ **User name**

User name of a device will be displayed.

■ **Password**

The device of password will be displayed with black dots (●).

■ **Port number**

A port number will be displayed.

■ **Use a proxy server**

Indicates whether to use or not use a proxy server to connect with devices.

■ **FTP port number**

A FTP port number will be displayed.

■ **Internet mode**

Internet mode will be displayed.

■ **SSL**

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.

OFF: Not execute the SSL communication.

Default: OFF

Note:

- This setting is valid only when the camera, NX-series or NU-series is selected as the device type.
- This setting is invalid when a recorder other than NX-series or NU-series is selected as the device type.

■ **[Back] button**

Shifts to an item above the currently selected item among the items whose check box is checked in the “Registered device”.

■ **[Next] button**

Shifts to an item below the currently selected item among the items whose check box is checked in the “Registered device”.

■ **[OK] button**

Saves the edited contents and displays them in the “Registered device”, and then closes the IP address individual setup window.

■ **[Cancel] button**

Cancels to save the edited contents and displays them in the “Registered device”, and then closes the IP address individual setup window.

Step 4

Click the [OK] button after editing the information.

→ The IP address individual setup window will close.

Important:

- After clicking the [OK] button, it takes about 2 minutes to reflect the IP address on the device. Please do not operate the device during that time.
- If changed the IP address of the device registered in this software, please register the device again.

3.3.3.1.7. Connection check of a device

Checks if the device whose check box in the “Device list” is checked is connected to the network or not, and perform device user authentication.
Also updates the setting values of the “Device list” to the values acquired from devices.
The [Connection check] button is only available when an unregistered device is selected.

Important:

- Note that the settings such as the registration setup will be reset when the setting values are acquired.
- Depending on the communication environment and the state of the target device, device connection may fail.

Step 1

Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

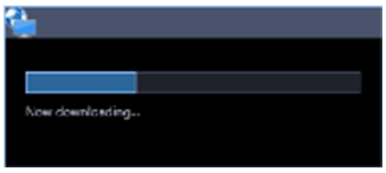
Step 2

Put a check mark on the check box of a device that “Connection check” is to be executed.

Step 3

Click the [Connection check] button.

→ The acquisition progress window will be displayed and acquisition of information of the connected device will start.



<For a registered device>

If the [Connection check] button is clicked with an already registered device selected, the following warning window will be displayed.



Step 4

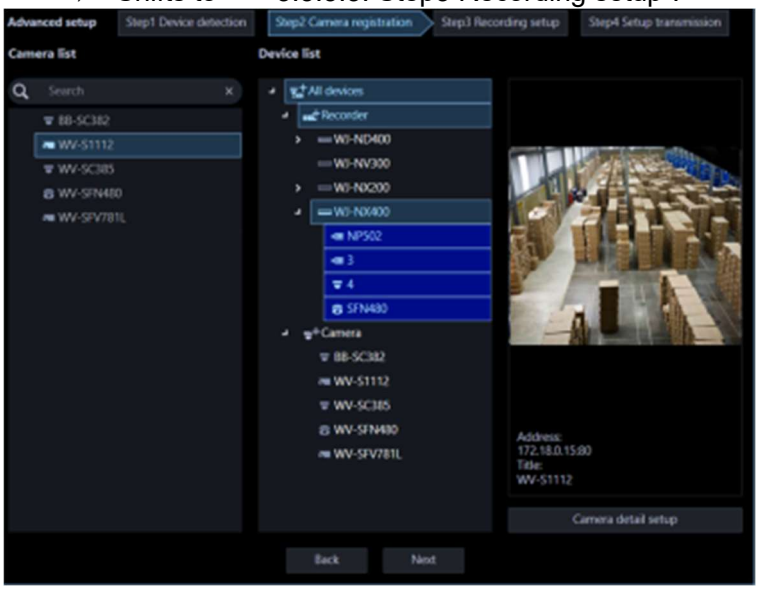
When the device information acquisition is completed, the acquisition progress window will close.
The update of the setting values of the device will start. Click the [Next] button and shift to “☞3.3.3.2. Step2 Camera registration”.

3.3.3.2. Step2 Camera registration

Associates the cameras, microphones and encoders detected on the “Step1 Device detection” window with recorders.

Enter information and click the [Next] button.

→ Shifts to “☞ 3.3.3.3. Step3 Recording setup”.



The details of the window are as follows.

■ **Search field**

Searches for a device title from the camera list.

■ **Camera list**

Cameras that can be registered in a recorder will be displayed in list form.
Drag a device to be registered and drop onto “Device list”.

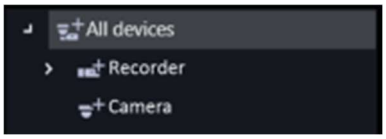
■ **Device list**

Recorders, registered cameras and cameras that can be registered in a recorder will be displayed in tree format.
The details of the icons are as follows.

 : Device folder → Camera and recorder will be displayed in tree format.

: Recorder folder → Recorder will be displayed in tree format.

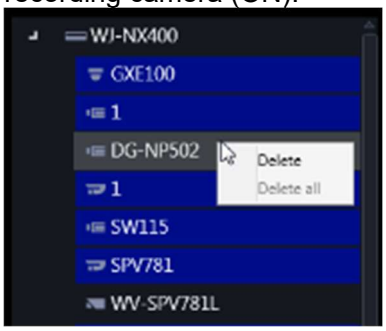
: Independent camera folder → Independent cameras will be displayed in tree format.



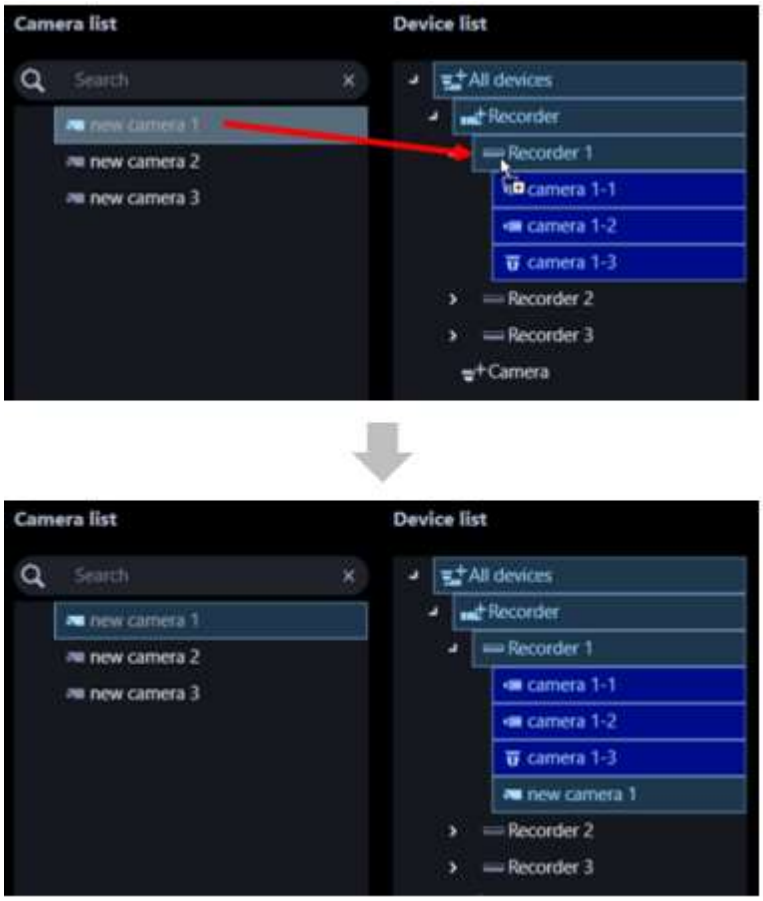


Note:

- Cameras that are already registered will be displayed with blue background.
- It is possible to register the same camera in multiple recorders.
- If there is no available channel on all recorders (reached the recorder registration limit), association will not be executed.
- When right-clicking on a recorder in the device list, the pop-up menu [Delete all] will be displayed. When [Delete all] is selected, all cameras associated with the right-clicked recorder will be deleted from the device list.
- When right-clicking on a camera in the device list, the pop-up menu [Delete] will be displayed. When [Delete] is selected, the right-clicked camera will be deleted from the device list. However, [Delete] cannot be selected for the associated AI privacy guard recording camera (OFF) and AI privacy guard recording camera (ON).



- When dragging a camera in the camera list and dripping onto a recorder in the device list, the camera will be associated with the first available channel of the recorder. However, the camera cannot be associated to the channel of the recorder that performs AI privacy guard recording from this software.



- When dragging a camera in the camera list and dripping onto “Independent camera folder” in the device list, the camera will be registered as an independent camera.



- When Fisheye camera is set to “4 stream mode”, link each camera channel one by one.
- When Multi-sensor camera, link each camera one by one.
- Cameras set to “Cropping mode” can only register CH1.

■ Preview

A preview image from the camera selected from the "Camera list" or “Device list” will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400 , NX-series or NU-series
- When using a recorder other than ND400 , NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **[Camera detail setup] button**

Configure the detail settings of the camera selected from [Device list].
Refer to "☞3.3.3.2.1. Camera detail setup window" for further information.

■ **[Back] button**

Shifts to the "☞ 3.3.3.1. Step1 Device detection" window.

■ **[Next] button**

Shifts to the "☞ 3.3.3.3. Step3 Recording setup" window to configure the recording settings of the item selected from [Device list].

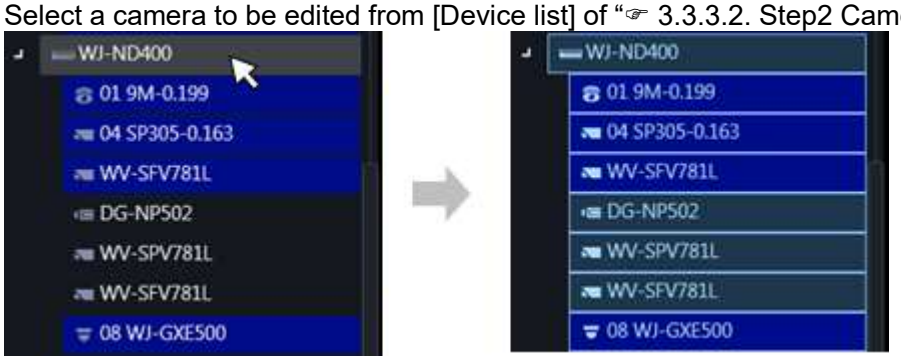
3.3.3.2.1. Camera detail setup window

Configure the detail settings of a camera.

Important:
- Depending on the device, setting functions not supported may be displayed.
- Refer to the operating instructions of the device for further information about each setting item.
- Items that cannot be set from this software are displayed in blank.
- Settings that cause inconsistency on the device side are not reflected on the device.
- When using V-series camera, change of the settings is unavailable.
- Since the multi-sensor camera is not compatible with the setting change function of this software, some items are grayed out.
- It is impossible to edit the detail settings of a camera for the AI privacy guard recording camera (ON).

Step 1

Select a camera to be edited from [Device list] of "☞ 3.3.3.2. Step2 Camera registration".



Step 2

Click the [Camera detail setup] button.

→ The "Camera detail setup" window will be displayed.



The details of the window are as follows.

■ **Check box**

Select an operation target camera.

■ **Address**

Address of a camera will be displayed.

■ **Port number**

A Port number of a camera will be displayed.

■ **Model no.**

Model number of a camera will be displayed in this area.

■ **Camera title**

Enter the camera title. The entered camera title will be displayed on the multi-screen window.
Available number of characters: 0 - 20 characters
Unavailable characters: " &

■ **Character display in screen**

Select “ON” or OFF” to determine whether to display the character string set by “In-screen character” and “In-screen character 2” on the screen or not.
When “ON” is selected, the character string entered for “In-screen character” and “In-screen character 2” will be displayed at the position selected in [Display position].
Default: ON

■ **In-screen character**

Enter a character string to be displayed in the screen.
Available number of characters: 0 - 20 characters
However, 0 to 40 characters when the camera in use allows to set the second line for in-screen character.
Available characters: Depends on device. Refer to the instruction manual of device.
Default: None (blank)

Note:

- Both a semi-sonant mark and a sonant mark of kana characters will be handled as 1 individual character.
- For cameras that cannot set the second line of in-screen character, it will not be reflected on the camera even if you execute “Step4 Setup transmission” after setting in-screen character to blank.

■ **In-screen character 2**

Enter a character string to be displayed on the second line of in-screen character.
Available number of characters: 0 - 40 characters
Available characters: Depends on device. Refer to the instruction manual of device.
Default: None (blank)

Note:

- Both a semi-sonant mark and a sonant mark of kana characters will be handled as 1 individual character.
- Entry of a character string to the second line is available only for a camera that supports the second line of in-screen character.
- When “In-screen character” is blank and only “In-screen character 2” is entered, the setting value will not be reflected in the camera even if you execute “Step4 Setup transmission”.

■ **Date display**

Select a date display format from 24h/ 12h/ OFF.
To not to display date and time, select “OFF”.
Default: 24h

■ **In-screen character position**

Select a display position where date and time and the character string are to be displayed in the screen where live images are being displayed.

Upper left: They will be displayed at the upper left of the screen.
Lower left: They will be displayed at the lower left of the screen.
Upper center: They will be displayed at the upper center of the screen.
Lower center: They will be displayed at the lower center of the screen.
Upper right: They will be displayed at the upper right of the screen.
Upper right: They will be displayed at the lower right of the screen.

Default: Upper left

Important:
- When using a camera that does not support “Upper center” and “Lower center” for “In-screen character position”, setting at “Upper center” and “Lower center” is unavailable.

■ **Image capture mode**

Set an image capture mode.

Important:
- For cameras that have been registered with this software or recorder, this setting cannot be selected.
- Image capture mode can be selected only for Fisheye cameras or 4K cameras. For other cameras it will be blank.
- After changing the “Image capture mode”, the changed camera moves from the “Device list” to the “Camera list”.

< In case of Fisheye camera >

Double Panorama
Panorama
Quad PTZ
Single PTZ
Fisheye
Fisheye+Double Panorama (In case of 3M fisheye camera, it will be hidden)
Fisheye+Panorama (In case of 3M fisheye camera, it will be hidden)
Fisheye+Quad PTZ
Quad streams

< In case of 4K camera >

Cropping
OFF

Note:

- 4-Stream mode is a function that corrects distortions in images at 4 points of a fisheye image and cuts out 4 images from them and then displays these 4 of 4:3 images as H.264 and H.265 images by assigning them to each stream number. To activate this mode, it is necessary to select " Quad streams" for the image capture mode of the camera in use.
- The "Cropping mode" is the function to display four cropping images out of panorama image in the ratio of 16:9, and allocate them to each stream number to display in the H.264, H.265 or JPEG format. To activate this mode, it is necessary to select "Cropping [16:9](30fps mode)" for the image capture mode of the camera in use.
- The image capture mode for the AI multi-sensor camera (usually Quad mode, Panorama mode) cannot be switched. If necessary, change the setting of the camera.

■ Stream (1)/(2)/(3)/(4) resolution

Set the resolution of H.264, H.265 or MPEG-4 image of each stream from the following.
Selectable resolution varies depending on the camera and the compression method.

160x120[4:3] / 320x240[4:3] / 400x300[4:3] /640x480[4:3] / 800x600[4:3] / 1280x960[4:3] / 1600x1200[4:3] / 2048x1536[4:3] / 2560x1920[4:3]/ 4000x3000[4:3] / 160x90[16:9] / 320x180[16:9] / 640x360[16:9] / 1280x720[16:9] / 1920x1080[16:9] / 2560x1440[16:9] / 2688x1520[16:9] /3072x1728[16:9] /3328x1872[16:9] /3840x2160[16:9] / 320x320[1:1] / 640x640[1:1] / 1280x1280[1:1] / 2048x2048[1:1] / 2192x2192[1:1] / 2816x2816[1:1] / 2992x2992[1:1] / 360x640[9:16] / 720x1280[9:16] / 1080x1920[9:16] / 1440x2560[9:16] / 1520x2688[9:16] / 1728x3072[9:16] / 1872x3328[9:16] / 2160x3840[9:16]

Important:

- When connection of a camera to be set is already checked, for the image capture size of each stream, the value set by camera will be displayed as default.
- Only the initial value can be selected for “Stream (2)/(3)/(4) resolution” until “Stream (1) resolution” is changed.
- When “Stream (1) resolution” is changed, only the resolution in the same image capture mode as the selected resolution for “Stream (1) resolution” can be selected for “Stream (2)/(3)/(4) resolution”.
- Depending on the camera’s model number, Image capture mode, resolution and compression method, it may be impossible to change the resolution.
- In the case of a camera with a recorder registered, the recorder may change the resolution of the camera, so a value different from the resolution selected in this setting may be set.

■ Stream (1)/(2)/(3)/(4) distribution mode

Select an H.264/H.265 image transmission mode from the following.

Constant bit rate
Frame rate
Best effort
Advanced variable bit rate
Variable bit rate

Default: Frame rate

Important:

- For H.265 compatible cameras, "Advanced variable bit rate" cannot be selected.

■ **Stream (1)/(2)/(3)/(4) maximum bit rate (at the time of a burst)**

Select an acceptable level from the following for H.264/H.265 bit rate to exceed “Bit rate per client”.

High/ Middle/ Low

Default: Low

■ **Stream (1)/(2)/(3)/(4) control period (variable bit rate)**

Select a period of time to control H.264/H.265 bit rate from the following. Stream will be transmitted while making an average of transmission amount in the selected period is equivalent to the bit rate set in “Bit rate per client”

1h/ 6h/ 24h/ 1week

Default: 24h

■ **Stream (1)/(2)/(3)/(4) bit rate per client**

Select an H.264/H.265 bit rate per client from the following.

64kbps*/ 128kbps*/ 256kbps*/ 384kbps*/ 512kbps*/ 768kbps*/ 1024kbps*/ 1536kbps*/ 2048kbps*/ 3072kbps*/ 4096kbps*/ 6144kbps*/ 8192kbps*/ 10240kbps*/ 12288kbps*/ 14336kbps*/ 16384kbps *

Default: 1024kbps*

* Available range of bit rate varies depending on the set resolution.

In case of QVGA, VGA, 320×180, 640×360: 64kbps - 4096kbps*

In case of 800×600: 128kbps* - 4096kbps* SW397 SC387

In case of 1280×960, 1280×720: 256kbps* - 8192kbps*

In case of 1920×1080: 512kbps* - 14336kbps*

In case of 1280×720, 2048×1536: 1024kbps* - 16384kbps*

Important:

- Depending on camera settings, the bit rate may not be displayed.

■ **Refresh interval**

Select a refresh interval (I-frame interval: 0.2 - 5 seconds) of H.264/H.265 images from the following.
If frequently errors occur in the network environment, image disturbance can be reduced by setting the refresh interval shorter.
However, image refresh speed may become slower.

0.2s/ 0.25s/ 0.33s/ 0.5s/ 1s/ 2s/ 3s/ 4s/ 5s/

Default: 1s

Important:

- When the setting transmission is performed from this software, all “Refresh interval” of stream 1 - 4 of the camera will become the same.
- Note that not all refresh intervals can be set depending on the camera.

■ **Upside-down**

Set the installation method of a camera.

Off (ceiling) / On (desktop) / Wall

Default: Off (ceiling)

Important:

- For H.265 compatible cameras and fisheye camera with "Image rotation" function, this setting

cannot be selected.
- Upside down may be reversed in some models.

■ Image rotation

Set whether or not to rotate the image (JPEG, H.265, or H.264).

0 °(Off): Does not rotate the image.
90 °: Rotates the image by 90 degrees.
180 °(Upside-down): Turns the image upside down.
270 °: Rotates the image by 270 degrees.

Default: 0 °(Off)

Important:
- If the camera in use does not have the “Image rotation” function, this setting cannot be selected.
- When the aspect ratio of the resolution selected for “Stream (1) resolution” is “4:3” or “16:9”, “90°” and “270°” are unavailable.
- When the aspect ratio of the resolution selected for “Stream (1) resolution” is “9:16”, “0° (OFF)” and “180°(Upside-down)” are unavailable.

■ Pan/tilt-flip

Adjust (pan/tilt) the horizontal/vertical position of images by clicking the pad and the buttons.
Select “ON” or “OFF” to determine whether to automatically turn images upside down when the tilt angle reached a certain degree.
(Digital flip function)

ON: Enable the digital flip function.
OFF: Disable the digital flip function.

Default: OFF

Important:
- This setting can be selected only when the camera is BB-SC364, BB-SW374, BB-SC382, BB-SC384.

■ Super Dynamic（Wide dynamic range）

Select “ON” or “OFF” to determine whether to activate the Super Dynamic function.

ON(High): Activate the Super Dynamic function. When “ON (High)”, the contrast is emphasized and the gradation is corrected.
ON(Normal): Activate the Super Dynamic function. When “ON (Normal)”, sensitivity is emphasized and gradation is corrected.
OFF: Stop the Super Dynamic function.

Default: OFF

Note:
- Cameras that has the Super Dynamic function or the Wide Dynamic Range function support the Super Dynamic function. The mode set for each camera is different.
- The Super Dynamic function is supported only when the camera direct reception is selected at the time of recorder registration.

■ Adaptive black stretch

Select “ON” or “OFF” to determine whether to activate the dark area correction function.

If “ON” is selected for “Super Dynamic”, this setting will become unavailable.
When the dark area correction function is activated, it is possible to make dark areas brighter by the digital image processing.

ON: Activate the dark area correction function.

OFF: Deactivate the dark area correction function.

Default: OFF

Important:

- This setting cannot be set with some H.265 compatible cameras.

■ Indicator

Select how to light on/off the LINK indicator, the ACCESS indicator and the STATUS indicator.

Light (all the time): All indicators will light according to the status.

Light (access): Only the STATUS indicator will light when images are being monitored.

OFF: All indicators will go off.

Default: ON (all the time)

■ Back light compensation (BLC)

Select “On” or “OFF” to determine whether to activate the back light compensation function.
If “ON” is selected for “Super Dynamic”, this setting will become unavailable.
The back light compensation function compensates back light by setting a brighter area in images as a mask area.

ON: Mask area will automatically be set.

OFF: Mask area will not automatically be set. It is necessary to set mask area manually.

Default: OFF

■ Light control mode

Select a light amount control mode from the following.

Outdoor: Control light amount using the electronic shutter and the auto focus function depending on the brightness (illuminance). Select this when capturing a bright object outdoor. Note that flickers may sometimes occur under fluorescent lamps.

Flickerless (50Hz) / Flickerless (60Hz): Flickers caused by fluorescent lamps will automatically be corrected properly be used between 50Hz and 60Hz according to the area.

Default: Outdoor

■ Auto slow shutter(Maximum shutter)

The auto slow shutter adjusts the storage time of the sensor and boosts the electronic sensitivity.
The available values are as follows.

OFF(1/30s)/ Max.2/30s/ Max.4/30s/ Max.6/30s/ Max.10/30s/ Max.16/30s

Default: OFF(1/30s)

Important:

- When the slow shutter is set, the frame rate will become lower. Also, noises and white dots (scratch) may sometimes be displayed in the screen.

Note:

- When “Max.16/30s” is selected, the sensitivity will automatically be increased up to x16.
- If “OFF” is selected for “Gain”, this setting will become unavailable.

■ **Day & Night(IR / electrical)**

Select a method to switch between black/white images and color images from the following.

OFF: Color images will be selected.

ON: Black & white images will be selected.

Auto1(Normal): Images will automatically be switched between BW images and color images depending on the brightness (illuminance) of images.

Automatically switch to color images when a light source is bright and to BW images when a light source is dark.

Auto2(IR Light): Select this when using an IR light source at night.

Auto3(Super Chroma Compensation (SCC)): Select this to keep color images even when a light source is dark. If compared with Auto 1, color images will be kept even under a low illuminance because of the Super Chroma Compensation (SCC) function.

Default: Auto1(Normal)

Note:

- Operation sound may be heard at the time of BW switch, but this is not caused by abnormality.
- Since the setting of “Auto 3” uses the color compensation technology, color may be displayed different from the actual object depending on the peripheral light condition.

■ **VMD alarm**

When motion is detected in the set VMD area, the alarm action will be performed.

VMD stands for “Video Motion Detection”.

ON: When motion is detected, alarm action is performed.

OFF: Even if motion is detected, alarm action is not performed.

Default: OFF

Important:

- For the PTZ camera, VMD area is set to "except the preset positions".
  If you set the VMD area to the preset position in the camera browser last time, it cannot be set correctly from this software. Set it from the camera browser.
- In the case of the Fisheye camera, setting values on the camera side may not be displayed correctly. If necessary, set it from the camera browser.
- When “Function type” of “VMD alarm” is set to “i-VMD” in the camera browser, VMD alarm is invalid regardless of this setting. To enable VMD alarm effectively, be sure to set “Function type” of “VMD alarm” is set to “VMD” in the camera browser. For details, please read the operation manual of the camera.
- If the motion detection area is not set using the camera browser in advance, the area will be set to the entire camera image when this setting is set to “ON” and also the setting transmission is performed. If the motion detection area is already set, the area will not be changed.

■ **Detection sensitivity**

Set the sensitivity to detect a motion in the area. Sensitivity can be set to each area individually.

The larger the value is, the higher the detection sensitivity becomes. The available values are as follows.

1 (low) - 15 (high)

Default: 8

■ **Microphone sensitivity**

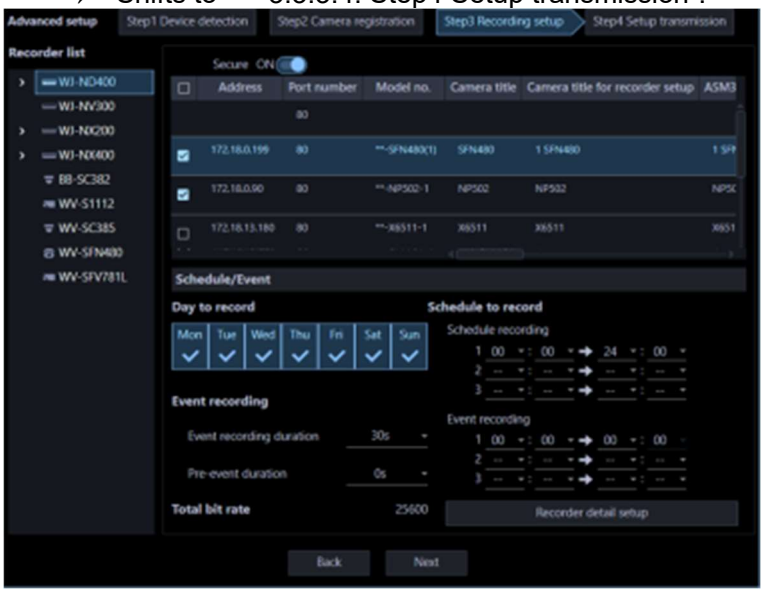
Set the microphone sensitivity. The smaller the value is, the higher the microphone sensitivity becomes.

The available values are as follows.
0 (high sensitivity) - 5 (low sensitivity)
Default: 3

Step 3
Enter information and click the [OK] button.
→ Close the "Camera setup" window.

3.3.3.3. Step3 Recording setup

Configure the recording settings of cameras and recorders and the detail settings of recorders.
Enter information and click the [Next] button.
→ Shifts to “☞ 3.3.3.4. Step4 Setup transmission”.



The details of the window are as follows.

■ **Recorder list**

Recorders and cameras associated with a recorder will be displayed in tree format.

■ **Recording setup list**

The independent camera selected from “Recorder list” or recording information of the recorder will be displayed in list form.
Also, it is possible to set recording conditions for each camera.
Refer to "☞3.3.3.3.1. Configure the recording settings" for further information.

■ **Schedule/Event**

Set recording conditions for the schedule recording and the event recording.
Refer to "☞3.3.3.3.2. Set recording schedule/event" for further information.

■ **[Recorder detail setup] button**

Configure the detail settings of the recorder selected from [Recorder list].
Refer to "☞ 3.3.3.3.3. Recorder detail setup" for further information.

■ **Secure mode**

Select “ON” or “OFF” to determine whether to operate the recorder selected from “Recorder list” in the secure mode or not.

ON: Operate in secure mode.

OFF: Not operate in secure mode.

Default: OFF

Note:

- This setting is available only for NX-series registered the secure extension license. Refer to the operating instructions of the recorder.
- The “CH” model is not covered by this setting.

■ **[Back] button**

Shifts to the “☞ 3.3.3.2. Step2 Camera registration” window.

■ **[Next] button**

Shifts to the “☞ 3.3.3.4. Step4 Setup transmission” window.

3.3.3.3.1. Configure the recording settings

Configure the recording conditions of each recorder.

Important:

- Depending on the device, setting functions not supported may be displayed.
- Refer to the operating instructions of the device for further information about each setting item.
- When using V-series camera, change of the settings other than “ASM300 camera title”, “Camera type”, “Live image source”, “Compression method”, “Bit rate”, “Stream type”, “Image quality” and “Audio” is unavailable.
- Since the multi-sensor camera is not compatible with the setting change function of this software, some items are grayed out. For the cameras registered on the recorder, make settings from "Recorder detailed setup".

Note:

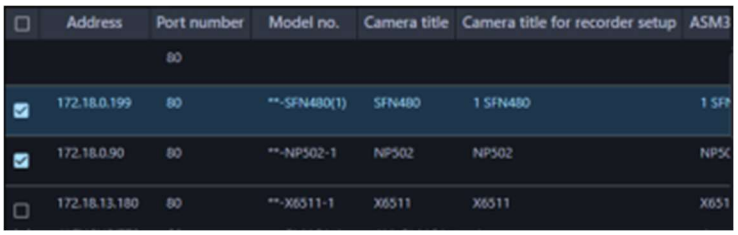
- When entering to the setting item of the first line of "Recording setup list", the same value will be automatically entered for the devices selected by the check box after the second line.

Step 1

Select a device to be configured from “Recorder list” of “☞ 3.3.3.3. Step3 Recording setup".



→ Cameras registered in the selected recorder will be displayed in “Recording setup list” in list form.



The details of “Recording setup list” are as follows.

Important:
- For the AI privacy guard recording camera (ON), change of the settings other than "Camera title for recorder setup" and "ASM300 camera title" is unavailable.

■ **Check box**

Select an operation target camera.

■ **IP address**

An IP address of a camera will be displayed.

■ **Port number**

A Port number of a camera will be displayed.

■ **Model no.**

Model number of a camera will be displayed in this area.

■ **Camera title**

Camera title for camera setup will be displayed.

■ **Camera title for recorder setup**

When using NV200, NV300 , NX-series or NU-series, enter up to 14 characters for camera title for recorder setup. When using ND400, enter up to 16 characters.
Default: Name of the camera registered in the recorder

■ **ASM300 camera title**

Enter up to 60 characters for camera title for ASM300.
Default: Device title in “Device list” of “Step1 Device detection”

Note:
- In the initial state, the device name acquired from the recorder is displayed. The displayed name can be changed.
- If the following characters are used for the camera title on the recorder, they will be replaced with spaces.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~

■ **Camera type**

Camera type and an icon corresponding to the type will be displayed.
There are 25 types of dome camera 1 - 16, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.

Important:

- If the camera type of the PTZ camera registered in the recorder is changed to "Fixed camera" and when 1-screen display is selected, the camera operation (pan / tilt / zoom) and electronic zoom will be performed according to the changed "Fixed camera". However, the camera operation from the operation panel remains the same as before the change. When displaying a multi-screen, the camera operation and electronic zoom do not change even if the camera type is changed.
- If the camera type of the fixed camera registered in the recorder is changed to “Dome camera” for PTZ camera and when 1-screen display is selected, the zoom operation on the camera image cannot be used. Instead, use the right-click pop-up menu "Electronic Zoom".
- Please note that there may be possibility that operation of the camera and the electronic zoom don’t work correctly.
- When acquired the camera type from the recorder, some models of cameras may be inoperable if using the RS485 terminal. In this case, change the camera type to “Dome camera 1”.
- When an aero PTZ camera is registered in ND400, manually set the camera type to “AeroPTZCamera”.

■ Live image source

Select a live image/audio source.

- **Recorder:**
  - It is possible to monitor live images/audio through a recorder.
  - It is possible to connect without reducing number of users who can connect the camera.
  - If the connection of the camera from which image is being displayed is disconnected, it may take several minutes to detect the disconnection.
- **Camera:**
  - It is possible to monitor live images directly from the camera.
  - It is possible to monitor live images even when "OFF" is selected for "LIVE VIDEO" of the setup menu of the recorder.
  - Since the camera transmits images to both the recorder and the PC, the network load will increase more than when setting “Recorder” for “Live image source”.
  - If the connection of the camera from which image is being displayed is disconnected, it may take several seconds to detect the disconnection.

Default: Camera

Note:

- The "Live image source" setting of all the linked cameras will be changed to "Recorder".
- When changing the live image source in a batch, communication may occur for each camera, so it may take some time for the update to take effect depending on the number of cameras registered in the recorder.
- When “Camera” is selected as the live image source, it may take time to switch live image display since information acquisition from each camera is required. This may be improved by changing the live image source to “Recorder”.

■ Compression

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4 and "Camera" is selected for "Live image source".

M-JPEG: Live images will be displayed in the M-JPEG format.
MPEG-4: Live images will be displayed in the MPEG-4 format.
H.264: Live images will be displayed in the H.264 format.
H.265: Live images will be displayed in the H.265 format.

Default: Indicates the setting configured on the recorder.
Refer to the operating instructions of the recorder in use for how to configure the compression type of the camera on the recorder.

Note:
- Multi-sensor camera cannot select M-JPEG even when the live image source is "Camera".
- AI privacy guard recording camera (OFF) cannot select M-JPEG.
- AI privacy guard independent camera cannot select M-JPEG.

■ Resolution

Resolution of the camera will be displayed. If there are multiple streams, the resolution of “stream 1” is displayed.

■ Smart Coding(Advanced)

Set to determine whether to use the GOP control or not. This is available only when “Frame rate” is set for “Distribution mode” and also “H.265” is set for “Compression”.

ON: The GOP control will not be used.

OFF: It is possible to decrease data volume when motions in the screen are few.

Default: OFF

Important:
- This setting can be set only when the camera in use supports the smart coding function. Refer to operating instructions of the camera for further information.
- The pre-recording function of the recorder will become unavailable for a camera if the smart coding is enabled on the camera.

■ Rate

Select a frame rate of a camera from the following.

1fps/ 3fps/ 5fps/ 10fps/ 15fps/ 30fps/ 60fps

Important:
- When the setting transmission is performed from this software, all “Frame rate” of stream 1 - 4 of the camera will become the same.

Note:
- When "Distribution mode" of “Camera detail setup” is set to "Constant bit rate" or "Best effort", this setting is not reflected to the device.
- When an unavailable frame rate is selected by a batch change, the currently set value will be held.

■ Acquisition resolution (JPEG)

Set a resolution when acquiring images from a camera from this software.
The resolution can be set only when "Camera" is selected for "Live image source" and "M-JPEG" is selected for "Compression".
- AUTO (*1) (*2): When displaying images on 1-/3-/4-/6-screen or the large areas of 7-/10-/13-screen, it is possible to monitor VGA images (640x480) fitting to the display size of each screen pattern.
- When displaying images on a screen other than the above, it is possible to monitor QVGA (320x240) images fitting to the display size of each screen pattern.

- 160×120/160×90: It is possible to monitor images whose resolution is 160x120 (160×90 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA: It is possible to monitor images whose resolution is QVGA (320x240) fitting to the display size of each screen pattern.
- QVGA/320x180: It is possible to monitor images whose resolution is QVGA (320x240, 320x180 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA/320x180/320x320: It is possible to monitor images whose resolution is QVGA(320x240, 320x180 in the 16:9 mode, 320×320 in the 1:1 mode) fitting to the display size of each screen pattern.
- 400x300: It is possible to monitor images whose resolution is 400x300 fitting to the display size of each screen pattern.
- VGA: Images whose resolution is VGA (640x480) will automatically be fit into the area regardless of the screen pattern.
- VGA/640x360: It is possible to monitor images whose resolution is VGA (640x480, 640x360 in the 16:9 mode) fitting to the display size of each area.
- VGA/640×360/800×600: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 800x600 in the 4:3 (800x600) mode) fitting to the display size of each area.
- VGA/640×360/640×640: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 640x640 in the 1:1 mode) fitting to the display size of each area.
- 800x600: It is possible to monitor images whose resolution is 800x600 fitting to the display size of each area.
- 1280×960 (*3): It is possible to monitor images whose resolution is 1280x960 fitting to the display size of each screen pattern.
- 1280×960/1280×720: It is possible to monitor images whose resolution is 1280x960 (1280×720 in the 16:9 mode) fitting to the display size of each screen pattern.
- 1280×960/1280×720/1280×1280: It is possible to monitor images whose resolution is 1280×960(1280×720 in the 16:9 mode, 1280×1280 in the 1:1 mode) fitting to the display size of each screen pattern.
- 1600x1200: It is possible to monitor images whose resolution is 1600x1200 fitting to the display size of each screen pattern.
- 1920×1080 (4*): It is possible to monitor images whose resolution is 1920x1080 fitting to the display size of each screen pattern.
- 2048×1536 (5*) (7*): It is possible to monitor images whose resolution is 2048x1536 fitting to the display size of each screen pattern.
- 2048×1536/2048×2048: It is possible to monitor images whose resolution is 2048x1536 (2048×2048 in the 1:1 mode) fitting to the display size of each screen pattern.
- 2192x2192: It is possible to monitor images whose resolution is 2192x2192 fitting to the display size of each screen pattern.
- 2688x1520: It is possible to monitor images whose resolution is 2688x1520 fitting to the display size of each screen pattern.
- 2560×1920/2560×1440: It is possible to monitor images whose resolution is 2560x1920 (2560×1440 in the 16:9 mode) fitting to the display size of each screen pattern.
- 3072x2304/3072x1728: It is possible to monitor images whose resolution is 3072x2304 (3072x1728 in the 16:9 mode) fitting to the display size of each screen pattern.
- 2816x2816: It is possible to monitor images whose resolution is 2816x2816 fitting to the display size of each screen pattern.
- 2992x2992: It is possible to monitor images whose resolution is 2992x2992 fitting to the display size of each screen pattern.
- 3328x1872: It is possible to monitor images whose resolution is 3328x1872 fitting to the display size of each screen pattern.
- 3840x2160: It is possible to monitor images whose resolution is 3840x2160 fitting to the display size of each screen pattern.

- 4000x3000: It is possible to monitor images whose resolution is 4000x3000 fitting to the display size of each screen pattern.

*1: When the image capture mode is 2 or 3 mega-pixels, images whose resolution is VGA will be displayed regardless of the screen pattern.
*2: When using a fisheye camera, the display size varies depending on the image capture mode.

● 1-screen/ left area of 3A-screen/ right area of 3B-screen

Image capture mode	Display size
9M Fisheye	2992×2992
8M Fisheye	2816×2816
5M Fisheye	2192×2192
4M Fisheye	2048×2048
3M Fisheye	2048×1536
1.3M Fisheye	1280×960

● The large area of 2A-screen/ 2B-screen/ 3C-screen/ 4E-screen/ 4-screen/ 5-screen/ 6A-screen/ 7-screen/ 7A-screen/ 10-screen/ 13-screen

Image capture mode	Display size
9M Fisheye	1280×1280
8M Fisheye	1280×1280
5M Fisheye	1280×1280
4M Fisheye	1280×1280
3M Fisheye	2048×1536
1.3M Fisheye	1280×960

● Multi-screen other than the above

Image capture mode	Display size
9M Fisheye	320×320
8M Fisheye	320×320
5M Fisheye	320×320
4M Fisheye	320×320
3M Fisheye	2048×1536
1.3M Fisheye	320×240

3: When "Partial" is selected for the scan mode of NP100, the resolution will be set to 960x720.
*4: When the image capture mode is other than 2 mega-pixels (16:9), 3 mega-pixels (16:9), 2M Double Panorama (16:9) and 2M Panorama (16:9), images will be displayed in a different resolution from the set resolution or an error may occur.
*5: When the image capture mode is other than 3 mega-pixels (4:3) and 3M Fisheye (4:3), images will be displayed in a different resolution from the set resolution or an error may occur.
*6: If selected when "3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.

*7: If selected when "1.3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- In the case of a camera with three JPEG distribution resolutions, if an unavailable image capture size for JPEG (1) - (3) of a camera is set, the image capture size set for JPEG (1) will be applied for images.
- In the case of a camera with two JPEG distribution resolutions, if an image capture size that is not available for JPEG (1) or JPEG (2) is set, the one set for JPEG (1) (if JPEG (1) is not available, JPEG (2)) will be applied for images.

■ Acquisition refresh speed (JPEG)

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "Camera" is selected for "Live image source" and "M-JPEG" is selected for "Compression".

Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL

When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.

When "ALL" is selected, the refresh speed will be set to "30 ips".

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.

■ Stream type

Select the stream type to be acquired from the camera from the following.

The stream type can be set only when "Camera" is selected for "Live image source" and "H.264", “H.265” or "MPEG-4" is selected for "Compression".

- AUTO: Refer to the table below for stream type specifications for the number of pictures and image size.

	•1-screen, 2A-screen, 2B-screen, or 3c-screen the large area of •3A-screen, 3B-screen, 5-screen or 7A-screen	4-/4E-screen and the large areas of 6A-/7-/10-/13-screen	6-/9-/16-/25-screen (WV-ASE202 is required) and the small areas of 3A-/3B-/5-/6A-/7-/7A-/10-/13-screen	36-/49-/64-screen (WV-ASE202 is required)
Fisheye camera, Multi-sensor camera, a	stream 1	stream 2	stream 2	stream 2

camera with 2 streams				
New S-series camera, U-series camera	stream 1	stream 2	stream 3	stream 3
When any 6-series camera, new 3-series cameras, new 5-series cameras, 7-series cameras, 7-series cameras,WV-SFN110, WV-SFV110, WV-SFN130 and WV-SFV130	stream 1	stream 2	stream 3	stream 4

- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.
- Stream 3 (*): Stream 3 will always be used.
- Stream 4 (*): Stream 4 will always be used.

Default: Stream 1

*This setting item will be displayed only when the camera in use is supported.

Note:

- WV-ASE202 is required for 25-/36-/49-/64-screen

<AI Privacy Guard function>

When the AI privacy guard extension software (WV-XAE201W) is not installed on the camera or when “Off” is set for “Privacy Guard target” on the "AI privacy guard setting" screen of the camera, AUTO / Stream 1 / Stream 2 / Stream 3 / Stream 4 are available.

When the AI privacy guard extension software (WV-XAE201W) is installed on the camera or when a parameter other than “Off” is set for “Privacy Guard target” of the AI privacy guard setting on the camera side, AUTO / Stream 1/2 / Stream 3/4 are available.

AUTO: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” or “Stream 3” will be used. If a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” or “Stream 4” will be used.

Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.

Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.

Important:

- When “Setup transmission” is done from this software to the recorder, all recording streams will be "Stream 1" regardless of the setting of the recorder.
- In this setting, the recorder's recording stream cannot be set. Set the recording stream in the recorder browser after registering the recorder in this software.

Note:

- Refer to the operating instructions of the camera in use for how to configure the settings of each stream.
- When "AUTO” is selected, it is possible to reduce the use network bandwidth and decrease the CPU load of the PC by configuring the transmission setting for 1-screen in case of “Stream 1” or by configuring the transmission setting for multi-screen in case of “Stream 2”, “Stream 3” and “Stream 4”.
- Select "Stream 1" when "Quad stream" is selected for the image capture mode of the fisheye camera. When "AUTO" is selected, the video may not be displayed.
- If using a camera for which a license of the Extension Software WV-SAEASF (ASF950, ASF900 Face matching function camera option, “Best Shot option”) has been registered, select “Stream 1” or “Stream 2”. If you select “AUTO”, “Stream 3”, or “Stream 4”, images to be displayed may be a black screen.

■ Authentication

Select the user authentication method. When “Camera” is selected for “Live image source”, set the authentication method for this software and the camera. It is not available if the device is not compatible with the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings. When the recorder authentication method is “Digest or Basic” and the authentication method of the camera registered in the recorder is “Digest”, set the authentication method of this software to “Digest”.

Digest: Uses “Digest” authentication.

Basic: Uses “Basic” authentication.

Default: Basic

■ Internet mode (over HTTP)

Select “ON” or “OFF” to determine whether to use the HTTP port or the UDP port when receiving H.264/H.265 and MPEG-4 images or audio in case that "Camera" is selected for "Live image source".

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.

OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.

Default: "OFF" when "Camera" is selected for "Live image source" and in other case it cannot be selected.

Note:

- This mode is unavailable when a camera in use is RP-NP244, WV-NP244, RP-NP1000, WV-NP1000, RP-NP1004, WV-NP1004, WV-NS202, WV-NS202A, WV-NF282, WV-NW484, WV-NS950, WV-NW960, WV-NP304, WV-NF302.
- When the Internet mode is being used, select "ON" for "Internet mode (over HTTP)" of the setting of the camera.

■ SSL

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.

OFF: Not execute the SSL communication.

Default: OFF

Note:
- When a recorder other than NX-series or NU-series is designated as the image acquisition destination, this setting will become invalid.
- When receiving images directly from the cameras, this setting will become valid.

■ Auto track

Select “ON” or "OFF” to determine whether to use a camera as a target of the auto track when "Camera" is selected for "Live image source".

ON: Use as a target of the auto track.

OFF: Not use as a target of the auto track.

Default: --

Note:
- This mode is available only when the camera in use is WV-SC386, WV-SW396/ WV-SW396A, WV-SC588/ WV-SC588A, WV-SW598/ WV-SW598A, WV-SW397/ WV-SW397A/ WV-SW397B, WV-SC387/ WV-SC387A, WV-X6533LN, WV-S6532LN, WV-S65340-Z4N, WV-S65340-Z2N, WV-S65340-Z4K, WV-S65340-Z2K, WV-S61302-Z4 or WV-S61301-Z2.
- This mode is disabled when WV-X6533LN/ WV-S6532LN is set into the “Insert/Remove SD memory card” mode.
- When "ON" is selected for "Auto track", the "+" mark will be displayed while panning/tilting is being controlled using the CU950 or the CU980 and the lock-on function will work by pressing the [TOP] button.
- Auto track is unavailable while panning/tilting is being controlled.

■ Linked camera

Displays the channel number of the AI privacy guard recording camera (OFF) associated to the AI privacy guard recording camera (ON).

■ Image quality

Select a recording image quality from the following.

NQ/FQ/SF/XF

Default: NQ

Note:
- This setting cannot be selected for devices not subject to setting, such as independent cameras.

■ Audio

Select “ON” or “OFF” to determine whether to simultaneously record audio or not.

ON: Record audio simultaneously.

OFF: Not record audio simultaneously.

Note:
- This setting cannot be selected for devices not subject to setting, such as independent cameras.
- When selecting a network microphone, please select Fisheye camera to be linked with the microphone.

■ **AV Time Alignment**

Select “ON” or “OFF” to determine whether or not to adjust timing of video and audio when a microphone is used.

ON: The AV time alignment will be executed.

OFF: The AV time alignment will not be executed.

Default: ON

Step 2

Enter information in “Recording setup list” and click the [Next] button.

→ The recording setup will be completed and the display will shift to “☞ 3.3.3.4. Step4 Setup transmission”.

3.3.3.3.2. Set recording schedule/event

Set recording conditions for the schedule recording and the event recording of each recorder.

Important:

- In this screen, only the setting equivalent to the timetable 1 of schedule 1 is displayed, among the recording schedules of the recorder.
- When recording setting using schedule 1 other than timetable 1 is performed, it cannot be set from this screen.
- To set the recording settings for timetable 2, schedule 2 or later, please go from "☞ 3.3.3.3.3. Recorder detail setup".

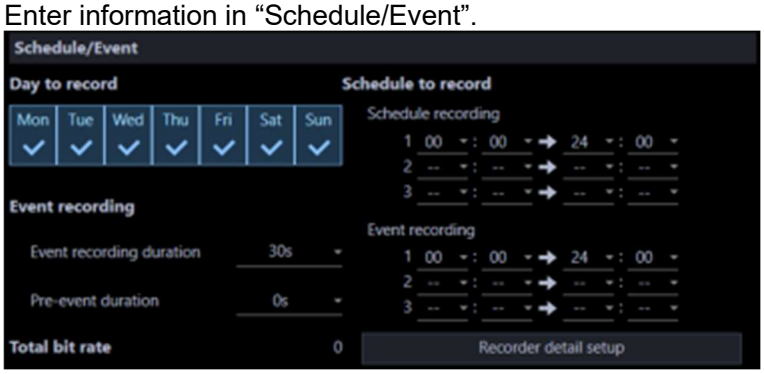
Step 1

Select a recorder to be configured from “Recorder list” of “☞ 3.3.3.3. Step3 Recording setup".



Step 2

Enter information in “Schedule/Event”.



The details of the window are as follows.

■ **Day to record**

Select days of the week when recording is to be executed. Put the check marks on days of week when recording is to be executed.

■ **Event recording**

- Event recording duration:
  Select a recording duration when an event recording is activated.

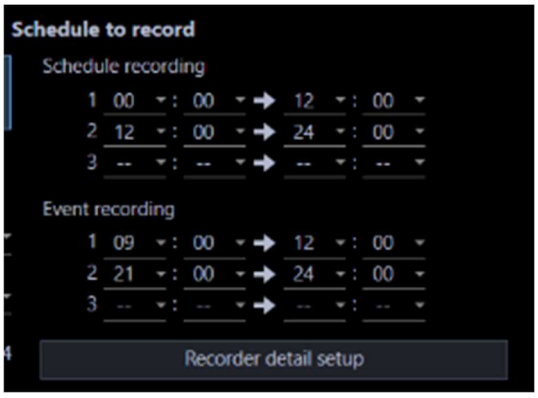
- Pre-event recording duration:
  The pre-event recording is a function that records images before an event occurrence.
  Select a pre-event recording duration when an event recording is activated.

■ **Total bit rate**

A total bit rate of images to be recorded in a recorder will be displayed.

■ **Schedule to record**

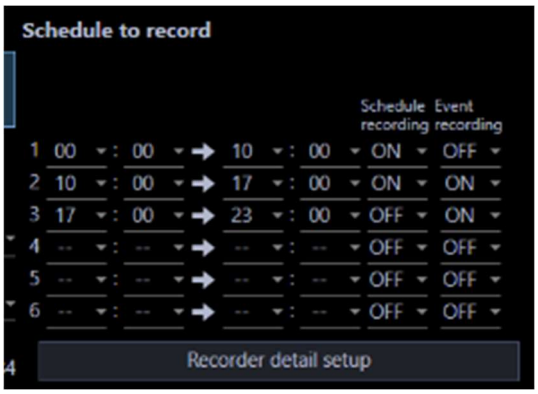
<In case of ND400, NV250 or NV300>



- Schedule recording:
  The schedule recording is a function that automatically starts/ends recording of images/audio in the time zone set in advance. Up to 3 time zones can be set for recording.

- Event recording:
  The event recording is a function that automatically starts recording of images/audio at an event occurrence. Up to 3 time zones can be set for event recording.

<In case of NX-series or NU-series >



Up to 6 time zones for recording can be set.
Determine whether to perform the schedule recording or event recording for each time zone.

[Schedule recording]
Determine whether to perform the schedule recording in the selected time zone.

ON: Performs the schedule recording.
OFF: Does not perform the schedule recording."

[Event recording]
Determine whether to perform the event recording in the selected time zone.
Recording will not be performed in the not-selected time zone even at an alarm occurrence.
ON: Performs the event recording.
OFF: Does not perform the event recording.

■ **[Recorder detail setup] button**

Display the "Recorder setup" page. Refer to "☞ 3.3.3.3.3. Recorder detail setup" for further information.

Step 3

Click the [Next] button.

→ The recording schedule/event setup will be completed and the display will shift to "☞ 3.3.3.4. Step4 Setup transmission".

3.3.3.3.3. Recorder detail setup

Configure the detail settings of a recorder.

Important:

- The "Recorder detail setup" window can be displayed only NV300, ND400 , NX-series, and NU-series recorder whose "Connection check" was taken.
- Depending on the device, setting functions not supported may be displayed.
- Even if the settings for a camera having no license and the business intelligence setting is specified, they will not be applied to the device.
- Camera settings exceeding the number of licenses are not set on the device.
- Refer to the operating instructions of the device for further information about each setting item.

Step 1

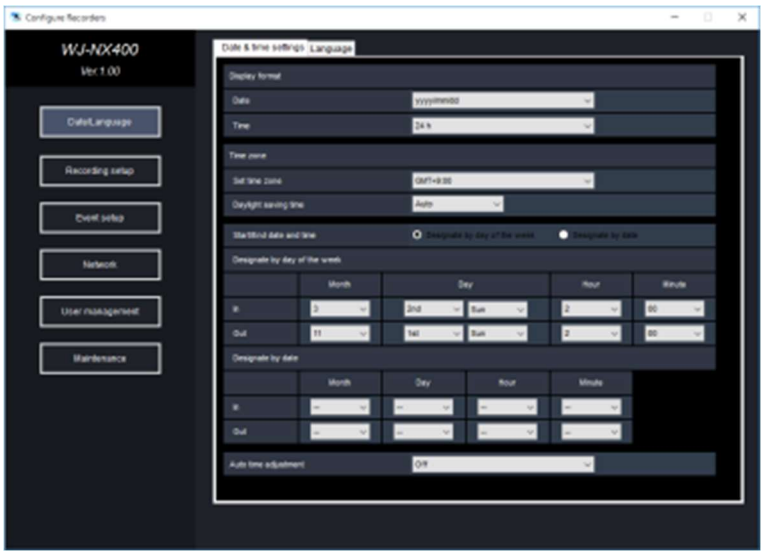
Click a recorder to be configured from "Recorder list" of "☞ 3.3.3.3. Step3 Recording setup".



Step 2

Click the [Recorder detail setup] button.

→ The "Configure Recorders" window will be displayed.



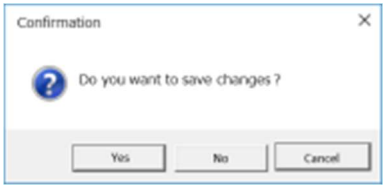
Important:

- Refer to the operating instructions of the device for further information about each setting item.

Step 3

Enter information and click the [×] button of the window.

→ The confirmation window will be displayed.



Step 4

Click the [Yes] button.

→ The set contents will be saved and the confirmation window will close.

Note:

- Note that the contents displayed on the recording setup window and on the recorder setup window are different.
- Note that “Schedule recording” and “Event recording” will be displayed in items of the following programs 1 - 3 in case of the recorder setup of ND400.
  - Program 1: Schedule recording individual section
  - Program 2: Event recording individual section
  - Program 3: Schedule/Event recording combined section

Example case:

“Recording setup” window of ASM300

< Schedule recording >

① 9:00AM - 5:00PM

< Event recording >

① 12:00PM - 1:00PM

② 5:00PM - 12:00AM

③ 12:00AM - 9:00AM

< Time only for schedule recording >
9:00AM - 12:00PM/1:00PM - 5:00PM
< Time only for event recording >
5:00PM - 12:00AM/12:00AM - 9:00AM
< Time for both of schedule/event >
12:00PM - 1:00PM

“Recorder setup” window (Recorder browser)

- Program 1: 9:00AM - 12:00PM/1:00PM - 5:00PM
- Program 2: 5:00AM - 12:00AM/12:00PM - 9:00PM
- Program 3: 12:00PM - 1:00PM

3.3.3.4. Step4 Setup transmission

Save the setting information or transmits it to a device.



Step 1

Put a check mark on the check box of a device, to which the setting values are to be transmitted, in the device list and click the [Setup transmission] button.

→ The process progress window will be displayed and transmission of the setting values will start.

When applying the settings to this software without transmitting the setting values to the device, click the [Save] button.

Step 2

When the transmission is completed, the process progress window will close.

→ The search result will be displayed in list form.



The details of the window are as follows.

■ **Transmission result list**

Information of devices for which the setup was made will be displayed in list form.

Item	Description
Icon	Result of transmission of setting values will be displayed with icons. It will not be displayed when the [Save] button is clicked.

	: Transmission successful : Transmission failed
Check box	Select a transmission target device. Default: (All items check)
Model	A device model will be displayed.
Address	Address of a device can be set. Default: IP address of a detected device
Port number	A Port number of a device will be displayed.
MAC address	A MAC address of a device will be displayed.
Device title	A title of a device will be displayed.
Version	Firmware version of a device will be displayed.
Result	If failed to transmit the setting values, the transmission result will be displayed.

■ **[Back] button**

Shifts to the "☞ 3.3.3.3. Step3 Recording setup" window.

■ **[Save] button**

The settings will be applied to this software without transmitting the setting values to the device.

Important:
- To transmit the setting data created by "Offline-addition" to the device, press the [Setup transmission] button.

■ **[Setup transmission] button**

Transmits the setting values to a device and save the setting to this software.

3.3.3.5. Register network microphone

A network microphone and a linked camera will be associated and registered in this software.

Important:
- When using the audio function, set "Audio" of [System] - [☞3.2.2. Drawing and audio setup] to ON in advance.
- For cameras that can be interlocked with the microphone, please read the owner's manual of your camera.

Step 1

Click the [Device setup] button and then click the [Advanced setup] button to display "☞ 3.3.3.1. Step1 Device detection".

Step 2

Click the [Re-detection] button to display a list of the devices connected to the network.

Step 3

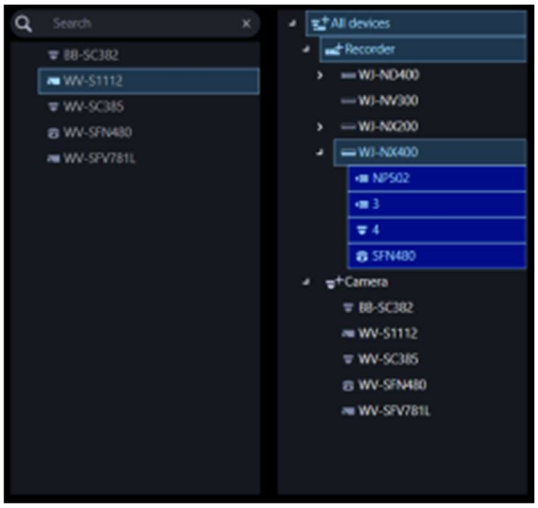
Enter the user name and password for the microphone to be registered and the linked camera on “Device list”.
The user name and password can be entered from the edit screen. Refer to “☞3.3.3.1.4. Edit the device information” for further information.

Step 4
Check the check box of the device to be registered, and then click the [Connection check] button.
Refer to “☞3.3.3.1.7. Connection check of a device” for further information about the connection check.

Step 5
Click the [Next] button.
→ Shifts to “☞ 3.3.3.2. Step2 Camera registration” window.

Step 6
Drag the microphone displayed in “Camera list” and the linked camera and drop them onto “Device list”.
When registering the microphone and camera as an independent camera, drop them under the camera folder.
When registering the microphone and camera in the recorder, drop them under the desired recorder.

Important:
- Recorders that support use of microphones are NV300 series, NV250 series, ND400, NX400 (version 2.0 or later), NX300 and NX200 (version 1.1 or later). The available functions vary depending on the firmware version of the recorder. Refer to the operating instructions of the recorder for further information.



Step 7
Click the [Camera detail setup] button.
→ Camera detail setup window will be displayed. Refer to “☞3.3.3.2.1. Camera detail setup window” for further information about the camera detail setup.

Step 8
On the camera detail setup window, set “Microphone sensitivity” of the microphone to be registered to an appropriate value and then click the [OK] button.
→ Camera detail setup window will close.



Step 9

Click the [Next] button.

→ Shifts to “☞3.3.3.3. Step3 Recording setup” window.

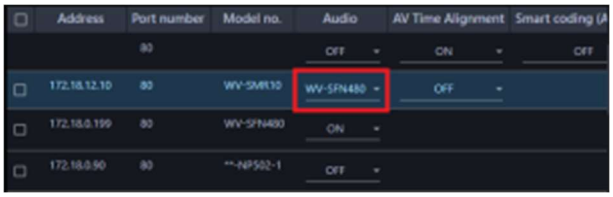
Step 10

Select the microphone to be registered from “Recorder list”.

→ The selected microphone will be displayed in “Recording setup list”.
Refer to “☞3.3.3.3.1. Configure the recording settings” for further information about “Recording setup list”.

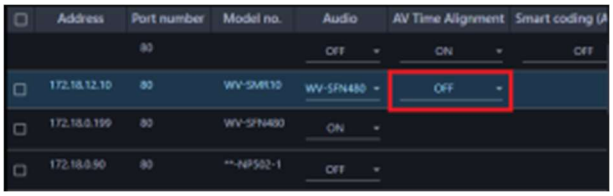
Step 11

Select a camera linked with the microphone for “Audio” of the microphone displayed in “Recording setup list”.



Step 12

Set an appropriate value to “AV Time Alignment” of the microphone displayed in “Recording setup list”.



Step 13

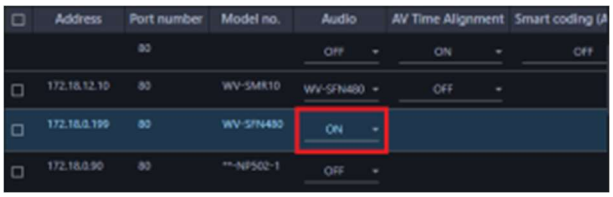
When recording the microphone audio in the recorder, select a camera that is linked with the microphone from “Recorder list”.

→ The selected camera will be displayed in “Recording setup list”.

→ When the microphone is to be linked with an independent camera, proceed to step 15.

Step 14

Set “Audio” of the camera displayed in “Recording setup list” to “ON”.



Step 15

Click the [Next] button.

→ Shifts to the “☞3.3.3.4. Step4 Setup transmission” window.

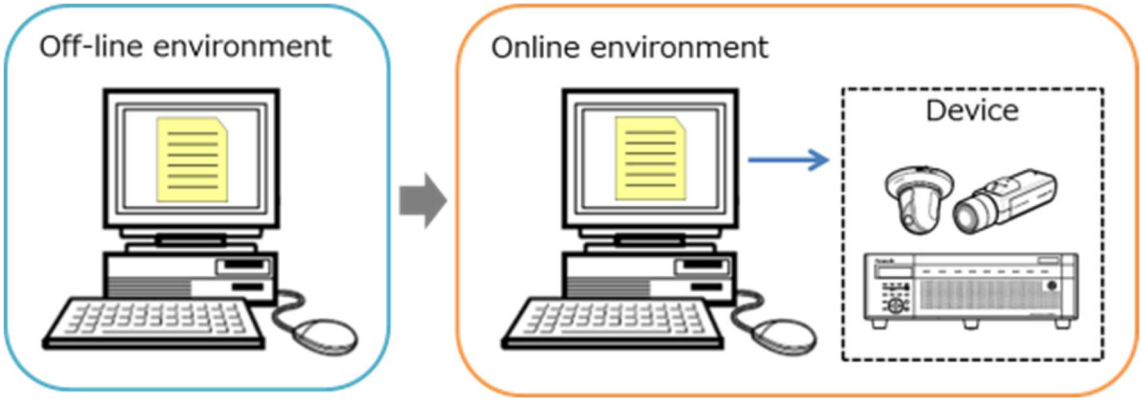
Step 16

Click the [Setup transmission] button.

→ Transmits the setting values to a device and save the setting to this software.

3.3.3.6. Create setting information in off-line environment and send it to device

It is possible to create device setting information in advance in offline environment.
By sending the created setting information to the device in an online environment, it reflects the setting on the device so that it can be used with this software.



Important:

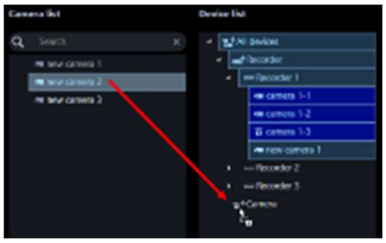
- The setting information entered in this setting is a setting to be used when this software executes the connection authentication with devices. Note that the settings are not to be sent to devices.
- Use a web browser of a device and edit the user name, password, etc. of the device.
- Operation when setting other than the procedure described in this manual is not guaranteed.
- The devices added with this setting cannot be used with this software until "Connection check" or "Setup transmission" is performed.
  For details on the connection check, refer to "☞ 3.3.3.1.7. Connection check of a device".
  For details on the setup transmission, refer to "☞ 3.3.3.4. Step4 Setup transmission".

Step 1

Click the [Device setup] button and then click the [Advanced setup] button to display “☞ 3.3.3.1. Step1 Device detection”.

Step 2

Click and select [Off-line addition] from the pull-down menu at the lower right of the window.



→ The "Off-line addition" window will be displayed.

Step 3

Enter information of the device to be registered and click the [OK] button.

→ The off-line addition window will close and the contents set to “Device list” will be displayed.

Important:

- Input setting information such as model number and address of device accurately. If there is an error in the input, the device setting will fail.

Step 4

Click the [Next] button.

→ Shifts to “☞ 3.3.3.2. Step2 Camera registration” window.

Important:

- Please do not click the [Connection check] button.
- Refer to the “☞3.3.3.1.7. Connection check of a device” for further information about the connection check.

Step 5

Drag the device to be registered from "Camera list" to "Device list" and move.
Also, enter the device settings from the camera detail setup window.
Refer to “☞3.3.3.2.1. Camera detail setup window” for further information about the camera detail setup.
Refer to "☞3.3.3.2. Step2 Camera registration" for associating with the recorder and registration as an independent camera.

Step 6

Click the [Next] button.

→ Shifts to “☞3.3.3.3. Step3 Recording setup” window.

Step 7

Click the [Next] button.

→ Shifts to the “☞3.3.3.4. Step4 Setup transmission” window.

Step 8

Click the [Save] button.

→ Save the setting information entered from STEP1 to STEP7 in this software and complete the creation of the setting information.

Step 9

Move to the environment (online environment) where this software can connect with the device.

Step 10
Click the [Device setup] button and then click the [Advanced setup] button to display "☞ 3.3.3.1. Step1 Device detection".

→ The device added in STEP3 will be displayed. However, the device associated with the recorder will not be displayed.

Step 11
Click the [Next] button.

→ Shifts to "☞ 3.3.3.2. Step2 Camera registration" window.

Important:
- Please do not click the [Connection check] button. After checking the connection, the setting information created will be overwritten with the setting value of the current device.
- Refer to the "☞3.3.3.1.7. Connection check of a device" for further information about the connection check.

Step 12
Drag the device to be registered from "Camera list" to "Device list" and move.

Step 13
Click the [Next] button.

→ Shifts to "☞3.3.3.3. Step3 Recording setup" window.

Step 14
Click the [Next] button.

→ Shifts to the "☞3.3.3.4. Step4 Setup transmission" window.

Step 15
Click the [Setup transmission] button.

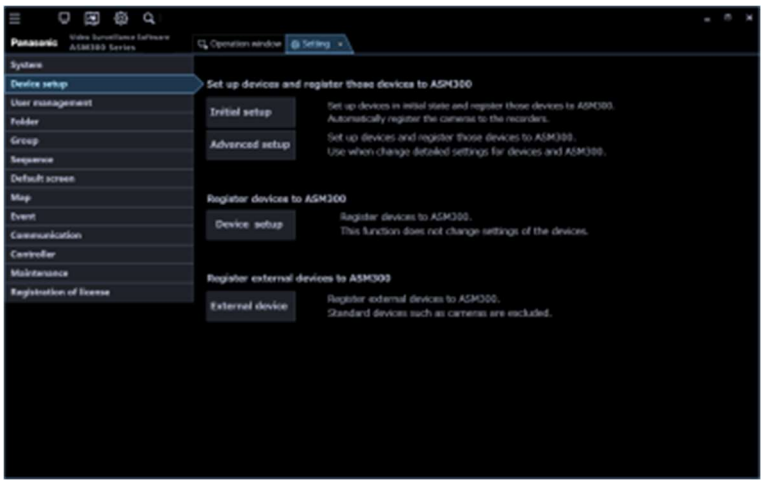
→ Transmits the setting values to a device and save the setting to this software.

3.3.4. Device setup

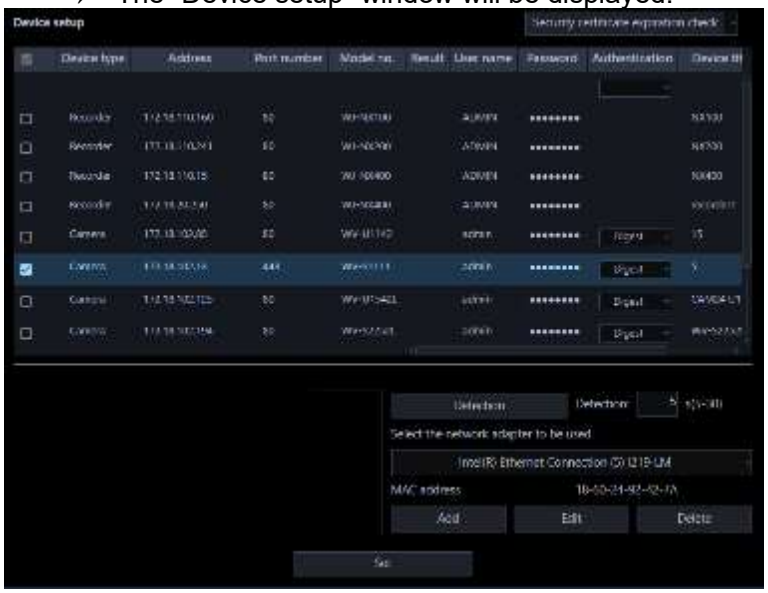
Set up this software and register device.

Important:
- When changing a device, re-acquire device information. Refer to "☞ 3.3.4.6. Replace a device" for further information.
- After completing the device registration of an AI camera and installing the AI privacy guard extension software (WV-XAE201W) on the registered AI camera or after configuring the AI privacy guard setting on the camera side, be sure to acquire the device information again.
- If you set the camera on the recorder's AI privacy guard recording camera setting screen, re-acquire the device information.

Click the [Device setup] button, and then click the [Device setup] button.



→ The “Device setup” window will be displayed.



The details of the window are as follows.

■ **Device list**

Information of devices connected to the network will be displayed in list form.
The setting values of some items can be changed. The display contents are as follows.

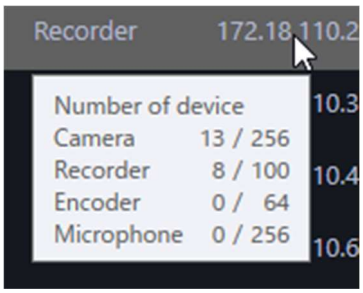
Item	Description
Check box	Select an operation target device. Default: (No checked)
Icon	Registration status of administrators will be displayed with icons. : Administrator information is already set in device : Administrator information is not yet set in device (Device requires initial registration of administrator) : Device that is in condition of being uniquely unable to identify the administrator status (Device outside the network segment) * Icons are not displayed for devices registered in this software
Device type	Device type will be displayed.

	One of camera/ recorder/ microphone/ encoder will be displayed.
Address	Address of a device will be displayed.
Port number	A port number of a device will be displayed.
(Recorder icon)	When the failover function of the recorder registered in this software is enabled, the following icons are displayed.  It indicates that a recorder having the failover function is monitoring an error.  It indicates that a recorder having the failover function is executing a failover.
Model no.	A model number of a device will be displayed.
Result	If an error occurred during “Connection check” or “Setup transmission”, an error message will be displayed.
User name	Enter the administrator name registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, a user name will be displayed.)
Password	Enter the password for the administrator registered in the device. When nothing is entered (blank), the cell will be displayed in red. Default: (When it is unregistered, nothing (blank) is displayed. When it is registered, the password will be displayed in “●”.)
Device title	Enter the title of the device to display with this software 1 - 60 characters.
MAC address	A MAC address of a device will be displayed.
Version	Firmware version of a device will be displayed after downloading device information.
Authentication	Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings. When the recorder authentication method is “Digest or Basic” and the authentication method of the camera registered in the recorder is “Digest”, set the authentication method of this software to “Digest”. • Digest: Uses “Digest” authentication. • Basic: Uses “Basic” authentication.

Note:

- **About batch input of user name and password**
  When the user name and password entry fields on the first line of “Registered device” are double-clicked and filled, the user name and password entry fields of the device on which check box is checked on the second and subsequent lines will automatically be filled with the same values.
  

- When the mouse is moved onto “Device list”, the tool tip will appear and display the number of the registered devices.



■ **Security certificate expiration check**

When this menu is selected, the security certificate expiration of the devices for which “ON” is set for “SSL” among the devices selected by checking the respective check boxes will be acquired and the result will be displayed in the “Result” field of “Device list”.
Example: Expiration From 2019/05/13 to 2036/05/14

Note:

- If there is none for which “ON” is set for “SSL” among the selected devices, this will be unavailable. Refer to “☞ 3.3.4.2. Register a device individually” for SSL setting.

■ **Preview**

A preview image from the device selected from the "Device list" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400 , NX-series or NU-series
- When using a recorder other than ND400 , NX-series, and NU-series and selecting “Recorder” for [Live image source], the preview display is unavailable.
- When [SSL] is set to “ON” and [Live image source] is set to “Recorder” for the NX-series recorder, the preview image will not be displayed.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.
- When the recorder is selected, the preview image of the camera set for CH1 is displayed. However, even if the CH1 camera is the AI privacy guard recording camera (ON), the preview image of the associated AI privacy guard recording camera (OFF) is displayed.

■ **[Detection] button**

Detection of devices connected to the network will be executed and detected devices will be displayed in the device list.

Important:

- When using NV200, NV300 or NX-series, connect the camera to the “Camera/PC port”. If connected to the “PC port”, detection will not be performed. When using the NX100 or NU-series, connect it to the “PC port”.

- Refer to the operating instructions of each recorder for further information about the network port.

■ **Detection time**

Enter a number for the detection time (second) per device.
5 - 30
Default: 5 (s)

■ **Network adapter**

Select the network adapter to be used for connecting with the device.

■ **MAC address**

A MAC address of a PC in use will be displayed.

■ **[Add] button**

The "Device registration" window will be displayed.
Refer to "☞ 3.3.4.2. Register a device individually" for further information.

■ **[Edit] button**

The "Device registration" window of the device selected in the device list will be displayed.
Refer to "☞ 3.3.4.3. Edit the registered device information" for further information.

■ **[Delete] button**

The device selected in the device list will be deleted.
Refer to "☞ 3.3.4.5. Delete the registered device information" for further information.

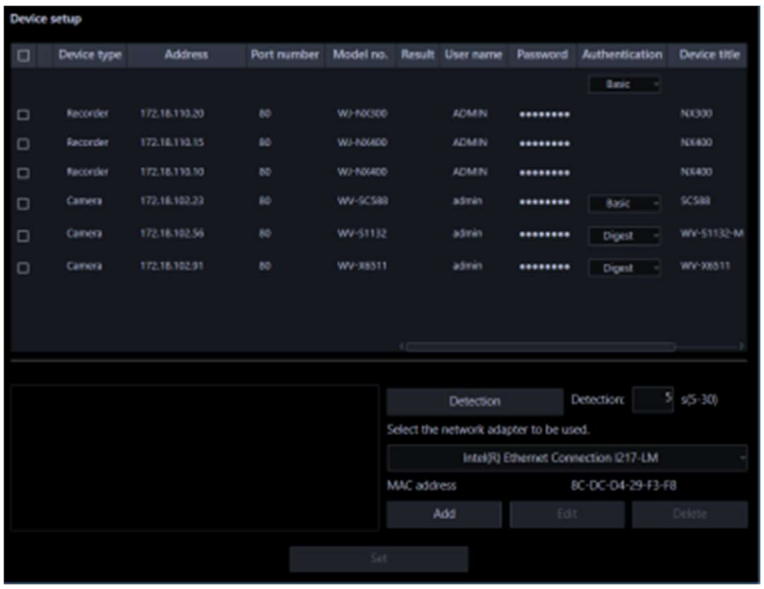
■ **[Set] button**

The device information of the device selected from the device list will be acquired and the content of the settings will be saved.

3.3.4.1. Detect and register device

Detect devices connected to the network and register them to this software.
When registering a device that is not automatically detected and a device that exists on the different segment, read “☞3.3.4.2. Register a device individually”.

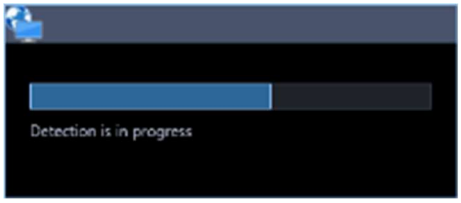
Step 1
Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



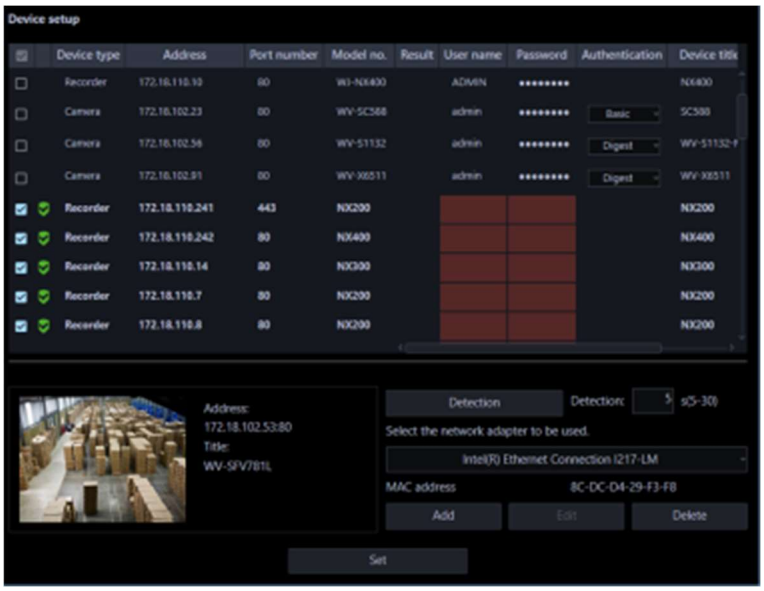
Step 2

Click the [Detection] button.

→ The detection progress window will be displayed and detection of devices connected to the network will start.



When the device detection is completed, the detection progress window will close and the detection results are listed in the device list.



Step 3

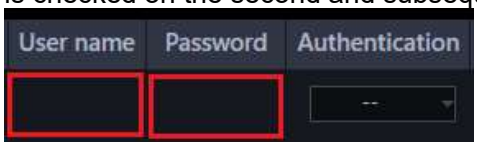
Put a check mark on the check box of a device to register.

Step 4

Enter the "User name", "Password" and "Device title" of the checked device.

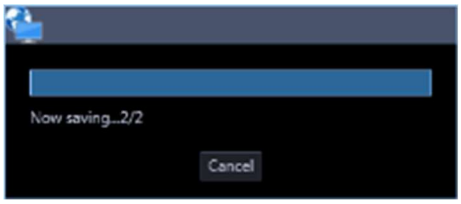
Note:

- **About batch input of user name and password**
  When the user name and password entry fields on the first line of “Registered device” are double-clicked and filled, the user name and password entry fields of the device on which check box is checked on the second and subsequent lines will automatically be filled with the same values.



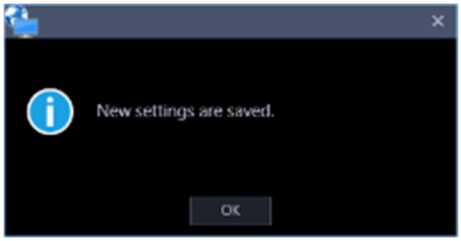
Step 5
Click the [Set] button.

→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 6
Click the [OK] button.

→ The settings are saved.

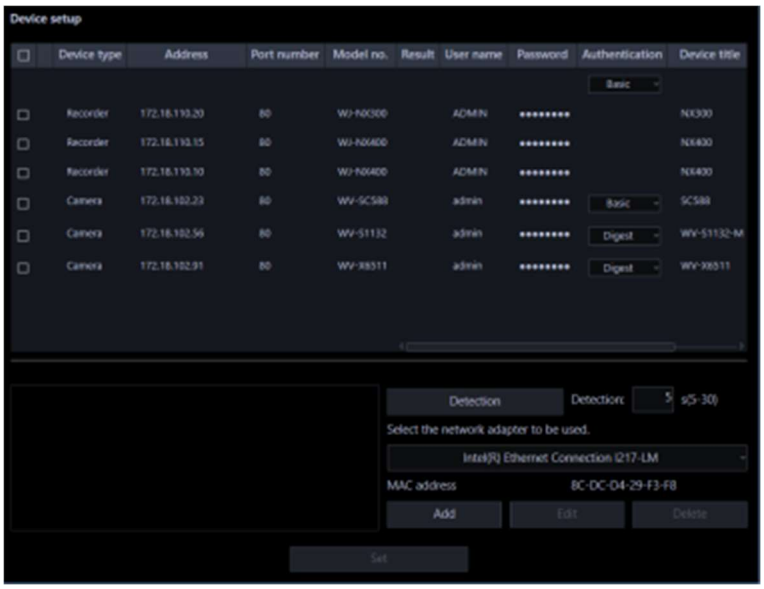


3.3.4.2. Register a device individually

Add a device independently by specifying an address or an HTTP port number.

3.3.4.2.1. Register a recorder individually

Step 1
Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2

Click the [Add] button.

→ The “Device registration” window will be displayed.

Step 3

Click and select [Recorder] from the “Device Type” pull-down menu.

→ The “Device registration” window of the recorder will be displayed.



The details of the window are as follows.

■ **Address (Entry type)**

Select an entry type of address of a device.

Enter IP address: Specify a device to be registered using IP address.

Enter host name: Specify a device to be registered using FQDN type host name.

Default: IP address enter



■ **Address (Entry field)**

< When the entry type is “Enter IP address”>

Enter the IP address of the device.



Note:

- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>

Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:

- Entering "http://" is not necessary if the host name is entered.

■ **User name**

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ **Password**

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password.

Note:

- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ **Port number**

Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.

1 - 65535

Default: 80

Note:

- The default HTTP port number set for Video Insight Server is"4011". When using without changing the default, change to "4011" from "80".

■ **Use a proxy server**

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server

OFF: Not use a proxy server

Default: OFF

Important:
- When displaying images directly from cameras, live images will be received without using a proxy server.

■ SSL

Select “ON” or “OFF” to determine whether to execute the SSL communication.
ON: Execute the SSL communication.
OFF: Not execute the SSL communication.
Default: OFF

Note:
- To turn on SSL, set "port number" to 443.

■ [Download of device information] button

Device information will be downloaded based on entered settings.

■ Model no.

The model number contained in the downloaded device information will be displayed.
"Unknown" will be displayed when device information is not downloaded yet.

■ Device title

Enter 1 - 60 characters for the device title.

■ FTP port number

Enter a number among the following for the FTP port number.
1 - 65535
Default: 21

■ Internet mode

Select this item when receiving H.264, H.265 or MPEG-4 images via the Internet.
It is possible to transmit H.264, H.265 or MPEG-4 images while maintaining the same setting of the broadband router without changing the setting used for JPEG image transmission.
ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.
OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.
Default: OFF

■ [Setup] button

The "Camera setup" window will be displayed.
The [Setup] button will be unavailable until recorder information is downloaded.

■ [Set] button

The edited settings will be saved and applied.

■ [Cancel] button

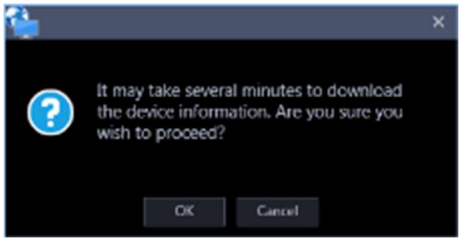
The edited settings are not saved and are discarded.

Step 4
Enter the "Address", "User name", "Password", "Port number", "Use a proxy server" and "SSL".

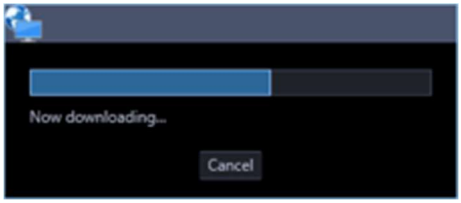
Step 5
Click the [Download of device information] button.

Important:
- Before acquiring device information, the camera and the microphone (when it is be used) must be registered according to the operating instructions of the recorder. When the recorder is not configured correctly, downloading of the recorder information may be impossible.
- When the settings of the setup menu of the recorder are edited, download the recorder information again.
- The camera and the microphone to be linked each other must be registered in the same recorder.
- When connecting with the NX series or NU-series, SSL communication will be performed at the time of device information acquisition. Assign both the HTTPS port number (default: 443) and the HTTP port number (default: 80) to the recorder and perform the port forwarding setting on the router.

Step 6
Click the [OK] button.

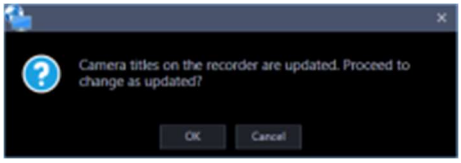


→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 7
The message window will be displayed when download process ended.

<When download of the device information is successfully completed>
1. When a camera title on the recorder side is changed on the recorder registered in this software, the change confirmation window will be displayed.



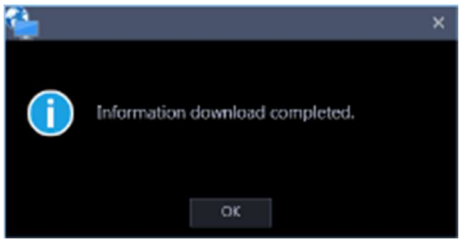
→ When the [OK] button is clicked, the camera title that was set on the recorder side will be overwritten by the camera title that was set by this software and then the acquisition of the device information will be completed.

Note:

- If the following characters are used for the camera title on the recorder, they will be replaced with spaces.
  ! $ % ' < = > @ [¥] ^ _ ` { | } ~

→ When the [Cancel] button is clicked, the device information will be completed without changing the camera title.

2. When the acquisition completion window is displayed, click the [OK] button.
   → The confirmation window will close.

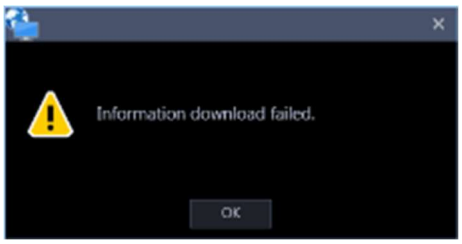


3. Go to step 8.

<When download of the device information failed>

The error message window will be displayed.

1. Confirm the content of the message indicated in the window.



Note:

- Check if the entered device information is correct. When the information has been edited correctly, the connected device or the version of the connected device may not be compatible with this software.
- Refer to “☞ 8.13. When downloading the device information” for further information about the displayed messages and solutions.

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2. Click the [OK] button.
   → The error window will close.

3. When the device registration will be displayed again, confirm the settings.

4. Then, download the device information again.

Step 8

Enter the "Device title", “FTP port number” and "Internet mode".

Step 9

Click the [Setup] button.

→ The "Camera setup" window will be displayed.



The details of the window are as follows.

Important:

- When using V-series camera, change of the settings other than “Address”, “Port No.”, “ASM300 camera title”, “Live image source”, “Compression method” and “Stream type” is unavailable.
- For the AI privacy guard recording camera (ON), change of the settings other than "ASM300 camera title" is unavailable.

■ CH

The camera channel numbers will be displayed.

■ Address

Address of a device will be displayed.

■ Port number

Port number of a device will be displayed.

■ Model no.

Model number of a device will be displayed.

■ ASM300 Camera title

Enter the device title. The entered device title will be displayed on the multi-screen window.
Available number of characters: 0 - 60 characters

Note:

- In the initial state, the device name acquired from the recorder is displayed. The displayed name can be changed.
- If the following characters are used for the camera title on the recorder, they will be replaced with spaces.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~

■ Camera type

Camera type and an icon corresponding to the type will be displayed.

There are 25 types of dome camera 1 - 16, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.

Important:

- If the camera type of the PTZ camera registered in the recorder is changed to "Fixed camera" and when 1-screen display is selected, the camera operation (pan / tilt / zoom) and electronic zoom will be performed according to the changed "Fixed camera". However, the camera operation from the operation panel remains the same as before the change. When displaying a multi-screen, the camera operation and electronic zoom do not change even if the camera type is changed.
- If the camera type of the fixed camera registered in the recorder is changed to “Dome camera” for PTZ camera and when 1-screen display is selected, the zoom operation on the camera image cannot be used. Instead, use the right-click pop-up menu "Electronic Zoom".
- Please note that there may be possibility that operation of the camera and the electronic zoom don’t work correctly.
- When acquired the camera type from the recorder, some models of cameras may be inoperable if using the RS485 terminal. In this case, change the camera type to “Dome camera 1”.
- When an aero PTZ camera is registered in ND400, manually set the camera type to “AeroPTZCamera”.

■ Live image source

Select a live image/audio source.

- **Recorder:**
  - It is possible to monitor live images/audio through a recorder.
  - It is possible to connect without reducing number of users who can connect the camera.
  - If the connection of the camera from which image is being displayed is disconnected, it may take several minutes to detect the disconnection.
- **Camera:**
  - It is possible to monitor live images directly from the camera.
  - It is possible to monitor live images even when "OFF" is selected for "LIVE VIDEO" of the setup menu of the recorder.
  - Since the camera transmits images to both the recorder and the PC, the network load will increase more than when setting “Recorder” for “Live image source”.
  - If the connection of the camera from which image is being displayed is disconnected, it may take several seconds to detect the disconnection.

Default: Camera

Note:

- The "Live image source" setting of all the linked cameras will be changed to "Recorder".
- When changing the live image source in a batch, communication may occur for each camera, so it may take some time for the update to take effect depending on the number of cameras registered in the recorder.
- When “Camera” is selected as the live image source, it may take time to switch live image display since information acquisition from each camera is required. This may be improved by changing the live image source to “Recorder”.

■ Compression

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4 and "Camera" is selected for "Live image source".

M-JPEG: Live images will be displayed in the M-JPEG format.

MPEG-4: Live images will be displayed in the MPEG-4 format.

H.264: Live images will be displayed in the H.264 format.
H.265: Live images will be displayed in the H.265 format.

Default: Indicates the setting configured on the recorder.

Refer to the operating instructions of the recorder in use for how to configure the compression type of the camera on the recorder.

Note:

- Multi-sensor camera cannot select M-JPEG even when the live image source is "Camera".
- AI privacy guard recording camera (OFF) cannot select M-JPEG.

■ Stream type

Select the stream type to be acquired from the camera from the following.

The stream type can be set only when "Camera" is selected for "Live image source" and "H.264", “H.265” or "MPEG-4" is selected for "Compression".

- AUTO: For more information on AUTO, see ☞ "Configure the recording settings".
- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.
- Stream 3 (*): Stream 3 will always be used.
- Stream 4 (*): Stream 4 will always be used.

Default: Stream 1

*This setting item will be displayed only when the camera in use is supported.

<AI Privacy Guard function>

When the AI privacy guard extension software (WV-XAE201W) is not installed on the camera or when “Off” is set for “Privacy Guard target” on the "AI privacy guard setting" screen of the camera, AUTO / Stream 1 / Stream 2 / Stream 3 / Stream 4 are available.

When the AI privacy guard extension software (WV-XAE201W) is installed on the camera or when a parameter other than “Off” is set for “Privacy Guard target” of the AI privacy guard setting on the camera side, AUTO / Stream 1/2 / Stream 3/4 are available.

AUTO: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” or “Stream 3” will be used. If a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” or “Stream 4” will be used.

Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.

Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.

Important:

- In this setting, the recorder's recording stream cannot be set. Set the recording stream in the recorder browser after registering the recorder in this software.

Note:

- Refer to the operating instructions of the camera in use for how to configure the settings of each stream.
- When "AUTO” is selected, it is possible to reduce the use network bandwidth and decrease the CPU load of the PC by configuring the transmission setting for 1-screen in case of “Stream 1” or by configuring the transmission setting for multi-screen in case of “Stream 2”, “Stream 3” and “Stream

4”.

- If using a camera for which a license of the Extension Software WV-SAEASF (ASF950, ASF900 Face matching function camera option, “Best Shot option”) has been registered, select “Stream 1” or “Stream 2”. If you select “AUTO”, “Stream 3”, or “Stream 4”, images to be displayed may be a black screen.

■ Authentication

Select the user authentication method. It is not available if the device is not compatible with the recorder or the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.

Digest: Uses “Digest” authentication.

Basic: Uses “Basic” authentication.

Default: Basic

■ Acquisition resolution (JPEG)

Set a resolution when acquiring images from a camera from this software.
The resolution can be set only when "Camera" is selected for "Live image source" and "M-JPEG" is selected for "Compression".

- AUTO (*1) (*2): When displaying images on 1-/3-/4-/6-screen or the large areas of 7-/10-/13-screen, it is possible to monitor VGA images (640x480) fitting to the display size of each screen pattern.
- When displaying images on a screen other than the above, it is possible to monitor QVGA (320x240) images fitting to the display size of each screen pattern.
- 160×120/160×90: It is possible to monitor images whose resolution is 160x120 (160×90 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA: It is possible to monitor images whose resolution is QVGA (320x240) fitting to the display size of each screen pattern.
- QVGA/320x180: It is possible to monitor images whose resolution is QVGA (320x240, 320x180 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA/320x180/320x320: It is possible to monitor images whose resolution is QVGA(320x240, 320x180 in the 16:9 mode, 320×320 in the 1:1 mode) fitting to the display size of each screen pattern.
- 400x300: It is possible to monitor images whose resolution is 400x300 fitting to the display size of each screen pattern.
- VGA: Images whose resolution is VGA (640x480) will automatically be fit into the area regardless of the screen pattern.
- VGA/640x360: It is possible to monitor images whose resolution is VGA (640x480, 640x360 in the 16:9 mode) fitting to the display size of each area.
- VGA/640×360/800×600: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 800x600 in the 4:3 (800x600) mode) fitting to the display size of each area.
- VGA/640×360/640×640: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 640x640 in the 1:1 mode) fitting to the display size of each area.
- 800x600: It is possible to monitor images whose resolution is 800x600 fitting to the display size of each area.
- 1280×960 (*3): It is possible to monitor images whose resolution is 1280x960 fitting to the display size of each screen pattern.
- 1280×960/1280×720: It is possible to monitor images whose resolution is 1280x960 (1280×720 in the 16:9 mode) fitting to the display size of each screen pattern.
- 1280×960/1280×720/1280×1280: It is possible to monitor images whose resolution is 1280×960(1280×720 in the 16:9 mode, 1280×1280 in the 1:1 mode) fitting to the display size of each screen pattern.

- 1600x1200: It is possible to monitor images whose resolution is 1600x1200 fitting to the display size of each screen pattern.
- 1920×1080 (4*): It is possible to monitor images whose resolution is 1920x1080 fitting to the display size of each screen pattern.
- 2048×1536 (5*) (7*): It is possible to monitor images whose resolution is 2048x1536 fitting to the display size of each screen pattern.
- 2048×1536/2048×2048: It is possible to monitor images whose resolution is 2048x1536 (2048×2048 in the 1:1 mode) fitting to the display size of each screen pattern.
- 2192x2192: It is possible to monitor images whose resolution is 2192x2192 fitting to the display size of each screen pattern.
- 2688x1520: It is possible to monitor images whose resolution is 2688x1520 fitting to the display size of each screen pattern.
- 2560×1920/2560×1440: It is possible to monitor images whose resolution is 2560x1920 (2560×1440 in the 16:9 mode) fitting to the display size of each screen pattern.
- 3072x2304/3072x1728: It is possible to monitor images whose resolution is 3072x2304 (3072x1728 in the 16:9 mode) fitting to the display size of each screen pattern.
- 2816x2816: It is possible to monitor images whose resolution is 2816x2816 fitting to the display size of each screen pattern.
- 2992x2992: It is possible to monitor images whose resolution is 2992x2992 fitting to the display size of each screen pattern.
- 3328x1872: It is possible to monitor images whose resolution is 3328x1872 fitting to the display size of each screen pattern.
- 3840x2160: It is possible to monitor images whose resolution is 3840x2160 fitting to the display size of each screen pattern.
- 4000x3000: It is possible to monitor images whose resolution is 4000x3000 fitting to the display size of each screen pattern.

*1: When the image capture mode is 2 or 3 mega-pixels, images whose resolution is VGA will be displayed regardless of the screen pattern.
*2: When using a fisheye camera, the display size varies depending on the image capture mode.

● 1-screen/ left area of 3A-screen/ right area of 3B-screen

Image capture mode	Display size
9M Fisheye	2992×2992
8M Fisheye	2816×2816
5M Fisheye	2192×2192
4M Fisheye	2048×2048
3M Fisheye	2048×1536
1.3M Fisheye	1280×960

● The large area of 2A-screen/ 2B-screen/ 3C-screen/ 4E-screen/ 4-screen/ 5-screen/ 6A-screen/ 7-screen/ 7A-screen/ 10-screen/ 13-screen

Image capture mode	Display size
9M Fisheye	1280×1280
8M Fisheye	1280×1280
5M Fisheye	1280×1280
4M Fisheye	1280×1280
3M Fisheye	2048×1536

1.3M Fisheye	1280×960

● Multi-screen other than the above

Image capture mode	Display size
9M Fisheye	320×320
8M Fisheye	320×320
5M Fisheye	320×320
4M Fisheye	320×320
3M Fisheye	2048×1536
1.3M Fisheye	320×240

3: When "Partial" is selected for the scan mode of NP100, the resolution will be set to 960x720.
*4: When the image capture mode is other than 2 mega-pixels (16:9), 3 mega-pixels (16:9), 2M Double Panorama (16:9) and 2M Panorama (16:9), images will be displayed in a different resolution from the set resolution or an error may occur.
*5: When the image capture mode is other than 3 mega-pixels (4:3) and 3M Fisheye (4:3), images will be displayed in a different resolution from the set resolution or an error may occur.
*6: If selected when "3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.
*7: If selected when "1.3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- In the case of a camera with three JPEG distribution resolutions, if an unavailable image capture size for JPEG (1) - (3) of a camera is set, the image capture size set for JPEG (1) will be applied for images.
- In the case of a camera with two JPEG distribution resolutions, if an image capture size that is not available for JPEG (1) or JPEG (2) is set, the one set for JPEG (1) (if JPEG (1) is not available, JPEG (2)) will be applied for images.

■ Acquisition refresh speed (JPEG)

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "Camera" is selected for "Live image source" and "M-JPEG" is selected for "Compression".

Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL

When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.
When "ALL" is selected, the refresh speed will be set to "30 ips".
Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.

■ **Internet mode (over HTTP)**

Select “ON” or “OFF” to determine whether to use the HTTP port or the UDP port when receiving H.264/H.265 and MPEG-4 images or audio in case that "Camera" is selected for "Live image source".

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.

OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.

Default: "OFF" when "Camera" is selected for "Live image source" and in other case it cannot be selected.

Note:

- This mode is unavailable when a camera in use is RP-NP244, WV-NP244, RP-NP1000, WV-NP1000, RP-NP1004, WV-NP1004, WV-NS202, WV-NS202A, WV-NF282, WV-NW484, WV-NS950, WV-NW960, WV-NP304, WV-NF302.
- When the Internet mode is being used, select "ON" for "Internet mode (over HTTP)" of the setting of the camera.

■ **SSL**

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.

OFF: Not execute the SSL communication.

Default: OFF

Note:

- When a recorder other than NX-series or NU-series is designated as the image acquisition destination, this setting will become invalid.
- When receiving images directly from the cameras, this setting will become valid.

■ **Auto track**

Select “ON” or "OFF” to determine whether to use a camera as a target of the auto track when "Camera" is selected for "Live image source".

ON: Use as a target of the auto track.

OFF: Not use as a target of the auto track.

Default: --

Refer to "☞ Note of Configure the recording settings”

■ **Linked camera**

When a microphone is used, a channel number of the linked camera contained in the information obtained from the recorder will be displayed. Or, displays the channel number of the AI privacy guard recording camera (OFF) associated to the AI privacy guard recording camera (ON).

■ **AV Time Alignment**

Select “ON” or “OFF” to determine whether or not to adjust timing of video and audio when a microphone is used.

ON: The AV time alignment will be executed.

OFF: The AV time alignment will not be executed.

Default: ON

■ **[OK] button**

The edited settings will be saved and close the "Camera setup" window.

■ **[Cancel] button**

The edited settings are not saved and close the "Camera setup" window.

Step 10

Click the [OK] button after completing the settings.

→ The "Camera setup" window will close.

Note:

- The edited settings will not be saved and applied even when the "Camera setup" window is closed by clicking the [OK] button. To save and apply the settings, click the [Set] button on the "Device registration" window after closing the "Camera setup" window.

Step 11

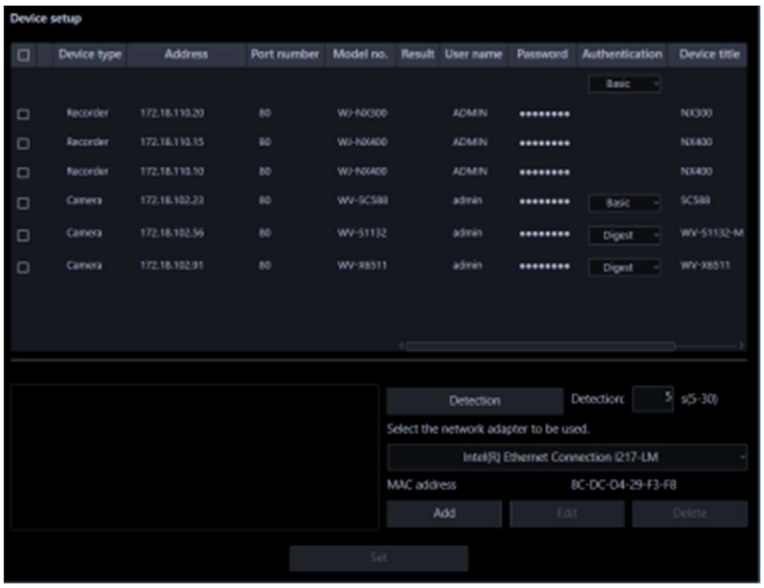
Click the [Set] button on the "Device registration" window.

→ The "Device registration" window will close and the settings will be saved and applied. The registered recorder will be displayed in the device list.

3.3.4.2.2. Register a camera individually

Step 1

Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2

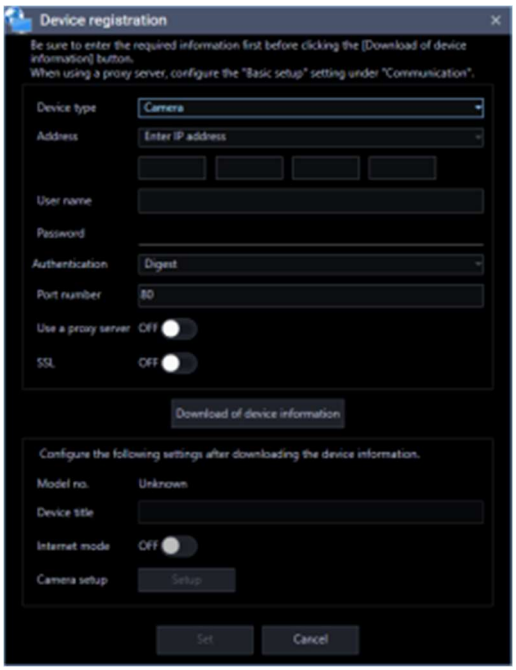
Click the [Add] button.

→ The “Device registration” window will be displayed.

Step 3

Click and select [Camera] from the “Device Type” pull-down menu.

→ The “Device registration” window of the camera will be displayed.



The details of the window are as follows.

■ Address (Entry type)

Select an entry type of address of a device.

Enter IP address: Specify a device to be registered using IP address.

Enter host name: Specify a device to be registered using FQDN type host name.

Default: IP address enter



■ Address (Entry field)

< When the entry type is “Enter IP address”>

Enter the IP address of the device.



Note:

- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>

Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:

- Entering "http://" is not necessary if the host name is entered.

■ **User name**

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ **Password**

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password.

Note:

- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ **Authentication**

Select the user authentication method. It is not available if the device is not compatible with the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.

Digest: Uses “Digest” authentication.
Basic: Uses “Basic” authentication.

Default: Basic

■ **Port number**

Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.

1 - 65535

Default: 80

■ **Use a proxy server**

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server
OFF: Not use a proxy server

Default: OFF

■ **SSL**

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.
OFF: Not execute the SSL communication.

Default: OFF

Note:

- To turn on SSL, set "port number" to 443.

■ **[Download of device information] button**

Device information will be downloaded based on entered settings.

■ **Model no.**

The model number contained in the downloaded device information will be displayed.
"Unknown" will be displayed when device information is not downloaded yet.

■ **Device title**

Enter 1 - 60 characters for the device title.

■ **Internet mode**

Select this item when receiving H.264, H.265 or MPEG-4 images via the Internet.
It is possible to transmit H.264, H.265 or MPEG-4 images while maintaining the same setting of the broadband router without changing the setting used for JPEG image transmission.

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.
OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.

Default: OFF

■ **[Setup] button**

The "Camera setup" window will be displayed.
The [Setup] button will be unavailable until recorder information is downloaded.

■ **[Set] button**

The edited settings will be saved and applied.

■ **[Cancel] button**

The edited settings are not saved and are discarded.

Step 4

Enter the "Address", "User name", "Password", "Port number", "Use a proxy server" and "SSL".

Step 5

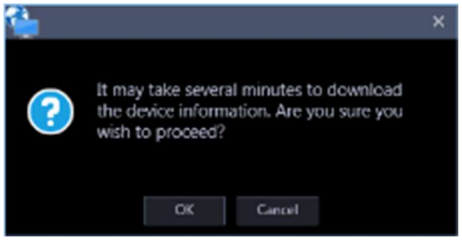
Click the [Download of device information] button.

Important:

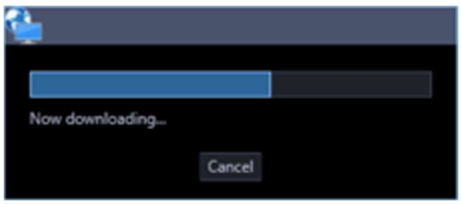
- When the settings of the setup menu of the camera are edited, download the camera information again.

Step 6

Click the [OK] button.

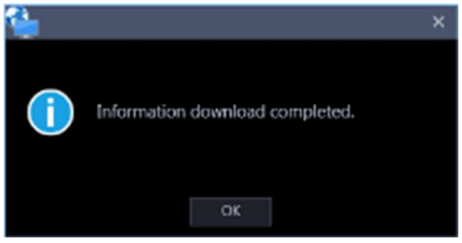


→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 7
The message window will be displayed when download process ended.

<When download of the device information is successfully completed>
The confirmation window will be displayed.
1. Click the [OK] button.
→ The confirmation window will close.

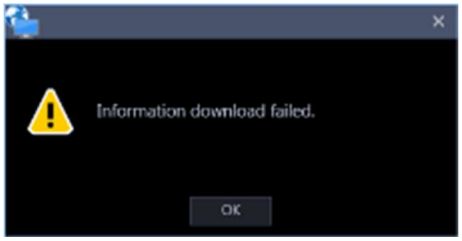


2. Go to step 8.

<When download of the device information failed>

The error message window will be displayed.

1. Confirm the content of the message indicated in the window.



Note:
- Check if the entered device information is correct. When the information has been edited correctly, the connected device or the version of the connected device may not be compatible with this software.
- Refer to “☞ 8.13. When downloading the device information” for further information about the displayed messages and solutions.

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2. Click the [OK] button.
→ The error window will close.

3. When the device registration will be displayed again, confirm the settings.

4. Then, download the device information again.

Step 8
Enter the "Device title" and "Internet mode".

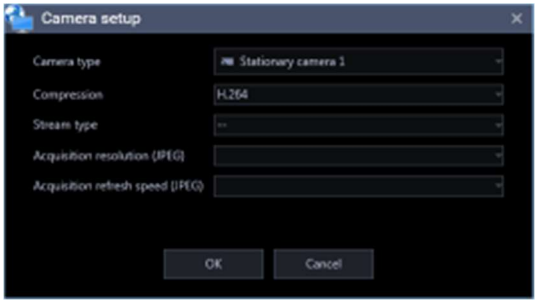
Step 9

Click the [Setup] button.

→ When the information has been downloaded from a Fixed camera or a PTZ camera, proceed to Step 10-1. When the information has been downloaded from a Fisheye camera or the camera that support cropping mode, proceed to Step 10-2. When the information has been downloaded from a Multi-sensor camera, proceed to Step 10-3.

Step 10-1

The "Camera setup" window of the Fixed camera or the PTZ camera will be displayed.



The details of the window are as follows.

Important:

- When using V-series camera, change of the settings other than “Camera type”, “Compression method”, and “Stream type” is unavailable.

■ Camera type

Camera type and an icon corresponding to the type will be displayed.
There are 25 types of dome camera 1 - 16, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.

Note:

- For a fixed camera or a compact camera, the fixed camera 1 is initially displayed, and for a PTZ camera, the dome camera 1 is initially displayed. Change the camera type if necessary.

■ Compression

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4.

M-JPEG: Live images will be displayed in the M-JPEG format.
MPEG-4: Live images will be displayed in the MPEG-4 format.
H.264: Live images will be displayed in the H.264 format.
H.265: Live images will be displayed in the H.265 format.

Default: "H.265" when the camera in use supports the H.265 format. "H.264" when the camera in use supports the H.264 format. When the camera in use is an MPEG-4 camera, the default is "MPEG-4". When the camera in use is not an MPEG-4, H.264 or H.265 camera, the default is "M-JPEG".

Note:

- Multi-sensor camera cannot select M-JPEG even when the live image source is "Camera".
- AI privacy guard independent camera cannot select M-JPEG.

■ **Stream type**

Select the stream type to be acquired from the camera from the following.
The stream type can be set only when "H.264", “H.265” or "MPEG-4" is selected for "Compression".

- AUTO: For more information on AUTO, see ☞ "Configure the recording settings".”
- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.
- Stream 3 (*): Stream 3 will always be used.
- Stream 4 (*): Stream 4 will always be used.

Default: Stream 1
*This setting item will be displayed only when the camera in use is supported.

<AI Privacy Guard function>
When the AI privacy guard extension software (WV-XAE201W) is not installed on the camera or when “Off” is set for “Privacy Guard target” on the "AI privacy guard setting" screen of the camera, AUTO / Stream 1 / Stream 2 / Stream 3 / Stream 4 are available.
When the AI privacy guard extension software (WV-XAE201W) is installed on the camera or when a parameter other than “Off” is set for “Privacy Guard target” of the AI privacy guard setting on the camera side, AUTO / Stream 1/2 / Stream 3/4 are available.

AUTO: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” or “Stream 3” will be used. If a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” or “Stream 4” will be used.
Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.
Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.

Note:

- Refer to the operating instructions of the camera in use for how to configure the settings of each stream.
- When "AUTO” is selected, it is possible to reduce the use network bandwidth and decrease the CPU load of the PC by configuring the transmission setting for 1-screen in case of “Stream 1” or by configuring the transmission setting for multi-screen in case of “Stream 2”, “Stream 3” and “Stream 4”.
- If using a camera for which a license of the Extension Software WV-SAEASF (ASF950, ASF900 Face matching function camera option, “Best Shot option”) has been registered, select “Stream 1” or “Stream 2”. If you select “AUTO”, “Stream 3”, or “Stream 4”, images to be displayed may be a black screen.

■ **Acquisition resolution (JPEG)**

It is the same as the camera setup of the recorder. Refer to “☞3.3.4.2.1. Register a recorder individually”

Note:

- For the AI privacy guard independent camera, change of the settings is unavailable and it is blank.

■ **Acquisition refresh speed (JPEG)**

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "M-JPEG" is selected for "Compression".

Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL

When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.

When "ALL" is selected, the refresh speed will be set to "30 ips".

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.
- For the AI privacy guard independent camera, change of the settings is unavailable and it is blank.

■ Auto track

Select “ON” or "OFF” to determine whether to use a camera as a target of the auto track when "Camera" is selected for "Live image source".

ON: Use as a target of the auto track.

OFF: Not use as a target of the auto track.

Default: --

Note:

- This mode is available only when the camera in use is WV-SC386, WV-SW396/ WV-SW396A, WV-SC588/ WV-SC588A, WV-SW598/ WV-SW598A, WV-SW397/ WV-SW397A/ WV-SW397B, WV-SC387/ WV-SC387A, WV-X6533LN, WV-S6532LN, WV-S65340-Z4N, WV-S65340-Z2N, WV-S65340-Z4K, WV-S65340-Z2K, WV-S61302-Z4 or WV-S61301-Z2.
- This mode is disabled when WV-X6533LN/WV-S6532LN is set into the “Insert/Remove SD memory card” mode.
- When "ON" is selected for "Auto track", the "+" mark will be displayed while panning/tilting is being controlled using the CU950 or the CU980 and the lock-on function will work by pressing the [TOP] button.
- Auto track is unavailable while panning/tilting is being controlled.

■ [OK] button

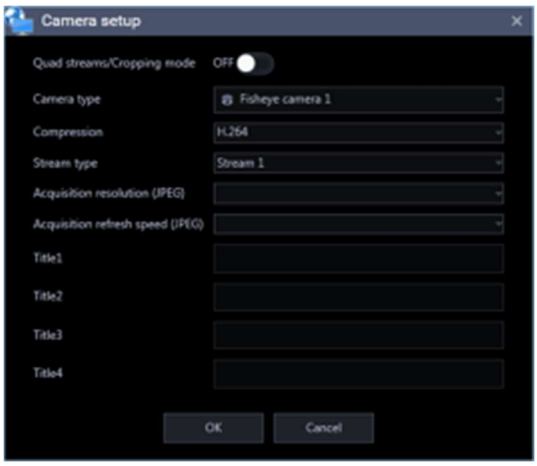
The edited settings will be saved and close the "Camera setup" window.

■ [Cancel] button

The edited settings are not saved and close the "Camera setup" window.

Step 10-2

The "Camera setup" window of the Fisheye camera or the camera that support cropping mode will be displayed.



The details of the window are as follows.

Important:
- When using V-series camera, change of the settings other than “Camera type”, “Compression method”, and “Stream type” is unavailable.

■ Quad streams/Cropping mode

Determine whether to use the quad streams or cropping mode.

Quad streams:
4-Stream mode is a function that corrects distortions in images at 4 points of a fisheye image and cuts out 4 images from them and then displays these 4 of 4:3 images as H.264 and H.265 images by assigning them to each stream number. To activate this mode, it is necessary to select "Quad streams" for the image capture mode of the camera in use.

ON: Use the "Quad streams".
OFF: Not to use the "Quad streams".

Cropping mode:
The "Cropping mode" is the function to display four cropping images out of panorama image in the ratio of 16:9, and allocate them to each stream number to display in the H.264 format, H.265 format or JPEG format. To activate this mode, it is necessary to select "Cropping" for the image capture mode of the camera in use.

ON: Use the "Cropping mode".
OFF: Not to use the "Cropping mode".

Default: OFF

■ Camera type

Camera type and an icon corresponding to the type will be displayed.
There are 23 types of dome camera 1 - 14, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.

Note:
- For a fisheye camera, the fisheye camera 1 is initially displayed. Change the camera type if necessary.

■ Compression

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4.

M-JPEG: Live images will be displayed in the M-JPEG format.
MPEG-4: Live images will be displayed in the MPEG-4 format.
H.264: Live images will be displayed in the H.264 format.
H.265: Live images will be displayed in the H.265 format.

Default: "H.265" when the camera in use supports the H.265 format. "H.264" when the camera in use supports the H.264 format. When the camera in use is an MPEG-4 camera, the default is "MPEG-4". When the camera in use is not an MPEG-4, H.264 or H.265 camera, the default is "M-JPEG".

Note:

- AI privacy guard independent camera cannot select M-JPEG.

■ Stream type

Select the stream type to be acquired from the camera from the following.
The stream type can be set only when "H.264", “H.265” or "MPEG-4" is selected for "Compression".

- AUTO: For more information on AUTO, see ☞ "Configure the recording settings".
- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.
- Stream 3 (*): Stream 3 will always be used.
- Stream 4 (*): Stream 4 will always be used.

Default: Stream 1
*This setting item will be displayed only when the camera in use is supported.

<AI Privacy Guard function>
When the AI privacy guard extension software (WV-XAE201W) is not installed on the camera or when “Off” is set for “Privacy Guard target” on the "AI privacy guard setting" screen of the camera, AUTO / Stream 1 / Stream 2 / Stream 3 / Stream 4 are available.
When the AI privacy guard extension software (WV-XAE201W) is installed on the camera or when a parameter other than “Off” is set for “Privacy Guard target” of the AI privacy guard setting on the camera side, AUTO / Stream 1/2 / Stream 3/4 are available.

AUTO: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” or “Stream 3” will be used. If a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” or “Stream 4” will be used.
Stream 1/2: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 1” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 2” will be used.
Stream 3/4: If a user with authorization of "AI privacy guard Image switching" is logged in, “Stream 3” will be used, and if a user without authorization of "AI privacy guard Image switching" is logged in, “Stream 4” will be used.

Note:

- Refer to the operating instructions of the camera in use for how to configure the settings of each stream.
- When "AUTO” is selected, it is possible to reduce the use network bandwidth and decrease the CPU load of the PC by configuring the transmission setting for 1-screen in case of “Stream 1” or by configuring the transmission setting for multi-screen in case of “Stream 2”, “Stream 3” and “Stream 4”.

■ **Acquisition resolution (JPEG)**

It is the same as the camera setup of the recorder. Refer to “☞3.3.4.2.1. Register a recorder individually”

Note:

- For the AI privacy guard independent camera, change of the settings is unavailable and it is blank.

■ **Acquisition refresh speed (JPEG)**

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "M-JPEG" is selected for "Compression".

Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL

When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.

When "ALL" is selected, the refresh speed will be set to "30 ips".

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.
- For the AI privacy guard independent camera, change of the settings is unavailable and it is blank.

■ **Title1 - 4**

Enter the channel title of each camera. The channel title setting can be changed only when "ON" is selected for "Quad streams/Cropping mode". When editing the channel title, enter 1 - 60 characters.

Default: Channel number

■ **[OK] button**

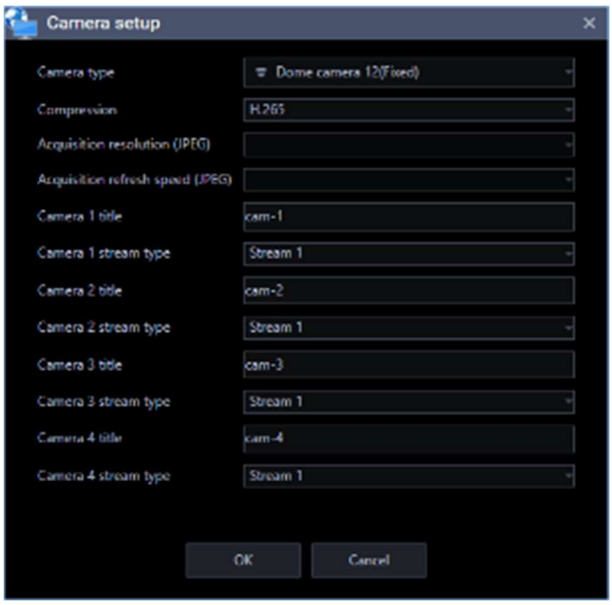
The edited settings will be saved and close the "Camera setup" window.

■ **[Cancel] button**

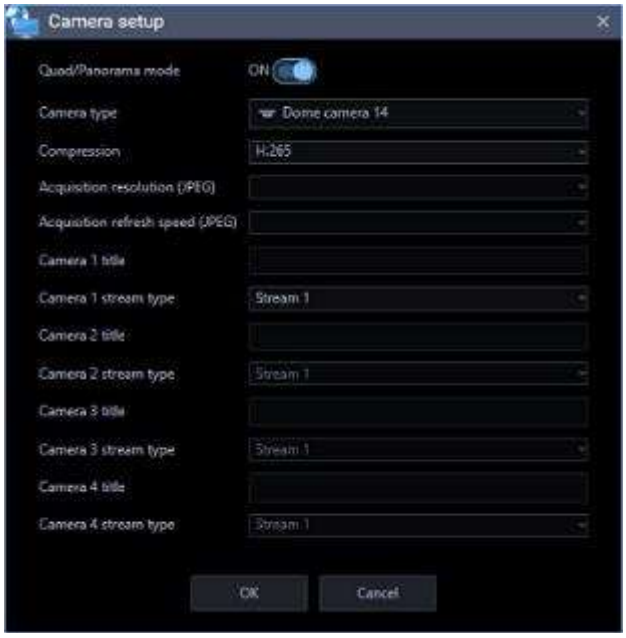
The edited settings are not saved and close the "Camera setup" window.

Step 10-3

The "Camera setup" window of the multi-sensor camera will be displayed.



< In case of AI Multi-sensor camera >



The details of the window are as follows.

■ **Quad/Panorama mode**

Determine whether to use Quad mode or Panorama mode as the image capture mode.
Select the setting according to the image capture mode for the AI multi-sensor camera (Quad mode or Panorama mode).

ON: Select “ON” when the setting for the AI multi-sensor camera is set to Quad or Panorama mode.

OFF: Select “OFF” when the setting for the AI multi-sensor camera is not set to Quad or Panorama mode.

Default: OFF

■ **Camera type**

Camera type and an icon corresponding to the type will be displayed.

There are 25 types of dome camera 1 - 16, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.
Default: Dome camera 12(Fixed)
For AI multi-sensor cameras, Dome camera 14.

■ **Compression**

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4.
M-JPEG: Live images will be displayed in the M-JPEG format.
H.264: Live images will be displayed in the H.264 format.
H.265: Live images will be displayed in the H.265 format.
Default: H.265

■ **Acquisition resolution (JPEG)**

It is the same as the camera setup of the recorder. Refer to "☞3.3.4.2.1. Register a recorder individually"

■ **Acquisition refresh speed (JPEG)**

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "M-JPEG" is selected for "Compression".
Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL
When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.
When "ALL" is selected, the refresh speed will be set to "30 ips".
Default: "Auto" when "Camera" is selected for "Live image source" and "M-JPEG" is selected for "Compression". In other case it cannot be selected.

Note:
- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.

■ **Camera 1 – 4 title**

Enter the title of camera 1 – camera 4. When editing the camera title, enter 1 - 60 characters.
Default: Channel number

■ **Camera 1 – 4 stream type**

Select the stream type to be acquired from the camera from the following.
The stream type can be set only when "H.264", "H.265" or "MPEG-4" is selected for "Compression".
- AUTO: For 1-screen/2A-screen/2B-screen/3c-screen, and the large area of 3A-screen/3B-screen/5-screen/7A-screen, stream 1 will be used.
  Stream 2 for 4-/4E-screen and the large areas of 6A-/7-/10-/13-screen
  Stream 3 for other area.
- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.

Default: Stream 1

Note:
- Refer to the operating instructions of the camera in use for how to configure the settings of each

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stream.
- When "AUTO” is selected, it is possible to reduce the use network bandwidth and decrease the CPU load of the PC by configuring the transmission setting for 1-screen in case of “Stream 1” or by configuring the transmission setting for multi-screen in case of “Stream 2” and “Stream 3”.

■ **[OK] button**

The edited settings will be saved and close the "Camera setup" window.

■ **[Cancel] button**

The edited settings are not saved and close the "Camera setup" window.

Step 11

Click the [OK] button after completing the settings.

→ The "Camera setup" window will close.

Note:

- The edited settings will not be saved and applied even when the "Camera setup" window is closed by clicking the [OK] button. To save and apply the settings, click the [Set] button on the "Device registration" window after closing the "Camera setup" window.

Step 12

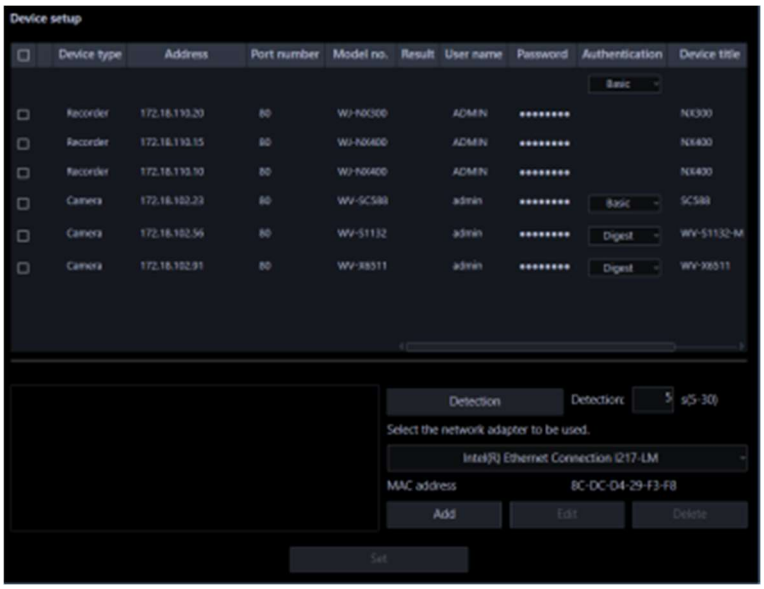
Click the [Set] button on the "Device registration" window.

→ The "Device registration" window will close and the settings will be saved and applied. The registered camera will be displayed in the device list.

3.3.4.2.3. Register a microphone individually

Step 1

Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2

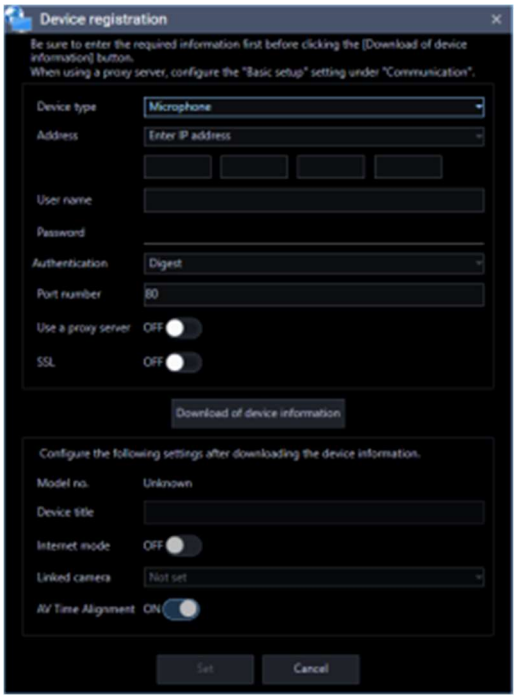
Click the [Add] button.

→ The “Device registration” window will be displayed.

Step 3

Click and select [Microphone] from the “Device Type” pull-down menu.

→ The “Device registration” window of the microphone will be displayed.



The details of the window are as follows.

■ **Address (Entry type)**

Select an entry type of address of a device.

Enter IP address: Specify a device to be registered using IP address.

Enter host name: Specify a device to be registered using FQDN type host name.

Default: IP address enter



■ **Address (Entry field)**

< When the entry type is “Enter IP address”>

Enter the IP address of the device.



Note:

- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>

Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:
- Entering "http://" is not necessary if the host name is entered.

■ User name

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ Password

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password.

Note:
- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ Authentication

Select the user authentication method. It is not available if the device is not compatible with the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.

Digest: Uses “Digest” authentication.
Basic: Uses “Basic” authentication.

Default: Basic

■ Port number

Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.

1 - 65535

Default: 80

■ Use a proxy server

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server
OFF: Not use a proxy server

Default: OFF

■ SSL

Select “ON” or “OFF” to determine whether to execute the SSL communication.

ON: Execute the SSL communication.
OFF: Not execute the SSL communication.

Default: OFF

Note:
- To turn on SSL, set "port number" to 443.

■ [Download of device information] button

Device information will be downloaded based on entered settings.

■ **Model no.**

The model number contained in the downloaded device information will be displayed.
"Unknown" will be displayed when device information is not downloaded yet.

■ **Device title**

Enter 1 - 60 characters for the device title.

■ **Internet mode**

Select HTTP port or UDP port to use for audio reception.
ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.
OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.
Default: OFF

■ **Linked camera**

The title of the linked camera contained in the device information downloaded from the microphone will be displayed. "Not set" will be displayed when device information is not downloaded yet. When the linked camera is to be changed, select a device from the list.

Important:
- For cameras that can be interlocked with the microphone, please read the owner's manual of your camera.

■ **AV Time Alignment**

Select to determine whether or not to use the AV time alignment.
ON: Use the AV time alignment.
OFF: Not use the AV time alignment.
Default: ON

■ **[Setup] button**

The "Camera setup" window will be displayed.
The [Setup] button will be unavailable until recorder information is downloaded.

■ **[Set] button**

The edited settings will be saved and applied.

■ **[Cancel] button**

The edited settings are not saved and are discarded.

Step 4
Enter the "Address", "User name", "Password", "Port number", "Use a proxy server" and "SSL".

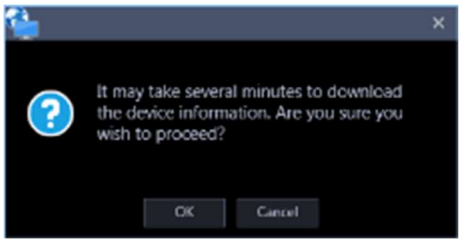
Step 5
Click the [Download of device information] button.

Important:

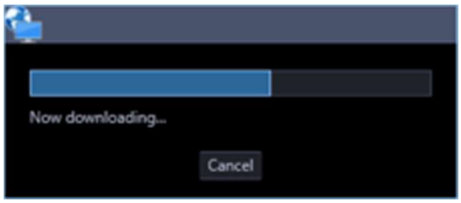
- When the settings of the setup menu of the microphone are edited, download the microphone information again.

Step 6

Click the [OK] button.



→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 7

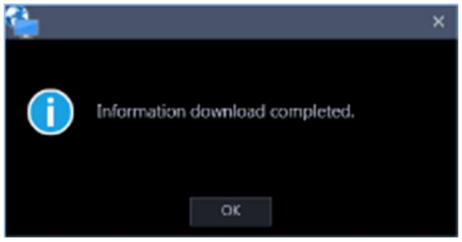
The message window will be displayed when download process ended.

<When download of the device information is successfully completed>

The confirmation window will be displayed.

1. Click the [OK] button.

→ The confirmation window will close.

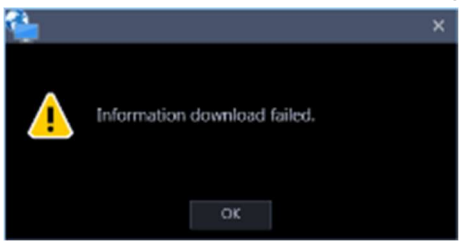


2. Go to step 8.

<When download of the device information failed>

The error message window will be displayed.

1. Confirm the content of the message indicated in the window.



Note:

- Check if the entered device information is correct. When the information has been edited correctly, the connected device or the version of the connected device may not be compatible with this software.
- Refer to “☞ 8.13. When downloading the device information” for further information about the displayed messages and solutions.

2. Click the [OK] button.
   → The error window will close.
3. When the device registration will be displayed again, confirm the settings.

4. Then, download the device information again.

Step 8

Click the [Set] button after editing the information.

→ The "Device registration" window will close and the settings will be saved and applied. The registered microphone will be displayed in the list of the registered devices.

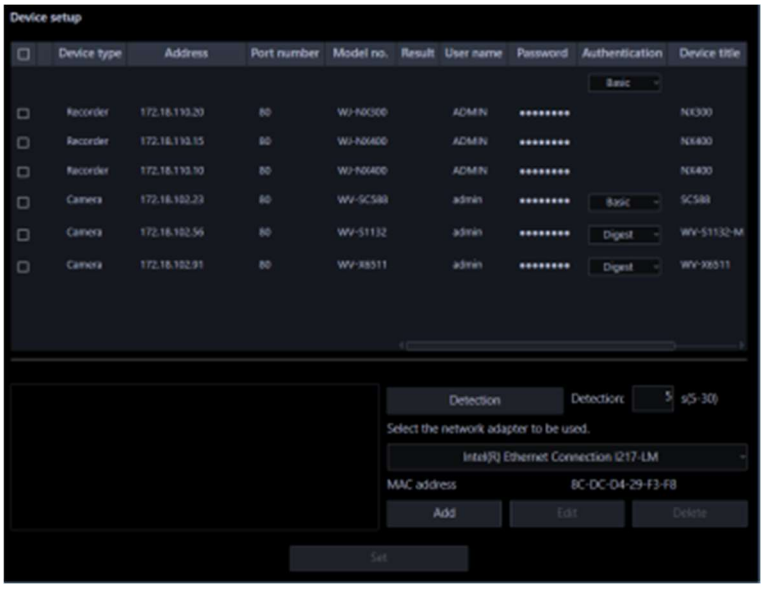
Note:

- When the camera and the microphone are configured to be linked, audio from the microphone will be used. When they are not to be linked, audio from the camera will be used.
- When the camera set as the linked camera is deleted, the setting of the linked camera will automatically return to "Not set". Register the camera again, and then download the microphone information again.
- When "ON" is selected for "Quad streams/Cropping mode" of the linked camera, the linkage setting will automatically be deleted.

3.3.4.2.4. Register a encoder individually

Step 1

Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2

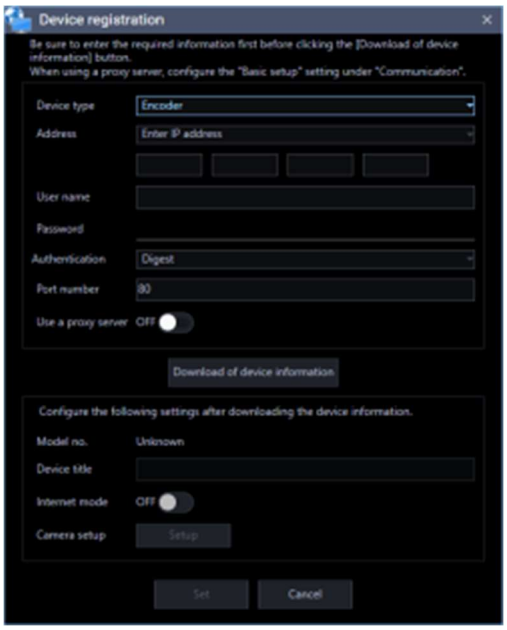
Click the [Add] button.

→ The “Device registration” window will be displayed.

Step 3

Click and select [Encoder] from the “Device Type” pull-down menu.

→ The “Device registration” window of the encoder will be displayed.



The details of the window are as follows.

■ **Address (Entry type)**

Select an entry type of address of a device.

Enter IP address: Specify a device to be registered using IP address.

Enter host name: Specify a device to be registered using FQDN type host name.

Default: IP address enter



■ **Address (Entry field)**

< When the entry type is “Enter IP address”>

Enter the IP address of the device.



Note:

- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>

Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:
- Entering "http://" is not necessary if the host name is entered.

■ User name

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ Password

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password.

Note:
- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ Authentication

Select the user authentication method. It is not available if the device is not compatible with the Digest authentication. Also, the selected authentication method is to be used for software connection, and it does not affect the device settings.

Digest: Uses “Digest” authentication.
Basic: Uses “Basic” authentication.

Default: Basic

■ Port number

Enter a number among the following for the port number. To turn on “SSL”, set port number to 443.

1 - 65535

Default: 80

■ Use a proxy server

Determine whether to use or not use a proxy server to connect with devices.

ON: Use a proxy server
OFF: Not use a proxy server

Default: OFF

■ [Download of device information] button

Device information will be downloaded based on entered settings.

■ Device title

Enter 1 - 60 characters for the device title.

■ Internet mode

Select this item when receiving H.264, H.265 or MPEG-4 images via the Internet.
It is possible to transmit H.264, H.265 or MPEG-4 images while maintaining the same setting of the broadband router without changing the setting used for JPEG image transmission.

ON: Receive H.264, H.265 or MPEG-4 images with audio using the HTTP port.
OFF: Receive H.264, H.265 or MPEG-4 images with audio using the UDP port.
Default: OFF

■ **[Setup] button**

The "Camera setup" window will be displayed.
The [Setup] button will be unavailable until recorder information is downloaded.

■ **[Set] button**

The edited settings will be saved and applied.

■ **[Cancel] button**

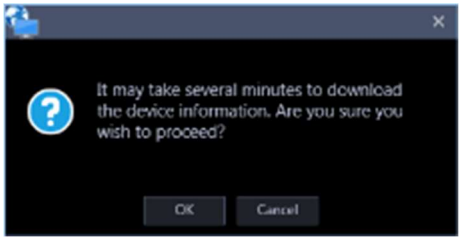
The edited settings are not saved and are discarded.

Step 4
Enter the "Address", "User name", "Password", "Port number" and "Use a proxy server".

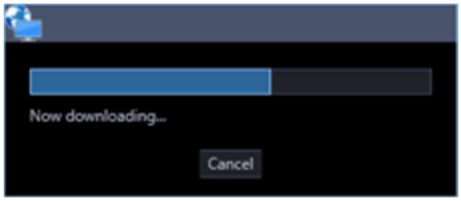
Step 5
Click the [Download of device information] button.

Important:
- When the settings of the setup menu of the encoder are edited, download the encoder information again.

Step 6
Click the [OK] button.



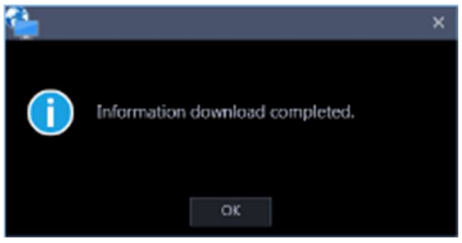
→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 7
The message window will be displayed when download process ended.

<When download of the device information is successfully completed>
The confirmation window will be displayed.
1. Click the [OK] button.

→ The confirmation window will close.

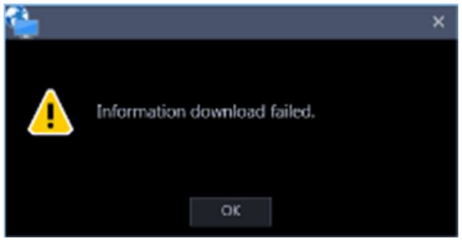


2. Go to step 8.

<When download of the device information failed>

The error message window will be displayed.

1. Confirm the content of the message indicated in the window.



Note:

- Check if the entered device information is correct. When the information has been edited correctly, the connected device or the version of the connected device may not be compatible with this software.
- Refer to "☞ 8.13. When downloading the device information" for further information about the displayed messages and solutions.

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2. Click the [OK] button.
   → The error window will close.
3. When the device registration will be displayed again, confirm the settings.

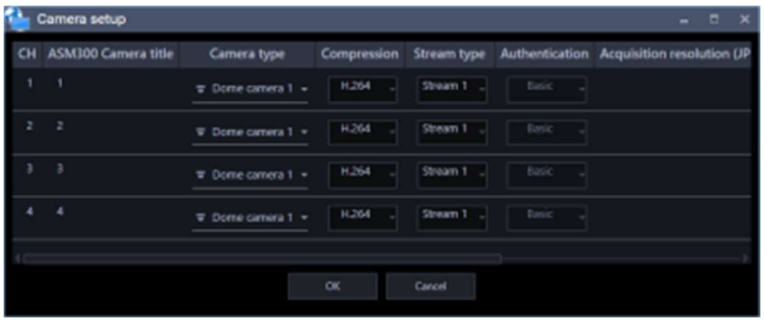
4. Then, download the device information again.

Step 8

Enter the "Device title" and "Internet mode".

Step 9

Click the [Setup] button.
→ The "Camera setup" window will be displayed.



The details of the window are as follows.

■ **CH**

The camera channel numbers will be displayed.

■ **ASM300 Camera title**

Enter the device title. The entered device title will be displayed on the multi-screen window.
Available number of characters: 1 - 60 characters

■ **Camera type**

Camera type and an icon corresponding to the type will be displayed.
There are 25 types of dome camera 1 - 16, fixed camera 1 - 4, fisheye camera 1 – 3, aero PTZ camera and compact camera.

Note:
- The dome camera 1 is initially displayed. Change the camera type if necessary.

Important:
- If the camera type is changed, operation method of the camera and the electronic zoom will be adapted to the newly selected camera type. Please note that there may be possibility that operation of the camera and the electronic zoom don't work correctly.
- When acquired the camera type from the recorder, some models of cameras may be inoperable if using the RS485 terminal. In this case, change the camera type to "Dome camera 1".
- When an aero PTZ camera is registered in ND400, manually set the camera type to "AeroPTZCamera".

■ **Compression**

Select a compression method for each camera. The compression method can be selected only when using a camera that supports H.264/H.265 or MPEG-4 and "Camera" is selected for "Live image source".

M-JPEG: Live images will be displayed in the M-JPEG format.
MPEG-4: Live images will be displayed in the MPEG-4 format.
H.264: Live images will be displayed in the H.264 format.

Default: "H.264" when the encoder in use supports the H.264 format "MPEG-4" when the encoder in use does not support the H.264 format.

■ **Stream type**

Select the stream type to be acquired from the camera from the following.
The stream type can be set only when "Camera" is selected for "Live image source" and "H.264", "H.265" or "MPEG-4" is selected for "Compression".
- Stream 1: Stream 1 will always be used.
- Stream 2: Stream 2 will always be used.

Default: Stream 1

Note:
- Refer to the operating instructions of the camera in use for how to configure the settings of each stream.

■ **Acquisition resolution (JPEG)**

Set a resolution when acquiring images from a camera from this software.
The resolution can be set only when "M-JPEG" is selected for "Compression".

- AUTO (*1) (*2): When displaying images on 1-/3-/4-/6-screen or the large areas of 7-/10-/13-screen, it is possible to monitor VGA images (640x480) fitting to the display size of each screen pattern.
- When displaying images on a screen other than the above, it is possible to monitor QVGA (320x240) images fitting to the display size of each screen pattern.
- 160×120/160×90: It is possible to monitor images whose resolution is 160x120 (160×90 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA: It is possible to monitor images whose resolution is QVGA (320x240) fitting to the display size of each screen pattern.
- QVGA/320x180: It is possible to monitor images whose resolution is QVGA (320x240, 320x180 in the 16:9 mode) fitting to the display size of each screen pattern.
- QVGA/320x180/320x320: It is possible to monitor images whose resolution is QVGA(320x240, 320x180 in the 16:9 mode, 320×320 in the 1:1 mode) fitting to the display size of each screen pattern.
- 400x300: It is possible to monitor images whose resolution is 400x300 fitting to the display size of each screen pattern.
- VGA: Images whose resolution is VGA (640x480) will automatically be fit into the area regardless of the screen pattern.
- VGA/640x360: It is possible to monitor images whose resolution is VGA (640x480, 640x360 in the 16:9 mode) fitting to the display size of each area.
- VGA/640×360/800×600: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 800x600 in the 4:3 (800x600) mode) fitting to the display size of each area.
- VGA/640×360/640×640: It is possible to monitor images whose resolution is VGA (640×480, 640x360 in the 16:9 mode, 640x640 in the 1:1 mode) fitting to the display size of each area.
- 800x600: It is possible to monitor images whose resolution is 800x600 fitting to the display size of each area.
- 1280×960 (*3): It is possible to monitor images whose resolution is 1280x960 fitting to the display size of each screen pattern.
- 1280×960/1280×720: It is possible to monitor images whose resolution is 1280x960 (1280×720 in the 16:9 mode) fitting to the display size of each screen pattern.
- 1280×960/1280×720/1280×1280: It is possible to monitor images whose resolution is 1280×960(1280×720 in the 16:9 mode, 1280×1280 in the 1:1 mode) fitting to the display size of each screen pattern.
- 1600x1200: It is possible to monitor images whose resolution is 1600x1200 fitting to the display size of each screen pattern.
- 1920×1080 (4*): It is possible to monitor images whose resolution is 1920x1080 fitting to the display size of each screen pattern.
- 2048×1536 (5*) (7*): It is possible to monitor images whose resolution is 2048x1536 fitting to the display size of each screen pattern.
- 2048×1536/2048×2048: It is possible to monitor images whose resolution is 2048x1536 (2048×2048 in the 1:1 mode) fitting to the display size of each screen pattern.
- 2192x2192: It is possible to monitor images whose resolution is 2192x2192 fitting to the display size of each screen pattern.
- 2560×1920/2560×1440: It is possible to monitor images whose resolution is 2560x1920 (2560×1440 in the 16:9 mode) fitting to the display size of each screen pattern.
- 2816x2816: It is possible to monitor images whose resolution is 2816x2816 fitting to the display size of each screen pattern.
- 2992x2992: It is possible to monitor images whose resolution is 2992x2992 fitting to the display size of each screen pattern.
- 3840x2160: It is possible to monitor images whose resolution is 3840x2160 fitting to the display size of each screen pattern.

- 4000x3000: It is possible to monitor images whose resolution is 4000x3000 fitting to the display size of each screen pattern.

*1: When the image capture mode is 2 or 3 mega-pixels, images whose resolution is VGA will be displayed regardless of the screen pattern.
*2: When using a fisheye camera, the display size varies depending on the image capture mode.

● 1-screen/ left area of 3A-screen/ right area of 3B-screen

Image capture mode	Display size
9M Fisheye	2992×2992
8M Fisheye	2816×2816
5M Fisheye	2192×2192
4M Fisheye	2048×2048
3M Fisheye	2048×1536
1.3M Fisheye	1280×960

● The large area of 2A-screen/ 2B-screen/ 3C-screen/ 4E-screen/ 4-screen/ 5-screen/ 6A-screen/ 7-screen/ 7A-screen/ 10-screen/ 13-screen

Image capture mode	Display size
9M Fisheye	1280×1280
8M Fisheye	1280×1280
5M Fisheye	1280×1280
4M Fisheye	1280×1280
3M Fisheye	2048×1536
1.3M Fisheye	1280×960

● Multi-screen other than the above

Image capture mode	Display size
9M Fisheye	320×320
8M Fisheye	320×320
5M Fisheye	320×320
4M Fisheye	320×320
3M Fisheye	2048×1536
1.3M Fisheye	320×240

3: When "Partial" is selected for the scan mode of NP100, the resolution will be set to 960x720.
*4: When the image capture mode is other than 2 mega-pixels (16:9), 3 mega-pixels (16:9), 2M Double Panorama (16:9) and 2M Panorama (16:9), images will be displayed in a different resolution from the set resolution or an error may occur.
*5: When the image capture mode is other than 3 mega-pixels (4:3) and 3M Fisheye (4:3), images will be displayed in a different resolution from the set resolution or an error may occur.
*6: If selected when "3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.
*7: If selected when "1.3 mega pixel" is set for "Image capture mode" of NP502 or NW502, an error will occur.

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- For 6-series cameras, new 3-series cameras, WV-SPN531, and new 5-series cameras, if an unavailable image capture size for JPEG (1) - (3) of a camera is set, the image capture size set for JPEG (1) will be applied for images.
- For 9M Fisheye cameras and 7-series cameras, if an image capture size that is not available for JPEG (1) or JPEG (2) is set, the one set for JPEG (1) (if JPEG (1) is not available, JPEG (2)) will be applied for images.

■ **Acquisition refresh speed (JPEG)**

Determine the refresh interval of the camera (number of images to be refreshed per second). The acquisition refresh speed can be set only when "M-JPEG" is selected for "Compression".

Auto/0.1 ips/0.2 ips/0.3 ips/0.5 ips/1 ips/2 ips/3 ips/ 5 ips/10 ips/15 ips/ALL

When "Auto" is selected, an appropriate value will be applied according to the maximum refresh speed set on the "Performance" page.

When "ALL" is selected, the refresh speed will be set to "30 ips".

Default: “Auto” when “Camera” is selected for “Live image source” and “M-JPEG” is selected for “Compression”. In other case it cannot be selected.

Note:

- The actual refresh interval may become slower than the set refresh interval depending on the network environment, the settings of the camera and the set maximum refresh interval on the "Performance" page.

■ **[OK] button**

The edited settings will be saved and close the "Camera setup" window.

■ **[Cancel] button**

The edited settings are not saved and close the "Camera setup" window.

Step 10

Click the [OK] button after completing the settings.

→ The "Camera setup" window will close.

Note:

- The edited settings will not be saved and applied even when the "Camera setup" window is closed by clicking the [OK] button. To save and apply the settings, click the [Set] button on the "Device registration" window after closing the "Camera setup" window.

Step 11

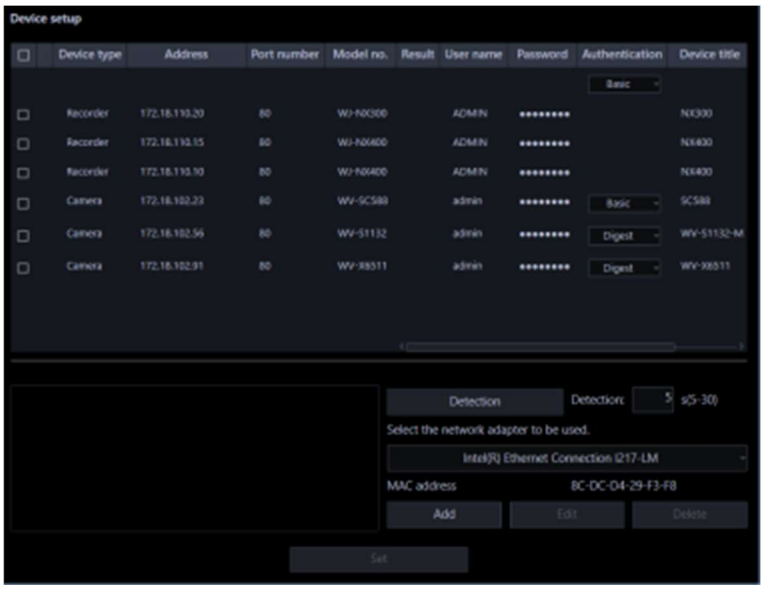
Click the [Set] button on the "Device registration" window.

→ The "Device registration" window will close and the settings will be saved and applied. The registered encoder will be displayed in the device list.

3.3.4.3. Edit the registered device information

Edit the device information displayed in "Device List".

Step 1
Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2
Click the [Edit] button.

→ The “Device registration” window will be displayed.
It is also possible to display the device registration window by double-clicking a device to be edited.

Step 3
Click the [Set] button after editing the information.

→ The "Device registration" window will close and the settings will be saved and applied.

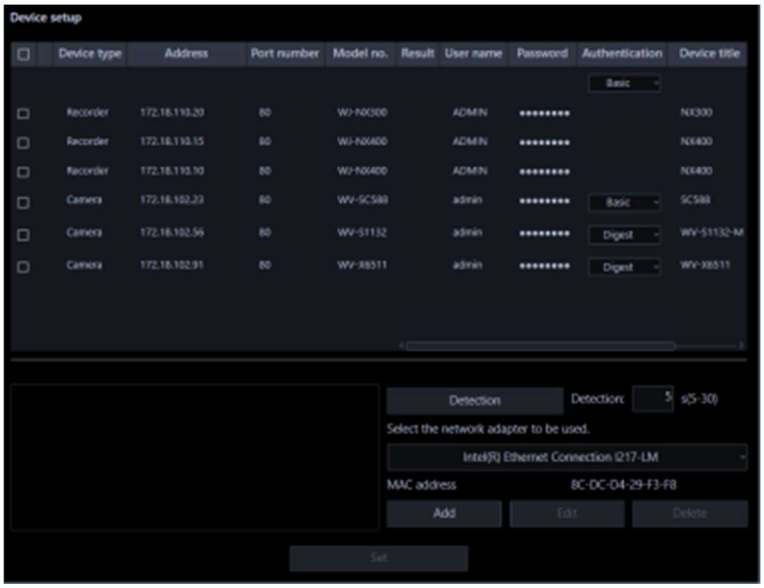
3.3.4.4. Perform a batch update of device information

When the settings are changed on the device side, the device information will be collectively acquired and the registration information will be updated.

Important:
- When a setting including the address of the device, port number, user name or password is changed, update of the registration information in the following procedure is unavailable. In this case, update the registration information by following the procedure described in “☞3.3.4.3. Edit the registered device information”.

Step 1

Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



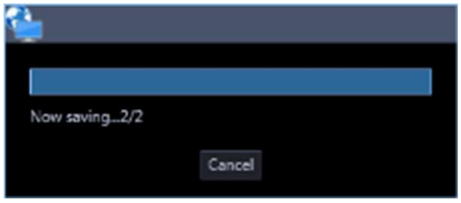
Step 2

Put a check mark on the check box of the device whose registration information is to be updated.

Step 3

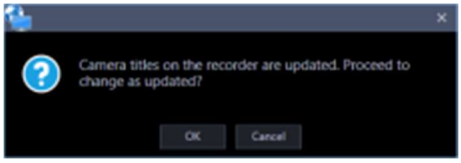
Click the [Set] button.

→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



Step 4

When a camera title on the recorder side is changed on the recorder registered in this software, the change confirmation window will be displayed.



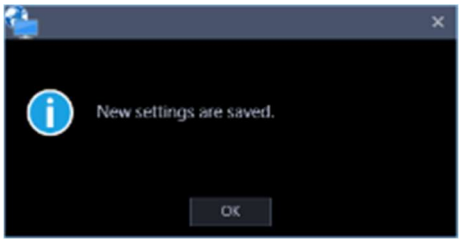
→ When the [OK] button is clicked, the camera title that was set on the recorder side will be overwritten by the camera title that was set by this software. When multiple recorders are selected in step 2, a batch update of the camera titles on the selected recorders will be applied.

Note:

- If the following characters are used for the camera title on the recorder, they will be replaced with spaces.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~

→ When the [Cancel] button is clicked, the device information will be completed without changing the camera title.

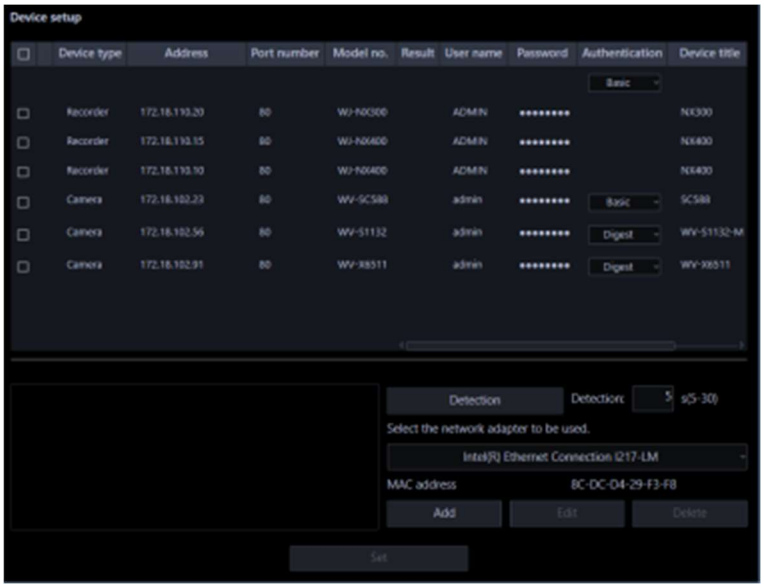
Step 5
Click the [OK] button.
→ The settings are saved.



3.3.4.5. Delete the registered device information

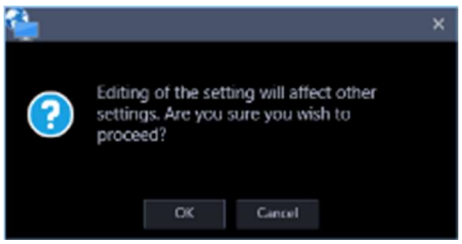
Delete the device information displayed in "Device List".

Step 1
Click the [Device setup] button and then click the [Device setup] button to display “Device setup” window.



Step 2
Put a check mark on the check box of a device whose information is to be deleted.

Step 3
Click the [Delete] button.
→ The confirmation window will be displayed.

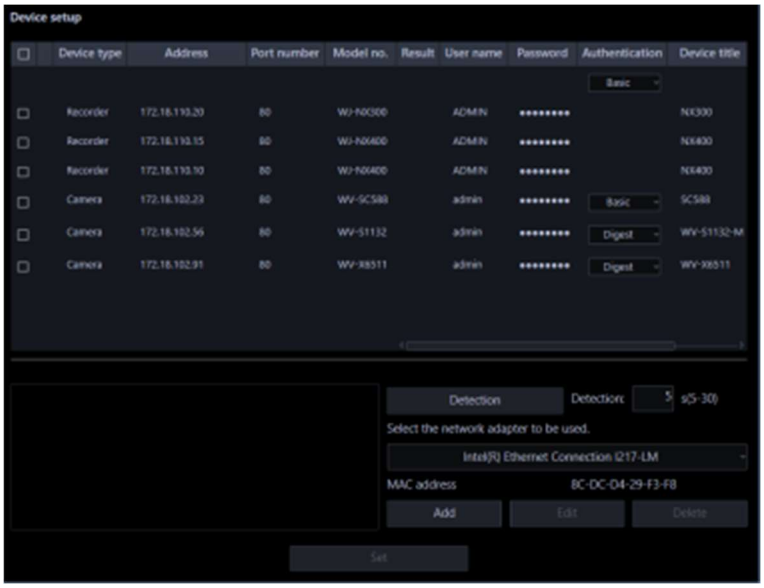


Step 4
Click the [OK] button.
→ The device information will be deleted.

3.3.4.6. Replace a device

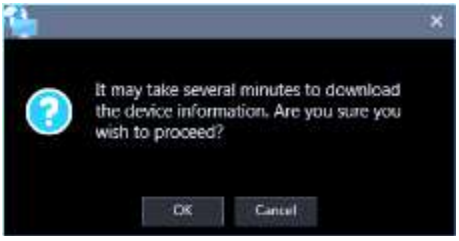
Change the registered information of an already registered recorder, camera, microphone or encoder to the information of the device of the same model number and same address. When changing the model number, register data after deleting the registered data. Refer to "☞ 3.3.3.1.5. Delete a device" for further information.

Step 1
Click the [Device setup] button and then the [Device registration] button to display the “Device registration” window.



Step 2
Select a device to be edited from the device list, and then click the [Edit] button.
→ The “Device registration” window will be displayed.
It is also possible to display the device registration window by double-clicking a device to be edited.

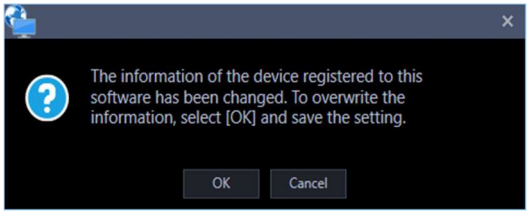
Step 3
Click the [Download of device information] button.
→ The confirmation window will be displayed.



Step 4

Click the [OK] button.

→ The confirmation window will be displayed, if the Model No. and the address of the device to be registered are already registered to this software and the MAC address does not match.



Step 5

Click the [Download of device information] button.

→ The confirmation window will be displayed.

Step 6

Click the [Set] button after editing the information.

Refer to the “Add a device individually” section for further information about each item.

→ The “Device registration” window will close and the settings will be saved and applied.

Important:

- Even when the confirmation window is closed by clicking the [OK] button in STEP 5, the settings will not be saved.
  Click the [Set] button on the “Device registration” window after closing the confirmation window.
- If the channel information is changed or a camera is deleted before or after replacement of a recorder, the folder, group, sequence or map’s camera information will be deleted.

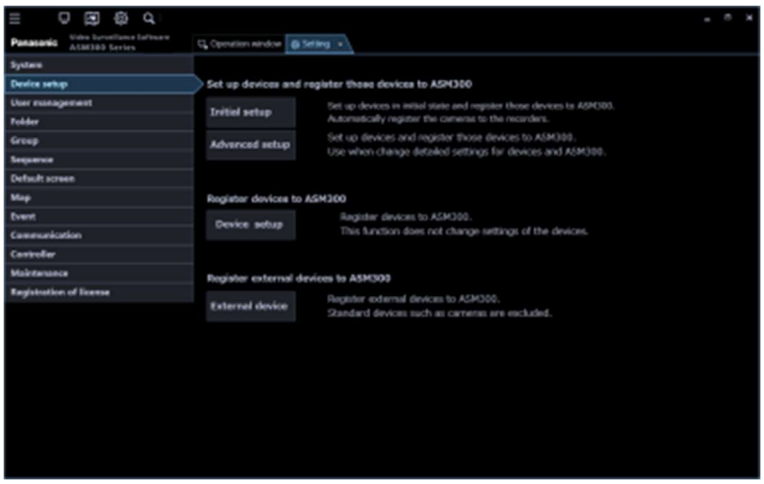
3.3.5. External device connection

Click the [Device setup] button and then click the [External device] button to display “External device setup” window.

Configure the settings in order to connect to an external device.

Important:

- The submenu [External device] will not be displayed unless the license of the extension software WV-ASE204 is registered.

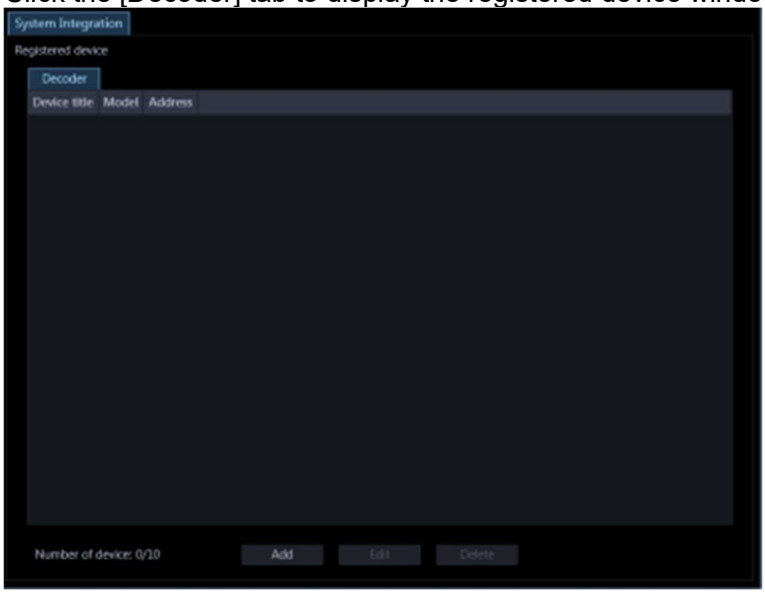


3.3.5.1. System Integration

This setting will be displayed only when the license of the extension software WV-ASE204 is added.
Click the [System Integration] tab to display the system integration window.
Configure the settings relating to the integration between this software and other system.

3.3.5.1.1. Add a decoder

Step 1
Click the [Decoder] tab to display the registered device window.



The details of the window are as follows.

■ **Registered device**

Titles, model numbers and addresses of the registered decoders will be displayed in list form.

■ **Number of registration**

Number of the registered decoders will be displayed.

■ **[Add] button**

Displays the "Device registration" window.

■ **[Edit] button**

Displays the "Device registration" window of the decoder selected from the device list.

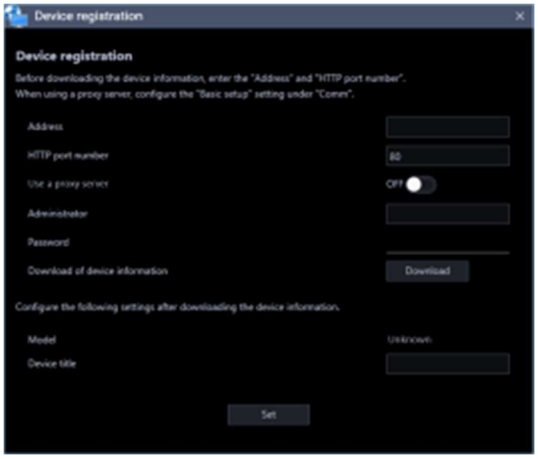
■ **[Delete] button**

The decoder selected from the list will be deleted.

Step 2

Click the [Add] button.

→ The "Device registration" window will be displayed.



The details of the window are as follows.

■ **Address**

Enter the IP address of the decoder. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-” (hyphen)

■ **Port number**

Enter a number among the following for the Port number.

1 - 65535

Default: 80

■ **Use a proxy server**

Determine whether to use a proxy server to connect the decoder or not.

ON: Use a proxy server

OFF: Not use a proxy server

Default: OFF

Note:

- The proxy server address can be set on [☞3.13.1. Basic setup] of the "Communication" page.

■ **Administrator name**

Enter the administrator name registered in the decoder. Enter 1 - 32 alphanumeric characters for the administrator name.

■ **Password**

Enter the administrator password registered in the decoder. The entered password will be displayed as "*". Enter 4 - 32 alphanumeric characters for the password.

■ **[Download] button**

Device information will be downloaded based on the settings of "Address", "Port number" and "Use a proxy server".

■ **Model**

The model number of the decoder contained in the device information downloaded from the decoder will be displayed.
"Unknown" will be displayed when device information is not downloaded yet.

■ **Store Title**

Enter the name of the facial recognition server. Enter up to 16 characters for the device title.
The following characters are unavailable.
! $ % ' < = > @ [¥] ^ _ ` { | } ~

■ **[Set] button**

The configured settings will be saved.

Step 3

Complete the settings of "Address", "Port number", "Use a proxy server", "Administrator name" and "Password".

Step 4

Click the [Download] button.

Important:

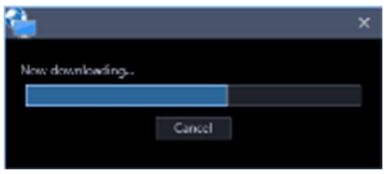
- When the settings of the setup menu of the decoder are edited, download the decoder information again.

Step 5

Click the [OK] button.



→ The downloading status window will be displayed.

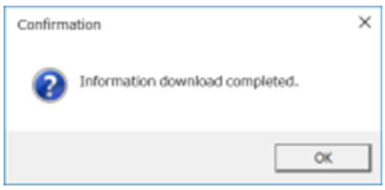


To cancel downloading device information, click the [Cancel] button on the displayed status notification window.

Step 6
Confirm the displayed messages and proceed to the next step.

<When download of the device information is successfully complete>

1. Click the [OK] button.

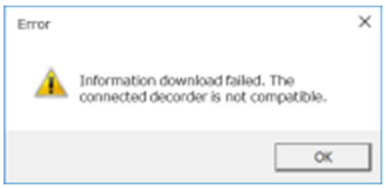


→ The confirmation window will close.

2. Go to step 8.

<When download of the device information failed>

1. Confirm the message indicated in the window.



Note:
- Check if the entered device information is correct. If the information has been edited correctly, it indicates that the connected device or the version of the connected device may not be compatible with this software.
- Refer to "☞ 1.5. Compatible devices" for further information.

---

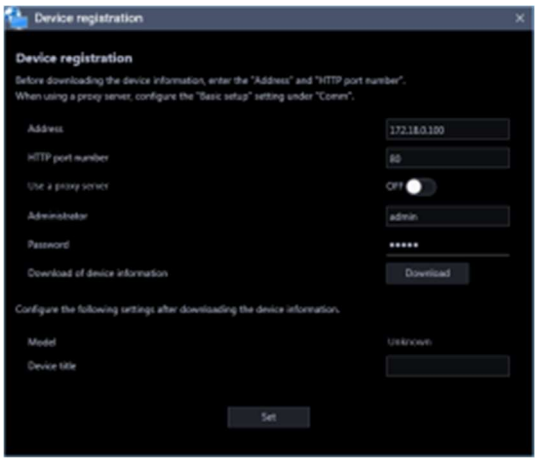
2. Click the [OK] button.

→ The error window will close.

3. Go back to the "Device registration" window, and check the settings.

4. Then, download the device information again.

Step 7
Enter for "Device title".

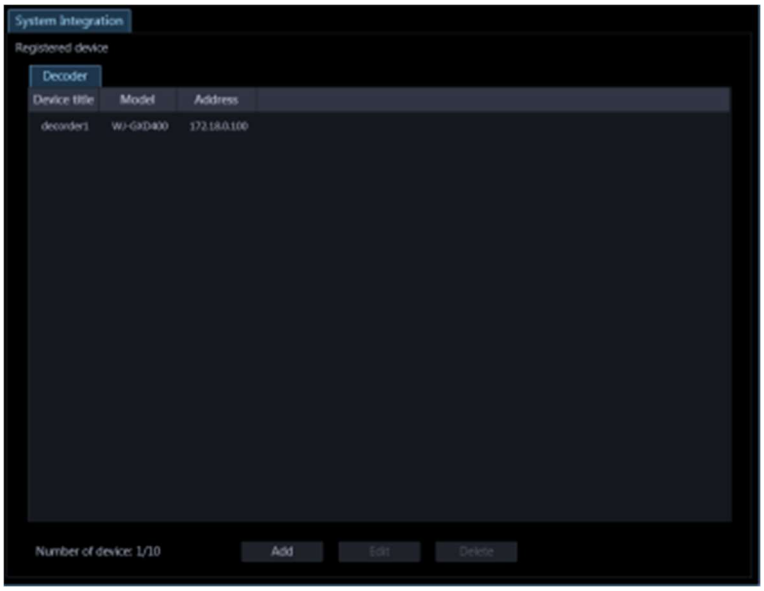


Step 8
Click the [Set] button.

→ The "Device registration" window will close and the settings will be saved and applied. The registered decoder will be added to the device list.

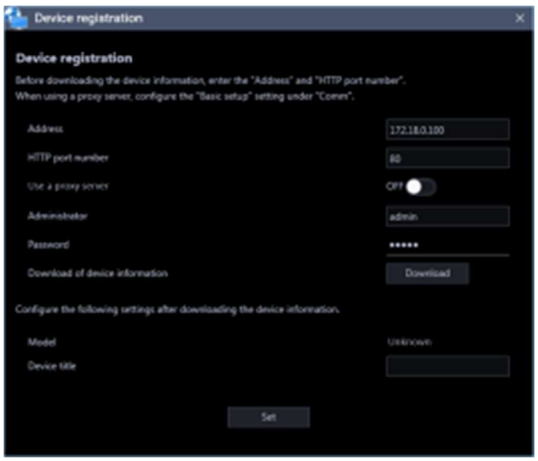
3.3.5.1.2. Edit a decoder

Step 1
Display the "Registered device" window of the decoder.



Step 2
Select the decoder whose information is to be edited from the list of the registered devices, and then click the [Edit] button.

→ The "Device registration" window will be displayed.

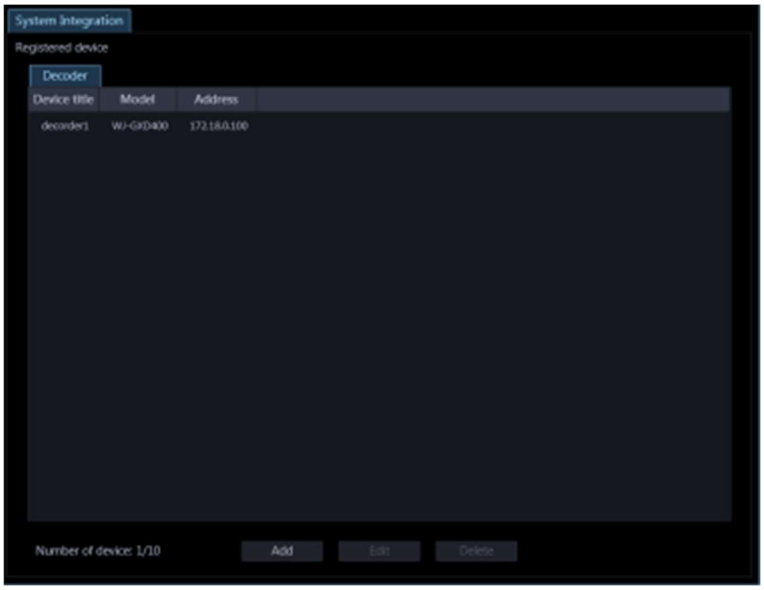


Step 3
Click the [Set] button after editing the information.

→ The "Device registration" window will close and the settings will be saved and applied.

3.3.5.1.3. Delete a decoder

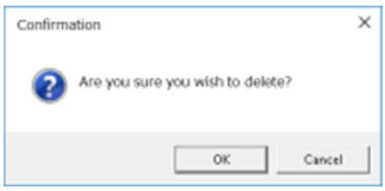
Step 1
Display the "Registered device" window of the decoder.



Step 2
Select the decoder to be deleted from the list of the registered devices.

Step 3
Click the [Delete] button.

→ The deletion confirmation window will be displayed.



Step 4
Click the [OK] button.
The device information will be deleted.

3.4. Settings relating to the user management

The settings relating to the user management such as, the user authentication setting, addition of a user, edit/deletion of user information, the user level setting, etc. can be configured.

Note:
- The saved settings will be applied from the next login.

3.4.1. Basic setup

Click the [User management] button, and then click the [Basic setup] tab to display the "Basic setup" page.
Determine whether to use the auto login function for login and whether to set a validation period for password. When setting a validation period, set the password's validation period.



■ User authentication

Select ON or OFF to determine whether or not to execute the user authentication.
When you cancel login, this software will be automatically terminated. To log in again start this software.
User authentication ON: Require the user authentication for login
User authentication OFF (Auto log-in): Not require the user authentication for login
Single Sign-On: Logs in automatically by a domain user who logged on to Windows.
Default: ON

Note:
- Single Sign-On function is not available for the local Windows user. Log on to the domain by a LDAP user, or by a user who belongs to a LDAP group after registering a LDAP user or a LDAP group.

■ Auto login user

When “User authentication OFF” is selected, select which user shall automatically log in. This setting is available only when “User authentication OFF (auto login)” is set for “User authentication”.
Auto log-in user can be selected from already registered local users and the administrators. When the user registered as the auto login user is deleted, the administrator will automatically be set as the auto login user.

■ **Time-limited password**

Determine whether to set the password's validation period or not. When the set validation period has passed, the password change request window will be displayed each time trying to log in to this software.

ON: Set the validation period for the password.

OFF: Not set the validation period for the password.

Default: ON

■ **Password's validation period**

Select the validation period for the password from the following. This setting is available only when "ON" is selected for "Time-limited password".

31 days/ 92 days/ 184 days

Default: 92 days

■ **Number limit of login authentication**

Select ON or OFF to determine whether or not to cancel the login when failed in the login authentication for a number of times.

ON: Number of times for login authentication is limited

OFF: Number of times for login authentication is not limited

Default: ON

■ **Number of Login authentication failure**

Select a number limit of login authentication from the following. This setting is available only when "ON" is selected for "Number limit of login authentication".

Once/ twice/ 3 times/ 4 times/ 5 times/ 6 times/ 7 times/ 8 times/ 9 times/ 10 times

Default: 10 times

■ **Password policy**

Set the requirement for the password policy (complexity).

- Policy 1: If selecting the “Policy 1”, it is required to set a password that includes three or more of the following four character types.
  - Upper-case alphabet character
  - Lower-case alphabet character
  - Number
  - Special character (!#$%’()-=^~\|@`[]{}+*,.<>/?_)
- Policy 2: If selecting the “Policy 2”, it is required to set a password that includes two or more of the following three character types. This policy applies to the newly set password.
  - Upper- and lower-case alphabet character
  - Number
  - Special character (!#$%’()-=^~\|@`[]{}+*,.<>/?_)

Default: Policy 1

Note:

- The selected password policy will be applied from the next password change or when adding a user.

■ **[Set] button**

The configured settings will be saved.

3.4.2. Administrator setup

Click the [User management] button, and then click the [Administrator setup] tab to display the "Basic setup" page.
Set an administrator name and password here.

Important:
- Note that if multiple users share one account, the operator cannot be identified.
- Do not set a common password for multiple users.
- To enhance the security, change the password periodically.



■ **Administrator name**

Enter an administrator name. Enter 4 - 32 alphanumeric characters for the administrator name.
The administrator name already in use cannot be used.

■ **Password**

Enter the password. Enter 8 - 32 alphanumeric characters and special character for the password following the password policy. The entered password will be displayed as "●".

Note:
- "&:; and a space is unavailable.
- The same character string as "User name" is unavailable.
- Refer to "☞3.4.1. Basic setup" for further information about the password policy.

■ **Retype password**

Enter a new password to be registered. Check the typing error for password.
The entered password will be displayed as "*".

■ **Level**

The user level will be displayed. Level change is not available for the administrator. Always be displayed as “Administrator”.

■ **Operable camera**

The administrator can display images from all the registered cameras and “All camera display” will be displayed.
Level change is not available for the administrator.

■ **Use user's group**

Determine whether the administrator uses "User's group". Refer to the "☞3.6. Settings relating to group" section for how to set the user's group.

ON: User's group can be used by the administrator.

OFF: User's group cannot be used by the administrator.

Default: OFF

Note:

- After setting [Use user's group], click the [Save] button, and the settings will be reflected to enable / disable in the right-click menu "Register the layout in the user's group" on the operation window.
- After changing the setting of [Use user's group] from ON to OFF, the group panel will not be updated until the next login.

3.4.3. User level setup

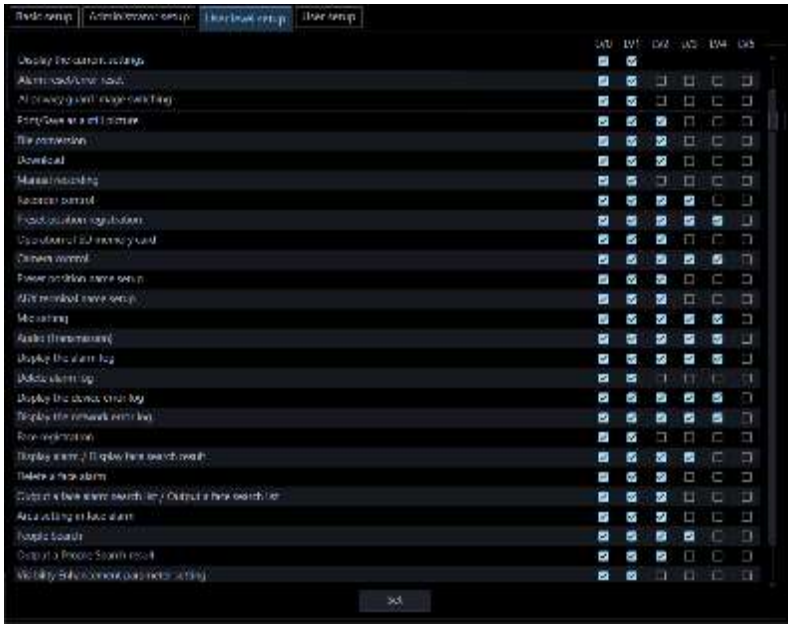
Click the [User management] button, and then click the [User level setup] tab to display the user level setup window.

Set a level of a login user here. LV0 - LV5 are available for the user level.

- LV0 users are allowed to perform all operations except "Basic setup" of "User mng.", "Administrator setup" and "License regist.".
- LV1 users are allowed to perform all operations except setting change and license registration.
- LV2 - LV5 users can perform only the operations set by the administrator. All the setting operations are not allowed.

Important:

- The user level for LV0 - LV1 cannot be changed.
- Set the user level appropriately only for the required functions.
- When the user logs in, the corresponding icons, menus, function names, etc. are not displayed on the screen for the functions whose level settings are unchecked.



Step 1

Select operable functions for each level.

→ Functions without check mark on the check boxes are inoperable. Refer to the "Functions that can be restricted" section (+ page 54) for the functions that can be restricted.

Step 2

Click the [Set] button after determining the operable functions for each user level.

→ The settings will be saved and applied.

Functions that can be restricted

Function	Description
Display the current settings	The set contents can be checked on the setup window.
Alarm reset/error reset	It is possible to cancel the alarm status and the error status of the recorder.
AI privacy guard image switching	It is possible to switch to an image for which AI privacy guard is not set and display live images or play back.
Print/Save as a still picture	It is possible to print/save the displayed live image or recorded image.
File conversion	It is possible to convert an n3r file downloaded from the recorder into an mp4 file.
Download	It is possible to manually download recorded images.
Manual recording	It is possible to start/stop recording manually.
Recorder control	It is possible to operate the recorder including searching, playing recorded images on the recorder.
Preset position registration	It is possible to register the preset positions.
Operation of SD memory card	It is possible to operate the SD memory card in the camera.
Camera control	It is possible to control cameras.
Preset position name setup	It is possible to set the preset position name.
AUX terminal name setup	It is possible to set the AUX terminal name.
Mic setting	It is possible to operate the microphone audio collection.
Audio (Transmission)	It is possible to transmit audio (from the PC to the camera).
Display the alarm log	It is possible to display the alarm logs.
Display the device error log	It is possible to display the device error logs.
Display the network error log	It is possible to display the network error logs.
Face registration (*1)	Person information can be registered.
Display alarm/Display face search result (*1)	Alarm can be checked. Face search can be performed.
Delete a face alarm (*1)	Face matching alarm and unregistered face detection alarm can be deleted in the face search monitor.
Output a face alarm search list /Output a face search list (*1)	The alarm search result and the face search result can be output as a HTML in the face search monitor.
Area setting in face alarm (*1)	Area information setting can be performed in the face search monitor.
People Search (*2)	People Search can be performed.
Output People Search result (*2)	People search result can be output in HTML on the face search monitor.
Visibility Enhancement parameter setting (*2)	The detailed parameters for “Visibility Enhancement” can be set.

Important:

- Only “LV0” and “LV1” can be set for “Display the current settings”.
- When making "Camera control" to non-selected state, "Preset position registration" and "Operation of SD memory card" will automatically turn to non-selected state.
- When making "Recorder control" to non-selected state, "Manual recording" will automatically turn to non-selected state.
- When making "Camera control" and "Recorder control" to non-selected state, "Mic setting" will automatically turn to non-selected state.
- When selecting "Mic setting", "Camera control" and "Recorder control" will automatically turn to selected state.
- When "Output a face alarm search list" is selected, "Display alarm/Display face search result" will be selected automatically.
- When "People Search" is selected, "Display alarm/Display face search result" will be selected automatically.
- When "Output People Search result in HTML file" is selected, "Display alarm/Display face search result" and "People Search" will be selected automatically.

Default:

Item	LV0	LV1	LV2	LV3	LV4	LV5
Display the current settings	○	○				
Alarm reset/error reset	○	○				
AI privacy guard image switching	○	○				
Print/Save as a still picture	○	○	○			
File conversion	○	○	○			
Download	○	○	○			
Manual recording	○	○				
Recorder control	○	○	○	○		
Preset position registration	○	○	○	○	○	
Operation of SD memory card	○	○	○			
Camera control	○	○	○	○	○	
Preset position name setup	○	○	○			
AUX terminal name setup	○	○	○			
Mic setting	○	○	○	○	○	
Audio (Transmission)	○	○	○	○	○	
Display the alarm log	○	○	○	○	○	
Display the device error log	○	○	○	○	○	
Display the network error log	○	○	○	○	○	
Face registration (*1)	○	○				

Item	LV0	LV1	LV2	LV3	LV4	LV5
Display alarm/Display face search result (*1)	○	○	○	○		
Delete a face alarm (*1)	○	○	○			
Output a face alarm search list /Output a face search list (*1)	○	○	○			
Area setting in face alarm (*1)	○	○	○			
People Search (*2)	○	○	○	○		
Output People Search result (*2)	○	○	○			
Visibility Enhancement parameter setting (*3)	○	○				

*1 It will become available after the license for the WV-ASE231 is added.
*2 It will become available after the license for the WV-ASE231 is added and the people search server exists.
*3 It will become available after the license for the WV-ASE205 is added.

3.4.4. User setup

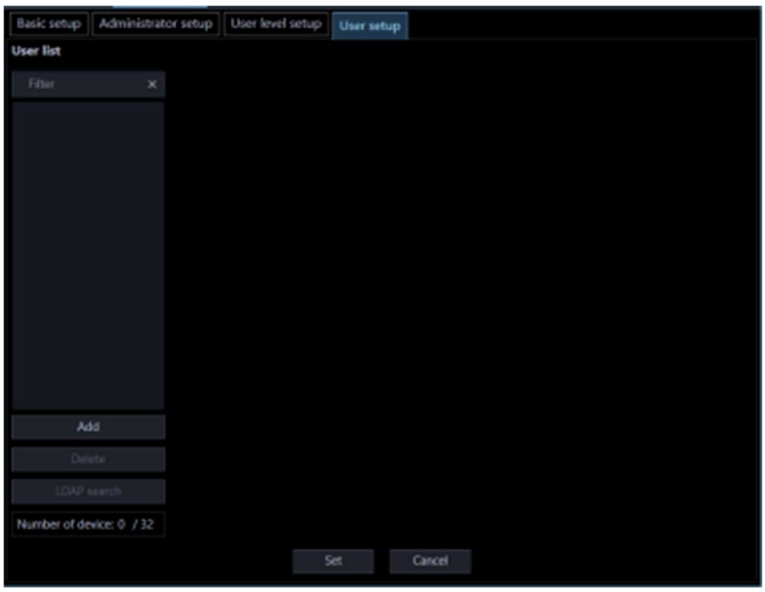
It is possible to add/edit/delete a user who can operate this software and set the display items.
Up to 32 users can be registered in total of local user, LDAP user, and LDAP group.

Important:
- Note that if multiple users share one account, the operator cannot be identified.
- Do not set a common password for multiple users.
- To enhance the security, change the password periodically.

3.4.4.1. Register a user

3.4.4.1.1. Add a local user

Step 1
Click the [User management] button, and then click the [User setup] tab to display the "User setup" page.



The details of the window are as follows.

■ **User list**

Names of the registered users will be displayed in list form.
When clicking a user name, the “Setup” item of the selected user will be displayed.

■ **Search field**

Searches for a registered user from “User list”.

■ **[Add] button**

Creates a new user and displays the “Setup” item.

■ **[Delete] button**

Deletes the user selected from “User list”.

■ **[LDAP search] button**

Displays “User/Group selection”.

Note:

- This button is disabled when "OFF" is set for "Directory Service".

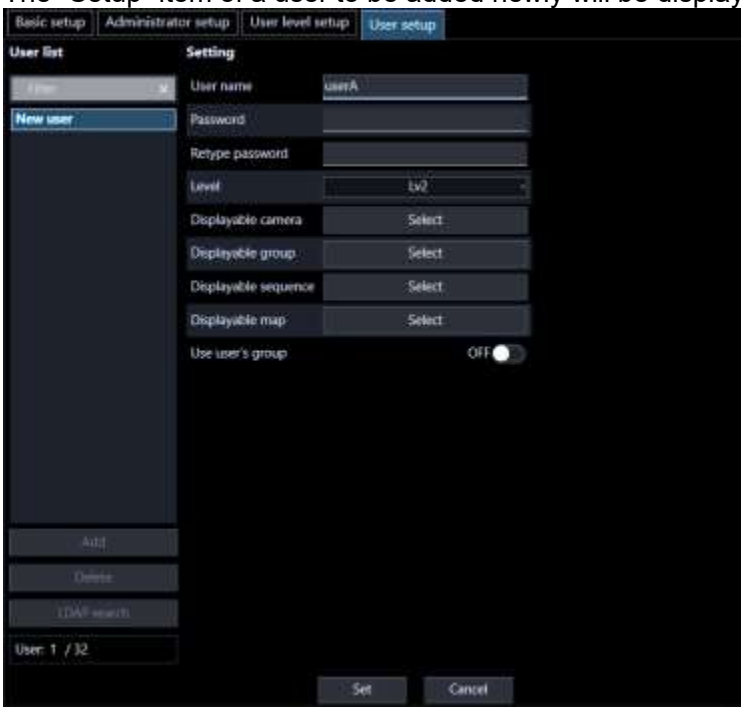
■ **Number of registration**

Displays “Current number of registration”/”Maximum number of registration”.

Step 2

Click the [Add] button.

→ The “Setup” item of a user to be added newly will be displayed.



Note:
- The [Add] button will become unavailable when reached the maximum number of the user registration (32 users).

The details of the window are as follows.

■ User name

Enter a user name. Enter 4 - 32 alphanumeric characters for the user name.
Symbols, special characters cannot be used. The user name already in use cannot be entered.

■ Password

Enter the password. Enter 8 - 32 alphanumeric characters and special character for the password following the password policy. The entered password will be displayed as "●".

Note:
- "&:; and a space is unavailable.
- The same character string as "User name" is unavailable.
- Refer to "☞3.4.1. Basic setup" for further information about the password policy.

■ Retype password

Enter a new password to be registered. Check the typing error for password.
The entered password will be displayed as "*".

■ Level

Select the user level to be applied to the selected user from the following.
LV0/ LV1/ LV2/ LV3/ LV4/ LV5
Default: LV2

■ **Displayable camera selection**

When the [Select] button is clicked, “☞ 3.4.4.4. Set a displayable camera” will be displayed.

■ **Displayable group selection**

When the [Select] button is clicked, “☞ 3.4.4.5. Set a displayable group” will be displayed.
The user’s group will not be displayed.

■ **Displayable sequence selection**

When the [Select] button is clicked, “☞ 3.4.4.6. Set a displayable sequence” will be displayed.

■ **Displayable map selection**

When the [Select] button is clicked, “☞ 3.4.4.7. Set a displayable map” will be displayed.

■ **Use user’s group**

Determine whether to allow each user to use “User’s group”. Refer to the “☞3.6. Settings relating to group” section for how to set the user’s group.

ON: User’s group can be used.
OFF: User’s group cannot be used.

Default: OFF

Note:

- The saved “use user’s group“ setting will be applied from the next login.

■ **[Set] button**

The configured settings will be saved.

Step 3

Click the [Set] button after editing the information.

→ The settings will be saved.

Note:

- For registration, a same name is not allowed among local user, LDAP user, and LDAP group.
- If a user in a LDAP group has a same name with a local user or a LDAP user, the priority is given to the user level of the local user or LDAP user.

3.4.4.1.2. Add an LDAP user or an LDAP group

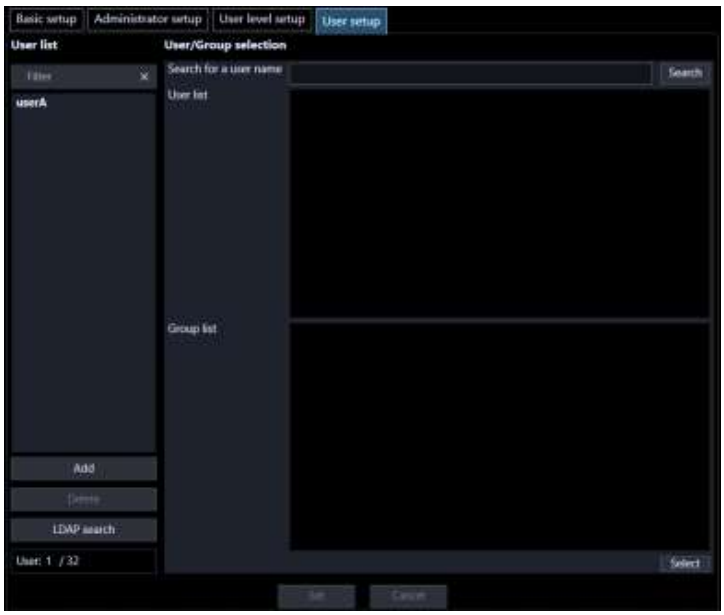
Step 1

Display the "User setup" page.

Step 2

Click the [LDAP search] button.

→ "User/Group selection" will be displayed.



Note:

- The [LDAP search] button will become unavailable when reached the maximum number of the user registration (32 users).

The details of the window are as follows.

■ Search for a user name

Enter a character string for searching. Wild card can be used.

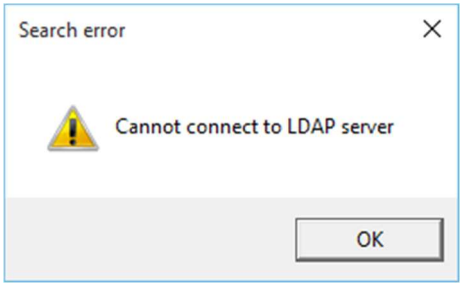
■ [Search] button

Start searching specific character string in the Active Directory.

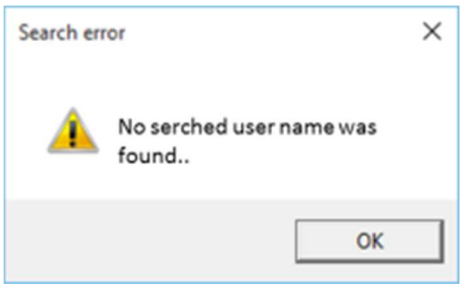
Note:

- When the "Search for a user name" is blank, the button is disabled.

If the searching is not performed over Active Directory, the following screen will be displayed.



If the screen is displayed, check the following:
The Active Directory is correctly set up.
The Active Directory is running.
Network is connected.
When no result is obtained after searching, the following screen will be displayed.



■ **User list**

Displays the searched users in a list.

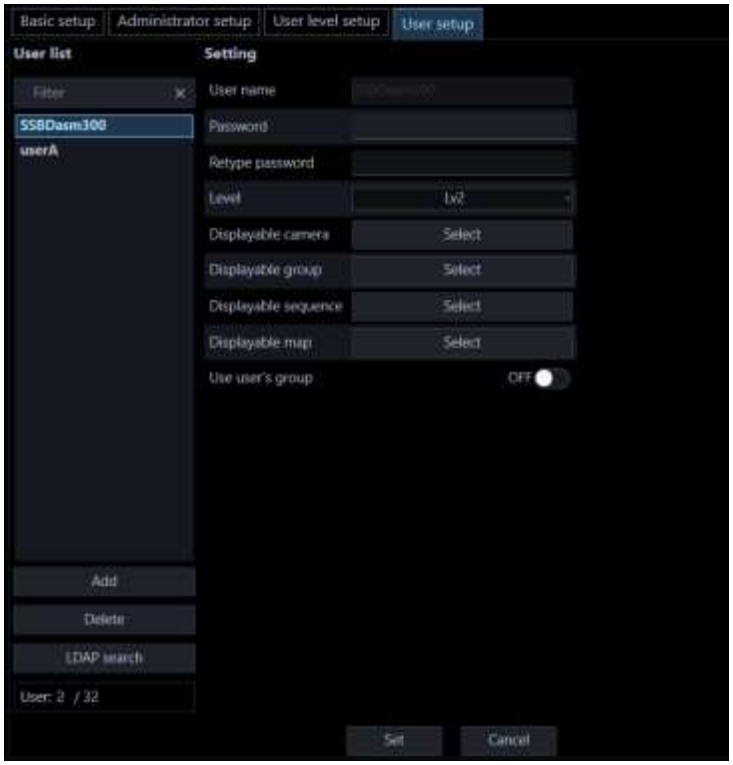
■ **Group list**

Displays the searched groups in a list.

Step 3

Select a user or a group to be registered and click the [Select] button.

→ The “Setup” item will be displayed.



Note:

- When a group is selected in the user list, the item “Use user’s group” will not be displayed.

Step 4

Click the [Set] button after editing the information.

→ The settings will be saved.

Note:

- For registration, a same name is not allowed among local user, LDAP user, and LDAP group.
- Once a LDAP group is registered, login of all users included in the group by a same user level will

become available.
- If a user in a LDAP group has a same name with a local user or a LDAP user, the priority is given to the user level of the local user or LDAP user.

3.4.4.2. Edit the user information

Step 1
Display the "User setup" page.

Step 2
Select a user to be edited from “User list”.
→ The “Setup” item will be displayed.
Refer to the descriptions of step 2 of "☞ 3.4.4.1.1. Add a local user“ for each item.

Step 3
Click the [Set] button after editing the information.
→ The settings will be saved.

3.4.4.3. Delete the user

Step 1
Display the "User setup" page.

Step 2
Select a user to be deleted from “User list”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The user information will be deleted.

Important:
- When user information of the user registered as the auto login user is deleted, the administrator will automatically be set as the auto login user.

3.4.4.4. Set a displayable camera

The administrator can determine operable cameras depending on the users.

Step 1
Display the "User setup" page.

Step 2

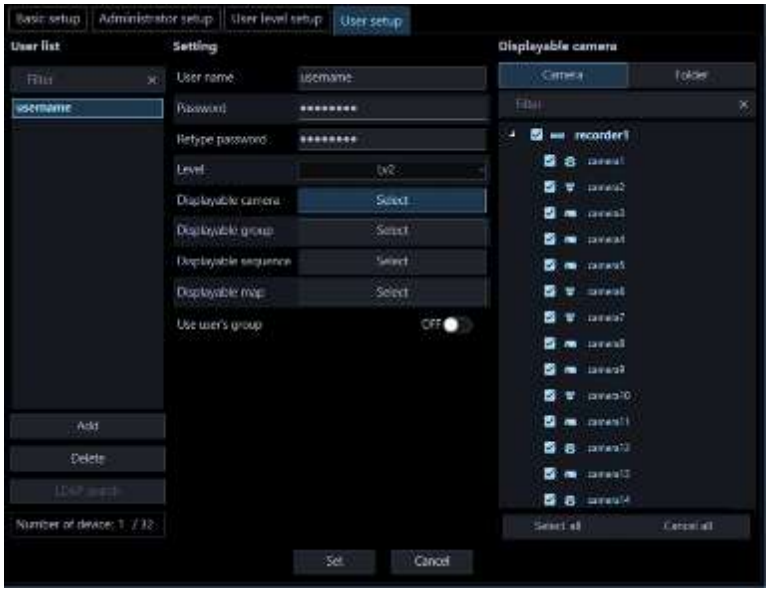
To add a user, click the [Add] button. To edit a user, select a user name from [User list].

→ The “Setup” item will be displayed.

Step 3

Click the [Select] button of the “Displayable camera”.

→ "Displayable camera setup" will be displayed.



Note:

- For AI privacy guard recording camera (OFF) and AI privacy guard recording camera (ON), if you check one, the other will also be checked. Also, if you uncheck one, the other will also be unchecked.

The details of the window are as follows.

■ **[Camera] tab**

The registered devices will be displayed in “Camera selection list” in the tree format.

■ **[Folder] tab**

Cameras will be displayed in “Camera selection list” in the folder tree format.

■ **Search field**

Searches for a registered device name or a folder name from “Camera selection list”.

■ **Camera selection list**

Displays the device tree or the folder tree.
Selects a device from which images are to be displayed when a user logged in to this software.
Devices whose check box is not checked will not be displayed.
All devices are selected at the default.

■ **[Select all] button**

Selects all the listed devices.

■ **[Cancel all] button**

Deselects all the listed devices.

Step 4
Click the [Set] button after editing the information.
→ The settings will be saved.

Important:
- Live images directly from the camera can be displayed even if "--" is selected for "Camera partitioning" of on the setup menu of the recorder (not allow to monitor live images) when the camera is selected as operable camera with this software.

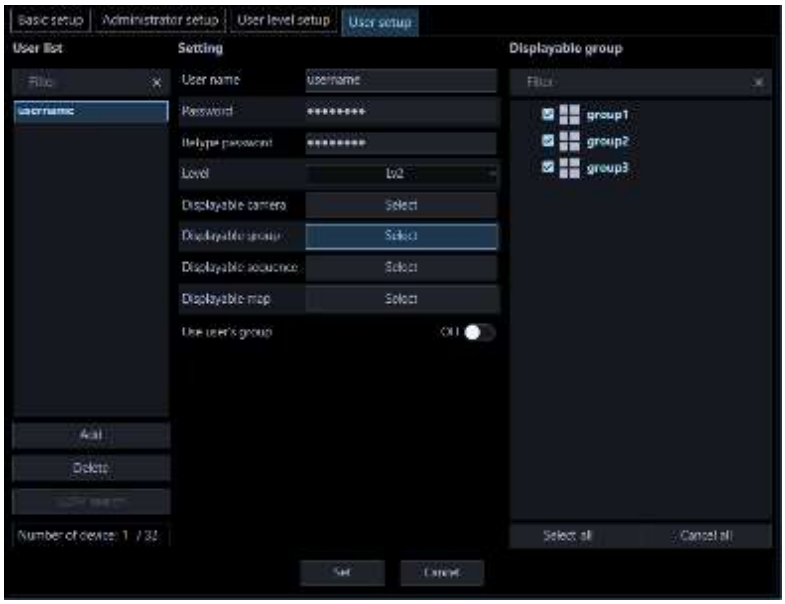
3.4.4.5. Set a displayable group

Displayable group can be set for each user.

Step 1
Display the "User setup" page.

Step 2
To add a user, click the [Add] button. To edit a user, select a user name from [User list].
→ The “Setup” item will be displayed.

Step 3
Click the [Select] button of the “Displayable group”.
→ "Displayable group setup" will be displayed.



The details of the window are as follows.

■ **Search field**
Searches for a registered group name from “Group selection list”.

■ **Group selection list**

The registered groups will be displayed in list form.
Selects a displayable group when a user logged in to this software.
When there is no mark on the check box, no image will be displayed after login.
All groups are selected at the default.

■ **[Select all] button**

Selects all groups listed in “Group selection list”.

■ **[Cancel all] button**

Deselects all groups listed in “Group selection list”.

Step 4
Click the [Set] button after editing the information.
→ The settings will be saved.

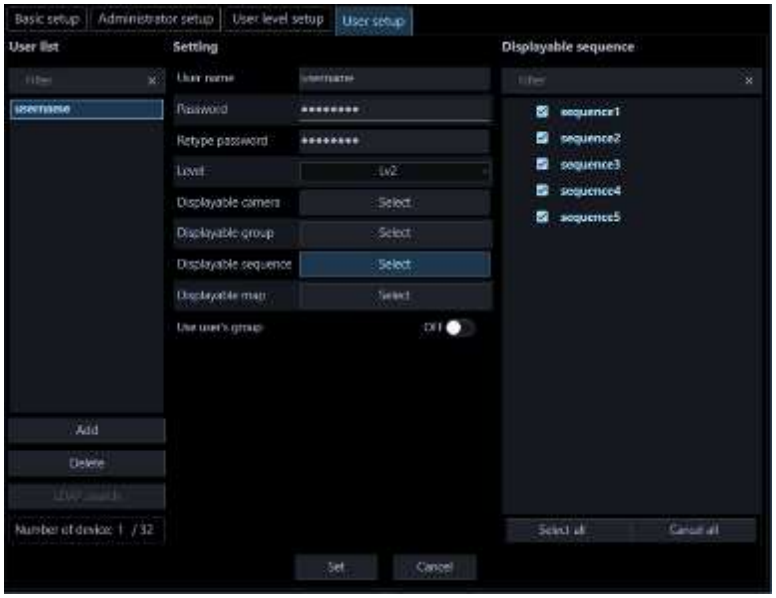
3.4.4.6. Set a displayable sequence

Displayable sequence can be set for each user.

Step 1
Display the "User setup" page.

Step 2
To add a user, click the [Add] button. To edit a user, select a user name from [User list].
→ The “Setup” item will be displayed.

Step 3
Click the [Select] button of the “Displayable sequence”.
→ "Displayable sequence setup" will be displayed.



The details of the window are as follows.

■ **Search field**

Searches for a registered sequence name from “Sequence selection list”.

■ **Sequence selection list**

The registered sequences will be displayed in list form.
Select a displayable sequence when a user logged in to this software.
When there is no mark on the check box, no image will be displayed after login.
All sequences are selected at the default.

■ **[Select all] button**

Selects all sequences listed in “Sequence selection list”.

■ **[Cancel all] button**

Deselects all sequences listed in “Sequence selection list”.

Step 4
Click the [Set] button after editing the information.
→ The settings will be saved.

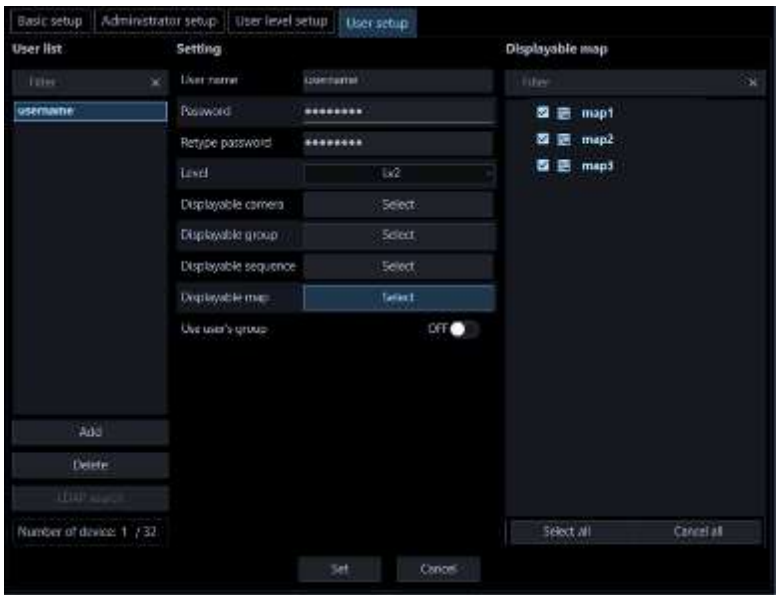
3.4.4.7. Set a displayable map

Displayable map can be set for each user.

Step 1
Display the "User setup" page.

Step 2
To add a user, click the [Add] button. To edit a user, select a user name from [User list].
→ The “Setup” item will be displayed.

Step 3
Click the [Select] button of the “Displayable map”.
→ "Displayable map setup" will be displayed.



The details of the window are as follows.

■ **Search field**

Searches for a registered map name from “Map selection list”.

■ **Map selection list**

The registered maps will be displayed in list form.
Selects a displayable map when a user logged in to this software.
When there is no mark on the check box, no image will be displayed after login.
All maps are selected at the default.

■ **[Select all] button**

Selects all maps listed in “Map selection list”.

■ **[Cancel all] button**

Deselects all maps listed in “Map selection list”.

Step 4

Click the [Set] button after editing the information.

→ The settings will be saved.

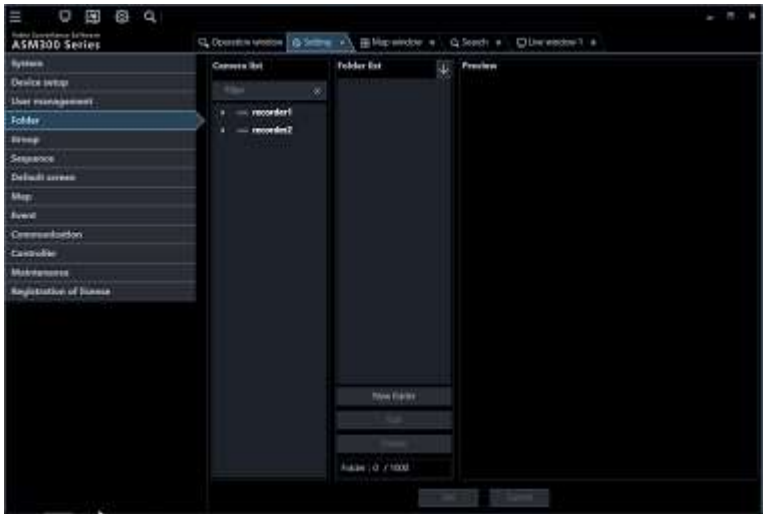
3.5. Settings relating to folder

The folder tree displayed when “Folder tree” is selected for “Camera tree Type” in “Tree display” (☞ 3.2.2. Drawing and audio setup) can be edited.

3.5.1. Add a folder

Step 1

Click the [Folder] button to display the folder setup window.



The details of the window are as follows.

■ **Search field**

Searches for a registered device name from “Camera selection list”.

■ **Camera selection list**

The registered devices will be displayed in the tree view.

■ **Folder list**

The registered camera names will be displayed in folder form.

■ **Ascending sort button ( )**

Sort the folder list in ascending order.
For how to sort, refer to "☞ 3.5.4. Change the order of the folder list".

■ **Descending sort button ( )**

Sort the folder list in descending order.
For how to sort, refer to "☞ 3.5.4. Change the order of the folder list".

■ **[New folder] button**

Create a new folder.

■ **[Edit] button**

Edits a folder name of an existing folder.

■ **[Delete] button**

Delete an existing folder or an added camera.

■ **Preview**

A preview image from the camera selected from the "Camera selection list" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400 , NX-series or NU-series
- When using a recorder other than ND400 , NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **Device title**

A name of the camera selected from the camera selection list will be displayed.

■ **[Set] button**

The configured settings will be saved.

■ **[Cancel] button**

Cancels the edited contents and resets the contents to the state before editing.

Step 2

In “Folder creation”, click a position where a folder is to be added.

Step 3

Click the [New folder] button.

→ A new folder will be created



Note:
- A folder can also be added from the right-click menu displayed by a right-click in “Folder tree”.

Step 4
Click the [Edit] button and enter a folder name.

Note:
- Enter up to 16 characters for folder name. The following characters are unavailable.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~
- Up to 1000 folders can be added. It is also possible to add a folder in a folder. Folder hierarchy of up to 10 levels can be created.
- The created folder can be moved by dragging and dropping anywhere in “Folder list”. It is also possible to move the folder into other folder. When a folder having the same name exists in the destination folder, a serial number such as (2), (3), ... will automatically be added.

Step 5
Click the [Set] button.
→ The settings will be saved.

3.5.2. Edit a folder

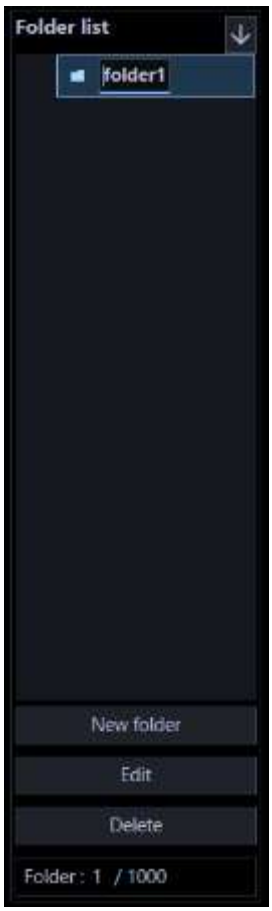
3.5.2.1. Edit the registered folder name

Step 1
Display the folder setup window.

Step 2
In “Folder list”, click a folder name to be edited.



Step 3
Click the [Edit] button and edit the folder name.



Note:

- A folder name can also be edited from the right-click menu displayed by a right-click in “Folder list”.

Step 4

Click the [Set] button.

→ The settings will be saved.

3.5.2.2. Add a camera into a folder

Step 1

Display the folder setup window.

Step 2

Drag and drop a camera in “Camera selection list” to be added into “Folder list”.
Or double-click a camera in “Camera selection list” to be added.

→ The camera will be added.

<When dropped on a camera>
The camera will be added to the camera on which it is dropped.



<When dropped on a folder>
The camera will be added to the end of the list in the folder on which it is dropped.



Step 3
Click the [Set] button.
→ The settings will be saved.

Note:

- It is also possible to collectively add cameras in the recorder or in the encoder by dragging and dropping a recorder or an encoder.
- It is possible to register the same camera in different folders.
- Up to 32000 cameras can be registered in “Folder creation”.

3.5.2.3. Delete a camera in a folder

Step 1
Display the folder setup window.

Step 2
Select a camera to be deleted in “Folder creation”.



Step 3
Click the [Delete] button.

→ The deletion confirmation window will be displayed.



Note:

- A camera can also be deleted from the right-click menu displayed by a right-click in “Folder list”.

Step 4
Click the [OK] button.
→ The camera will be deleted.

Step 5
Click the [Set] button.
→ The settings will be saved.

3.5.3. Delete a folder

Step 1
Display the folder setup window.

Step 2
Select a folder to be deleted from “Folder list”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.



Note:
- A folder can also be deleted from the right-click menu displayed by a right-click in “Folder list”.

Step 4
Click the [OK] button.
→ The folder will be deleted.

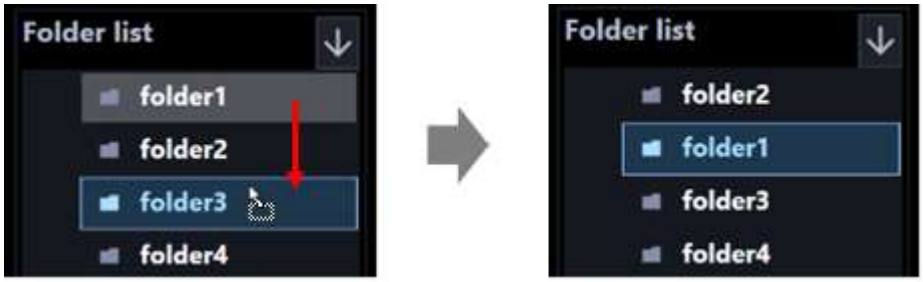
Step 5
Click the [Set] button.
→ The settings will be saved.

3.5.4. Change the order of the folder list

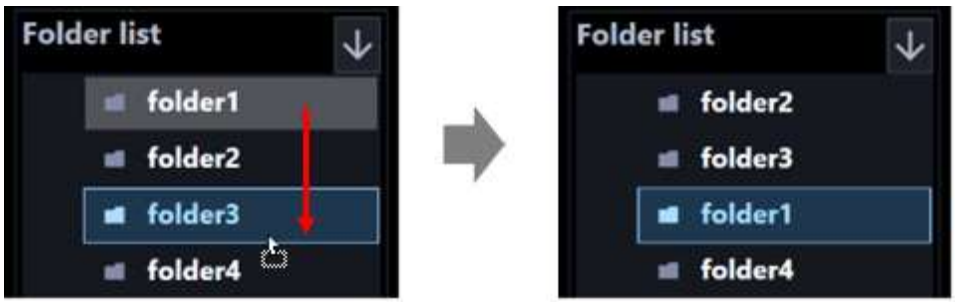
The following are descriptions about how to change the order of the folders and the cameras in the list.

■ **Drag and drop**
The order of the folders and the cameras in the folder list can be changed.

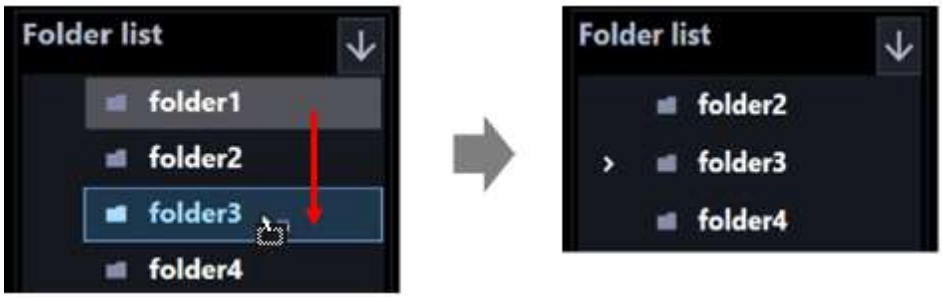
<To change the order of the folders>
Drag a folder and place the mouse cursor at the upper part of the other folder and drop.
→The folder will be moved above the folder you placed the cursor on.



Drag a folder and place the mouse cursor at the lower part of the other folder and drop.
→The folder will be moved below the folder you placed the cursor on.



<To move a folder into another>
Drag a folder and place the mouse cursor at the center of the other folder and drop.



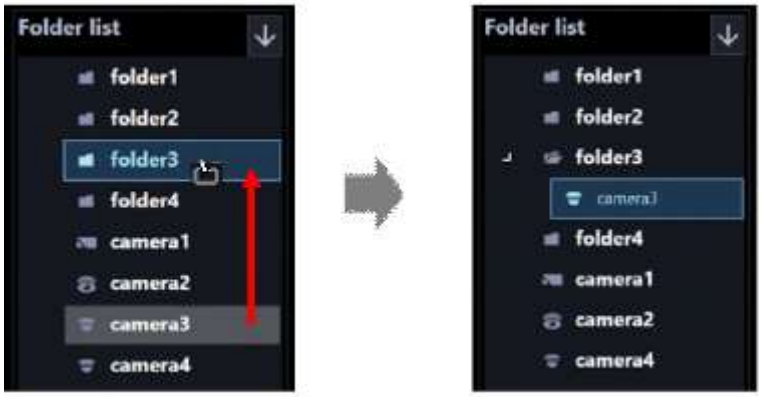
<To change the order of the cameras>
Drag a camera downward and drop on the other camera.
→The camera will be moved below the camera you placed the cursor on.



Drag a camera upward and drop on the other camera.
→The camera will be moved above the camera you placed the cursor on.



<To move a camera into a folder>
Drag a camera and drop on a folder.
Refer to "☞ 3.5.2.2. Add a camera into a folder" for further information.



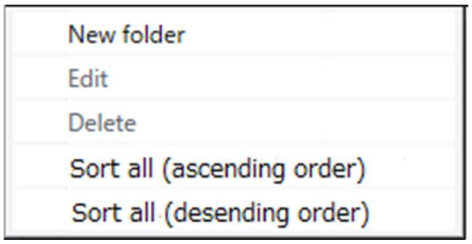
<Click the ascending button ( ) or the descending button ( ) >
The order of the folders and the cameras in the folder list can be sorted in ascending or descending order.

Note:

- Sorting can be performed per folder or camera.
- The following describes the selecting points in the folder list.
  Unselected: The folder and the camera at the uppermost layer.

Folder: The folders and cameras directly under the selected folder.
Camera: The folders and the cameras in the layer same as the selected layer.

< Click the pop-up menu>
The order of the folders and the cameras in the folder list can be sorted at once in ascending or descending order.
When right-clicking on the folder list, the pop-up menu [Sort all (ascending order)] and [Sort all (descending order)] will be displayed.



Note:
- Sorting can be performed per folder or camera.
- The folders and cameras in the lower layer can be sorted as well.

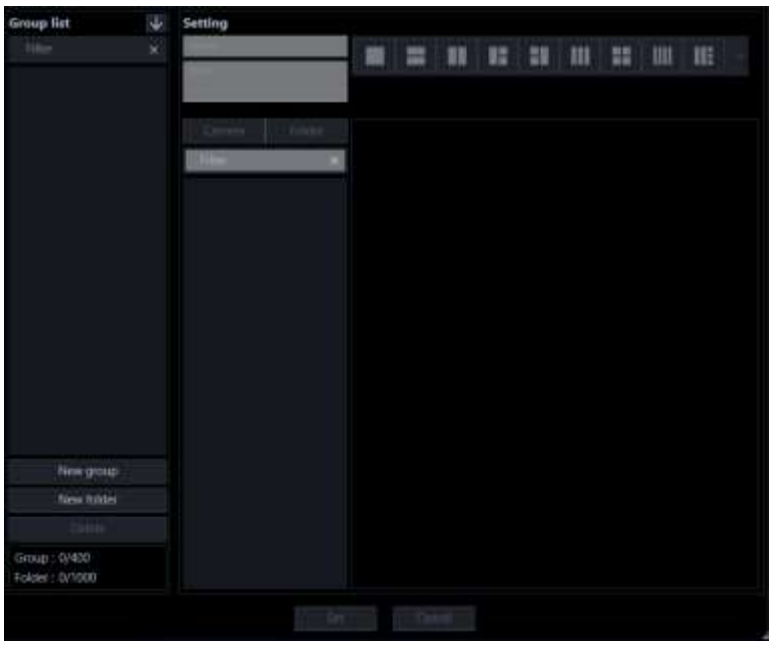
3.6. Settings relating to group

A combination of the screen pattern and the cameras can be registered as a group.
Up to 16 cameras can be registered in a group (up to 64 cameras when the license for the extension software WV-ASE202 is added). Up to 400 groups can be registered.

Note:
- There are groups that can only be registered by the administrator, and the user's groups that can be registered by each user. This section describes the former group. The user's group can be set in the operation window. Refer to "☞ 4.1.8. Configure the user's group" for further information.

3.6.1. Register a group

Step 1
Click the [Group] button to display the group setup window.



The details of the window are as follows.

■ **Search field (group list)**

Searches for a registered group name from “Group list”.

■ **Registered group**

The registered group names will be displayed in folder form.

■ **Ascending sort button ( )**

Sort the group list in ascending order.
For how to sort, refer to "☞ 3.6.5. Change the order of the group list".

■ **Descending sort button ( )**

Sort the group list in descending order.
For how to sort, refer to "☞ 3.6.5. Change the order of the group list".

■ **[New group] button**

Creates a new group.

■ **[New folder] button**

Create a new folder.

■ **[Delete] button**

Deletes the group or the folder selected from the group list.

■ **Number of group**

Number of the registered groups will be displayed.

Note:
- Up to 400 groups can be registered.

■ **Number of folder**

Number of the registered folders will be displayed.

Note:
- Up to 1000 folders can be created.

■ **Name**

Enter a group name. Enter up to 16 characters for the group title.
The following characters are unavailable.
! $ % ’< = > @ [¥] ^ _ ` {|} ~ The group title already in use cannot be entered.

■ **Detail**

Enter details of group. Enter up to 64 characters for details.
The following characters are unavailable.
! $ % ’< = > @ [¥] ^ _ ` {|} ~

■ **[Camera] tab**

The registered devices will be displayed in “Camera selection list” in the tree format.

■ **[Folder] tab**

Cameras will be displayed in “Camera selection list” in the folder tree format.

■ **Search field (camera selection list)**

Searches for a registered device name or a folder name from “Camera selection list”.

■ **Camera selection list**

Displays the device tree or the folder tree.

■ **Number of camera**

Select the screen pattern to determine the number of cameras.
The icons indicate the screen pattern used for the group display as follows.

Icon	Description
	Display images on 1-screen.
	Display images on 2A-screen.
	Display images on 2B-screen.
	Display images on 3A-screen.

Icon	Description
	Display images on 3B-screen.
	Display images on 3C-screen.
	Display images on 4-screen.
	Display images on 4E-screen.
	Display images on 5-screen.
	Display images on 6-screen.
	Display images on 6A-screen.
	Display images on 7-screen.
	Display images on 7A-screen.
	Display images on 9-screen.
	Display images on 10-screen.
	Display images on 13-screen.
	Display images on 16-screen.
	Display images on 4M-screen. 4M-screen can be set only for multi-sensor camera. Cameras other than multi-sensor cameras cannot be placed.

The following are available after the license for the WV-ASE202 is added.

Icon	Description
	Display images on 25-screen.
	Display images on 36-screen.
	Display images on 49-screen.
	Display images on 64-screen.

■ **Group layout**

A preview image from the camera to be registered in a group will be displayed. Drag and drop one of a recorder icon, an encoder icon, a camera icon or a folder icon from “Camera selection list” to arrange a camera.

Note:

- When the group layout area is right-clicked, the "Delete" menu will be displayed.
- By selecting the "Delete" menu, the settings of the area can be deleted.
- The AI multi-sensor cameras with the image capture mode set to Quad mode or Panorama mode cannot be included in a 4M-screen group.

■ **Preview**

A preview image from the camera selected from the "Group layout" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400 , NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **Device title**

The camera name selected in "Group layout" will be displayed.

■ **[Set] button**

The configured settings will be saved.

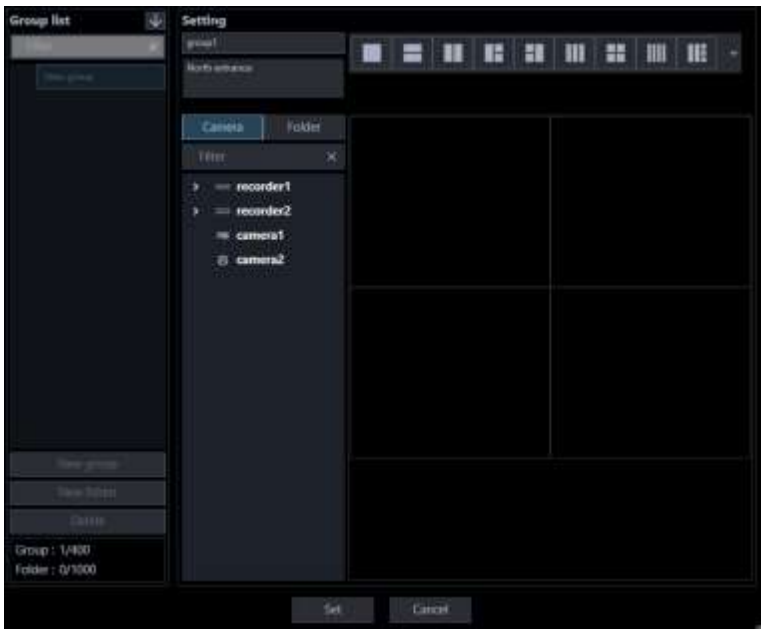
■ **[Cancel] button**

Cancels the edited contents and resets the contents to the state before editing.

Step 2

Click the [New group] button.

→ A new group will be added.



Note:

- The [New group] button will become unavailable when reached the maximum number of the group registration (400 groups).

Step 3

Enter a group name for “Name” and details of group for “Detail”.

Step 4

Select an icon from “Number of camera selection” to determine the number of cameras to be displayed in “Group layout”.

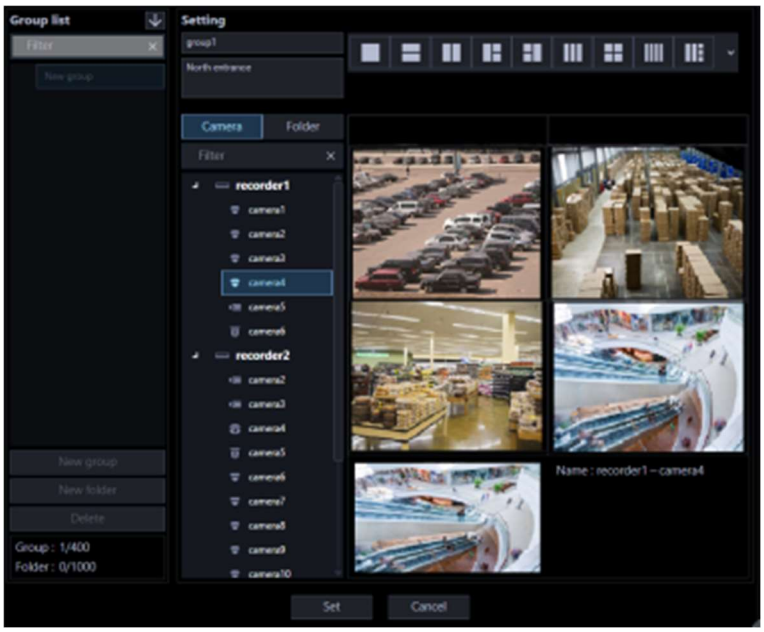
Step 5

By dragging a device icon from “Camera selection list” and dropping it to arrange it in “Group layout”, and then click the [Set] button.

→ The settings will be saved and the group will be added to the group list.

Note:

- Even if the AI privacy guard recording camera (OFF) is set for the group, the image of the AI privacy guard recording camera (OFF) will not be displayed if a user without authorization of "AI privacy guard Image switching" is logged in.



Important:
- The camera already registered in the group cannot be added to the same group.

3.6.2. Edit group information

Step 1
Display the "Group" page.

Step 2
Select a group to be edited from “Group list”.
→ Information of the selected group will be displayed.

Step 3
Click the [Set] button after editing the information.
Refer to descriptions after step 2 of "☞ 3.6.1. Register a group“ for each item.
→ The settings will be saved.

3.6.3. Delete a group

Step 1
Display the "Group" page.

Step 2
Select a group to be deleted from “Group list”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4

Click the [OK] button.

→ The group information will be deleted.

Note:

- When a group set as the default screen is deleted, "--" will be displayed on the "Administrator setup" page, on the "User regist." window and for “Default screen” on the "Live window" page.
- On the operation window, a black screen will be displayed.

3.6.4. Manage groups with folders

It is possible to manage the created groups using folders. The following are descriptions of how to manage the created groups with folders.

3.6.4.1. Register a folder

Step 1

Display the "Group" page.

Step 2

In “Group list”, click a position where a folder is to be added.

Step 3

Click the [New folder] button.

→ When a new folder will be created, enter a folder name.



Note:

- A folder can also be added from the right-click menu displayed by a right-click in “Folder list”.
- Enter up to 16 characters for folder name. The following characters are unavailable.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~
- Up to 1000 folders can be added. It is also possible to add a folder in a folder. Folder hierarchy of up to 10 levels can be created.
- The created folder can be moved by dragging and dropping anywhere in “Group list”. It is also

possible to move the folder into other folder. When a folder having the same name exists in the destination folder, a serial number such as (2), (3), ... will automatically be added.

Step 4
Click the [Set] button.
→ The settings will be saved.

3.6.4.2. Edit a folder

3.6.4.2.1. Edit the registered folder name

Step 1
Display the "Group" page.

Step 2
In “Group list”, click a folder name to be edited.

Step 3
Edit the folder name

Step 4
Click the [Set] button.
→ The settings will be saved.

3.6.4.2.2. Add a group in a folder

Step 1
Display the "Group" page.

Step 2
Drag a group in “Group list” and drop onto a folder.
→ The group will be added.

<When dropped on a group>
The group will be added to the group on which it is dropped.

<When dropped on a folder>
The camera will be added to the end of the list in the folder on which it is dropped.

Step 3
Click the [Set] button.
→ The settings will be saved.

3.6.4.2.3. Delete a group in a folder

Step 1
Display the "Group" page.

Step 2
Select a group to be deleted from “Group list”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The group will be deleted.

3.6.4.3. Delete a folder

Step 1
Display the "Group" page.

Step 2
Select a folder to be deleted from “Group list”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The folder will be deleted.

Note:
- When a group set as the default screen is deleted, "--" will be displayed on the "Administrator setup" page, on the "User regist." window and for “Default screen” on the "Live window" page.
- On the operation window, a black screen will be displayed.

3.6.5. Change the order of the group list

The following are descriptions about how to change the order of the folders and the groups in the list.

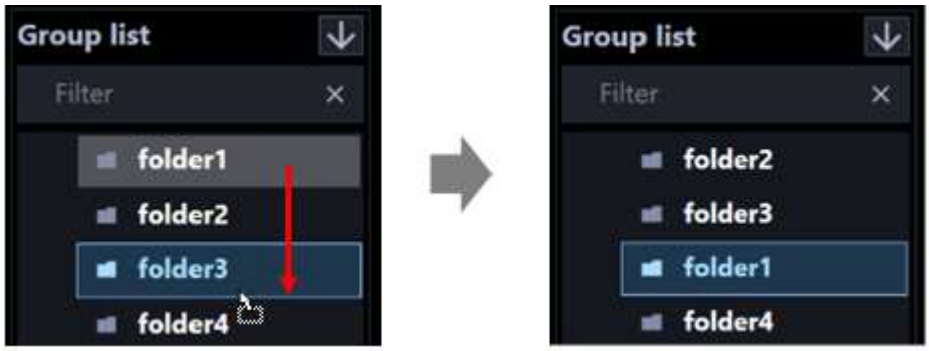
■ **Drag and drop**

The order of the folders and the groups in the folder list can be changed.

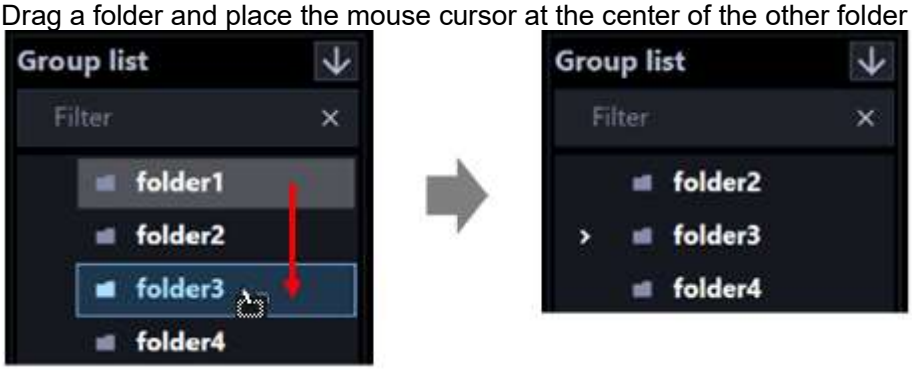
<To change the order of the folders>
Drag a folder and place the mouse cursor at the upper part of the other folder and drop.
→The folder will be moved above the folder you placed the cursor on.



Drag a folder and place the mouse cursor at the lower part of the other folder and drop.
→The folder will be moved below the folder you placed the cursor on.



<To move a folder into another>
Drag a folder and place the mouse cursor at the center of the other folder and drop.



<To change the order of the groups>
Drag a group downward and drop on the other group.
→The group will be moved below the group you placed the cursor on.



Drag a group upward and drop on the other group.
→The group will be moved above the group you placed the cursor on.



<To move a group into a folder>
Drag a group and drop on a folder.
Refer to "☞ 3.6.4.2.2. Add a group in a folder" for further information.

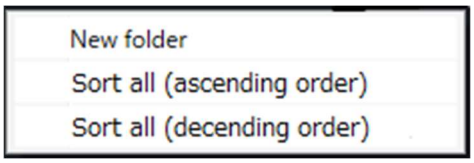


<Click the ascending button ( ) or the descending button ( ) >
The order of the folders and the groups in the group list can be sorted in ascending or descending order.

Note:
- Sorting can be performed per folder or group.

- The following describes the selecting points in the group list.
  Unselected: The folder and the group at the uppermost layer.
  Folder: The folders and groups directly under the selected folder.
  Group: The folders and the groups in the layer same as the selected layer.

< Click the pop-up menu>
The order of the folders and the groups in the group list can be sorted at once in ascending or descending order.
When the group list is right-clicked, the pop-up menu [Sort all (ascending order)] and [Sort all (descending order)] will be displayed.



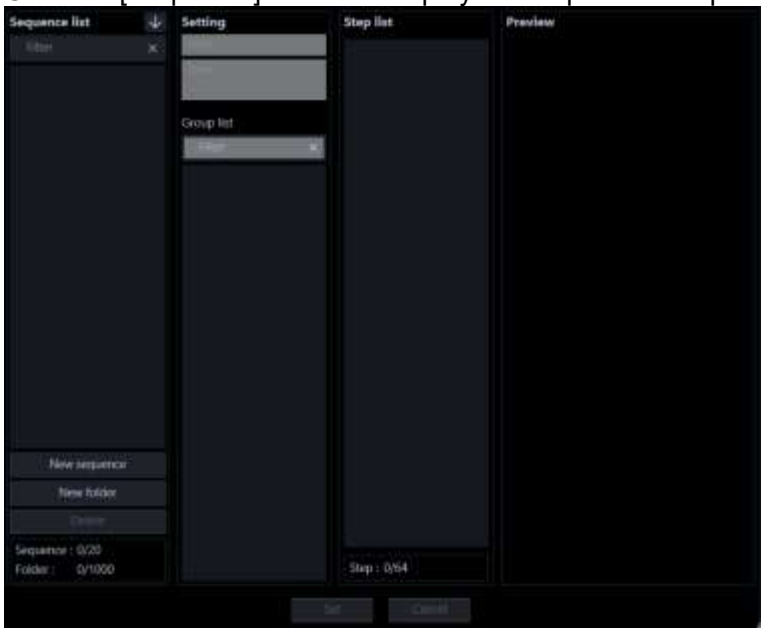
Note:
- Sorting can be performed per folder or group.
- The folders and groups in the lower layer can be sorted as well.

3.7. Settings relating to sequence

Groups with 16 or fewer screen divisions can be registered in a sequence. Up to 64 groups can be registered in a sequence. Up to 20 sequences can be registered.

3.7.1. Register a sequence

Step 1
Click the [Sequence] button to display the sequence setup window.



The details of the window are as follows.

■ **Search field (sequence list)**

Searches for a registered sequence name from “Registered sequence”.

■ **Registered sequence**

The registered sequence names will be displayed in folder form.

■ **Ascending sort button ()**

Sort the sequence list in ascending order.
For how to sort, refer to "☞ 3.7.5. Change the order of the sequence list".

■ **Descending sort button ()**

Sort the sequence list in descending order.
For how to sort, refer to "☞ 3.7.5. Change the order of the sequence list".

■ **[New sequence]button**

Creates a new sequence.

■ **[New folder] button**

Create a new folder.

■ **[Delete] button**

Deletes the sequence or the folder selected from the sequence list.

■ **Number of sequence**

Number of the registered sequences will be displayed.

Note:

- Up to 20 sequences can be registered.

■ **Number of folder**

Number of the registered folders will be displayed.

Note:

- Up to 1000 folders can be created.

■ **Name**

Enter a sequence name. Enter up to 16 characters for the sequence name.
The following characters are unavailable.
! $ % ’< = > @ [¥] ^ _ ` {|} ~ The sequence name already in use cannot be entered.

■ **Detail**

Enter details of sequence. Enter up to 64 characters for details.
The following characters are unavailable.
! $ % ’< = > @ [¥] ^ _ ` {|} ~

■ **Search field (group selection list)**

Searches for a registered group name or folder name from “Group selection list”.

■ **Group selection list**

The registered groups will be displayed in list form. The user’s group will not be displayed.

■ **Step list**

The groups registered in sequence will be displayed in list form.

Note:

- When an item of the step list is right-clicked, the "Delete" menu will be displayed.
- By selecting the "Delete" menu, the settings of the area can be deleted.
- It is possible to change the order of items of the step list by dragging and dropping them.
- Groups with 25 or more screen divisions cannot be registered in the sequence.

■ **Step no.**

Number of the groups registered in the step list will be displayed in list form.

■ **Preview**

A preview image of the group selected from "Group selection list" will be displayed.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400 , NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **Name**

A name of the group selected from "Group selection list" will be displayed.

■ **Detail**

Details of the group selected from "Group selection list" will be displayed.

■ **[Set] button**

The configured settings will be saved.

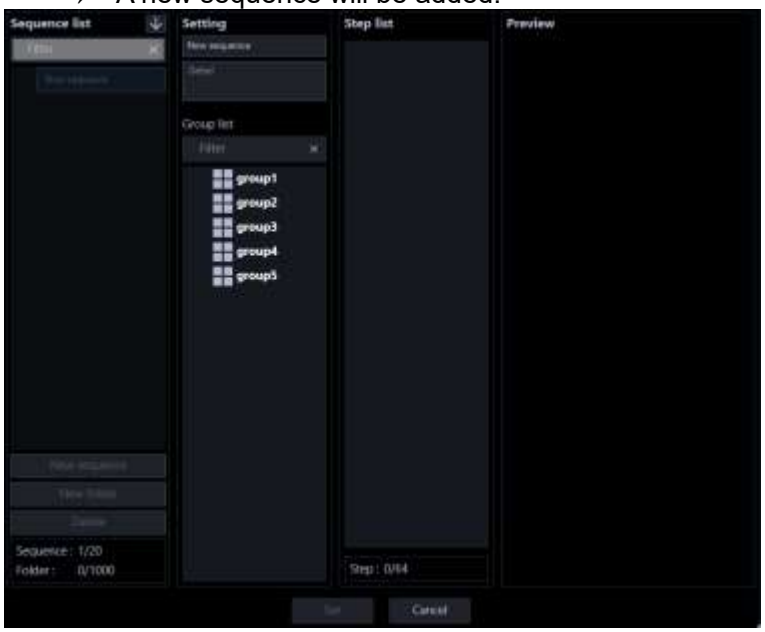
■ **[Cancel] button**

Cancels the edited contents and resets the contents to the state before editing.

Step 2

Click the [New sequence] button.

→ A new sequence will be added.



Note:

- The [New sequence] button will become unavailable when reached the maximum number of the sequence registration (20 sequences).

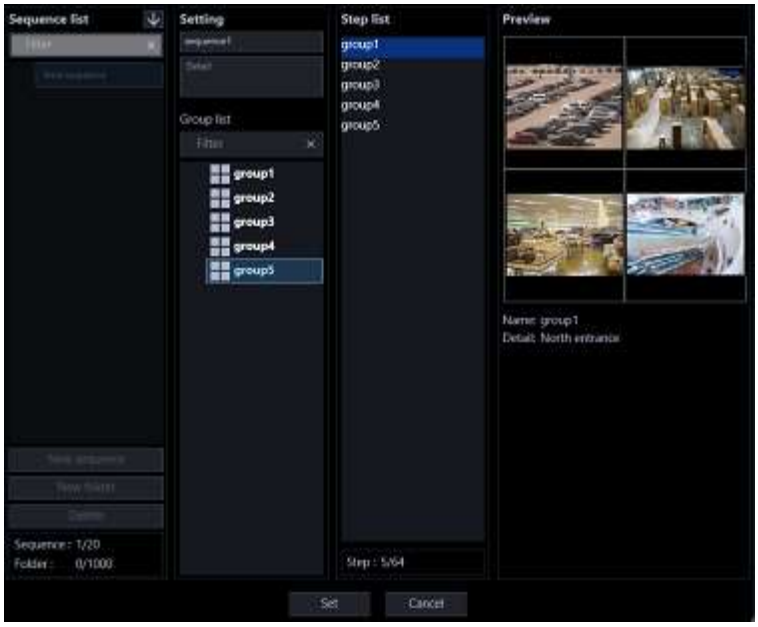
Step 3

Enter a sequence name for “Name” and details of sequence for “Detail”

Step 4

By dragging a group from “Group selection list” and dropping it to arrange it in “Step list”, and then click the [Set] button.

→ The settings will be saved and the sequence will be added to the sequence list.



Note:

- The group already registered in the sequence can be registered to the same sequence again as a different step.
- When reached the maximum number of the group registration (64 groups), it is impossible to add a group.
- It is possible to change the order of groups registered in “Step list” by dragging and dropping them.
- Groups with 25 or more screen divisions cannot be registered in a sequence.

3.7.2. Edit a sequence

Step 1
Display the "Sequence" page.

Step 2
Select a sequence to be edited from “Sequence list”.

→ Information of the selected sequence will be displayed.

Step 3
Click the [Set] button after editing the information.
Refer to descriptions after step 2 of "☞ 3.7.1. Register a sequence“ for each item.

→ The settings will be saved.

3.7.3. Delete a sequence

Step 1
Display the "Sequence" page.

Step 2
Select a sequence to be deleted from “Sequence list”.

Step 3
Click the [Delete] button.

→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.

→ Information of the selected sequence will be deleted.

Note:

- When a sequence set as the default screen is deleted, "--" will be displayed on the "Administrator setup" page, on the "User regist." window and for “Default screen” on the "Live window" page.
- On the operation window, a black screen will be displayed.

3.7.4. Manage sequences with folders

It is possible to manage the created sequences using folders. The following are descriptions of how to manage the created sequences with folders.

3.7.4.1. Register a folder

Step 1
Display the "Sequence" page.

Step 2
In “Registered sequence”, click a position where a folder is to be added.

Step 3
Click the [New folder] button.

→ When a new folder will be created, enter a folder name.



Note:

- A folder can also be added from the right-click menu displayed by a right-click in “Registered sequence”.
- Enter up to 16 characters for folder name. The following characters are unavailable.
  ! $ % ’ < = > @ [¥] ^ _ ` { | } ~
- Up to 1000 folders can be added. It is also possible to add a folder in a folder. Folder hierarchy of up to 10 levels can be created.
- The created folder can be moved by dragging and dropping anywhere in “Registered sequence”. It is also possible to move the folder into other folder. When a folder having the same name exists in the destination folder, a serial number such as (2), (3), ... will automatically be added.

Step 4
Click the [Set] button.

→ The settings will be saved.

3.7.4.2. Edit a folder

3.7.4.2.1. Edit the registered folder name

Step 1
Display the "Sequence" page.

Step 2
In “Registered sequence”, click a folder name to be edited.

Step 3
Edit the folder name

Step 4
Click the [Set] button.
→ The settings will be saved.

3.7.4.2.2. Add a sequence in a folder

Step 1
Display the "Sequence" page.

Step 2
Drag a sequence in “Registered sequence” and drop onto a folder.
→ The sequence will be added.

<When dropped on a sequence>
The sequence will be added to the sequence on which it is dropped.

<When dropped on a folder>
The camera will be added to the end of the list in the folder on which it is dropped.

Step 3
Click the [Set] button.
→ The settings will be saved.

3.7.4.2.3. Delete a sequence in a folder

Step 1
Display the "Sequence" page.

Step 2
Select a sequence to be deleted from “Registered sequence”.

Step 3
Click the [Delete] button.

→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The sequence will be deleted.

3.7.4.3. Delete a folder

Step 1
Display the "Sequence" page.

Step 2
Select a folder to be deleted from “Registered sequence”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The folder will be deleted.

Note:
- When a sequence set as the default screen is deleted, "--" will be displayed on the "Administrator setup" page, on the "User regist." window and for “Default screen” on the "Live window" page.
- On the operation window, a black screen will be displayed.

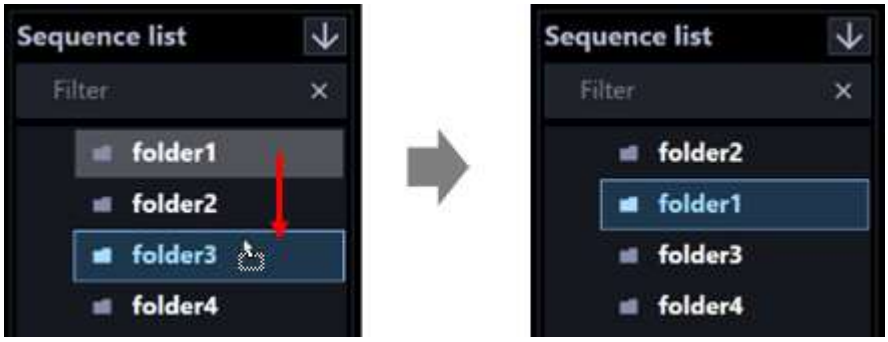
3.7.5. Change the order of the sequence list

The following are descriptions about how to change the order of the folders and the sequences in the list.

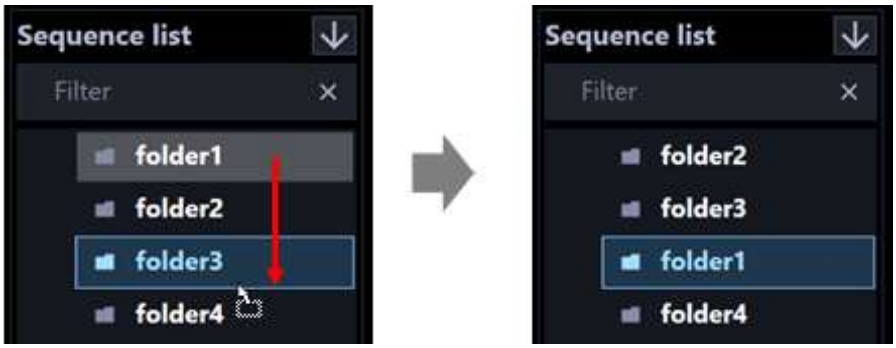
■ **Drag and drop**

The order of the folders and the sequences in the sequence list can be changed.

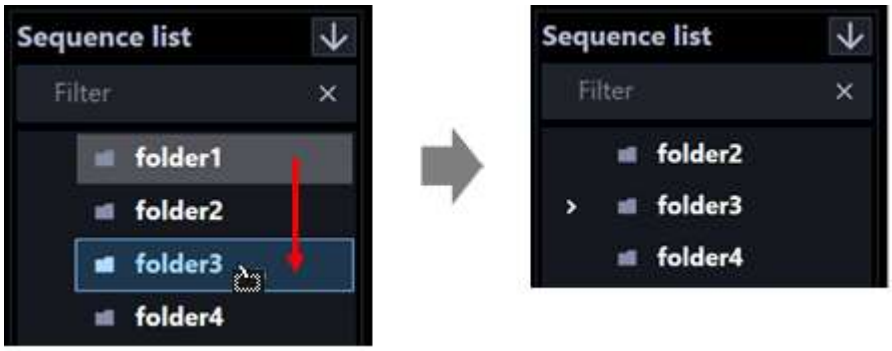
<To change the order of the folders>
Drag a folder and place the mouse cursor at the upper part of the other folder and drop.
→The folder will be moved above the folder you placed the cursor on.



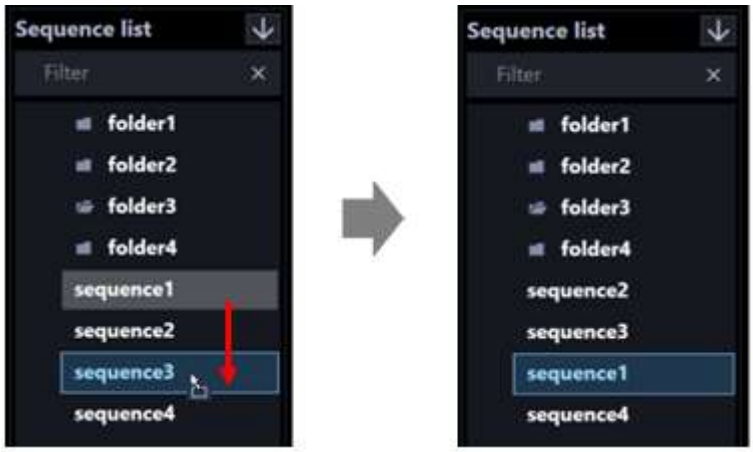
Drag a folder and place the mouse cursor at the lower part of the other folder and drop.
→The folder will be moved below the folder you placed the cursor on.



<To move a folder into another>
Drag a folder and place the mouse cursor at the center of the other folder and drop.



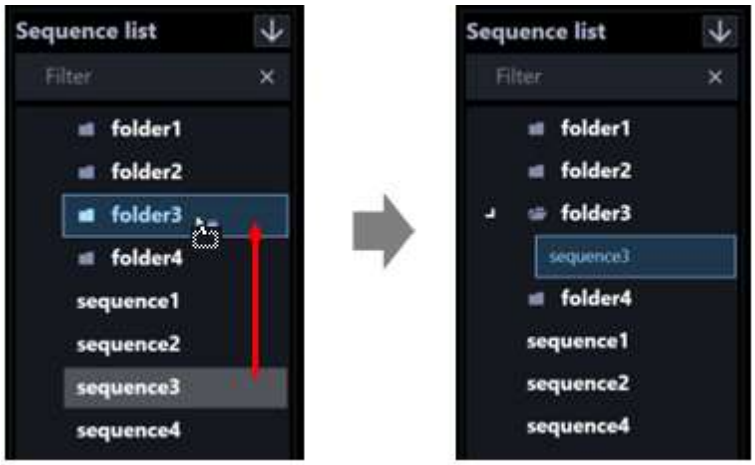
<To change the order of the sequences>
Drag a sequence downward and drop on the other sequence.
→The sequence will be moved below the group you placed the cursor on.



Drag a sequence upward and drop on the other sequence.
→The sequence will be moved above the group you placed the cursor on.



<To move a sequence into a folder>
Drag a sequence and drop on a folder.
Refer to "☞ 3.7.4.2.2. Add a sequence in a folder" for further information.

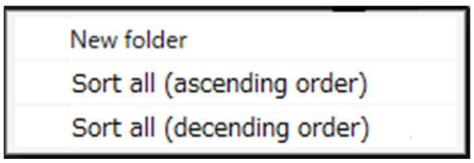


<Click the ascending button ( ) or the descending button ( ) >
The order of the folders and the sequences in the sequence list can be sorted in ascending or descending order.

Note:

- Sorting can be performed per folder or sequence.
- The following describes the selecting points in the folder list.
  Unselected: The folder and the sequence at the uppermost layer.
  Folder: The folders and sequences directly under the selected folder.
  Sequence: The folders and the sequences in the layer same as the selected layer.

< Click the pop-up menu>
The order of the folders and the sequences in the sequence list can be sorted at once in ascending or descending order.
When the sequence list is right-clicked, the pop-up menu [Sort all (ascending order)] and [Sort all (descending order)] will be displayed.



Note:
- Sorting can be performed per folder or camera.
- The folders and cameras in the lower layer can be sorted as well.

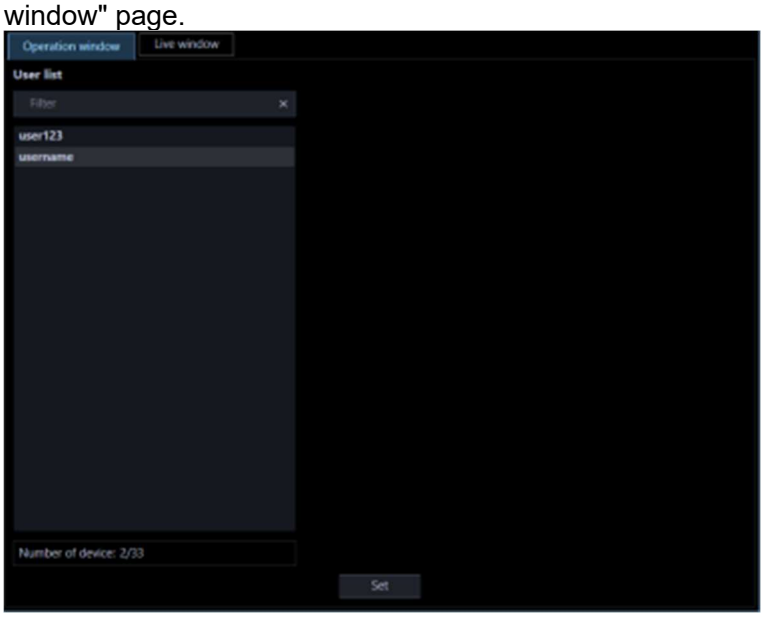
3.8. Settings relating to the default screen

Contains settings relating to status of the operation window and the live window at the time of launching this software.

3.8.1. Operation window

Set a display type of live images to be displayed, just after logged in, on the operation window for each user.

Step 1
Click the [Default screen] button, and then click the [Operation window] tab to display the "Operation window" page.



The details of the window are as follows.

■ User list

Names of the registered users will be displayed in list form.
When clicking a user name, the “Setup” item of the selected user will be displayed.

■ Search field

Searches for a registered user from “User list”.

■ Number of registration

Displays “Current number of registration”/”Maximum number of registration”.

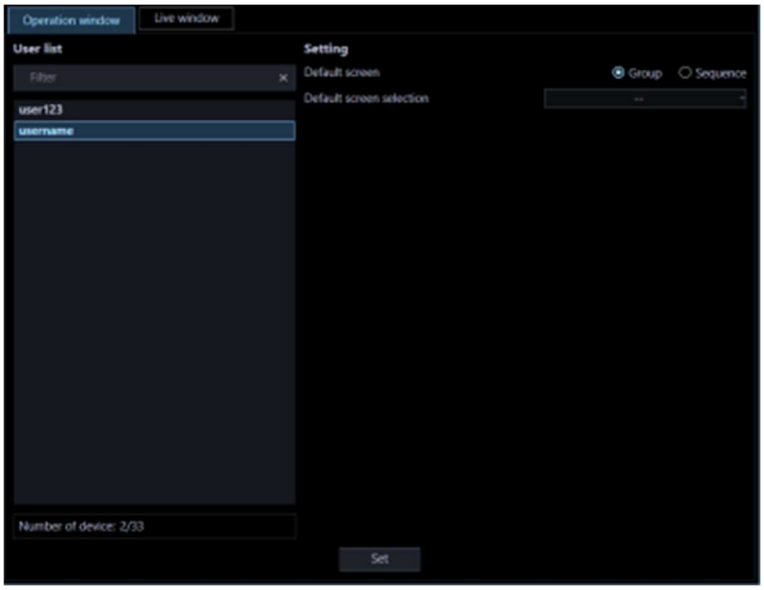
Note:

- Since 1 administrator and 32 users can be registered, the actual maximum number of “Number of registration” is 33.

Step 2

In “User list”, click a user to be set.

→ The “Setup” item will be displayed.



The details of the window are as follows.

■ **Default screen**

Set a display type of live images to be displayed, just after logged in, on the operation window.
Group: The group display will start to display live images just after login.
Sequence: The sequence display will start to display live images just after login.
Default: Group

■ **Default screen selection**

Select a group or a sequence to be displayed just after the log-in.

<When "Group" is selected for “Default screen”>

It is possible to select the group registered in "☞3.6. Settings relating to group". The user’s group will not be displayed. When no group is registered, only “--" will be displayed. On the operation window, a black screen will be displayed.
Default: --

<When "Sequence" is selected for “Default screen”>

It is possible to select the sequence registered in "「☞ 3.7. Settings relating to sequence". When no sequence is registered, only "--" will be displayed. On the operation window, a black screen will be displayed.
Default: --

Note:

- The sequence dwell time will function with the value set on the operation software.

Step 3

Click the [Set] button after editing the information.

→ The settings will be saved.

3.8.2. Live window

Set a display type of live images to be displayed on the live window just after displaying the live window.

Step 1

Click the [Default screen] button, and then click the [Live window] tab to display the "Live window" page.



The details of the window are as follows.

■ **Default screen**

Set a display type of live images to be displayed on the live window just after displaying the live window.
Group: The group display will start to display live images just after login.
Sequence: The sequence display will start to display live images just after login.
Default: Group

■ **Default screen selection**

Select a group or a sequence to be displayed just after the log-in.

<When "Group" is selected for “Default screen”>

It is possible to select the group registered in "☞3.6. Settings relating to group". The user’s group will not be displayed. When no group is registered, only “--" will be displayed. On the operation window, a black screen will be displayed.
Default: --

<When "Sequence" is selected for “Default screen”>

It is possible to select the sequence registered in "「☞ 3.7. Settings relating to sequence". When no sequence is registered, only "--" will be displayed. On the operation window, a black screen will be displayed.
Default: --

Note:

- After the license for the WV-ASE202 is added, it will become possible to set the default screen for each of the live windows from No .1 to No. 4.

■ **Sequence dwell time**

Select a sequence dwell time from the following. This setting can be set only when "Sequence" is selected for "Default screen".

3s/ 5s/ 10s/ 15s/ 20s/ 25s/ 30s/ 35s/ 40s/ 45s/ 50s/ 55s/ 1min

Default: 3s

■ **[Set] button**

The configured settings will be saved.

Step 2

Click the [Set] button after editing the information.

→ The settings will be saved.

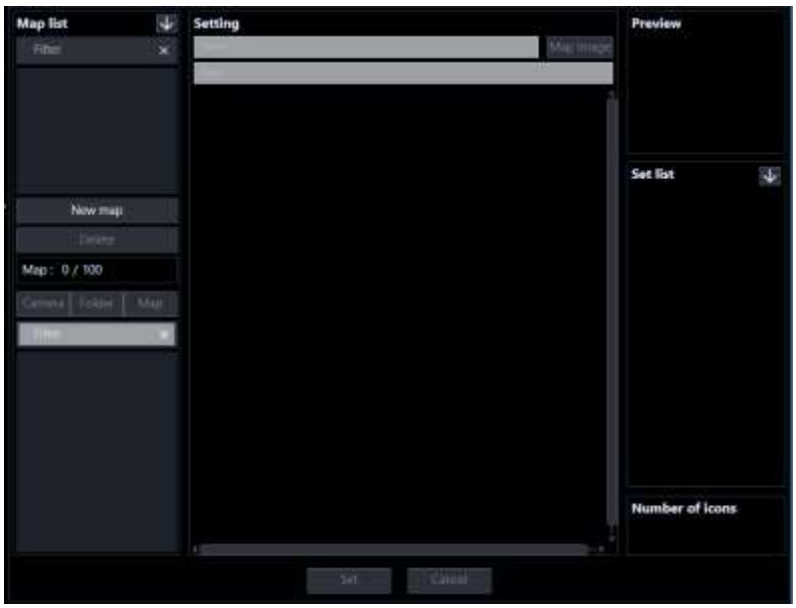
3.9. Settings relating to map

Register a map in advance to use the map window. Up to 100 maps can be registered.
The following are descriptions of how to register/edit delete the maps.

3.9.1. Register a map

Step 1

Click the [Map] button to display the map setup window.



The details of the window are as follows.

■ **Search field (map list)**

Searches for a registered map name from “Map list”.

■ **Map list**

Displays the registered map names in folder form.

■ **Ascending sort button ( )**

Sort the map list in ascending order.
For how to sort, refer to "☞ 3.9.4. Change the order of the map list".

■ **Descending sort button ( )**

Sort the map list in descending order.
For how to sort, refer to "☞ 3.9.4. Change the order of the map list".

■ **[New map] button**

Creates a new map.

■ **[Delete] button**

Deletes the map selected from the list.

■ **Number of map**

Number of the registered maps will be displayed.

Note:

- Up to 100 maps can be registered.

■ **[Camera] tab**

The registered devices will be displayed in “Camera/Map selection list” in the tree format.

■ **[Folder] tab**

Cameras will be displayed in “Camera/Map selection list” in the folder tree format.

■ **[Map] tab**

The registered maps will be displayed in “Camera/Map selection list” in the tree format.

■ **Search field (camera/map selection list)**

Searches for a registered camera name or map name from “Camera/Map selection list”.

■ **Camera/Map selection list**

Displays the device tree, the folder tree or the map tree.

■ **Name**

Enter a map name. Enter up to 16 characters for the map name.
The following characters are unavailable.
! $ % ’< = > @ [¥] ^ _ ` {|} ~ The map title already in use cannot be entered.

■ **Detail**

Enter details of map. Enter up to 64 characters for details.

The following characters are unavailable.
! $ % '< = > @ [¥] ^ _ ` {|} ~

■ **[Map image] button**

The map selection window will be displayed. Select an image file to be registered in a map.

■ **Map display area**

The image file will be displayed.

■ **Preview**

A preview image from the camera selected from "Map display area" will be displayed.

Important:
- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400, NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ "1.5.3. Compatible cameras"), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

■ **Set list**

Displays the map name and camera name of the icon registered in "Map display area" in order.

■ **Ascending sort button ()**

Sorts the set list in ascending order.
For how to sort, refer to "☞ 3.9.5. Change the order of the set list".

■ **Descending sort button ()**

Sorts the set list in descending order.
For how to sort, refer to "☞ 3.9.5. Change the order of the set list".

■ **Number of registration**

Number of camera icons and map icons registered in "Map display area" will be displayed.

Note:
- Up to 128 camera icons per map and up to 20 maps per map can be registered.

■ **[Set] button**

The configured settings will be saved.

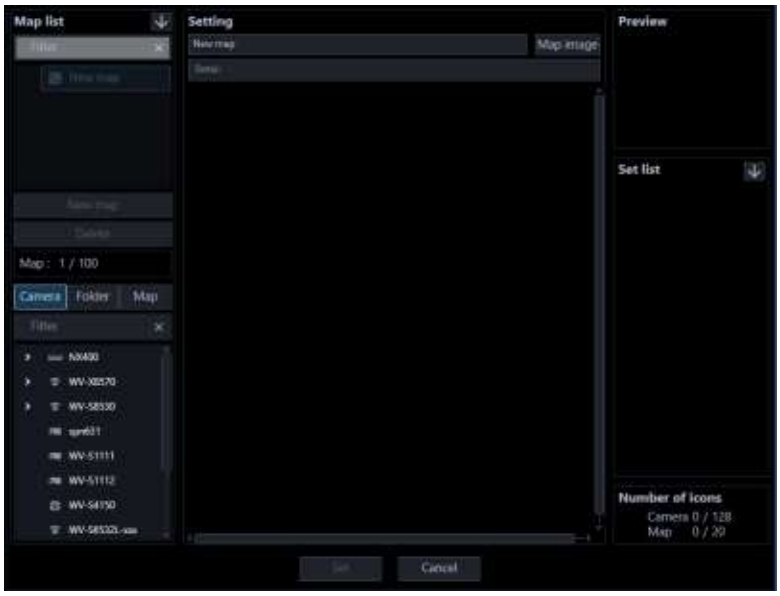
■ **[Cancel] button**

Cancels the edited contents and resets the contents to the state before editing.

Step 2

Click the [New map] button.

→ A new map will be added.



Note:

- The [New map] button will become unavailable when reached the maximum number of the map registration (100 maps).

Step 3

Enter a map name for “Name” and details of map for “Detail”.

Step 4

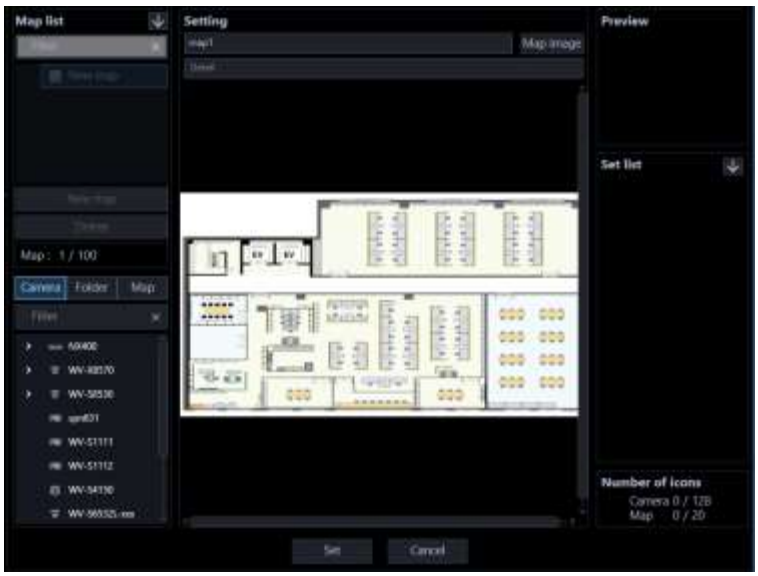
Click the [Map image] button.

→ The map selection window will be displayed.

Step 5

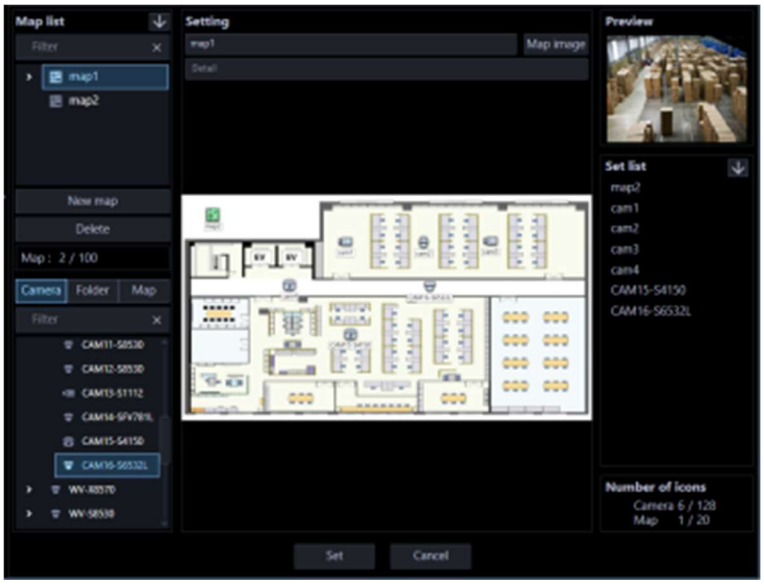
Select the desired image file and click the [Open] button.

→ The selected image file will be displayed in the map display area.



Step 6

Drag a camera icon or a map icon from “Camera/Map selection list” and drop it in “Map display area” to arrange it.



Note:

- When right-clicking on a camera icon, the pop-up menu will be displayed and adjustment of camera will become available. Refer to "☞ 3.9.6. Change the settings for the camera icon" for further information.
- When “☞3.2.4. GUI display setup”-“Display of map icon name on the map” or -“Display of camera icon name on the map“ is set to “OFF”, icon names below each icons can be hidden.
- When “☞3.2.4. GUI display setup”-“Icon frame display on the map setting window” is set to “ON”, a frame border will be displayed around the camera icons.
- When right-clicking on a map image, a pop-up menu will be displayed and size of a camera icon can be adjusted from this pop-up menu.
- When 128 camera icons are already registered, it is impossible to drag and drop the camera icon onto the map display area.
- When 20 map icons are already registered, it is impossible to drag and drop the camera icon onto the map display area.

- Do not place the same camera icon in multiple maps.
- When the camera icon is drag and dropped, the camera name will be added at the end of the camera names in the set list.
- When the map icon is drag and dropped, the map name will be added at the end of the map names in the set list.

Step 7
Click the [Set] button after editing the information.
→ The settings will be saved.

Note:
- Even if you set the AI privacy guard recording camera (OFF) icon on the map, the AI privacy guard recording camera (OFF) icon will not be displayed on the map window if a user without authorization of "AI privacy guard Image switching" is logged in.

3.9.2. Edit the map

Step 1
Display the "Map window" page.

Step 2
Select a map to be edited from the map list.
→ Information of the selected map will be displayed.

Step 3
Click the [Set] button after editing the information.
Refer to "☞ 3.9.1. Register a map“ for each item.
→ The settings will be saved.

3.9.3. Delete the map

Step 1
Display the "Map window" page.

Step 2
Select the map to be deleted, and then click the [Delete] button.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The selected map will be deleted.

Important:
- When the map icon of the map to be deleted is registered in the other map, the map icon on the other

map will be deleted when the [OK] button is clicked.

3.9.4. Change the order of the map list

The following are descriptions about how to change the order of the maps in the list.

■ **Drag and drop**

The order of the maps in the map list can be changed.

Drag a map downward and place the mouse cursor at the other map and drop.
→The map will be moved below the map you placed the cursor on.



Drag a map upward and place the mouse cursor at the other map and drop.
→The map will be moved below the map you placed the cursor on.



<Click the ascending button ( ) or the descending button ( ) >

The order of the maps in the map list can be sorted in ascending or descending order.

3.9.5. Change the order of the set list

The following describes how to sort the map and camera names in the set list.

Important:

- After sorting, click the [Set] button to save the setting. The setting will be applied to the list of the map names and the camera names in the function panel of the map window.

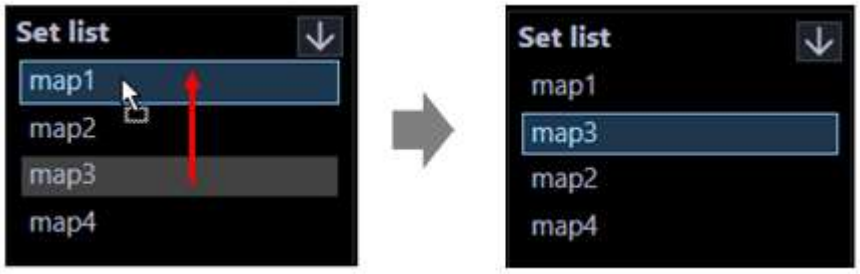
■ **Drag and drop**

The order of the map and camera names in the set list can be changed.

Drag the map downward and drop it placing the mouse cursor over another map.
→The map will be moved to below the map over which the mouse cursor is placed.
Similarly, the camera will be moved to below the camera over which the mouse cursor is placed.



Drag the map upward and drop it placing the mouse cursor over another map.
→The map will be moved to below the map over which the mouse cursor is placed.
Similarly, the camera will be moved to below the camera over which the mouse cursor is placed.



Note:
- In the set list, the map names and the camera names are displayed in that order. A map name cannot be moved to below a camera name. Also, a camera name cannot be moved to above a map name.

<Click the ascending button ( ) or the descending button ( ) >

The order of the map and camera names in the set list can be sorted in ascending or descending order.

Note:
- The map names and the camera names will be sorted respectively.

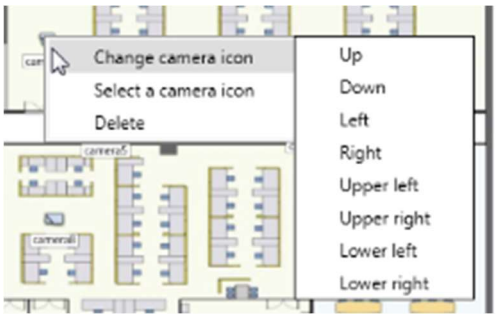
3.9.6. Change the settings for the camera icon

It is possible to adjust the direction of an icon registered in a map or to change an icon provided by this software with an icon prepared by a user, or to delete it. The size of the camera icon can be changed for each map.

Note:

- It is possible to determine whether to display icon names below icons on the map.
  Refer to “☞3.2.4. GUI display setup”-“Display of map icon name on the map” and -“Display of camera icon name on the map“ for further information.

<When right-clicked a camera icon>
When right-clicking on the registered camera icon, the pop-up menu including [Change camera icon], [Select a camera icon] and [Delete] will be displayed.



■ Change camera icon

When right-clicking on the selected camera icon and selecting one of the following directions by moving a cursor to [Change camera icon] from the pop-up menu, the camera icon can be rotated to the selected direction.

- Up: The camera icon will be rotated to indicate that the shooting direction is upward.
- Down: The camera icon will be rotated to indicate that the shooting direction is downward.
- Left: The camera icon will be rotated to indicate that the shooting direction is leftward.
- Right: The camera icon will be rotated to indicate that the shooting direction is rightward.
- Upper left: The camera icon will be rotated to indicate that the shooting direction is at the upper left.
- Upper right: The camera icon will be rotated to indicate that the shooting direction is at the upper right.
- Lower left: The camera icon will be rotated to indicate that the shooting direction is at the lower left.
- Lower right: The camera icon will be rotated to indicate that the shooting direction is at the lower right.

Note:
- When an icon is changed with an icon prepared by a user, it is impossible to change the direction of the icon.

■ Select a camera icon

When right-clicking on the selected camera icon and selecting [Select a camera icon] from the pop-up menu, the default camera icons can be changed to desired icons prepared by a user.

Step 1
Select "Select a camera icon".
→ The "Open" window will be displayed.

Step 2
Select the icon file to be changed, and then click the [Open] button.
→ The camera icons on the map display area will be changed.

Note:
- The available file type for the new icons is PNG (.png).
- Icon files which are smaller than 16x16 pixels or larger than 128x128 pixels cannot be loaded.

- At an alarm or error occurrence, the display status of the icons on the map will differ from the default camera icons.
- The changed camera icons cannot be restored to the former ones. Delete them once and arrange the camera icons again.

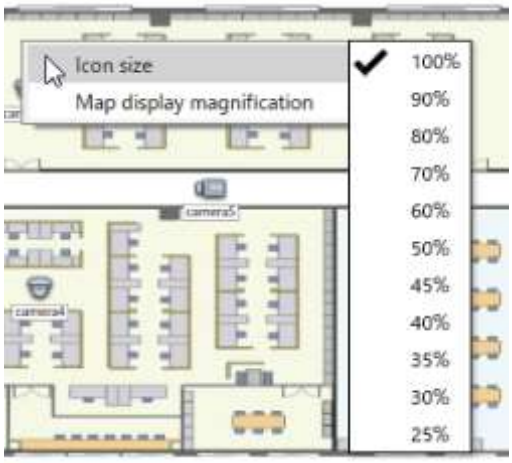
■ Delete

When right-clicking on the selected camera icon and selecting [Delete] from the pop-up menu, the selected camera icon can be deleted.

Note:
- By selecting [Map icon deletion] from the pop-up menu on the selected map icon, the selected map icon can be deleted.

< When right-clicked on a map image>

When right-clicking on the selected map image, the pop-up menu [Icon size] will be displayed.



■ Icon size

When moving the cursor onto the poop-up menu [Icon size] and selecting the size below, the size of the icon will change.

- 100%: The display size of the camera icon on the selected map will change to 100%.
- 90%: The display size of the camera icon on the selected map will change to 90%.
- 80%: The display size of the camera icon on the selected map will change to 80%.
- 70%: The display size of the camera icon on the selected map will change to 70%.
- 60%: The display size of the camera icon on the selected map will change to 60%.
- 50%: The display size of the camera icon on the selected map will change to 50%.
- 45%: The display size of the camera icon on the selected map will change to 45%.
- 40%: The display size of the camera icon on the selected map will change to 40%.
- 35%: The display size of the camera icon on the selected map will change to 35%.
- 30%: The display size of the camera icon on the selected map will change to 30%.
- 25%: The display size of the camera icon on the selected map will change to 25%.

Default: 100%

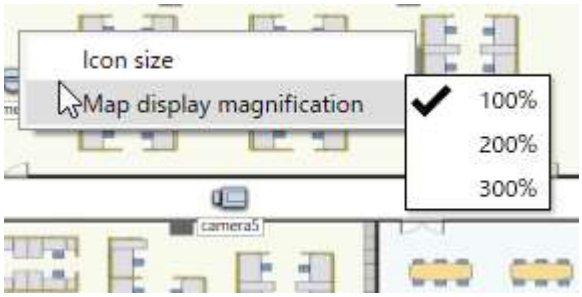
Note:
- The icon size is common in each map. It is impossible to change the size of each icon differently on the same map.

- Size change of only camera icons is available. Size change of map icons is unavailable.

3.9.7. Change the map image display magnification

The display magnification of the map image on the map setup window can be changed.

<When right-clicked on a map image>
When right-clicking on the selected map image, the pop-up menu [Map setup display magnification] will be displayed.



■ **Map setup display magnification**

When moving the cursor onto the pop-up menu [Map setup display magnification] and selecting the size below, the display magnification of the map will be changed.

- 100%: Change the display of the map image to 100% magnification.
  Scaling down and displaying the full image of the map in the display area is defined as 100% magnification.
- 200%: Change the display of the map image to 200% magnification.
- 300%: Change the display of the map image to 300% magnification.

Default: 100%

Note:
- The display magnification will not be saved. Therefore, when the window is switched or when the window is closed and re-opened, the display magnification will return to 100%.
- The map image on the map monitor will not be changed.

3.10. Settings relating to the face search

Important:
- It is necessary to register the license for the Extension Software WV-ASE231.

3.10.1. Add a facial recognition server

Preliminary preparation
Before adding a facial recognition server, prepare and configure the following.

- Register a camera to be used for the face search in ASM300. When playing recorded images from the search result, register a camera to be connected in a recorder and register the recorder to ASM300.
- Register cameras to the face server to be connected. When registering, register GUID of the camera in the following format.
  GUID format: "00000000-0000-0000-0000-[12 digits of IP address of the camera]"
  (Example) When the IP address of the camera to be registered is "192.168.0.10", GUID to be registered is "00000000-0000-0000-0000-192168000010".
- If you are using the data encryption function of the facial recognition server, obtain the encryption key set in advance on the server. (Data encryption function is supported only for WV-ASF950.)
- Run the facial recognition server.

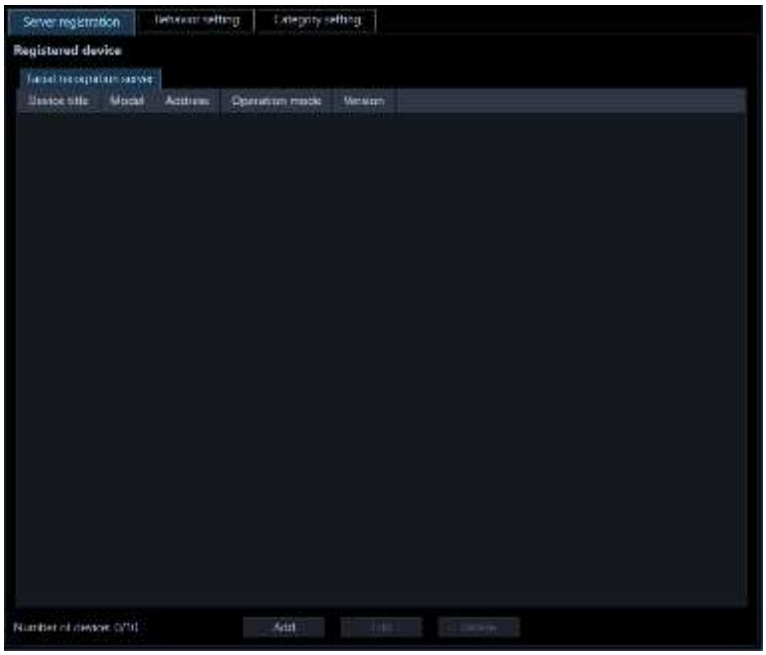
Note:

- For the settings related to the security certificate of the facial recognition server and the certificate installation, refer to the instruction manual of WV-ASF950.

Step 1

Click the [Face search] button.

→ The "Registered device" window will be displayed.



Step 2

Click the [Server registration] tab.

→ The "Registered device" window of the facial recognition server will be displayed.

The details are as follows.

■ **Registered device**

Titles, model numbers, addresses, operation mode and version of the registered facial recognition server will be displayed in list form.

<Operation mode>

- Registered face detection: It is an operation mode that in which an alarm will be issued when a person registered by the face search monitor is detected by a camera.

- Registered face/unregistered face detection: It is an operation mode that enables selecting per area whether to issue an alarm when a registered person is detected or when an unregistered person is detected by a camera.

Note:

- “-” (hyphen) will be displayed in the operation mode and the version when using WV-ASF900 or WV-ASF950 (version less than 2.00).

■ Number of registration

Number of the registered facial recognition servers will be displayed.

■ [Add] button

Displays the "Device registration" window.

■ [Edit] button

Displays the "Device registration" window of the facial recognition server selected from the list of "Registered devices".

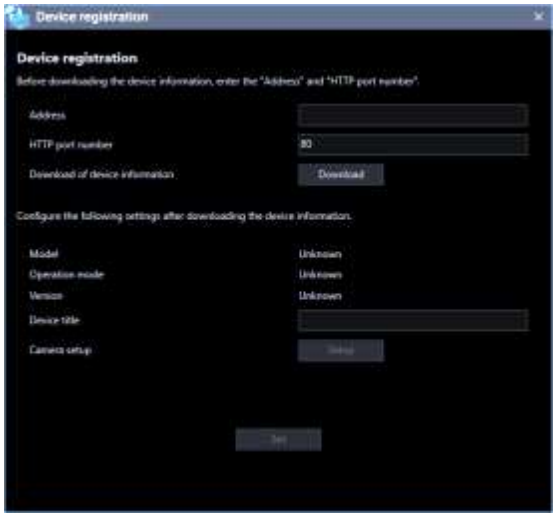
■ [Delete] button

Deletes the facial recognition server selected from the list of "Registered device".

Step 3

Click the [Add] button.

→ The "Device registration" window will be displayed.



Note:

- The [Add] button will become unavailable when reached the maximum number of device registration.

The details of the window are as follows.

■ Address

Enter the IP address of the facial recognition server. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-” (hyphen).

■ **Port number**

Enter a number among the following for the Port number.
1 - 65535
Default: 80

Note:

- When the WV-ASF950 secure communication setting ([Secure Settings] - [Secure Communication]) is "SSL ON", set the port number to 443.

■ **[Download] button**

Device information will be downloaded based on the settings of "Address" and "Port number".

■ **Model**

The model number of the facial recognition server contained in the device information downloaded from the facial recognition server will be displayed. "Unknown" will be displayed when device information is not downloaded yet.

■ **Operation mode**

The operation mode of the facial recognition server obtained at the time of downloading device information is displayed. "Unknown" will be displayed when device information is not downloaded yet.

- Registered face detection: It is an operation mode that in which an alarm will be issued when a person registered by the face search monitor is detected by a camera.
- Registered face/unregistered face detection: It is an operation mode that enables selecting per area whether to issue an alarm when a registered person is detected or when an unregistered person is detected by a camera.

Note:

- "-" (hyphen) will be displayed in the operation mode when using WV-ASF900 or WV-ASF950 (version less than 2.00).

■ **Version**

The version of the facial recognition server obtained at the time of downloading device information is displayed. "Unknown" will be displayed when device information is not downloaded yet.

Note:

- "-" (hyphen) will be displayed in the version when using WV-ASF900 or WV-ASF950 (version less than 2.00).

■ **Device title**

Enter the name of the facial recognition server. Enter up to 16 characters for the device title.
The following characters are unavailable.
! $ % ' < = > @ [¥] ^ _ ` { | } ~

■ **Name of people search**

Set the server name for people search.

Note:

- After device information is obtained, the name of the people search will be displayed only if the people search server exists.

■ **[Display] button**

The information window of the downloaded camera settings will be displayed. The [Setup] button will be unavailable until camera information is downloaded.

■ **Encryption key (If the data encryption function is enabled on the WV-ASF950, it will be displayed after downloading the device information)**

If you are using the data encryption function of the facial recognition server, enter the encryption key. The entered key is displayed with "●". If you click the confirmation button () on the right side of the entry field, you can check the entered key while clicking.

■ **[Set] button**

The configured settings will be saved.

Step 4

Enter the IP address and the Port number for "Address" and "Port number" respectively.

Step 5

Click the [Download] button.

Important:

- Make sure that the settings on the "NW Camera Setup" page of the setup menu of the facial recognition server are completed before downloading the device information. When the facial recognition server is not configured correctly, downloading of the facial recognition server information may be impossible.
- When the settings of the setup menu of the facial recognition server are edited, download the device information again.

Step 6

Click the [OK] button.

→ The downloading status window will be displayed.

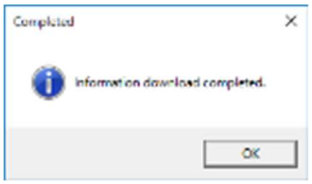
To cancel downloading device information, click the [Cancel] button on the displayed status notification window.

Step 7

Confirm the displayed messages and proceed to the next step.

<When download of the device information is successfully complete>

Click the [OK] button.



→ The confirmation window will close.

Go to step 8.

<When download of the device information failed>
Confirm the message indicated in the window.

Note:

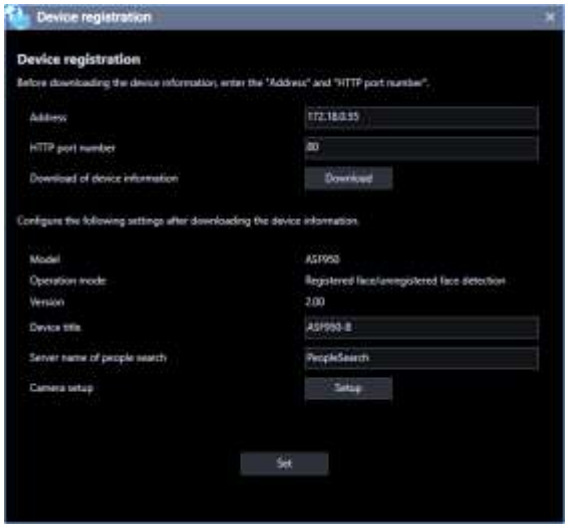
- Check if the entered device information is correct. If the information has been edited correctly, it indicates that the connected device or the version of the connected device may not be compatible with this software.
- Refer to “☞ 8.13. When downloading the device information” for further information about the displayed messages and solutions.

Click the [OK] button.
→ The error window will close.

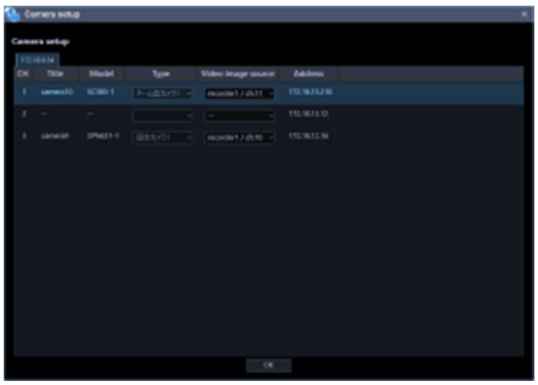
Go back to the "Device registration" window, and check the settings.

Then, download the device information again.

Step 8
Enter for "Device title".



Step 9
Click the [Display] button.
→ The "Camera setup" window will be displayed.



The details are as follows.

■ **Child server tab**

Information will be switched for each child server. The IP address of the child server will be displayed on this tab.

■ **CH**

The camera channel numbers will be displayed.

■ **Title**

The camera name to be used by the facial recognition server will be displayed. The device name set as "Video image source" will be displayed. The displayed titles cannot be edited.

■ **Model**

The model number of the camera to be used by the facial recognition server will be displayed. The model number of the device set as "Video image source" will be displayed. The displayed titles cannot be edited.

■ **Type**

The type of the camera and the icon to be used by the facial recognition server will be displayed. The type of the device set as "Video image source" will be displayed. The displayed icon cannot be edited.

■ **Video image source**

Link the cameras whose information is downloaded from the facial recognition server to the cameras or the recorders registered in ASM300. Devices can be selected from the list of the devices that matches with the camera IP address information downloaded from the facial recognition server. It is necessary to register devices in advance according to the setting procedures of the cameras and recorders used with ASM300. To play recorded images by operating the face search monitor, select the cameras registered in the recorder by configuring this setting.

■ **Address**

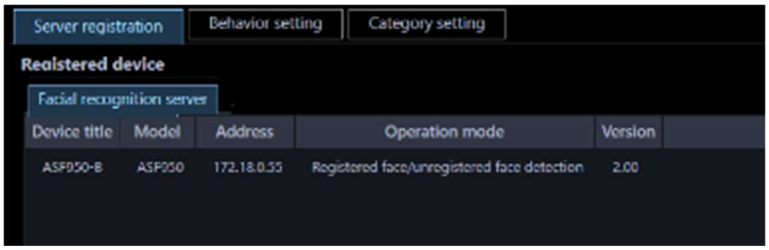
The address of the camera whose information is downloaded from the facial recognition server will be displayed.

Step 10

Enter the data encryption key of the facial recognition server in the input field of the encryption key.



Step 11
Click the [Set] button.
→ The "Device registration" window will close and the settings will be saved and applied. The registered facial recognition server will be displayed in the list of the registered devices.



Important:
- After clicking the [Set] button, restart this software to apply the settings.

<When saving failed>
Confirm the content of the message indicated in the window.

Note:
- Refer to "☞ 8.11. When the [Set] button is clicked" for further information about the displayed messages and solutions.

Click the [OK] button.
→ The confirmation window will close.

3.10.2. Correct the facial recognition server

Step 1
Display the "Registered device" window of the facial recognition server.

Step 2
Select a facial recognition server to be edited from the “Registered device”, and then click the [Edit] button.
→ The "Device registration" window will be displayed.

Step 3
Click the [Set] button after editing the information.
Refer to "☞ 3.10.1. Add a facial recognition server“ for each item.
→ The "Device registration" window will close and the settings will be saved and applied.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.10.3. Delete the facial recognition server

Step 1
Display the "Registered device" window of the facial recognition server.

Step 2
Select a facial recognition server to be deleted from “Registered device”.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.
→ The device information will be deleted.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.10.4. Configure the behavior setting of the face search

Step 1
Click the [Face search] button.
The "Registered device" window will be displayed.

Step 2
Click the [Behavior setting] tab.
→ The "Behavior setting" page of the face search monitor will be displayed.



The details are as follows.

■ **Initial screen of the Face Search Monitor**

Select the initial screen to be displayed just after starting the face search monitor.
Alarm: The "Alarm" window will be displayed as the initial screen.
Alarm search: The "Alarm search" window will be displayed as the initial screen.
Face search: The "Face search" window will be displayed as the initial screen.
People Search: The "People Search" window will be displayed as the initial screen.
Age and Gender: The "Age/Gender" window will be displayed as the initial screen.
Default: Face search

■ **Automatic start of the Face Search Monitor**

Select whether or not to launch the face search monitor automatically when an alarm is received from the facial recognition server while the face search monitor is not being displayed.
ON: Automatically launch the face search window

OFF: Not launch the face search window automatically
Default: ON

■ **Age and Gender tab**

Select whether or not to display statistical graphs shown by age and gender brackets and by head count brackets.
ON: Display
OFF: Not display
Default: OFF

■ **List of high profile persons**

Select "ON" or "OFF" to determine whether to display the face image to which "Constant display" is set on the alarm notification window of the face search monitor.
ON: Display
OFF: Not display
Default: OFF

■ **Face alarm deletion confirmation window**

Select whether to display the confirmation window when deleting a face alarm.
ON: Display the confirmation window.
OFF: Not display the confirmation window.
Default: ON

Note:
- This function will be automatically set off when "This message won't be indicated from now on." is check-marked.

■ **[Set] button**

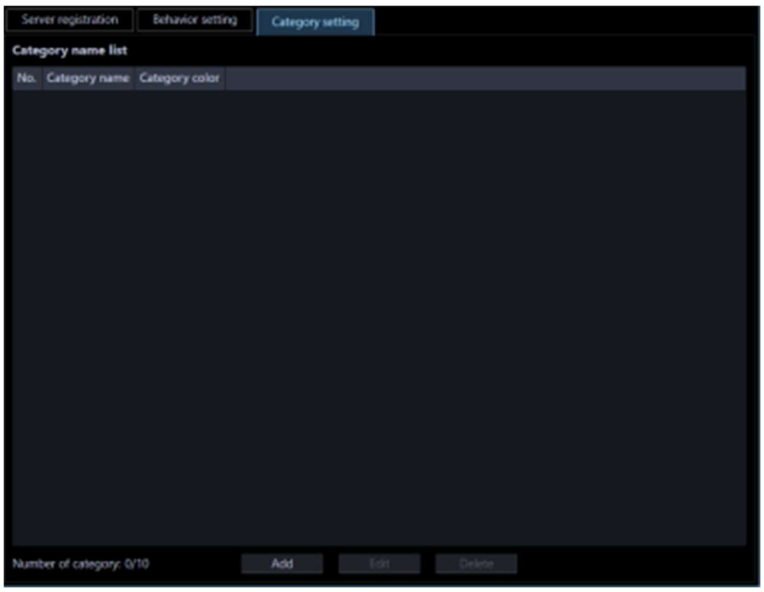
The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.10.5. Register a category name

Step 1
Click the [Face search] button.
→ The "Registered device" window will be displayed.

Step 2
Click the [Category setting] tab.
→ The "Category name list" window will be displayed.



The details are as follows.

■ **Category name list**

The number of the registered category name, "Category name", and "Category color" will be displayed in list form.

■ **Number of registration**

Number of the registered category will be displayed. Up to 10 categories can be registered.

■ **[Add] button**

Displays the "Category name registration" window.

■ **[Edit] button**

Displays the category name selected from the "Category name list" on the "Category name registration" window.

■ **[Delete] button**

Deletes the category name selected from the "Category name list".

Step 3

Click the [Add] button.

→ The "Category name registration" window will be displayed.

Note:

- The [Add] button will become unavailable when reached the maximum number of category registration.

Step 4

Enter a category name.

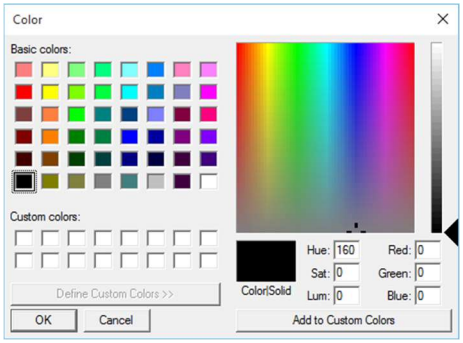
Note:

- Up to 16 characters can be entered for a category name.

Step 5

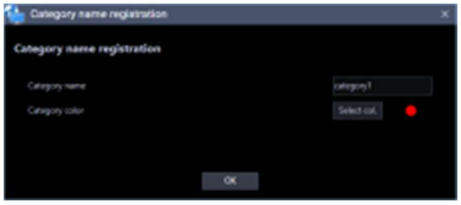
To set a color for the category, click the [Color selection] button.

→ The "Color" window will be displayed.



Select the desired basic color or add a color, and then click the [OK] button.

→ The "Category name registration" page will be displayed again. The selected color will be displayed next to the [Color selection] button.

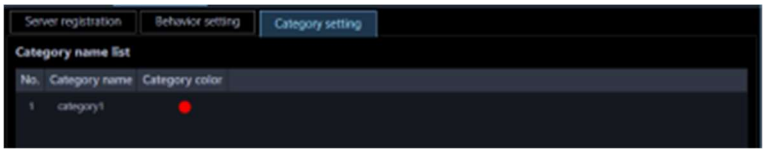


Step 6

Click the [OK] button.

→ The entered name will be saved and the "Category name registration" window will close.

The category name will be added to the "Category name list".



Note:

- When setting categories from multiple ASM300, it is necessary to set common category information.

Important:

- After clicking the [Set] button, restart this software to apply the settings.

3.10.6. Edit the registered category name information

Step 1

Display the "Category name list" window.

Step 2
Select the category name to be edited from the "Category name list", and then click the [Edit] button.
→ The "Category name registration" window will be displayed.

Step 3
Edit the category name and click the [OK] button.
→ The edited information will be saved and the "Category name registration" window will close.
The edited category name will be displayed in the "Category name list".

Note:
- When setting categories from multiple ASM300, it is necessary to set common category information.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.10.7. Delete the registered category name

Step 1
Display the "Category name list" window.

Step 2
Select the category name to be deleted from the "Category name list", and then click the [Delete] button.
→ The deletion confirmation window will be displayed.

Step 3
Click the [OK] button.
→ The selected category name will be deleted.

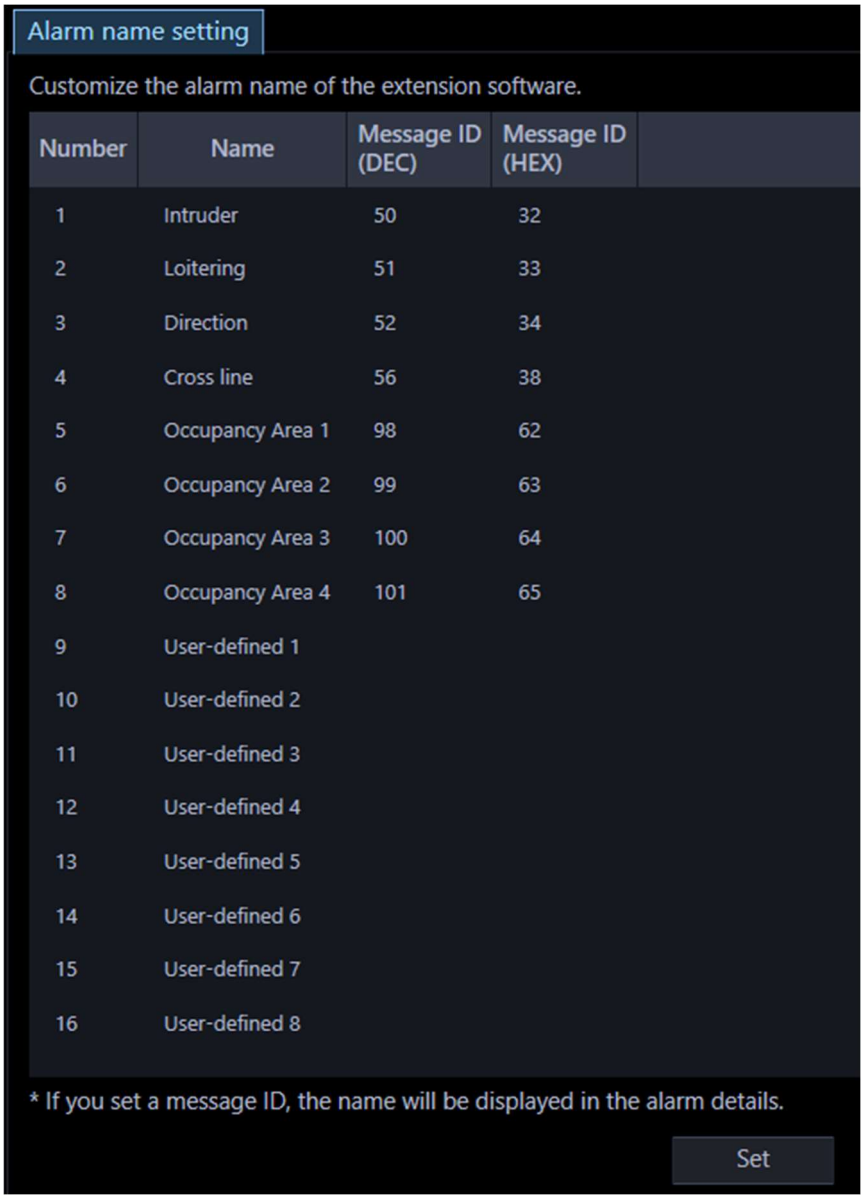
Note:
- When setting categories from multiple ASM300, it is necessary to set common category information.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.11. Settings relating to AI camera

Set the AI-VMD alarm detected by the AI motion detection application (WV-XAE200W) or the AI-VMD/AI People Counting application for 360-degree fisheye (WV-XAE300W). The set alarm name is also used as the alarm name of i-VMD.
Also, set names to other extension software alarms and set message IDs.

Important:
- When the image capture mode of the camera is set to 16:9 (60 fps mode)/16:9 (50 fps mode)/4:3 (15 fps mode)/4:3 (12.5 fps mode), the functions of the extension software including the AI privacy guard extension software will become unavailable. Refer to the operating instructions of the camera for further information.



■ **Name**

Set names of alarm to be received as extension software alarm 1 - 8.
Enter the alarm name with 1 to 16 characters.
No.1 - 8: AI-VMD alarm names will be displayed at the default. You can also be set the alarm names other than the AI-VMD alarm.
No.5 - 8: It is the extension area. Set any names of extension software alarm.

No.	Initial setting	Description
1	Intruder	Set a name of extension software alarm 1. Edit the alarm name for Intruder of the initial setting.
2	Loitering	Set a name of extension software alarm 2. Edit the alarm name for Loitering of the initial setting.
3	Direction	Set a name of extension software alarm 3. Edit the alarm name for Direction of the initial setting.

4	Cross line	Set a name of extension software alarm 4. Edit the alarm name for Cross line of the initial setting.
5	Occupancy Area 1	Set a name of extension software alarm 5. Edit the alarm name for Occupancy Area 1 of the initial setting
6	Occupancy Area 2	Set a name of extension software alarm 6. Edit the alarm name for Occupancy Area 2 of the initial setting
7	Occupancy Area 3	Set a name of extension software alarm 7. Edit the alarm name for Occupancy Area 3 of the initial setting
8	Occupancy Area 4	Set a name of extension software alarm 8. Edit the alarm name for Occupancy Area 4 of the initial setting
9 - 16	User-defined 9-16	Set a name of extension software alarm 9 - 16. Edit the alarm name for User-defined 1- 8 of the initial setting.

Note:

- The alarm name that has been saved will be applied in the following screen.
  - Extension software alarm items on the [Search]-[REC event search] tab
  - Alarm type in the [Setting]-[Event]-[Alarm action] tab-[Alarm linkage registration] window
  - Alarm log contents in [Setting]-[Maintenance]-[Application Log] tab
  - Alarm contents in the “Alarm log” panel
  - Alarm name of alarm notification message
- The above alarm names set with this software and the alarm names on the recorder side are not linked.
- The above alarm names cannot be set for each recorder.
- To use AI-VMD alarm, it is necessary that installation of the AI Video Motion Detection Extension Software (WV-XAE200W) on the target camera and configuration of the settings are completed.

■ **Message ID**

Set a message ID of alarm to be received as extension software alarm 1 - 8 by entering a decimal number (32 to 175).
No.1 - 8: Message IDs of AI-VMD alarm will be displayed at the default. You can also be set the message IDs other than the AI-VMD alarm.
No.9 - 16: It is the extension area. Set message IDs of the target alarm.

No.	Initial setting (DEC/HEX)	Setting range (DEC/HEX)	Description
1	50 / 32	32～175 / 20～af	Set a message ID of extension software alarm 1. Enter a decimal number. The initial setting is the message ID for Intruder.
2	51 / 33	32～175 / 20～af	Set a message ID of extension software alarm 2. Enter a decimal number. The initial setting is the message ID for Loitering.
3	52 / 34	32～175 / 20～af	Set a message ID of extension software

			alarm 3. Enter a decimal number. The initial setting is the message ID for Direction.
4	56 / 38	32～175 / 20～af	Set a message ID of extension software alarm 4. Enter a decimal number. The initial setting is the message ID for Cross line.
5	98/62	32～175 / 20～af	Set a message ID of extension software alarm 5. Enter a decimal number. The initial setting is the message ID for Occupancy Area 1
6	99/63	32～175 / 20～af	Set a message ID of extension software alarm 5. Enter a decimal number. The initial setting is the message ID for Occupancy Area 2
7	100/64	32～175 / 20～af	Set a message ID of extension software alarm 5. Enter a decimal number. The initial setting is the message ID for Occupancy Area 3
8	101/65	32～175 / 20～af	Set a message ID of extension software alarm 5. Enter a decimal number. The initial setting is the message ID for Occupancy Area 4
9 - 16	blank	32～175 / 20～af	Set message IDs of extension software alarm 9 - 16. Enter a decimal number. Initial setting is blank.

Note:

- When you set the message ID, the alarm name will be displayed in the following screen. The input field can be left blank, but in this case, no name will be displayed in the following screen.
  - Extension software alarm items on the [Search]-[REC event search] tab
  - Alarm type in the [Settings]-[Event]-[Alarm action] tab-[Alarm linkage registration] window
- The message ID should match the message ID received from the camera or recorder.
- The order in which message IDs are set should match that of the recorder.

■ **[Set] button**

The configured settings will be saved.

Important:

- After clicking the [Set] button, restart this software to apply the settings.

3.12. Settings relating to the event action

Configure the settings of the event action that is to be taken upon an alarm/error occurrence. Refer to "☞3.12.1. Alarm setting“ for errors during monitoring.
Refer to "☞ 3.12.2. Alarm action" for how to set the linkage function triggered by an alarm occurrence.

Refer to the "☞ 3.12.3. Error" for further information about a device error (of recorder, encoder, camera or microphone) and a network error.

3.12.1. Alarm setting

When an alarm occurred, the event action will be taken. There are 3 event actions; displaying a message, sounding the buzzer and displaying live images from the camera in which the alarm occurred.

Note:

- Configure the settings of "TCP alarm notification reception" when receiving alarm notifications from a device.
- Refer to "☞ 3.13.2. TCP alarm notification reception" and the operating instructions of the device in use for further information.

Click the [Event] button, and then click the [Alarm] tab to display the "Alarm" page.



■ Pop-up notification

Determine whether to display the pop-up notification window at an alarm occurrence or not.

ON: Display an error message.

OFF: Not display an error message.

Default: ON

■ Buzzer

Determine whether to sound the buzzer at an alarm occurrence or not.

OFF: The buzzer will not sound at an alarm occurrence.

Once: The buzzer will sound once at an alarm occurrence.

Succession: The buzzer will sound continually at an alarm occurrence.

Default: Once

Note:

- Buzzer sounding duration cannot be specified.

■ Alarm camera direct live window

Determine whether to automatically display live images from the camera in which an alarm occurred on the live window or not.

ON: Live images will be automatically displayed.

OFF: Live images will not be automatically displayed.

Default: OFF

Note:

- When selecting "ON" for "Alarm camera direct live window", set "Live window (multi-screen) with the maximum number of areas" to other than "--". Refer to "☞3.2.1. Basic setup" for further information about the settings.
- Even if setting “ON” for “Alarm camera direct live window", if “Alarm linkage disarm duration” is set to other than “OFF”, live images will not be automatically displayed for alarms generated within that period.

■ **Maximum number of areas**

Select the screen pattern used to display images from the camera in which an alarm occurred when "ON" is selected for "Alarm camera direct live window". This setting is available only when "ON" is selected for "Alarm camera direct live window".

1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen

After the license for the Extension Software WV-ASE202 is added, select a setting value from the following.

1-screen/ 2A-screen/ 2B-screen/ 3A-screen/ 3B-screen/ 3C-screen/ 4-screen/ 4E-screen/ 5-screen/ 6-screen/ 6A-screen/ 7-screen/ 7A-screen/ 9-screen/ 10-screen/ 13-screen/ 16-screen/ 25-screen/ 36-screen/ 49-screen/ 64-screen

Default: 4-screen

■ **Auto reset wait time**

Select the wait time to reset the alarm and return to the previously displayed images before switching to live images from the camera in which an alarm occurred.

OFF/ 10s/ 20s/ 30s/ 1min/ 5min

Default: 20s

Note:

- When "OFF" is selected, the alarm will not automatically be reset. Refer to "☞ 4.12.2.3. Reset the alarm mode" for how to reset.

■ **Auto change of map**

Determine whether to automatically change the display to the map that has registered the camera in which an alarm occurred or not.

ON: Enable auto change of map

OFF: Disable auto change of map

Default: OFF

Note:

- Even if setting “ON” for “Auto change of map", if “Alarm linkage disarm duration” is set to other than “OFF”, the display to the map will not be automatically changed for alarms generated within that period.

■ **Alarm linkage disarm duration**

Select the period from the following when "Alarm camera direct live window", "Auto change of map", and "Alarm action (Group display)" in which an alarm occurred.

OFF/ 2s/ 3s/ 5s/ 10s/ 15s/ 20s/ 30s

Default: OFF

Note:
- When "OFF" is selected for “Alarm linkage disarm duration”, if multiple alarms occur at the same time, the screen during switching the alarm linkage group display may become black, or the screen may not be updated or operated during auto change of map. If this situation occurs, set “Alarm linkage disarm duration”.

■ **Release of alarm state**

Determine whether to release the alarm state when the [Live] button or the [Play] button on the alarm notification window displayed at the alarm occurrence is clicked.

ON: Release the alarm state.

OFF: Does not release the alarm state.

Default: OFF

Note:
- When “ON” is selected, the following will be performed by clicking the button on the alarm notification window.

  < When the [Live] button or the [Play] button is clicked >

  The buzzer sound output will be stopped.
  The camera icon display that is blinking red/being lit red on the map will return to the normal icon display.

  < When the [Close] button is clicked >

  The buzzer sound output will be stopped.
- The same actions will be taken when the following button on the system controller is pressed.
  CU950: [ALARM] button, [ACK] button
  CU980: [ARM LIVE] button, [ARM PLAY] button
- Regardless of whether this setting is on or off, if you click the camera icon that is blinking red/being lit red on the map, the icon display will return to the normal icon display, but the buzzer sound output will not stop.

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

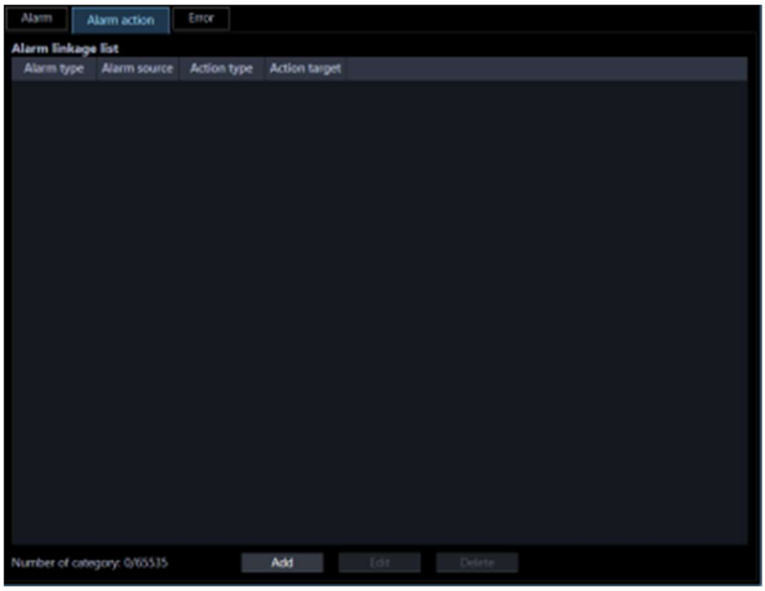
3.12.2. Alarm action

It is possible to set the linkage function triggered when received an alarm notification.

Note:
- When “Alarm linkage disarm duration” is set to other than “OFF”, "Alarm camera direct live window" , “Auto change of map", and “Alarm action (Group display)” will not be performed for alarms generated within that period.

3.12.2.1. Add an alarm action

Step 1
Click the [Event] button, and then click the [Alarm action] tab to display the "Alarm action" page.



The details are as follows.

■ **Alarm linkage list**
The registered alarm linkage list will be displayed in list form.

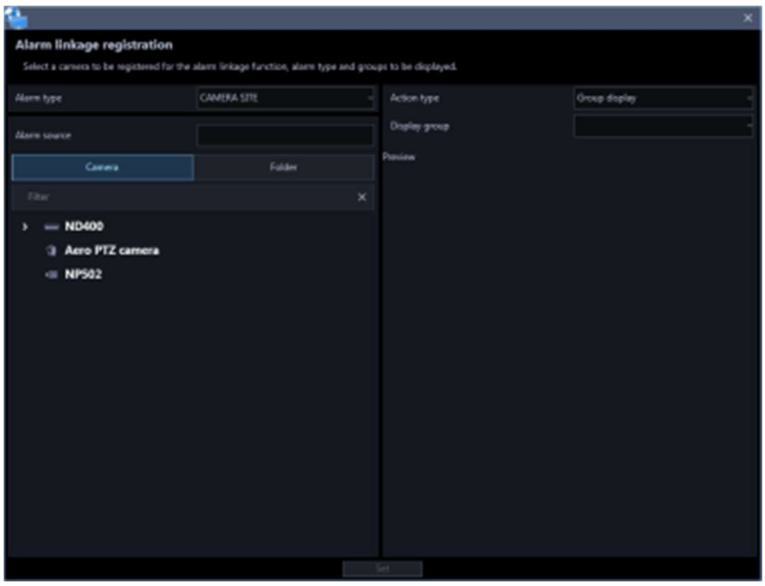
■ **Number of registration**
Number of the registered alarm actions will be displayed.

■ **[Add] button**
Displays the "Alarm linkage registration" window.

■ **[Edit] button**
Displays the "Alarm linkage registration" window of the alarm action selected from the alarm linkage list.

■ **[Delete] button**
Deletes the alarm action selected from the alarm linkage list.

Step 2
Click the [Add] button.
→ The alarm linkage registration window will be displayed.



Note:

- The [Add] button will become unavailable when reached the maximum number of the alarm linkage registration (65535 alarm linkages).

The details of the window are as follows.

■ Alarm type

Select an alarm type that the alarm linkage registration is to be executed from the list.

Item	Description
CAMERA SITE (Camera site alarm)	An event when an alarm (camera terminal alarm, etc.) is detected by a camera registered by recorder.
SCENE CHANGE DETECTION (Disturbance detection alarm)	An alarm for notifying the recorder from the camera when the orientation of the camera is changed or when the lens is covered.
TERMINAL ALARM	An alarm when an alarm input signal is supplied from an external device such as a door sensor to the alarm input terminal of the camera or recorder.
COMMAND ALARM	An alarm when receiving an alarm from a PC, etc. via a network.
EMERGENCY REC (Emergency recording input alarm)	An alarm notifying that emergency recording has been started manually by using an externally installed switch in the state of emergency.
VMD ALARM	An alarm when motion is detected in the image of the VMD area set by independent camera.
Intruder (*1)	An alarm notifying that a moving object has entered the area preset by the camera.
Loitering (*1)	An alarm notifying that a moving object has stayed in the area preset by the camera for a certain period of time
Direction (*1)	An alarm notifying that the moving object has moved in the specified direction within the area preset by the camera.
OBJECT ALARM	An alarm notifying that the removal and left behind object has been detected in the area preset by the camera
Cross line (*1)	An alarm notifying that a moving object has crossed a line preset by the camera in a specified direction.
Occupancy Area 1 - 4	An alarm notifying that the condition of human congestion (occupancy) in

	the area predetermined by the camera has reached the specified condition.
User-defined 1 - 8(*1)(*2)	Alarms detected by extension software such as third-party
FACE MATCHING (Face matching alarm)	An alarm notifying that the person registered by the face search monitor was detected by the camera.
FACE ALARM (*3) (Unregistered face detection alarm)	An alarm notifying that the person unregistered by the face search monitor was detected by the camera in the “registered face/unregistered face detection” mode.

*1 The name set on the [Setting]-[AI Camera] screen is displayed.
*2 It is displayed only when the name and message ID are set on the [Setting]-[AI camera] screen.
*3 In the case of WV-ASF950 version 2.00 or later

Note:
- When a camera terminal alarm or VMD alarm generated by the camera is received through the recorder, it is detected as a camera site alarm (CAMERA SITE).

■ **Alarm source**

A name of the device selected from the alarm source list will be displayed.

■ **[Camera] tab**

A list of the registered devices will be displayed in “Alarm source selection list” in the tree format.

■ **[Folder] tab**

Cameras will be displayed in “Alarm source selection list” in the folder tree format.

■ **Search field**

Searches for a registered device name or a folder name from “Alarm source selection list”.

■ **Alarm source selection list**

Displays the device tree or the folder tree.
Click to select 1 device that the alarm linkage registration is to be executed.

Note:
- If no device other than recorders can be selected from “Alarm source selection list”, the [Camera] tab and the [Folder] tab are hidden.

■ **Action type**

Select an action at an alarm occurrence from the following.
Group display/PTZ preset/Buzzer sound

■ **[Set] button**

The configured settings will be saved.

Step 3

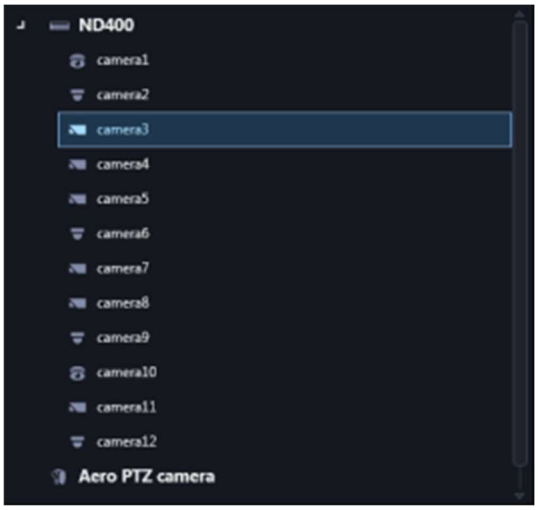
Select “Alarm type” from the list.



Step 4

Click to select 1 device that the alarm linkage registration is to be executed from “Alarm source selection list”.

→ The name of the selected device will be displayed in “Alarm source”.



Step 5

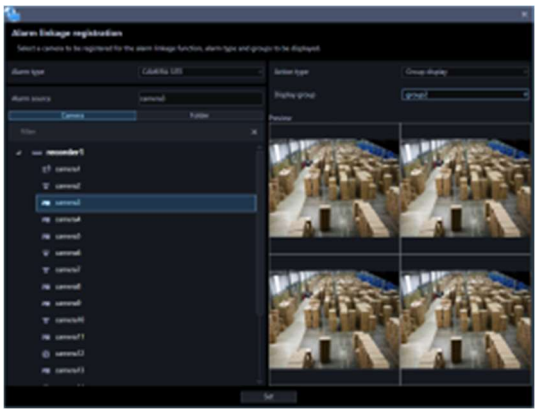
Select “Action type” from the list.



→ The “Setup” item will be displayed.

<When "Group display" is selected in step 5>

When the Live window is active and "ON" is selected for "Alarm camera direct live window” of “Alarm setup”, the live window will be switched into the alarm mode and display live images from the camera in which the alarm occurred when receiving an alarm notification. At the default, live images from the channel in which the alarm occurred, but it is possible to display images from multiple cameras that are set as a group on live window 1 by configuring the alarm action setting described below.



■ **Display group**

Select a display group that the alarm linkage registration is to be executed from the list. A group can be selected from the group list registered by the group setup. It is necessary to register in advance by the group setup. The user's group will not be displayed.

■ **Preview**

A preview image of the group selected from "Display group" will be displayed.

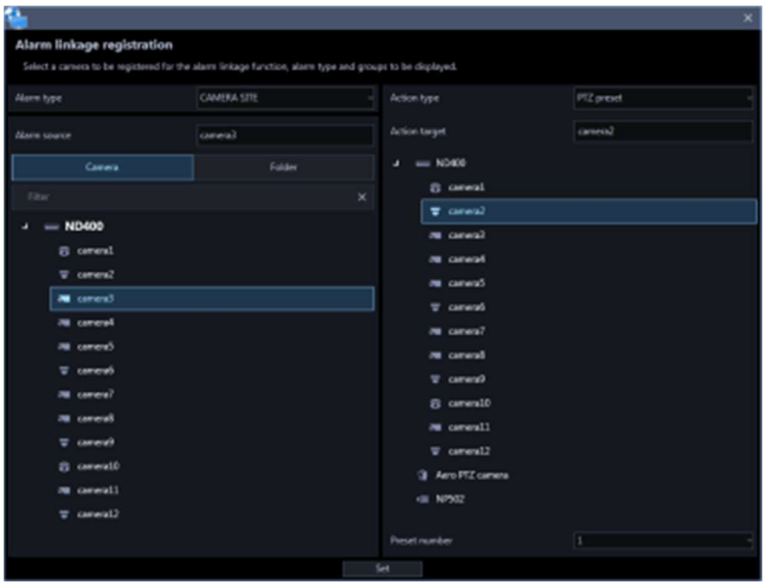
Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400, NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ "1.5.3. Compatible cameras"), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

Note:

- The group setup cannot be made on this window. Only the content check of the selected group is available.
- Refer to "☞ 4.12.2. Alarm mode display of the live window" for the alarm display to the live window.
- When the number of multi-screen areas of the group display that is set for the group linkage setting is more than the maximum number of areas for Live window 1, the alarm action display will not be performed. Make sure to select a group having areas fewer than the maximum number of areas of Live window 1 as a display group.

<When "PTZ preset" is selected in step 5>
It is possible to display a preset position of the designated PTZ camera when received an alarm notification.



■ Action target

A name of the camera selected from “Action target selection list” will be displayed.

■ Action target selection list

Displays the device tree or the folder tree.
Click to select 1 camera whose preset position is to be displayed at an alarm occurrence.

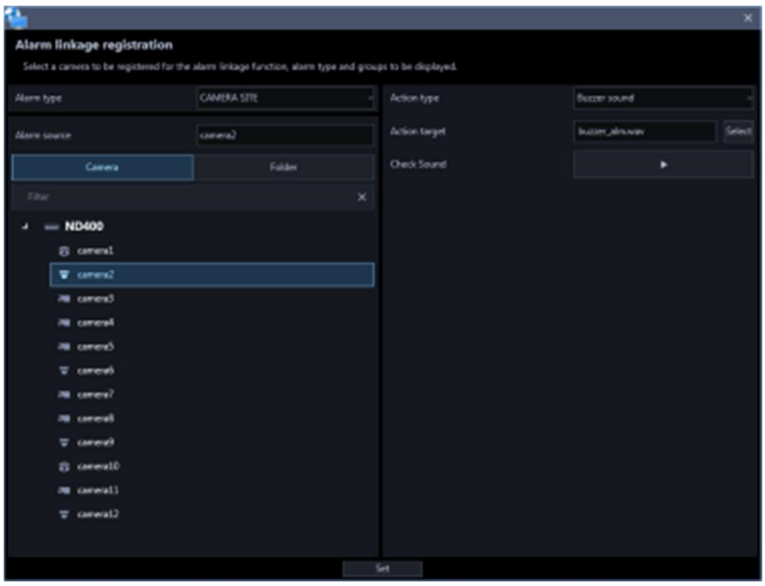
■ Preset number

Select a preset number of the camera selected from “Action target selection list” to be displayed at an alarm occurrence from the following.
Default: 1 - 64

Note:

- The preset position name (Preset No.) can be changed to a desired one. For details, refer to “☞ 4.1.13. Set the preset position name”.

<When "Buzzer sound" is selected in step 5>
It is possible to set the buzzer sound to be played when received an alarm notification.



■ **Action target**

When the [Select] button is clicked, the file selection window will be displayed. Select an audio file to be played at an alarm occurrence.

■ **Audio confirmation**

When the [Play] button is clicked, the audio file selected in “Action target” will be played.

Note:

- When the alarm type [FACE ALARM] is selected in Step 3, an area is displayed in the "Alarm source selection list". At that time, "-" (hyphen), which means all areas, is displayed at the top of the selection list. Refer to "☞4.7.4. Set area" about the area.

Step 6

Enter information for the setup items and click the [Set] button.

→ The settings will be saved and the alarm linkage registration window will close.

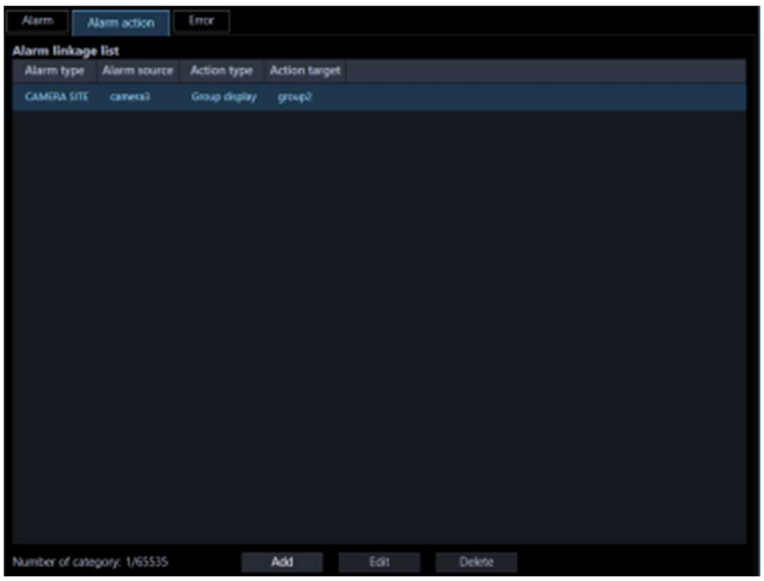
Important:

- After clicking the [Set] button, restart this software to apply the settings.

3.12.2.2. Edit an alarm action

Step 1

Displays the alarm linkage registration window.



Step 2

Select an alarm action to be edited from the alarm linkage list, and then click the [Edit] button.

→ The alarm linkage registration window will be displayed.

Step 3

Click the [Set] button after editing the information.

Refer to "☞ 3.12.2.1. Add an alarm action“ for each item.

→ The settings will be saved and the alarm linkage registration window will close.

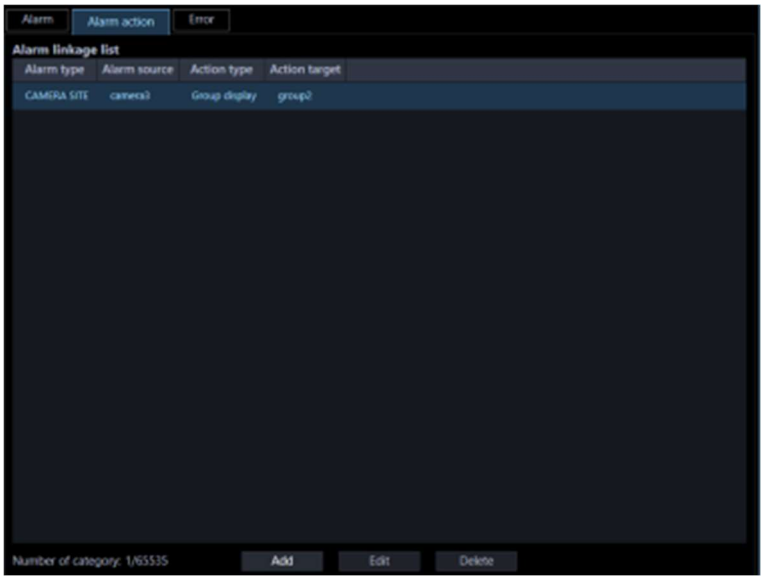
Important:

- After clicking the [Set] button, restart this software to apply the settings.

3.12.2.3. Delete an alarm action

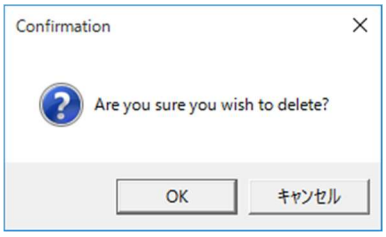
Step 1

Displays the alarm linkage registration window.



Step 2
Select an alarm action to be deleted from the alarm linkage list.

Step 3
Click the [Delete] button.
→ The deletion confirmation window will be displayed.



Step 4
Click the [OK] button.
→ The alarm action information will be deleted.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.12.3. Error

Configure the settings of the event action that is to be taken upon a recorder error/network error occurrence. There are 2 event actions; displaying a message and sounding the buzzer.

Note:
- It is necessary to configure the "TCP alarm notification reception" setting to receive device error notifications.
- Refer to "☞ 3.13.2. TCP alarm notification reception" and the operating instructions of the device in use for further information.

Click the [Event] button, and then click the [Error] tab to display the "Error" page.



■ **Pop-up notification**

Determine whether to display an error message at an error occurrence or not.
ON: Display an error message.
OFF: Not display an error message.
Default: ON

■ **Buzzer**

Determine whether to sound the buzzer at an error occurrence or not.
OFF: The buzzer will not sound at an alarm occurrence.
Once: The buzzer will sound once at an alarm occurrence.

Succession: The buzzer will sound continuously at an alarm occurrence.
Default: Once

Note:
- Buzzer sounding duration cannot be specified.

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.13. Settings relating to the communication

Configure the settings relating to the communication required to use this software.

3.13.1. Basic setup

Click the [Communication] button, and then click the [Basic setup] tab to display the "Basic setup" page.
Configure the settings of "Proxy address", "Proxy port number" and "FTP mode".



■ **Proxy address**

Enter the IP address of the proxy server. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-” (hyphen)

■ **Proxy port number**

Enter the port number of the proxy server. Enter a number from 1 to 65535.

■ **FTP mode**

Select "Active" or "Passive" for the FTP mode.
Default: Active

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

Note:
- Communication will not be established even when "ON" is selected for "Proxy server" on the device

registration window if no value is entered for "Proxy address" and "Proxy port number" on this window.
- When using the proxy server, use an HTTP proxy server. Download function via an HTTP proxy server is available through this software normally uses the FTP function of the recorder when “Standard” is selected for “n3r file download method (NX series)”.

3.13.2. TCP alarm notification reception

Click the [Communication] button, and then click the [TCP alarm notification reception] tab to display the TCP alarm notification reception page.
Configure the settings of "Alarm notification (TCP alarm notification)" and "Port number".



■ **Alarm notification (TCP alarm notification)**

Determine whether to receive an alarm/error notification from the device or not.
ON: An alarm/event notification from the device will be received.
OFF: An alarm/event notification from the device will not be received.
Default: ON

■ **Port number**

Enter the port number used to receive TCP alarm notification. Enter a number from 1 to 65535.
Default: 1818

Important:
- It is necessary to make the port number selected in “Port number” available when "Windows Firewall" of Windows OS is on. Configure the exceptional settings of Windows Firewall by following the procedure of “☞ 3.17. Exceptional settings of Windows Firewall“.

■ **[Set] button**

The configured settings will be saved.

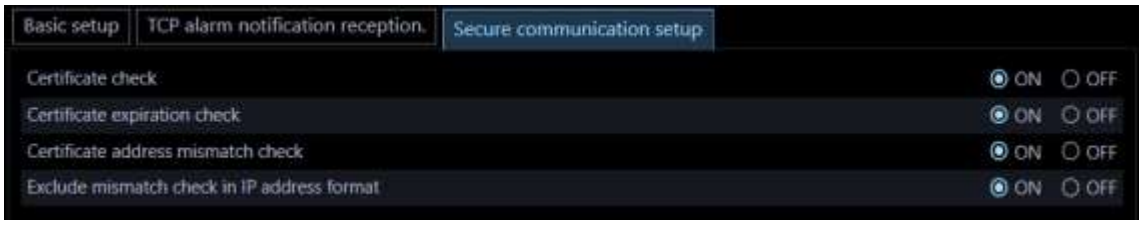
3.13.3. Secure communication setup

Click the [Communication] button and then click the [Secure communication setup] tab to display the secure communication setup page.
The following are procedures to determine whether to check the security certificate for a recorder or a camera to connect.
When an error is detected as a result of the certificate check, notification of the error occurrence will be provided by the event notification or network error log will be recorded. When an error occurred, display of live/recorded video or setting/operation of the connected devices such as a recorder/camera will become unavailable.

Important:

- When this software is upgraded from an older version than 4.10 to a newer version than 4.10 or when the setting data of an older version than 4.10 is loaded to software whose version is newer than 4.10, “Certificate check” on the secure communication setup window will be set to “OFF”. Since the certificate check function has been added in version 4.10 or later, please set “Certificate check” setting to “ON” to enhance security.
- When you install a self-signed certificate or a purchased certificate on the camera registered in this software and use it, an error may occur when checking the certificate with this software.

Note:
- Refer to the camera’s instruction manual for camera security certificate settings and certificate installation.
- For the settings related to the security certificate of the facial recognition server and the certificate installation, refer to the instruction manual of WV-ASF950.



■ Certificate check

Determine whether to check if the security certificate was issued by a trusted certificate authority.

ON: Check the issuer of the certificate.

OFF: Does not check the issuer of the certificate.

Default: ON

Note:
- When “OFF” is set for “Certificate check”, the subsequent settings are unavailable.

■ Certificate expiration check

Determine whether to check if the security certificate is expired.

ON: Check the certificate expiration.

OFF: Does not check the certificate expiration.

Default: ON

■ Certificate address mismatch check

Determine whether to check if the address of the security certificate is matched with the address (FQDN format or IP address format) of the device registered in this software.

ON: Check the address.

OFF: Does not check the address.

Default: ON

■ Exclude mismatch check in IP address format

Determine whether to exclude mismatch check when the address entry format of the device setting window of this software is IP address format.

ON: Exclude mismatch check when the address is in IP address format.

OFF: Does not exclude mismatch check even when the address is in IP address format.

Default: ON

Note:
- When “OFF” is set for “Certificate address mismatch check”, this setting is unavailable.
- When you have registered the device address in the IP address format and used it, setting “Exclude mismatch check in IP address format” to “NO” may result in a certificate address mismatch error.

■ **[Set] button**

The configured settings will be saved.

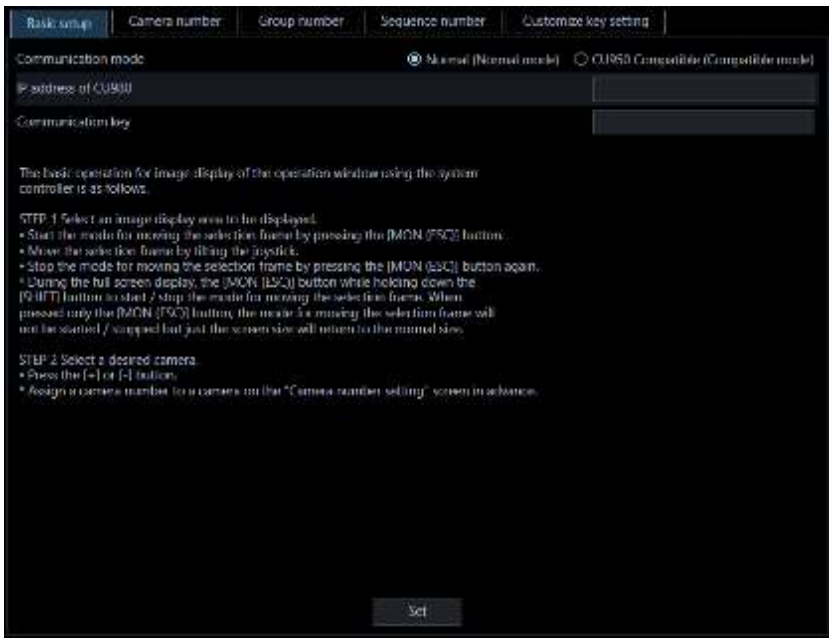
Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.14. Settings relating to the controller

When a camera, a group, and a sequence are selected from the system controller, assignment of a number to the camera, group, and sequence to be used is required before their selections.

3.14.1. Basic setup

Click the [Controller] button, and then click the [Basic setup] tab to display the “Basic setup” page.
In this section, setting the communication between the controller and ASM300 software is described.



The details of the window are as follows.

■ **Communication mode**

Set the communication mode with the controller and ASM300 software.

Normal (Normal mode): Communication with CU980 will become available.
CU950 Compatible (Compatible mode): Communication compatible with CU950 will become available.

Default: (Normal mode)

In this document, the “Normal (Normal mode)” is denoted as the normal mode; “CU950 Compatible (Compatible mode)” as the compatible mode.

Important:
- When connecting CU950, set the communication mode to the compatible mode.
- When connecting CU980, set the communication mode to the normal mode.
  Select [Communicat Mode] in the setup menu of CU980 and select “Normal” for the communication mode. For further information, refer to the operating instructions of the CU980 system controller.
- When CU950 is connected and the setup data of this software (ver. 2.10 or before) is loaded with this software (ver. 2.20 or later), the compatible mode will be set automatically. If connecting CU980, set the communication mode to the normal mode again.

■ **IP address of CU980**

Enter the IP address of CU980. For the IP address, enter up to 15 alphanumeric characters including period (.). In the compatible mode, the IP address cannot be entered.

■ **Communication key**

Enter the communication key for CU980. For the communication key, enter eight numeric values from between 00000000 to 99999999. In the compatible mode, the communication key cannot be entered.

Important:
- The communication key needs to be set the same as CU980 side. Select [Communicat Key] in the setup menu of CU980, and set the communication key. For further information, refer to the operating instructions of the CU980 system controller.

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.14.2. Set a camera number

Assign camera numbers to the registered camera names*.
* When "On" is selected for "Quad streams/Cropping mode" of the camera setup, “CH title” will be displayed instead of “Camera title”.

3.14.2.1. Manually set a camera number

Step 1

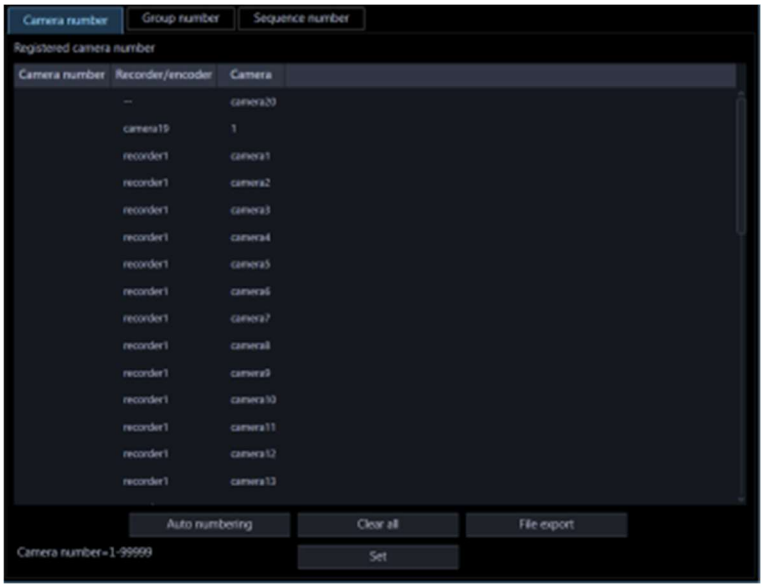
Click the [Controller] button.

→ The "Basic setup" page will be displayed.

Step 2

Click the [Camera number] tab.

→ The "Camera number" page will be displayed.



The details of the window are as follows.

■ **[Auto numbering] button**

Assigns camera numbers automatically in order of the displayed list.

■ **[Clear all] button**

Clears all the camera numbers displayed on the list.

■ **[File export] button**

Saves the displayed list as a file in CSV format.

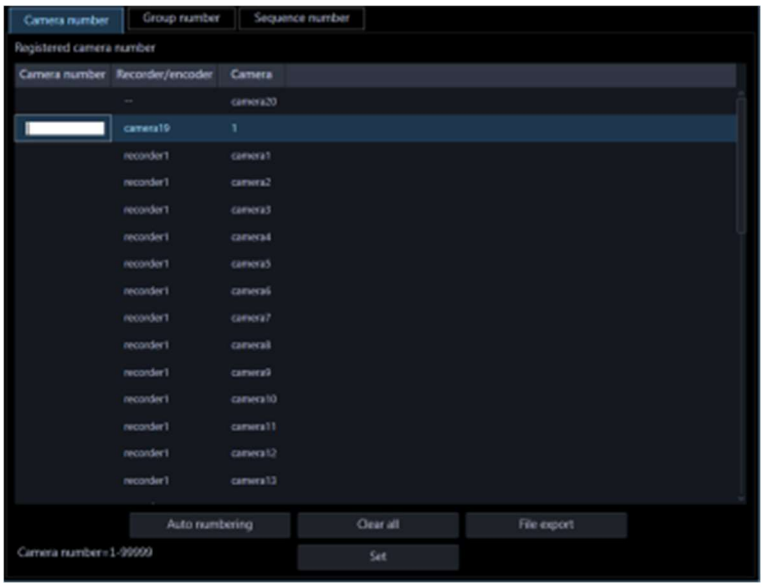
■ **[Set] button**

The configured settings will be saved.

Step 3

Click the desired camera title, and then click the camera number column respective to the clicked camera title.

→ The clicked column will become editable.



Step 4
Enter the desired camera number. Enter a number from 1 to 99999.

Step 5
Click the [Set] button.

Note:

- Even if the camera number is set for the AI privacy guard recording camera (OFF) , the image of AI privacy guard recording camera (OFF) will not be displayed if a user without authorization of "AI privacy guard Image switching" is logged in.

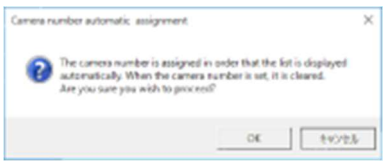
Step 6
Restart this software to apply the settings.

3.14.2.2. Automatically set a camera number

Step 1
Display the "Camera number" page.

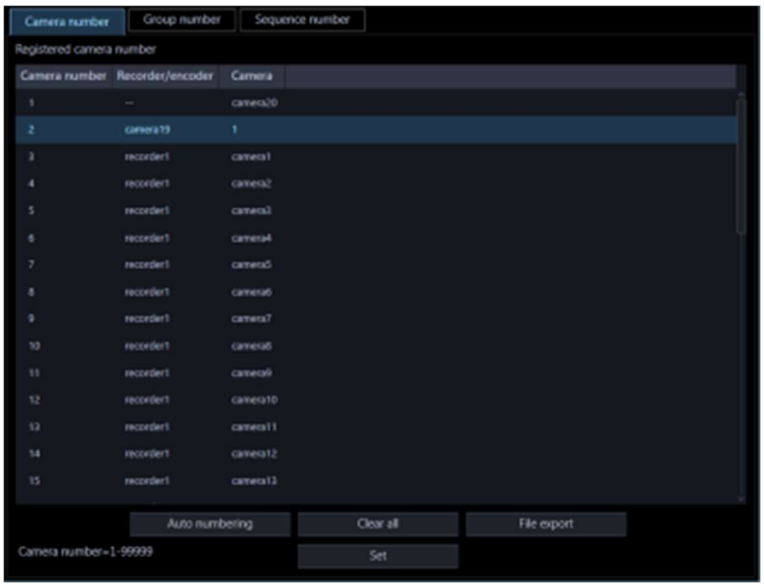
Step 2
Click the [Auto numbering] button.

→ The "Camera number automatic assignment" window will be displayed.



Step 3
Click the [OK] button.

→ Camera numbers will automatically be assigned in order of the displayed list.



Step 4
Click the [Set] button.

Note:

- Even if the camera number is set for the AI privacy guard recording camera (OFF) , the image of AI privacy guard recording camera (OFF) will not be displayed if a user without authorization of "AI privacy guard Image switching" is logged in.

Step 5
Restart this software to apply the settings.

3.14.2.3. Export the camera number list as a file

Step 1
Display the "Camera number" page.

Step 2
Click the [File export] button.

→ The "Save As" window will be displayed.

Step 3
Click the [Save] button after designating the destination folder.

→ The camera number list will be saved in CSV format.

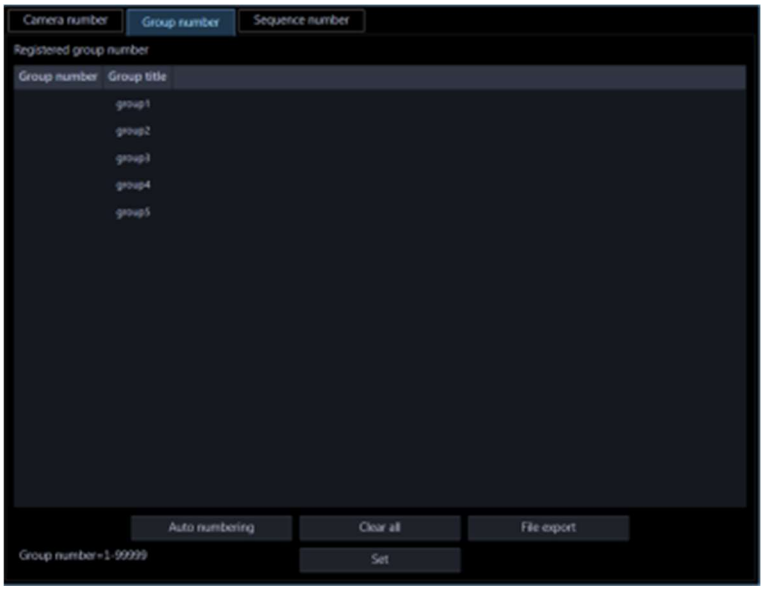
3.14.3. Set a group number

Assign group numbers to the registered group names. However, group numbers cannot be assigned to user's groups. Therefore, user's groups cannot be selected from the controller.

3.14.3.1. Manually set a group number

Step 1
Click the [Controller] button.
→ The "Basic setup" page will be displayed.

Step 2
Click the [Group number] tab.
→ The "Group number" page will be displayed.



The details of the window are as follows.

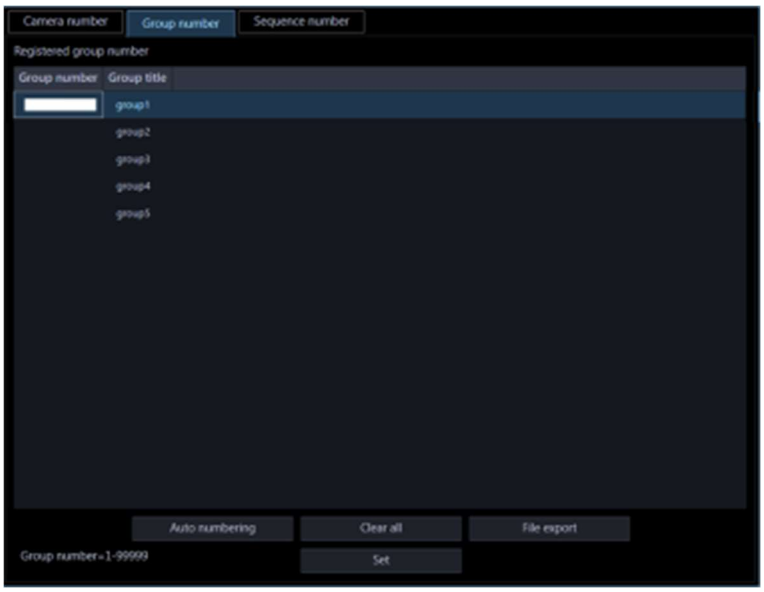
■ **[Auto numbering] button**
Assigns group numbers automatically in order of the displayed list.

■ **[Clear all] button**
Clears all the group numbers displayed on the list.

■ **[File export] button**
Saves the displayed list as a file in CSV format.

■ **[Set] button**
The configured settings will be saved.

Step 3
Click the desired group title, and then click the group number column respective to the clicked group title.
→ The clicked column will become editable.



Step 4
Enter the desired group number.
Enter a number from 1 to 99999.

Step 5
Click the [Set] button.

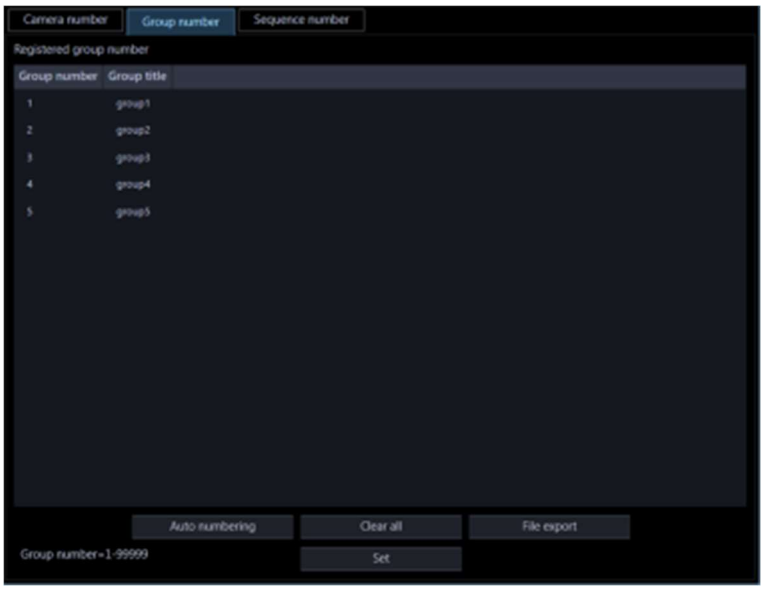
Step 6
Restart this software to apply the settings.

3.14.3.2. Automatically set a group number

Step 1
Display the "Group number" page.

Step 2
Click the [Auto numbering] button.
→ The group number automatic assignment window will be displayed.

Step 3
Click the [OK] button.
→ Group numbers will automatically be assigned in order of the displayed list.



Step 4
Click the [Set] button.

Step 5
Restart this software to apply the settings.

3.14.3.3. Export the group number list as a file

Step 1
Display the "Group number" page.

Step 2
Click the [File export] button.
→ The "Save As" window will be displayed.

Step 3
Click the [Save] button after designating the destination folder.
→ The group number list will be saved in CSV format.

3.14.4. Set a sequence number

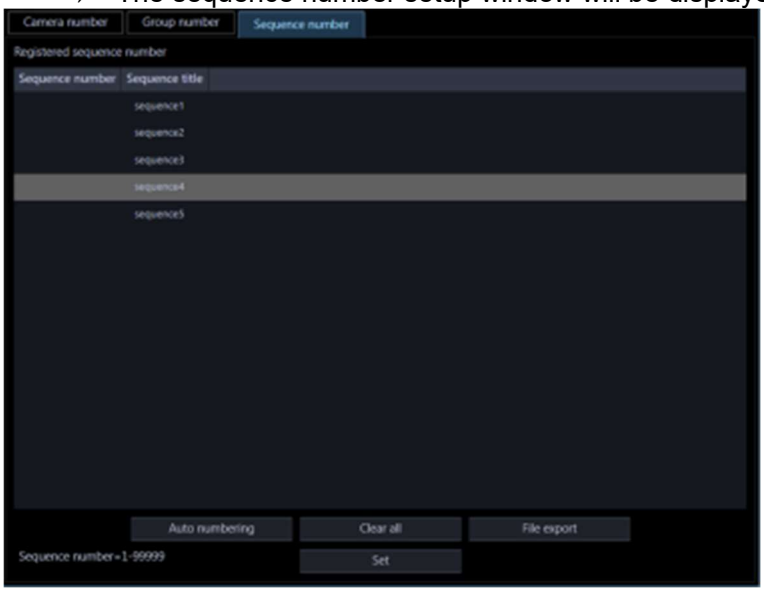
Assign sequence numbers to the registered sequence names.

3.14.4.1. Manually set a sequence number

Step 1
Click the [Controller] button.
→ The "Basic setup" page will be displayed.

Step 2
Click the [Sequence number] tab.

→ The sequence number setup window will be displayed.



The details of the window are as follows.

■ **[Auto numbering] button**

Assigns serial sequence numbers automatically in order of the displayed list starting from 1.

■ **[Clear all] button**

Clears all the sequence numbers displayed on the list.

■ **[File export] button**

Saves the displayed list as a file in CSV format.

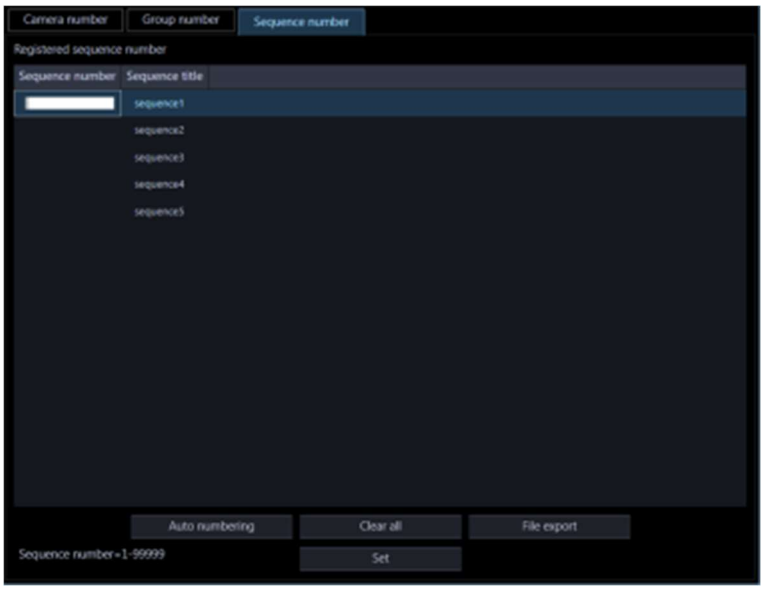
■ **[Set] button**

The configured settings will be saved.

Step 3

Click the desired sequence title, and then click the sequence number column respective to the clicked sequence title.

→ The clicked column will become editable.



Step 4
Enter the desired sequence number. Enter a number from 1 to 99999.

Step 5
Click the [Set] button.

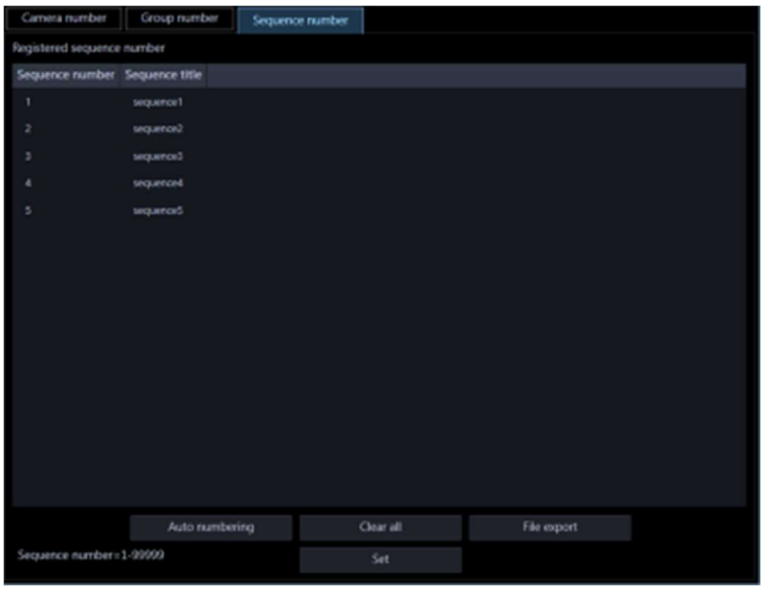
Step 6
Restart this software to apply the settings.

3.14.4.2. Automatically set a sequence number

Step 1
Display the "Sequence number" page.

Step 2
Click the [Auto numbering] button.
→ The sequence number automatic assignment window will be displayed.

Step 3
Click the [OK] button.
→ Sequence numbers will automatically be assigned in order of the displayed list.



Step 4
Click the [Set] button.

Step 5
Restart this software to apply the settings.

3.14.4.3. Export the Sequence number list as a file

Step 1
Display the "Sequence number" page.

Step 2
Click the [File export] button.
→ The "Save As" window will be displayed.

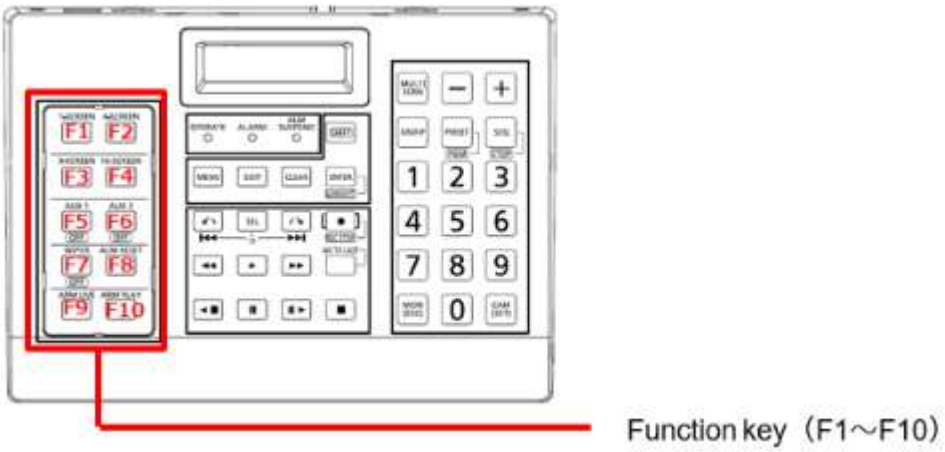
Step 3
Click the [Save] button after designating the destination folder.
→ The sequence number list will be saved in CSV format.

3.14.5. Set a customized key

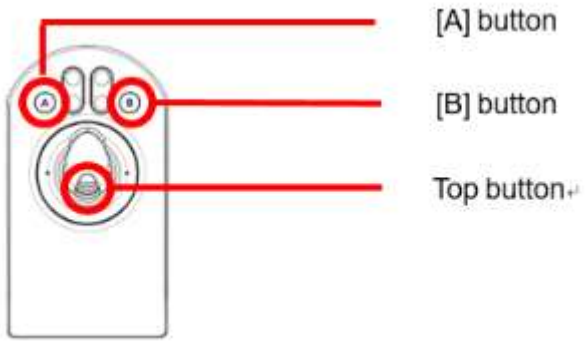
It is possible to assign other optional function which is available only with the operation window of ASM300 to the function button of CU980.

Assignable buttons are [F1] - [F10] of the function keys and the [A] button, [B] button and Top button of the joystick unit.

CU980 Main unit



Joystick unit



Note:

- Key customization is unavailable when the communication mode is “CU950 Compatible”.
- When a function is assigned to the customized key by an unauthorized user, the function will not work with the customized key. Refer to "☞ 3.4.3. User level setup" for user level setting.
- When a function which is not supported by the camera is assigned to the customized key, the function will not work with the customized key. Refer to the operating instructions of the camera for further information.
- As for other functions, the same operation restrictions of the operation window will be applied.

Step 1

Click the [Controller] button.

→ The "Basic setup" page will be displayed.

Step 2

Click the [Customize key setting] tab.

→ The customized key setting window will be displayed.



The details of the window are as follows.

■ **CU980 rough layout**

Shows the rough layout of CU980.

■ **Function keys [F1] - [F10] selection part**

Select a function to be assigned to one of the function keys [F1] - [F10].

Menu 1	Menu 2	Description
--	--	Unselected
OFF	--	The assigned function will be disabled. The assigned function can be disabled only when the assigned function has ON/OFF option.
Screen pattern switching	1-screen	Display images on 1-screen.
	2A-screen	Display images on 2A-screen.
	2B-screen	Display images on 2B-screen.
	3A-screen	Display images on 3A-screen.
	3B-screen	Display images on 3B-screen.
	3C-screen	Display images on 3C-screen.
	4-screen	Display images on 4-screen.
	4E-screen	Display images on 4E-screen.

	5-screen	Display images on 5-screen.
	6-screen	Display images on 6-screen.
	6A-screen	Display images on 6A-screen.
	7-screen	Display images on 7-screen.
	7A-screen	Display images on 7A-screen.
	9-screen	Display images on 9-screen.
	10-screen	Display images on 10-screen.
	13-screen	Display images on 13-screen.
	16-screen	Display images on 16-screen.
	25-screen	Display images on 25-screen. WV-ASE202 is required.
	36-screen	Display images on 36-screen. WV-ASE202 is required.
	49-screen	Display images on 49-screen. WV-ASE202 is required.
	64-screen	Display images on 64-screen. WV-ASE202 is required.
Cropping	Display 1 cropping	Cropping is a function that makes images by cropping a part or 5 parts on a panorama image.
	Display 5 cropping	
Auto mode control	Auto mode	The auto mode action selected on the camera operation panel of the operation window will be performed.
	Auto pan	The camera automatically moves from the start point to the end point set in advance.
	Auto track	The camera automatically tracks motion of the subject displayed in the image display area.
	Preset sequence	The camera automatically moves to the preset positions in numerical order of the preset position numbers.
	Sort	The camera automatically moves to the closest preset position from the current position.
	Patrol1	Manual operation of the camera that recorded in advance will automatically be executed.
	Patrol2	
	Patrol3	
	Patrol4	
AUX	AUX1	The selected AUX terminal will be turned into the open state.
	AUX2	
	AUX3	
Wiper control	Wiper	Controls the washer and wiper of WV-SUD638. Performs the wiper operation selected on the camera setting panel of the

		operation window.
	Continuous: High	Wipes the front cover at a fast interval.
	Continuous: Low	Wipes the front cover at a slow interval.
	1 shot	Wipes the front cover a certain times.
	Washer	Applies a preset action of the washer/wiper.
Camera control	Super Dynamic	Use the super dynamic function of the camera.
	Auto back focus	The auto back focus function of the camera will be activated.
	Fog compensation	Use the fog compensation function of the camera.
	Auto focus	Adjusts the focus automatically.
	Lock-on	Activates the lock-on function.
Video control	Full screen	Display the image currently being displayed on a full screen.
	Save a still picture	Saves the displayed image as JPEG or BMP file.
	Print	Prints the image currently being displayed.
Alarm control	Alarm reset	Resets the alarm.
	Alarm live	Displays the alarm live images.
	Alarm playback	Starts playback of alarm images.

■ **[SHIFT] + [F1] - [F10] selection part**

Select a function to be triggered when the [SHIFT] button and a function key are pressed at the same time. The same choices as the function keys [F1] - [F10] selection part will be displayed.

■ **Joystick button selection part**

Select functions to be assigned to the [A] button, [B] button and Top button of the joystick.

- [A] button
  The same choices as the function keys [F1] - [F10] selection part will be displayed.
- [b] button
  The same choices as the function keys [F1] - [F10] selection part will be displayed.
- Top button

Menu	Description
--	Unselected
ESC	Starts or ends the movement of the image area selection frame. Performs a cancel operation in the Same way as the ESC key on the PC keyboard.
Auto focus or lock-on	The auto focus function or lock-on function works. The lock-on function works only when the camera is configured to take the auto track action.
Auto focus	The auto focus function works.

Lock-on	The lock-on function works if the camera is configured to take the auto track action.
zoom（x1）	When “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]), the display position of fisheye images will be reset to the camera image distribution position. The zoom ratio will be reset.

Step 3
Open the pull-down menu of each selection section and select a function to be assigned.

Step 4
Click the [Set] button.

Step 5
Restart this software to apply the settings.

3.15. Settings relating to maintenance

The following are descriptions of how to display/save the application logs and of how to save/load/initialize the settings on the setup window.

3.15.1. Display version information

Click the [Maintenance] button, and then click the [Version information] tab to display the "Version information" window.



■ **Software version**
The version of this software will be displayed.

3.15.2. Display/save an application log

It is possible to search the logs filed in this software and display/save them. The displayed contents will vary depending on the selected log type. Refer to the "☞ 3.15.2.3. Descriptions of the application log list” for descriptions about the log list window that displays logs and major content of logs to be filed. The displayable log type and contents to be filed are as follows.

Alarm log: Alarm information history transmitted using TCP alarm notification from devices
Device error log: Device error information history transmitted using TCP alarm notification from devices
Network error log: Network error history between this software and devices
System log: System information history of this software
Operation log: Operation history of this software

Note:

- The application logs will be kept on being filed until reaching their maximum number of logs that can be stored. After reaching the maximum number, the older logs will be overwritten in order. Refer to " ☞ 3.15.2.3. Descriptions of the application log list" for the maximum number of registration of logs that can be filed in this software.

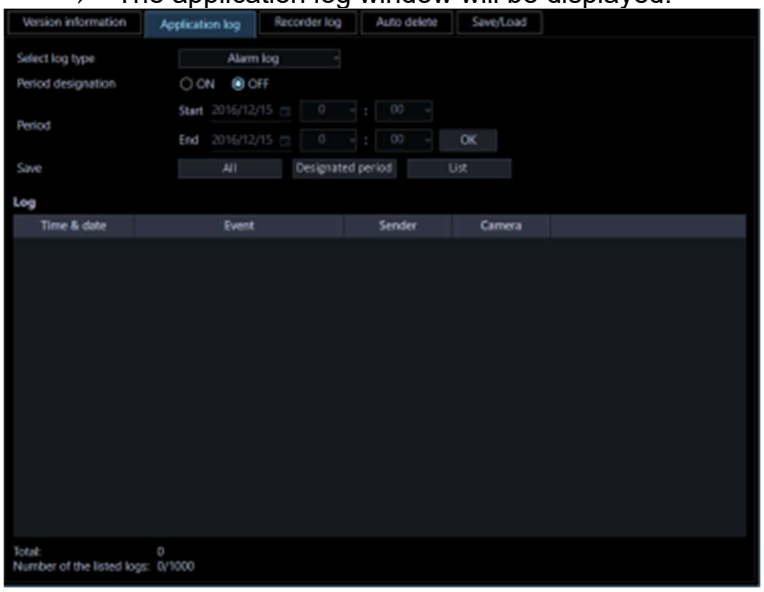
3.15.2.1. Display an application log

To display logs of each type, select the log type from the drop-down list.

Step 1
Click the [Maintenance] button.

Step 2
Click the [Application log] tab.

→ The application log window will be displayed.



The details of the window are as follows.

■ **Select log type**

Select the log type from the following.

Alarm log/Device error log/Network error log/System log/Operation log

Default: Alarm log

■ **Period designation**

Determine whether to designate a period when logs have been filed.

ON: Designate a period.

OFF: Not designate a period.

Default: OFF

■ **Start Time**

Select the start time of a period.

■ **End Time**

Select the end time of a period.

■ **[Display] button**

Searches for logs in the designated period and displays the search result in the log list.

■ **[All] button**

Saves all logs of the selected log type as a file in the CSV format.

■ **[Designated period] button**

Saves logs of the selected log type that filed only in the designated period as a file in the CSV format.

■ **[Listed] button**

Saves the logs displayed in the log list as a file in the CSV format.

■ **Log**

Content of the log will be displayed. Up to 1000 logs can be displayed.

Note:

- Descriptions of the listed logs differ depending on the log type.
- Refer to "☞ 3.15.2.3. Descriptions of the application log list" for further information.

■ **Total**

Number of logs matched with the search conditions will be displayed.

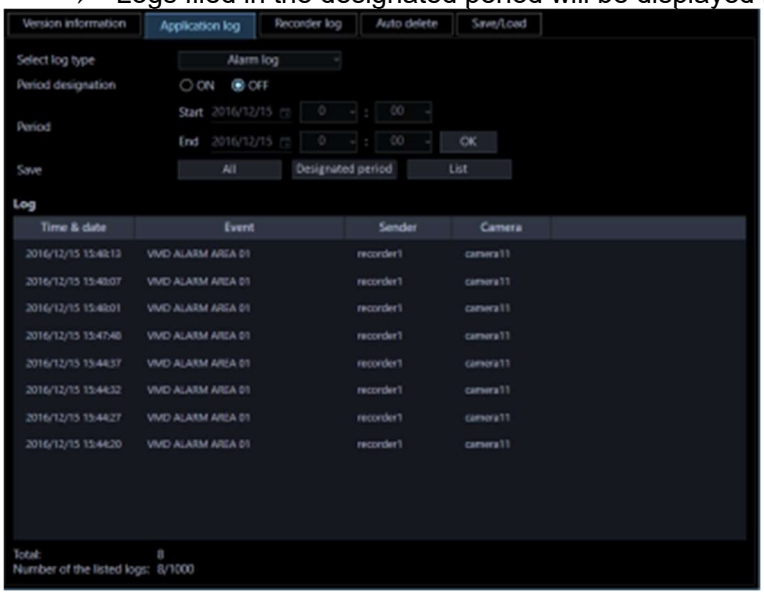
■ **Number of the listed logs**

Number of the logs currently displayed in the log list display area.

Step 3

Select the reference period of application log and click the [Display] button.

→ Logs filed in the designated period will be displayed in the log list display area.

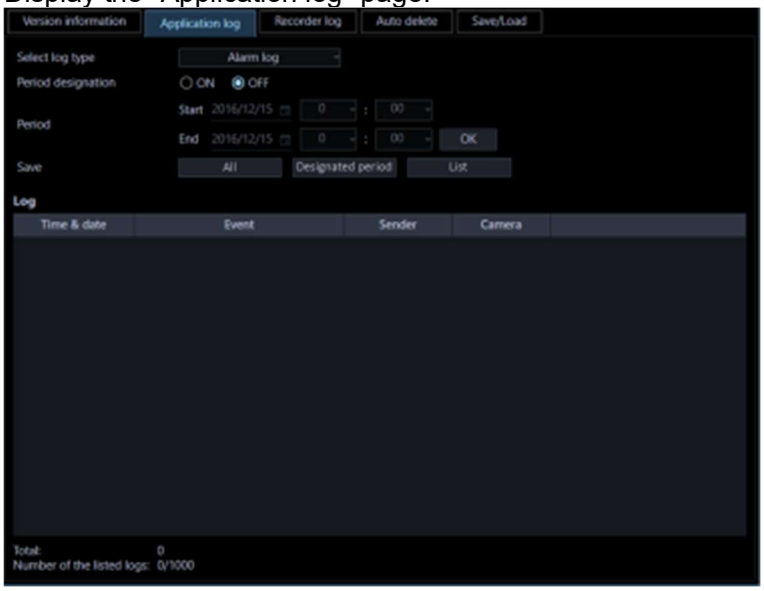


3.15.2.2. Save an application log

The logs displayed in the log list display area can be saved in a designated folder as a file in the CSV format.
The saving method is as follows.

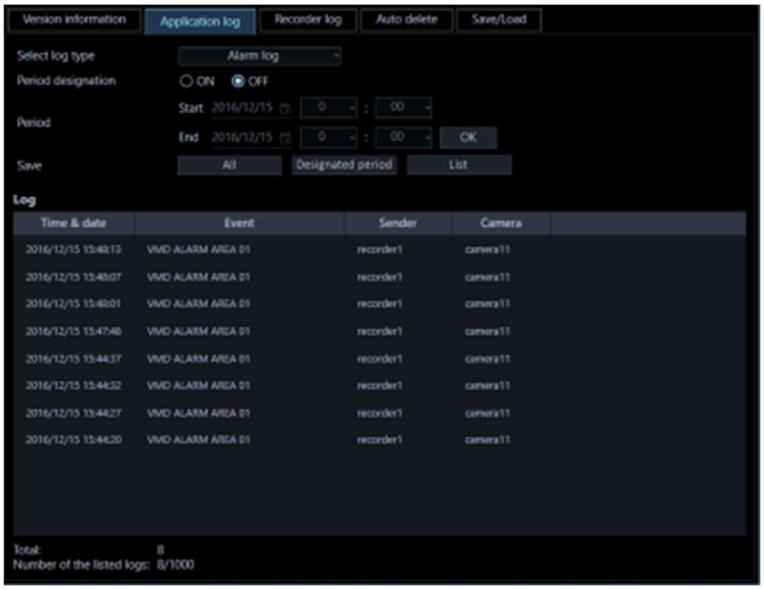
Save all: All logs will be saved.
Save logs in the designate period: Logs in the designated period will be saved.
Save the listed logs: Only the logs displayed in the log list will be saved.

Step 1
Display the "Application log" page.



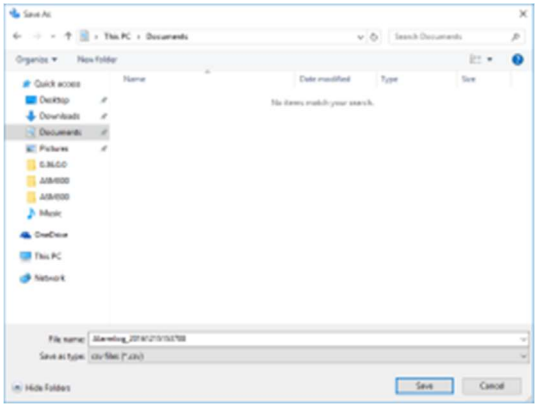
Step 2
Select the reference period of application log and click the [Display] button. Refer to "☞ 3.15.2.1. Display an application log“ for each item.

→ Logs filed in the designated period will be displayed in the log list display area.



Step 3
Click the desired button ([All] button/[Designated period] button/[Listed] button) according to the desired saving method of logs.

→ The "Save As" window will be displayed.



Note:

- If the number of logs to be saved is large, it may take up to 1 minute to display the save screen with a name. In that case please wait as it is without operating the screen.

Step 4
Click the [Save] button after designating the destination folder.

→ The application log information saving progress window will be displayed.

When the saving of the file is completed, the application log saving progress window will automatically close and the application log window will be displayed.

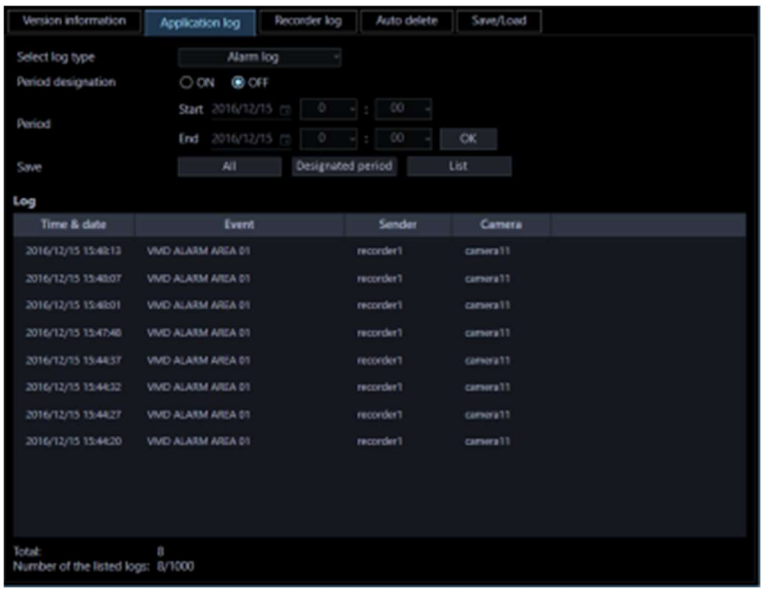
Note:

- When the number of logs to be saved as a file is more than 10000, the file to be saved will automatically be divided into a several files.

3.15.2.3. Descriptions of the application log list

3.15.2.3.1. Alarm log

The alarm log will be filed each time an alarm occurred.
Up to 30000 system logs can be stored and up to 1000 system logs can be displayed.



■ Time & date

Time & date when the alarm occurred will be displayed.

■ Content

Descriptions of the alarm will be displayed.

Note:

- For the alarm names for Intruder, Loitering, Direction and Cross line, the names set in the [Setting]-[AI camera] screen are displayed. In addition, AI-VMD and i-VMD are the target.

■ Sender

The title of the device in which the alarm occurred will be displayed.

Note:

- When an alarm occurred in a camera that is not registered in the recorder, "--" will be displayed.

■ Camera

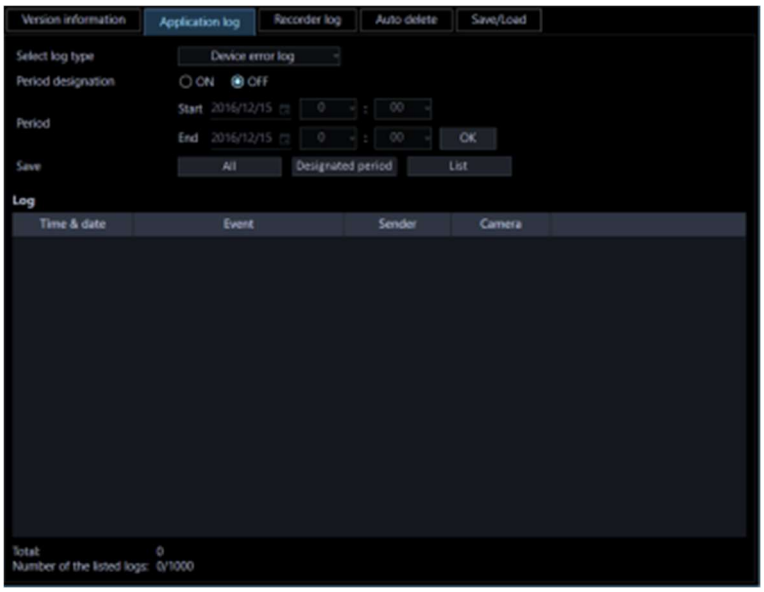
The title of the camera in which the alarm occurred will be displayed.

Note:

- When an alarm occurred in a device for which "On" is selected for "Quad streams/Cropping mode" of the camera setup, “CH title” will be displayed instead of “Camera title”.

3.15.2.3.2. Device error log

The device error log will be filed each time an error occurred in the device.
Up to 1000 system logs can be stored and up to 1000 system logs can be displayed.



■ **Time & date**

Time & date when the device error occurred will be displayed.

■ **Content**

Descriptions of the error occurred in the device will be displayed.

■ **Sender**

The title of the device in which the error occurred will be displayed.

Note:

- When a device error occurred in a camera is not registered in the recorder, "--" will be displayed.

■ **Camera**

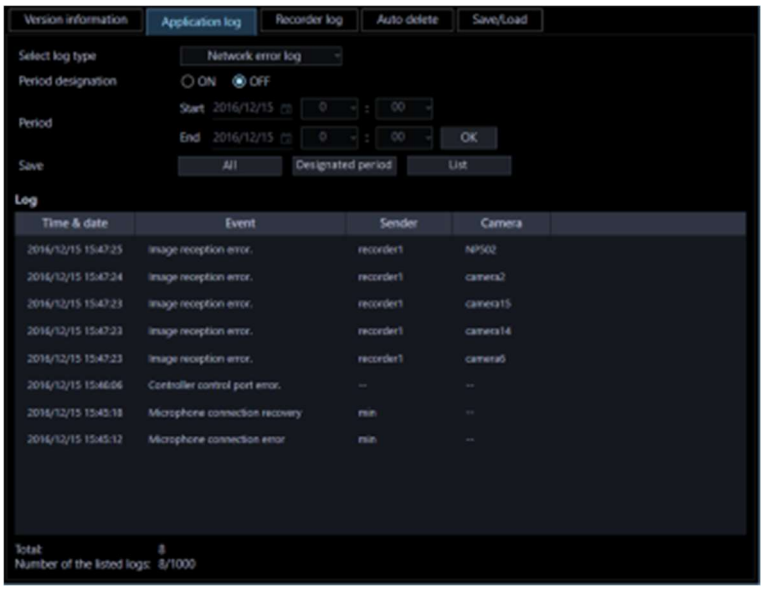
The title of the camera in which the error occurred will be displayed.

Note:

- When a device error occurred in a device for which "On" is selected for "Quad streams/Cropping mode" of the camera setup, “CH title” will be displayed instead of “Camera title”.

3.15.2.3.3. Network error log

The network error log will be filed each time a network error occurred.
Up to 1000 system logs can be stored and up to 1000 system logs can be displayed.



■ Time & date

Time and date of the network error occurrence will be displayed.

■ Content

Descriptions of the network error will be displayed.

■ Sender

The title of the device in which the network error occurred will be displayed.

Note:

- When a network error occurred in a camera that is not registered in the recorder, "--" will be displayed.

■ Camera

The title of the camera in which the network error occurred will be displayed.

Note:

- When a network error occurred in a device for which "On” is selected for "Quad streams/Cropping mode" of the camera setup, “CH title” will be displayed instead of “Camera title”.

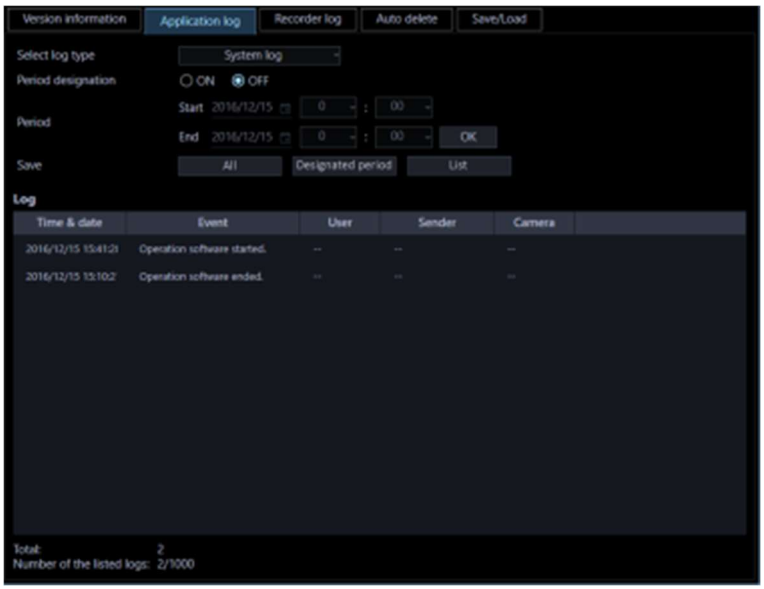
The following are the network error logs to be filed.

Log	Description
Unknown certificate issuer	Filed when the security certificate for the connected device was not issued by a trusted certificate authority.
Expired certificate	Filed when the security certificate for the connected device has expired or is not yet valid.
Certificate address mismatch	Filed when the address of the security certificate for the connected device was mismatched with the address of the device registered in this software.
HTTPS communication error	Filed when the connected device is not in an environment where a secure communication is supported.

Recorder communication recovered.	Filed when the connection to the recorder was recovered.
Recorder communication error.	Filed when failed to connect to the recorder.
Undefined reply. (from the recorder)	Filed when received an undefined reply from the recorder.
Recorder user authentication error	Filed when failed to authenticate the user to connect to the recorder.
Maximum concurrent access.	Filed when failed to connect to the recorder due to the concurrent access limit.
Host authentication error.	Filed when failed to authenticate the host to connect to the recorder.
Encoder communication recovered.	Filed when the communication with the encoder recovered.
Encoder communication error	Filed when failed to connect to the encoder.
Camera communication recovered.	Filed when the connection to the camera was recovered.
Camera communication error.	Filed when failed to connect to the camera.
Undefined reply. (from the camera)	Filed when received an undefined reply from the camera or the encoder.
Camera user authentication error.	Filed when failed to authenticate the user to connect to the camera or the encoder.
Camera authentication method error	For details of changing the position name, refer to “Set the preset position name”.
Microphone connection error	Filed when failed to connect to the microphone.
Microphone connection recovery	Filed when the connection to the microphone was recovered.
Port number duplication.	Filed when port numbers are redundant. When a port number is manually assigned to each camera in the unicast mode, use caution not to assign the same number to different cameras. Refer to the operating instructions of the camera in use for settings relating to the port number.

3.15.2.3.4. System log

The system log will be filed each time the status of the system changed.
Up to 1000 system logs can be stored and up to 1000 system logs can be displayed.



■ Time & date

Operation time and date will be displayed.

■ Content

Descriptions of the status will be displayed.

■ User

The name of the user who operated this software will be displayed.

■ Sender

The title of the device which has been operated by the user will be displayed.

Note:

- When the device in operation is a camera that is not registered in the recorder, "--" will be displayed.

■ Camera

The title of the camera which has been operated by the user will be displayed.

Note:

- When "On" is selected for "Quad streams/Cropping mode" of the camera setup of the camera in operation, “CH title” will be displayed instead of “Camera title”.

The following are the system logs to be filed.

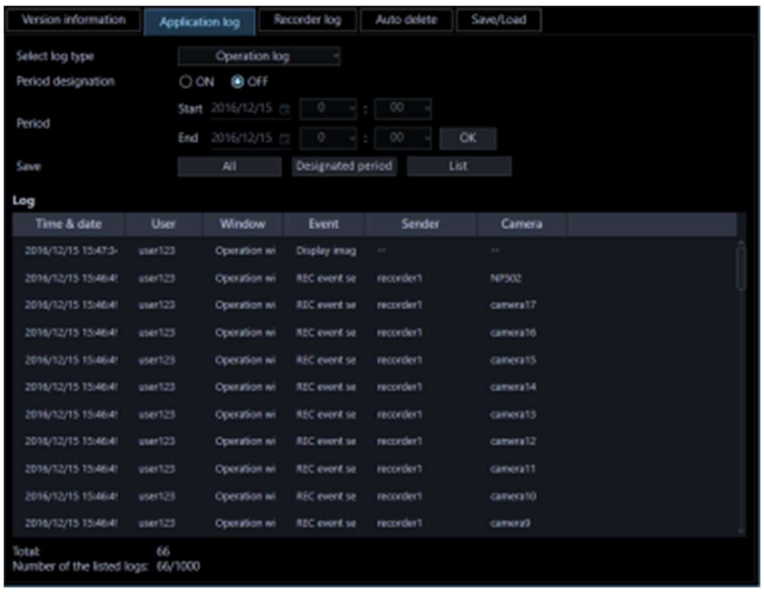
Log	Description
ASM300 started	Filed when this software is started.
ASM300 ended	Filed when this software is ended.
ASM300 user login	Filed when a user logged in this software.
ASM300 logout	Filed when a user logged out of this software.
Received a TCP alarm notification from an unsupported device.	Filed when received TCP alarm notification from an unsupported device.

Log	Description
Received a TCP alarm notification from an unregistered device.	Filed when received TCP alarm notification from an unregistered device.
An error occurred on TCP alarm notification reception.	Filed when an error occurred in the reception of TCP alarm notification.
An error occurred on TCP alarm notification processing.	Filed when failed to implement the TCP alarm notification received from the device.
FACE alarm reception error (operation mode inconsistency)	Filed when the operation mode (registered face detection mode) of the server registered in this software does not match when receiving "FACE ALARM".
Failed to delete the operation log file.	Filed when failed to delete the operation logs automatically.
An unexpected error has occurred. The operation software has been restarted to continue monitoring.	Filed when an unexpected error occurred and this software is restarted.
Live window started.	Filed when the live window is started.
Live window ended.	Filed when the live window is ended.
ASM300 user login error	Filed when failed to read out the user information and the user failed to log in to this software.
A TCP alarm notification reception start error.	Filed when an error occurred at the start of the reception of TCP alarm notification.
Received an illegal TCP alarm notification (Unsupported category)	Filed when the category of TCP alarm notification is illegal.
Received an illegal TCP alarm notification. (Unknown message ID)	Filed when the message ID of TCP alarm notification is illegal.
Setup window started	Filed when the setup window is started.
Setup window ended	Filed when the setup window is started.
The setup window restarted due to an unexpected error occurrence	Filed when an unexpected error occurred and the setup window is restarted.
Setup window user login failed	Filed when failed to read out the user information and the user failed to log in to the setup window.
An unexpected error has occurred. The live software has been restarted to continue monitoring.	Filed when an unexpected error occurred and the live software was restarted.
Download failed (Unknown certificate issuer)	Filed when the download failed because the security certificate for the recorder was not issued by a trusted certificate authority.
Download failed (Expired certificate)	Filed when the download failed because the security certificate for the recorder has expired or is not yet valid.
Download failed (Certificate address mismatch)	Filed when the download failed because the address of the security certificate for the recorder was mismatched with the address of the device registered in this software.
Download from the SD failed (Expired certificate)	Filed when the download of video in the SD memory card failed because the security certificate for the camera has expired or is not yet valid.

Log	Description
Download failed (FTP connection error)	Filed when download of the file failed due to the error in the FTP access to the recorder. In this case, the following are possible causes. The FTP access is blocked by the firewall. The FTP port cannot be opened because the user name and password set at the time of device registration do not match with the administrator name and password of the recorder. It is impossible to open the FTP port since it exceeds the maximum number of connections of the recorder.
Download failed (FTP login error)	Filed when the FTP login to the recorder failed. In this case, the following are possible causes. The FTP login is unavailable because the user name and password set at the time of device registration do not match with the administrator name and password of the recorder.
Download failed (excessive FTP connections)	Filed when download of the file failed due to the concurrent FTP access limit of the recorder.
Download failed (other FTP errors)	Filed when an error occurred during the FTP access to the recorder.
Download failed (recorder unsupported version)	Filed when downloading failed since the recorder does not support the n3r-format file downloading (extension method).
Start automatic adjustment of 3D Dewarp image	Filed when the automatic adjustment function that limits the resolution and frame rate for 3D Dewarp images starts.
Stop automatic adjustment of 3D Dewarp image	Filed when the automatic adjustment function that limits the resolution and frame rate for 3D Dewarp images stops.
High-speed playback smooth mode suppression for 3D dewarp image	Filed when the adjustment function that limits the frame rate for 3D dewarped images is activated when using high-speed playback smooth mode.
No permission to switch AI privacy guard images	Filed when a user without authorization of "AI privacy guard image switching" is logged in and the group operation or sequence operation in which the image of the AI privacy guard recording camera (OFF) is set is started.
PC’s physical memory usage rate exceeded n%	It will be recorded when the PC’s physical memory usage rate reached n% continuously for the specified number of times.
PC’s virtual memory usage rate exceeded n%	It will be recorded when the PC’s virtual memory usage rate reached n% continuously for the specified number of times.
PC’s CPU usage exceeded n%	It will be recorded when the PC’s CPU usage reached n% continuously for the specified number of times.

3.15.2.3.5. Operation log

The application log will be filed each time a user operates this software.
Up to 100000 system logs can be stored and up to 1000 system logs can be displayed.



■ **Time & date**

Time and date when a user operated this software will be displayed.

■ **User**

The name of the user who operated this software will be displayed.

■ **Window**

The window type of this software that the user operated will be displayed.

■ **Content**

Descriptions of the operation will be displayed.

■ **Sender**

The title of the device which has been operated by the user will be displayed.

Note:

- When the device in operation is a camera that is not registered in the recorder, "--" will be displayed.

■ **Camera**

The title of the camera which has been operated by the user will be displayed.

Note:

- When "On" is selected for "Quad streams/Cropping mode" of the camera setup of the camera in operation, “CH title” will be displayed instead of “Camera title”.

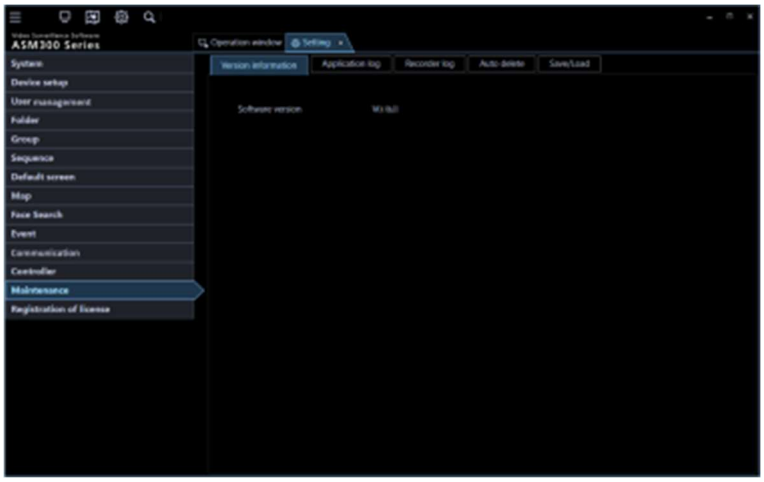
3.15.3. Recorder log

It is possible to download the recorder logs filed in each recorder and display/save them.
The displayable log type and contents to be filed are as follows.

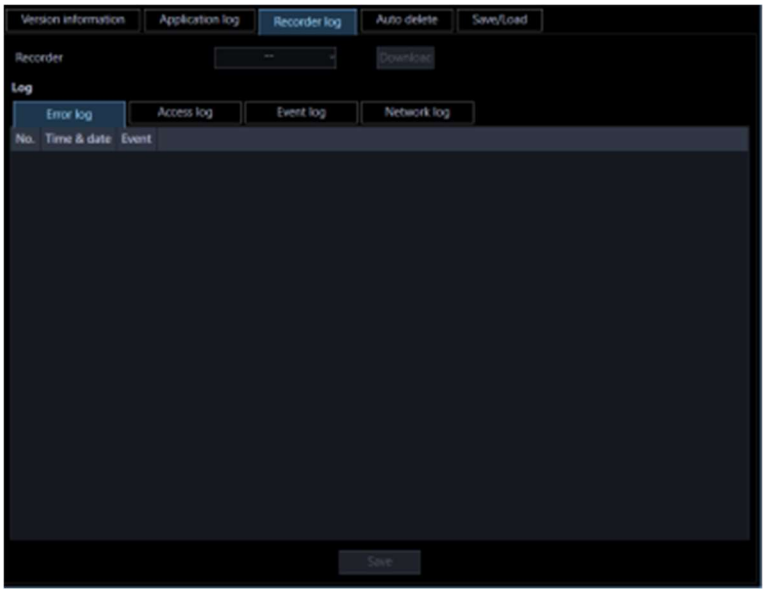
Error log: Error history of the recorder
Access log: Access history to the recorder
Event log: Event occurrence history of the recorder
Network log: Network error history of the recorder

3.15.3.1. Download a recorder log

Step 1
Click the [Maintenance] button.
→ The version information window will be displayed.



Step 2
Click the [Recorder log] tab.
→ The recorder log window will be displayed.



The details of the window are as follows.

■ **Recorder**
Select the recorder from which the recorder log is to be downloaded.

■ **[Download] button**

Downloads the recorder log filed in the selected recorder.

■ **Log**

Descriptions of the log will be displayed.
"No.", "Time & date" and "Contents" will be displayed for every log.

Note:

- "Protocol" will also be displayed for "Network log".

■ **Each log tab**

Tabs of each log type will be displayed. Tab of “Error log”, “Access log”, “Event log” or “Network log” can be selected.

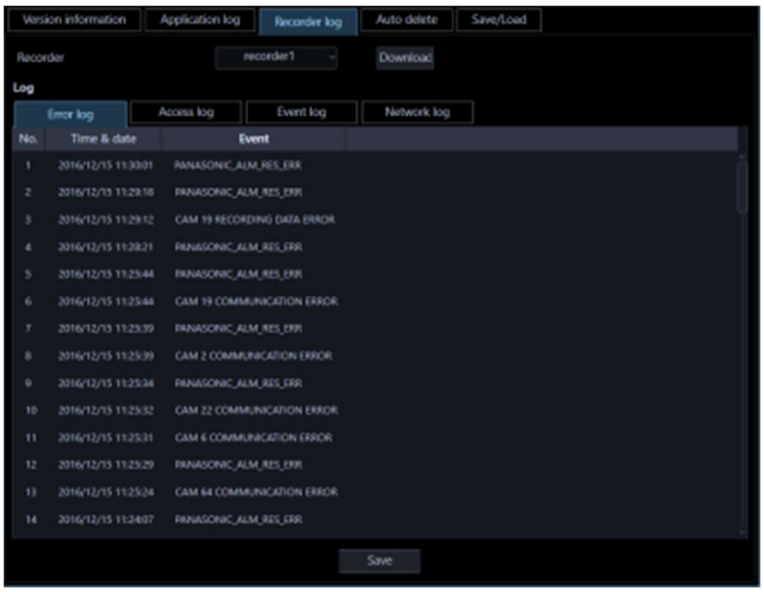
■ **[Save] button**

Saves the recorder log by type.

Step 3

Select the recorder and click the [Download] button.

→ The cursor will turn into an hourglass. When the download is completed, the log list will be displayed.

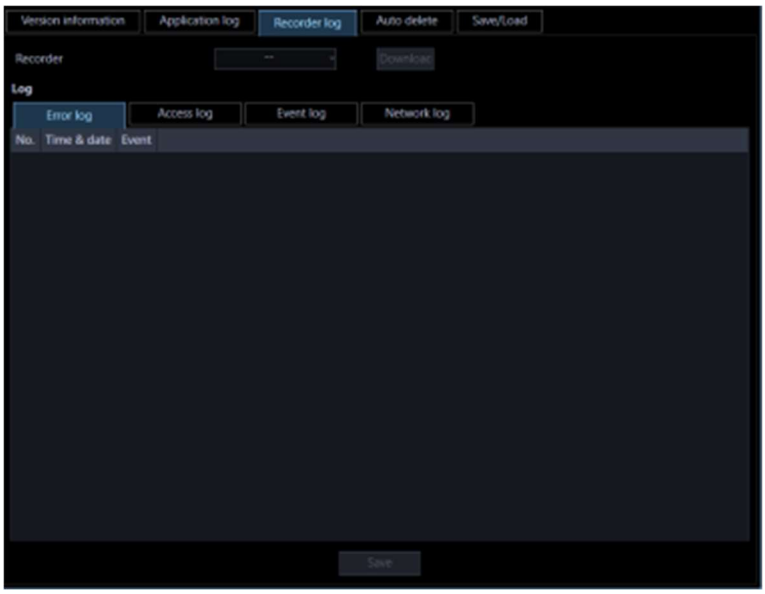


3.15.3.2. Save a recorder log

The designated recorder log will be saved.

Step 1

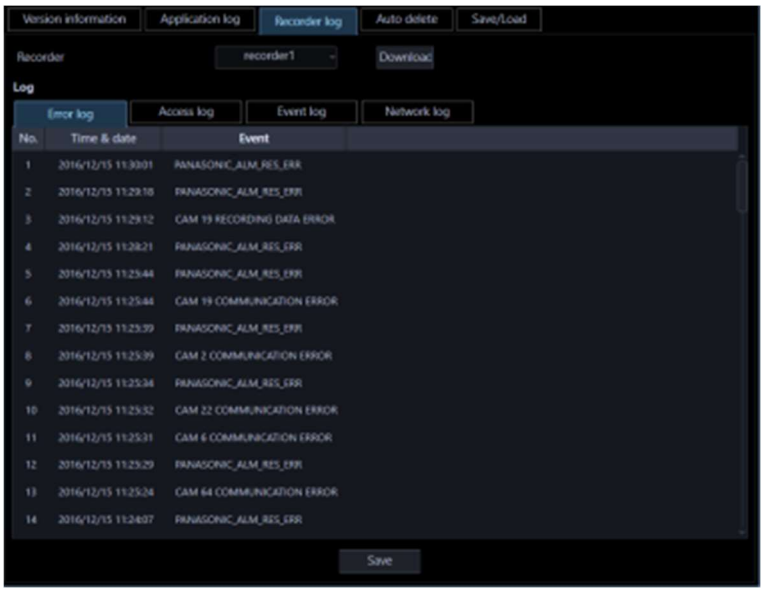
Display the "Recorder log" page.



Step 2

Select the recorder and click the [Download] button.

→ The cursor will turn into an hourglass.

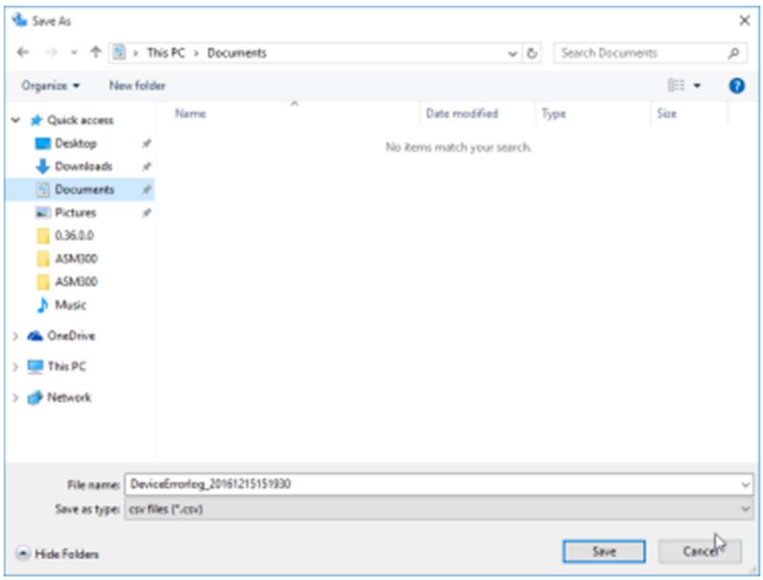


When the download is completed, the log list will be displayed.

Step 3

Click a tab whose log is to be saved, and the click the [Save…] button.

→ The "Save As" window will be displayed.



Step 4
Click the [Save] button after designating the destination folder.

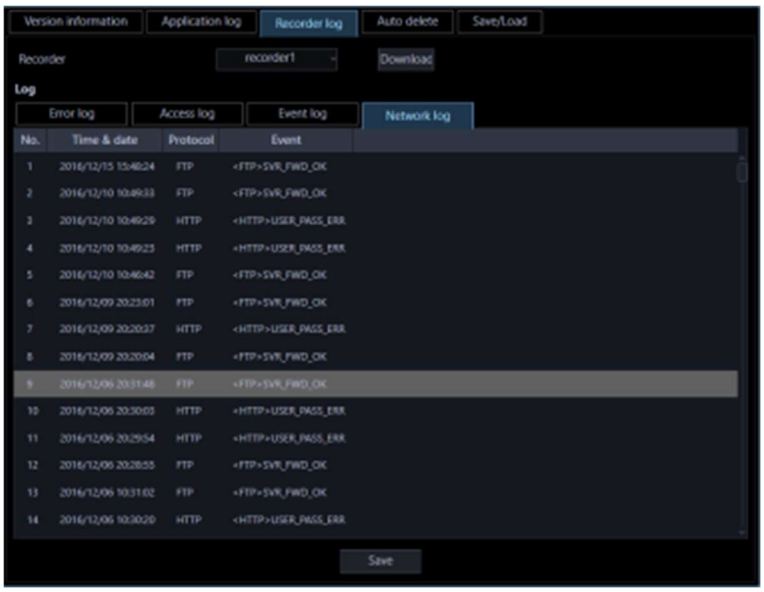
→ The recorder log information saving progress window will be displayed.

When the saving is completed, the recorder log information saving progress window will automatically close and the recorder log window will be displayed.

3.15.3.3. Descriptions of the recorder log list

The recorder log will be filed each time an error including a network error occurred in the login recorder or in the camera connected the login recorder. Time and date when the error occurred and its descriptions will be displayed for each log.
The maximum number of logs that can be stored differs depending on the log type as follows.

Error log: Up to 100 logs (1000 logs when the recorder in use is the NV200, NV300, NX-series or NU-series)
Access log: Up to 100 logs
Event log: Up to 750 logs
Network log: Up to 1000 logs (100 logs when the recorder in use is the NV200, NV300, NX-series or the NU-series)



■ **No.**

The log number will be displayed. The younger number is given to the newer log.

■ **Time & date**

Time and date when the log has been filed will be displayed.

■ **Protocol**

The protocol type will be displayed.

■ **Content**

Descriptions of the occurrence (operation) will be displayed.

3.15.4. Automatically delete operation logs

Determine whether to automatically delete the filed operation logs or not. When deleting the operation logs, set the retention period of the logs. The operation logs will automatically be deleted when the set retention period has passed.

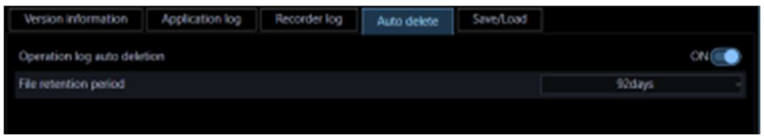
Important:

- When the PC is not started, the operation log will not be deleted even when the set retention period has been passed.

Note:

- Refer to "☞ 3.15.2.3. Descriptions of the application log list" for the maximum number of registration of logs that can be filed in this software.

Click the [Maintenance] button, and then click the [Auto delete] tab to display the "Auto delete" page.



■ **Operation log auto deletion**

Determine whether to automatically delete the operation log or not.
ON: The operation log will be automatically deleted.
OFF: The operation log will not be automatically deleted.
Default: ON

■ **File retention period**

Select the file retention period from the following. This setting can be configured only when "ON" is selected for "Operation log auto deletion".
31 days/ 92 days/ 184 days/ 366 days
Default: 92 days

■ **[Set] button**

The configured settings will be saved.

Important:
- After clicking the [Set] button, restart this software to apply the settings.

3.15.5. Save/load/initialize the setup data and initialize logs

The setup data can be saved/loaded/initialized and the application logs can also be initialized.

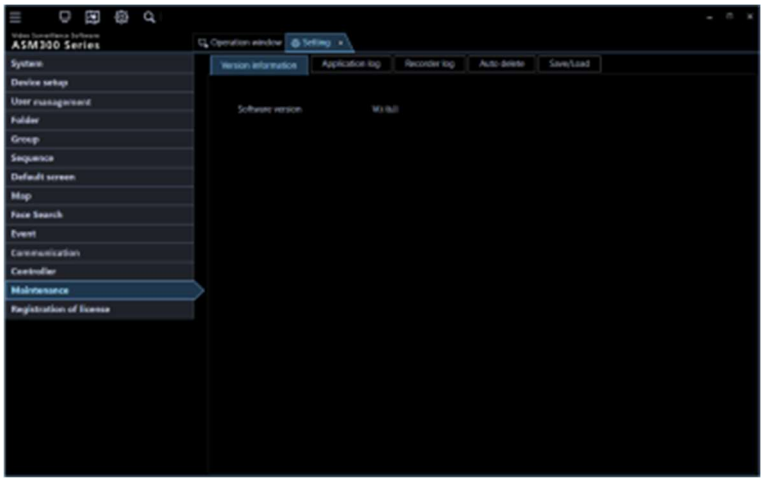
Note:
- The following settings are not subject to setting save / load / initialization.
  - [System] - [Drawing and audio setup] - [PC diagnosis (4K camera)] / [Decoding method (H.265)]
  - [Maintenance] - [Recorder log]
  - [Registration of license]

3.15.5.1. Save the setup data as a backup

Important:
- Back up the setup data periodically by copying it onto an external hard disk drive or other storage medium. When the hard disk drive on the PC in use is damaged, it may be impossible to recover the setup data.
- If the setup data is saved, all the application logs will also be saved.

Step 1
Click the [Maintenance] button.

→ The version information window will be displayed.



Step 2

Click the [Save/Load] tab.

→ The "Save/Load" page will be displayed.



The details of the window are as follows.

■ **[Save] button**

Displays the "Save As" window.

■ **[Load] button**

Displays the [Open] window.

■ **[Execute] button (Initialization of the setup file)**

Displays the setup data initialization start confirmation window.

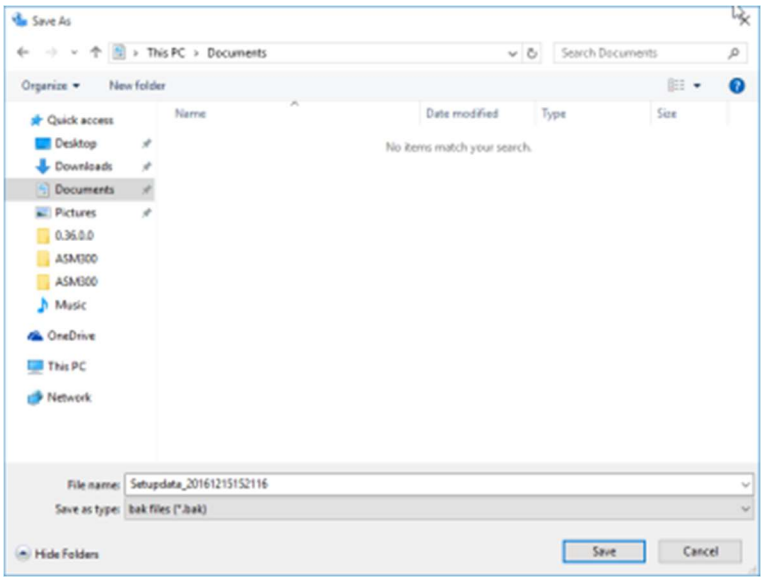
■ **[Execute] button (Initialization of application log)**

The initialization start confirmation window for the application logs will be displayed.

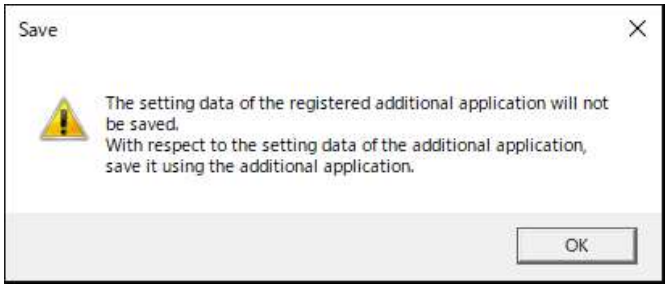
Step 3

Click the [Save] button of "Save the setup file".

→ The "Save As" window will be displayed.



<When an additional software is installed>
The following warning screen will be displayed.



Step 4
Click the [Save] button after designating the destination folder.
→ Saving of the setup data will start.

Step 5
Click the [OK] button on the confirmation window.
→ The "Save/Load" page will be displayed again.

3.15.5.2. Load the setup file

Important:
- When loading of the setup file starts, all the setup data of this software will be overwritten.
- When loading of the setup file is completed, this software will restart.
- If the setup data is loaded, all the saved application logs will also be overwritten.
- The setup data is unable to be loaded if it is stored in the network drive. Save the setup data on the hard disk of the PC in advance.

* If the saved application logs are older, the data will be overwritten with the older one.

Step 1
Display the "Save/Load" page.

Step 2
Click the [Load] button of "Load the setup file".
→ The “Open” window will be displayed.

Step 3
Select the setup file to be loaded, and then click the [Open] button.
→ The loading start confirmation window will be displayed.

Step 4
Click the [OK] button on the confirmation window.
→ Loading of the setup file will start.

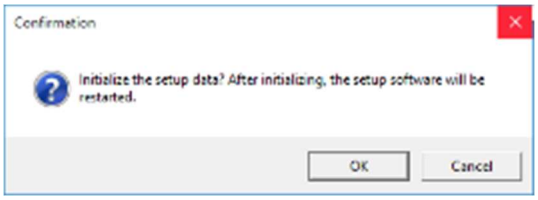
Step 5
Click the [OK] button on the confirmation window.
→ This software will be automatically restarted.

3.15.5.3. Initialize the setup data

Important:
- When initialization of the setup file starts, all the setup data of this software will be initialized. It is recommended to back up the setup file before initializing the setup file.
- When initialization of the setup file is completed, this software will restart.

Step 1
Display the "Save/Load" page.

Step 2
Click the [Execute] button of "Initialize the setup file".
→ The initialization start confirmation window will be displayed.



Step 3
Click the [OK] button.
→ Initialization of the setup file will start.

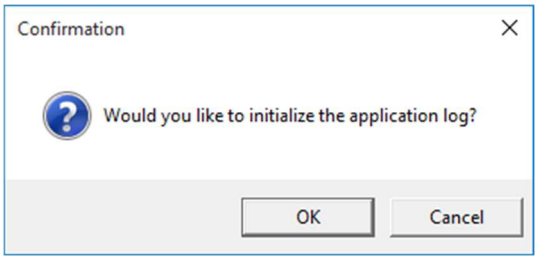
Step 4
Click the [OK] button on the confirmation window.
→ This software will be automatically restarted.

3.15.5.4. Initialize the application logs

Step 1

Display the "Save/Load" page.

Step 2
Click the [Execute] button of "Initialize application log".
→ The initialization start confirmation window will be displayed.



Step 3
Click the [OK] button.
→ Initialization will start.

Step 4
Click the [OK] button on the confirmation window.

3.15.6. Save/load/initialize the timeline data

Save, load, initialize the timeline data obtained by this software.

3.15.6.1. Save the timeline

Important:
- Back up the timeline data along with setup data periodically by copying it onto an external hard disk drive or other storage medium.
- This function is available only when "Master" is selected for "Timeline database".

Step 1
Display the "Save/Load" page.



The details are as follows.

■ **[Save] button**

Displays the "Save As" window.

■ **[Load] button**

Displays the "Open a file" window.

■ **[Execute] button**

Displays the confirmation window for starting initialization of timeline data.

Step 2

Click the [Save] button of "Timeline save".

→ The "Save As" window will be displayed.

Step 3

Click the [Save] button after designating the destination folder.

→ Saving of the setup data will start.

Step 4

Click the [OK] button on the confirmation window.

→ The "Save/Load" page will be displayed again.

3.15.6.2. Load the timeline

Important:

- When loading of the timeline data is started, all the timeline data will be overwritten.

* If the saved application logs are older, the setup data will also be overwritten with the older one.

Step 1

Display the "Save/Load" page.

Step 2

Click the [Load] button of "Timeline load".

→ The "Open" window will be displayed.

Step 3

Select the setup file to be loaded, and then click the [Open] button.

→ The loading start confirmation window will be displayed.

Step 4

Click the [OK] button on the confirmation window.

→ Loading of the setup file will start.

Step 5

Click the [OK] button on the confirmation window.

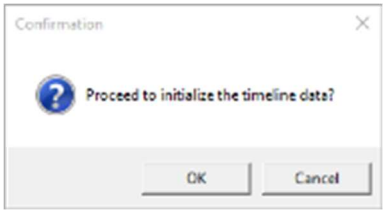
→ This software will be automatically restarted.

3.15.6.3. Initialize the timeline (Clear)

Recording information collected in the PC by the timeline database will be initialized (cleared).

Step 1
Display the "Save/Load" page.

Step 2
Click the [Execute] button of "Initialize the timeline".
→ The initialization start confirmation window will be displayed.



Step 3
Click the [OK] button.
→ Initialization will start.

Step 4
Click the [OK] button on the confirmation window.

3.15.7. Save/load/initialize the recorder HDD analysis information

The HDD analysis information periodically acquired from the recorder can be saved/loaded/initialized.

Note:
- If the recorder does not support the HDD analysis information acquisition function, this item will not be displayed on the "Save/Load" page.
- This function does not work with ND400, ND300, ND200, NV300, NV250, NV200, HD600, and HD300.

3.15.7.1. Save the recorder HDD analysis information

Important:
- Back up the recorder HDD analysis information along with setup data periodically by copying it onto an external hard disk drive or other storage medium.

Step 1

Display the "Save/Load" page.



The details are as follows.

■ **[Save] button**

Displays the "Save As" window.

■ **[Load] button**

Displays the "Open a file" window.

■ **[Execute] button**

Displays the confirmation window for starting initialization of the recorder HDD analysis information.

Step 2

Click the [Save] button of "Save the recorder HDD analysis information".

→ The "Save As" window will be displayed.

Step 3

Click the [Save] button after designating the destination folder.

→ Saving of the setup data will start.

Step 4

Click the [OK] button on the confirmation window.

→ The "Save/Load" page will be displayed again.

3.15.7.2. Load the recorder HDD analysis information

Important:

- When loading of the recorder HDD analysis information is started, all the recorder HDD analysis information will be overwritten.

Step 1

Display the "Save/Load" page.

Step 2

Click the [Load] button of "Load the recorder HDD analysis information".

→ The "Open" window will be displayed.

Step 3

Select the setup file to be loaded, and then click the [Open] button.

→ The loading start confirmation window will be displayed.

Step 4

Click the [OK] button on the confirmation window.

→ Loading of the setup file will start.

Step 5

Click the [OK] button on the confirmation window.

3.15.7.3. Initialize the recorder HDD analysis information (Clear)

The recorder HDD analysis information collected in the PC will be initialized (cleared).

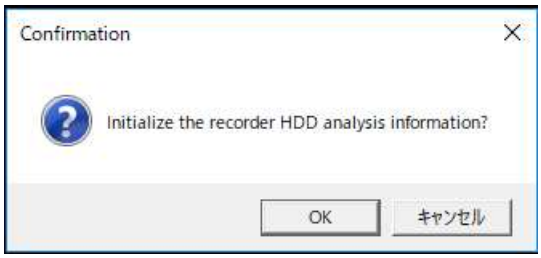
Step 1

Display the "Save/Load" page.

Step 2

Click the [Execute] button of "Initialization of the recorder HDD analysis information".

→ The initialization start confirmation window will be displayed.



Step 3

Click the [OK] button.

→ Initialization will start.

Step 4

Click the [OK] button on the confirmation window.

3.16. Settings relating to the license registration

As well as registering the authentic license to use this software, the license to add the extension software (option) will be registered. To register these licenses, it is necessary to enter the "Registration Key" obtained

from the Key Management System. Refer to the provided "Activation Key Card" to obtain the "Registration Key" of this software. Refer to the provided "Activation Key Card" provided with the extension software to obtain the "Registration Key" of the extension software.

Important:
- To activate the license to register, it is necessary to click the [Registration] button. For the registration of the license, this software will be automatically restarted.
- Be sure to perform the registration procedure for this software on the PC in use.

3.16.1. Add a license

The "Registration Key" to use this software and add the extension software (option) will be registered.

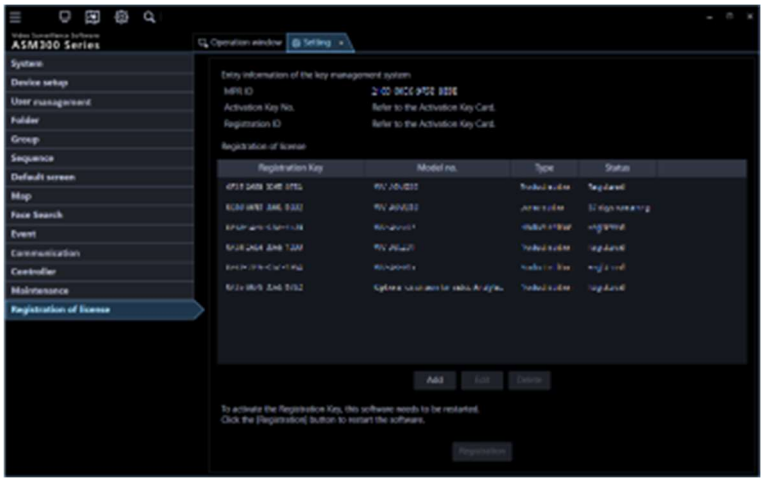
Note:
- To use the demo edition (90 days) of the Extension Software, register the "Registration Key" of the demo edition listed in the Readme.txt on the provided DVD-ROM.

Step 1

Click the [Registration of license] button.

→ The "Registration of license" window will be displayed.

The details of the window are as follows.



■ Entry information of the key management system

This is the ID number required to obtain the "Registration Key". The Activation Key Card provided with this software describes how to access the key management system.

■ MPR ID

This is the ID number to identify the PC in which the software is installed. The number will be required when obtaining the "Registration Key" from the Key Management System.

■ Activation Key No.

The number will be required when obtaining the "Registration Key" from the Key Management System. The Activation Key Card provided with the software describes the number.

■ **Registration ID**

The number will be required when obtaining the "Registration Key" from the Key Management System. The Activation Key Card provided with the software describes the number.

■ **Registration of license**

The entered "Registration Key" and information of the already registered license will be displayed in list form.

■ **[Add] button**

Displays the "Entry of Registration Key" window.

■ **[Edit] button**

Displays the "Registration Key" selected from the list of the registration of license.

Note:

- It is impossible to modify the content of the license already registered.

■ **[Delete] button**

Deletes the "Registration Key" selected from the list of the registration of license.

Note:

- It is impossible to delete the content of the license already registered.

■ **[Registration] button**

Executes the license registration.

Step 2

Click the [Add] button.

→ The "Entry of Registration Key" window will be displayed.



The details of the window are as follows.

■ **Registration Key**

Enter the "Registration Key" obtained from the Key Management System.

■ **[Input saving] button**

Saves the entered "Registration Key" temporarily for registration.

Important:

- Registration of the license will not be completed just by saving the entered “Registration key”. Be

sure to click the [Registration] button on the "Registration of license" window.

Step 3
Enter the "Registration Key". Enter the "Registration Key" obtained from the Key Management System.

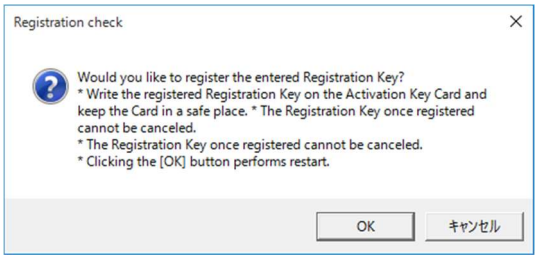


Step 4
Click the [Input saving] button.

Step 5
Click the [Registration] button after confirming the information of the entered "Registration Key".

Note:
- The entered "Registration Key" will be deleted if changed to another window without clicking the [Registration] button or if the setup window is closed.

Step 6
Click the [OK] button. To cancel registration, click the [Cancel] button.

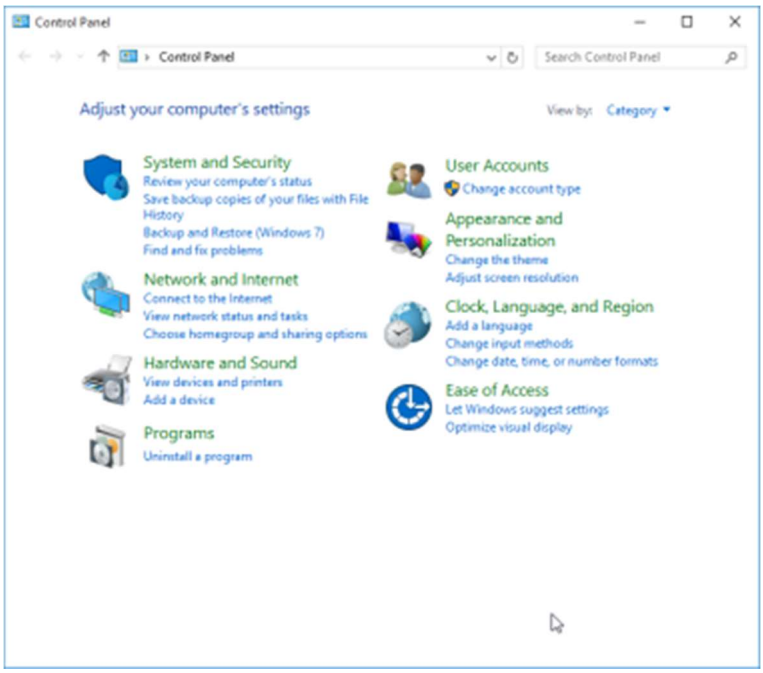


Important:
- It is impossible to deactivate the "Registration Key" once registered. Confirm that registration is correct.
- When the [OK] button is clicked, this software will be automatically restarted.

3.17. Exceptional settings of Windows Firewall

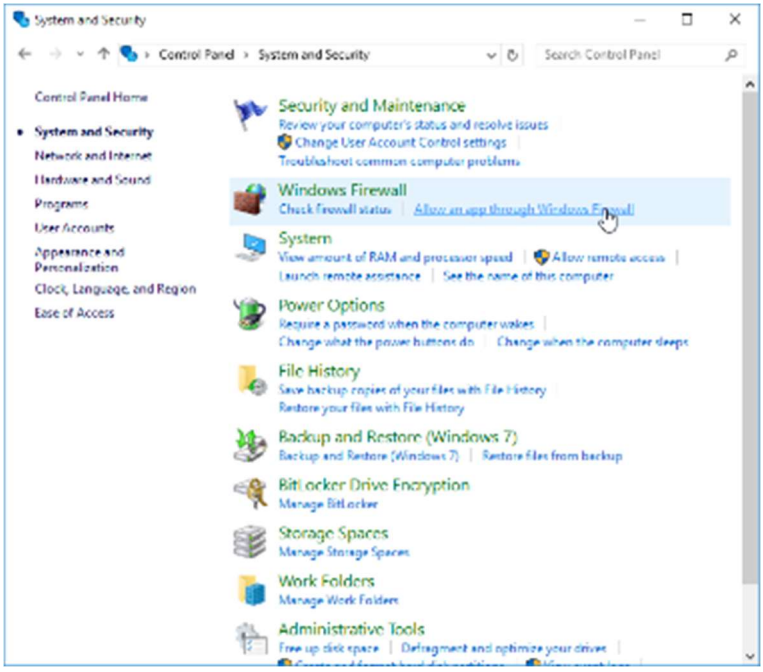
When displaying live images, using the download function or the TCP alarm notification function (alarm notification, event notification), configure the exceptional settings of Windows Firewall. This document provides procedures on Windows 10 as example.

Step 1
Click [System and Security] on the "Control Panel".



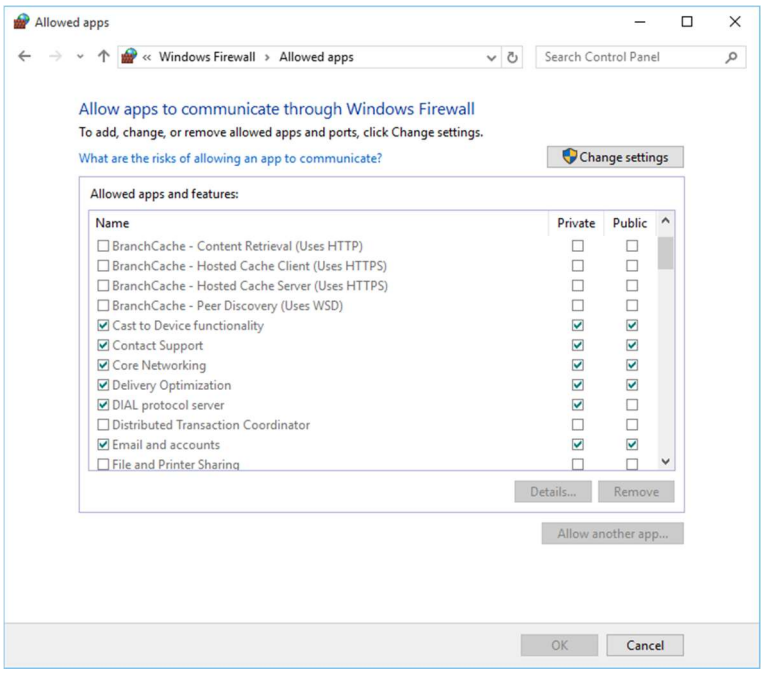
→ The "System and Security" window will be displayed.

Step 2
Click [Windows Firewall] - [Allow an apps through Windows Firewall].



→ The "Allowed apps" window will be displayed.

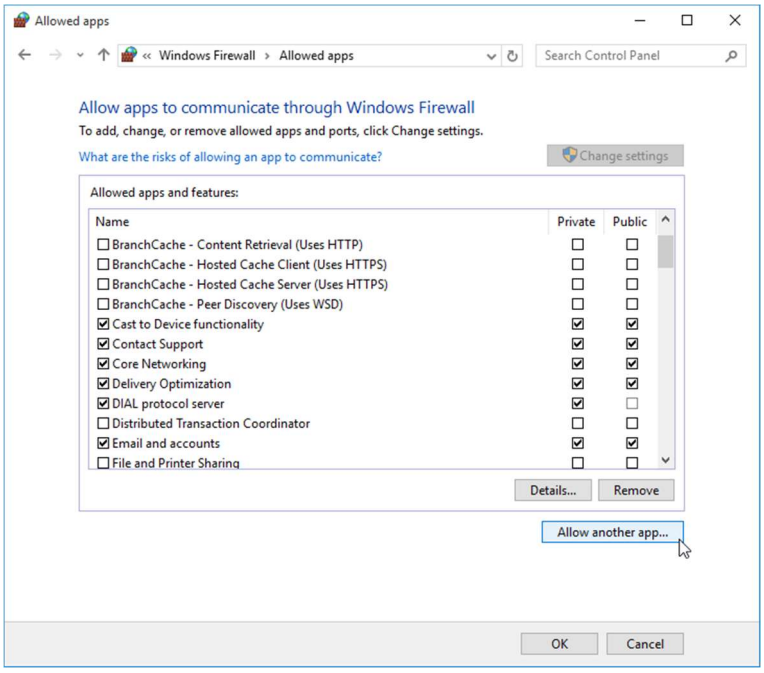
Step 3
Click the [Change settings] button.



→ “Allowed apps and features:” will be displayed.

Step 4

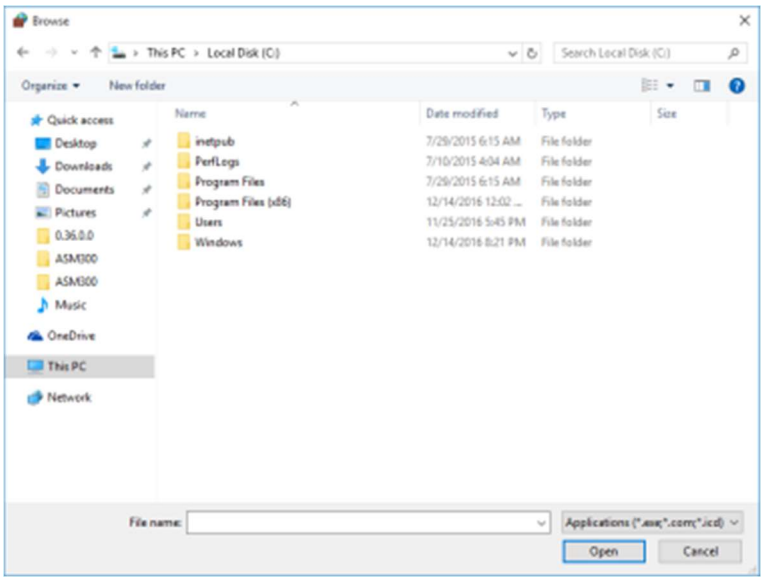
Click the [Allow another apps...] button.



→ The "Add an app" window will be displayed.

Step 5

Click the [Browse...] button.



→ The "Browse" window will be displayed.

Step 6

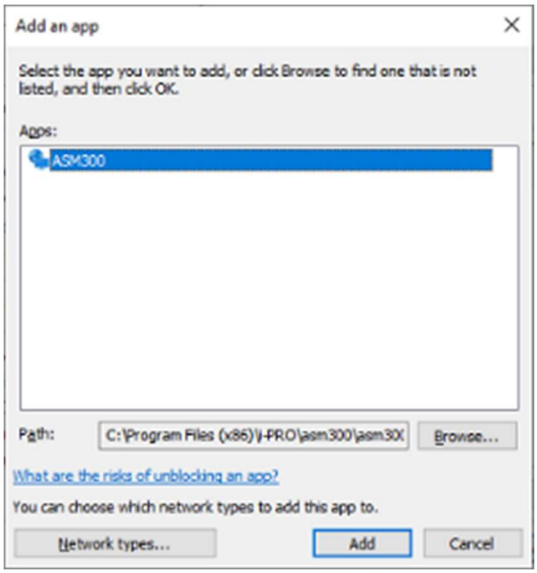
Select "asm300ope.exe" and click the [Open] button.

Note:

- When installed with the ALL option in a PC on which 32-bit OS is running, the executable files, etc. will be saved on the following folder.
  C:¥Program Files¥i-PRO¥asm300
- When installed in a PC on which 64-bit OS is running, “Program Files” will actually be displayed as “Program Files (x86)”.
- When installed after selecting “Install just for you (asm)” for installation type, they will be saved in the following location.
  C:¥Users¥”Account Name”¥AppData¥Local¥Apps¥i-PRO¥asm300

Step 7

Select "asm300ope.exe", and click the [Add] button.



Step 8
Execute steps 4 - 7 in the same manner to add "asm300liveIP.exe", "asm300srv.exe", "asm300tlsrv.exe", "ASMDownloadQueue.exe", "ASDBService.exe", "HttpReceiveService.exe" and "File and Printer Sharing".

Note:

- When installed with the ALL option in a PC on which 32-bit OS is running, the executable files, etc. will be saved on the following folder.
  asm300liveIP.exe:
  C:¥Program Files¥i-PRO¥asm300
  asm300srv.exe:
  C:¥Program Files¥i-PRO¥asm300
  asm300tlsrv.exe:
  C:¥Program Files¥i-PRO¥asm300
  ASMDownloadQueue.exe
  C:¥Program Files¥i-PRO¥asm300
  ASDBService.exe
  C:¥Program Files¥i-PRO¥asm300
  HttpReceiveService.exe
  C:¥Program Files¥i-PRO¥asm300
- When installed in a PC on which 64-bit OS is running, “Program Files” will actually be displayed as “Program Files (x86)”.
- When installed after selecting “Install just for you (asm)” for installation type, they will be saved in the following location.
  C:¥Users¥”Account Name”¥AppData¥Local¥Apps¥i-PRO¥asm300

Step 9
Click the [OK] button.

3.18. Set the installation method of fisheye cameras

Set the installation method of a camera. Configure the settings on a browser of the camera to be used, not on this software. Refer to operating instructions of the camera for how to operate.

Note:

- The following procedures are explained by taking a 3M Fisheye camera as an example.
- If the installation method is changed, it is necessary to execute the preset registration again with the reconfigured installation method.
- When the angle of view is changed by panning/tilting operation, images from the preset position may look be deviated since information of the angle of view is being held. To check the registered preset position, select a camera from the device tree and move the camera by selecting “HOME” of the preset position to check the angle of view by monitoring the displayed images.

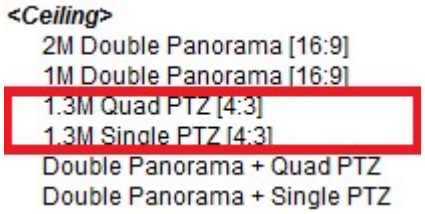
3.18.1. When installing on a ceiling

Step 1

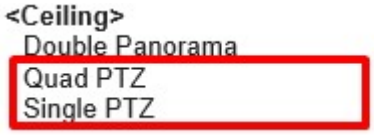
Display the setup window of the browser of the camera to be installed on a ceiling.

Step 2

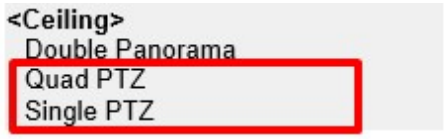
Shift to [Camera] - [JPEG/H.264] - [Image capture mode] - [<Ceiling>1.3M QuadPTZ[4:3]] or [<Ceiling> 1.3M SinglePTZ [4:3]], and click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.



Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.



Step 3

Select [Off] for [Upside down] under [Basic], and then click the [Setup] button.

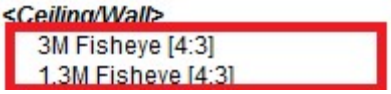


Step 4

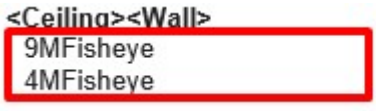
To use the angle of view that is set on the camera, execute the preset registration here.
For how to execute the preset registration, refer to the operating instructions of the camera in use.

Step 5

Select [3M Fisheye [4:3]] or [1.3M Fisheye [4:3]] for [Image capture mode], and then click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.



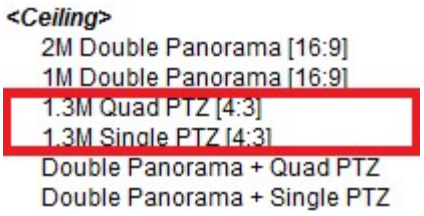
Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.



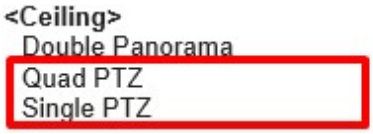
3.18.2. When installing on a table

Step 1
Display the setup window of the browser of the camera to be installed on a table.

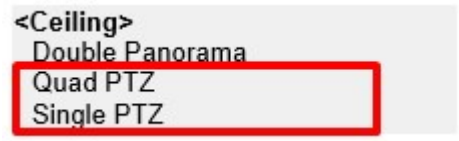
Step 2
Shift to [Camera] - [JPEG/H.264] - [Image capture mode] - [<Ceiling>1.3M QuadPTZ[4:3]] or [<Ceiling> 1.3M SinglePTZ [4:3]], and click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.



Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.



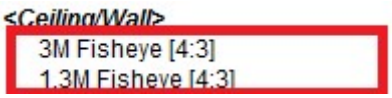
Step 3
Select [On] for [Upside down] under [Basic], and then click the [Setup] button.



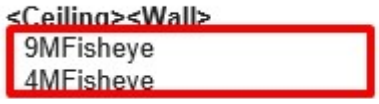
Step 4
To use the angle of view that is set on the camera, execute the preset registration here.
For how to execute the preset registration, refer to the operating instructions of the camera in use.

Step 5

Select [3M Fisheye [4:3]] or [1.3M Fisheye [4:3]] for [Image capture mode], and then click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.



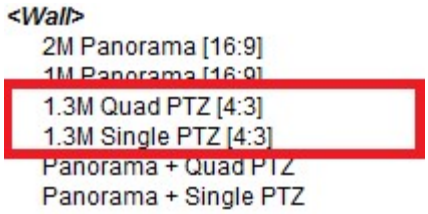
Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.



3.18.3. When installing on a wall

Step 1
Display the setup window of the browser of the camera to be installed on a wall.

Step 2
Shift to [Camera] - [JPEG/H.264] - [Image capture mode] - [<Wall>1.3M QuadPTZ[4:3]] or [<Wall> 1.3M SinglePTZ [4:3]], and click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.

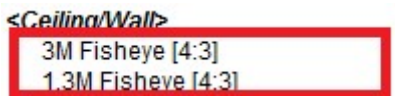


Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.

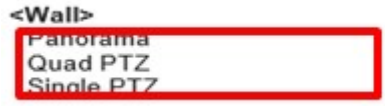


Step 3
To use the angle of view that is set on the camera, execute the preset registration here.
For how to execute the preset registration, refer to the operating instructions of the camera in use.

Step 4
Select [3M Fisheye [4:3]] or [1.3M Fisheye [4:3]] for [Image capture mode], and then click the [Setup] button.



Select the following image capture mode for WV-SFN480 or WV-SFV481.



Select the following image capture mode for WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173 or WV-X4573L.



4. Operating Instructions

4.1. Use the operation window

With this software, it is possible to display images on the operation window from up to 16 cameras simultaneously (up to 64 cameras by adding license of WV-ASE202). It is not only possible to display live images from cameras connected to the same recorder, but also from cameras connected to different recorders.
When the images are displayed through the recorder, the top page of the recorder is displayed.
It is possible to display live images from encoders or cameras that are not registered in the recorder.

Important:
- Refer to "☞ 1.5. Compatible devices" for supported models and versions.



Note:

- Speed of image load may become slow when the processing load is too heavy on the devices or on the PC (such when many cameras are connected, when displaying live images from many cameras, etc.) or when the network traffic is heavy.
- Depending on the type of camera you are using, the camera settings, or the display settings of your PC, the image display may become non-smooth movement.
- Audio and images may sometimes become out of synchronization.
- When using the live window, it is possible to display images from up to 20 cameras simultaneously (up to 68 cameras by adding license of WV-ASE202).
  Refer to "☞ 4.3. Use the live window" for further information.
- When network disconnection occurs while displaying live images, the images may sometimes not be displayed correctly soon after recovery.
- When the settings of the setup menu of the camera are edited while displaying live images, select the camera again.
- It is also possible to change the device tree display to the folder tree display. Refer to “☞ 3.2.2. Drawing and audio setup” for further information about the folder tree form display.

4.1.1. Search for registered device name, folder name, group name, sequence name and download target device name

Names of devices registered in this software and other names such as folder names can be searched. The menu panel on the left side of the target operation window and the search targets are as follows.

- Device tree: Device name
- Folder tree: Folder name
- Group: Group name, folder name

- Sequence: Sequence name, folder name
- Download: Device name, folder name

Step 1

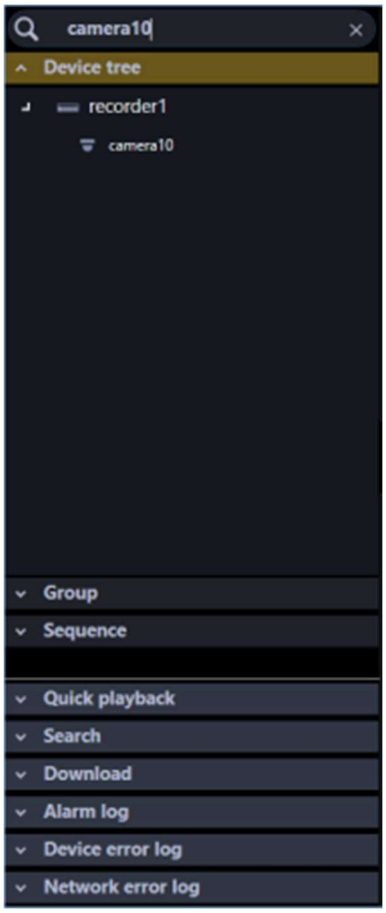
Enter a desired device name, a folder name, a group name or a sequence name in the search field at the upper part of the function panel.



Note:

- The maximum number of characters that can be entered is 16
- Search will be executed with partial match of a name, and en space, em space, upper-case and lower-case will not be distinguished.
- The operation window will become inoperable during a screen on which the search is being executing is being displayed.

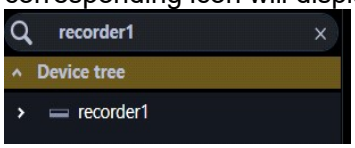
→ When the search is ended, the panel including items that matches with the name entered in the search field will turn to orange color.



Step 2
When the panel colored in orange is clicked and opened, the search result will be displayed.

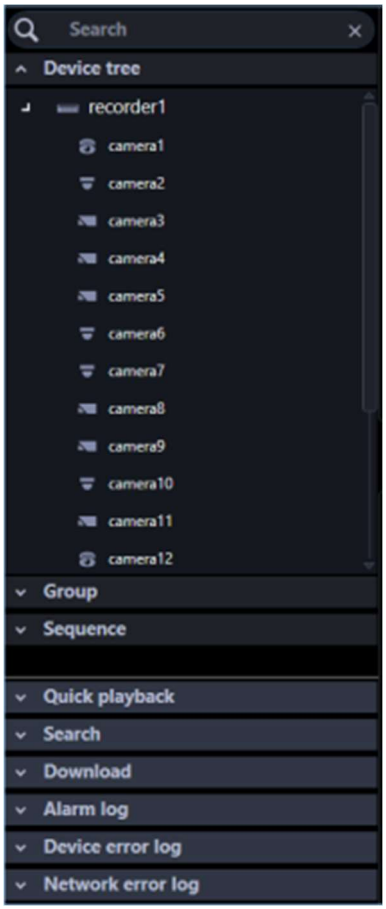
Note:

- The search result shows only items that partially matched with the name entered in the search field. The other items will not be displayed. However, if the partially matched device is a device registered in a recorder, etc., the higher device name (recorder, etc.) / folder name is also displayed.
- When partial matches are displayed as the result of searching only by a recorder name, encoder name or folder name, double-clicking the corresponding icon or clicking the left side ( ) of the corresponding icon will display a list of all the registered camera icons.



- If you check the check box of the recorder name in the search results on the download panel, all cameras will be downloaded regardless of whether the camera name registered in the recorder is displayed or hidden. If you want to download only the searched camera, check the check box of the camera name instead of the recorder name.
  If you check the check box of the folder name, the operation will be the same as the recorder name.

Step 3
When the name entered in the search field is deleted, it returns to the previous state before the search. However, regarding the open / closed state of recorders, encoders, and folders in the upper layer of the tree display, the state at the time of search or the open / close operation after the search will continue. Download panel is open in the upper hierarchy.



Note:

- It is possible to delete the name entered in the search field by clicking the [×] button on the right side of the search field.

4.1.2. Confirm the registered devices

The devices registered in this software can be confirmed as follows.

Step 1

Click the "Device tree" bar on the function panel.



→ The "Device tree" panel will be displayed. The registered devices will be displayed in the tree view.



When no device is registered, no device will be displayed. Only an administrator can register devices.

Step 2

Double-click a recorder icon, encoder icon or folder icon in the device tree or click the left side ( ) of each icon.

→ The icons of the cameras registered in the recorder, the encoder or the folder will be displayed.

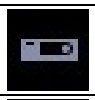
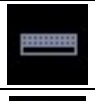


Note:

- Refer to "☞ 3.3. Settings relating to the device management“ for the device registration.

4.1.2.1. Icons in the device tree

The following are descriptions of the icons displayed in the device tree.

Icon	Description
	Indicates NV300 Indicates also a state in connection with this recorder.
	Indicates NV200 Indicates also a state in connection with this recorder.
	Indicates HD300 Indicates also a state in connection with this recorder.
	Indicates ND400 Indicates also a state in connection with this recorder.
	Indicates HD600 Indicates also a state in connection with this recorder.
	NV200, NV300, NX200 or NX300 Indicates also a state in connection with this recorder.
	Indicates NX400 Indicates also a state in connection with this recorder.
	Indicates NX100 Indicates also a state in connection with this recorder.
	Indicates NU101, NU201, NU300 Indicates also a state in connection with this recorder.
	Indicates NU301 Indicates also a state in connection with this recorder.
	It indicates that a recorder having the failover function is monitoring an error.

Icon	Description
	It indicates that a recorder having the failover function is executing a failover.
	Indicates an encoder Indicates also a state in connection with this encoder.
	Indicates Video Insight Server Indicates also a state in connection with this server.
	Indicates GXE100 Indicates also a state in connection with this encoder.
	Indicates dome camera 1 Indicates also a state in connection with this camera.
	Indicates dome camera 2 Indicates also a state in connection with this camera.
	Indicates dome camera 3 Indicates also a state in connection with this camera.
	Indicates dome camera 4 Indicates also a state in connection with this camera.
	Indicates dome camera 5 Indicates also a state in connection with this camera.
	Indicates dome camera 6 Indicates also a state in connection with this camera.
	Indicates dome camera 7 Indicates also a state in connection with this camera.
	Indicates dome camera 8 Indicates also a state in connection with this camera.
	Indicates dome camera 9 Indicates also a state in connection with this camera.
	Indicates dome camera 10 Indicates also a state in connection with this camera.
	Indicates dome camera 11 Indicates also a state in connection with this camera.
	Indicates dome camera 12 There are 2 types of fixed type and PTZ type. Indicates also a state in connection with this camera.
	Indicates dome camera 13 Indicates also a state in connection with this camera.
	Indicates dome camera 14 Indicates also a state in connection with this camera.
	Indicates dome camera 15 Indicates also a state in connection with this camera.

Icon	Description
	Indicates dome camera 16 Indicates also a state in connection with this camera.
	Indicates fixed camera 1 Indicates also a state in connection with this camera.
	Indicates fixed camera 2 Indicates also a state in connection with this camera.
	Indicates fixed camera 3 Indicates also a state in connection with this camera.
	Indicates fixed camera 4 Indicates also a state in connection with this camera.
	Indicates fisheye camera 1 Indicates also a state in connection with this camera.
	Indicates fisheye camera 2 Indicates also a state in connection with this camera.
	Indicates fisheye camera 3 Indicates also a state in connection with this camera or a microphone.
	Indicates an aero PTZ camera Indicates also a state in connection with this camera.
	Indicates compact camera Indicates also a state in connection with this camera.
	Indicates also a state in disconnection with a recorder.
	Indicates also a state in disconnection with an encoder.
	Indicates a state in disconnection with a camera or a microphone. When right-clicking on an icon, a pop-up menu will be displayed. When "Return to regular icons." is selected, it will change to the connection status display.

Icon	Description
	Indicates a state in connection with AI camera that displays the image or a microphone.
	Indicates a state in disconnection with AI camera that displays the image or a microphone. When right-clicking on an icon, a pop-up menu will be displayed. When "Return to regular icons." is selected, it will change to the connection status display.
	Indicates a folder.

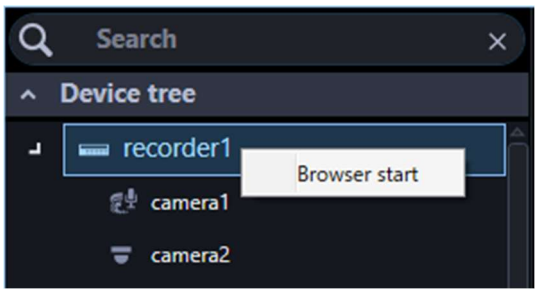
*1 Sometimes, live images may not be displayed even when the camera icon indicates that it is online. In this case, the following are possible causes.
- The TCP alarm notification is not ready for reception. (The TCP alarm notification function is not active on the recorder, encoder and/or this software.)
- The recorder is currently being configured or the SD memory recording is currently being executed.

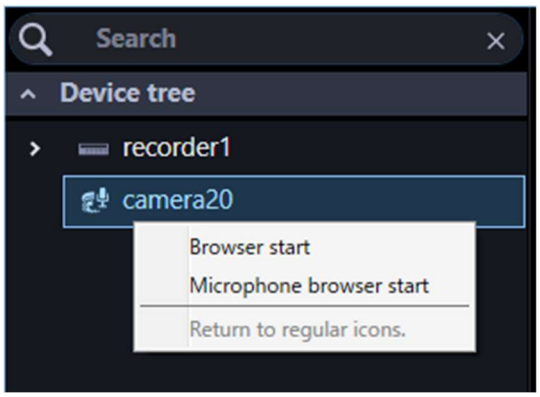
*2 If it is unable to receive the TCP alarm notification from the recorder, the state of the camera icon will not correctly be displayed even when the camera registered in the recorder is disconnected.

*3 For the independent camera, the fixed camera 1 is initially displayed for a fixed camera, the dome camera 1 is displayed for a PTZ camera, and the fisheye camera 1 is displayed for a fisheye camera. Change the camera type if necessary. Refer to “☞3.3.4.2.2. Register a camera individually”.

4.1.2.2. Pop-up menus over the icons in the device tree

When right-clicking on the camera icon, the pop-up menu will be displayed.



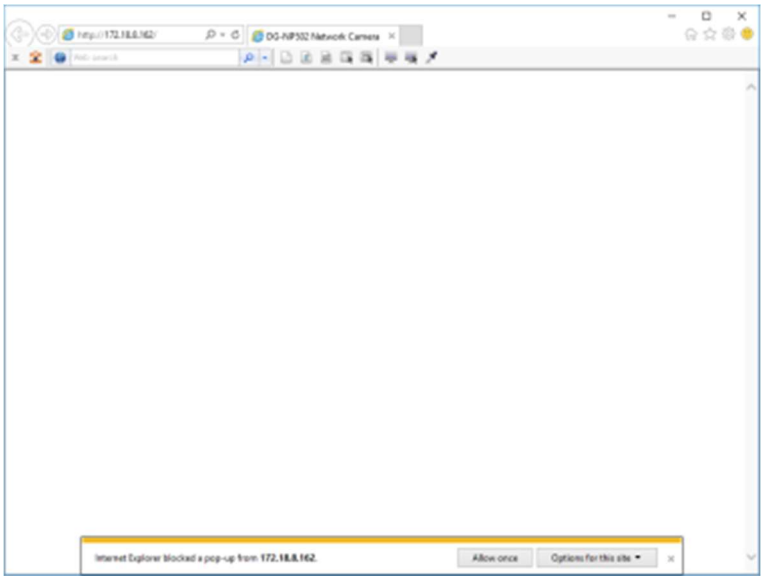


■ **Browser start, Microphone browser start**

Start the web browser to display the top page of a desired device.
When the camera icon connected to the recorder is clicked, the device to be displayed differ according to the method of video acquisition.
When the images are displayed through the recorder, the top page of the recorder is displayed. When the images are displayed through the camera, the top page of the camera will be displayed.
When a linked camera is in use, the top page of the camera or the top page of the microphone will be displayed by clicking [Browser start] or [Microphone browser start] respectively.

Note:

- These menus will be displayed only when logged in as an administrator or a user whose user level is “LV0” or "LV1".
- Depending on the settings of web browser, the top page may sometimes not be displayed due to the pop-up blocker. In this case, cancel the pop-up blocker on the following window.



- When the target device is a recorder, and when the target device is a camera, an encoder or a recorder that does not support Microsoft Edge, Google Chrome and Firefox, launch the Microsoft Edge (IE mode).
- When the target device supports Microsoft Edge, Google Chrome, or Firefox, select a browser to use at [Browser start] of [Specify a web browser app] on the [GUI display setting] tab (under [System] under [Setting]).
- Supported versions of the web browser and restrictions will vary depending on the connected devices. Refer to the operating instructions of the devices for further information.
- When selecting “Browser start” or “Microphone browser start” from the right-click menu, a message may be displayed. Refer to 「☞8.23. When launching the browser from the right-click menu on the device tree」 for further information about messages and solutions.
- Refer to the following website for the browser support of our product after the support for Internet Explorer end.
  https://i-pro.com/global/en/surveillance/training-support/support/technical-information
- The following devices can be launched by any browser of Microsoft Edge, Google Chrome, or Firefox. Edge (IE mode) is activated for other devices (recorder, encoder, microphone, camera).

Model (camera, recorder)	Version
Cameras to be released after December 2021	All
New S-series camera	All
WV-X1551LN, WV-X1571LN, WV-X2251L, WV-X2271L, WV-X2551LN, WV-X2571LN	1.60 or later
WV-S1552L, WV-S1572L, WV-S2252L, WV-S2272L, WV-S2552L, WV-S2572L, WV-S8531N, WV-X8571N	1.60 or later
U-series camera	1.50 or later
WV-S1111, WV-S1112, WV-S1131, WV-S1132, WV-S1511LN, WV-S1531LTN, WV-S2110, WV-S2111L, WV-S2130, WV-S2131L, WV-S2211L, WV-S2231L, WV-S2511LN, WV-S2531LN, WV-S2531LTN	4.91 or later
WV-S3111L, WV-S3131L, WV-S3511L, WV-S3531L	4.91 or later
WV-S6111, WV-S6130, WV-S6131, WV-S6530N, WV-S6532LN, WV-X6511N, WV-X6531N, WV-X6531NS, WV-X6533LN, WV-X6533LNS	4.91 or later
NU-series	1.00 or later

<In the case of Edge (IE mode)>

Step 1

Select [Browser start] from the pop-up menu.

→ When the target device is started by Edge (IE mode) for the first time, proceed to Step2-1.

→ When this is not the first Edge (IE mode) startup for the target device, proceed to Step2-2.

Note:

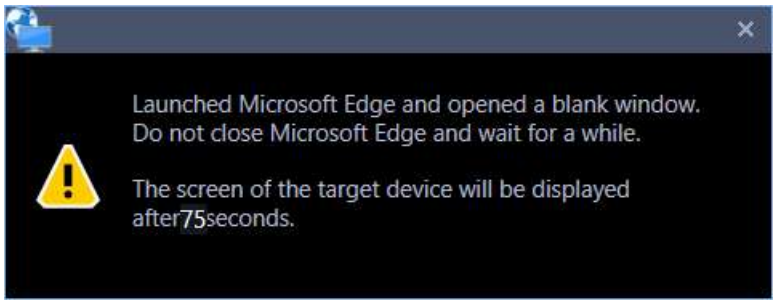
- If Microsoft Edge (IE mode) is executed by other than this software, the message window will be displayed for 75 seconds after proceeding to Step 2-1 even in the second and subsequent "Browser

start".

Step 2-1

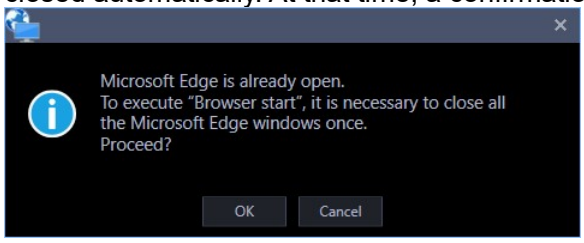
The following message screen will appear in a pop-up display.

→ After displaying the message for 75 seconds, Edge (IE mode) starts. Proceed to Step2-2.



Note:

- When Edge (IE mode) is started, if Microsoft Edge is already started, all Microsoft Edge will be closed automatically. At that time, a confirmation message will be displayed.



  If you click the [Cancel] button, the startup of the browser will be cancelled.
- When any of the following operations is performed in the process of startup of Microsoft Edge (IE mode), the startup of the browser will be cancelled.
  - ➢ When an operation is performed to register, add or delete a device on the device setting window regardless of the target device
  - ➢ When [Browser start] is further selected from the pop-up menu

Step 2-2

The message screen will close and the login screen of the target device will be displayed. When the top page is correctly displayed after logging in, the Internet Explorer logo indicator  will be displayed on the left side of the navigation bar.

Note:

- When the top page of the target device is not correctly displayed, click [Browser start] again.
- When the target device is a recorder and a window with broken layout is displayed, perform the settings of “Compatibility View Settings” of Internet Explorer and “Trusted site” under “Internet Options” referring to the following support website.
  https://i-pro.com/global/en/surveillance/training-support/support/technical-information < Control No.: C0104>
- If pop-ups are blocked when you start Edge (IE mode), allow access to the site you are connecting to.

■ Return to regular icons.

The icon can be restored to the regular icon.
It is enabled when the camera connection is disconnected.

4.1.3. Monitor images from the selected camera

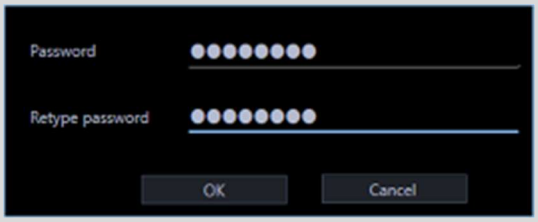
When clicking a desired camera icon, images from the selected camera will be displayed. Images from the camera can be displayed in various ways; display on a 1-screen, display in the desired area, display on a full screen, etc.

Important:

- When the Video Insight Server's checkbox "Enable Security" is marked ([Administrations] - [Servers] - [Server Setup] - [Advanced] - [Server Options]), the images from Video Insight Server cannot be displayed.

<In the case of the independent camera>

- In the case of the independent camera with "Data encryption" turned on in the setting on the camera side, it is necessary to input "Encryption password" when displaying the camera image. For details on "Data encryption", read the operation manual of the camera.



- The images of data encrypted camera can be displayed only in 1-screen, in the case of multi-screen, in the leftmost image area. When it is placed in the other area, black screen will be displayed.

<In the case of the camera registered in the recorder>

- If the data encrypted camera is registered in the recorder, the encryption password input screen will not be displayed unless the "Encryption password" of the camera is changed. If you change the "Encryption password", the input screen will be displayed until you reacquire the recorder's device information on the device setup screen.
- The images of data encrypted camera can be displayed only in 1-screen, in the case of multi-screen, in the leftmost image area until you reacquire the recorder's device information on the device setup screen. When it is placed in the other image display area, black screen will be displayed. The images of data encrypted camera can be displayed in the all image display areas, after you reacquire the recorder's device information on the device setup screen.

4.1.3.1. Monitor images on a 1-screen

Step 1

Click the [1-screen] icon on the tool bar.

Step 2

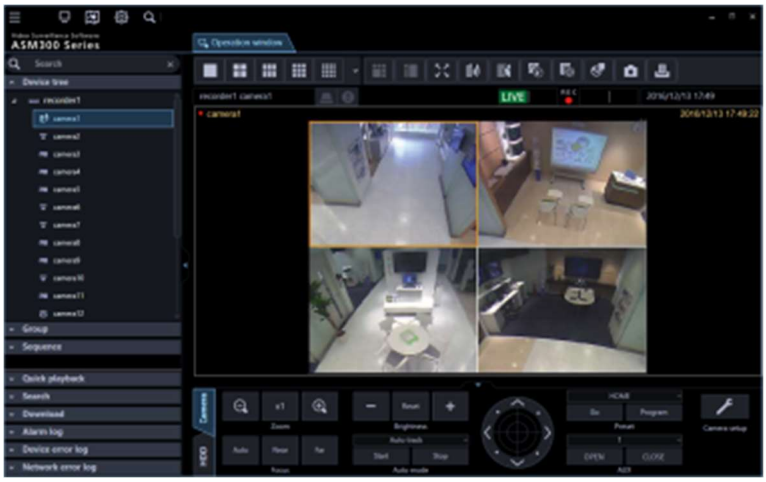
When 1-screen display is selected, click a camera icon from which you desired to monitor images.

→ Images from the selected camera will be displayed on a 1-screen.



Note:

- When right-clicking on the displayed image, the pop-up menu will be displayed and "Save as JPEG file", "Print" and "EL-zoom" are available.
  When “Quad PTZ” is selected for the image capture mode of the fisheye camera in use, it is possible to display images on 4-screen.



- It is also possible to display images from a desired camera by dragging and dropping the corresponding camera icon onto the image display area.
- When displaying images on a multi-screen, it is possible to switch from the multi-screen and display images on 1-screen by clicking the selected area on the multi-screen. However, the camera image cannot be double-clicked while the sound collection position of the microphone is displayed or the microphone setting panel is displayed.

4.1.3.2. Specify the area to display images

Step 1

Set to [Display format when selecting camera] for [Setup screen] - [☞ 3.2.2. Drawing and audio setup] - [Display format when selecting camera].

Step 2

Set to any of 2A-screen, 2B-screen, 3A-screen, 3B-screen, 3C-screen, 4-screen, 4A-screen, 4B-screen, 4C-screen, 4D-screen, 4E-screen, 5-screen, 6-screen, 6A-screen, 7-screen, 7A-screen, 9-screen, 10-screen, 13-screen, 16-screen, 25-screen, 36-screen, 49-screen and 64-screen display (25-/36-/49-/64-screen will become available when WV-ASE202 license is added. Refer to “☞4.1.3.3. Switch the pattern of the screen” for further information) and click a desired area to monitor.

→ The frame will be displayed around the selected area to indicate the current selection.

Step 3

Click a camera icon from which you desired to monitor images.

→ Image from the selected camera will be displayed in the selected area.



Note:

- It is also possible to display images from a desired camera by dragging and dropping the corresponding camera icon onto the image display area.
- It is also possible to change the area to the other by dragging and dropping the image currently being displayed onto a desired area. However, it is impossible to drag images from the camera while the sound collection position of the microphone or the microphone setting panel is being displayed.
- It is also possible to switch the display area by dragging and dropping the icons of "recorder", "encoder" and "folder" onto the image display area.
- The whole images will be redrawn after the drag and drop operation.

4.1.3.3. Switch the pattern of the screen

Switch the image display area to a multi-screen (1/4/9/16/25/36/49/64) and display live images from cameras or recorded images on a recorder.

Note:

- It is necessary add a license of Extension Software WV-ASE202 to display in 25-screen or more.

Step 1

Click the [1] - [64] icon on the tool bar.



→ The images will be displayed on the selected screen pattern.

The details of the icon are as follows.

Icon	Description
	Display images on 1-screen.
	Display images on 2A-screen.
	Display images on 2B-screen.
	Display images on 3A-screen.
	Display images on 3B-screen.
	Display images on 3C-screen.
	Display images on 4-screen.
	Display images on 4A-screen.
	Display images on 4B-screen.
	Display images on 4C-screen.
	Display images on 4D-screen.
	Display images on 4E-screen.
	Display images on 5-screen.

Icon	Description
	Display images on 6-screen.
	Display images on 6A-screen.
	Display images on 7-screen.
	Display images on 7A-screen.
	Display images on 9-screen.
	Display images on 10-screen.
	Display images on 13-screen.
	Display images on 16-screen.

The following are available after the license for the WV-ASE202 is added.

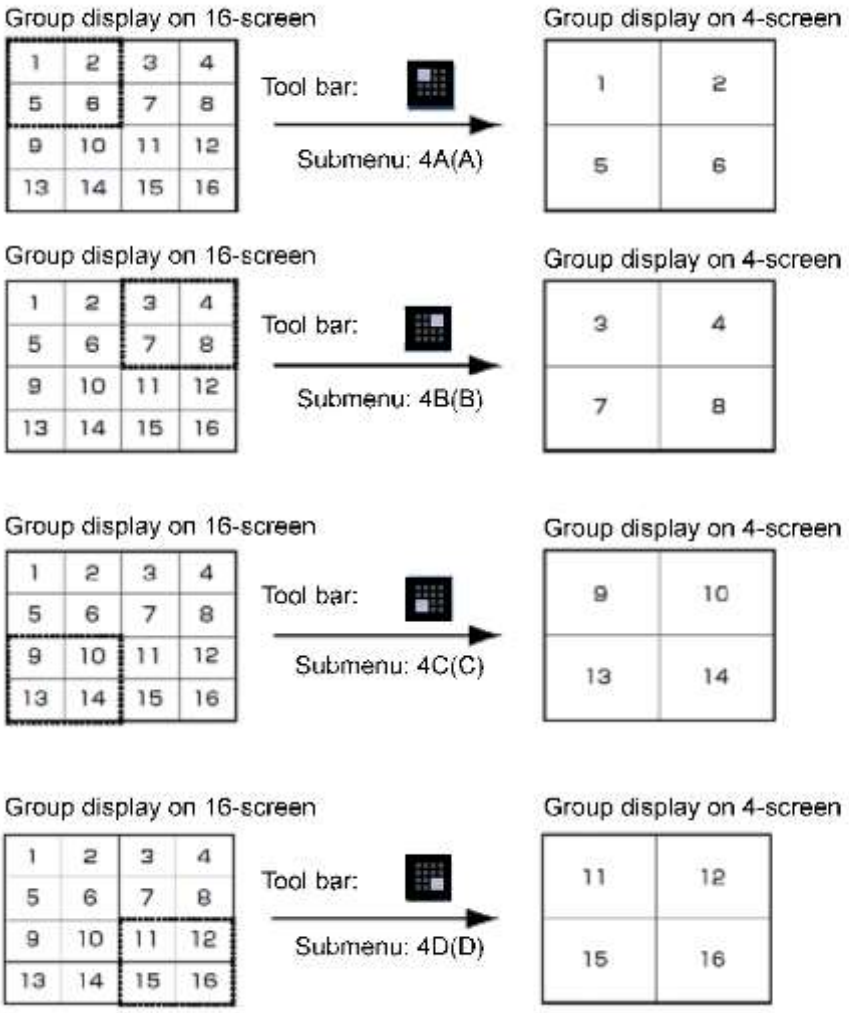
Icon	Description
	Display images on 25-screen.
	Display images on 36-screen.
	Display images on 49-screen.
	Display images on 64-screen.

Note:

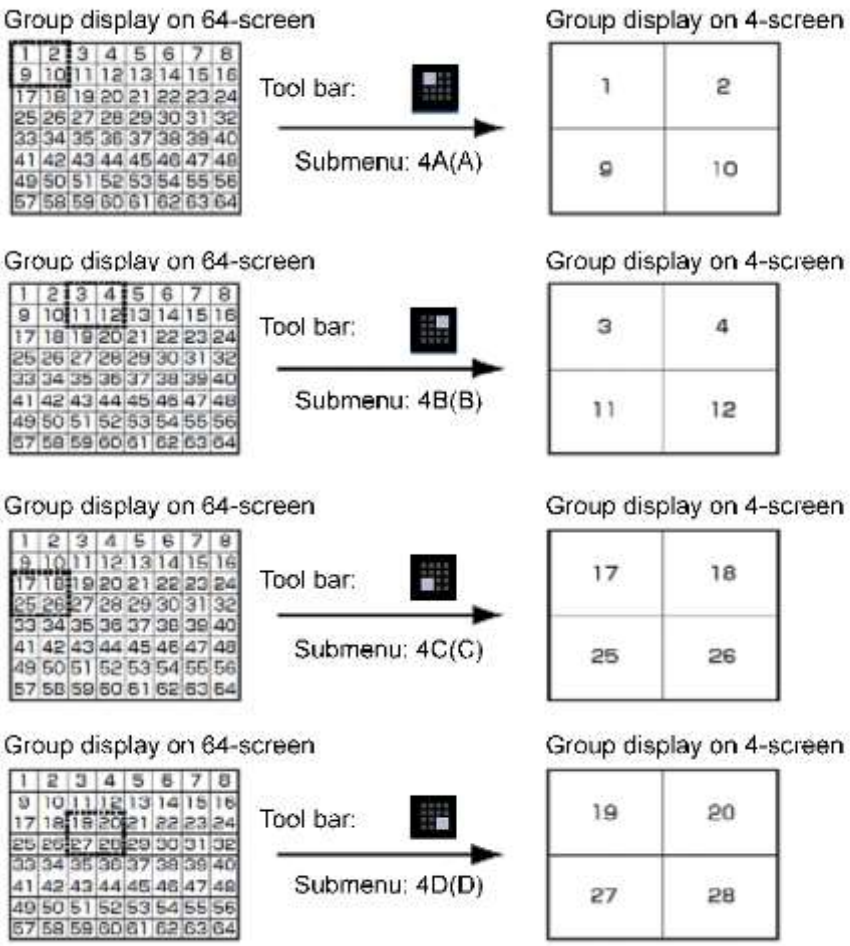
- When displaying images on a multi-screen, it is possible to switch from the multi-screen and display images on 1-screen by clicking the selected area on the multi-screen. However, the camera image cannot be double-clicked while the sound collection position of the microphone is displayed or the microphone setting panel is displayed.
- 4M-screen is not displayed on the screen layout of the toolbar of the operation monitor because it is a layout dedicated to group display where only the multi-sensor camera can be placed.
- When switching to a multi-screen display including video from a fisheye camera, the image selection frame may flicker once (for several seconds in version 4.40 or less).

4.1.3.4. Display magnified images

When the screen pattern is switched from 16-screen to 4A-screen, 4B-screen, 4C-screen or 4D-screen, images to be displayed will be as follows.



When the screen pattern is switched from 64-screen to 4A-screen, 4B-screen, 4C-screen or 4D-screen, images to be displayed will be as follows.



4.1.3.5. Image display method

It is possible to select how to display the image display area on the setup window.
Refer to "☞ 3.2.2. Drawing and audio setup" for further information.

■ **"Aspect ratio" mode**

Images will be displayed in the selected area while keeping its aspect ratio and outside the displayed image will be displayed as black bands.
The following are the examples when the aspect ratio of displayed images is 4:3.



■ **"Aspect ratio (type 2)" mode**

Images will be displayed in the selected area while keeping its aspect ratio and outside the displayed image will be displayed as black bands.
It is possible to display images with a size larger than the aspect ratio but it increases the CPU load.

Note:

- Images from the HD300 will be enlarged/reduced even in the aspect ratio mode.
- As for the aspect ratio, the setting descriptions are the same as “Aspect ratio” and “Aspect ratio (type 2)” of “Image display method”.
- Images from the Video Insight Server will be enlarged/reduced even in the aspect ratio mode.

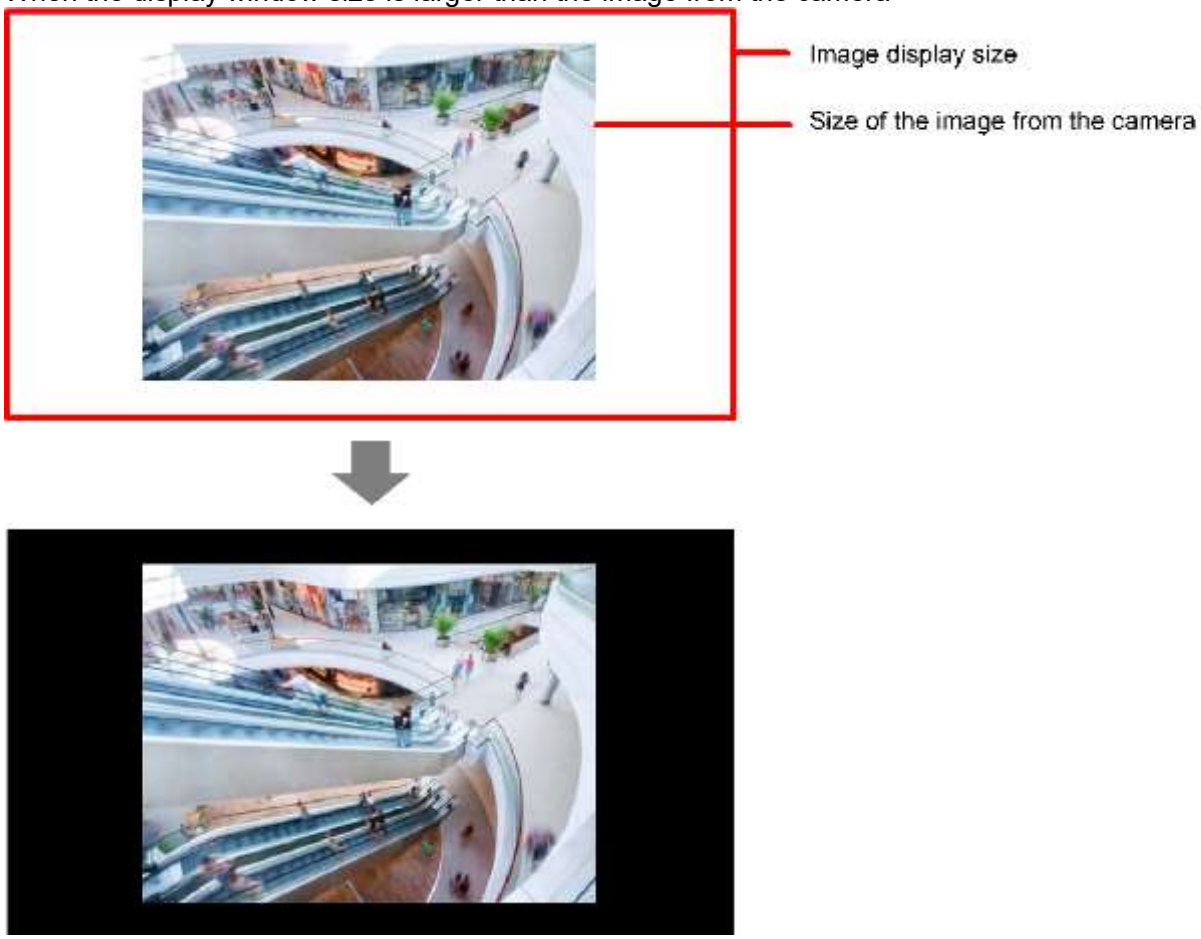
■ "Scaling" mode

Display enlarged/reduced images in the whole screen of the selected area.

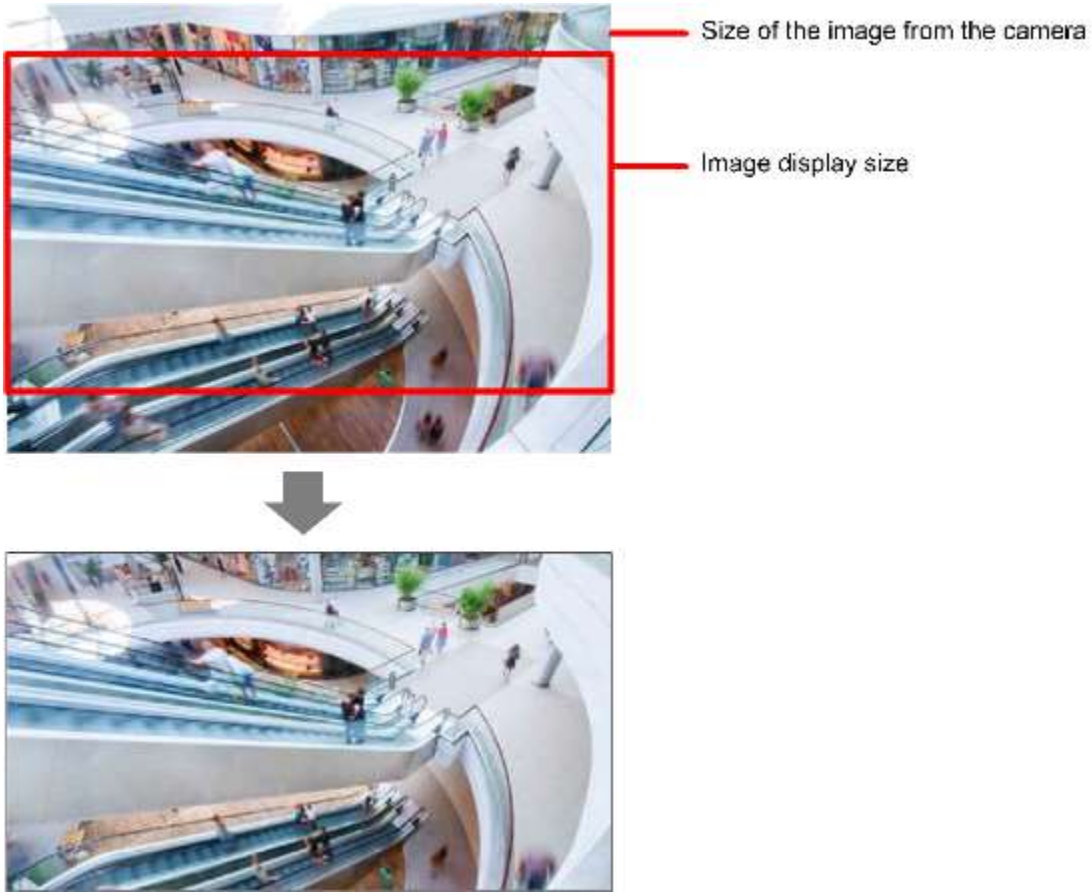
■ "Pixel by Pixel" mode

Images will be displayed in the same image capture size specified on the camera. Adjustment will be required between the resolution of the images from the camera and the display window size. See the following example.

When the display window size is larger than the image from the camera



When the display window size is smaller than the image from the camera



Note:

- When the display window size is smaller than the image from the camera, the area of the image that is not displayed can be moved to the center of the display area by click operation on the display area. In this case, panning/tilting operation will be performed together with this operation when using the PTZ camera or the fisheye camera with Single PTZ/Quad PTZ display.
- An image to be saved as a still picture or an image to be printed will be output with the display window size.
- An image to be saved as BMP image will be saved in the resolution that is used to transmit from the camera.
- This operation is available on 1-/4-/9-/16-screen. When operating on 25-/36-/49-/64-screen, the aspect ratio will be applied.
- When using in the same size display mode, the [Mic setup] button and the microphone setting panel will not be displayed and sound collection will also not be performed.
- The image selection frame border in the area will not be displayed when images are being displayed in "Quad PTZ".
- Images will be displayed in the actual size when displaying images on 1-screen, the left of 3A-screen or the right of 3B-screen. Depending on the image capture size of images to display on a screen pattern other than above, image quality may become lower than the actual image quality since the image capture size is reduced.

4.1.3.6. Monitor images on a full screen

Step 1

Images from the camera will be displayed in this area.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for how to display images.

Step 2

When 1-screen display is selected, click a camera icon from which you desired to monitor images.

→ Images from the selected camera will be displayed on a 1-screen.

Note:

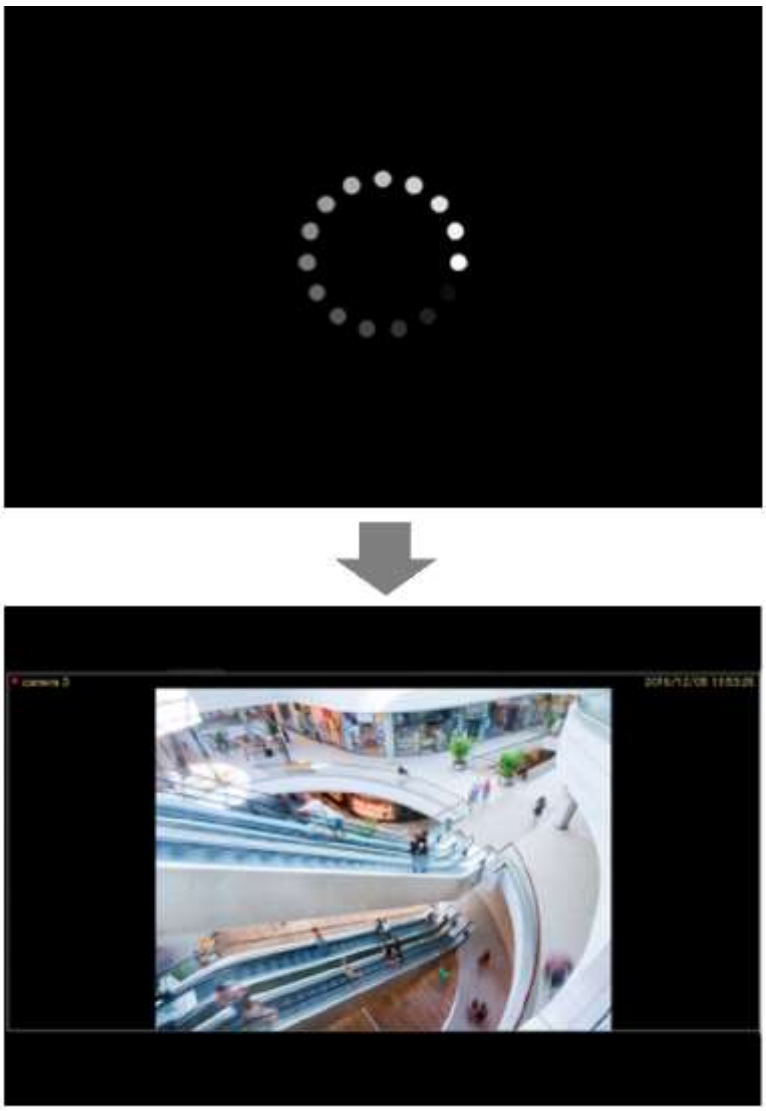
- It is also possible to display recorded images on a full screen. Playback on a full screen is available only at normal playback speed (1x) and reverse playback is unavailable.

Step 3

Click the [Full screen display] icon on the tool bar or select [Full screen display] on the menu, or select [Full screen display] from the right-click menu.



→ When it is in progress of shifting to the full screen display, the “shifting mark” will be displayed. When shifting to the full screen display is completed, the image arrangement area and the information display section will be displayed over the entire display screen.



Step 4
When [Return] is selected from the right-click menu, the screen size will return to the normal size after displaying the “shifting mark”.

Note:

- When load to the devices and the PC is heavy (such as when many cameras are connected or when number of live image display screens is many) or depending on the network environment, screen shifting speed may become slow.

4.1.4. Use the fisheye image display change function

Live images or recorder playback images can be displayed in any of Single PTZ, Quad PTZ, Panorama and Double panorama format.

Note:

- The display change function will be valid only when the following settings are applied to the camera.

Fisheye camera	Image capture mode	Resolution
9M Fisheye cameras	9M Fisheye 8M Fisheye 4M Fisheye	Fisheye/2992×2992 Fisheye/2816×2816 Fisheye/2192×2192 Fisheye/2048×2048 Fisheye/1280×1280
5M Fisheye cameras	5M Fisheye	Fisheye/2192×2192 Fisheye/1280×1280
3M Fisheye cameras	3M Fisheye [4:3] 1.3M Fisheye [4:3]	Fisheye/2048x1536 (Unavailable for H.264) Fisheye/1280×960

- Refer to the operating instructions of the camera in use for how to configure the settings.
- This function is available when the camera in use is the fisheye camera.
- This function is available with the following monitor:
  - When an option of WV-ASE202 is not added: Operation window/Live window
  - When an option of WV-ASE202 is added: Operation window/Live window 1
- The number of screen divisions that can use this function is 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large area of 7-/10-/13-screen.
- With the following versions of fisheye cameras, this function is not available with the SD recorded images. This function is available only for live images or recorder playback images.
  - 3M fisheye camera: All version
  - WV-SFN480, WV-SFV481: Below Ver. 2.52
- When images are being displayed in any of Single PTZ, Quad PTZ, Panorama and Double panorama format, the [Microphone setup] button, the microphone setup panel and the sound collection position will not be displayed. Audio will be played according to the microphone setting for "Fisheye".
- When displaying a 2048x2048 or larger fisheye image in the panorama or double panorama format, a frame rate lower than the value set on the camera may be displayed.
- When a fisheye image of 2992x2992 size is being received at 30 fps, a frame rate lower than the set value at the camera side will be displayed.
- When this function is in use, a face frame and detection frame information will be displayed on the fisheye image before conversion.
- This function will be disabled when the 3D Dewarp function is in use.

4.1.4.1. Display fisheye images in the Single PTZ or Quad PTZ format

Step 1

Images from the camera will be displayed in this area.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for how to display images.

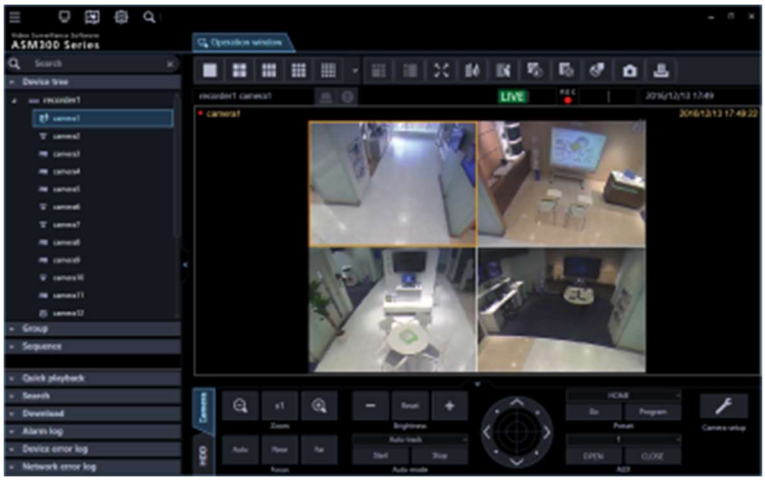
Step 2

Display a pop-up window by right-clicking on received images on the selected area.
Select a display format by moving the cursor onto [Fisheye display menu].
The following are the examples when using this function.

<Display when "Single PTZ" is selected>
The distortion correction will be applied to an image at 1 point of a fisheye image and the corrected image will be displayed as a 4:3 image with the angle of view registered in preset 1.
It is possible to move an image with a desired point as the center by clicking a point to be positioned as the center of the image. (Click centering)
The display position on the screen can also be changed by displaying and operating the fisheye control screen.



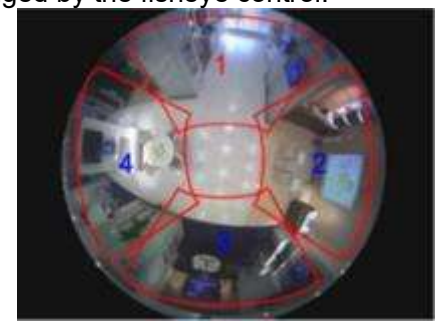
<Display when "Quad PTZ" is selected>
The distortion correction is applied to images at 4 points of a fisheye image and the corrected image will be displayed with the angles of view registered in preset 1- preset 4.
It is possible to move an image with a desired point as the center by clicking a point to be positioned as the center of the image. (Click centering)
The display position on the screen can also be changed by displaying and operating the fisheye control screen.



Note:
- The preset positions will be displayed as shown in the diagram below when “Recorder” is selected for the “Live source” setting of the fisheye camera registered in the recorder. A position to be

displayed on the screen can be changed by the fisheye control.





- When “Single PTZ” or “Quad PTZ” is selected for “Fisheye display menu”, “Auto pan”, “Preset sequence” and “Preset position registration” will not be supported. As for recorded images, “Brightness” will not be supported.
- When the drag zoom function is in use, the drag zoom operation may sometimes become slow due to processing load.

4.1.4.2. Display fisheye images in the Panorama format

Step 1

Images from the camera will be displayed in this area.

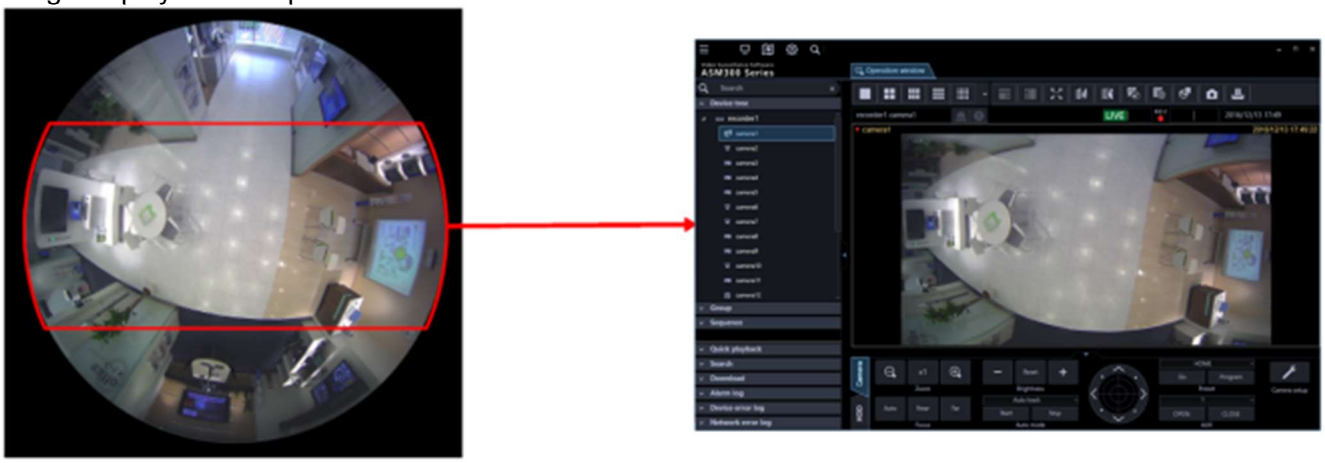
→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for how to display images.

Step 2

Display a pop-up window by right-clicking on received images on the selected area.
Select a display format by moving the cursor onto [Fisheye display menu].
The following are the examples when using this function.

<Display when "Panorama" is selected>

The distortion correction will be applied to an image at the center of a fisheye image and the corrected image displayed in the panorama format.



Note:

- When “Image rotation” of the right-click menu is selected on a received image of the selection area,

the display position of panorama image can finely be adjusted.

- When the drag zoom function is in use, the drag zoom operation may sometimes become slow due to processing load.

4.1.4.3. Display fisheye images in the Double Panorama format

Step 1

Images from the camera will be displayed in this area.

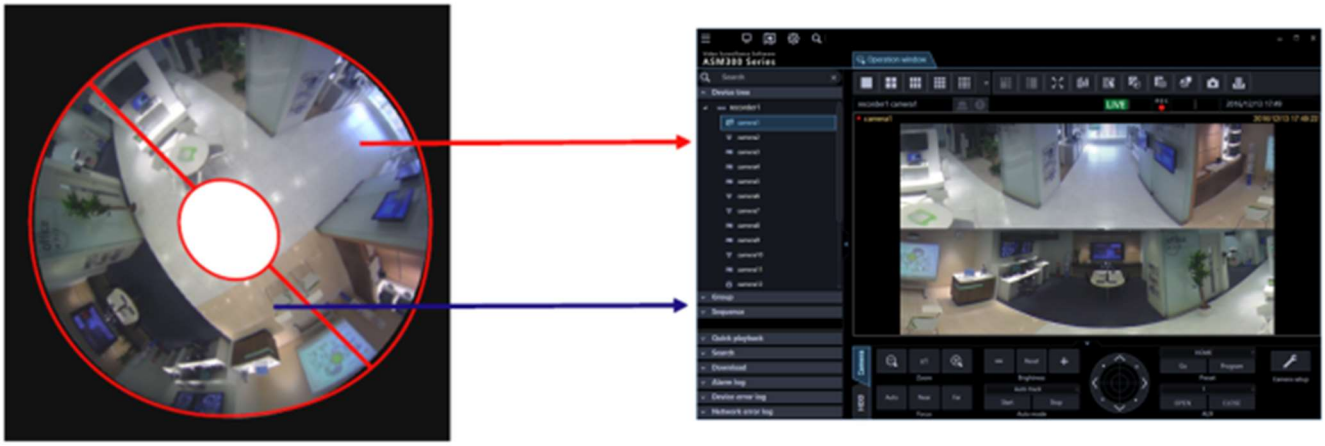
→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for how to display images.

Step 2

Display a pop-up window by right-clicking on received images on the selected area.
Select a display format by moving the cursor onto [Fisheye display menu].
The following are the examples when using this function.

<Display when "Double Panorama" is selected>

The distortion correction is applied to each of 180° images that are halves of the fisheye image and the corrected image will be displayed in the panorama format. It is possible to move an image with a desired point as the center by clicking a point to be positioned as the center of the image. (Click centering)
At this time, both the upper and lower panorama images will simultaneously move in the horizontal direction.



Note:

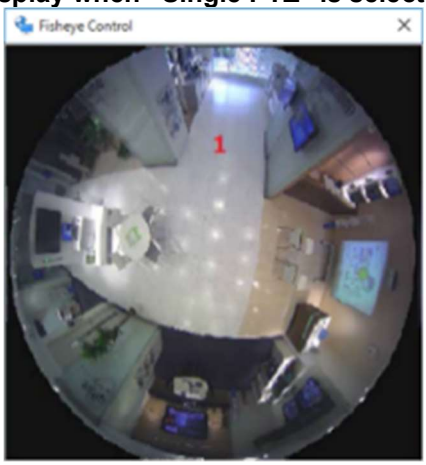
- When “Image rotation” of the right-click menu is selected on a received image of the selection area, a double panorama image can be flipped upside down.
- When the drag zoom function is in use, the drag zoom operation may sometimes become slow due to processing load.

4.1.4.4. Use the fisheye control

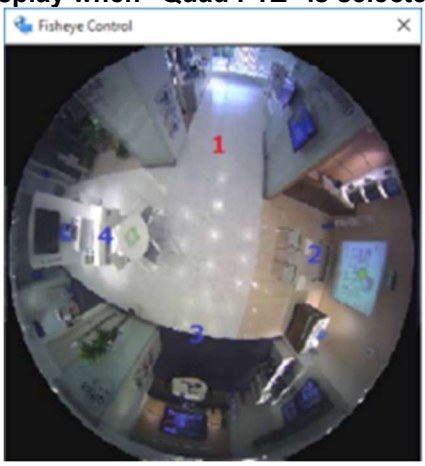
Step 1

Display a pop-up window by selecting [Fisheye Control] from the right-click menu displayed when right-clicked on received images in the selected area or select [Fisheye Control] on the tool bar.
The following are the examples when using the cropping function.

<Display when “Single PTZ" is selected>



<Display when "Quad PTZ" is selected>



On this screen, it is possible to change the position to display using the correction function.
By dragging and dropping a number icon of a screen whose display position is to be changed, that position will be the center of display.

Note:

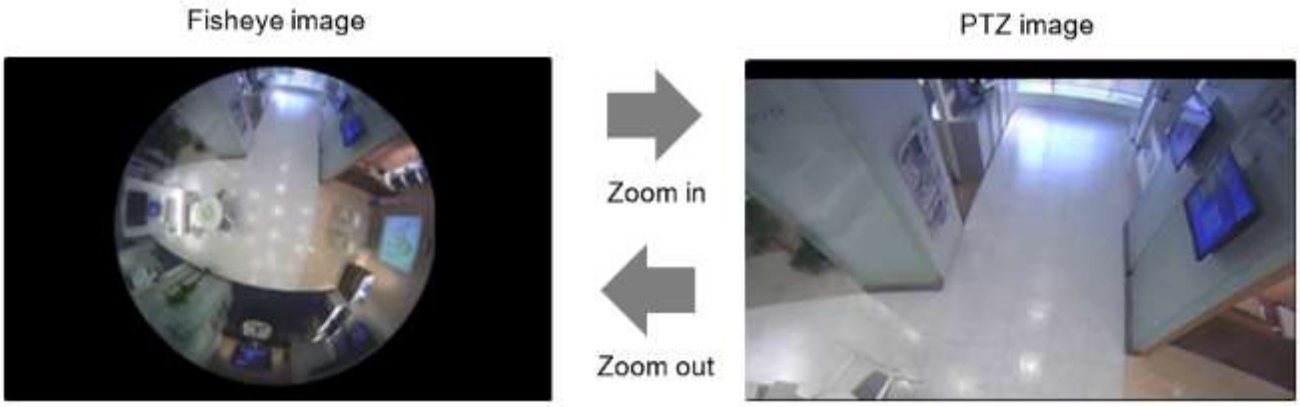
- Depending on the position of the number icon, it may not be exactly the center of images to be displayed.
- The refresh interval of fisheye control images is 1 second.

4.1.5. Use the 3D Dewarp function

The 3D Dewarp function is a function that corrects distortion of an arbitrary position of fisheye images using the mouse, system controller (CU980) or camera operation panel.

The following are descriptions about “zoom in” and “zoom out”.

- When zoomed in by performing the zoom (TELE) operation, images displayed on the screen will change from fisheye image to PTZ image.
- When zoomed out by continuing the zoom (WIDE) operation, images displayed on the screen will eventually change from PTZ image to fisheye image.



- In the condition where the installation method is “Ceiling” or “Desktop” and fisheye images are displayed, rotation of the displayed image is available.
- In the condition where PTZ image is displayed, pan/tilt/zoom operations are available.

The following are descriptions about display position of images for which 3D Dewarp is used.
When changed the display position by the pan/tilt/zoom operation, the changed display position is saved and images displayed the next time will be at the saved display position while 3D Dewarp is being used. (For example, when changed the screen pattern or when changed the camera assignment of the image display area)

Note:

- This function will not work if the operating system of the PC in use is not either Microsoft® Windows® 10 or Microsoft® Windows® 11.
- This function is available only when the camera in use is WV-S4156, WV-S4176, WV-S4556L, WV-S4576L, WV-X4170, WV-X4171, WV-X4571L, WV-X4172, WV-X4173, WV-X4573L, WV-S4150, WV-S4550L, WV-S4151, WV-S4551L, WV-SFN480 or WV-SFV481.
- 3D Dewarp is unavailable for cameras configured to link with a network microphone.
- This function will be disabled when the image capture mode of the camera is not fisheye.
- This function is available only for a camera of which the image capture size is set to 1280×1280 or higher. This function will be disabled when the image capture mode of the camera is less than 1280×1280.
- For the camera setting procedure, refer to the operating instructions of the camera used.
- This function is available only with the operation window. (Except during sequence)
- This function is available for live images or playback images.
- The number of screen divisions that can use this function is 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large area of 7-/10-/13-screen.
- With the following versions of fisheye cameras, this function is not available with the SD recorded images. This function is available only for live images or recorder playback images.
  - WV-SFN480, WV-SFV481: Below Ver. 2.52
- When this function is in use, the face frame and detection frame information will not be displayed.
- This function does not support face detection during pausing the playback of the recorder. (When adding a license for WV-ASE231)
- This function will be disabled when the visibility enhancement function is in use. (When adding a license for WV-ASE205)
- When this function is in use, the fisheye image display change function will be disabled.
- When using hardware decoding by connecting multiple displays, connect the display that displays the operation window to the graphic accelerator, and connect one display that displays the live window to the display output built into the PC, and the other to the graphic accelerator.
- Depending on the display status of the live window, the frame rate of the 3D Dewarp image on the operation window may decrease.
- Depending on the network device environment or the PC in use, fisheye images may be displayed for a moment when displaying images from the camera.
- During high-speed playback of 3D Dewarp images, “High-speed playback smooth mode” will be suppressed.
- When “ON” is set to “Priority to image refresh speed during 3D dewarp” ([System] - [3D Dewarp setting]), the image capture size and frame rate of 3D Dewarp images will automatically be adjusted under the conditions shown in the table below.
  Indicates the screen pattern of the operation window where 3D Dewarp images are displayed and the screen pattern (total number of screens) of the live window during the live image display.

Operation window	Live window
1-screen *1	When one live window is used and the number of live screens is seven or more
	When two or more live windows are used and the total number of live screens is seven or more
	When two or more live windows are used and there is one or more 1-screen, 2A-screen, 2B-screen, or 3C-screen
3A-screen or 3B-screen *1	When one live window is used and the number of live screens is seven or more
	When two or more live windows are used and the total number of live screens is seven or more
	When two or more live windows are used and there is one or more 1-screen, 2A-screen, 2B-screen, or 3C-screen

*1: When the resolution is 2992x2992 or the frame rate exceeds 15 fps

4.1.5.1. Use a mouse

It is possible to operate 3D Dewarp images using a mouse.

Note:

- To reset the display position of fisheye images to the camera image distribution position, click the [x1] button on the camera operation panel.

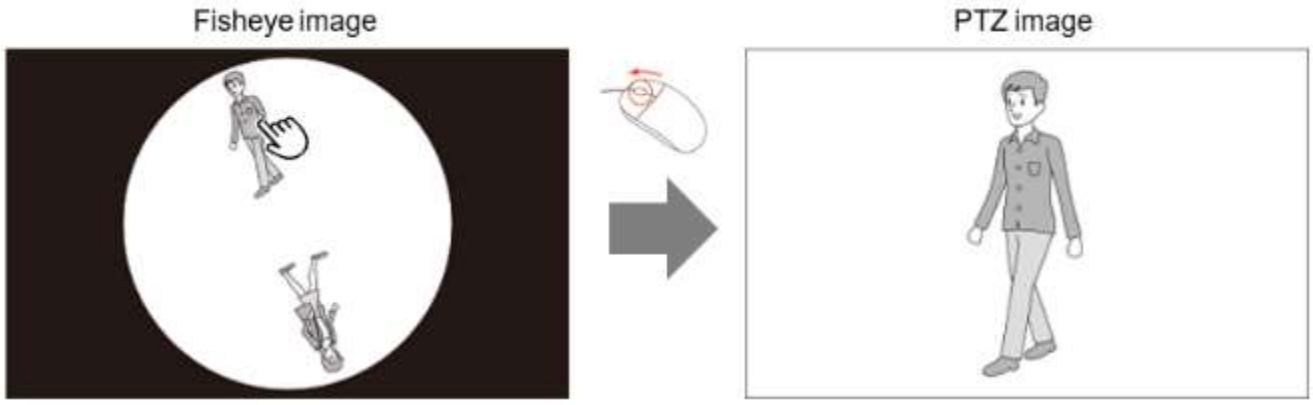
4.1.5.1.1. Zoom in / Zoom out

When the zoom-in operation is performed in a state where a fisheye image is being displayed, the fisheye image will turn to a PTZ image.
When reached the zoom limit by the zoom (WIDE) operation during the PTZ image display, the image will turn to a fisheye image.

■ **Zoom in**

Move the mouse cursor over a desired position of fisheye image to zoom in. Rotate the mouse wheel forwards.

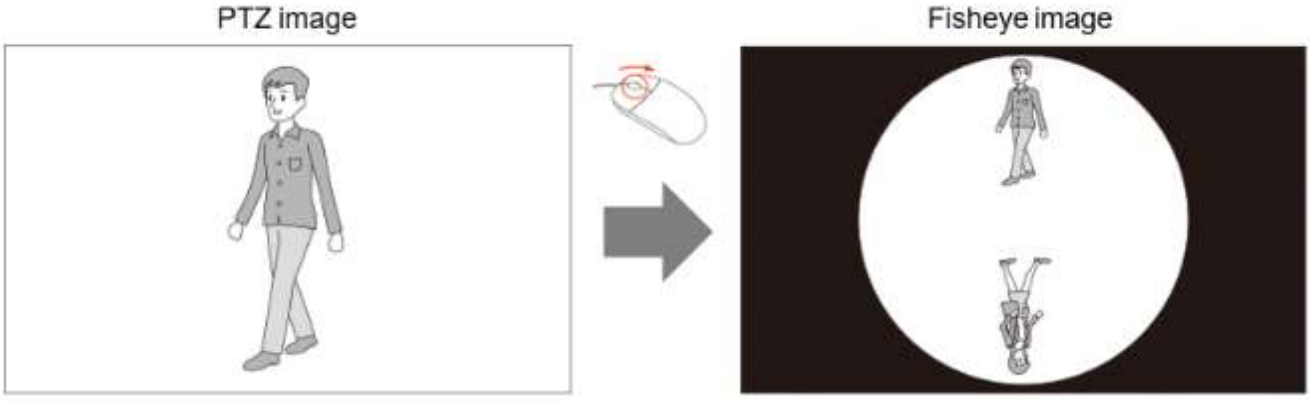
→ The image will be zoomed in so as to position the mouse cursor at the center of the displayed image. When zoomed in, the image will be displayed as a PTZ image and the pan/tilt/zoom operation will become available.



■ **Zoom out**

By rotating the mouse wheel backwards during the PTZ image display, the displayed image will be zoomed (WIDE).

→ When reached the zoom limit (WIDE), the PTZ image will turn to a fisheye image. When zooming out at this point, the display position of the PTZ image will move to the center line of the fisheye image.



4.1.5.1.2. Pan/tilt/zoom operation

A PTZ image can be controlled by the pan/tilt/zoom operation.

■ **Pan/tilt**

Move the mouse cursor over a desired position in the image display area. Images will move to the same direction as the mouse is dragged. When the mouse button is released (as the end of the mouse dragging), the movement will stop.

Note:

- When the installation method is “Ceiling” and “Display position movable range restriction during pan/tilt operation” ([System] - [3D Dewarp setting]) is “ON”, the movable range of the display position will be restricted. Refer to “☞ 3.2.3. 3D Dewarp setting” for further information.

■ **Zoom**

When the mouse wheel is rotated forwards, a point will be zoomed (TELE). When the mouse wheel is rotated backwards, a point will be zoomed (WIDE). Zooming will continue as long as the mouse wheel is being rotated.

4.1.5.2. Use a system controller (CU980)

It is possible to operate 3D Dewarp images using a system controller (CU980).

Note:

- When “CU950 Compatible” is set for [Communication mode] ([Controller] - [Basic setup]), this function will not work even by operating the system controller.
- To reset the display position of fisheye images to the camera image distribution position, click the [x1] button on the camera operation panel.
  When the [TOP] button of the system controller (CU980) is customized to trigger “Zoom (x1)”, the same action as the [x1] button on the camera operation panel will be taken by pressing the Top button of the system controller. Refer to “☞ 3.14.5. Set a customized key” for button customization.

4.1.5.2.1. Zoom in / Zoom out

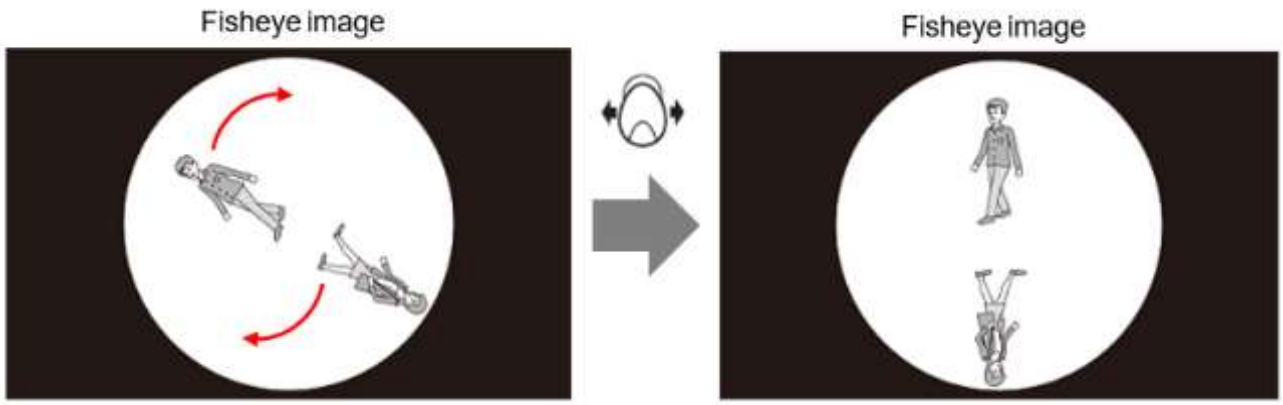
When the zoom-in operation is performed in a state where a fisheye image is being displayed, the fisheye image will turn to a PTZ image.
When reached the zoom limit by the zoom (WIDE) operation during the PTZ image display, the image will turn to a fisheye image.

■ **Zoom in**

<When the installation method is “Ceiling”>

Step 1

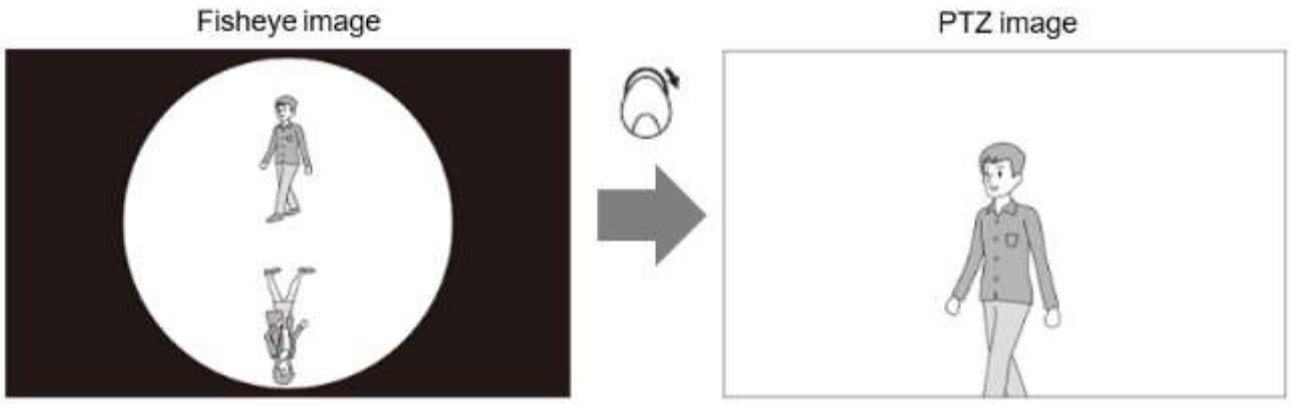
Rotate a fisheye image so as to locate a point on the fisheye image to be zoomed in toward the direction right above the center of the fisheye image by moving the joystick left or right.



Step 2

Rotate the zoom volume to the right (clockwise).

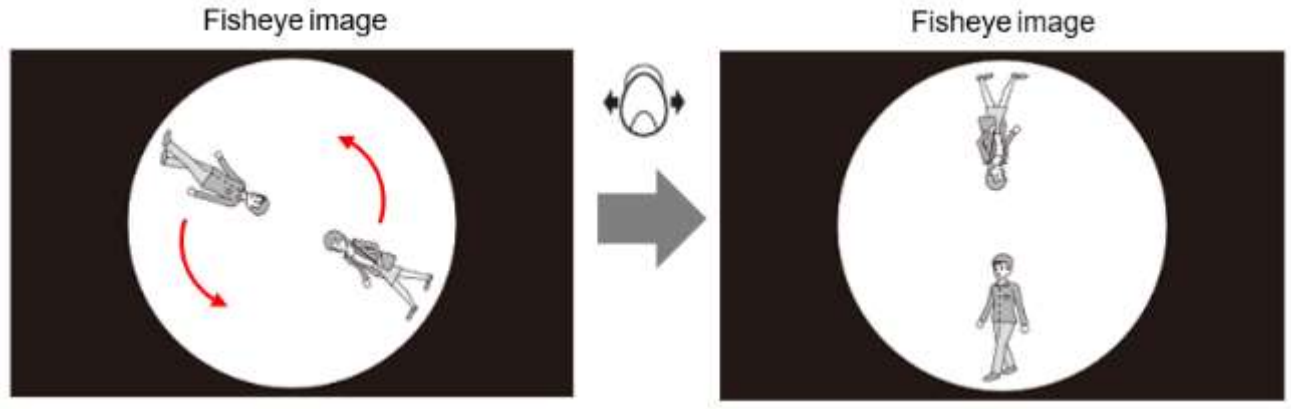
→ Zoom (TELE) until a point, which is downward from the crossing point of the vertical line extended from the center of the image and the circumference and also at 1/4 of the diameter of the fisheye image, locates at the center of the displayed image. In this condition where a PTZ image is displayed, pan/tilt/zoom operations are available.



<When the installation method is “Desktop”>

Step 1

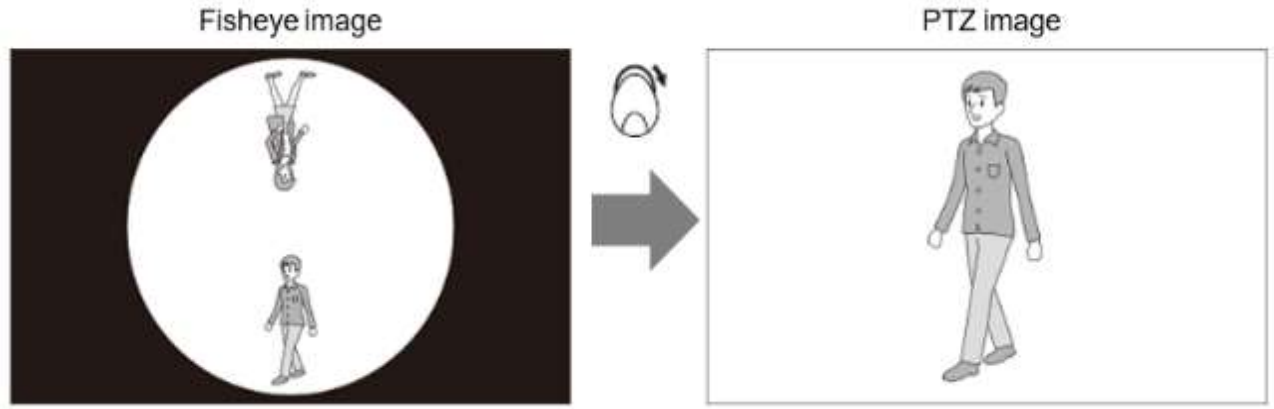
Rotate a fisheye image so as to locate a point on the fisheye image to be zoomed in toward the direction right below the center of the fisheye image by moving the joystick left or right.



Step 2

Rotate the zoom volume to the right (clockwise).

→ Zoom (TELE) until a point, which is upward from the crossing point of the vertical line extended from the center of the image and the circumference and also at 1/4 of the diameter of the fisheye image, locates at the center of the displayed image. In this condition where a PTZ image is displayed, pan/tilt/zoom operations are available.



<When the installation method is “Wall”>

When the zoom volume is rotated to the right (clockwise), zooming (TELE) will be performed to locate the center of the fisheye image at the center of the displayed image.



Note:

- When the installation method is “Wall”, images will not rotate.
- It is possible to rotate images using the camera operation panel in the same manner.
  When the control pad button is pressed repeatedly, the image will continue rotating. When the control pad button is released, the rotation will stop.

■ **Zoom out**

When the zoom volume of the joystick is rotated to the left (counterclockwise), zoom (WIDE) will be performed.

→ When reached the zoom limit (WIDE), the PTZ image will turn to a fisheye image. When zooming out at this point, the display position of the PTZ image will move to the center line of the fisheye image.



4.1.5.2.2. Pan/tilt/zoom operation

A PTZ image can be controlled by the pan/tilt/zoom operation.

■ **Pan/tilt**

The image will move so as to locate a point toward the direction where the joystick is tilted as the center. The image will continue moving as long as the joystick is being tilted (up/down/left/right).

Note:

- When the installation method is “Ceiling” and “Display position movable range restriction during pan/tilt operation” ([System] - [3D Dewarp setting]) is “ON”, the movable range of the display position will be restricted. Refer to “☞ 3.2.3. 3D Dewarp setting” for further information.

■ **Zoom**

When the zoom volume of the joystick is rotated to the right (clockwise), zooming (TELE) will be performed. When the zoom volume is rotated to the left (counterclockwise), zooming (WIDE) will be performed. Zooming will continue as long as the zoom volume is being rotated to the left or right.

Note:

- It is possible to perform the pan/tilt/zoom operation using the camera operation panel in the same manner.
  <Pan/tilt>
  The image will move so as to locate a point determined by pressing the control pad as the center. The image will continue moving as long as a button around the pad or the inside of the control pad is being pressed.
  <Zoom>
  When [+] button  is clicked, zooming (TELE) will be performed. When [-] button  is clicked, zooming (WIDE) will be performed.
  Zooming will continue as long as the [+] (TELE) button or the [-] (WIDE) button is being held down.

4.1.6. Use cropping function

Cropping is a function that makes images easy-to-see by cropping a part or 5 parts on a panorama image. The live images or playback images can be displayed with "5 cropping" or "1 cropping" image.

Note:

- This function is available with 7-series cameras (Version 1.06 or later).
- The following cameras support this function:

Camera	Image capture mode	Resolution
7-series cameras (Version 1.06 or later)	8M/30 fps 8M/15 fps 12M 5M 4M	4000×3000 2560×1920 2048×1536 3840×2160 2560×1440 1920×1080
V-series cameras	4000x3000 5M 3M 3840x2160 1080P	4000×3000 2560×1920 2048×1536 3840×2160 1920×1080
Multi-sensor cameras	4:3 mode 16:9 mode	3840x2160 2560x1440 1920x1080
WV-S8573L	16:9 mode	3840x2160

WV-S8573LG WV-S8574L WV-S8574LG		2560x1440 1920x1080 2160x3840
WV-S8563L WV-S8563LG WV-S8564L WV-S8564LG	16:9 mode	3328x1872 2560x1440 1920x1080
WV-S8543 WV-S8543G WV-S8543L WV-S8543LG WV-S8544 WV-S8544G WV-S8544L WV-S8544LG	16:9 mode	2688x1520 2560x1440 1920x1080
WV-S1550L WV-S2250L WV-S2550L WV-S1552L WV-S2252L WV-S2552L	4:3 mode 16:9 mode	3072x2304 2560x1920 3072x1728 2560x1440 1920x1080
WV-S1570L WV-S2270L WV-S2570L WV-S1572L WV-S2272L WV-S2572L	16:9 mode	3840x2160 2560x1440 1920x1080 2160x3840
WV-U1142 WV-U2142L WV-U1542L WV-U2542L WV-U2140L WV-U2540L	16:9 mode	2560x1440 1920x1080
WV-U1142A WV-U2142LA WV-U1542LA WV-U2542LA WV-U2140LA WV-U2540LA	16:9 mode	2560x1440 1920x1080
WV-X1551LN WV-X2551LN WV-X2251L	16:9 mode	3072x1728 2560x1440 1920x1080
WV-X1571LN WV-X2571LN WV-X2271L	16:9 mode	3840x2160 2560x1440 1920x1080 2160x3840
WV-S15700-V2L WV-S15700-V2LN WV-S15700-V2LK WV-S22700-V2L	16:9 mode	3840x2160 2560x1440 1920x1080 2160x3840

WV-S22700-V2LG WV-S22700-V2L1 WV-S25700-V2L WV-S25700-V2LN WV-S25700-V2LG WV-S25700-V2LN1		
WV-S15600-V2L WV-S15600-V2LN WV-S22600-V2L WV-S22600-V2LG WV-S25600-V2L WV-S25600-V2LN WV-S25600-V2LG	16:9 mode	3328x1872 2560x1440 1920x1080
WV-S15500-V3L WV-S15500-V3LN WV-S15500-V3LN1 WV-S15500-V3LK WV-S22500-V3L WV-S22500-V3LG WV-S22500-V3L1 WV-S25500-V3L WV-S25500-V3LN WV-S25500-V3LG WV-S25500-V3LN1 WV-S15500-F3L WV-S15500-F6L WV-S22500-F3L WV-S22500-F6L WV-S25500-F3L WV-S25500-F6L	4:3 mode 16:9 mode	3072x2304 2560x1920 2304x3072 1920x2560 3072x1728 2560x1440 1920x1080

- Refer to the operating instructions of the camera in use for how to configure the settings.

4.1.6.1. Display with 5 cropping/1 cropping areas

Step 1

Images from the camera will be displayed in this area.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for how to display images.

Note:

- The playback images can also be displayed with "5 cropping" or "1 cropping" image.

Step 2

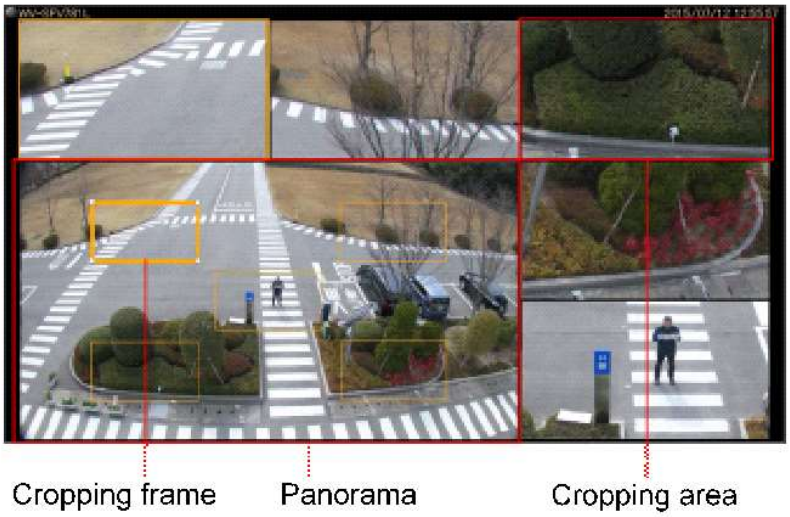
Click the [5 Cropping] icon or the [1 Cropping] icon on the tool bar.

Note:

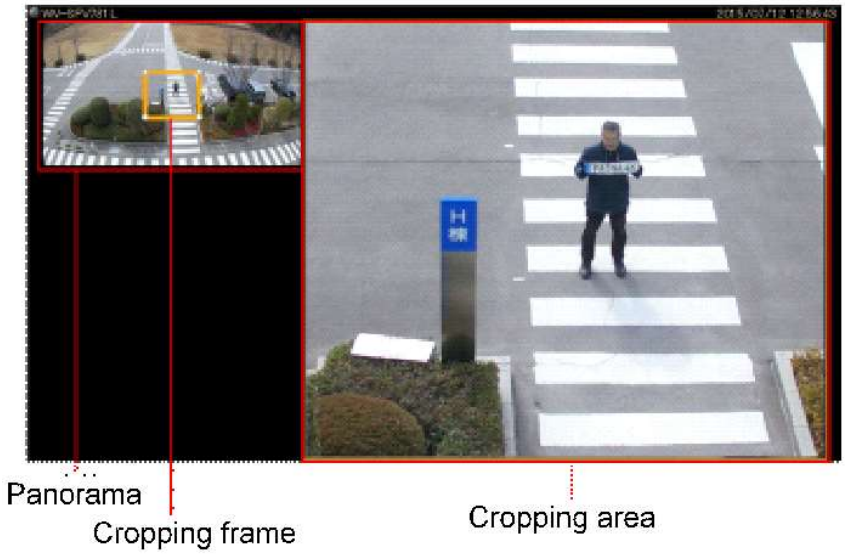
- It is disabled during visibility enhancement is processed.
- It is disabled in the same size display mode.

The following are the examples when using the cropping function.

When "5 Cropping" is selected



When "1 Cropping" is selected



- Operation on the panorama image

The position or size to be displayed in the cropping area can be changed by drag-and-drop of the displayed cropping frame into a desired place.

- Operation on the cropping area

When a point in the selected cropping area is clicked, the display position will move to locate the clicked point as the center point. Zooming out/in of the displayed image is available by scrolling the mouse wheel.

Note:

- The cropping function is available only in the operation window.
- The position of the cropping area will be maintained until the next time when the same camera is selected and images from it are displayed.
  However, the default may be restored when the camera setting is changed.
- The display format of panorama is subject to the settings of "Image display method" ("Aspect ratio",

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"Scaling") of the setup window.

- The cropping function displays images at 15 fps at maximum.
- When the functions of saving still picture or printing is used, the images will be output in the cropping frame.
- When an operation to zoom out/in an image is performed at an edge of the cropping area, the center point of the image being displayed in the cropping frame may deviate from the exact center point.
- The AI-VMD frame is not displayed while using this function.
- When connecting multiple displays, if the operation window is placed on the left or upper display relative to the main display, the mouse wheel zooming of the cropping area will not work.

  The following is the Windows display settings in which the mouse wheel zooming does not work:

  Example 1: When setting the operation window at display [2] on the left side of the main display [1



  Example 2: When setting the operation window at display [2] on the upper side of the main display [1].



4.1.7. Display images from the cameras registered as a group (group display)

By registering frequently monitored cameras as a group, images from the cameras can be displayed by unit of the registered group.

Note:

- When using the AI privacy guard function, the following camera images will not be displayed if a user without authorization of "AI privacy guard image switching" is logged in.
  - ➢ AI privacy guard recording camera (OFF) set to group

Step 1

Click the "Group" bar on the function panel.



→ The "Group" panel will be displayed.

The name of the registered group and the group icon that indicates the selected multi-screen will be displayed.

■ Registered group

The registered groups will be displayed in list form. Only groups available for the login user will be displayed. Only an administrator can register the cameras as groups. Refer to "☞ 3.4.4.5. Set a displayable group" for further information.

<In the case of the user's group>

For the user who can use the user's group, "User's group" will be displayed at the top of the group list. The user's group registration should be performed by a user who is allowed to use the user's group. Refer to "☞ 4.1.8. Configure the user's group" for further information.



The list indicates the user's group, common group in that order from the top.

Note:

- If the number of screens for the group including the registered user's group exceeds the maximum number of screens, the group will not be displayed.

■ Group icon (Group name)

The group icon indicates the number of areas and the group name indicates the name of the corresponding group. When clicking the icon, images from the selected group will be displayed in the image display area.

Icon	Description
	Display images on 1-screen.
	Display images on 2A-screen.
	Display images on 2B-screen.
	Display images on 3A-screen.
	Display images on 3B-screen.
	Display images on 3C-screen.
	Display images on 4-screen.
	Display images on 4E-screen.
	Display images on 5-screen.
	Display images on 6-screen.
	Display images on 6A-screen.
	Display images on 7-screen.
	Display images on 7A-screen.
	Display images on 9-screen.
	Display images on 10-screen.
	Display images on 13-screen.
	Display images on 16-screen.
	Display images on 4M-screen. 4M-screen can be set only for multi-sensor camera. Cameras other than multi-sensor cameras cannot be placed.

The following are available after the license for the WV-ASE202 is added.

Icon	Description

25	Display images on 25-screen.
36	Display images on 36-screen.
49	Display images on 49-screen.
64	Display images on 64-screen.

Step 2

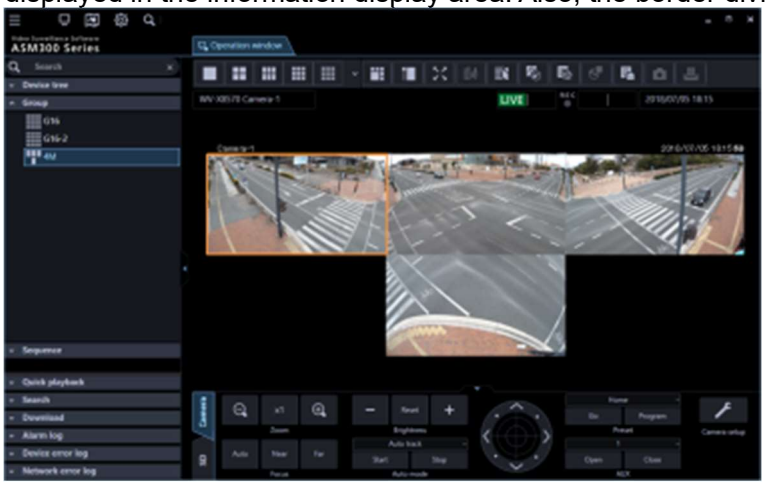
Click the desired group icon.

→ Live images from the cameras registered in the group will be displayed in the image display area.



Note:

- During the 4M group display, the name of the camera in the area with the selection frame is displayed in the information display area. Also, the border dividing each area will be hidden.



- When switching to display a group in a multi-screen including video from a fisheye camera, the image selection frame may flicker once (for several seconds in version 4.40 or less).

4.1.8. Configure the user’s group

The user’s group can be registered by each user including the administrator.

- The user’s group can be used only by the user who registered the user’s group. Even the administrator cannot use the user’s group registered by other users.
- When the login user is allowed to use the user’s group, both the groups registered by the administrator and the user’s group will be displayed.
- As for the user’s group, up to 10 groups per user can be registered.

Note:

- When the login user is not allowed to use the user’s group, adding, editing and deleting the user’s group will not be available. Refer to "☞ 3.4.2. Administrator setup", "☞ 3.4.4.1.1. Add a local user" for user setup.

The user’s group is available in the following panels: It is not available with other panels.

- Group panel of the operation window
- Right-click menu [Group] of the search panel in the operation window
- Group panel of the live window
- Right-click menu [Group] in the live window

4.1.8.1. Add a user’s group

Note:

- A user’s group can be added in the operation window.

Step 1

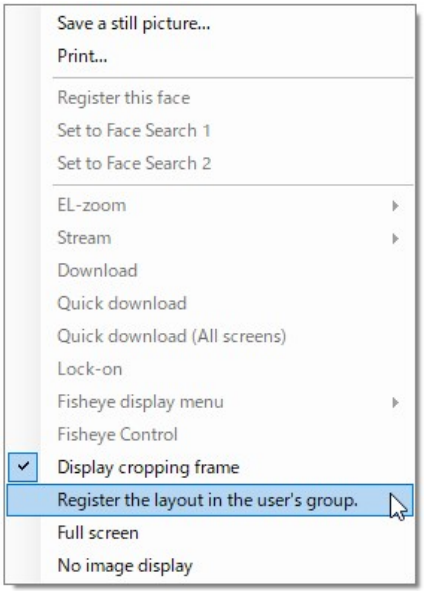
Click the [Operation window] tab to display the operation window.

Step 2

Display the camera image in the image display area in a selected layout.

Step 3

When right-clicking on the image display area, the pop-up menu will be displayed.



Step 4

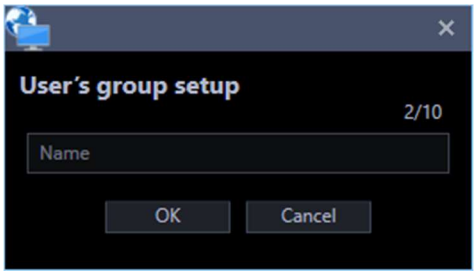
Select “Register the layout in the user’s group”.

→ The user’s group setup window will be displayed.

Note:

- When no camera is selected for 1-screen, [Register the layout in the user’s group] cannot be selected.
- In the following cases, [Register the layout in the user’s group] may be unavailable.
  - When selected an image display area of multi-screen where no camera is selected
  - When right-clicked on a point where is out of the currently selected image display area on multi-screen

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The details of the window are as follows.

■ The number of registered user’s groups

Displays the number of the registered groups.

Note:

- As for the user’s group, up to 10 groups per user can be registered.

■ Name

Enter the name of the user’s group.

Note:

- Enter up to 16 characters for the name of the user's group.
- The following characters are unavailable.
  ! $ % ' < = > @ [\ ] ^ _ ` { | } ~

Step 5
After entering the group name, click the [OK] button.

→ The user's group setup window will be closed, and the name of the added user's group will be displayed in the group panel.



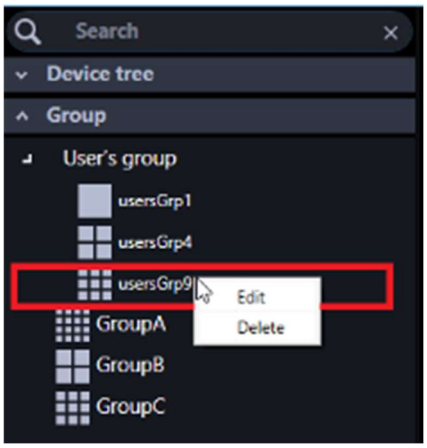
4.1.8.2. Edit the user's group

Edit the name of a user's group. The number of cameras and the camera layout for the user's group cannot be modified. To modify them, adding a user's group is necessary.

Note:
- A user's group can be edited in the operation window.

Step 1
Click the [Operation window] tab to display the operation window.

Step 2
Right-click on the user's group you want to edit from the "Group panel".
Select [Edit] from the menu to be displayed.



→ The user's group setup window will be displayed.

Step 3
After editing the user’s group name, click the [OK] button.
For each item, refer to Step 4 in the "☞ 4.1.8.1. Add a user’s group" section.

→ The settings will be saved.

4.1.8.3. Delete the user’s group

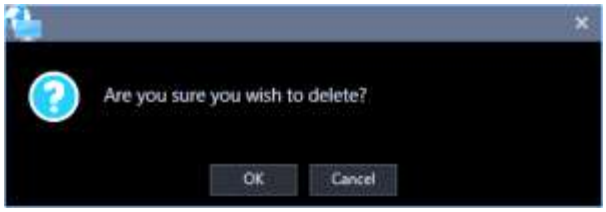
Note:

- A user’s group can be deleted in the operation window.

Step 1
Click the [Operation window] tab to display the operation window.

Step 2
Right-click on the user's group you want to delete from the “Group panel”.
Select [Delete] from the menu to be displayed.

→ The delete confirmation window will be displayed.



Step 3
Click the [OK] button.

→ The group will be deleted.

4.1.8.4. Change the order of the user’s group

The following describes how to sort the user’s groups in the group panel.

< Click the pop-up menu>
The following describes how to sort the user’s groups in the group panel.

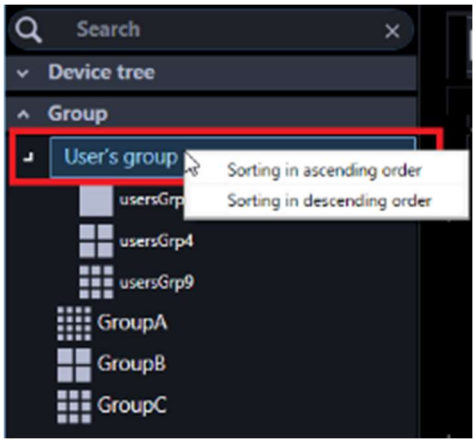
Step 1
Click the [Group] in the function panel.



→ The group panel will open.

Step 2

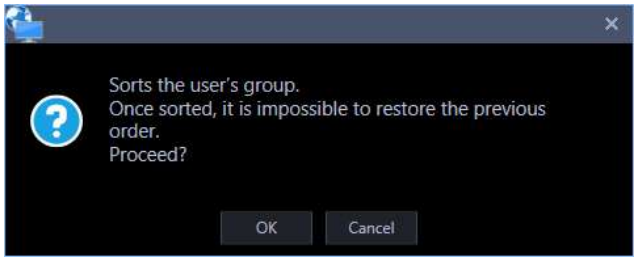
When right-clicking on a user's group, the pop-up menu will be displayed.



Step 3

Select a menu to be displayed [Sorting in ascending order] or [Sorting in descending order].

→ The confirmation window will be displayed.



Step 4

Click the [OK] button.

→ When [Sorting in ascending order] is selected, the groups will be sorted in ascending order by the name of the user's group.
When [Sorting in descending order] is selected, the groups will be sorted in descending order by the name of the user's group.
The confirmation window will close and the settings will be saved.

Note:

- The saved display order will be applied to the following panels:
  - Group panel of the operation window
  - Right-click menu [Group] of the search panel in the operation window
  - Group panel of the live window
  - Right-click menu [Group] of the live window

4.1.9. Switch groups automatically and display images from each group sequentially (sequence)

Images from the registered groups can be displayed on a full screen in an automatic sequential manner. It is possible to set the dwell time (sequence interval) for the sequence display.

Note:

- Actual dwell time may become longer than the set dwell time when the processing load is too heavy on the devices or on the PC (such when many cameras are connected, when displaying live images from many cameras, etc.) or when the network traffic is heavy.
- Images may sometimes not be displayed during the sequence display depending on the network environment.
- It is recommended to use less than 10 recorders when using the sequence display.
- Display with "5 Cropping" or "1 Cropping" is unavailable during the sequence display.
- When using the AI privacy guard function, the following camera images will not be displayed if a user without authorization of "AI privacy guard image switching" is logged in.
  - ➢ AI privacy guard recording camera (OFF) set to group

Step 1

Click the "Sequence" bar on the function panel.



→ The "Sequence" panel will be displayed.



■ **Sequence dwell time**

Select a sequence dwell time from the following.
3s/ 5s/ 10s/ 15s/ 20s/ 25s/ 30s/ 35s/ 40s/ 45s/ 50s/ 55s/ 1min
Default: 3s

Note:

- "Sequence dwell time" is the duration from the moment when completing displaying of all images from the cameras registered as a group till the moment when starting displaying images of the next group.

■ **Registered sequence**

The registered sequences will be displayed in list form.
When a desired sequence is selected, the sequence display will start with the selected dwell time.
Registration sequence is made on the setup window by an administrator.
Refer to "☞ 3.4.4.6. Set a displayable sequence" for further information.

Step 2

Set the sequence dwell and select [Sequence].

→ The window will be switched to a full screen and the sequence display will start.



Step 3

To stop the sequence display, right-click and select [Back] from the right-click menu. When the sequence display is stopped, the full screen will return to the normal window size and live image display will start.

4.1.10. Device operation

Important:

- Check if the model in use is compatible with each function.
- To operate the newly registered camera and microphone, restart this software before starting operation.

4.1.10.1. Operate the cameras

It is possible to execute the camera operation such as display position adjustment, zoom and focus adjustment during the live image display. It may be impossible to operate the camera depending on the model of the connected camera.

Refer to "☞ 1.5. Compatible devices" for the supported cameras.

This software can operate the following.

- Panning/ tilting (*1): Adjusts the horizontal/vertical position of images from the camera.
- Zoom (*3): Zooms in/out the displayed image.
- Focus: Adjusts the focal point of images from the camera.
- Brightness: Adjusts the lens iris.
- Preset function (*1) (*4): Moves the camera to the preset position registered in advance. Registration of the preset positions is also available.
- Auto mode (*1) (*2): Executes the selected auto mode function.
- AUX (*2): Turns the device connected to the AUX terminal to the open state or the close state.

*1 Available for PTZ cameras and fisheye cameras
Also, this function is disabled when WV-X6533LN/WV-S6532LN is set into the “Insert/Remove SD memory card” mode.

*2 When using Video Insight Server, this function is unavailable regardless of the camera model.

*3 When using Video Insight Server, [x1] button is not available.

*4 When using Video Insight Server, [Go] button and [Program] button for the preset position "Home" are not available.

Note:

- Some functions may be unavailable depending on the model of the camera. Contact your dealer for further information.
- When using a camera registered for camera categories of NV200 and NV300 with this software, some operations may be restricted depending on the model of the camera. When using NV200 or NV300, register the camera on "Easy start".

Step 1

Display live images.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

When displaying images on a multi-screen, click the desired area to select the camera to be operated. The selected area will be displayed with the frame in orange.

Step 2
Click the [Camera] tab.
→ The camera operation panel will be displayed.



Step 3
Operate the camera using the buttons on the camera operation panel.
→ Refer to "☞ 2.6.6.1. Camera operation panel" for descriptions about the buttons.

Note:
- It is possible to pan/tilt the camera by clicking a point on the screen.
- Zooming is available using the wheel on the wheel mouse.
- By specifying an area to display desired images by dragging on the screen, the camera will move to the position making the specified area as the center and the zoom ratio will be automatically adjusted. (Drag & zoom function)

4.1.10.2. Operate the microphones

It is possible to configure the settings for sound collection position or compensation for the microphone while displaying live images from a linked camera or playback images of the recorder.
It may be impossible to operate the microphone depending on the model of the connected microphone. Refer to "☞ 1.5. Compatible devices" for the supported microphones.
This software can operate the following.
- Sound collection position: Sets a position from where the sound is picked up.
- Noise reduction: Reduces noise contained in the audio from microphones.
- Voice clearness: Selects the audio compensation level for the microphone in order to make better sound.

Note:
- The sound collection position can be set per devices displayed in the device tree.
- The setting of the sound collection position is available per groups. However, the setting will be switched to each device, if a device is selected in the device tree, a camera is selected, the number of screen setting is changed, or full screen display is performed.
- In the following cases, the [Mic setup] button will not be displayed. Audio collection will also not be performed. The sound collection position will not be displayed in the following cases even if the display setting of the sound collection position setting is “ON”.
  - When the fisheye camera and the microphone are not linked
  - When the microphone is disabled
  - When the image capture mode of the fisheye camera is not set to "Fisheye" nor "Panorama"
  - When “OFF” is selected for “Audio” of “Drawing and audio setting” under “System” on the setup window
  - When displaying images in more than 25-screen
  - When a microphone is set on a screen other than the upper left
  - When operated by a user who is not authenticated to configure the microphone setting

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- When the image display method is the same size display
- When "ON" is selected for "Quad streams" on the setting of the fisheye camera

• In the following cases, the sound collection position will not be displayed even if the display setting of the sound collection position setting is “ON”.
- When the EL-zoom ratio is other than x1
- When the sequential display is enabled

Step 1
Display images from a linked camera.
→ Refer to "☞4.1.3. Monitor images from the selected camera" for the live image display.
→ Refer to ”☞4.1.15.1. Play” for how to display images on the recorder.

Step 2
Press the [Mic setup] button.
→ The microphone setting panel will be displayed.



Step 3
Operate the microphone using the buttons on the microphone setting panel.
Refer to "☞ 2.6.6.1. Camera operation panel" for descriptions about the buttons.

4.1.11. Camera image pan/tilt operation

Adjust the horizontal/vertical position of the displayed camera image.

• The pan/tilt of the PTZ camera is operable regardless of the number of screens.
The operation when changing the camera type of the PTZ camera registered in the recorder is different.
Refer to “Camera type” in “☞ 3.3.4.2.1. Register a recorder individually“ for further information.
Also, this function is disabled when WV-X6533LN/WV-S6532LN is set into the “Insert/Remove SD memory card” mode.
• The operable number of screens in the fisheye camera pan/tilt operation differs depending on the fisheye display mode.
• When clicking on an image that is being zoomed or being displayed in the pixel by pixel mode, the image will be displayed while locating the clicked point at the center of the screen. However, when clicking on an image from a PTZ camera or a fisheye camera that is being displayed on [Single PTZ], the image will not be positioned with the clicked point as the center of the screen since the pan/tilt function will be performed by clicking under the above condition.

The following is the availability of the pan/tilt operation per camera: (○: available / ×: not available)

<In case of Fixed camera or PTZ camera>

Independent camera

Camera type	Operation panel (*1)	Click centering
Fixed camera	×	×

PTZ camera	○ / × (*3)	○ / × (*3)

A camera registered by recorder

Camera type	Operation panel (*1)	Click centering
Fixed camera	×	×
PTZ camera	○ / × (*3)	○ / × (*3)

A camera registered by recorder (during playback)

Camera type	Operation panel (*1)	Click centering
Fixed camera	×	×
PTZ camera	×	×

<In case of Fisheye camera>

Independent camera

Image capture mode	Fisheye display mode	Operation panel (*1)	Click centering
Fisheye camera (*2)	Fisheye	×	×
	Single PTZ	○ / × (*3)	○ / × (*3)
	Quad PTZ	○ / × (*3)	○ / × (*3)
	Panorama	×	×
	Double Panorama	×	○ / × (*3)
Single PTZ		○ / × (*3)	○ / × (*3)
Quad PTZ		○ / × (*3)	○ / × (*3)
Panorama		×	×
Double Panorama		×	×
Quad streams		×	×

A camera registered by recorder

Image capture mode	Fisheye display mode	Operation panel (*1)	Click centering
Fisheye camera (*2)	Fisheye	×	×
	Single PTZ	○ / × (*3)	○ / × (*3)
	Quad PTZ	○ / × (*3)	○ / × (*3)
	Panorama	×	×
	Double Panorama	×	○ / × (*3)
Single PTZ		○ / × (*3)	○ / × (*3)
Quad PTZ		○ / × (*3)	○ / × (*3)
Panorama		×	×
Double Panorama		×	×
Quad streams		×	×

A camera registered by recorder (during playback)

Image capture mode	Fisheye display mode	Operation panel (*1)	Click centering
Fisheye camera (*2)	Fisheye	×	×
	Single PTZ	○ / × (*3)	○ / × (*3)
	Quad PTZ	○ / × (*3)	○ / × (*3)
	Panorama	×	×
	Double Panorama	×	○ / × (*3)
Single PTZ		×	×
Quad PTZ		×	×
Panorama		×	×
Double Panorama		×	×
Quad streams		×	×

(*1) : Pan/tilt operation from [Camera operation panel] - [Control pad] (☞2.6.6.1. Camera operation panel).
(*2) : In case of 3D Dewarp image, the pan/tilt operation using the operation panel is available. (☞4.1.5. Use the 3D Dewarp function)
(*3) : When a user without authorization of “Camera control” is logged in.

4.1.12. Camera image zoom operation

Zoom in/out the displayed image.

- The zooming operation using the operation panel of the PTZ camera and using a mouse wheel are available regardless of the number of screens. The drag-zooming and EL-zooming from the pop-up menu are available only for 1-screen display.
  The operation when changing the camera type of the PTZ camera registered in the recorder is different. Refer to “Camera type” in “☞ 3.3.4.2.1. Register a recorder individually“ for further information.
- The zooming operations of the fixed camera are all EL-zooming.
  The EL-zooming of the fixed camera is available only for 1-screen display. The operable number of screens in the EL-zooming of the fisheye camera differs depending on the fisheye display mode. The operation when changing the camera type of the Fixed camera registered in the recorder is different. Refer to “Camera type” in “☞ 3.3.4.2.1. Register a recorder individually“ for further information.

The following is the availability of the zoom operation per camera: (○: available / ×: not available)

<In case of Fixed camera or PTZ camera>

■ **The number of screens : 1-screen**

Independent camera

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	○ / × (*3) (*8)	○ / × (*3) (*8)	×
PTZ camera	○ / × (*8)	○ / × (*3) (*8)	○ / × (*8)	○

A camera registered by recorder (Live image source : Camera)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	○ / × (*3) (*8)	○ / × (*3) (*8)	×
PTZ camera	○ / × (*8)	○ / × (*3) (*8)	○ / × (*8)	○

A camera registered by recorder (Live image source : Recorder)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	○ / × (*3)(*5) (*8)	○ / × (*3)(*5) (*8)	○ / × (*6)
PTZ camera	○ / × (*8)	○ / × (*3)(*4) (*8)	○ / × (*8)	○

A camera registered by recorder (during playback)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	○ / × (*3) (*8)	○ / × (*3) (*8)	×
PTZ camera	×	○ / × (*3) (*8)	○ / × (*8)	×

■ **The number of screens : multi-screen**

Independent camera

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	×	×	×
PTZ camera	○ / × (*8)	×	○ / × (*8)	×

A camera registered by recorder (Live image source : Camera)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	×	×	×
PTZ camera	○ / × (*8)	×	○ / × (*8)	×

A camera registered by recorder (Live image source : Recorder)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	×	×	×
PTZ camera	○ / × (*8)	×	○ / × (*8)	×

A camera registered by recorder (during playback)

Camera type	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fixed camera	×	×	×	×

PTZ camera	×	×	×	×

<In case of Fisheye camera>

■ **The number of screens : 1-screen**

Independent camera

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	○
	Single PTZ	○ / × (*8)	○ / × (*3) (*8)	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Double Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Single PTZ		○ / × (*8)	○ / × (*8)	○ / × (*8)	○
Quad PTZ		○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Panorama		×	×	×	○
Double Panorama		×	×	×	○
Quad streams		×	×	×	○

A camera registered by recorder (Live image source : Camera)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	○
	Single PTZ	○ / × (*8)	○ / × (*3) (*8)	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Double Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Single PTZ		○ / × (*8)	○ / × (*3) (*8)	○ / × (*8)	○
Quad PTZ		○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Panorama		×	×	×	○
Double Panorama		×	×	×	○
Quad streams		×	×	×	○

A camera registered by recorder (Live image source : Recorder)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)

Fisheye camera (*7)	Fisheye	×	×	×	○
	Single PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Double Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Single PTZ		○ / × (*8)	×	○ / × (*8)	○
Quad PTZ		○ / × (*8)	×	○ / × (*8)	×
Panorama		×	×	×	○
Double Panorama		×	×	×	○
Quad streams		×	×	×	○

A camera registered by recorder (during playback)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	○
	Single PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
	Double Panorama	○ / × (*8)	○ / × (*8)	○ / × (*8)	×
Single PTZ		×	×	×	○
Quad PTZ		×	×	×	×
Panorama		×	×	×	○
Double Panorama		×	×	×	○
Quad streams		×	×	×	○

■ **The number of screens : multi-screen**

Independent camera

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	×
	Single PTZ	○ / × (*8)	×	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	×	○ / × (*8)	×
	Panorama	○ / × (*8)	×	○ / × (*8)	×
	Double Panorama	○ / × (*8)	×	○ / × (*8)	×
Single PTZ		○ / × (*8)	×	○ / × (*8)	×
Quad PTZ		○ / × (*8)	×	○ / × (*8)	×
Panorama		×	×	×	×

Double Panorama	×	×	×	×
Quad streams	×	×	×	×

A camera registered by recorder (Live image source : Camera)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	×
	Single PTZ	○ / × (*8)	×	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	×	○ / × (*8)	×
	Panorama	○ / × (*8)	×	○ / × (*8)	×
	Double Panorama	○ / × (*8)	×	○ / × (*8)	×
Single PTZ		○ / × (*8)	×	○ / × (*8)	×
Quad PTZ		○ / × (*8)	×	○ / × (*8)	×
Panorama		×	×	×	×
Double Panorama		×	×	×	×
Quad streams		×	×	×	×

A camera registered by recorder (Live image source : Recorder)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	×
	Single PTZ	○ / × (*8)	×	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	×	○ / × (*8)	×
	Panorama	○ / × (*8)	×	○ / × (*8)	×
	Double Panorama	○ / × (*8)	×	○ / × (*8)	×
Single PTZ		○ / × (*8)	×	○ / × (*8)	×
Quad PTZ		○ / × (*8)	×	○ / × (*8)	×
Panorama		×	×	×	×
Double Panorama		×	×	×	×
Quad streams		×	×	×	×

A camera registered by recorder (during playback)

Image capture mode	Fisheye display mode	Operation panel (*1)	Drag zoom	Mouse wheel zooming	Pop-up menu (*2)
Fisheye camera (*7)	Fisheye	×	×	×	×
	Single PTZ	○ / × (*8)	×	○ / × (*8)	×
	Quad PTZ	○ / × (*8)	×	○ / × (*8)	×
	Panorama	○ / × (*8)	×	○ / × (*8)	×

	Double Panorama	○ / × (*8)	×	○ / × (*8)	×
Single PTZ		×	×	×	×
Quad PTZ		×	×	×	×
Panorama		×	×	×	×
Double Panorama		×	×	×	×
Quad streams		×	×	×	×

(*1): Zooming operation from [Camera operation panel] - [Zoom] (☞2.6.6.1. Camera operation panel).
(*2): Zooming operation using the pop-up menu [EL-zoom] to be displayed by right-clicking on the image display area of the operation monitor (☞2.6.4. Pop-up menu).
(*3): It is not supported in the “Pixel by Pixel” mode. It corresponds only for the “Aspect ratio” mode and “Scaling” mode.
(*4): It is not available for “non-NX series” and “non-NU series” recorder.
(*5): It is not available for “HD series” recorder.
(*6): It is available for “non-HD series” recorder.
(*7): In case of 3D Dewarp image, the zoom operation using the operation panel and zooming using the mouse wheel are available. Zooming by mouse dragging and electronic zooming from the pop-up menu are not available. (☞4.1.5. Use the 3D Dewarp function)
(*8): When a user without authorization of “Camera control” is logged in.
When the number of screens: 1-screen, setting "The EL-zoom function for fixed cameras (when "Camera control" is not selected in user level setup)" to "ON" in [System] - [Drawing and audio setup] supports Drag zoom and Mouse wheel zooming for the fixed camera.

4.1.13. Set the preset position name

Set the preset position name of the camera.

Note:

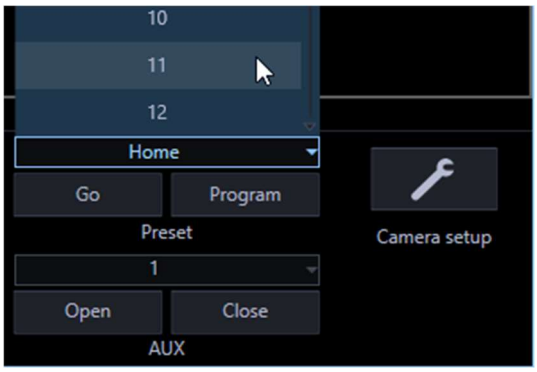
- The position name cannot be set if logged in by the user without authority to set the preset position name.
- The names of the preset position and AUX terminal set with this software will be used only within this software and not applied to the settings of the camera side.
- Position [HOME] cannot change the name.
- With the camera where the recorder is already registered, the preset position name and the AUX terminal name will be initialized, if the device information is obtained after changing the registered channel of the recorder.

Step 1
Display the camera image whose position name to be set.

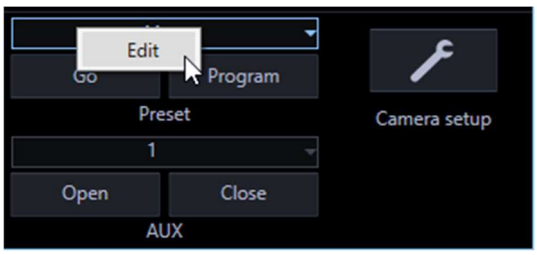
→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2
Select a position whose name to be changed from the [Preset] pull-down menu in the camera operation panel.

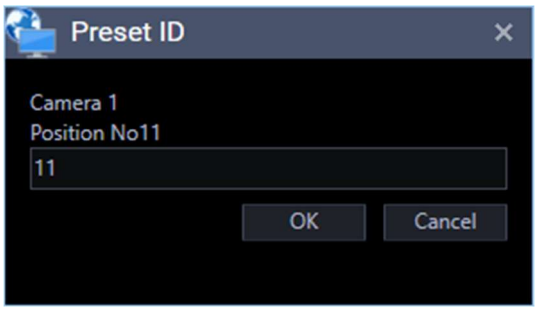
→ The pull-down menu is closed and the selected position is displayed.



Step 3
Right-click on the [Preset] pull-down menu in the camera operation panel, and select [Edit].



→ The Preset ID editing window will be displayed.



Step 4
Edit the position name.

Note:
- Enter 1 - 20 characters for the position name.

Step 5
Click the [OK] button.

→ The setting is saved and the Preset ID editing window will be closed.

4.1.14. Set the AUX terminal name

Set the AUX terminal name of the camera.

Note:
- The AUX terminal name cannot be set if logged in by the user without authority to set the terminal name.

- The names of the preset position and AUX terminal set with this software will be used only within this software and not applied to the settings of the camera side.
- With the camera where the recorder is already registered, the preset position name and the AUX terminal name will be initialized, if the device information is obtained after changing the registered channel of the recorder.

Step 1

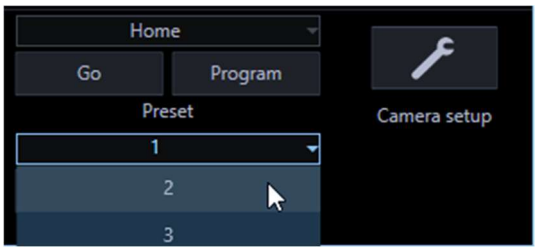
Display the camera image whose terminal name to be set.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

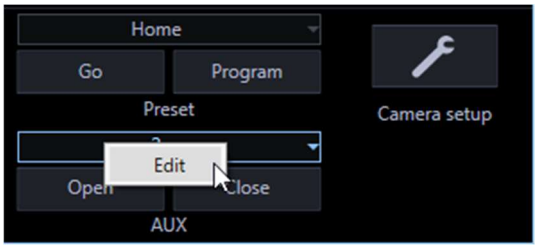
Select a terminal whose name to be changed from the [AUX] pull-down menu in the camera operation panel.

→ The pull-down menu is closed and the selected terminal is displayed.

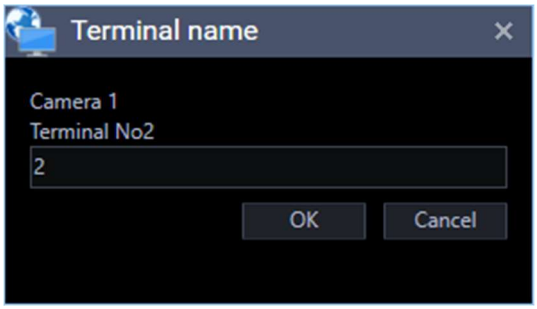


Step 3

Right-click on the [AUX] pull-down menu in the camera operation panel, and select [Edit].



→ The terminal name editing window will be displayed.



Step 4

Edit the terminal name.

Note:

- Enter 1 - 20 characters for the terminal name.

Step 5

Click the [OK] button.

→ The setting is saved and the terminal name editing window will be closed.

4.1.15. Record/Play using a recorder

4.1.15.1. Play

It is possible to play recorded images stored on the recorder using the operation window of this software.

Note:

- Speed of image load may become slow when the processing load is too heavy on the recorder or on the PC (such when many cameras are connected, when displaying many recorded images, etc.) or when the network traffic is heavy.
- When playing recorded images on a multi-screen, sometimes the recording time synchronization of the displayed recorded images may not be performed.
- Recorded audio can be played depending on recorder model.
- Audio will be output only when playing images forward at 1x speed.
- Audio may be interrupted depending on the network environment.
- Audio and images may sometimes become out of synchronization.
- When there is no image recorded by the selected camera, a black screen will be displayed.
- If the security certificate for the recorder has expired or is not yet valid, a black screen will be displayed when playback is started.
- When displaying and playing images from a camera that is not registered in the recorder, a black screen will be displayed.
- Even after the license for the WV-ASE202 is added and while live images are being displayed on a 25-screen or more, the maximum number of areas (multi-screen pattern) will become 16-screen after recorded images are displayed.
- When audio of the network microphone is not played, check if the "Mic input" or "Interactive(Full-duplex)" is selected for the "Audio transmission/reception" of the linked camera.
- When the camera selection is changed during playback while “ON” is selected for “Resume playback at camera switching”, the playback of images from the newly selected camera will start from a point at the same playback time of the playback of images from the previously selected camera when the camera is switched since the playback time is taken over even though the camera is switched. When “OFF” is selected, live images from the newly selected camera will be displayed.
  Refer to "☞3.2.1. Basic setup" for further information about the settings.
- When playing recorded images using Video Insight Server, due to image buffering, the image refresh interval may become 1 second or playback may pause regardless of the frame rate specified for recording.
- When the Video Insight Server’s checkbox “Enable Security” is marked ([Administrations] - [Servers] - [Server Setup] - [Advanced] - [Server Options]), the images from Video Insight Server cannot be displayed.
- When switching from live image display to recorded image playback or switching from recorded image playback to live image display during displaying on a multi-screen including video from a fisheye camera, the image selection frame may flicker once (for several seconds in version 4.40 or less).

Step 1

Display live images.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

Click the [HDD] tab.

→ The playback operation panel will be displayed.



Step 3

Click the [PLAY] button.



→ Live images will be switched to playback images. The live indication displayed in the information display area will turn to the playback indication.



Note:

- Playback will start from the latest recorded image.
- Playback control may take some time, such as switching from a live image to a playback image.
- Playback may not be possible according to the frame rate setting.

Step 4

To stop playback, click the [STOP] button.

→ Live images will be displayed in the image display area where playback images are being displayed. The playback indication displayed in the information display area will turn to the live indication.



Note:

- Operate the playback images using the buttons on the playback operation panel.
- Refer to "☞ 2.6.6.2. Playback operation panel" for descriptions about the buttons.

4.1.15.1.1. Restrictions during playback continuation

The following restrictions will be applied to the “Resume playback at camera switching” function.
Please use this function after understanding the content. Refer to "☞3.2.1. Basic setup" or further information about the settings.

- Before changing to playback, live images will be displayed temporarily. At this time, a black screen may be displayed due to the disconnection of the camera with the recorder or the exceeding number of users. Though this momentary live image display may not occur when displaying images on a multi-screen, the [Status] icon on the information display area may change to [Live] for a moment.
- If recording of images from the newly selected camera is not performed in the same period when recording of images from the previously selected camera, images recorded at a totally different time may be played or a paused image may be displayed at the end of playback.
- When the newly selected camera is not connected with the recorder, a black screen will appear.
- The “Resume playback at camera switching” function remains valid even when the camera is changed by the following operations. When a camera not connected with a recorder is included among the selected camera or group, a black screen will be displayed.
  - Change the camera by clicking a device tree icon
  - Change the camera by clicking an icon on the map
  - Change the camera by clicking a group icon
  - Change the camera using a system controller (CU950, CU980)

4.1.15.2. Play images using the "Quick playback" panel

Search and playback of recorded images can be easily performed when using the quick playback panel.
There are three ways to play recorded images as follows.

- Search by designating a recording time and date and play
- Search by designating a recording time and date of SD memory backup data and play
- Play the latest recorded image

Note:

- When displaying images on a multi-screen, playback images will be displayed in all areas.
- It is impossible to play SD memory backup data on a multi-screen.
- When the SD memory backup data is played, playback may sometimes not be performed in a normal manner (display a black screen or takes time to refresh images).if number of images recorded in a recording event. In this case, display the image with frame playback/ reverse frame playback.
- When the SD memory backup data is played, the drawing becomes non-smooth movement. This can be improved by updating this software to version 4.30 or later and then by setting [Smooth display (Buffering)] of [Drawing and audio setup] under [System] to “ON”.

Step 1

Display live images from the recorder to be searched.

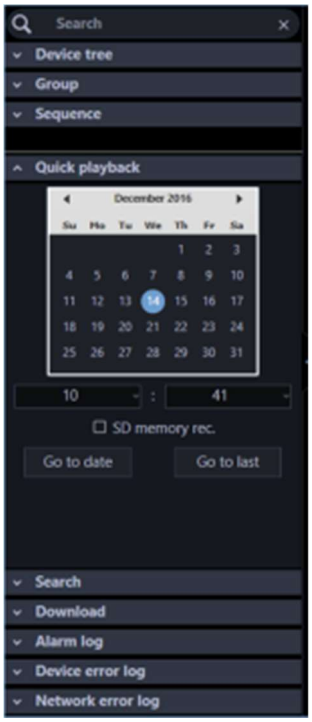
→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

Click the "Quick playback" bar on the function panel.



→ The "Quick playback" panel will be displayed.



The details of the window are as follows.

■ **Calendar/time**

Select time of period to be searched from “2005/1/1" - "2034/12/31". Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **SD memory rec.**

Check this checkbox to search for recorded images from the SD memory backup data.

Note:

- When displaying images on a multi-screen, it is impossible to check the checkbox.

■ **[Go to date] button**

Displays images recorded during the period of time selected by “Calendar/Hour”

■ **[Go to last] button**

Click this button to start playback of the latest recorded images.

Step 3

Select the desired time & date.

Note:

- It is unnecessary to designate the time & date when playing the latest recorded image. The latest recorded image to be played is determined according to the setting of the recorder. Refer to the operating instructions of the recorder in use for further information.

Step 4

Click the [Go to date] button or the [Go to last] button.

→ Images recorded at the selected time & date or the latest recorded image will be played in the image displayed area.



Note:

- When playing MPEG-4, H.264 or H.265 images, playback may start from a point several seconds after the designated time & date. Sometimes, playback may start from the beginning of the next record.
- When playback cannot be performed correctly even when designating the time & date of the SD memory backup data to be searched, it may be possible that there is no image recorded by the SD memory recording.

4.1.15.3. Play using the timeline playback operation panel

Note:

- When playing images from cameras connected to multiple recorders, synchronization of the timeline seek bar may sometimes not be correct.
- The timeline to be displayed is only the range obtained by the timeline service.
  Even for the recorded data, if it exceeds the recording data acquiring range, the timeline will not be

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displayed. Also, the timeline may not be displayed in the range where data acquisition, such as latest time, cannot be completed, in the range that is the “Event recording” immediately before the data acquisition timing and has a short recording time, and in the range where the amount of data on the timeline exceeds the OS limit.
At this time, only the timeline seek bar will be displayed during playback.

- For the recorder in which "Hour meter warning" is occurred, the timeline may not be displayed due to data acquisition failure in the timeline service.
- When the firewall is enabled, the timeline may not be displayed due to data acquisition failure in the timeline service. Configure the exceptional settings of Windows Firewall by following the procedure of “☞ 3.17. Exceptional settings of Windows Firewall“.

Step 1

Display live images from the recorder for which the timeline is to be displayed.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

Click the [HDD] tab.

→ The timeline playback operation panel will be displayed.



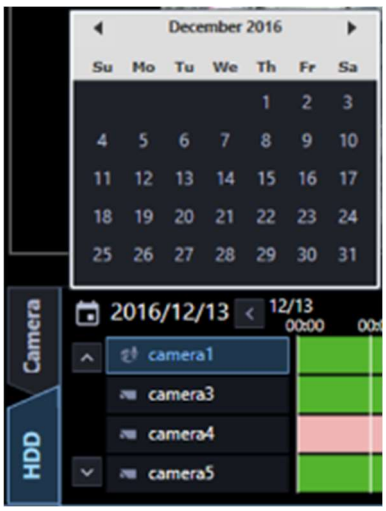
Refer to "☞ 2.6.6.3. Timeline playback operation panel" for descriptions about images.

Note:

- The timeline playback operation panel will be displayed when "ON" is selected for "Timeline display" on the setup window. Refer to "☞ 3.2.7. Timeline" for further information.

Step 3

Select desired date to start playback.



→ The timeline of the selected date will be displayed.

Note:

- Timeline will not be displayed if it is out of the period specified on "Number of acquired days" on the setup window. Refer to "☞ 3.2.7. Timeline" for further information.

Step 4

Adjust time to a desired point while performing the enlargement/reduction display using the time axis scale change slider.



Step 5

Double-click on a desired time to start playback on the timeline.

→ Playback of the recorded images of the selected time will start.

Note:

- When playing MPEG-4, H.264 or H.265 images, playback may start from a point several seconds after the designated time & date. Sometimes, playback may start from the beginning of the next record.
- If the security certificate for the recorder has expired or is not yet valid, a black screen will be displayed when playback is started.

4.1.15.4. Start/stop recording manually

Note:

- To perform manual recording, login by the user with the level of manual recording and playing authorization is required.
- Manual recording is not available for NV200, NV300, NX-series, and NU-series.
- Manual recording is not available when using Video Insight Server.

Step 1

Display live images from the recorder to be used for recording.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

Click the [HDD] tab.

→ The playback operation panel will be displayed.



Step 3
Click the scroll buttons [▲]/[▼] in the "REC" box.
→ The [REC START] button and the [REC STOP] button will be displayed.



Step 4
Click the [REC START] button.
→ Recording will start. The REC indicator of the camera channel used for recording will light red.

Step 5
To stop recording, click the [REC STOP] button.
→ The REC indicator will go off.

Note:
- When another recording such as by an alarm occurrence is being performed, the REC indicator will not go off and only the manual recording will stop.
- Refer to the operating instructions of the recorder in use for further information about the recording.

4.1.16. Management of logs

4.1.16.1. "Alarm log" panel

When an alarm occurred, the description of the alarm will be filed as a log in the "Alarm log" panel.
Up to 1000 logs will be displayed in the alarm log panel.



■ **[Buzzer stop] button**

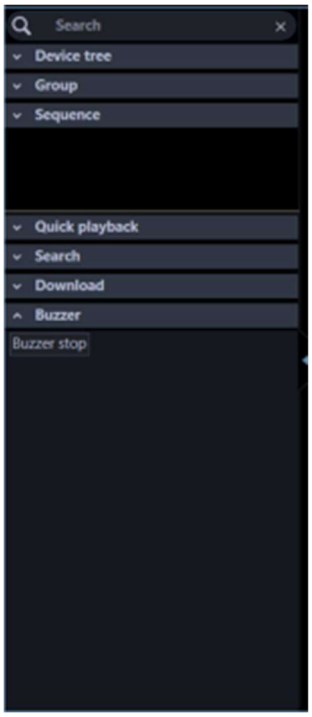
The buzzer sounding to announce an alarm or error will be stopped.

■ **Alarm log list**

Descriptions of the notified alarms will be displayed in list form. Up to 1000 descriptions will be displayed.

Note:

- It is possible to make alarm logs hidden on the setup window.
  Refer to "☞ 3.2.4. GUI display setup" for further information.
- When “OFF” is selected for “Alarm log display”, the panel name will be changed from [Alarm log] to [Buzzer] and only the [Buzzer stop] button will be displayed.



■ **Play icon**

Recorded images relating to a log can be played when this icon is displayed next to a log.

■ **Time & date**

Time & date when the alarm occurred will be displayed.

■ **Content**

Description of the alarm will be displayed.

Note:

- For the alarm names for Intruder, Loitering, Direction and Cross line, the names set in the [Setting]-[AI camera] screen are displayed. In addition, AI-VMD and i-VMD are the target.

■ **Sender**

The title of the device in which the alarm occurred will be displayed.

Note:

- When the device in which an alarm occurred is a camera, "--" will be displayed.

■ **Camera**

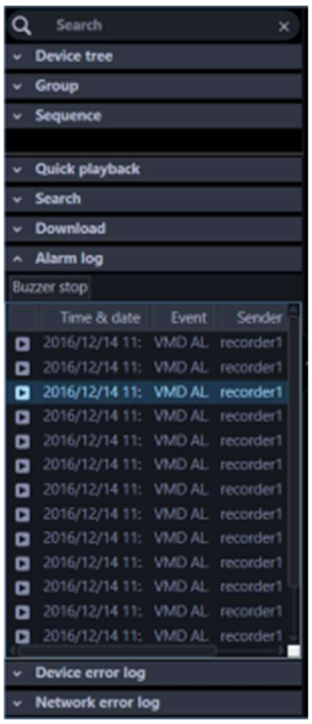
The title of the camera in which the alarm occurred will be displayed.

Note:

- When a log in the alarm log list is clicked, playback of recorded images will start on 1-screen. Playback will not start when the [Play] icon is not displayed next to the alarm log.
- The alarm log list will be kept updated.

4.1.16.1.1. Playback from the alarm log list

When the desired alarm log is clicked, recorded images from the camera connected to the recorder in which the alarm occurred will be played on a 1-screen.



Note:

- Playback from the alarm log list will start from a point 5 seconds before the alarm occurrence time.
- Depending on the settings of the recorder, playback may not start from the point of 5 seconds before the alarm occurrence.
- When playing back images from the alarm log list with Video Insight Server, the recorded image may not be displayed right after the alarm is notified because the data has not being stored.
- The [Play] icon will not be displayed in the following cases.
  - The login user is not allowed to access the camera.
  - The login user is not allowed to play recorded images.
  - The listed recorder or camera is removed from the system.
  - An alarm notification is provided from an encoder or a camera that is not registered in the recorder.
- When using the AI privacy guard recording, the camera images to be played are as follows.

  ＜In case of alarm notification from AI privacy guard recording camera (OFF)＞

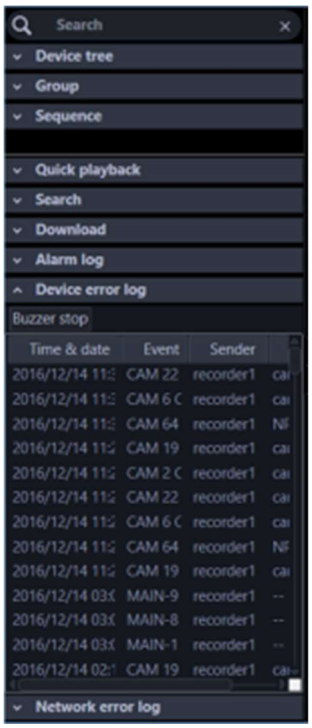
A user with authorization of "AI privacy guard image switching": The image of the selected AI privacy guard recording camera (OFF) is played back as it is.
A user without authorization of "AI privacy guard image switching": Play the image of the AI privacy guard recording camera (ON).

＜In case of alarm notification from AI privacy guard recording camera (ON)＞

Plays the image of the selected AI privacy guard recording camera (ON) regardless of authorization of "AI privacy guard image switching".

4.1.16.2. "Device error log" panel

When a device error occurred, the description of the error will be filed as a log in the "Device error log" panel.
Up to 1000 logs will be displayed in the device error log panel.



Note:

- The device error log list will be kept updated.

■ [Buzzer stop] button

The buzzer sounding to announce an alarm or error will be stopped.

■ Device error log list

Descriptions of the notified errors will be displayed in list form.
Up to 1000 descriptions will be displayed.

Note:

- It is possible to make device error logs hidden on the setup window.
- Refer to "☞ 3.2.4. GUI display setup" for further information.

■ **Time & date**

Time & date when the device error occurred will be displayed.

■ **Content**

Description of the device error will be displayed.

■ **Sender**

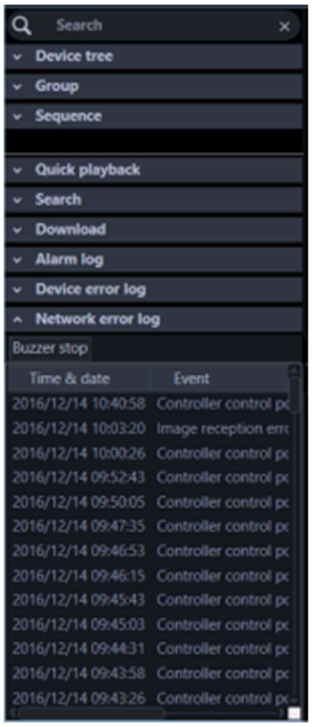
The device name in which the error occurred will be displayed.

Note:

- When the device in which a device error occurred is a camera, "--" will be displayed.

4.1.16.3. "Network error log" panel

When a network error occurred, a message content of the error will be filed in the network error log list.
Up to 1000 logs will be displayed in the network error log panel.



Note:

- The network error log list will be kept updated.

■ **[Buzzer stop] button**

The buzzer sounding to announce an alarm or error will be stopped.

■ **Network error log list**

Contents of the notification about the network error will be displayed in list form. Up to 1000 descriptions will be displayed.

Note:
- It is possible to make network error logs hidden on the setup window.
- Refer to "☞ 3.2.4. GUI display setup" for further information.

■ **Time & date**

Time & date when the network error occurred will be displayed.

■ **Content**

Description of the network error will be displayed.

■ **Sender**

The device name in which the network error occurred will be displayed.

Note:
- When the device in which a network error occurred is a camera, "--" will be displayed.

■ **Camera**

The title of the camera in which the network error occurred will be displayed.

4.1.17. Save a still picture

If a license of WV-ASE231 is not registered, live images or playback images will be saved as a JPEG file at default.
If the license of WV-ASE231 is registered, live images or playback images will be saved as a BMP file at default.
It is possible to change the file format (resolution) of a still image on the setup window. Refer to "☞ 3.2.2. Drawing and audio setup" for further information.

Step 1

Display the image to be saved.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" or "☞ 4.1.15.1. Play" for the display method.

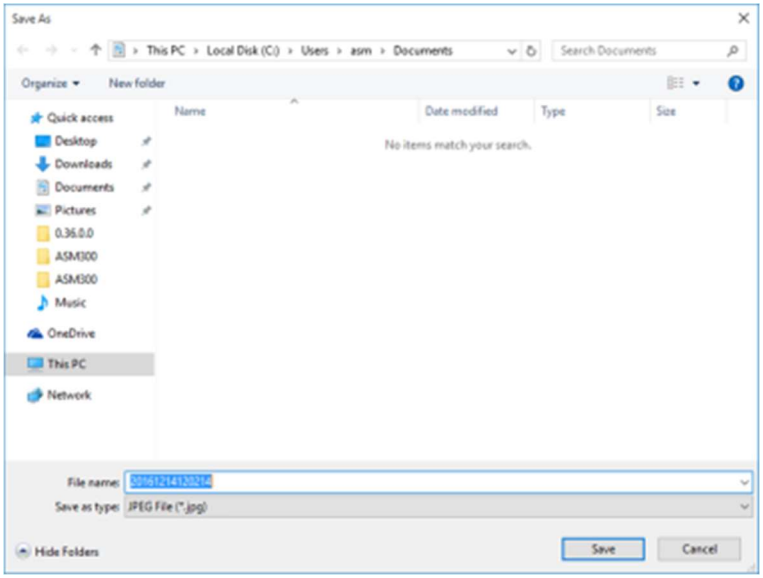
Note:
- It is possible to save as a still image only when displaying images on 1-screen.

Step 2

Click the [Save a still picture] icon on the tool bar.



→ The "Save As" window will be displayed.



Note:

- It is also possible to save a still picture by selecting "Save a still picture" from the right-click menu displayed by right-clicking on the image display area.

The details are as follows.

■ Saving destination

Specify a folder in which the still image is to be saved.

■ File name

Enter the name of the file to be saved. When saving an image as a JPEG file, the default name will be as follows.
Example: 20061008110340.jpg
(time and date when the file is saved)

Note:

- When time & date are not displayed on the status bar, the time & date part of the default file name will be the current time of the PC.

- When saving an image in a BMP file, the extension of the file will be "BMP".

■ [Save] button

The image will be saved in the selected folder and the window will be closed.

■ [Cancel] button

The "Save As" window will close without saving.

Step 3

Click the [Save] button after specifying a destination folder and the file name.

→ The image will be saved with the specified name and stored in the specified folder.

Note:

- The resolution being applied in step 2 will be applied to the image to be saved as a JPEG file instead of the resolution applied at the time of transmission from the camera.
- For an image to be saved as a BMP file, the resolution being applied at the time of transmission from the camera.

4.1.18. Print

It is possible to print an image of live images or recorded images.

Step 1

Display the image to be printed.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" or "☞ 4.1.15.1. Play" for the display method.

Note:

- Printing is available only when displaying images on a 1-screen.

Step 2

Click the [Print] icon on the tool bar.



→ The "Print preview" window will be displayed.



Note:
- "Print" is available from the pop-up menu that is displayed when right-clicking on the image display area.

The details are as follows.

■ **[Print] button**

The print setup window will be displayed.

■ **Time & date**

Time & date when the file is printed will be displayed.

Note:
- When the time & date are not displayed on the status bar, the current time of the PC will be printed.

■ **Recorder/encoder**

The recorder title will be displayed.

Note:
- When displaying an image from a camera that is not registered in the recorder, "--" will be displayed.
- When displaying an image from an encoder that is not registered in the recorder, the encoder title will be displayed.

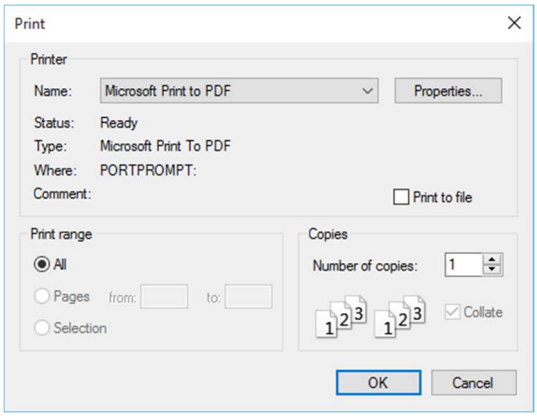
■ **Camera**

A camera name as the source of the image to be printed will be displayed.

Step 3

Click the [Print out] button.

→ The print setup window will be displayed.



Step 4

Configure the print settings, and then click the [OK] button.

→ Printing of the image currently being displayed will start.

Note:

- The image to be printed is the image displayed in step 2.

4.1.19. Display/edit text information

It is possible to attach text information to the recorded images. Up to 200 characters (up to 10 lines) can be entered.

Note:

- This function is available only when the recorder in use is HD300, ND300 or ND200.
- Displaying/editing of text information is available only when displaying images on a 1-screen. When displaying images on a multi-screen, the [TEXT] button will not be displayed.

Step 1

Play recorded images on a 1-screen.

Refer to "☞ 4.1.15.1. Play" for how to play recorded images.

Step 2

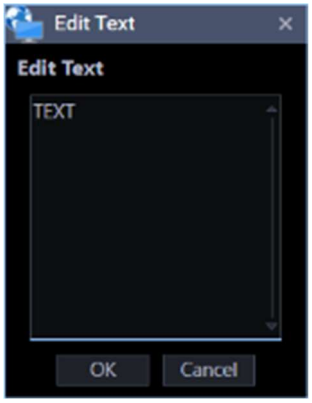
Pause the playback by clicking the [PAUSE] button.

Step 3

Click the [TEXT] button on the playback operation panel.



→ Text information of the recorded images will be displayed.



Step 4
Edit the text information.

Note:

- The following alphanumeric characters, half em numbers and marks are available.
  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
  a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 ! "
  # $ % & ‘ ( ) * + , - . / : ; < = > ? @ [¥] ^ _ ` { | } ~ (space)

Step 5
Click the [OK] button.

→ The text registration confirmation window will be displayed.

Step 6
Click the [OK] button.

→ The edited text will be registered, and the confirmation window and the "Edit text" window will close.

4.2. Use the SD log display/playback window

Important:
- Check if the model in use is compatible with each function.
- U-series cameras cannot use an SD memory card.

4.2.1. Download recorded images

While displaying live images, download H.264 or H.265 video files (mp4 files) from the SD memory card in the registered camera onto the PC.

Note:
- When two or more alarms occurred in the same file, they will be displayed on different log lists, but the same file will be downloaded.
- Video data will be saved as files and each file size is approx. 20 MB or 2 MB. When data which exceeds the size of file (20 MB or 2 MB), two or more files will be downloaded for an item of the list.
- Regarding log display and download for video, the available functions differ according to the camera model or versions. Descriptions are categorised into some groups. Read the following after confirming the group number in the table below according to the model and the version of the camera in use. For all cameras except Groups 1 and Groups 2, all functions described in this chapter can be used.

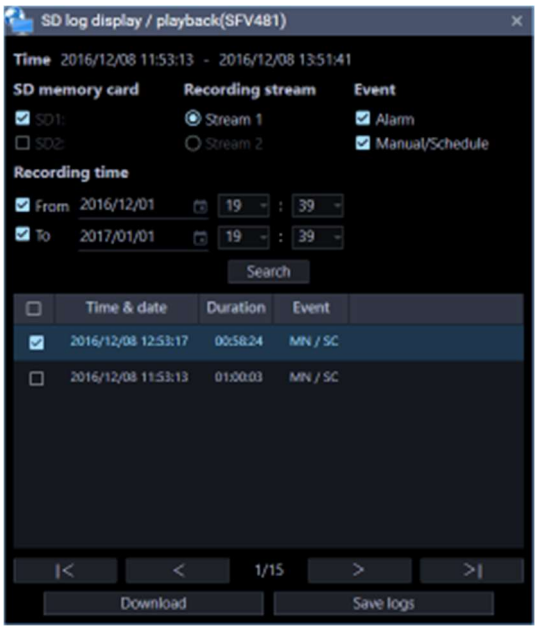
Model (camera)	Version	Group number
7-series camera	1.05 or later	Group 1
New 5-series camera (Except WV-SPN531 and WV-SPN531A)	1.85 or later	
WV-SC385, WV-SW395/WV-SW395A, WV-SW355, WV-SW352, WV-SW155, WV-SW152, WV-SW316L, WV-SW316, WV-SW314, WV-SW396/WV-SW396A, WV-SC386, WV-SC384, WV-SW175, WV-SW172, WV-ST165, WV-ST162	All	Group 2

- When "20MB" is selected for "Image saving interval" with the cameras of Group2, the recorded data may not be downloaded successfully.
  In that case, select "2MB" for "Image saving interval".
- If a brake is included in the recording of the camera of Group 2, "NG" may be displayed during download. However, downloading will not be affected and continued as long as data exists.
- When the overwriting of SD memory card is started with the cameras of Group 2, "NG" may be displayed for some list during download. As long as data exists, download will be continued.
- If the 6-series camera of version 1.83 is used, the H.264 video files stored in the SD memory card that is inserted in the slot 2 cannot be downloaded. Use the 6-series camera of version 1.85 or later. Also, in this case, the version of this software needs to be 3.40 or later.
- Log display and download with the camera of Group 2 with FTP connection.
  When the SSL communication is used between the camera of Group 2 and the PC, the log display and the download function are unavailable.

Step 1

Click the [List/Play] button on the SD operation panel of the operation window.
Refer to "☞ 2.6.6.6. SD operation panel“ for the SD operation panel.

→ The SD log display/playback window will open.



The details of the window are as follows.

■ Duration

Displays the recording time saved in the SD memory card.

Note:

- It is not available with the cameras of Group 2.

■ SD memory card

Selects the SD memory card for which log display to be enabled.

SD1: Displays logs saved in the SD memory card inserted in Slot 1.
SD2:: Displays logs saved in the SD memory card inserted in Slot 1.

Note:

- It is not available with the cameras of Group 1 and 2.
- It is not available with a camera that is not equipped with two slots.

■ Recording stream

Selects the recording stream for which log display to be enabled.

Stream 1: Displays logs saved in "Recording stream 1".
Stream 2: Displays logs saved in "Recording stream 2".

Note:

- It is not available with the cameras of Group 2.
- It is not available with a camera that does not support "Recording stream 2".
- If "Stream 2" is selected when "Recording stream 2" on the camera side is off, regardless of the presence or absence of recorded data, the error message "The device may be disconnected or no SD is inserted or SD is invalid." will be displayed. If the recorded data of "Recording stream 2" exists, click the [OK] button to close the error message and execute the search.

■ Event

Selects a type of logs to be displayed in the log list.
Alarm: Displays the log of alarm occurrence.
Manual/Schedule: Displays the log of manual saving and schedule saving.

■ **Recording time**

Set a period to specify logs to be displayed in the log list.
From: Set the start point for the log display.
To: Set the end point for the log display.

Note:

- When the checkbox "From" is unchecked, the logs will be displayed from the top. When the checkbox "To" is unchecked, the logs will be displayed to the end.

■ **[Search] button**

When this button is clicked, log search will start with the filters set by [Event] and [Recording time]. Search result will be displayed in the log list.

■ **[I<] button**

Click this button to display the log listed at the top.

■ **[<] button**

Click this button to display the previous page of the log list.

■ **[>] button**

Click this button to display the next page of the log list.

■ **[>I] button**

Click this button to display the log listed at the bottom.

■ **Time & date**

Indicates the time & date on which the logs were filed.

■ **Duration**

Displays the period of time in which data has been saved in the SD memory card.

Note:

- It is not available with the cameras of Group 1 and 2.

■ **Event**

Indicates the cause of the alarm occurrence.
When logs are obtained using HTTP function
MN/SC: Manual/Schedule
TRM: Terminal alarm
TRM1: Terminal alarm 1
TRM2: Terminal alarm 2
TRM3: Terminal alarm 3
VMD: VMD alarm

COM: Command alarm
AUD: Audio detection alarm
SCD: i-VMD alarm (Scene change)
INT: AI-VMD/i-VMD/AVMD alarm (Intruder)
LOI: AI-VMD/i-VMD alarm (Loitering)
DIR: AI-VMD/i-VMD alarm (Direction)
OBJ: i-VMD/AVMD alarm (Removal and left behind)
CLD: AI-VMD/i-VMD alarm (Cross line)
FTP: FTP error recording
NWLST: Network disconnection

When logs are obtained using FTP function
Terminal: Alarm by alarm input to Terminal 1
Terminal2: Alarm by alarm input to Terminal 2
Terminal3: Alarm by alarm input to Terminal 3
VMD: Alarm by VMD alarm
Command: Alarm by command alarm

Note:

- The supported events vary depending on the camera in use.
- Refer to the operating instructions of the camera in use for further information.

■ [Download] button

The folder selection window will be displayed.

■ [Save logs] button

Saves the log list onto the PC.

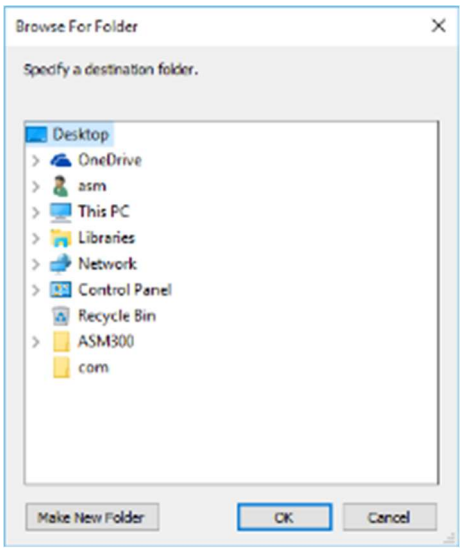
Step 2

Select the list to download from the log list. Multiple selection of the list is available.

Step 3

Click the [Download] button.

→ The window for a folder designation will be displayed.



The details are as follows.

■ **Destination folder**

Specify a folder as the destination of downloaded files.

■ **[Make New Folder(N)] button**

Create a new folder in the folder currently selected.

■ **[OK] button**

The folder browse window will close and the download will start.

■ **[Cancel] button**

The window for a folder destination will close and the download will be canceled.

Note:

- The overwrite warning window will be displayed when a file of the same name already exists in the folder.
  If you do not wish to overwrite the existing file, cancel download and select another folder.
- It is impossible to click the [Download] button when no list is selected.
- When a removable HDD formatted on the 32-bit OS is connected to a PC whose OS is the 64-bit edition, it may fail to designate the removable HDD as a saving destination.

Step 4

Click the [OK] button after specifying a folder.

→ Download will start and the "Download" window will be displayed. Refer to "☞ 4.10.1.2. Use the download window“ for the "Download" window.

Downloaded files will be stored in the specified folder.

Step 5

When the download is completed, click the [Quit] button.

→ The download window will close.

Note:

- When trying to exit this software or log out of the software during download, the download will be automatically cancelled.

4.2.1.1. About the downloaded files

It is possible to play video data saved on the PC using such an application as Windows Media® Player. However, we are not liable for performance relating to these applications.

For information on playing back H.265 video data, refer to the following i-PRO website below.

https://i-pro.com/global/en/surveillance/training-support/support/technical-information <Control No.: C0303>

4.2.2. Playback of images recorded on the SD

memory card

It is possible to play H.264 or H.265 video file saved on the SD memory card on the camera using the operation window.

Note:

- Files saved in JPEG format cannot be played.
- Image files recorded with a compression method different from the compression method set with the camera cannot be played.
- Only a single user can perform playback. When playback is being performed by other user, playback is unavailable.
- Playback will not end at the end point of the file. Playback of the next file will automatically start.
- When many images are saved on the SD memory card, it may take time to display images on the operation window.
- Only files saved on the camera that is registered as an independent camera can be played.
- When using this product in a country utilizing Summer Time (Daylight Saving Time), select "Auto" for the "Summer time (daylight saving)" setting of the camera in use. In this case, make sure that the "Start time & date" and "End time & date" settings are correctly set. When "Auto" is not selected for "Summer time (daylight saving)" or the "Start time & date" and "End time & date" settings are not correctly set, playback time may become incorrect or a black screen may be displayed.
- The playback is not available if the recorded time with the pre-event recording crosses the summer time switching zone.
- The audio cannot be played if the audio is simultaneously recorded with the video.

Step 1

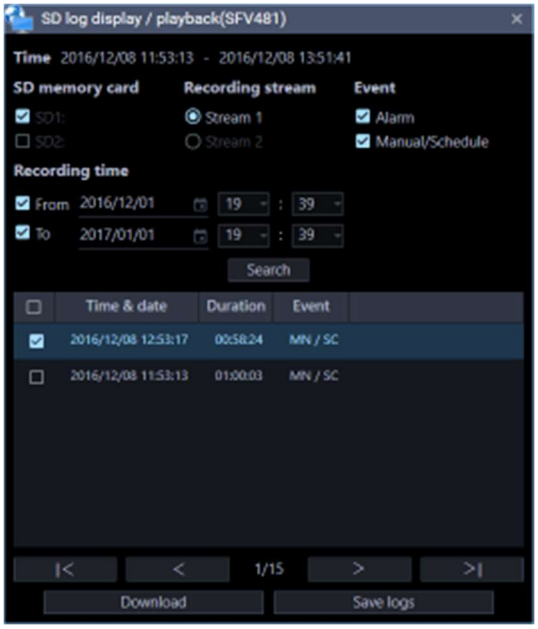
Display live images.

→ Refer to "☞ 4.1.3. Monitor images from the selected camera" for the live image display.

Step 2

Display the SD log display/playback window from the SD operation panel.

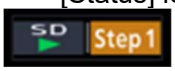
→ Refer to "☞ 4.2.1. Download recorded images" for descriptions about the window.



Step 3

Click an item to be played in the log list.

→ Images displayed on the operation window will be switched to playback of recorded images. The [Status] icon in the information display area will turn to [SD playback] from [Live].



Note:

- When the checkbox is checked, playback will not start.
- Playback will start from the time displayed in the list.
- When “ON” is selected for [Smooth display (buffering)] under [System] -[Drawing and audio setup], the high-speed playback is unavailable.

Step 4

To stop playback, click the [STOP] button.

→ Live images will be displayed in the image display area where playback images are being displayed. The [Status] icon displayed in the information display area will turn to [Live] from [SD playback].



4.3. Use the live window

4.3.1. How to launch the live window

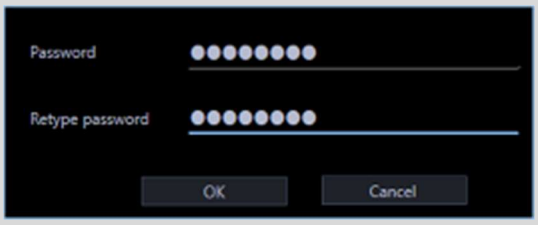
The live window will be launched when the [Live window] icon on the title bar of the ASM300 main page is clicked or when [Live window] is selected from the menu.
Refer to “☞2.5.1. Title bar“ and “☞2.5.1.1. Menu“ for further information about the title bar and the menu of the ASM300 main page.

Important:

- When the Video Insight Server’s checkbox “Enable Security” is marked ([Administrations] - [Servers] - [Server Setup] - [Advanced] - [Server Options]), the images from Video Insight Server cannot be displayed.

<In the case of the independent camera>

- In the case of the independent camera with "Data encryption" turned on in the setting on the camera side, it is necessary to input "Encryption password" when displaying the camera image. For details on "Data encryption", read the operation manual of the camera.

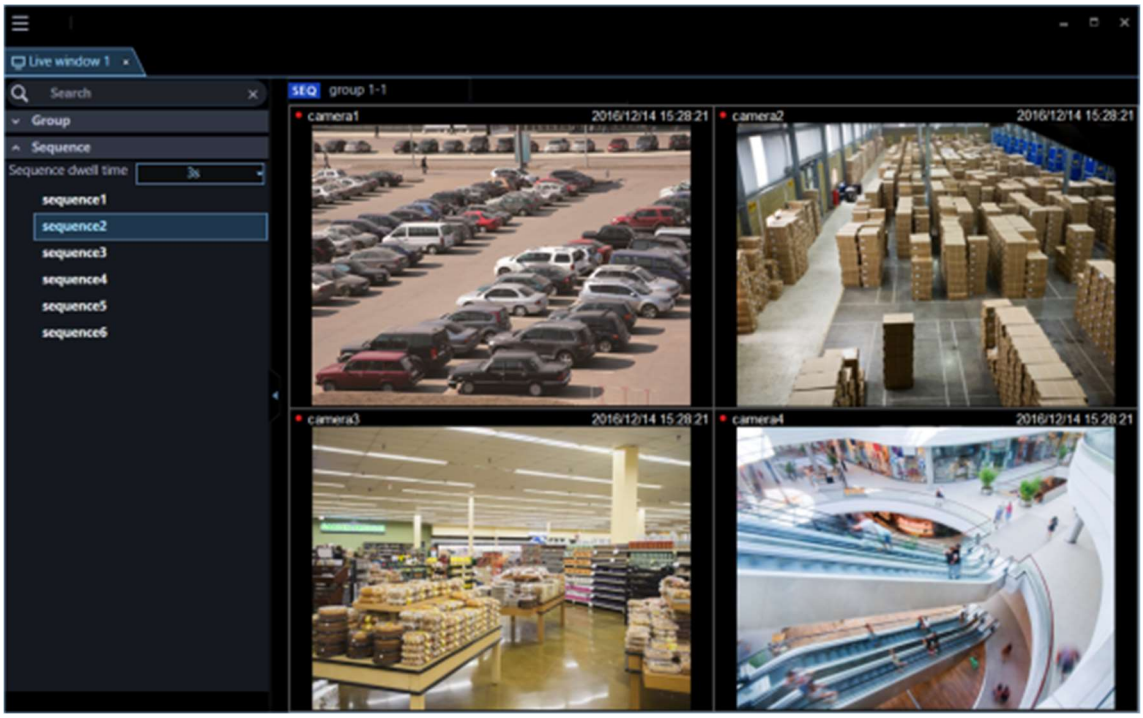


- The images of data encrypted camera can be displayed only in 1-screen, in the case of multi-screen,

in the leftmost image area. When it is placed in the other area, black screen will be displayed.

<In the case of the camera registered in the recorder>

- When the data encrypted camera is registered in the recorder, the encryption password input screen will not be displayed unless the "Encryption password" of the camera is changed. If you change the “Encryption password”, the input screen will be displayed until you reacquire the recorder's device information on the device setup screen.
- The images of data encrypted camera can be displayed only in 1-screen, in the case of multi-screen, in the leftmost image area until you reacquire the recorder's device information on the device setup screen. When it is placed in the other image display area, black screen will be displayed. The images of data encrypted camera can be displayed in the all image display areas, after you reacquire the recorder's device information on the device setup screen.

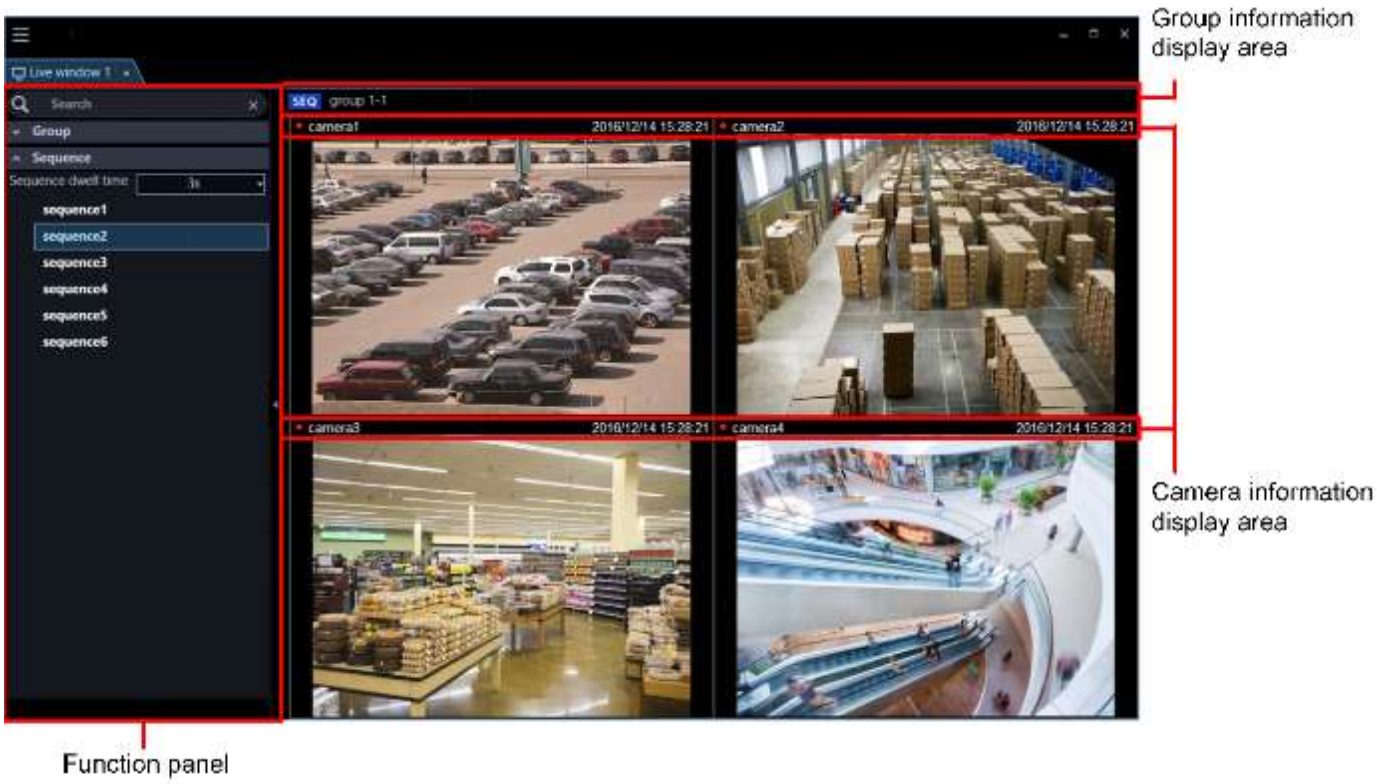


Note:

- When a license of WV-ASE202 is added, up to 4 live windows can be displayed.
- When displaying images on more than one live window (it is necessary to add the license for the WV-ASE202), the display order will be Live window (1) → Live window (2) → Live window (3) → Live window (4). If the live window display is canceled on the way, display of images will start from a live window with the smallest number among the live monitors on which images did not displayed by the cancellation next time.
- When displaying the images of more than one live window (it is necessary to add the license for the WV-ASE202) or when the maximum number of areas for the live window is set to 25-screen or more, it may take some time until the live windows are displayed.
- When displaying images on more than one live window (it is necessary to add the license for the WV-ASE202) by using two video cards, and when running on an operation system of Windows 8 or later, this function is not guaranteed since the Aero feature cannot be turned off. Please use Window 10 Pro 64 bit or Window 11 Pro 64 bit.
- When connecting multiple displays and using multiple displays for simultaneous use, use the same resolution for each display.

4.3.2. Live window description

The following are descriptions about each item displayed on the live window.
It is possible to open a new window by operating tabs of the live window.
Refer to "☞ 2.5.2. Tab and Window" for further information.



■ Function panel

The function panel is provided on the left of the operation window. When the desired function bar on the function panel is clicked, the respective function panel will be displayed. Refer to "☞ 4.3.2.1. Function panel of the live window" for further information.

■ Group information display area

Status of the sequence and the group title will be displayed.
Refer to "☞ 4.3.2.2. Group information display area" for further information.

■ Camera information display area

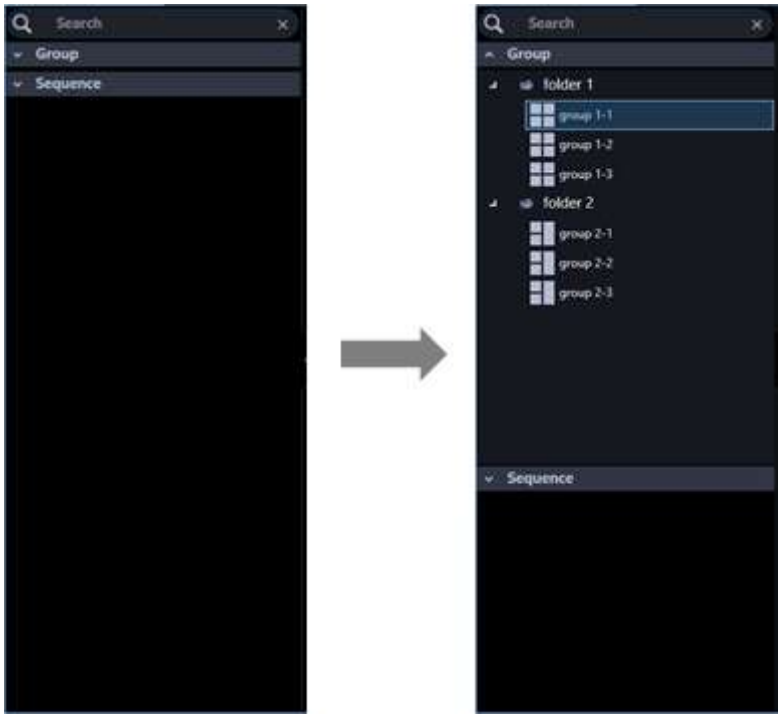
Status of recording, alarm occurrence and the camera title will be displayed.
Refer to "☞ 4.3.2.3. Camera information display area" for further information.

■ Live image display area

Live images by the group display or the sequence display will be displayed.
It is also possible to automatically display live images from the camera in which an alarm occurred.
Refer to "☞ 3.12.2. Alarm action" for further information about the settings.

4.3.2.1. Function panel of the live window

Operate the live window using the function panel on the left side of the live window.
Each panel can be opened/closed by clicking the bar of the panel.
However, it is impossible to simultaneously open two panels or more.



Note:

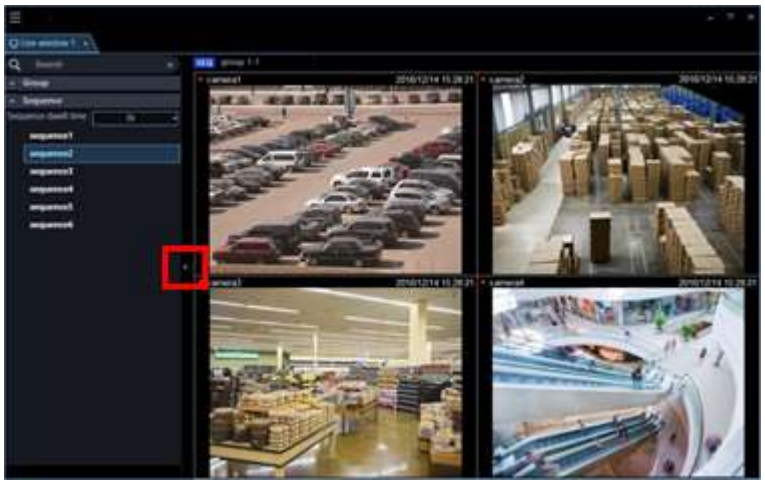
- Refer to the following about the descriptions of how to operate each function panel.
  Name search “☞4.3.4. Search for group name/sequence name”
  The group panel can be operated in a similar manner as the operation window.
  Refer to "☞ 4.1.7. Display images from the cameras registered as a group (group display)" for further information.
  The sequence panel can be operated in a similar manner as the operation window.
  Refer to "☞ 4.1.9. Switch groups automatically and display images from each group sequentially (sequence)" for further information.
- When “ON” is for “Display the panel open/close button”, the panel open/close button will be displayed next to the function panel. When the [△] icon on the panel open/close button is clicked, the function panel can be displayed or hidden. Refer to "☞ 4.3.2.1.1. Display/hide the function panel" for further information.
  Refer to the "☞ 3.2.4. GUI display setup" for information about “Display the panel open/close button”.

4.3.2.1.1. Display/hide the function panel

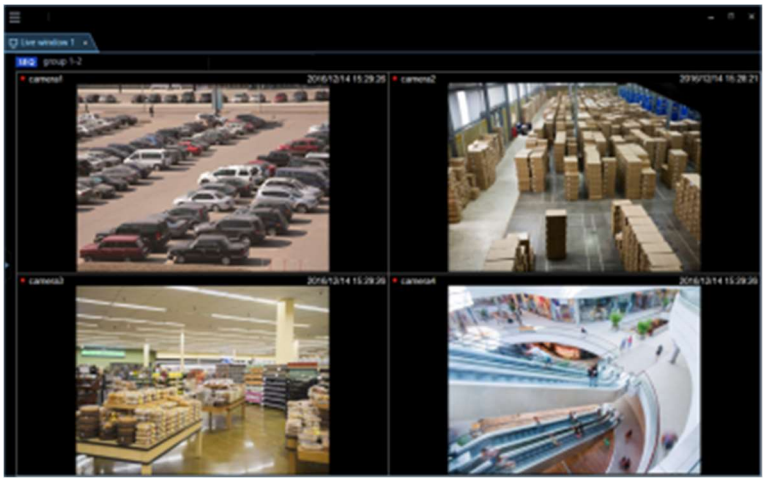
On the live window, displaying/hiding of the menu panel can be switched by operating the panel open/close button or the menu. When the menu panel is hidden by operating the menu, the panel open/close button will also be hidden. Displaying/hiding of the menu panel can be operated by clicking the icon [△] on the panel open/close button.

Refer to "☞2.5.1.1. Menu" for further information about the menu.

■ **Display the function panel**



■ **Without the function panel**



Note:

- It is also possible to switch between display/hide the function panel by selecting [Function panel] from the right-click menu displayed by right-clicking on the live image display area.

4.3.2.2. Group information display area

Note:

- When the setting is configured to automatically display live images from the camera in which an alarm occurred, the group information display area will not be displayed while displaying live images from this camera.



■ **[SEQ]**

Indicates that the sequence display is being performed currently. SEQ will be displayed when the sequence operation is in progress and SEQ will be displayed when the sequence operation is being paused.
This indication will not be displayed when the group display is being performed.

■ **Group name**

The group title will be displayed.

4.3.2.3. Camera information display area



■ **REC indicator/Alarm mark**

These indicators will light when the images currently being displayed are being recorded.
When the setting is configured to automatically display live images from the camera in which an alarm occurred, the REC indicator will turn to the alarm indicator .

■ **Camera name**

Indicates the camera name.

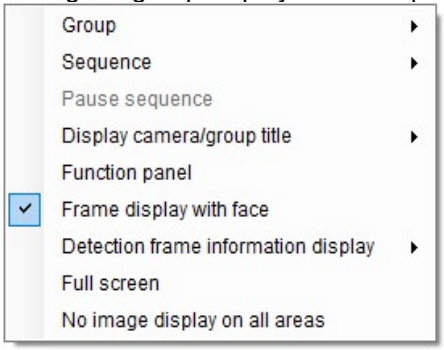
■ **Descriptions of the time & date/alarm**

Time & date will be displayed. When this software is configured to display live images directly from the camera in which an alarm occurred at an alarm occurrence, descriptions of the alarm will be displayed instead of time & date. The time & date will be followed by an asterisk "*" when the daylight saving time is applied.

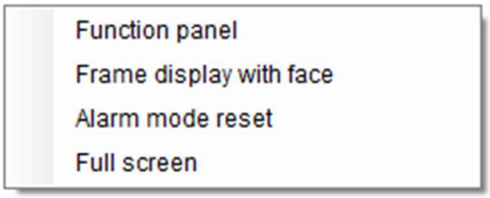
4.3.2.4. Pop-up menu

When right-clicking on this area, the pop-up menu will be displayed.
There are two types of the pop-up menus as follows.

During the group display or the sequence display



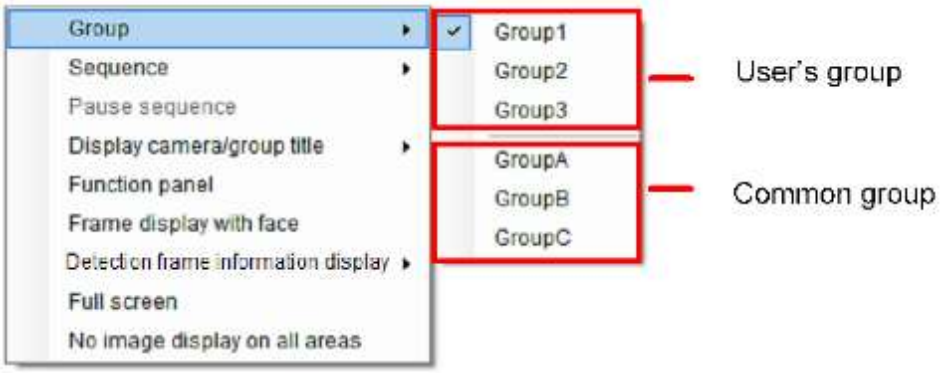
During the live image display at an alarm occurrence



■ **Group**

Select a group to be displayed in the live image display area from the submenu.

When the user’s group is set, the following is displayed.



■ Sequence

Select a sequence to be displayed in the live image display area from the submenu.

■ Pause sequence/Resume sequence

Select to pause or resume the sequence display. "Pause sequence" will be displayed when the sequence display is in progress and "Resume sequence" will be displayed when the sequence display is being paused. This cannot be selected when the group display is being performed.

■ Display camera/group title

It is possible to switch between display/hide the group information display area and the camera information display area from the submenu.

■ Function panel

It is possible to switch between display/hide the function panel of the live window.

■ Frame display with face

It is possible to display/hide the border frame displayed around a face when detected.

Important:

- It is possible to select after the license for the WV-ASE231 is added.
- This function will be valid only when a camera having the face search function is connected to ASM300 and the face search function is ON.

■ Detection frame information display

It is possible to display/hide frame borders and traces using the submenu.
For the sub menu content of detection frame information display, refer to the section about the detection frame information display of “Operation window display setup under ☞2.5.1.1. Menu”.

Note:

- If the software version is less than 3.00, detection frame information will become available after the license for the WV-ASE231 is added.
- The detection frame information function is supported by some models only.
- Detection frame information will be displayed only when displaying images on 1-screen.
- The AI motion detection application (WV-XAE200W) does not support the additional information type “With detected object information (AI frame information)”.

- When the number of people being captured by the camera exceeds 40 during the occupancy detection, some people may not be detected and the occupancy detection may not work correctly. For other precautions, refer to the operating instructions of the extension software (AI Occupancy Detection Software).
- When displaying images (MPEG-4) via ND300 or ND200, detection frame information will not be displayed.
- When displaying images via ND300, ND200, NV200, or NV300, i-VMD information will not be displayed.
- To display i-VMD information while displaying images via ND400, it is necessary to update the firmware of ND400 to V3.40 or later.

■ **Alarm mode reset**

The alarm mode will be canceled and it returns to the state before the alarm occurrence.

■ **Full screen**

The live image display area, the group information display area and the camera information display area will be displayed on a full screen.

■ **No image display on all areas**

Clear the images displayed on all the areas.

4.3.3. Display images from cameras registered as a group using the function panel/Display images while switching groups automatically

The group display/sequence display from the function panel can be operated in a similar manner as the operation window.
Refer to the following descriptions for further information.
Group panel "☞ 4.1.7. Display images from the cameras registered as a group (group display)"
Sequence panel "☞ 4.1.9. Switch groups automatically and display images from each group sequentially (sequence)"

Note:
- When a sequence operation is started on the live window, the screen will not automatically change to the full screen. To display images on the full screen, select “Full screen” from the pop-up menu.

4.3.4. Search for group name/sequence name

It is possible to search for a registered group/sequence name.

Note:
- If the number of screens for the group including the registered user’s group exceeds the maximum number of screens, the group will not be displayed.

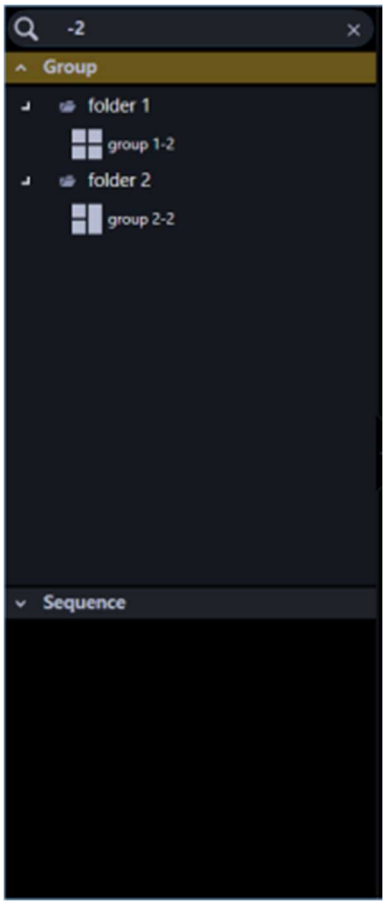
Step 1
Enter a desired group/sequence name in the search field at the upper part of the function panel of the live window.



Note:

- The maximum number of characters that can be entered is 16
- Search will be executed with partial match of a name, and en space, em space, upper-case and lower-case will not be distinguished.
- The live window will become inoperable during a screen on which the search is being executing is being displayed.

→ When the search is ended, the panel including items that matches with the name entered in the search field will turn to orange color.



Step 2
When the panel colored in orange is clicked and opened, the search result will be displayed.

Note:

- The search result shows only items that partially matched with the name entered in the search field.
- The other items will not be displayed.

Step 3

When the name entered in the search field is deleted, it returns to the previous state before the search.



Note:

- It is possible to delete the name entered in the search field by clicking the [×] button on the right side of the search field.

4.4. Use the map window

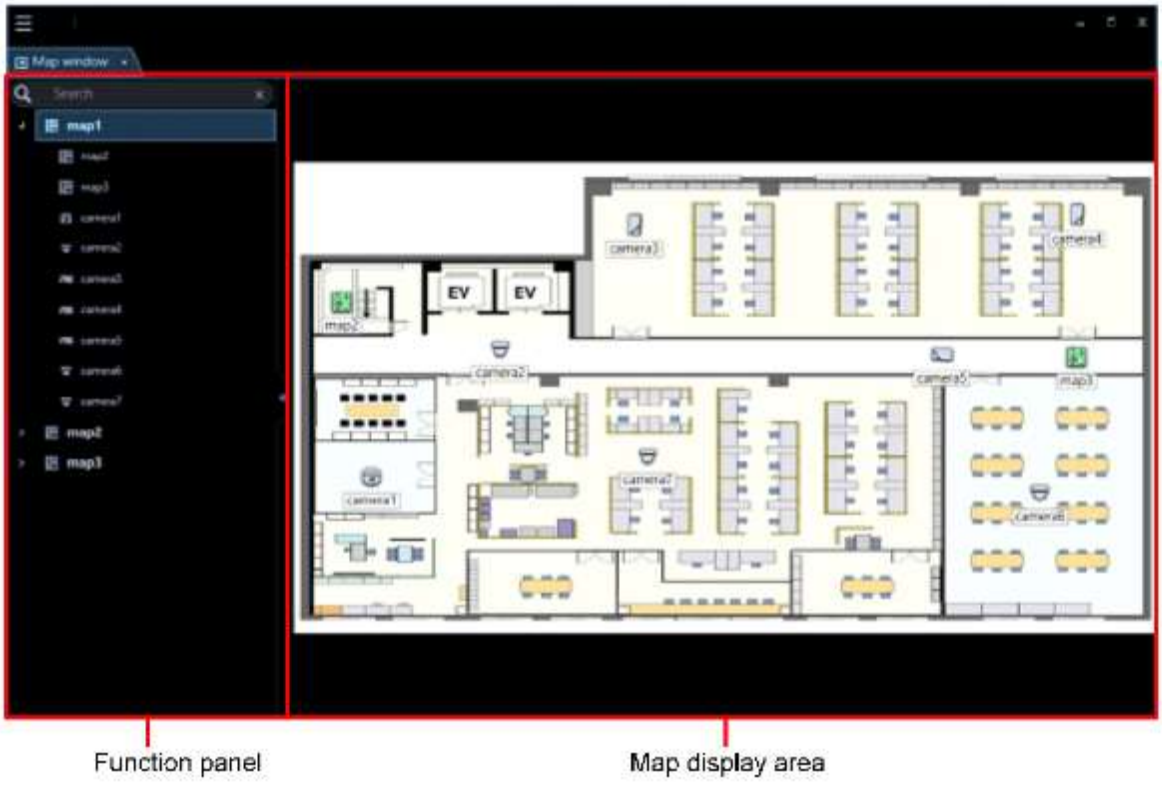
4.4.1. How to launch the map window

The map window will be launched when the [Map window] icon on the title bar of the ASM300 main page is clicked or when [Map window] is selected from the menu.
Refer to “☞2.5.1. Title bar“ and “☞2.5.1.1. Menu“ for further information about the title bar and the menu of the ASM300 main page.



4.4.2. Map window description

The following are descriptions about each item displayed on the map window.
It is possible to open a new window by operating tabs of the map window.
Refer to "☞ 2.5.2. Tab and Window“ for further information.



- **Function panel**

The registered map names and camera names will be displayed in list form.
Refer to "☞ 4.4.2.1. Function panel of the map window" for further information.

■ **Map display area**

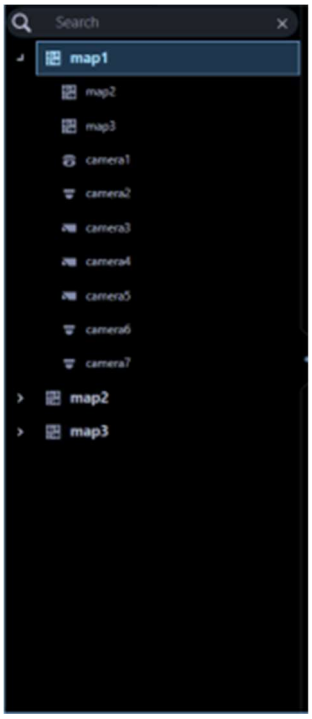
The selected map will be displayed. The camera icons and the map icons will be displayed on the map.

■ **Icon title**

Display titles of icons on the map. It is possible to determine whether to display or hide the icon title on the setup window. Refer to "☞ 3.2.4. GUI display setup" for further information.

4.4.2.1. Function panel of the map window

It is possible to switch maps and search for a camera icon on a map using the function panel on the left side of the map window.



Note:

- Refer to the following descriptions of how to operate the function panel.
  Name search “☞4.4.6. Search for a map/camera name”
  Refer to "Map icon ☞ 4.4.4. Switch maps" for further information.
  Refer to "Camera icon ☞ 4.4.5. Search for a camera icon on a map" for further information.
- For how to sort the map names and the camera names of the function panel, refer to “☞ 3.9.4. Change the order of the map list” and “☞ 3.9.5. Change the order of the set list”.

4.4.2.1.1. Display/hide the function panel

It is possible to switch between display/hide the function panel by operating the panel open/close button or menu on the map window. When the function panel is set to be hidden, the panel open/close button will also

not be displayed. When the [△] icon on the panel open/close button is clicked, the function panel can be displayed or hidden.
Refer to "☞2.5.1.1. Menu" for further information about the menu.

■ **Display the function panel**



■ **Without the function panel**

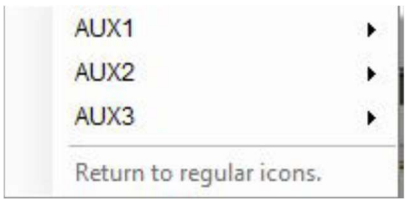


Note:
- It is also possible to switch between display/hide the function panel by selecting [Function panel] from the right-click menu displayed by right-clicking on the map display area.

4.4.2.2. Pop-up menu

When right-clicking on a camera icon displayed on a map, a pop-up menu will be displayed.

Note:
- If the AUX terminal number is changed to a desired name, the renamed one will be displayed in AUX1, AUX2, and AUX3.
  For details of changing the terminal name, refer to “☞4.1.14. Set the AUX terminal name”.



■ **AUX1**

It is possible to switch the state of the device connected to the AUX1 terminal between open/close from the submenu.

Note:

- When using Video Insight Server, AUX1 is not available.

■ **AUX2**

It is possible to switch the state of the device connected to the AUX2 terminal between open/close from the submenu.

Note:

- When using Video Insight Server, AUX2 is not available.

■ **AUX3**

It is possible to switch the state of the device connected to the AUX3 terminal between open/close from the submenu.

Note:

- When using Video Insight Server, AUX3 is not available.

■ **Return to regular icons.**

The icon can be restored to the regular icon.
It is enabled when the camera connection is disconnected.
If you right-click on the map display area or map icon, the following items are displayed in the pop-up menu.

■ **Function panel**

It is possible to switch between display/hide the function panel of the map window.

4.4.2.3. Icons on the map

The following are the descriptions of the icons displayed on the map.

Note:

- A preview image will be displayed by placing the mouse cursor on a camera icon on a map.



- When the camera icon on the map is clicked, live images from the selected camera will be displayed in the selected area on the operation window.
- When right-clicking on the camera icon displayed on the map, the pop-up menu will be displayed. It is possible to switch the state of the device connected to the AUX terminal between open/close from the submenu.
- When "OFF" is selected for [Pop-up notification] on the [Alarm] tab (under [Event]), the camera icon on the map will not be in the alarm state (blinking red / being lit red).
- If you click the camera icon in the alarm state (blinking red / being lit red) on the map, the icon display will return to the connected state, but the buzzer sound output will not stop. To stop the buzzer sound, click the [Buzzer stop] button on the “Alarm log” panel.
- When a map icon displayed on the map is clicked, the respective map will be displayed on the map window.
- It is also possible to set to display titles of each icon under icons on a map.
  Refer to "☞ 3.2.4. GUI display setup" for further information.
- It is possible to determine whether to display icon names below icons on the map.
  Refer to “☞3.2.4. GUI display setup”-“Display of map icon name on the map” and -“Display of camera icon name on the map“ for further information.

Important:

- A preview image can be displayed only in the following cases.
  - In case of receiving live images from a camera that is not registered in a recorder
  - In case of directly receiving live images from a camera registered in a recorder, not through the recorder
  - In case of acquiring live images via ND400, NX-series or NU-series
- When using a recorder other than ND400, NX-series, and NU-series and selecting [Recorder] for [Live image source], the preview display is unavailable.
- If the camera does not support this software (☞ “1.5.3. Compatible cameras”), such as the ONVIF connection camera, the preview image will not be displayed.
- In the case of Fisheye camera, the preview image becomes fish-eye display irrespective of the setting.

Icon	Description
	Indicates dome camera 1 Indicates also a state in connection with this camera.

Icon	Description
	Indicates dome camera 2 Indicates also a state in connection with this camera.
	Indicates dome camera 3 Indicates also a state in connection with this camera.
	Indicates dome camera 4 Indicates also a state in connection with this camera.
	Indicates dome camera 5 Indicates also a state in connection with this camera.
	Indicates dome camera 6 Indicates also a state in connection with this camera.
	Indicates dome camera 7 Indicates also a state in connection with this camera.
	Indicates dome camera 8 Indicates also a state in connection with this camera.
	Indicates dome camera 9 Indicates also a state in connection with this camera.
	Indicates dome camera 10 Indicates also a state in connection with this camera.
	Indicates dome camera 11 Indicates also a state in connection with this camera.
	Indicates dome camera 12 There are 2 types of fixed type and PTZ type. Indicates also a state in connection with this camera.
	Indicates dome camera 13 Indicates also a state in connection with this camera.
	Indicates dome camera 14 Indicates also a state in connection with this camera.
	Indicates dome camera 15 Indicates also a state in connection with this camera.
	Indicates dome camera 16 Indicates also a state in connection with this camera.
	Indicates fixed camera 1 Indicates also a state in connection with this camera.
	Indicates fixed camera 2 Indicates also a state in connection with this camera.
	Indicates fixed camera 3 Indicates also a state in connection with this camera.
	Indicates fixed camera 4 Indicates also a state in connection with this camera.
	Indicates fisheye camera 1 Indicates also a state in connection with this camera.

Icon	Description
	Indicates fisheye camera 2 Indicates also a state in connection with this camera.
	Indicates fisheye camera 3 Indicates also a state in connection with this camera or a microphone.
	Indicates an aero PTZ camera Indicates also a state in connection with this camera.
	Indicates compact camera Indicates also a state in connection with this camera.
	Indicates a state in disconnection with a camera or a microphone. When right-clicking on the camera icon, the pop-up menu will be displayed. When "Return to regular icons." is selected, the camera icon will indicate that the camera is online.
	Indicates also that a camera or a microphone is in an alarm state. The icon will blink for 10 seconds after receiving an alarm. When the icon is clicked, the icon will indicate that the camera is online.

Icon	Description
	Indicates a state in connection with an AI camera that displays the AI privacy guard image or a microphone.
	Indicates a state in disconnection with an AI camera that displays the AI privacy guard image or a microphone. When right-clicking on the camera icon, the pop-up menu will be displayed. When "Return to regular icons." is selected, the camera icon will indicate that the camera is online.
	Indicates that an AI camera that displays the AI privacy guard image or a microphone is in an alarm state. The icon will blink for 10 seconds after receiving an alarm. When the icon is clicked, the icon will indicate that the camera is online.
	Indicates a map.

4.4.3. Display live images from the map window

Click a desired camera icon on a map.



→ Live images from the selected camera will be displayed on the image display area of the operation window.



4.4.4. Switch maps

When a map name of the function panel is clicked, the clicked map will be displayed in the map display area.



Note:

- It is also possible to switch maps by clicking a map icon on the map.

4.4.5. Search for a camera icon on a map

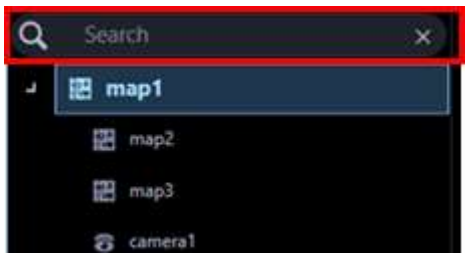
When a camera icon on the function panel is clicked, a map in which the corresponding camera icon is registered will be displayed in the map display area and a circle frame surrounding the camera icon will appear and will blink for 3 seconds.



4.4.6. Search for a map/camera name

It is possible to search for a registered map/camera name.

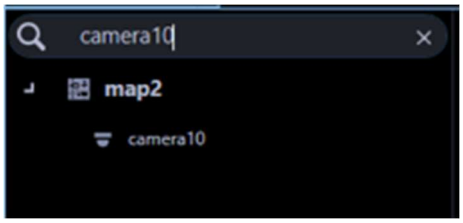
Step 1
Enter a desired map/camera name in the search field at the upper part of the function panel.



Note:

- The maximum number of characters that can be entered is 16
- Search will be executed with partial match of a name, and en space, em space, upper-case and lower-case will not be distinguished.
- The map window will become inoperable during a screen on which the search is being executing is being displayed.

→ When the search is ended, items that partially matched with the name entered in the search field will be displayed.



Note:

- The search result shows only items that partially matched with the name entered in the search field. The other items will not be displayed. However, if the partially matched device is a device registered in the map, this map name is also displayed.
- When partial matches are displayed as the result of searching only by a map name, double-clicking the corresponding icon or clicking the left side ( ) of the corresponding icon will display a list of all the registered camera icons.

Step 2

When the name entered in the search field is deleted, it returns to the previous state before the search.



Note:

- It is possible to delete the name entered in the search field by clicking the [×] button on the right side of the search field.

4.5. Use the search window

On the search window, it is possible to search for a desired image from recorded images in a recorder.
It is possible to open a new window by operating tabs of the search window.
Refer to "☞ 2.5.2. Tab and Window" for further information.

Important: * When Microsoft® .NET Framework 4.8.x or later is installed, the following operations are performed.

- When the tab except for the REC event search tab in the search window tab is in the foreground, display order of the search window tab cannot be changed and the search window tab cannot be separated from the window. If you drag the search window tab, the REC event search tab will be displayed automatically.
  To change the search window tab display order or to separate the search window tab from the window, simply drag the tab again.
  At that time, the search conditions, search results, and image area of the VMD search tab and thumbnail search tab are initialized.
- When the separated search window is combined with the operation window, the REC event search tab is displayed in the foreground.
  At that time, the image area of the VMD search tab and the thumbnail search tab is initialized.

The search window consists of the following 3 tabs.

■ **REC event search**

Searches for recording events by units of recorders, groups and maps.
Refer to "☞ 4.5.1. REC event search" for further information.

■ **VMD search**

Searches for time and date when a motion was detected in images from recorded images.
Refer to "☞ 4.5.2. VMD search" for further information.

■ **Thumbnail search**

Searches for a thumbnail by units of cameras from recoded images in a recorder.
Refer to "☞ 4.5.3. Thumbnail search" for further information.

4.5.1. REC event search

4.5.1.1. REC event search tab description

This tab searches images from the recorded images of the recorder by specifying search criteria such as a REC event.



■ Search by

Select the search target from the following.

- **Recorder**
  Searches for images by units of recorders. When "Recorder" is selected, the device tree will be displayed in the search target list box. Select a recorder and a camera to be searched from the device tree.

- **Group**
  Searches by units of groups. When "Group" is selected, the group list will be displayed in the search target list box. Select a group to be searched from the group list. The user’s group will not be displayed.

- **Map**
  Searches by units of maps. When "Map" is selected, the map list will be displayed in the search target list box. Select a map to be searched from the map list.

■ REC event

Select a recording event to be searched.

- Manual: Select to search for images recorded by manual recording.
- Schedule: Select to search for images recorded by the schedule recording.
- Emergency: Select to search for images recorded by the emergency recording.
- Site alarm: Select to search for images recorded upon the site alarm occurrence.
- Terminal alarm: Select to search for images recorded upon the terminal alarm occurrence.
- Command alarm: Select to search for images recorded upon the command alarm occurrence.
- VMD: Select to search for images recorded by the video motion detection.
- Video loss: Select to search for images recorded upon the video signal loss.
- SD memory rec.: Select to search for SD memory data.

Note:

- "SD memory rec." is unavailable to select together with other recording event types. To search for the SD memory data, select "SD memory" alone.

■ Extension software alarm

Select types of the extension software alarm to be searched for such as AI-VMD alarm, by checking the checkboxes.

The name set on the [Alarm name setting] tab (under [AI camera] under [Setting]) will be displayed as selectable name of alarm.
This function is only compatible with NX-series and NU-series recorder (version 4.0 or higher).
For detection alarms of i-VMD function expansion software (WV-SAE200W), search for “Site alarm” of “REC event”.

The following alarm types will be displayed at the default.

- Intruder: Select to search for images recorded upon the detection relating to intruder.
- Loitering: Select to search for images recorded upon the detection relating to loitering.
- Direction: Select to search for images recorded upon the detection relating to direction.
- Cross line: Select to search for images recorded upon the detection relating to cross line.
- Occupancy Area 1: Select to search for images recorded upon the detection relating to Occupancy Area 1
- Occupancy Area 2: Select to search for images recorded upon the detection relating to Occupancy Area 2
- Occupancy Area 3: Select to search for images recorded upon the detection relating to Occupancy Area 3
- Occupancy Area 4: Select to search for images recorded upon the detection relating to Occupancy Area 4

Note:

- Search by extension software alarm is valid only when NX-series or NU-series recorder is searched as the search target. When the search target is a group or map, it is valid only when the group or map using the NX-series or NU-series recorder is selected.
- Alarms of which message ID is deleted on the [Alarm name setting] tab (under [AI camera] under [Setting]) will not be displayed as selectable items.
- Selectable items and names of “Extension software alarm” can be edited on the [Alarm name setting] tab (under [AI camera] under [Setting]). Refer to "☞ 3.11. Settings relating to AI camera" for further information.

■ **i-VMD(HD600)**

Select the i-VMD(HD600) alarm type to be searched, by checking the checkboxes.
This function is only compatible with HD600. When no HD600 is registered in this software, this item will not be displayed.

The following alarm types will be displayed.

- Terminal alarm: Select to search for images recorded upon the terminal alarm occurrence.
- Removal and left behind: Select to search for images recorded upon the detection relating to removal and left behind.
- Scene change: Select to search for images recorded upon the detection relating to scene change.
- Motion: Select to search for images recorded upon the detection relating to motion.
- Loitering: Select to search for images recorded upon the detection relating to loitering.
- Direction: Select to search for images recorded upon the detection relating to direction.

Note:

- Search by i-VMD(HD600) is valid only when HD600 is searched as the search target. When the search target is a group or map, it is valid only when the group or map using the HD600 is selected.
- Selectable items and names of i-VMD alarm (HD600) cannot be edited on the [Alarm name setting] tab (under [AI camera] under [Setting]).
  Even when a message ID or an alarm name of Loitering or Direction is deleted on the [Alarm name

setting] tab or when a message ID is changed, the alarm name will not be deleted from the selectable names of i-VMD (HD600).

■ **Text**

It is possible to search for recorded images only with or without text information. Select "Added" or "None". When"--" is selected, images will be searched regardless of with or without text information.

■ **Stream**

Select a stream.

- Stream 1: Selects stream 1.
- Stream 2: Selects stream 2.
- ALL: Selects both stream 1 and stream 2.

Note:

- Selection of stream is available only when NX-series is selected as a search target.

■ **Start Time**

Select the start time of period to be searched from "2005/1/1" - "2034/12/31".
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **End Time**

Select the end time of period to be searched from "2005/1/1" - "2034/12/31".
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **[OK] button**

Starts the search.

■ **[Cancel] button**

Cancels the selected search conditions and closes the search window. Then, returns to the operation window.

■ **Number of search results**

Search result number will be displayed.

■ **Search result list**

Search result will be displayed in list form. When a search result is clicked, playback will start on 1-screen on the operation window.
When playback of the selected result starts, the descriptions of the selected result will be displayed in the search panel of the operation window.

Note:

- No image will be displayed when search result number is "0".

4.5.1.2. Search for a recording event (REC event

search)

Search for a recording event as follows.
It is possible to search for the following recording events by designating the search target; recorders, groups and maps.

- Manual
- Schedule
- Emergency
- Site alarm
- Terminal alarm
- Command alarm
- VMD
- Video loss
- SD memory rec.

Extension software alarm

- Intruder (*1) (*2)
- Loitering (*1) (*2)
- Direction (*1) (*2)
- Cross line (*1) (*2)
- Occupancy Area 1 (*1) (*2)
- Occupancy Area 2 (*1) (*2)
- Occupancy Area 3 (*1) (*2)
- Occupancy Area 4 (*1) (*2)
- User-defined 1 (*1) (*2)
- User-defined 2 (*1) (*2)
- User-defined 3 (*1) (*2)
- User-defined 4 (*1) (*2)
- User-defined 5 (*1) (*2)
- User-defined 6 (*1) (*2)
- User-defined 7 (*1) (*2)
- User-defined 8 (*1) (*2)

*1: The name set on the [Alarm name setting] tab (under [AI camera] under [Setting]) is displayed as the search condition on the [REC event search] tab.
*2: Name of alarm of which message ID is deleted on the [Alarm name setting] tab (under [AI camera] under [Setting]) will not be displayed.

i-VMD(HD600) (*3)

- Terminal alarm
- Removal and left behind
- Scene change
- Motion
- Loitering
- Direction

*3: When no HD600 is registered in this software, this item will not be displayed.

Note:

- It is impossible to execute the SD memory data search together with other recording event

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simultaneously.

- Up to 1000 search results will be displayed. When more than 1000 search results are found, the latest 1000 search results will be displayed in the search result list. When searching in multiple recorders, number of search results per a recorder will be (1000/number of recorders).
- Search by “Extension software alarm” or “i-VMD (HD600)” is available only when an NX series or NU series recorder or HD600 is selected as the search target respectively. When the search target is a group or map, it is valid only when the group or map using the NX-series or NU-series recorder or HD600 is selected.

Search for images by designating time & date, camera channel and recording event type as the search conditions. (REC event search)

4.5.1.2.1. Set a search condition

Search for images by designating time & date, camera channel and recording event type. (REC event search)

Step 1

Click the [Search] icon on the title bar or select [Search] from the menu.

→ The "Search" window will be displayed.

Step 2

Set up the search conditions.

<When recorders are to be searched>

1. Select [Recorder] of [Search by].

→ The registered recorders will be displayed in the tree view. The subsequent operations are executed on the following window.



2. Select the recorders and the cameras to be searched.

3. Select a recording event to be searched from [REC event].

4. Designate the time range to be searched by setting the start time and the end time.

5. Determine to search for recorded images with text information or without it.

<When groups are to be searched>

1. Select [Group] of [Search by].

→ The registered groups will be displayed in list form. The subsequent operations are executed on the following window.



2. Select a group to be searched from the search target list.

3. Select a recording event to be searched from [REC event].

4. Designate the time range to be searched by setting the start time and the end time.

5. Determine to search for recorded images with text information or without it.

<When maps are to be searched>

1. Select [Map] of [Search by].

→ The registered maps will be displayed in list form. The subsequent operations are executed on the following window.



2. Select a map to be searched from the search target list.

3. Select a recording event to be searched from [REC event].

4. Designate the time range to be searched by setting the start time and the end time.

5. Determine to search for recorded images with text information or without it.

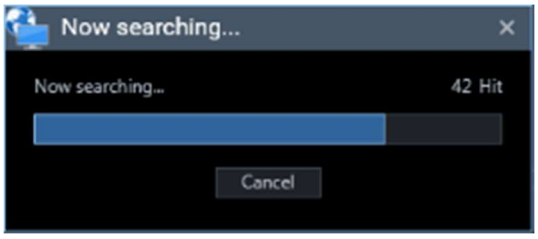
Note:

- Refer to "☞ 4.5.1.1. REC event search tab description" for further information about “Extension software alarm” and “i-VMD (HD600)”.

Step 3

Click the [OK] button.

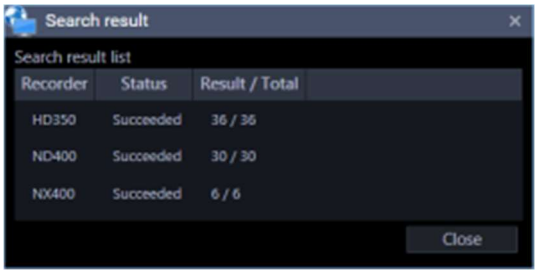
→ Search will start and the window with the progress bar will be displayed.



Note:

- When playback is being performed on the operation window, playback will stop and live images will be displayed.
- Search result will keep on being added to the search result list while the window with the progress bar is being displayed.
  When the [Cancel] button is clicked while the window with the progress bar is being displayed, search results added to the search result list until the [Cancel] button is clicked will not be deleted.
- It is impossible to operate other windows during a screen on which the search is being executing is being displayed.

→ When the search is complete, the "Search result" window will be displayed.



Note:

- If [HDD stand-by control mode] of the recorder is valid, set the search period to less than 120 minutes. If the search period is set to 120 minutes or more, the total number of items will be "1" and the search results will not be displayed correctly. Also, if the search period is less than 120 minutes, only the total number may be not displayed correctly.
  Refer to the operating instructions of the recorder in use for further information about the “HDD stand-by control mode”.

Step 4

Click the [Close] button.

→ The confirmation window will close.

Note:

- The search results will be displayed in the following order; time & date, recorder name, camera name, recording event name and text.
- When you search by i-VMD (HD600) alarm condition for HD600, the event name in the search result list is displayed as follows for each alarm.
  Terminal alarm: TRM, Removal and left behind: CRMV, Motion: CMTN, Scene change: CSCD, Direction: CDRT, Loitering: CSTY

- When you search by extension software alarm condition for NX-series recorder, event name on a search result list will be displayed as follows with respect to extension software alarm No.1 - 8 on the [Alarm name setting] tab (under [AI camera] under [Setting]).
  No.1 alarm: SW1, No.2 alarm: SW2, No.3 alarm: SW3, No.4 alarm: SW4,
  No.5 alarm: SW5, No.6 alarm: SW6, No.7 alarm: SW7, No.8 alarm: SW8
  When you search by extension software alarm condition for NU-series recorder, event name on a search result list will be displayed as follows with respect to extension software alarm No.9 - 16 on the [Alarm name setting] tab (under [AI camera] under [Setting]).
  No.9 alarm: SW1, No.10 alarm: SW2, No.11 alarm: SW3, No.12 alarm: SW4,
  No.13 alarm: SW5, No.14 alarm: SW15, No.7 alarm: SW7, No.16 alarm: SW8

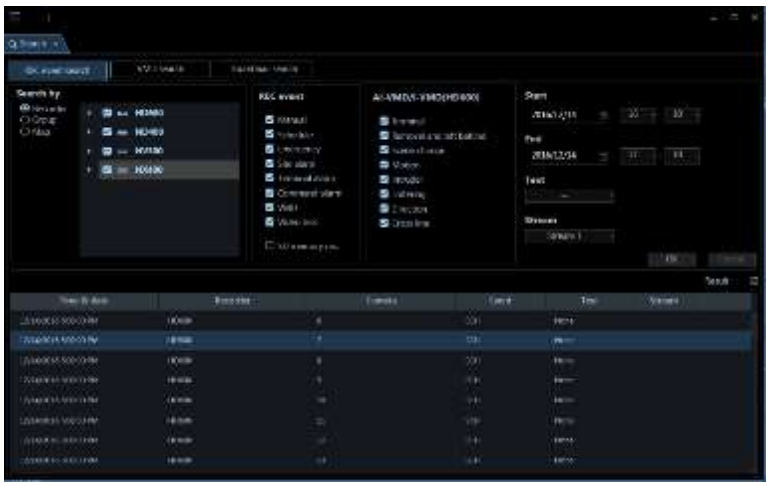
  <When the Alarm name setting is the initial setting>
  Intruder: SW1, Loitering: SW2, Direction: SW3, Cross line: SW4,
  Occupancy Area 1: SW5, Occupancy Area 2: SW6, Occupancy Area 3: SW7, Occupancy Area 4: SW8,
  User-defined 1: SW9, User-defined 2: SW10, User-defined 3: SW11, User-defined 4: SW12,
  User-defined 5: SW13, User-defined 6: SW14, User-defined 7: SW15, User-defined 8: SW16
- When a search result is clicked, the search window will close and playback on 1-screen will start. At the same time, the search panel of the operation window will open and content of the selected result list will be displayed.
  Refer to "☞ 4.5.1.3.2. Play recorded images using the "Search" panel“ for the search panel.
- Once a playback is performed from the search results, the search result will not be deleted until a new search is performed or until the user logged out or exit the software.

4.5.1.3. Play from the search results

4.5.1.3.1. Play recorded images from the search result list

It is possible to play images displayed in the search result list.

Step 1
Click the desired result displayed in the search result list.



→ Live images of the selected group will be displayed on the registered multi-screen.



Note:

- Playback of the search result is also available by clicking a desired result displayed in the "Search" panel. Refer to "☞ 4.5.1.3.2. Play recorded images using the "Search" panel“ for how to use the search panel.

4.5.1.3.2. Play recorded images using the "Search" panel

The description of the search results displayed in the search result list will be displayed in the "Search" panel in list form.
Select a desired image from the search result lit and start playback.

Step 1

Click the "Search" bar on the function panel.

→ The "Search" panel will be displayed.



The details of the window are as follows.

■ **[Search]/[Re-search] button**

Click this button to display the "Search" window. If no search is executed before, the [Search] button will be displayed. If contents are displayed in the search result list, the [Re-search] button will be displayed.

■ **Search result list**

The search results will be displayed with the following information; time & date, recorder title, camera title, recording event type, with or without text.

Step 2

Click a desired image to play in the search result list.

→ Live images of the selected group will be displayed on the registered multi-screen.

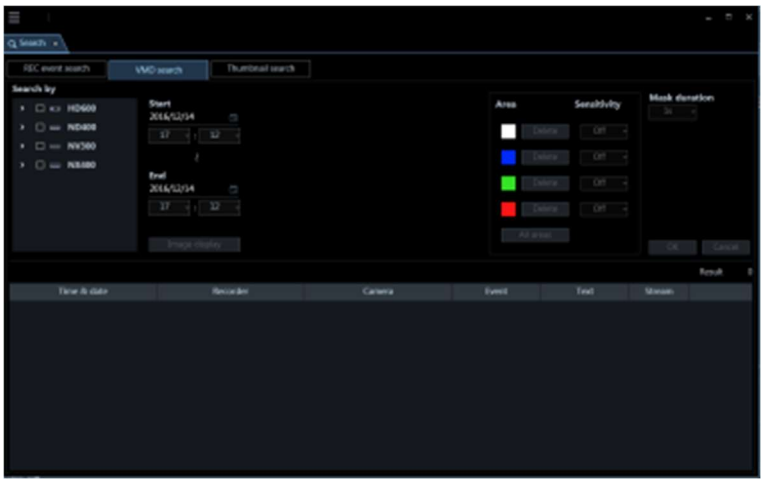
Note:

- When clicking a result displayed in the search result list, recorded images of the respective result will be displayed on a 1-screen. When playback is started, all images displayed in the image display areas will be cleared.
- When right-clicking on the search result list, the pop-up menu will be displayed. Playback of recorded images of the specific group is available by selecting the desired group from the group list displayed on the sub menu of the right-click pop-up menu. However, if “SD memory backup” is selected as a search target in “Recording event”, the group playback will become unavailable.
- When playing back images from the search list with Video insight Server, the recorded image may not be displayed right after the recording is started because the data has not being stored.

4.5.2. VMD search

4.5.2.1. VMD search tab description

Searches for time and date when a motion was detected in images from recorded images.
This function is available only with ND400, HD600, NV200, NV300, NX-series and NU-series.
If compatible recorders is registered, the [VMD search] tab will be displayed.



■ **Search by**

Select a recorder and a camera to be searched.

■ **Start Time**

Select the start time of period to be searched from "2005/1/1" - "2034/12/31".
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **End Time**

Select the end time of period to be searched from "2005/1/1" - "2034/12/31".
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **[Image display] button**

Import the image of the start time & date from the recorder.

■ **Image area**

Display the images obtained from the recorder.
The areas to be searched for are specified by dragging in the image area. Up to 4 areas can be specified.

■ **[All areas] button**

Select all the areas to be searched for.

■ **[Delete] button**

Delete the same colored areas.

■ **Sensitivity**

Select the sensitivity for each area from the following.

- Off: Does not detect the motion in this area.
- Low: Low sensitivity
- Mid: Standard sensitivity
- High: High sensitivity

Note:

- Selection of sensitivity is available only when HD600 is selected for the search target.

■ **Mask duration**

Select the duration to mask detection in the same area from the following.

- When HD600 is in use
  1s/ 1min/ 60min/ 24h
- When any of NV200, NV300, NX-series and NU-series is in use
  1s/ 5s/ 10s/ 30s/ 1min/ 5min/ 10min

Note:

- Selection of mask duration is available only when HD600, NV200, NV300, NX-series or NU-series is selected as the search target.
- When the search target is displayed in the folder tree format, the selection of the mask duration for the cameras placed in the lower folders is not available.

■ **[OK] button**

Starts the search.

■ **[Cancel] button**

Cancels the designated search conditions and closes the search window. Then, returns to the operation window.

■ **Number of search results**

Search result number will be displayed.

■ **Search result list**

Search result will be displayed in list form. When a search result is clicked, playback will start on 1-screen on the operation window.
When playback of the selected result starts, the descriptions of the selected result will be displayed in the search panel of the operation window.

Note:

- No image will be displayed when search result number is "0".

4.5.2.2. Search for time and date when a motion is detected in images (VMD search)

Searches for time and date when a motion was detected in images from recorded images.

Note:

- This function is available only with ND400, HD600, NV200, NV300, NX-series or NU-series.
- If ND400, HD600, NV200, NV250, NV300, NX-series or NU-series is registered, the [VMD search] tab will be displayed.
- When using V-series camera, this function is unavailable.
- Up to 200 search results will be displayed.

4.5.2.2.1. Determine the search conditions

The time & date, camera channel, and motion detection area are specified to perform searching. (VMD search)

Step 1
Click the [Search] icon on the title bar or select [Search] from the menu.

Step 2
Click the [VMD search] tab on the search window.
→ The "VMD search" window will be displayed.

Step 3
Set up the search conditions.

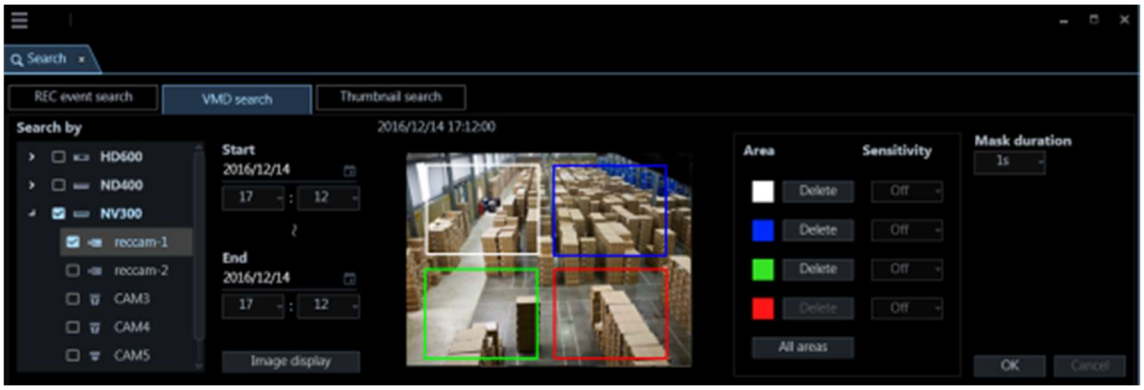


1. Select a recorder and a camera to be searched for from the search target list. Only 1 recorder or 1 camera can be selected.

2. Designate the time range to be searched by setting the start time and the end time.

3. Click the [Image display] button.

→ The image of the camera to be searched for is displayed.



Note:
- The image on the operation window will be cleared.

4. Specify areas by dragging on the image area. Up to 4 areas can be specified.

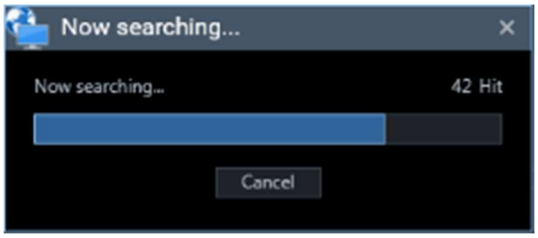
Note:

- When the recorder to be searched is the HD600 and the image of the camera is specified for the detection area from the top to bottom, search will be unavailable (The area whose search will be available is the same as that configured on the HD600.).

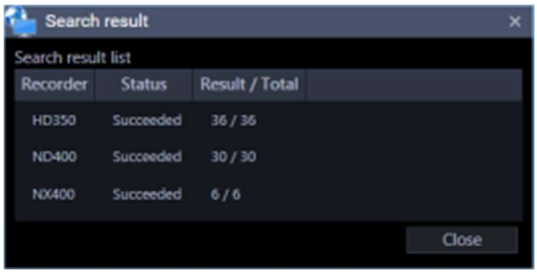
Step 4

Click the [OK] button.

→ Search will start and the window with the progress bar will be displayed.



When the search is complete, the "Search result" window will be displayed.



Refer to "☞ 4.5.2.3.1. Play recorded images from the search result list" for how to play from the search result list.

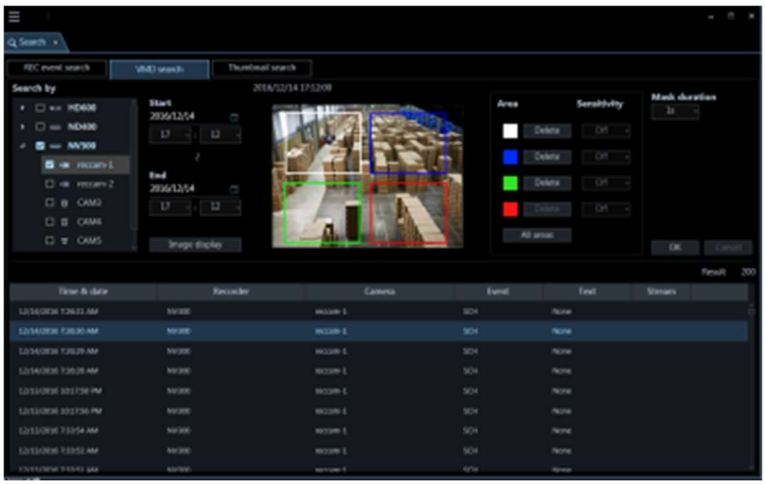
4.5.2.3. Play from the search results

4.5.2.3.1. Play recorded images from the search result list

It is possible to play images displayed in the search result list.

Step 1

Click the desired result displayed in the search result list.



→ Live images of the selected group will be displayed on the registered multi-screen.



Note:

- Playback of the search result is also available by clicking a desired result displayed in the "Search" panel. Refer to "☞ 4.5.1.3.2. Play recorded images using the "Search" panel“ for how to use the search panel.

4.5.2.3.2. Play recorded images using the "Search" panel

The description of the search results displayed in the search result list will be displayed in the "Search" panel in list form.
Select a desired image from the search result lit and start playback.

Step 1
Click the "Search" bar on the function panel.

→ The "Search" panel will be displayed.



The details of the window are as follows.

■ **[Search]/[Re-search] button**

Click this button to display the "Search" window. If no search is executed before, the [Search] button will be displayed. If contents are displayed in the search result list, the [Re-search] button will be displayed.

■ **Search result list**

The search results will be displayed with the following information; time & date, recorder title, camera title, recording event type, with or without text.

Step 2

Click a desired image to play in the search result list.

→ Live images of the selected group will be displayed on the registered multi-screen.

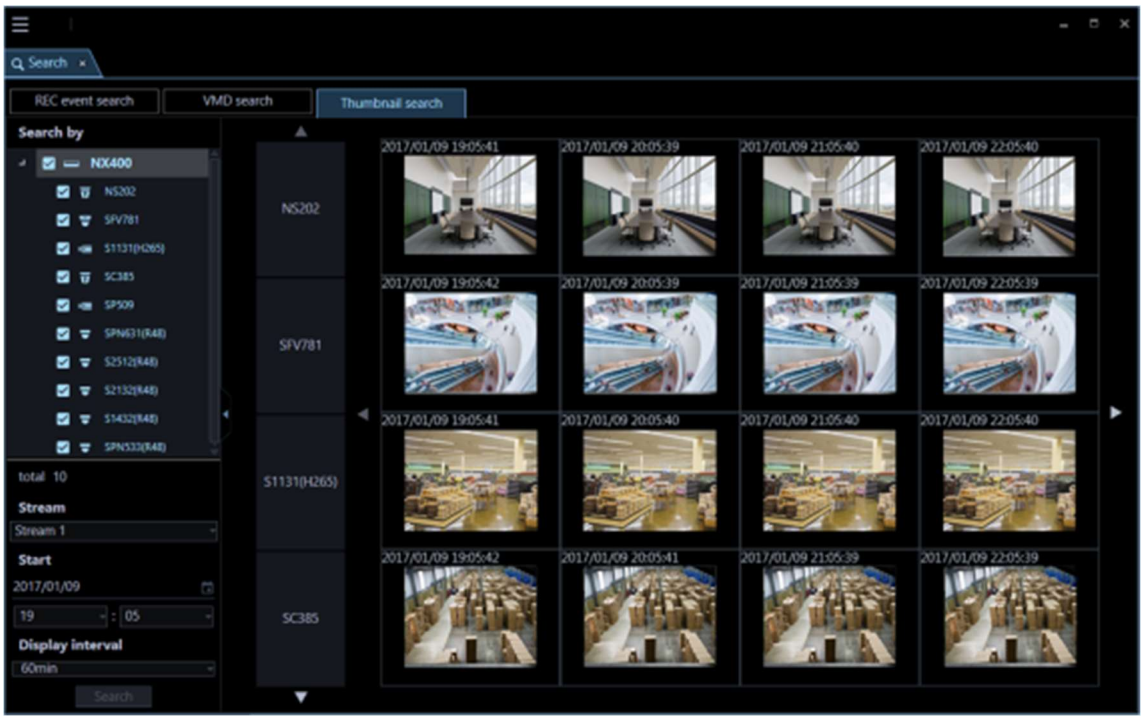
Note:

- When clicking a result displayed in the search result list, recorded images of the respective result will be displayed on a 1-screen. When playback is started, all images displayed in the image display areas will be cleared.
- When right-clicking on the search result list, the pop-up menu will be displayed. Playback of recorded images of the specific group is available by selecting the desired group from the group list displayed on the sub menu of the right-click pop-up menu.
- When playing back images from the search list with Video insight Server, the recorded image may not be displayed right after the recording is started because the data has not being stored.

4.5.3. Thumbnail search

4.5.3.1. Thumbnail search tab description

Searches for a thumbnail by units of cameras from recoded images in a recorder.
This function is available only with, NX-series and NU-series. If compatible recorders is registered, the thumbnail search tab will be displayed.

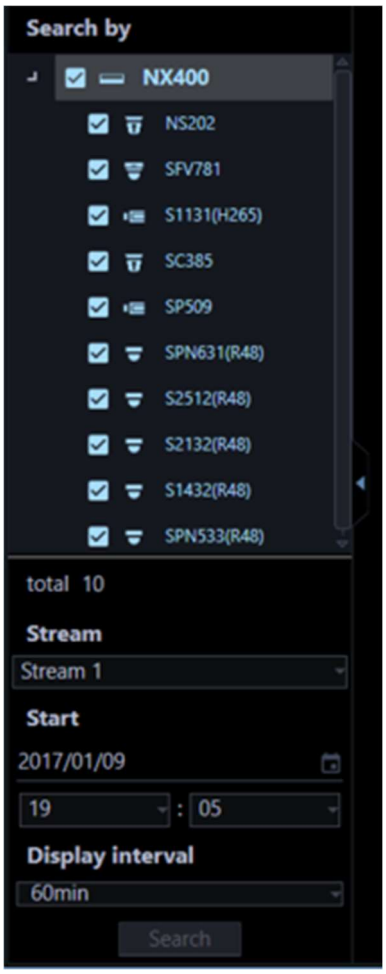


4.5.3.1.1. Function panel

It is possible to designate search conditions on the function panel on the left side of the thumbnail search tab and start a search.

Note:

- The panel open/close button will be displayed at the side of the menu panel. Displaying/hiding of the menu panel can be operated by clicking the icon [Δ] on the panel open/close button.



■ **Search by**

Select a recorder to be searched.

■ **Total**

Number of the selected cameras as the search target.

■ **Stream**

Select a stream. Select either of “Stream 1” and “Stream 2”.

■ **Start Time**

Select the start date of period to be searched from "2005/1/1" - "2034/12/31".
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

Note:

- When a thumbnail image in the search result is left-clicked, the display time of the left-clicked thumbnail image will be reflected in “Start time”.

■ **Display interval**

Select a thumbnail display interval of from the following.
1min/ 5min/ 10min/ 15min/ 30min/ 60min/ 120min

■ **[Search] button**

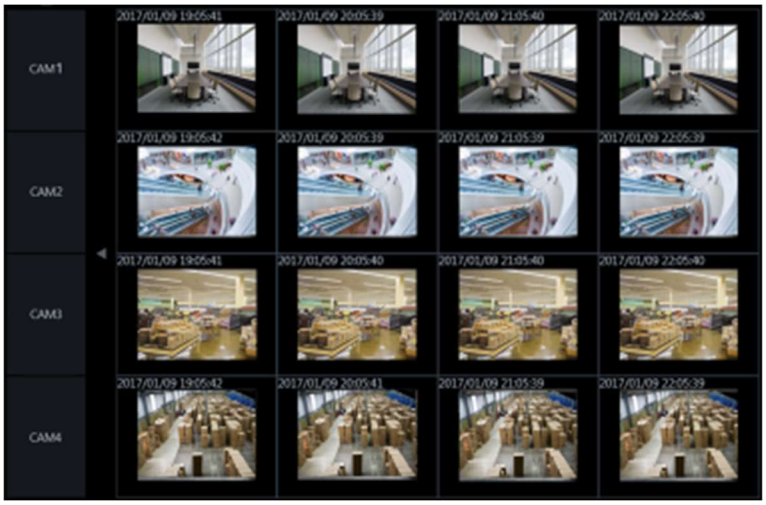
Starts the search.

4.5.3.1.2. Thumbnail display area

<When number of the selected cameras is 1>



<When number of the selected cameras is 2>



■ Camera name

The camera name selected as the search target will be displayed.

■ Thumbnail

A mapped thumbnail image of the search result will be displayed on the plane made by two axes of "time" and "camera".
When a desired thumbnail image is clicked, it will be in the selected state and be surrounded by a frame in orange. When a thumbnail is double-clicked, playback will start on 1-screen on the operation window.

Note:

- If no recording data is found at “Start time”, thumbnails will be displayed for the period of time set by “Display interval” starting from “Start time”.
- No image will be displayed when search result number is "0".

■ **Change time axis button (◄) (►)**

When ◄ is clicked, thumbnails of the past will be displayed.
When ► is clicked, thumbnails of the future will be displayed.

■ **Thumbnail display camera switch buttons (▲) (▼)**

When ▲ or ▼ is clicked, a camera for which a thumbnail is to be displayed will be changed.

4.5.3.2. Search for a thumbnail (Thumbnail search)

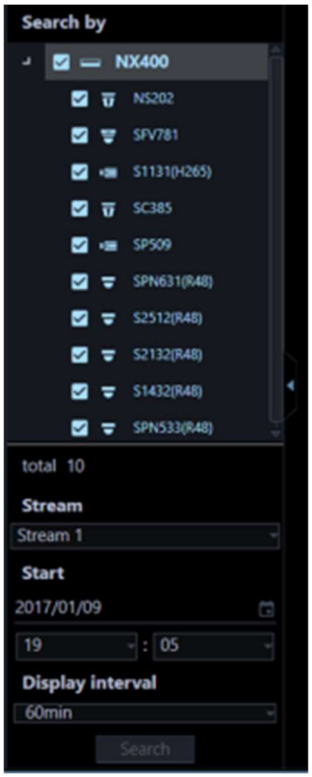
4.5.3.2.1. Set a search condition

Search by specifying time & date, camera channel, stream type and thumbnail display interval. (Thumbnail search)

Step 1
Click the [Search] icon on the title bar or select [Search] from the menu.
→ The "Search" window will be displayed.

Step 2
Click the [Thumbnail search] tab of the search window.
→ The thumbnail search window will be displayed.

Step 3
Designate search conditions.



1. Select cameras to be searched from the search target list. Up to 128 cameras can be selected at a time.

2. Select a stream.

3. Select a start time.

4. Select a display interval.

Note:

- When a thumbnail image in the search result is left-clicked, the display time of the left-clicked thumbnail image will be reflected in “Start time”.

Step 4

Click the [Search] button.

→ Search will start and the window with the progress bar will be displayed.



Note:

- The image on the operation window will be cleared.
- While the search result window is being display, thumbnail images will be kept on being displayed as the search results.
  Even when the [Cancel] button is clicked to cancel the search, thumbnails will be displayed as the search results before the [Cancel] button was clicked.
- It is impossible to operate other windows during a screen on which the search is being executing is being displayed.

→ When the search is completed, thumbnails will be displayed as the search results.

<When number of cameras to be searched is 1>

16 thumbnails will be displayed in order from left to right and from top to bottom starting from the top left as the start time.



<When number of cameras to be searched is 2 or more>
4 thumbnails per camera will be displayed in order from left as the start time to right.

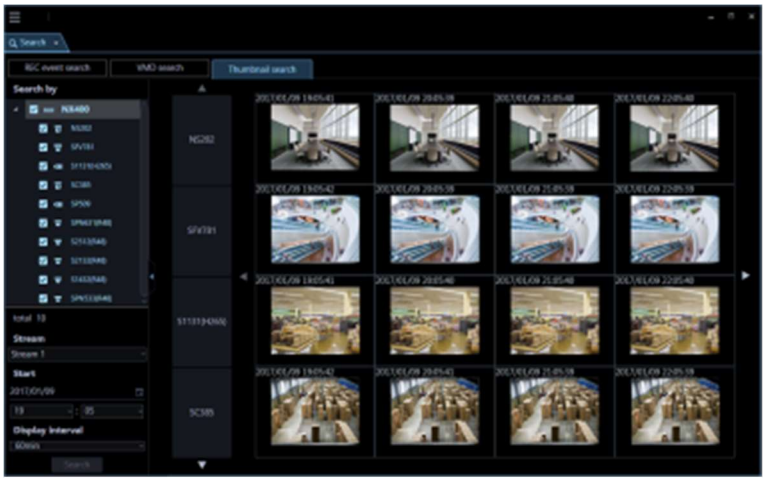


Note:
- The display time of thumbnails may be at a few seconds before or after the specified time.
- If there is no recorded image at the specified date and time, the thumbnail image different from the input date and time is displayed.

4.5.3.3. Play from the thumbnail search results

Thumbnail images will be displayed as the search results.

Step 1
Double-click a desired thumbnail to play.



→ Live images of the selected group will be displayed on the registered multi-screen.



Note:

- When a thumbnail in the search results is double-clicked, playback of images recorded at the time will start on 1-screen. When playback is started, all images displayed in the image display areas will be cleared.

4.6. Use the visibility enhancement function

4.6.1. Enhance images

4.6.1.1. Precautions

Important:

- To use the visibility enhancement function, it is necessary to purchase the extension software WV-ASE205 separately.
- To use the visibility enhancement function, your use requirements shall be met with the recommended operating environment for the extension software WV-ASE205.

Recommended operating environment

Item	Details
CPU	Core i7 7700 or better
GPU (Graphic card)	GeForce GTX660 or more, NVIDIA Quadro P1000, NVIDIA T1000 *1 *2 GeForce GTX770 or more, NVIDIA Quadro P1000 (for image capture size of 2048x1536 or more), NVIDIA T1000 (for image capture size of 2048x1536 or more) *1 *2 (The version GeForce 332.21 or later is recommended for the driver software.)

*1: When using the visibility enhancement function, prepare and use a power supply unit compatible with the graphics card in use.

*2: When using the visibility enhancement function, do not use two or more graphics cards.

Note:

- The visibility enhancement function is not supported by Video Insight Server and HD300. However, live images can be enhanced only when the "camera" is selected for the "live image source" on the "Camera setup" of Video Insight Server.
- When using the image enhancement function, displaying images on multi-screen of the operation window is not available.
- When using the image enhancement function, the sequence display of the operation window is not available.
- The 3D Dewarp function on the operation window will be disabled when the visibility enhancement function is in use.
- When the operation window is switched to image display on multi-screen while using the image enhancement function, the image enhancement function will be invalidated.
- When the operation window is switched to a sequence display while using the visibility enhancement function, the visibility enhancement function will be invalidated.
- When any of the following operations are performed while using the image enhancement function, the image enhancement function will be invalidated.
  - REV PLAY
  - FF
  - REW
  - PREV IMAGE
  - PAUSE
- When any of the following operations are performed while using the image enhancement function, snowfall or rainfall may temporarily be displayed.
  - NEXT RECORD
  - PREV RECORD
  - SKIP
  - REV SKIP
- When the connected device or the PC is under heavy load, the image refresh rate or the switching speed of the visibility enhancement function may become slower depending on the network environment.
- The recommended frame rate is 5 - 30 fps. If the frame rate is low, the visibility enhancement effect may not be obtained. When capturing fast-moving objects or noisy objects, set the frame rate to 10 fps or more.
- The bit rate shall be set to a higher value according to the resolution.
- When displaying images whose contrast is very low, images may sometimes not be enhanced.
- The higher the resolution is set, the sharper details of images will be.
- Depending on the image quality or the frame rate of input images, an expected effect may not be obtained.
- Set the image quality and the frame rate of input images as high as possible.
- When input images are greatly changed by a PTZ operation, an expected effect may not be obtained.
- Images to be displayed may sometimes be delayed when other function of ASM300 such as the live window is used.
- An after-image or a noise may be emphasized under a low illumination environment.
- When images are displayed with "5 Cropping" or "1 Cropping", the "Visibility Enhancement" function is unavailable.
- To use the "Visibility Enhancement" function, set the monitor resolution to lower than FULL HD.
- When using a camera with the image capture size of more than 4000 x 3000 while setting the correction mode to "Snowfall and Rainfall", set the frame rate of the camera to "5 fps".
- When setting the image capture size of more than 3840 x 2160 using a camera, set “4K” to "PC

diagnosis (4K camera)" of the setup window. Refer to "☞ 3.2.2. Drawing and audio setup" for further information.

4.6.1.2. Remove snowfall and rainfall

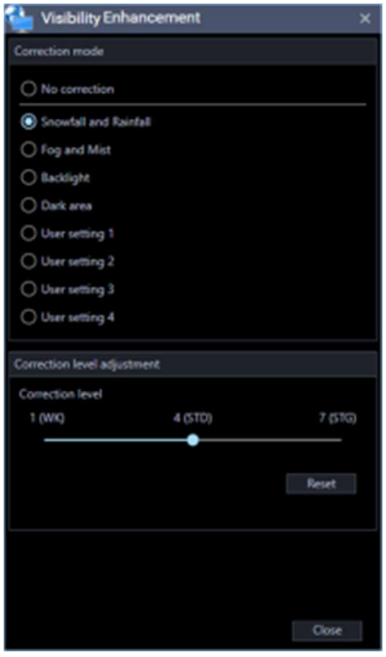
Snowfall or rainfall will be removed from images.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select "Snowfall and Rainfall" in the "Correction mode" section on the “Visibility Enhancement" window.

Step 3
Adjust the correction level using the slider bar in the "Correction level adjustment" section on the "Visibility Enhancement" window.



Step 4

The settings will be saved by clicking the [Close] button on the visibility enhancement window.

4.6.1.3. Remove fog or mist

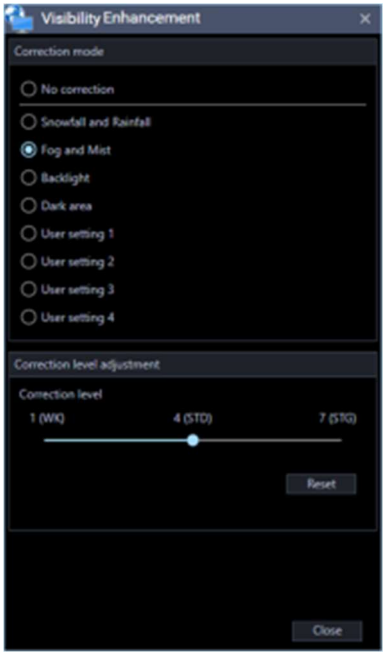
Fog or mist will be removed from images.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select "Fog and Mist" in the "Correction mode" section on the visibility enhancement window.

Step 3
Adjust the correction level using the slider bar in the "Correction level adjustment" section on the "Visibility Enhancement" window.



Step 4
The settings will be saved by clicking the [Close] button on the visibility enhancement window.

4.6.1.4. Improve backlight images

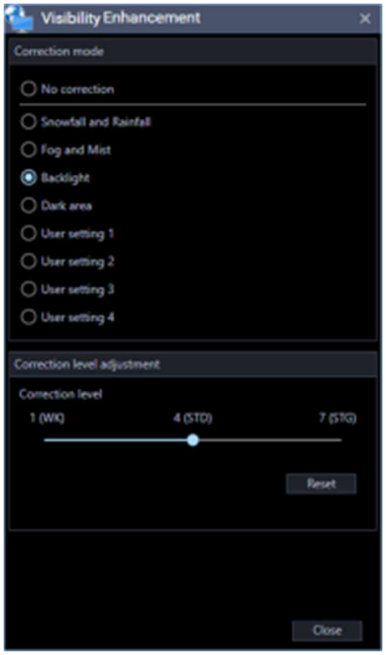
It is possible to improve backlight images.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select “Backlight" in the "Correction mode" section on the visibility enhancement window.

Step 3
Adjust the correction level using the slider bar in the "Correction level adjustment" section on the "Visibility Enhancement" window.



Step 4
The settings will be saved by clicking the [Close] button on the visibility enhancement window.

4.6.1.5. Make a dark area brighter

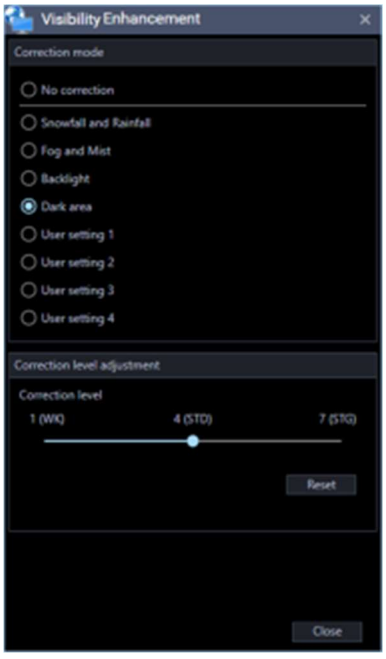
It is possible to make a dark area brighter.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select "Dark area" in the "Correction mode" section on the visibility enhancement window.

Step 3
Adjust the correction level using the slider bar in the "Correction level adjustment" section on the "Visibility Enhancement" window.



Step 4
The settings will be saved by clicking the [Close] button on the visibility enhancement window.

4.6.1.6. Enhance images using user settings

Images can be enhanced by configuring user settings.

Note:

- Level 4 for "Snowfall and Rainfall" is set as the default for each user setting.
- The default names of the user settings are [User setting 1] – [User setting 4].

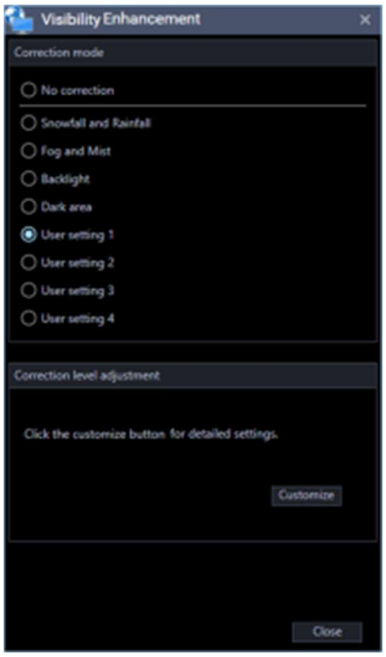
Step 1

Click the [Visibility Enhancement] icon on the operation window.



Step 2

Select any of "User setting 1" - "User setting 4" in the "Correction mode" section on the visibility enhancement window.



4.6.2. Customize the user settings

4.6.2.1. Adjust the parameters

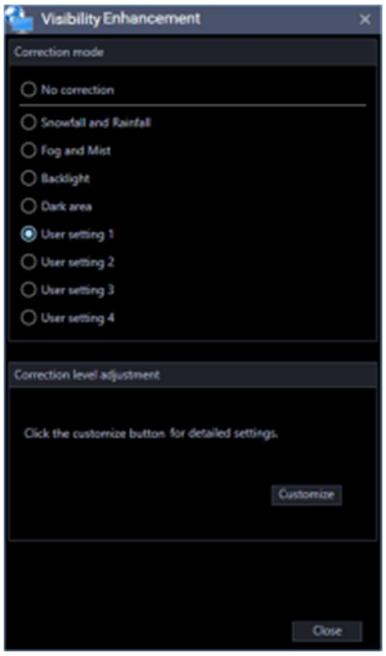
All the parameters for the visibility enhancement function can be adjusted.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select any of "User setting 1" - "User setting 4" in the "Correction mode" section on the visibility enhancement window.

Step 3
Click the [Customize] button in the "Parameter adjustment" section on the visibility enhancement window.



Step 4

Select a setting to be used as the basis of adjustment on the "Template" section on the visibility enhancement setting window.



Step 5

Adjust the parameters on each tab page of "Snowfall and Rainfall NR", "Spatial Tonal Correction" and "Multi-frame NR" of the visibility enhancement setting window. Descriptions about each parameter are provided on "Parameter list table".

Step 6

The settings will be saved by clicking the [Save] button on the visibility enhancement detailed setting window.

Parameter list table

Snowfall and Rainfall Noise Reduction	Correction	"Snowfall and Rainfall NR" can be turned on and off by selecting "Enable" or "Disable". It is not possible to enable only "Snowfall and Rainfall NR" and "Multi-frame NR".
	Correction mode	Available setting value: Normal, Heavy snow The following correction modes can be selected for "Snowfall and Rainfall NR". • Normal: Correction level can be adjusted by setting "Correction level" below. • Heavy snow: The maximum correction level will be applied.
	Correction level	Available setting value: 1 - 32 Correction level for "Snowfall and Rainfall NR" can be adjusted. When a larger value is set, size of snow flakes that can be deleted will become larger. When a larger value is set, an after-image of a moving object will

		be reduced.
Spatial Tonal Correction	Correction	“Spatial Tonal Correction" can be turned on and off by selecting "Enable" or "Disable".
	Correction mode	Available setting value: Contrast, Dark area, Bright area, Backlight The following correction modes can be selected for "Spatial Tonal Correction". • Contrast: Improve visibility of low contrast images. • Dark area: Improve visibility of very dark areas. • Bright area: Improve contrast of very bright areas. • Backlight: Improve visibility of images where extremely bright and dark areas are mixed.
	Correction level	Available setting value: 0 - 255 Correction level for "Spatial Tonal Correction" can be adjusted.
	Brightness	Available setting value: 0 - 255 Brightness can be adjusted.
	Color tone strength	Available setting value: 0 - 255 Colors can be enhanced.
	Correction radius	Available setting value: 0 - 255 When a larger value is set, correction will be applied to a whole image with well balance. When a smaller value is set, a local contrast can be emphasized. When a smaller value is set, processing load will be increased and it may cause delay of images.
Multi-frame NR	Correction	“Multi-frame NR" can be turned on and off by selecting "Enable" or "Disable". It is not possible to enable only "Snowfall and Rainfall NR" and "Multi-frame NR".
	Correction level	Available setting value: 0 - 36 Correction level for "Spatial Tonal Correction" can be adjusted.
	Motion type	Available setting value: Fixed, Pan, Pan/Tilt, Pan/Tilt/Zoom, Free Select a motion type of frame to align frame position. When many frame motion type are used, processing load will become heavier and it may cause video delay. • Fixed: Select this when frames do not have any motion (Such as a fixed camera) • Pan: Select this when frames move horizontally only • Pan/Tilt: Select this when frames move horizontally and vertically • Pan/Tilt/Zoom: Select this when frames move horizontally and vertically, and also zoom in and out (Such as a PTZ camera) • Free: Select this when frames move horizontally and vertically, zoom in and out, and also rotate (Such as a wearable camera)

	Accuracy	Available setting value: 1 - 16 Accuracy of position alignment between frames can be adjusted.
	Range	Available setting value: 1 - 16 Range of position alignment between frames can be adjusted.
	Detection mode	Available setting value: Normal, Fast Detects a moving object. When “Fast” is selected, only the pixel level detection will be performed.
	Detection level	Available setting value: 0 - 15 Moving object detection level can be adjusted.

4.6.2.2. Edit the name

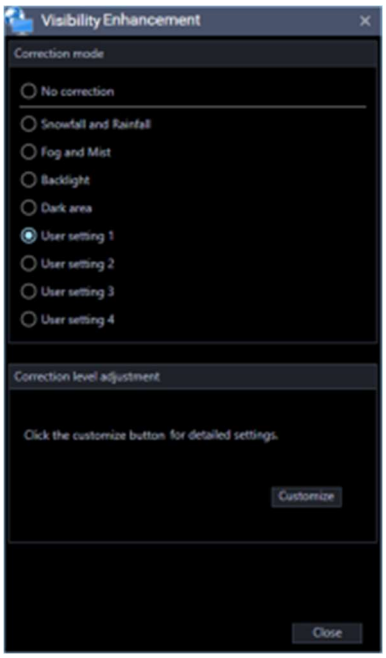
Name of the selected user setting can be edited. Enter up to 16 characters for a name.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select any of "User setting 1" - "User setting 4" in the "Correction mode" section on the visibility enhancement window.

Step 3
Click the [Customize] button in the "Parameter adjustment" section on the visibility enhancement window.



Step 4
Enter a name of the setting in [Name] of the visibility enhancement detailed setting window



Step 5
The settings will be saved by clicking the [Save] button on the visibility enhancement detailed setting window.

4.6.2.3. Set a mask area

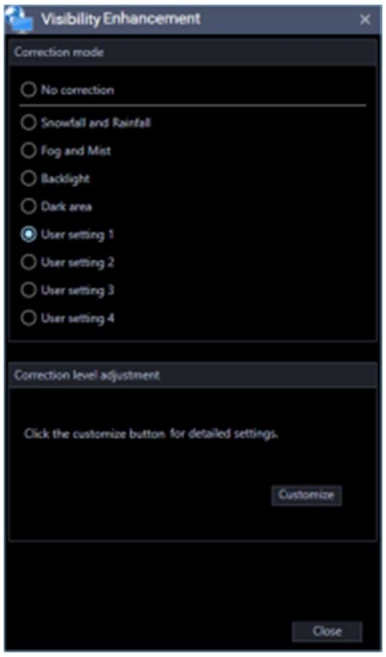
Areas to which the image enhancement function is not to be applied can be set.

Step 1
Click the [Visibility Enhancement] icon on the operation window.



Step 2
Select any of "User setting 1" - "User setting 4" in the "Correction mode" section on the visibility enhancement window.

Step 3
Click the [Customize] button in the "Parameter adjustment" section on the visibility enhancement window.



Step 4
Check the "Enable" checkbox of [Mask area] on the visibility enhancement detailed setting window.



Step 5
Specify a mask area by dragging the mouse in [Image before correction] on the visibility enhancement detailed setting window.

Step 6
The settings will be saved by clicking the [Save] button on the visibility enhancement detailed setting window.

4.6.2.4. Delete a mask area

Delete a mask area.

Step 1
Click the [Visibility Enhancement] icon on the operation window.

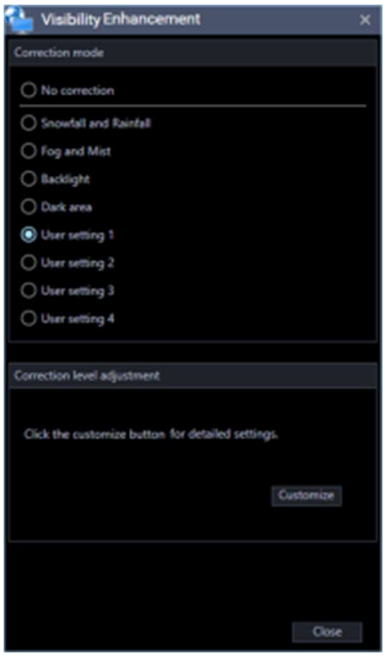


Step 2

Select any of "User setting 1" - "User setting 4" in the "Correction mode" section on the visibility enhancement window.

Step 3

Click the [Customize] button in the "Parameter adjustment" section on the visibility enhancement window.



Step 4

Click the [Delete] button in [Mask area] on the visibility enhancement detailed setting window.



Step 5

The settings will be saved by clicking the [Save] button on the visibility enhancement detailed setting window.

4.6.3. In the following cases

4.6.3.1. Need to remove snowfall and rainfall more

Enable "Snowfall and Rainfall NR".
Select "Heavy snow" for "Correction mode" of "Snowfall and Rainfall NR".
When "Normal" is selected for "Correction mode" of "Snowfall and Rainfall NR", adjust the correction level higher.

Note:

- Appearance of after-image of a moving object or disappearance of moving object itself may sometimes occur as a result of removing snowfall and rainfall.

4.6.3.2. Need to remove fog and mist more

Enable "Spatial Tonal Correction".
Select "Contrast" for "Correction mode" of "Spatial Tonal Correction".
Set a smaller value for "Correction radius" of "Spatial Tonal Correction".

Note:

- Outline in images may sometimes be excessively emphasized as a result of removing fog and mist.

4.6.3.3. Need to make a dark area more brighter

Enable "Spatial Tonal Correction".
Select "Dark area" for "Correction mode" of "Spatial Tonal Correction".
Set a larger value for "Brightness" of "Spatial Tonal Correction".

4.6.3.4. Need to improve backlight images more better

Enable "Spatial Tonal Correction".
Select "Backlight" for "Correction mode" of "Spatial Tonal Correction".

4.6.3.5. Images are too noisy

Enable "Multi-frame NR".
Set a larger value for "Correction level" of "Multi-frame NR".

Note:

- Appearance of trajectories of moving objects or disappearance of moving object may sometimes occur as a result of setting a larger value for "Correction mode" of "Multi-frame NR".

4.6.3.6. Appearance of trajectories of moving objects or disappearance of moving object occurred

Disable "Multi-frame NR".
Set a smaller value for "Correction level" of "Multi-frame NR".
Select "Normal" for "Detection mode" of "Multi-frame NR".
Disable "Snowfall and Rainfall NR".
Select "Normal" for "Correction mode" of "Snowfall and Rainfall NR".
Set a smaller value for "Correction level" of "Snowfall and Rainfall NR".

4.6.3.7. Need to hide the text "This image is enhanced." displayed on images during "Visibility Enhancement"

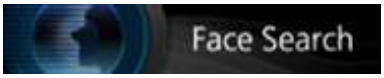
Set "Visibility Enhancement Text Display" to "OFF" on the setup window.
Refer to "☞ 3.2.11. Text display setting" for further information.

4.7. Use the face search monitor

Note:

- The logo on the face search monitor is displayed as follows according to the version and operation mode of the facial recognition server.

< In the case of WV-ASF900 or WV-ASF950 version less than 2.00>



< In the case of WV-ASF950 version 2.00 or later (registered face detection mode)>



< In the case of WV-ASF950 version 2.00 or later (registered face/unregistered face detection mode)>



- When running on Windows 11, time & date selection may be displayed by switching from a tab other than the [Alarm] tab to the [Alarm] tab. The functions of face search monitor will not be affected. In this case, switch from a tab other than the [Alarm] tab to the [Alarm] tab again.

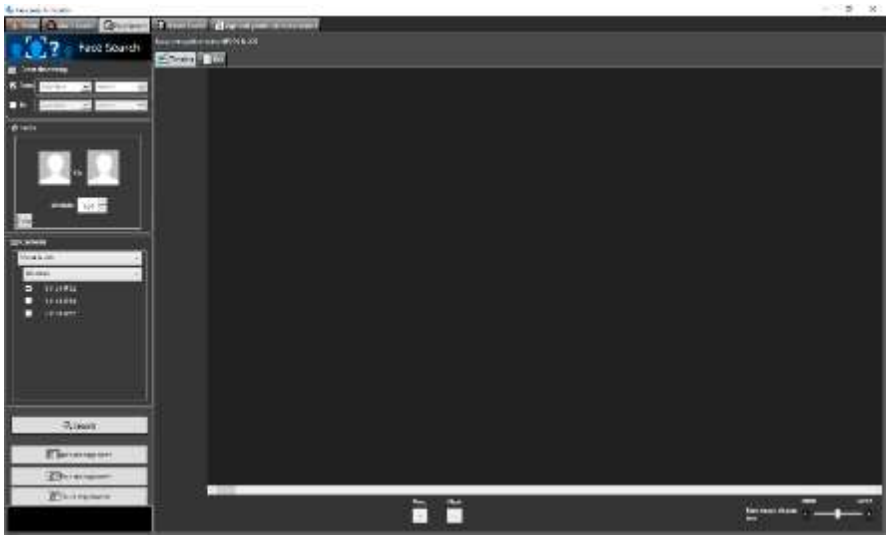
4.7.1. Search face

4.7.1.1. Search by time and date

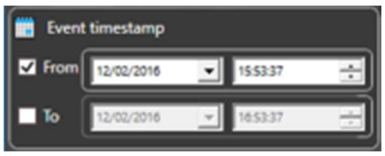
Perform the face search by designating time and date.

Important:
- To use the face search function, it is necessary to purchase WV-ASF950 or WV-ASF900, and the extension software WV-ASE231.

Step 1
Click the [Face Search] tab on the face search monitor.



Step 2
Select the start time and the end time of [Time & date].



■ **Start Time**

Select the start time of period to be searched.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **End Time**

Select the end time of period to be searched.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

Step 3
Click the [Search] button.
→ The search result window will be displayed.

4.7.1.2. Search by face

Perform the face search by designating face features.

Step 1
Click the [Face Search] tab on the face search monitor.

Step 2
Designate a face image.



■ **Person icon**

The face image setting can be configured as follows.
- Display the "List of registered faces" window by left-clicking the person icon, and then select a face image.
- Drag and drop the face image of the search result onto the person icon.
- Right-click on the person icon, and then select from the following menu.
  [Select from list of registered faces.]
  [Select face image from the snapshot]
- Right-click on a face image on a paused playback image displayed on the ASM300 operation window, and then select [Set to Face Search 1] or [Set to Face Search 2] from the displayed menu.
  (* This operation is available only when the [Face Search] tab page is being displayed.)

■ **Similarity**

The search can be filtered by specifying the similarity. Only the images above the specified similarity level will be displayed as search result.

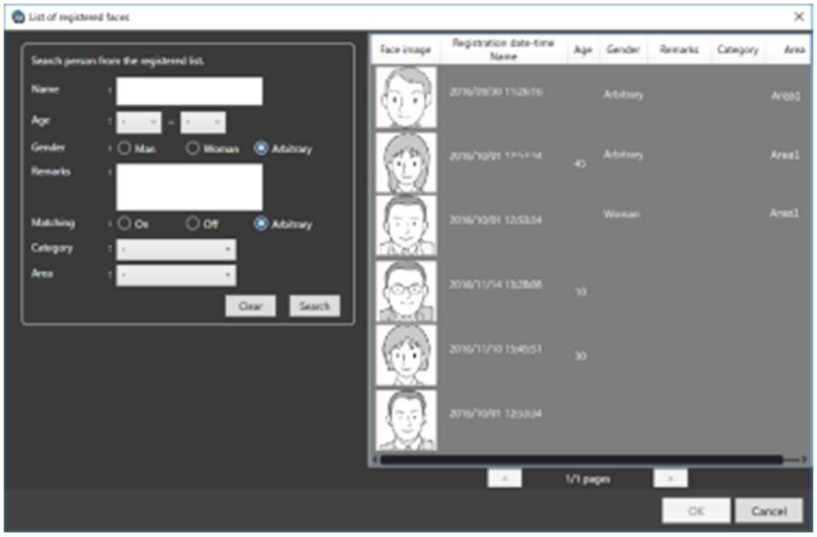
■ **[Clear] button**

Clear both the images of filter 1 and filter 2. It will also restore the default setting of "Similarity".

Designate the person (face image) to be searched
- Select from the registered images

Right-click on a person icon of [Faces] on the [Face Search] tab page and select [Select from the registered face image list] from the menu.

→ The "List of registered faces" window will be displayed.



■ **Search result**

<In the case of WV-ASF950>

To register a face image from the search result face thumbnail, right-click on the face thumbnail and select [This face set as filter.] from the menu.

<In the case of WV-ASF900>

To register a face image from the search result face thumbnail in filter 1, right-click on the face thumbnail and select [Set to Face Search 1] from the menu. To register in filter 2, right-click on the face thumbnail and select [Set to Face Search 2] from the menu.

■ **[OK] button**

Closes the "List of registered faces" window and applies to the search condition.

■ **[Cancel] button**

Closes the "List of registered faces" window and cancels to apply to the search condition.

• Select face image from the snapshot

Right-click on a person icon of [Faces] on the [Face Search] tab page and select [Select face image from the snapshot] from the right-click menu.

→ The "Select face image from the snapshot" window will be displayed.

■ **[Ref.] button**

Select an image file to be read on the "Select face image from the snapshot" window.

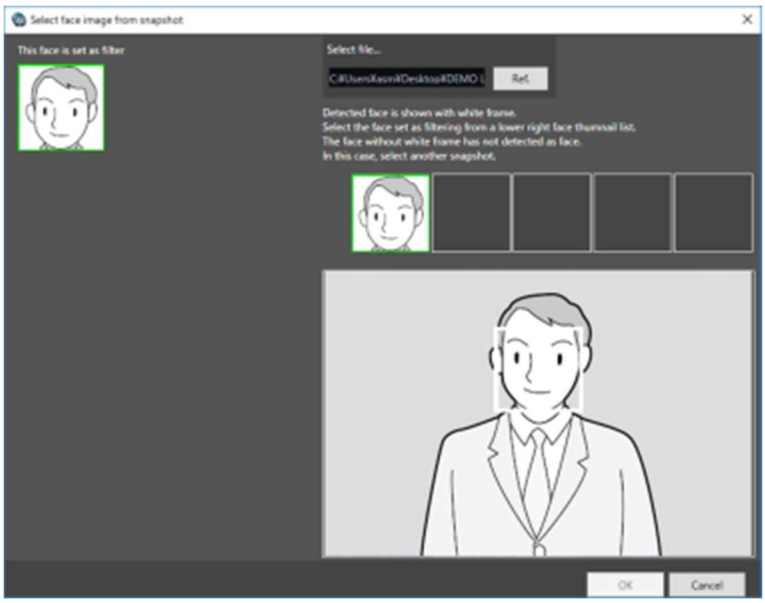
Note:

• The available file formats are JPEG, PNG and BMP.

■ **Snapshot display area**

When an image file is read out, the face detection process will be carried out and white border frame will be displayed around each face.

The detected faces will be displayed above the image.



■ **Image display area for setting the search condition**

The selected face image will be displayed.

■ **[OK] button**

Close the registration window and apply the search condition.

■ **[Cancel] button**

Close the registration window and cancel the search condition.

- Pause the playback at the point when the target person is displayed in playback images. Then, right-click on the face image and select [Set to Face Search 1] or [Set to Face Search 2].

→ The "Face thumbnail list" will be displayed in the playback window.

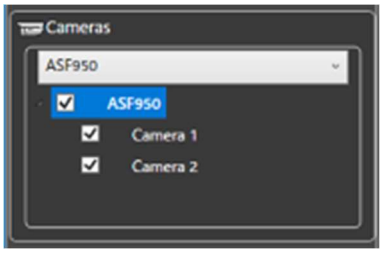
Note:

- The searching image can be changed from the "Face thumbnail list".

Designate the camera to be searched

Check the checkbox of the camera to be searched.

< In the case of WV-ASF900 or WV-ASF950 (version less than 2.00) or WV-ASF950 [version 2.00 or later (registered face detection mode)]>

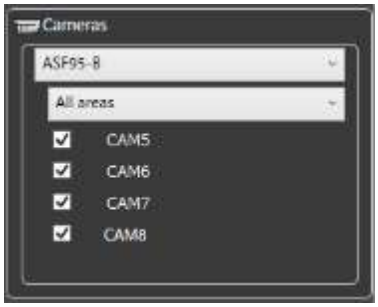


Note:

- The cameras obtained by "Face search - server registration" of the setup window will be displayed in the tree.

- When the checkbox of "Parent node (server)" is checked, the checkboxes of all the child nodes will be checked automatically.
- When the checkbox of "Parent node (server)" is unchecked, the checkboxes of all the child nodes will be unchecked automatically.

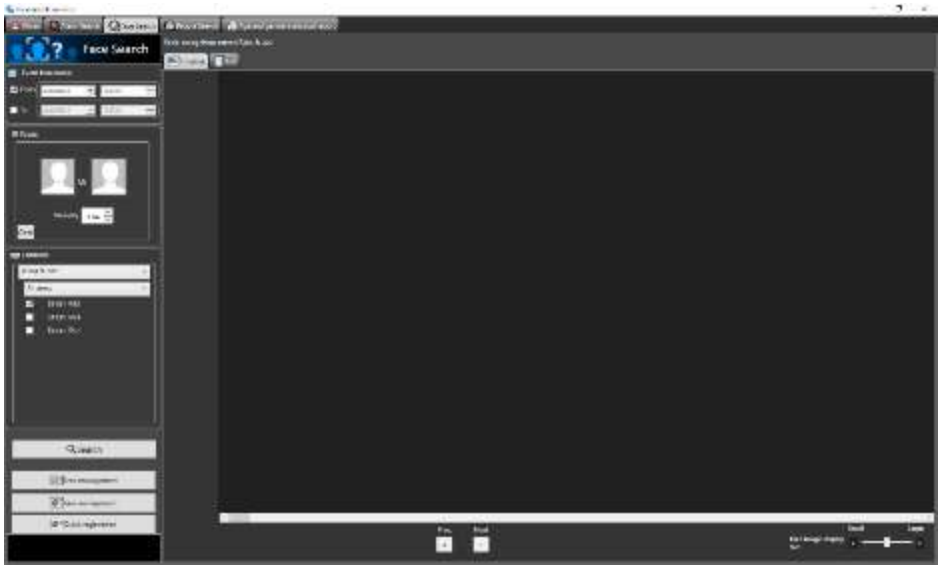
<In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)]>



Note:
- The area set in the “Area management” window and the cameras registered in the selected server among the cameras registered in the area will be displayed in the tree. Refer to "☞4.7.4. Set area" about the area.

Step 3
Click the [Search] button.
→ The search result window will be displayed.

4.7.1.3. Play recorded image in search result

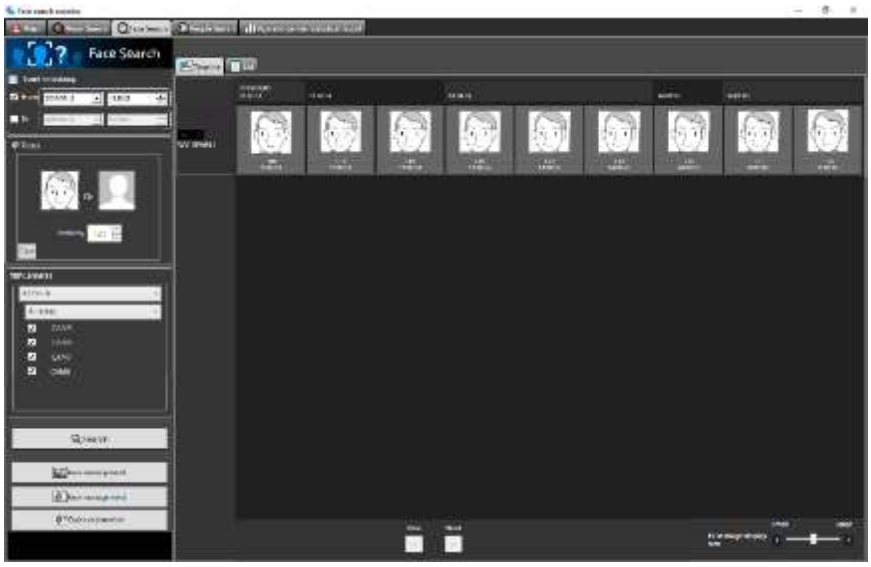


Click the [Search] button.
→ The search result window will be displayed.
There are two ways of how to display the search result; [Timeline] and [List].

<When displaying in Timeline/Location>

Click the [Timeline] tab.

A mapped thumbnail image of the search result will be displayed on the plane made by two axes of "timeline" and "location".

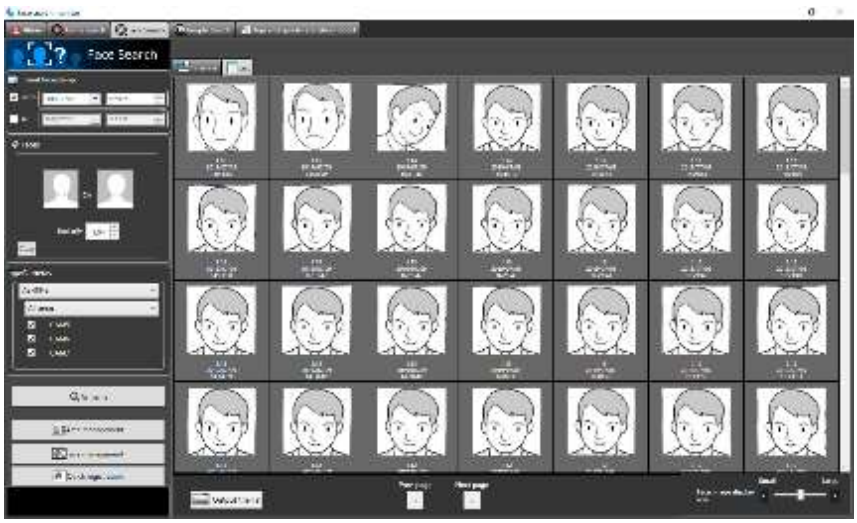


<When displaying in [List]>

Click the [List] tab. The search result will be displayed with thumbnail images in list form.

When "Face image" is set for the search condition, the search result will be listed in order of the highest score of similarity.

When "Face image" is not set for the search condition, the search result will be listed in order of the detection time.



Note:

<In the case of WV-ASF900>

- Up to 25600 events from the end time will be displayed in [Timeline/Location] and [List].

<In the case of WV-ASF950 (version less than 2.20)>

- In the timeline view, 2560 faces are searched from the end time, and up to 512 faces per server are displayed.
- In the list view, it is searched in a range of 24 hours from the end time, and up to 512 faces are

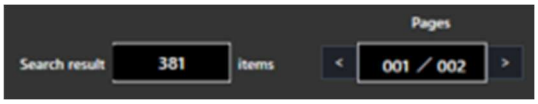
displayed.

<In the case of WV-ASF950 (version 2.20 or later)>

- When "Face image" is set for the search condition in the list view, you can specify the start date and time and the end date and time within 24 hours, and a maximum of 512 faces are displayed.

■ Number of search, page information <In the case of WV-ASF900 or WV-ASF950 (version less than 2.20)>

Total number of search result and the page number of the currently displayed page will be displayed as shown below.
The buttons to turn pages will be displayed as shown below.



■ Page transition button <In the case of WV-ASF950 (version 2.20 or later)>

The buttons to turn pages will be displayed as shown below.

<When displaying in Timeline/Location>



Next: The search results closer to the current time will be displayed.
Prev.: The search results will be displayed retroactively.

<When displaying in [List]>

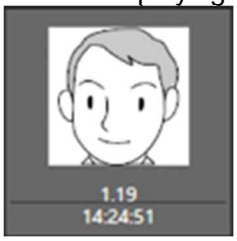


Next page: When "Face image" is not set for the search condition, the search results will be displayed retroactively. When "Face image" is set for the search condition, the search results with lower similarity will be displayed.
Prev. page: When "Face image" is not set for the search condition, the search results closer to the current time will be displayed. When "Face image" is set for the search condition, the search results with higher similarity will be displayed.

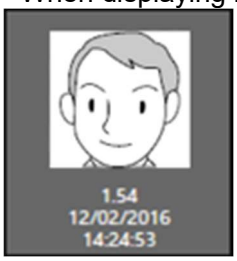
■ Attribute information

In the search result, the face image and the additional information of "Similarity" and "Time & date" (when image is captured) will be displayed. In addition, in case of a listed location, “Year/Month/Day” (when image is captured) will also be displayed.

<When displaying in Timeline/Location>



<When displaying in [List]>



■ **Face image display size**

The size of the image to be displayed can be changed by operating the bar.
The image size can be selected from 5 different sizes.
1 (Small): 72×72, 2: 90×90, 3: 120×120, 4: 140×140, 5 (Large): 180×180



This function is available only when displayed by “Timeline” or “List” of the face search result window, or when displayed
by “Location/List” of “☞4.7.3.1. Search by time and date”.

■ **Original size display**

The face image can be displayed in its original size.
If the cursor is moved over a thumbnail image,  will be displayed at the bottom right of the image.



When  is clicked, the face image will be displayed in its original size in the another window.



Note:

- The original size image can also be displayed by right-clicking on the thumbnail to show the pop-up menu. Select [Display the original size of this face image].

- More than two images cannot be displayed.
- Click the [×] button to close the window.

Operation from thumbnail image of search result

The following are available by operation using thumbnail image of search result

- People search
  Right-click on the thumbnail image and select [People search] from the menu.

→ The people search for the selected face image will be automatically started.

- Apply to search condition of the people search
  Right-click on a thumbnail image and select [Set to People Search 1] or [Set to People Search 2] from the right-click menu.

→ The selected image will be displayed in the section of "Faces" of the "People Search" window.

- Apply to filter of the face search
  Right-click on a thumbnail image and select [Set to Face Search 1] or [Set to Face Search 2] from the right-click menu.

→ The selected image will be displayed in the section of "Faces" of the search display window.

- Register as a person (face) of whom alarm is to be notified
  Right-click on the thumbnail image and select "Register this face" from the right-click menu.

→ The "Select and register face image from file" window will be displayed.
(To “☞4.7.7.1. Register from a face thumbnail image”)

- Additional registration of a parson (face) to the existing registrations of alarm notification
  Right-click on the thumbnail image and select "Additionally register this face image" from the right-click menu.

→ The list window of registered face images will be displayed.
(To “☞4.7.8. Register 2 or more face images of a same person”)

- Right-click on a recorded image on the playback thumbnail image and select "Play the video" from the right-click menu.

→ Image recorded at the alarm occurrence time will be played. Recorded images will be played on the operation window.

Note:

- When the operation window is used with a multi-screen, it will be switched to 1-screen.
- It is also possible to play recorded images by double-clicking a thumbnail image.
- The [People search], [Set to People Search 1], and [Set to People Search 2] menus will be displayed only if the people search server exists.

4.7.1.4. Output face search result in HTML

The face search result can be output in a HTML file.

Step 1

Click the [List] tab of the [Face search] page, and then click the 

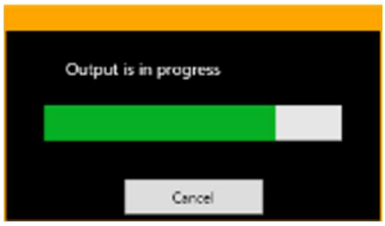
button.

→ The window for specifying the destination folder of the saving file will be displayed.

Step 2

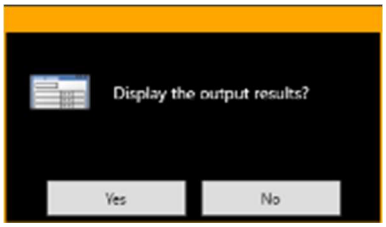
Specify the destination folder of the saving file, name the file, and then click the [OK] button.

→ The window to show the output progress will be displayed.



A dated folder will be automatically created in the specified folder, and a file will be saved there with the specified name.

Step 3
When the file saving process is complete, confirmation window for displaying the result will be displayed.



Click [OK] button to open the output HTML file in the browser.

Note:

- The 

button will not be displayed if the user is not authorized for output of a list of searched faces.
- When HTML tag is entered in "Remarks" on the face image registration screen, the layout of the output HTML file may be affected.

4.7.2. Check the alarm notification

Alarm notifications for face search include face matching alarm notifications and unregistered face detection alarm notifications.

<In the case of face matching notification message>
The face matching alarm notification message will be displayed in a pop-up window (alarm notification window) on the operation window in the following cases.

- When using WV-ASF900 or WV-ASF950 (version less than 2.00) and a person registered with the face search monitor is detected by the camera.
- When the operation mode of the facial recognition server is the "registered face detection" mode, and a person registered on the face search monitor is detected by the camera.
- When the operation mode of the facial recognition server is the "registered face/unregistered face detection" mode, and a person registered on the face search monitor is detected by the camera as a registered face.



■ **Face matching alarm notification message**

Alarm information, number of alarms, time & date of the alarm occurrence, device name in which an alarm has occurred (facial recognition server name), the title of the camera, category color, category name, matching face and registered face will be displayed.
Also, the content of "Remarks" set during face registration will be displayed in the tool tip when the mouse cursor is placed on the alarm notification message window.

<In the case of unregistered face detection notification message>

The unregistered face detection alarm notification message will be displayed in a pop-up window (alarm notification window) on the operation window in the following cases.

- When the operation mode of the facial recognition server is the "registered face/unregistered face detection" mode and a person not registered on the face search monitor is detected by the camera.
- When the operation mode of the facial recognition server is the "registered face/unregistered face detection" mode and a person registered on the face search monitor is detected by the camera as an unregistered face.



■ **Unregistered face detection alarm notification message**

Alarm information, number of alarms, date & time of the alarm occurrence, device name in which an alarm has occurred (facial recognition server name), area name and the title of the camera, matching face, and registered face will be displayed.

Note:

- The unregistered face detection alarm notification message window will be popped up when using WV-ASF950 version 2.00 or later.
- The following image will be displayed as a registered face image on the unregistered face detection alarm notification message window.



4.7.2.1. Display the alarm notification window

When received a face search alarm notification or an unregistered face detection alarm, contents of the alarm will be displayed in list form.

Step 1

Click the [Alarm] tab on the face search monitor.



The details are as follows.

■ **Display the face image to be registered**

In the face image registration, the representative face image for which "Constant display" is set will be displayed per category.
(It is available when "ON" is selected for "List of high profile persons" of the setup window.)
If alarm is constantly displayed, it is enclosed with a red frame. The red frame will be canceled if it is clicked.

■ **Category**

Category name that is set when registering face image

Note:

- When received an unregistered face detection alarm notification, it will be blank.

■ **Time & date**

Time and date when the face search alarm or the unregistered face detection alarm is occurred

■ **Camera**

Name of the camera that notified of the face search alarm or the unregistered face detection alarm

■ **Matching face**

Indicates the thumbnail image verified by the facial recognition server

■ **Registered face**

Indicates the matched face image by the face search in the registered face thumbnail images

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Note:

- The following image will be displayed as a registered face image on the unregistered face detection alarm notification message window.



■ **Name**

Indicates name of registered person

Note:

- When received an unregistered face detection alarm notification, it will be blank.

■ **Remarks**

Additional information relating to the registered person (face), etc.

Note:

- When received an unregistered face detection alarm notification, it will be blank.

■ **Similarity**

Similarity between the face registered in advance and the detected face

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Note:

- When a window (such as the alarm search window, face search window, or the age and gender window) other than the [Alarm] tab page on the face search window is displayed, the displayed window will not automatically be switched to the [Alarm] tab page even if received an alarm notification.
- The list is displayed in two rows. The upper row of the list displays three alarms from the latest. The lower row of the list can be scrolled.
- When displaying the [Alarm] page for the first time, or when re-opening the "Face search monitor" window, latest 100 alarms will be displayed on the screen.
- When other user deletes an alarm (☞4.7.2.3. Delete occurred alarms from the list), the corresponding alarm will be deleted from the list.
- When received an unregistered face detection alarm notification, it will be blank.

4.7.2.2. Play images recorded by the alarm

recording

Play images recorded at the alarm occurrence time from the recorder.

Step 1
Right-click on a line of the person who is to be checked in video from the notification list on the [Alarm] tab page, and then select [Play the video] from the right-click menu.
→ Recorded images will be played on the operation window.

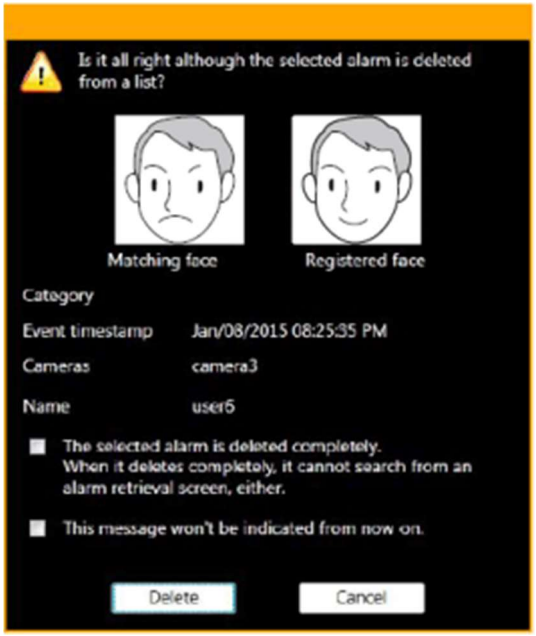
Note:
- When the operation window is used with a multi-screen, it will be switched to 1-screen.
- It is also possible to play recorded images by double-clicking a list item.

4.7.2.3. Delete occurred alarms from the list

Unnecessary alarms can be deleted from the alarm list.

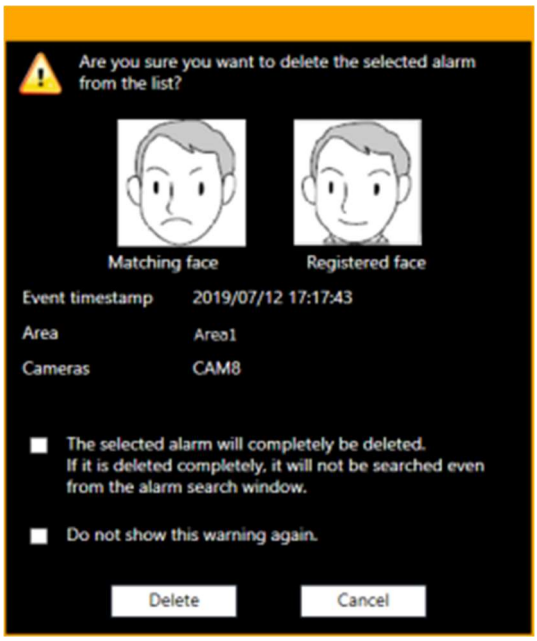
Step 1
Click the  button on the line of the deleting image in the list of the [Alarm] tab.
→ The deletion confirmation window will be displayed.

< In the case of WV-ASF900 or WV-ASF950 (version less than 2.00) or WV-ASF950 [version 2.00 or later (registered face detection mode)]>



Matching face, registered face, category, date & time of alarm occurrence, the title of the camera, and name will be displayed.

<In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)]>



Matching face, registered face, date & time of alarm occurrence, area name, and the title of the camera will be displayed.

Note:

- When received an unregistered face detection alarm notification, the following image will be displayed as a registered face image.



Step 2

Click the [Delete] button.

→ The selected alarm will be deleted and restores the [Alarm] page.

Note:

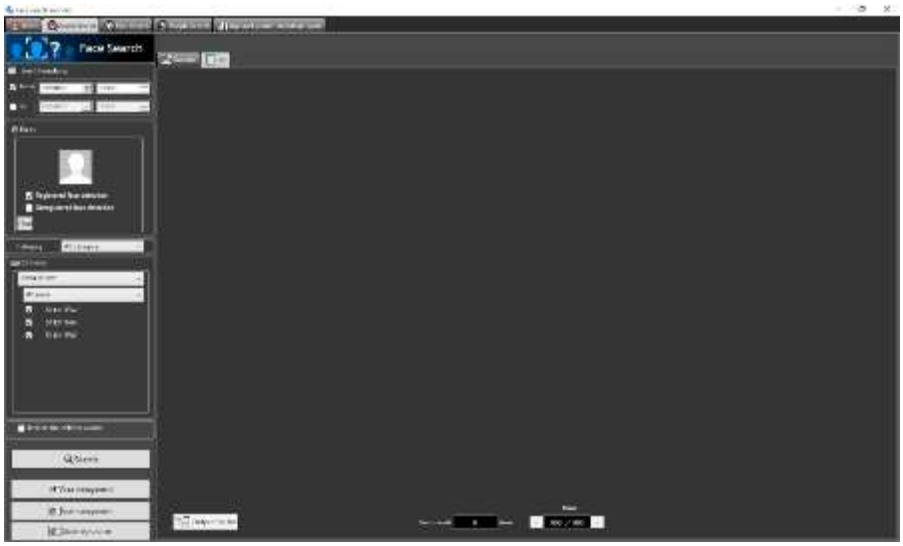
- Normally, the deletion only deletes data from the list. The facial recognition server still keeps the data. If the check mark of "The selected alarm is deleted completely." is removed, data will completely be deleted from the facial recognition server and it will become impossible to search from the alarm search window after this.
- When the checkbox of "This message won't be indicated from now on." is checked, the deletion confirmation window will not be displayed for subsequent deletions and alarms will immediately be deleted from the list. To display the delete confirmation window again, set "ON" for "Face alarm deletion confirmation window" of the setup software.
  Refer to "☞ 3.10.4. Configure the behavior setting of the face search" for further information.
- The  button will not be displayed if the user is not authorized for deletion of alarms.
- When failed to connect with the facial recognition server upon the startup of the face search monitor, the [Delete] button will not be displayed even after the connection with the facial recognition server is established. To display the [Delete] button, restart the face search monitor.

4.7.3. Search the alarm notification

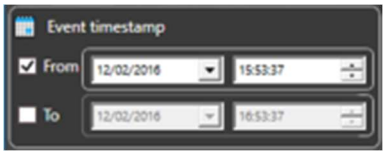
4.7.3.1. Search by time and date

Perform the alarm notification search by designating time and date.

Step 1
Click the [Alarm search] tab on the face search window.



Step 2
Select the start time and the end time of [Time & date].



■ **Start Time**

Select the start time of period to be searched.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

■ **End Time**

Select the end time of period to be searched.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step).

Note:

- If the "Deleted alarm is included" checkbox is checked and searched, the deleted alarm images will also be included as search targets. However, completely deleted images will not be displayed.
- For the deleted alarm images,  will be displayed.



Step 3
Click the [Search] button.
→ The search result window will be displayed.

4.7.3.2. Search by person (face)

Perform the face search by designating face features.

Step 1
Click the [Alarm search] tab on the face search window.

Step 2
Designate a face image.



■ **Person icon**

The face image setting can be configured as follows.
- Display the "List of registered faces" window by left-clicking the person icon, and then select a face image.
- Right-click on the person icon, and then select from the following menu.

[Select from list of registered faces.]
- Drag and drop the face image of the search result onto the person icon.

■ **Alarm search condition (In the case of WV-ASF950 version 2.00 or later (registered face/unregistered face detection mode))**

Select the alarm to search for.
- Registered face detection: Search for the face matching alarm notifying that the person registered was detected by the camera.
- Unregistered face detection: Search for the unregistered face detection alarm notifying that the person unregistered was detected by the camera.

Default: Select both

Note:

- When the face image is set to the person icon while both are selected, the selection of unregistered face detection alarm will be cleared automatically.
- When face image is set to the person icon, registered face detection alarm is selected automatically. In this state, when deselecting the registered face detection alarm, the face image will be cleared automatically.
- When a face image is set for the person icon and an unregistered face detection alarm is selected, the face image will be cleared automatically.

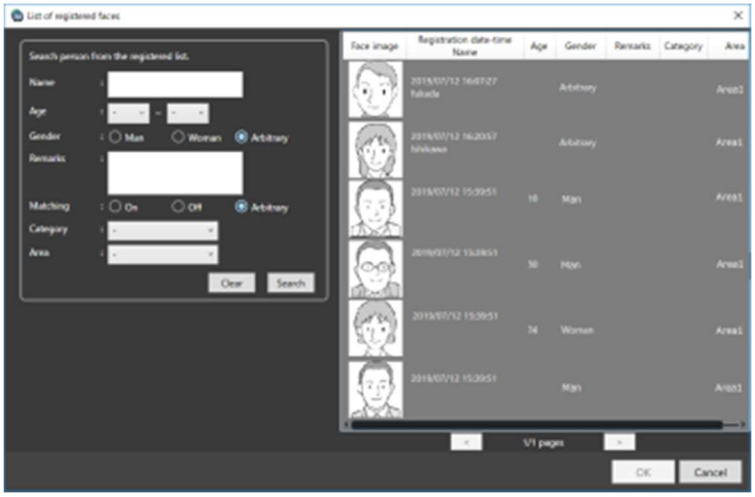
■ [Clear] button

Clear the search condition.

Designate the person (face image) to be searched

- Select from the registered images
  Right-click on a person icon of [Faces] on the [Alarm Search] tab page and select [Select from list of registered faces.] from the right-click menu.

→ The "List of registered faces" window will be displayed.



■ List item

Select a person to be searched from the "List of registered faces" displayed on the right side.

■ [OK] button

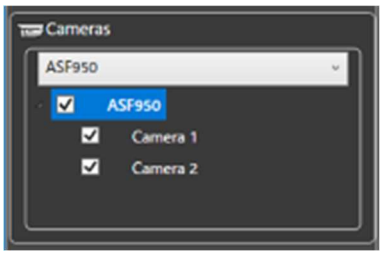
Closes the "List of registered faces" window and applies to the search condition.

■ [Cancel] button

Closes the "List of registered faces" window and cancels to apply to the search condition.

Designate the camera to be searched
Check the checkbox of the camera to be searched.

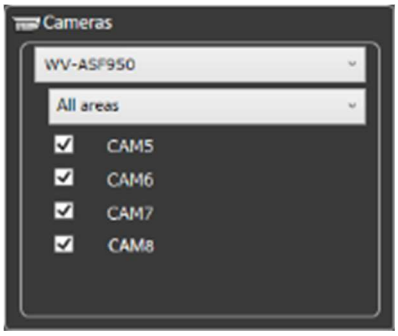
< In the case of WV-ASF900 or WV-ASF950 (version less than 2.00) or WV-ASF950 [version 2.00 or later (registered face detection mode)]>



Note:

- The cameras obtained by "Face search - server registration" of the setup window will be displayed in the tree.
- When the checkbox of "Parent node (server)" is checked, the checkboxes of all the child nodes will be checked automatically.
- When the checkbox of "Parent node (server)" is unchecked, the checkboxes of all the child nodes will be unchecked automatically.

<In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)]>



Note:

- The area set in the “Area management” window and the cameras registered in the area (camera registered in the selected server) will be displayed in the tree. Refer to "☞ 4.7.4. Set area" about the area.

Step 3

Click the [Search] button.

→ The search result window will be displayed.

4.7.3.3. Search by category

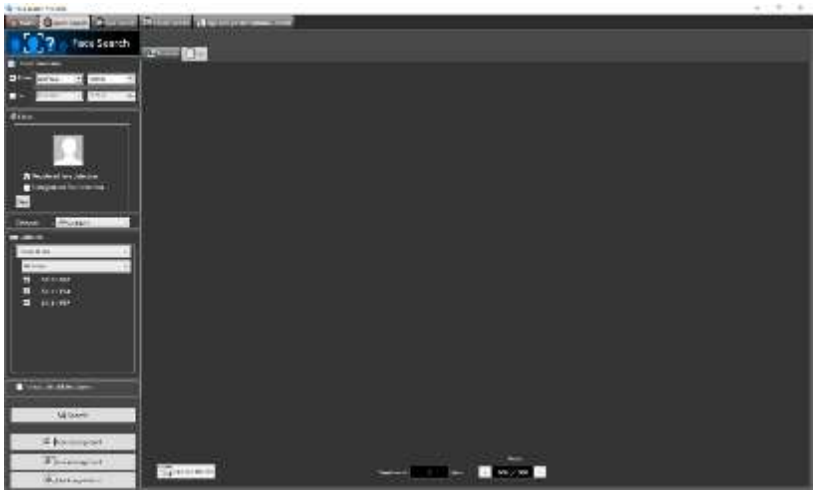
Search for alarm notifications by specifying a category.

Note:

- The search function by category can be available by the facial recognition server WV-ASF950 version 3.00 or later.

Step 1

Click the [Alarm search] tab on the face search window.



Step 2
Select a category.



■ **Category**

Select the category to be searched.
In the list, the category names set in [Category setting] under [Face search] on the setting window are displayed.

All Category: All categories will be searched.
No Category: Search for alarms for faces who have not been set by category.

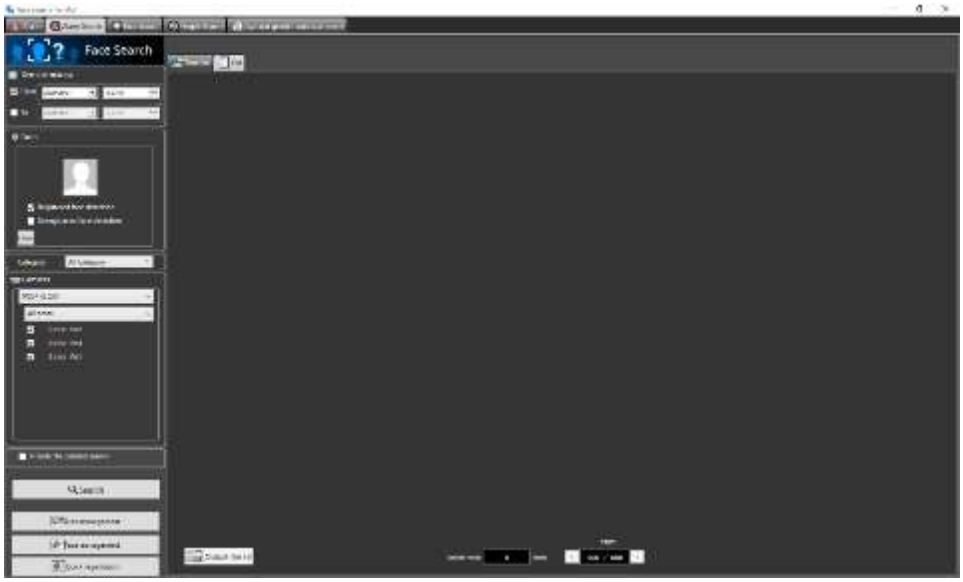
Note:

- When “Unregistered face detection” on [Faces] is checked, the category cannot be selected.

Step 3
Click the [Search] button.

→ The search result window will be displayed.

4.7.3.4. Play recorded image in search result



Click the [Search] button.

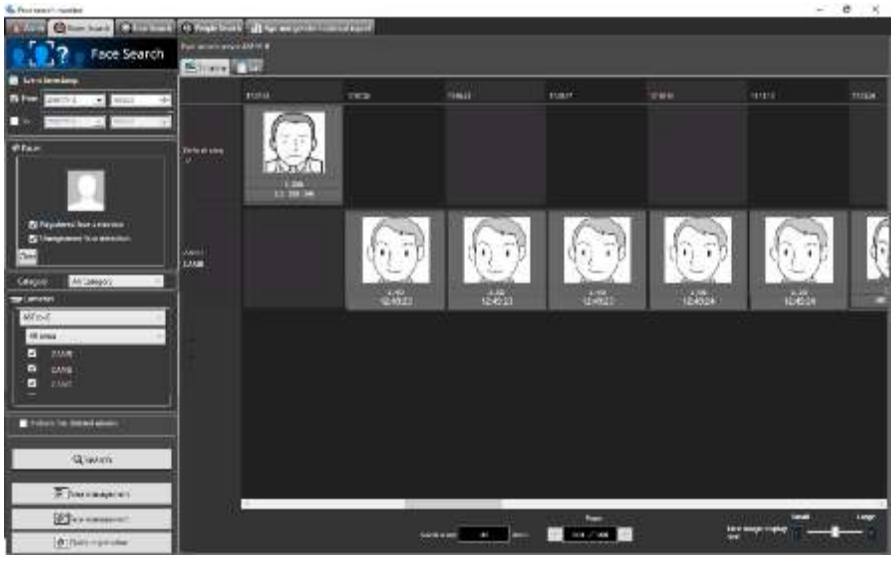
→ The search result window will be displayed.

There are two types of displaying the search result; [Timeline] and [List].

<When displaying in Timeline/Location>

Click the [Timeline] tab.

A mapped thumbnail image of the search result will be displayed on the plane made by two axes of "timeline" and "location".



<When displaying in [List]>

Click the [List] tab. Search result will be displayed in list form.



Note:

- When received an unregistered face detection alarm notification, the following image will be displayed as a registered face image.



■ Number of the search result, page information

Total number of search result and the page number of the currently displayed page will be displayed as shown below.
The buttons to turn pages will be displayed as shown below.



Operation from thumbnail image of search result

The following are available by operation using thumbnail image of search result

- Apply to filter of the face search
  Right-click on a thumbnail image and select [Set to Face Search 1] or [Set to Face Search 2] from the right-click menu.

→ The selected image will be displayed in the section of "Faces" of the search display window.

- Register as a person (face) of whom alarm is to be notified
  Right-click on the thumbnail image and select "Register this face" from the right-click menu.

→ The "Select and register face image from file" window will be displayed. (To “☞4.7.7.1. Register from a face thumbnail image”)

- Additional registration of a parson (face) to the existing registrations of alarm notification
  Right-click on the thumbnail image and select "Additionally register this face image" from the right-click menu.

→ The list window of registered face images will be displayed. (To “☞4.7.8. Register 2 or more face images of a same person”)

- Apply to filter of the alarm search
  Right-click on a thumbnail image and select [Set to alarm search] from the right-click menu.

→ The selected image will be displayed in the section of "Faces" of the alarm search display window.

- Playback of recorded images

Right-click on a thumbnail image and select [Play from a recorded time & date] from the right-click menu.

→ Image recorded at the alarm occurrence time will be played. Recorded images will be played on the operation window.

Note:

- When the operation window is used with a multi-screen, it will be switched to 1-screen.
- It is also possible to play recorded images by double-clicking a thumbnail image.

4.7.3.5. Output alarm search result in HTML format

The alarm search result can be output in a HTML file.

Step 1

Click the [List] tab of the [Alarm search] page, and then click the 

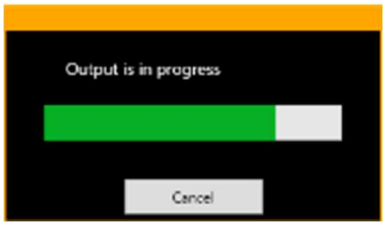
button.

→ The window for specifying the destination folder of the saving file will be displayed.

Step 2

Specify the destination folder of the saving file, name the file, and then click the [OK] button.

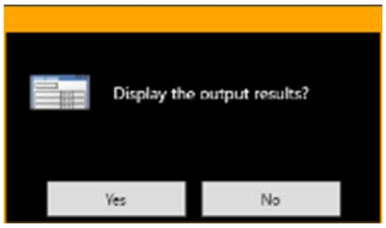
→ The window to show the output progress will be displayed.



A dated folder will be automatically created in the specified folder, and a file will be saved there with the specified name.

Step 3

When the file saving process is complete, confirmation window for displaying the result will be displayed.



Click [OK] button to open the output HTML file in the browser.

Note:

- The 

button will not be displayed if the user is not authorized for output of a list of searched face alarms.
- When HTML tag is entered in "Remarks" on the face image registration screen, the layout of the output HTML file may be affected.

4.7.4. Set area

It is possible to select an operation to notify an alarm when a registered person is detected by the camera and an operation to notify an alarm when an unregistered person is detected by the camera for each area. The cameras can be set in the area to detect a person.

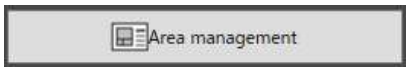
Note:

- Area setting is possible when using WV-ASF950 version 2.00 or later (registered face/unregistered face detection mode).
- The camera always belongs to one of the areas.

4.7.4.1. Add area

Step 1

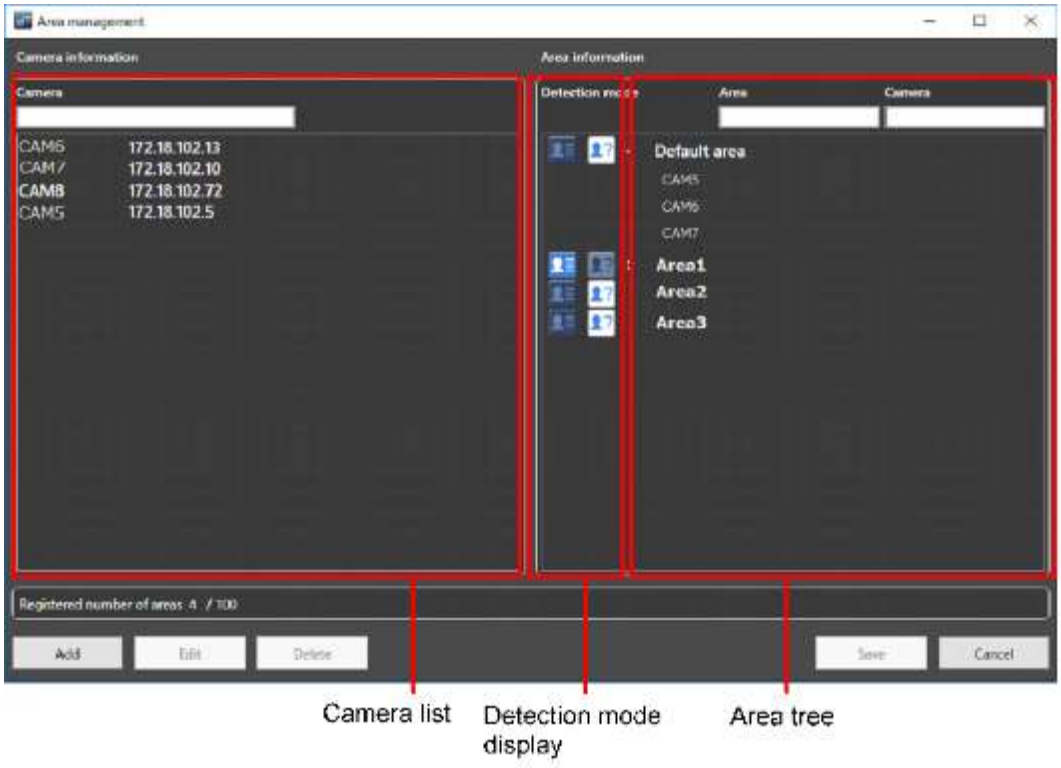
Click the [Area management] button in one of the following tabs, [Alarm], [Alarm search] or [Face search].



→ The “Area management” window will be displayed.

Note:

- If a user without authorization of "Area setting in face alarm" is logged in, the [Area management] button will not be displayed. For information on the user rights, refer to "☞ 3.4.3. User level setup".



The details of the window are as follows.

■ **Camera list**

Display all cameras registered on the facial recognition server.
By entering characters in the camera name search field, only the relevant camera will be displayed.

Note:
- Cameras in the camera list can be added by dragging and dropping anywhere in "Area tree". At this time, you can select multiple cameras.

■ Detection mode display

Display the detection mode for each area.


Indicate that registered face detection is set.


Indicate that unregistered face detection is set.

■ Area tree

Displays cameras registered in the area in a tree format.
By entering part of the area name or part of the camera name in the search field, the relevant area or relevant camera will be searched for.

Default: There is a default area, and all cameras are registered in the default area.

Note:
- The cameras can be moved between areas by dragging and dropping cameras in "Area tree".
- The display order of areas can be changed by dragging and dropping areas in the area tree. The display order for the camera can be also changed as well.

■ [Add] button

Add a new area.

Note:
- Up to 100 areas can be registered.

■ [Edit] button

Edit the area name and the detection mode.

■ [Delete] button

Delete the created area.

■ [Save] button

Save the set content.

■ [Cancel] button

Cancel the edited contents and resets the contents to the state before editing.

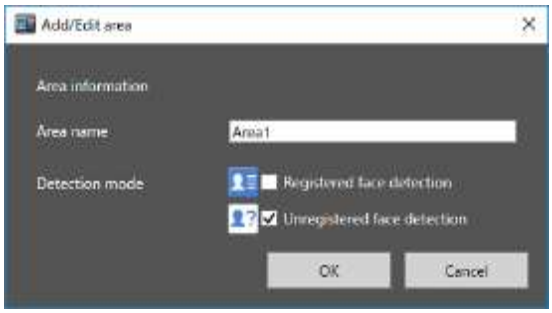
■ Registered number of areas

Number of the registered areas will be displayed.

Step 2

Click the [Add] button.

→ The “Add/Edit area” window will be displayed.



■ **Area name**

Enter the area name within 20 characters. Symbols except full-width symbols cannot be entered.

■ **Detection mode**

Select whether to detect registered faces in the area or unregistered faces in the area.
Refer to “☞ 4.7.7. Register a face for the alarm notification” for area selection at face registration.

- Registered face detection: Detects a person registered in the "Registered face detection" area and issues an alarm.
- Unregistered face detection: Detects a person not registered in the "Unregistered face detection" area and issues an alarm.

Initial state: Unregistered face detection

■ **[OK] button**

Complete the settings and close the window.

■ **[Cancel] button**

Cancel the edited contents and close the window.

Step 3

After setting the area information, click the [OK] button.

→ Area registration is completed and the window returns to the “Area management” window.

Step 4

Drag and drop the cameras in the camera list to the area in the area tree.

→ The camera will be added to the registered area.

Note:

- To move cameras at once, selecting multiple cameras by mouse operation and dragging and dropping them are available.
- When you add a camera to an area tree and drag and drop the same camera from the camera list to a different area, that camera will move automatically in the area tree.

Step 5

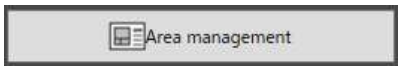
Click the [Save] button.

→The settings will be saved. If not registering, click the [Cancel] button.

Important:
- After clicking the [Save] button, restart this software on this PC and the facial recognition servers to reflect the settings.

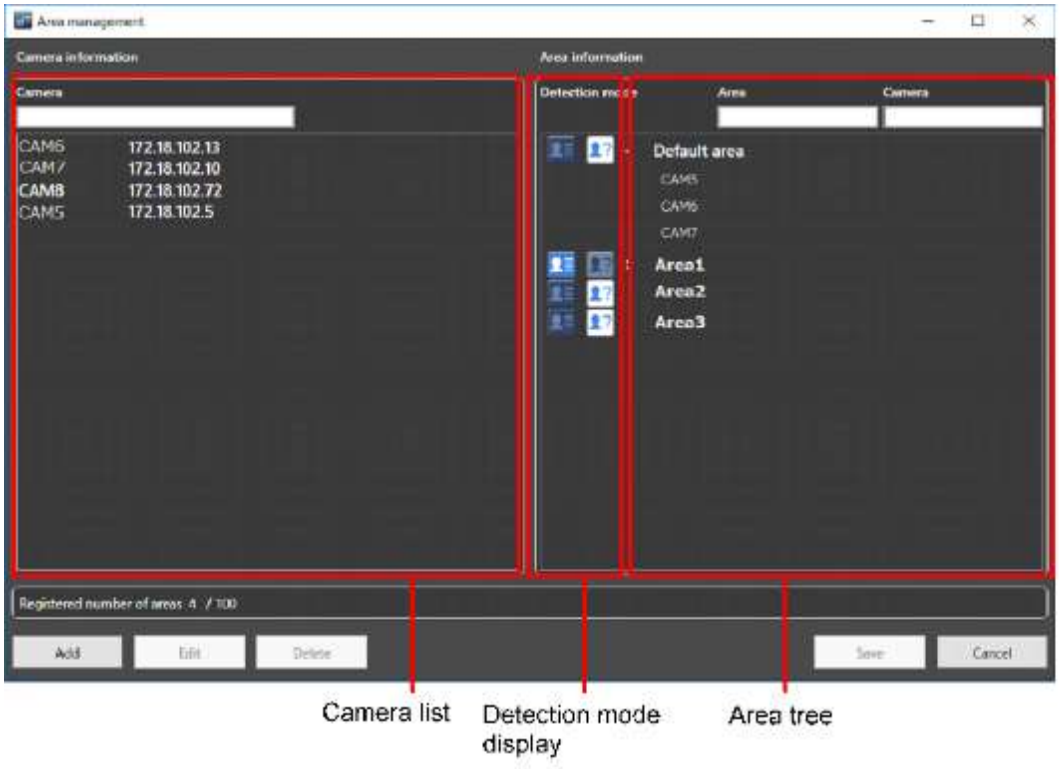
4.7.4.2. Edit area

Step 1
Click the [Area management] button in one of the following tabs, [Alarm], [Alarm search] or [Face search].



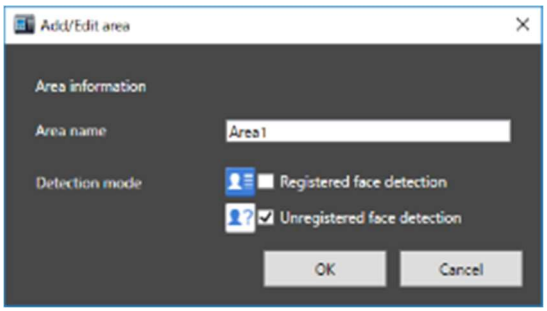
→ The “Area management” window will be displayed.

Note:
- If a user without authorization of "Area setting in face alarm" is logged in, the [Area management] button will not be displayed. For information on the user rights, refer to "☞ 3.4.3. User level setup".



Step 2
After selecting the area to be edited, click the [Edit] button.

→ The “Add/Edit area” window will be displayed.



Step 3
Edit the area name. If you change the face detection type of the area, edit the detection mode.

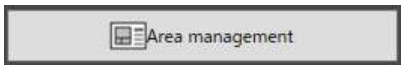
Step 4
Click the [OK] button.
→ Area registration is completed and the window returns to the “Area management” window.

Step 5
Click the [Save] button.
→ The settings will be saved. If not registering, click the [Cancel] button.

Important:
- After clicking the [Save] button, restart this software on this PC and the facial recognition servers to reflect the settings.

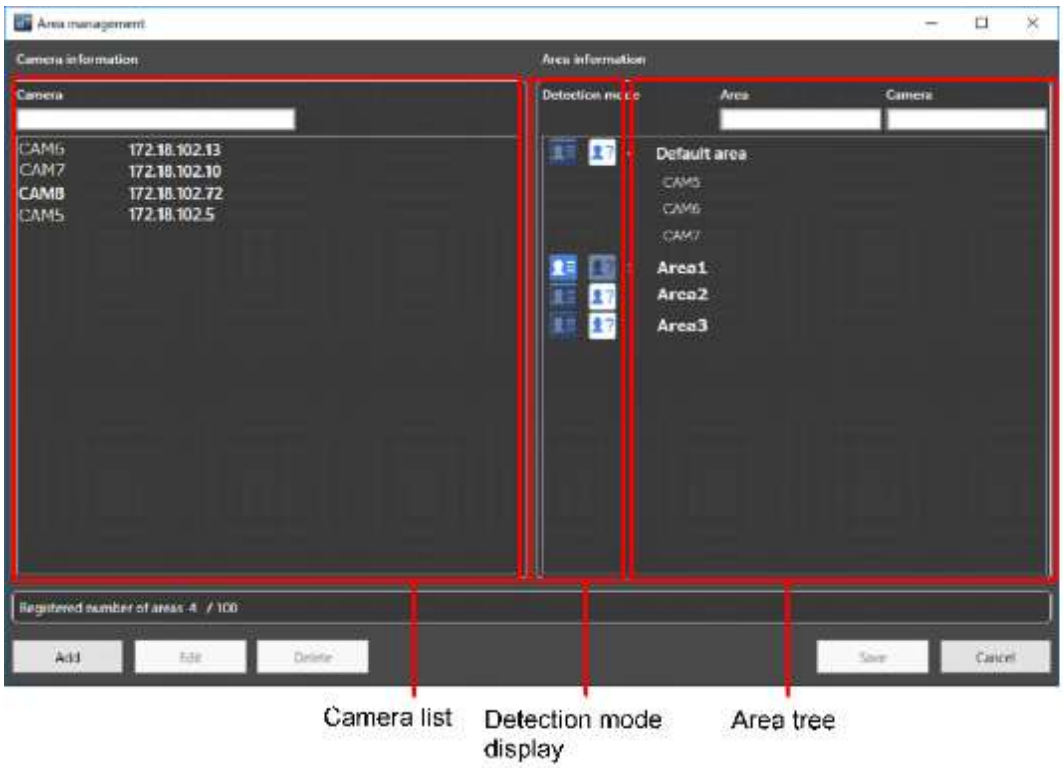
4.7.4.3. Delete area

Step 1
Click the [Area management] button in one of the following tabs, [Alarm], [Alarm search] or [Face search].



→ The “Area management” window will be displayed.

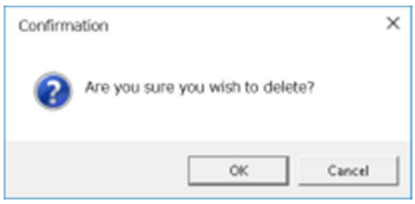
Note:
- If a user without authorization of "Area setting in face alarm" is logged in, the [Area management] button will not be displayed. For information on the user rights, refer to "☞ 3.4.3. User level setup".



Step 2

After selecting the area to be deleted, click the [Delete] button.

→ The deletion confirmation window is displayed.



Step 3

Click the [OK] button.

→ Area registration is completed and the window returns to the “Area management” window.

Note:

- When a camera is registered in the selected area, the area cannot be deleted. After moving the camera to another area, delete the area.
- The default area cannot be deleted.

Step 4

After deleting the area, click the [Save] button.

Important:

- After clicking the [Save] button, restart this software on this PC and the facial recognition servers to reflect the settings.

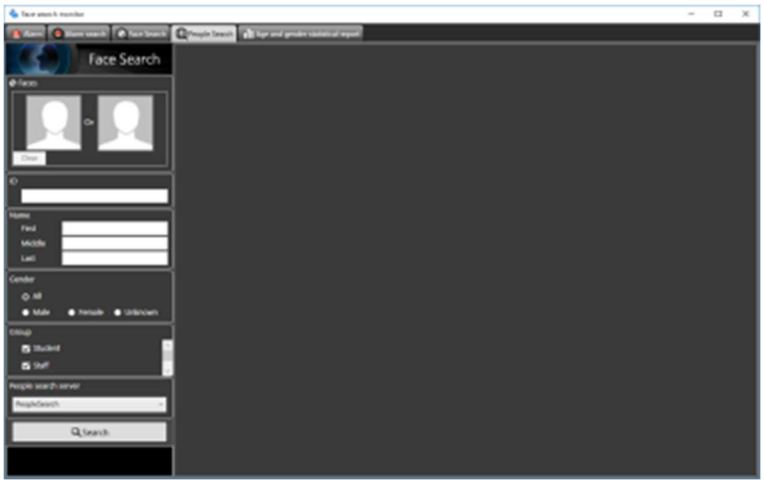
4.7.5. Search for designated people

4.7.5.1. Search by face

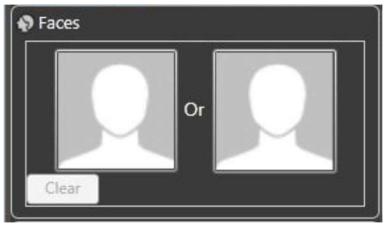
Perform the face search by designating the face.

Important:
- To use the people search function, it is necessary to purchase WV-ASF900 and the extension software WVASE231.Also, the people search server needs to be connected.

Step 1
Click the [People Search] tab on the face search monitor.



Step 2
Designate a face image.



■ **Person icon**

The face image setting can be configured as follows.
- Display the "Select face image from snapshot" window by left-clicking the person icon, and then select a face image. For details, refer to "How to set up a face image from snapshot".
- Right-click on the person icon, and then select from the following menu.
  [Select face image from the snapshot]
  [Select from list of registered faces]
- Select a face image from the displayed "List of registered faces".
- Right-click on a face image of paused playback image of ASM200 operation software, and then select [Set to People Search 1] or [Set to People Search 2] from the displayed right-click menu.
  (The "Face thumbnail list" will be displayed in the playback window.)

- Right-click on the result display of the "Alarm" page, "Alarm search" page, or "Face Search" page, and then select [Set to People Search 1] or [Set to People Search 2] from the menu.

■ **[Clear] button**

Clear both the images of filter 1 and filter 2.

4.7.5.2. How to set up a face image from snapshot

Left-click on a person icon on the "Faces" of the "People Search" page.

→ The "Select face image from snapshot" window will be displayed.

■ **[Ref.] button**

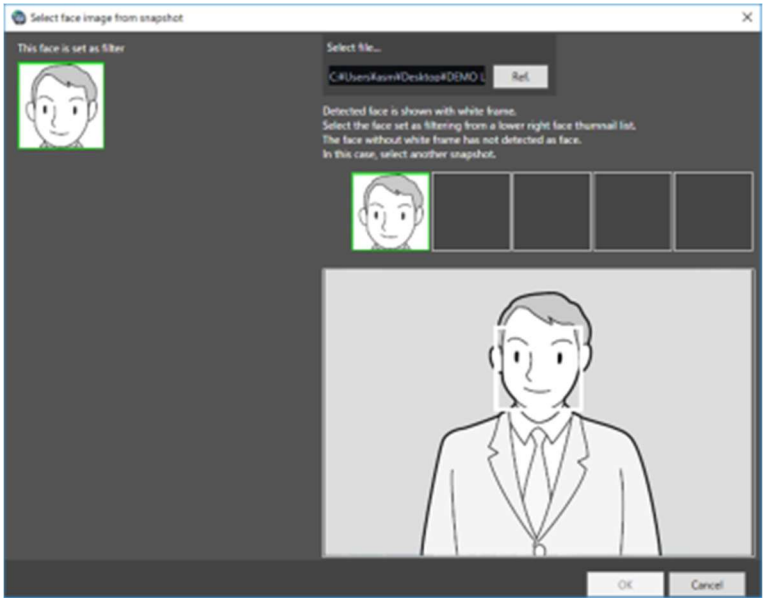
Select an image file to be read on the "Select face image from snapshot" window.

Note:

- The available file formats are JPEG, PNG and BMP.

■ **Snapshot display area**

When an image file is read out, the face detection process will be carried out and white border frame will be displayed around each face.
The detected faces will be displayed above the image.



■ **Image display area for setting the search condition**

The selected face image will be displayed.

■ **[OK] button**

Close the registration window and apply the search condition.

■ **[Cancel] button**

Click this button to quit the registration window. The search condition will not be updated.

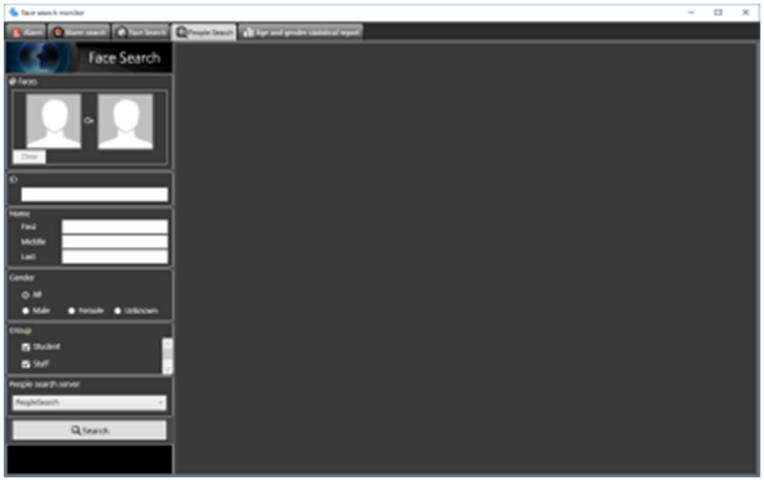
Step 1
Click the [Search] button.
→ The search result will be displayed.

Note:
The search result will be listed in order of the highest score of similarity.
Up to 100 search results will be displayed.
The search can be filtered by "Name", "Gender", "Group", or "ID".
The filter items "Name", "Gender", "Group", or "ID" may not be displayed depending on the settings of the people search server.
Right-click on the target person and select [Set to Face Search 1] or [Set to Face Search 2] from the right-click menu.
→ The selected image will be displayed in the section of "Faces" of the search display window.

4.7.5.3. Search by ID

Perform the face search by designating ID.

Step 1
Click the [People Search] tab on the face search monitor.



Step 2
Enter the ID.



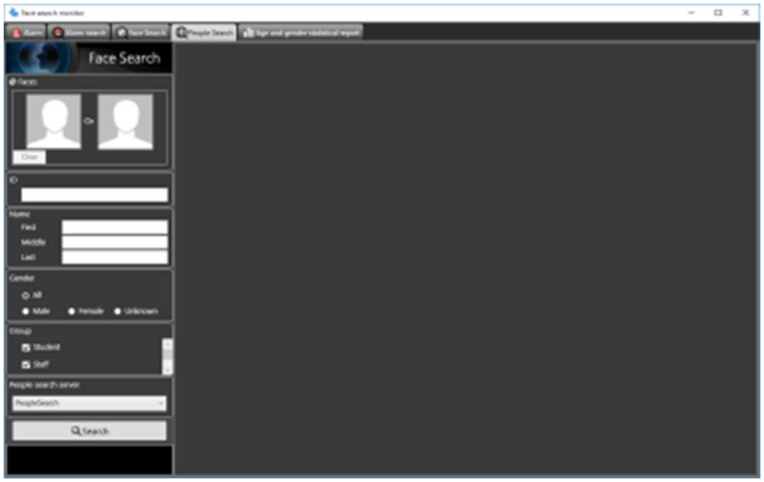
Step 3
Click the [Search] button.
→ The search result will be displayed.

Note:
- The front part matching is available for search by ID (full number does not need to be entered).
- The "ID" may not be displayed depending on the settings of the people search server.

4.7.5.4. Search by name

Perform the people search by designating the name.

Step 1
Click the [People Search] tab on the face search monitor.



Step 2
Enter the name.



Step 3
Click the [Search] button.

→ The search result will be displayed.

Note:

- The front part matching is available for search by name (full name does not need to be entered).
- There may be multiple fields to enter for the last name and for the first name. Fill the required fields.
- The "Name" may not be displayed depending on the settings of the people search server.

4.7.5.5. Quick search from recorded video

Quick search by designating a face during playback of the recorded images can be performed.

Step 1
Play recorded images while displaying the operation window with 1-screen.

Step 2
Pause the playback when the person to be searched appeared.

→ When detection of the face image succeeded, square frames will be displayed around all the detected faces.

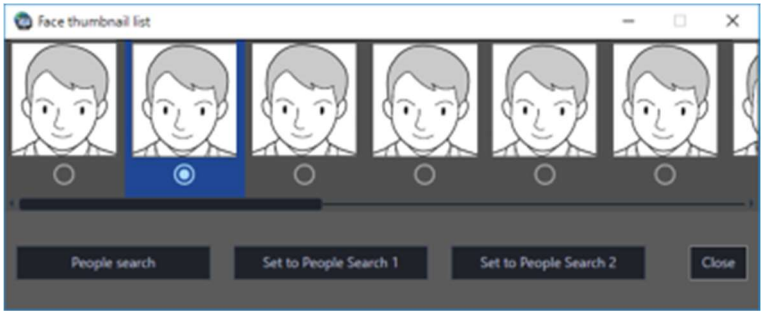
Step 3
Right-click on the face image for people search, and select [People search] from the menu.

→ The people search for the selected face image will be automatically started. After searching, detected faces will be listed.

Note:

- The top listed server on the face search monitor in the "People Search" page will be selected as the search target.

Step 4
The "Face thumbnail list" will be displayed in the playback window as well as the automatic search result.



The detected face images will be checked and verified, and the face image with the highest score will automatically be checked.

To execute people search by designating a face image, click the [People search] button. Also, when the [Set to People Search 1] button or [Set to People Search 2] button is clicked after selecting a face image, the selected image will be displayed in "Faces" of "People Search" window.

Note:

- Also, quick people search can be executed if right-clicked on the result display of the "Alarm" page, "Alarm search" page, or "Face Search" page and [People search] is selected from the menu.

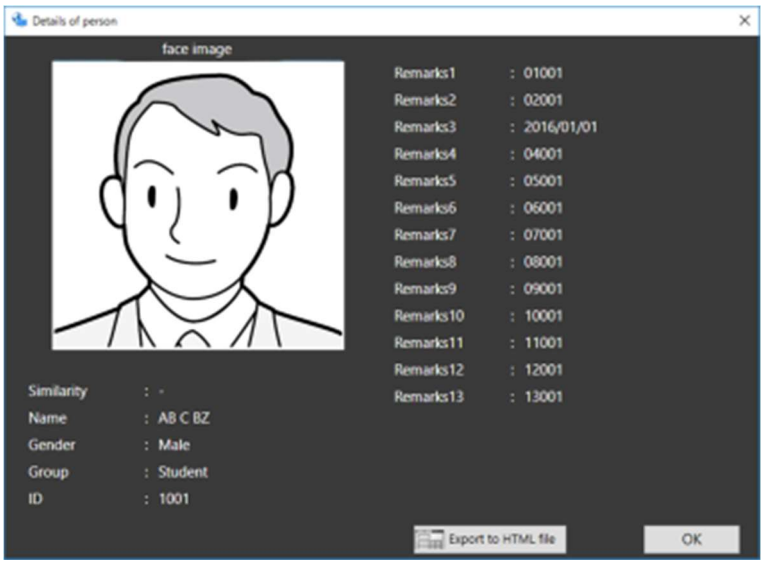
4.7.6. Check the details of people search

4.7.6.1. Check the details of people search window

Display the details of people search.

Select and double-click a person you wish to check the details for from the list displayed in the "People Search" page.

→ The "Details of person" window will be displayed.

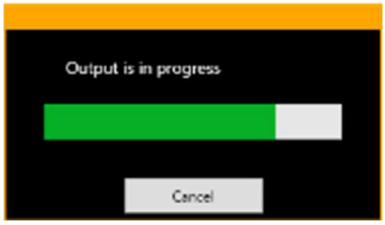


4.7.6.2. Output details of people search in HTML file

The people search result can be output in a HTML file.

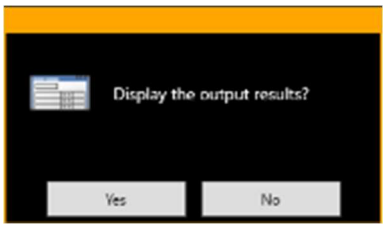
Step 1
Click the [Export to HTML file] button in the "Details of person" window.
→ The window for specifying the destination folder of the saving file will be displayed.

Step 2
Specify the destination folder of the saving file, name the file, and then click the [Save] button.
→ The window to show the output progress will be displayed.



A dated folder will be automatically created in the specified folder, and a file will be saved there with the specified name.

Step 3
When the file saving process is complete, confirmation window for displaying the result will be displayed.



Click [Yes] button to open the output HTML file in the browser.

Note:

- The [Export to HTML file] button will not be displayed if the data of the person is not accumulated enough for output.
- Also, HTML output can be executed by right-clicking the target person on the "People search" window and selecting [Export to HTML file] from the pop-up menu.

4.7.7. Register a face for the alarm notification

Note:

- In the "registered face/unregistered face detection" mode, it is necessary to set "Select area" for each registered person.
- In the area where "Detection mode" on the add/edit area window is registered face detection, an alarm is notified when a person registered in the area is detected.
  In the area where "Detection mode" on the add/edit area window is unregistered face detection, an alarm is notified when a person not registered in the area is detected.

4.7.7.1. Register from a face thumbnail image

It is possible to register from the search result of "Search face" or "Search by person (face)" of "Search the alarm notification".

Step 1

On the search result window of "Search by person (face)", right-click on a face thumbnail image and select "Register this face" from the right-click menu.

→ For WV-ASF950 go to STEP 2-1

→ For WV-ASF900 go to STEP 2-2

Step 2-1

The "Face image Evaluation" window will be displayed.
Check and confirm the face image to be registered by following the displayed instructions, and then click the [OK] button.

→ Go to STEP 3



When the following check point is recognized, consider to register other image by referring to the “Suitable example” window displayed by clicking the [Suitable example] button. Otherwise, it may cause performance deterioration of the face detection function.

(Check item)
The message of “Please consider to register other face image.” is displayed on the screen.

Example (Applicable/Not applicable) of the detected eye position

Example1 (Applicable): The face frame is correctly displayed within the face image area.



Example2 (Not applicable): The size of the face to be registered is not large enough.



Step 2-2

The "Face image Evaluation" window will be displayed.
Check and confirm the face image to be registered by following the displayed instructions, and then click the [OK] button.
→ Go to STEP 3



When any of the following check points are recognized, consider to register other image. Otherwise, it may cause performance deterioration of the face detection function.

(Check item 1)
The message of “Please consider to register other face image.” is displayed on the screen.

(Check item 2)
In the face image, the detected eye positions (red dots) are not positioned on the eyes, or the center position of the upper lip (yellow dot) is largely misaligned from the center of the upper lip.

Example (Applicable/Not applicable) of the detected eye position

Example1 (Applicable): The position of both eyes and the center position of the upper lip are displayed correctly.



Example2 (Not applicable): The position of one of eyes is incorrect.



Example3 (Not applicable): The position of both eyes is incorrect.



Example4 (Not applicable): The position of the upper lip is incorrect.

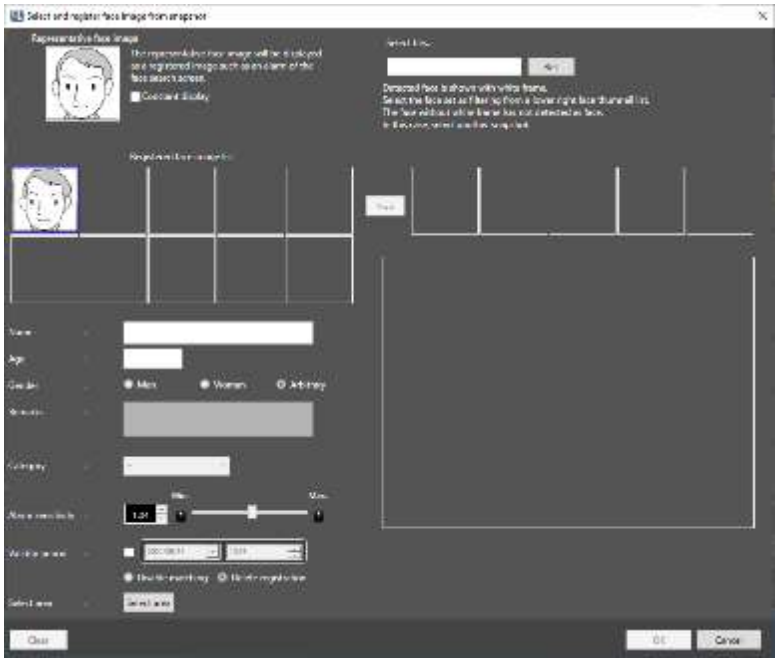


Note:

- It is applicable if each position of both eyes (red dots) and the center position of the upper lip (yellow dot) is displayed approximately at an expected position. There is no problem if the red dot is partially misaligned from the eye or the yellow dot is partially misaligned from the upper lip or the face image.

Step 3

The "Select and register face image from file" window will be displayed.



Enter the following information.

- **Name**
- **Age**
- **Gender**
- **Remarks**
- **Category (Select from the pull-down menu.)**
- **Validity period (Selectable only for WV-ASF950)**

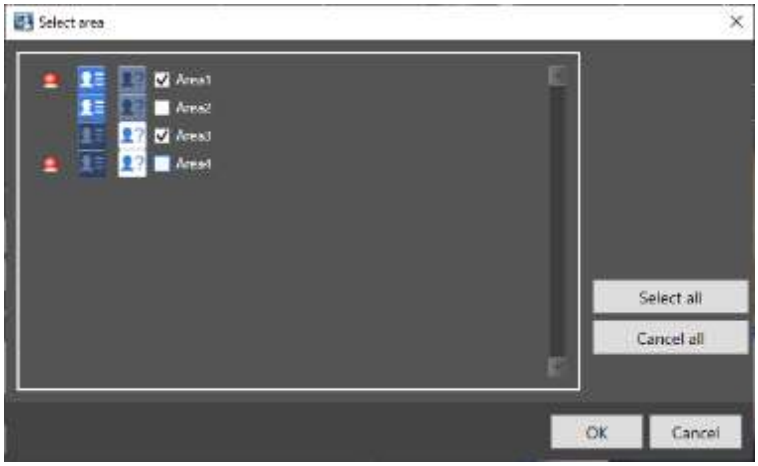
→ In the case of WV-ASF900 or WV-ASF950 version less than 2.00 or WV-ASF950 [version 2.00 or later (registered face detection mode)], go to Step5.

→ In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)], go to Step4.

Step 4

Click the [Select area] button.

→ The "Select area" window is displayed. After selecting the area of the person to register, click the [OK] button.



The details of the window are as follows.

■ **Select area**

Display the registered area and the detection mode for each area.
Select areas for the person to be registered.


Indicates that the registered person will be notified by alarm in the selected area.


Indicate that registered face detection is set.


Indicate that unregistered face detection is set.

Initial state: All areas are not selected.

The following are the examples when selecting areas.

Example 1:

Detection mode	Area name	Checkbox
Registered face detection	Area1	checked

When the camera of area 1 detects a registered person, a face matching alarm will be issued.

Example 2:

Detection mode	Area name	Checkbox
Registered face detection	Area2	unchecked

When the camera of area 2 detects a registered person, no alarm is issued.

Example 3:

Detection mode	Area name	Checkbox
Unregistered face detection	Area3	checked

When the camera of area 3 detects a registered person, no alarm is issued.

Example 4:

Detection mode	Area name	Checkbox
Unregistered face detection	Area4	unchecked

When the camera of area 4 detects a registered person, an unregistered face detection alarm will be issued.

■ **[Select all] button**

Selects all display areas.

■ **[Cancel all] button**

Deselect all.

■ **[OK] button**

Complete the settings and close the window.

■ **[Cancel] button**

Cancel the edited contents and close the window.

Step 5

Click [OK] button on the "Select and register face image from file" window.
To cancel registration, click the [Cancel] button.

Note:

- The alarm sensitivity is the sensitivity to be used to match with the registered faces. This setting can be applied to each person.
  Normally, use with the default setting.
- The lower the alarm sensitivity level is, the higher the rate of matching with the registered faces will become. However, the matching accuracy may drop. The higher the alarm sensitivity level is, the lower the rate of false matching with the registered faces will become. However, the matching rate with the registered faces may drop.
- The validity period sets the deadline for matching registered faces and the action after expiration. When you check, you can enter the validity period and action after it. If [Disable matching] is selected, the registered faces will not be match after the validity period. If [Delete registration] is selected, face registration information will be deleted after validity period.
- When HTML tag is entered in "Remarks", the layout of the output HTML file containing the alarm search result may be affected.

4.7.7.2. Register from recorded images

It is possible to register from playback images on the recorder.

Note:

- To register a face image in this procedure, please start the face search monitor once after launching this software.

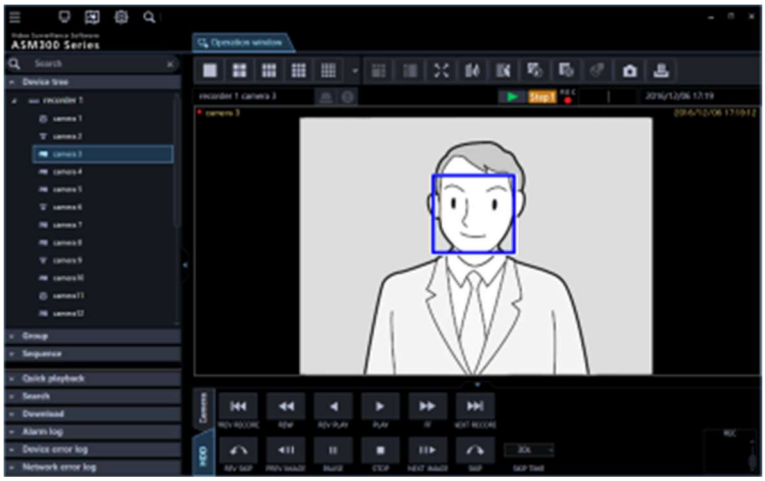
Step 1

Play recorded images while displaying the operation window with 1-screen.

Step 2

Pause the playback when the person to be registered appeared.

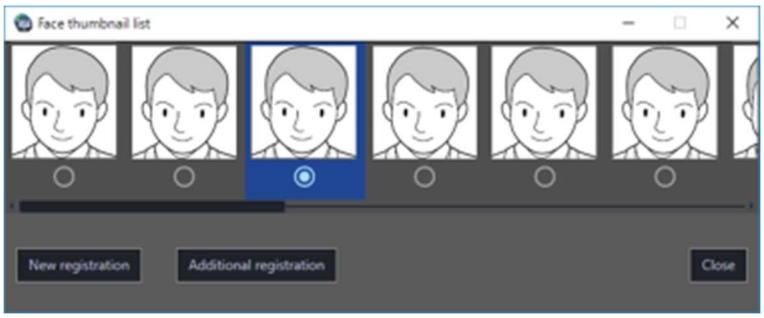
→ When detection of the face image succeeded, square frames will be displayed around all the detected faces.



Step 3

Right-click on a face image to be registered and select "Register this face" from the right-click menu.

→ The face search from recorded images will start and the result will be displayed with the detected faces in list form.



A face search aptitude diagnosis of the detected face image will be executed and a face image with the highest score will automatically be selected.

Step 4

Select a desired face image to register and click the [New registration] button.

Step 5
The "Face image Evaluation" window will be displayed.
Refer to "☞ 4.7.7.1. Register from a face thumbnail image" for the face image evaluation window.

Step 6
The "Select and register face image from file" window will be displayed.



Enter the following information.

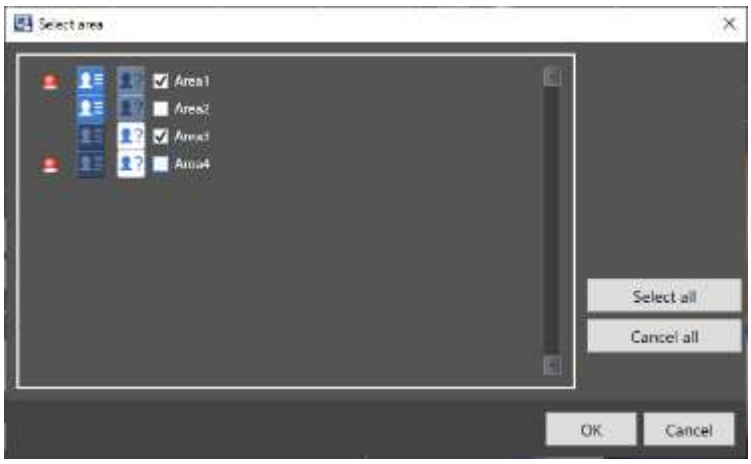
- **Name**
- **Age**
- **Gender**
- **Remarks**
- **Category (Select from the pull-down menu.)**
- **Validity period (Selectable only for WV-ASF950)**

→ In the case of WV-ASF900 or WV-ASF950 version less than 2.00 or WV-ASF950 [version 2.00 or later (registered face detection mode)], go to Step8.

→ In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)], go to Step7.

Step 7
Click the [Select area] button.

→ The "Select area" window is displayed. After selecting the area of the person to register, click the [OK] button. Refer to Step4 of "☞ 4.7.7.1. Register from a face thumbnail image" for the "Select area" window.



Step 8
Click [OK] button on the "Select and register face image from file" window.
To cancel registration, click the [Cancel] button.

Note:

- The alarm sensitivity is the sensitivity to be used to match with the registered faces. This setting can be applied to each person.
  Normally, use with the default setting.
- The lower the alarm sensitivity level is, the higher the rate of matching with the registered faces will become. However, the matching accuracy may drop. The higher the alarm sensitivity level is, the lower the rate of false matching with the registered faces will become. However, the matching rate with the registered faces may drop.
- The validity period sets the deadline for matching registered faces and the action after expiration. When you check, you can enter the validity period and action after it. If [Disable matching] is selected, the registered faces will not be match after the validity period. If [Delete registration] is selected, face registration information will be deleted after validity period.
- When HTML tag is entered in "Remarks", the layout of the output HTML file containing the alarm search result may be affected.

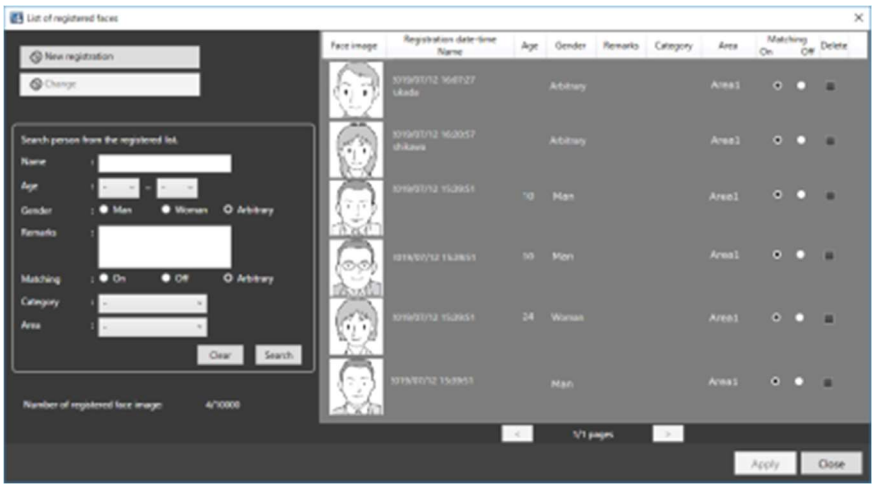
4.7.7.3. Register from snapshot

It is possible to register from a still image (snapshot) whose format is JPEG, PNG or BMP.

Step 1
Click the [Face management] button on the face search window.



→ The "List of registered faces" window will be displayed.



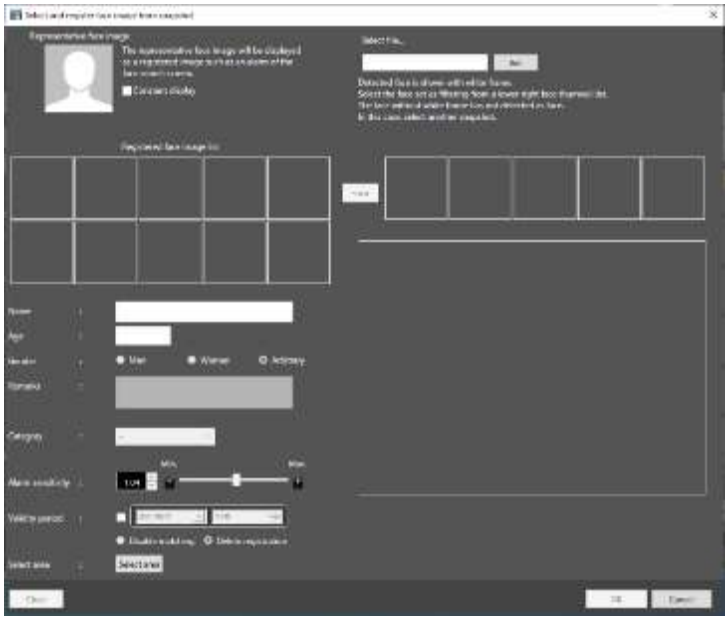
Note:

- In “Number of registered face image”, number of registered faces will be displayed. It does not indicate number of registered persons.
- The page turn button on the person information page appears only for WV-ASF950.

Step 2

Click the [New registration] button.

→ The "Select and register face image from snapshot." window will be displayed.

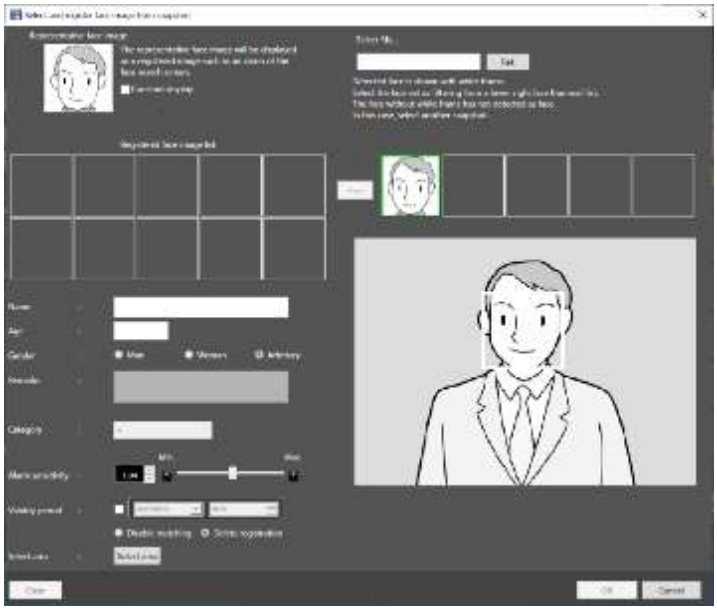


Step 3

Click the [Ref.] button.

Select an image file to be read on the file selection window.

→ The face detection from the image will start and square frames will be displayed around all the faces when face images are detected.



Step 4

Click a face image to be registered additionally from the face image list.

→ The selected face image will be displayed with a green frame.

Step 5

Click the <== (Add) button.

→ The "Face image Evaluation" window will be displayed.
Refer to "☞ 4.7.7.1. Register from a face thumbnail image" for the face image evaluation window.

Step 6



Enter the following information.

- **Name**
- **Age**
- **Gender**

■ **Remarks**

■ **Category (Select from the pull-down menu.)**

■ **Expiration period (Selectable only for WV-ASF950)**

To select other face image on the same image being paused, go back to step 4 and step 5, and then click other face image.

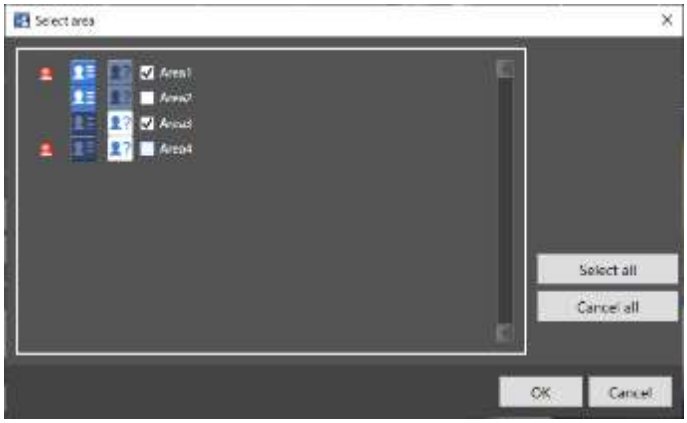
→ In the case of WV-ASF900 or WV-ASF950 version less than 2.00 or WV-ASF950 [version 2.00 or later (registered face detection mode)], go to Step8.

→ In the case of WV-ASF950 [version 2.00 or later (registered face/unregistered face detection mode)], go to Step7.

Step 7

Click the [Select area] button.

→ The "Select area" window is displayed. After selecting the area of the person to register, click the [OK] button. Refer to Step4 of "☞ 4.7.7.1. Register from a face thumbnail image" for the "Select area" window.



Step 8

Click [OK] button on the "Select and register face image from file" window.
To cancel registration, click the [Cancel] button.

Note:

- The alarm sensitivity is the sensitivity to be used to match with the registered faces. This setting can be applied to each person.
  Normally, use with the default setting.
- The lower the alarm sensitivity level is, the higher the rate of matching with the registered faces will become. However, the matching accuracy may drop. The higher the alarm sensitivity level is, the lower the rate of false matching with the registered faces will become. However, the matching rate with the registered faces may drop.
- The validity period sets the deadline for matching registered faces and the action after expiration. When you check, you can enter the validity period and action after it. If [Disable matching] is selected, the registered faces will not be match after the validity period. If [Delete registration] is selected, face registration information will be deleted after validity period.
- When HTML tag is entered in "Remarks", the layout of the output HTML file containing the alarm search result may be affected.

Step 9

The registered person (face) will be displayed in "List of registered faces".



Click the [Close] button.

4.7.7.4. Register from quick registration function

It is possible to register using “Quick registration function”.

Note:

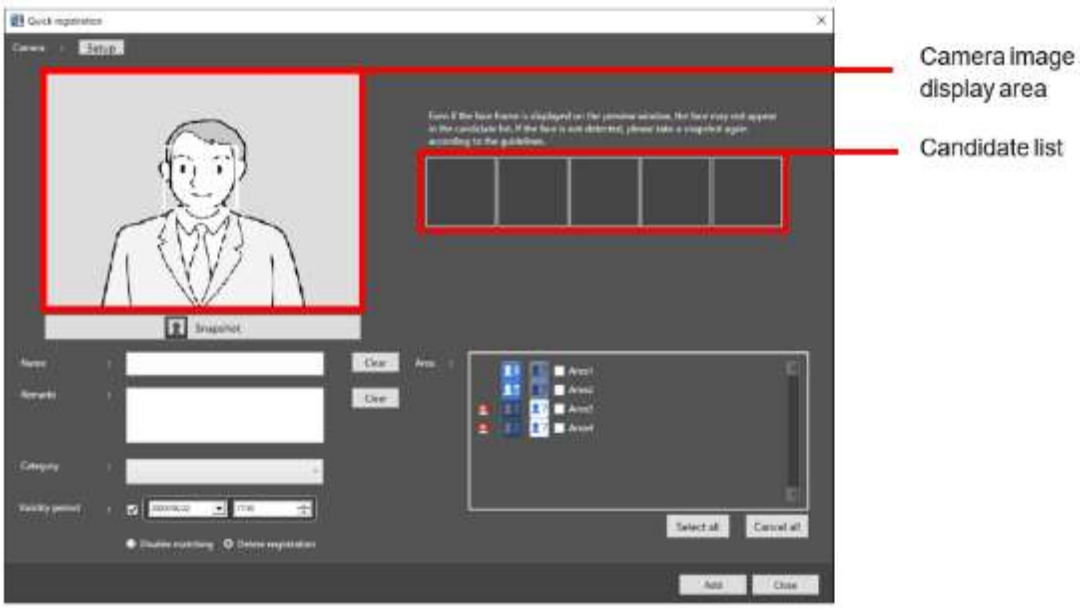
- The quick registration function is valid only on the facial recognition WV-ASF950 version 2.00 or later (registered face/unregistered face detection mode).

Step 1

Click the [Quick registration] button on either the [Alarm] tab, [Alarm search] tab, or [Face search] tab.



→ The “Quick registration” window will be displayed.



The details of the window are as follows.

■ **[Setup] button**

Set the camera for the quick registration.

■ **Camera image display area**

Displays live image from the selected camera. A face frame is displayed for detected faces.

■ **[Snapshot] button**

Take a face image from the live image of the selected camera.

■ **[Clear] button**

Clear the input contents.

■ **Candidate list**

Displays the face image detected when the [Snapshot] button is pressed.

■ **[Add] button**

Complete the settings and register the person.

■ **[Close] button**

Cancel the set contents and close the window.

Step 2

Register the camera for the quick registration.

Note:

- Use cameras with a face detection function.

Click the [Set] button to display the camera setting window.



The details of the window are as follows.

■ **Camera IP Address**

Enter the IP address of the camera. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-“ (hyphen).

■ **Port No.**

Enter a number among the following for the HTTP port number.
1 - 65535
Default: 80

Note:

- When the secure communication setting of the camera is “SSL ON”, set the port number to 443.

■ **User**

Enter a user name of a device.
Enter 1 - 32 alphanumeric characters for the user name.

■ **Password**

Enter a password of a device.
The entered password will be displayed as “●”.
Enter 8 - 32 characters for the password.

■ **SSL**

Determine whether to execute the SSL communication.
ON: Execute the SSL communication.
OFF: Not execute the SSL communication.
Default: OFF

Note:

- When SSL is turned on, the “Port No.” is automatically set to 443.

■ **[Connect] button**

Get the information of the set camera.
After setting [Camera IP Address] / [Port No.] / [User] / [Password] / [SSL], check the connection status with the camera using the [Connect] button.

Note:

- If the user name or password set for the camera is different, or if communication with the camera is not possible, an error message will be displayed. In that case, check that the user name / password of the camera and the entered user name / password match. Also, check the connection status with the camera and try connecting again.

■ **[Add and Close] button**

Register the set camera and return to the “Quick registration” window.

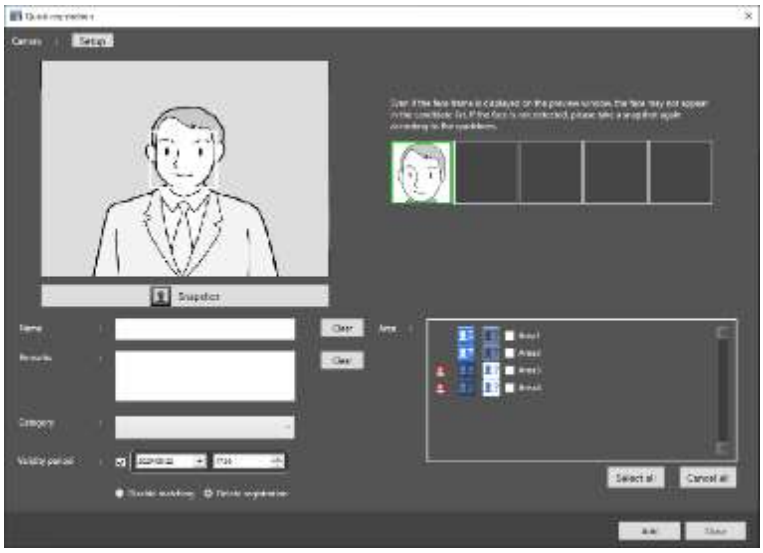
Note:

- Click the [Connect] button to check the connection status with the camera, and then click the [Add and Close] button.

Step 3

Click the [Snapshot] button while the person you want to register is displayed.

→ The faces detected by the camera will be displayed in the candidate list.



Step 4

Select one face image from the candidate list.

Step 5

Enter the following information.

- **Name**
- **Remarks**
- **Category (Select by pulldown)**
- **Validity period**

Step 6

Select the area of the person to be registered.

- **[Select all] button**

Select all display areas.

- **[Cancel all] button**

Deselect all.

Step 7

Click the [Add] button.

Note:

- The validity period sets the deadline for matching registered faces and the action after expiration. When you check, you can enter the validity period and action after it. If [Disable matching] is selected, the registered faces will not be match after the validity period. If [Delete registration] is selected, face registration information will be deleted after validity period.
- Even after clicking the [Add] button, “Quick registration” window will remain open, and it is possible to continue to register other people.

4.7.8. Register 2 or more face images of a same person

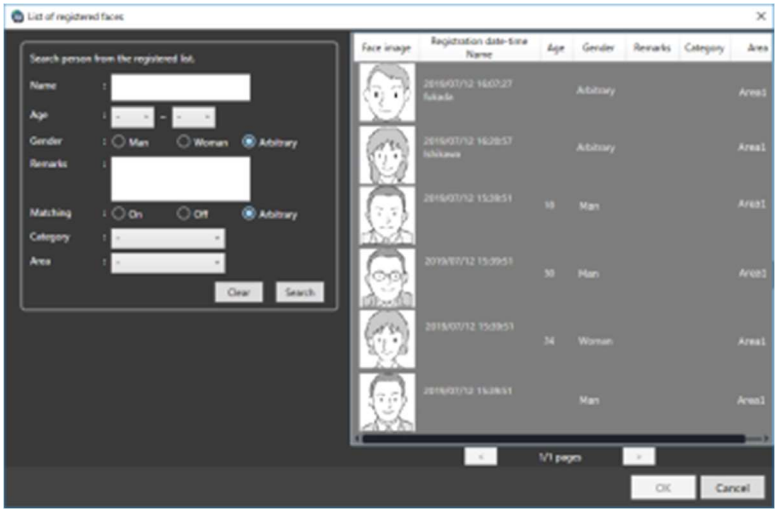
It is possible to register up to 10 face images for a same person who is already registered.

4.7.8.1. Additionally register from a face thumbnail image

It is possible to register additionally from the search result of "Search face" or "Search by person (face)" of "Search the alarm notification".

Step 1
On the search result window of "Search by person (face)", right-click on a face thumbnail image and select [Additionally register this face image] from the right-click menu.

Step 2
From the registered persons, select a person whose face image is to be additionally registered and click the [OK] button.



Note:

- When 10 face images are already registered for the selected person, the pop-up message with an error message (saying that it is impossible to add any more) will be displayed.

Step 3
The "Face image Evaluation" window will be displayed.
Refer to "☞ 4.7.7.1. Register from a face thumbnail image" for the face image evaluation window.

Step 4
Confirm that the additionally registered face image is being displayed, and then click the [OK] button.

To set the additionally registered face image as the representative face image, right-click on the additionally registered face image and select "Set as the representative face image" from the right-click menu, and then click the [OK] button.

<In the case of WV-ASF950>

To display the face image evaluation window again, right-click on the added face image, select the [Image check] menu, and click the [OK] button.



4.7.8.2. Additionally register from recorded images

It is possible to register additionally from playback images on the recorder.

Note:

- To register a face image in this procedure, please start the face search monitor once after launching this software.

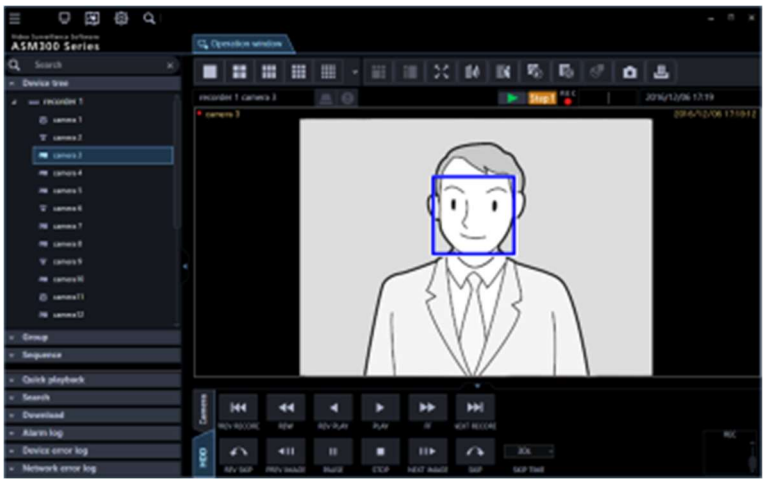
Step 1

Play recorded images while displaying the operation window with 1-screen.

Step 2

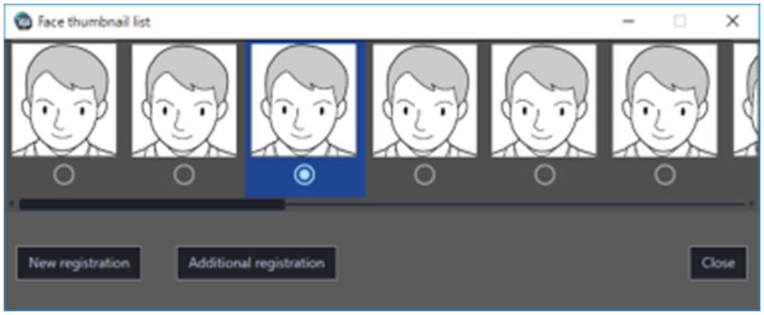
Pause the playback when the person to be registered appeared.

→ When detection of the face image succeeded, square frames will be displayed around all the detected faces.



Step 3
Right-click on a face image to be registered and select "Register this face" from the right-click menu.

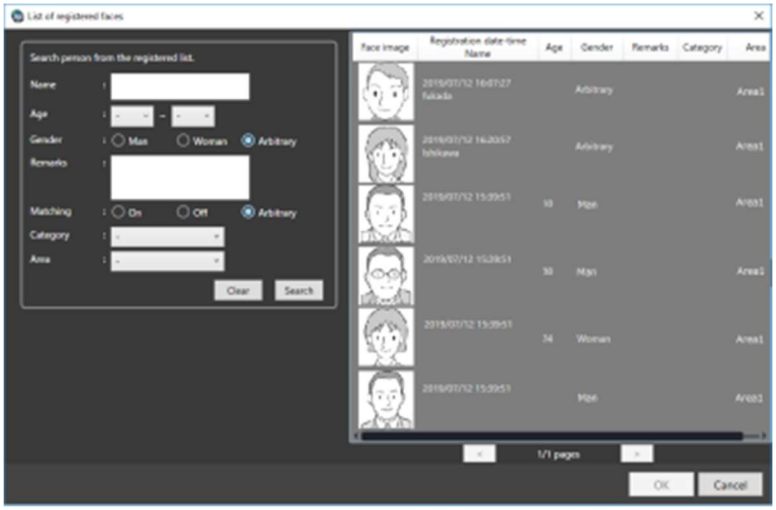
→ The face search from recorded images will start and the result will be displayed with the detected faces in list form.



A face search aptitude diagnosis of the detected face image will be executed and a face image with the highest score will automatically be selected.

Step 4
Select a desired face image to additionally register and then click the [Additional registration] button.

Step 5
From the registered persons, select a person whose face image is to be additionally registered and click the [OK] button.



Note:

- When 10 face images are already registered for the selected person, the pop-up message with an error message (saying that it is impossible to add any more) will be displayed.

Step 6

The "Face image Evaluation" window will be displayed.
Refer to "☞ 4.7.7.2. Register from recorded images" for the face image evaluation window.

Step 7

Confirm that the additionally registered face image is being displayed, and then click the [OK] button.
To set the additionally registered face image as the representative face image, right-click on the additionally registered face image and select "Set as the representative face image" from the right-click menu, and then click the [OK] button.

<In the case of WV-ASF950>

To display the face image evaluation window again, right-click on the added face image, select the [Image check] menu, and click the [OK] button.



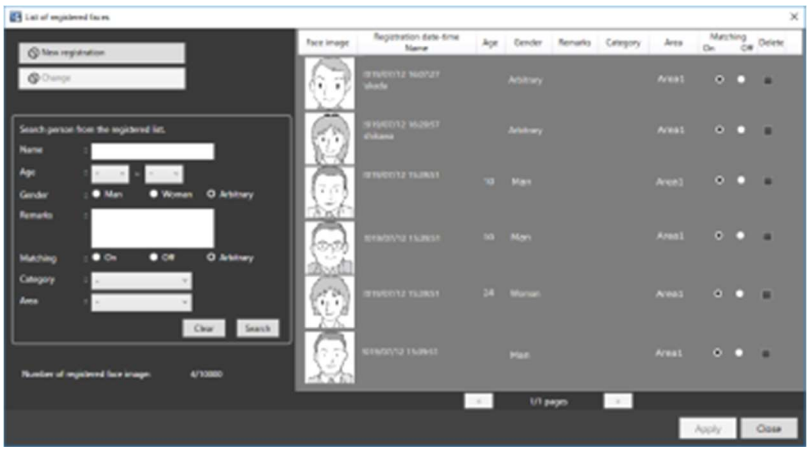
4.7.8.3. Additionally register from snapshot

Step 1

Click the [Face management] button on the face search window.



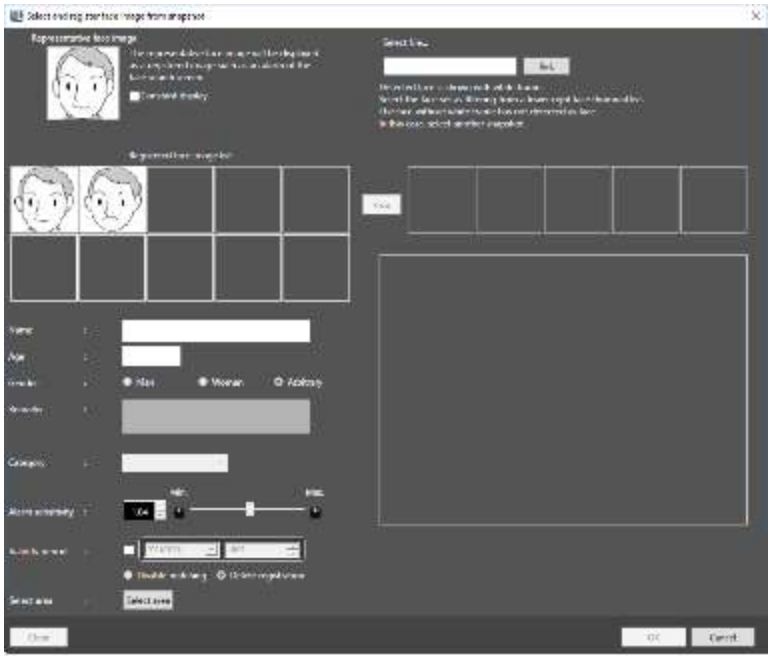
→ The "List of registered faces" window will be displayed.



Step 2

Select a registered face image from the list, and then click the [Change] button.

→ The "Select and register face image from snapshot." window will be displayed.



■ **Representative face image**

When 2 or more face images are registered for a same person, it is possible to set the representative face image.

The representative face image will be set as the face image to be displayed on the registered face image list table.

* When no face image data is displayed for this face image (middle of the left side), it is impossible to enter the following face information (name, age, gender, remarks, category, alarm sensitivity).

■ **Registered face image list**

A list of multiple face images registered for a same person will be displayed. Up to 10 face images can be registered.

When 5 or more face images are registered, the scroll bar will be displayed at the bottom. When right-clicking on a registered face image, "Set as the representative face image", "Delete face image" and "Check the eye position" (or “Image check”) will be displayed on the right-click menu. When "Set as the representative face image" is selected, the representative face image will be displayed with a blue frame.

When "Delete face image" is selected, the face image will be deleted and the face images subsequent to the deleted face image will shift to the left to fill the vacant space of the deleted face image.

<In the case of WV-ASF950>

When "Image check" is selected, the face image evaluation window will be displayed and the face image can be checked on it.

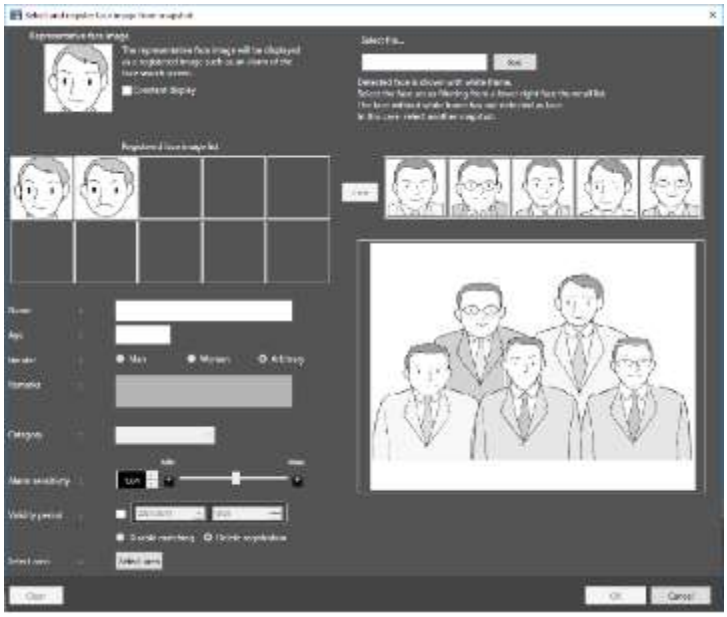
<In the case of WV-ASF900>

When "Check the eye position" is selected, the face image evaluation window will be displayed and the eye position can be checked on it.

Step 3

Click the [Ref.] button. Select an image file to be read on the file selection window.

→ The face detection from the image will start and square frames will be displayed around all the faces when face images are detected.



Step 4

Click a face image to be registered additionally from the face image list.

→ The selected face image will be displayed with a green frame.

Note:

- When selecting a face image even though 10 face images are already registered for the selected person, the warning pop-up window will be displayed.

Step 5

Click the <== (Add) button to add the selected face image to the registered face image list. The "Face image Evaluation" window will be displayed during this process. Refer to "☞ 4.7.7.3. Register from snapshot" for the face image evaluation window.

Note:

- The available right-click menu when right-clicking on the added face image are "Set as the representative face image" and "Check the eye position" (or “Image check”).

Step 6

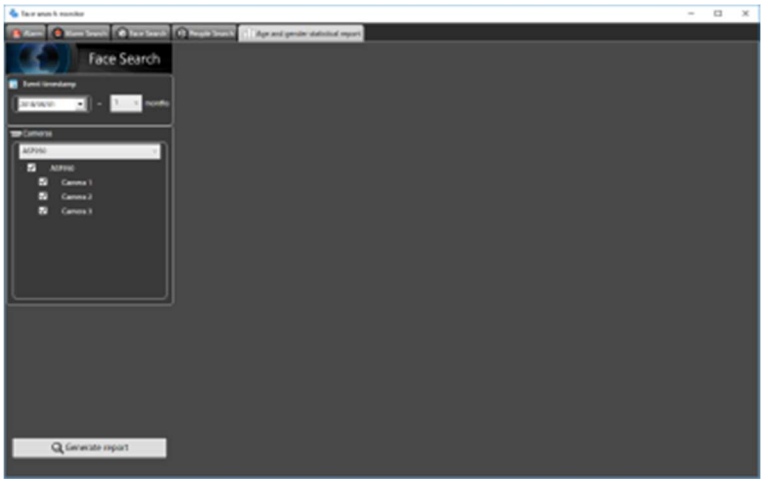
Click the [OK] button.

4.7.9. Display the statistical graphics of age/gender/head-count

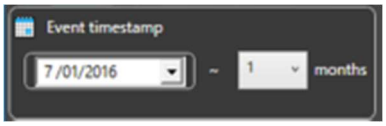
4.7.9.1. Display the statistical results

It is possible to display the statistic results of age, gender and head count for each camera.

Step 1
Click the [Age and Gender] tab on the face search window.
→ The age and gender window will be displayed.

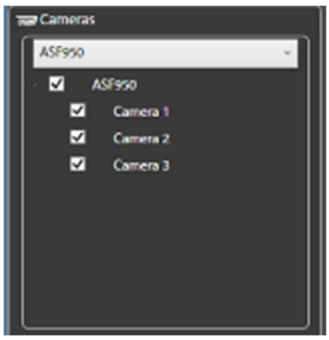


Step 2
Select the start date and the period to display the statistical results in the [Event timestamp] section.



Select the start date of period from "2005/1/1" - "2034/12/31". Select a number for month from "1" - "12".

Step 3
Select the facial recognition server and the cameras to display statistics in the "Camera" section.



Note:

- The cameras obtained by "Face search - server registration" of the setup window will be displayed in the tree.
- When the checkbox of "Parent node (server)" is checked, the checkboxes of all the child nodes will be checked automatically.
- When the checkbox of "Parent node (server)" is unchecked, the checkboxes of all the child nodes will be unchecked automatically.
- Up to 8 cameras can be selected.

Step 4

Click the [Generate report] button.

→ The statistical results will be displayed.



The following display options can be set.

■ **Calendar**

Select a date of which statistics are to be displayed from [Calendar].



Note:
- Only the date with data will be displayed.
- Date without data will be displayed with the "×" mark.

■ **Graph type**

Select the graph type to be displayed from the following.
Daily trend (15-minute scale)/Daily trend (30-minute scale)/Daily trend (1-hour scale)/Weekly trend/Days trend/Monthly trend

■ **[Stack]/[Ratio] buttons**

Switches the graph display based on the accumulated data or the proportional data.

Note:
- The line graph is available only when displaying based on the accumulated data (stack) and the data point labels will be displayed together.

■ **[By gender]/[By total] buttons**

Switches the graph display based on the gender or the total number.

■ **[Male]/[Female]/[Unknown] checkboxes**

Check the checkbox to display the desired information in the graph display.

■ **Circle graph**

Select the items to be displayed with the data labels of the circle graph.
Each time clicked on the circle graph, the label display will be switched in order of [Title] → [Head count] → [Ratio] → [Title].

4.7.9.2. Download the statistics results as a CSV file

It is possible to download the data used for the statistics display as a CSV file.

Step 1
Click the [Download CSV] button on the Generate report window.
→ The folder selection window will be displayed.

Note:
- When a removable HDD formatted on the 32-bit OS is connected to a PC whose OS is the 64-bit edition, it may fail to designate the removable HDD as a saving destination.

Step 2
Select the destination folder of the CSV file to be downloaded and click the [OK] button.
The statistics data will be saved as the CSV file whose character code is UTF-8 and comma separated.
The name of the downloaded CSV file will be as follow.

"ccccccc_yymmdd000000_yymmdd000000_00_00.csv"

■ **ccccccc**

: Camera name or "total"

■ **Yymmdd000000 (1st part)**

: Start date of display period (Year in last 2 digits)

■ **Yymmdd000000 (2nd part)**

: End date of display period (Year in last 2 digits)

CSV file format
Output example
#GUID,Aggregated Date,Gender Code,Age Code,Period of time,The number of people
00200001-0000-0000-0000-192168001100,2013/07/24,1,3,0900,0
00200001-0000-0000-0000-192168001100,2013/07/24,1,3,0915,0
00200001-0000-0000-0000-192168001100,2013/07/24,1,3,0930,0
00200001-0000-0000-0000-192168001100,2013/07/24,1,3,0945,0
00200001-0000-0000-0000-192168001100,2013/07/24,1,3,1000,0
...
The data item name and the each 15 minutes summary information will be output on the first line and the second line respectively.

[GUID]
Camera GUID

[Aggregated Date]
Date

[Gender Code]
Gender code
-1: Unknown / 0: Male / 1: Female

[Age Code]
Age code
-1: Unknown / 1: 19 or younger / 2: 20 - 29 / 3: 30-39 / 4: 40 - 49 / 5: 50 - 59 / 6: 60 or older

[Period of time]
Time 15 minutes each

[The number of people]
Head count

4.7.10. Change the display setting (Hide the display)

4.7.10.1. Display a face frame (Hide a face frame)

It is possible to display/hide the border frame displayed around a face when detected.

Important:
- This function will be valid only when a camera having the face search function is connected to ASM300 and the face search function is ON.

<To display>
Select [ON] of [Face frame] under [Operation window display setup] of the menu of ASM300 main window. In case of live window, confirm that the checkbox on the left of [Frame display with face] in the pop-up menu displayed by right-clicking on the screen is unchecked. Then, select [Frame display with face].

→ A square frame will be displayed on the detected face.

<To hide>
Select [ON] of [Face frame] under [Operation window display setup] of the menu of ASM300 main window. In case of live window, confirm that the checkbox on the left of [Frame display with face] in the pop-up menu displayed by right-clicking on the screen is checked. Then, select [Frame display with face].

→ A square frame displayed on the detected face will be hidden.

Note:
- When the "Pixel by Pixel" mode is set for the image display method, the action of this function is not guaranteed.
- If you have registered an EXTREME series or Smart HD series camera equipped with a face detection function in the NX-series recorder and used it, and if [Live image source] is set to [Recorder], the face frame in the live image is not displayed.

4.8. Use the heat map display function

4.8.1. Precautions

Important:
- To use the heat map function, it is necessary to register the function extension option for image analysis (hereinafter, “this option”) separately.
- To register the option, it is necessary to enter the “Registration Key” obtained from the Key Management System. Refer to the provided "Activation Key Card" to obtain the "Registration Key" of this option.
  Enter the following numbers for “Activation Key No.” and “Registration ID” required to obtain

"Registration Key".

- Activation Key No.: 0405-0005-000B-1234
- Registration ID: 25F4-9547

Compatible devices

Model	Appears in this document as	Version	Compression
WV-SFN480	9M Fisheye cameras	1.12 or later	H.264
WV-SFV481			
WV-X4170		1.30 or later	H.265, H.264
WV-X4171			
WV-X4571L			
WV-X4172		1.00 or later	
WV-X4173			
WV-X4573L			
WV-S4150	5M Fisheye cameras	1.00 or later	H.265, H.264
WV-S4550L			
WV-S4151			
WV-S4551L			

4.8.2. Use the heat map function

The heat map display function will visualize the passing and loitering density of people.

- Data will be acquired according to the specified camera, period, and area. Also the still picture of passing or loitering map will be displayed.
- Passing or loitering data can be compared easily, since the map can be switched by specified time, days (previous day/day after), or per week in data acquiring range.
- The maximum period for acquiring heat map data is one month.
- The still picture of heat map can be output.

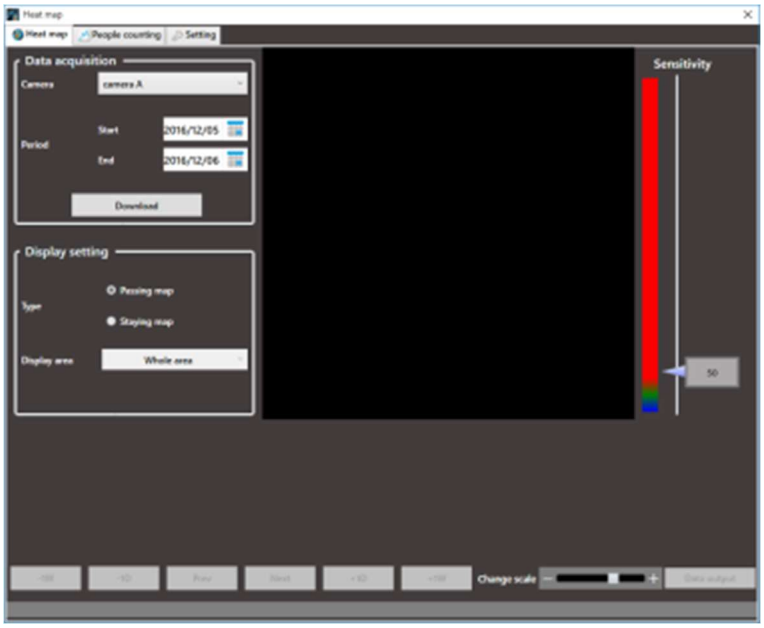
4.8.2.1. Display still picture of heat map acquired from the specified camera

Step 1

Click the [Heat map] icon on the operation window.



Step 2
Click the [Heat map] tab.



Step 3
Set up conditions for acquiring heat map data.



■ **Camera**

Select the camera to acquire heat map data. Only cameras that supports the heat map function registered in ASM300 can be selected.

Note:

- If [Live image source] of the camera registered to the recorder is [Recorder], the camera will not be

displayed in the camera selection area.

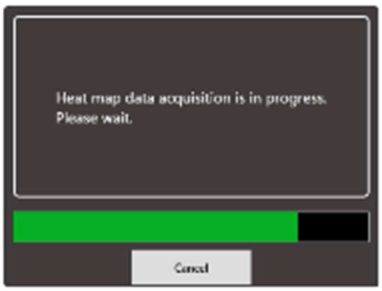
■ **Period**

Start: Select the start date to acquire heat map data from "2005/1/1" to "2034/12/31".
The default is a day before the set date of PC.
End: Select the end date to acquire heat map data from "2005/1/1" to "2034/12/31".
The default is the same date as the set date of PC.

Note:
- The maximum period for acquiring heat map data is one month. If over one month is specified, an error message will be displayed.

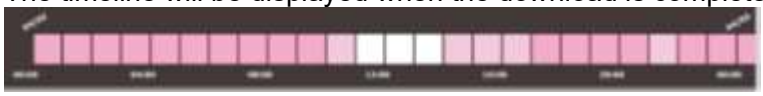
Step 4

Click the [Download] button.
→ The "Heat map data acquisition" window is displayed, and download will start.
To cancel the download, click the [Cancel] button.



Note:
- The acquired data will be saved on the PC where ASM300 is installed.
- To acquire longer period of data, the longer time is required for download.
- The data can be acquired only when the heat map function is enabled in the camera setting.

The timeline will be displayed when the download is complete.



On the timeline, the time zone where the heat map data exists will be colored.

Step 5

Select "Type" and "Display area" for displaying heat map data.

■ **Type**

Select the type from the following.
Passing map: Represents a traffic of moved people in colors on the screen. The more people moved, the more reddish the area becomes.
Staying map: Represents a concentration of people on the screen. The more people concentrated, the more reddish the area becomes.

■ **Display area**

Select the preset display area.

Note:

- Refer to "☞ 4.8.4. Set the heat map/people count functions" for further information about “Preset 1 setting” - “Preset 4 setting”.

Step 6

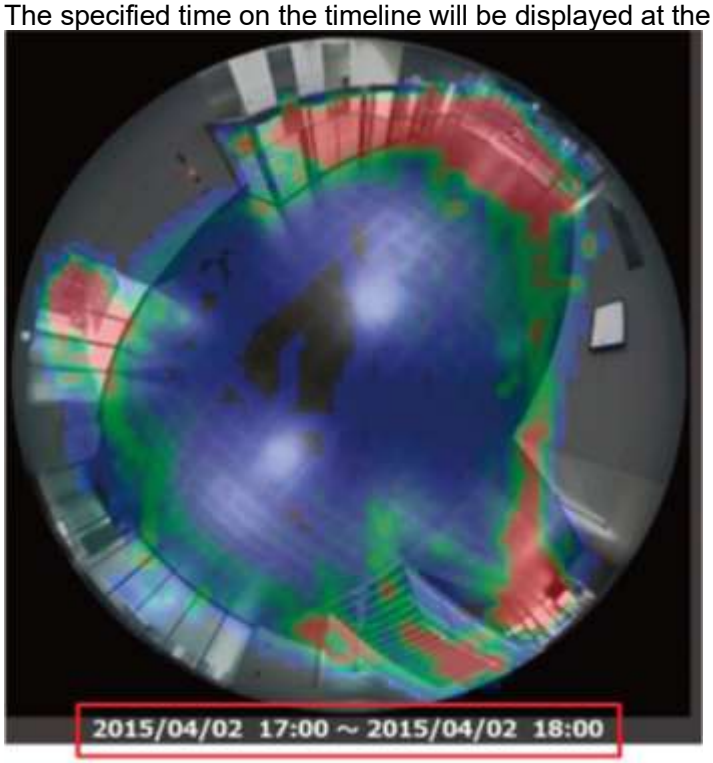
On the timeline, specify the time zone for displaying a heat map image. To specify the time zone, left-click at the starting time and drag to the end time. The color of the selected time zone will be changed.



When the mouse click is released at the end time, the time zone is set and the heat map image will be displayed.
The scale of the timeline can be changed for 15 minutes, 1 hour, 12 hours, or 1 day by operating the "Change the scale" slider.



The specified time on the timeline will be displayed at the bottom of the heat map image.



4.8.2.2. Switch (jump) the display period of the heat map image

The displayed heat map image can be switched, for example, to the one with the same time zone of the previous day or a day after.



-1 week/+1 week: Switches the displayed heat map image to the one with the same time zone of the previous week or a week after.
-1 day/+1 day: Switches the displayed heat map image to the one with the same time zone of the previous day or a day after.
Precedent section/Following section: Switches the displayed heat map image to the one with the previous or following time zone.

Note:
- Only the downloaded period can be displayed.

4.8.2.3. Output heat map image

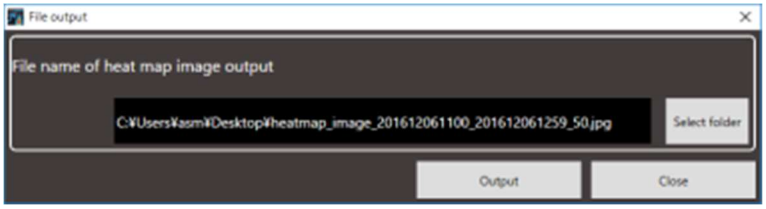
The displayed heat map image can be output in a JPEG file.

Step 1
Click the [Data output] button while displaying the heat map image to be output.



→ The "File output" window will be displayed.

Step 2
Check the saving destination and the file name for the heat map image to be output.



To change the saving destination and the file name of the heat map image to be output, proceed to Step 3.
If no change is required, proceed to Step 4.

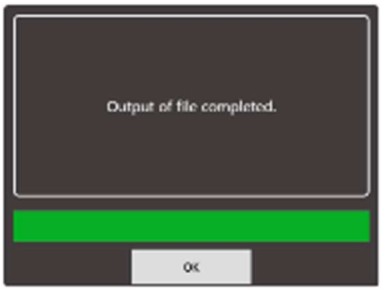
Note:
- The default file name of the heat map image will be as follows.
  Example)
  When outputting an image of 2015/03/10 13:00 - 18:00
  heatmap_image_201503101300_201503101800.jpg
  The heat map image will be saved in the size of "320x320".

Step 3
Click the [Select folder] button.
→ Specify a folder to store the file.

Step 4
Click the [Output] button.

→ The "Heat map data output" window will be displayed, and the output of the heat map image will start.

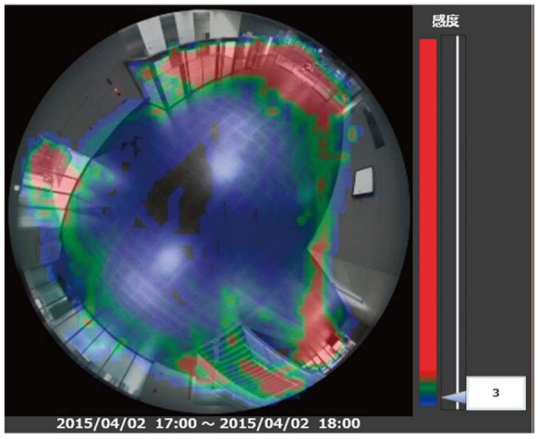
Step 5
When the output of the file is complete, click the [OK] button.



→ The window for the heat map image will be restored.

4.8.2.4. Adjust the sensitivity of heat map image

Set the maximum sensitivity for the heat map image by operating the sensitivity slider.



Move ◁ of the sensitivity adjustment slider.

Note:
- Number input is available for the sensitivity.

4.8.3. Use people count function

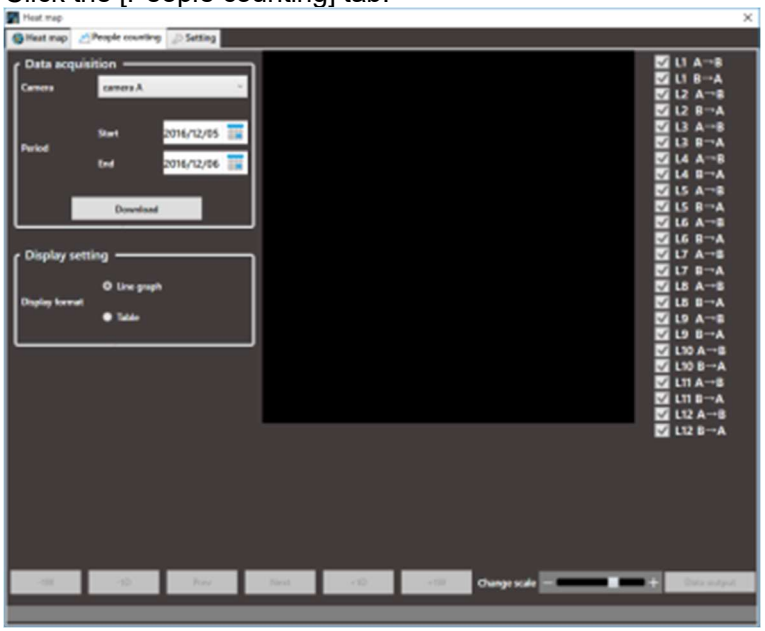
The People count function visualizes the number of passing people.
- It will display a still picture, graph, or table indicating people who crossed the line of the specified camera.
- The maximum period for acquiring people count data is one month.
- The displayed graph or table can be output in an Excel file, and the still image can be output in an JPEG image file.

4.8.3.1. Display still picture of people count acquired from the specified camera

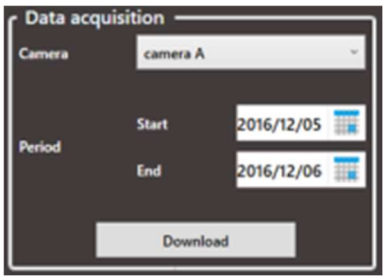
Step 1
Click the [Heat map] icon on the operation window.



Step 2
Click the [People counting] tab.



Step 3
Set up conditions for acquiring people count data.



■ **Camera**

Select the camera to acquire people count data.
Only cameras that support the heat map function registered in ASM300 can be selected.

Note:
- If [Live image source] of the camera registered to the recorder is [Recorder], the camera will not be displayed in the camera selection area.

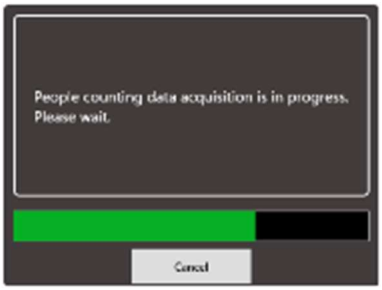
■ **Period**

Start: Select the starting date for acquiring people count data from "2005/1/1" to "2034/12/31".
The default is a day before the set date of PC.
End: Select the end date for acquiring people count data from "2005/1/1" to "2034/12/31".
The default is the same date as the set date of PC.

Note:
- The maximum period for acquiring people count data is one month. If over one month is specified, an error message will be displayed.

Step 4

Click the [Download] button.
→ The "People counting data acquisition" window will be displayed, and download will start.
To cancel the download, click the [Cancel] button.



Note:
- The acquired data will be saved on the PC where ASM300 is installed.
- To acquire longer period of data, the longer time is required for download.
- The data can be acquired only when the people count function is enabled in the camera setting.

Step 5

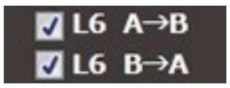
The image of people count and graph will be displayed when the download is complete.
- The lines for counting people will be displayed on the image area.

- The lines can be displayed or hidden with the checkbox provided for each line. To display the line, mark the checkbox. All checkboxes are marked in the default. After the checkbox status is changed, the setting will be kept when the image is displayed next time.
- The graph will show the data of the line whose checkbox is marked.

Note:
- The maximum number of lines that can be specified for people count is 12 (for 24 directions).
- Specify the line for people count in the setup of the camera.

4.8.3.2. How to count people in the image area

Example) When the checkboxes of "L6 A→B" and "L6 B→A" are marked



A line of "6" will be displayed in the image area and number of people moved in direction A → B and B → A will be displayed.



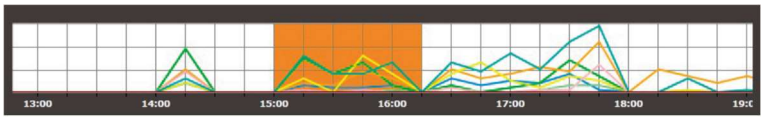
In the above example, "228" represents the number of people moved in the direction of A to B, and "172" represents the number of people moved in the direction of B to A.

Note:
- The correct people count may not be displayed if downloaded data contains a period where no lines are set with the camera or the number of lines or its position is changed.
- Use the people count function after setting lines with the camera.

4.8.3.3. Select a time zone to display the cumulative total number

On the graph, specify the time zone for displaying the cumulative total number in the image area.

To specify the time zone, left-click at the starting time and drag to the end time.
The color of the selected time zone will be changed.

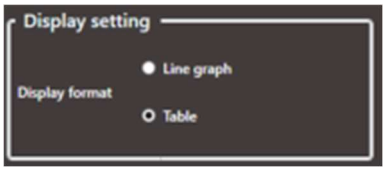


When the mouse click is released at the end time, the time zone is set and the cumulative total number will be updated.
The scale of the graph can be changed for 15 minutes, 1 hour, 12 hours, or 1 day by operating the "Change scale" slider.

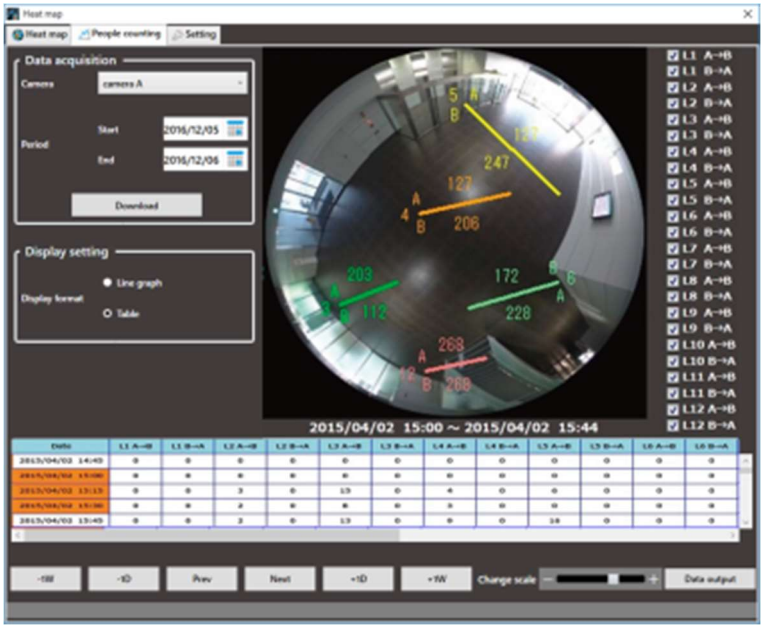


4.8.3.4. Display the table of people count

Select the display format in "Display setting".



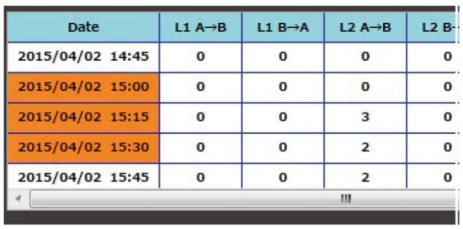
When "Table" is selected, the graph area will be changed to a table.



4.8.3.5. Select a time zone to display the cumulative total number

In the table, specify the time zone for displaying the cumulative total number in the image area.

To specify the time zone, left-click at the starting time and drag to the end time. The color of the selected time zone will be changed.



Date	L1 A→B	L1 B→A	L2 A→B	L2 B→
2015/04/02 14:45	0	0	0	0
2015/04/02 15:00	0	0	0	0
2015/04/02 15:15	0	0	3	0
2015/04/02 15:30	0	0	2	0
2015/04/02 15:45	0	0	2	0

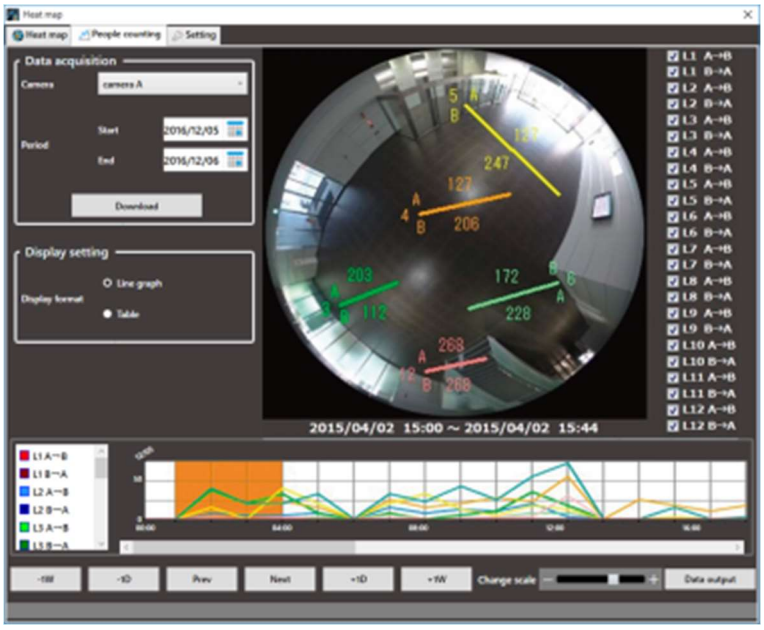
When the mouse click is released at the end time, the time zone is set and the cumulative total number will be updated.
The scale of the table can be changed for 15 minutes, 1 hour, 12 hours, or 1 day by operating the "Change the scale" slider.



4.8.3.6. Output data and image of people count

The displayed graph, table, and still image can be output and saved.

Step 1
Display the graph, table, and still picture to save by specifying the desired time zone.

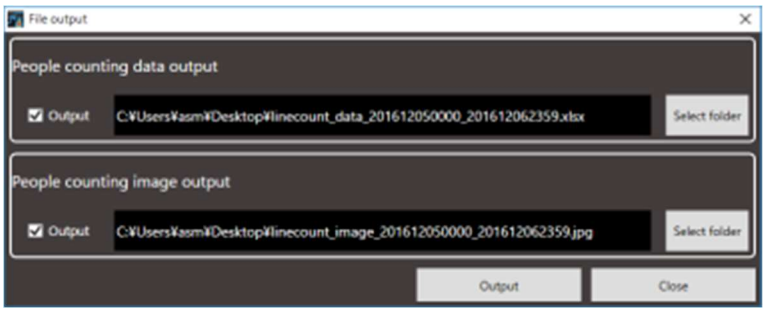


Step 2
Click the [Data output] button.



→ The "File output" window will be displayed.

Step 3
Check the saving destination and the file names for the people count data and the image to be output.



To change the saving destination and the file names of the people count data and the image to be output, proceed to Step 4.
If no change is required, proceed to Step 5.

Note:

- On a PC where Microsoft® Excel® 2010 or later is installed, the file will be saved in “xlsx” format.
  If Microsoft Excel 2007 or later is not installed, the file will be saved in CSV format.
- The people count data will be saved in an Excel file. The default file name of the people count data will be as follows.
  Example) When outputting data of 2015/03/10 13:00 - 18:00
  Linecount_data_201503101300_201503101800.xlsx
- The people count image will be saved in a JPEG format. The default file name for the people count image will be as follows.
  Example)When outputting an image of 2015/03/10 13:00 - 18:00
  Linecount_image_201503101300_201503101800.jpg
- A people count image will be saved in the size of "320x320".

Step 4

Click the [Select folder] button.

→ Specify a folder to store the file.

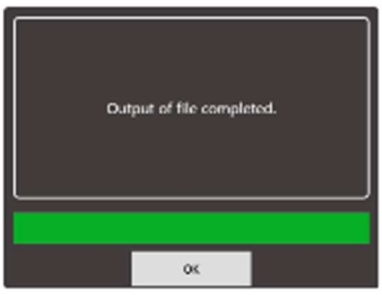
Step 5

Click the [Output] button.

→ The "People counting data output" window will be displayed, and output of data and image will start.

Step 6

When the output of the file is complete, click the [OK] button.



→ The "People counting" window will be restored.

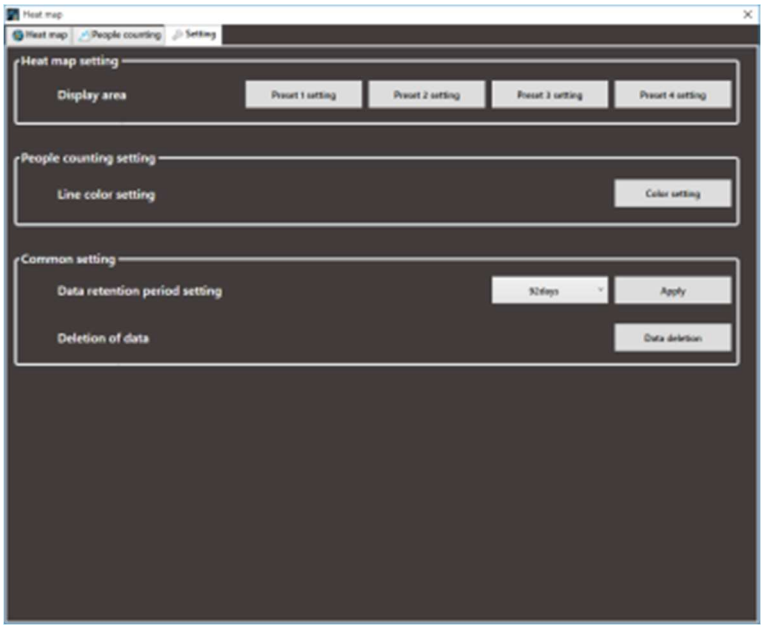
4.8.4. Set the heat map/people count functions

Set up the heat map and people count functions.

Note:
- If the options are not terminated properly, the previous settings or default settings may be restored.

4.8.4.1. Set up heat map display area

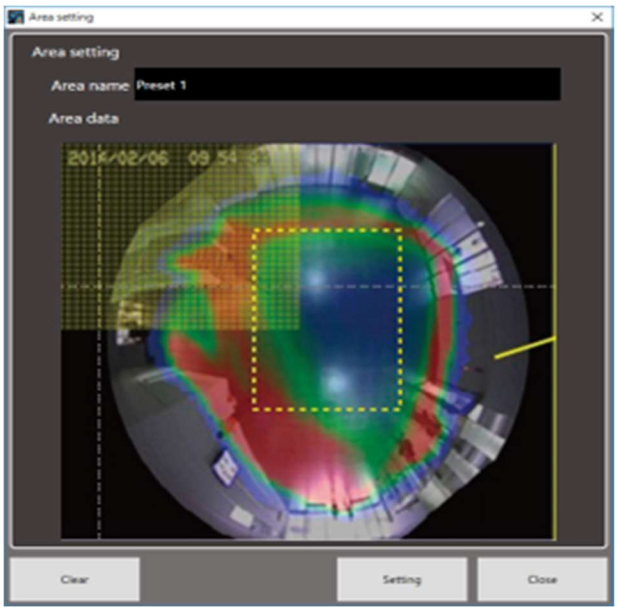
Step 1
Click the [Setting] tab.



Step 2
Click one of the preset buttons ([Preset 1] to [Preset 4]) of the "Display area" in the "Heat map setting".
→ The "Area setting" window will be displayed.



Step 3
Specify an area by dragging the mouse on the image.
The specified area will be framed.



The "Area name" can be changed.
When the [Clear] button is clicked, the specified area will be cleared.

Step 4
Click the [Setting] button to set the area. The setting will be saved in the preset number selected in Step 2.

Note:

- Area setting is available for the selected camera images in the heat map window.
- Up to 4 areas can be set for camera images.

4.8.4.2. Set colors of people count

Step 1
Click the [Setting] tab. (☞4.8.4. Set the heat map/people count functions)

Step 2
Click the [Color setting] button of “Line color setting" in "People counting setting".



→ The "Color setting" window will be displayed.

Step 3
Click the color of the line to be changed. The respective color setting page will be displayed.



Step 4
Click the [Setting] button.

4.8.4.3. Set up data retention period

Step 1
Click the [Setting] tab. (☞4.8.4. Set the heat map/people count functions)

Step 2
For "Data retention period setting" in "Common setting", select a data retention period for the heat map and people count data from the following.
31 days/ 92 days/ 184 days/ 366 days



Step 3
Click the [Apply] button.

4.8.4.4. Delete data

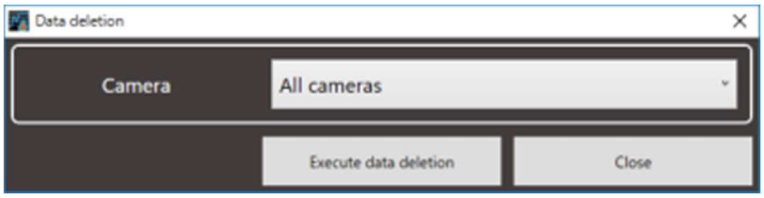
Step 1
Click the [Setting] tab. (☞4.8.4. Set the heat map/people count functions)

Step 2
Click the [Data deletion] button of the "Deletion of data" in "Common setting".



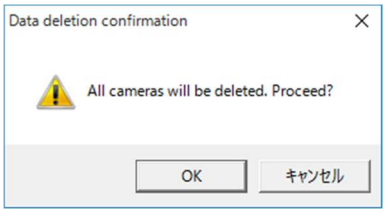
→ The “Data deletion” window will be displayed.

Step 3
After selecting a camera whose data is to be deleted, click the [Execute data deletion] button.



→ The deletion confirmation window will be displayed.

Step 4
Click the [OK] button.



→ The heat map and people count data in the PC will be deleted.

4.9. Control a decoder

The following operations are available for a registered decoder.
Displaying live images
Switching the screen pattern
Playing back the recorded images

Note:

- These functions will become available after the license for the WV-ASE204 is added.
- Depending on the devices connected to the decoder, network status or restrictions of WJ-GXD400, images from the decoder may sometimes not be displayed or controlled. Refer to the operating instructions of the decoder for further information about the restrictions.

4.9.1. Select a decoder

Step 1
Click the [Decoder control] icon on the title bar or select the decoder (online) icon displayed from the device tree.

→ The "Decoder control" window will be displayed.



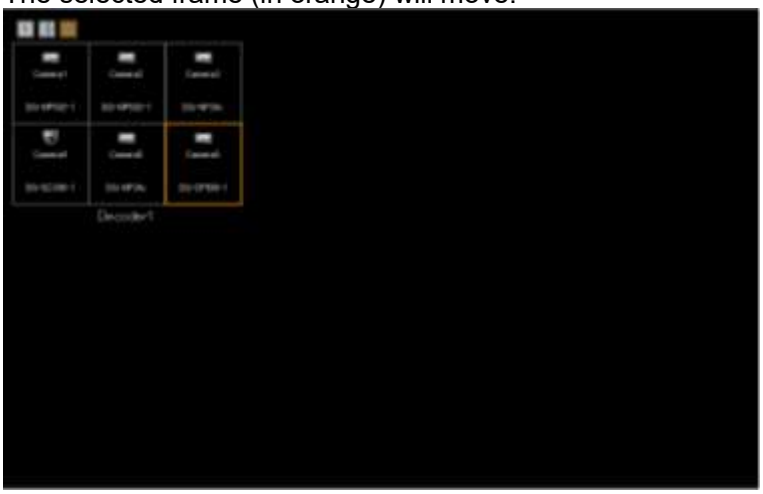
Note:

- When the "Decoder control" window is displayed for the first time, the display will be conformed to the downloaded current decoder status. After the window is displayed once, the current status will not be downloaded until the window is closed and displayed again. Therefore, if the "Decoder control" window has constantly been displayed, the status displayed on the window may differ from the actual status of the decoder depending on the control by another user or network errors. In this case, close and display the "Decoder control" window again.
- When the "Decoder control" window is displayed by clicking the [Decoder control] icon on the tool bar, the first area specified for the decoder that is displayed at the upper-left will be selected.
- The HD300, NV200, NV300, NX-series, NU-series, Video Insight Server or GXD400 icon will not be displayed in the device tree on the "Device control" window.

Step 2

Click (Select) the desired area associated with the desired decoder using a mouse.

→ The selected frame (in orange) will move.



4.9.2. Switch the screen pattern of the decoder



Note:

- If the currently selected area disappears when the screen pattern is switched, the first area will be selected with the frame.

4.9.3. Display live images using the decoder

Select a camera from the device tree on the "Device control" window.

→ Live images will be displayed on the selected area associated with the selected decoder.



4.9.4. Start the audio output from the camera

Press the [Audio ON] button.

→ The audio will be output from the selected camera to the selected decoder.



Note:

- It is possible to output the audio from only one channel at a time. (The latest output has the priority.)
- When "Unknown" is displayed for the selected camera or no camera has been registered for the selected channel, the [Audio ON] and [Audio OFF] buttons will not be displayed.

4.9.5. Stop the audio output from the camera

Press the [Audio OFF] button.

→ The audio output from the selected camera will be stopped.



Note:

- When "Unknown" is displayed for the selected camera or no camera has been registered for the selected channel, the [Audio ON] and [Audio OFF] buttons will not be displayed.

4.9.6. Display recorded images using the decoder

Step 1

Select the desired area to play back recorded images associated with the desired decoder.

→ Playback operation panel will be displayed when the camera associated with the selected area is connected to the recorder.

Step 2

Perform one of the following.

Click the [PLAY] button on the playback operation panel.

Select the time & date and click the [Go to date] button.

Click the [Go to last] button.

→ Playback will start on the associated decoder.

Step 3

It is possible to control the following buttons when the decoder is in the playback status.

[PREV RECORD] button: Playback will start after skipping to the previous recorded image.

[REW] button: Fast reverse playback will be performed.

Playback speed for fast reverse playback will be changed in the following order each time this button is clicked: Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)

Note:

- The step will not be displayed on the "Device control" window. The status will be same as the normal playback.
- [REV PLAY] button: Reverse playback of a recorded image will be performed.
- When playing MPEG-4 or H.264 images, some frames of recorded images may not be displayed.
- Reverse playback will be performed with the set refresh interval of the camera.
- [REW] button: Fast reverse playback will be performed.
- Playback speed for fast reverse playback will be changed in the following order each time this button is clicked:

  Step 2 (Approx. 4x) → Step 3 (Approx. 8x) → Step 4 (Approx. 16x) → Step 5 (Approx. 32x) → Step 6 (Approx. 48x) → Step 7 (Approx. 96x)
- The step will not be displayed on the "Device control" window. The status will be same as the normal playback.
- This software does not support the fast playback smooth mode of the ND400.
- The playback mode will be normal fast playback.

  [NEXT RECORD] button: Playback or reverse playback will start after skipping to the next recorded image.

  [PREV IMAGE] button: The previous frame will be displayed when this button is clicked during pausing.
- When playing MPEG-4 or H.264 images, some frames of recorded images may not be displayed.
- Reverse frame by frame playback will be performed with the set refresh interval of the camera.

  [PAUSE] button: Playback will stop when this button is clicked during playback. Playback will resume when this button is clicked during pausing.

  [STOP] button: Playback will stop and live images will be displayed.

  [NEXT IMAGE] button: The next frame will be displayed when this button is clicked during pausing.

4.10. Use the download function

4.10.1. Download recorded images

It is possible to download recorded image from the recorder onto the PC. Download recorded images using the "Download" panel.

Note:

- Recorded images of up to 128 cameras can be downloaded simultaneously. When multiple camera channels are selected, download of recorded images will be performed by the camera channels in order.
- It is possible to designate multiple recorder as download targets, however, download will not be executed simultaneously. When the same camera channel is designated, an address name will be added to the head of the file name.
- The maximum recording duration available for download is 24 hours.
- For the designated download range, the separate download will be executed by the unit of 60 minutes when using NX-series and NU-series and by the unit of 30 minutes when using a recorder other than NX-series and NU-series respectively.
- A downloaded file will be a divided file by the unit of time.
- The maximum file size is about 1.9 GB. If it exceeds 1.9 GB during downloading, download will end at that point.

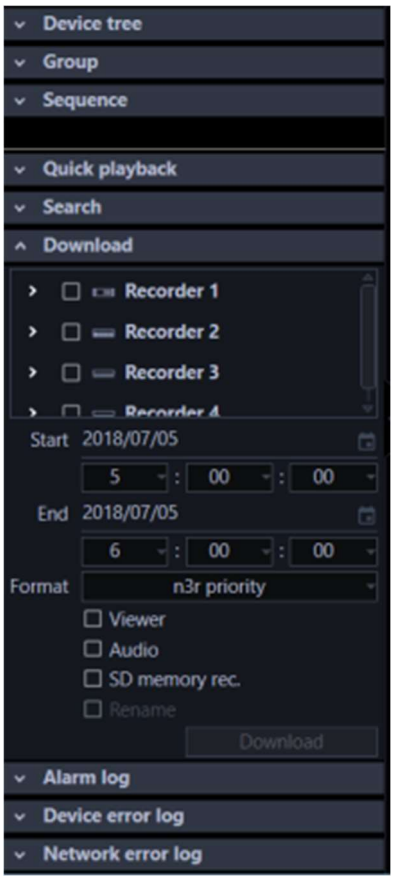
4.10.1.1. Set a download target

Step 1

Click [Download] on the function panel.



→ The download panel will be displayed.



The details of the window are as follows.

■ **Recorder tree**

Recorders and cameras as the target sources of download will be displayed.
Select desired recorders and the cameras.

■ **Start**

Select a start time of the time range for download.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step). Select a number for second (1 second step).

■ **End**

Select an end time of the time range for download.
Select a number for hour from "0" - "23". Select a number for minute (1 minute step). Select a number for second (1 second step).

■ **Format**

Select the format of the file to download from the following.

- n3r priority: Downloads an image file in n3r format.
- mp4 priority: Downloads an image file in mp4 format. If download of an image file in mp4 format is unavailable, an image in n3r format will be downloaded.

Default: n3r priority

Important:

- Refer to "☞3.2.1. Basic setup“ - "n3r file download method (NX series)” for further information about

the n3r file download.
- Download of images files in mp4 format is available if using NX400 (version 2.0 or later), NX300, NX200 (version 1.1 or later), NU-series and NX100. If using another model or a firmware version that is not supported to use this function, image files in n3r format will be downloaded even if “mp4 priority” is selected. The available functions vary depending on the firmware version of the recorder. Refer to the operating instructions of the recorder for further information.
  In the same manner, if download of an image in the specified format is unavailable, the image will be downloaded in a format supported by the recorder in use.
- Image files recorded in M-JPEG format cannot be downloaded in mp4 format.
- Use HTTP function for downloading an mp4-format image file.
- At the time of download of an image in mp4 format, the file can be downloaded as a file with audio only when “AAC” is set for the audio compression method of the camera. Audio recorded in other compression method than “AAC” will not attached to an mp4 file.

■ **Viewer**

The viewer software will be downloaded together with recorded images.

■ **Audio**

Audio will be downloaded together with images.

Note:
- When trying to download video data with interrupted audio from Video Insight Server, only video data (without audio) will be downloaded.

■ **SD memory rec.**

Recorded images transferred from the SD memory card in the camera to the recorder will be downloaded.

■ **Rename**

Change a name of a downloaded file.

Note:
- This is available only when 1 camera is selected as the download target.

■ **[Download] button**

The folder selection window will be displayed.
When “Rename” is selected, the file name edit window will be displayed.

Step 2

Select the recorders and the cameras as the target sources of download.

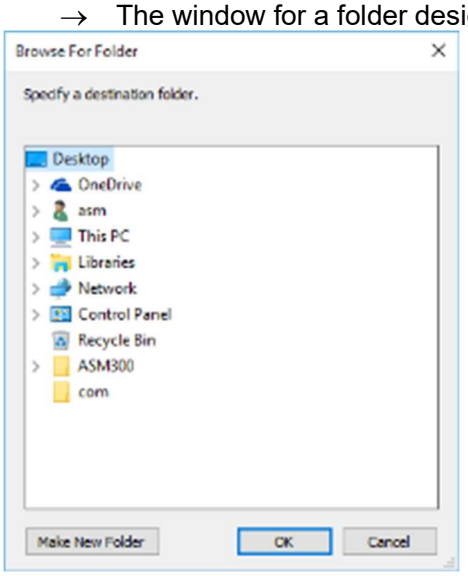
Note:
- Entering a name in the search field at the upper part of the function panel makes possible to search desired device names containing partial match. Refer to “☞ 4.1.1. Search for registered device name, folder name, group name, sequence name and download target device name“ for further information about the search field operation.
- When only recorder names or folder names are displayed as the search result, double-clicking the corresponding icon or clicking the left side () of the corresponding icon will display a list of all the

registered camera icons.

Step 3

Designate time range for download, and then click the [Download] button.

→ The window for a folder designation will be displayed.



The details are as follows.

■ **Destination folder**

Specify a folder as the destination of downloaded files.

■ **[New Folder(N)] button**

Create a new folder in the folder currently selected.

■ **[OK] button**

The folder browse window will close and the download will start.

■ **[Cancel] button**

The window for a folder destination will close and the download will be canceled.

Note:

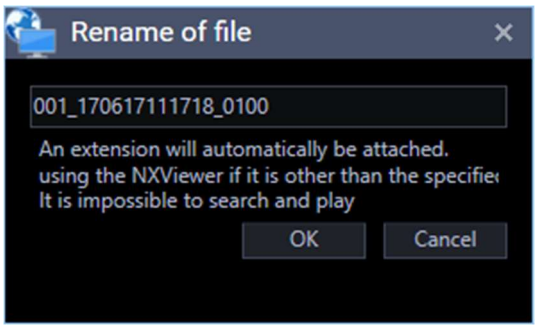
- The overwrite warning window will be displayed when a file of the same name already exists in the folder.
  If you do not wish to overwrite the existing file, cancel download and select another folder.
- When a removable HDD formatted on the 32-bit OS is connected to a PC whose OS is the 64-bit edition, it may fail to designate the removable HDD as a saving destination.

Step 4

Click the [OK] button after specifying a folder.

→ When “Rename” is not selected, move to step 5.

→ When “Rename” is selected, the file name edit window will be displayed.



Enter a name of a file to be downloaded and click the [OK] button.

Note:

- The file extension will automatically be added.
- If a letter is added to the head of the file name that is displayed using the initial value, it will become impossible to search using the viewer software. (However, it is possible to play it.)
  Refer to "☞ 4.11. Use the viewer software" for further information about the viewer software.

Step 5

Download will start and the download start window will be displayed.
Refer to "☞ 4.10.1.2. Use the download window“ for further information about the download window.

Note:

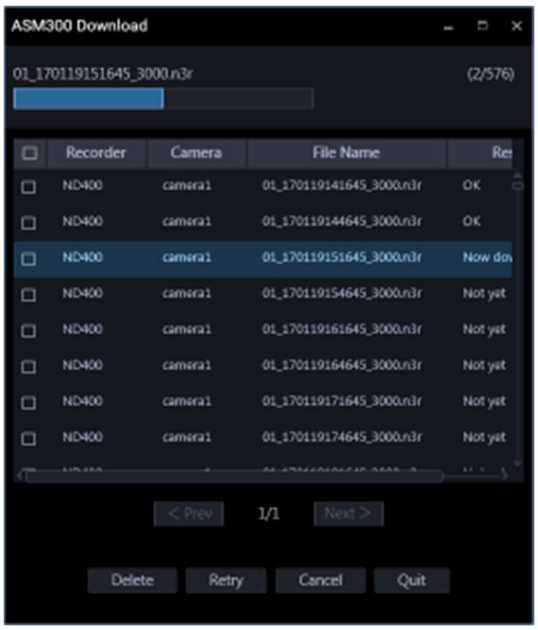
- When the CD/DVD drive is selected as a saving destination, it is necessary to insert a writeable medium into the CD/DVD drive before starting the download.
- When the total file size of all the downloaded files is larger than the capacity of the CD/DVD medium, only some files that can be contained in the medium will be written.
- It is also possible to automatically play recorded images on a CD/DVD only by inserting the disc into the drive. Refer to “☞ 4.10.1.3. Create an auto-play CD/DVD” for further information.
- When the viewer software is copied, the viewer software will also be written.

4.10.1.2. Use the download window

When a download started, the download window will be displayed.

Note:

- When a download is started using the operation window, a file name that was set as the download target will be added to the download window.
- Up to 10000 files can be downloaded at a time.
- If the size of the download file exceeds the capacity of the save destination (HDD, DVD, etc.), the download is suspended and only a part of the file is saved within the range that fits the capacity.



The details of the window are as follows.

■ **Name of the file currently being downloaded**

Name of the file currently being downloaded will be displayed.

■ **Progress bar**

The current download progress status will be displayed.

■ **Download status**

“Number of downloaded files” / "Number of files to be downloaded" will be displayed.

■ **List of files**

Information of the downloaded files will be displayed in list form.

- Checkbox: Select a desired item to operate
- Recorder: A recorder name as a download target will be displayed.
- Camera: A camera name as a download target will be displayed.
- File name: A file name as a download target will be displayed.
- Result: The status of the download file will be displayed.
  - OK: Download of the file is successfully completed.
  - NG: Download of the file failed.
  - Now downloading: Currently downloading.
  - Not yet: Download is not yet executed.
  - No data: No data was found in the selected recorder.
  - Canceled: Download is canceled.

■ **[< Prev] button**

Moves [File information list] to the previous page.

■ **[Next >] button**

Moves [File information list] to the next page.

■ **Number of pages**

“Current displayed page”/”Total number of pages” of the file information list will be displayed.

■ **[Delete] button**

Delete the item selected by the checkbox.
Downloaded files will not be deleted.

■ **[Retry] button**

When the result of the item selected by the checkbox is “NG” or “Canceled”, download will start again.

■ **[Cancel] button**

When the state of the item selected by the checkbox is “Download in progress” or “Not yet”, download will be canceled.

Note:

- The download cancellation confirmation will be displayed. When the [OK] button is clicked, the download will be canceled. When the [Cancel] button is clicked, the download will continue.

■ **[Quit] button**

The download window will close.

Note:

- When the download window is closed, items whose state is “Download in progress” or “Not yet” will be deleted from the file information list.
- Even if logged out or ended this software during the download, the download will be continued.

When “OK” is displayed in the result of the file information list, the download is successfully completed.

4.10.1.3. Create an auto-play CD/DVD

It is possible to create an auto-play CD or DVD that automatically plays written recorded images on the disc only by inserting it into the drive.

Note:

- When the CD/DVD drive is selected as a saving destination, it is necessary to insert a writeable medium into the CD/DVD drive before starting the download.
- When the total file size of all the downloaded files is larger than the capacity of the CD/DVD medium, only some files that can be contained in the medium will be written.
- The name of the downloaded file cannot be changed.
- The following procedures are explained by taking a new CD/DVD as an example. When the media is not brand new, it is necessary to format it beforehand.

Step 1

Click [Download] on the function panel.



→ The download panel will be displayed.

Step 2
Select the recorders and the cameras as the target sources of download.

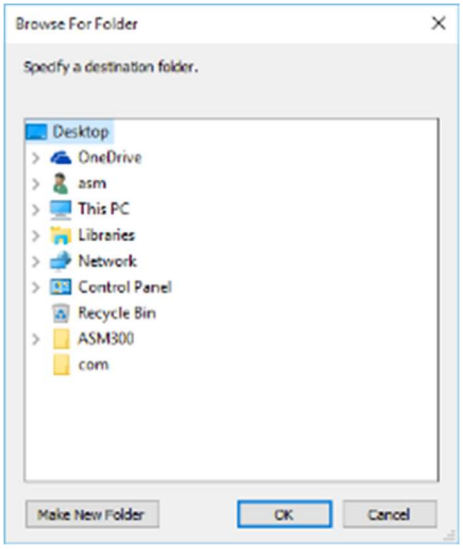
Step 3
Designate time range for download.

Step 4
Check [Viewer], and then click the [Download] button.

→ The window for a folder designation will be displayed.

Note:

- To download audio simultaneously, check [Audio].
- File names cannot be changed. Please do not check [Rename].



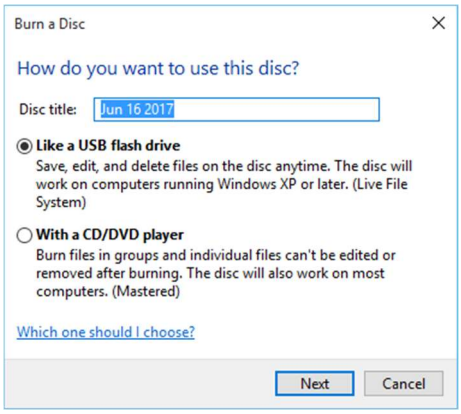
Step 5
Select a CD/DVD drive as the save destination folder and then click the [OK] button.
At this time, select the root (top-most directory under the drive) of the CD/DVD drive.

→ “Burn a Disk” window will be displayed.

Step 6

Select “Like a USB flash drive”.

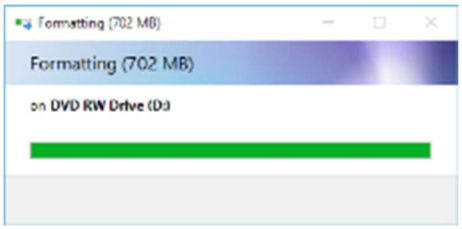
Important:
- When selecting "With a CD / DVD player", the download may fail.
  Be sure to select "Use like USB flash drive".



Step 7

Click the [Next] button.

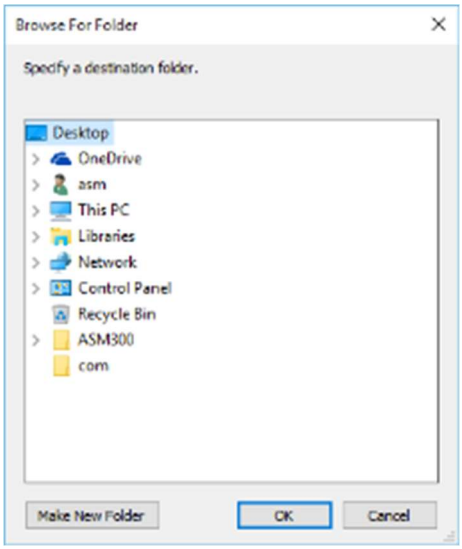
→ Formatting of the disc will start. Depending on the disc in use, required time to format may vary.



Step 8

When the formatting is completed, the destination folder selection window will be displayed again.
Select a CD/DVD drive as the save destination folder and then click the [OK] button.

→ Download will start and the download start window will be displayed.
Refer to "☞ 4.10.1.2. Use the download window“ for further information about the download window.



Step 9
When [OK] is displayed in [Result] on the download window, the download is completed.
Take out the disc from the CD/DVD drive.

Important:
- If playback does not start even when inserting the completed disc into the CD/DVD drive, check if the settings of Windows are set as follows.
  1. Click [Control Panel] - [Hardware and Sound] - [AutoPlay] in order.
  2. Select "Install or run program from your media" in the [Software] - [Software and games].
  3. Click the [Save] button.

4.10.2. Download while playing recorded images

When “Download” is selected from the menu displayed by right-clicking on the playback window, the download panel will open. Operate as instructed in step 2 of “☞ 4.10.1.1. Set a download target” to download.
Refer to “☞ 4.1.15.1. Play” for how to display the playback window.

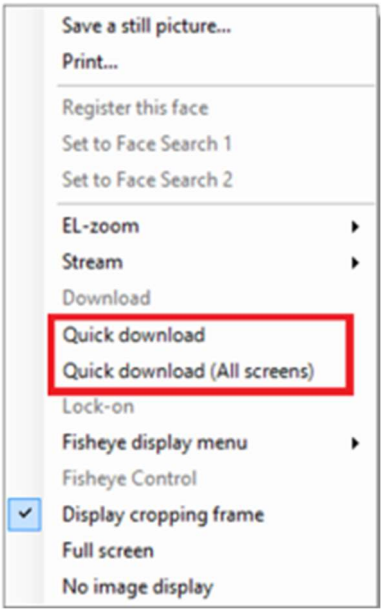
4.10.3. Download using the search panel

When “Download” is selected from the menu displayed by right-clicking on the search result list on the search panel, the download panel will open. Operate as instructed in step 2 of “☞ 4.10.1.1. Set a download target” to download.
Refer to “☞4.5.1.3.2. Play recorded images using the "Search" panel” for how to display the search window.

4.10.4. Use the quick download

Recorded images on the operation window will immediately be downloaded by the method set in advance on the setup window.

Step 1
Right-click on the image display area of the operation window and select “Quick download” or “Quick download (All screens)” from the displayed pop-up menu.



The details of the window are as follows.

■ **Pop-up menu**

Quick download: Downloads images displayed in the selected area on the operation window.
Quick download (All screens): Downloads images displayed in the all areas on the operation window.

Note:

- When using “Quick download”, download will be executed according to the pre-download time and download time set in advance on the setup window.
  Refer to "☞3.2.1. Basic setup" for further information about the settings.
- The NX and NU series recorders perform split downloads in 60-minute increments for the specified download range, and in 30-minute increments for other recorders.
- A downloaded file will be a divided file by the unit of time.

Step 2

The download window will be displayed and the download will start.
Refer to "☞ 4.10.1.2. Use the download window“ for how to use the download window.

4.10.5. About the downloaded files

When the file name is not changed at the time of download, the file name will be as follows.
Refer to "☞ 4.10.1.1. Set a download target“ for how to change a file name at the time of download.

Example case:

01_070209121500_0515.n3r
(Channel number: 1, Start time of file: 2007/Feb/09/12:15:00, Time length of file: 5min 15sec)

When downloading from multiple recorders at the same time, the IP address of the recorder is given at the beginning of the file name.

Example case:

192.168.0.100_01_070209121500_0515.n3r
(IP address: 192.168.0.100, Channel number: 1, Start time of file: 2007/Feb/09/12:15:00, Time length of file: 5min 15sec)

Note:

- When the SD memory data is downloaded, the letter "_SD" will be attached to the time length of a file.
  Example) 01_070209121500_0515_SD.n3r
- File name of the downloaded audio data will be as follow.
  Example) 01_070209121500_0515.n3a
- The name of the file downloaded from NX-series and NU-series will be displayed with 3-digit channel.
  Example) 001_070209121500_0515.n3r
- File extensions of the file downloaded from each recorder will be as follows.
  - When downloaded from the ND200, ND300, ND400, HD600, NV200, NV300, NX400(Before firmware version 2.00), NX200(Before firmware version 1.10):
    n3r (n3a for audio file)
  - When downloaded from the NX400(After firmware version 2.00), NX300, NX200(After firmware version 1.10), NX100 or NU-series:
    Selectable from n3r or mp4 (n3a for audio file)
  - When downloaded from the HD300:
    h3r (h3a for audio file)
  - When downloaded from the Video Insight Server:
    avi

4.10.6. Operate the downloaded file

It is necessary to use the dedicated viewer software to play and operate the downloaded files.
When "Viewer copy" on the download panel is selected at the time of a download, the viewer software will be downloaded together with images.
Refer to "☞4.10.1. Download recorded images" for further information.

4.10.6.1. Convert a file to the standard format

The n3r files downloaded from the recorder will be converted to playable files on the media player, etc.

Note:

- If the downloaded n3r file is image data recorded by other manufacturers' device, the data will be out of our support scope for file conversion.
- Audio file (n3a) recorded with compression method "AAC" cannot be converted.
- Data encrypted files cannot be converted. If the data encryption method is changed during recording, the process may not be able to continue.
- Files containing AI-VMD data cannot be converted.
- When a removable HDD formatted on the 32-bit OS is connected to a PC whose OS is the 64-bit edition, it may fail to designate the removable HDD as a saving destination.
- Depending on the entered image capture size, converted images may not smoothly be displayed.
- After conversion, the image quality of the file will be set to the standard level.
- The frame rate after the conversion will be 30fps.

Step 1

Click the [File conversion] icon on the tool bar.

→ The file conversion window will be displayed.



Note:

- When a user who is not allowed to convert a file logged in to this software, the [File conversion] icon will not be displayed.

The details are as follows.

■ File Name

Indicates the list of source n3r files.

■ Location

Indicates the full paths of source n3r files.

■ Output

Indicates the names of the folders to output the converted files.

■ [Select] button

Open the folder to output a converted file.

■ Format

Select the format of converted image data.
mp4: Converts to an mp4 file.
WMV: Converts to a wmv file.

■ Resolution

Select the resolution from the following.
1920×1080/ 1280×960/ 1280×720/ 960×720/ 800×600/ 720×576/ 720×480/ 640×640/ 640×480/ 320×320/ 320×240

■ Audio

Select whether or not to load the audio (n3a) file during conversion.
On: Load the audio file.
Off: Not to load the audio file.

■ **File Chain**

Select whether or not to combine two or more converted files together.
On: Combine files.
Off: Not to combine files.

■ **[Preview] button**

The preview area will be displayed.

■ **[Add] button**

Select a source file.

■ **[Delete] button**

Delete a source file from the list of the files to convert.

■ **[↑] button**

Change the order of listed files to the ascending order.

■ **[↓] button**

Change the order of listed files to the descending order.

■ **[Start] button**

Start a conversion.

■ **[Cancel] button**

Cancel a conversion.

■ **Progress bar**

The conversion progress status will be displayed.

■ **Conversion status**

"Number of files converted"/"Number of files to be converted" will be displayed.

Step 2

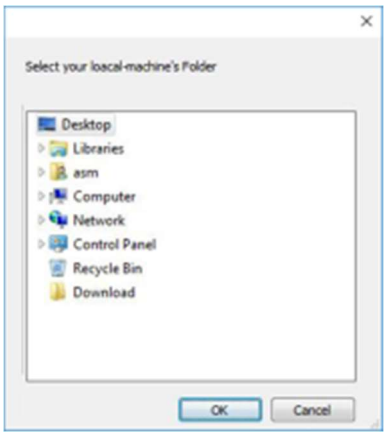
Drag and drop the source n3r file into the list of files.

Note:

- It is also possible to select the file by clicking the [Add] button.
- It is impossible to convert h3r files.
- File conversion starts sequentially according to the order of the list.
  To combine two or more converted files together, the content of the source files should be ordered chronologically.
  Click the [↑]/[↓] buttons to correct the chronological order.

Step 3

Click the [Select] button to select the destination folder.

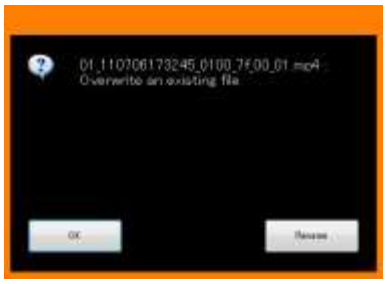


When the [OK] button is clicked, the selected folder will be displayed as the output destination.
When the [Cancel] button is clicked, output to the selected folder will be canceled.

Step 4
Select an image capture size, audio and file chain options.

Step 5
Click the [Start] button.

→ File conversion will start. If the name of the converted file is the same as an existing file, the window will be displayed to select whether or not to overwrite the existing one.



When the [OK] button is clicked, the file will be overwritten.
When the [Rename] button is clicked, it is possible to change the file name.

Note:

- If selecting a system folder such as "Program Files" as an output folder, the file may not be created in the selected folder regardless of successful file conversion.
  In this case, the OS virtualization function will generate a system folder and files under C:\User\<User name>\AppData\Local\VirtualStore.
  Example: When a user whose user name is “asm” is trying to create files in "C:\ProgramFiles\i-PRO", mp4 or WMV files will be generated under; C:\User\asm\AppData\Local\VirtualStore\Program Files\i-PRO.
- The file name will be automatically determined. The file name will be the same as the conversion source but the extension will be changed from "n3r" to "mp4" or "wmv".
- The maximum size of an mp4 file or a wmv file is approx. 1.9 GB. When the size exceeds 1.9 GB during conversion, the file will automatically be divided into several files. The unique and sequential numbers will be given to these files.
- When the conversion of a file fails in the process, it will automatically be converted again into another file.
  However, the file will automatically be divided at the point of failure.

- When the file conversion error occurs, the details will be displayed in the message area. Refer to the " ☞8.20. When using File conversion” for error message
- When playing a concatenated file (multiple files combined) and playback point reaches the joint point of the file, black screen may be displayed for a moment and break the flow of video and audio.
- A file that is incapable of continuing conversion may be created depending on the specified range of "n3r" file downloading. When a file like the above is detected, “File error. Conversion canceled. Change the download start/end time and re-convert.” will be displayed in the conversion status field and the conversion will forcibly be terminated even if the file conversion is in progress. When this message is displayed, change the download start/end time and download a "n3r" file again. Then, retry a file conversion using the newly downloaded file.

4.10.6.2. Converting audio of the network microphone to the standard format

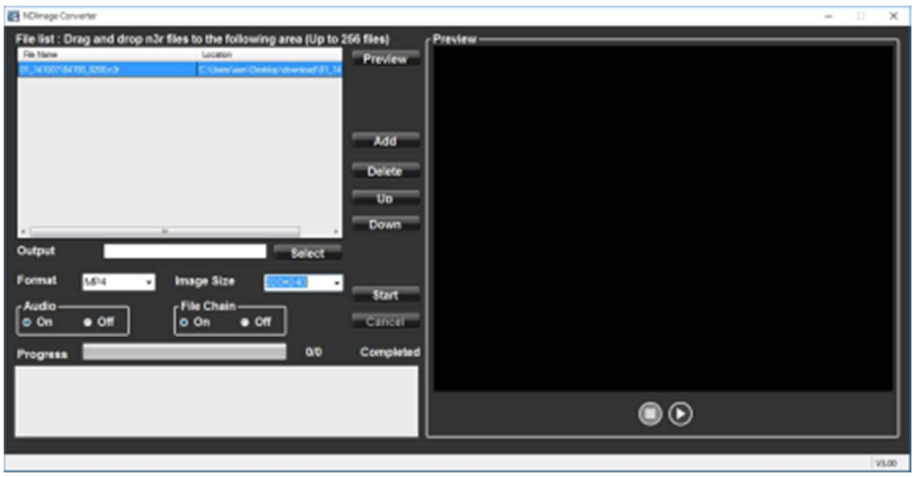
The audio recorded from the network microphone can be converted to the standard format by specifying the sound collection position, two positions at maximum.

Step 1
Drag and drop the n3r file of the linked camera into the list of files.

Note:
- It is also possible to select the file by clicking the [Add] button.



Step 2
Click the [Preview] button.
→ The "Preview" area will be displayed.



The details are as follows.

■ **Preview start button ( )**

Starts preview.

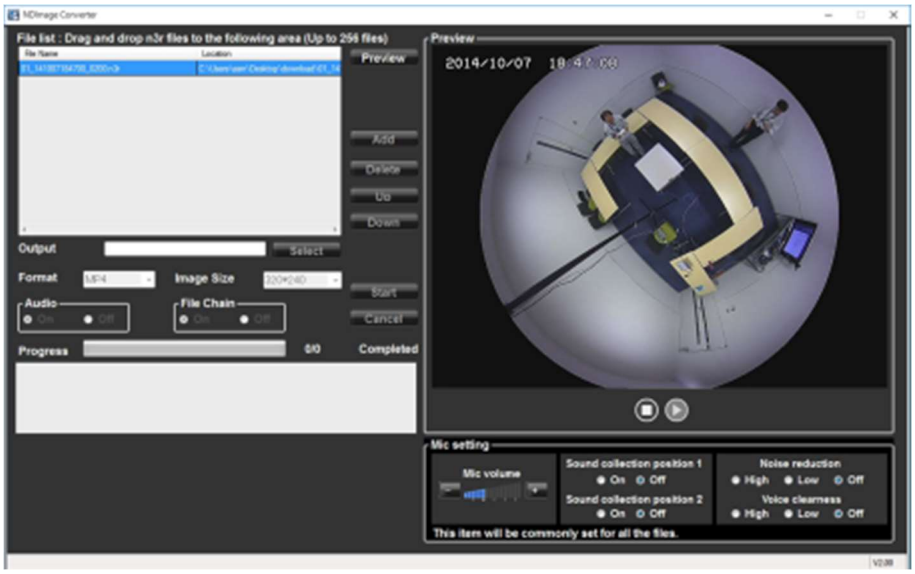
■ **Preview stop button ( )**

Stops preview.

Step 3

Click .

The selected file preview will be started, and the "Mic. setting" area will be displayed.



Note:

- The "Mic. setting" area will not be displayed if other than the files of the linked camera are played.
- The "Mic. setting" area will not be displayed if the image of the linked camera is other than fisheye.
- If no audio file (n3a) exists, the "Mic. setting" area will not be displayed.
- When multiple files are selected, the top file will be previewed.
- Preview is not available during conversion.
- When "OFF" is selected for both "Sound collection position 1" and "Sound collection position 2", a

non-directional audio will be played.

The details of the window are as follows.

■ **Mic volume**

Changes the volume of the microphone.
+: Increases the audio volume.
–: Decreases the audio volume.

Note:

- The greater volume has lower audio quality. Set the volume as low as possible.
- If audio volume is too small or its quality is low, the audio sensitivity of the network microphone may not be set appropriately. Check and change the setting as required.

■ **Sound collection position 1, Sound collection position 2**

Sets up where to pick up the sound (sound collection position).
ON: Enables sound collection position setting.
OFF: Disables sound collection position setting.

When "ON" is selected, the sound collection position marker  will be displayed and audio will be collected in the direction of the marker.
It is possible to move the sound collection position by dragging the sound collection position marker.

■ **Noise reduction**

Selects the noise reduction level for the microphone.
High: High level noise reduction.
Low: Regular noise reduction.
Off: Disables the noise reduction.

Note:

- When "High" is selected, the noise will be reduced comparing to "Low". However the audibility may drop due to sound strain. Select the level according to the audibility.

■ **Voice clearness**

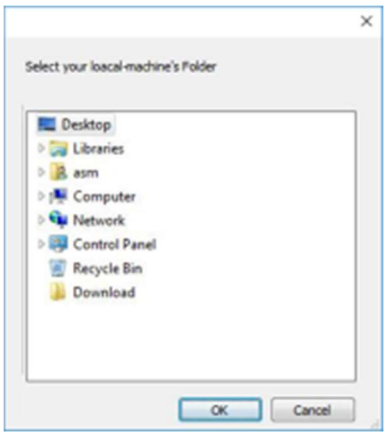
Selects the audio compensation level for the microphone in order to make better sound.
High: High level compensation.
Low: Regular compensation.
Off: Disables the compensation.

Step 4

After specifying a sound collection position, click  .

Step 5

Click the [Select] button to select the destination folder.



When the [OK] button is clicked, the selected folder will be displayed as the output destination.
When the [Cancel] button is clicked, output to the selected folder will be canceled.

Step 6
Set up "Image Size", "Audio", and "File Chain".

Note:
- Select "On" for "Audio". When "Off" is selected, the audio will not be converted.

Step 7
Click the [Start] button.
→ File conversion will start.

Note:
- When "Off" is selected for both "Sound collection position 1" and "Sound collection position 2", a non-directional audio will be converted.
- The items set in the "Mic. setting" area will be commonly set for all the selected files.
- The sound collection position marker will not be displayed in the preview window during conversion.

4.11. Use the viewer software

When an image or an audio is downloaded, an image file (“file name”.n3r, “file name”.h3r) or an audio file (“file name”.n3a, “file name”.h3a) will be downloaded. The downloaded image data and audio data can be played, saved, or printed using the viewer software copied at the same time when the data was downloaded.

Note:
- Viewer software to be copied differs depending on the file to be downloaded.
  In case of n3r file: NX_Viewer.exe
  In case of h3r file: Viewer.exe
- The images of windows shown below for the following procedures are NX_Viewer.exe.

4.11.1. Install the viewer software

Note:
- When an older version of the viewer software is installed, uninstall it first and install a new version.
- It is unnecessary to install "Viewer.exe".

Step 1
Double-click the downloaded installer file "n3vsetupnx.exe".
→ The installer will be launched. Follow the instructions displayed on the monitor.

Note:
- Read the content of the "License Agreement" window and select "I accept the terms in the license agreement".
- It is possible to install the software even when "User Name" and "Organization" on the "Customer Information" screen are blank. Select [All users who uses this computer (A)].
- Select [All] for the setup type.

Step 2
Click the [Install] button.
→ Installation will start. When the installation is successfully completed, the installation completion window will be displayed. Click the [Finish] button.

4.11.2. Uninstall the viewer software

Note:
- It is unnecessary to uninstall "Viewer.exe". Delete the file directly.

Step 1
Execute [Programs - Uninstall a program] in the control panel.

Step 2
Select "NX_Viewer" from the presently installed programs and click the [Uninstall] button.
→ The uninstall program will be launched and the wizard will be displayed.

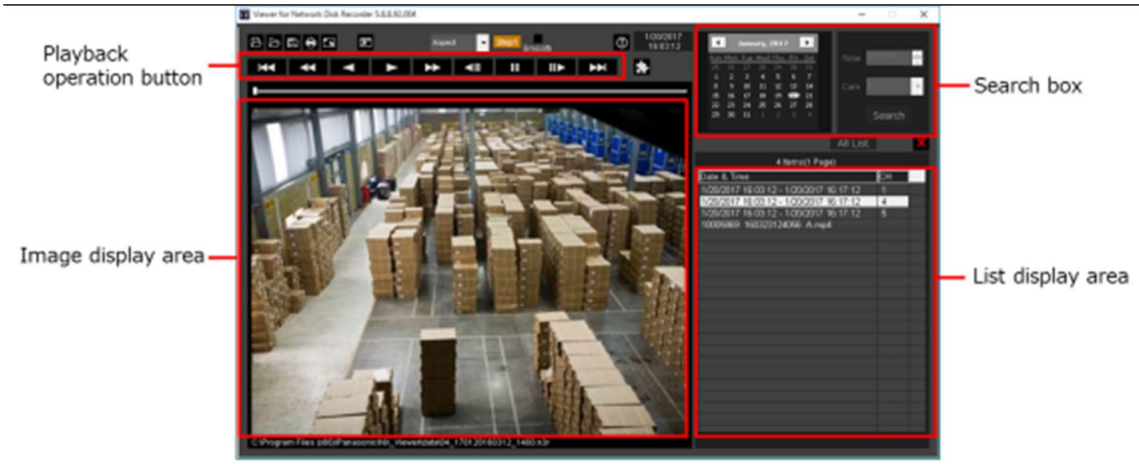
Step 3
Uninstall the program by following the displayed instructions.

4.11.3. How to use the viewer software (NX_Viewer)

Note:
- Viewer software to be used differs depending on the file to be played.

For the files whose extension is "n3r": NX_Viewer.exe
For the files whose extension is "h3r": Viewer.exe

- It is impossible to play only an audio file (extension:h3a) using the viewer software.
- When NX_Viewer is started up for the first time, the license agreement screen will be displayed. Read the content of the "License Agreement" window and select "I accept the terms in the license agreement".





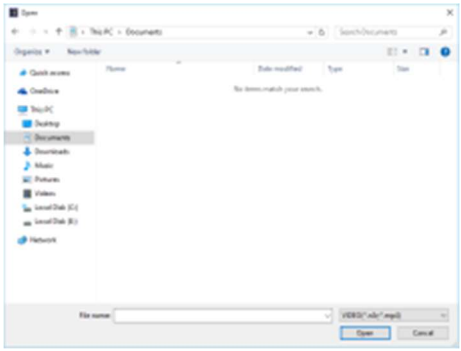
Playback operation window when images are displayed on a full screen

4.11.3.1. Select recorded images currently being played

Step 1

Click the button (Open) .

→ The "Open" window will be displayed.



Step 2

Select the downloaded image data (“file name”.n3r or “file name”.mp4) and click the [Open(O)] button. Or drag and drop the image data file into the viewer software without displaying the "Open" window.

→ The information of the selected file will be displayed in the list display area.

Date & Time: Indicates a start time and an end time of image data.

CH: Indicates a camera number.

Note:

- Do not change the file name of the copied or downloaded image data. If the file name is changed, the file information will not be displayed correctly.
- It is possible to select multiple files (up to 100 files) by clicking the desired files while holding down the [Ctrl] key or the [Shift] key on the user keyboard and display all of them in a list by drag & drop.
- The files can be sorted by start time and date in ascending or descending order by clicking the header of the list display area.
- To add image data to the list display area, right-click the list and select [Add file] from the menu displayed. When the “Open” window is displayed, operate as instructed in step 2. The added image data will be displayed in the list according to the sort state of the list.
- When the number of displayed image data files has reached 100, no more files can be added. The total number of image data files will be displayed above the list as [~ Items].
- When the  button is clicked, display of all data in the list will be deleted. Another way to clear the list is to right-click the list and select [Clear all list].
- When there is data in the same directory where there is the viewer software or in the “data” folder of the same directory, the data will automatically be loaded for playback.

4.11.3.2. Play recorded images

Use the playback operation button to play downloaded images. If an image from the same camera is displayed on the list, the next image in playback mode or the previous image in reverse playback mode will be played back consecutively. If the same camera channel is absent on the list, playback will stop, the image display area will turn black and the unit is paused.

Note:

- When starting playback of password protected data, the password entry screen will be displayed. Enter the set password.
- When the  button is clicked during playback (or the  button during reverse playback), the next (or previous) image of the camera currently being used for playback will be played.
- When the  button is clicked, the displayed image will be enlarged. When the  button is clicked, it will return to its original size.
- If there is audio data (“file name”.n3a), the  /  buttons will be displayed. It is possible to switch between play/mute audio using these buttons.
- When WV-ASM300 and the viewer software are launched and running at the same time, audio may not be played properly. To properly play audio, launch and run only one of WV-ASM300 and the Viewer software.
- Playback images and audio may sometimes not be synchronized exactly.
- When the [Search] button is clicked after selecting date, time and [Cam] in the search box, playback of an image data that matches with the selected time and date among data of the selected camera will start from the top of the data.
- When the  button is clicked, images will be displayed on a full screen. Clicking the [Restore] button on the operation window or pressing the [Esc] key on the keyboard will return the image display to the previous status.

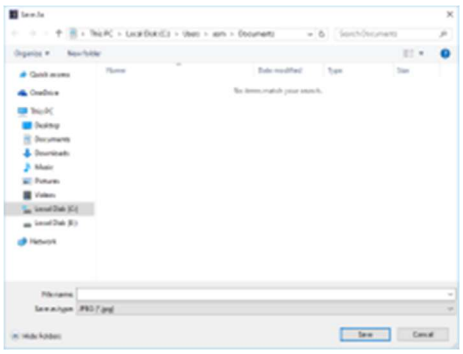
4.11.3.3. Save a still image

The still image displayed on the image display area can be saved as a JPEG file on the PC.

Step 1

Click the  button.

→ The "Save As" window will be displayed.



Step 2

Enter a file name and select file type (Initial: JPEG). Confirm the destination folder and click the [Save(S)] button.

→ The image data will be saved.

Note:

- When using Viewer.exe, it is possible to save as a bitmap file by selecting "BMP (*.bmp)".

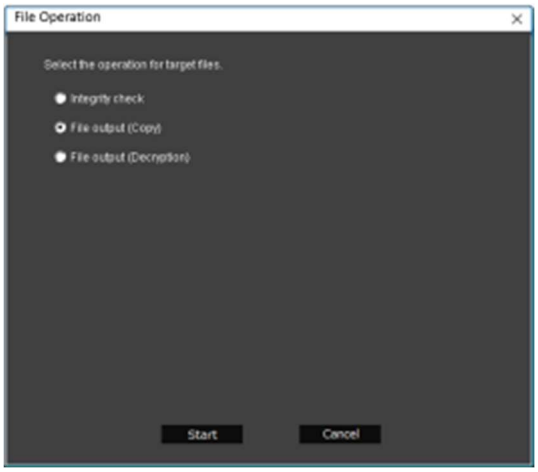
4.11.3.4. Save image data (copy) (NX_Viewer only)

The selected image data ("file name".n3r or "file name".mp4) can be copied in any desired folder on the PC.

Step 1

Right-click the list and select [File Operation] from the menu displayed.

→ The "File Operation" window will be displayed.



Step 2

Select [File output (Copy)] and click the [Start] button.

→ The "Save as" window will be displayed.

Note:
- When outputting password protected data, please select [File output (Decryption)].

Step 3
Confirm the file name and the destination folder, and then click the [Save(S)] button.
→ The image data will be copied and saved.

Note:
- It is not possible to operate the viewer software while copy is in progress.

4.11.3.5. Print the downloaded image

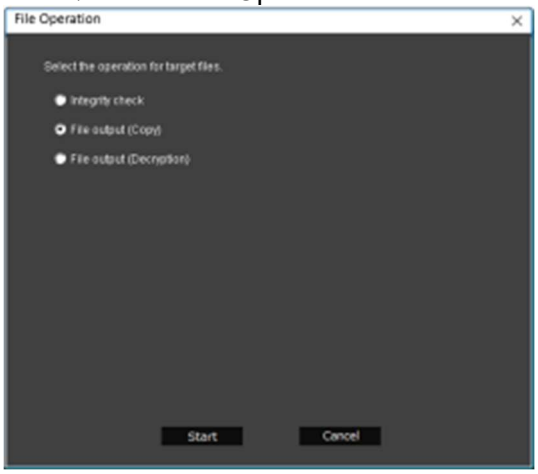
Print the image displayed in the image display area.
Pause playback at a desired point to print and click the button. When printing the image of an n3r file, time & date when the image is paused will be printed together.

Note:
- When using Viewer.exe, it is possible to select a print size from L/M/S.

4.11.3.6. Alteration detection

It is possible to detect the alteration of the data if a code for the alteration detection has been attached to the downloaded data.

Step 1
Right-click the list and select [File Operation] from the menu displayed.
→ The "File Operation" window will be displayed.



Step 2
Select [Integrity check] and click the [Start] button.
→ The "Input certificate file for integrity check" window will be displayed.

Step 3
Click the [Browse certificate..] button.

→ The "Open" window will be displayed.

Step 4
When opening a file with a code for the alteration detection, the certificate information will be displayed. Please check the contents and click the [OK] button.

→ Starts alteration detection and displays the result in a window.

4.11.3.7. Display Single/Quad PTZ image converted from fisheye images

A fisheye image captured by a fisheye camera can be displayed in the single PTZ or quad PTZ format. (Hereinafter referred to as “fisheye image display change function”)

Important:
- To use the fisheye image display change function, download the conversion library from the following URL and install it on the PC on which the viewer software is used.
  https://i-pro.com/global/en/surveillance/training-support/support
- Refer to the provided appendix paper “For customers who uses the function extension option for fisheye network camera” for supported models.

When an image to which the fisheye image display change function is applied is selected, the  /  /  buttons will be displayed.
Click and select the display format.

Note:
- Clicking the  button will reset the corrected image to the original fisheye image.
- Clicking the  button will convert an image to a Single PTZ image.
- Clicking the  button will convert an image to a Quad PTZ image.
- When clicking on an image that is converted into a Single/Quad PTZ image, the image will be displayed while locating the clicked point at the center of the screen.

4.12. Alarm/event notification

A pop-up window (notification window) will be displayed on the operation window when an alarm or an error occurred.
An alarm notification is a warning message from a sensor or a camera, whereas an event notification is an error message that informs an occurrence of a device error and a network error.

Important:
- It is necessary to configure the settings of a device to be used in order to use the alarm/event notification function.
- When also using the TCP alarm notification function of the recorder, it is necessary to set the same number to the event action number and the recording camera number on the recorder.
- Refer to the operating instructions of the recorder for how to configure the settings.

Note:

- Only when an event is a terminal alarm, it is unnecessary to set the same number to the terminal number and the recording camera number since the information of the recording camera configured for the terminal alarm setting on the recorder is used. Refer to the operating instructions of the recorder in use for how to configure the terminal alarm settings.
- In case of HD600, it is possible to select two or more recording cameras. This software uses a camera whose number is the smallest recording camera number.
- When the terminal alarm setting has been changed on the recorder, it is necessary to acquire the information from the recorder. In addition, when using information of data that is acquired from a recorder using WV-ASM100 series (Version 7 or earlier), it is necessary to acquire the information from the recorder again.
- Live images from the camera in which an alarm occurred can be displayed only when the login user is allowed to access this camera.
- Images recorded at an alarm occurrence can be played only when a login user is not restricted by the user level determined by the administrator to play the recorded images.

When an alarm/event notification is provided, one of the following logs will be filed.

Alarm log: Alarm information history transmitted using TCP alarm notification from devices
Device error log: Device error information history transmitted using TCP alarm notification from devices
Network error log: Network error history between this software and devices

4.12.1. Alarm/event notification message

When an alarm/error occurred, an alarm notification message or an event notification message will be displayed in the operation window. It will be displayed at the bottom right of the operation window. The newest one will be displayed at the top and follows in descending order. When a message window displayed at the bottom is closed, message windows above the closed window will move down.

Note:

- When a same type message is displayed while a message window is being displayed, the message in the message window will be updated.



■ **Alarm notification message**

Notifies of an alarm occurrence.

■ **Event notification message**

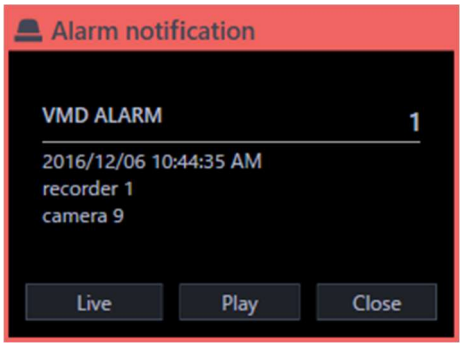
Notifies of an event occurrence.

Note:

- When an alarm/event occurred during the sub window such as the "Search" window is displayed, the buttons on the displayed message window are inoperable until the displayed sub window is closed.

4.12.1.1. About the alarm notification message

When an alarm occurred, the alarm notification message window will be displayed. When an alarm occurred, the alarm buzzer will start sounding and the alarm notification message window will be displayed. When the window is closed, the alarm log panel will be displayed.
When an alarm notification is provided from the recorder during the alarm notification message window is displayed, the descriptions in the notification message window will be renewed and the latest alarm information will be displayed.



■ **Alarm notification message**

Alarm information, time & date of the alarm occurrence, the title of the recorder/encoder (that provided the notification) and the title of the camera will be displayed.

Note:

- When the device that provided an alarm notification is a camera, "--" will be displayed as the title of the device.
- When an alarm occurred in a Fisheye camera and the camera is in "4-stream" mode, “Camera name” for device title and “CH type” for camera title will be displayed respectively.
- When an alarm notification is provided from Video Insight Server, the recorded image may not be displayed by clicking the [Play] button right after the alarm is notified because the data has not being stored.
- For the alarm names for Intruder, Loitering, Direction and Cross line, the names set in the [Setting]-[AI camera] screen are displayed. In addition, AI-VMD and i-VMD are the target.

■ **Number of alarm occurrences**

Total number of alarm occurrences will be displayed. When the total number of the alarm occurrences exceeds 1000, "1000<" will be displayed.

■ **[Live] button**

The alarm notification message window will close and live images from the camera in which the alarm occurred will be displayed on a 1-screen.

Note:

- When using the AI privacy guard function of the AI camera, the live display is as follows.

  <In case of alarm notification from AI privacy guard independent camera>

  A user with authorization of "AI privacy guard image switching": "Stream 1" or "Stream 3" is displayed live.
  A user without authorization of "AI privacy guard image switching": "Stream 2" or "Stream 4" is displayed live.

  <In case of alarm notification from AI privacy guard recording camera (OFF)>

  A user with authorization of "AI privacy guard Image switching": The image of the selected AI privacy guard camera (OFF) is displayed live as it is.
  A user without authorization of "AI privacy guard image switching": The image of the AI privacy guard camera (ON) is displayed live.

  <In case of alarm notification from AI privacy guard recording camera (ON)>

  The image of the selected AI privacy guard recording camera (ON) is displayed live regardless of authorization of "AI privacy guard image switching".

■ **[PLAY] button**

The alarm notification message window will close and playback of recorded images on a 1-screen will start from the point of 5 seconds before the alarm occurrence.

Note:

- When it is just after the alarm occurrence, playback may not start from the point of 5 seconds before the alarm occurrence.
- Depending on the settings of the recorder, playback may not start from the point of 5 seconds before the alarm occurrence.
- When an alarm notification is provided from an encoder or a camera that is not registered in the recorder, the [PLAY] button will not be displayed.
- When using the AI privacy guard recording, the camera images to be played are as follows.

  <In case of alarm notification from AI privacy guard recording camera (OFF)>

  A user with authorization of "AI privacy guard image switching": The image of the selected AI privacy guard recording camera (OFF) is played back as it is.
  A user without authorization of "AI privacy guard image switching": Play the image of the AI privacy guard recording camera (ON).

  <In case of alarm notification from AI privacy guard recording camera (ON)>

  Plays the image of the selected AI privacy guard recording camera (ON) regardless of authorization of "AI privacy guard image switching".

■ **[Close] button**

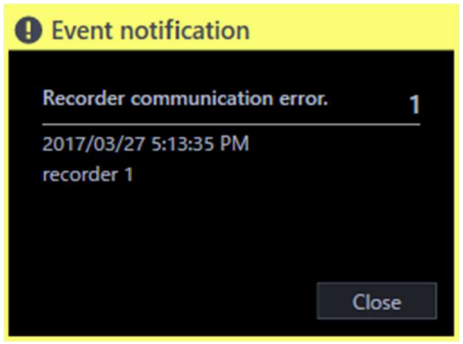
Closes the alarm notification message window. When the window is closed, the alarm log panel will be displayed.

4.12.1.2. About the event notification message

The event notification message window notifies of a device error or a network error occurrence. When an error occurred, the alarm buzzer will start sounding and the event notification message window will be displayed. When the window is closed, the "Device error log" panel or the "Network error log" panel will be displayed.
When an event notification is provided from the recorder during the event notification message window is displayed, the descriptions in the notification window will be renewed and the latest event information will be displayed.

Note:

- If you check "Do not show this warning again." displayed on the event notification message screen, the same event notification message will not be displayed until you log in next time.



■ Event notification message

Error information, time & date of the error occurrence, the title of the recorder/encoder (that provided the notification) and the title of the camera will be displayed.

Note:

- When the device that provided an error notification is a camera, "--" will be displayed as the title of the device.
- When an alarm occurred in a Fisheye camera and the camera is in "4-stream" mode, “Camera name” for device title and “CH type” for camera title will be displayed respectively.

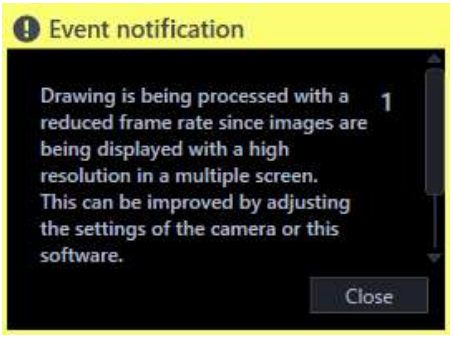
■ Number of error occurrences

Total number of the error occurrences will be displayed. When the total number of the alarm occurrences exceeds 2000, "2000<" will be displayed.

■ [Close] button

The error notification message window will close. When the window is closed, the "Device error log" panel or the "Network error log" panel will be displayed.

<Drawing performance limit warning message>
When displaying images with a reduced frame rate, the following warning message will be displayed on the event notification window.



■ **Event notification message**

A content of the notification, the occurrence time and date, the title of the recorder (that provided the notification) and the title of the camera will be displayed.

■ **[Close] button**

The message window will close.

■ **[Close (in 5 seconds)] button**

The message window will automatically close in 5 seconds.
This warning message will displayed when “ON” is selected for [Automatic closing of warning message window] on the [Performance monitoring setting] tab (under [System] under [Setting]).

Note:

- When an event notification is received while the drawing performance limit warning message window is displayed, the displayed contents of the window are replaced and the latest information is displayed.
- When "Automatic closing of warning message window" is set to on, if the next drawing performance limit warning occurs within 5 seconds, the message window will be closed after waiting for 5 seconds again.
- The message window can be closed by clicking the [Close (in 5 seconds)] button before the message window automatically closes.
- The device error log panel or the network error log panel or will not be displayed even when the even notification message window is closed.
- This warning message will not be displayed when “OFF” is selected for [Drawing performance limit warning] on the [Performance monitoring setting] tab (under [System] under [Setting]).
- When performing sequence operation on the operation window or the live window, this warning message may be displayed repeatedly at the timing of screen switching depending on the camera settings. In that case, you can automatically close the message screen by adjusting the sequence interval and turning on "Automatic closing of warning message window" on the [Performance monitoring setting] tab (under [System] under [Setting]).

4.12.2. Alarm mode display of the live window

When the live window is active and "ON" is selected for "Alarm camera direct live window", the live window will be switched into the alarm mode and display live images from the camera in which the alarm occurred when receiving an alarm notification.

When received an alarm notification from a camera used for the alarm linkage function and whose alarm type is registered for the alarm linkage function, live images will be displayed according to the contents of the set group display.
The live window will automatically be switched into the alarm mode regardless of the current status (sequence display, group display, minimized, full screen display) of the live window.

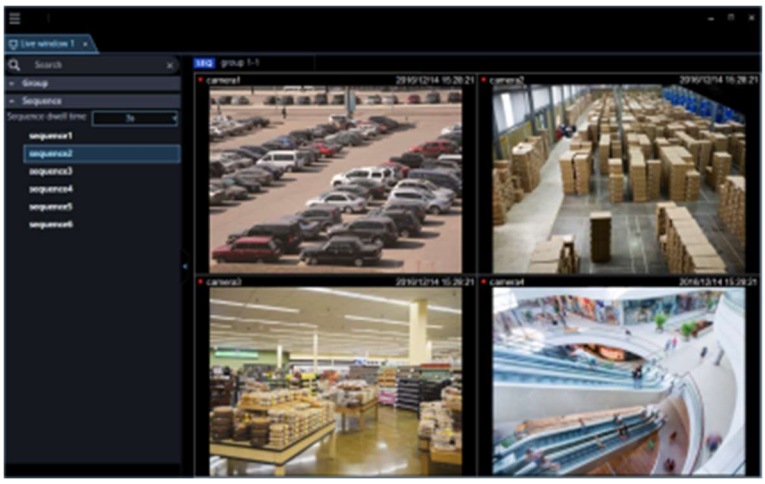
Note:

- Alarm mode display of the live window will be performed on a screen selected for the "Maximum number of areas" setting (1-screen/2A-screen/2B-screen/3A-screen/3B-screen/4-screen/4E-screen/5-screen/6-screen/7-screen/7A-screen/9-screen/10-screen/13-screen/16-screen/25-screen/36-screen/49-screen/64-screen) of the “Alarm] setting”. Only an administrator can configure ”Maximum number of areas” of "Alarm camera direct live window".
  Refer to "☞ 3.12.1. Alarm setting" for further information about the settings.
- When the number set for ”Maximum number of area” of “Alarm camera direct live window" is more than the number set for "Live window (multi-screen) with the maximum number of areas", images will be displayed on a screen set by "Live window (multi-screen) with the maximum number of areas". Only an administrator can configure the "Live window (multi-screen) with the maximum number of areas" setting.
- When the live window is not opened, the alarm camera direct live window function will not be performed.
- When the number of multi-screen areas of the group that is set for the alarm linkage setting is more than the maximum number of areas for Live window 1, the group display will not be performed. Live image from the channel in which an alarm occurred will be displayed.
- Even after the license for the WV-ASE202 is added and while more than one live window are being displayed, the alarm camera direct live window function will be performed only on a Live window (1).

When the live window is active

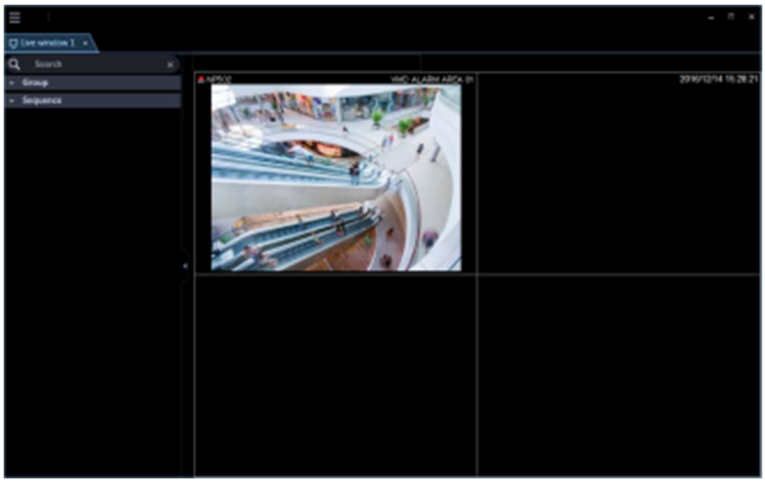
- In normal operation





- In an alarm status





Note:

- The display position and the window size of the live window when it is started will be the same as of the last time the live window is closed.
- When the set time (auto reset wait time) has passed after the live window shifted into the alarm mode, the live window returns to the previous operation. Only an administrator can configure the "Auto reset wait time" setting.
- Refer to "☞ 3.12.1. Alarm setting" for further information about the settings.
- When alarms occurred sequentially before the alarm is reset automatically, live images from the cameras will be displayed in from the upper left area in order.

- When the number of alarm occurrence exceeds the maximum number of areas, the areas will be overwritten from the upper left one in order of alarm occurrence.

4.12.2.1. Simultaneously display live images of two or more alarms when alarms occurred sequentially

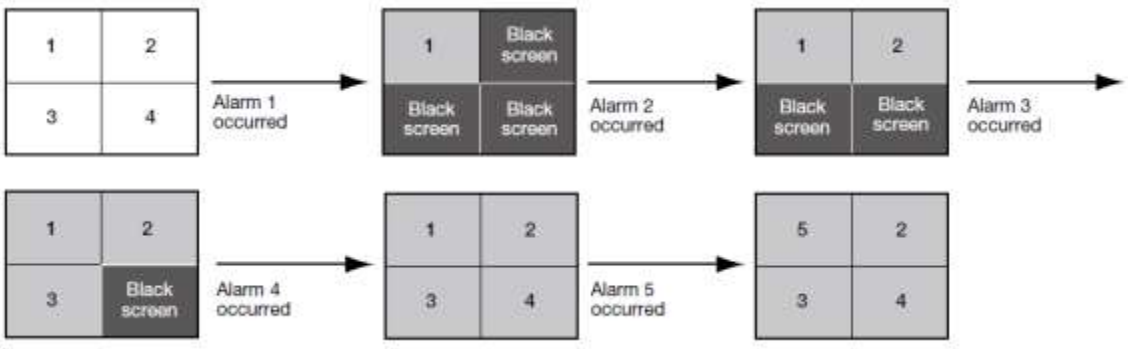
Depending on a screen selected for “Maximum number of areas” of "Alarm camera direct live window", the alarm mode display will differently be displayed. When "1-screen” is selected, images will be displayed in order of alarm occurrence. However, when a screen other than “1-screen” is selected, the screen will shift as follows.

Note:

- 25-screen or more will become available after the license for the WV-ASE202 is added.
- The following are descriptions of how this software works when received an alarm from a camera for which the alarm linkage function setting is not configured and the function is not active. When the alarm linkage function setting is configured and the function is active, images will be displayed on the specified multi-screen and be switched according to the configured settings.
- When received an alarm from a camera for which the alarm linkage function setting is not configured and the function is not active while displaying images by the alarm mode display triggered by the alarm linkage function, only images of the latest received alarm after switching the screen selected by “Maximum number of area” of “Alarm camera direct live window” will be displayed.

When "4-screen" is selected for “Maximum number of areas” of "Number of alarm camera direct live window"

Alarm images will be displayed in order of the following diagram. When the number of alarm occurrences exceeds the number of areas, the upper left area will be overwritten.



4.12.2.2. Information display area

When the live window is in the alarm mode, alarm information will be displayed in the information display area.

Note:

- In the alarm mode state, the group information display area will be hidden and the camera information display area will be displayed regardless of the display/hide setting of them.
- When returned from the alarm mode to the normal live window, the information display area will also return to the previous state. (When the group information display area or the camera information display area is set to be hidden, it will be hidden.)



■ **Alarm icon**

The alarm icon window will be displayed when the live window is in the alarm mode.

■ **Camera name**

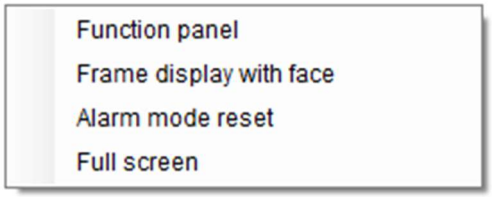
Name of the camera from which images are currently being displayed will be displayed.

■ **Alarm description**

Descriptions the alarm will be displayed.

4.12.2.3. Reset the alarm mode

When a time period as the auto reset wait time set by an administrator has passed, the alarm mode will be reset and return to the normal state before the alarm occurrence. When an alarm occurred before the alarm is reset automatically, the live window will be in the alarm mode until the set time has passed from the moment when the new alarm has occurred. When alarms occurred sequentially, the alarm mode will continue until the set time has passed from the moment when the newest alarm has occurred.
When "Alarm mode reset" is selected from the pop-up menu displayed by right-clicking on the image display area, the alarm mode can be reset even when the set time has not passed yet.



■ **Function panel**

It is possible to switch between display/hide the function panel of the live window.

■ **Frame display with face**

It is possible to display/hide the border frame displayed around a face when detected.

■ **Alarm mode reset**

The live window will returns to the previous operation mode.

■ **Full screen**

In a similar manner to the normal display, it will be changed to the full screen mode.

4.12.2.4. Emergency recording input alarm

In the state of emergency, emergency recording will sometimes be performed manually using the external switch. In this case, the emergency recording input alarm will be notified. An emergency recording input alarm usually contains information of multiple channels, and they will be filed as logs in the respective alarm log panel. However, only information of the largest channel number is will be displayed in the alarm notification window.

4.12.3. Alarm mode of the map window

When receiving an alarm, the icon of the camera in which an alarm occurred will blink red. The camera icon will start blinking red for 10 seconds and then displayed in red without blinking. When the icon displayed in red (or blinking red) is clicked, live images from the camera will be displayed in the selected area of the operation window and the camera icon will return to the normal camera icon.

The map operation may vary depending on the setting for "Auto change of map".
ON: Change to a map in which a camera at an alarm occurrence is registered.
OFF: The map will not be changed.



Note:

- When alarms occurred sequentially (within less than 1 second), the map will not be changed even if "ON" is selected for "Auto change of map".
- When “ON” is set for “Release of alarm state” on the [Alarm] tab under “Event" on the setup window, and when the [Live] button or the [Play] button on the alarm notification window is clicked, images from the corresponding camera will be displayed and the respective camera icon that has been displayed in red or blinking red will return to the normal camera icon.

4.13. Performance monitoring warning message

A warning message window will pops up on the ASM300 main screen when a certain condition is satisfied under the performance monitoring.

There are the following three warning messages for performance monitoring.

- CPU usage warning message
- memory usage rate warning message
- Drawing performance limit warning message

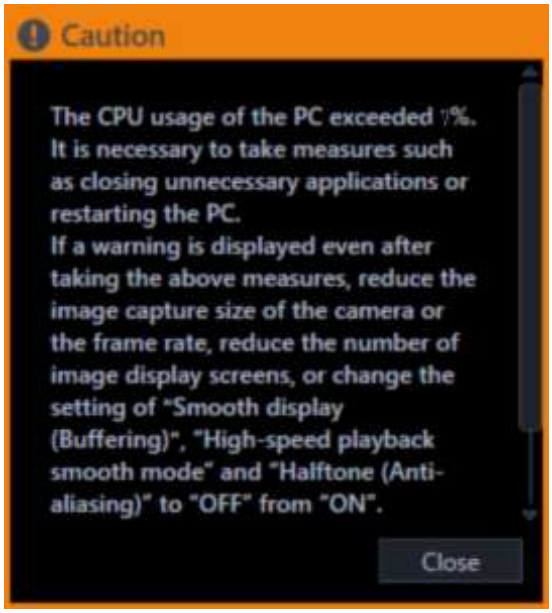
Note:

- When a warning for CPU usage and memory usage rate occurs, a warning message window is displayed at the bottom of the ASM300 main screen and the buzzer does not sound.
- When one of the warning message windows of CPU usage and memory usage rate is displayed and the other warning occurs or occurs at the same time, both warning message windows are displayed side by side.
- When the ASM300 main screen is minimized, it will be displayed at the bottom of the PC screen.
- A warning message of drawing performance limit is displayed on the event notification message window, and a buzzer sounds.
- For details on turning the performance monitoring function ON / OFF and setting the conditions for displaying warning messages, refer to “☞3.2.10. Performance monitoring setting”.

<CPU usage warning message>

The following message will be displayed when the PC’s CPU usage satisfied the decision condition set on the [Performance monitoring setting] tab (under [System] under [Setting]).

Refer to ″☞3.2.10. Performance monitoring setting″ for the decision condition setting.



■ **[Close] button**

The message window will close.

■ **[Close (in 60 seconds)] button**

The message window will automatically close in 60 seconds.

This warning message will displayed when “ON” is selected for [Automatic closing of warning message window] on the [Performance monitoring setting] tab (under [System] under [Setting]).

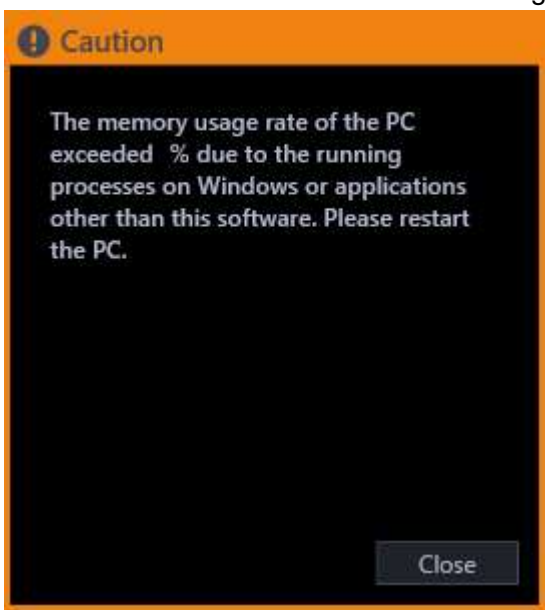
Note:

- The message window can be closed by clicking the [Close (in 60 seconds)] button before the message window automatically closes.
- This warning message will not be displayed when “OFF” is selected for [PC performance monitoring] on the [Performance monitoring setting] tab (under [System] under [Setting]).

< memory usage rate warning message>

The following message will be displayed when the processes or applications running on Windows other than this software increase the PC’s physical memory usage rate and it satisfied the decision condition set on the [Performance monitoring setting] tab (under [System] under [Setting]).

Refer to ″☞3.2.10. Performance monitoring setting″ for the decision condition setting.



■ **[Close] button**

The message window will close.

■ **[Close (in 60 seconds)] button**

The message window will automatically close in 60 seconds.

This warning message will displayed when “ON” is selected for [Automatic closing of warning message window] on the [Performance monitoring setting] tab (under [System] under [Setting]).

Note:

- The message window can be closed by clicking the [Close (in 60 seconds)] button before the message window automatically closes.
- This warning message will not be displayed when “OFF” is selected for [PC performance monitoring] on the [Performance monitoring setting] tab (under [System] under [Setting]).

<Drawing performance limit warning message>

A warning message will be displayed on the event notification message window when images are displayed with a reduced frame rate.

Refer to “Drawing performance limit warning message” of “☞ 4.12.1.2. About the event notification message” for further information.

5. System controller

This software can be operated using an optional system controller.
The following are descriptions of the available functions using the system controller and of how to operate.
It is possible to restrict operable functions according to the user type (administrator or the registered users).

Important:
- Operation response may be slow when comparing with an analog system since operations are performed via a network.
- Turn on the power of the system controller after confirming that this software started up.
- Use a LAN cable to connect between the PC and the system controller. When not using a LAN cable, a connection error may occur.
- When the [ADJUST] button is pressed, a connection error with the system controller may occur.

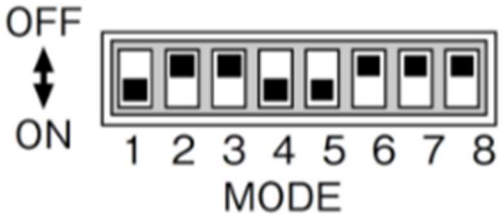
5.1. Set a system controller (CU950)

When using the 10/100 Base-T connector to connect between a PC on which the WV-ASM300 series is installed and WV-CU950 and controlling WV-ASM300 series by operating WV-CU950, it is necessary to change the settings of WV-CU950.
Edit the settings by following the procedures below.

Important:
- The communication mode of WV-ASM300 series side (ver. 2.20 or later) needs to be set to the compatible mode. Refer to "☞ 3.14.1. Basic setup".

5.1.1. MODE Switch Setting

Set the mode switch on the rear of WV-CU950 to the Ethernet mode. The setting of the switch shall be made when the power is off. Set as shown in the diagram below.



5.1.2. Set a controller number

Use without changing the controller number from "1 (factory default position)".

5.1.3. Network Setting

Before performing the network setting, set the MODE Switch setting to the Ethernet mode.

Step 1
Turn on the power while holding down the 0, MON (ESC), and CAM (SET) buttons.
"Admin Password" will appear on the LCD to enter the password.



Step 2
Enter the administrator password using the 10-key pad. The entered password will be displayed in asterisk "*".

When CLEAR button is pressed, the entered number will be deleted.

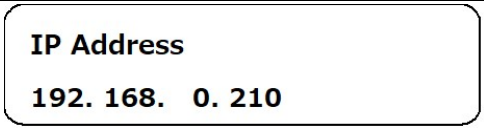
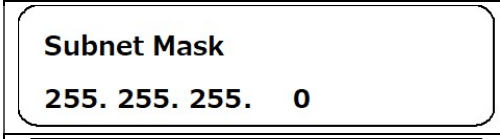
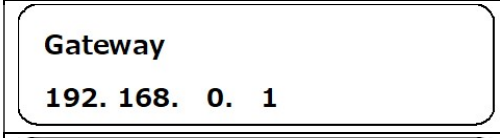
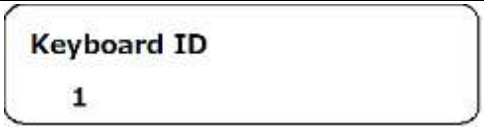


Step 3
Press the CAM (SET) button. The setting item selection window will be displayed.

Step 4

Select items to be set from  .

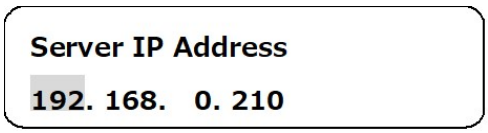
* Items that can be set are as follows.

Display	Description
	Set the IP address of system controller. The factory default is "192.168.0.210".
	Set the subnet mask of system controller. The factory default is "255.255.255.0".
	Set the default gateway of system controller. The factory default is "192.168.0.1".
	(No need for setup) Remain the factory default. Default: 1

Server IP Address 192. 168. 0. 200	Set the IP address of the PC on which the WV-ASM300 series is installed. The factory default is "192.168.0.200".
Server ID 1	(No need for setup) Remain the factory default. Default: 1

Step 5
Press the CAM (SET) button on the screen of the desired item to set.

Step 6
When setting IP Address, Subnet Mask, Gateway and Server IP Address, enter addresses (nnn.nnn.nnn.nnn) using the 10-key pad.



The blinking part can be changed. Move the cursor onto a number to change and enter a number using the 10-key pad. The selected number using the cursor will change to the number entered using the 10-key pad.

The cursor moves to left and right using  .

To edit the entered value, press 

button to clear the value of the digit.
Enter numerical values of 0 - 255 for nnn.

Step 7
Press the MON (ESC) button.
The selected parameter will be determined, and the LCD display will return from the editing mode to the display mode. (Step 4)

Step 8
After you have completed the settings, turn off the power.

5.2. Set a system controller (CU980)

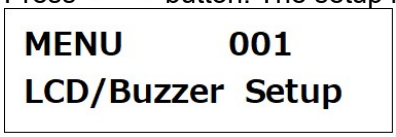
When using the RJ45 (10/100 Base) connector to connect between a PC on which the WV-ASM300 series is installed and WV-CU980 and controlling WV-ASM300 series by operating WV-CU980, it is necessary to change the settings of WV-CU980.
Edit the settings by following the procedures below. For further information, refer to the operating instructions of the WV-CU980 system controller.

5.2.1. Network Setting

Set the network after logging in by the administrator, and select the network setting from the setup menu.

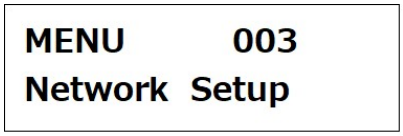
Step 1

Press MENU button. The setup menu selection window will be displayed.



Step 2

Select the item to set using ◄II button or II► button.

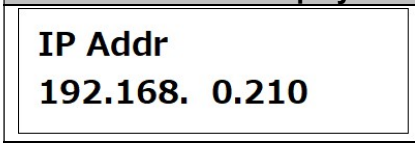
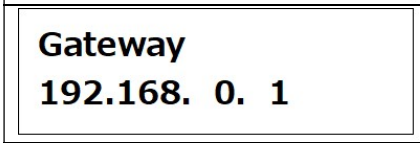
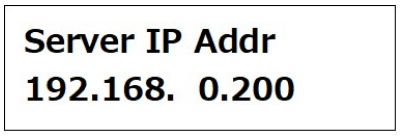


Step 3

Press CAM (SET) button.

Select the item to set using ◄II button or II► button.

* Items that can be set are as follows.

Display	Description
	Set the IP address of system controller. The factory default is "192.168.0.210".
	Set the subnet mask of system controller. The factory default is "255.255.255.0".
	Set the default gateway of system controller. The factory default is "192.168.0.1".
	Set the IP address of the PC on which the WV-ASM300 series is installed. The factory default is "192.168.0.200".
	Set the communication mode with the WV-ASM300 series. Normal: the communication that avoids the security threat is established in the communication with WV-ASM300 series. CU950 Compatible: Communication compatible with CU950 will become available. Default: Normal

Communicat Key 12345678	Set the communication key for the WV-ASM300 series. Default: None

Step 4

Press CAM (SET) button in the window of the item to set.

Step 5

- To set the IP address, subnet mask, default gateway, and IP address of the PC, use the numeric keypad to enter the address (nnn.nnn.nnn.nnn).

Server IP Addr
192.168. 0.200

The blinked part can be changed. Place the cursor over the number to correct and re-enter using the numeric keypad.

The cursor can be moved right and left with ◄II button or II► button.
For “nnn”, enter a number from 0 to 255.

- To select the communication mode, select with ◄II button or II► button.

Communicat Mode
Normal

Important:
- The communication mode needs to be set the same as WV-ASM300 series side. Refer to "☞ 3.14.1. Basic setup".

- To enter the communication key, use the numeric keypad.

Communicat Key
12345678

If you have entered a wrong number, press the [CLEAR] button to erase the number that was input.
For the communication key, enter eight numeric values from between 00000000 to 99999999.

Important:
- The communication key needs to be set the same as WV-ASM300 series side. Refer to "☞ 3.14.1. Basic setup".
- The communication key will be required when “Normal (Normal mode)” is selected for the

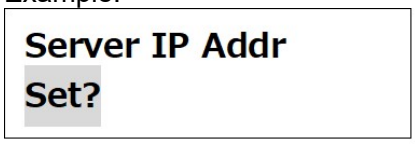
communication mode. When “CU950 Compatible (Compatible mode)” is being selected, no setting is necessary.

Step 6

After entry, press CAM (SET) button.

→ The setup confirmation window will be displayed.

Example:



Step 7

Press CAM (SET) button.

→ After the settings registration screen is displayed, the setting value is stored and the setting item screen of Step 4 is displayed.

Example:



Step 8

Press MON (ESC) button.

→ If the network settings have been changed, WV-CU980 reboots after displaying the message "Auto Restart" for a few seconds, and the login screen or the operation screen is displayed. If the network settings have not been changed, the setting menu screen of Step 3 is displayed.

5.3. Operation using the system controller

Note:

- [ ] indicates the button. When "+" exists between the buttons, press the both the buttons at once. When the indication "→" exists after an operation, the next operation is required to complete the operation.
- ▼▲◄ ► displayed in [Joystick], [JogDial], [Shuttle ring], [Zoom knob] indicate the operation direction of each interface.
- When customization is made for the function keys [F1] - [F10] or [SHIFT] + [F1] - [F10] of CU980 or [A] button, [B] button and Top button of the joystick, operation will be made according to the customization. Refer to "☞ 3.14.5. Set a customized key" for further information.

5.3.1. Basic

<WV-CU950>

Function	Operation of the WV-CU950	Description
Number/numeric value entry		
Cancel the entry	[CLEAR]	
Movement of the image selection frame -Start the mode for moving the selection frame -Stop the mode for moving the selection frame	[MON(ESC)] or [SHIFT] + [MON(ESC)] → [Joystick ▼▲◄ ►]	-The image area selection frame containing the quad PTZ pattern can be moved. At this point, the selection frame will be displayed with a dotted line. -Press [MON (ESC)] or [SHIFT] + [MON (ESC)] again to stop the mode for moving the selection frame. -When displaying on the full screen, use [SHIFT] + [MON (ESC)].
Camera selection	Camera number entry → [CAM(SET)]	The live image of the selected camera will be displayed on a 1-screen on the operation window. It is necessary to set the camera number on the setup screen in advance.
Switching of camera channel <Operation during live image display> Display images from the next camera Display images from the previous camera	 [+] [–]	Operable only during live image display. It is necessary to set the camera number on the setup screen in advance. Images from the camera of the next camera number will be displayed. Images from the camera of the previous camera number will be displayed.
Group selection	Entry of group number → [RECORDER]	The selected group will be displayed on the operation window. It is necessary to set the group number on the setup screen in advance.
Sequence selection	Entry of sequence number → [TOUR SEQ]	The selected sequence will be started on the operation window. It is necessary to set the sequence number on the setup screen in advance.
Sequence stop	[SEQ PAUSE]	
Screen pattern change	[MULTI SCREEN]	The screen pattern of the operation window changes every time the button is pressed.
1-screen display	[F1]	The screen of the operation window is changed to the 1-screen pattern.
4-screen display	The operation window will be switched to 4-screen.	The screen of the operation window is changed to the 4-screen pattern. The displayed 4-screen is changed in order of 4A → 4B → 4C → 4D → 4E every time the button is pressed.
9-screen display	[F3]	The screen of the operation window is changed to the 9-screen pattern.
16-screen display	[F4]	The screen of the operation window is changed to the 16-screen pattern.
Acknowledge the alarm	[ACK]	The same operation will be performed as when the

	[ALARM]	[Play] button on the alarm notification window is clicked. The same operation will be performed as when the [Live] button on the alarm notification window is clicked.
Reset an alarm	[ALM RESET]	The same operation will be performed as when the [ALM] button on the status bar is clicked.
Determine	[ENTER]	The same operation will be performed as when the [Enter] key of the PC keyboard is pressed.
Cancel	[MON(ESC)]	The same operation will be performed as when the [Esc] key of the PC keyboard is pressed.

<WV-CU980>

Function	Operation of the WV-CU980	Description
Number/numeric value entry	[0]~[9]	Used to enter the numbers or numeric values.
Cancel the entry	[CLEAR]	Clears the values entered using the numeric keypad.
Movement of the image selection frame -Start the mode for moving the selection frame -Stop the mode for moving the selection frame	[MON(ESC)] or [SHIFT] + [MON(ESC)] → [Joystick ▼▲◄ ►]	-The image area selection frame containing the quad PTZ pattern can be moved. At this point, the selection frame will be displayed with a dotted line. -Press [MON (ESC)] or [SHIFT] + [MON (ESC)] again to stop the mode for moving the selection frame. -When displaying on the full screen, use [SHIFT] + [MON (ESC)].
Camera selection	Camera number entry → [CAM(SET)]	The live image of the selected camera will be displayed on a 1-screen on the operation window. It is necessary to set the camera number on the setup screen in advance.
Switching of camera channel <Operation during live image display> Display images from the next camera Display images from the previous camera	 + or − or	Operable only during live image display. It is necessary to set the camera number on the setup screen in advance. Images from the camera of the next camera number will be displayed. Images from the camera of the previous camera number will be displayed.
Group selection	Entry of group number → [GROUP]	The selected group will be displayed on the operation window. It is necessary to set the group number on the setup screen in advance.
Sequence selection	Entry of sequence number → [SEQ / STOP]	The selected sequence will be started on the operation window. It is necessary to set the sequence number on the

		setup screen in advance.
Sequence stop	[SHIFT] + [SEQ / STOP]	
Screen pattern change	[MULTI SCRN]	The screen pattern of the operation window changes every time the button is pressed.
1-screen display	[1-SCREEN]	The screen of the operation window is changed to the 1-screen pattern.
4-screen display	[4-SCREEN]	The screen of the operation window is changed to the 4-screen pattern. The displayed 4-screen is changed in order of 4A → 4B → 4C → 4D → 4E every time the button is pressed.
9-screen display	[9-SCREEN]	The screen of the operation window is changed to the 9-screen pattern.
16-screen display	[16-SCREEN]	The screen of the operation window is changed to the 16-screen pattern.
Acknowledge the alarm	[ARM PLAY] [ARM LIVE]	The same operation will be performed as when the [Play] button on the alarm notification window is clicked. The same operation will be performed as when the [Live] button on the alarm notification window is clicked.
Reset an alarm	[ALM RESET]	The same operation will be performed as when the [ALM] button on the status bar is clicked.
Determine	[ENTER / LOGOUT]	The same operation will be performed as when the [Enter] key of the PC keyboard is pressed.
Log out	[SHIFT] + [ENTER / LOGOUT]	
Return	[EXIT]	Returns to the previous page without determining the settings during setting.
Cancel	[MON(ESC)]	The same operation will be performed as when the [Esc] key of the PC keyboard is pressed.

Note:

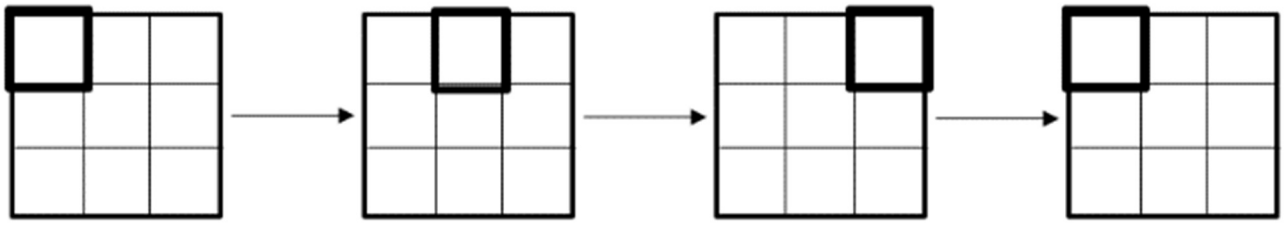
- When a camera or group selection operation is performed during a sequence, the sequence is continued after temporarily displaying a black screen or the selected image.

<About the image selection frame>

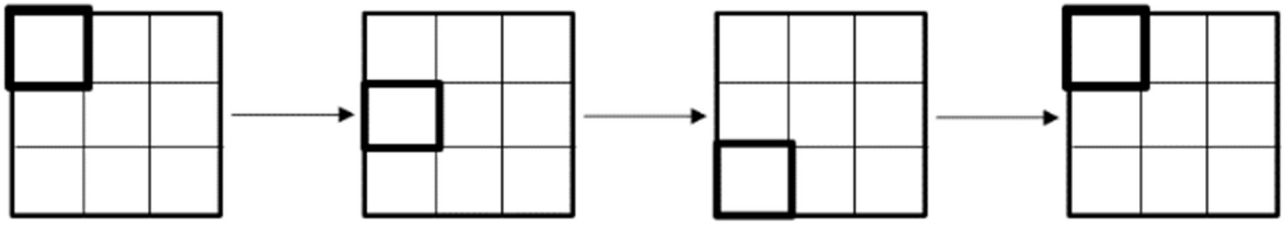
The following are descriptions about movement of the image selection frame using the system controller.

It is possible to select an image at the up/down/left/right side of the currently selected position. It is impossible to select a displayed image located in a diagonal direction.
In case that the screen pattern has enough number of areas to move more than three times consecutively in the same direction, the selection frame will move from the one end to the other end when reached to the end. When the screen pattern has not enough number of areas to move three times consecutively in the same direction, the selection frame stops at the end.

The following is an example of 9-screen.
(Example 1) When moved in the right direction consecutively

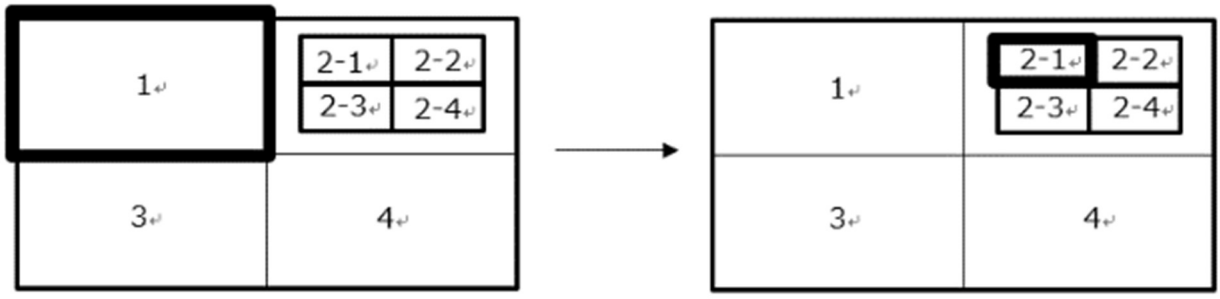


(Example 2) When moved in the downward direction consecutively

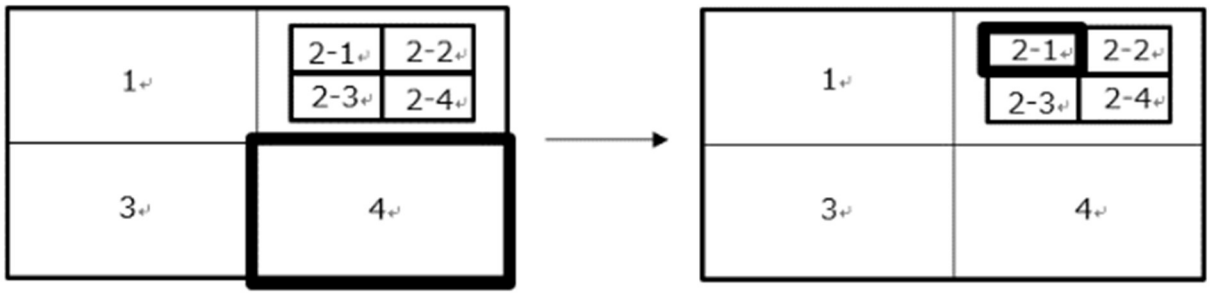


The following are descriptions when a quad PTZ image is displayed on a multi-screen.
Movement inside the quad PTZ and movement from the quad PTZ to the other image area will work as described above according to the number of areas (screen pattern).
When moving from the other image area to the quad PTZ, the frame will move to the upper left area inside the quad PTZ.

The following is an example of quad PTZ on 4-screen.
(Example 1) When moved the selection frame from area [1] to Quad PTZ



(Example 2) When moved the selection frame from area [4] to Quad PTZ



Note:

- The image selection frame cannot be moved in the following cases.
  - During sequence
  - When displaying 1-cropping/5-cropping screen
  - When displaying image other than quad PTZ fisheye image (Single PTZ, Panorama, Double panorama, 3D Dewarp) on 1-screen

- Movement of the image selection frame will automatically be stopped in the following cases. (Including control by mouse operation or CGI commands transmitted from the client PC)
  - When [MON (ESC)] or [SHIFT] + [MON (ESC)] is/are pressed
  - When 30 seconds elapsed without tilting the joystick
  - When the system controller went into a disconnected state
  - When the selection frame is moved by a mouse operation
  - When the screen pattern is changed
  - When operation is made to change the screen pattern to 1-screen
  - When SD playback is started
  - When “1-screen” is set for “Display format when selecting camera” ([System] - [Drawing and audio setup])
  - When 1-cropping/5-cropping operation is made
  - When switched between Quad PTZ and Fisheye/Panorama/Double panorama
  - When log-out operation is made

5.3.2. Operation of cameras

<WV-CU950>

Function	Operation of the WV-CU950	Description
Registration of the preset position	Preset number entry → [SHIFT] + [PRESET]	
Move the camera to the preset position	Preset position number entry → [PRESET]	When no preset position number is entered, the camera will move to the home position.
Pan/tilt	[Joystick ▼▲◄ ►]	The displayed image will move to the direction in which the joystick is tilted.
Adjust the brightness Set brighter Set darker	 [IRIS OPEN] [IRIS CLOSE]	Adjustment of the brightness will continue until the pressed button is released.
Adjust the focal point Set farther Set nearer Perform the auto focus function	 [FOCUS FAR] [FOCUS NEAR] [TOP]	Adjustment of the focal point will continue until the pressed button is released.
Adjust the zoom Adjust the zoom to the "wide" side Adjust the zoom to the "tele" side	 [Zoom volume ◄] [Zoom volume ►]	Zooming will continue until the zoom knob is being rotated.
External control 1/2 <Latch mode>		The mode setting can be configured on the receiver. (Only the latch mode is available for the

Set AUX1 to ON Set AUX1 to OFF	[External control 1 ON] [SHIFT] + [External control 1 ON]	cameras.) When setting for an event such as the sequence display, set to the latch mode. Operation for "AUX2" can be performed in the same manner as for "AUX1".
Auto mode Start the auto mode Stop the auto mode	 [A] [B]	
Auto track Start auto track	 [TOP]	This function is available when "ON" is selected for "Auto track".
Wiper Start the wiper action Stop the wiper action	 [WIPER] [SHIFT] + [WIPER]	Controls the washer and wiper of WV-SUD638. The item selected in "Wiper" on the "Camera" tab in the camera operation panel will be performed.

＜WV-CU980＞

Function	Operation of the WV-CU980	Description
Registration of the preset position	Preset number entry → [SHIFT] + [PRESET / PGM]	
Move the camera to the preset position	Preset position number entry → [PRESET / PGM]	When no preset position number is entered, the camera will move to the home position.
Pan/tilt	[Joystick ▼▲◄ ►]	The displayed image will move to the direction in which the joystick is tilted.
Adjust the brightness Set brighter Set darker	 [IRIS OPEN] [IRIS CLOSE]	Adjustment of the brightness will continue until the pressed button is released.
Adjust the focal point Set farther Set nearer Perform the auto focus function	 [FOCUS FAR] [FOCUS NEAR] [TOP]	Adjustment of the focal point will continue until the pressed button is released.
Adjust the zoom Adjust the zoom to the "wide" side Adjust the zoom to the "tele" side	 [Zoom volume ◄] [Zoom volume ►]	Zooming will continue until the zoom knob is being rotated.
External control 1/2 <Latch mode> Set AUX1 to ON Set AUX1 to OFF	 [AUX1 / OFF] [SHIFT] + [AUX1 / OFF]	The mode setting can be configured on the receiver. (Only the latch mode is available for the cameras.) When setting for an event such as the sequence display, set to the latch mode. Operation for "AUX2" can be performed in the same manner as for "AUX1".
Auto mode Start the auto mode Stop the auto mode	 [A] [B]	
Auto track		This function is available when "ON" is selected for

Start auto track	[TOP]	"Auto track".
Wiper Start the wiper action Stop the wiper action	 [WIPER / OFF] [SHIFT] + [WIPER / OFF]	Controls the washer and wiper of WV-SUD638. The item selected in "Wiper" on the "Camera" tab in the camera operation panel will be performed.

5.3.3. Operation of a recorder

<WV-CU950>

Function	Operation of the WV-CU950	Description
Start recording manually <Operation during recording> Stop the manual recording	[REC] [SHIFT] + [REC]	
Playback of recorded images	[PLAY/PAUSE]	
<Operation during playback>		
Pause	[SHIFT] + [PLAY/PAUSE]	
FF	[Shuttle ring ►]	
REW	[Shuttle ring ◄]	
NEXT IMAGE	[JogDial ►] during pausing	
Reverse frame playback	[JogDial ◄] during pausing	
NEXT RECORD	[JogDial ►] while holding down [SHUTTLE HOLD]	
PREV RECORD	[JogDial ◄] while holding down [SHUTTLE HOLD]	
Go to last	[GO TO LAST]	
STOP	[STOP]	
SKIP	[+]	
REV SKIP	[–]	

<WV-CU980>

Function	Operation of the WV-CU980	Description
Start recording manually <Operation during recording> Stop the manual recording	 [SHIFT] + 	
Playback of recorded images		
<Operation during playback>		
Pause		
FF		Each time it is pressed, the playback speed

	▶▶	switches between step 2 to step 7. Decrement of Step is unavailable. To return normal playback speed, press ▶.
REW	◀◀	
NEXT IMAGE	⏸▶ during pausing	
Reverse frame playback	◀⏸ during pausing	
NEXT RECORD	↷ ▶▶I during playback, while [SEL] lamp is flashing by pressing [SEL]	
PREV RECORD	↶ I◀◀ during playback, while [SEL] lamp is flashing by pressing [SEL]	
Go to last	GO TO LAST	
STOP	■	
SKIP	↷ ▶▶I or +	
REV SKIP	↶ I◀◀ or −	

Note:

- If this software version is 2.10 or before and during high-speed playback or high-speed reverse playback connecting the WV-CU980, it is operable only when stop, pause, playback, playback of the latest image, or playback of the next/previous record is performed. However, it may not be operable due to the PC load condition. In such a case, press the concerned button again. Also, to perform other than stop, pause, playback, playback of the latest image, or playback of the next/previous record, press the playback button once and then press the concerned button.

6. Concurrent User License Kit (WJ-NXC05W)

6.1. Precautions

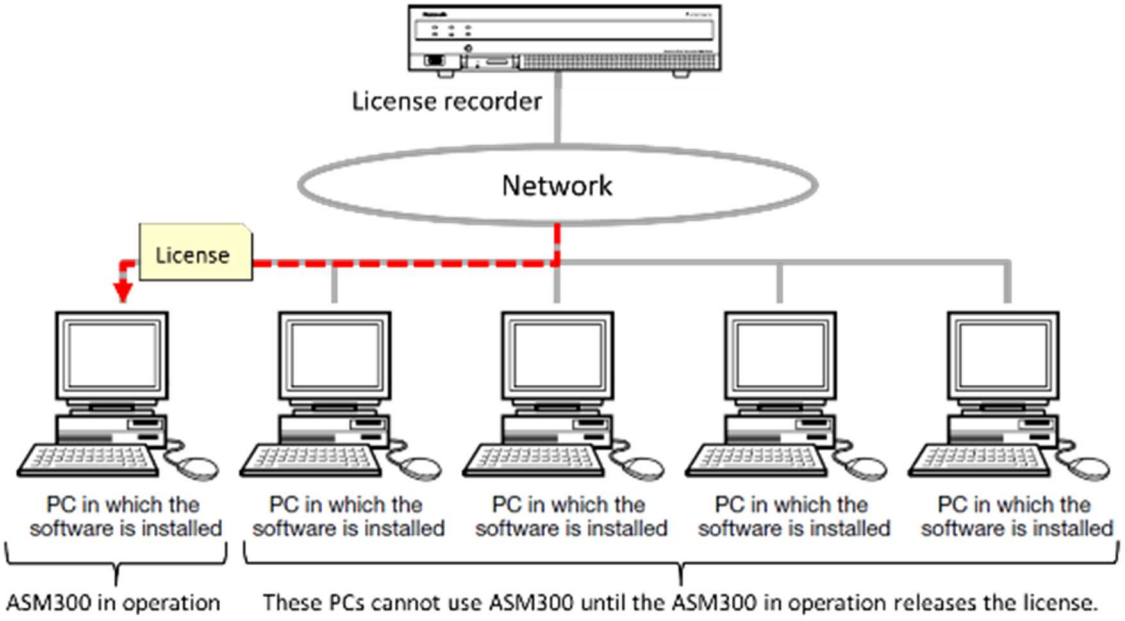
Important:

- To use functions of “Concurrent User License Kit”, it is necessary to separately purchase the license WV-NXC05W. It is also necessary to preliminarily register the additional license WJ-NXC05W in the recorder in use.

Compatible devices

Model	Appears in this document as	Version
WV-NX400	NX400	2.1 or later
WV-NX300	NX300	2.0 or later
WV-NX200	NX200	2.0 or later
WV-NX100	NX100	4.4 or later

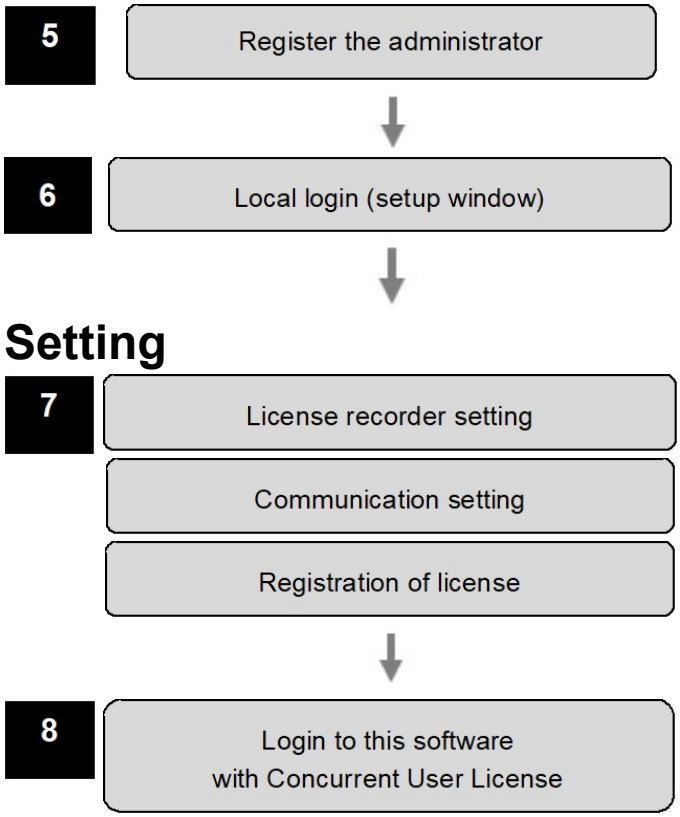
6.1.1. Functions of “Concurrent User License Kit”



- This software can be installed in up to 5 PCs using a single “Concurrent User License Kit”. Only a single ASM300 can be used simultaneously.
- Al the basic functions of ASM300 will become available by registering this license. However, the extension software except “Heat map” is unavailable.
- To use the ASM300 to which the license is applied, the corresponding PC is required to connect to the license server (license recorder). When this software is launched, a license will automatically be obtained from the license server (license recorder) and operation of this software will become available. The license will be released when this software is exited.

6.1.2. From installation to start operation

1	Installation of this software	Refer to "☞2.2.1. Installation".
2	Launching of ASM300	Refer to "☞2.3.1. Launch this software".
3	Obtain the license (Registration Key)	Acquire the Registration Key by following the instructions described on the provided Activation Key Card.
4	Register the license (Registration Key)	Refer to "☞2.3.1.1. Registration of license when launching the first time". Be sure to perform the registration procedure on the PC in use.



Refer to "☞2.3.1.2. Registration of the administrator account when launching the first time".

Refer to "☞6.2.1. Local login (setup window)".

Refer to "☞6.2.2. Recorder setup".

Refer to "☞6.2.3. Communication setup".

Refer to "☞6.2.4. Registration of license".

Acquire the Registration Key by following the instructions described on the provided Activation Key Card.

Refer to "☞6.3. Login to this software with Concurrent User License".

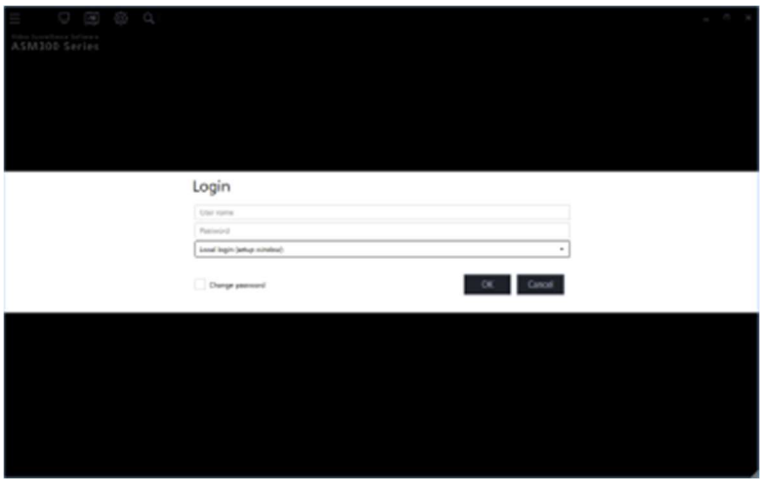
6.2. Setting relating to the license recorder

6.2.1. Local login (setup window)

Launch the setting window for using the “Concurrent User License Kit”.

Important:
- The setting window can be launched only by an administrator of this software.

Step 1
Launch this software.
→ The log-in window will be displayed.



The details of the window are as follows.

■ **User name**

Enter the user name of this software.

■ **Password**

Enter the password of this software. The entered password will be displayed as "●".

■ **License recorder selection**

Select a destination recorder to obtain the license. When [Local login (setup window)] is selected, the license recorder setup window will be displayed.

■ **Change password**

Check this check box to change the password of this software.

■ **[OK] button**

The window will shift to the license recorder setup window, the operation window or "Change password" window according to the entered content.

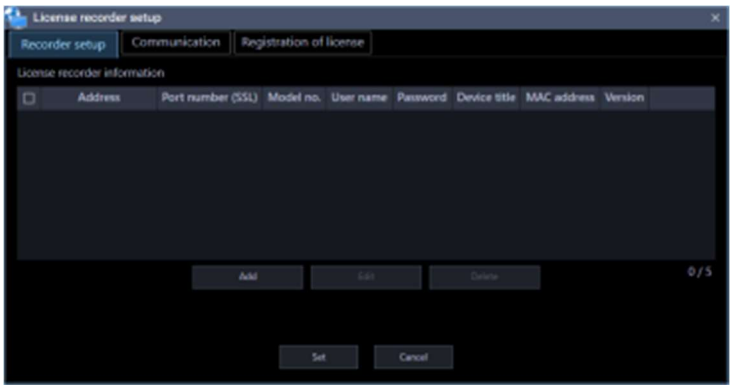
■ **[Cancel] button**

Click this button to cancel the entries, and then terminate this software.

Step 2

After entering for “User name” and “Password” on the login window, select [Local login (setup window)] as "License recorder selection" and click the [OK] button.

→ The license recorder setup window will be displayed.



Note:

- To close the license recorder setup window after completing the setting, click the [×] button on the title bar of the window.

6.2.2. Recorder setup

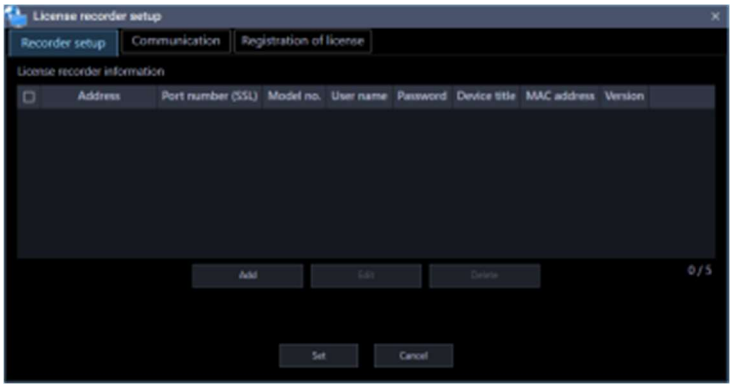
Set up the license recorder.

6.2.2.1. Register the license recorder

Step 1
Display the license recorder setup window.

Step 2
Click the [Recorder setup] tab.

→ Recorder setup window will be displayed.



The details of the window are as follows.

■ **Device list**

Information of the license recorder in this software will be displayed in list form.

Item	Description
Check box	Select an operation target device. Default: (No checked)

Address	Address of a device will be displayed.
Port number (SSL)	A port number of a device will be displayed.
Model no.	A model number of a device will be displayed.
User name	The administrator name of a device will be displayed.
Password	The password will be displayed in “●”.
Device title	The title of the device to display with this software will be displayed.
MAC address	A MAC address of a device will be displayed.
Version	Firmware version of a device will be displayed.

■ **[Add] button**

The license recorder registration window will be displayed.
Refer to "☞ 6.2.2.1. Register the license recorder" for further information.

■ **[Edit] button**

The license recorder registration window of the device selected in the device list will be displayed.
Refer to "☞ 6.2.2.2. Edit the registered license recorder" for further information.

■ **[Delete] button**

The device selected in the device list will be deleted.
Refer to "☞ 6.2.2.3. Delete the registered license recorder" for further information.

■ **[Set] button**

The configured settings will be saved.

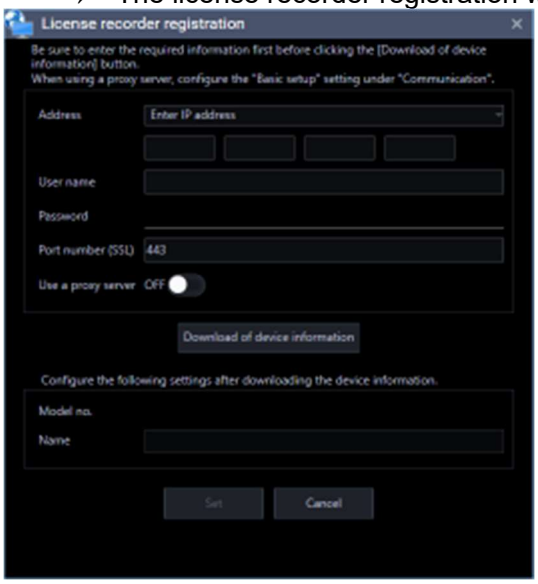
■ **[Cancel] button**

The configured settings will not be saved and close the license recorder setup window.

Step 3

Click the [Add] button.

→ The license recorder registration window will be displayed.



The details of the window are as follows.

■ **Address (Entry type)**

Select an entry type of address of a device.
Enter IP address: Specify a device to be registered using IP address.
Enter host name: Specify a device to be registered using FQDN type host name.
Default: IP address enter



■ **Address (Entry field)**

< When the entry type is “Enter IP address”>
Enter the IP address of the device.



Note:
- It is impossible to use IP addresses that are already added.

<When the entry type is “Enter host name”>
Enter an FQDN type host name for the device address. Entry shall be up to 255 alphanumeric characters (including hyphens (-) and periods (.)).



Note:
- Entering "http://" is not necessary if the host name is entered.

■ **User name**

Enter a user name of a device. Enter 1 - 32 alphanumeric characters for user name.

■ **Password**

Enter a password of a device. The entered password will be displayed with black dots (●). Enter 1 - 32 alphanumeric characters for the password.

Note:
- The “User name” and “Password” that can be registered depend on the device. Refer to the instruction manual of device.

■ **Port number (SSL)**

Enter a number among the following for the port number.
1 - 65535
Default: 443

■ **Use a proxy server**

Determine whether to use or not use a proxy server to connect with devices.
ON: Use a proxy server
OFF: Not use a proxy server

Default: OFF

■ **[Download of device information] button**

Device information will be downloaded based on entered settings.

■ **Model no.**

The model number contained in the downloaded device information will be displayed.
The blank will be displayed when device information is not downloaded yet.

■ **Device title**

Enter 1 - 16 characters for the device title. The following characters are unavailable.
! $ % ' < = > @ [¥] ^ _ ` { | } ~

■ **[Set] button**

The configured settings will be saved.

■ **[Cancel] button**

The configured settings will not be saved and close the license recorder registration window.

Step 4

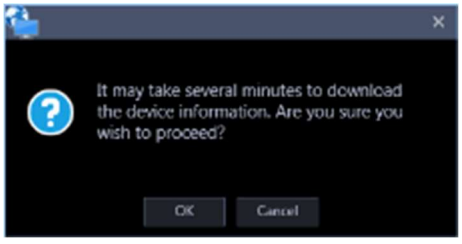
Set up information for connecting with the license recorder.
Enter the "Address", "User name", "Password", "Port number", "Use a proxy server" and "SSL".

Step 5

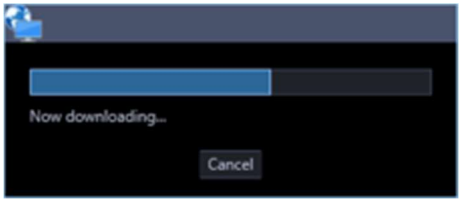
Click the [Download of device information] button.

Step 6

Click the [OK] button.



→ The downloading status window will be displayed. To cancel downloading the device information, click the [Cancel] button on the displayed downloading status window.



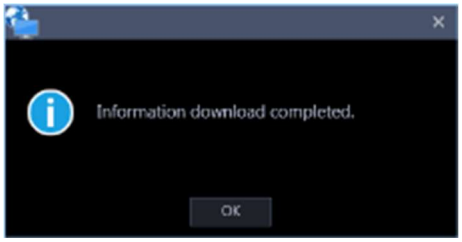
Step 7

The message window will be displayed when download process ended.

<When download of the device information is successfully completed>

The confirmation window will be displayed.

1. Click the [OK] button.
   → The confirmation window will close.

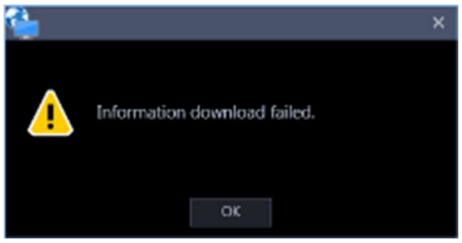


2. Go to step 8.

<When download of the device information failed>

The error message window will be displayed.

1. Confirm the content of the message indicated in the window.



Note:

- Check if the entered device information is correct. When the information has been edited correctly, the connected device or the version of the connected device may not be compatible with this software.

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2. Click the [OK] button.
   → The error window will close.

3. When the “License recorder registration” window will be displayed again, confirm the settings.

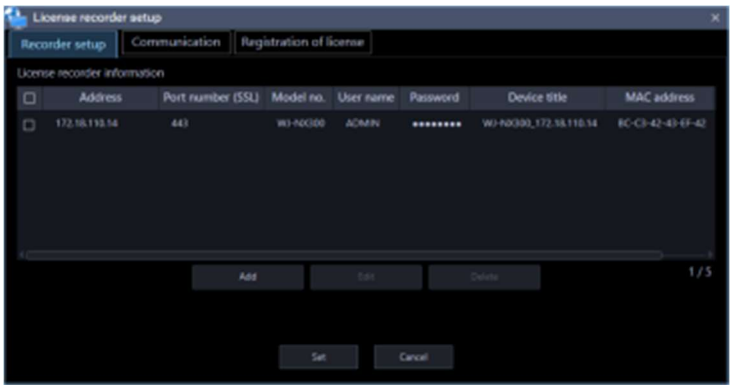
4. Then, download the device information again.

Step 8

Enter the "Name” (device title).

Step 9

Click the [Set] button on the license recorder registration window.
   → The window will close. The registered recorder will be displayed in the device list.

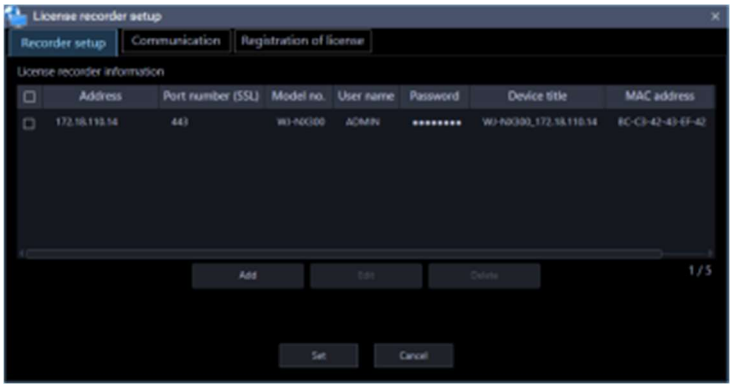


Step 10
Click the [Set] button on the license recorder setup window.
→ The configured settings will be saved.

6.2.2.2. Edit the registered license recorder

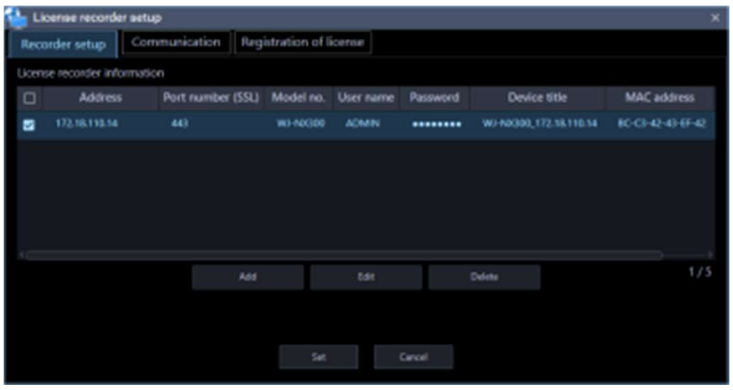
Edit the device information displayed in "Device List".

Step 1
Display the license recorder setup window.

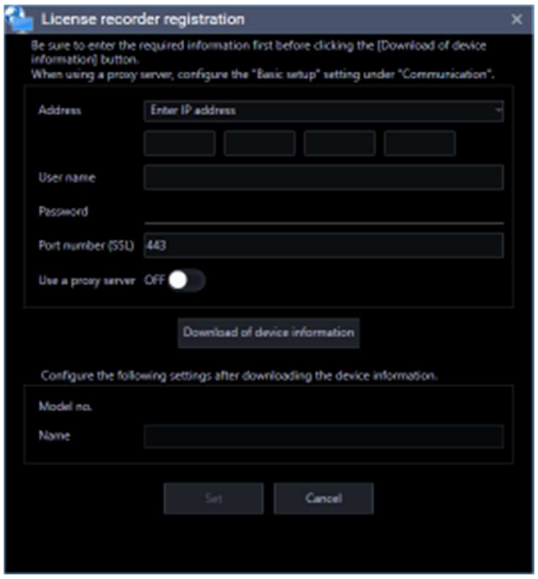


Step 2
Click the [Recorder setup] tab.
→ Recorder setup window will be displayed.

Step 3
Put a check mark on the check box of a device whose information is to be edited.



Step 4
Click the [Edit] button.
→ The license recorder registration window will be displayed.



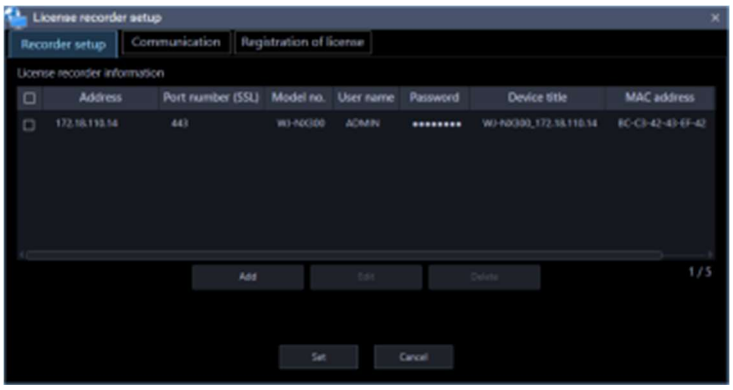
Step 5
Click the [Set] button on the license recorder registration window after editing the information.
→ The window will close. The registered recorder will be displayed in the device list.

Step 6
Click the [Set] button on the license recorder setup window.
→ The configured settings will be saved.

6.2.2.3. Delete the registered license recorder

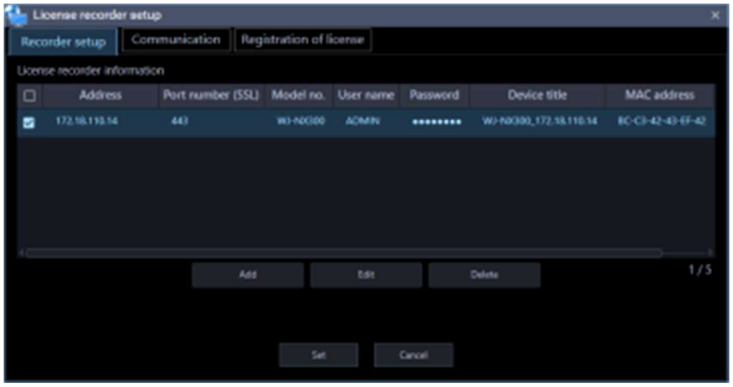
Delete the device information displayed in "Device List".

Step 1
Display the license recorder setup window.



Step 2
Click the [Recorder setup] tab.
→ Recorder setup window will be displayed.

Step 3
Put a check mark on the check box of a device whose information is to be deleted.



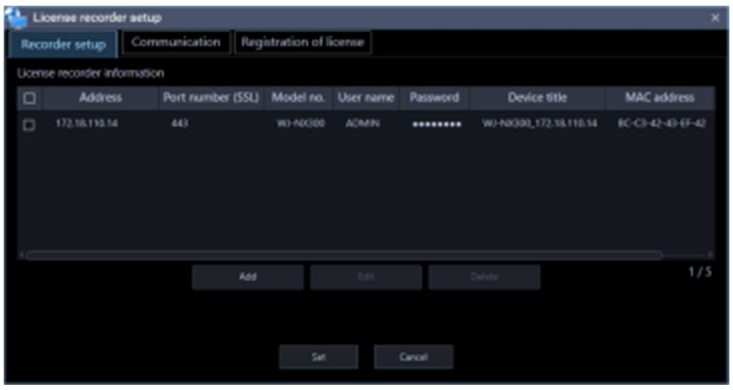
Step 4
Click the [Delete] button.
→ The selected recorder is deleted from the device list.

Step 5
Click the [Set] button on the license recorder setup window.
→ The configured settings will be saved.

6.2.3. Communication setup

Configure the settings relating to the communication required to connect this software with the license recorder.

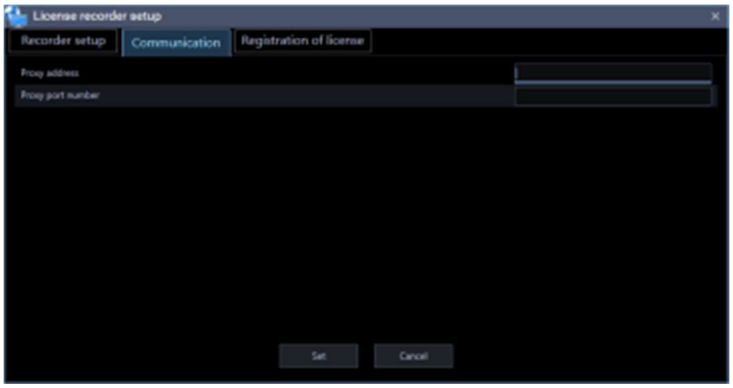
Step 1
Display the license recorder setup window.



Step 2

Click the [Communication] tab.

→ Communication window will be displayed.



The details of the window are as follows.

■ **Proxy address**

Enter the IP address of the proxy server. Enter an address using up to 255 alphanumeric characters including “.” (period) and “-” (hyphen)

■ **Proxy port number**

Enter the port number of the proxy server. Enter a number from 1 to 65535.

■ **[Set] button**

The configured settings will be saved.

■ **[Cancel] button**

The configured settings will not be saved and close the license recorder setup window.

Note:

- Communication will not be established even when "ON" is selected for "Proxy server" on the license recorder registration window if no value is entered for "Proxy address" and "Proxy port number” on this window.
- When using the proxy server, use an HTTP proxy server.

Step 3

Enter information and click the [Set] button.

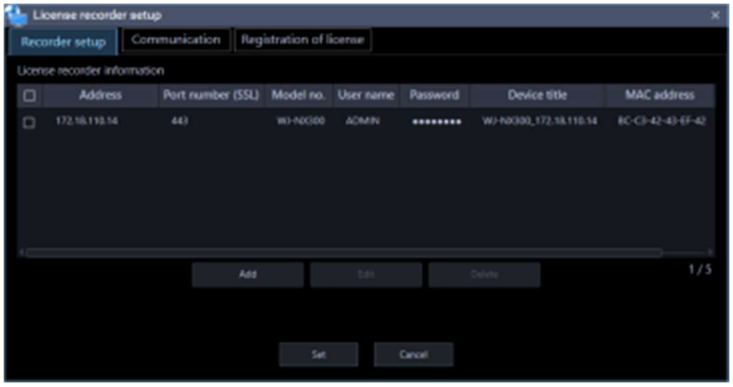
→ The configured settings will be saved.

6.2.4. Registration of license

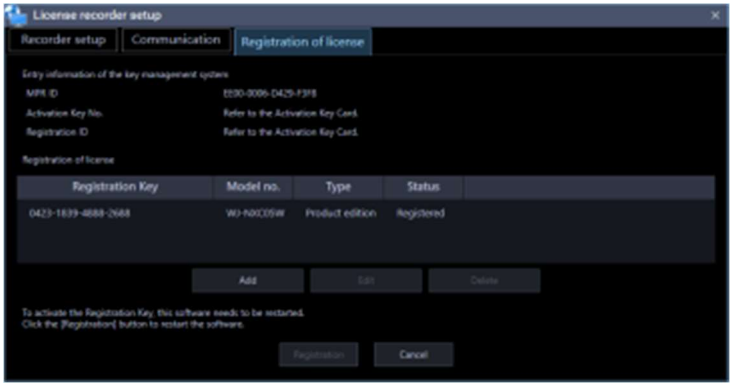
As well as registering the authentic license (WV-ASM300) to use this software, the license to add the extension software (heat map) will be registered. To register the license, it is necessary to enter the "Registration Key" obtained from the Key Management System. Refer to the provided "Activation Key Card" provided with the extension software to obtain the "Registration Key" of the extension software.

Important:
- To activate the license to register, it is necessary to click the [Registration] button. For the registration of the license, this software will be automatically restarted.
- Be sure to perform the registration procedure for this software on the PC in use.
- On this license registration window, registration of the extension software except “Heat map” is unavailable.

Step 1
Display the license recorder setup window.



Step 2
Click the [Registration of license] tab.
→ The "Registration of license" window will be displayed.



The details of the window are as follows.

■ **Entry information of the key management system**

This is the ID number required to obtain the "Registration Key". The Activation Key Card provided with this software describes how to access the key management system.

■ **MPR ID**

This is the ID number to identify the PC in which the software is installed. The number will be required when obtaining the "Registration Key" from the Key Management System.

■ **Activation Key No.**

The number will be required when obtaining the "Registration Key" from the Key Management System. The Activation Key Card provided with the software describes the number.

■ **Registration ID**

The number will be required when obtaining the "Registration Key" from the Key Management System. The Activation Key Card provided with the software describes the number.

■ **Registration of license**

The entered "Registration Key" and information of the already registered license will be displayed in list form.

■ **[Add] button**

Displays the "Entry of Registration Key" window.

■ **[Edit] button**

Displays the "Registration Key" selected from the list of the registration of license.

Note:

- It is impossible to modify the content of the license already registered.

■ **[Delete] button**

Deletes the "Registration Key" selected from the list of the registration of license.

Note:

- It is impossible to delete the content of the license already registered.

■ **[Registration] button**

Executes the license registration.

■ **[Cancel] button**

The configured settings will not be saved and close the license recorder setup window.

Step 3

Click the [Add] button.

→ The "Entry of Registration Key" window will be displayed.



The details of the window are as follows.

■ **Registration Key**

Enter the "Registration Key" obtained from the Key Management System.

■ **[Input saving] button**

Saves the entered "Registration Key" temporarily for registration.

Important:

- Registration of the license will not be completed just by saving the entered “Registration key”. Be sure to click the [Registration] button on the "Registration of license" window.

Step 4

Enter the "Registration Key". Enter the "Registration Key" obtained from the Key Management System.



Step 5

Click the [Input saving] button.

Step 6

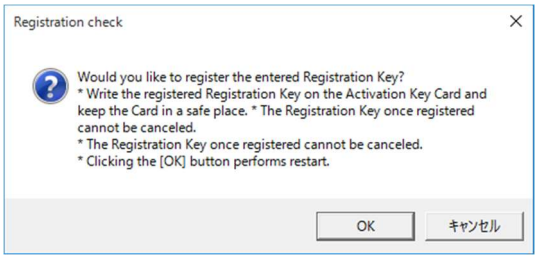
Click the [Registration] button after confirming the information of the entered "Registration Key".

Note:

- The entered "Registration Key" will be deleted if changed to another window without clicking the [Registration] button or if the setup window is closed.

Step 7

Click the [OK] button. To cancel registration, click the [Cancel] button.



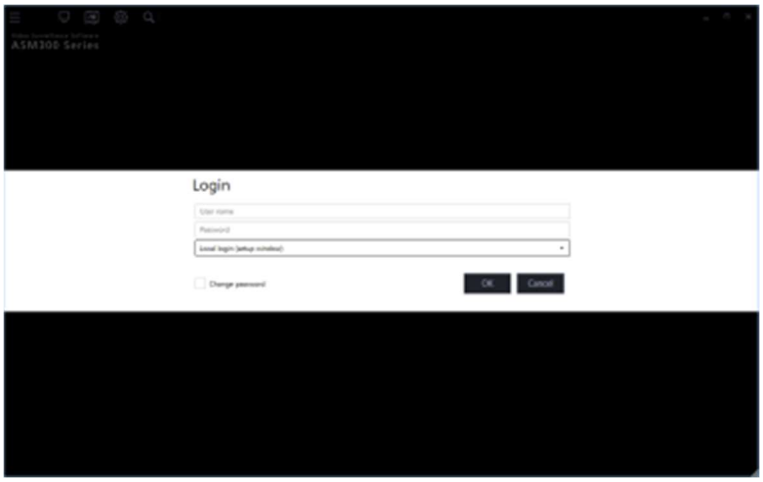
Important:

- It is impossible to deactivate the "Registration Key" once registered. Confirm that registration is correct.
- When the [OK] button is clicked, this software will be automatically restarted.

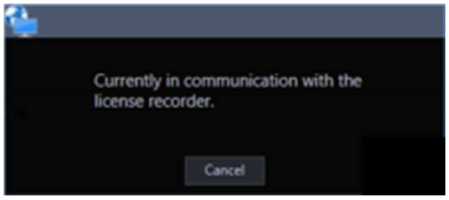
6.3. Login to this software with Concurrent User License

Obtain a license from the license server (license recorder) and log in to this software.

Step 1
Launch this software.
→ The login window will be displayed.



Step 2
After entering for “User name” and “Password” on the login window, select the license recorder as "License recorder selection" and click the [OK] button.
→ The communication window will be displayed.



Step 3
The operation window will be displayed when the acquisition of the license is completed.



Important:
- To use this software, constant connection between the PC (this software) and the license recorder is required.
- If the connection is disconnected, the login window will be displayed again. In this case, establish the connection between the PC and the license server again and retry the login.

7. Troubleshooting

Before asking for repairs, check the symptoms with the following table.
Contact your dealer if a problem cannot be solved even after checking and trying the solution in the table or a problem is not described below.

Important:
- When the settings of the setup menu of the device are edited, download device information again. Otherwise, some functions may not work correctly. Refer to "☞ 3.3. Settings relating to the device management“ for how to acquire device information.

Symptom	Cause/solution
Device detection or setting transmission fails on the “Device setup” window.	Depending on the communication environment and the state of the target device, device connection may fail. For other restrictions on device setting, please read "☞ 3.3.1. Restriction when setting device".
No live image is displayed.	Isn’t the event notification window displayed? Confirm the displayed description and contact the administrator.
	“OFF” is selected for MPEG-4 or H.264/H.265 transmission setting of the camera. Select “ON” for MPEG-4 or H.264/H.265 transmission setting of the camera. Refer to the operating instructions of the camera for how to configure the transmission setting.
	The recorder is currently being configured or the SD memory recording is currently being executed. Live images will be displayed when the configuration or the SD memory recording is completed.
	It may be necessary to format the hard disk of the recorder. Check the status of the recorder by accessing directly to the recorder from the web browser.
	It may be possible that the exceptional settings of Windows Firewall are not configured. Configure the exceptional settings of Windows Firewall by following the procedure of “☞ 3.17. Exceptional settings of Windows Firewall“.
	If using a camera for which a license of the Extension Software WV-SAEASF (ASF950, ASF900 Face matching function camera option, “Best Shot option”)

Symptom	Cause/solution
	has been registered, check if the stream selection of this software is set to “AUTO”, “Stream 3”, or “Stream4”. In that case, set the stream selection to “Stream 1” or “Stream 2”.
Live image is not being refreshed.	Both images and the displayed time & date are not being refreshed. Connection between the recorder and the camera may be disconnected or a network trouble may be occurred. Check the connection.
When you operate the camera frequently in a short time, the live image will not be displayed and an image reception error will occur.	When you perform frequent camera operations in a short time in the internet mode and digest authentication settings, the camera image distribution may stop due to the authentication operation performed by the Windows OS library. In that case, it may sometimes be improved by operating the camera with a slight interval.
No image is displayed when the sequence display is being performed.	This may occur when the sequence display of MPEG-4 or H.264/H.265 images is being executed. Set the refresh interval of the camera to "1 second". Refer to the operating instructions of the camera in use for how to configure the refresh interval setting.
	When load of the connected device is heavy, images to be displayed in the sequence display may be a black screen. In this case, it may sometimes be improved by setting the duration of the sequence display longer.
	When the recorder in use is the HD600, images to be displayed in the sequence display may be a black screen. Set the value of the live image transmission rate on the recorder higher than the sequence dwell time or select "QVGA" for "Live video resolution(1-screen)" and "Live video resolution(4-screen)".
Images from a different camera from the set camera are displayed during the sequence.	When a camera is in a disconnected state, images from the camera will not be displayed and images from the previously selected camera may sometimes be displayed. This may sometimes be improved by setting “Camera” for “Live image source” and setting the display interval of the sequence longer.
Images to be displayed in the sequence display is slow to be changed. Part of the displayed image is missing.	This may occur when audio is activated in the sequence display. It may be improved by selecting "OFF" for the audio setting.
When the setting is changed during execution of a live sequence operation, temporary disturbance of video occurs or an error pop-up saying that the image compression method is incorrect is displayed.	When a live sequence operation is being executed, stop the sequence operation and then change the setting. If the setting is changed without stopping the sequence operation, temporary disturbance of video may occur. In operation in which different image compression methods (H.264/H.265) of camera are present, an error pop-up saying that the image compression method is incorrect may be displayed. Update this software to version 4.30 or later.
Cannot operate the camera.	It may be possible that the device in use is not compatible with this software. Check if the device in use is compatible with this software.
	Please check "☞1.5.3. Compatible cameras ” to see if your camera is compatible. For unsupported cameras, functions common to supported cameras may work properly, but some functions may not work. Unsupported cameras may be officially supported in future versions of this software. Please see the support page for this software and update to the latest version.
	The selected image is not live image. Confirm that the indication [LIVE] is displayed in the status bar.

Symptom	Cause/solution
	The camera icon is displayed as "Fixed camera". Select an icon of a camera that has the pan/tilt function.
	The camera may be starting up. Operate again after approx. 2 minutes.
	If the drag-zooming cannot be operated in the PTZ camera image, the device and software authentication method may not match. If the software receives images through the recorder, match the authentication method of this software and the recorder. When the device authentication method is “Digest or Basic”, set the authentication method of this software to “Digest”.
	When using Video Insight Server, operation of the camera operation buttons or operation of the screen may sometimes not immediately be executed depending on the recorder in use. When this problem occurred, repeat the same operation.
When dragging the area while displaying images on a multi-screen, it will switch to 1-screen display.	Depending on the OS version and operating environment, mouse dragging may not work properly. In this case, it may be improved by double-clicking the target area once to make it 1-screen display or restarting this software.
Switching between multi-screen and single screen when single-clicking the image area	Depending on the OS version and operating environment, it may not work properly. In that case, double-click the target area to switch between multi-screen and single screen.
Cannot operate the recorder.	A user cannot operate the recorder due to the user level setting. Check the user level of the login user on the "User setup" tab page of the "User management" window on the setup window.
Timeline is not displayed.	It may be possible that the exceptional settings of Windows Firewall are not configured. Configure the exception of “asm300tlsrv.exe” by following the procedure of “☞ 3.17. Exceptional settings of Windows Firewall“.
	It may be possible that the data acquisition such as the latest time has not completed for that range. After a certain period of time, check the display again.
	It may be possible that the range is the “Event recording” immediately before the data acquisition timing and has a short recording time. The timeline may be displayed by initializing the timeline data. However, please note that it will take some time to be displayed when the timeline is initialized.
	The amount of data on the timeline may exceed the OS limit. If the amount of events generated is large, change to the “Schedule recording”.
	The security certificate for the recorder may be expired or may not yet valid. Please contact the administrator.
A black screen is displayed during playback.	When playing recorded images on a multi-screen, a black screen may sometimes be displayed. Click the [PLAY] button.
	The recorder is currently being configured or the SD memory recording is currently being executed. Playback will resume when the configuration or the SD memory recording is completed. However, the black screen may sometimes remain or images may sometimes not be refreshed even after the resume. In this case, click the [PLAY] button.
	The recorder may be powered off. Turn on the power of the recorder. After confirming that the recorder started up correctly, click the [PLAY] button.
	When the recorder in use is the HD600, images to be displayed may be a black

Symptom	Cause/solution
	screen if playback operation (playback after stop, fast playback/fast reverse playback, skipping to the next/previous recorded image, frame playback/reverse frame playback) is performed or camera channels are changed during playback. In this case, wait for a while until playback resumes or perform the playback operation again. Refer to the operating instructions of the HD600 for further information about the status of black screen displayed during playback.
	When the recorder in use is the NX-series and NU-series, it may take time to play depending on the operating environment of the recorder. In this case, wait for a while until playback resumes or perform the playback operation again.
Recorded images being played on a multi-screen do not synchronized based on the recording time.	When images recorded on different recorders are played on a multi-screen, recorded images displayed on a multi-screen will not be synchronized based on the recording time. Playback of recorded images will be synchronized only when they are from the same recorder. However, there are possibilities that the synchronization timing is not precise. In this case, click the [PLAY] button.
AI privacy guard image is not displayed.	AI privacy guard application (WV-XAE201W) may not be installed on the camera. The AI privacy guard application (for fisheye camera) (WV-XAE301W) is not supported. Please contact the administrator.
	The [Privacy Guard target] on the “AI Privacy Guard setting” screen of the camera may be "Off". For the settings, refer to the operating instructions of the AI privacy guard application.
The AI privacy guard off image is displayed unexpectedly. The AI privacy guard image is displayed unexpectedly.	[Target stream] on the AI Privacy Guard setting screen of the camera may be set to a setting other than "Stream (2) & Stream (4)". To use the AI privacy guard function with this software, select "Stream (2) & Stream (4)". For the settings, refer to the operating instructions of the AI privacy guard application.
	If a user without authorization of "AI privacy guard image switching" is logged in, images that are not set with AI privacy guard will not be displayed. Check "☞ 3.4.3. User level setup“.
Cannot download images.	This may be caused due to a device error or a network error. Display the logs and check the settings of the recorder from which the images are to be downloaded. (Address, FTP port number, etc.)
	Available space of the disk designated as the destination of the download file may be not enough. Secure the disk space.
	The disk designated as the destination of the download file may be locked for writing. Allow the disk to be written on.
	The path of the destination folder of the downloaded file may be too long. Make sure that the path is less than 250 characters.
Download of n3r file ends prematurely.	The n3r format file size may exceed approximately 1.9GB. If using NX200/NX300/NX400 (version 2.50 or later) or NX100, set “n3r file download method (NX series)” in [System] - [Basic setup] to “Extension”. For other recorders, specify a shorter download time range.
Cannot play the downloaded file.	The downloaded file may be damaged. Retry the download and play the newly downloaded file.
	The recorded images to be downloaded may be deleted on the target recorder in the process of the download. It is also possible to display live images directly from the cameras, not through the recorder.
A black screen is displayed when playing the downloaded file.	An older version of the display adapter for the PC monitor may be used. Update the display adapter to the latest version.

Symptom	Cause/solution
Converting n3r file and n3a file to standard format causes loss of image and sound.	The downloaded n3r file, n3a file may be damaged. Confirm that recording and recording are done correctly, please download again.
	It may occur if an mp4 file which is a converted file into the standard format from an n3r file is played using the viewer software (NX_Viewer). When using the viewer software, play only files downloaded from the recorder that are not converted to the standard format. Refer to "☞ 4.11. Use the viewer software" for how to use the viewer software.
Designation of time & date does not work correctly when performing playback, search and download.	When the recorder in use is ND300, ND400, NV200, NV300, NX-series or NU-series, this may occur if different time zones are set for the recorder and the camera registered in the recorder. Set the same time zone for both the recorder and the camera. Refer to the operating instructions of the recorder in use for how to set the time zone.
When displaying MPEG-4, H.264 or H.265 images on a multi-screen, images from two or more cameras are displayed in sequence on a single area.	This may occur due to a combination of the display adapter and the driver used in the PC. When this occurred, update the driver of the display adapter to the latest version first.
Image display delays or stops (PC performance becomes low.).	The value set for "Maximum refresh interval (JPEG/VGA)" on the [Performance] tab of the "System" page may not be appropriate. Set an appropriate value for "Maximum refresh interval" on the [Performance] tab page of the "System" page on the setup window.
	It may be possible that the PC in use does not meet the system requirements. Check the system requirements for a PC.
	The value set for "Max bit rate (per client)" of the camera that transmits MPEG-4 or H.264/H.265 images may not be appropriate for the CPU performance of the PC in use. Check the recommended settings of the camera when using MPEG-4 or H.264/H.265 images.
	It may be possible that load of the connected device is heavy. In this case, it may sometimes be improved by reducing load of the connected device.
	The display speed may delay when displaying a 60 fps high frame rate image in the full screen with a display higher resolution than the Full-HD. The symptom may be solved by setting "ON" for "Smooth display (buffering)" in "Drawing and audio setup" of "System setup".
	When "Camera" is selected as the live image source, it may take time to switch live image display since information acquisition from each camera is required. This may be improved by changing the live image source to "Recorder".
	When a high-speed playback is performed in a state where "ON" is selected for [High-speed playback smooth mode] of [Drawing and audio setup] under [System], the CPU load may increase in proportion to the playback speed and more memory may be required. Depending on the conditions such as playback speed, high resolution, high frame rate, number of image display screens and PC environment, the playback speed may become slow, playback may not be possible or the PC may freeze. In this case, it may sometimes be improved by setting to "OFF".
	When "ON" is set for [Smooth display (Buffering)] of [Drawing and audio setup] under [System], a large amount of memory will be required. Depending on the conditions such as high resolution, high frame rate, number

Symptom	Cause/solution
	of image display screens and PC environment, a delay may occur in live or playback video, playback may not be possible or the PC may freeze. In this case, it may sometimes be improved by setting to “OFF”. When running on a 32-bit OS, it is recommended to set this setting to “OFF”.
	When “ON” is set for “Halftone (Anti-aliasing)” on the [Drawing and audio setup] tab under [System], CPU load will become high. Delays may be observed in live video or playback video or it may have difficulty in displaying live video or playback video or the PC may freeze if operation is performed under an environment with a high resolution, a high frame rate and many number of image display screens or depending on the PC environment. This may be improved by changing the setting to “OFF”.
Image display is non-smooth.	Depending on the type of camera you are using, the camera settings, or the display settings of your PC, the image display may become non-smooth movement. The symptom may be solved by setting "ON" for "Smooth display (buffering)" in "Drawing and audio setup" of "System setup".
It takes time to pause.	When the fast forward playback of video of which both the image capture size and the playback speed are high is performed in a state where “ON” is being set for “High-speed playback smooth mode”, it may take some time to pause. In this case, it may sometimes be improved by setting to “OFF” for “High-speed playback smooth mode”, or lowering the resolution and / or recording frame rate.
Cannot perform the fast forward playback.	When the fast forward playback of video of which both the image capture size and the playback speed are high is performed in a state where “ON” is being set for “High-speed playback smooth mode”, the playback speed for the fast forward playback may become slower than the described value. In this case, it may sometimes be improved by setting to “OFF” for “High-speed playback smooth mode”, or lowering the resolution and / or recording frame rate.
ASM slows down.	If the amount of alarms received increases, the operation may become slow. Check “Alarm linkage disarm duration” in [Event action] - [Alarm setting], and if “OFF”, set “Alarm linkage disarm duration”. Also check whether the device is set to notify unnecessary alarms.
Audio is interrupted or noise is produced.	Audio may be interrupted or noise may be produced when performing panning/tilting/zooming operation of the camera, or when multiple users are accessing the same camera simultaneously. Audio interruption and noise production can sometimes be reduced by setting the audio transmission intervals longer. Refer to the operating instructions of the camera or the encoder in use for how to configure the audio transmission intervals.
No audio is output. Noise is included in audio.	It may be possible that the audio function is set to be disabled. Select "ON" for "Audio" of "Drawing and audio setup" under "System".
	It may be possible that the image display area other than the upper left one is selected when displaying images on a multi-screen. Select the upper left one.
	If it is as for the microphone, it may be possible that the operation condition for audio collection is not satisfied. Check whether the monitor settings are appropriate.
	The recorded audio cannot be played in SD playback. To play back the audio recorded in the SD memory card, download the recorded data. The audio will be played when a downloaded recorded data is played.

Symptom	Cause/solution
	This software does not support the audio compression method "G.711". Set to other than "G.711".
	When using the Internet mode, set "G.726" for the audio compression method of the device. If other than "G.726" is selected, the audio will not be output.
Cannot transmit audio.	Aren't images being displayed on a full screen? When displaying images on a full screen, it is impossible to transmit audio.
	Receiving the image of the camera via the recorder. For cameras that receive images via the recorder, Cannot transmit audio.
The visibility enhancement effect cannot be obtained.	The frame rate of the input video may be low. When capturing fast-moving objects or noisy objects, set the frame rate to 10 fps or more.
The group/sequence selected for "Default screen" is not displayed. Some steps of the sequence set for "Default screen" are not displayed.	When the number of areas of the group set for "Default screen" exceeds the maximum number of areas, a black screen will be displayed on a 1-screen. When the number of areas for the sequence display set for "Default screen" is more than the number set for "Operation window (multi-screen) with the maximum number of areas" or "Live window (multi-screen) with the maximum number of areas", excess steps will be skipped. When all steps are excess, a black screen will be displayed on a 1-screen. Set the number of areas of the group or the sequence to not to exceed the maximum number of areas of each window.
Cannot receive an alarm.	It may be possible that the exceptional settings of Windows Firewall are not configured. Configure the exception of "asm300tlsrv.exe" by following the procedure of "☞ 3.17. Exceptional settings of Windows Firewall".
Live images are not displayed even when the camera icon indicates that the camera is on-line. Live images are being displayed even when the camera icon indicates that the camera is off-line.	Depending on the communication status, the camera icon cannot indicate the correct status of the camera. When the camera icon displayed in the device tree or on the map window is clicked, the camera icon will change to the icon indicating that the camera is on-line. The camera icon displayed on the "Search" window or on the "Download" panel will not change even when it is clicked.
	It may be possible that the connection between the linked camera and the microphone is disconnected. Check the connection state of the microphone.
	If it is unable to receive the TCP alarm notification from the recorder, the state of the camera icon will not correctly be displayed even when the camera registered in the recorder is disconnected. In this case, the state of the camera icon will correctly be displayed by registering the camera as an independent camera.
The camera title displayed in the tool tip is different from the registered one.	Some of marks used for the camera title may not be displayed correctly. Example) When entering "&&" and "&", they will be displayed as "&" in the tool tip.
No live image is displayed during operating the camera using the system controller. Displaying of images takes time.	Load of the device that is used to control the camera may be heavy. In this case, it may sometimes be improved by reducing load of the device to be used to control the camera.
	Firmware of the device to be used to control the camera may be not the latest one. In this case, it may sometimes be improved by updating the firmware of the device to be used to control the camera to the latest one.
When operating a PTZ camera via a system controller, the PTZ operation does not stop immediately even by releasing my hand from the joystick of	This may occur depending on the operation environment of the PC on which Microsoft .NET Framework is installed. In that case, it can be improved by changing the image display of the PTZ camera displayed on the operation window from a directly connected camera to a camera connected to the recorder (Live image source: Recorder).

Symptom	Cause/solution
the system controller.	The live image source can be changed on the device setup window.
The image display appears to shake when the PTZ camera is operated to zoom.	This is a normal operation of the camera; the PTZ camera automatically adjusts the focus after the PTZ operation is completed. If the PTZ camera is rendering at a high frame rate, the image may appear as it is.
It takes time to start moving after clicking an image when using “Click & centering”.	The speed of a double-click of the mouse may be slow. Edit the settings by following the procedures below. 1. Under the control panel of Windows, go [Hardware and Sound] - [Devices and Printers] - [Mouse], and then open the “Mouse Properties” window by clicking [Mouse]. 2. Make the double-click speed faster at [Double-click speed] of the [Buttons] tab. 3. Click the [Apply] button. 4. Click the [OK] button.
The PC does not go into the sleep mode (system standby or system suspension). Images are not refreshed after returning from the sleeping mode.	When this software is running, the PC may sometimes not go into the sleep mode. Even the PC went into the sleep mode, the following may occur after returning from the sleep mode. • Live images are not refreshed • Cameras for the sequence display are not switched • An alarm notification message window is not updated • Fails in conversion to the standard format When using this software, configure the PC not to go into the sleep mode.
Button names are displayed out of the button frames.	If the screen dpi is set to "120 DPI", the names may not properly be displayed. Click the "Settings" tab on the "Display Properties" window and then click the [Advanced(V)] button, and change the screen dpi setting.
Text garbled	Garbled text may be displayed in a certain environment due to the existing bug of Windows. In this case, the following methods can help to improve. • Update the OS to the latest version. • Repair the incomplete or damaged system file using the system file checker tool. Refer to the following web site for procedures. https://support.microsoft.com/en-au/help/929833/use-the-system-file-checker-tool-to-repair-missing-or-corrupted-system
For multicast, mixed images from multiple cameras are displayed.	If the same multicast address is assigned to multiple cameras, images from the cameras to be displayed will be mixed. Therefore, assign different multicast addresses to different cameras.
Refresh of live images is unstable. The devices are disconnected. Image file downloaded from the FTP server is faulty. Images cannot be properly displayed, recorded, or played back.	The line speed settings may not be the same between the connected device and the hub, for example, 100M BASE-TX Full for the unit and 100M BASE-TX half, etc. Some hubs change the line speed automatically depending on the network traffic and it may cause configuration errors. Check the line speed settings of both the connected device and the hub, and configure the line speed settings of both to conform them. (It is recommended to set "1000-FULL" for the line speed if your recorder, PC and hub support 1000 Mbps. If not, it is recommended to set "100-FULL".)
A message saying that “It is impossible to transmit images with the selected image capture size. Change the setting.” is displayed.	This message will be displayed when the selected image capture size of JPEG image is unavailable for the transmission of JPEG images. Change the image capture size of JPEG images on the setup window. When the settings of the setup menu of the camera are edited, select the camera again.

Symptom	Cause/solution
A message saying that “Capture mode that cannot be transmitted is set to camera. Check the settings.” is displayed.	This message will be displayed when the image capture mode set to the camera does not match the image capture mode of this software. Change the setting of the camera, or change the ON/OFF setting of the following image capture mode on the “Camera setup” window from [Device setup] - [Device registration]. <When the camera is fisheye camera or camera that supports cropping mode> Quad streams/Cropping mode <When the camera is AI multi-sensor camera> Quad/Panorama mode
A message saying that "The selected image compression method is different from the camera’s. Change the setting.” is displayed.	This message will be displayed when the selected compression method (MPEG-4 or H.264) is set to OFF on the camera. Change the compression method on the setup window.
An event notification message saying that ""OFF" is selected for the designated stream type. Change the setting."	This message will be displayed when the stream type is set to OFF on the camera. Change the stream type setting on the setup window.
Cannot register the license.	The entered "Registration Key" may be not the same as the product to be used. Check if information of the "Registration Key" acquired from the Key Management System is correspondent with the product to be used with this software again.
The selected area will not be displayed with the frame in orange.	It is impossible to select an area when clicking an area in black zones outside the image display area. Check the image display area.
An event notification message saying that "Cannot login. (Camera authentication error)” is displayed.	The entered user name or password is not matched with the one set for the camera. Set the same user name and password on both the camera and this software.
An event notification message saying that "Login failed due to a different camera authentication method.” is displayed.	The authentication method is not matched with the one set for the camera. Set the same authentication method on both the camera and this software.
Images are displayed tilted toward upper left.	If the display setting is not appropriately set up, the video screen of this software may become abnormal. Check the "Change the size of all items" setting of Windows by selecting "Control Panel" - "Appearance and Personalization" - "Display". Select "Smaller-100%(default)" if anything else is selected. Or, select "Smaller" if "Larger" is selected. The setting will be reflected when logging on to Windows again.
“Fisheye display mode (Fisheye camera)” is not applied.	The current screen pattern does not support "Fisheye display mode". This is applied only to images on 1-screen, 2A-screen, 2B-screen, 4-screen, on left area of 3A-screen, on right area of 3B-screen, and on large areas of 7-/10-/13-screen. However, the fisheye image display change function is unavailable for 4E-screen and 7A-screen.
	The image capture size of the camera is set to lower than 640×640 (for 9M Fisheye cameras or 5M Fisheye cameras) or 640×480 (for 3M Fisheye cameras). When a camera is registered in NV200, NV300, NX-series or NU-series, the

Symptom	Cause/solution
	image capture size may automatically be set to 640×480. Check that the image capture size of the camera is set to higher than 1280×1280 (for 9M Fisheye cameras or 5M Fisheye cameras) or 1280×960 (for 3M Fisheye cameras).
	With the following versions of fisheye cameras, display change of the fisheye image is not available with the SD recorded images. This function is available only for live images or recorder playback images. • 3M fisheye camera: All version • WV-SFN480, WV-SFV481: Below Ver. 2.52
The angle of view changed by the fisheye image display change function is different from the angle of view set by the camera	"Recorder" is selected for "Live image source" of the fisheye camera registered in the recorder. Select "Camera" for "Live image source".
	The preset setting of the camera is not correctly being registered. Re-register the preset setting of the camera and check it again.
	The installation method of "Ceiling", "Table" and "Wall" is not set correctly. Check if the installation method registered in the camera as a preset is the same as the installation method for live image display using this software.
When the search window tab is operated, search conditions and search results are initialized.	This is a restriction when Microsoft® .NET Framework 4.8.x or later is installed. Refer to "☞4.5. Use the search window" for further information.
Cannot register a recorder.	The number of the registered recorders already reached the maximum registration number (100 recorders). Delete an unnecessary recorder and register a recorder newly.
Cannot register an encoder.	The number of the registered encoders already reached the maximum registration number (64 encoders). Delete an unnecessary encoder and register an encoder newly.
Cannot register the camera.	The number of the registered cameras already reached the maximum registration number (256 cameras). Delete an unnecessary camera and register a camera newly.
Cannot register a microphone.	The number of the registered microphones already reached the maximum registration number (256 microphones). Delete an unnecessary microphone and register a microphone newly.
Cannot register a user.	The number of the registered users already reached the maximum registration number (32 users). Delete an unnecessary user and register a user newly.
Cannot register a group.	The number of the registered groups already reached the maximum registration number (400 groups). Delete an unnecessary group and register a group newly.
Cannot register a sequence.	The number of the registered sequences already reached the maximum registration number (20 sequences). Delete an unnecessary sequence and register a sequence newly.
Cannot register a map.	The number of the registered maps already reached the maximum registration number (100 maps). Delete an unnecessary map first, and then register newly.
Cannot register the device connected via a router	Check the followings. • Set the Internet mode to "ON" when registering devices. • It is required to configure the port forward setting of the device on the router side. Change the port number of the device from 80 (for example, to 61101, etc.) and apply the port forward setting to the corresponding port. If

Symptom	Cause/solution
	this setting is not configured, communication with devices using the global IP address will become impossible.
Cannot register NX, NU series recorder	When connecting with the NX, NU series recorder, SSL communication will be performed at the time of device information acquisition. Assign both the HTTPS port number (default: 443) and the HTTP port number (default: 80) to the recorder and perform the port forwarding setting on the router.
The CPU or memory usage is abnormally high	There may be possible that the process by “audiodg.exe” is consuming the PC resources. Performing the either of the following procedures may sometimes improve this case. However, the following window may not exist depending on your PC. [Procedure 1] 1. Under the control panel of Windows, go [Hardware and Sound] - [Sound], and then open the “Sound” window by clicking [Sound]. 2. Double-click [Speakers] on the [Playback] tab to open the [Speakers Properties] window. 3. Open the [Enhancements] tab and check the checkbox of [Disable all sound effects]. 4. Click the [Apply] button. 5. Click the [OK] button. [Procedure 2] 1. Under the control panel of Windows, go [Hardware and Sound] - [Devices and Printers], and then open the “Device Manager” window by clicking [Device Manager]. 2. Expand the [Sound video and game controllers], and then right click installed audio device and select the [Properties]. 3. Open the [Driver] tab and click the [Update Driver]. 4. Click the [Browse my computer for driver software]. 5. Click the [Let me pick from a list of available drivers on my computer]. 6. Select the [High Definition Audio Device], and the click the [Next] button.
Delay of image display occurs during use of the hardware decoder (H.265)	There is a possibility that hardware decoding is not supported by the version of Intel HD Graphics. Install the latest driver.
	It can occur due to the combination of your graphics card and display. Performing the following procedures may sometimes improve this. • Connect with other display. • Change the decoding method (H.265) to software. Select [Software] for [Decoding method (H.265)] of [Drawing and audio setup] under [System].
When multiple windows are displayed in a superimposed manner, the display order is changed automatically and the operation becomes ineffective	An error message may be displayed at the bottom of the window. Please display the window displayed at the forefront again in the foreground until the display order changes, and close the error message.
A message “Connecting to Main CPU” or “Connecting to Server” will be left displayed in the system controller display.	There is a possibility that the controller and software settings are not matched. Check the communication mode, the communication key and the network settings of the controller and this software. For the communication mode, set “Normal (Normal mode)” if using WV-CU980; set “CU950 Compatible (Compatible mode)”, if using WV-CU950. For further information, refer to the operating instructions of the system controller and the “Basic setup” in this manual.

Symptom	Cause/solution
A message saying that the browser in use is not supported will be displayed when the browser launched from the right-click menu on the device tree is not supported.	This may be displayed when the connected device is a camera that does not support the Internet Explorer. Connect directly to the camera using a web browser supported by the camera. Alternatively after setting the supported browser in [Designate a web browser app] on the [GUI display setup] tab under [System] under [Setting], start the web browser again from the right-click menu on the device tree.
An error message is displayed just after launching the Microsoft Edge (IE mode) using [Browser start] in the device tree	An error message may be displayed by the Microsoft Edge when a web page is opened with the Microsoft Edge (IE mode). Refer to the following website for “IE mode troubleshooting and FAQ”. (As of November 2021) https://docs.microsoft.com/en-us/deployedge/edge-ie-mode-faq
Although the Microsoft Edge (IE mode) can be launched from [Browser start] in the device tree, the top page is not correctly displayed	The Microsoft Edge (IE mode) may not be working correctly. When this software and the Easy IP Setup Tool (version 4.5 or later) are being used at the same time, exit the Easy IP Setup Tool and then launch the browser from [Browser start] again.
When using multi-display, windows other than the operation window such as live window are displayed in a different position from the previous time.	If you start or exit this software without the OS recognizing the display due to the power off of the display other than the main display or disconnection of the cable, the display position of the window displayed on the display will be automatically changed on the main display. In that case, check the power of the display and manually return the window to the original display position.
Images are not displayed correctly when using 3D Dewarp.	If the operation monitor is connected to the built-in video card, the image may not be displayed correctly depending on the type of video card. In this case, update the driver of the built-in video card to the latest version. If the problem persists, connect the display for the operation monitor to an external video card. (For information on external video cards, refer to Graphics accelerator in the "System requirements" section of the instruction manual.)

8. Displayed messages and solutions

8.1. When this software is launched

A message window may be displayed when this software is launched. The following are messages and solutions.

Message	Cause/Solution
The operating environment of this software could not be properly recognized. Check to see that the PC network environment is enabled and perform registration again.	Confirm that the network adapter of the PC is enabled. If it is disabled, enable the setting.
Failed to migrate data to the new environment.	This message will be displayed when the data migration to the new environment is failed during upgrading this software from version

Uninstall the existing software, then install it again.	earlier than 5.00 to 5.00 or later. When this message is displayed, uninstall the existing software and then install it again.
Failed to migrate data to the new environment. Restart the PC.	This message will be displayed when the data migration to the new environment is failed during upgrading this software from version earlier than 5.00 to 5.00 or later. When this message is displayed, restart the PC.
Failed to migrate data to the new environment. Restart this software.	This message will be displayed when the data migration to the new environment is failed during upgrading this software from version earlier than 5.00 to 5.00 or later. When this message is displayed, restart this software.
Failed to migrate data to the new environment. Contact the administrator.	This message will be displayed when the data migration to the new environment is failed during upgrading this software from version earlier than 5.00 to 5.00 or later. When this message is displayed, contact the administrator.
Migrating data to the new environment. Please wait.	This message is displayed when migrating from this software made by Panasonic Connect to this software made by i-PRO. Please wait until the progress bar display is complete. Close the window to exit this software.
Database is being updated.	This message is displayed when this software service determines that the database needs to be updated. Please wait until the progress bar display is complete. Closing the window will exit this software.
The service is starting.	This message is displayed when it is taking time to start this software service. Please wait until the progress bar display is complete. Closing the window will terminate this software.

8.2. When the [OK] button on the login window is clicked

A message may be displayed when the [OK] button on the login window is clicked. The following are messages and solutions.

Message	Cause/Solution
Please change the password.	Logged in with the password whose validation period is over. It is recommended to immediately change the password to enhance the security.
Failed to log in.	The entered user name or password is incorrect. Enter the correct user name and password.

8.3. When the [OK] button on the "Change password" window is clicked

A message may be displayed when the [OK] button on the "Change password” window is clicked. The following are messages and solutions.

Message	Cause/Solution
Enter 8 - 32 alphanumeric characters for a password.	The entered characters for the password are less than 8 characters. Enter 8 - 32 characters for the password.
Available characters for password are alphanumeric characters and special characters.	An unavailable character is included in the entered password. Available special characters are as follows. ! # $ % ’ ( ) - = ^ ~ ¥ | @ ` [ ] { } + * , . < > / ? _ The following characters are also unavailable. ” & : ;
The entered password does not meet the requirements for the password policy (complexity).	The password policy (complexity) is not met. Check the required character types, and re-enter the password.
The new password and the password for confirmation do not match.	The new password and the password for confirmation do not match. Check the password and enter it again.
Do not use a user name as the password.	It is impossible to set the same character string to both the user name and the password. Do not use a user name as the password.
Set a character string different from the current password.	The entered new password is the same as the current password. Enter a character string different from the current password.

8.4. When the [Go to date] button on the "Quick playback" panel is clicked

A message may be displayed when the [Go to date] button on the “Quick Playback” panel is clicked. The following are messages and solutions.

Message	Cause/Solution
The designated recorder is not compatible to play SD memory data.	This message will be displayed when a recorder that does not support the "SD memory rec." function is selected and the "SD memory rec." checkbox is checked. Uncheck the "SD memory rec." checkbox.

8.5. When the [Download] button on the "Download" panel is clicked

A message may be displayed when the [Download] button is clicked. The following are messages and solutions.

Message	Cause/Solution
The designated recorder is not compatible to download SD memory data.	This message will be displayed when a recorder that does not support the "SD memory rec." function is selected and the "SD memory rec." checkbox is checked. Uncheck the "SD memory rec." checkbox.
The designated recorder is not compatible to download audio data.	This message will be displayed when the designated recorder is the ND300 and the "Audio" checkbox is checked. Uncheck the "Audio" checkbox.
Audio will not be recorded by SD memory recording. Uncheck one of them.	This message will be displayed when the designated recorder is the ND200 or ND400 and both the checkboxes of "Audio" and "SD memory rec." are checked. Uncheck the “Audio” checkbox or the "SD memory rec." checkbox.
Up to 24 hours can be specified for time length to download.	This message will be displayed when the designated download time range is more than 24 hours. Designate the download time range less than 24 hours.
The designated recorder supports "CD/DVD burn" only.	This message will be displayed when the designated recorder is the Video Insight Server and any of the "Viewer" checkbox, the "Audio" checkbox or the "SD memory rec." checkbox is checked. Uncheck all the checkboxes.

8.6. When the [OK] button is clicked on the “Select folder” window

A message may be displayed when the [OK] button on the “Select folder” window is clicked. The following are messages and solutions.

Message	Cause/Solution
The same file name exists in the selected folder. Are you sure you wish to overwrite?	This message will be displayed when the same file name already exists in the selected folder. Click the [OK] button to overwrite the existing file. When the [Cancel] button is clicked, the window for a folder designation will be displayed again.

8.7. When the [Audio transmission] button is clicked

A message may be displayed when the [Audio transmission] button is clicked. The following are messages and solutions.

Message	Cause/Solution
Are you wish to start audio transmission? When audio transmission starts, audio from the camera will not be heard.	This message will be displayed when the [Audio transmission] button is clicked when “OFF” is being selected for “Audio transmission” while “Interactive (Half-duplex)” is being set to “Audio mode” of the camera. Audio transmission will start when the [OK] button is clicked. When the [Cancel] button is clicked, audio transmission will be canceled.

8.8. When an error occurred

A message window may be displayed during operation of this software. The following are messages and solutions.

Message	Cause/Solution
Please restart the operating system. When this message is displayed after the restart, please reinstall the software.	This message will be displayed when a critical error that cannot be fixed even by rebooting this software occurred. Please restart the operating system. When this problem is not solved even after the restart, reinstall the software.
Required data was not found in DB. Please load the backup data. When there is no backup data, please reinstall or initialize the setup data.	This message will be displayed when the required data was not found in the database. Import the backup file of the setup data.
Received an unexpected audio signal.	If this message is displayed all the time or frequently, the microphone may be faulty.

8.9. When the [Image display] button on the VMD search tab is clicked

Message	Cause/Solution
Failed to obtain the image file.	This message will be displayed when failed to obtain the images from the recorder. Confirm that the recorded data exists in the searching range.

8.10. When the [List/Play] button of the [SD]

tab page is clicked or when [Event] ([Alarm], [Manual/Schedule]) on the playback window is selected

Message	Cause/Solution
List acquisition was failed due to FTP connection error.	This message will be displayed when FTP connection failed due to such a reason as no available FTP ports. Confirm that the FTP access to camera is possible with the environment in use.
The SD function is not enabled.	This message will be displayed in the following cases. When accessed a camera that does not have an SD memory card slot (such as WV-SP102) → The SD function is unavailable since the camera is not equipped with the SD memory card slot. When "Not use" is selected for the SD memory card setting on the camera → Change the setting to "Use". When no SD memory card is inserted in the camera → Insert an SD memory card into the camera. The SD memory card is inserted in the camera, but the card is not formatted correctly. → Format the SD memory card. Refer to operating instructions of the camera for further information. When there are no H.264 and H.265image recorded by the SD memory recording (When there are only JPEG images) → Select "H.264" or "H.265" for the setting of SD memory recording.
List acquisition was failed due to user authentication error.	This message will be displayed when the administrator name and the password configured for device registration are incorrect. Configure the administrator name and password registered on the camera.
List acquisition was failed. (due to other FTP errors)	This message will be displayed when network disconnection occurs during list acquisition. Check the network.
No record is found in the designated time range.	When no SD memory card is inserted in the camera → Insert an SD memory card into the camera. When SD recording data does not exist in the designated time range → Change the designated time. When another user is operating the SD card → Only one user can operate. You cannot operate while another user is operating.

8.11. When the [Set] button is clicked

A message may be displayed when the [Set] button is clicked. The following are messages and solutions.

Message	Cause/Solution
Your user level is not allowed to register setting information in DB.	When the [Set] button is clicked by a user who is not an administrator, this message will be displayed. Click the [OK] button to close the confirmation window. The edited settings will not be saved.
Cannot register setting information in DB. • Invalid character entry. • No entry. • Invalid value entry.	This message will be displayed when the [Set] button is clicked with invalid character entry, no entry or invalid value entry. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
Cannot be set due to one of the following: • No entry. • Invalid value entry. • The alarm name is already in use. • The message ID is already in use.	It will be displayed when the [Set] button is clicked when the [Setting]-[AI camera] screen has not been entered, the contents outside the setting range have been set, or duplicate settings have been made. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
The entered content is already in used.	This message will be displayed when the [Set] button is clicked after entering the value already in use. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
Editing of the setting will affect other settings. Are you sure you wish to proceed?	This message will be displayed when the setting that affects other settings are edited or deleted. The edited/deleted setting will be saved and applied when the [OK] button is clicked. The edited/deleted setting will not be saved nor applied when the [Cancel] button is clicked.
AI privacy guard recording camera (Off) is selected. It may not be displayed depending on the level setting of the logged-in user. Do you want to save the settings as they are?	This will be displayed when "AI privacy guard recording camera (Off)" is selected on the setting screen for group, map, controller, etc. The edited/deleted setting will be saved and applied when the [OK] button is clicked. The edited/deleted setting will not be saved nor applied when the [Cancel] button is clicked.
3D Dewarp will not work since the PC in use is running on Windows 8.1. Save these settings?	This will be displayed when the PC in use is running on Windows 8.1 and also “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]). To use 3D Dewarp, change the OS of the PC in use to Windows 10 or Windows 11.
Cannot configure unless device information is downloaded.	This message will be displayed when the setting of "Address", "Port number" , "Use a proxy server", "Administrator name" or "Password" is edited. Click the [Download] button to download the device information.
The total number of areas of the	This message will be displayed when the [Set] button is clicked

Message	Cause/Solution
operation window and the live window shall be 20 or less.	when 21 or more areas are to be displayed on the operation window and the live window by configuring the settings on the "Basic setup" page of "System". Configure the settings ("Operation window (multi-screen) with the maximum number of areas" and "Live window (multi-screen) with the maximum number of areas") to make the total number of areas of the operation window and the live window 20 or less.
The setting is unavailable since it falls under the following. • * No linked camera is set.	When the [Set] button is clicked while no linked camera is set, this message will be displayed. Set a linked camera.
ASF900 cannot be registered since ASF950 is already registered. Cancel the registration of ASF950 once and register ASF900 and then register ASF950 again.	Displayed when WV-ASF900 is additionally registered while WV-ASF950 is registered. Delete the registration of WV-ASF950, and then register the WV-ASF900. While WV-ASF900 is registered, WV-ASF950 (version less than 2.00) and WV-ASF950 (registered face detection mode) can be additionally registered. WV-ASF900 and WV-ASF950 (registered face/unregistered face detection mode) cannot be registered together.
A server in the “Registered face/unregistered face detection” mode cannot be added. To use this mode, delete the registered server.	Displayed when WV-ASF 950 (registered face/unregistered face detection mode) is additionally registered while WV-ASF 900, WV-ASF 950 (version less than 2.00) or WV-ASF 950 (registered face detection mode) is registered. After deleting the registered facial recognition server, register the WV-ASF950 (registered face/unregistered face detection mode).
A server in the “Registered face detection” mode cannot be added. To use this mode, delete the registered server.	Displayed when WV-ASF950 (registered face detection mode) is additionally registered while WV-ASF950 (registered face/unregistered face detection mode) is registered. "Registered face/Unregistered face detection" mode and "Registered face detection" mode cannot be registered together. After deleting the registered facial recognition server, register the WV-ASF950 (registered face detection mode).

8.12. When the [Delete] button is clicked

A message may be displayed when the [Delete] button is clicked. The following are messages and solutions.

Message	Cause/Solution
Your user level is not allowed to register setting information in DB.	When the [Delete] button is clicked by a user who is not an administrator, this message will be displayed. Click the [OK] button to close the confirmation window. The edited settings will not be saved.
Are you sure you wish to delete?	This message will be displayed when the [Delete] button on the setup page of "Device mng.", "User management", ”Group setup”, “Sequence setup” and "Map" is clicked. The deleted setting will be saved and applied when the [OK] button

Message	Cause/Solution
	is clicked. The deleted setting will not be saved nor applied when the [Cancel] button is clicked.
Editing of the setting will affect other settings. Are you sure you wish to proceed?	This message will be displayed when the setting that affects other settings are edited or deleted. The edited/deleted setting will be saved and applied when the [OK] button is clicked. The edited/deleted setting will not be saved nor applied when the [Cancel] button is clicked.

8.13. When downloading the device information

A message may be displayed when downloading device information on the device setup screen. The following are messages and solutions.

Message	Cause/Solution
Failed to detect the device.	When using other tools (i-PRO Security System Configuration Tool, Easy IP Setup Tool etc.) with automatic detection function at the same time, the detection function of this software cannot be used. Do not start other tools when detecting devices. Also check that the network adapter selected on the device setup window is correct.
Information download was failed.	This message will be displayed when failed to download the device information. Try to download the device information again after checking the connection to the device and the settings such as "Address", "Port number", "Use a proxy server", etc.
Information download was failed. The connected recorder is not compatible.	This message will be displayed when trying to download device information from the recorder that is incompatible with this software. Check if the device in use is compatible with the recorder.
Failed to download. Firmware version of the connected recorder is not compatible.	This message will be displayed when trying to download device information from the recorder whose firmware version is incompatible with this software. Check the firmware version of the recorder in use.
Cannot acquire terminal alarm setting from recorder. Check the administrator name and the password, and then try to acquire again.	This message is displayed when failed to download the terminal alarm setting from the recorder. Check if the user name and password configured for device registration are the same as the administrator and password of the recorder.
Information download was failed. The connected encoder is not compatible.	This message will be displayed when trying to download device information from the encoder that is incompatible with this software. Check if the encoder in use is the model compatible with this software.
Information download was failed. Firmware version of the connected encoder is not compatible.	This message will be displayed when trying to download device information from the encoder whose firmware version is incompatible with this software.

Message	Cause/Solution
	Check the firmware version of the encoder in use.
Information download was failed. The connected camera is not compatible.	This message will be displayed when trying to download device information from the camera that is incompatible with this software. Check if the device in use is the model compatible with this software.
Information download was failed. Firmware version of the connected camera is not compatible.	This message will be displayed when trying to download camera information from the camera whose firmware version is incompatible with this software. Check the firmware version of the camera in use.
No microphone is registered in the camera.	This message will be displayed when trying to download device information from the microphone in which no linked camera is registered. Set a linked camera on the web browser for the microphone.
No linked camera is registered in this software.	This message will be displayed when trying to download device information from a microphone without registering the camera using this software. Register the microphone after registering the camera.
Failed to download. Connected device is an unknown model.	This message will be displayed when trying to download device information from a device that is incompatible with this software. Check if the device in use is the model compatible with this software.
Failed to download. The firmware version of the connected device is not the supported.	This message will be displayed when trying to download information from a device compatible with this software, but its version is incompatible. Check if the version of the device in use is compatible with this software or not.
Information download was failed. (Authentication error)	This message will be displayed when failed to authenticate the user to connect to the camera or the encoder. Check the user name and password configured for device registration.
Download failed. Login failed due to a different method of authentication.	This message will be displayed when the user authentication method of the camera, encoder or microphone is different from this software. Set the same authentication method on both the camera and this software.
Failed to download. The security certificate presented by this device was not issued by a trusted certificate authority.	This message will be displayed when the security certificate for the connected device was not issued by a trusted certificate authority. When this message is displayed, contact the administrator.
Failed to download. The security certificate presented by this device has expired or is not yet valid.	This message will be displayed when the security certificate for the connected device has expired or is not yet valid. When this message is displayed, contact the administrator.
Failed to download. The security certificate presented by this device was issued for a different device's address.	This message will be displayed when the address of the security certificate for the connected device was mismatched with the address of the device registered in this software. When this message is displayed, contact the administrator.

Message	Cause/Solution
Failed to download. Cannot connect with the device due to the environment where the HTTPS communication is not supported.	This message will be displayed when the connected device is not in an environment where a secure communication is supported. Check the communication environment.
The downloaded information will be discarded since the acquired model had been changed. Please register as a new model after deleting the current data.	This message will be displayed when the previously registered model number has been changed. Register the device again after deleting the previously registered information.
Cannot register setting information in DB. • Invalid character entry. • No entry. • Invalid value entry.	This message will be displayed when the [Download] button is clicked after performing any of the prohibited character entry, no character entry or invalid value entry. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.

8.14. When the live image source is selected on the "Camera setup" window

Message	Cause/Solution
Cannot set the camera for the live image source because information inquiry failed. Check the connection with the camera.	This message will always be displayed when an image cannot be obtained because the camera is incompatible with this software. It is impossible to select "Camera" for "Live image source". Refer to "☞ 1.5. Compatible devices“ for the devices compatible with this software.
Cannot set the live image source to the camera since the security certificate presented by this device was not issued by a trusted certificate authority.	This message will be displayed when the issuer of the security certificate for the camera was not issued by a trusted certificate authority. When this message is displayed, contact the administrator.
Cannot set the live image source to the camera since the security certificate presented by this device has expired or is not yet valid.	This message will be displayed when the security certificate for the camera has expired or is not yet valid. When this message is displayed, contact the administrator.
Cannot set the live image source to the camera since the security certificate presented by this device was issued for a different device's address.	This message will be displayed when the address of the security certificate for the camera was mismatched with the address of the device registered in this software. When this message is displayed, contact the administrator.

8.15. When the [OK] button on the camera

setup page is clicked

A message may be displayed when the [OK] button on the camera setup page is clicked. The following are messages and solutions.

Message	Cause/Solution
Cannot register setting information in DB. • Invalid character entry. • No entry. • Invalid value entry.	This message will be displayed when the [OK] button is clicked with invalid character entry, no entry or invalid value entry. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.

8.16. When dragging and dropping the icon on the map creation window

A message may be displayed when a camera icon or a map icon is dragged and dropped. The following are messages and solutions.

Message	Cause/Solution
No more new items can be added as it will exceed the maximum number of registrations allowed.	This message will be displayed when trying to register a camera/map even when already reached the maximum registration number. Delete an unnecessary map or camera first, and then register newly.

8.17. When the [Download] button on the "Recorder log" window is clicked

A message may be displayed when the [Download] button on the “Recorder log” window is clicked. The following are messages and solutions.

Message	Cause/Solution
Information download was failed. • Error log • Access log • Event log • Network log	This message window will be displayed when filed to connect to the recorder to download the recorder log information. Try to download the recorder log information again after checking the connection to the recorder.

8.18. When the [Save] button on the "Save As" window is clicked

A message may be displayed when the [Save (S)] button on the “Save As” window is clicked. The following are messages and solutions.

Message	Cause/Solution
The same file is already in use. Are you sure you wish to overwrite?	This message will be displayed when the same file name exists in the folder specified to save the new file. Click the [OK] button to overwrite the existing file. Click the [Cancel] button to cancel saving the new file.
File saving failed.	This message will be displayed when failed to save the file. Try to save the file again.

8.19. When determined the entered number on the setting pages of "Controller"

When a message window is displayed by determining the entered number (camera number, group number, sequence number), refer to the following to solve the problem. The following are messages and solutions.

Message	Cause/Solution
Cannot register setting information in DB. • Invalid character entry. • The camera number is already in use. • Invalid value entry.	This message will be displayed when trying to determine the values with invalid character entry, no entry or invalid value entry. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
Cannot register setting information in DB. • Invalid character entry. • The group number is already in use. • Invalid value entry.	This message will be displayed when trying to determine with unavailable character entry, duplication of group numbers or a value out of range. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.
Cannot register setting information in DB. • Invalid character entry. • The sequence number is already in use. • Invalid value entry.	This message will be displayed when trying to determine with unavailable character entry, duplication of sequence numbers or a value out of range. The setup item for which invalid value entered will be displayed in red. When there is any setup item displayed in red, correct the invalid setting.

8.20. When using File conversion

When a message window is displayed by converting the file downloaded from the recorder to the standard format. The following are messages and solutions.

Message	Cause/Solution
Failed to convert the file （Error Code=-22176408 :Disk space is not enough.）	This message will be displayed in the following cases. • You don’t have permission to write to the destination folder • Destination disk is damaged. • Cannot connect to output destination Change the output destination.
Failed to convert the file （Error Code=-22176602: File name is invalid.(No specified characters or length.)）	This message will be displayed in the following cases. • The destination folder name is incorrect • The destination folder does not exist Correct the destination folder name.
Failed to convert the file （Error Code=-22176603: Specified n3r file is invalid.）	This message will be displayed in the following cases. • The n3r file does not exist • The n3r file may be damaged. • The selected file is not in n3r format Download the n3r file from the recorder again.
Failed to convert the file （Error Code=-22176605）	
Failed to convert the file （Error Code=-22176603: Specified n3r password is invalid.）	It is displayed when downloading the n3r file to which the password is applied from the recorder. Download the n3r file without applying a password from the recorder.
Failed to convert the file （Error Code=-22176338: Disk space is not enough.）	This message will be displayed in the following cases. • The size of the file to be output exceeds the capacity of the destination folder • You don’t have permission to write to the destination folder Change the output destination.
Failed to convert the file （Error Code=-22176406）	It is displayed when conversion fails due to an internal error. Restart the PC.
Failed to convert the file （Error Code=-22176407: Fatal error. ConvertFile cannot be continued.）	If PC goes into the sleep mode (system standby or system suspension) during file conversion, this message may be displayed after returning from the sleep mode. When using this software, configure the PC not to go into the sleep mode.
You can only select the file which extension is “n3r”.	It is displayed when the conversion source file is not an n3r file. Download the n3r file from the recorder again.
Data encrypted files cannot be converted.	Displayed when the conversion source file is data encrypted. If you want to convert the format to mp4, download it as an mp4 file from the recorder.

8.21. When the [Load] button is clicked

A message may be displayed when the [Load] button is clicked. The following are messages and solutions.

Message	Cause/Solution
3D Dewarp will not work since the PC in use is running on Windows 8.1. The 3D Dewarp setting has changed to OFF.	This will be displayed when the PC in use is running on Windows 8.1 and also “ON” is selected for “3D Dewarp” ([System] - [3D Dewarp setting]). To use 3D Dewarp, change the OS of the PC in use to Windows 10 or Windows 11.

8.22. When an error for the security certificate occurred

A message window for the security certificate may be displayed during operation of this software. The following are messages and solutions.

Message	Cause/Solution
The security certificate presented by this device was not issued by a trusted certificate authority.	This message will be displayed when the security certificate for the connected device was not issued by a trusted certificate authority. When this message is displayed, contact the administrator.
The security certificate presented by this device has expired or is not yet valid.	This message will be displayed when the security certificate for the connected device has expired or is not yet valid. When this message is displayed, contact the administrator.
The security certificate presented by this device was issued for a different device's address.	This message will be displayed when the address of the security certificate for the connected device was mismatched with the address of the device registered in this software. When this message is displayed, contact the administrator.
The security certificate of this device will expire after 30 days.	This message will be displayed when the security certificate of the connected device expires after 30 days. When this message is displayed, contact the administrator.
Cannot connect with the network microphone since the security certificate presented by this device was not issued by a trusted certificate authority.	This message will be displayed when the issuer of the security certificate for the microphone that is configured to link with the fisheye camera was not issued by a trusted certificate authority. When this message is displayed, contact the administrator.
Cannot connect with the network microphone since the security certificate presented by this device has expired or is not yet valid.	This message will be displayed when the security certificate for the microphone that is configured to link with the fisheye camera has expired or is not yet valid. When this message is displayed, contact the administrator.
Cannot connect with the network microphone since the security certificate presented by this device was issued for a different device's address.	This message will be displayed when the address of the security certificate for the microphone that is configured to link with the fisheye camera was mismatched with the address of the device registered in this software. When this message is displayed, contact the administrator.

8.23. When launching the browser from the

right-click menu on the device tree

When selecting “Browser start” from the right-click menu on the device tree, a message may be displayed. The following are messages and solutions.

Message	Cause/Solution
Failed to launch the web browser. Edge (Chromium version) is not installed.	This will be displayed when failed to launch the Edge (Chromium version). Check whether the Edge (Chromium version) is installed.
Failed to launch the web browser. Chrome is not installed.	This will be displayed when failed to launch the Google Chrome. Check whether the Google Chrome is installed.
Failed to launch the web browser. Firefox is not installed.	This will be displayed when failed to launch the Firefox. Check whether the Firefox is installed.
The browser set as the default app is an unsupported browser. Set a supported web browser in [Designate a web browser app] on the [GUI display setting] tab under [System] under [Setting].	In a case where an old version of the Microsoft Edge is being set as the default app and the Edge (Chromium version) is not installed on the PC, this will be displayed when launching the web browser to display pages of a camera that does not support the Internet Explorer. Set a supported web browser in [Designate a web browser app] on the [GUI display setup] tab under [System] under [Setting].
The browser set as the default app is an unsupported browser. Set the Edge (Chromium version) as the default web browser app.	In a case where an old version of the Microsoft Edge is being set as the default app and the Edge (Chromium version) is installed on the PC, this will be displayed when launching the web browser to display pages of a camera that does not support the Internet Explorer. Set the Edge (Chromium version) as the default web browser app.
Failed to launch the web browser. [Error code: -4]	This will be displayed when a software error occurred. Check the error code and contact the administrator.
Failed to launch the web browser. [Error code: -5]	This will be displayed when a software error occurred. Check the error code and contact the administrator.
Failed to launch the web browser. [Error code: -6]	This will be displayed when a software error occurred. Check the error code and contact the administrator.
Failed to launch the web browser. [Error code: -7]	This will be displayed when a software error occurred. Check the error code and contact the administrator.
Failed to launch the web browser. [Error code: -99]	This will be displayed when a software error occurred. Check the error code and contact the administrator.

8.24. When monitoring performance

A message window may be displayed during operation of this software. The following are messages and solutions.

Message	Cause/Solution
The memory usage rate of the PC exceeded xx% due to the running	It will be displayed when the processes or applications running on Windows other than this software increase the PC’s memory usage

Message	Cause/Solution
processes on Windows or applications other than this software. Please restart the PC.	rate and it satisfied the decision condition. When this happened, restart the PC. When this message is displayed, make sure that other services and applications are not running and contact your administrator before restarting the PC. The decision condition can be edited on the [Performance monitoring setting] tab (under [System] under [Setting).
The CPU usage of the PC exceeded xx%. It is necessary to take measures such as closing unnecessary applications or restarting the PC. If a warning is displayed even after taking the above measures, reduce the image capture size of the camera or the frame rate, reduce the number of image display screens, or change the setting of "Smooth display (Buffering)", “High-speed playback smooth mode” and “Halftone (Anti-aliasing)” to “OFF” from “ON”.	It will be displayed when the PC’s CPU usage satisfies a certain condition. In this case, take measures such as quitting unnecessary apps or restarting PC. If a warning is displayed even after taking the above measures, reduce the image capture size of the camera or the frame rate, reduce the number of image display screens, or change the setting of "Smooth display (Buffering)", “High-speed playback smooth mode” and “Halftone (Anti-aliasing)” to “OFF” from “ON”. When this message is displayed, make sure that other services and applications are not running and contact your administrator before restarting the PC. The decision condition can be edited on the [Performance monitoring setting] tab (under [System] under [Setting).
Drawing is being processed with a reduced frame rate since images are being displayed with a high resolution in a multiple screen. This can be improved by adjusting the settings of the camera or this software.	It will be displayed when images are displayed with a reduced frame rate. When displaying images without reducing the frame rate, select a stream whose the image capture size is low. When this message is displayed, contact the administrator.