



Easy and smooth integration from analog to IP system

Key Features: WV-ASC970

- Flexible system design : Analog, IP, and Hybrid analog/IP
- Up to 64 recorders, 1,024 monitors, and 2,048 cameras (in case with encoder) can be registered.
- Displays live images by selecting the camera number
- Controls camera and camera preset, and Group Preset
- Displays live Tour Sequence images on a multi-screen segment display
- Displays live Group Sequence images on several multi-screen segment displays
- Controls the camera and monitor by users' preset priority
- ON/OFF mode of the OSD on the selected monitor is possible.
- Sequence control : Tour Sequence (128 programs, 64 steps), Group Preset (128 programs, 64 views), Group Sequence (128 programs, 64 steps)
- Panasonic camera control: Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode (SEQ, SORT, AUTO PAN, PATROL), AUX 1 - 2
- Flexible monitor control suitable for wall mounted monitors
- Up to 512 users can be registered.
- Up to 64 users can login to WV-ASC970 simultaneously.
- Panasonic Alarm control by recorder, camera, and encoder
- Up to 2,048 alarms and up to 1,024 event schedules can be handled.
- User management : User authentication
- Camera/Sequence/Monitor selection, Camera control and Recorder control can be made with the optional system controller WV-CU950.
- Individual alarm reset and all alarm reset is possible with the system controller WV-CU950 and WV-ASM970.
- Simultaneous multi-site operation of up to 64 satellite system using WV-ASC970
- Redundant function by switching the operation to the other WV-ASC970 server in case of system failure
- Easy setup by i-PRO configuration software

Key Features: WV-ASM970

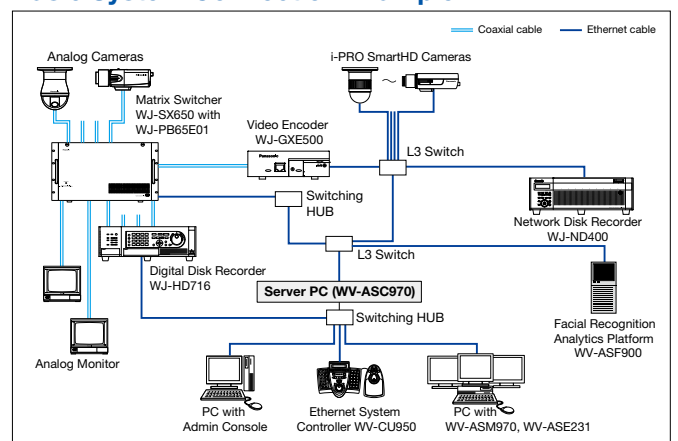
- Multi-Monitor option enables simultaneous use of Operation screen and Monitor screen (1 / 4 / 7 / 9 / 10 / 13 / 16 split) on a dedicated monitor. Two monitor operation is also available. Support 100 maps.
- Up to 30 ips/camera can be displayed in 16-split screen in H.264 1.5 Mbps mode with VGA (depending on the camera, camera setup and PC performance).
- The tool customized to the other language is separately offered.
- Privacy zones can be set on WV-ASM970 Monitor Screen. (Except PTZ camera)
- Handle the DVR as a small switch node.

- Image resolution dynamically changes depending on the screen mode : VGA for Quad screen, QVGA for 16-split screen, enabling optimum network usage (depending on the camera mode).
- Easy search and playback with timeline function
- Simultaneous playback on 16-split screen display
- When an alarm occurs, the monitor changes into the map automatically showing where the alarm happened.
- Up to 64 camera icons can be freely positioned on a map with alarm status indicated by the color of the icons.
- Convert file format from n3r (proprietary format) to MP4
- 16:9 Full HD monitor support.
- Displays live images through WJ-ND400 and WJ-NV200.
- 1-screen/4-screen PTZ compensation function (hereinafter compensation function) from the fish-eye images of the Panasonic Fisheye network cameras (WV-SF438 / WV-SF448 / WV-SW458)

System Components

<p>IP Matrix Server Software WV-ASC970</p>  <p>The picture above is only for image.</p>	<p>IP Matrix Client Software WV-ASM970</p>  <p>The picture above is only for image.</p>	<p>Ethernet System Controller with 3D-Joystick & Jog/Shuttle WV-CU950</p> 
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Basic System Connection Example



* Download WV-ASM970 to client PC by connecting to WV-ASC970 server

Extension Softwares

Key Features:

WV-ASE901*

- Monitor the status of Fire Alarm System.
- Manually reset or acknowledge fire alarms and faults of Fire Alarm System.
- Search history of fire alarm, faults and interlocking of Fire Alarm System.

* WV-ASE901 is only sold in certain areas. Please contact the sales company for details.

WV-ASE902

- Up to 4 live monitor
- Multi monitor function up to 5 PC monitors
- To display the operation window and 4 live windows simultaneously

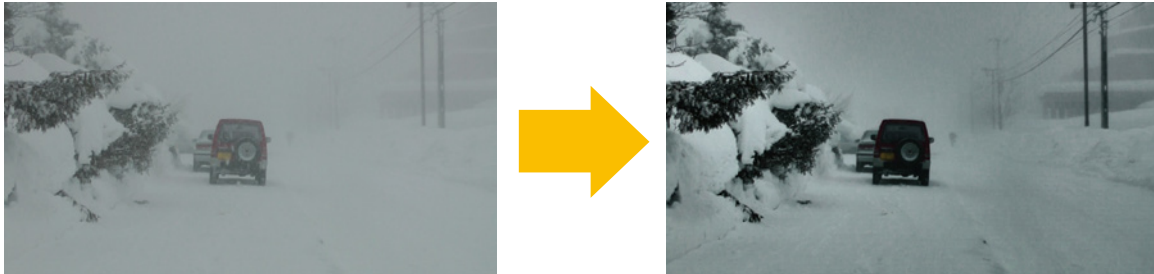
WV-ASE903

- Visibility Enhancement Function

Spatial Tonal Correction

Snowfall and Rainfall Noise Reduction

Multi-frame Synthesis Noise Reduction



Spatial Tonal Correction , Snowfall and Rainfall Noise Reduction

WV-ASE231

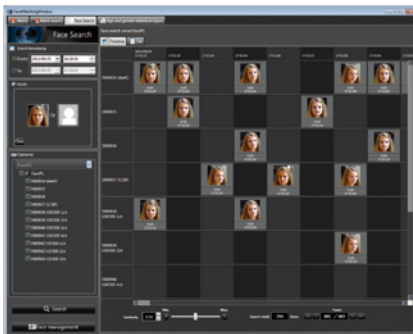
- Extension software for connecting to Facial Recognition Analytics Platform (WV-ASF900)

Face Search

Face Matching

People Counting, Age and Gender Statistics

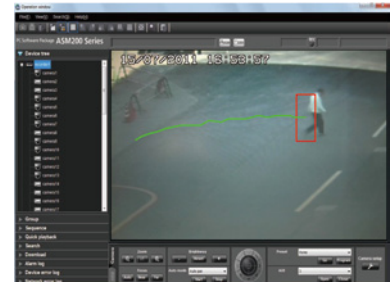
*WV-ASF900 is necessary.



Face Search



People Counting, Age and Gender Statistics



i-VMD (Intelligent Video Motion Detection) track path display

* Extension software is required for each cameras.

About the optional registration

<The extensive options for Fisheye network cameras>

To use the extensive options for Fisheye network cameras, registration is required.

To register the options, 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.

Enter the following numbers for the Activation Key No. and the Registration ID.

Activation Key No. : 0404-0065-000A-1234 Registration ID : 25D5-6A66

* To use the options, ASM970 Ver9.0 or later is required. * Refer to "WV-ASM970 Series Operating Instructions (HTML Help)" for how to register the options for the product in use.

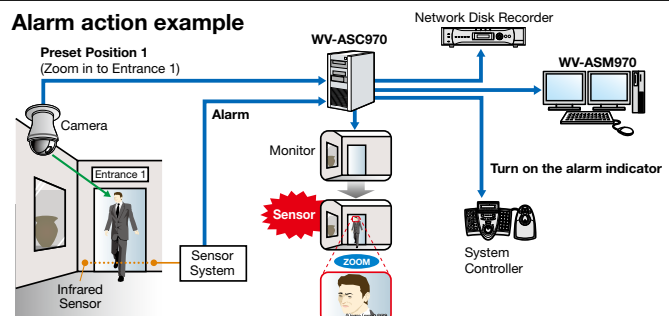
Flexible Alarm Action

Flexible alarm actions can be assigned for each alarm.
Up to 2,048 alarms can be handled.

Alarm actions include:

- Display alarm information on the designated monitor
- Display alarm images from the camera or start the sequence display on the designated monitor
- Turn on the alarm indicator on all the system controllers and WV-ASM970

* The WV-ASC970 does not support any error notifications (such as "REMOVE") from digital disk recorders or network disk recorders.



Specifications: WV-ASC970

Supported Equipment	Supported Cameras	Panasonic Analog cameras, Panasonic i-PRO series Network cameras
	Supported Recorders	WJ-NV200, WJ-NV300, WJ-ND400 series, WJ-ND300 series, WJ-ND200 series, WJ-HD300 series ¹ , WJ-HD300A series, WJ-RT416 series, WJ-HD616/716 series, WV-ASR500 Series
	Supported Switchers	WJ-SX850, WJ-SX650EX
	Supported Encoders	WJ-GXE500, WJ-GXE100, WJ-NT304, WJ-NT314, WJ-GXE900 (MPEG-2 Encoder) ²
	Supported Decoders	WJ-GXD400, WJ-GXD900 (MPEG-2 Decoder) ²
	Supported Controller	WV-CU950, WV-ASM970
	Supported Application	Facial Recognition Analytics Platform (WV-ASF900) ³
	Max. Recorder Registrations	64
	Max. Monitor Registrations	1,024
	Max. Camera Registrations	2,048 (In case with encoder), Analog and/or IP camera ⁴
Supported System Type	Multicast/Unicast system	
Function	Camera Control (depends on the camera)	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode (SEQ, SORT, AUTO PAN, PATROL), AUX 1 - 2, Back Focus, Super Dynamic On/Off
	Recorder Control (depends on the recorder)	REC (only Digital Disk Recorder), Playback
	Sequence Control	Tour Sequence: 128 programs, 64 steps Group Preset: 128 programs, 64 views Group Sequence: 128 programs, 64 steps
	Camera Title Display	On the WJ-GXD400 and Analog Monitor
	Alarm Source	Panasonic alarm protocol by Recorder, Camera, Encoder, RS232C, I/O Ethernet Converter
	Alarm Control	Reset, Auto reset, Arm, Disarm, Ack, Auto ack, All reset
	Alarm Display Mode	Sequence, Hold
	Alarm Action	Camera spot, Tour sequence, Group sequence
	Max. Number of Alarm	2,048
	System Log	Operation, Alarm, Switching, Video loss
	User Management	Registration: Up to 512 users, ID: 5 digit, Password: 5 digit, User level: customize
	Simultaneous Login Users	Up to 64 (depends on network conditions)
	Partitioning	Operator - Controller, Controller - Monitor, Controller - Camera, Camera - Monitor
	Security Method	User authentication, Controller authentication (MAC address)
	Redundancy	Requires 2x PC, 2x WV-ASC970 server, and 1x RS-232C I/O
Time Synchronization	NTP (Server/Client)	
GUI (Admin) Language	English, Chinese	
Server Requirement	Supported OS	Red Hat Enterprise Linux [®] 5 or 6 server (x86)(English) Red Hat Enterprise Linux [®] 7 server(x86_64)
	Required PC	CPU: Intel [®] Xeon [®] Processor 5140 (2.33 GHz) or faster, RAM: 2 GB or more, Network: 2x 100/Gigabit or more, HDD: 80 GB or more free drive space, CD-ROM, Port: 1x RS-232C
Admin Console PC Requirement	Supported OS	Microsoft [®] Windows [®] 8.1 Pro 32bit/64bit ⁵ (English/Chinese) Microsoft [®] Windows [®] 8 Pro 32bit/64bit ⁵ (English/Chinese) Microsoft [®] Windows [®] 7 Professional SP1 32bit/64bit ⁵ (English/Chinese) Microsoft [®] Windows Vista [®] Business SP2 32bit/64bit ⁵ (English/Chinese) Microsoft [®] Windows [®] XP Professional SP3 32bit (English/Chinese)
	Required PC	CPU: Intel [®] Pentium [®] 4 processor 3.0 GHz or faster RAM: 512 MB or more Network: 10/100 Mbps HDD: 200 MB or more free drive space Monitor: 32-bit colors, 1,024 x 720 resolution
Network	Protocol	HTTP (IP address and port No.), FTP, UDP

¹ In case of using WV-ASC970 with WJ-HD300 Series, consult your sales company first.

² NTSC only

³ Extension software WV-ASE231 is necessary.

⁴ Depends on system configuration

⁵ Operation in WOW64 (32-bit mode)

Specifications: WV-ASM970

Supported Equipment	Supported Server	WV-ASC970 ¹	
	Supported System Type	Multicast/Unicast system	
	GUI Function	Camera Control (depends on the camera)	Pan/Tilt, Zoom, Focus, Brightness, Preset position call (up to 256), Auto Pan, AUX1-2
		Recorder Control (depends on the recorder)	REC (only Digital Disk Recorder), Play, Rev Play, Pause, Stop, FF, REW, Prev Image, Next Image, Goto Last, Goto Date
		Monitor Control	Display division pattern switch, Camera select switch, Tour sequence, Group preset, Group sequence, Monitor lock
		Event Search	Target: Recorder (Camera), Search criteria: Time date, Event type
		Multiscreen Mode	Spot / Quad (A-D) / 7 split / 9 split / 10 split / 13 split / 16 split
	Display Performance	30 ips x 16 screens at MPEG-4 2 Mbps ² 30 ips x 16 screens at H.264 1.5 Mbps with VGA ²	
	Multi-Monitor	2 Monitors (Operation/Monitor)	
	Number of Maps	Up to 100 maps (JPEG or Bitmap), Link: 64 cameras/map	
Image Download	Recorded images of up to 64 (in case with WJ-ND400) can be downloaded. Manual download only. Viewer software can be extracted from the main software.		
Clock Display	On the GUI. Time: 12H/24H, Date: 5 formats		
Alarm Control	Reset, All reset, Arm, Disarm, Ack, Auto ack		
System Setup	Setup page in English, Chinese		
GUI Language ³	English, Chinese		
PC Requirement	Supported OS	Microsoft [®] Windows [®] 8.1 Pro 32bit/64bit ⁴ (English and Chinese) Microsoft [®] Windows [®] 8 Pro 32bit/64bit ⁴ (English and Chinese) Microsoft [®] Windows [®] 7 Professional SP1 32bit/64bit ⁴ (English and Chinese) Microsoft [®] Windows Vista [®] Business SP2 32bit/64bit ⁴ (English and Chinese) Microsoft [®] Windows [®] XP Professional SP3 32bit ⁵ (English and Chinese) * 4K cameras (WV-SFV781L/WV-SPV781L) are available only on Windows [®] 8.1 Pro 64bit.	
	Supported Browser	Windows [®] Internet Explorer [®] 11, Windows [®] Internet Explorer [®] 10, Windows [®] Internet Explorer [®] 9, Windows [®] Internet Explorer [®] 8, Windows [®] Internet Explorer [®] 7 Service Pack 1 Windows [®] Internet Explorer [®] 6 Service Pack 3 ⁵	
	Required PC	CPU: Intel [®] Core [™] 2 Duo 2.66 GHz or faster / Intel [®] Core [™] 2 Quad Q9650 or faster / Intel [®] Core [™] i7-920 or faster, When using the 9-megapixel network camera (WV-SFV481/WV-SFN480) : Intel [®] Core [™] i7-4770 or faster When using the 4K network camera (WV-SFV781L/WV-SPV781L) : Intel [®] Core [™] i7-4790 or faster When adding the license for WV-ASE903 (Visibility enhancement function) : Intel [®] Core [™] i7-4770 or faster *Recommend a PC exclusively for WV-ASE903. Memory: 4 GB or more When using the 9-megapixel network camera (WV-SFV481/WV-SFN480) : 4 GB* or more. When using the 4K network camera (WV-SFV781L/WV-SPV781L) : 8 GB* or more *Using the dual channel corresponding memory, it is the memory of the same performance and requires the use of in pairs. (Example: In the case of 4 GB, use 2pcs of 2 GB memory) Graphic accelerator: VRAM 512 MB or more, compatible with Microsoft [®] DirectX [®] 9.0c or later When using WV-ASE902: NVIDIA NVS510 x 2 When using the 4K monitor* : NVIDIA NVS510 *To display 4K2K resolution on a monitor at 60 Hz, connection on the display port 1.2 is required. When using WV-ASE903 (Visibility enhancement function): NVIDIA GeForce [®] GTX 770 or more (The latest version is recommended for the driver software)	
Monitor	2 monitors with 1,280 x 1,024 pixels or more		
Network	Protocol	HTTP (IP address and port No.), FTP	
Viewer Software	Playback Control	Play, Rev Play, Pause, FF, REW, Prev Record, Next Record, Prev Image, Next Image	
	Additional Functions	Alteration detection, Save as JPEG, Two times zoom, Print	
WV-ASE901	Compatible Fire Alarm System	Panasonic EBL512 Ver.2.1	

¹ WV-ASC970 Version 2.0 or later

² In case with Microsoft[®] Windows[®] 7 Professional (OS) and Intel[®] Core[™] i7-920 (CPU)

³ Separately, the tool customized to the other language is offered.

⁴ Operation in WOW64 (32-bit mode)

⁵ Windows[®] XP is not supported in case of using the extension software WV-ASE231.

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Important


- Safety Precaution: Carefully read the Important Information, Installation Guide and operating instructions before using this product.
- Panasonic cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.

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