Panasonic
ideas for life

IP Matrix Server Software
Version 5 **WV-ASC970**

IP Matrix Client Software
Version 4 **WV-ASM970**

i-PRO **SmartHD**

(The pictures above are only for images.)

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 ver. 3.4
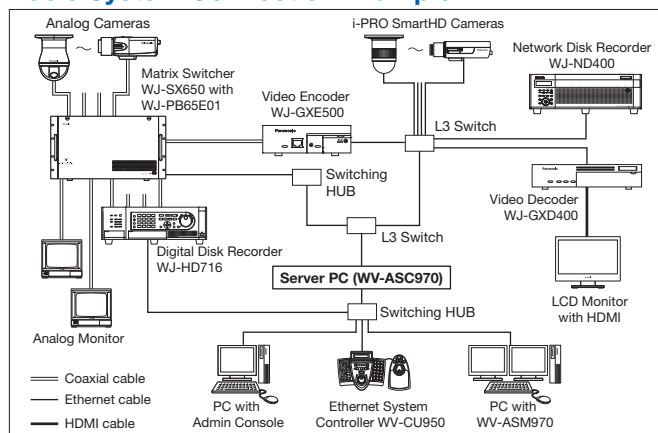
Key Features: WV-ASM970

- 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.

System Components

IP Matrix Server Software **WV-ASC970**	IP Matrix Client Software **WV-ASM970**	Ethernet System Controller with 3D-Joystick & Jog/Shuttle **WV-CU950**

Basic System Connection Example

Analog Cameras

i-PRO SmartHD Cameras

Network Disk Recorder WJ-ND400

Matrix Switcher WJ-SX650 with WJ-PB65E01

Video Encoder WJ-GXE500

L3 Switch

Switching HUB

Video Decoder WJ-GXD400

L3 Switch

Digital Disk Recorder WJ-HD716

Server PC (WV-ASC970)

Switching HUB

LCD Monitor with HDMI

Analog Monitor

─── Coaxial cable
─── Ethernet cable
─── HDMI cable

PC with Admin Console

Ethernet System Controller WV-CU950

PC with WV-ASM970

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

Specifications: WV-ASC970

Supported Equipment	Supported Cameras	Panasonic Analog cameras, Panasonic i-PRO series Network cameras except WV-NM100, WV-NP472, WV-NS320 series, WV-NW470S series
	Supported Recorders	WJ-NV200, WJ-ND400 series, WJ-ND300 series, WJ-ND200 series, WJ-HD300 series[*1], WJ-HD300A series, WJ-RT416 series, WJ-HD616/716 series
	Supported Switchers	WJ-SX850, WJ-SX650EX
	Supported Encoders	WJ-NT304, WJ-NT314, WJ-GXE500, WJ-GXE900 (MPEG-2 Encoder)[*2]
	Supported Decoders	WJ-GXD400, WJ-GXD900 (MPEG-2 Decoder)[*2]
	Supported Controller	WV-CU950, WV-ASM970
	Max. Recorder Registrations	64
	Max. Monitor Registrations	1,024
	Max. Camera Registrations	2,048 (In case with encoder), Analog and/or IP camera[*3]
	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
Server Requirement	Supported OS	Red Hat Enterprise Linux 5.6 server (x86)(English)
	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® XP Professional SP3 (English and Chinese Version) / Microsoft® Windows Vista® Business 32-bit SP2 (English and Chinese Version) / Microsoft® Windows® 7 Professional SP1 32bit (English and Chinese Version)
	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 Depends on system configuration

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[*3] / 30 ips x 16 screens at H.264 1.5 Mbps with VGA[*3]
	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[*4]	English, Chinese
PC Requirement	Supported OS	Microsoft® Windows® 7 Professional SP1 (32-bit) (English and Chinese Version) / Microsoft® Windows® 7 Professional SP1 (64-bit)[*2] (English and Chinese Version) / Microsoft® Windows Vista® Business SP2 (32-bit) (English and Chinese Version) / Microsoft® Windows Vista® Business SP2 (64-bit)[*2] (English and Chinese Version) / Microsoft® Windows® XP Professional SP3 (32-bit) (English and Chinese Version)
	Supported Browser	Microsoft® Internet Explorer® 6.0 Service Pack 3 / Microsoft® Internet Explorer® 7.0 Service Pack 1 / Microsoft® Internet Explorer® 8.0
	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, Memory: 2 GB or more / 3 GB or more (When operating H.264 images), VRAM: 128 MB or more, compatible with DirectX® 9.0c
	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

*1 WV-ASC970 Version 2.0 or later *2 Operation in WOW64 (32-bit mode)
*3 In case with Microsoft® Windows® 7 Professional (OS) and Intel® Core™ i7-920 (CPU)
*4 Separately, the tool customized to the other language is offered.
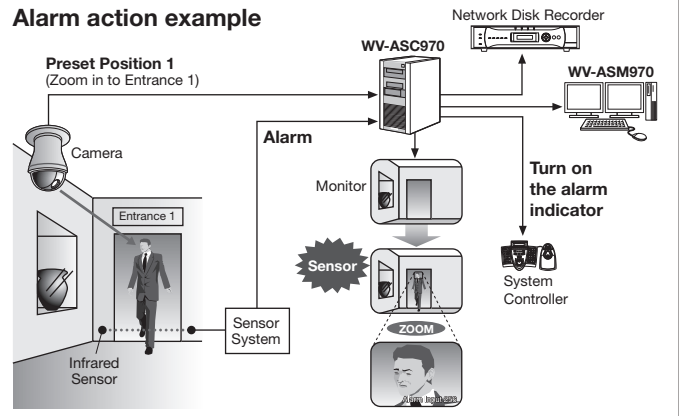
Flexible Alarm Action

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.

Alarm action example

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