**Panasonic**

**BUSINESS**

i-PRO Management Software
# WV-ASM200
**Extension Software**
## WV-ASE201/WV-ASE202/WV-ASE203
## WV-ASE204/WV-ASE205/WV-ASE231

WV-ASM200 with WV-ASE201

*i-PRO SmartHD*

(System Controller WV-CU950 and monitor displays are optional.)

H.264 MPEG-4 JPEG

# i-PRO management software for multi-recorder multi-site system

## Key Features: WV-ASM200

- Supports 16:9 video stream and 16:9 HD monitor. Displays 16:9 and 4:3 videos from IP cameras on the same screen.
- H.264 recording data in the SD/SDHC/SDXC memory card can be downloaded.
- Convert file format from n3r (proprietary format) to MP4.
- Online management system enables easy use without dongle.
- Up to 100 recorders, 64 encoders and 256 directly connected cameras can be registered. Up to 6,400 cameras registered in the recorders and 256 cameras registered in the encoders are automatically registered in the WV-ASM200 (the number of the cameras depends on the recorder and encoder).
- With WV-ASE203[*1], maximum 500 recorders can be registered, up to 32,000 cameras registered in the recorders are automatically registered in the WV-ASM200 (the number of the cameras depends on the recorder and encoder).
- Live images can be received directly from the camera/encoder or via the recorder enabling flexible network design.
- Multi-Monitor option enables simultaneous use of Operation Display (1 / 4 / 9 / 16 split), Live Display (1 / 4 / 9 / 16 split) and Map Display each on a dedicated monitor. Single or two monitor operation is also available.
  A total of 20 screens can be displayed with the simultaneous use of the Operation Display and the Live Display at a time.[*2]
  With WV-ASE202, maximum 64 screens in operation display is possible.
- Up to 16x 30 ips/camera images can be displayed in H.264 1.5 Mbps mode (VGA : Normal quality mode) or MPEG-4 2 Mbps mode (VGA : Normal quality mode, QVGA : High quality mode, depending on the camera and camera setup).
- Up to 400 camera groups : Cameras and multiscreen mode for the Operation Display can be programmed and called up by manual or sequence operation.
- 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 model).
- Panasonic camera control : Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, AUX 1 to 3, Click Centering, Wheel Zoom, Specified area zoom by mouse dragging (depending on the camera model)
- A camera, a group or a sequence can be called up on the Operation Display by their ID with the optional system controller WV-CU950.[*2] The camera displayed in the active window can be controlled by the system controller. Recorder playback operation can also be made by the system controller with Jog/Shuttle.

- Alarm notification : A pop-up alarm message is displayed.
- Individual alarm reset is possible.
- Operation Display, Live Display, and Map Display reacts correspondingly with the alarm.
- Displays the present alarm log in red.
- When an alarm occurs, the monitor changes into the map automatically showing where the alarm happened.
- Illustrated camera, alarm and recorder icons for intuitive operations
- Up to 64 camera icons can be freely positioned on a map with alarm status indicated by the color of the icons.[*2]
- Recorded images of up to 64 cameras (in case with WJ-ND400) can be downloaded by one operation. Downloaded images can be viewed by the viewer software (provided).
- Sophisticated user management: User authentication with time limited password, 5 user levels, User-Camera View/Control partitioning in conjunction with recorder's user management function, Up to 32 user registrations
- System logs can be saved in CSV format. Operation logs can automatically be erased when specified time has passed (31 / 92 / 184 / 366 days).
- Audio from a camera can be heard and the operator voice can be transmitted to the camera's audio output through the network (single channel at a time, full/half duplex depending on the camera).
- Recorded audio with the WJ-ND200 or WJ-ND400 or WJ-NV200 can be played back (single channel at a time).
- Video Analytic functions of the WJ-NT314 such as intruder detection and object abandonment/removal detection can be displayed.
- When used with WJ-ND400 series, WJ-HD716/616, WJ-NV200, VMD search can be operated.
- 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)
- Supports 360-degree Network Microphone (WV-SMR10)
- Add Time line function
- Corresponding to the Active directory

*1 WV-ASE203 4 licenses are necessary.
*2 WV-ASE201 is necessary.

# Extension Softwares
## Key Features:

### WV-ASE201

- Add Live window, Map window in addition to the Operation window (3 monitors)
- Control using the Ethernet System Controller WV-CU950
- Expand the maximum numbers of screens to 20.

\* To use the multi-monitor function, it is necessary to install an additional video card on the PC in use.

### WV-ASE202

- Expand the maximum numbers of screens to 64.
- Up to 4 live windows.
- Multi-monitor function using up to 6 PC monitors.
- To display the operation window, the map window and the 4 map windows simultaneously.

### WV-ASE203

- Expand the maximum numbers of registered recorders, encoders and cameras to 100, 64 and 256 respectively.
- Up to 4 licenses for the WV-ASE203 can be added.

### WV-ASE204

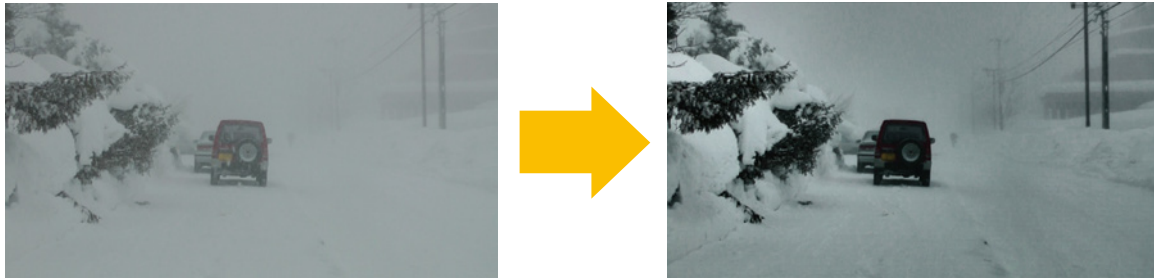- Decoder registration: Up to 10 decoders

### WV-ASE205

- Visibility Enhancement Function

**Spatial Tonal Correction**    **Snowfall and Rainfall Noise Reduction**    **Multi-frame Synthesis Noise Reduction**



Spatial Tonal Correction , Snowfall and Rainfall Noise Reduction
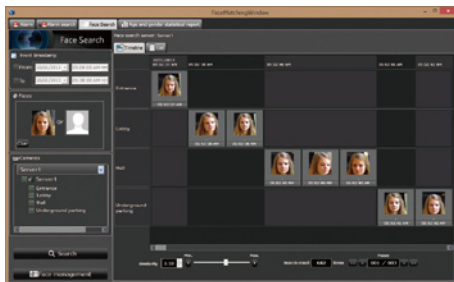
### WV-ASE231

- 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.
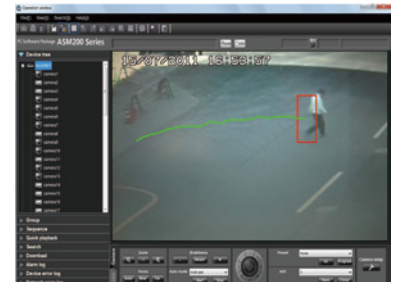


Face Search



People Counting,
Age and Gender Statistics



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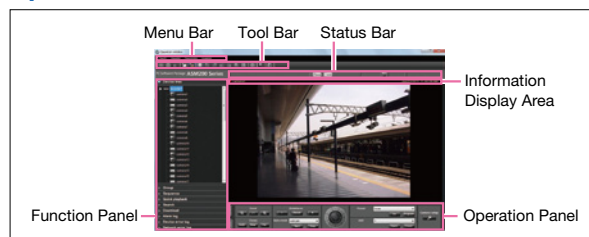(Intelligent Video Motion Detection)
track path display

\* WV-ASE200 is required for each cameras.

## Optional Accessory

Ethernet System Controller with
3D-Joystick & Jog/Shuttle
**WV-CU950**
(WV-ASE201 is necessary.)



## Operation Window



Menu Bar    Tool Bar    Status Bar

Information Display Area

Function Panel

Operation Panel

## Software Comparison Chart

| Functions | | | WV-ASM200 (V.2.0 or later) Management Software - Basic | +WV-ASE201 Extension Software | +WV-ASE202 Extension Software | +WV-ASE201 +WV-ASE202 Extension Software | +WV-ASE203 Extension Software | +WV-ASE204 Extension Software | +WV-ASE205 Extension Software | +WV-ASE231 Extension Software |
|---|---|---|---|---|---|---|---|---|---|---|
| **Main Functions / Description** | | | Live / Playback / Control | | | | | | | |
| **Supported Devices** | Camera | Direct | i-PRO series | | | | | | | |
| | | Via Recorder | i-PRO series, BB series[*1] | | | | | | | |
| | Recorder | NVR | WJ-ND400 series, WJ-ND300 series, WJ-ND200 series, WJ-NV200 series | | | | | | | |
| | | DVR | WJ-HD716/616, WJ-HD300A series | | | | | | | |
| | Encoder | | WJ-GXE500 | | | | | | | |
| | Decoder | | | | | | | | WV-GXD400 | |
| | Controller | | | WV-CU950 | | WV-CU950 | | | | |
| **Max. Devices** | Camera | Direct | 256 | | | | Max. 1,280[*2] | | | |
| | | Via Recorder | 6,400 (with WJ-ND400 series) | | | | Max. 32,000 (with WJ-ND400 series)[*2] | | | |
| | | | 3,200 (with WJ-ND300 series) | | | | Max. 16,000 (with WJ-ND300 series)[*2] | | | |
| | | | 1,600 (with WJ-ND200 series / WJ-NV200 series) | | | | Max. 8,000[*3] (with WJ-ND200 series)[*2] | | | |
| | | Via Encoder | 256 (with WJ-GXE500) | | | | Max. 1,280[*3] | | | |
| | | Via Decoder | | | | | | | | |
| | Recorder | | 100 | | | | 500[*3] | | | |
| | Encoder | | 64 | | | | 320[*3] | | | |
| | Decoder | | | | | | | | 10 | |
| | Controller | | | 1 | | 1 | | | | |
| **Supported Image Format** | | | H.264, MPEG-4 (i-PRO series), M-JPEG | | | | | | | |
| **Supported Image Resolution** | | | 2,048 x 1,536, 1,920 x 1,080, 1,280 x 960, 1,280 x 720, 960 x 720, 800 x 600, 640 x 480, 640 x 360, 320 x 240, 320 x 160 (depending on the source equipment) | | | | | | | |
| **Max. screens** | | | 16 | 20 | 64 | 68 | | | | |
| **AVMD Display (Frame and Tracking Line)** | | | Yes | | | | | | | |
| **Multiple Monitors Supported** | | | | Yes (Up to 3 monitors: Operation / Live / Map) | | Yes (Up to 6 monitors: Operation / Live / Map) | | | | |
| **Map Function** | | | | Yes | | Yes | | | | |
| **Audio** | | | Yes (Live: 2-way, Playback: 1-way) | | | | | | | |
| **Event Search (T&D, Event type etc.)** | | | Yes | | | | | | | |
| **VMD Search** | | | Yes (with WJ-ND400 series, WJ-HD716/616, WJ-NV200) | | | | | | | |
| **Image Download** | | | Yes | | | | | | | |
| **Visibility Enhancement** | | | | | | | | | Yes | |
| **Face Search[*3]** | | | | | | | | | | Yes |
| **Face Matching[*3]** | | | | | | | | | | Yes |
| **People counting[*3]** | | | | | | | | | | Yes |
| **Age and Gender Statistics[*3]** | | | | | | | | | | Yes |

[*1] Specific Models only. Also, JPEG only is supported and camera control is not supported.
[*2] WV-ASE203 x 5 licenses and 500 recorders are necessary.
[*3] WV-ASF900 is necessary.


## About the optional registration

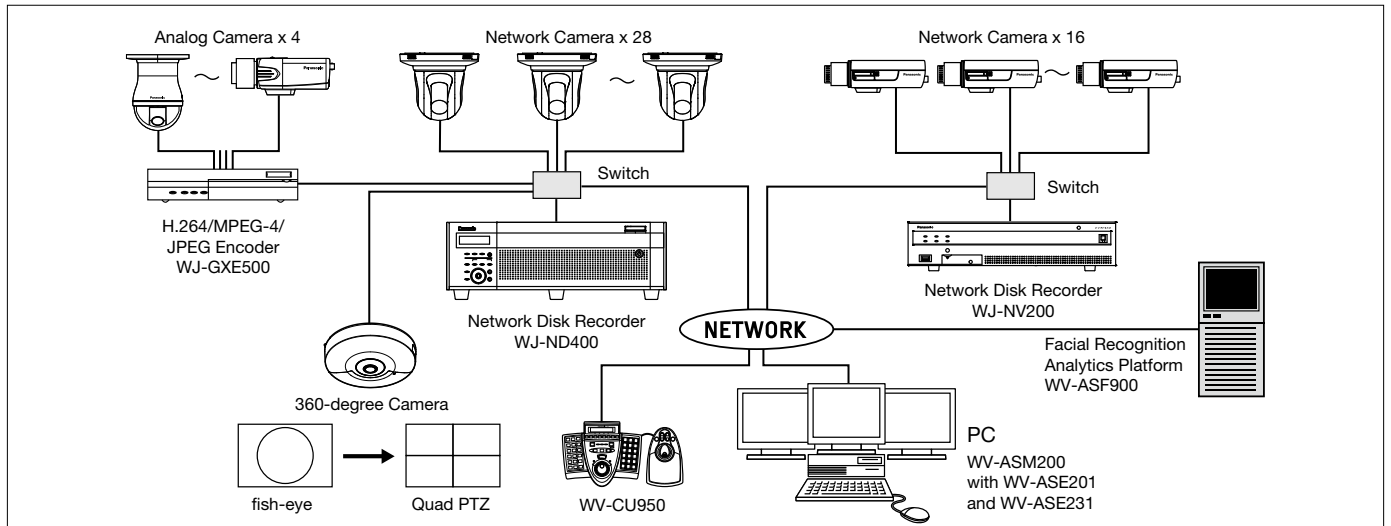**<The extensive options for Fisheye network cameras>**
To use the extensive options for Fisheye network cameras, registration is required. To register the options, it is necessary to enter the "Registration Key" obtained from the Key Management System. Refer to the provided "Activation Key Card" to obtain the "Registration Key" of this software. Enter the following numbers for the Activation Key No. and the Registration ID.

Activation Key No. : 0401-0065-000A-1234     Registration ID : 2397-55CC

* To use the options, WV-ASM200 Ver.1.40 or later (option) is required.   * Refer to "WV-ASM200 Series Setup Instructions (PDF)" for how to register the options for the product in use.


## System Example

# Specifications: WV-ASM200

| GUI Function | Camera Control (depending on the Camera) | Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256),Auto mode (SEQ, SORT, AUTO PAN, PATROL, AUTO TRACK), AUX 1 ~ 3, Click centering, Wheel zoom, Drag and zoom |
|---|---|---|
| | Recorder Control (depending on the Recorder) | REC, PLAY, Rev PLAY, Pause, Stop, FF (up to 96x), REW (up to 96x), Prev Record, Next Record, Prev Image, Next Image, Skip (up to 60 min.), Rev Skip, (up to 60 min.) Text |
| | Event Search | Target: Recorder (Camera) / Group / Map*1, Search criteria: Time date, Event type, Text |
| | VMD Search | In case with WJ-ND400 series, WJ-HD716/616, WJ-NV200, WV-ASR500 |
| | Multiscreen Mode | Spot / Quad (A-D) / 9 split / 16 split |
| | Sequence Display | 10 programs, 64 steps/pattern, Spot / Quad / 9 split / 16 split      Dwell time: 3s / 5s / 10s / 15s / 20s / 25s / 30s / 35s / 40s / 45s / 50s / 55s / 1min |
| | Display Performance | 30 ips x 16 screens at H.264 1.5 Mbps, 30 ips x 16 screens at MPEG-4 2 Mbps |
| | Multi-Monitor *1 | Up to 3 monitors (Operation / Live / Map), Up to 20 cameras can be displayed (Operation-4, Live-16) |
| | Camera Group Display | Up to 400 groups with 16 alphanumeric titles |
| | Number of Maps *1 | Up to 100 maps (JPEG or Bit map), Link: 64 cameras and 20 maps / map |
| | Image Download | Recorded images of up to 64 cameras (in case with WJ-ND400) can be downloaded Manual download only. Viewer software can be extracted from the main software. |
| | SD memory Download | Indicates the function featured in some Panasonic's cameras that transfers H.264 video files (mp4 files) saved on the SD memory card equipped with the camera to a PC using the FTP function. |
| | Recorder/Camera Access | The access to the Recorder and Camera Web pages when logged in as admin |
| | File Conversion | Convert a n3r file to the standard format (mp4) |
| | Camera Title Display | On the GUI, Up to 16 characters |
| | Clock Display | On the GUI. Time: 12H/24H, Date: 5 formats (When the image comes from the recorder) |
| | Alarm Source | Panasonic alarm protocol |
| | Alarm Control | Reset, Auto reset (OFF / 10s / 20s / 30s / 1min / 5min) |
| | Alarm Action | Up to 16 alarm images can be displayed on the live monitor. Corresponding camera icon on the map lights up. Alarm message on the GUI and buzzer. |
| | Digital Zoom | Up to 4 times |
| | Text Attachment | Free comment can be attached for each record and reviewed at later time. Up to 200 characters |
| | System Log | Operation (100,000), System (1,000), Network error (1,000), Rec order error (1,000), Alarm (30,000) |
| | Recorder Log Download | Operator access, Network error, Error, Event |
| | User Management | Registration: Up to 32 users + Administrator, ID: 4-14 digit, PW: 4-8 digit, User level: 5 levels (Programmable), PW time limit: OFF / 31 / 92 / 184 / 366 days, Auto login: ON / OFF |
| | Security Method | User authentication (ID and Password), Host authentication (IP address), Alteration detection, Activation Key Card |
| | System Setup | Setup page in English, French, Italian, Spanish, German, Russian, Chinese, Japanese |
| | GUI Language | English, French, Italian, Spanish, German, Russian, Chinese, Japanese |
| General | Supported OS*2 | Microsoft® Windows® 8.1 Pro 32bit/64bit*3, Microsoft® Windows® 8 Pro 32bit/64bit*3, Microsoft® Windows® 7 Professional SP1 32bit/64bit*3, Microsoft® Windows Vista® Business SP2 32bit/64bit*3 The language of the OS must be same as selected GUI language. * 4K cameras (WV-SFV781L / WV-SPV781L) are available only on Microsoft® Windows® 8.1 Pro 64bit. |
| | Required PC*4    CPU | Intel® Core™ i5-2400, 2500, Intel® Core™ i7-860 or faster When adding the license for WV-ASE202 and displaying images on a 64-screen: Intel® Core™ i7-3770 When adding the license for WV-ASE205 (Visibility enhancement function) : Intel® Core™ i7-4770 or faster *Recommend a PC exclusively for WV-ASE205. When using the network microphone (WV-SNR10 / WV-SNR10N3) : Intel® Core™ i7-4770 or faster When using the 9-megapixcel 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 |
| | Memory | 3 GB or more, When using more than one live window: 4 GB When using the network microphone (WV-SMR10 / WV-SMR10N3) : 4 GB or more When using the 9-megapixcel 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*4 | VRAM: 512 MB or more, compatible with Microsoft® DirectX® 9.0c or later When using WV-ASE202: NVIDIA NVS510 x 2 When using WV-ASE205 (Visibility enhancement function): NVIDIA GeForce® GTX 660 or more  (The version GeForce® 332.21 or later is recommended for the driver software) When using the 4K monitor* : NVIDIA NVS 510 *To display 4K2K resolution on a monitor at 60 Hz, connection on the display port 1.2 is required. |
| | CD-ROM drive | Necessary to install this software |
| | Required HDD space | Approx. 3 GB |
| | Monitor | 1280 x 800 pixels or more (1920 x 1080 pixels recommended), 24-bit True color or better (Full color recommended) |
| | Network interface*4 | Having a 100/1000 Mbps network port |
| | Web browser | Microsoft® Internet Explorer® 7, 8, 9 |
| Network | Proxy | HTTP proxy supported (IP address and port No.) |
| | FTP | Passive/Active |
| 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-ASE201 is necessary.
*2 Microsoft® Windows® XP not supported
*3 It is out of warranty that you use the two graphical board together.
    In case of 4 monitor output in a graphical board, you should design the followings only.
    + Operational monitor, Map monitor, live monitor 1 and live monitor 2
    + Operational monitor, live monitor 1, live monitor 2 and live monitor 3
*4 For further and latest information, refer to our website.  ( http://security.panasonic.com/pss/security/support/technical/testedpc.html ).

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