Panasonic

BUSINESS

Face Recognition System
WV-ASF900 Series
Additional Camera Kit
1ch : WV-ASFE901 / 4ch : WV-ASFE904
Extension software
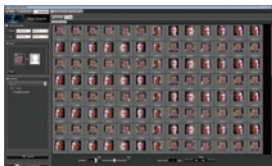**WV-ASE231** for WV-ASM970/WV-ASM300/WV-ASM200

i-PRO EXTREME

Face Recognition System running in the video surveillance system

Key Features
- Add-on face matching function: Add the face matching function by simply adding the necessary devices and the software
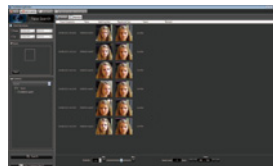- Can be connected up to 20 cameras on a server.

Face search
- Face images that camera detected are stored, and it can be searched later.
- By searching the face DB, you can display the result of each cameras in chronological order and find movement locus of persons.
- Specify camera or date in detected face images and display the result in the list in similarity order.

Face Matching
- When it is matched with registered people, alarm of face matching is output in real-time, and display an alarm history in the list.
- Specified screen image can be played back on control monitor with double-clicking on an alarm history.
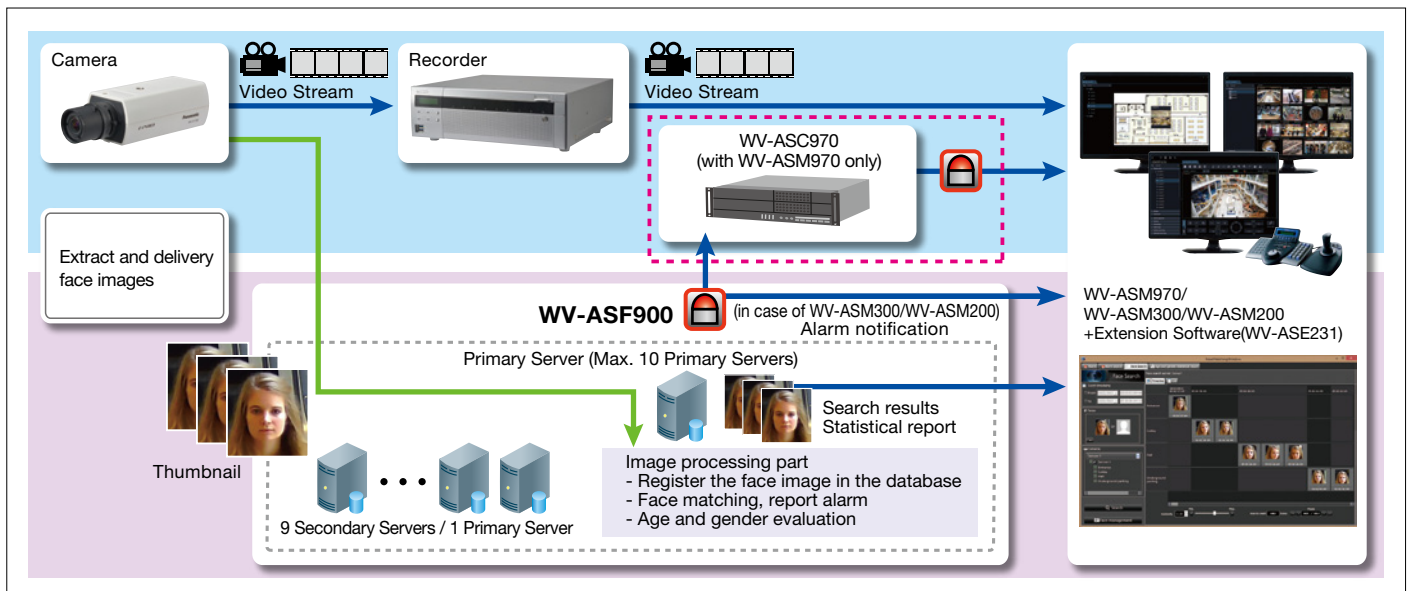

People counting, Age and Gender Statistics
- Count people of detected face and evaluate their age and gender
- Display the result on the screen with statistical graph
- The statistical data can be saved as a CSV file for analytical use.

Basic System Connection Example

Camera — Video Stream — Recorder — Video Stream

WV-ASC970 (with WV-ASM970 only)

Extract and delivery face images

WV-ASF900 (in case of WV-ASM300/WV-ASM200) Alarm notification

Primary Server (Max. 10 Primary Servers)

Thumbnail

9 Secondary Servers / 1 Primary Server

Search results Statistical report

Image processing part
- Register the face image in the database
- Face matching, report alarm
- Age and gender evaluation

WV-ASM970/ WV-ASM300/WV-ASM200 +Extension Software(WV-ASE231)

Specifications

Basic Specifications

Face matching speed	At 1 second in 1,000 registered faces[*1]
Max. number of face in matching list	Up to 1,000 face[*2]
Face searching speed in DB	3 seconds per 5 million faces[*3]
Max. number of face detect camera	10 cameras is suitable, up to 20 cameras per 1 face matching server.[*4]
Max. number of face history	Up to 10 million items
Max. number of client PC that can be linked with the alarm	WV-ASC970/ WV-ASM970 : 64 WV-ASM300 / WV-ASM200 : 16
File extension of registered face image for import	BMP, JPG, PNG

*1 From receiving the face thumbnail to matching in face matching server.
*2 Matching accuracy depends on a number of registered person, quality of the face image and environments.
*3 The best case when the time range is narrowed down and the number of search result is 100 faces. Depending on the search conditions, the search time may take several minutes.
*4 Deploying plural face servers in a system is acceptable.

System requirements

Hardware

CPU	Intel® Xeon® or Core™ i7 series 3.40 GHz or faster (4-core 8-thread or better)
Memory	16 GB or more
HDD	1 TB or more
OS	Microsoft® Windows® 7 Professional SP1 (64 bit), Microsoft® Windows® 10 Professional RS1 (64 bit), Microsoft® Windows Server® 2012 R2 Standard Edition SP1 (64 bit)

[Important] If the system down of Windows occurred such by unexpected power outage, etc., database may be damaged and the functions such as face search and face verification may not work appropriately. It is strongly recommended to use UPS in order to avoid corruption of data.

Network Camera (face detection)

Network Camera	WV-SPN631[*5] / WV-SPN611[*5] / WV-SPN531A / WV-SPN531 / WV-SPN311A / WV-SPN311 / WV-SPN310A / WV-SPN310 / WV-SP306 / WV-SP305 / WV-SFV631LT [*6] / WV-SC385 [*7] / WV-S1132 / WV-S1131 / WV-S1112 / WV-S1111 / WV-S2531LTN [*6]

*5 The Optional IR-LED(WV-SPN6FRL1) can not be installed with any of the tested Lenses. *6 Although this is the outdoor model, it can be used as face matching camera for indoor only.
*7 After fixing the angle of view, if you control the camera with PTZ operation, the face matching function will not work properly.
 In this case, set the view of angle properly again by using the preset position function.

Tested Lenses

Maker	Model Name	Day/Night	Resolution	Focal Length (mm)	Camera (excluding Lens)	
					WV-S1131, WV-S1132 WV-S2531LTN, WV-SPN531 WV-SPN631	WV-S1111, WV-S1112 WV-SPN310, WV-SPN311 WV-SPN611, WV-SP305 WV-SP306
FUJINON*	YV3.3x15SA-SA2	Day	3 MP	15 - 50	○	○
	YV3.3x15SR4A-SA2	D/N	3 MP	15 - 50	○	○
	DV10x8SR4A-SA1[*8]	D/N	3 MP	8 - 80	○	○
	YV10x5HR4A-SA2	D/N	1.3 MP	5 - 50	○[*9]	○
TAMRON*	M13VG550	Day	1.3 MP	5 - 50	○[*9]	○
	M13VG850IR	D/N	3 MP	8 - 50	○	○

*8 Since this lens is C-mount type, the C/CS-mount lens adaptor is necessary.
*9 This lens has lack of clearness and vividness, as this lens cover only up to 1.3 MP resolution. However, it has enough potential for face recognition.
＊ Panasonic do not guarantee the quality, performance, operation of third-party products.

Network Disk Recorder

Network Disk Recorder	WV-ASR500 Series, WJ-NV300 Series, WJ-NV200 Series, WJ-ND400 Series, WJ-ND300 Series, WJ-NX400 Series

Management Software

i-PRO Central Management software + Extension software	WV-ASM300 + WV-ASE231
i-PRO Management software + Extension software	WV-ASM200 + WV-ASE231
IP Matrix Server Software + Extension software	WV-ASC970 / WV-ASM970 + WV-ASE231

Products Lineup

Face matching server

Product Name		Model No.
PC Software Package		WV-ASF900
Additional Camera Kit	1ch	WV-ASFE901
	4ch	WV-ASFE904
Extension Software (for WV-ASM300, WV-ASM200, WV-ASM970)		WV-ASE231

* The performance of the face matching function varies depending on such conditions as the camera installation, camera settings,camera adjustment, surroundings and photographic subjects.

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Important
– Safety Precaution: Carefully read the operating instructions and installation manual 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.
• Specifications are subject to change without notice.

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