

i-PRD
SmartHD

WJ-NV200 Version up item in Ver1.20

Security & AV Systems Business Unit
Panasonic System Networks Company

No.	Class	Topic	Outline
1	New	New camera support	Support SW155/152, SF135/132
2	New	ONVIF Ver.1.02 support	ONVIF ver1.02 cameras of AXIS and SONY support
3	New	Viewnetcam and DDNS support	Viewnetcam and DDNS (RFC2136 compliant) support
4	New	Drag & Zoom function	Drag & Zoom mouse operation on NV200 or PC browser for PTZ operation
5	New	Playback on 16-screen	Playback on 16-screen support *Need activate setting on NV200
6	New	“Fast smooth Playback mode” on PC browser * Activate by private CGI command	Full frame smooth playback is available at up to 4 times fast forwarding in the smooth playback mode.
7	New	Audio Playback from SD memory card	Audio Playback from SD memory card support
8	New	Equal partitioning display pattern	Add the mode to divide the live camera image positions equally on 9-screen/ 12-screen/ 16-screen in wide view
9	New	Auto-hide the status and the operation panel in wide view	Add the mode for Auto-hide the status and the operation panel in wide view
10	New	Camera switching on the main monitor by alarm signal into NV200	Add the mode for camera switching on 1-screen of the main monitor when alarm is triggered.

No.	Class	Topic	Outline
11	New	Camera switching on the Live monitor by Alarm/control signal input	Add the mode for camera switching on the Live monitor when the alarm signal goes into the contact points from alarm1 to alarm9 in Alarm/control connector
12	New	Mask area setting of camera	Mask area setting of camera can be done by the mouse connected to NV200
13	New	Firmware Update from PC browser	Firmware Update from PC browser
14	New	AXIS encoder M7001 support	AXIS encoder M7001 support (JPEG only)
15	improvement	Increase the memorized number of Thumbnail image	Increase the memorized number of Thumbnail image for face matching display on NV200 to 16 and switch them each.
16	improvement	Setup improvement by PC browser	All NV200 setting can be done by PC browser
17	improvement	Face matching setting	Inhibit changing any setting of Camera1 when Face matching is active. (* The pop-up message is displayed to explain it)
18	improvement	Live Image quality on 1-screen	Add the mode for live display in SXVGA resolution on 1-screen

No.	Class	Topic	Outline
19	improvement	The higher image quality recording	Add "XF" recording mode which is higher image quality than "SF" mode (*H.264 only)
20	improvement	Camera's IP address Registration	Add the mode for camera detection without Auto IP addressing in camera registration.
21	improvement	The short period of Timeline display	Add the "2h" period in Timeline selection
22	improvement	Camera registration by FQDN	In addition to input camera IP address, support FQDN(Fully Qualified Domain Name) in camera registration.
23	improvement	Live Sequence duration	Add "5s" in Sequence duration in Live monitor
24	improvement	The accuracy of Age & Gender recognition	Increase the sampling number of the human face other than Japanese
25	improvement	Compatible with Internet Explorer 9.0 (32bit) on Windows 7 SP1 and Vista SP2	Compatible with Internet Explorer 9.0 (32bit) on Windows 7 SP1 (32/64bit), Vista SP2 (32/64bit)
26	Appendix	NVF20 Demo mode for real-time display * Activate by private CGI command	Add the mode for real-time display Age and Gender info on the live image
27	Appendix	[PAL only] Live image quality	Improve jerkiness issue on Live image on PAL model

NV200 version up item in Ver1.20 ~New function~

■ Outline

Support new cameras : WV-SW155, WV-SW155M, WV-SW152, WV-SW152M,
WV-SF135, WV-SF132



■ Outline

NV200 can integrate with some of AXIS and SONY cameras based on ONVIF Ver.1.02.

■ Verified ONVIF cameras with NV200

Company	Model	Firmware Version
AXIS	P3301	5.20
	M5013	5.25.2
SONY	SNC-CH120	1.31.00
	SNC-CH140	1.31.00

■ ONVIF function supported by NV200

- Camera detection
- Camera stream (MJPEG)
- Audio (G.711)
- PTZ operation
- Event alarm input

■ Easy Start function for ONVIF camera

Camera detection of “Easy start” can work with ONVIF camera only if IP address of ONVIF camera is assigned in camera registration menu beforehand.

*NV200 can't change IP address of ONVIF camera

■ Important

No.	Camera	Contents
1	ALL	Registration unique IP address on the camera is required in order to communicate with NV200 by ONVIF.
2	ALL	NV200 can receive the below stream from the ONVIF camera. - Compression : M-JPEG - Resolution : VGA(640×480), QVGA(320×240) *In case of camera can't output above stream with default setting, Please change the setting from default beforehand.
3	ALL	NV200 can receive the below audio from the ONVIF camera. - Compression : G.711 *In case of camera can't output above stream with default setting, Please change the setting from default beforehand.

■ Important

No.	Camera	Contents
4	ALL	NV200 may not communicate or may work with limited function with ONVIF cameras depending on the version or implemented function on ONVIF cameras. Plus, One of the function may be slow response with limited function.
5	ALL	The motion range and speed by one-shot PTZ operation is different depending on the model number and version of ONVIF cameras.
6	ALL	<p>NV200 recognize the event alarm from ONVIF camera as “Camera site alarm (ONVIF)”.</p> <p>Please assign the kinds of event on ONVIF cameras to sent the alarm signal as “Camera site alarm (ONVIF)” to NV200.</p> <p>*In case of ONVIF camera sent the event to NV200 without any event recording, deactivate the event recording of the camera that event recording is not required on NV200.</p>

■ Important

No.	Camera	Contents
7	AXIS	<p>Below setting of AXIS ONVIF camera on PC browser is required in order to communicate with NV200 by ONVIF.</p> <ul style="list-style-type: none"> - Fixed IP address - Mark on the checkbox of “Enable Web Services”
8	AXIS	<p>Still image from AXIS ONVIF cameras is not displayed (display black screen) on camera displaying change menu depending on the combination of user authentication setting between AXIS ONVIF cameras and NV200.</p> <p>Especially, in case of user authentication setting on AXIS ONVIF camera is activated, NV200 never display still image of the camera regardless of user authentication setting on NV200.</p> <p>Deactivate user authentication setting on AXIS ONVIF camera in order to display still image of the camera.</p>
9	AXIS P3301	<p>AXIS P3301 can communicate with factory default setting with NV200. But after accessing AXIS P3301 from PC browser, the camera can't communicate with NV200. In that case, need to setup 2 parameters on AXIS P3301 as NO7 in this chart.</p>

■ Important

No.	Camera	Contents
10	SONY	<p>In case of system condition is changed like camera registration setting on NV200 is changed or NW cable insert & remove, etc, SONY ONVIF cameras may become disconnection to NV200 depending on the model number and version of the cameras.</p> <p>When this situation happen, it may become to recover the connection to restart the camera or change the setting to factory default.</p>
11	SONY	<p>As described NO7, NV200 can recognize the event alarm from ONVIF cameras as “Camera site alarm (ONVIF)” but current version of NV200 can't sometimes recognize the event alarm or fail to recognize the kind of event even if SONY ONVIF cameras send the alarm to NV200.</p> <p>When this situation happen, deactivate the event recording setting on NV200.</p>

■ Outline

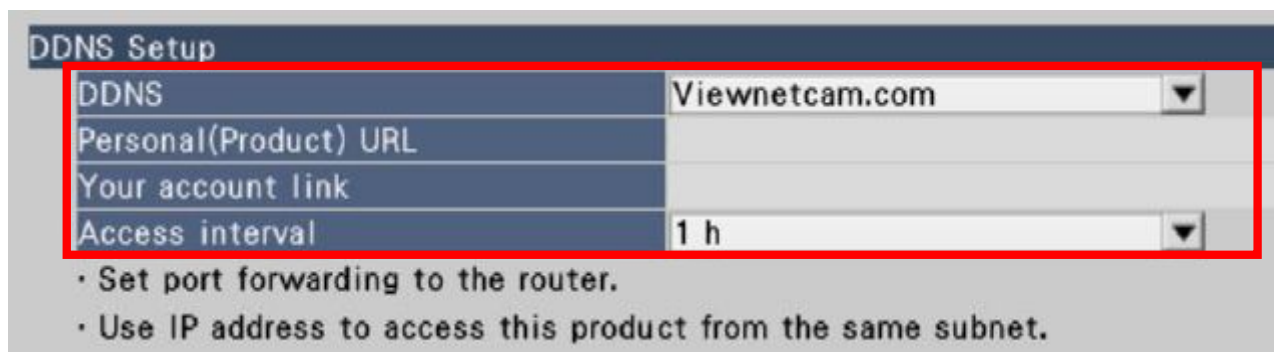
Viewnetcam and DDNS (RFC2136 compliant) support

■ How to setup

Add below setup menu

Advanced Setup > Network > Basic > DDNS Setup
“DDNS”, (“Host name”), “Access Interval”

Need to setup above setting depending on the selected DDNS service



DDNS Setup	
DDNS	Viewnetcam.com
Personal(Product) URL	
Your account link	
Access interval	1 h

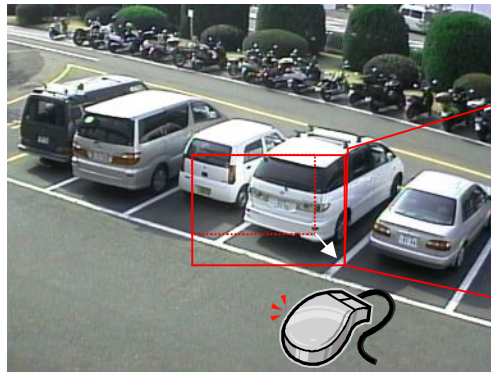
- Set port forwarding to the router.
- Use IP address to access this product from the same subnet.

■ Outline

When selecting an area in the image display area by dragging the mouse, the selected area will be located at the center of the image display area and the zoom ratio will be adjusted automatically

■ Operation

Selecting an area by dragging the mouse



Zooming up the selected area



- Drag & Zoom function is available on the live image of not only Main monitor but also PC browser.
- * This function is only for PTZ camera.

■ Outline

- Playback on 16-screen support
- **To activate this function, the setting described on the following page is required.**

Operation	Screen	Version	
		current	New
Live	1-screen	Yes	Yes
	4-screen	Yes	Yes
	16-screen	Yes	Yes
Playback	1-screen	Yes	Yes
	4-screen	Yes	Yes
	16-screen	N/A	Yes

* Frame rate is deteriorated when playback on 16-screen.

How to Activate

To activate playback on 16-screen, following setting is required.

*This is not written in NV200 operating instructions.

1. Double click the right mouse button on the **logo** of WJ-NV200 at the left-upper corner of the setup menu.



-> keyword input window is displayed


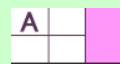

2. input below keyword in the keyword input window

Playback on 16-screen	keyword	Factory default
Activate	mplay	
Deactivate	qplay	Yes

3. Execute following the instructions on the screen

■ Frame rate chart

- Below shown are the max frame rate of playback based on the type of screen and compression.
- Only i-frame is displayed when the recording rate is higher than the frame rate in the below chart.

The type of screen	Compression							
	H.264			MPEG-4		JPEG		
	SXVGA	VGA	QVGA	VGA	QVGA	SXVGA	VGA	QVGA
	30	30	30	30	30	5	5	5
	10	30	30	30	30	5	5	5
	3	5	10	5	10	3	5	5

■ Outline

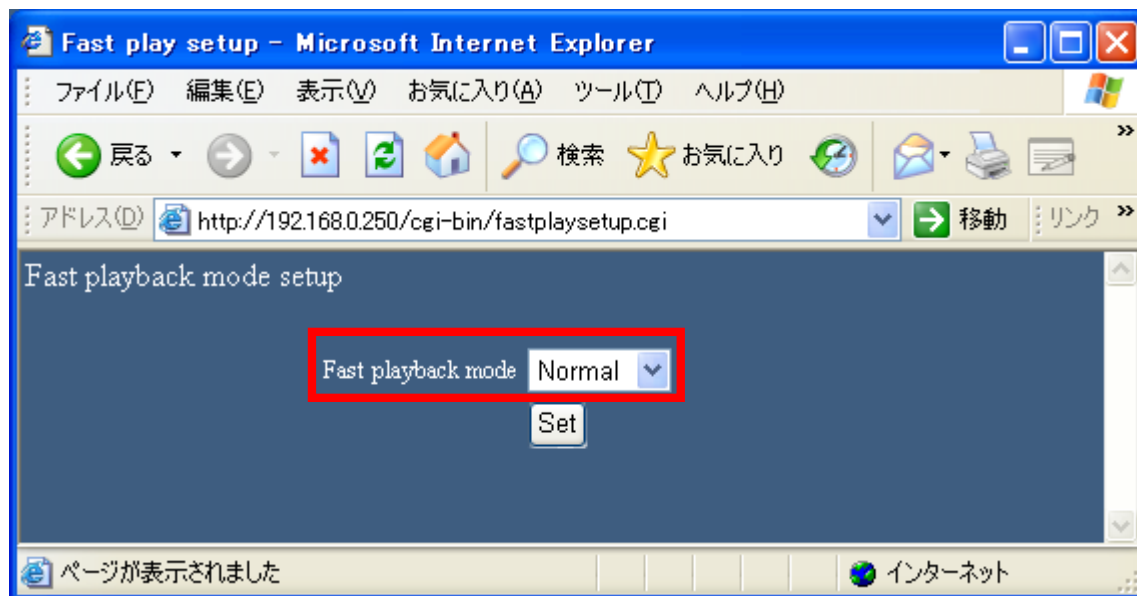
- More smooth playback image at fast forwarding.
- All recording frame playback up to 4 times fast forwarding to avoid skipping important scenes.
 - * “Normal playback mode” skip some recording frame at fast forwarding.
- Not all recording frame playback but more smooth playback than “Normal playback mode” even at over 8 times fast forwarding.
- Set up by private CGI command
- When selecting “Fast smooth playback mode” on ASM200, this function is automatically activated by ASM200

How to setup

Open the setup menu by below private cgi command

`http:// (IP address of NV200) /cgi-bin/fastplaysetup.cgi`

* Need to input ID & Password of Administrator



parameter	Playback mode
Normal	Normal playback
Smooth	Fast playback

■ Playback speed and frame

Playback speed and frame of “Fast playback mode” is different from them of current “Normal playback mode” as below table.

Playback Step	Normal playback mode		Fast playback mode	
	Playback speed	All frame playback	Playback speed	All frame playback
1	x1	Yes	x1	Yes
2	x4	N/A	x2	Yes
3	x8	N/A	x4	Yes
4	x16	N/A	x8	N/A (*)
5	x32	N/A	x16	N/A (*)
6	x48	N/A	x32	N/A (*)
7	x96	N/A	x48	N/A (*)

(*) Increase the number of I frame for smooth playback

■ Outline

Add audio output when playback the copy data from SD memory card on NV200.

■ Memo

No change for the operation & setup way

■ Outline

Add equal partitioning display pattern on 9-screen, 12-screen and 16-screen in Wide View.

When the screen segments are not equally divided by the setting (Default)

Multiscreen buttons



When the screen segments are equally divided by the setting

Multiscreen buttons

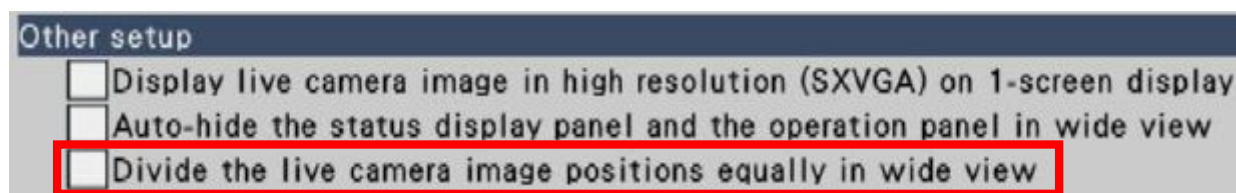


How to setup

Add below setup menu

Advanced setup > Monitor > Advanced setup > Other setup
“Divide the live camera image positions equally in wide view”

Mark on the checkbox to display equal partitioning pattern on 9–screen, 12–screen and 16–screen in wide view



Factory default : OFF

■ Outline

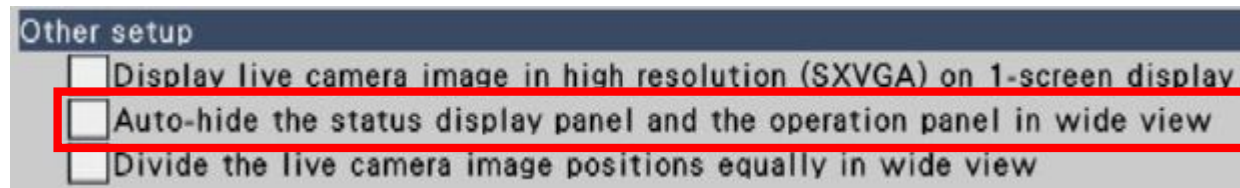
Add to display or hide the status display panel and the operation panel in wide view

■ How to setup

Add below setup menu

Advanced setup > Monitor > Advanced setup > Other setup
“Auto-hide the status display panel and the operation panel in wide view”

Mark on the checkbox to display or hide the status display panel and the operation panel in wide view in association with whether the mouse cursor is displayed or hidden.



Factory default : OFF

❏ Operation

- Auto-hide the status display and the operation panel when mouse operation is not conducted in 10 seconds.
- Display the status display and the operation panel again when mouse operation is conducted.



① **Image display area**

Displays images from the camera. (☞ Page 18)

② **Status display panel**

Displays the statuses of the recorder. Also displays alarm/error status and remedies.

(☞ Page 13)

When clicking alarm button or error button, this panel may be displayed overlapped on the operation panel.

③ **Operation panel**

Switches between screens and screen patterns. Displays the current date & time. While daylight saving time is activated, the time will be displayed with an asterisk (*).

④ **[Ctrl screen] button**

Switches the main monitor to control screen display.

■ Outline

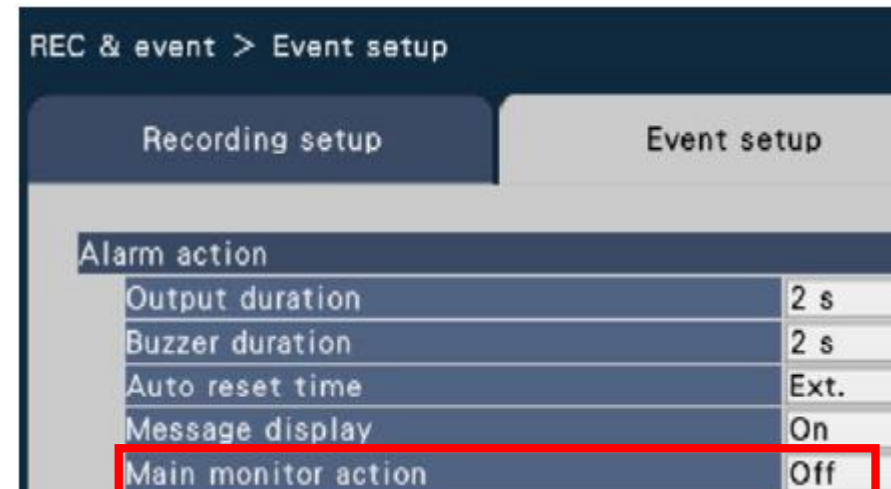
Switch the Main monitor display in association with alarm occurrence.

■ How to setup

Add below setup menu

Basic setup > REC & event > Event setup
“Main monitor action”

Set “On” to Switch the Main monitor display in association with alarm occurrence



■ Operation

- Switching the monitor in association with alarm occurrence
- When the auto reset time has passed, the monitor display will return to the previous status.

*Auto reset time is set in below setup menu

Basic setup > REC & event > Event setup

Auto reset time

■ Memo

- When the “Recording camera” setting assigned alarm number is “OFF” on the setup menu of “Terminal alarm”, “Camera site alarm” or “Command alarm”, this function doesn’t work even if alarm occurs accordingly.
- The main monitor action will not be activated while images are being displayed in wide view, recorded images are being played back or the setup menu is being displayed.

■ Outline

Switching the camera on the Live monitor of NV200 by alarm signal into NV200 is available

* To activate this function, the setting of Live monitor is required.

■ How to setup

Add below setup parameter

Advanced setup > Monitor > Live monitor > Live sequence
"Duration"

Added parameter : "EXT"

Set "EXT" to switch the display by alarm input

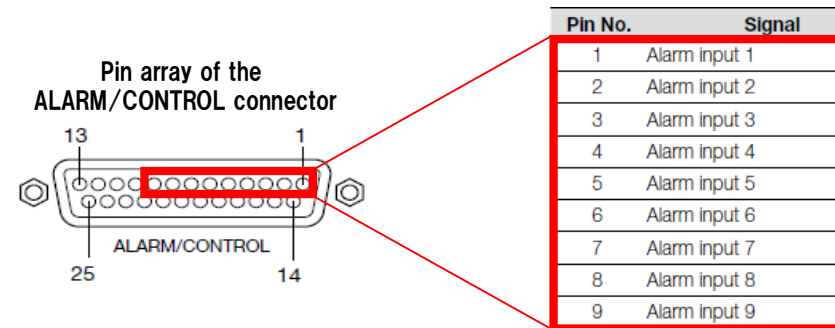


❏ Operation

The camera displaying on the live monitor switches depending on the number of terminal input to ALARM/CONTROL connector on NV200.

The display mapping is as follows.

Terminal number	The camera displaying on live monitor
1	Camera 1
2	Camera 2
3	Camera 3
4	Camera 4
5	Camera 5
6	Camera 6
7	Camera 7
8	Camera 8
9	Camera 9



<Memo>

- The polarity of terminal input as [N.O.] or [N.C.] is set in below setup menu.

Basic setup > REC&event > Event setup > terminal alarm
Terminal input

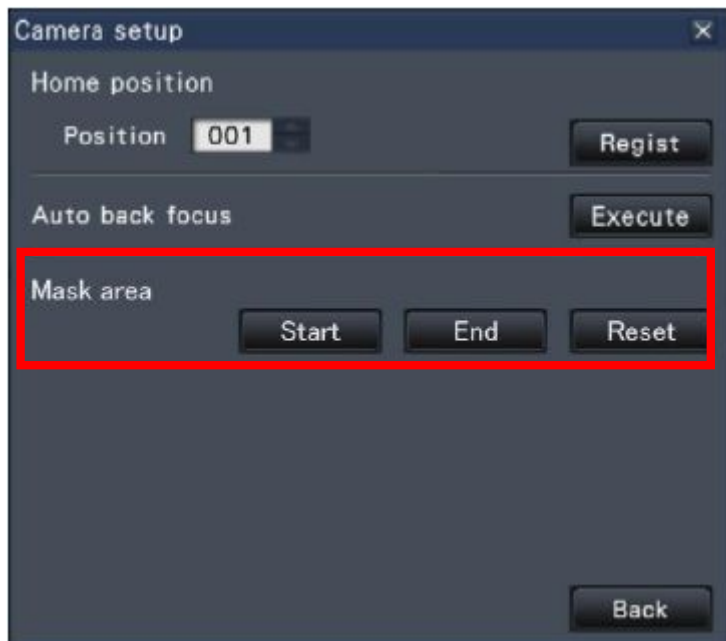
- If multiple pin is active at the same time, later pin action only work.

■ Outline

Utilize this mask area setting of camera on the main monitor of NV200 to assist the visibility of dark areas in camera image.

■ How to setup

Add below setup menu



Step 1

Click the [Start] button.

→ A grid will appear over the image display area and the segments designated as mask areas are covered with white translucent masks.

Step 2

Click a segment in the image display area.

→ Each click of the segment toggles between On and Off for the mask area setting.

Step 3

Click the [End] button.

→ The mask area setting will be completed and the grid will disappear.

Step 4

Click the [Back] button.

The camera setup window closes, and the display returns to the "Camera control [Advanced]" panel.

Note:

- It is possible to reset all the mask area settings by clicking the [Reset] button.

■ Outline

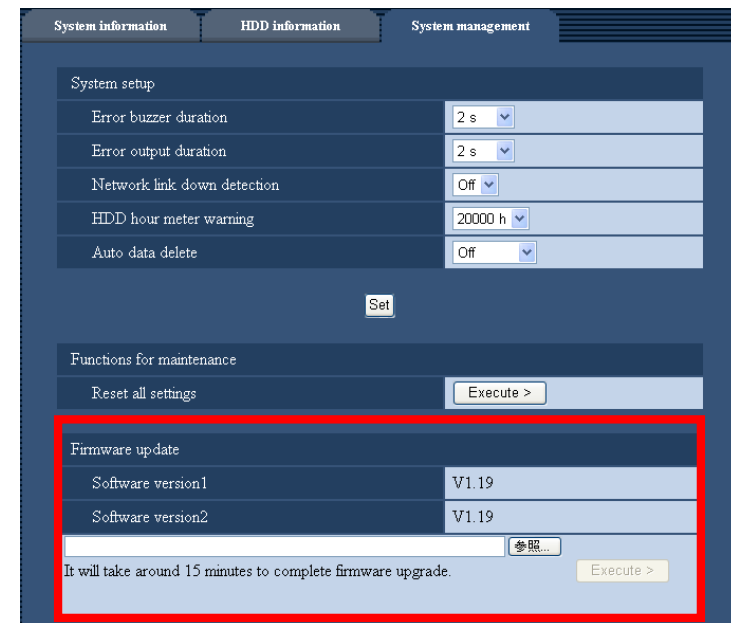
Firmware update from PC browser

■ Operation

Add below setup menu

Maintenance > System Management
“Firmware update”

In order to update the firmware, Click “Browse” button and select the firmware of NV200 and click “Execute” button.



■ Outline

Support live monitoring and playback of AXIS encoder M7001



■ Memo

- Need manual registration on NV200. *Auto detection is not available.
- Support only JPEG compression
- Not support PTZ control to analog camera connected M7001

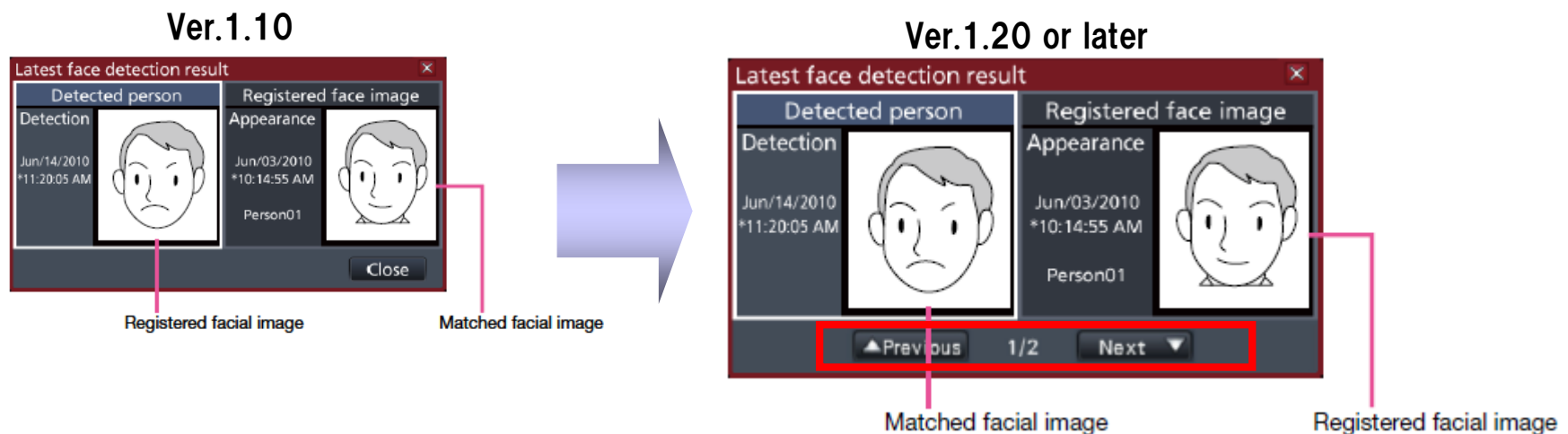
NV200 version up item in Ver1.20 ~improvement~

■ Outline

Increase the memorized number of thumbnail at face matching on NV200 to 16.
-> Latest 16 thumbnail image is switchable.

■ Operation

Switchable the thumbnail of the detected person by clicking the next /previous button in the latest face detection result window.



■ Outline

All setting of NV200 except below setting menu can be configured by PC browser same as Main Monitor on NV200.

- Easy Start
- Face registration and Face Matching Area setup
- License registration

■ The Existing Issue

Even when Face matching function is activated, the setting such as frame rate, image quality or resolution of Camera1 is changeable.

-> If these setting is changed, Face Matching can't be activated without realizing it.

■ Improvement

When face matching alarm setup is “Alarm action” mode or activate “additional business intelligence”, below settings are not activate by showing “gray out” of the menu or “Pop-up message”.

- Quick Start > Easy Start “Change the display position of camera”
- Basic setup > camera [Model] and [Compression] in “Registered information”
- Basic setup > camera “Change the display position of camera”
- Basic setup > REC&event > Recording setup > Recording setup (All cameras) > advanced [Image capture size], [Rate], [Quality] and [Saving]

■ The Existing Issue

Display 30fps in VGA resolution in case of the camera doesn't support 15fps output in H.264 (2) in SXVGA resolution.

-> The image quality on 1 or 3-screen is not good because scale up VGA resolution to SXVGA resolution on 1 or 3-screen.

■ Improvement

Selectable the setting from existing VGA display mode or SXVGA display mode for live image on 1 or 3-screen.

VGA mode (default)	: 30fps in VGA resolution
SXVGA mode	: 5fps in SXVGA resolution

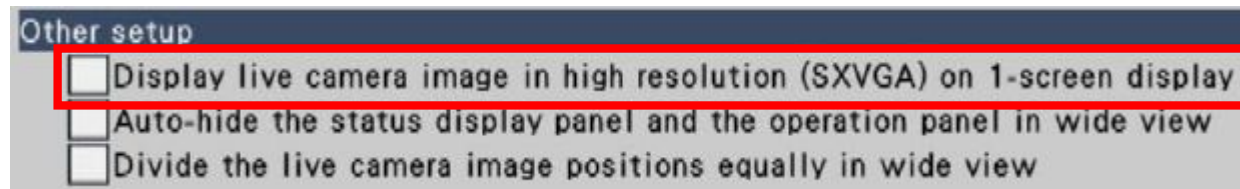
*Certain camera can't support SXVGA display even in SXVGA mode due to H.264 (2) specification.

■ How to setup

Add below setup menu

Advanced setup > Monitor > Advanced setup > Other Setup
“Display live camera image in high resolution (SXVGA) on 1-screen display”

In this mode, the frame rate of live image on 1-screen or the left-side segment of 3-screen is set to 5fps in SXVGA resolution.



Factory default : OFF

Supported camera

This function can improve live picture quality of below cameras on 1 screen.

camera	SF335	SF336	SP305	SP306	SP105	SF346
version	Ver1.30 or later					

camera	SF135	SW155	SW155M
version	Ver1.02 or later		

(*) WV-SC384 and WV-SW355 are not supported. (will support in around Nov by new firmware)

(*) Not available (Not necessary) on WV-SC385, WV-SW395, WV-NP502 and WV-NW502 because they can already support 15fps output in H.264 (2) in SXVGA resolution.

■ Outline

“XF(Extra Fine)” quality is added only in H.264 recording on Recording setup and higher than “SF(Super Fine)”.

■ Bit rate table for i-PRO camera in H.264 recording

resolution	quality	frame rate [fps]					
		1	3	5	10	15	30
QVGA (320x240)	XF	512	768	768	1024	1024	1536
	SF	384	512	512	768	768	1024
	FQ	128	256	256	384	384	512
	NQ	64	128	128	256	256	384
VGA (640x480)	XF	1024	1536	1536	2048	2048	3072
	SF	768	1024	1024	1536	1536	2048
	FQ	384	512	512	768	768	1024
	NQ	256	384	512	512	512	768
SXVGA (1280x960)	XF	2048	3072	3072	4096	4096	4096
	SF	1536	2048	2048 (4096*)	3072	3072	4096
	FQ	768	1024	1024	1536	1536	2048
	NQ	256	512	768	1024	1024	2048

[kbps]

*Face Matching Mode

■ The Existing Issue

In case of camera registration with camera detection, IP address of the camera is automatically assigned by NV200.

-> Therefore, it is very difficult to register the camera which already have fixed IP address without auto IP addressing.

■ Improvement

Add "Detect cameras" menu on "Basic setup > Camera > Camera registration" menu. In this menu, "Detect with auto IP addressing" / "Detect without auto IP addressing" is selectable.

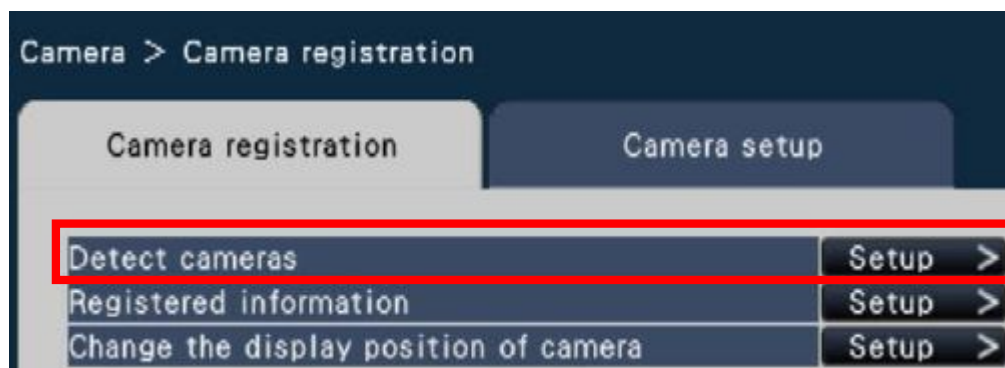
-> You can easily detect and register the new cameras without auto IP addressing when new cameras have already assigned IP address.

* This function is not supported in "Easy Start" setup

■ How to setup

Add below setup menu

Basic setup > camera > Camera registration
"Detect cameras"



The result of Camera Detection is displayed when Click "Setup >" button.

Detect cameras

1. Click the button corresponding to the search mode.

Search all the connected cameras

Search only the added/replaced cameras

New

Addition

Camera	<input type="checkbox"/>	Select	Model	Results	IP address	<input type="checkbox"/> Auto addressing
1	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>

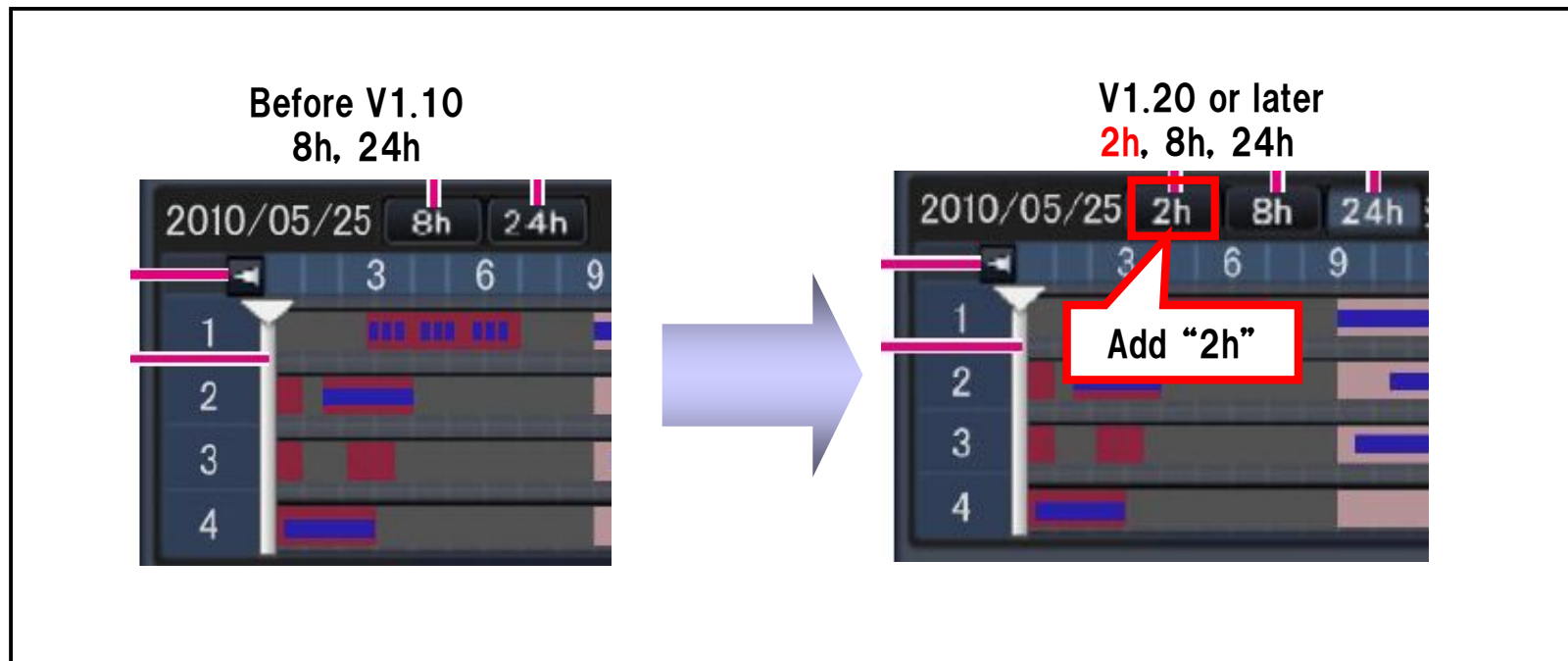
- Press the “New” or “Add” button to detect the camera
- Mark off the checkbox of “Auto addressing” to avoid auto IP addressing.

■ Memo

- This setting can be done by both Main monitor and PC browser.

■ Outline

The setting value of “2h” is added on the options for timeline display period.



■ Outline

In addition to current IP address registration, FQDN format registration is available to input the camera address.

*FQDN : Fully Qualified Domain Name

e.g. cam1.example.com

-> host name is "cam1" and domain name is "example.com"

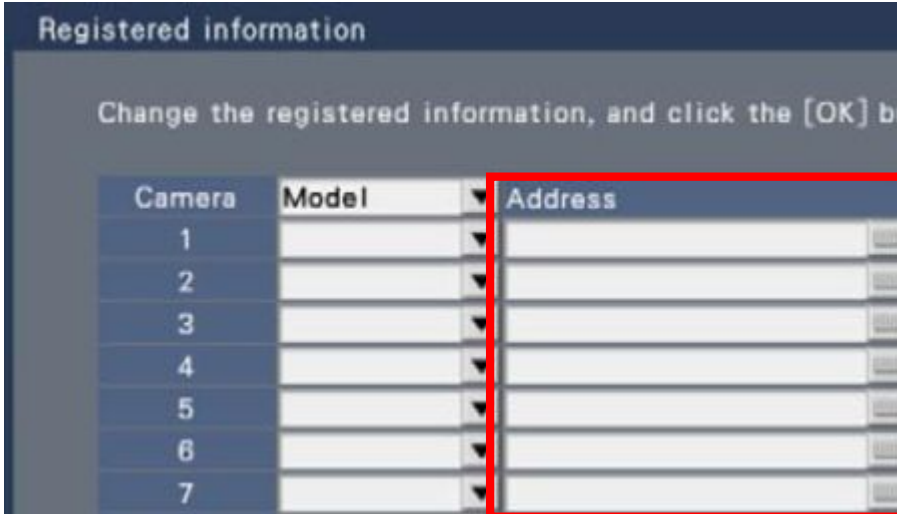
■ How to setup

Basic setup > camera > camera registration > registered information

FQDN format registration is available on the "address" field at above page.

Important

FQDN format registration needs DNS setting.



Registered information

Change the registered information, and click the [OK] button.

Camera	Model	Address
1		
2		
3		
4		
5		
6		
7		

■ Outline

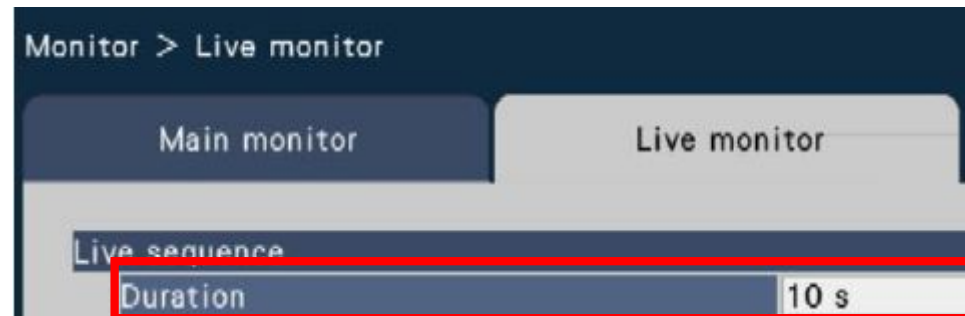
The setting value “5s” is added on the setting of live sequence duration on Live monitor. (Currently minimum is 10s)

■ How to setup

Add below setup parameter

Advanced setup > Monitor > Live monitor > Live sequence
“Duration”

Added parameter : 5 s



■ Outline

Increase the sampling number of the human face other than Japanese to improve the accuracy of the Age & Gender recognition.

■ Outline

Compatible with Internet Explorer 9.0 (32bit) on Windows 7 SP1 (32/64bit) and Vista SP2 (32/64bit) .

Appendix

Outline

Add the Demo mode for Additional Business Intelligence Kit, WJ-NVF20.

Age and Gender info is displayed on real-time on status display panel on main monitor of NV200 in this demo mode.

* Age and Gender info on status display panel is the same as them written in a CSV file.

The screenshot displays the NVF20 demo mode interface. The main window shows a video feed of a person in a white shirt. Overlaid on the video is a 'Latest face detection result' window with two columns: 'Detected person' and 'Registered face image'. The 'Detected person' column shows a detection at 07/01/2010 01:57:35. The 'Registered face image' column shows a registered face image at 01/01/2010 03:10:25, labeled 'Person01'. Below the video feed, a 'Statistics' panel is visible, showing a time of 01:55:00 and a gender of M 42. A red circle highlights the 'Statistics' panel in the bottom left corner of the video feed, with red arrows pointing to the 'Statistics' panel in the main screenshot. The 'Statistics' panel also shows a time of 01:57:36 M 43.

Time	Age
01:55:00	M 42

Gender

■ How to activate

Private CGI command below can start and stop demo mode for WJ-NVF20.

[Start]

`http:// (IP address) /cgi-bin/statistics_demomode.cgi?MODE=ON`

[Stop]

`http:// (IP address) /cgi-bin/statistics_demomode.cgi?MODE=OFF`

■ Outline

Improve existing jerkiness issue in live image on NV200 of PAL model.