



Network Disk Recorder
WJ-NV200K
Introduction of Version 1.04



20/January/2011

Security & AV Systems Business Unit
Panasonic System Networks Company

- ◆ Internet mode (RTP over HTTP) support
- ◆ Single stream mode (of i-PRO SmartHD cameras) support
- ◆ Setup improvements
 - Additional camera setup items on NV200
 - Time zone and summer time (daylight saving) choice in Easy start
 - Camera classification in manual registration
 - Input assist function in camera manual registration
 - New camera support
- ◆ Operational improvements
 - Response of Pan/Tilt control
 - VMD search of GXE500

**Schedule: Since 20/January 2011 (providing firmware)
Since February 2011 (production)**

It is possible that these schedules will be changed for unexpected reasons.

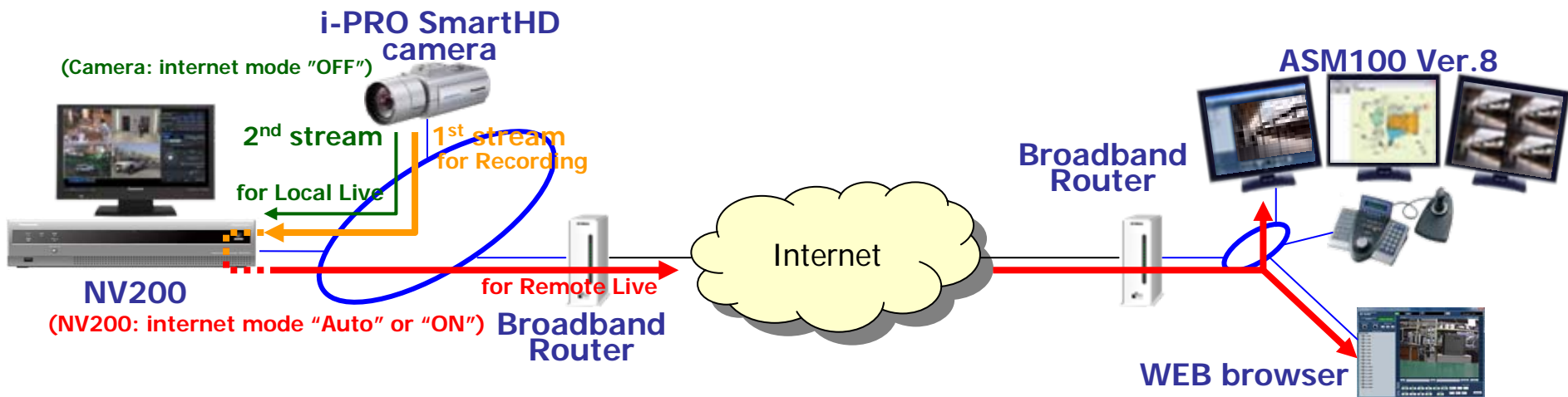
1. Internet Mode (Outline)

NV200 supports internet mode (RTP over HTTP transmission) since V1.04.

- H.264/MPEG4 transmission in live is possible.
 - Remote monitoring is possible with both of WEB browser and ASM100 Version 8.
- (Fixed IP address on NV200 or DDNS client function on broadband router is required.)

NV200 Internet transmission		V1.03	V1.04-
Live	H.264/MPEG4	NG	OK
	JPEG	OK	OK
Playback	H.264/MPEG4	OK	OK
	JPEG	OK	OK

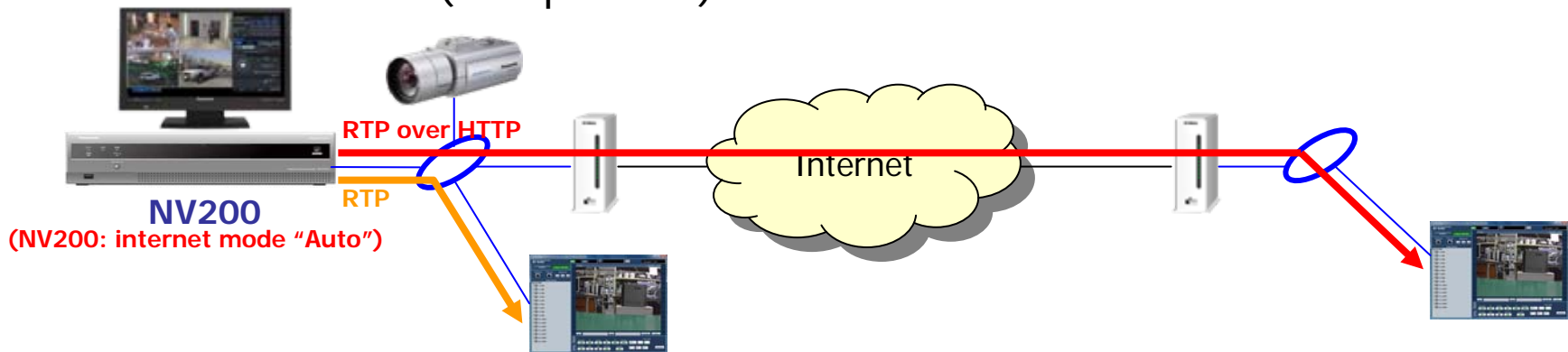
ASM100	-Ver.7	Ver.8-
NV200 support	NG	OK



1. Internet Mode (How to Setup)

Internet mode will be set **automatically** since V1.04.

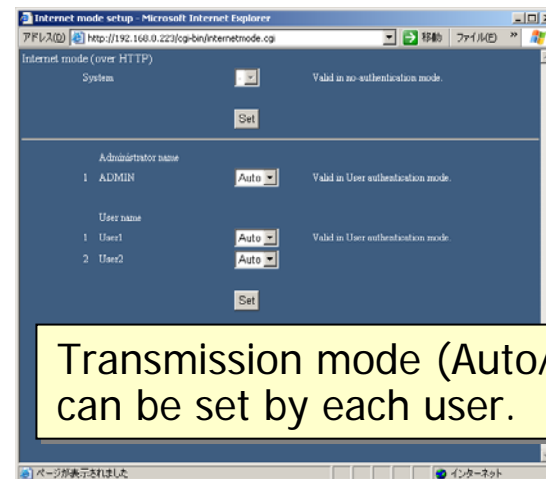
- If H.264/MPEG4 video stream is requested from outside of subnet, NV200 transmits video stream with internet mode (RTP over HTTP protocol) automatically.
- If video stream is requested from inside of subnet, NV200 transmits video stream with non-internet mode (RTP protocol).



If detail setup is needed, it can be done via WEB browser.



[http://\(IP address\)/cgi-bin/internetmode.cgi](http://(IP address)/cgi-bin/internetmode.cgi)



Transmission mode (Auto/On/Off)
can be set by each user.

2. Single Stream Mode (Outline)

Flexible Recording Settings with Smooth Live Viewing

Conventional Panasonic NVR

The conventional Panasonic NVR (ex. ND400) uses the only 1st stream of i-PRO camera for both recording and live viewing.
-> The setting of recording and live viewing is **limited** at H.264/MPEG4 compressions.

NP502

- 1st stream: H.264/SXVGA/30fps
- 2nd stream: (Not used)

ND400

- <Recording>: All (stream) or I-frame only
- <Live viewing>: All (stream) or I-frame only

Same resolution/frame rate/image quality

NV200

NV200 uses the 1st stream of i-PRO camera for recording and the 2nd stream for live viewing.
-The various setting of recording is selectable
-The setting of live viewing is automatically decided by NV200 depending on display pattern.
-> NV200 provides **flexible** recording setting with **smooth** live viewing.

NP502

- 1st stream: H.264/SXVGA/30fps
- 2nd stream: H.264/SXVGA/15fps @1 screens

NV200

- <Recording>: **flexible**
SXVGA/VGA/QVGA
1fps/3fps/5fps/10fps/15fps/30fps
SF/FQ/NQ
- <Live viewing>: **smooth**
(Up to) SXVGA 15fps (@1 screen)
(Up to) VGA 30fps (@4 screens)
(Up to) QVGA 10fps (@16 screens)

Panasonic ideas for life

NV200_Presentation_V1.3_1104, page 31

But this specification causes following limitations.

- SD card recording on camera is not possible. (If SD card recording is ON, live images on NV200 local monitor cannot be displayed.)
- 1 screen live viewing on NV200 local monitor is not SXVGA resolution but expansion of VGA in case of SP306/SP305/SF336/SF335/SC385/SP105.
- 2nd stream of cameras cannot be used for another purpose (e.g. remote monitoring).

NV200 is making good use of dual video stream transmission function of i-PRO SmartHD cameras for flexible recording and smooth live displaying. (See those explanations.)

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Flexible Recording Settings with Smooth Live Viewing

Note1: The difference of recording and live viewing capability

NV200

- 1st stream: Up to SXVGA/30fps @H.264
- 2nd stream: Up to SXVGA/15fps @H.264

<Recording>: SXVGA/VGA/QVGA 1fps/3fps/5fps/10fps/15fps/30fps SF/FQ/NQ

<Live viewing>: SXVGA 15fps (@1 screen) VGA 30fps (@4 screens) QVGA 10fps (@16 screens)

SP306/305 SF336/335 SC385 SP105

- 1st stream: Up to SXVGA/30fps @H.264
- 2nd stream: Up to VGA/30fps @H.264
These cameras can't support SXVGA resolution for the 2nd stream.

<Recording>: SXVGA/VGA/QVGA 1fps/3fps/5fps/10fps/15fps/30fps SF/FQ/NQ

<Live viewing>: VGA 30fps (@1 screen) ***twice magnification** VGA 30fps (@4 screens) QVGA 10fps (@16 screens)

SP302 SF332 SP102

- 1st stream: Up to VGA/30fps @H.264
These cameras can't support SXVGA resolution.
- 2nd stream: Up to VGA/30fps @H.264
These cameras can't support SXVGA resolution.

<Recording>: VGA/QVGA 1fps/3fps/5fps/10fps/15fps/30fps SF/FQ/NQ

<Live viewing>: VGA 30fps (@1 screen) ***twice magnification** VGA 30fps (@4 screens) QVGA 10fps (@16 screens)

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2. Single Stream Mode (Outline and How to Setup)

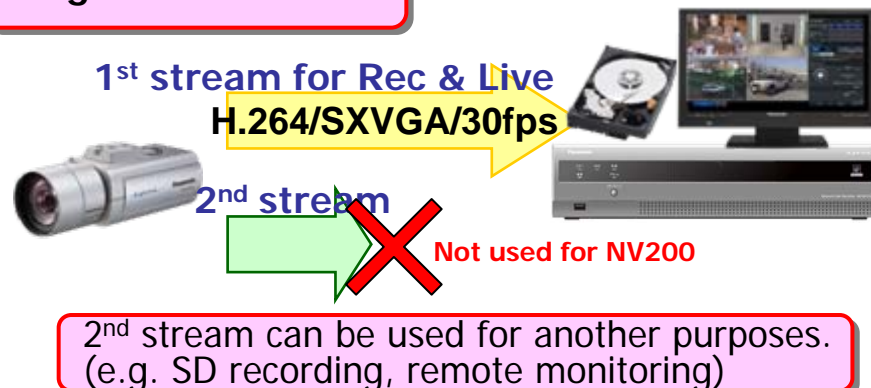
NV200 will support "single stream mode" since V1.04.

- only 1st stream of i-PRO SmartHD camera is used for both recording and live displaying.
- which enables to let loose limitations such as "SD recording on camera", "resolution in 1 screen live" or "occupation of 2nd stream".

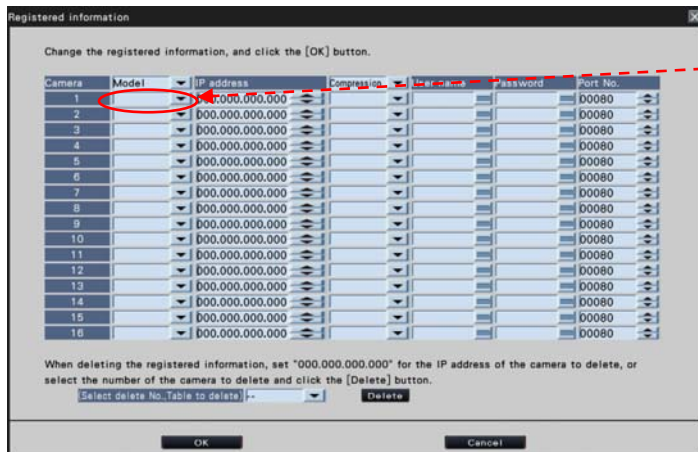
Conventional Mode (using dual stream)



Single Stream Mode



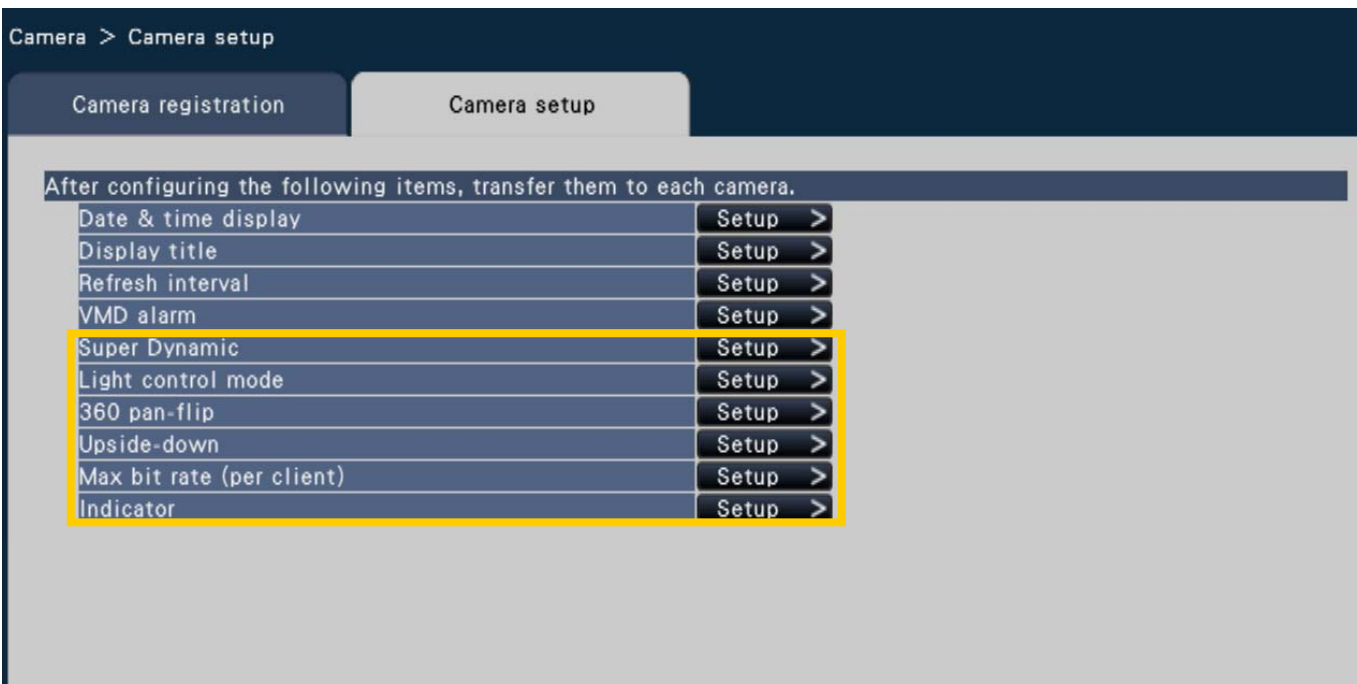
Single stream mode can be selected in manual camera registration.



"i-PRO(St1 only)" for single stream mode will be added to camera model selection (see page 9).

3. Setup Improvements

(1) Additional camera setup items on NV200



Following items for camera setup on NV200 are added since V1.04.

- Super Dynamic: Off/On
- Light control mode: Outdoor scene/Indoor scene (50Hz)/Indoor scene (60Hz)
- 360 pan-flip: Off/On for SC385/SW395
- Upside-down: Off (ceiling)/On (desktop) for SC385
- Maximum bit rate (per client): 64kbps/128kbps/256kbps/384 kbps/512kbps/768kbps/
for 1st (recording) stream of camera 1024kbps/1536kbps/2048kbps/3072 kbps/4096kbps
- Indicator: Off/On (Access)/On

3. Setup Improvements

(2) Time zone and summer time (daylight saving) choice in Easy start

Easy Start

Follow the guide to set the basic settings.

- <1> Set date & time of the product.
- <2> Register the cameras to the product.
- <3> Allocate the cameras to appropriate positions on the monitor.
- <4> Set the recording settings.

<1> Set date & time of the product.

After setting date & time, click [Apply] button.

Date Time

M	T	W	T	F	S	S	S
	1	2	3	4	5	6	
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30					

Set time zone Activate the Daylight saving time setting

Operation without summer time can be chosen in easy start for an area or a country to which summer time isn't be introduced.

3. Setup Improvements

(3) Camera classification in manual registration

Camera classification for manual registration is improved to following categories and each model numbers.

Conventional

Camera registration Setup

Manually Camera registration setup chart

i-PRO Camera

classification	Registration camera model
i-PRO1	NP20*, NP302, NP24*, NP304, NS302A, NS305*, NW404, NW504
i-PRO2_HD	NP502, NW502, SF335, SF336, SP305, SF306, SC385, SW365
i-PRO2_Std	SF332, SF302
i-PRO2a_HD	SP105
i-PRO2a_Std	SP102
i-PRO2_Enc1	GXE500 *CH1
i-PRO2_Enc2	GXE500 *CH2
i-PRO2_Enc3	GXE500 *CH3
i-PRO2_Enc4	GXE500 *CH4

BB Camera

classification	Registration camera model
BB1	HCM100, HCM110, HCM371
BB2	HCM511, HCM627, HCM647, HCM580, HCM581
BB3_Std(A)	HCM701
BB3_HD(A)	HCM705, HCM715, HCM735

AXIS camera

classification	Registration camera model
AXIS1_Std	210, 29HD
AXIS1_Enc1	Future Use
AXIS1_Enc1,M	Future Use
AXIS1_Enc2	Future Use
AXIS1_Enc2,M	Future Use
AXIS1_Enc3	Future Use
AXIS1_Enc3,M	Future Use
AXIS1_Enc4	Future Use
AXIS1_Enc4,M	Future Use

Onvif

classification	Registration camera model
ONVIF1	Future Use
ONVIF1(A)	Future Use
ONVIF2	Future Use
ONVIF2(A)	Future Use

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V1.04-

Each model number (i-PRO SmartHD cameras) & Categories (old cameras, BB range, AXIS)

GXE500-1
GXE500-2
GXE500-3
GXE500-4
NP502
NW502
SF332
SF334
SF335
SF336
SP302
SP305
SP306
SP102
SP105
SC385
SW395
SF342
SF346
SC384
SW352
SW355

AXIS
BB1(HCM1**)
BB2(HCM5**)
BB3(HCM7**)
&
i-PRO(Old)

for old generations of i-Pro cameras

i-PRO(St1Only)

for single stream mode

3. Setup Improvements

(4) Input assist function in camera manual registration

Registered information

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

Camera	Model	IP address	Compression	User name	Password	Port No.
1		000.000.000.000				00080
2		000.000.000.000				00080
3		000.000.000.000				00080
4		000.000.000.000				00080
5		000.000.000.000				00080
6		000.000.000.000				00080
7		000.000.000.000				00080
8		000.000.000.000				00080
9		000.000.000.000				00080
10		000.000.000.000				00080
11		000.000.000.000				00080
12		000.000.000.000				00080
13		000.000.000.000				00080
14		000.000.000.000				00080
15		000.000.000.000				00080
16		000.000.000.000				00080

When deleting the registered information, set "000.000.000.000" for the IP address of the camera to delete, or select the number of the camera to delete and click the [Delete] button.

[Select delete No., Table to delete] -- [Delete]

[OK] [Cancel]

In a case of manual camera model selection and registration, IP address, User name and Password are inputted automatically.

IP address: (Network address of NV200)
e.g. 192.168.0.0

User name: admin

Password: 12345

(5) New camera support

Following new cameras can be detected in easy start.

- WV-SW395
- WV-SC384
- WV-SW355 / WV-SW352
- WV-SF346 / WV-SF342

4. Operational Improvements

(1) Response of Pan/Tilt control

Response speed of click centering and Pan/Tilt control panel is improved.



(2) VMD search of GXE500

An issue that VMD info is not coming from GXE500 (so VMD search cannot be done) is improved.

3TB HDD Support

3TB HDD for NV200 is/will be supported since January 2011.

Following two kinds of HDD is/will be supported.

[Vendor] Western Digital

[Model] WD30EZRS-00J99B0

[Vendor] Hitachi GST

[Model] HDS723030ALA640

Capacity	Vendor	Series	Model	Availability	Compatibility	Status of Verification / Note
1TB	WD	Caviar Green	WD10EARS-**Y5B1	OK	OK	
2TB	WD	Caviar Green	WD20EARS-**MVWB0	OK	OK	
3TB	WD	Caviar Green	WD30EZRS-**J99B0	OK	(End/Jan 2011)	Now factory is testing it. End of January is a target.
	HGST	Deskstar 7K3000	HDS723030ALA640	OK	OK	