IP Matrix Client Software
WV-ASM970
(Ver2.0)

Security & AV Systems Business Unit
Panasonic System Networks Company
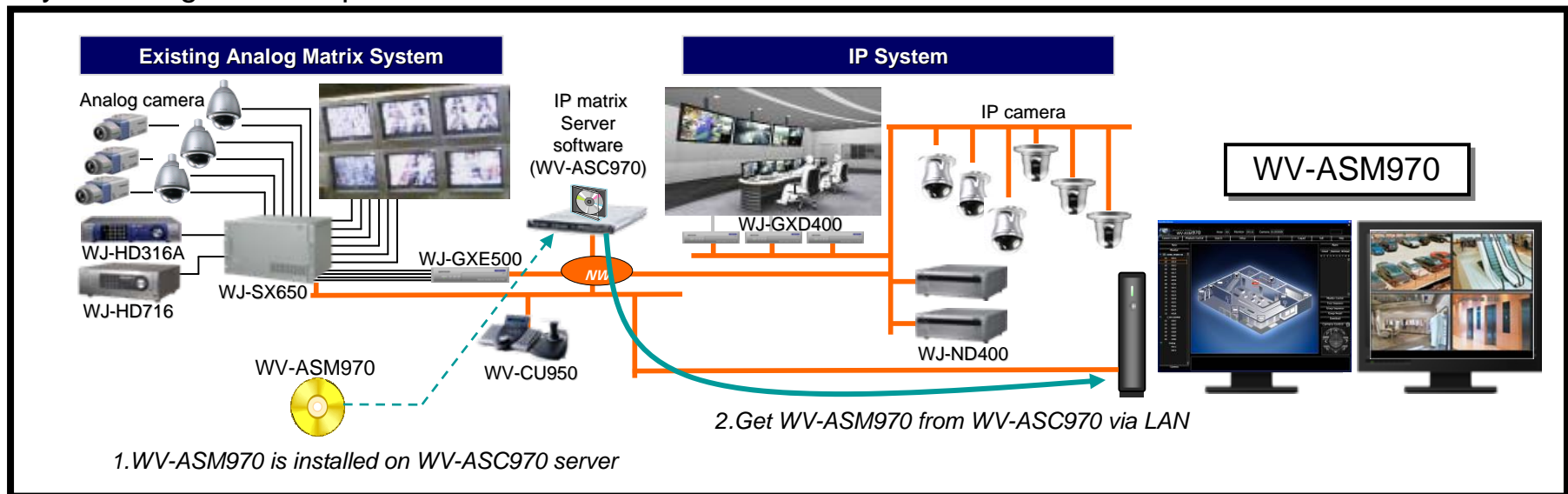
Client software for WV-ASC970 system.

Control and operate almost all Panasonic products below.
- Network cameras and analog cameras
- Matrix switchers
- Network disk recorders and digital disk recorders
- Network encoders
- Network video decoders
- Monitors for Client PCs on which this software is installed
- Analog monitors

System diagram example

Existing Analog Matrix System

Analog camera

WJ-HD316A

WJ-HD716

WJ-SX650

WV-ASM970

WV-CU950

WJ-GXE500

IP matrix Server software (WV-ASC970)

IP System

IP camera

WJ-GXD400

WJ-ND400

WV-ASM970

1.WV-ASM970 is installed on WV-ASC970 server

2.Get WV-ASM970 from WV-ASC970 via LAN

WV-ASM970 Features

i-PRO SmartHD

(1) Multi-monitor & Multi-screen

Dual display operation (Operation & Map window and Monitoring window)
1/4/7/9/10/13/16 multi-screen modes

(2) Simple and Easy operation

Seamlessly control IP and Analog devices
Timeline & Synchronized playback
Operate not only the Monitoring window but also the display through GXD400

(3) Map Display

Easily recognize the location of the camera physically
Display live image by clicking the camera icons
The alarm triggered camera blinking in red.

(4) Alarm notification

Automatically changes the alarm triggered camera image on the monitor.
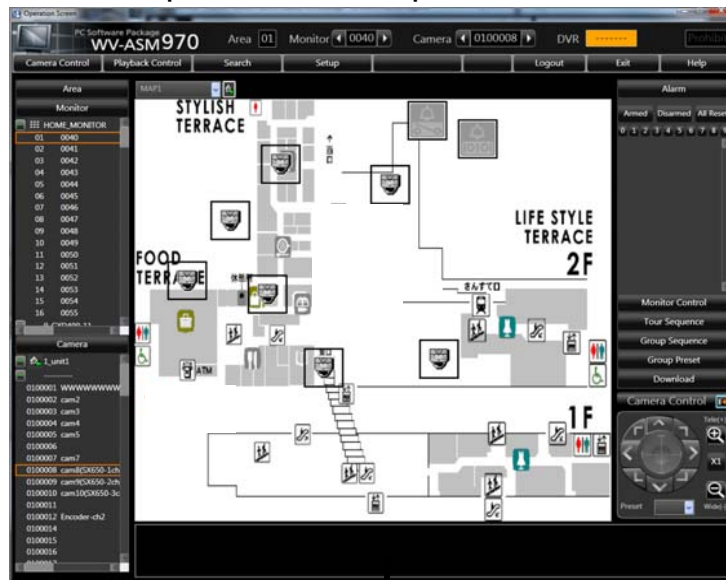The alarm list is displayed with orange frame

(5) No additional license fee

No need additional fee to add on the PC for ASM970.

Outline of the multi-monitor function

Support dual displays such as Operation & Map window and Monitoring window

Operation & Map window

Monitoring window

- **Operate all functions** except for configurations of this software
- **Displays a map** with the registered camera icons.

- **Display live images or playback images**.
- **1/4/7/9/10/13/16 multi screen** modes are selectable

Multi-monitor function (Operation & Map window)

i-PRO SmartHD

Information display area

The following status will be displayed.
. Area ID
. Monitor ID (Selectable)
. Camera ID (Selectable)
. DVR ID
. Server PC status
(Invalid, Prohibit)

Operation panel

. Camera Control
. Playback Control
. Search
. Setup
. Logout
. Exit
. Help

Selection panel

The following titles are selectable.
. Area
. Monitor tree & multiple layout pattern panel
. Camera & Recorder tree

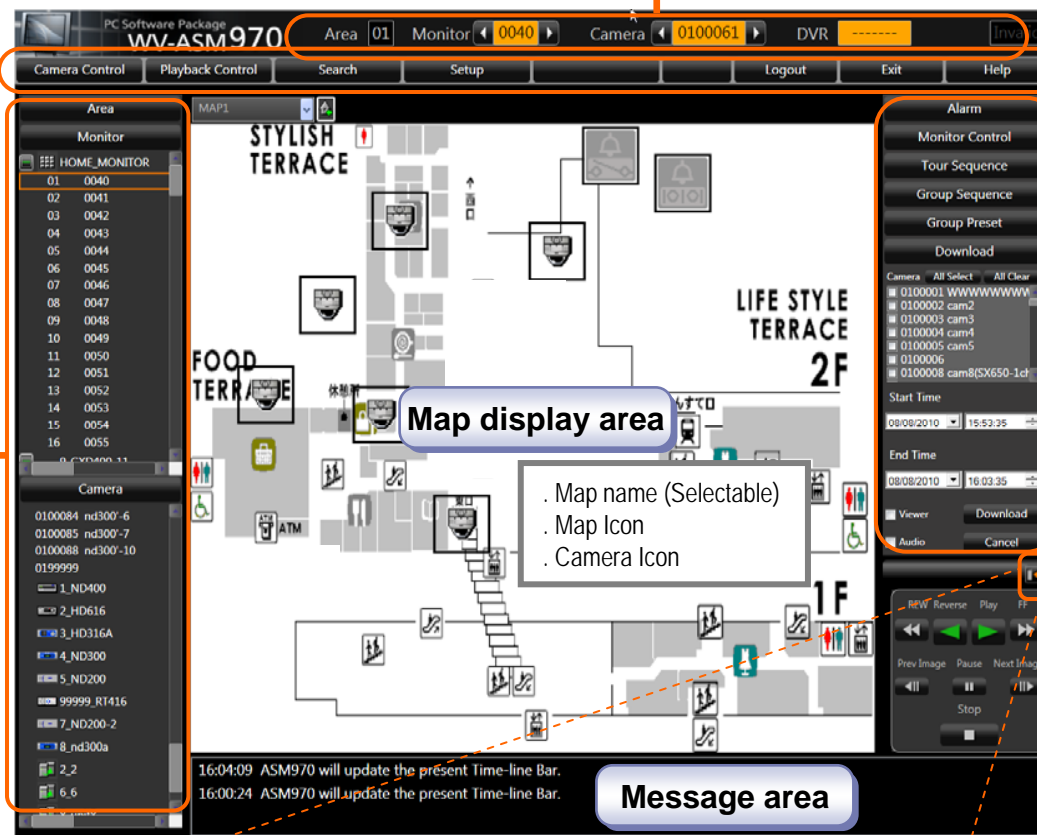**Map display area**

. Map name (Selectable)
. Map Icon
. Camera Icon

Function panel

The following function panel will be displayed.
. Alarm
. Monitor Control
. Tour Sequence
. Group Sequence
. Group Preset
. Download

Message area

Camera Control panel

. Pan/tilt
. Zoom
. Brightness
. Focus
. AUX
. Auto mode
. Preset
. Camera menu

Operation window

Selection button

Pull-down Map selection

Direct input field

close button

Initial display shows the last monitor status with selected cameras when ASM970 restart.

Sprit screen pattern change button

ASM970's multiple layout pattern

GXD400's multiple layout pattern

*1/3/6 sprit

*1/4/7/9/10/13/16 sprit

minimize button

*Even if PC for ASM970 is connected to single display, only "Monitoring Window" operation is available like decoding software as follows.
1. Monitoring only
2. Operate by WJ-CU950

Camera/Recorder setup window can be launched by right click on the title

1x zoom button

Map window

Map name

Pull-down Map selection

Default Map icon

Display the Default Map

Map change icon

Display other Map

Camera icon

Live images will be displayed in the selected area on the operation window when the camera icon on the map is clicked.
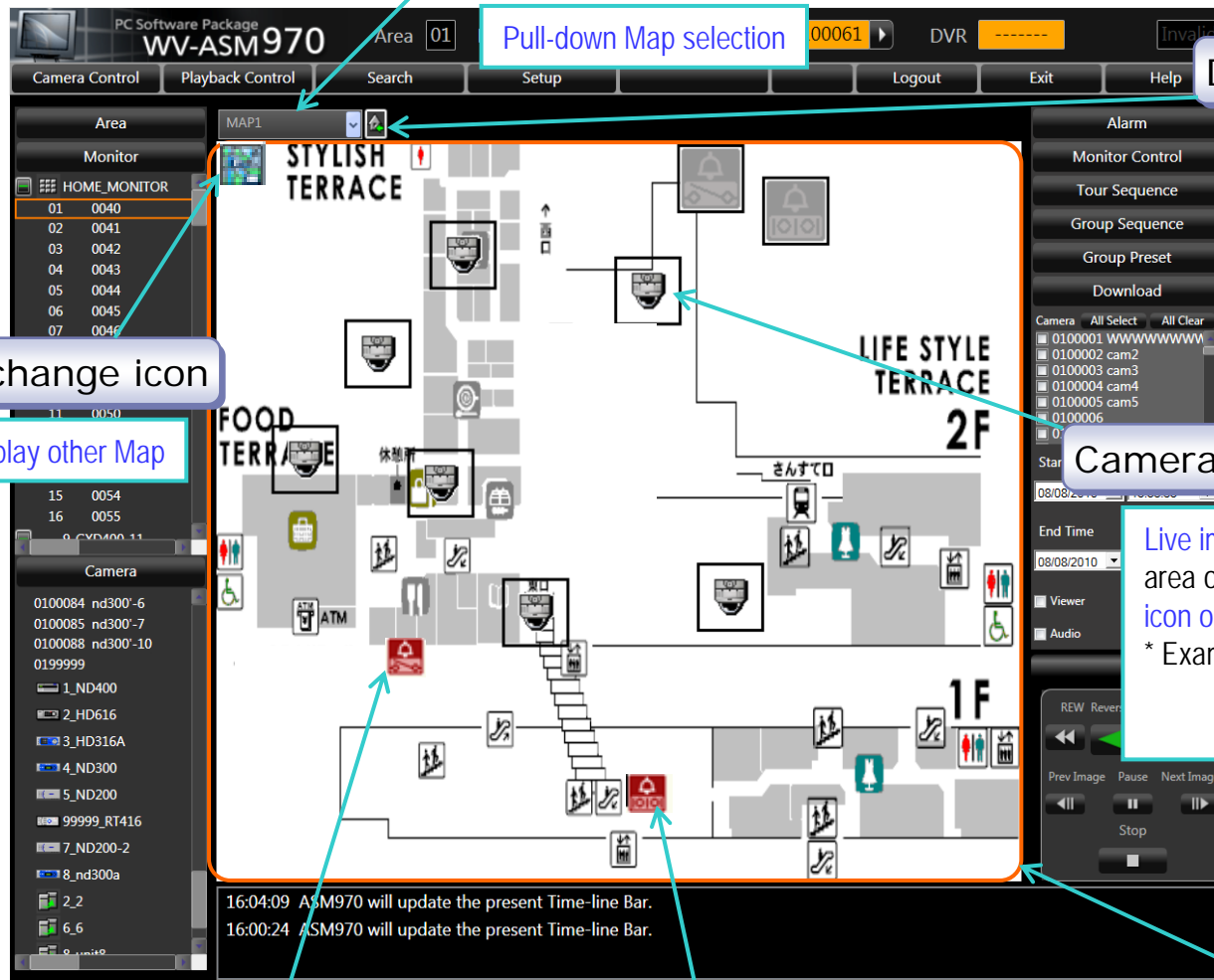* Example for camera icons

I/O alarm icon

RS232 alarm icon

Map display area

Monitoring window improvement (ASM970 V2)

Monitoring window

Full Screen button

EL-ZOOM button

AVMD ON/OFF
*only monitor1 regardless of sprit screen pattern

Monitor Lock ON/OFF

OSD ON/OFF

Selected status
(white)

Click centering
on the display

Sprit screen pattern change button
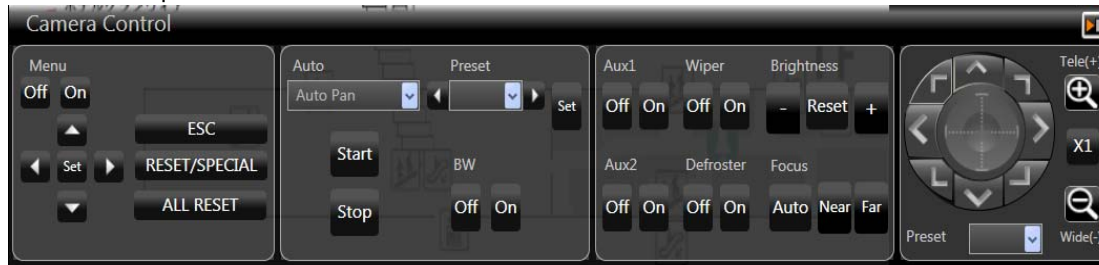ASM970's multiple layout pattern

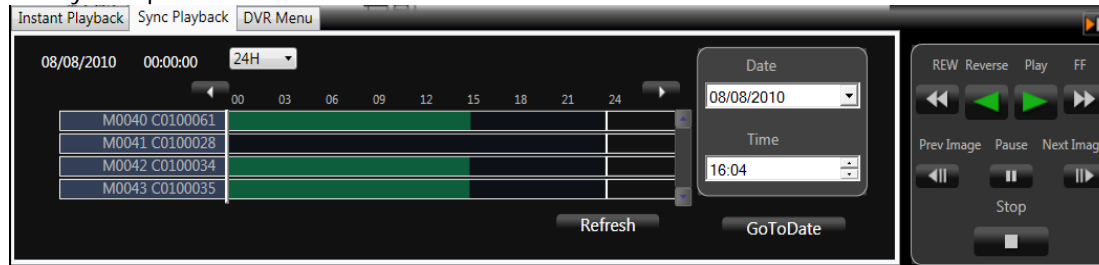Playback step display

*1/4/7/9/10/13/16 sprit

Simple and Easy operation

Seamlessly control IP and Analog devices like joystick system controller WV-CU950.
Timeline & Synchronized playback

Camera Control panel

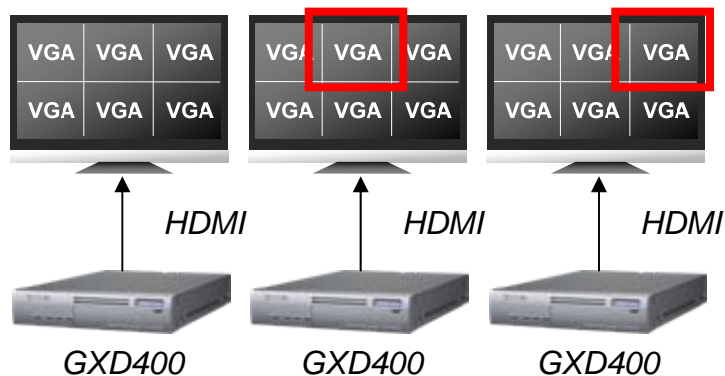Sync Playback panel

DVD menu panel

Seamless Monitor Operation

ASM970 can operate not only the monitoring window of ASM970 but also the display through GXD400. WV-CU950 also can operate them.

Video Switching Control etc.

Video Switching Control etc.

Video Switching Control etc.

HDMI   HDMI   HDMI

GXD400   GXD400   GXD400

Other ASM970

Video Switching Control etc.

ASM970 w/ Mouse & Keyboard
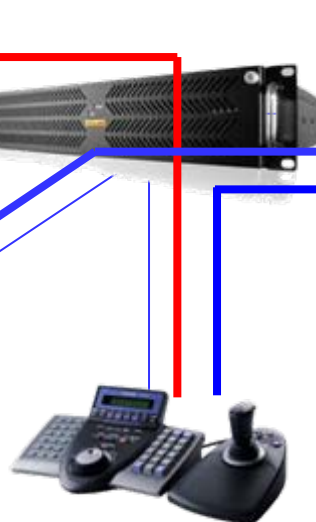
CU950 Joystick Controller

Group select
Sequence (start/stop)
AUX open/clos
Recorder Control

Monitor select
Camera select
Recorder select
Preset position select
Preset program

Camera Control
-Pan/Tilt
-Zoom
-Focus
-Auto pan on/off
-Auto track on/off

Ethernet System Controller with 3D-Joystick & Jog/Shuttle
WV-CU950

Camera Control

Auto function is added

Camera Control

Menu	Auto	Preset	Aux1 Wiper Brightness	Tele(+)

Off On

Auto Pan   ◄ [▼] ►   Set

▲   ESC

Start

◄ Set ►   RESET/SPECIAL

BW

▼   ALL RESET

Stop   Off On

Aux1   Wiper   Brightness
Off On   Off On   – Reset +

Aux2   Defroster   Focus
Off On   Off On   Auto Near Far

Preset   X1

Wide(-)

Camera Menu control

Home position is added.

1x zoom button

Playback panel improvement (ASM970 V2)

Playback

◆ *Instant Playback*

NDR: GoToLast playback
HDR: Restart playback from previous point

Time Line

GoToLast playback button

GoToDate playback button

All playback operation buttons are put together

◆ *Synchronized Playback*

*Only NWDR. (not support DVR)

Synchronized playback up to 16 camera
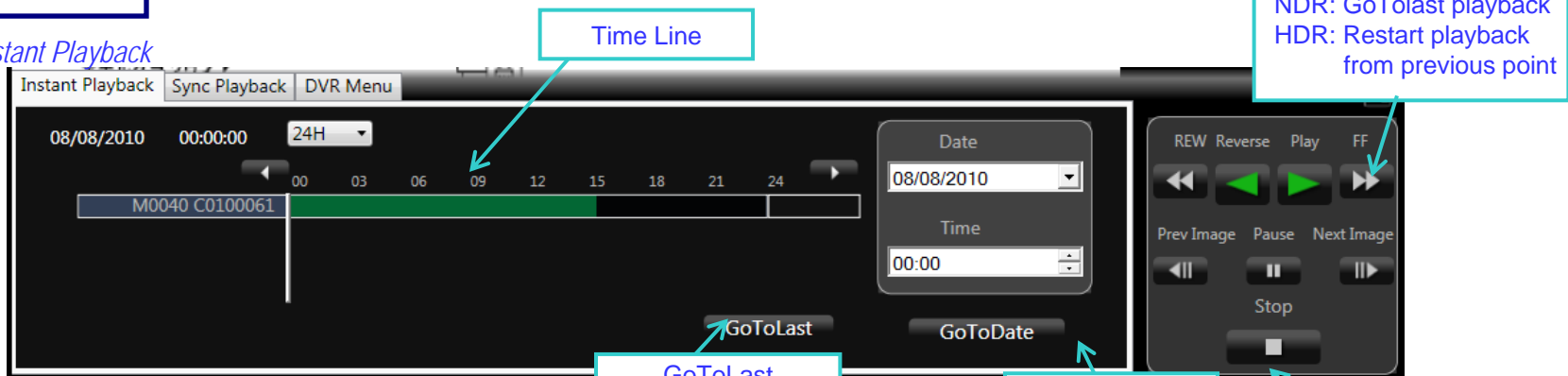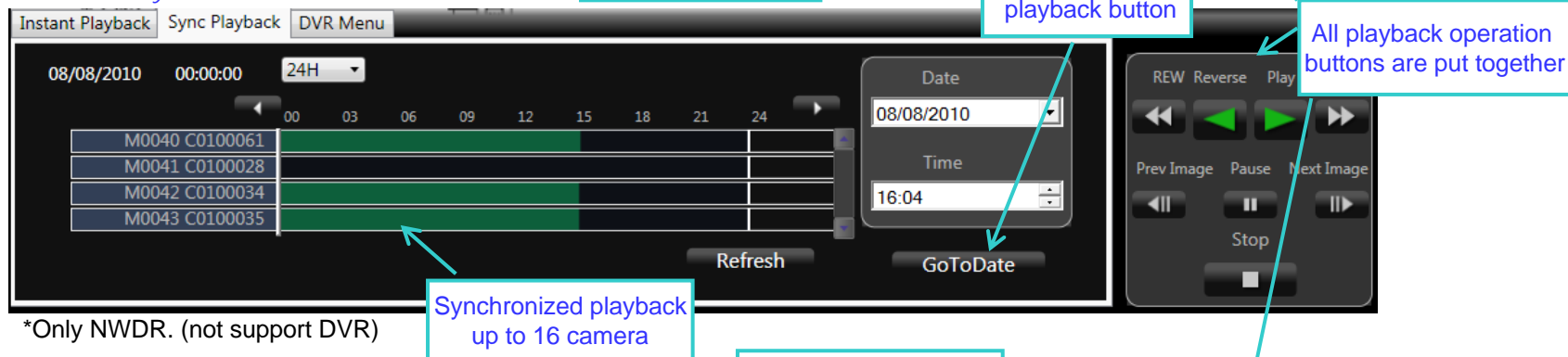
◆ *DVR Menu*
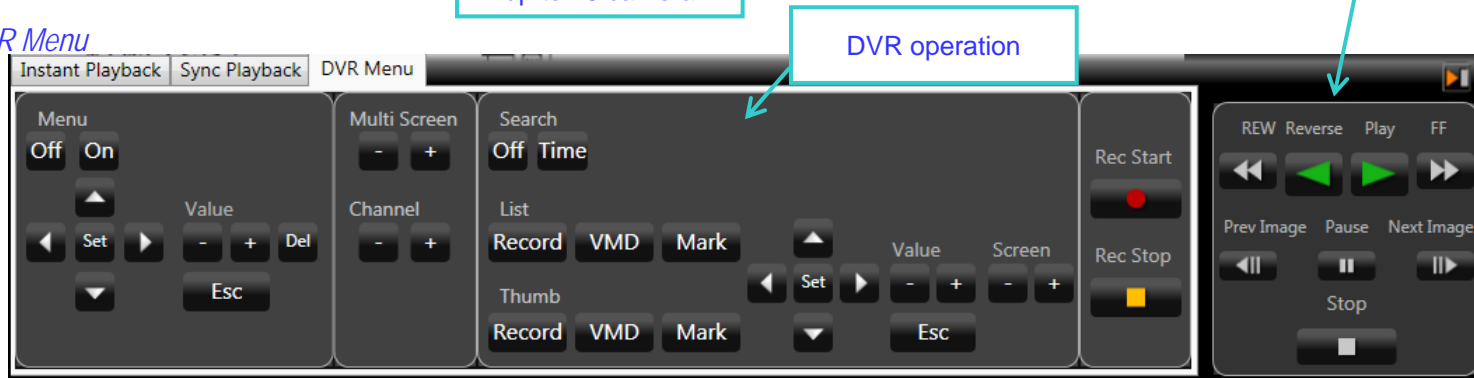
DVR operation

Search panel improvement *(ASM970 V2)*

Search

- *DVR Event Search*

All Select / All Clear button

Cancel button

- *Alarm log Search*

Search by ASC970 alarm source
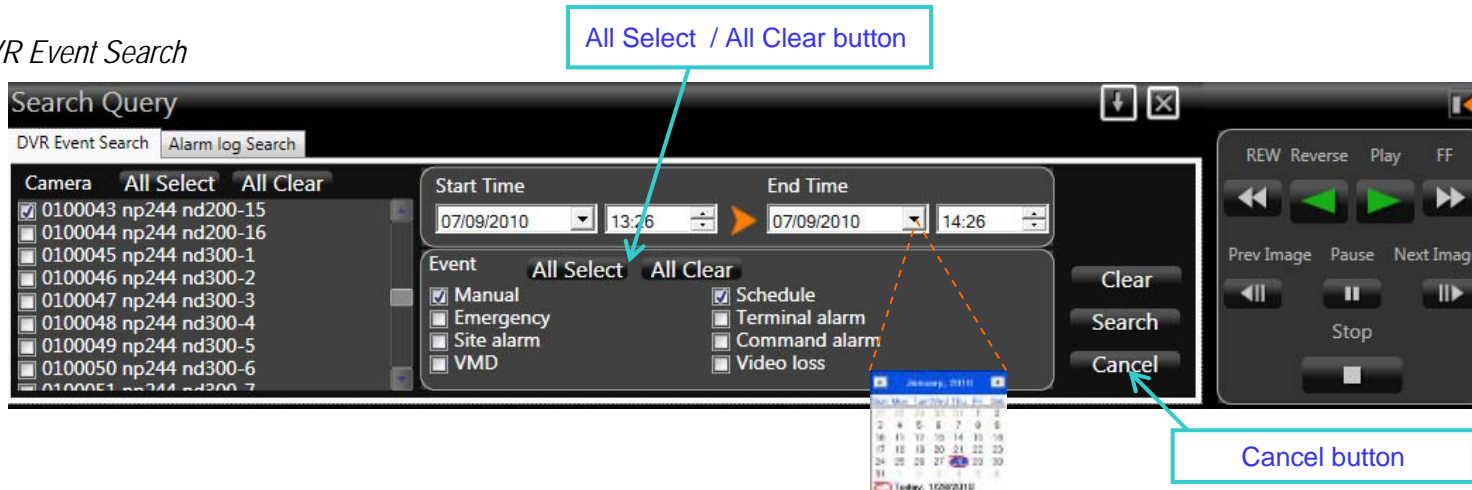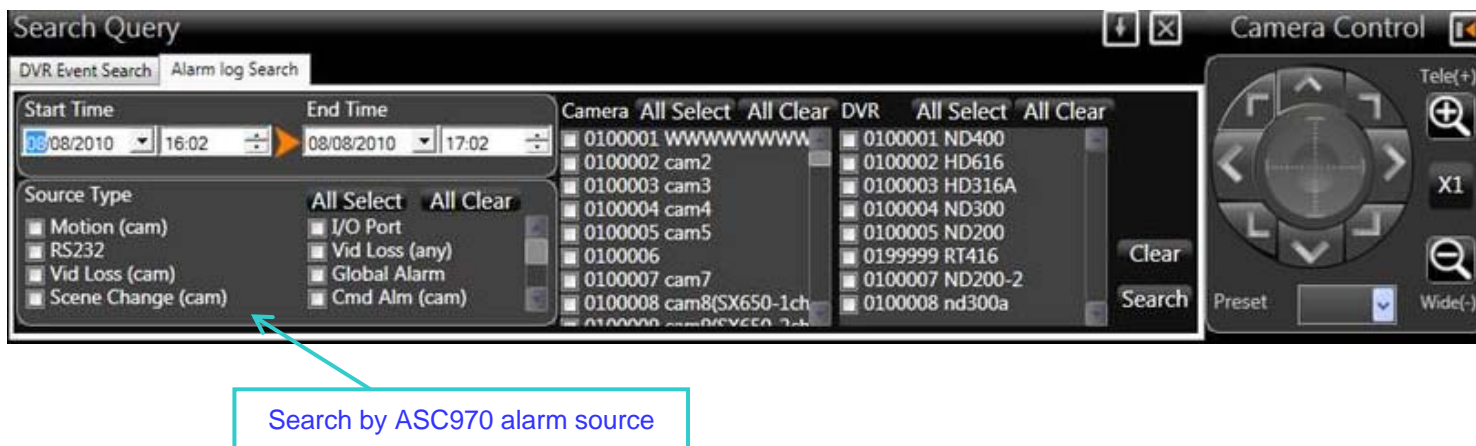
Operation panel improvement (ASM970 V2)

◆ Alarm list
◆ Monitor Control
◆ Tour Sequence
◆ Group Sequence
◆ Group Preset

Play button

Live button

Up to 12 characters can be displayed

◆ Download

Multiple download checkbox

Download status

◆ Message area
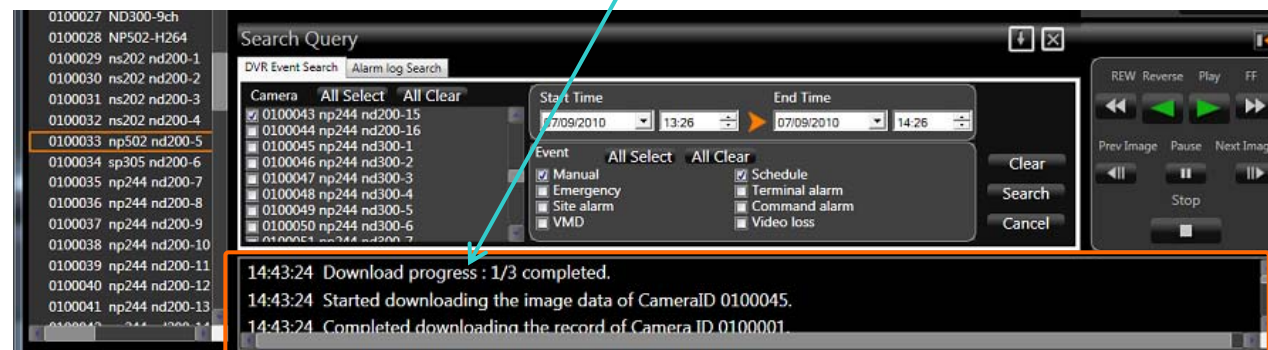
Alarm Programming, Alarm target display assignment and Alarm actions are available.
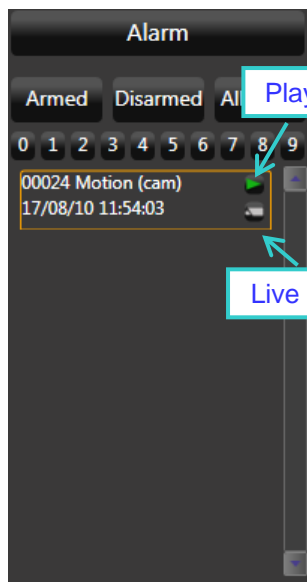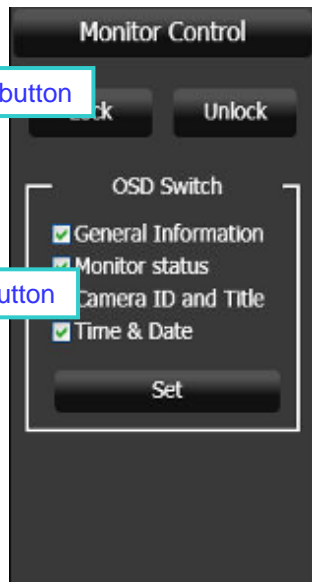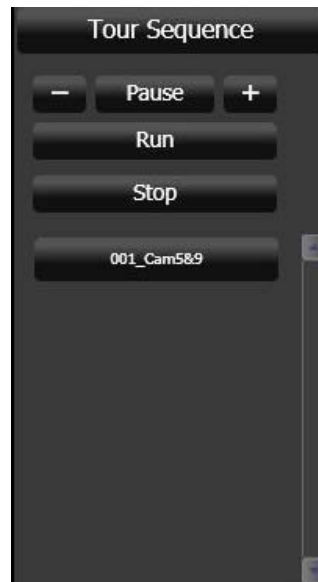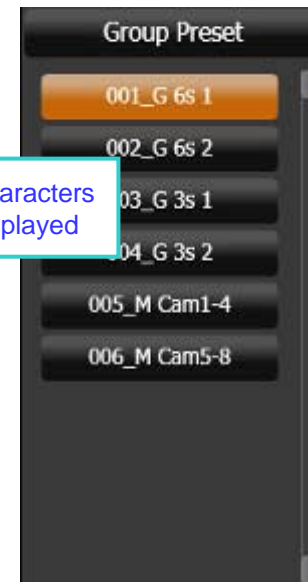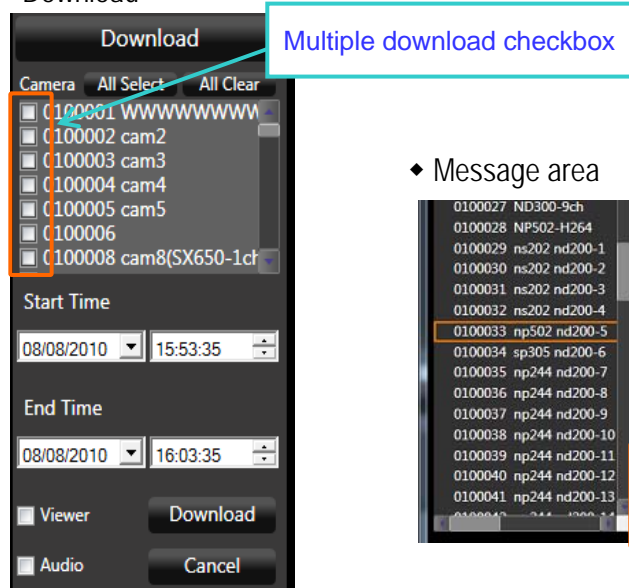
- Various Alarm actions
- The camera icon blinks in red on Map display (*only camera alarm)
- Alarm information list

Monitoring Window

Panasonic Alarm Protocol

Alarm

Via NW

Other system

Via RS-232C

ASC970

Via NW

Alarm

Alarm camera can be displayed with red frame.

Operation & Map window

Alarm

The camera icon blinks red for 10 sec. and then is displayed in red color.

Alarm Actions (local / Global)

- Video Switching
- Camera Preset Call
- Tour Sequence
- Group Sequence
- Group Display

Alarm

Armed Disarmed All Reset

0 1 2 3 4 5 6 7 8 9

00024 Motion (cam)
17/08/10 11:54:03
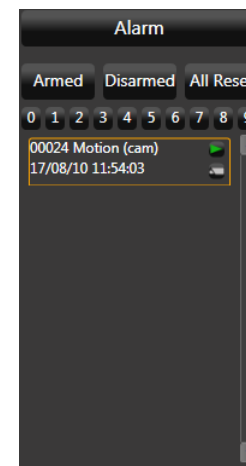
Alarm info. list
- Alarm source
- Alarm time

Alarm Source

- VMD (Analog, IP camera)
- Video Loss (SX650/SX850)
- RS-232C(Proprietary)
- Terminal Input (DVR, NWDR, SX650, SX850, IP camera)
- Intruder Detection(NT314)
- Object Remove (NT314)
- RAID Down (DVR, NWDR)
- Thermal Err (DVR, NWDR)

WV-ASC970 can handle i-VMD alarm as same as traditional VMD alarm of analog camera.

i-VMD Detection

CP500

Analog Monitor

Alarm view

SX650

i-VMD info

HD316A
*DVR can not do alarm recording.

polling

ASC970

GXD400

Video Switching

Alarm view

| Monitor 1 | Monitor 2 | Monitor 3 |
| Monitor 4 | Monitor 5 | Monitor 6 |

Full HD PDP

Alarm view

ASM970

━━━━ **Coaxial**
──── **Ethernet**
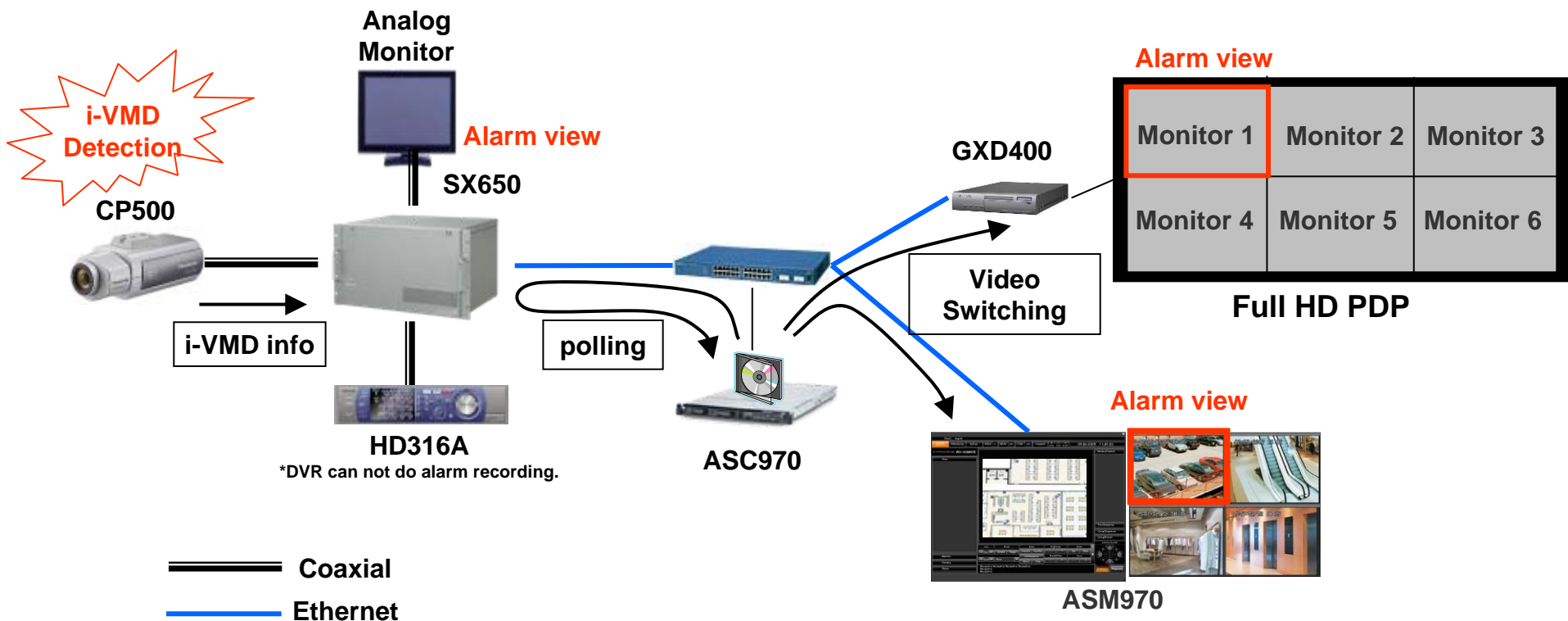
Alarm display mode

2 types of Alarm Display mode such as "Hold" and "Sequence" are available.

"Hold" : the alarm action with the highest priority for each monitor is displayed and remains until it is acknowledged.
"Sequence" : the alarm actions for each monitor are displayed in sequence without requiring acknowledgement.
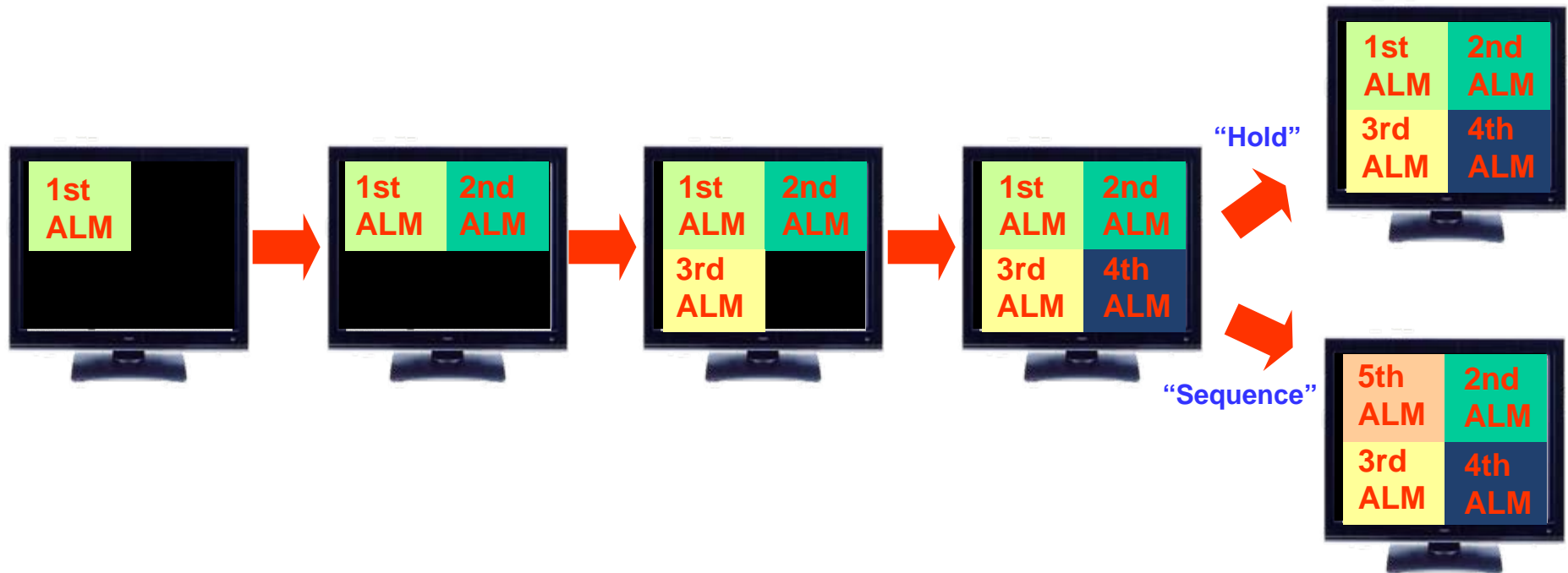
The number of alarm target display is configurable and no relationship to multi-screen pattern.
The multi-screen pattern is fixed when an alarm is triggered.

Easy installation and version management

ASM970 is Click Once applications which can provide easy installation and version management.
 -Installation : install and configure ASM970 only in ASC970 server, no need for its in each Client PCs.
 -Version management : manage version of ASM970 only in ASC970 server
                          update ASM970 automatically from ASC970 server when starting new ASM970

ASC970 server   ASM970
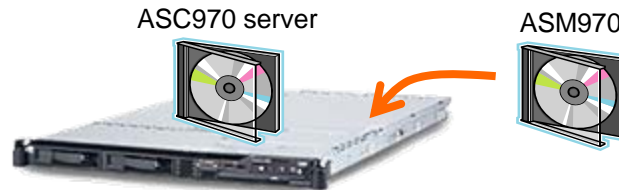
🔵 Install for client PC : download ASM970 from ASC970 server only by connecting
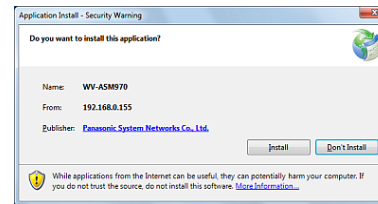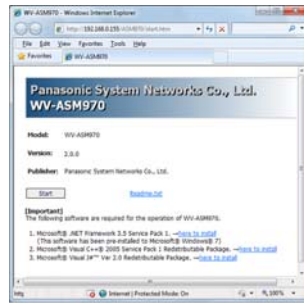
Show login menu
after the install is completed

connect to the URL
of ASC970

Download
the software

🔵 Update for client PC : automatically update when you connect the ASC970 server

(1)ASM970 is updated on ASC970 server

Show update menu

Show login menu

connect to the URL
of ASC970
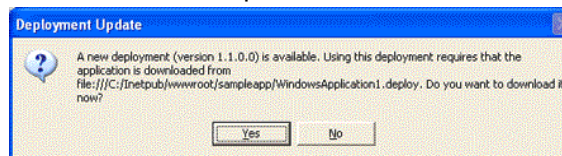
Download
the software

(2) ASM970 is not updated on ASC970 server

i-PRO SmartHD

The number of ASM970 connected to one ASC970 is no limitation(*) in a domain if you purchase one ASM970 per one ASC970. Need to purchase 2 pics of ASM970 with ASC970 Redundant system in a domain.

*One ASC970 have total 512 monitors capability which means it can manage total 32 pics of ASM970 with 16 multi-screen.

Domain unit 1

WV-ASM970

WV-ASC970

Download ASM970

⋮ ⋮

Domain unit 2

WV-ASM970

WV-ASC970

Download ASM970

⋮ ⋮
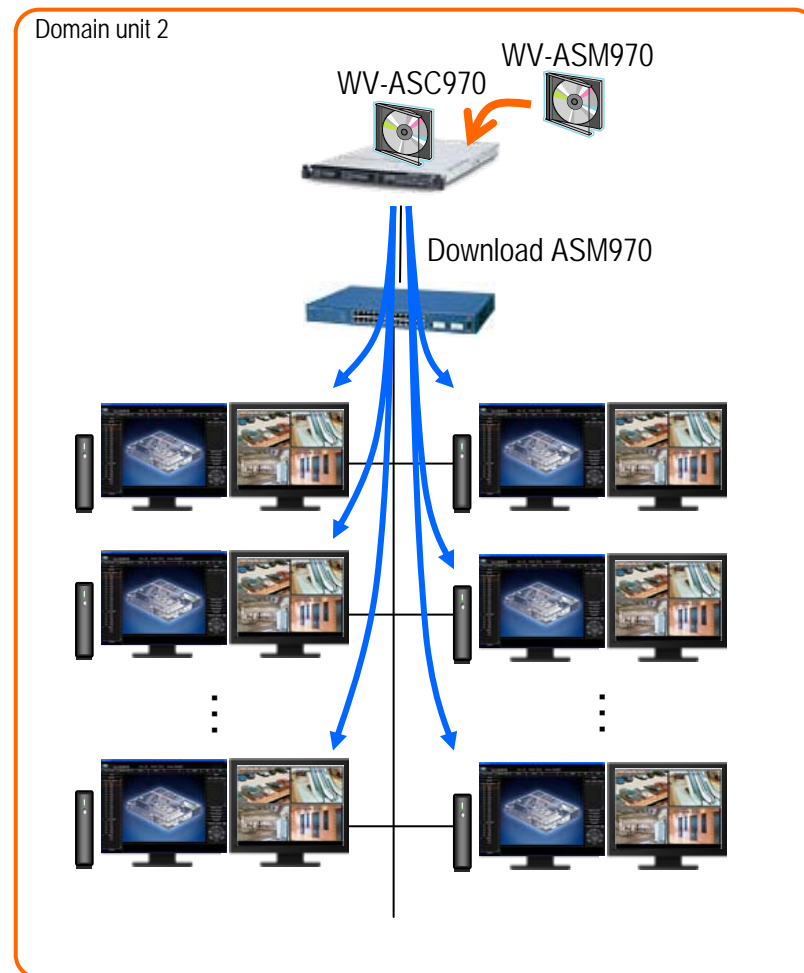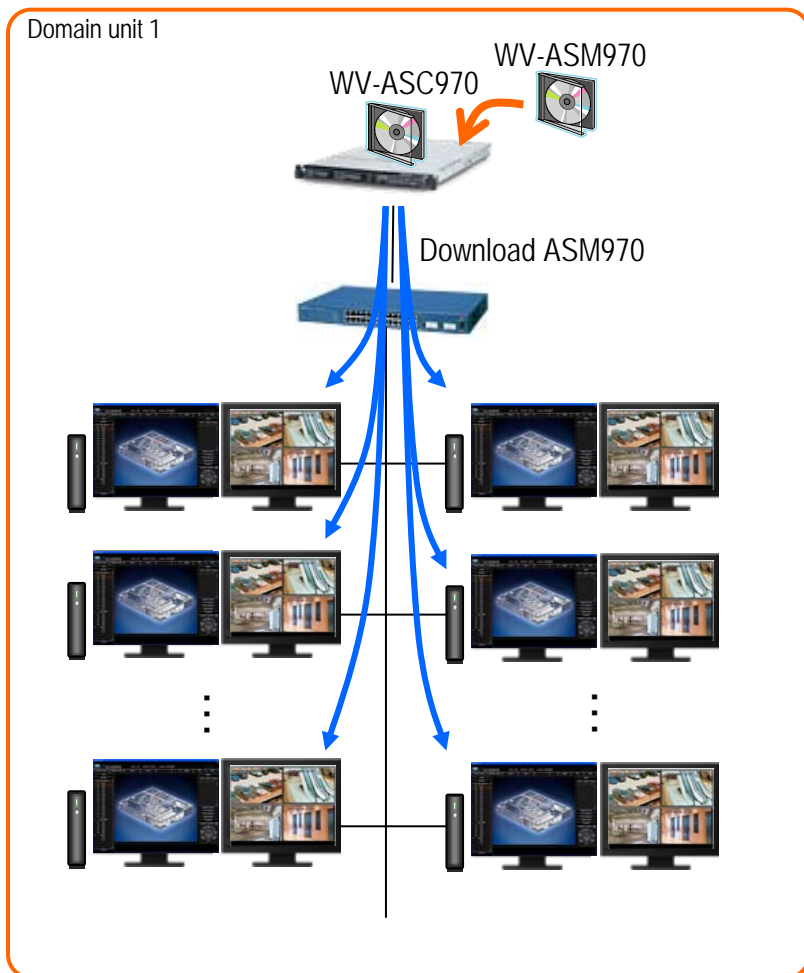
*In above case, Need to purchase 2 pics of ASM970.

Viewer Software

Downloaded records can be playback with another PC by using the viewer software .
The viewer software can be provided by ASM970.
*Record file of RT416 can't be downloaded.
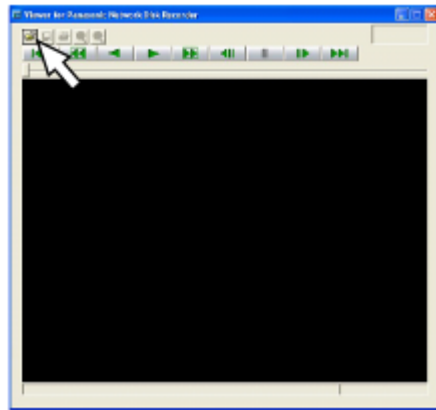
Start the viewer software and click the [Open] button.
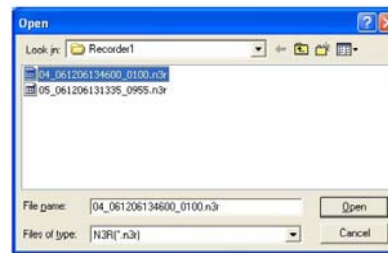
Select the desired download file and click the [Open] button.
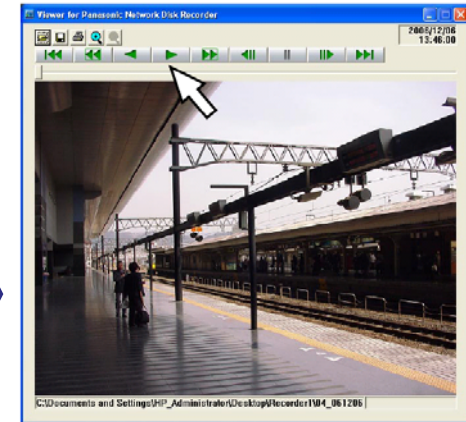
Click the [PLAY] button.
Playback of the downloaded file will start.

There are 3 types of viewer software depending on the recorder and record file.
- n3r file (ND200, ND300, ND400): NDviewer.exe
- n3r file (HD616/716): HDviewer.exe
- h3r file (HD316A): Viewer.exe

ASM970 doesn't have any Logs.
Admin Console of ASC970 can get Logs such as Operator log, Alarm log, Video loss log and Switching log from ASC970 server.

Operator log

DATE	DAY	TIME	SCTL	OPER	EVENT
2009 Jun 8	Mon	9:40:13 AM	K001	U000001	LOGON
2009 Jun 8	Mon	9:45:32 AM	K001	U000001	LOGOFF
2009 Jun 8	Mon	9:49:59 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:07:48 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:14:16 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:19:55 AM	K001	U000001	LOGOFFSYS
2009 Jun 8	Mon	10:23:57 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:36:47 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:43:07 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:50:17 AM	K001	U000001	LOGON
2009 Jun 8	Mon	10:57:37 AM	K001	U000001	LOGON
2009 Jun 8	Mon	11:04:48 AM	K001	U000001	LOGON
2009 Jun 8	Mon	11:10:16 AM	K001	U000001	LOGON
2009 Jun 8	Mon	11:16:49 AM	K001	U000001	LOGON

Operator Log [01A=09JUN08am_000.usr]

Note: LIKE filter allows use of wildcard characters ? and * to refine your query.

Alarm log

| DATE	DAY	TIME	ALMID	TRIGGER	ACTION	OPER
2009 Jun 8	Mon	10:19:56 AM	A00000	C000031	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000032	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000033	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000034	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000035	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000036	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000037	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000038	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000039	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000040	CLEAR	
2009 Jun 8	Mon	10:19:56 AM	A00000	C000041	CLEAR	
2009 Jun 8	Mon	11:17:00 AM	A00001	C000002	ACTIVE	
2009 Jun 8	Mon	11:17:05 AM	A00001	C000002	ACKED	
2009 Jun 8	Mon	11:22:35 AM	A00001	C000002	ARMED	

Alarm Log [01A=09JUN08am_000.alm]

Note: LIKE filter allows use of wildcard characters ? and * to refine your query.

Video Loss log

DATE	DAY	TIME	LCAM	STATE	TYPE
2009 Jun 10	Wed	3:02:32 PM	C000003	VL	C
2009 Jun 10	Wed	3:03:18 PM	C000003	VL	C
2009 Jun 10	Wed	3:39:32 PM	C000986	VL	C
2009 Jun 10	Wed	3:46:18 PM	C000986	VL	C

Video Loss Log [01A=09JUN10pm_000.vl]

Note: LIKE filter allows use of wildcard characters ? and * to refine your query.

Switching log

DATE	DAY	TIME	DEVID	MON	SOURCE	ACTION
2009 Jun 8	Mon	9:15:00 AM		M10001	R0100001	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10002	R0100001	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10003	R0100002	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10004	R0100704	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10005	R0100768	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10006	R0100832	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10007	0100002	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10008	R0100957	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10010	R0100004	SEIZE
2009 Jun 8	Mon	9:15:00 AM		M10128	R0100004	SEIZE
2009 Jun 8	Mon	9:39:21 AM		M001	R0100001	SEIZE
2009 Jun 8	Mon	9:39:21 AM		M002	R0100001	SEIZE
2009 Jun 8	Mon	9:39:21 AM		M003	R0100002	SEIZE
2009 Jun 8	Mon	9:39:21 AM		M007	0100002	SEIZE

Switching Log [01A=09JUN08am_000.sw]

Note: LIKE filter allows use of wildcard characters ? and * to refine your query.

Setup window improvement (ASM970 V2)

Setup

Close window button

Setup completed message

Map icon size change field

Setup window contents:

Clear | Set | Close

Camera Map Link ☑ On

Icon Size 64 pixels X 64 pixels

System
Monitor
Performance
Alarm
Disarmed
Map

The selected settings were preserved.

Ok

Specification

Recorder registration	Refer to ASC970 specification. In Hybrid and IP system, up to 64 recorders can be registered on one ASC970.
Camera registration	Refer to ASC970 specification. In IP system, up to 1023 cameras can be registered on one ASC970.
Monitor registration	Refer to ASC970 specification. In Hybrid and IP system, up to 1024 monitors can be registered on one ASC970.
User registration	Refer to ASC970 specification. Up to 512 users can be registered on one ASC970.
User level	Refer to ASC970 specification flexibly configurable
Group Sequence programs	Refer to ASC970 specification Up to 128 sequences (Up to 64 steps and 32 monitors can be registered for a sequence)
Tour Sequence programs	Refer to ASC970 specification Up to 128 sequences (Up to 64 steps can be registered for a sequence)
Map registration	Up to 100 maps (Up to 64 cameras can be assigned on a map, up to 20 registered maps can be used) (The file size shall be less than 10 MB Available file type is JPEG and BMP)
Number of the Operator logs that can be stored	Refer to ASC970 specification Up to 7days (default)
Number of the Alarm logs that can be stored	Refer to ASC970 specification Up to 7days (default)
Number of the Video loss logs that can be stored	Refer to ASC970 specification Up to 7days (default)
Number of the Switching logs that can be stored	Refer to ASC970 specification Up to 7days (default)
Number of search results that can be displayed	Up to 3000 search results

It is recommended to install this software on a PC that meets the following system requirements.

Items	Requirements
OS	Microsoft® Windows® XP Professional SP3 (32-bit) Microsoft® Windows Vista® Business SP2 (32-bit) Microsoft® Windows Vista® Business SP2 (64-bit) Microsoft® Windows® 7 Professional (32-bit) Microsoft® Windows® 7 Professional (64-bit)
OS language	English, Chinese (Simplified Chinese)
Computer	IBM PC/AT Compatible
CPU	Intel® Core 2 Duo 2.66 GHz or faster **Intel® CoreTM 2 Quad Q9650 or faster (When operating H.264 images)** **Intel® CoreTM i7-920 or faster (When operating H.264 images)**
Memory	1 GB or more **3 GB or more (When operating H.264 images)**
Video memory	VRAM 128 MB or more (64 MB minimum), compatible with DirectX®9.0c
CD-ROM drive	Necessary to install this software
Monitor	1280 x 1024 pixels or higher 24-bit True color or better (Full color recommended)
Network Interface	100BASE-TX/1000BASE-T
Web browser	Microsoft® Internet Explorer® 6.0 SP3 Microsoft® Internet Explorer® 7.0 SP1 Microsoft® Internet Explorer® 8.0

GUI Comparison

Functions Features	WV-ASM100/100L V6	WV-ASM970
Combination with WV-ASC970	NO	YES (specialized WV-ASC970)
Supported Devices	All i-Pro cameras / encoders DVR(*HD316A, RT416) NWDR(ND200/300/400) *Not support HD316	All i-Pro cameras / encoders DVR(HD316/316A, RT416, HD616/716)* NWDR(ND200/300/400) *need to get image via encoder
Function	Camera / Recorder operation Video switching MAP CU950 controller (only ASM100)	Camera / Recorder operation Video switching MAP CU950 controller
Multi screen	Total 20 (Ex.) Live monitor: 16 + Operation: 4	16 (JPEG/MPEG4)
Compression	JPEG / MPEG4 / H.264	JPEG / MPEG4 / H.264
Multi Monitor Support	Up to 3 monitors (Map/Live/Operation) * Only ASM100 supports multi monitors. ASM100L doesn't support it	Need 2 monitors (Operation & Map / Monitoring)
NWDR support	YES	YES
AVMD support (Video Analytics)	YES * Up to 4 screens	YES

Function features

Functions Features		ASM100	ASM970 Ver1 (Mar/2010)	ASM970 Ver2 (Sep/2010)
Monitoring (Camera) : NP244,NP1000,NF284,NS202,NW484,NS950,NW960,NT304/314, GXE500, NF302,NP304,NP502,NW502, SP30x, SF33x		YES	YES	YES (Support new models)
Monitoring (Playback) : ND200,ND300,ND400,HD316A*,RT416*,HD616*,HD716* *need to get image via encoder		YES	YES	YES
Compression : JPEG/MPEG-4/H.264		YES	YES	YES
Multi display		3	2	2
CU Operation *Pan/Tilt/Zoom/Iris only		YES	YES	YES
Audio		YES	NO	NO
AVMD Frame and TraceLine(NT314)		YES	NO	YES *one screen
Multi Screen	display pattern	1/4/9/16	1/4/7/9/10/13/16	1/4/7/9/10/13/16
	Playback	YES	NO *One screen only	YES
Camera control	Pan, Tilt, Zoom, Focus, Iris, Preset, Auto mode, B/W	YES	YES	YES
EL-Zoom of live and playback on ActiveX		YES	NO	YES
Map	Indicate a camera to a monitor, Alarm icon	YES	YES	YES
Playback	Play, Reverse, Pause, Stop, FF, REW, Next-image, Prev-image, Go-To-Date, Go-To-Last, Rec-Start, Rec-Stop *In RT416, Reverse, FF or REW control in pause state are not available and [Go-To-Last] plays the top of the latest video like no other movement.	YES	YES	YES
	Time zone (Play, Search, Download)	NO *Local only	NO *Local only	NO *Local only
Search/Download	event search, playback on search list	YES	YES	YES
	timeline	NO	NO	YES
	vmd search *HD316,HD600,HD700	YES	NO	YES
Alarm Handling monitoring, popup, acknowledge, reset		YES	YES	YES
Others	Snapshot	YES	NO	NO
	File download (video, sound) *except RT416	YES	YES	YES
	64bit OS	YES	YES	YES
	Display size	1024x768 or more	1280x1024 or more	1280x1024 or more