

FlexWATCH® Smart Viewer



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Precaution on MicroSD Card

Do not use force, a thin stick or tweezers to remove the microSD card. If you cannot remove the microSD card, contact customer support.

To prevent any data damage, follows the below caution. We do not provide any guarantee for damaged data

- Do not remove a memory card or Do not turn off the IP Camera while reading or writing data,
- Do not operate the IP Camera in the location where static charge or electrical noise is present.

Do not remove the microSD card while IP Camera is recording. Disable the Recording configuration first and then turn off the IP Camera before removing microSD card. Do not insert a deformed microSD card into the Reader.

Do not try to access microSD card extracted from IP Camera on Windows PC or other devices. If Linux file system like ext3, ext4 is not installed, It may destroy all data of microSD card.

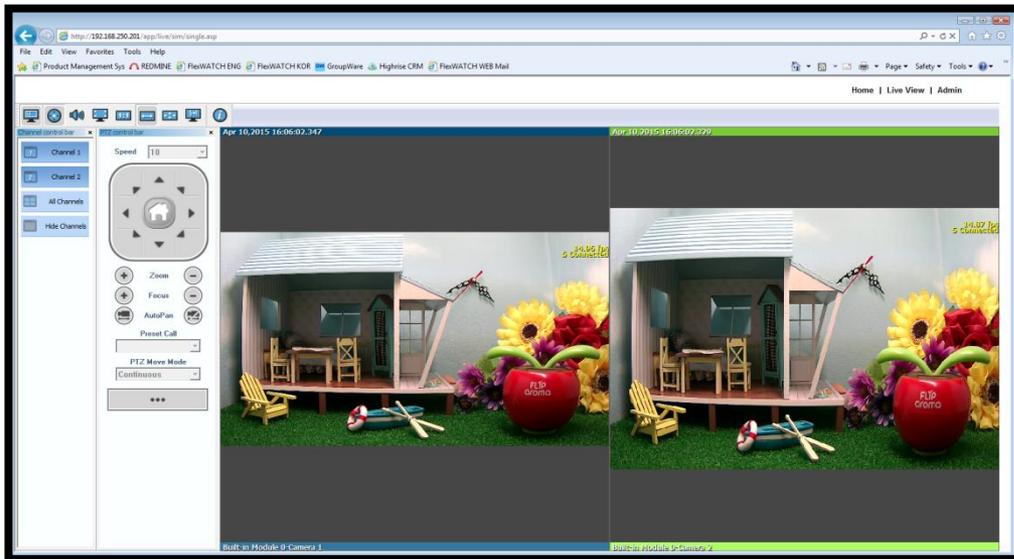
Regular maintenance by formatting microSD card in every 6 months is highly recommended as microSD card could be damaged by physical, or electrical characteristics. or its file system may be fragmented, resulted in degradation in performance by repeated access.

Formatting microSD card will delete all files stored on it. You may use FlexWATCH SmartPlayer to back up the recorded video stream as AVI file before formatting

Contents

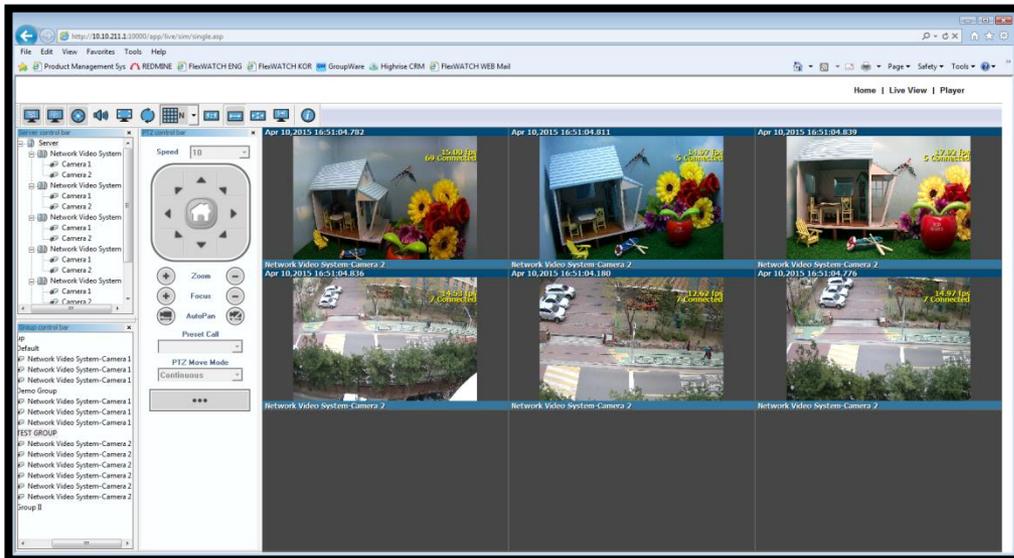
Smart Viewer

1. Smart Viewer ?
2. Smaer Viewer Installation
3. Smart Viewer ICON and Description
4. Smart Viewer Feature



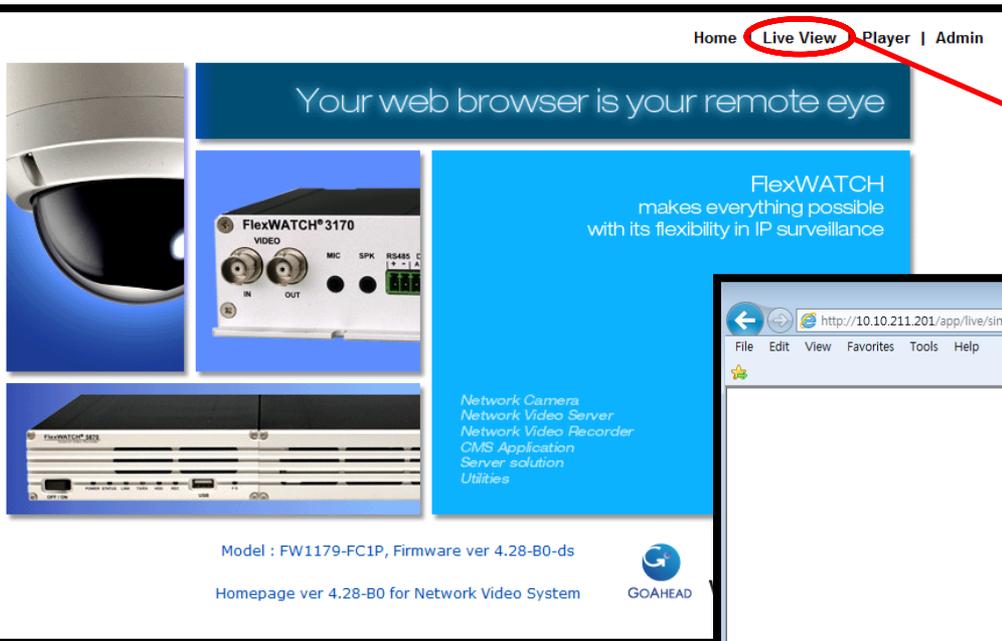
Smart Viewer ?

Smart Viewer is a software support real time live view in Internet Explorer



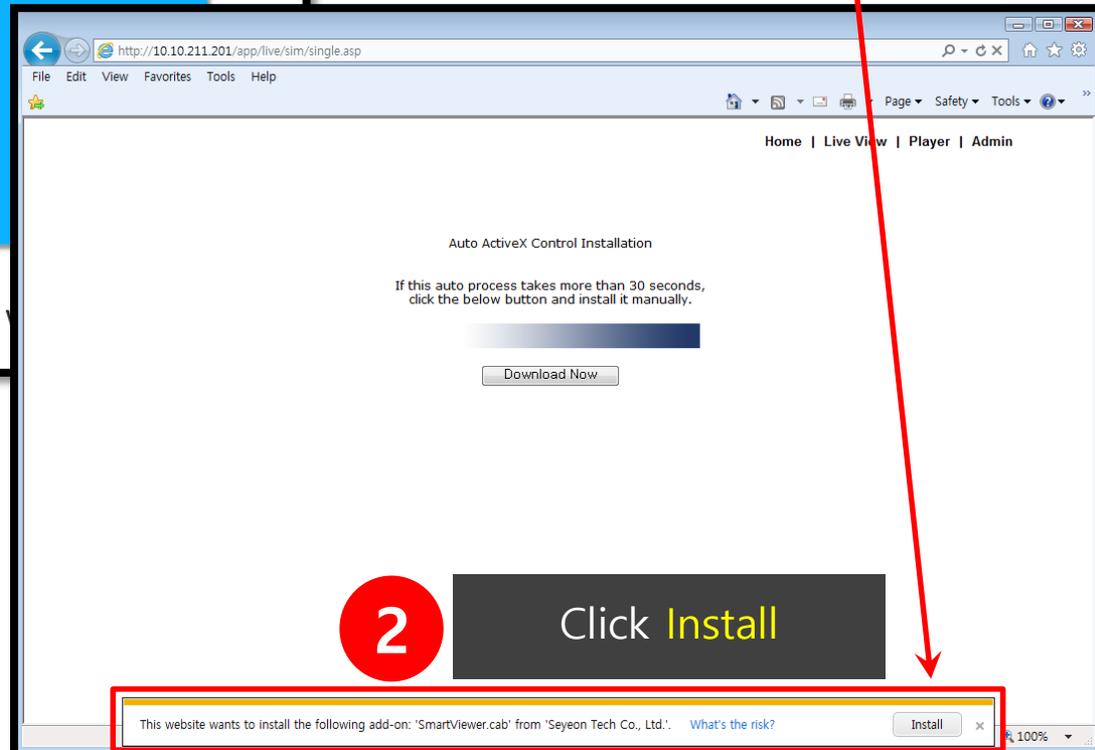
Smart Viewer Installation

Case 1 – It will be automatically installed If PC is connected to internet



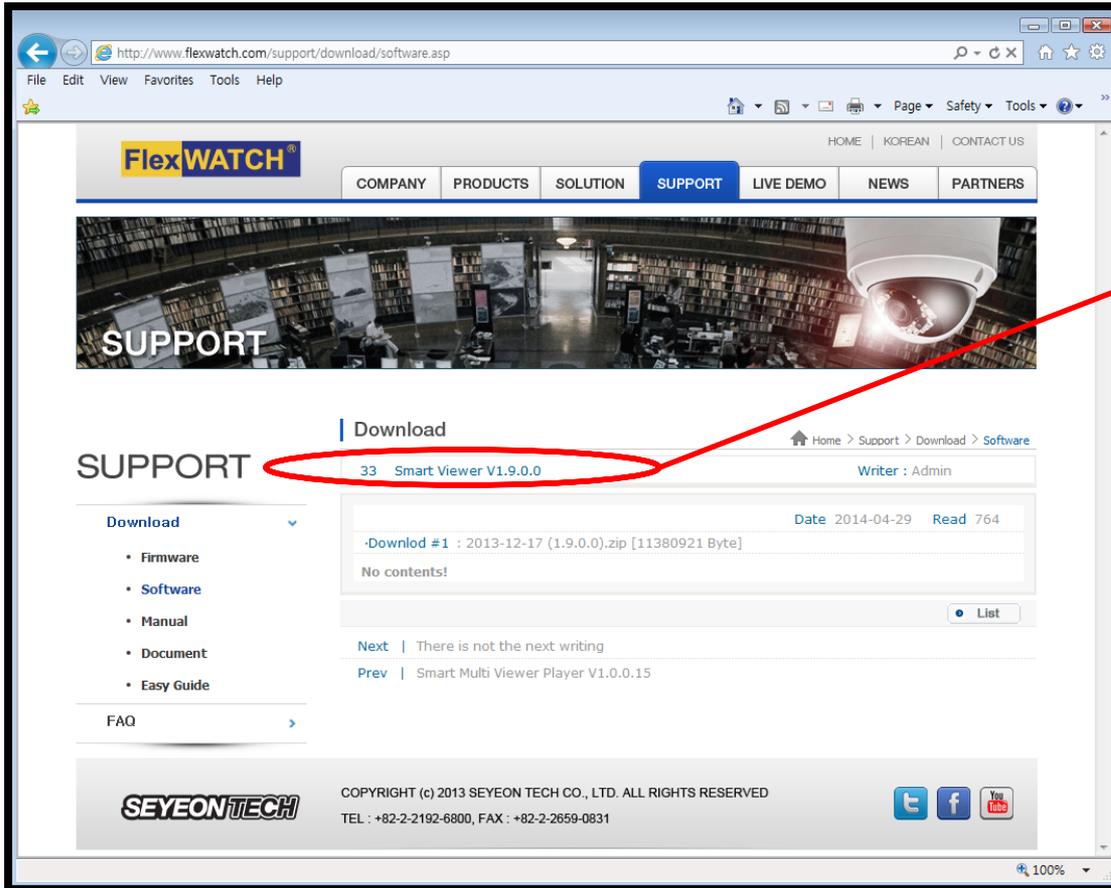
1

Click **Live View**



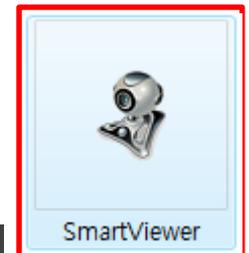
Smart Viewer Installation

Case 2 – Manual Installation



1

Download **Smart Viewer.zip** in FlexWATCH website



2

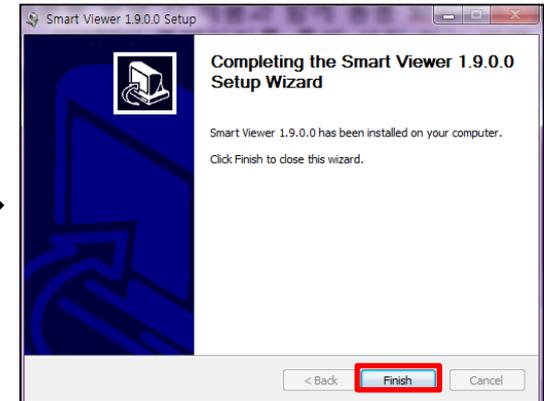
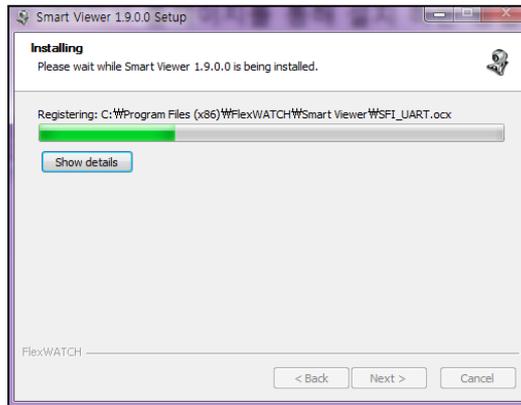
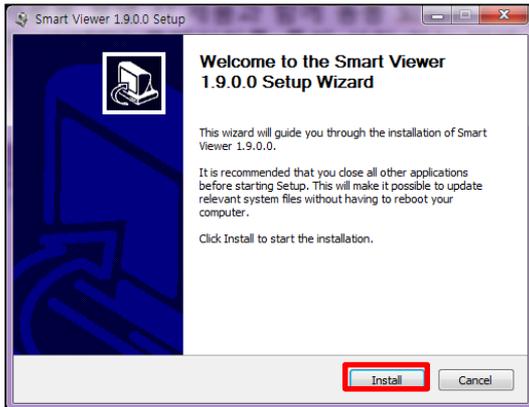
Double Click **SmartViewer.exe**

Smart Viewer Installation

Case 3 – Installation from CD



Double Click **SmartViewer.exe**



Smart Viewer ICON and Description

Case 1 – Direct Camera Connection

The screenshot displays the Smart Viewer web interface. At the top is a **Menu Bar** with navigation links like Home, Live View, and Admin. Below it is a toolbar with various icons. The main area is divided into a left sidebar and a central **Live View** window. The sidebar contains a **Channel Control** panel with options for Channel 1, Channel 2, All Channels, and Hide Channels. Below that is an **Audio Control** panel showing a disconnected status and a Connect button. The **PTZ Control** panel includes a Speed dropdown (set to 10), a directional pad with a home icon, Zoom and Focus buttons, AutoPan, Preset Call, and PTZ Move Mode (set to Continuous). An **OSD Menu** is located at the bottom of the PTZ control panel. The **Live View** window shows a 3D-rendered scene of a house interior with a table, chairs, and a boat on a lawn. A timestamp 'Apr 13, 2015 14:53:38.948' and a status '15.18 fps 6 Connected' are visible in the top right of the video feed. A red box highlights the Channel Control, Audio Control, PTZ Control, and OSD Menu panels, with red arrows pointing from labels on the left to these panels.

Channel Control

Audio Control

PTZ Control

OSD Menu

Live View

Smart Viewer ICON and Description

Case 2 – Connection with Network Video Recorder or Smart NVR

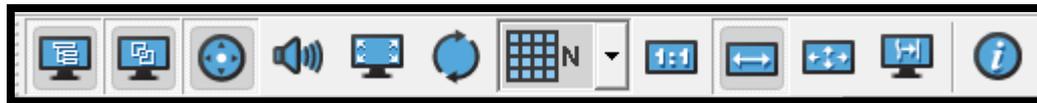
The screenshot displays the FlexWATCH Smart Viewer web interface. The browser address bar shows the URL `http://10.10.211.1:10000/app/live/sim/single.asp`. The interface includes a menu bar with options like File, Edit, View, Favorites, Tools, and Help. Below the menu, there are navigation links for Home, Live View, and Player. The main area is divided into several sections:

- Server control bar:** A tree view on the left showing a hierarchy of Network Video Systems and their respective cameras (Camera 1 and Camera 2).
- PTZ control bar:** A central control panel with a speed slider set to 10, a directional pad, and buttons for Zoom, Focus, AutoPan, Preset Call, and PTZ Move Mode (set to Continuous).
- Live View Grid:** A 2x3 grid of video feeds. The top row shows a close-up of a dollhouse with flowers, and the bottom row shows a street scene with parked cars. Each feed includes a timestamp and performance metrics like FPS and Connected cameras.

Camera ID	Timestamp	FPS	Connected
Network Video System-Camera 2	Apr 13, 2015 16:01:53.651	15.01	69
Network Video System-Camera 2	Apr 13, 2015 16:01:53.680	15.01	5
Network Video System-Camera 2	Apr 13, 2015 16:01:53.663	14.95	5
Network Video System-Camera 2	Apr 13, 2015 16:01:53.677	14.94	7
Network Video System-Camera 2	Apr 13, 2015 16:01:53.673	12.82	7
Network Video System-Camera 2	Apr 13, 2015 16:01:53.357	15.36	7

Smart Viewer ICON and Description

Control Menu Bar for Network Video Recorder or Smart NVR



 → Display / Hide Sever Control Bar

 → Window Layout

 → Display / Hide Group Control Bar

 → 1:1 Video (Original Resolution)

 → Display / Hide PTZ Control Bar

 → Fit video to Window size

 → Display / Hide Audio Control Bar

 → Display in the Entire screen

 → Full Screen

 → Advanced Function

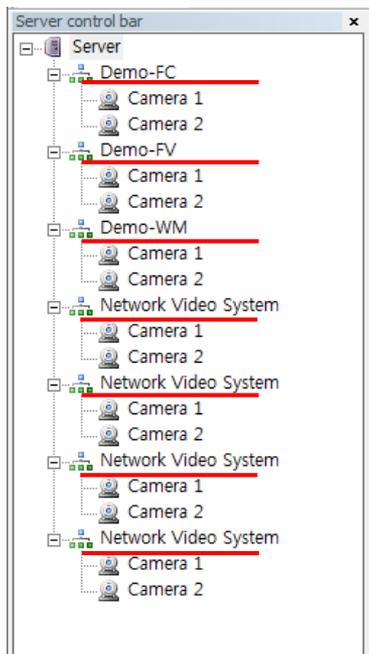
 → Group Sequence

 → Program Information

Smart Viewer ICON and Description



Sever Control Bar

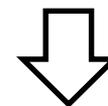


Demo-FC
:
:
:
Network Video System



Cameras registered in
Smart NVR, Video Recorder

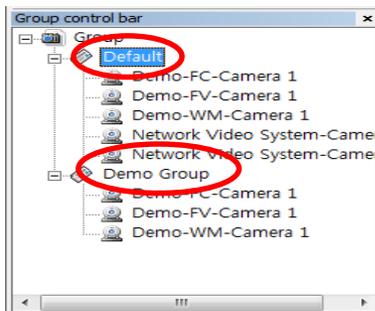
Camera 1
Camera 2



Support Dual Stream



Group Control



- Default, Demo Group -> Made by User
- Demo-FC-Camera 1
(Camera registered in Group)

Smart Viewer ICON and Description



PTZ Control Bar



Adjust moving speed of camera

Support 1~16 step
(Higher step is faster)

PTZ Controller

(Controls directions: Up, Down, Right, Left and Diagonal)

ZOOM Control

FOCUS Control

PRESET

Move to the preset position configured in ADMIN page

[STEP]

Camera moves as configured
It is effective for remote camera with slow network condition.

[Continuous]

Camera keeps moving while direction button is pressed
It is effective for local network condition with fast response

Smart Viewer ICON and Description



EXPAND WINDOW

PTZ control bar

Speed 16

Zoom (+) (-)

Focus (+) (-)

AutoPan

Preset Call

Preset #1

PTZ Move Mode

Continuous



Group No 1

Assign Group number and run Group



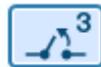
Run Tour as configured



Turn LIGHT ON / OFF (AUX 1)



Control AUX 2



Control AUX 3

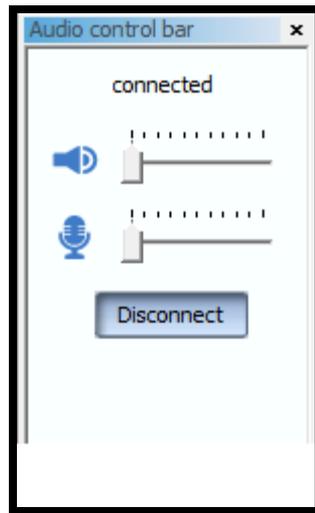
Notices : Menu button can be different depends on PTZ camera

Smart Viewer ICON and Description



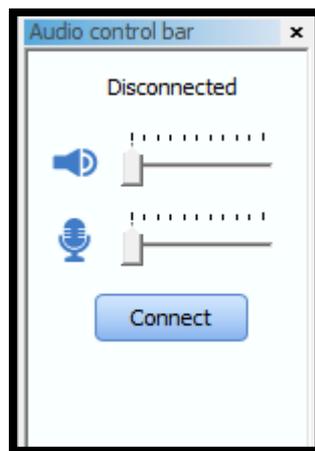
Audio Control

The audio connection is already made



Click Disconnect button for audio disconnection

The audio connection is not made

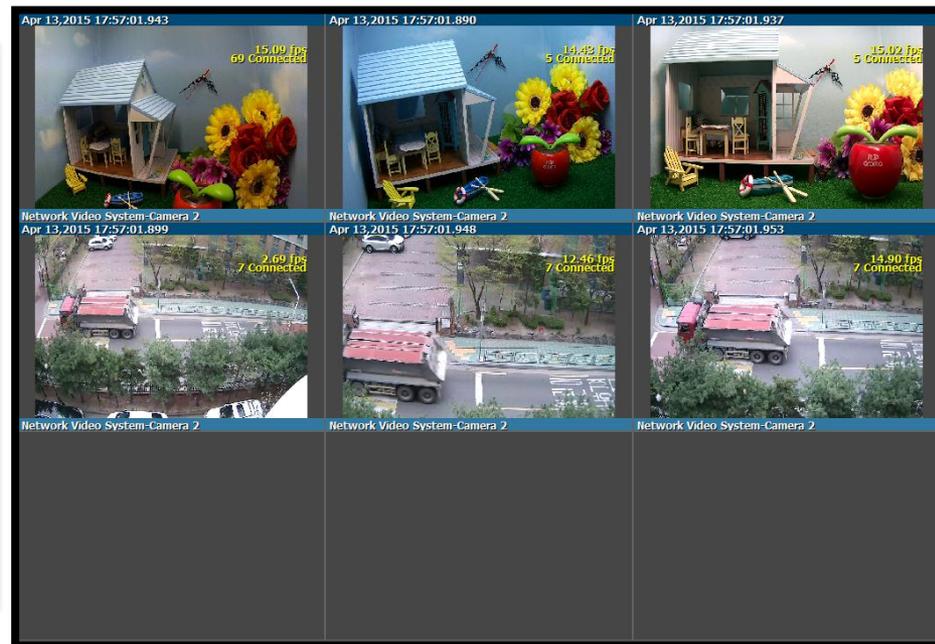
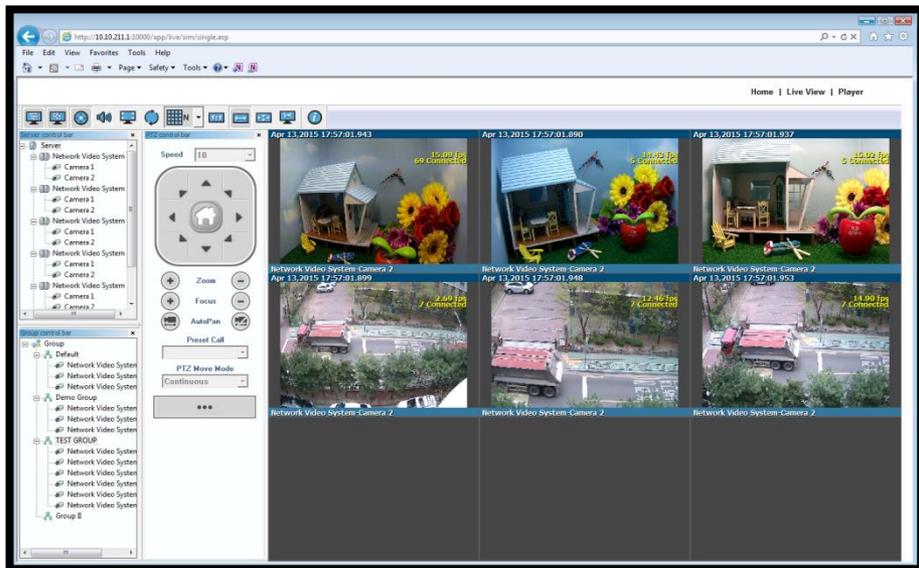


Click Connect button to make audio connection

Smart Viewer ICON and Description



Full Screen



Standard mode Viewer



Full Screen mode Viewer

Smart Viewer ICON and Description



Group Circulation

Group

Group Name

Circulation On

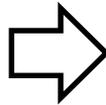
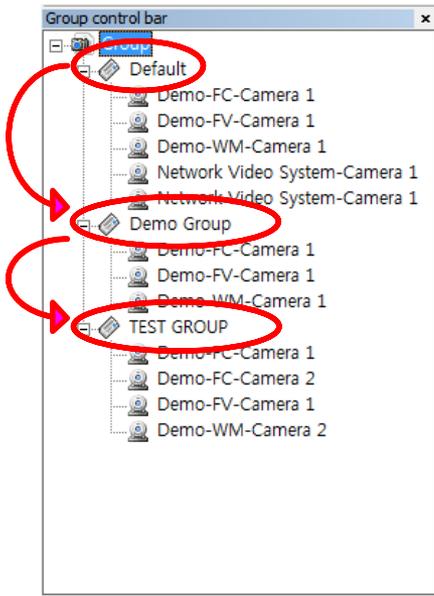
Circulation Period 5 sec(1~255)

User defined N x N 0 (0~10)

OK Cancel



Configure duration time

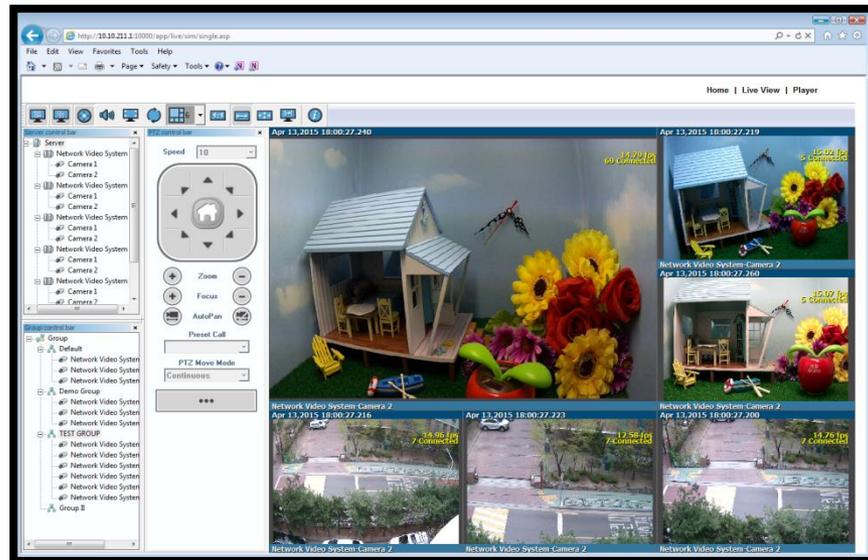
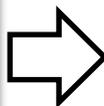
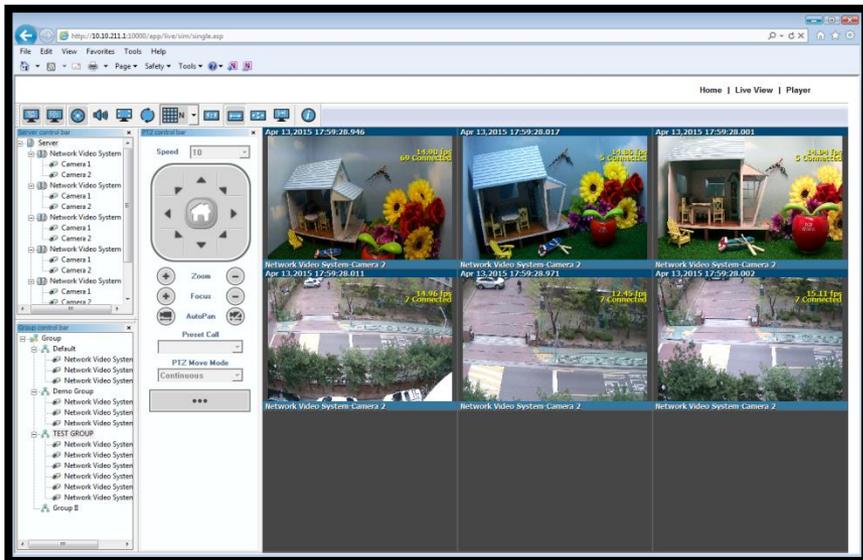


Circulation order :
Top ► Down in the list

Smart Viewer ICON and Description



Configure the number of live view channels



Standard display window

Changing display window

Support 11 mode of window layout

1	7
2	8
4	10
6	12
6	13
6	13

Support 9mode of window cell

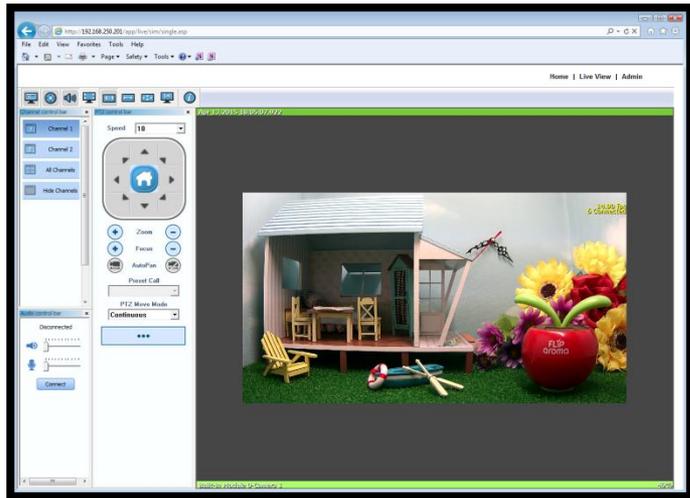
2X2	3X3	4X4
5X5	6X6	7X7
8X8	9X9	10x10

Smart Viewer ICON and Description



1:1 View

Display Video with original resolution (Support 10% ~ 1,000% Software Zoom)
- Support Software Zoom in / Zoom out using mouse wheel



1:1 Initial window



1000x Zoom in



10x Zoom out

Smart Viewer ICON and Description



Video fit into display window (Keep same aspect ratio)



Camera resolution is smaller than display window

▶ Display original camera resolution



Camera resolution is bigger than display window

▶ Video fit into display window (Keep same aspect ratio)

Notice

Software ZOOM is not supported in this mode

Oct 21, 2014 17:20:56.595

2014-10-21 17:20:56

Digital zoom is not supported in this mode. For digital zoom, try in original size.

10.52 fps
6 Connected

Smart Viewer ICON and Description



Video fill the entire screen



Notice

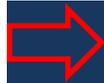


Software ZOOM is not supported

Smart Viewer ICON and Description



Enhanced Draw Mode



OFF



ON

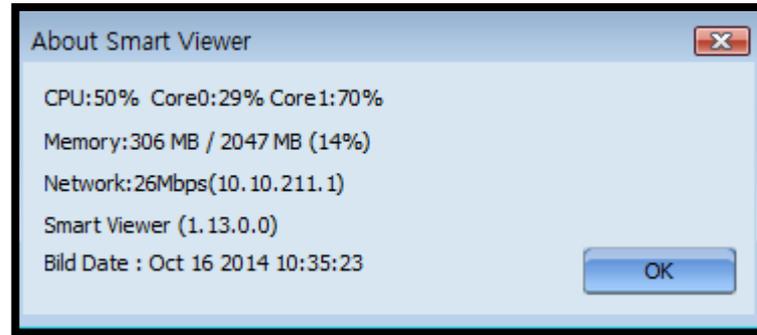
Notice

- ▶ This function will be effective when you use this function for one camera
- ▶ Using with Smart NVR registered many cameras, It can causes CPU overload

Smart Viewer ICON and Description



Smart Viewer Program information



CPU:39% Core0:30% Core1:48%



CPU Usage

Memory:959 MB / 2047 MB (46%)



Memory Usage

Network:29Mbps(10.10.211.1)



Network Usage

Smart Viewer (1.10.0.0)



Smart Viewer Version

Bild Date : Sep 15 2014 11:32:48



Smart Viewer Build Date

Smart Viewer ICON and Description



Pop up Menu (Click right button in Live View)

1 – Pause Video

2 – Control Frame Rate
(Support only in MJPEG)

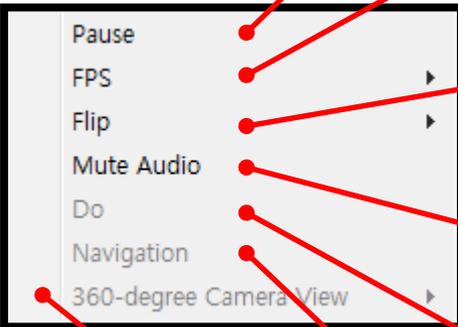
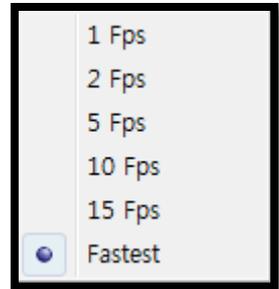
3 – Mirror and flip of video

4 – Audio On/Off

5 – DO Control
(LIGHT or Alram)

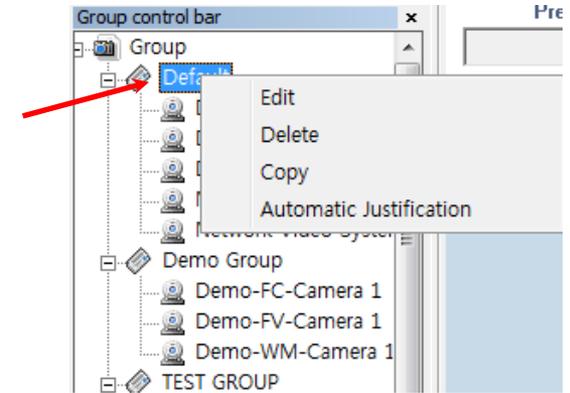
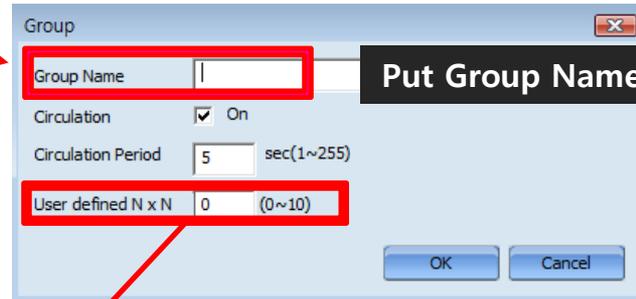
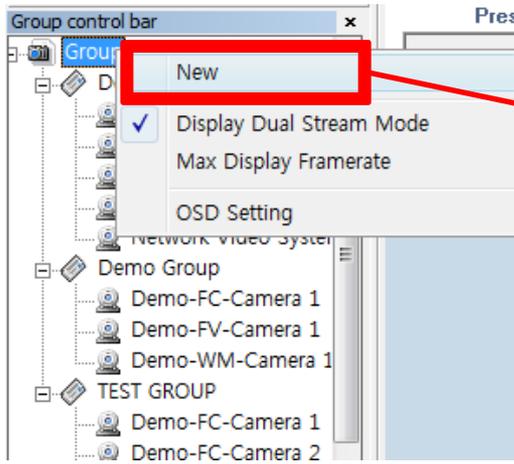
6 – Supopt only in 1:1 view

7 – 360degree Camera View



Smart Viewer Features

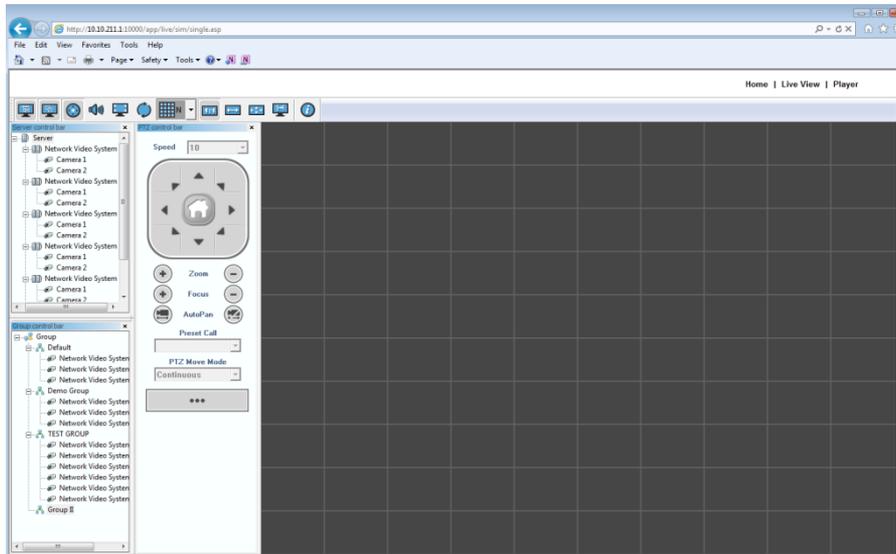
(1) Group – Make group



Right click

- ① Edit : Change group name
- ② Delete : Delete group
- ③ Copy : Copy group
- ④ Automatic Justification

(10x10)



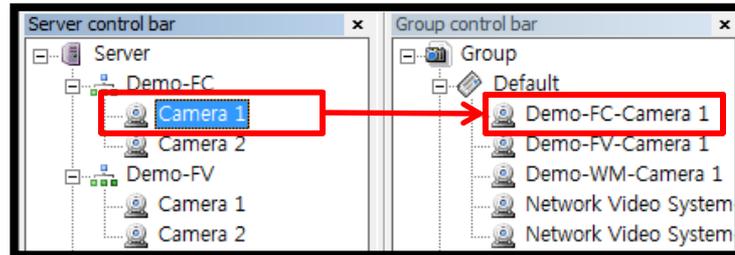
Smart Viewer Feature



(1) Group – Registration

CASE 1

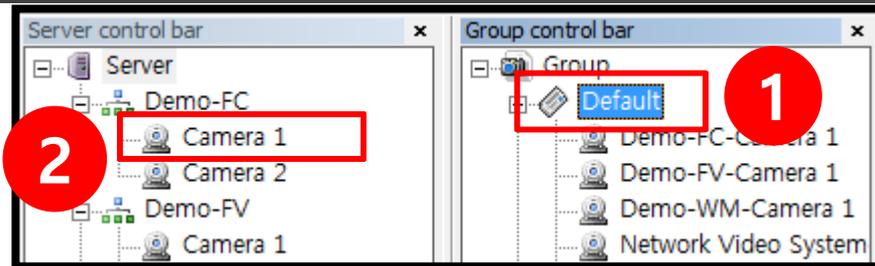
Drag and Drop



1. Choose camera in server control bar,
2. Drag & Drop in the group

CASE 2

CTRL Key + Double Click



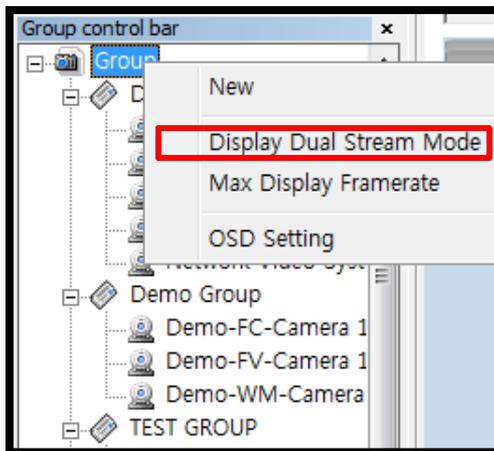
1. Choose a group ,
2. [Ctrl] + double click the camera in server control bar.

Smart Viewer Features

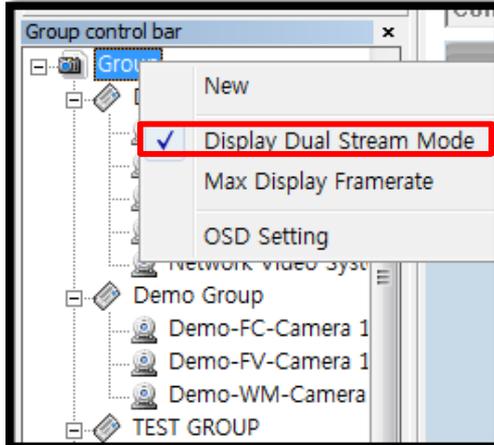


(1) Group – Dual Stream

When display several cameras in a screen ,
Display Secondary video to avoid decrease PC overload and Network traffic



Uncheck Display Dual Stream Mode
▶ Display Primary Stream



Check Display Dual Stream Mode
▶ Display Secondary Stream

Smart Viewer Features

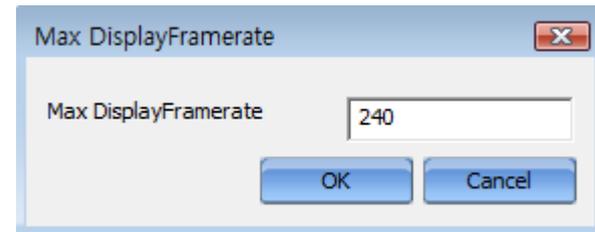
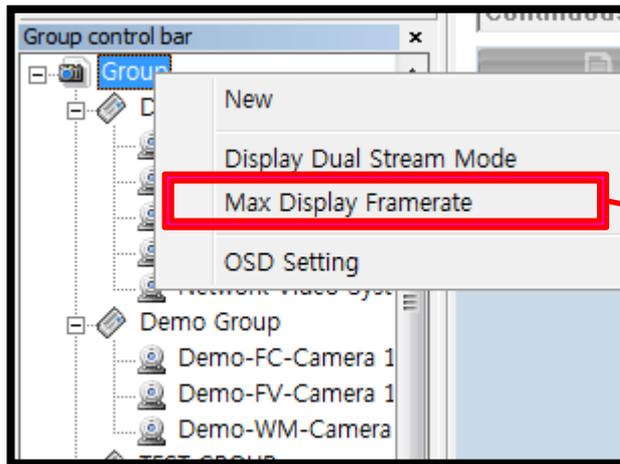


(1) Group – Max Display Frame rate

Setting Max Display Frame rate in Smart Viewer

When the video is not smooth, increase [Max Display Frame rate].
Notice : In case of low performance PC, it causes system Down

Example > Want to monitor 16camera with 30FPS,
 $16 \text{ (Number of camera)} \times 30 \text{ (FPS)} = 480$
Put 480 in [Max Display Frame rate]

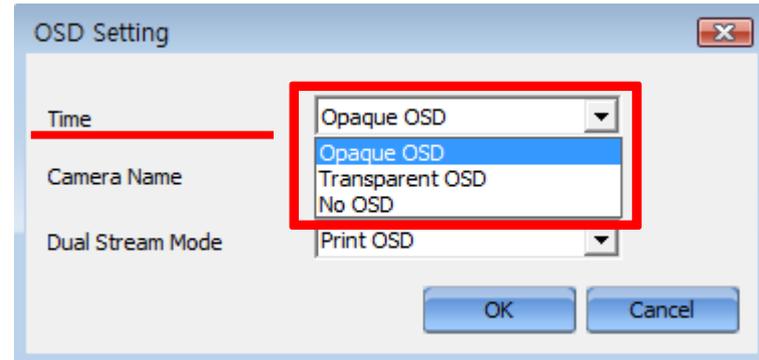
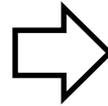
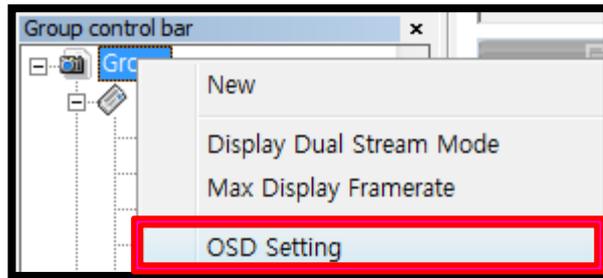


Smart Viewer Features



(1) Group – OSD Setting / Time information

Menu for Changing OSD in displaying time information



Oct 21, 2014 18:13:12.003



Opaque OSD

Demo-FC-Camera 1

Oct 21, 2014 18:13:57.454



Transparent OSD

Demo-FC-Camera 1



No OSD

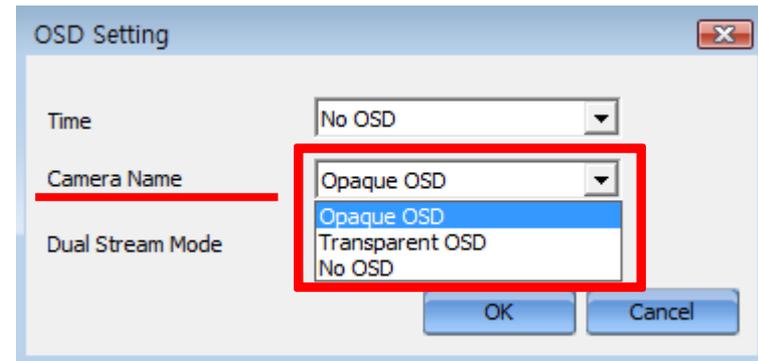
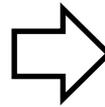
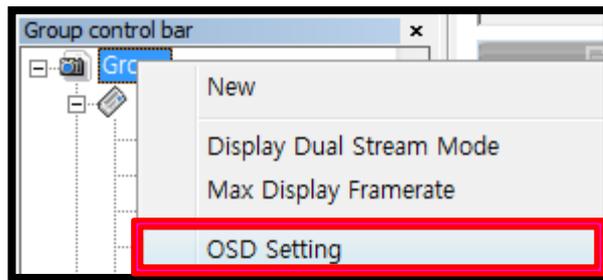
Demo-FC-Camera 1

Smart Viewer Features



(1) Group – OSD Setting / Camera Name

Menu for Changing OSD in displaying Camera name

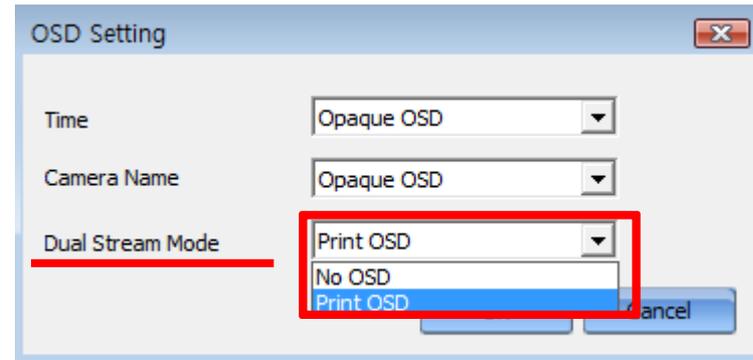
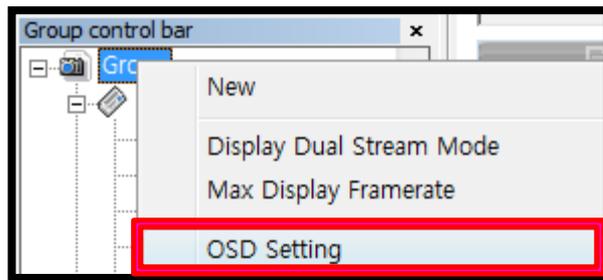


Smart Viewer Features



(1) Group – OSD Setting / Dual Stream

Menu for Changing OSD in displaying information of dual stream

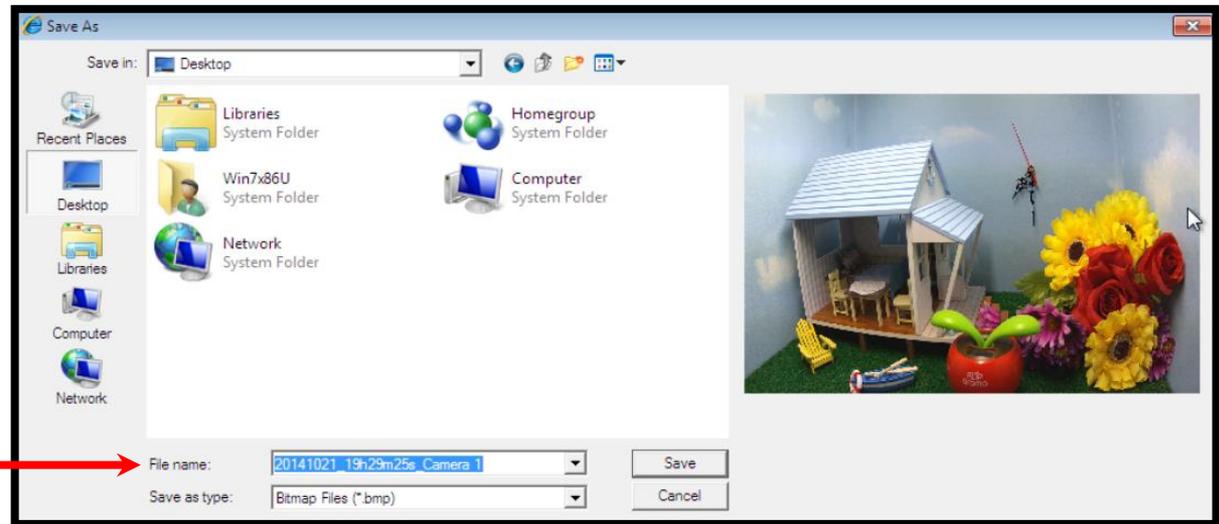


Smart Viewer Features



(2) OSD Buttons / Screenshot Button

SCREENSHOT the video and recorded Image file



[Image format]

Recorded in BMP : With H.264

Recorded in JPG : With MJPEG

Smart Viewer Features

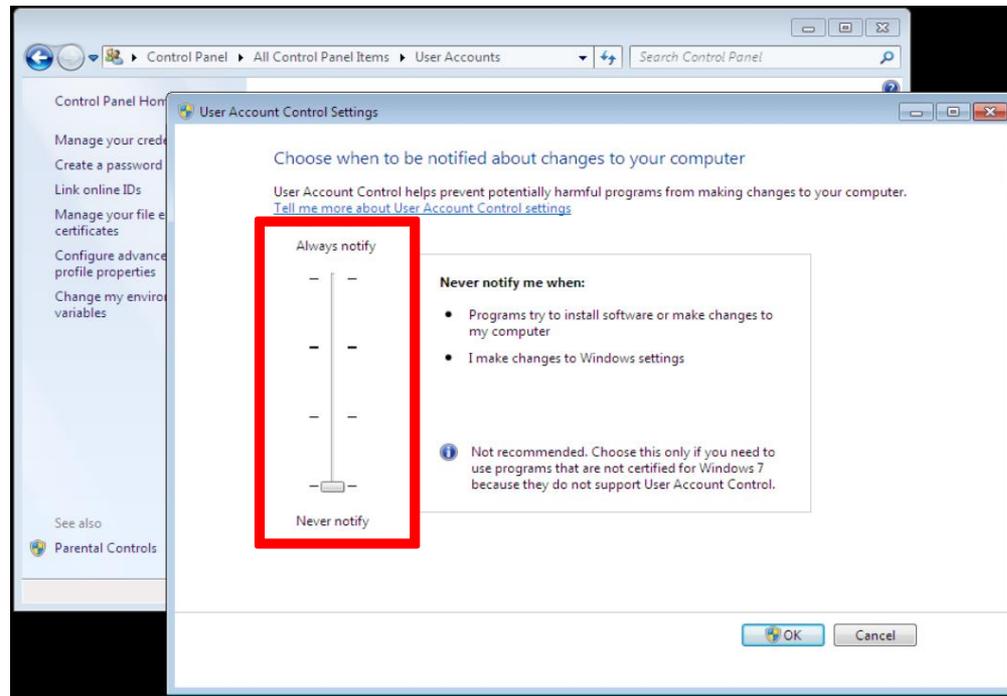


(2) OSD Buttons / Screenshot Button

Notice



No Image after recording the Screenshot



Lower Security level of PC

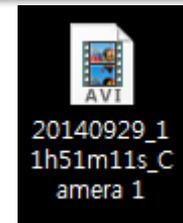
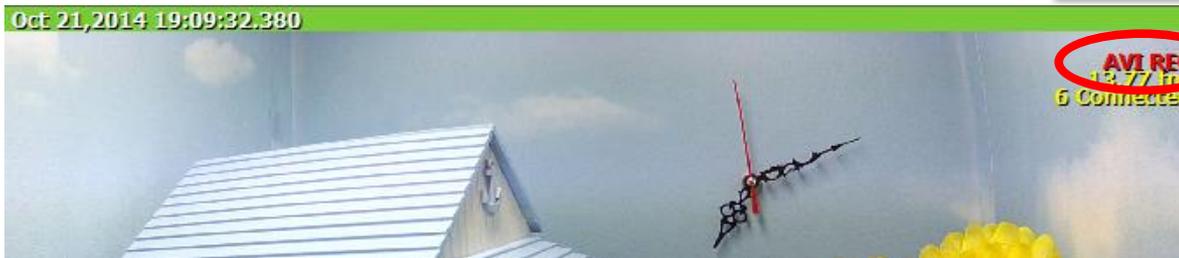
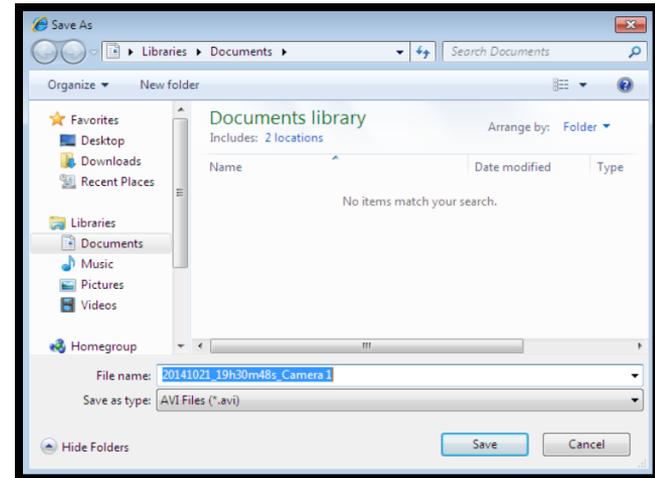
< Above Microsoft Windows 7 ▶ Control panel – User accounts – User Account Control Settings >

Smart Viewer Features



(2) OSD Buttons / Recording Video (AVI)

Recording current video for 10minutes



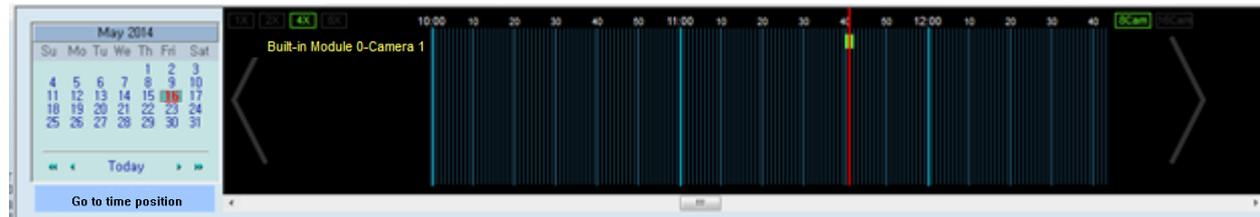
To stop recording : Click the recording button.
Recorded just before stop recording

Smart Viewer Features



(2) OSD Buttons / Force recording in Server

Recording current video for 1minute in Server



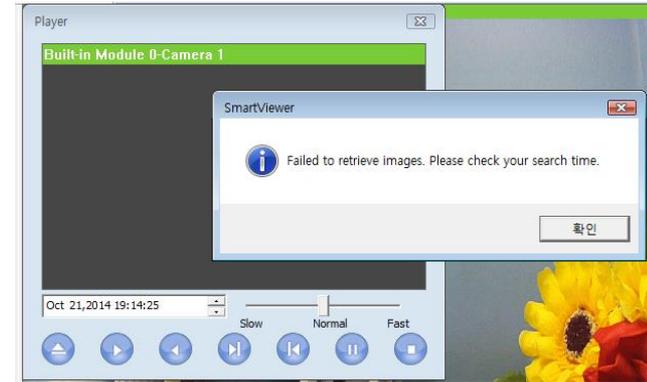
Can playback in Smart Player

To stop recording : Click the recording button.
Recorded just before stop recording

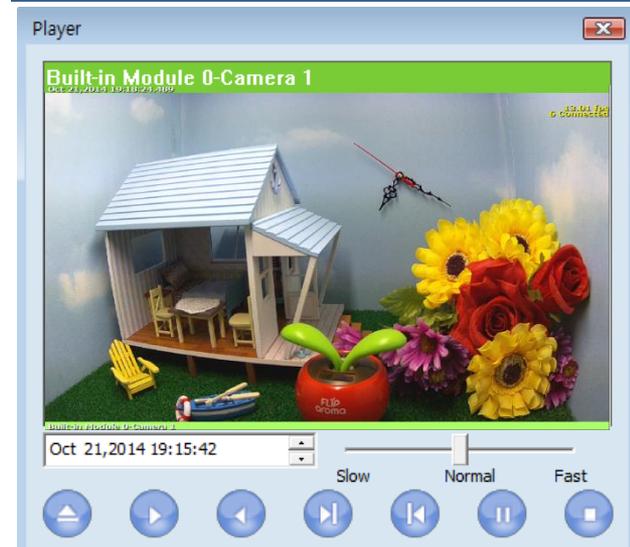
Smart Viewer Features



(2) OSD Buttons / Instant Playback button



No recorded video 1minute before

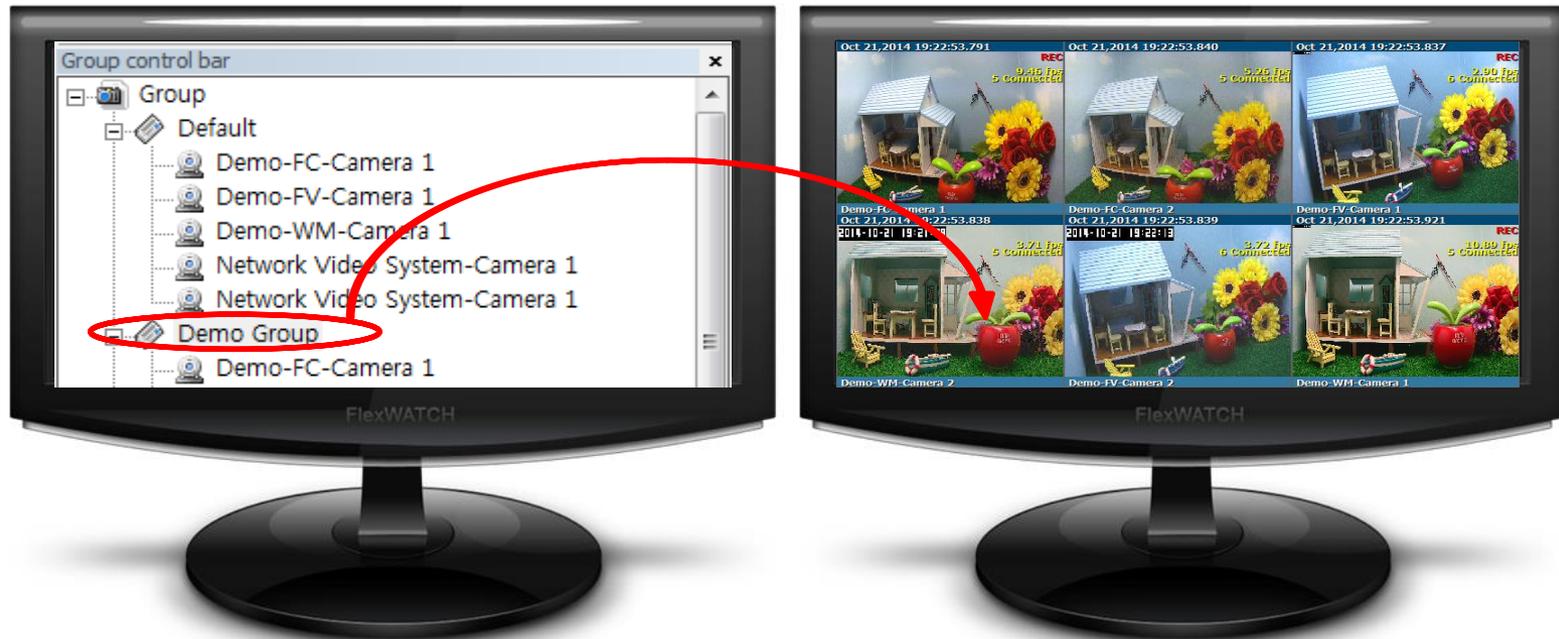


Playback the video recorded 1minute before

Smart Viewer Features



(3) Moving group to the secondary monitor

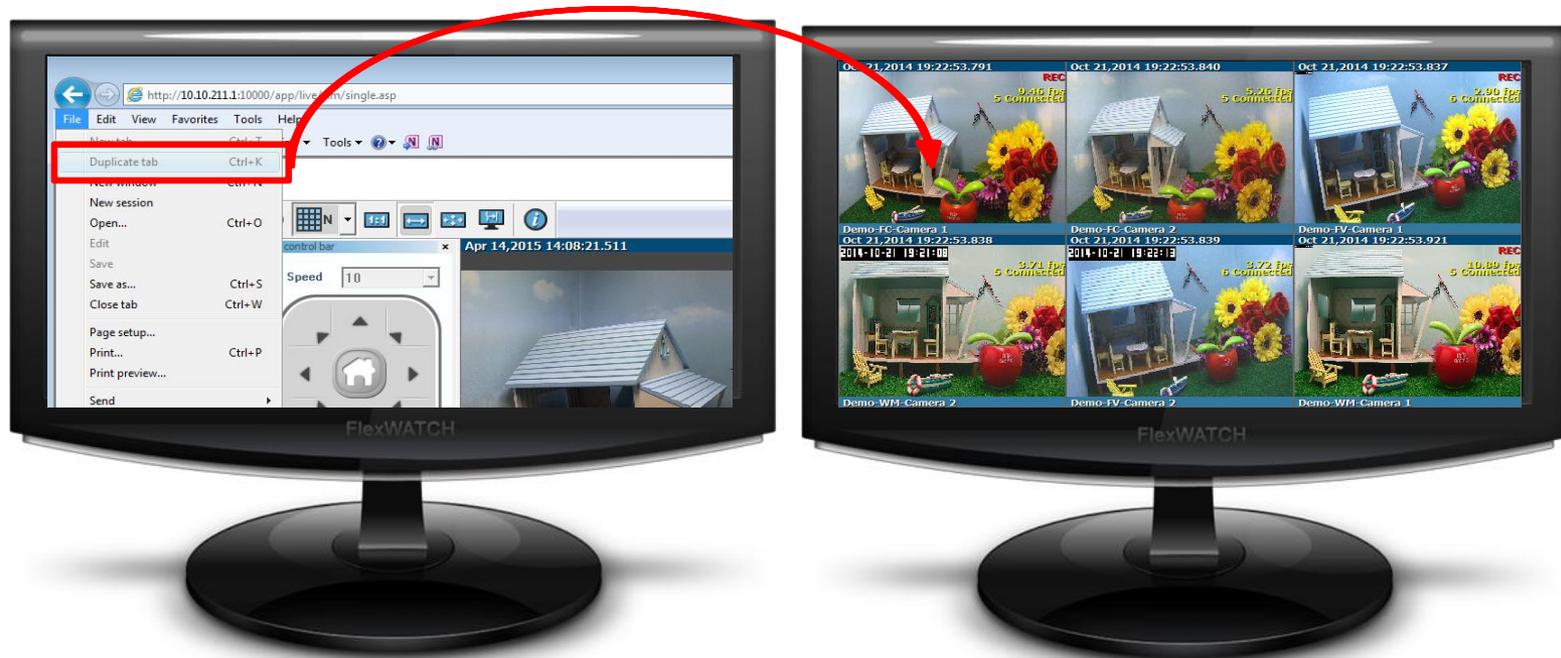


Choose a group and Drag & Drop to the secondary monitor

Smart Viewer Features



(4) Duplicate Smart Viewer in the secondary monitor



Using Duplicate Tab Microsoft Internet Explorer
Drag and Drop the Smart Viewer in the secondary monitor.
It also support with Shortkey (CTRL + N)