

Smart NVR User's Manual

Version 2.0

May. 2014

Seyeon Tech Co., Ltd.

www.seyeon.co.kr

www.flexwatch.com

Contents

1.	What is Smart NVR 2.0?	4
1.1.	Main features of Smart NVR	4
2.	Requirements for Installation	5
2.1.	Smart NVR Versions	5
2.2.	System requirement for PC	5
3.	Installing Smart NVR	7
3.1.	Download Smart NVR	7
3.2.	How to install Smart NVR	7
4.	Executing Uninstaller	12
5.	Components of Smart NVR	14
5.1.	Smart NVR Service	14
5.2.	Smart NVR Configurator	14
5.3.	Smart NVR Controller	14
6.	Smart NVR System Tray Menu	15
6.1.	Smart NVR Tray Menu	15
6.2.	Run Smart NVR Configurator	15
7.	Starting Smart NVR Configurator	16
7.1.	Log-in Smart NVR Configurator	16
7.2.	Description of Smart NVR Configurator (Main Screen)	16
8.	IP device, camera configuration	17
8.1.	Simple registration of IP devices	17
8.2.	Manual Registration for IP-devices	19
8.3.	Edit IP-device in IP device configuration	21
8.4.	Deletion of registered IP-device	22
8.5.	Advanced manual registration	22
8.6.	Synchronize information with IP-device	25
8.7.	Go to IP-device's homepage	26
8.8.	Camera Name configuration	27
8.9.	Simple recording configuration	27
8.10.	Advanced recording configuration	28
8.11.	Advanced recording configuration	29
8.12.	Alarm event configuration	32
8.13.	Auto preset configuration	33
8.14.	Touring configuration.	35
8.15.	Auto DO configurations	37

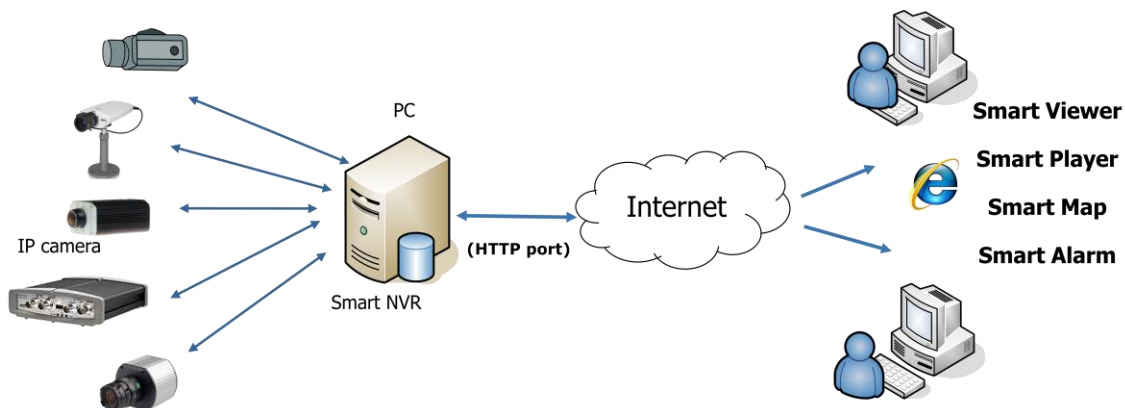
9.	Smart NVR Preference configuration	40
9.1.	Setup System Name	40
9.2.	Setup Admin password	40
9.3.	Setup HTTP port	41
9.4.	Setup IP-CCTV DNS.....	42
9.5.	Setup access control.....	43
9.6.	Add User	44
9.7.	Setup Disc circulation	46
9.8.	Disc configuration	47
9.9.	Setup e-mail.....	48
9.10.	Setup e-mail notification.....	49
10.	Information, Live View and Playback	50
10.1.	Real time Live Viewing (Video Monitoring)	50
10.2.	Playing back Video	52
10.3.	Apply button	53
11.	Smart NVR Controller	54
11.1.	open and close Smart NVR Controller.....	54
12.	Connecting to Smart NVR	56
12.1.	PC with Smart NVR installed	56
12.2.	PC without Smart NVR installed	58
13.	Information of Smart NVR Configurator	59

1. What is Smart NVR 2.0?

1.1. Main features of Smart NVR

This user's manual explains how to setup and install the Smart NVR 2.0 software on your PC. Smart NVR is the integrated system software for Video security applications, which runs on Microsoft's Windows based computers. Some of major features of Smart NVR 2.0 are listed below.

- Support Real time Video Monitoring, Recording, Playback and Back-Up.
- Support Event, motion, scheduled Video recording and conditional playback.
- Support MJPEG, MPEG4 & H.264 Video compression
- MV (Multi vendor version) can support various vendor's IP Devices for recording and retransmission of Video.
- SV (Single vendor version) can support only one vendor.
- Supports Megapixel camera (up to 5mPixels)
- Users can connect to Smart NVR on Web browsers to access Live Video, Voice and Data, and search for Video to playback.
- Support up to 128 Channels.
- A product-key is required for proper installation of Smart NVR program (16CH, 32CH, 64CH or 128 CH).
- Evaluation version (NO need any product-key during installation) is available for your test and evaluation. This version is working for 10days.



2. Requirements for Installation

2.1. Smart NVR Versions

Smart NVR 2.0 is supplied to customers in different versions for each appropriate applications. Users will need to choose the right version for their needs.

Types	Register of Channels	Time restriction	Recording Channels	Retransmission Streams	Support other IP devices	Max. recording Capacity
Evaluation version	128ch	10 days	128ch	512stream	Yes	160TB
Full version Multi Vendor	16ch	-	16ch	64stream	Yes	160TB
	32ch	-	32ch	128stream	Yes	160TB
	64ch	-	64ch	256stream	Yes	160TB
	128ch	-	128ch	512stream	Yes	160TB
Full version Single Vendor	16ch	-	16ch	64stream	No	160TB
	32ch	-	32ch	128stream	No	160TB
	64ch	-	64ch	256stream	No	160TB
	128ch	-	128ch	512stream	No	160TB

2.2. System requirement for PC

For best quality and performance, your PC needs to meet the minimum requirement as below.

- OS: Windows XP Pro, Windows 7 Pro or higher
- Video Card: 256MB RAM, 1024X768 Resolution or higher

compression	# of Channels	Resolution	CPU	System Memory
H.264	16ch	D1	Intel Core2Duo T5200	1.0GB
		720P	Intel Core2Duo E7550	1.5GB
		1080P	Intel Core i-5-2500S	2.0GB
	32ch	D1	Intel Core2Duo E6700	1.0GB
		720P	Intel Core i-5 750	2.0GB
		1080P	Intel Core i-7 970	4.0GB
	64ch	D1	Intel Core i-5 661	1.5GB
		720P	Intel Xeon X5660	4.0GB
		1080P	Intel Xeon X5680 Dual CPU	4.0GB

MJPEG	128ch	D1	Intel Core i-5 661	1.5GB
		720P	Intel Xeon X5660	4.0GB
		1080P	Intel Xeon X5680 Dual CPU	4.0GB
	16ch	D1	Intel Core2Duo E6700	1.0GB
		720P	Intel Core i-5 460M	1.5GB
		1080P	Intel Core i-5 -2500	3.0GB
	32ch	D1	Intel Core i-5 661	1.5GB
		720P	Intel Core i-5 -2400S	2.0GB
		1080P	Intel Xeon X5590 Dual CPU	4.0GB
	64ch	D1	Intel Core i-5 -2500	3.0GB
		720P	Intel Xeon X5550 Dual CPU	4.0GB
		1080P	Intel Xeon X5550 Dual CPU	4.0GB
	128ch	D1	Intel Core i-5 -2500	3.0GB
		720P	Intel Xeon X5550 Dual CPU	4.0GB
		1080P	Intel Xeon X5550 Dual CPU	4.0GB

- Note : Above PC requirements are based on running Smart NVR program only. If other software needs to run along with Smart NVR at the same time, you may need additional performance level for your PC. It is recommended to check actual performance and disc capacity before selecting a PO for Smart NVR.


3. Installing Smart NVR

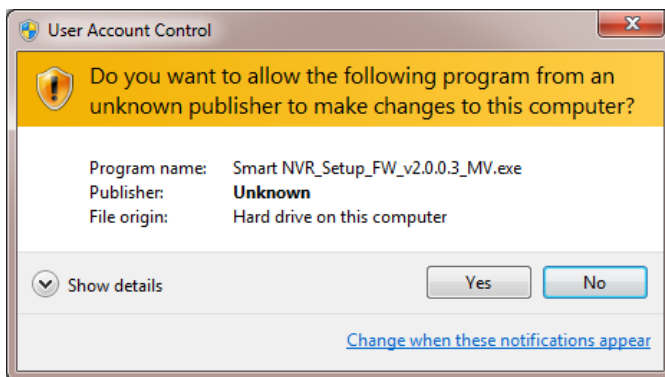
3.1. Download Smart NVR

Download Smart NVR software from FlexWATCH's download website linked below

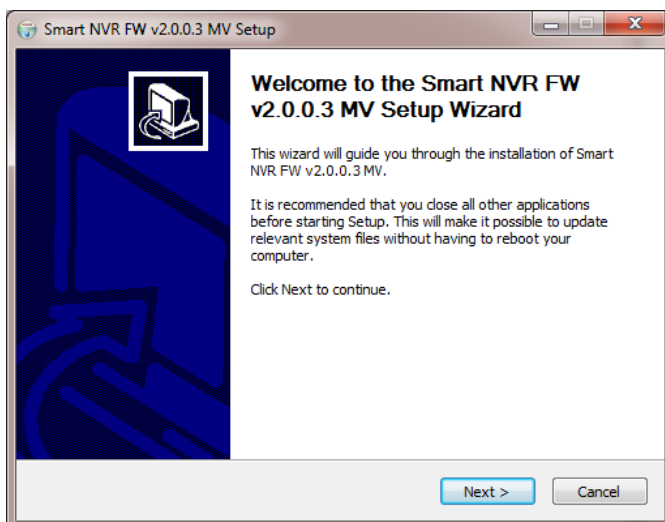
<http://flexwatch.com/support/download/software.asp>

3.2. How to install Smart NVR

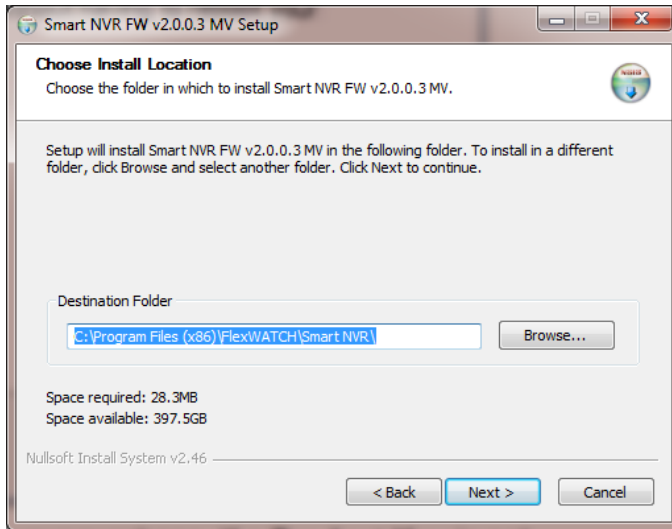
1) Double click Smart NVR Setup Icon  to start installation. The following window will be displayed on the screen. Before installing, check the version of Smart NVR which is shown on the window and click Yes button to go ahead installing the program



2) You will see the below Setup Wizard window, then click Next button.

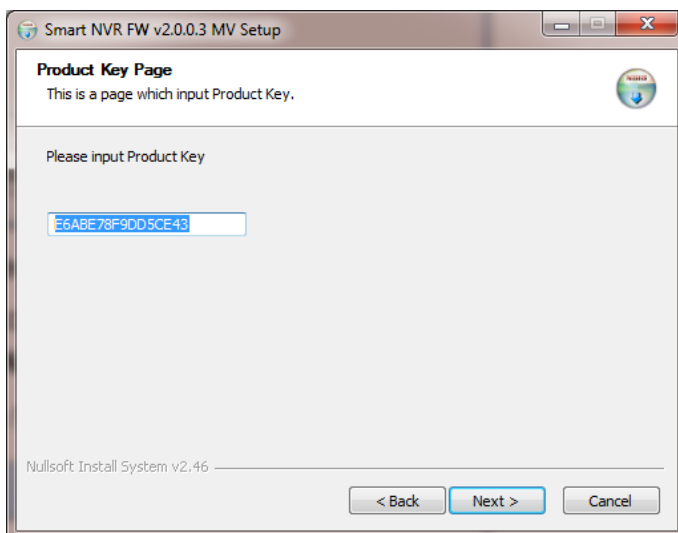


3) Choose Destination folder. The default folder is C:\Program file\Flexwatch\Smart NVR. It is recommended to install on this folder but if you want to change it to the other location, click Browse button to choose a proper path as you'd like. And then click Next

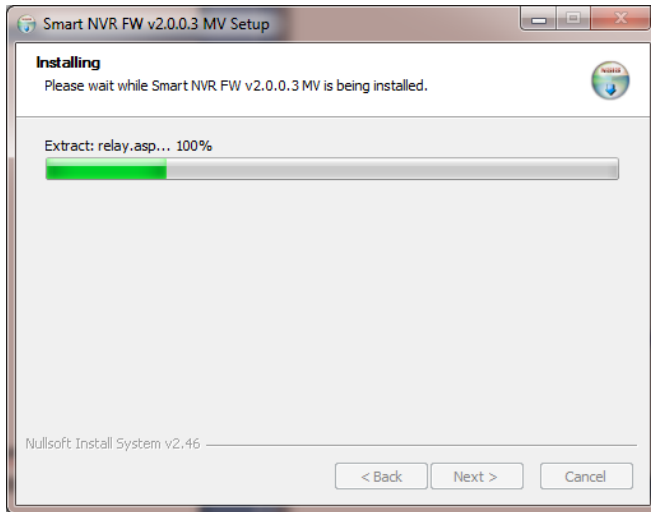


4) Please input the proper Product Key which can be generated with a coupon code at www.goodskey.com.

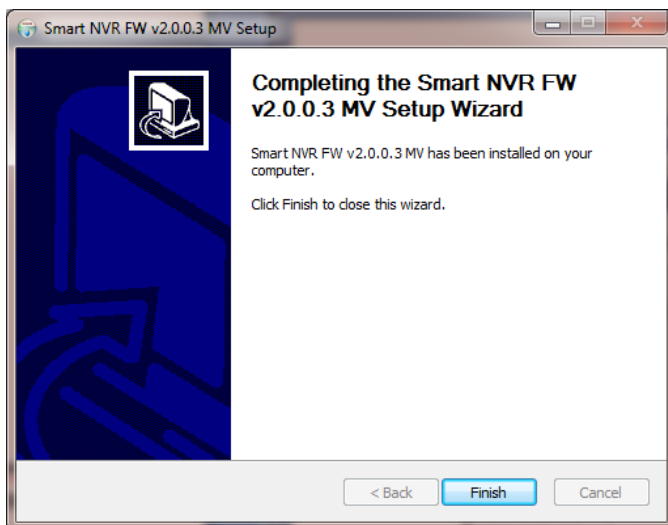
If a proper Product Key is entered, the appropriate version of Smart NVR will be installed. In case you don't have a coupon code, please contact our Sales. Without entering the proper Product key, installation will not be proceeded.



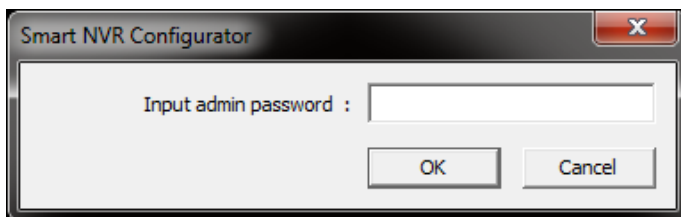
5) While the necessary files are being copied to the installation folder, you will see the following window.



6) When the installation is completed, click Finish button to exit from Smart NVR installation Wizard.

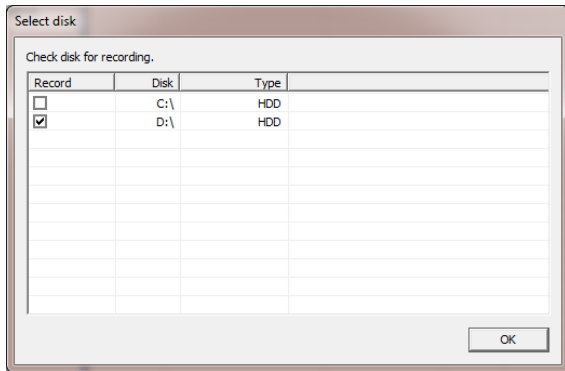


7) Because Smart NVR program is installed for the first time, it needs to be configured before use. So it automatically executes the configuration program, which is called Smart NVR Configurator.

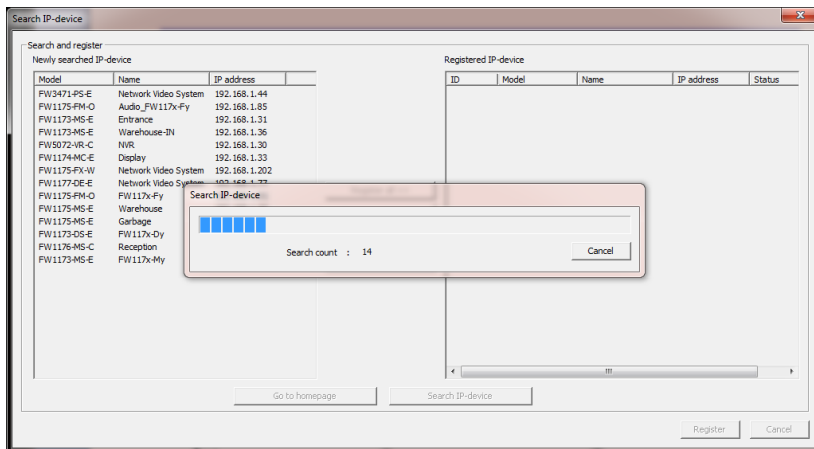


Enter a proper Admin password. The default password is "root". Now you can see Smart NVR Configurator window on the screen

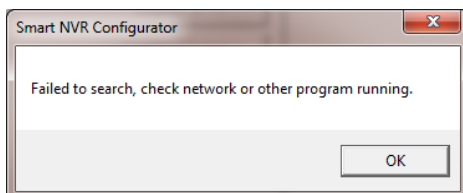
8) Select the Drive which will be used for recording and click OK button



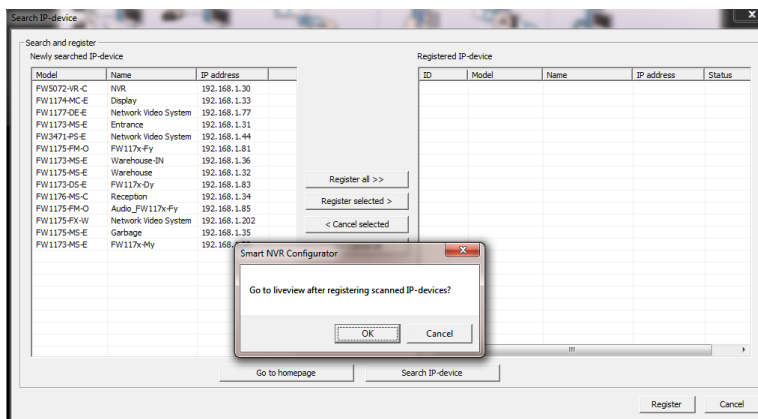
9) Then Smart NVR Configurator will search all available IP Devices.

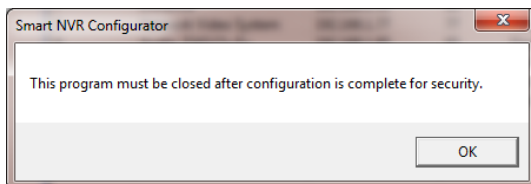
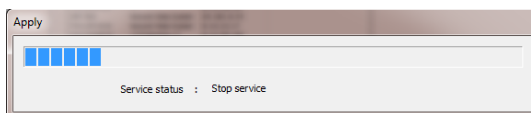
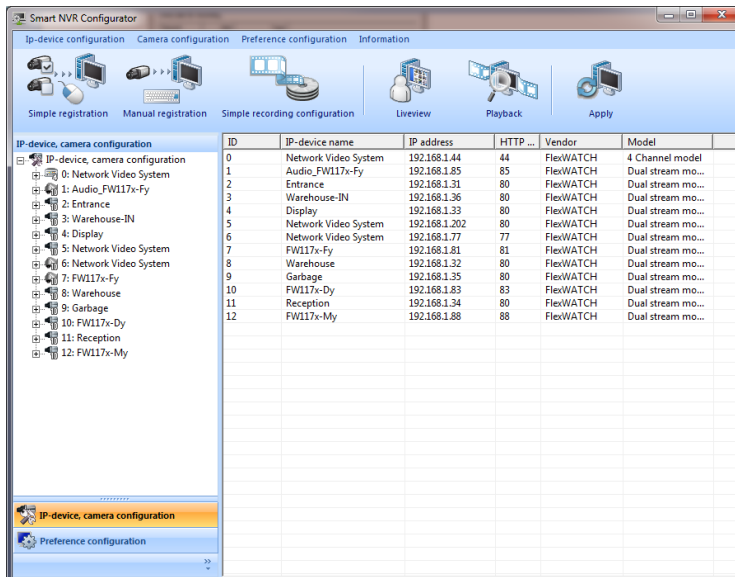
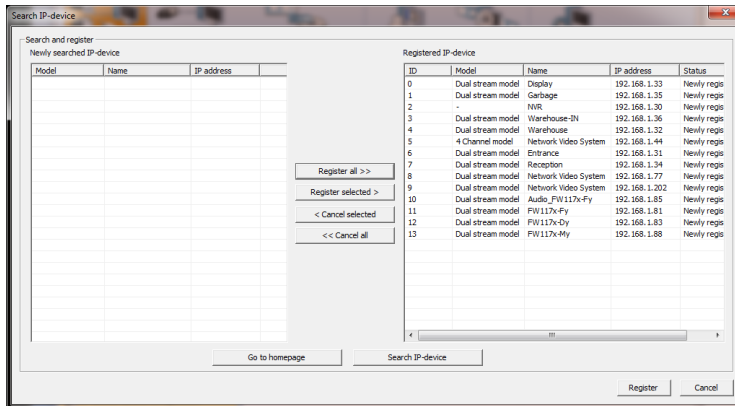


Note : In case "IP Installer" program is open, Auto IP-device function is not working. Please close "IP Installer" program in advance. You will see the below warning message.

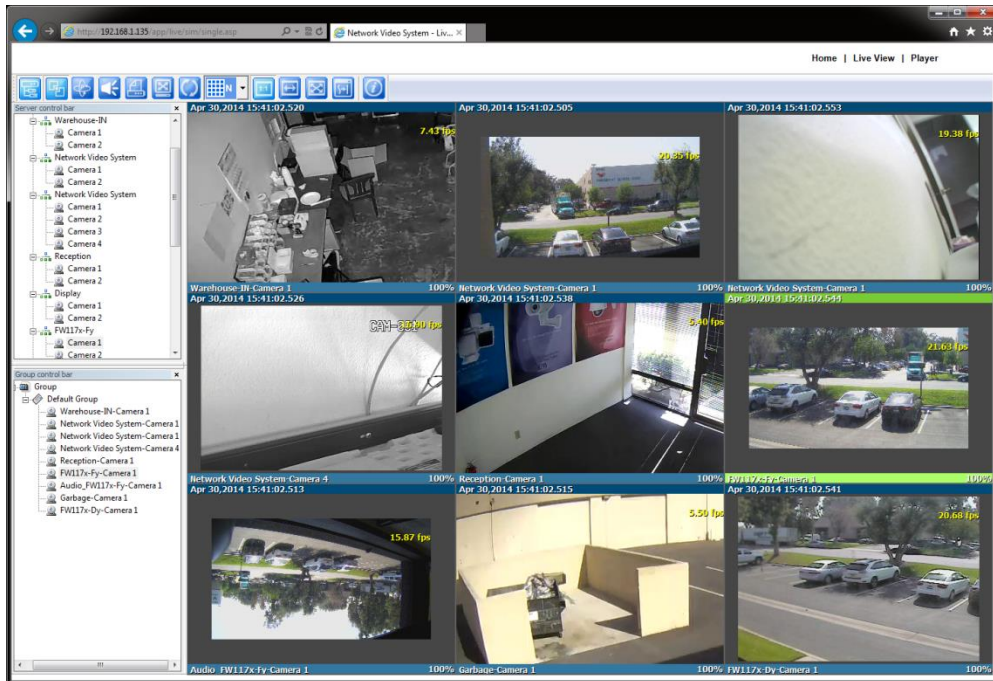


10) In order to register all scanned IP devices and go to Live view screen, please select OK button.





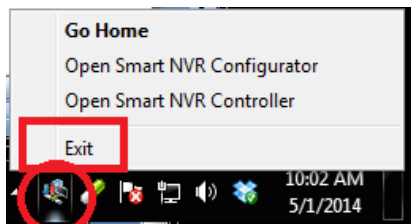
- 11) When click OK button, Browser will be executed automatically and Live view screen will be displayed.
 (Default setting of recording configuration is Motion triggered recording for all registered IP cameras)



4. Executing Uninstaller

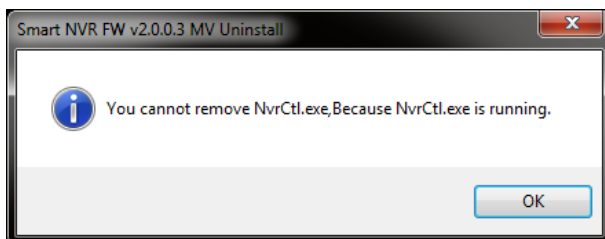
Before starting uninstall, you need to close all Smart NVR program first.

Right click "Smart NVR Controller" Icon from Taskbar at the bottom right of screen then select Exit button.

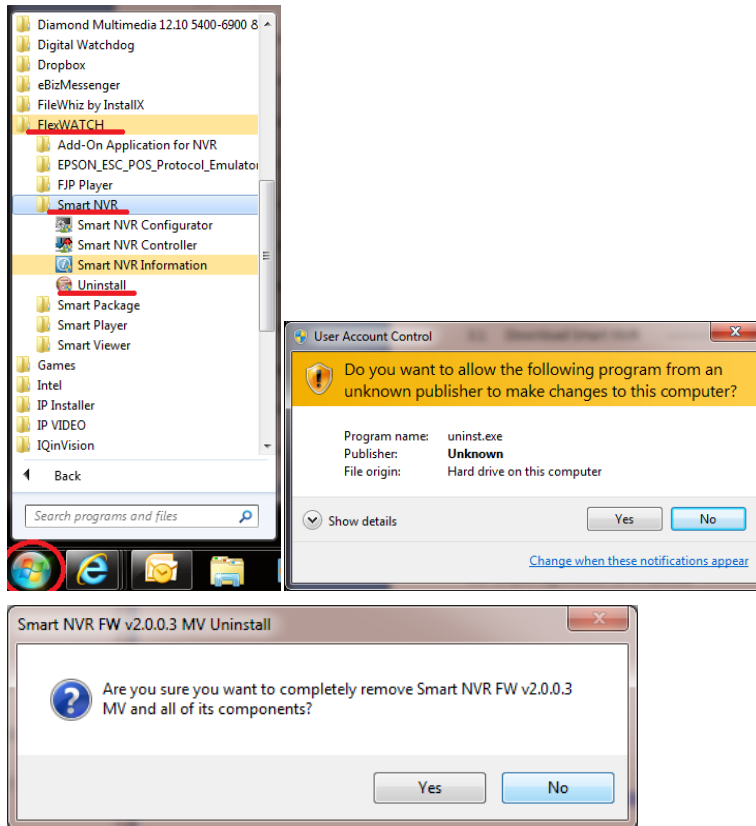


To start uninstalling, click Start → All Programs → Flexwatch → Smart NVR → Uninstall.

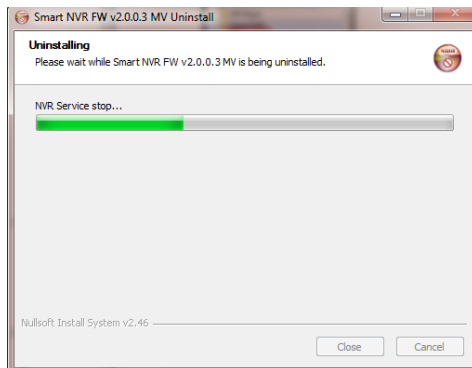
In case Smart NVR program is running, you will see the below warning message.



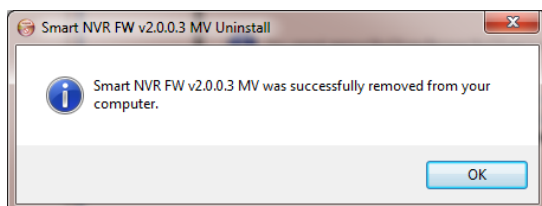
When the following windows appears, click the Yes button. And click Yes again on the next window.



The progress of uninstalling is displayed.



After all Smart NVR program files are uninstalled, the following window will be displayed. Click OK button on the following window to complete the uninstalling.



5. Components of Smart NVR

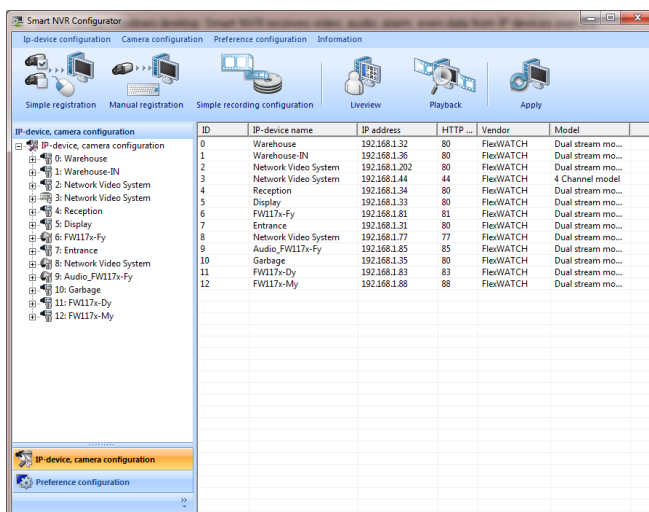
Smart NVR is consists of three programs, which are Smart NVR Service, Smart NVR Configurator, and Smart NVR Controller. When you install Smart NVR software package, all these three programs will be installed together.

5.1. Smart NVR Service

Smart NVR program is a Windows Service and runs in a background mode, which means that it is not shown on the Windows desktop. Smart NVR receives video, audio, alarm, even data from IP devices over the network, and then it can record the data on the hard drive or retransmit to users. Starting, terminating and restarting of Smart NVR program can be done by using Smart NVR Configurator or Smart NVR Controller.

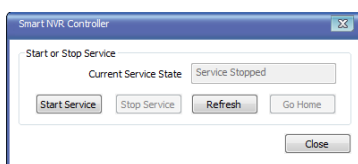
5.2. Smart NVR Configurator

Smart NVR Configurator is used to setup various parameters and conditions of Smart NVR Service. Users can register, modify and delete IP devices and users with this program, it also provides configuring tools for recording, alarm, event and other functionalities. When you run Smart NVR Configurator program, the following window will be displayed on the screen.



5.3. Smart NVR Controller

Smart NVR Controller IP program is used to start or stop the Smart NVR Service. The detailed usage is shown in the other section of this manual.



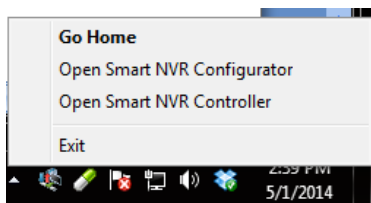
6. Smart NVR System Tray Menu

6.1. Smart NVR Tray Menu

After you finish installing Smart NVR, you will find Smart NVR Controller Icon on the system tray, which is located right bottom part of the Windows Taskbar.



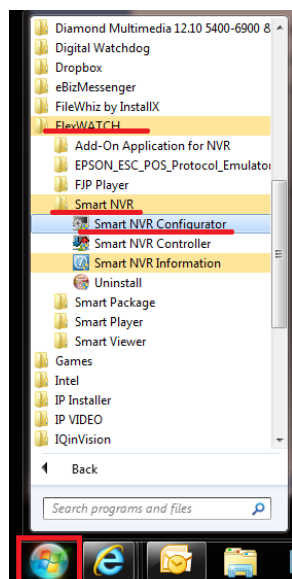
By Right Clicking of the Icon, the following pop-up menu will be shown. You can open Smart NVR Configurator or Smart NVR Controller program from this menu, or you can go to the webpage of the Smart NVR Program for Live view or Playback.



	Items	Descriptions
A	Go Home	Go to Smart NVR homepage.
B	Open Smart NVR Configurator	Go to Smart NVR Configurator
C	Open Smart NVR Controller	Go to Smart NVR Controller
D	Exit	Exit Smart NVR program

6.2. Run Smart NVR Configurator

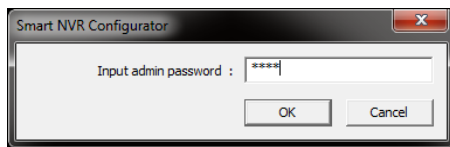
Smart NVR Configurator starts automatically right after installation is completed. If you want to run it later, click the Smart NVR icon on the Windows desktop, or run Start → Programs → Flexwatch → Smart NVR → Smart NVR Configurator.



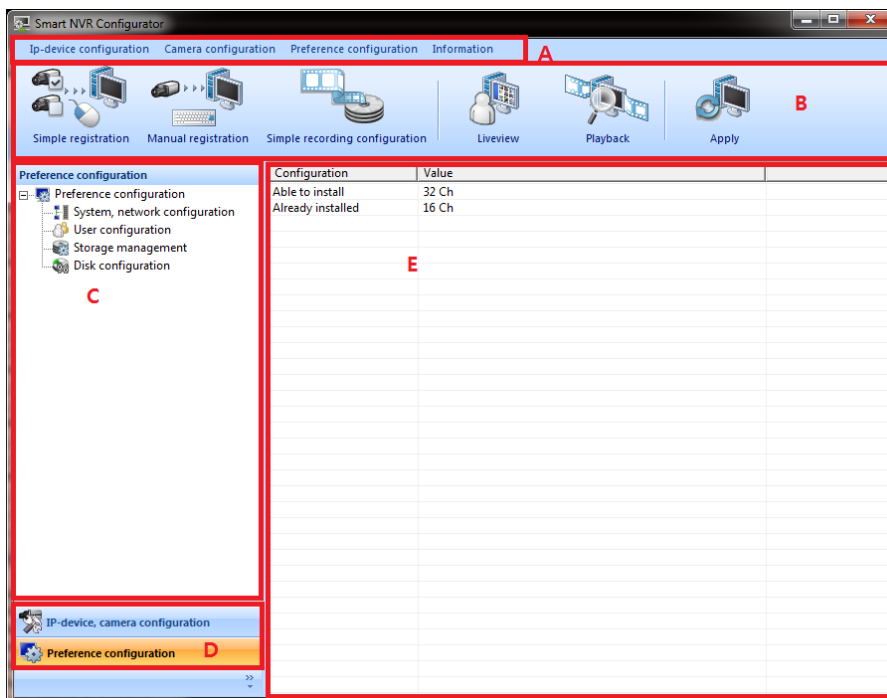
7. Starting Smart NVR Configurator

7.1. Log-in Smart NVR Configurator

Once Smart NVR Configurator starts, a log-in window will be displayed as below. Type in the proper Admin password and click OK button. The default Admin password is “root”.



7.2. Description of Smart NVR Configurator (Main Screen)



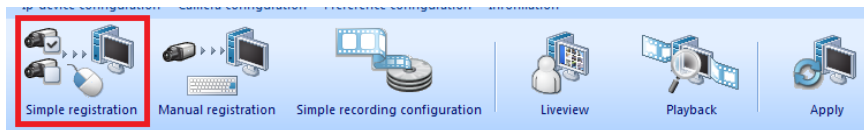
	Menu	Descriptions
A	Menu Bar	Main Menu bar
B	Tool Bar	Quick access to frequently used Menu
C	Sub Configuration menu	Display Sub configuration Menu
D	Menu toggle	Switches between IP device and Preference configuration
E	Details	Displays the details of configuration

8. IP device, camera configuration

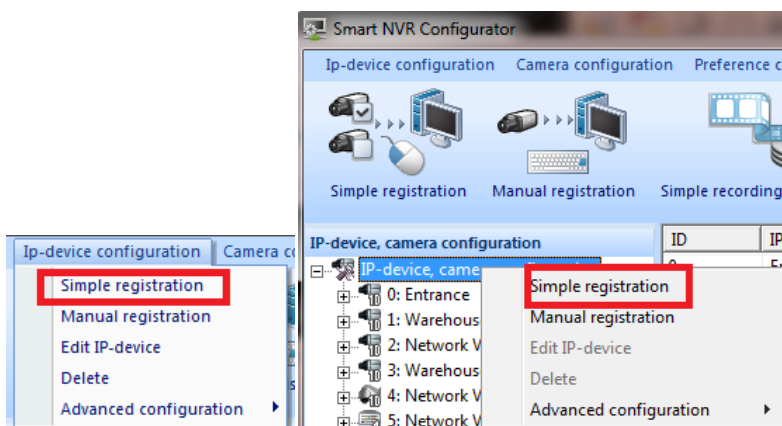
8.1. Simple registration of IP devices

An automatic detection and registration will be executed by pressing Simple registration icon.

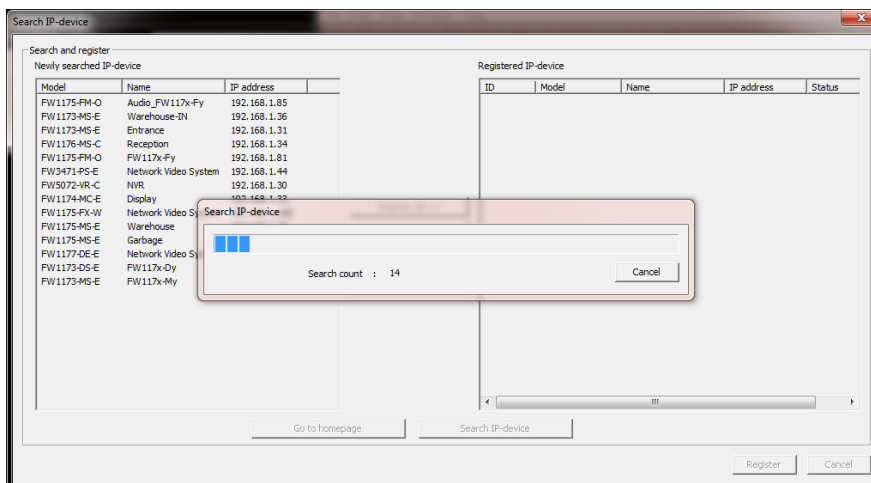
1) Click "Simple registration" icon from the tool bar.



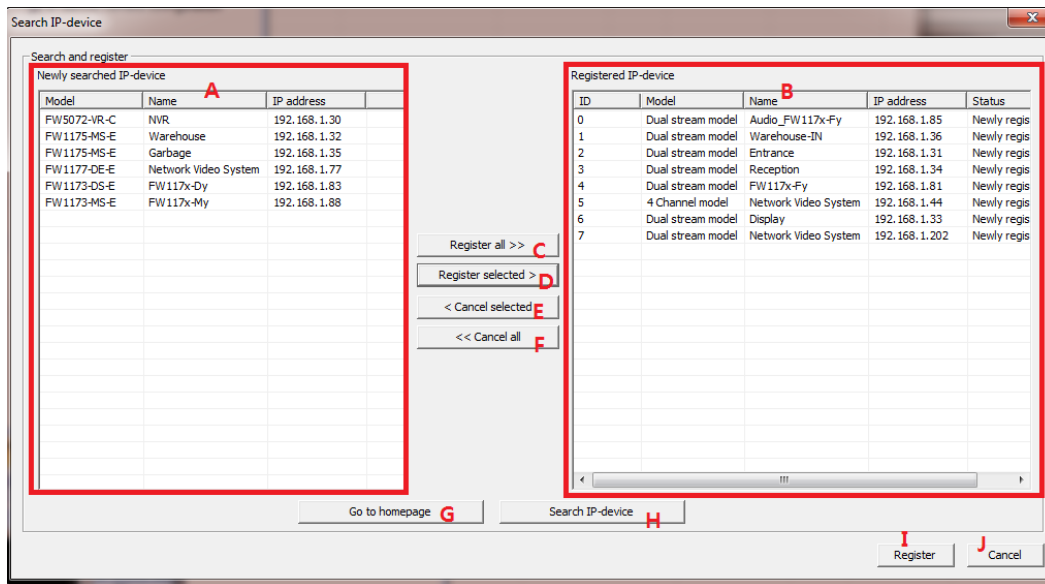
2) or select simple registration button from IP device configuration menu.



3) then wait until searching process is completed.



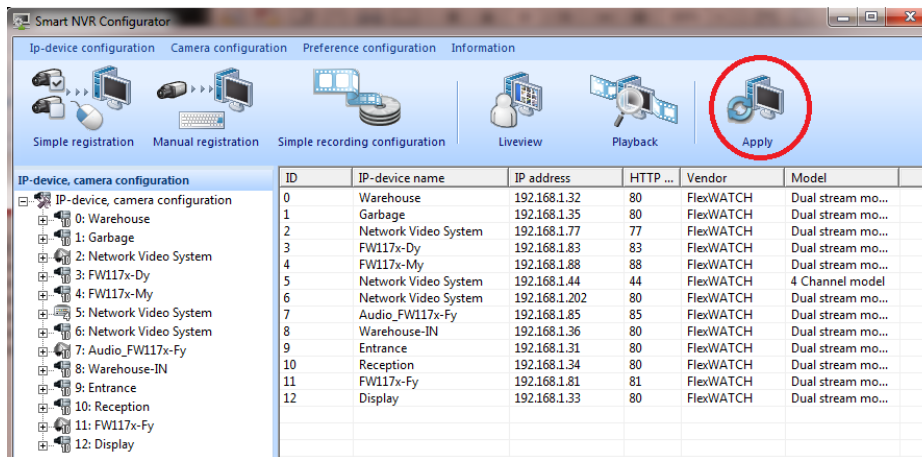
4) Select the cameras that you want to register from the newly searched IP device list. By pressing Register All or Register selected button, the selected IP device will be listed on Registered IP-device list.



	Menu	Description
A	Searched IP device	Shows newly searched IP device. Already registered IP device will not be listed
B	Registered IP device	Shows already registered IP device
C	Register all devices	Register all IP devices
D	Register selected devices	Register only selected IP device(s)
E	Cancel selected devices	In order to cancel the registered device, select the IP device and press this
F	Cancel all devices	In order to cancel all registered device, press this button
G	Go to Homepage	Go to the selected IP device's homepage
H	Search IP device	By pressing this, searching function will be executed
I	Register	Register the registered IP device list to Smart NVR Configurator
J	Cancel	Exit from Search IP device screen.

5) Click Register button from Search IP device screen then the IP device will be registered to Smart NVR Configurator.

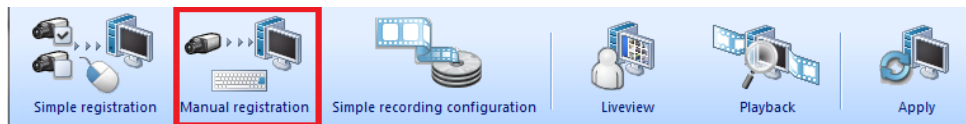
6) Click Apply button to save changes.



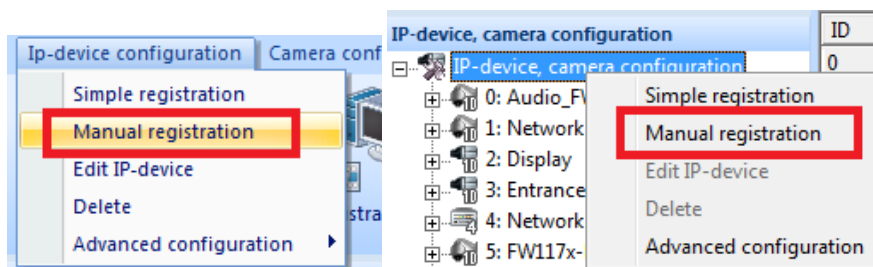
8.2. Manual Registration for IP-devices

Smart NVR provides a manual registration as well as Simple registration. Manual registration is used to register your IP Camera which is NOT on the same network such as the camera which needs to be registered using IP CCTV DNS , RTP/RTSP.

1) Click Manual registration icon from the tool bar.



2) or select manual registration button from IP device configuration menu.



3) then you will see the below dialog window.

Manual registration

Input IP-device info

ID: 4 **A**

Vendor: **B**

Model: **C**

IP address: **D**

HTTP port: 80 **E**

Login ID: **F**

Login password: **G**

Confirm password: **H**

VS module ID: 0 **I**

Collect IP-device info: Collect **J**

Name: **K**

RTSP port: 544 **L**

Select the resolution supported by IP-device **M**

<input type="checkbox"/>	QCIF (QQVGA)	176 x 144 ~ 160 x 112
<input type="checkbox"/>	CIF (QVGA)	352 x 288 ~ 320 x 240
<input type="checkbox"/>	Half D1 (Half VGA)	704 x 288 ~ 640 x 240
<input type="checkbox"/>	D1 (VGA)	704 x 576 ~ 640 x 480
<input type="checkbox"/>	SVGA	800 x 600 ~ 720 x 480
<input type="checkbox"/>	XGA	1024 x 768 ~ 960 x 720
<input type="checkbox"/>	HD720 (720P)	1280 x 720
<input type="checkbox"/>	SXGA	1280 x 1024
<input type="checkbox"/>	UXGA	1600 x 1200
<input type="checkbox"/>	1080P	1920 x 1080

Check PTZ camera **N**

☐ Camera1 ☐ Camera2 ☐ Camera3 ☐ Camera4

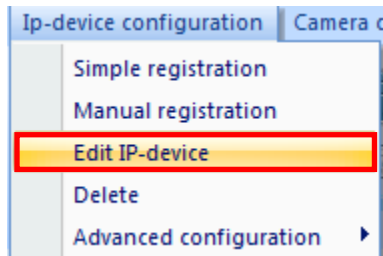
Register Cancel

Section	Item	Description
A	ID	Select the IP-Device ID to register
B	Vendor	Select the Vendor name of the IP-device to register.
C	Model	Select one among 1ch, dual stream, and 4ch model. Select the total number of channels the IP device has.
D	IP address	Type in IP address for using the IP-Device Type in URL address if it is connected to URL
E	HTTP port	Type in HTTP port (Default: 80)
F	Login ID	Type in ID (Default: root)
G	Login Password	Type in your password
H	Confirm Password	Type in your password to confirm.
I	VS Module ID	Generally type in "0" (FW5870, select "1")
J	Collect IP-device info	Obtain IP-device information through this button if IP-device is installed
K	Name	Type in Name for IP-device to use.
L	RTSP port	Select RTSP port number if it is connected with RTP/RTSP
M	Resolution	Select the supported resolution
N	PTZ camera	Click camera if PTZ camera is installed

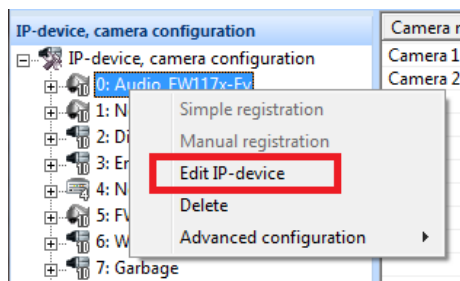
8.3. Edit IP-device in IP device configuration

User can edit the information of IP-device that was already registered in your Smart NVR.

- 1) Select "Edit IP device" from IP device configuration on Menu bar



- 2) Or directly select "Edit IP-device" from IP-device, camera configuration.



- 3) then the below Edit IP device window will be shown up.

Edit IP-device

Input IP-device info

ID: 0 (A)

Vendor: FlexWATCH

Model: Dual stream model

IP address: 10.10.211.101

HTTP port: 80

Login ID: root

Login password: ****

Confirm password: ****

VS module ID: 0

Collect IP-device info: Collect

Name: Network Video System

RTSP port: 544

Select the resolution supported by IP-device

<input checked="" type="checkbox"/>	QCIF (QQVGA)	176 x 144 ~ 160 x 112
<input checked="" type="checkbox"/>	CIF (QVGA)	352 x 288 ~ 320 x 240
<input checked="" type="checkbox"/>	Half D1 (Half VGA)	704 x 288 ~ 640 x 240
<input checked="" type="checkbox"/>	D1 (VGA)	704 x 576 ~ 640 x 480
<input checked="" type="checkbox"/>	SVGA	800 x 600 ~ 720 x 480
<input checked="" type="checkbox"/>	XGA	1024 x 768 ~ 960 x 720
<input type="checkbox"/>	HD 720 (720P)	1280 x 720
<input type="checkbox"/>	SXGA	1280 x 1024
<input type="checkbox"/>	UXGA	1600 x 1200
<input type="checkbox"/>	1080P	1920 x 1080

Check PTZ camera

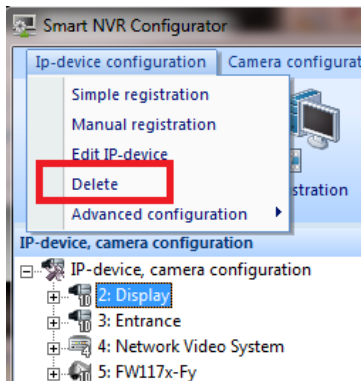
☐ Camera1 ☐ Camera2 ☐ Camera3 ☐ Camera4

Register Cancel

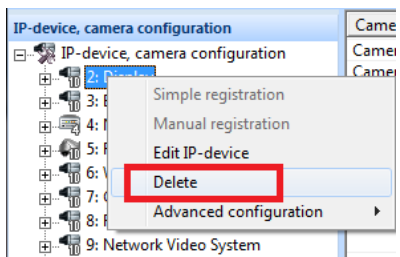
* Note : you can edit all items except ID number (A)

8.4. Deletion of registered IP-device

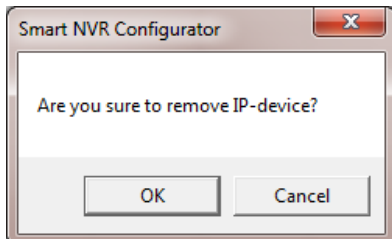
- 1) Select the device you wish to delete from IP-device configuration menu.
- 2) Select Delete button from IP device configuration menu



- 3) or right click the selected device from IP-device, camera configuration.



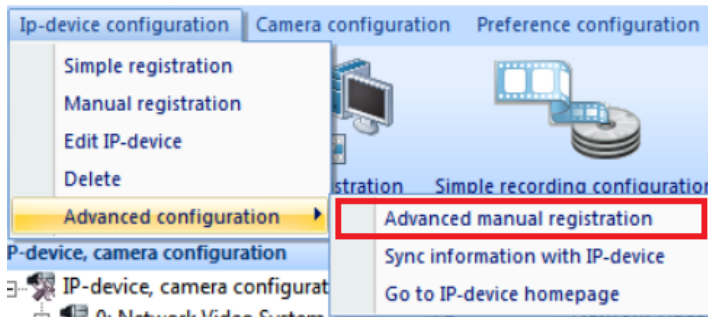
- 4) Please click OK to delete the selected device when the below dialog window appears.



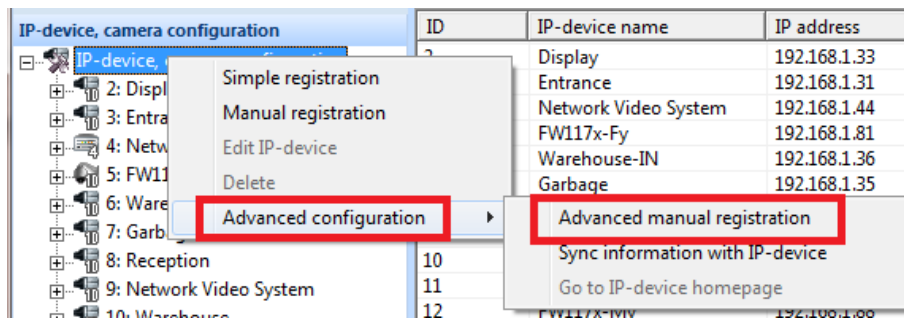
8.5. Advanced manual registration

This advanced manual registration is used to register the device which is not installed yet or to register multiple IP devices at once.

- 1) Select "Advanced Manual registration" from IP device configuration → Advanced configuration on Menu bar.



2) or select “Advanced Manual registration” from IP device, camera configuration → Advanced configuration.



3) you can register all info when the below Advanced manual registration dialog is appears.

Advanced manual registration

Input IP-device info

ID	4	A
Vendor		B
Model		C
IP address		D
HTTP port	80	E
Login ID		F
Login password		G
Confirm password		H
VS module ID	0	I
Name		J
RTSP port	544	K

Select the resolution supported by IP-device L

<input type="checkbox"/>	QCIF (QQVGA)	176 x 144 ~ 160 x 112
<input type="checkbox"/>	CIF (QVGA)	352 x 288 ~ 320 x 240
<input type="checkbox"/>	Half D1 (Half VGA)	704 x 288 ~ 640 x 240
<input type="checkbox"/>	D1 (VGA)	704 x 576 ~ 640 x 480
<input type="checkbox"/>	SVGA	800 x 600 ~ 720 x 480
<input type="checkbox"/>	XGA	1024 x 768 ~ 960 x 720
<input type="checkbox"/>	HD720 (720P)	1280 x 720
<input type="checkbox"/>	SXGA	1280 x 1024
<input type="checkbox"/>	UXGA	1600 x 1200
<input type="checkbox"/>	1080P	1920 x 1080

Check PTZ camera M

☐ Camera1 ☐ Camera2 ☐ Camera3 ☐ Camera4

Range registration

No range N

IP address range ~ O

Input VS module ID range ~ P

Register Cancel

IP-장비 상세 수동 등록

IP-장비 정보 입력

IP-장비 ID A

제조사 B

모델 C

IP 주소 D

HTTP 포트 E

로그인 ID F

로그인 암호 G

암호 확인 H

VS Module ID I

이름 J

RTSP 포트 K

IP-장비가 지원하는 해상도를 선택 L

<input type="checkbox"/>	QCIF (QQVGA)	176 x 144 ~ 160 x 112
<input type="checkbox"/>	CIF (QVGA)	352 x 288 ~ 320 x 240
<input type="checkbox"/>	Half D1 (Half VGA)	704 x 288 ~ 640 x 240
<input type="checkbox"/>	D1 (VGA)	704 x 576 ~ 640 x 480
<input type="checkbox"/>	SVGA	800 x 600 ~ 720 x 480
<input type="checkbox"/>	XGA	1024 x 768 ~ 960 x 720
<input type="checkbox"/>	HD720 (720P)	1280 x 720
<input type="checkbox"/>	SXGA	1280 x 1024
<input type="checkbox"/>	UXGA	1600 x 1200
<input type="checkbox"/>	1080P	1920 x 1080

PTZ 설치된 카메라 확인 M

☐ 카메라1 ☐ 카메라2 ☐ 카메라3 ☐ 카메라4

범위 사용 등록

범위 사용 안함 N

IP 주소 범위 입력 ~ O

VS Module ID 범위 입력 ~ P

저장 Q 취소 R

#	Item	Description
A	ID	Select the IP-Device ID to register
B	Vendor	Select the Vendor name of the IP-device to register.
C	Model	Select one among 1ch, dual stream, and 4ch model. Select the total number of channels the IP device has.
D	IP address	Type in IP address for using the IP-Device Type in URL address if it is connected with URL
E	HTTP port	Type in HTTP port (Default: 80)
F	Login ID	Type in ID (Default: root)
G	Login Password	Type in your password
H	Confirm Password	Type in your password to confirm.

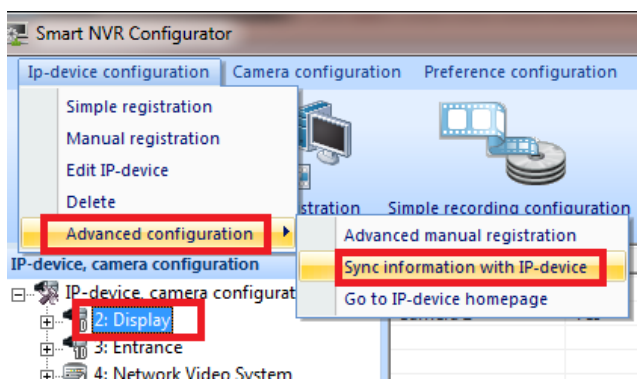
I	VS Module ID	Type in Default value "0" (FW5870, select "1")
K	RTSP port	Select RTSP port number t if it is connected with RTP/RTSP
L	Resolution	Select the resolution supported by IP-device
M	Check PTZ camera	You need to check it if you have a PTZ camera connected to Smart NVR
O	No Range	You need to check it if there is no range.
M	IP address range	Register IP-device within designated IP address range. When it is filled, IP address in D is ignored.
N	Input VS Module ID	Register multiple module installed IP-device in D, generally it is ranged from 0 to 1~128

8.6. Synchronize information with IP-device

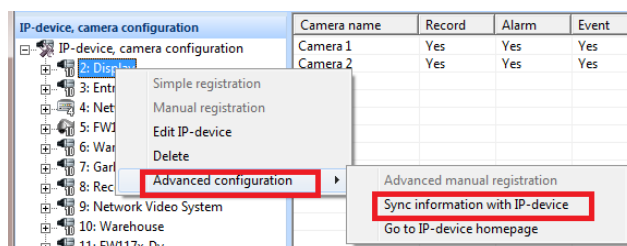
By using this feature, IP-device information is retrieved and automatically entered into the Smart NVR Configurator.

1) Select IP-device from IP-device, camera configuration Menu.

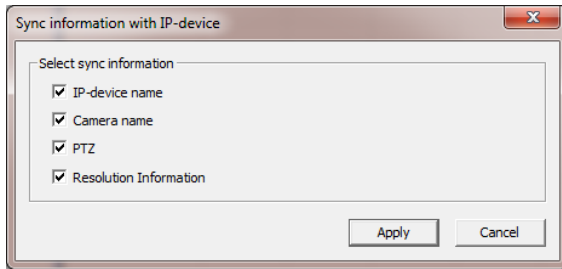
2) Select Sync information with IP-device from Menu → IP device configuration → Advanced configuration menu.



3) or select IP-device then right click then select Advanced configuration → Sync information with IP-device



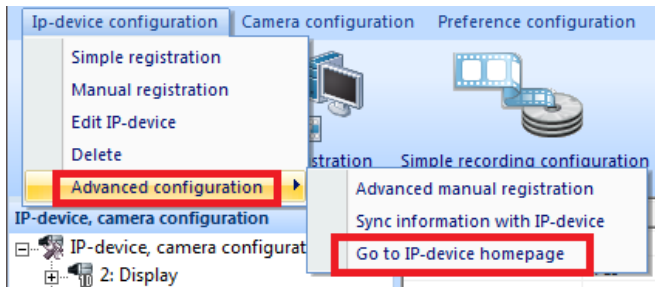
4) Select the information which you want to synchronize from your IP device then click the Apply button.



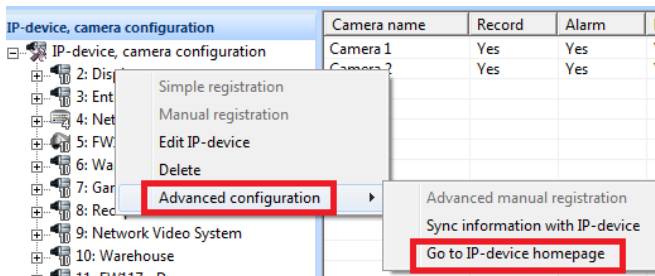
8.7. Go to IP-device's homepage

This is a short cut to access IP-device's website homepage

- 1) Select IP-device which you want to access IP-device's website homepage.
- 2) Select Go to IP-device homepage from Menu → IP device configuration → Advanced configuration menu



- 3) or select IP-device, right click then select Advanced configuration → Go to IP device homepage



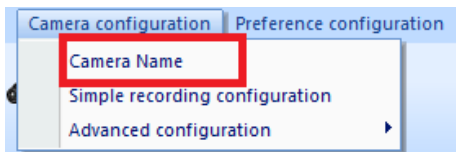
- 4) You can enter to IP device's website homepage.



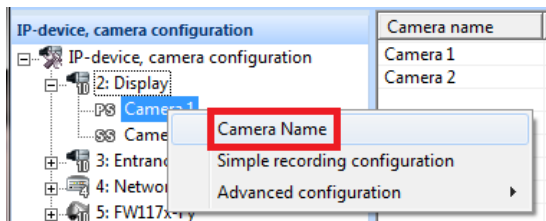
8.8. Camera Name configuration

You can change Camera name which was already registered.

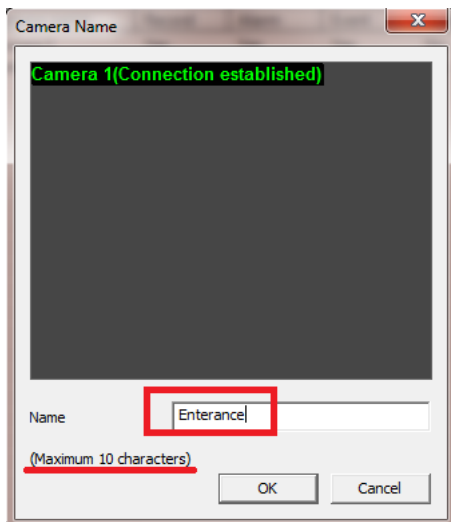
- 1) Select the camera which you want to change the camera name.
- 2) Select Camera name from Menu → Camera configuration menu



- 3) or Select Camera from IP-device, camera configuration menu, right click then select Camera name



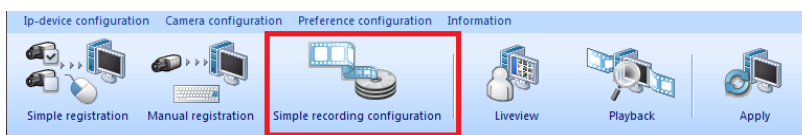
- 4) You can change Camera name as you want (Maximum 10 characters) then click OK



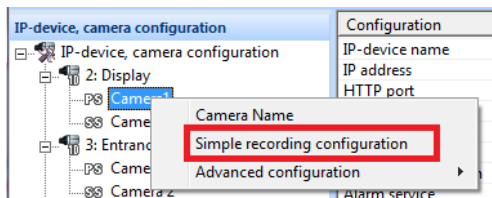
8.9. Simple recording configuration

You can easily setup the recording configuration using this simple recording configuration menu.

- 1) Select the camera you want to setup recording configuration
- 2) Select Simple recording configuration Tool bar.

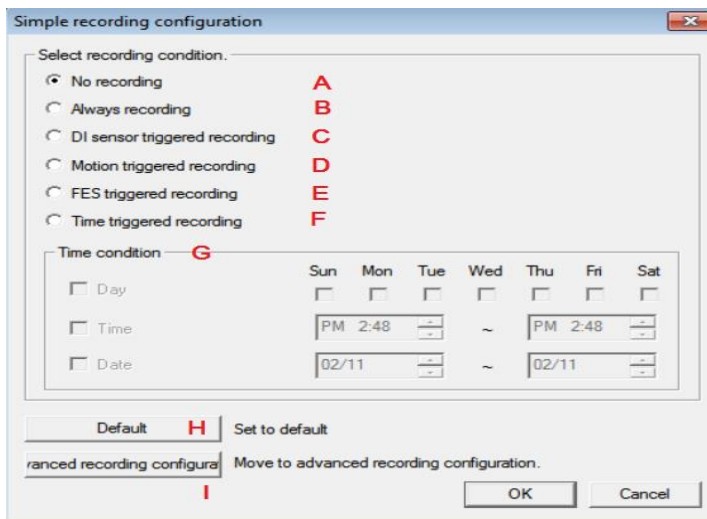


3) Select the camera from IP-device, camera configuration menu, right click then select simple recording configuration.



4) You can select one of recording condition from the below recording configuration menu.

(Default setting is Motion triggered recording)

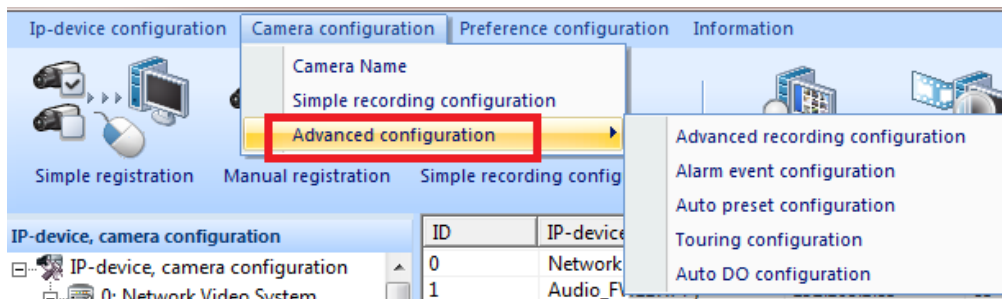


#	Item	Description
A	No recording	No recording any Video image
B	Always recording	Always recording without conditions.
C	DI sensor triggered recording.	Record only if the signal is triggered by DI sensor of camera.
D	Motion triggered recording	Recording image only if Motion is triggered
E	FES triggered recording	Recording image only if the FES data is input.
F	Time triggered recording	Recording image if the designated time is triggered.
G	Time condition	Configure time condition you need.
H	Default	Default is set up " Motion triggered recording"
I	Advanced recording configuration	It is used for when the more complex and more various conditions you need. If you click on , see " Advanced recording configuration"

8.10. Advanced recording configuration

By using this advanced configuration, Recording condition, Alarm event, Auto preset, Touring and Auto DO configuration could be set at once for multiple cameras and/or for all Cameras.

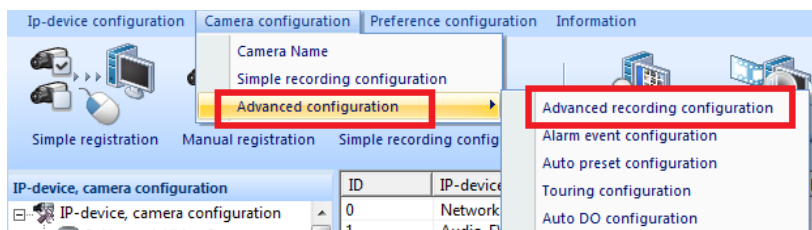
. Select Advanced configuration from Menu → Camera configuration.



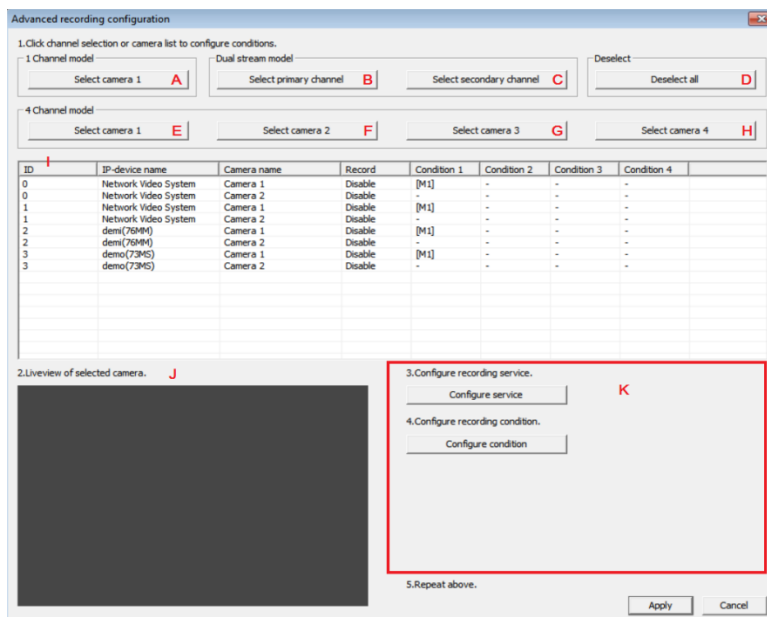
8.11. Advanced recording configuration

By using this advanced recording configuration, several recording condition could be set at once for multiple cameras.

1) Select Advanced recording configuration from Menu → Camera configuration → Advanced configuration menu

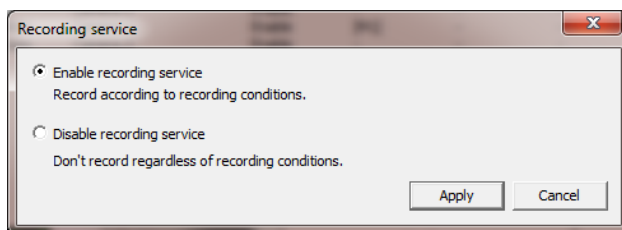


2) Select the camera which want to setup recording configuration using below button A to H for Advanced recording configuration Menu



#	Item	Description.
A	Select camera 1	Select all "Camera 1" of one channel IP-devices(ex,FW3170) in section I
B	Select Primary channel	Select all "Primary channel " of Dual stream models in section I
C	Select secondary channel	Select all "Secondary channel " of Dual stream models in section I
D	Deselect all	Deselect all IP-devices in section I
E	Select camera 1	Select all " Camera 1" of four channels IP-devices(ex,FW3470) in section I
F	Select camera 2	Select all " Camera 2" of four channels IP-devices(ex,FW3470) in section I
G	Select camera 3	Select all " Camera 3" of four channels IP-devices(ex,FW3470) in section I
H	Select camera 4	Select all " Camera 4 of four channels IP-devices(ex,FW3470) in section I
I	ID	Show up all listed IP-devices.
J	Live view of selected camera	Live view of selected camera at section I
K	Service Configuration.	<ol style="list-style-type: none"> 1. Configure service <ol style="list-style-type: none"> 1) Enable recording service : Record according to recording conditions. 2) Disable recording service : Don't record regardless of recording conditions 2. Configure recording condition Recording Condition could be setup by Always/Schedule/ Event

3) Configure recording service



Select Enable or Disable recording service then press Apply button.

4) Configure recording condition

Advanced recording configuration

1. Select condition to configure. **A**

Condition number	Condition name
1	[M1]
2	-
3	-
4	-

2. Configure recording condition.

Input condition **B**

☒ Use condition ☐ Don't use condition

C Condition mode

D ☐ Always recording

E ☐ Schedule triggered recording

F ☒ Event triggered recording

G ☐ Event and schedule triggered recording

H Schedule

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input type="checkbox"/> Day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Time		AM 11:21	~		AM 11:21		
<input type="checkbox"/> Date		05/02	~		05/02		

I Event

	1	2	3	4
Alarm sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FES		<input type="checkbox"/>		

3. Click "Apply" to apply configured condition.

Apply **J**

4. Repeat above.

K OK **L** Cancel

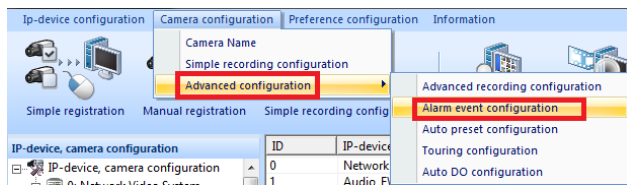
#	Name	Description
A	Recording condition	Save up to 4 recording conditions. Recording will start if one of 4 condition is matched.
B	Use of recording condition	Select to use the stored recording condition or not. If Don't use condition is selected, recording condition cannot be set.
C	Condition mode	Select one of 4 condition modes
D	Always recording	Records video and audio always
E	Schedule triggered recording	Records video based on schedule
F	Event triggered recording	Records video when event occurs
G	Event and schedule triggered recording	Records video when event occurs at scheduled date / time
H	Schedule	Setup the schedule for recording
I	event	Setup the event for recording

J	apply	Apply the configured schedule and event data to condition list
K	OK	Click to confirm the changes and exit the window
L	Cancel	Click to cancel the all changes made in this screen

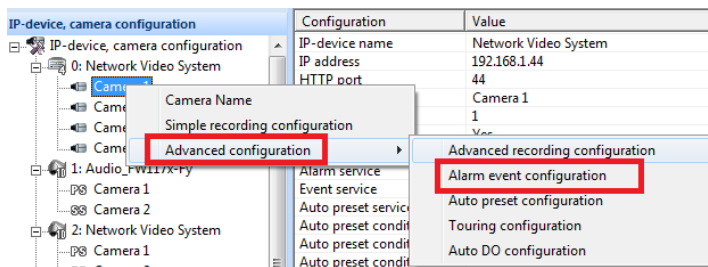
8.12. Alarm event configuration

Smart NVR Service can receive the alarm event from an external and also can send the alarm signal to externa.

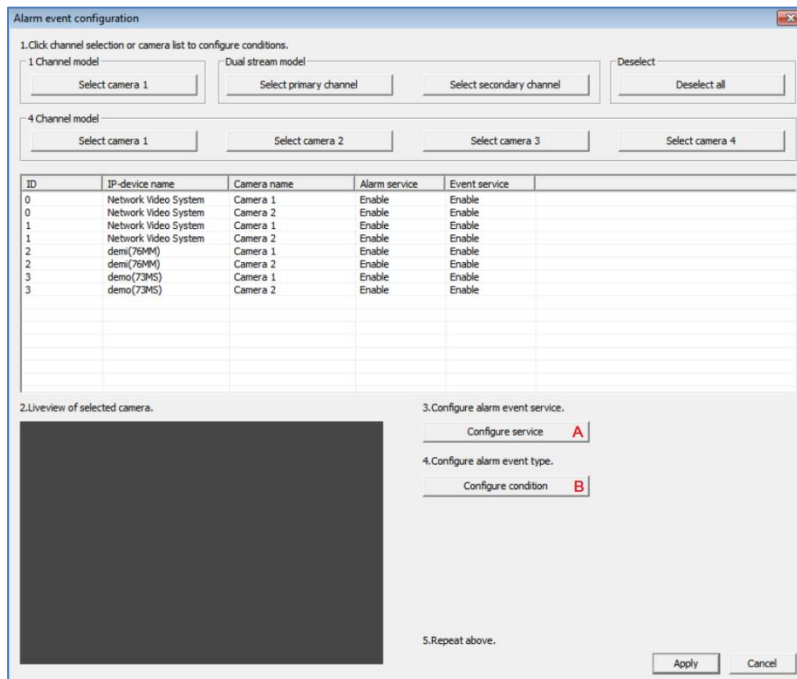
1) Select Alarm event configuration from Menu → Camera configuration → Advanced configuration



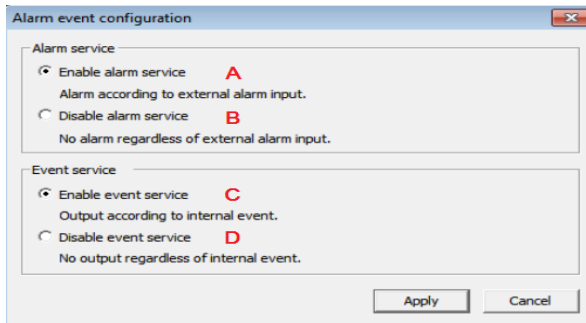
2) or from IP-device, alarm configuration menu (right click a



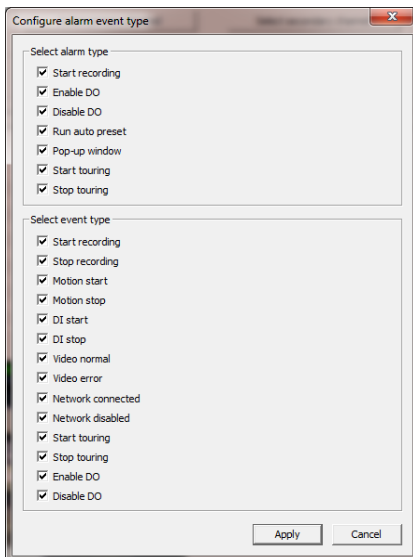
3) Select the camera which you want to setup alarm event configuration.



4) Configure Alarm Event service : Select Enable or Disable for Alarm Service and Event Service



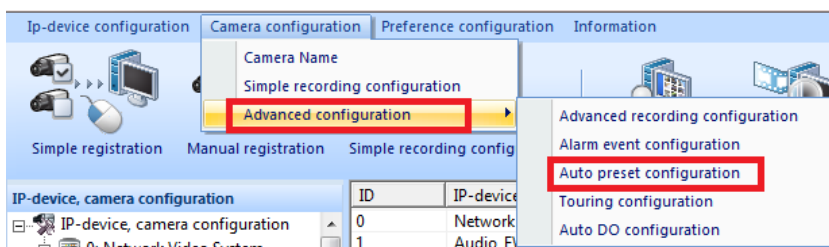
5) Configure Alarm Event Type. : Select Alarm Type and Event type



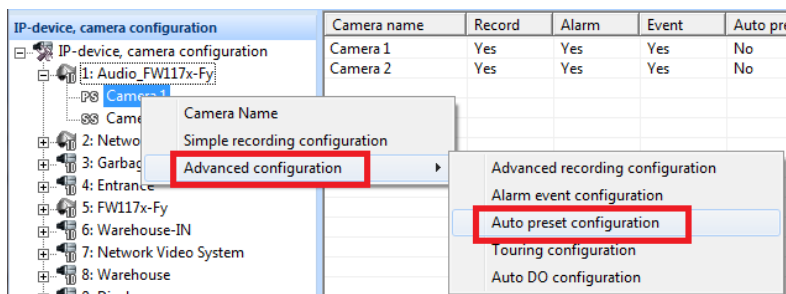
8.13. Auto preset configuration

If specific condition is occurs, move to specified preset position for PTZ supported IP device.

1) Select Auto preset configuration from Menu → Camera configuration → Advanced configuration menu

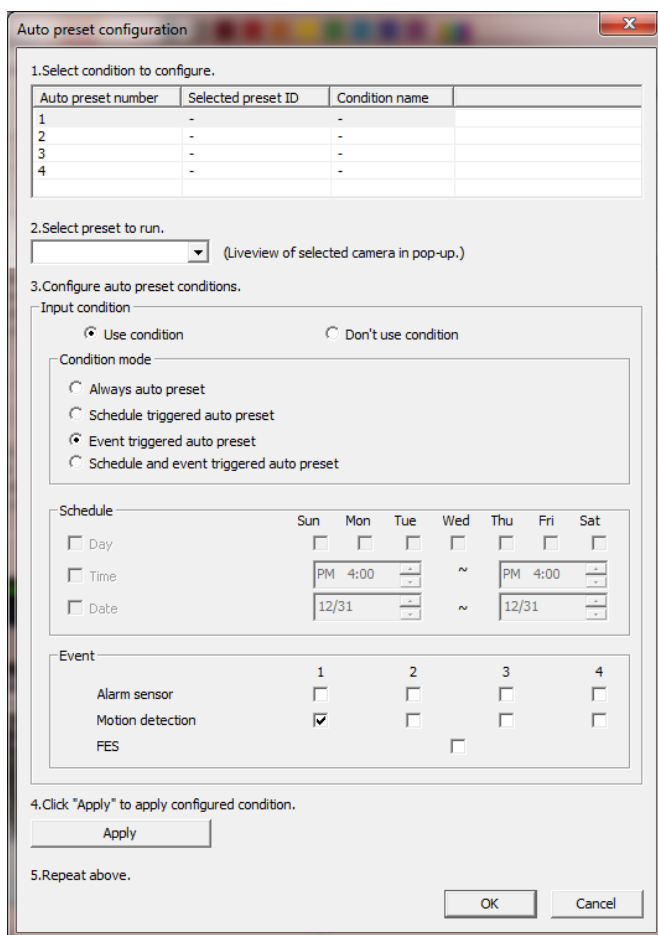
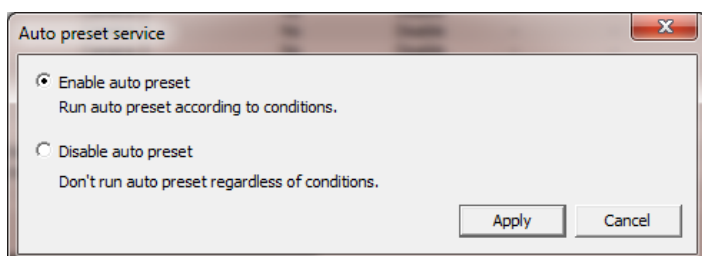


2) or select Auto preset configuration from IP device, camera configuration menu.



3) select camera which you want to setup auto preset configuration.

4) you can configure Auto preset (Enable or Disable) and auto preset conditions.

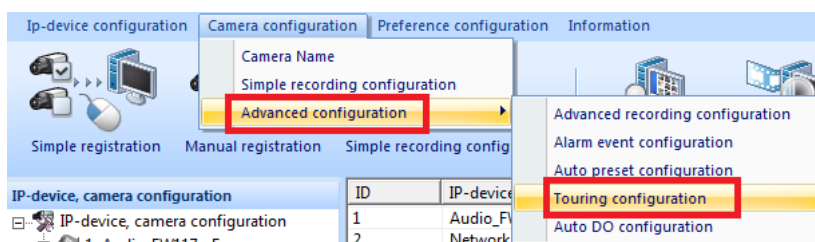


	Item	Description
A	Select condition	Support up to 4 auto preset conditions Each auto preset support each preset condition.
B	Preset ID	Select preset ID to run by configured conditions Maximum available preset ID is differ by each PTZ vendor.
C	Configure Auto preset conditions	Configure auto preset conditions Event condition must be included.
D	Apply	Press Apply to save Auto preset setting
E	OK	Click to confirm the changes and exit the window
F	Cancel	Click to cancel the all changes made in this screen

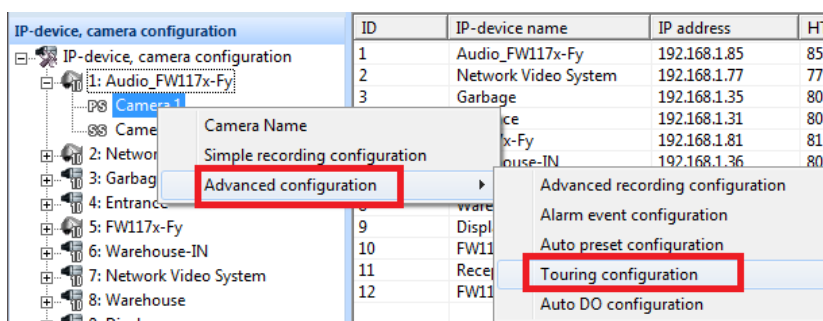
8.14. Touring configuration.

Features to move to specified preset position by the specified order and time for PTZ supported IP device.

1) Select touring configuration from Menu → Camera configuration → Advanced configuration menu.



2) or select Touring configuration from IP-device, camera configuration menu.



3) select camera which you want to setup auto preset configuration.

4) you can configure Touring service (Enable or Disable), configure shift time and preset number and touring pause time.

Touring configuration

1. Click channel selection or camera list to configure conditions.

1-Channel model:

4-Channel model:

ID	IP-device name	Camera name	PTZ	Touring	Touring pa...
0	Network Video System	Camera 1	No	Disable	10
0	Network Video System	Camera 2	No	Disable	10
1	Network Video System	Camera 1	No	Disable	10
1	Network Video System	Camera 2	No	Disable	10
2	demo(768H)	Camera 1	No	Disable	10
2	demo(768H)	Camera 2	No	Disable	10
3	demo(734S)	Camera 1	No	Disable	10
3	demo(734S)	Camera 2	No	Disable	10

2. Liveview of selected camera.

3. Configure touring service.
Configure service **A**

4. Configure shift time and select preset in touring.
Select preset **B**

5. Set touring pause time.
Set pause **C**

6. Repeat above.

5) Configure touring service : Enable or Disable

Touring service

☒ Enable touring
Run touring in order of preset set.

☐ Disable touring
Don't run touring.

6) Configure shift time and select preset

Touring configuration

Configure shift time
Shift time (sec) **A**

Select preset
Check preset **B**
(Liveview of selected camera in pop-up.)

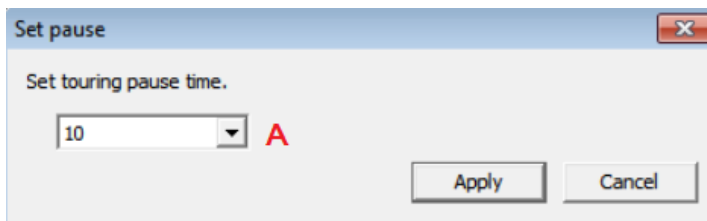
C **D**

1 <input type="checkbox"/> E	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>
9 <input type="checkbox"/>	10 <input type="checkbox"/>	11 <input type="checkbox"/>	12 <input type="checkbox"/>
13 <input type="checkbox"/>	14 <input type="checkbox"/>	15 <input type="checkbox"/>	16 <input type="checkbox"/>
17 <input type="checkbox"/>	18 <input type="checkbox"/>	19 <input type="checkbox"/>	20 <input type="checkbox"/>
21 <input type="checkbox"/>	22 <input type="checkbox"/>	23 <input type="checkbox"/>	24 <input type="checkbox"/>
25 <input type="checkbox"/>	26 <input type="checkbox"/>	27 <input type="checkbox"/>	28 <input type="checkbox"/>
29 <input type="checkbox"/>	30 <input type="checkbox"/>	31 <input type="checkbox"/>	32 <input type="checkbox"/>

Name	Item	Description
A	Shift time	The interval time to wait for moving to next preset.
B	Check preset	If you check up preset, you can see live view of selected camera in

		bottom of window message.
C	Select all	Select all preset from 1 to 32
D	Deselect all	Deselect all preset from 1 to 32
E	Select preset	Individually select preset to use for touring at any spot.

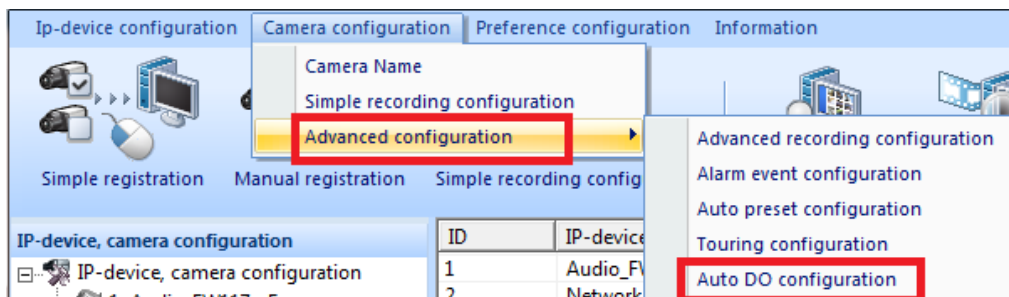
6) If some other PTZ commands occurs, the touring action will be paused for the specified touring pause time and will continue the touring. You can set touring pause time from the below window.



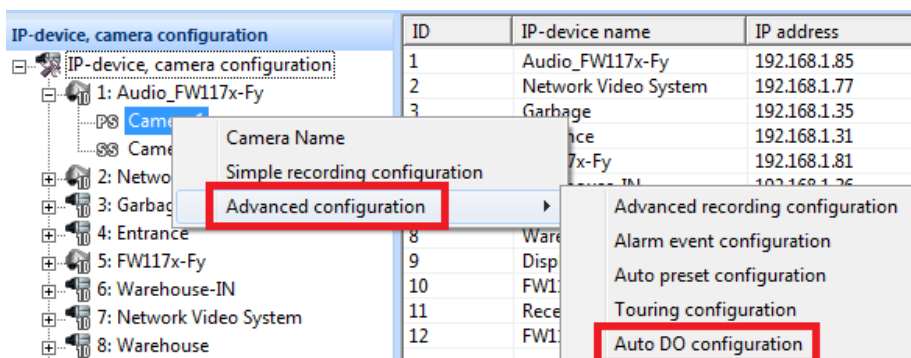
8.15. Auto DO configurations

In case the alarm function is equipped on Digital Output supported products, the alarm function will be automatically work if specified condition occurs.

1) Select Auto DO configuration from Menu → Camera configuration → Advanced configuration menu



2) or select Auto DO configuration from IP-device, camera configuration menu by Right clicking the selected camera



3) select camera which you want to setup auto DO configuration.

4) you can configure Auto DO service (Enable or Disable), Conditions and Auto DO duration time.

Auto DO configuration

1. Click channel selection or camera list to configure conditions.

1. Channel model: Dual stream model:

4. Channel model:

ID	IP-device name	Camera name	DO	DO duration time	Cond...	Cond...	Cond...	Cond...
0	Network Video System	Camera 1	Disable	10	-	-	-	-
0	Network Video System	Camera 2	Disable	10	-	-	-	-
1	Network Video System	Camera 1	Disable	10	-	-	-	-
1	Network Video System	Camera 2	Disable	10	-	-	-	-
2	demo(769M)	Camera 1	Disable	10	-	-	-	-
2	demo(769M)	Camera 2	Disable	10	-	-	-	-
3	demo(73M5)	Camera 1	Disable	10	-	-	-	-
3	demo(73M5)	Camera 2	Disable	10	-	-	-	-

2. Liveview of selected camera.

3. Configure auto DO service.
 A

4. Configure auto DO conditions.
 B

5. Set auto DO durations.
 C

6. Repeat above.

5) Enable or Disable Auto DO service

Auto DO service

☒ Enable auto DO
Run auto DO according to conditions.

☐ Disable auto DO
Don't run auto DO regardless of conditions.

6) Configure Auto DO conditions.

Auto DO configuration

1. Select condition to configure.

Condition number	Condition name
1	-
2	-
3	-
4	-

2. Configure auto DO conditions.

Input condition

☒ Use condition ☐ Don't use condition

Condition mode

☒ Always auto DO
☐ Schedule triggered auto DO
☐ Event triggered auto DO
☐ Schedule and event triggered auto DO

Schedule

☐ Day ☐ Time ☐ Date

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PM 4:00		~	PM 4:00		
	12/31		~	12/31		

Event

	1	2	3	4
Alarm sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FES			<input type="checkbox"/>	

3. Click "Apply" to apply configured condition.

4. Repeat above.

Name	Item	Description.
A	Select condition to configure	It supports max 4 auto DO. Select condition to configure. It includes condition number and condition name.
B	Configure auto DO conditions	Configure auto DO conditions. It must have event conditions that user set up.

7) You can set duration time for Auto DO from the below window.

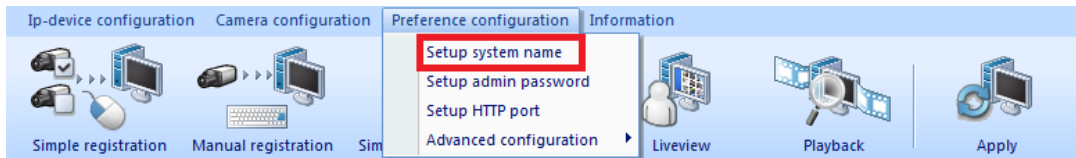
Set duration time

Set duration time for auto DO.

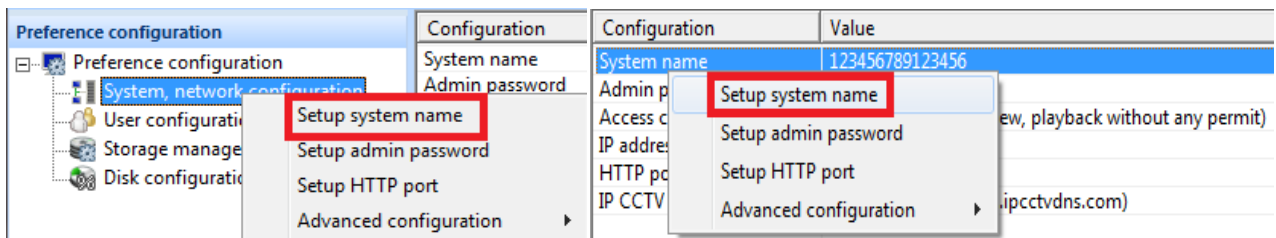
9. Smart NVR Preference configuration

9.1. Setup System Name

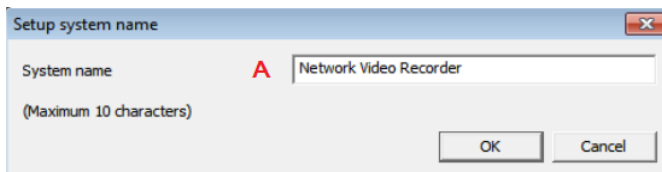
1) Select Setup system name from Menu → Preference configuration menu



2) or from System, network configuration sub menu,



3) Enter system name (Maximum 21 Characters) and click OK to save

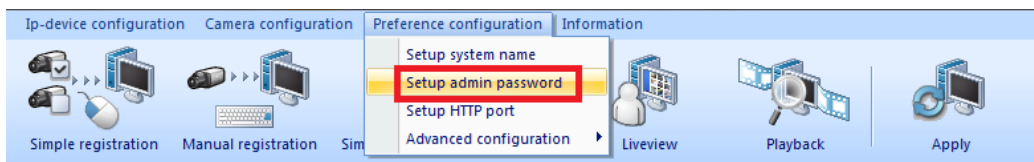


9.2. Setup Admin password

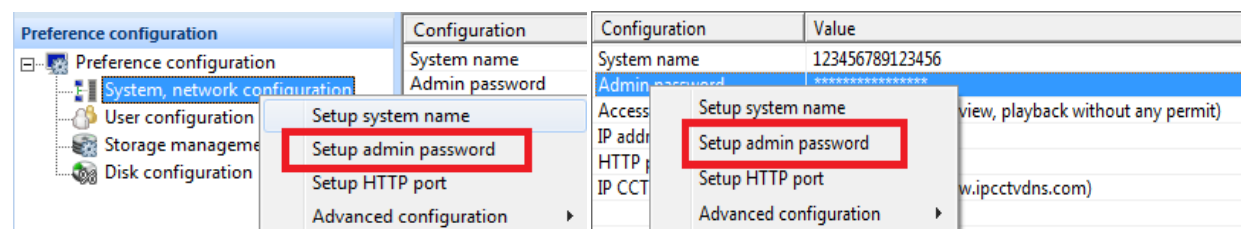
Setup Admin password to be used for login of Smart NVR Configurator. (Default password is root)

This password will be used to access web browser for Live view and playback in case Limited access is selected.

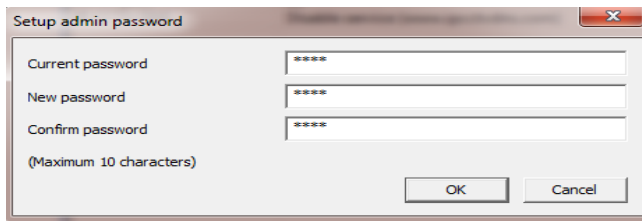
1) Select Admin password from Menu → Preference configuration Menu.



2) or from system, network configuration sub menu.



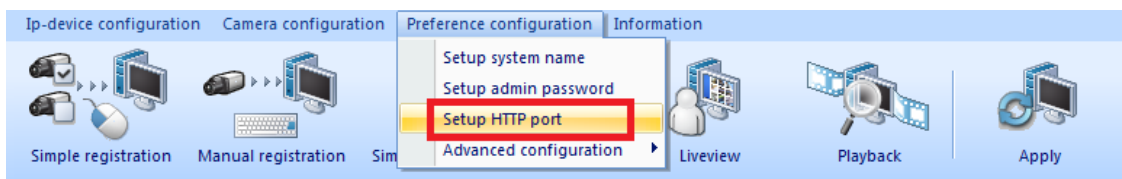
3) to setup new password, input current password and then input new password two times.



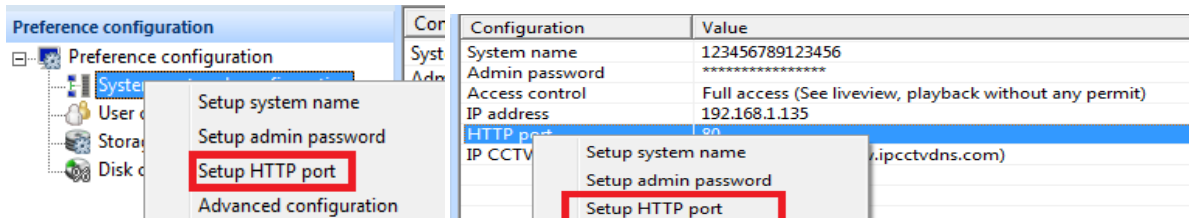
9.3. Setup HTTP port

You need to setup port number to be used for accessing Smart NVR's web browser. (Default port number is 80)

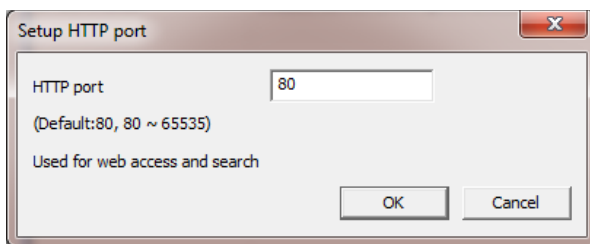
1) Select HTTP port from Menu → Preference configuration menu



2) or from System, network configuration sub menu



3) Input HTTP port which you want to use and click OK to save. (Default port number is 80)



* Note : When using port #80, you don't need to input the port #. If other port # is used, the port # must be input at the end of IP address followed by colon (:)





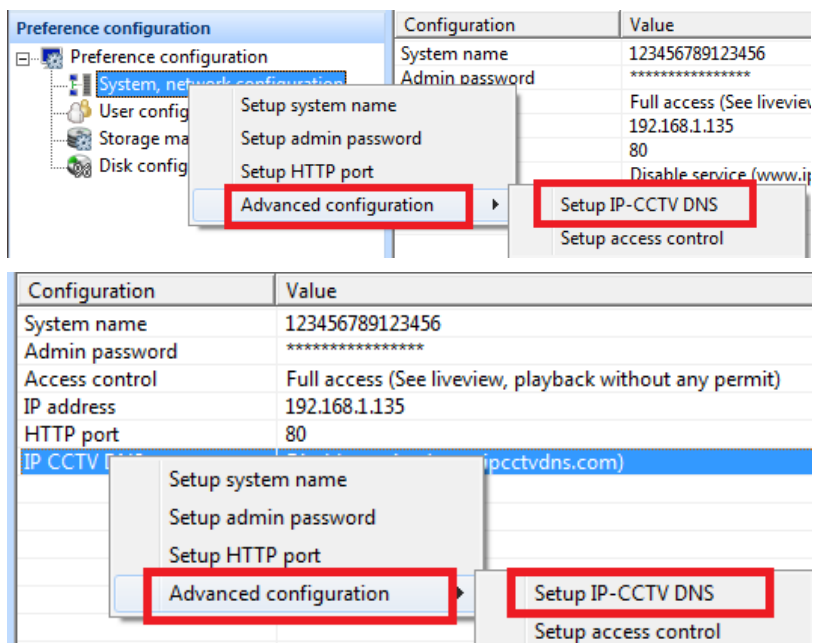
9.4. Setup IP-CCTV DNS

IPCCTVDNS is known as DDNS (Dynamic DNS) and it is used when Smart NVR is operating in a dynamic IP address environment. With IPCCTVDNS, it is possible for a remote PC to connect to Smart NVR for monitoring.

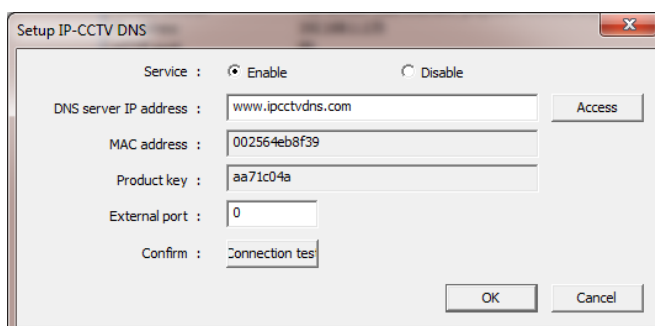
1) Select Setup IP-CCTV DNS from Menu → Preference configuration → Advanced configuration Menus



2) or from Preference configuration Sub menu.

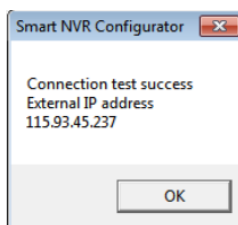


3) Enable IPCCTVDNS Service



Name	Item	Description
A	Service	Enable or disable IPCCTVDNS Service
B	DNS Server IP address	FlexWATCH IP CCTV DNS IP address (www.ipcctvdns.com) already entered.
C	MAC address	It is a mac address of your PC which installed Smart NVR.
D	Product key	It is a Product Key of Smart NVR that you were provided.
E	External port	When you connect to Smart NVR from external, the external port # is used. External port is configured when you do port forwarding from a Router.
F	Connection test	Confirm the public IP address installed Smart NVR.
G	Confirm	Use this button to test the connection is OK

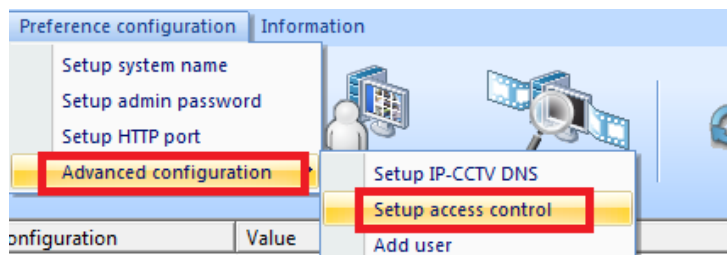
Note : If connection test success, the below window will be displayed.



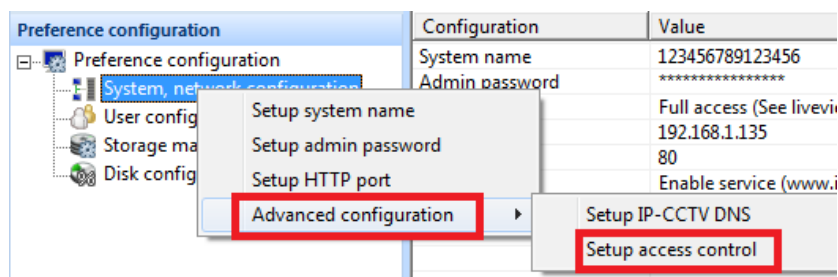
9.5. Setup access control

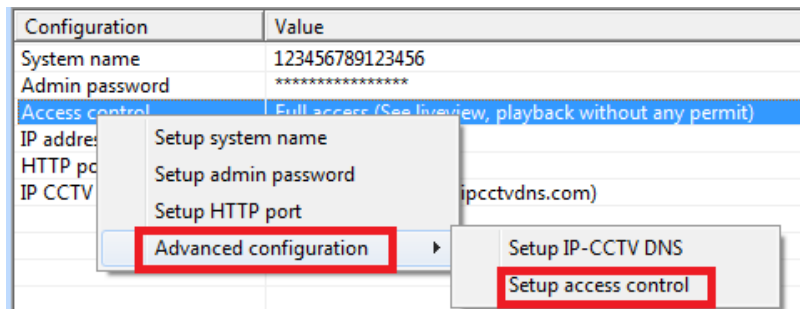
User access level (Full access or Limited access) can be configured by this setup menu.

1) Select Setup access control from Menu → Preference configuration → Advanced configuration menu

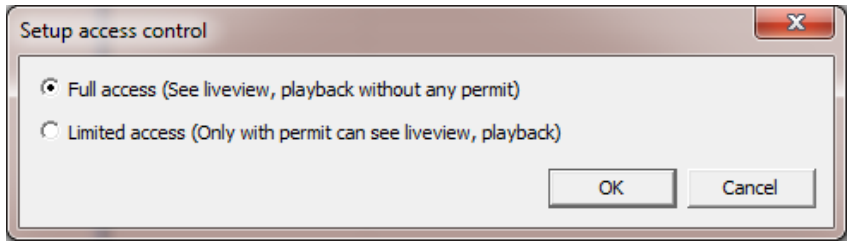


2) or from Preference configuration Sub-Menu





3) you can select Full access or Limited access.



Name	Item	Description
A	Full access	Set Full Access for the user. Anyone can connect to the Smart NVR without authentication, and be allowed live view, audio, PTZ, playback. Default is Full access.
B	Limited access	Set Limited Access for the user. Only the users with proper permission to the camera can access it. It needs ID & Password.

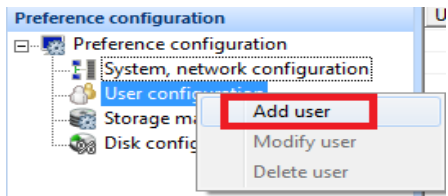
9.6. Add User

In case Limited Access has been selected, the user with proper permission to the camera can access it.

1) To register a new user, select Add user from Menu → Preference configuration → Advanced configuration Menu.



2) or select Add user from User configuration sub menu,

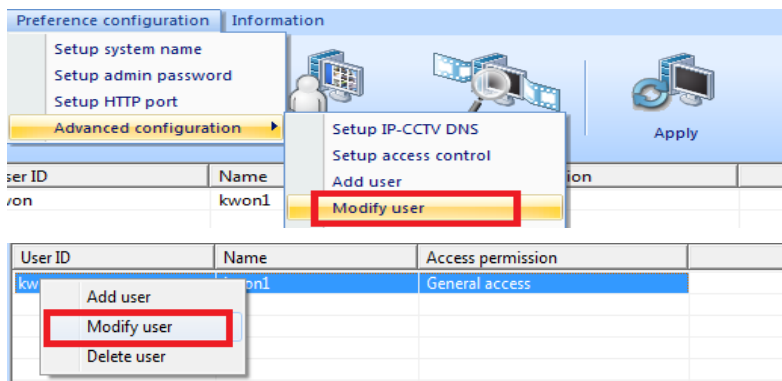


3) Add new user and setup access permission from the below window

Name	Item	Description.
A	User ID	Enter user ID
B	User Password	Enter user Password
C	Confirm password	Enter user Password again.
D	Name	Enter a name that is able to identify
E	All access	It has all authorization for Live view, DO, PTZ, Audio, playback of all IP-devices that are registered on Smart NVR.
F	General access	It has all authorization only for Live view that are registered on Smart NVR.
G	No access	There is no authorization to access.
H	Selective access	It has selective authorization for Live view, PTZ, Audio, playback of the designated IP-devices that are registered on Smart NVR.
I	System	It will be able to work only if selected as Limit-access. It can configure to authorize an access to Max 8 .Also it can provide separated authorization to each IP-device.

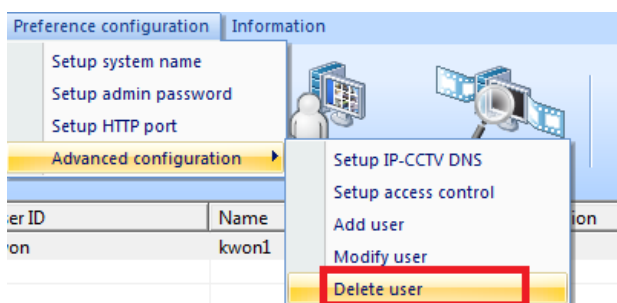
4) Modify User

If you want to modify user's password and/or access permission, select Modify User from Menu

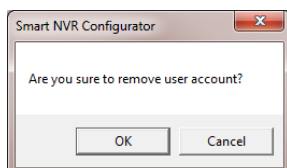


5) Delete user

. Select the registered User ID from Main Menu and / or Sub Menu



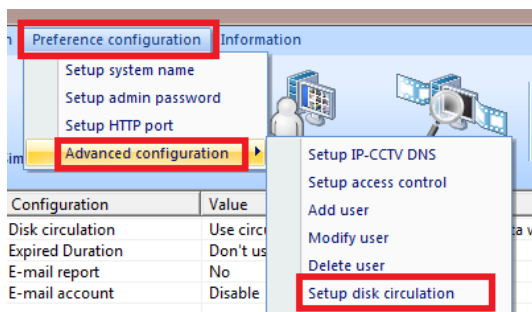
. When you click OK button, the selected user ID will be deleted.



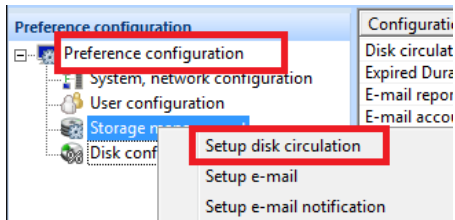
9.7. Setup Disc circulation

By selection of Disc circulation option, new video data will overwrite old data when the configured disc size is full

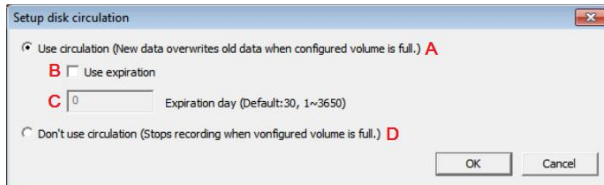
1) Select use circulation from Menu → Preference configuration → Advanced circulation Menu



2) or from Preference configuration sub-Menu



3) then pop-up window as below will be displayed.

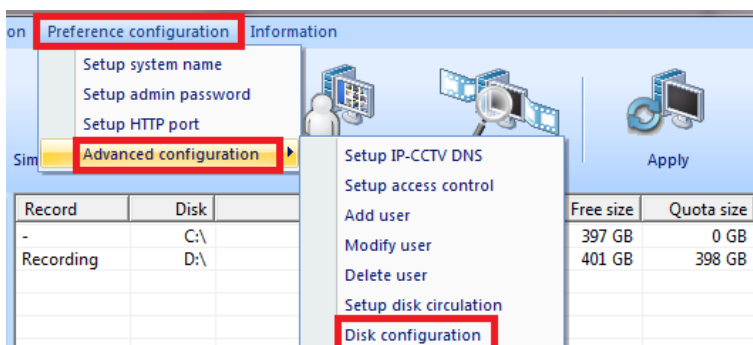


Name	Menu	Description.
A	Use circulation	New data overwrites old data when configured volume is full.
B	Use expiration	Use expiration if you need.
C	Expiration day	Expiration day if you need(default is 30)
D	Don't use circulation	Stops recording when configured volume is full. If you need to restart a storage function, you must re-start Smart NVR Configurator.

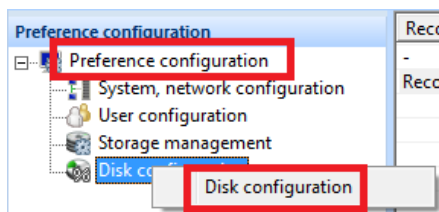
9.8. Disc configuration

Quote the available Disc size for recording per each Drive. The maximum Disc size per each drive is 6.6 TB and Maximum Total disc per Smart NVR Server is 169TB.

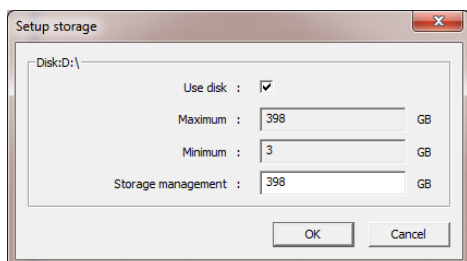
- 1) Select the Drive for setup
- 2) Select Disc configuration from Menu → Preference configuration → Advanced configuration Menu.



3) or from Preference configuration Sub Menu



4) Setup the maximum disc size for recording per each Disc.

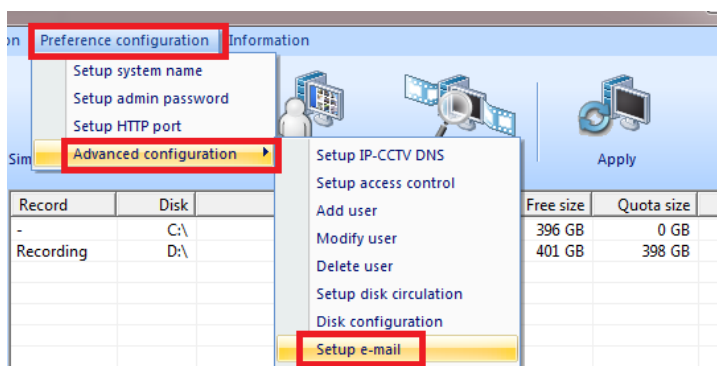


Name	Item	Description.
A	Use disk	If you check, you can use driver for storage.
B	Maximum	It is HDD Size for maximum storage
C	Minimum	It is HDD Size for minimum storage.
D	Storage management	You can setup the maximum disc size which can be used for recording, enter the value between Maximum and Minimum.

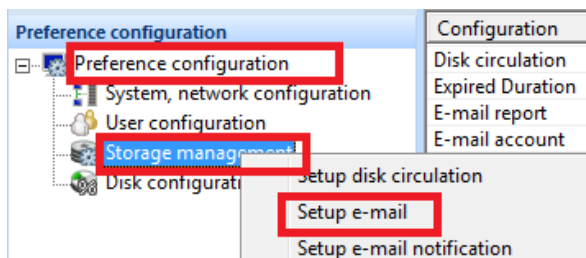
9.9. Setup e-mail

Once an email account is registered here, you can receive email notification from Smart NVR program upon a certain event.

1) Select Setup e-mail from Menu → Preference configuration → Advanced configuration Menu.



2) or from Preference configuration Sub-Menu



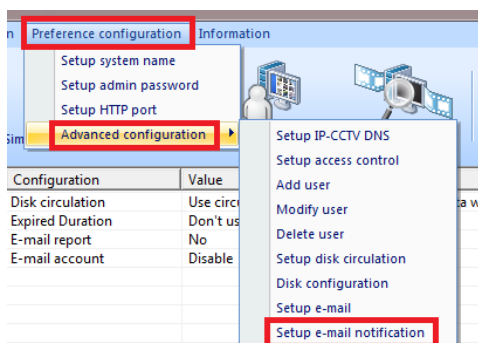
3) Pop-up window for email setup

Name	Menu	Description
A	Service	Decide whether to use the e-mail sending service.
B	SMTP server	Enter the address of SMTP server for sending email
C	Verify	Decide whether to use Verification.
D	E-mail ID	Enter the sender's id for email account.
E	E-mail Password	Enter the password of the sender's email account.
G	Recipient email #1,2,3	The email addresses of three Recipients to be notified.

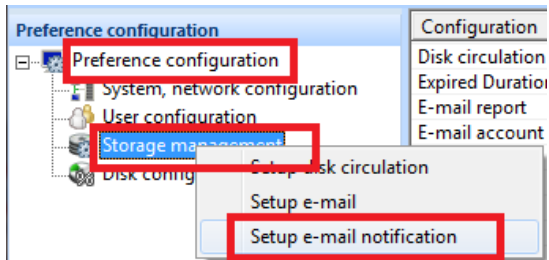
9.10. Setup e-mail notification

By using this email notification service, user can receive an email notification based on HDD storage status or periodically.

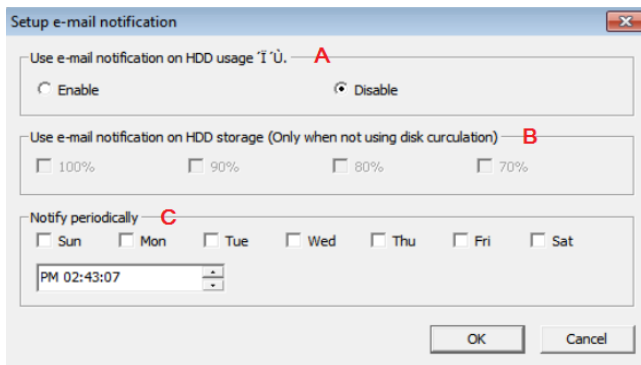
1) Select Setup e-mail notification from Menu → Preference configuration → Advanced configuration Menu



2) or from Preference configuration Sub-Menu



3) email notification setup window



Name	Item	Description.
A	Service	Enable or disable email notification service
B	Storage notification	Send an e-mail notification in case the recorded HDD size is reaching on a certain percentage (70%, 80%, 90%, 100%). This works only when not using disk circulation.
C	Notification HDD periodically	It sends current HDD storage status value periodically at a specific date and time

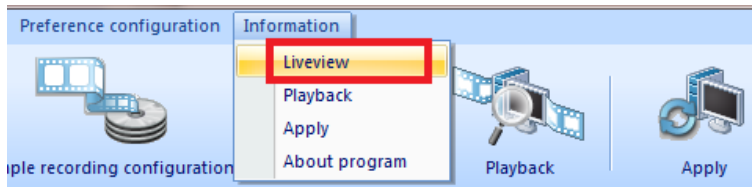
10. Information, Live View and Playback

Smart NVR which runs on Microsoft's Windows based computers supports Real time Video Monitoring, Recording, Playback and Back-Up.

10.1. Real time Live Viewing (Video Monitoring)

Once the network and IP-devices are setup, you can monitor the Live Video through Smart NVR Service using web browser.

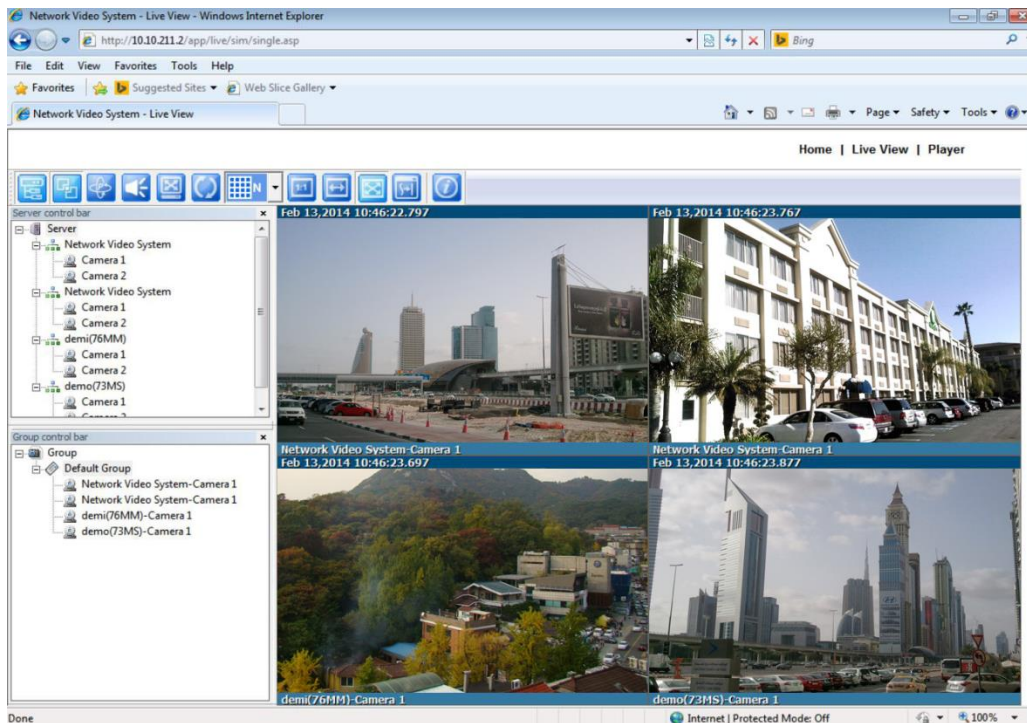
1) Click Live view from Menu → Information Menu.



2) or click Liveview icon directly on Tool bar.

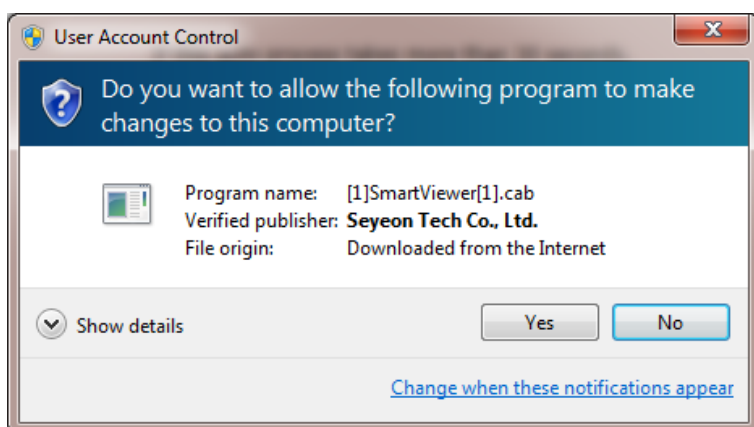
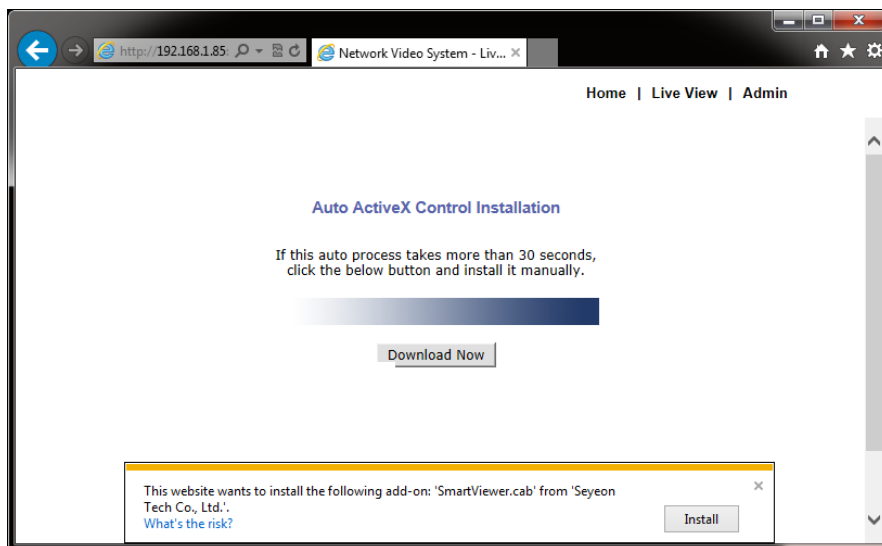


3) Then you can monitor the Live video through web browser.



4) Install Active X (Smart Viewer) program

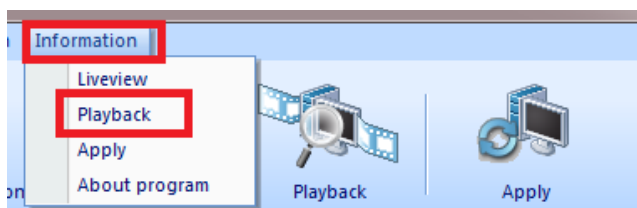
If this is a first time you use Flexwatch Live view feature, the web browser may ask you to allow installing an Active X program. Click Install to go ahead.



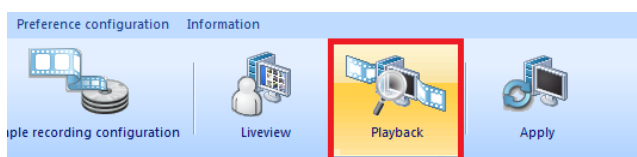
10.2. Playing back Video

You can search the recorded Video and Play it back. It can be done with Smart Player program .

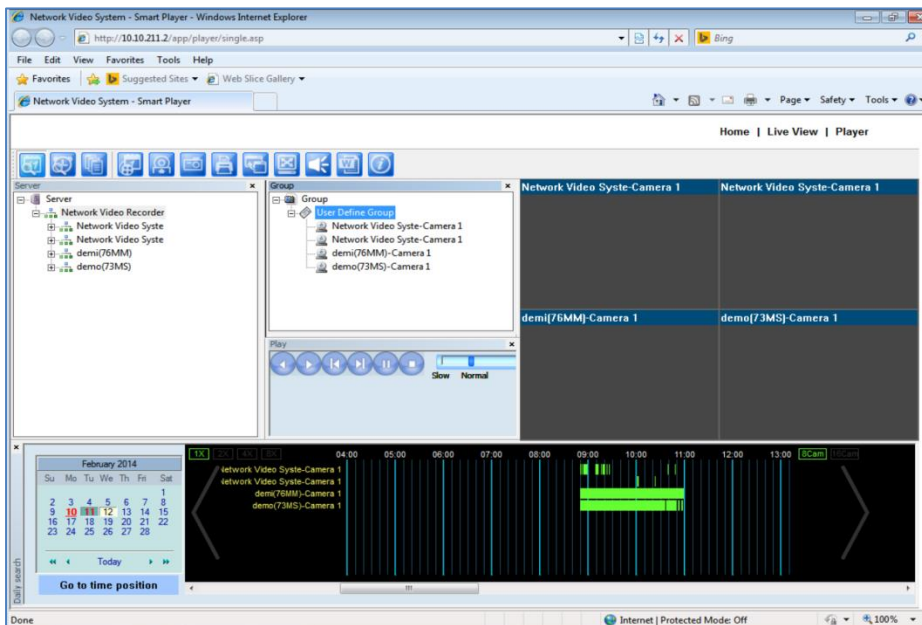
1) Click Playback from Menu → Information Menu



2) or click Playback icon on Tool bar directly.



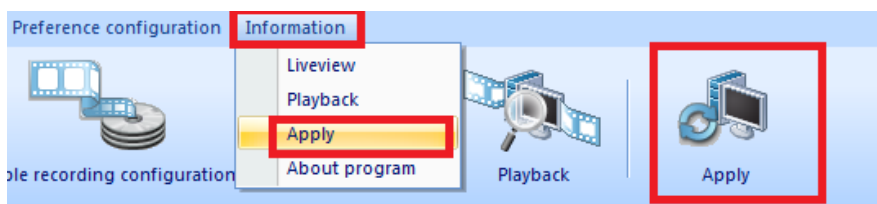
3) then you can see the Smart Player window. Place the cursor on any position of green bar which you want to start playback then click. Green bar means there is a recorded video



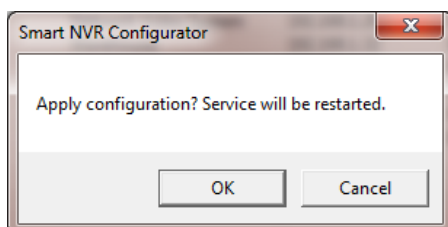
10.3. Apply button

In order to save any changes on Smart NVR Configurator, must press Apply button.

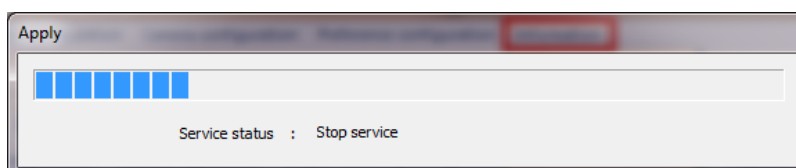
1) Click Apply button from Menu → Information or Tool bar

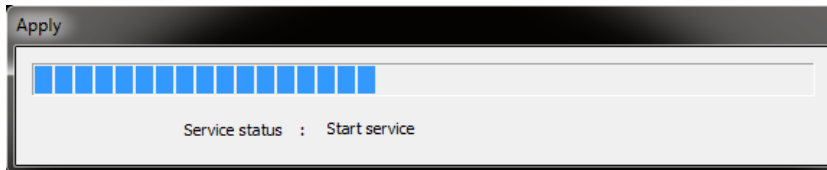


2) Click OK to apply any changes

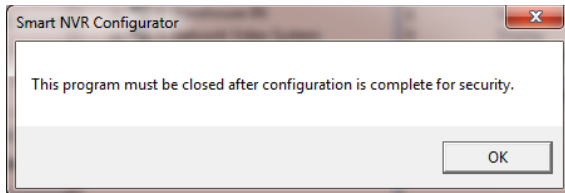


3) Smart NVR service will be stopped and restart again





4) You need to close the program for the security reason after configuration has been completed.

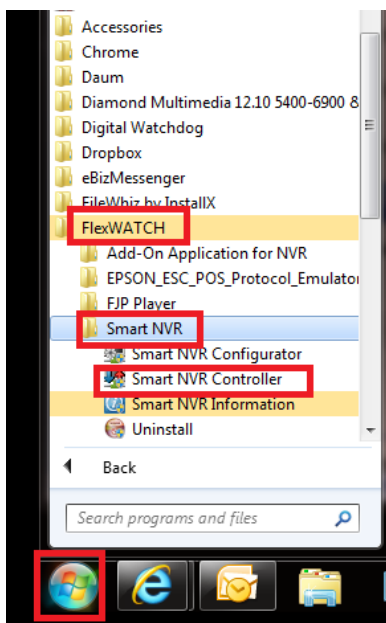


11. Smart NVR Controller

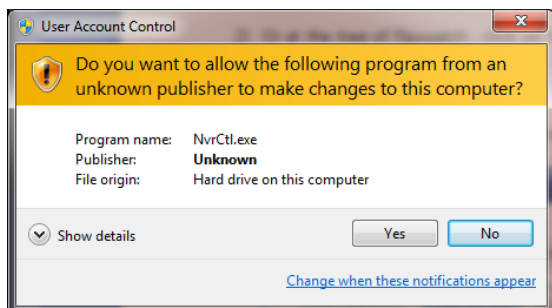
11.1. open and close Smart NVR Controller

Smart NVR Controller program is used to open and close the Smart NVR Service.

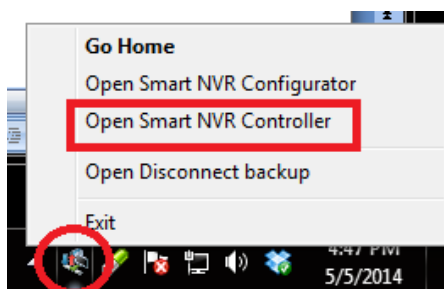
1) In order to open Smart NVR controller, click Start → Program → FleWATCH → Smart NVR then select Smart NVR Controller



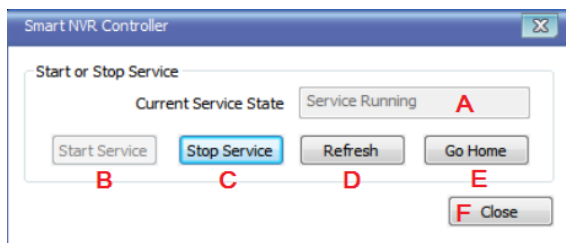
2) Click Yes to allow Smart NVR Controller program



3) or Right click Smart NVR Controller Icon from Tray menu at bottom right of the screen.



4) Click Start Service button to Start Smart NVR Service.



Name	Menu	Description.
A	Current Status	It shows the current service status.
B	Start Service	Start Smart NVR 2.0 service
C	Stop Service	Stop Smart NVR 2.0 service.
D	Refresh	Refresh Smart NVR Controller window.
E	Go Home	You can move to Smart NVR Service as a browser.
F	Close	Close smart NVR Controller window. It is not mean that Smart NVR controller is stopped.

12. Connecting to Smart NVR

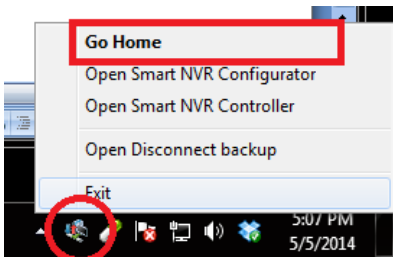
12.1. PC with Smart NVR installed

You can connect to Smart NVR in various way as described below.

- 1) Double click Smart NVR controller Icon on Tray menu



- 2) Right click Smart NVR Controller Icon on Tray Menu and click



- 3) Open the Internet Explorer and enter the correct IP address of PC with Smart NVR installed

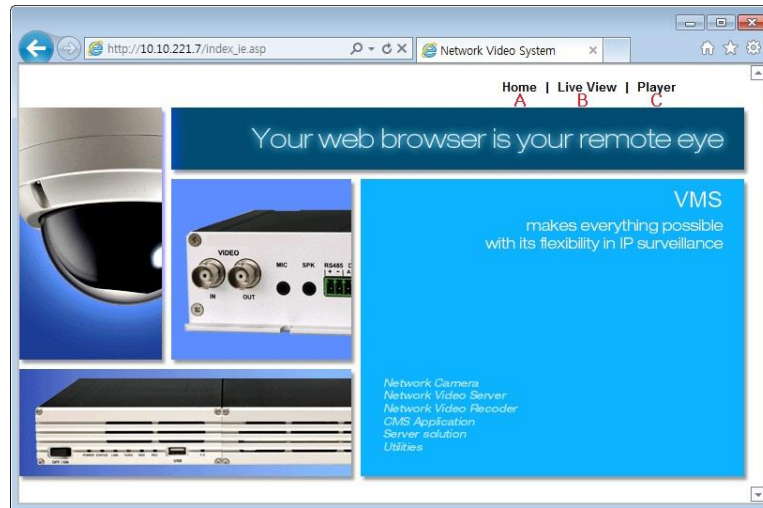


* Note : In case the port number is 80 (default), you don't need to input the port number (80). If port number is not 80, input the port number along with IP address.

(for example , <http://10.10.221.70:8080> in case port # is 8080)

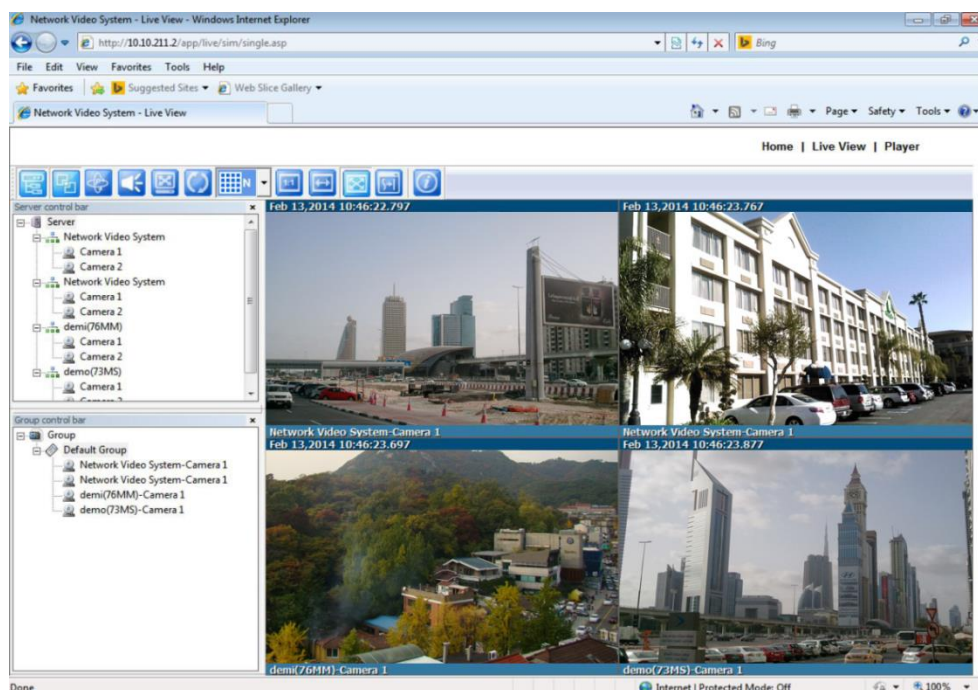
- 4) Web browser :

After you successfully connecting to the Smart NVR , you will see the Smart NVR's web browse home page as below.

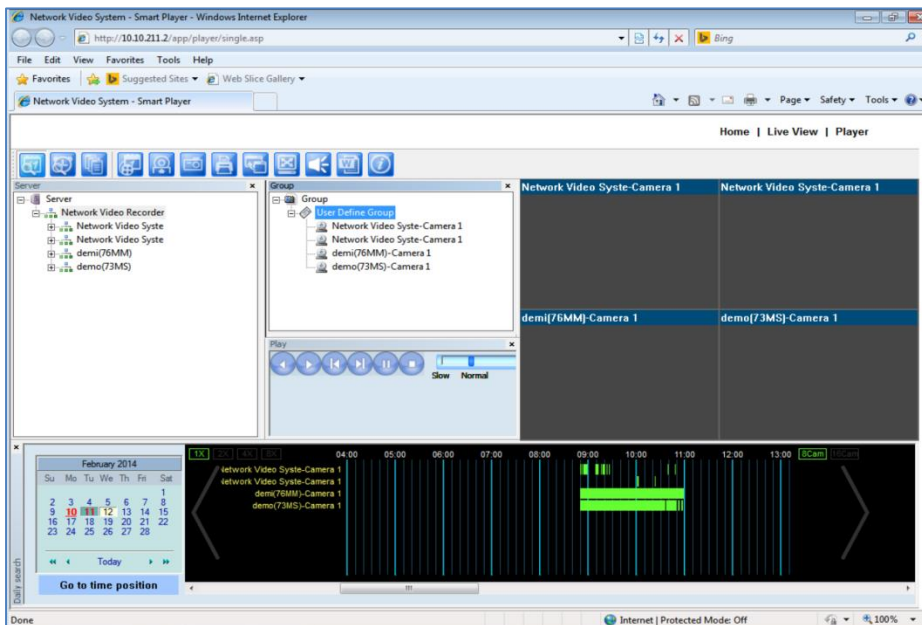


	Menu	Description
A	Home	Go to Home page of Smart NVR
B	Live View	Click this button to execute Live view program. You can use various features such as live view, audio transmission, PTZ control, unconditional instant recording etc.
C	Player	Click this button to search, record, and back up the video data sent from IP devices registered in Smart NVR

6) For details of Monitoring Live View, please see the Smart Viewer user manual



7) For details of Searching and Playing back, please see the Smart player user manual

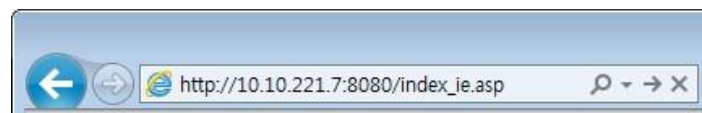


12.2. PC without Smart NVR installed

1) In case your PC doesn't have Smart NVR program installed and your PC is in the same network condition, open Internet Explorer and input the IP address of Smart NVR installed PC



* Note : need to input the port number in case port number is NOT 80.



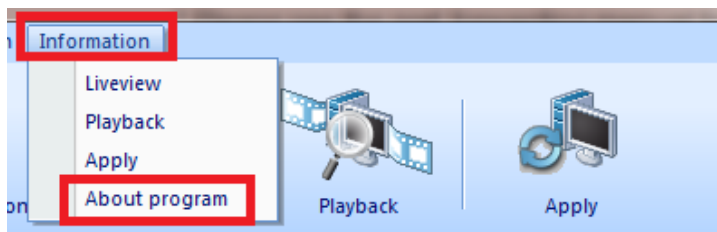
2) If you want to connect to Smart NVR from outside, you need to setup the port forwarding for the PC with Smart NVR installed first. Then open Internet Explorer and input the IP address of PC with Smart NVR installed.

* Please see the port forwarding manual for details.

13. Information of Smart NVR Configurator

In order to see the detailed information about Smart NVR Configurator such as version number, Channel information, Single Vendor / Multi Vendor,

1) Please click About program from Menu → Information menu



2) then you can see all detailed info

