User's Manual
For
IP-Surveillance Application Software

NVR Management

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URL: http://www.rflinkusa.com

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1. INTRODUCTION

NVR is primarily a surveillance video viewer and multi-purpose management tool for encoder IP surveillance products on LAN or WAN environment.

Multi-purpose management includes…

- ✓ **Multi-segment display**

  View multiple video streams simultaneously in segmented screen mode or combinations of various segments (1/4/7/9/10/13/16) with single click. Full screen view is fully supported for each segment combination.

- ✓ **IPS Node – Channel tree**

  Tree structured view of active encoder nodes with up to 4 channels under each node. Add/remove and configure individual nodes with dedicated push buttons.

- ✓ **Video**

  Event triggered and schedule based video recording. Functions are restricted on guest account. Video resolution and bit-rate control selection is available.

- ✓ **Audio**

  Individual channel audio monitoring and recording with scheduling options. Speaker and microphone (Full duplex) enable/disable buttons cater to individual channels.

- ✓ **Playback and Recording**

  Video and audio recording with image capture and indicator for disk usage is available. Event selection for playback with speed control, event time line and calendar for easy selection. Select convenient recording location.

- ✓ **Camera control**

  Pan / Tilt / zoom control if supported by camera and add/remove easily by single click.

2. PLATFORM REQUIREMENTS

NVR supports the following operating systems.

Microsoft Windows XP Professional / Home

Microsoft Windows Vista Premium

3. PC REQUIREMENTS

1. IBM-PC compatible computer with Microsoft Windows operating system.

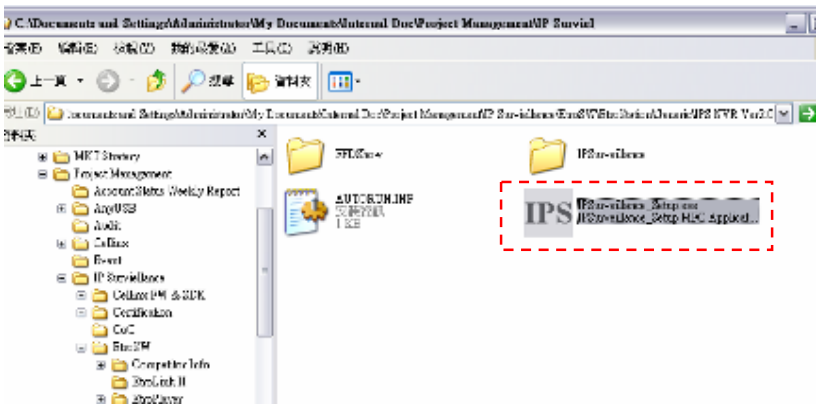
2. Display resolution – 800 x 600 high color (16 bit) or higher.

3. Free hard disk space – at least 40 Mbytes or higher if used extensively for recording surveillance video.

   Proper installation is not guaranteed on PCs which don't meet the above requirements.

4. INSTALLING ETROSTATION

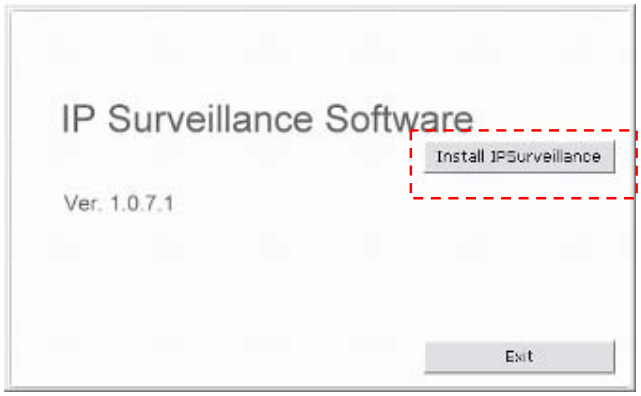
Click open folder with "**IPSurveillance_Setup.exe**" files.



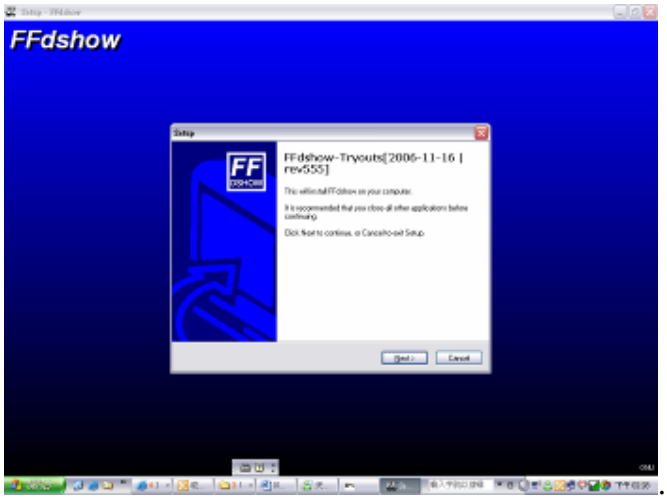
Folders appear as shown below

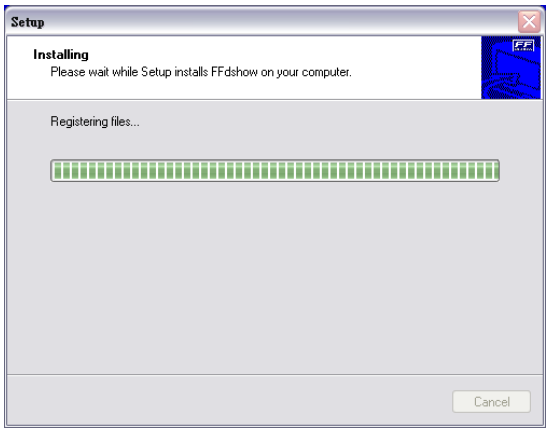
Click open **"IPSurveillance_Setup.exe"** file. Then click "Install

IPSurveillance" icon



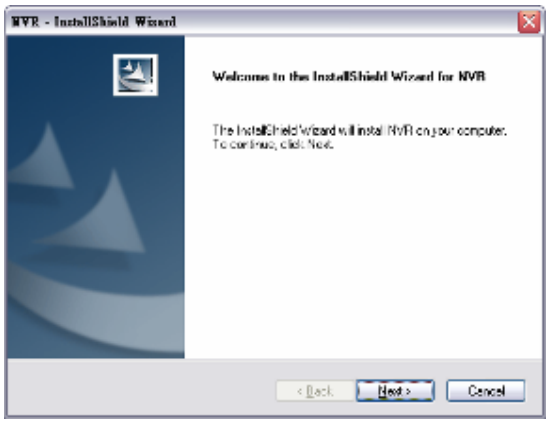
System will install FFDShow software decoder first, click to "next" to go ahead

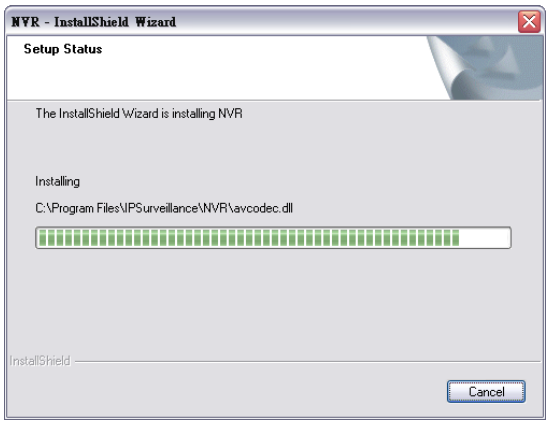




After ffdshow installation finised, system will automatically to start

to install NVR software, see following display, then click “next”

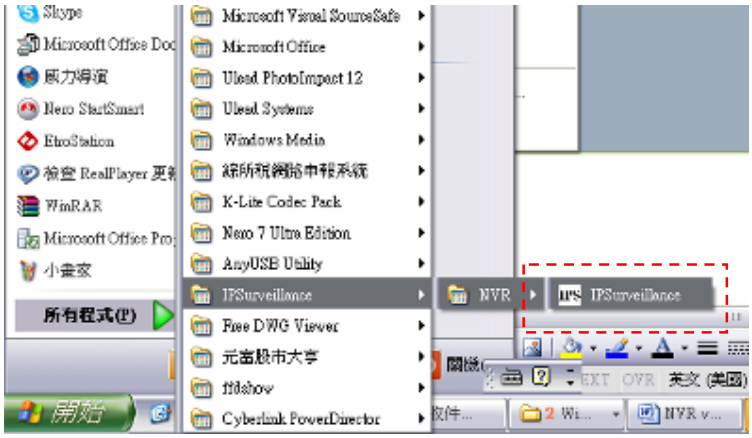




Click **“Next”** to proceed or **“Cancel”** to exit.

Setup has completed. Click **“Finish”** to exit.

Double check IPSurveillance is located at
START->PROGRAMS->IPSurveillance



5. SEGMENTED DISPLAY

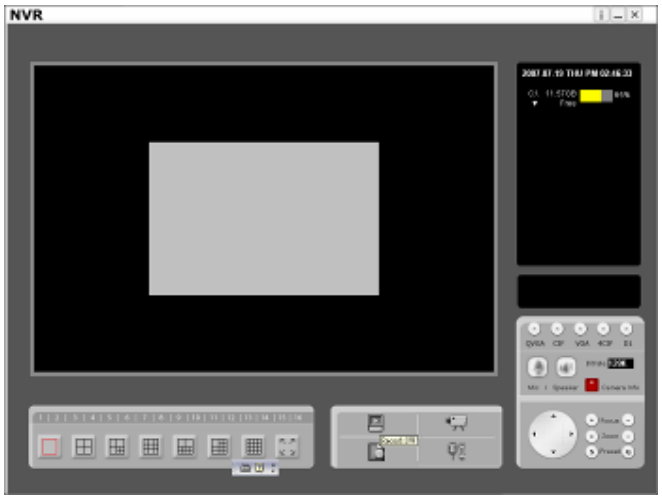
The main screen is a viewer for surveillance video from various encoder IPS products within a LAN/WAN environment up to a maximum of 16. The screen is segmented in various fashions depending on user's choice of viewing comfort.

Full screen mode is supported in all combinations of segments available. Segment combinations are (1/4/7/9/10/13/16). Each view has a dedicated button for easy access and turns to red color to indicate selection.

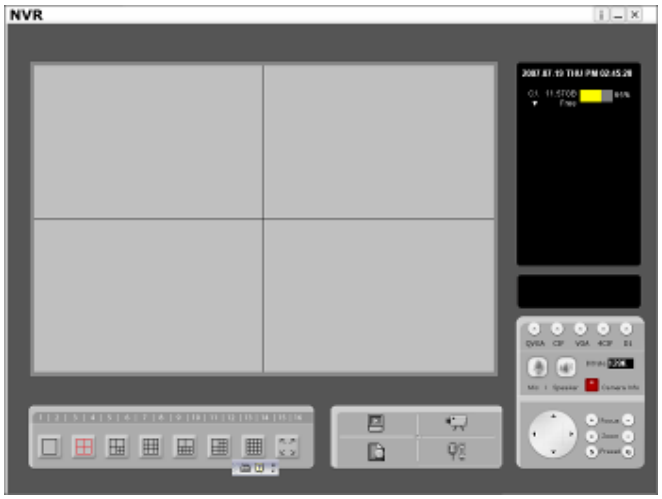
"Full screen" literally means that display extends to the very corner of the monitor. To exit full screen mode, press **ESC** key on your keyboard.

The partitioned screen of every configuration of segments is shown below.

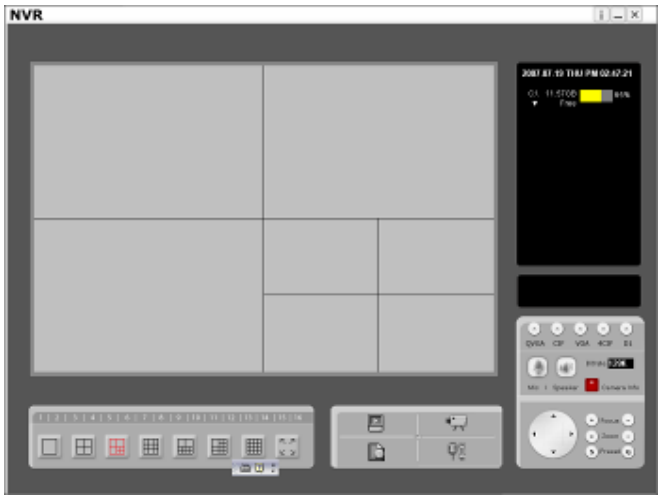
1 Segment



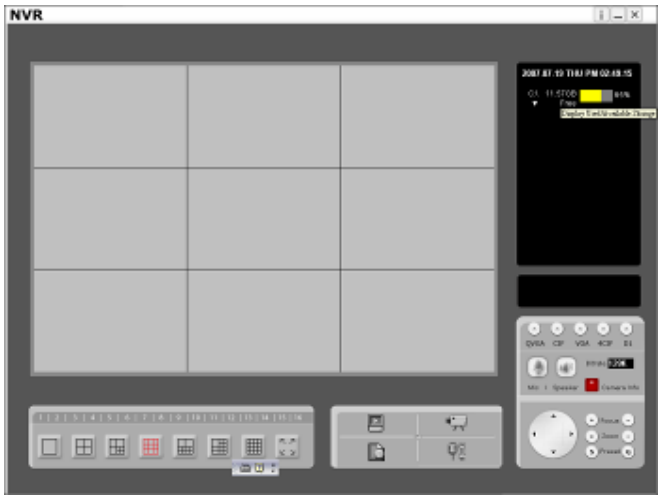
4 segments



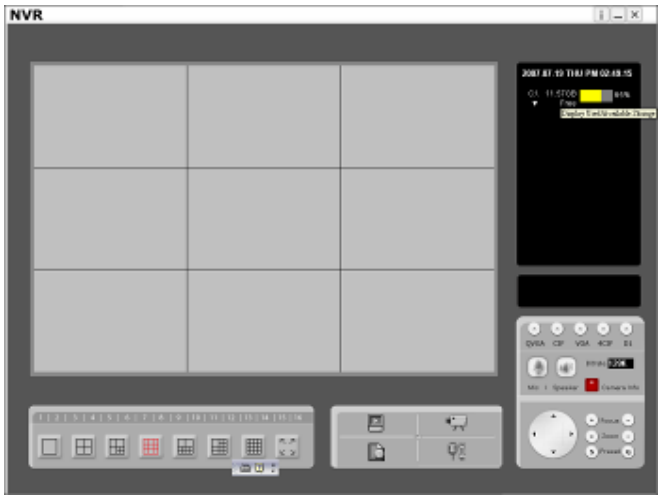
7 segments



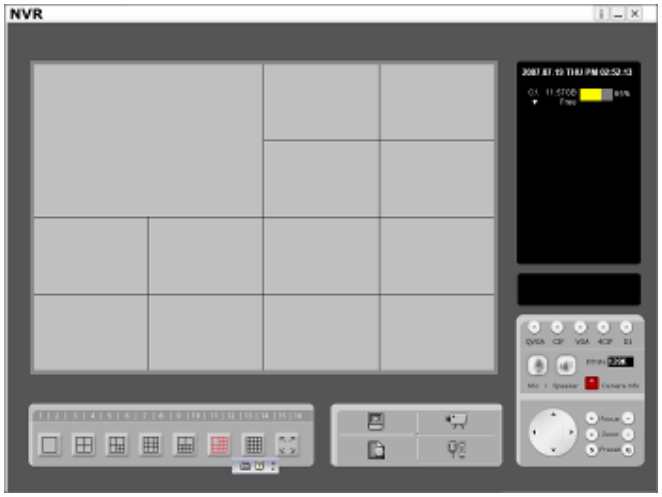
9 segments



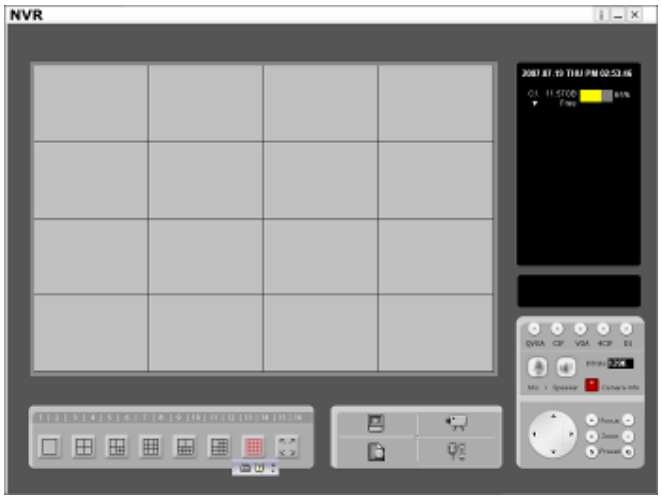
10 segments



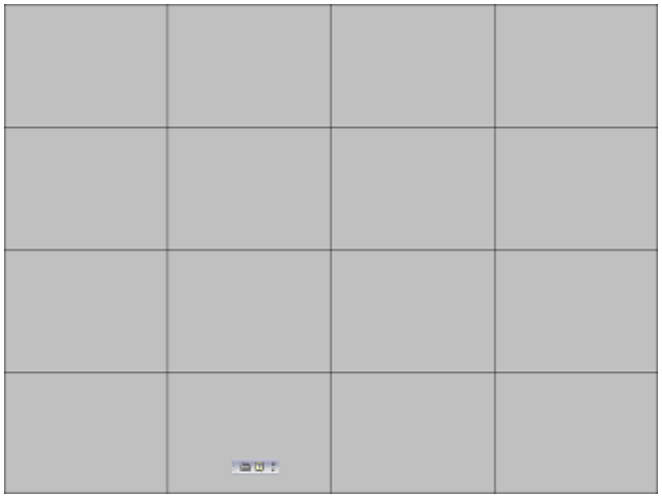
13 segments



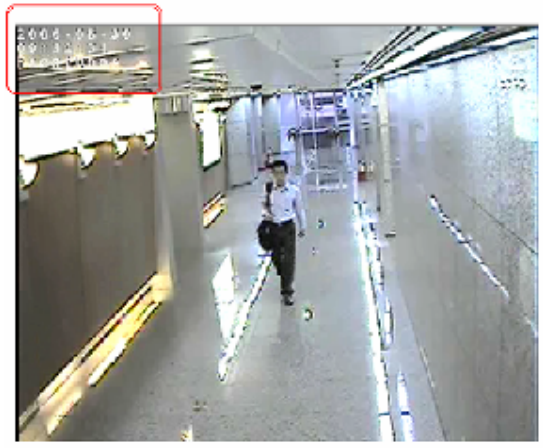
16 segments



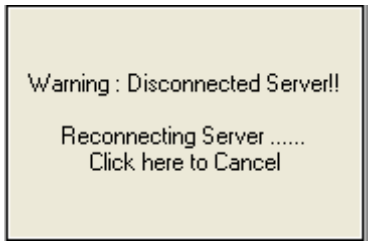
Full Screen



TIME /DATE/CAMERA name is displayed in each segment.
Time indicates local time on the PC running NVR.



If the video stream is disconnected from the encoder machines, the following message appears on the corresponding segment.



Individual segments can be selected by pressing on the segment number listed on segment view buttons.

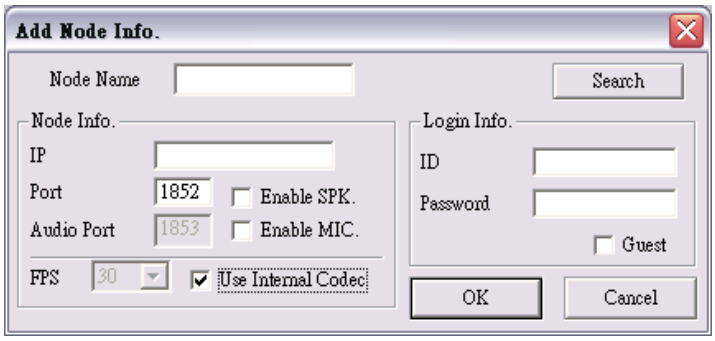
6. IPS NODE-CHANNEL TREE

To get information about the IPS nodes (EV3000 series based) on the LAN/WAN environment, Press this button once.

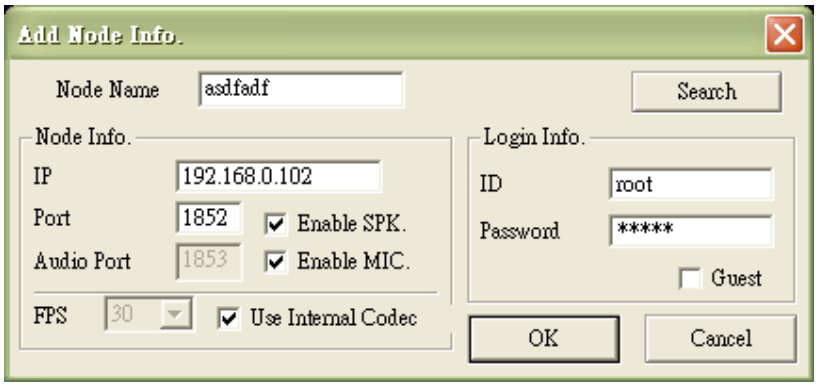
If there are no nodes added yet, then the panel looks blank. On top, there is local **date/day/time** information.

ADDING A NODE

1. Press  button to the add a node.
2. A dialog box will appear as shown below.

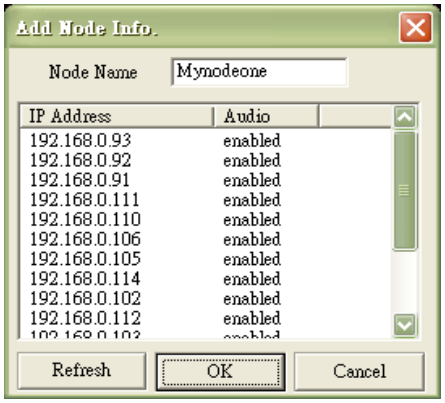


3. Fill in **"Node Name"** of your choice.
4. If you know **"IP address"**, directly key in.
5. Select **"port number"** if you have specific requirements.
6. To enable audio, check **"Enable SPK"** check box.
7. To enable microphone, check **"Enable MIC"** check box.
8. To enable **"internal codec"**, check the box accordingly.
9. **"Frames per second"** settings may be available depending on node capability.
10. Up to a maximum of 50 nodes can be added.
11. Check the **"guest"** check box, if you would like to view with restricted functionality.
12. Type **"login"** information if you are aware of it as shown below.



Click **"OK"** to apply settings and **"Cancel"** to exit.

Click **"Search"** to auto-search available nodes on LAN/WAN. After 1 or 2 seconds, a dialog box will appear as shown below. Enter **"Node Name"** to search by name if you are aware of it.



Click **"Refresh"** to view latest available nodes.

Click **"OK"** to add the node.

Click **"Cancel"** to exit without adding the node.

If IPS nodes have been already added, the corresponding channel information is displayed under each node. Node names are also displayed for each channel as shown below.

Each channel is marked by multi-colored icons which represent status of the selected channel as listed below

	IP Product
	Status of idle
	Monitoring
	Monitoring+Recording
	Motionn Detection
	Digiral IN
	Monitoring+Reserve Recoring
	Unavailable

REMOVING A NODE

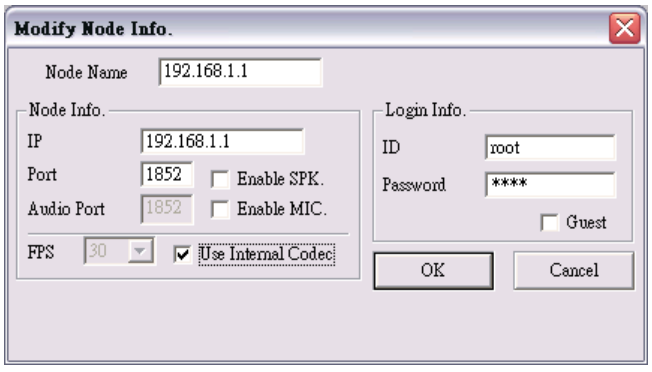
1. Select the IPS node you would wish to remove.
2. Press  button to the remove a node (not Channel).
3. A confirmation dialog box will appear as shown below.

4. Click **"Yes"** to confirm removing the node.
5. Click **"Cancel"** to exit removing the node.
6. Notice that the node has **disappeared** from the list.

NOTE: Alternatively, you could initiate the node removal procedure by selecting the node, and then making a right click on your mouse and selecting **"Delete Server Info".**

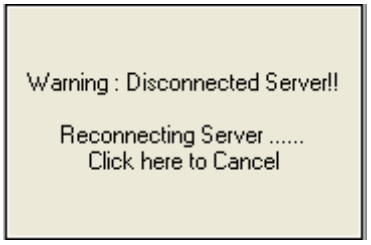
MODIFYING CONFIGURATION OF A NODE

1. Select the IPS node you would wish to reconfigure.
2. Press ----- button to the reconfigure a node (not Channel).
3. A confirmation dialog box will appear as shown below.



4. It is similar to **"Add Node Info"** dialog box.
5. Choose your appropriate settings.
6. Click **"OK"** to save configuration information.

7. Click **"Cancel"** to exit removing the node.
8. You can notice the **"Reconnecting .."** message on the grayed display segment of the selected node which auto-refreshes the video stream according to your latest configuration . Wait for few seconds to see the video stream restored back to normal.



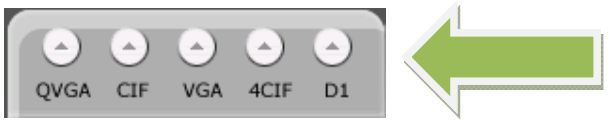
7. VIDEO

Video display panel controls quality and resolution of the transferred image. Resolution control is unavailable for **"guest"** account. Video panel is different according to the selected model.

Encoder products support the following formats at the corresponding resolution.

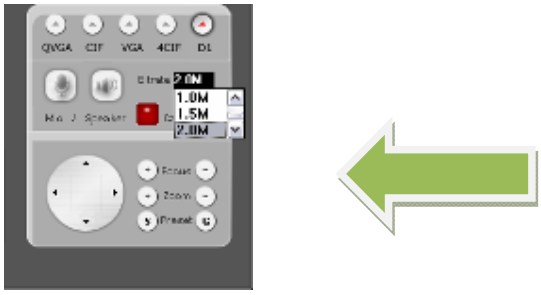
	D1	4CIF	VGA	CIF	QVGA
NTSC	720X480	704X480	640x480	352x240	320x240
PAL	720X576	704X576	640x480	352x288	320x240

The video type can be selected with its dedicated push buttons as shown below. Selected button appears **red** to indicate selection.



BITRATE SELECTION

Bit rate determines the smoothness and quality of the video displayed for each channel. It can be modified if the IPS product is capable of supporting it. The value ranges from 64Kb ~ 4Mb and can be selected in a drop-down list as shown below.



Bit rates: 128k, 256k, 384k, 500k, 750k, 1M, 1.5M, 2M, 4M (bps).
Users should select a suitable bit rate accordingly.

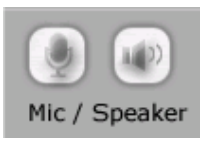
VIDEO QUALITY

High image quality can result slow transmission speed because of the limit of the network bandwidth. Therefore, fps of transferred image drops resulting in very poor video quality.

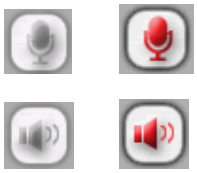
It is recommended to maintain an appropriate balance of bit rate and quality of video based on your specific LAN/WAN conditions.

8. AUDIO

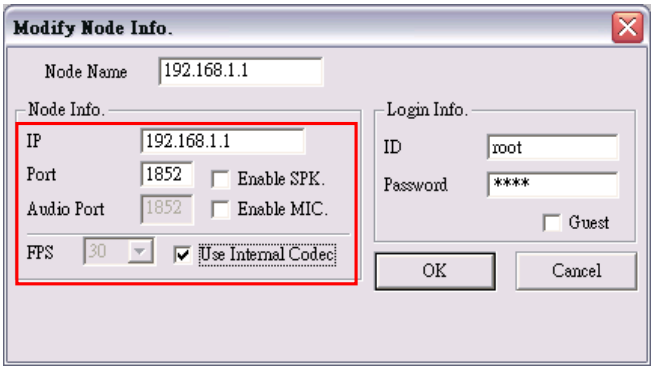
Audio Panel works only when the IP Product has audio module. This is available for the selected channel of the IP Product. For activation of audio, press the MIC/SPEAKER button. Button color changes to red after click indicating selection.



OFF ON



Settings used in the **"Modify Server Info"** dialog box for using audio functions of a IP Product is shown below.



NOTE: It is possible to use the speaker function for a **"Guest"** account. But MIC cannot be enabled.

9. PLAYBACK and RECORDING

Playback and recording of individual channels can be done with manual selection or as a scheduled event.

Select a channel on Camera List or the image on segmented screen and click  button.

Alternatively, you could click "**Start Recording**" after selecting the channel and clicking the right mouse button.

By clicking "▼" user can see the status of the other disks.

Disk shows the free space available for recording. Recording process starts until "**Stop Recording**" is clicked on pop up menu of the image on Screen or the channel on Camera List. Schedule

recording is a useful function to manage the disk space effectively.

When DIO event occurs recording process proceeds for the time under the line only when the IP Product takes the signal by a sensor or a motion detector.

When motion event occurs, recording process proceeds for the following time under the line only when the IP Product takes the signal by an internal motions detector.

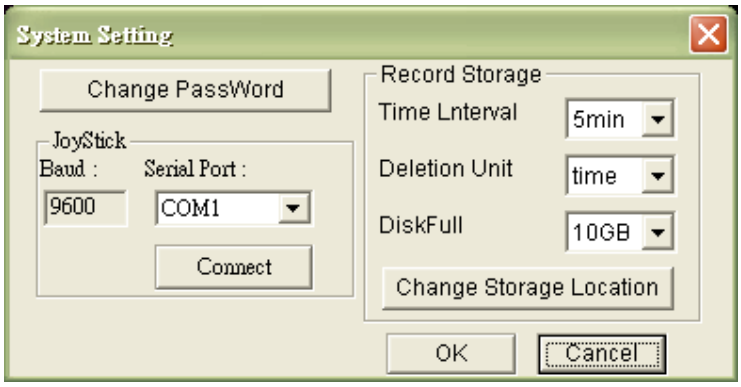
For this function, the motion detection function must be activated.

The recording time by Event function is up to 20secs.

Recorder settings:

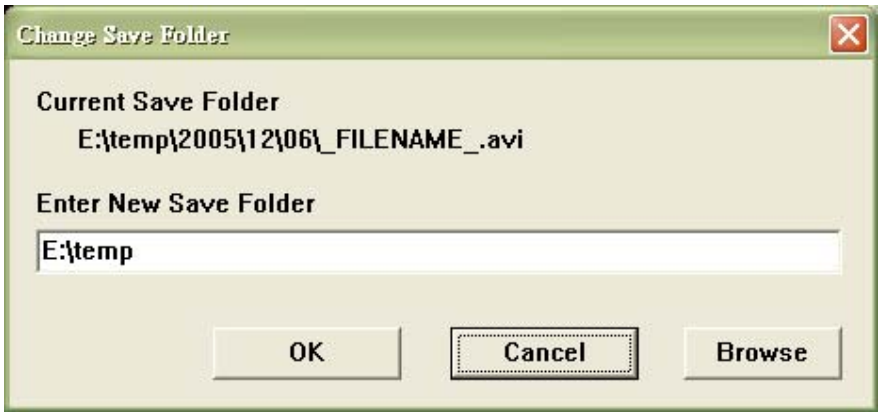
The time interval can be specified. And the upper disk limit can be set to avoid over usage of disk space.

Joystick can be connected and its serial port selection and baud rate should be chosen as well. Clicking "**connect**" will allow the user to handle a joystick input.



Change storage location

The storage location can be changed by clicking the "change storage location" button.

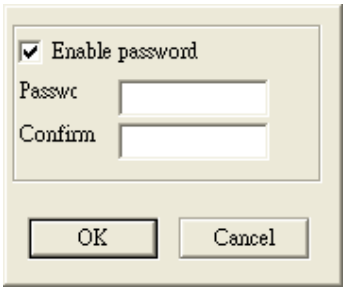


Click "OK" to save. Click "cancel" to exit and click "Browse" to choose another location.

Change password

Password can be changed by "Change Password" button and needs to be confirmed to save.

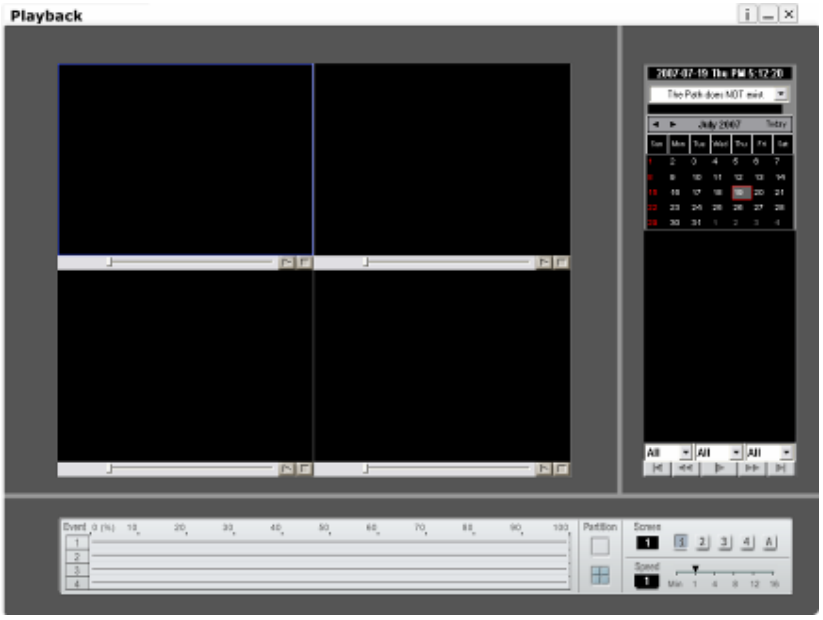
Click "OK" to save password.
Click "Cancel" to exit password change.



Play back function

Press the playback button to start playback. Calendar on the right makes it effectively easier to pick a date to view recordings on that

day.



Step 2

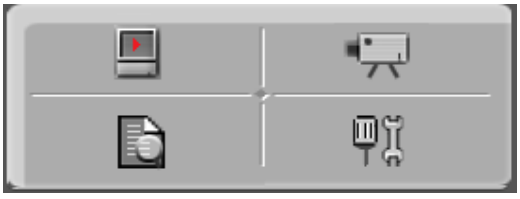
Event based UI option allow user to select the recorded video by timeline and channel for each IP. Slider on the right lets the play back be done quickly in multiples of minutes.

The Channel information is displayed under a list of IP addresses. Up to four channel information is shown under each IP.

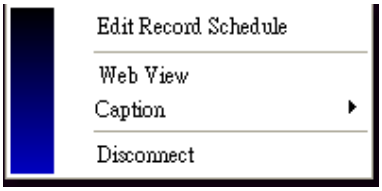
The recorded files are named as from – to timeline for easy identification.

Three combo boxes one for IP, one for channel and one for time snaps allow easy selection.

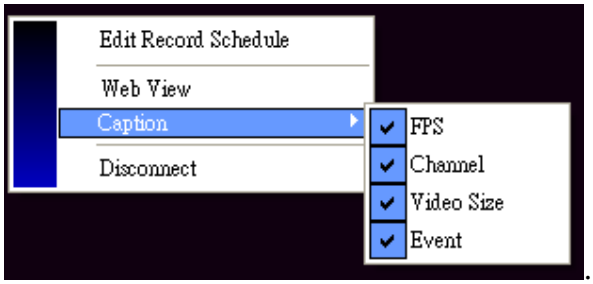
Recording is always indicated in "**RED**" color as shown below.



Right click provides an easy means to select your options.

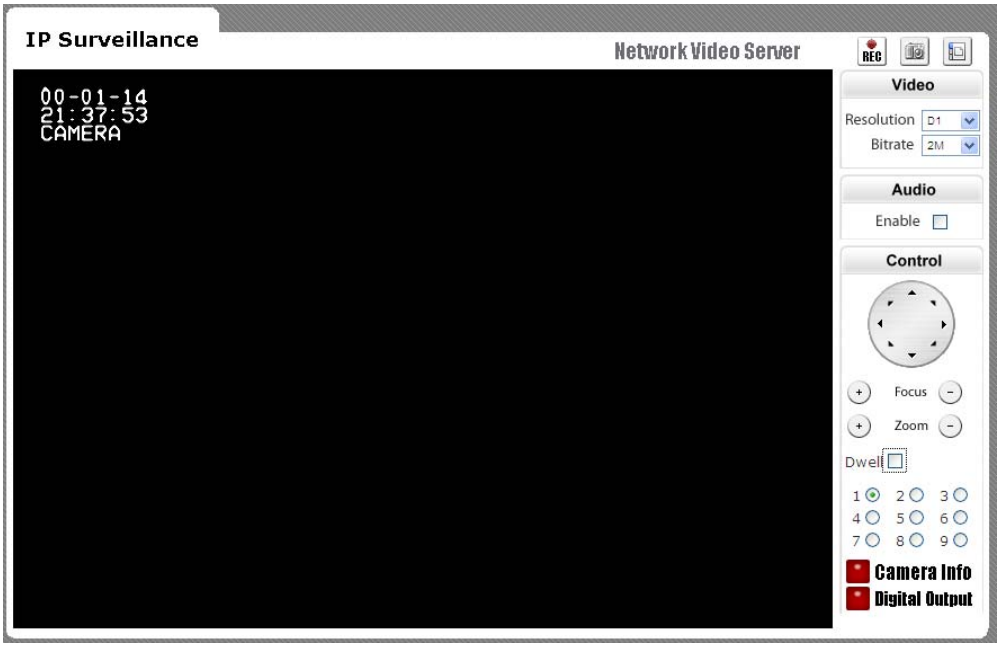


Captions allows user to choose specific details such as FPS, Channel, Video Size and event.



Web view allows user to view the home page using a standard browser on a PC.

The video is shown with all available control listed on the bottom including bitrates, Audio, resolution, Pan, Tilt, Zoom, and Focus.



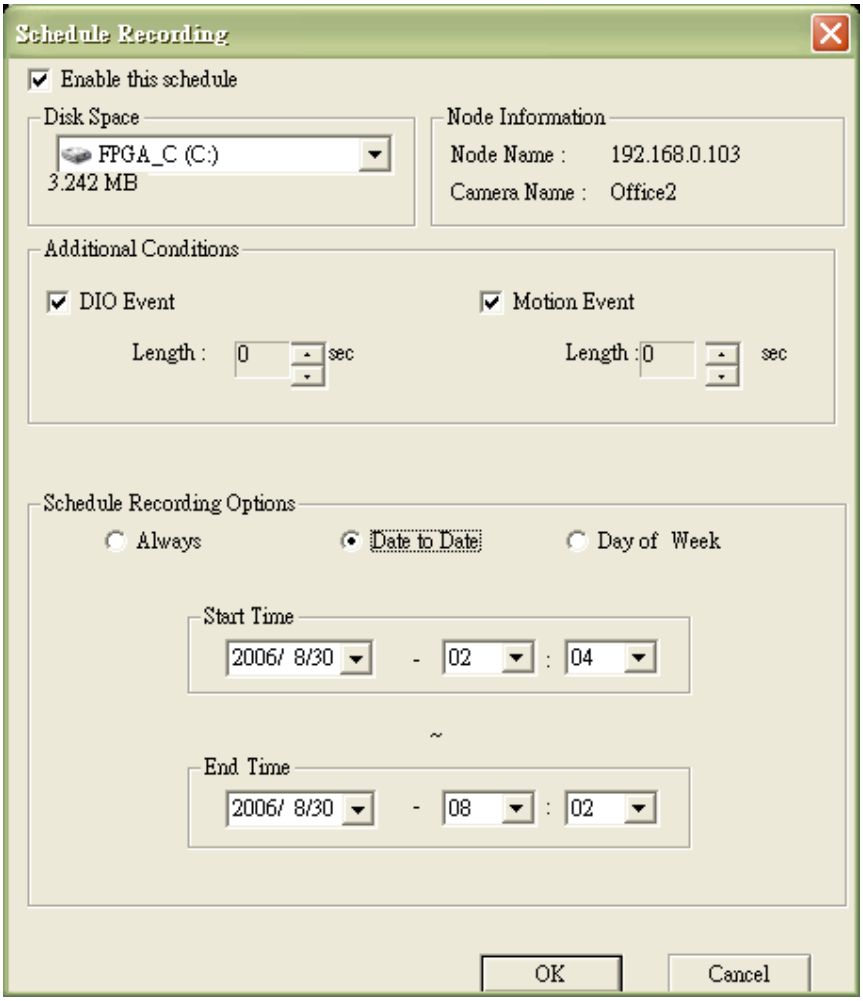
Edit recording schedule by selecting from the standard right mouse button click.

Scheduled Recording:

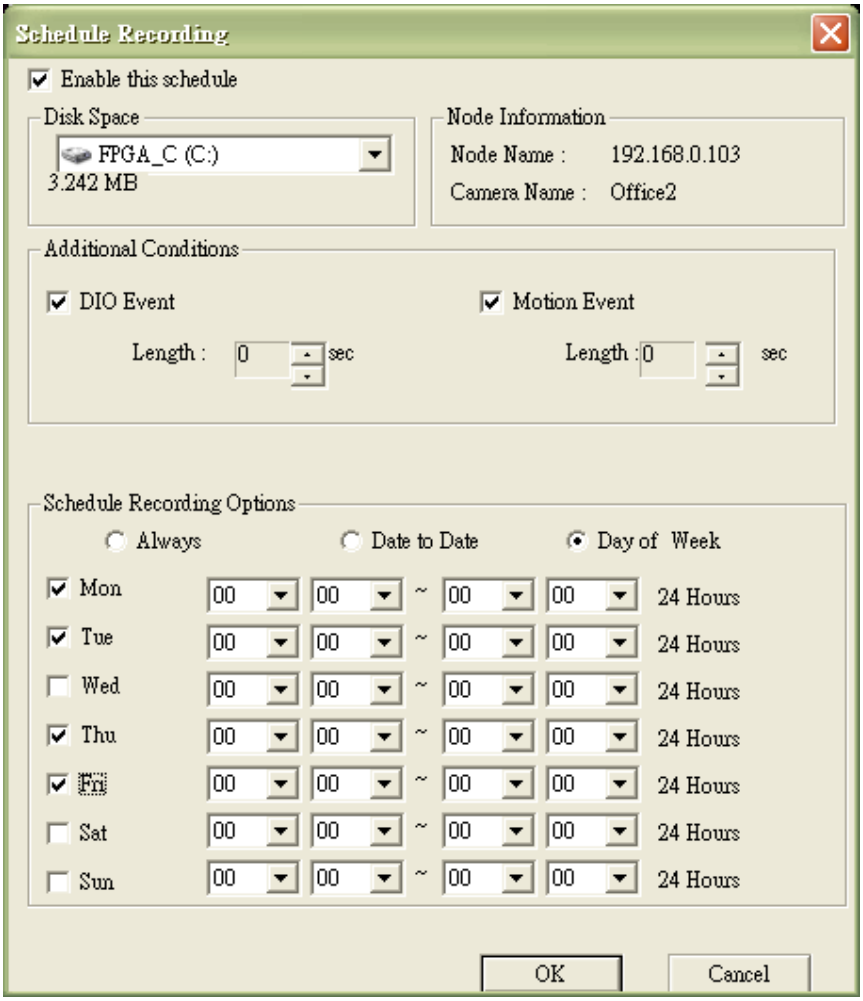
This option allows user to choose the disk to record. Specified node information. Allows selection of DIO/Motion detect event and for how long.

The start/end time, date can be specified.

Click "OK" to save and "Cancel" to exit.



Extensive recording schedules including each day of the week can be recorded as well including timing for each day.



10. CAMERA PTZ controls

Cameras connected to encoder products which support PTZ (Pan/Tilt/Zoom) module can be controlled from NVR. Suitable control protocol must be pre-setup. IP camera's administrator web page will have this information.

"Guest" accounts have privilege to control PTZ functions. The buttons controlling PTZ available on EtroStation are shown below.