

DW-CP04 Compressor-  
Analog to IP Signal Converter  
User's Manual  
Version 1.1



**Class A Digital Device (industrial & commercial environment)**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**DW-CP04 Manual**

## **DW-CP04 User's Manual**

**Digital Watchdog®**

**Manual Edition 05172013– May 2013**

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# 1. Product Overview

## 1.1. DW-CP04

Digital Watchdog's DW-CP04 is a 4ch network video server which transmits digital images captured by Analog CCD camera over IP (Internet Protocol) network.

It can transmit up to 120fps@D1 over the existing network. You can monitor video of DW-CP04 through web browser (for example MS Internet Explorer), if DW-CP04 is connected to network. DW-CP04 supports video compression both MJPEG and H.264 simultaneously so that user can choose appropriate video compression for the purpose. For both MJPEG and H.264, DW-CP04 provides 6 levels of video quality.

DW-CP04 server is state-of-the art device and leads new generation of monitoring and security solution.



Picture 1 : DW-CP04

## **DW-CP04 Manual**

### **1.2. Key Features**

- OnVIF Compliant
- 4CH BNC In
- 120fps @ D1 Resolution
- Dual Codec (H.264/ MJPEG) with Single Stream
- Motion Detection
- Two- Way Audio
- Micro SD Card Interface
- RS-232/ RS-485 PTZ Control
- Free and Simple DDNS Service
- Search and Playback from the software interface
- Frame-rate& Bandwidth Control
- 4 Alarm Inputs, 4 Alarm Outputs
- Event Notifications via E-mail with Image
- Configuration and control device through Web browser

1.3. Technical Specification

Hardware	32bit RISC CPU/ Embedded Linux 128Mbytes SDRAM/ 128MByte Flash
Video compression	H.264/ MJPEG(single stream)
Resolution	NTSC: 704x480, 352x240,160x112 PAL: 704x576, 352x240,160x112
Frame rate (each channel)	Up to max 120/100 fps@D1
Video Streaming	MJPEG and H.264 Single Streaming (Simultaneously) Controllable frame rate and bandwidth
Image setting	Compression levels: 6 (MJPEG/H.264) Color: color, black & white
Transmission	Up to 120fps(NTSC)/100fps (PAL) when 4channels at D1
Voice	8bit G.711, 8Khz, 8Kbyte/sec Audio 1ch in & 1ch out
LAN interface	10/100 Base T Ethernet auto sensing
Alarm I/O Interface	4x1 Photo-coupled inputs and 4 Relay output
Video Input	4 Channel Composite Video Input
Serial Interface	COM Port: RS-232 AUX Port: RS-485 COM ports for console, serial input/output device and AUX ports for PTZ or other RS485 device Max Baudrate: 115200 bit/s
Security features	Multi user level protection for camera access, PTZ, Alarm I/O
Advanced Service	Up to 5.6M memory for Pre/Post alarm buffer e-mail, FTP, IP notification, Alarm Notification to e-mail, CGI Call by event or schedule
Built-in Motion detections	Accuracy: 12x12=144 blocks Motion Sensitivity : -100 ~ 100 : 100 is hypersensitive
PTZ & UART Control Support	PTZ and UART device control through serial port (RS-232/RS-485) (Support protocols from Pelco "P"& "D" protocol, Vicon V1311RB, Samsung PTZ, Honeywell PTZ and X10 Epson Printer)
Others	Time stamp on Video Transmit External data(ex. POS) transfer with Video IP notification by e-mail
Management	Configurable by serial, web or telnet Remote system update via telnet, FTP OR web browser.
Developer support	Provides HTTP CGI API ActiveX control development kit
PWR Supply	SMPS Input: 100~240VAC, 50/60 Hz, 300mA Output: DC 12Volt, 1A, SMPS

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PWR Consumption	DC 12Volt Max or Peak: 0.6 A
Operating Environment	Temperature : -10° ~ 50°C Humidity : 10 ~ 90% RH(non-condensing)
Miscellaneous	Work with Smart NVR(CMS software) Dynamic IP support through IPCCTVDNS Server
Users	128 simultaneous users
Installation & management	Configuration: installation wizard, HTTP, telnet and console Upgrade Firmware: HTTP, telnet & FTP
Video access from Web browser	Video access from Web browser
Minimum Web browsing requirements	Pentium 4, 2 GHz, 2GB(RAM) or higher Video Card: 256MB RAM, 1024x768 resolution or higher 100Mbps Network Adaptor or faster Windows XP Pro or later Internet Explorer 6.x or later
Supported protocols	HTTP, RTP/RTSP, TCP/IP, FTP, Telnet, RARP, PPPoE, SNMP, PAP, CHAP, DHCP, NTP, SMTP client, uPNP, and etc.
Approvals	KC FCC : Class A CE : Class A RoHS
Dimensions (HxWxD) and weight	148(W) x 118(D) x 25(H) (in mm) About 0.25kg without power supply.

**Table 1 : DW-CP04 Data Sheet**

## DW-CP04 Manual

### 1.4. DW-CP04 Packing List

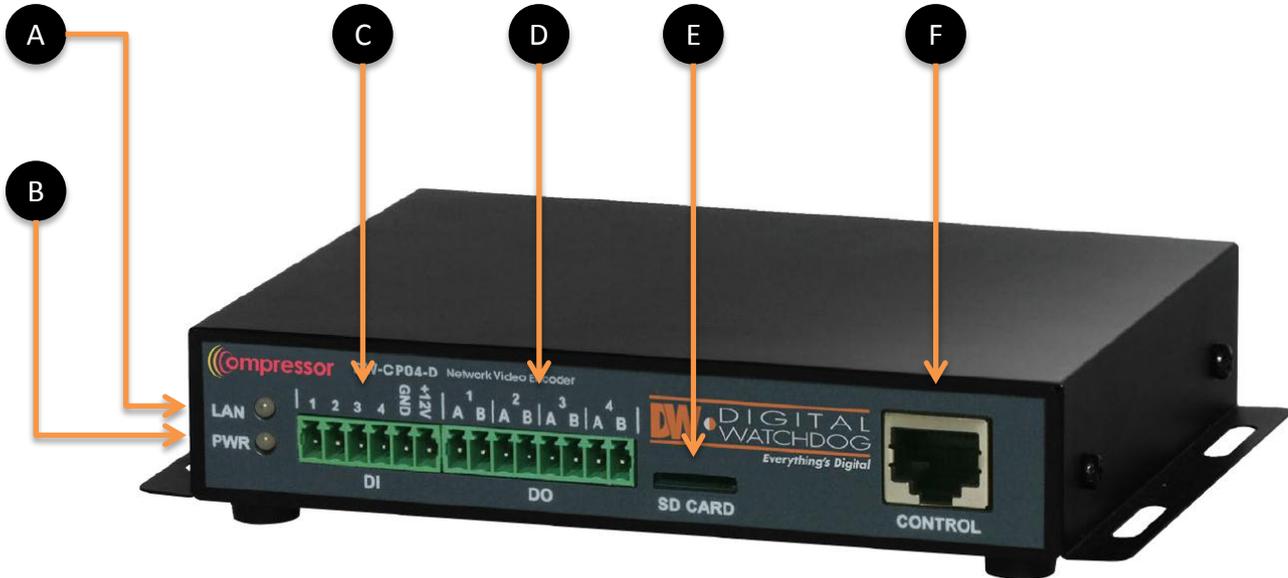
DW-CP04	1 EA	
Power Supply (Power Cable & SMPS DC12V 1A Adapter)	1 EA	
CD (User's Manual, IP Installer and etc.)	1 EA	

Table 2 : DW-CP04 Packing List

*Note: Please make sure all the listed items are included in the package. For any missing items, please contact your local distributor.*

## 2. Product Description

### 2.1. DW-CP04 Front View



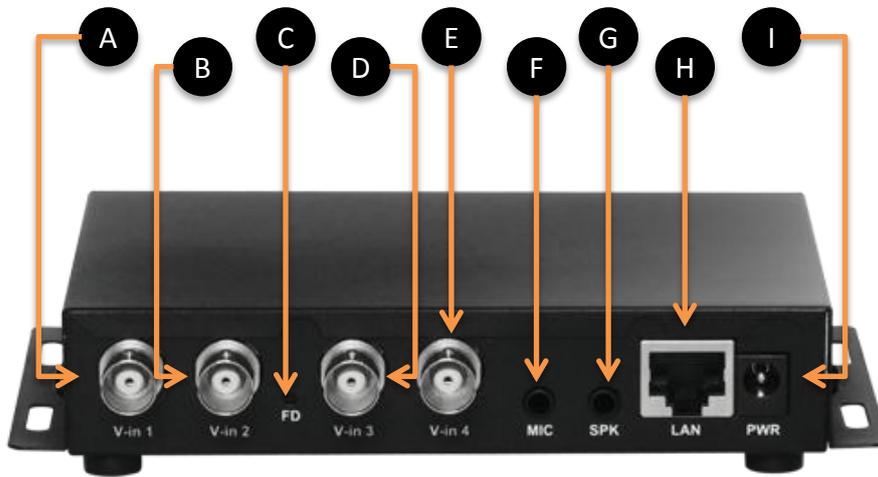
Picture 2 : DW-CP04 Front View

Picture 3 : Enlarged Front LED

	Name	Description
A	LAN LINK LED	Indicates the connection status of LAN connector. It goes green when a physical connection is properly made to the LAN port.
B	POWER LED	This red LED is lit during DW-CP04 is powered on.
C	DI	Sensor/Contact Input Port
D	DO	Beacon/Alarm Output Port
E	SD CARD	Micro SDHC Slot for Onboard Storage
F	CONTROL	CTL Port (RS-485, RS-232, DI, DO)

Table 3 : DW-CP04 Front Panel

2.2. DW-CP04 Rear View



Picture 4 : DW-CP04 Rear View

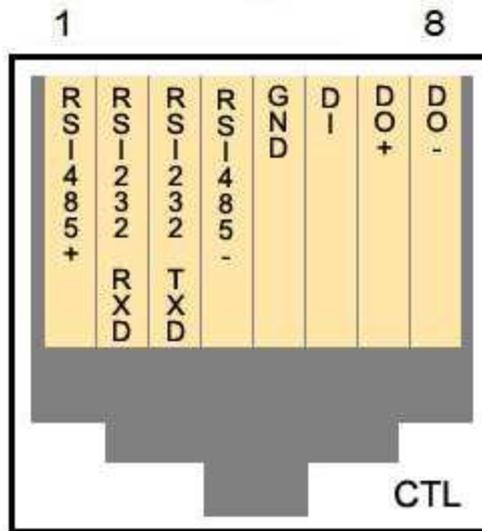
	Name	Description
A	Video In 1	BNC cable port for Video input of number 1 camera of Module 1.
B	Video In 2	BNC connector for Camera 2
C	FD	Beep one time (0.5 sec) after three seconds and then beep three times shortly After another three seconds.
D	Video In 3	BNC connector for Camera 3
E	Video In 4	BNC connector for Camera 4
F	MIC	Audio Input Port
G	SPK	Audio Output Port
H	LAN	RJ-45 Network Connector
I	Power	DC 12V 1A

Table 4 : DW-CP04 Rear Panel

## DW-CP04 Manual

### 2.2.1. CTL Port Description

The picture below shows how to wire CTL port connector pins for Sensor Input (DI, GND), Relay Out (DO+, DO-), RS-485 (+, -) and RS-232 (RXD, TXD, GND) signals.



Picture 5 : CTL Port Description

### 2.2.2. RS-232 Interface

RS-232 Port is provided for a connection with external devices such as water level sensor, speed sensor, etc. The GND pin for RS-232 is shared with the Sensor Input GND. If the DW-CP04 needs to be connected to other network devices via RS-232, then RXD and TXD pin may need to be cross-wired.

### 2.2.3. RS-485 Connection

RS-485 port is a serial interface for communication with external devices such as controlling PTZ, multiplexers, access control boxes, X10 protocol peripherals, etc. Refer to the individual manuals for each external device you wish to connect to the DW-CP04 for additional information on protocols and proper configuration.

### 2.2.4. DI Connection

DI (Digital In) is a Sensor Input port which can be used for acquiring input signal from an external device such as sensors, switches, etc. DW-CP04 can recognize the input state if DI+ port is connected to GND or left unconnected. See **8. Device Configuration** for additional information.

### 2.2.5. DO Connection

DO (Digital Out) is an Alarm Output port which can be used for activating door opener/closers, sirens, emergency beacons, etc. DO ports are on Open-Collector basis, and driving current must not exceed 100mA at DC 5 to 12V range. DW-CP04 activates DO port by turning on or off the Open-Collector driver. See section- **8. Device Configuration** for additional information.

### 3. DW-CP04 Installation and Basic Setup

#### 3.1. Before Installation

- Read carefully User's Manual.
- Check user's Network (IP Address, Network Mask and default gateway)
- Secure an IP address for DW-CP04.

#### 3.2. Factory Default Settings

The following table shows the factory default condition for the Compressor. Please refer to this when you need to change the values on the admin menu.

	Factory Default
Admin ID	root
Admin password	root
IP address	10.20.30.40
Network mask	255.255.255.0
Gateway	10.20.30.1

**Table 5: Factory Default**

*Note: Factory default Admin ID and Password are all lower case letters.*

#### 3.3. Installing the DW-CP04

For installation of DW-CP04, please follow the steps below.

1. Place the analog cameras in place and connect power supplies. Consult the cameras' manual for additional information.
2. Connect the video output ports of the analog cameras to the video-in ports of the DW-CP04.
3. Connect the DW-CP04 to the desired network by connecting a network cable to the encoder's LAN port.
4. Connect the power supply of DW-CP04. To prevent any damage to the device, it is recommended to plug the power cables to the power supply and only then to the Compressor.
5. Once both LEDs are on you can connect to the DW-CP04's web viewer. (Power LED should appear orange, and LAN LED should appear green).
6. To find the Compressor on the network as well as configure its network settings, run the IP Installer tool available on the complimentary CD accessory.

## 4. IP Installer

### 4.1. About the IP Installer

The IP Installer software can be found in the accessory CD available with the Compressor. The IP Installer is utility program designed to locate all DW-CP04 Compressors on your network. By using the IP Installer, users will be able to:

- Setup the Network Configuration of the Compressor.
- Runs on Microsoft Windows operating system (XP, Vista, 7)
- Searching for Network Cameras, Video Servers, and Network Video Recorders
- Remotely upgrade the Compressor's Firmware
- Support automatic and manual IP setup

### 4.2. Installing and Uninstalling the IP Installer

#### 4.2.1. Installing IP Installer

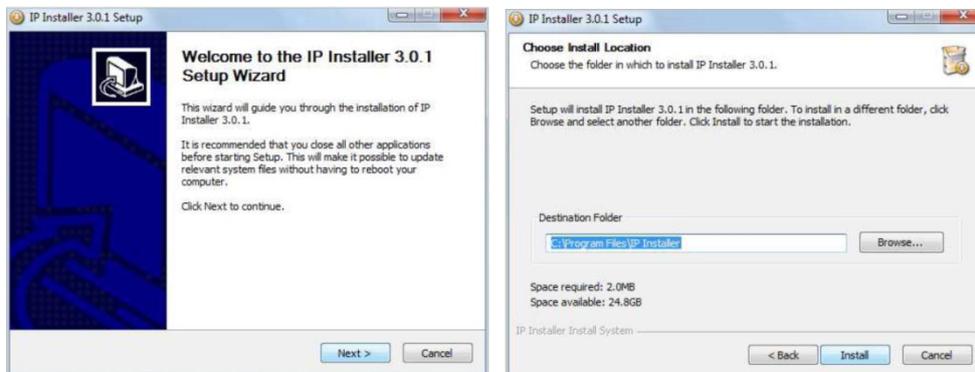
Insert the CD to the ODD tray and check the installation file.

You may see a consent prompt for running this install program, which is an User Account Control of the Windows as shown below-



Click 'Yes' button, then the installation wizard window will appear. Click 'Next'.

If necessary, click the Browse button to choose a proper path for the installation.



Click 'Install'. You will see the progress of the installation as shown below.

Click 'Finish' when the installation process is complete.

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### 4.2.2. Uninstalling IP Installer

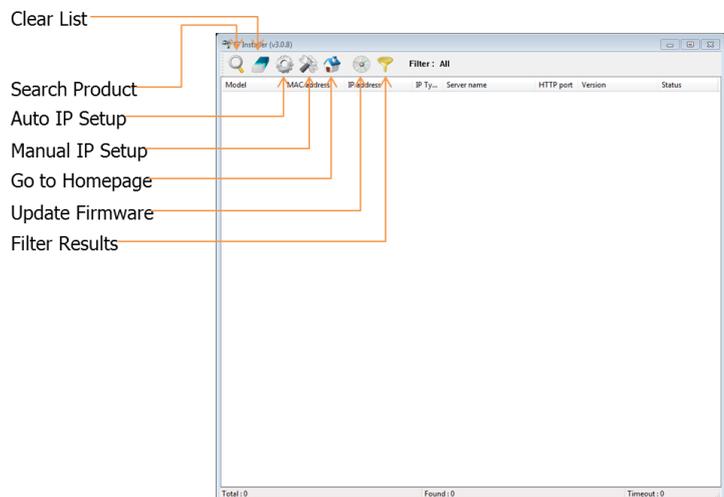
If you want to remove the IP Installer program from your PC, click Start > All Programs > IP Installer > Uninstall. You may see a consent prompt for running this install program. Click 'Yes' to continue. Follow the installation wizard to complete the uninstall process and remove the IP Installer software from the PC.

## 4.3. Using the IP Installer

### 4.3.1. Starting the IP Installer

Start the 'IP Installer' by double clicking the newly created Desktop shortcut icon. Or you can also start the program by clicking Start > All Programs > IP Installer > IP Installer.

### 4.3.2. IP Installer's Main Window



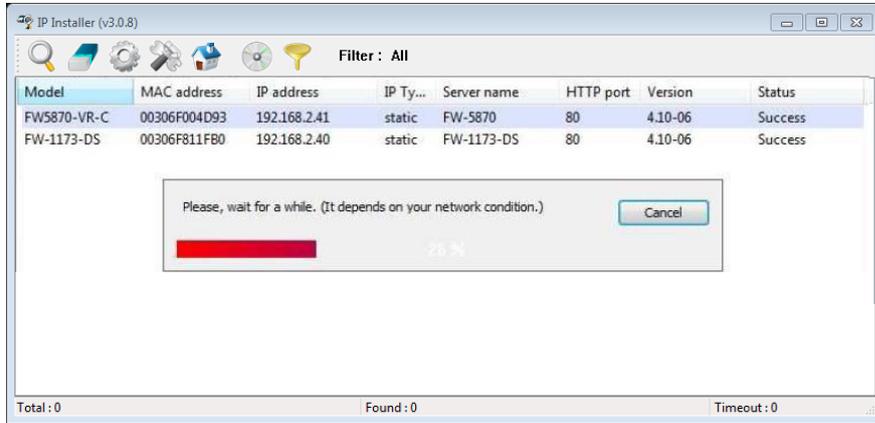
	Search Product	Scan the network and show all the DW-CP04 products that are on the network.
	Clear Product List	Clear the DW-CP04 products list created by searching the network.
	Automatic IP Setup	Configure the network setting of selected IP device in Automatic mode.
	Manual IP Setup	Configure the network setting of selected IP device in Manual mode.
	Connect Product Homepage	Connect to the server homepage of the selected IP device.
	Update Firmware	Update the firmware of the selected IP device.

	<b>Filter Configuration</b>	Define the range of MAC and IP addresses to search.
---	-----------------------------	---

**4.3.3. IP Installer’s Main Window**

Make sure that your DW-CP04 is connected to the network, and click the Search Product button.

A status window will pop up to show the progress of the searching. When the IP Installer completes scanning the network, all supported devices will appear in the results list.



**4.3.4. Manual Network Setup**

Configuring the network settings of the Compressor can be done by performing any of the following commands:

1. Right-click on the selected device and select Setup Product IP
2. Click the Manual IP Setup button on the main Toolbar
3. You can select multiple devices from the results list by holding the Ctrl button and clicking on multiple devices in the list.

Setting up Network Configuration for a single product:

MAC Address of the selected Server

Server's name

HTTP Port

Select IP Address Type

If Static is selected, manually enter the IP Address, Subnet Mask, Gateway and DNS 1 & 2

Enter the values for the server to connect to the network wirelessly \*

Any network changes must be authenticate by entering the admin password for the server (default root)

Save changes or cancel and exit

If PPPoE is selected, enter the registered user name & password

*Note: Wireless option currently not available in DW-CP04 models*

Setting up Network Configuration for multiple products:

Once multiple servers have been selected, press the manual IP Setup button.

All selected servers will appear in a list. You can modify the value of each changeable field by clicking it.

The screenshot shows the 'Network Setup' window with a table of server configurations. Annotations point to various elements:

- All selected devices will appear in the list:** Points to the table containing two server entries.
- Click on a value to enter edit mode:** Points to the IP Address field of the first server.
- Select what fields would automatically update in all servers when selecting Apply to All:** Points to the checkboxes for IP Address, Server Name, and Password.
- Apply the changes to all selected servers:** Points to the 'Apply to all' button.
- Save current changes made to specific servers:** Points to the 'Save Close' button.
- Cancel and exit without saving any changes:** Points to the 'Cancel' button.

Model	MAC Address	Server Name	IP Type	IP Address	Netmask	Gateway	DNS1	DNS2	HTTP Port	Password
FW-1173-DS	00306F811FB0	FW-1173-DS	Static	192.168.2.40	255.255.255.0	192.168.2.254	192.168.2.1	255.255.255.2...	80	
FW5870V...	00306F004D93	FW-5870	Static	192.168.2.41	255.255.255.0	192.168.2.254	192.168.2.254	255.255.255.2...	80	

If you click **Apply to all**, the settings set to the first server will apply to all remaining devices. All will have the same value for that parameter. In this case, each device's **Server name** and **IP Address** field will have +1 incremented value added to the original value.

For **Password field**, the entered information will be the same.

In using **Apply to all**, you can choose which field is affected. Put check marks only on the fields you want to use this automatic action as below.

#### 4.3.5. Automatic Network Setup

Before the system can automatically setup the server's network settings, select the IP type you would like for the device. Choose from the available options: Static, DHCP, or PPPoE.

In this setup mode, the IP Installer program will check your local network and assigns available IP addresses to the IP devices.

If the software detects that the network has more than one IP address classes, a confirmation window will be displayed. Chose the proper IP address you wish to assign your device as press 'OK'.

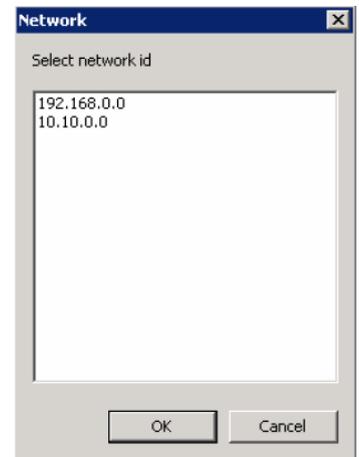


Figure 1 Double Network IP Warning

## 5. Compressor's Web Viewer

To open the Compressor's web viewer via the IP Installer software, select one of the following options:

1. Double-click the server's name in the results list
2. Right-click on the server's name and select 'Go Product Homepage'

You may be asked to install an ActiveX package. Accept all installations in order to connect to the Compressor and view proper video over the web interface.

After connecting to a Compressor server on the web browser, you'll find the web page as shown below.

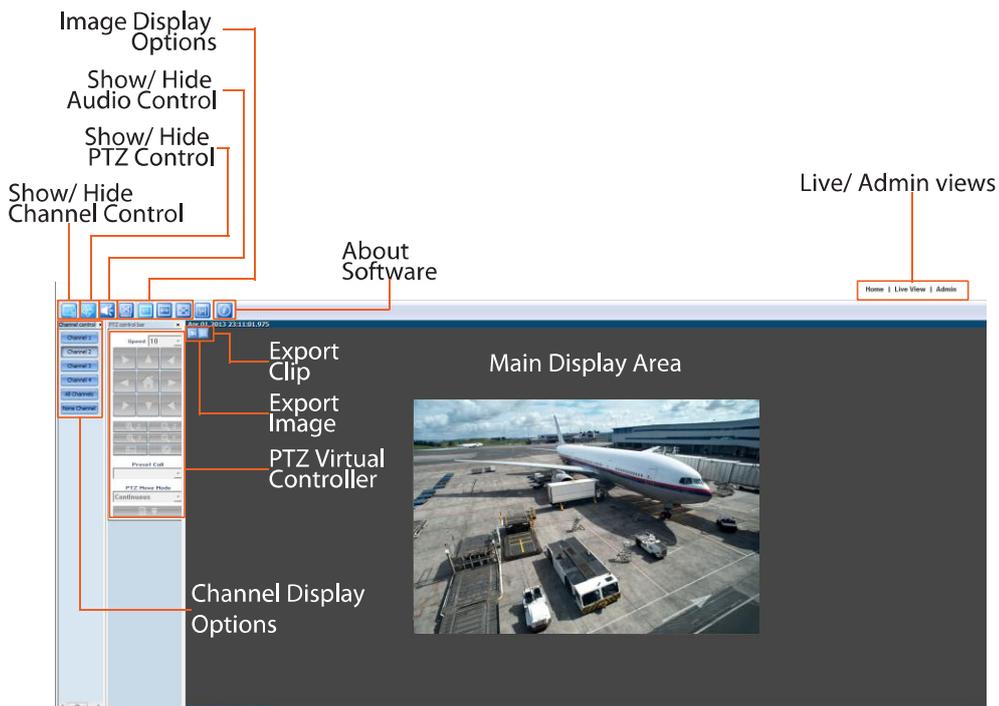
The rightmost item of the menu is Admin, where you can set up the most of features in the Compressor Server you're connecting to.



### 5.1. Entering Live View

Click on 'Live View' to view the Compressor's live display window. The image below will appear.

Use the controllers on the left side of the screen to change the view from single to multiple channel display, run the virtual PTZ controller, and adjust the image display ratio.



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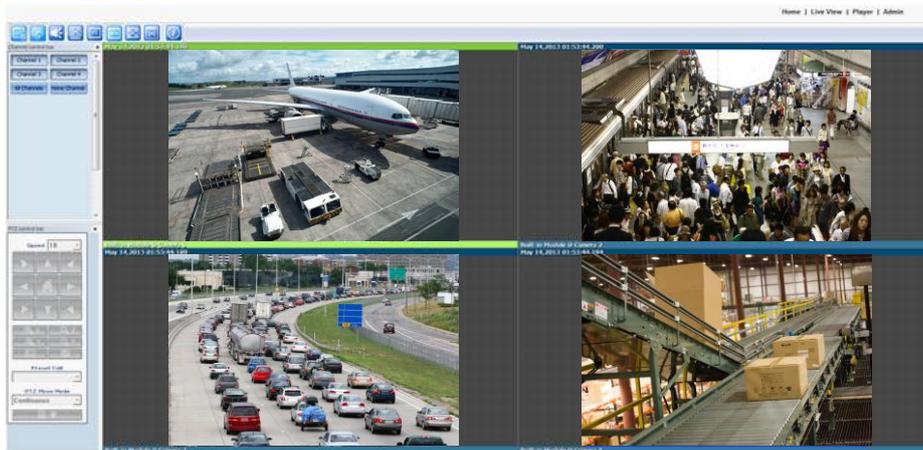
### 5.1.1. Single-Mode View

The Live Viewer will automatically open in single channel view, displaying Channel 1 by default. The screen will display the camera's module name, at the bottom green bar, and the date and time on the top green bar.

Channel 1	Channel 1 – Display or hide live view from Channel 1.
Channel 2	Channel 2 – Display or hide live view from Channel 2.
Channel 3	Channel 3 – Display or hide live view from Channel 3.
Channel 4	Channel 4 – Display or hide live view from Channel 4.
All Channel	All Channel – Display live view from all channels.
None Channel	None Channel – Hide live view from all channels.

### 5.1.2. Multi-Mode View

To view multiple channels, use the Channel control bar on the left side of the screen. Select which channels you would like to add to the current view. Channels that are currently being displayed will be selected. Each camera will have a blue bar at the top and bottom of the display, indicating the camera's name and date & time, respectively. Selected camera will be highlighted in a green bar at the top and bottom of the display.



### 5.1.3. Image Snapshot

You can take a quick screen shot of each of the Compressor's channels to save for your records. To take an image:

1. Press the  button at the top left corner of the channel's display. A new window will open with the default directory to save the file. If necessary, select a different directory for the file.
2. The file's name by default will be the date, time, and camera name.
3. All images will be saved as .bmp file. Press Save to save the file, or cancel to exit without saving.

### 5.1.4. Image Clip

You can take a quick video clip of a single channel to save for your records. Video clip files are available in .avi format and can be up to 10 minutes. To record a short clip:

1. Press the  button at the top left corner of the channel's display to start recording. **AVI REC** will appear in red at the top right-hand corner of the channel.
2. Press the  again to indicate the end of the video recording.
3. A new window will open with the default directory to save the file. If necessary, select a different directory for the file. The file's name will be the date, time, and camera name. If necessary, change the file's name.
4. When you playback recorded view, time stamp will be displayed on the top left-hand corner.

**5.1.5. Instant Recording**

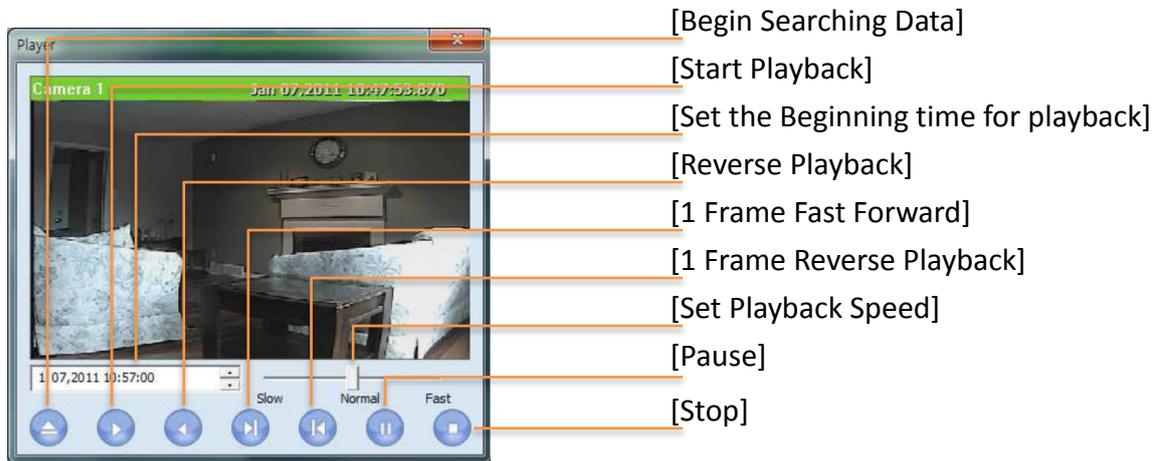
Your Compressor is equipped with a built-in SD Card, allowing the Compressor to record video locally to the micro card. The recorded video can be viewed by **Instant Playback** feature (See section 5.1.6 for more information) or by running Smart-Player program. The Compressor supports up to one (1) minute of instant recording to the SD Card, after that it will automatically stop instant recording. To record instant video to the SD Card:

1. Press the  button at the top left corner of the channel's display to start recording. REC will appear in red at the top right-hand corner of the channel.
2. Press the  again to indicate the end of the video recording.

**5.1.6. Instant Playback**

Your Compressor is equipped with a built-in SD Card, allowing the Compressor to record video locally to the micro card. The recorded video can be viewed by **Instant Playback** feature (See section 5.1.6 for more information) or by running Smart-Player program. To view instant video recorded to the SD Card:

1. Press the  button at the top left corner of the channel's display to start recording.
2. The window below will appear.



3. Use the playback buttons to forward and playback video, play, pause, or select the playback speed.

**5.1.7. Extended Features**

Right-clicking on live video on any of the channels will open the extended features options.

Pause- when selected, live video will freeze. Press the Pause button again to unfreeze the image.

FPS- controls the frames-per-second that the Compressor is streaming. This option is available only when the channel's stream is set to MJPEG codec. Select: 1FPS, 2FPS, 5FPS, 10FPS, 15FPS, or fastest, based on current bandwidth capabilities.

Flip- you can make mirrored (horizontal) or flipped (vertical) image from the original

Mute Audio- when audio output is enabled on a channel, select to mute the audio.

DO1- Click on DO1 to control alarm outputs connected to the Compressor.

Navigation- when selected, a small window of the full channel display will appear at the top right-hand corner of the screen while in digital zoom mode.

Time Stamp- when selected, a screen shot of the selected channel will be automatically saved as .bmp file. You can select the directory where the file will be saved, and alter the file's name. The image will include detailed time stamp at the top left corner of the image.

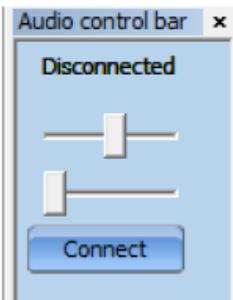


5.1.8. Video Control

The Compressor allows you to control the video display from each channel using the following buttons. These buttons are located at the tool bar at the top of the live viewer.

	The video will be displayed at its original resolution. Use the scroll wheel of the mouse to digitally zoom in and out. Pressing the scroll wheel button of the mouse (scroll wheel) will display video in actual size. You can also use +, -, / keys for zoom-in, zoom-out, and return to original size.
	If video is smaller than the screen, it is displayed in the original size. If video is larger than the screen, it is adjusted to fit to the screen with the same aspect ratio. Zooming is not supported in this mode.
	Video will be resized to fill the entire screen. Zooming is not supported in this mode.

5.1.9. Audio Control

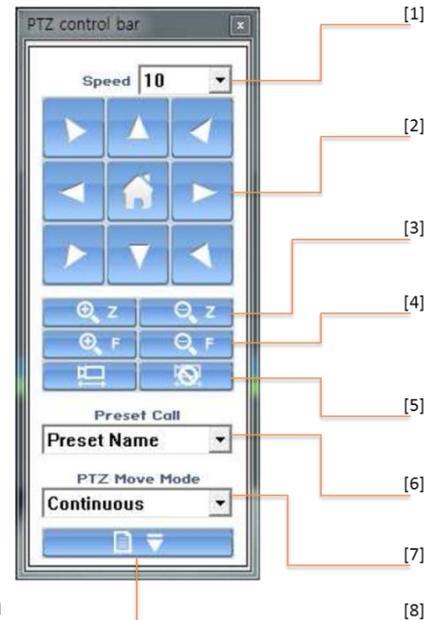


The Compressor supports two-way audio communications between the Compressor and the web viewer client. See 8.3 Camera & Motion for information on how to setup the audio. To receive an audio transmitted from the Compressor, select a proper channel on Smart-Viewer and you will be able to hear the audio via the web viewer. To send audio from the web viewer to the Compressor, connect a proper audio output device to your computer. If an audio device is properly connected to your computer, the **'Disconnected'** icon will change to **'Connected'**. Press **'connect'** to speak and use the volume bars to adjust the audio in and out options.

5.1.10. PTZ Control

See the admin section on how to properly setup a PTZ camera with the Compressor. Select the channel with a PTZ camera, and make sure the virtual PTZ controllers are enabled. Use the different buttons and controllers as explained below to move, zoom, and control your camera.

1. Speed- Adjust the rate of camera motion. It can be between 1 and 16, and higher number is faster.
2. PTZ Controllers- control the camera using the 8 directional arrows.
3. Zoom- Adjust the Zoom using the +/- buttons to zoom in and out, respectively.
4. Focus- Adjust the focus using the +/- buttons to focus near and far, respectively.
5. Auto Pan- for cameras that support the Auto Pan feature, start and stop previously set auto pan.
6. Present Call- move the camera automatically to the preset position as it is configured in the PTZ control on the Compressor.
7. Move the camera in 2 different modes: Step and Continuous modes.
  - a. Step mode: Camera moves as much as previously defined each time. This mode is effective for remote cameras with slow network condition.
  - b. Continuous mode: Camera keeps moving while direction control buttons is pressed. This mode is effective for local camera with fast responsiveness.
8. Advanced Options- press to expand the PTZ control window and view the options below:

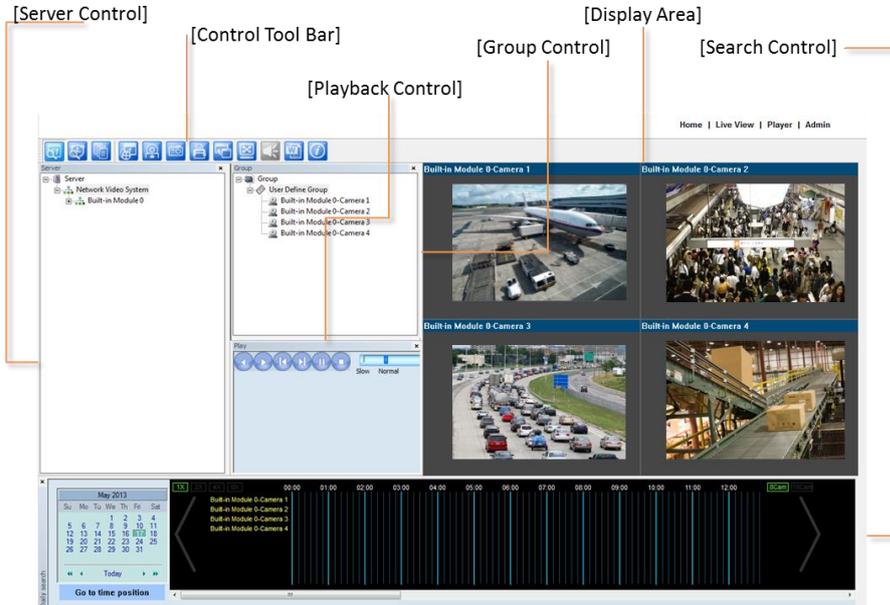


- a.  Group- Assign groups  and run/ stop groups.
- b.  Tour- Setup and run tours.
- c.  Power- turn the camera ON and OFF.
- d.  Output- control the camera's alarm output.
- e.  Input 1 + 2- control up to 2 sensor inputs connected to the camera.

## 5.2. Entering the Smart Player

### 5.2.1. Smart Player's Main Screen

Use the Player option to search the Compressor's playback, recorded to the SD Card. Please note that the cameras must be set to record for the playback and search options to be enabled.



Server Control Bar- displays the camera information in a tree hierarchy. You can compose a new group by drag & drop of servers, modules, and cameras of server into the group.

Group Control Bar- Users can make new groups and compose groups by dragging & dropping servers, modules, and cameras.

Playback Control Bar- Control the playback video's forward/reverse play, previous frame, next frame, pause, stop, playback speed, and playback position.

Control Tool Bar- Change search mode between day, condition, and data, backup video, take a screen shot, print a screen shot, adjust the image's display ratio, enable/ disable audio, watermark, and get information about the smart player.

Search Control Bar- Search condition (day, condition, and data) can be refined in this bar.

Display Screen- displays selected cameras' playback video.

### 5.2.2. Searching Video

The Compressor's smart player supports two search options: Day Search and Condition Search. These options are depicted in the player's tool bar as individual buttons located at the top left-hand corner of the screen.

To select one, make sure the server is properly connected in playback mode, and that there is at least one group setup for search and playback.

#### Day Search:

In day search mode, you can choose a single day and time frame to search.

1. Make sure the Day Search button at the tool bar is enabled.
2. Go to the Search control bar. Use the calendar on the left-side to select a day. Days with recorded video available will be marked in Red. Today's date will be marked in white.
3. To select a day, click on the day's number in the calendar. You can also press the **Go to time position** button to manually enter a specific hour and minute and press the **Search** button.
4. When a day from the calendar is selected, a time map will be displayed on the search control bar, displaying 24 hours of the selected day. Time with recorded video will be marked using a green bar for each channel. Use the large arrows on each side of the time bar to view all 24 hours of the selected day.

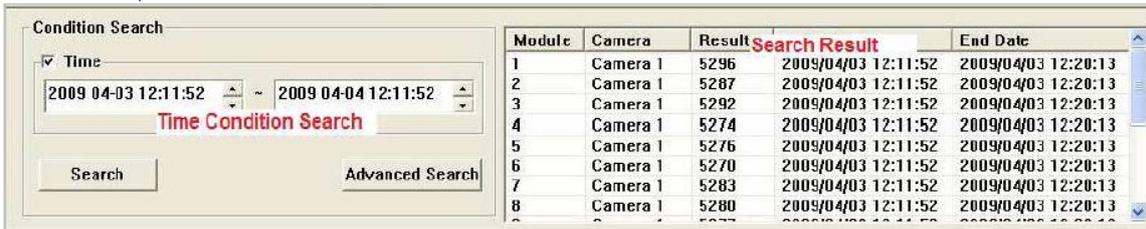
- Using the red time line, move to the desired time you would like to view playback from. Video will automatically start playing according to the position of the red time line in the time bar.

**Condition Search:**

Condition search allows you to search for video by motion detection and sensor activation.

To use Condition search:

- Make sure the Condition Search button at the tool bar is enabled.
- Go to the Condition search bar at the bottom of the page. If you want, set a time limit to the search by checking the **Time** checkbox and selecting the start and end time.
- Click **Search**.
- Search results will be displayed in a table format, displaying the camera’s name, result number, event start time, and event end time.



- Click **Advanced** for additional search settings:
  - Select whether to search a single camera or the entire group. Press **Add Condition**.
  - If you want to search for specific events, check the box next to **Event**.
  - Select which cameras to search for motion detection. Press **Add Condition**.
  - Select which cameras to search for Sensor activation. Press **Add Condition**.
  - Press **Search** to search according to the new set conditions.
- To view playback video, double-click on any of the search results to automatically start corresponding playback.

**5.2.3. Extra Features**

Window Control- adjust the location and visibility of the different windows available in playback mode. Select to show/ hide: Server window, Group window, Play window, Search windows, Log windows, or go to default layout.

Recording Period- Check the starting/ ending date of recording video from up to 1 year ago.

Backup- you can backup specific video and store them locally or on a removable HDD. Backup files can be saved as .idx (can be played on the Compressor’s player) or .avi.

To backup video:

- Click the Backup button. A new window will appear
- Select which cameras to include in the backup.
- Select the start and end time for the backup period.
- Select the backup file type (.idx or .avi).
- Select the directory path where you would like to save the backup file.
- Select the frame-rate for the video that is being backed up. The higher the frame-rate is, the larger the backup file will be.
- Press the **OK** button.
- The backup status bar will appear, indicating the progress of the backup.

*Note: AVI files support single-channel backup. IDX file supports multiple cameras.*

*Note: Adjusting the frame-rate is for AVI file only. When an original file was recorded at 10fps, if backup frame rate is set to 30fps, 3-second length of original video will be crammed into the 1-second length of the backup video to make it 30 fps. Backup video then will play back 3 times faster than the original video.*

*Note: For M-JPEG, fps is automatically set.*

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**Snapshot**- Choose the camera currently being played or paused, click **Snapshot** button. Then a snapshot file will be saved in a designated path. Image will be saved with time stamp at the top left-hand corner of the image.

**Print**- Choose the camera currently being played or paused, then click **Print** button. Then the image of the selected camera will be printed out.

**Ratio Display**- adjust the display ratio for your cameras.

- Select **Original** to view the camera in its original size, regardless of the window's display size.
- Select **Ratio** to change the camera's image to fit the screen, while maintaining its aspect ratio.
- Select **Stretch** to stretch the camera's image across the screen to fit the window's display size, regardless of the camera's original display size or ratio.

**Full Screen**- view the display area in full screen mode.

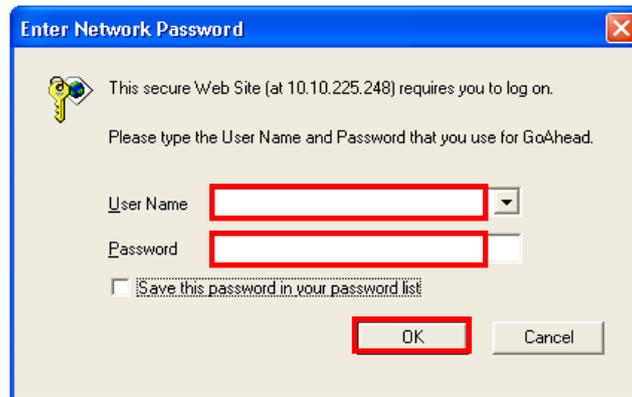
**Audio**- make sure the audio is properly setup in the camera and is enabled in the camera's recording schedule. Press the Audio button in the tool bar to adjust the volume of the playback audio.

**Watermark**- Watermarking protects the backup file from forgery of video data. Watermarking is supported only when a single channel is being played back. Video compression should be set to MPEG-4 to support watermarking. If watermark checkup is set to Enable, Smart-Player program will inform you by text whether the video contains watermark and the whether the video is proper MPEG-4 file which supports it.

**Information**- view the smart player's current version and additional information.

### 5.3. Entering Admin Menu

Click "**Admin**" item of the menu, then you'll see a login window. In the login window, enter "**root**" for both ID and password as they are the factory defaults. Press **Enter** key or click "**OK**" button. Once logged in, you can change the password to a new one.



The **Admin Menu** will be displayed as shown below. This will guide you to the top level menu items, which are **Quick, System, Network, Device, Advanced, Recording and Utilities**. Clicking any of these top level menu items will display submenu items and brief descriptions.

<b>Quick Configuration</b> <ul style="list-style-type: none"><li>» Step 1</li><li>» Step 2</li><li>» Step 3</li><li>» Step 4</li><li>» Step 5</li><li>» Finish</li></ul>	<b>Quick Configuration</b> <p>This category shows the detailed method for Quick Configuration.</p> <table border="1"><tr><td>» Step 1</td><td>Configuration of Network Video System name.</td></tr><tr><td>» Step 2</td><td>Configuration of Network Video System Date &amp; Time.</td></tr><tr><td>» Step 3</td><td>Configuration of Network(IP,Netmask,Gateway,DNS).</td></tr><tr><td>» Step 4</td><td>Configuration of dynamic IP registration of Network Video System.</td></tr><tr><td>» Step 5</td><td>Configuration of recording for each camera.</td></tr><tr><td>» Finish</td><td>Update the flash memory by new configured data, which is not versatile.</td></tr></table>	» Step 1	Configuration of Network Video System name.	» Step 2	Configuration of Network Video System Date & Time.	» Step 3	Configuration of Network(IP,Netmask,Gateway,DNS).	» Step 4	Configuration of dynamic IP registration of Network Video System.	» Step 5	Configuration of recording for each camera.	» Finish	Update the flash memory by new configured data, which is not versatile.
» Step 1	Configuration of Network Video System name.												
» Step 2	Configuration of Network Video System Date & Time.												
» Step 3	Configuration of Network(IP,Netmask,Gateway,DNS).												
» Step 4	Configuration of dynamic IP registration of Network Video System.												
» Step 5	Configuration of recording for each camera.												
» Finish	Update the flash memory by new configured data, which is not versatile.												
<b>System Configuration</b>													
<b>Network Configuration</b>													
<b>Device Configuration</b>													
<b>Advanced Configuration</b>													
<b>Recording Configuration</b>													
<b>Utilities</b>													

5.4. Admin Menu Structure

The following table shows the hierarchy of the Admin menu structure that we're going to deal with in this manual.

Category	Main Menu	Level 1 Sub-Menu	Level 2 Sub-Menu
Quick Configuration	Server Name Setup	n/a	n/a
	Local Date & Time Configuration		
	Network Configuration		
	IP-CCTV DNS™ Setup		
	Recording Configuration		
	Finish		
System configuration	Server Name	n/a	n/a
	Date & Time		
	Admin. Password		
	Access Control		
	User Registration		
Network Configuration	Network Configuration	n/a	n/a
	Network Ports		
	Bandwidth Control		
	View Network Status		
	Network Status Notify		
	IP-CCTV DNS™		
	Port Forwarding & UPnP		
	RTP/RTSP		
	SNMP		
Device Configuration	Serial Ports	Serial Input Mode	n/a
		Serial Output Mode	n/a
		Transparent Mode	PTZ Mode
	Privacy Zone	Camera 1~4	n/a
	Camera & Motion	Camera 1~4	n/a
	DI/DO	n/a	n/a
	DI Status/DO Control	n/a	n/a
Advanced Configuration	Advanced Services	E-mail	Camera 1~4 • Condition 1~3
		FTP(Buffered)	
		FTP(Periodic)	
		Sensor Notification	Input 1~4 • Condition 1~3
		Alarm Output	Output 1~4 • Condition 1~3
Recording Configuration	SD Configuration	SD Status & Format	n/a
		SD Information	n/a

	Recording Configuration	Built-in Module 0	Camera 1~4
	Recording Profile	n/a	n/a
	Recording Mode		
	SD Status Report		
	Clear Recording Configuration		
	Delete Recorded Data		
Utilities	System Log	n/a	n/a
	Save Configuration		
	Reboot		
	Factory Default		
	System Update		

## 6. Quick Configuration

The first time you connect to the DW-CP04, it is recommended to run the quick configuration wizard. This will guide you through setting up all the main options for the proper operation of your new Compressor.

### 6.1. Step-1 Server Name Setup

Click Server Name in the Quick Configuration menu to view the server’s model name, server name, MAC address, and current firmware and web viewer versions. In this window, you can adjust the server’s name. Click ‘Apply’ to save any changes, or ‘Back’ to return to the previous step. See the section **7.1 Server Name Setup** for more information.

### 6.2. Step-2 Local Date & Time Configuration

Click Date & Time on System Configuration menu, then Local Date & Time Configuration window will be displayed. If necessary, you can manually adjust the Compressor’s date and time, change the time zone or enable an NTP server connection. Click ‘Apply’ to save any changes, ‘Refresh’ to make sure the changes have been applied, or ‘Back’ to return to the previous step. See the section **7.2 Local Date & Time Configuration** for more information.

### 6.3. Step-3 Network Configuration

The Compressor’s Network Configuration can be done from the IP Installer software, or locally at the server’s web viewer. To adjust the internet settings, select the connection type (Static, DHCP, or PPPoE). If static IP is selected, enter the necessary information such as IP address, subnet mask, gateway, DNS 1 and DNS 2. Click ‘Apply’ to save any changes, ‘Refresh’ to make sure the changes have been applied, or ‘Back’ to return to the previous step. See the section **8.1 Network Configuration** for more information.

### 6.4. Step-4 IP-CCTV DNS™ Setup

The Compressor can be assigned a Dynamic Domain Name Server [DDNS]. Using a DDNS address is recommended when a DHCP address is used. It allows you to connect to the Compressor without the worry of the changing IP address. Click 'Apply' to save any changes, or 'Back' to return to the previous step. See the section **8.6 IP-CCTV DNS™ Setup** for more information.

### 6.5. Step-5 Recording Configuration

Each camera can be configured for recording option in this section. See the section **11.2 Recording configuration** for more information.

### 6.6. Finish

You need to save all the changes once the quick configuration wizard is complete. The changes made to the Compressor Server will be permanent by this step. Click **Finish** on **Quick Configuration** menu. Click **Back** to return to the previous set to adjust any of the settings.

## 7. System Configuration

When you click on **System Configuration** item on Admin Menu, the following sub menu will be displayed.

<b>Quick Configuration</b>	
<b>System Configuration</b>	
<ul style="list-style-type: none"> <li>» Server Name</li> <li>» Date &amp; Time</li> <li>» Admin. Password</li> <li>» Access Control</li> <li>» User Registration</li> </ul>	
<b>Network Configuration</b>	
<b>Device Configuration</b>	
<b>Advanced Configuration</b>	
<b>Recording Configuration</b>	
<b>Utilities</b>	

System Configuration	
This category shows the detailed method for System configuration.	
» Server Name	Configuration of Network Video System name.
» Date & Time	Configuration of Network Video System Date & Time.
» Admin. Password	Change administrator's password.
» Access Control	Configuration to allow other users.
» User Registration	Add, Edit, Delete User ID & Password.
» IP Devices Registration	IP Devices Registration.

### 7.1. Server Name Setup

Click **Server Name**, then the following will be displayed and you will find out the system information such as model name of the Compressor Server, Server name, MAC address (Serial Number), Firmware version and Web image version.

#### Server Name Setup

Product model name	FW1175-DS-E
Server name	Network Video System
Mac Address (S/N)	00:30:6F:83:C1:ED
Firmware version	4.18-B1-ds
Webimage version	4.18-B1

**Notice** : The server name can be 21 alphanumeric or 10 unicode.

As an administrator, you can change the server's name. To change the server's name, enter a new server name in the **Server Name** field. You may use up to 21 alphanumeric or up to 10 Unicode characters. Tab or any other special characters are not allowed. Click **Apply** to save the settings immediately.

### 7.2. Date & Time

Click **Date & Time**, then the following options will be displayed. Use this setup menu to set up the local date & time, time zone, and setup NTP server address and time. Please note that the Time is in 24:00 hours format. For example, 3PM should be entered as 15:00:00. Click **Apply** to save the settings immediately.

#### Local Date & Time Configuration

Date (yyyy/mm/dd)	2012 / 10 / 11
Time (hh:mm:ss)	15 : 26 : 54
Time Zone	<input type="checkbox"/> Change Time Zone Asia/Seoul
Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
NTP server address	pool.ntp.org
NTP sever time	Get NTP server time

Back **Apply** Refresh

**Notice :** If you change the 'Time Zone' and click 'Apply' button, we strongly recommend to reboot this Network Video System.

### 7.3. Administrator Password

To change the password for the administrator, click **Admin Password** on System Configuration menu.

#### Administrator's Password Configuration

Administrator's ID	root
Old Password	
New Password	
Confirm Password	

Back Apply

**Notice :** The password must be alphanumeric, within 4 ~ 23 characters.

Default ID for admin account is fixed as **root** and not allowed to change. In **Old Password** field, enter the current password. In both **New Password** and **Confirm Password** fields, enter the same new password. The password must be between 4 and 23 alphanumeric letters. Click **Apply** to save.

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Because you have replaced the password with a new one, the existing network connection made with old password will be terminated. You will have to reconnect to the Compressor server using the new password.

### 7.4. Access Control

Click **Access Control** on System Configuration menu. The following windows will be displayed. From the **Access Permission** window, select either one you would like to use. Click **Apply** button to save the change.

- **Full Access:** Any user can access the server and use all the features without limit.
- **Limited Access:** Only registered users can access the server and have limited privileges.

#### Access Control Configuration

##### Access Permission

<input type="radio"/> Full Access (View and control camera & audio without permission)
<input checked="" type="radio"/> Limited Access (In accordance with an user's permission)

### 7.5. User Registration

Use this setup menu to add, modify or delete users and their access to the Compressor server.

#### 7.5.1. Add

To add a user, click **User Registration** on **System Configuration** menu. Next, select **Add**, then the **User Registration (Add)** selection screen will be displayed. When **Add** is selected, you can add users and define their passwords, names, and access permission levels.

#### User Registration (Add)

<input checked="" type="radio"/> Add	<input type="radio"/> Edit	<input type="radio"/> Delete
User ID	flexdata	
Password	••••	
Confirm password	••••	
Name		

**Notice :** User ID & Password must be alphanumeric within 23 characters.

Enter a user ID, which must consist of up to 23 alphanumeric characters. In both **Password** and **Confirm Password** fields, enter the identical password. The password must be between 4 and 23 alphanumeric characters. In **Name** field, enter the user's name that must be up to 31 alphanumeric or 15 Unicode characters. Select one of the four items from **System Resource Access Permission**, which defines the permission level for registered users to the Compressor server.

System Resource Access Permission							
<input checked="" type="radio"/>	All Channels Access						
<input type="radio"/>	General Access (only live viewing access)						
<input type="radio"/>	No Access						
<input type="radio"/>	Selective Access						
Enable	VS Module ID	Camera No.	Alarm Control	PTZ Control	Audio Control	Play back	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>				

- **All Channels Access:** User can use all the features except for the configuration options in the Admin Page.
- **General Access (only live viewing access):** User can use only Live View features.
- **No Access:** User is not permitted of any of the features.
- **Selective Access:** User is allowed to use only the features selected from the table below. Check the **Enable** box next to each field to setup the specific features for each user.
  - VS Module ID:** The registered user can select VS Modules that are available. (VS Module is a network device that has been registered in Compressor Server. The Compressor has a default VS Module- Built-in Module 0)
  - Camera No.:** Among the cameras of VS Module, select one to set up. (between 1 and 4, or all)
  - Alarm Control:** Determine if Alarm control is to be allowed.
  - PTZ Control:** Determine if PTZ Control is to be allowed.
  - Audio Control:** Determine if Audio Control is to be allowed.
- Click **Apply** button to add the user.

*Note: To activate your setting at this 'User Registration' menu,*

- Click above "Apply" button.
- Go to 'System Configuration' -> 'Access Control'.
- Select "Limited Access".
- Click "Apply" button at the 'Access Control' page.

*Otherwise, 'User Registration' will not be activated.*

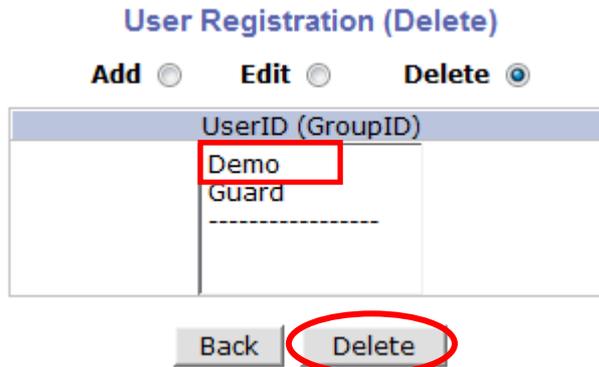
**7.5.2. Edit**

To edit a user account, select **Edit**. In this part, you can modify the existing user’s name, password, and access permission. User ID is not allowed to change. Once selecting a user ID for edit, the usage is the same as in **Add** section.

To see existing users, click **Select User ID**, and select a user to be edited from the drop-down menu. Then change the password, name or access permission, and click **Apply** button to save the setting. Setup of Access Permission can be done the same way as in **Add** section.

7.5.3. Delete

To delete an existing user, select **Delete**. From the list of the users, select a user's ID you want to delete. Then, click **Delete** button to confirm the deletion.



8. Network Configuration

Configuration of the network settings of the Compressor may vary depending on how an IP address is assigned in Ethernet-based environment.

<b>Quick Configuration</b>
System Configuration
<b>Network Configuration</b>
» Network Configuration
» Network Ports
» Bandwidth Control
» View Network Status
» Network Status Notify
» IP-CCTV DNS™
» Port Forwarding & UPnP
» RTP/RTSP
» SNMP
Device Configuration
Advanced Configuration
Recording Configuration
Utilities

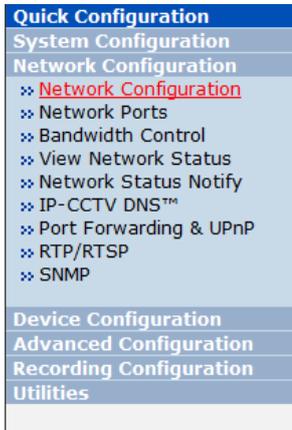
Network Configuration	
This category shows the detailed method for network system.	
» Network Configuration	Configuration of Network(IP,Netmask,DNS).
» Network Ports	Modification of HTTP and other application network port numbers.
» Bandwidth Control	Configuration of bandwidth control.
» View Network Status	View of Network Status.
» Network Status Notify	It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).
» IP-CCTV DNS™	Configuration of dynamic IP registration of Network Video System.
» Port Forwarding & UPnP	Configuration of Port Forwarding & UPnP(Universal Plug and Play).
» RTP/RTSP	Configuration of RTP/RTSP.
» SNMP	Configuration of SNMP.

To make a connection to the Internet, it is required to figure out the type of the Internet service you're using. Depending on the service type, the network configuration can be in any of **Static IP**, **DHCP Client** or **PPPOE**.

### 8.1. Network Configuration

#### 8.1.1. Static IP Configuration

Select the Network Configuration sub-category to view the available network settings.



Network Configuration : Static IP

Static IP  DHCP Client  PPPoE

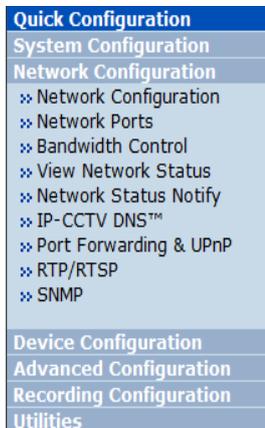
IP Address	10.10.231.123
NetMask	255.255.0.0
GateWay	10.10.1.1
DNS 1	168.126.63.1
DNS 2	168.126.63.2

Back Apply Refresh

For static IP, select static IP and input the corresponding values for IP address, Net-Mask, Gateway, DNS1, DNS2 and click “Apply” to save. Press “Back” to cancel all changes. Press “Refresh” to load last saved values.

#### 8.1.2. DHCP Client Configuration

For DHCP, DHCP server must exist in the network environment. Select **DHCP Client** from Network Configuration, click “Apply”. If DHCP is selected, the server will automatically assign the network settings based on the current network’s requirements.



Network Configuration : DHCP Client

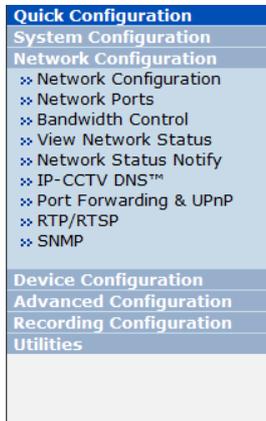
Static IP  DHCP Client  PPPoE

Back Apply

**Notice :** Please make sure to set up “Network Status Notify” option to get IP address through e-mail when DHCP option is selected.

### 8.1.3. PPPoE Configuration

For PPPoE connection, enter the username and password acquired from your Internet Service Provider [ISP]. Contact your ISP or your Network Administrator for additional information. Click “Apply” to save or “Back” to cancel.



Network Configuration : PPPoE

Static IP  DHCP Client  PPPoE

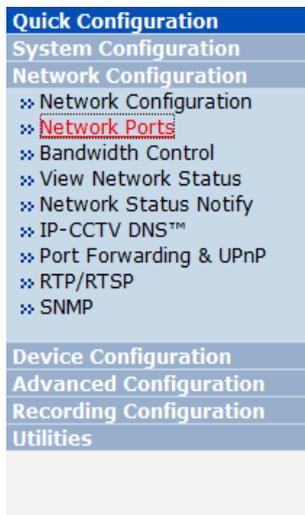
User ID	<input type="text"/>
User Password	<input type="text"/>
Confirm Password	<input type="text"/>

Back  Apply

**Notice :** Please make sure to set up "Network Status Notify" option to get IP address through e-mail when PPPoE option is selected. Otherwise, there is no way to get changed IP address.

## 8.2. Network Ports

In this configuration page, you can setup the HTTP port for the Compressor Server to communicate with the Client PC. HTTP Port is the network port that is used when a Client PC connects to the Compressor Server's Web page. It can be assigned between 80 and 65535 and the default value is 80.



Network Ports Configuration

HTTP Port	<input type="text" value="80"/>	(Default:80, 80 ~ 65535)
-----------	---------------------------------	--------------------------

Back  Apply

**Notice** • HTTP Port : For web access, video streaming and playback.

### 8.3. Bandwidth Control

Bandwidth control settings allow you to limit the maximum network traffic used by the Compressor. If it is enabled, enter the bandwidth limit in Kbps. The maximum data size transferred from the Compressor will not exceed bandwidth limit set. If transferred data is exceeded, part of data will be randomly lost. If multiple users try to access the Compressor when a bandwidth control is in place, users connected to the Compressor will share the limited network bandwidth.

<b>Quick Configuration</b>
System Configuration
Network Configuration
❖ Network Configuration
❖ Network Ports
❖ <b>Bandwidth Control</b>
❖ View Network Status
❖ Network Status Notify
❖ IP-CCTV DNS™
❖ Port Forwarding & UPnP
❖ RTP/RTSP
❖ SNMP
Device Configuration
Advanced Configuration
Recording Configuration
Utilities

### Bandwidth Control Configuration

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Bandwidth Limit	<input type="text" value="0"/> Kbps

- Notice**
- The bandwidth limit should be over 32.
  - MPEG-4 or H.264 streaming can be affected by this setting.

*Note: IF the HTTP port number is changed to other value than default (80), make sure the new HTTP port number goes together with the Compressor's Internet address. For example, Compressor's IP address is 196.168.1.00 and set the HTTP port to 8080, you will have to enter <http://192.168.1.100:8080> to connect to the server*

#### 8.4. View Network Status

This menu shows network status of the Compressor's Network settings and status, including IP address settings, Modem status, and PPPoE status (if applicable). Use this link to make sure that any changes made to the Compressor's network settings are saved and are properly functioning.

<b>Quick Configuration</b>
System Configuration
Network Configuration
❖ Network Configuration
❖ Network Ports
❖ Bandwidth Control
❖ <b>View Network Status</b>
❖ Network Status Notify
❖ IP-CCTV DNS™
❖ Port Forwarding & UPnP
❖ RTP/RTSP
❖ SNMP
Device Configuration
Advanced Configuration
Recording Configuration
Utilities

### Network Status

<b>Common Status</b>	
Gateway	<input type="text" value="10.10.1.1"/>
Gateway Device	<input type="text" value="eth0"/>
DNS1	<input type="text" value="168.126.63.1"/>
DNS2	<input type="text" value="168.126.63.2"/>
<b>LAN Status</b>	
IP Address	<input type="text" value="10.10.231.123"/>
Netmask	<input type="text" value="255.255.0.0"/>
MAC Address	<input type="text" value="00:30:6F:50:19:1E"/>
<b>PPPoE Status</b>	
Connection Status	<input type="text" value="Link is down"/>
IP Address	<input type="text"/>
Netmask	<input type="text"/>
<b>WAN-Modem Status</b>	
Connection Type	<input type="text" value="PPP Server (Dial In)"/>
Connection Status	<input type="text" value="Link is down"/>
Local IP	<input type="text"/>
Remote IP	<input type="text"/>
Netmask	<input type="text"/>

### 8.5. Network Status Notification

The Network Status Notifications menu allows you to setup e-mail notifications when the IP address of the Compressor changes. This function is available when the Compressor is set to DHCP or PPPoE only. The following events will trigger an e-mail notification:

When it is set to Dynamic IP on Network Configuration menu, and the Compressor server has been given a new dynamic IP address and connected to the network.

Or,

When it is set to PPP Client on WAN-Modem menu, and the Compressor server has been connected to the network with ISP or PPP server.

**Network Status Notification**

Mail Notification	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SMTP Server	<input type="text"/>
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>
===== User-Defined Message =====	
<input type="text"/>	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

**Notice :** It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).

1. Select '**Enable**' to use the feature.
2. Enter the address of the SMTP server which is needed for email service. If your SMTP server requires a user ID and a password for authentication, you will have to get them from your ISP or network admin. Enter the ID and password.
3. In **Sender** field, enter your email address or other meaningful words that will show the message was sent from the Compressor server as a notification.
4. Enter the email addresses of the recipients in the **Recipient** fields. You can send network e-mail notifications to up to three (3) e-mail accounts.
5. In the **User-Defined Message** box, enter a message to explain why the message was sent.
6. Click "**Apply**" to save settings.

Mail Notification	<b>Enable:</b> Send email <b>Disable:</b> Do not send email
SMTP Server	SMTP Server address for email service
Authentication Login	<b>Enable:</b> user ID and password are required for SMTP server <b>Disable:</b> user ID and password are not required
User ID	User ID for SMTP server
Password	Password for SMTP server
Sender	Email address of Sender
1st / 2nd / 3rd Recipient	Email Addresses of the Recipients (up to 3 accounts)
User Defined Message	Message to be included in the Notification email

### 8.6. IP-CCTV DNS™ Setup

IP- CCTV DNS service provides a static & public domain name to help users access Compressor products even though their IP address is changed or they are used in local network. For proper function of IP-CCTV DNS service, products should be accessible through internet.

To use IP-CCTV DNS, users must create an ID from IP-CCTV DNS™ server (<http://www.ipcctvdns.com>) and register the Compressor using its MAC address and Product Key. This information can be found under the IP-CCTV DNS™ Setup menu under the Network Configurations menu. **Enable** service and click **Apply**.

**IP-CCTV DNS™ Setup**

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
DNS Server IP	<input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/>
Mac Address	<input type="text" value="00306F50191E"/>
Product-Key	<input type="text" value="AF182F7B"/>
IP-CCTV DNS Registration verification	<input type="button" value="Confirm"/>

**Notice :** If you do not use public dynamic IP address for the remote access, please skip this step. This is related with [www.ipcctvdns.com](http://www.ipcctvdns.com). Different IP address or URL must follow the same protocol of [www.ipcctvdns.com](http://www.ipcctvdns.com). If you click Confirm button, you can verify registered URL on IP-CCTV DNS. If product is not registered on IP-CCTV DNS, you can not verify registered URL.

1. Go to the IP-CCTV DNS Setup menu
2. Make sure the Enable button is selected on the Compressor’s IP-CCTVDNS setup page.
3. Click the Go button next to the website address. This will take you to the IPcctvDNS website.
4. Click Sign-up
5. Read and select whether to agree or not to the terms and service agreement.
6. Enter your e-mail address in the ID section and press the check button. The website will notify you if the e-mail is available to use as an ID.
7. Entered a desired password and confirm it.
8. Enter your contact information as required, including name, company name, phones, and address. The country location will determine the location of the server used for your Compressor’s DDNS. Chose the closest city to you available from the list.
9. Click ‘save’, your user will be created and the website will prompt you to the main page for login.
10. Enter your new user ID and password and click Login.
11. Go to “Product Registration”
12. Enter a name to associate with the Compressor.
13. Enter the MAC address and Product-Key of your Compressor and click apply. The product will be added to your product list.
14. Your Compressor’s DDNS address will be the DDNS Host Name as it appears in the Product List section of the website. For example: <http://hostname.ipcctvdns.com:externalport>.
15. By default, the hostname given to your Compressor will be fw841932. To change the host name, click on the ‘Detailed Information’ button at the top right-hand corner of the Product List page.
16. Select ‘Edit’ and enter a new host name.
17. Click ‘Apply’ to save.

NOTE: Remember that additional settings such as Port Forwarding are necessary to complete the DDNS setup for the Compressor. See section 8.7 Port Forwarding & UPnP for more information.

### 8.7. Port Forwarding & UPnP

UPnP (Universal Plug and Play) is a kind of network protocol to help users to find and configure network products in same local network area. Port forwarding assigns a certain network port in your router to a network product for proper access from outside the Local Area Network. Generally, port forwarding can be configured from the network router.

UPnP port forwarding is done by finding an available network port, assigning it to the Compressor and reporting the overall network configuration of the Compressor using the IP-CCTV DNS™ server setup in the previous menu. Users have to register the products to IP-CCTV DNS™ server and IP-CCTV DNS™ service should be enabled. See 8.6 IP-CCTV DNS Setup for additional information.

There are 3 options in UPNP Port Forwarding.

- **Manual: User Assigned Port** is used when users can access network router (hub) and manually assign available network port to Compressor. In this case, after you manually opened the ports in your router select this option and enter the port you assigned to the Compressor.
- **UPnP: User Assigned Port** is used when users want Compressor products to configure port forwarding menu of network hub with user-assigned network port. If it fails, try to change user-assigned port manually.
- **UPnP: Auto Selected Port** is used to let the Compressor auto set the entire network configuration automatically.

Please notice that network router should support UPnP Port Forwarding and there is a limit for maximum UPnP devices. If it is properly configured, results will be appeared under **UPnP status**.

#### Port Forwarding & UPnP

Port Forwarding	<input checked="" type="radio"/> Manual : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : Auto selected port	
Display shortcut Icon in My Network Places	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	

#### UPnP Status

Status	<input type="text" value="Success"/>
External Port No.	<input type="text" value="9080"/>
Router Global Address	<input type="text"/>
System's IP address for Local Network Access	<input type="text" value="http://10.10.231.123:80"/>
System's IP address for Access via Internet	<input type="text"/>

**Notice :** User's assigned port is the external port number of dynamic IP address. This function is quite unique when UPnP IP sharer or router are used together. If Upnp service is not activated by UPnP : User Assigned port, allocate another port.

8.8. RTP/RTSP

RTSP (Real-Time Streaming Protocol) is a protocol used to transfer video and audio streams over the network. Any application supporting Standard RTSP can be used for the Compressor server. Quick Time Player or VLC program can be used, but it may not be supported in an environment within a firewall. There are two types of usages; one for Unicast address condition and the other for Multicast address condition.

**Unicast Address:**

Use “rtsp://network video server ip address/cam0\_0”. For multiple channels, use cam0\_x, x (0~3). If there are multiple modules, use camx\_0 x (0 ~ 3).

**Multicast Address:**

Use “rtsp://network video server ip address/mcam0\_0”. For multiple channels, use cam0\_x, x (0~3). If there are multiple modules, use camx\_0 x (0 ~ 3).

RTP/RTSP Setup

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
RTSP Port	<input type="text" value="554"/>	(Default:554, 554 ~ 65534)
RTP Start Port	<input type="text" value="5000"/>	(Default:5000, 2048 ~ 65534)
Camera 1	Multicast Address	<input type="text" value="0.0.0.0"/> Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/> (Disable:0, 2048 ~ 65534)
Camera 2	Multicast Address	<input type="text" value="0.0.0.0"/> Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/> (Disable:0, 2048 ~ 65534)
Camera 3	Multicast Address	<input type="text" value="0.0.0.0"/> Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/> (Disable:0, 2048 ~ 65534)
Camera 4	Multicast Address	<input type="text" value="0.0.0.0"/> Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/> (Disable:0, 2048 ~ 65534)

**Notice :** This function is only for built in module.  
IP devices (added VS module) does not support this function.

RTSP URL for Camera 1  
rtsp://(Network Video Server IP Address)/cam0\_0  
-> cam(0 : VS Module number)\_(0:Port number)

RTSP URL for Camera1 for Multicast address  
(Multicast address and Port should be configured.)  
rtsp://(Network Video Server IP Address)/mcam0\_0  
-> mcam(0 : VS Module number)\_(0:Port number)

Service	<b>Enable:</b> Start RTSP service <b>Disable:</b> Stop RTSP service
RTSP Port	In normal case, use default port number 554 to connect to RTSP service. If not using port 554, enter the port number you want to use. e.g.) port number 445==> rtsp:// network video server ip address:445/cam0_0
RTP Start Port	The starting number of the port for video transfer. Each time video transfer connection is made, the port number also increases.
Multicast Address	Address for multicast video transfer. The multicast address 0.0.0.0 is for stopping multicast.
Multicast Port	Port number for viewing the video with a multicast address

NOTE: To use ONVIF protocol, RTP/RTSP must be enabled.

8.9. SNMP Setup

SNMP (Simple Network Management Protocol) is a protocol used to monitor and configure network status of a network device. SNMP V1 and V2 are supported over MIB2 standard.

SNMP Trap can function when SNMP V1/V2 is enabled.

SNMP V1/V2	<b>Enable:</b> Start SNMP service <b>Disable:</b> Stop SNMP service
Trap	<b>Enable:</b> Start SNMP Trap service <b>Disable:</b> Stop SNMP Trap service
Destination IP Address	IP Address to receive SNMP Trap messages.
Trap Community	Key value used in SNMP Trap e.g.) public
Available Traps	Type of SNMP Trap message 1. Cold Start : When SNMP starts 2. Authentication Failure : When key value of SNMP query is wrong

## 8. Device Configuration

The Device Configuration menu options allow you to configure all the settings relevant to all external devices connected to the Compressor such as cameras, Input / Output, and Alarm control.

Quick Configuration	
System Configuration	
Network Configuration	
Device Configuration	
+ Serial Ports	
+ Privacy Zone	
+ Camera & Motion	
+ DI/DO	
+ DI Status/DO Control	
Advanced Configuration	
Recording Configuration	
Utilities	

Device Configuration	
This category shows the detailed method for Device Configuration.	
Serial Ports	Configuration of serial ports(RS-232, RS-422, RS-485 ports)
Privacy Zone	Configuration of Privacy Zone.
Camera & Motion	Configuration of video mode and the details.
DI/DO	Configuration of DI(Sensor Input)/DO(Alarm Output).
DI Status/DO Control	Enable or Disable each DO(Alarm Output) port.

### 8.1. Serial Ports Configuration

There are two serial ports configurable in the system, COM and AUX. COM port is primarily used for console, and AUX port is used for PTZ control. However, both can be used for other purposes when necessary.

#### Serial Ports Configuration

COM Port	Console
AUX Port	None

Please click below link to configure more details.

Serial Input Mode	When COM port is connected to console. (Baud Rate : 115200)
Serial Output Mode	When COM or AUX port is connected to serial output device.
Transparent Mode	When COM or AUX port is connected to UART device.
PTZ Mode	When COM or AUX port is connected to PTZ devices.

#### 8.1.1. Serial Input Mode

When serial ports are set in **Serial Input Mode**, the Compressor can be triggered by the external sensors to send images from the camera by email, or to an FTP server. It can also activate **Alarm Output** by input from sensors inputs. To configure, click **Serial Ports** on Device Configuration. In **COM Port** or **AUX Port**, select **Serial Input** and click **Apply** button to apply the change. The system will reboot then.

#### Serial Ports Configuration

COM Port	Console
AUX Port	PTZ

After rebooting, open the **Serial Ports** window in **Device Configuration** menu again. Select the **Serial Input Mode**.

### Serial Input Mode Configuration

Select the serial input device supported by the system.

Current Port	None
Current Protocol	None
Serial Input Model	Not Installed

Back Apply

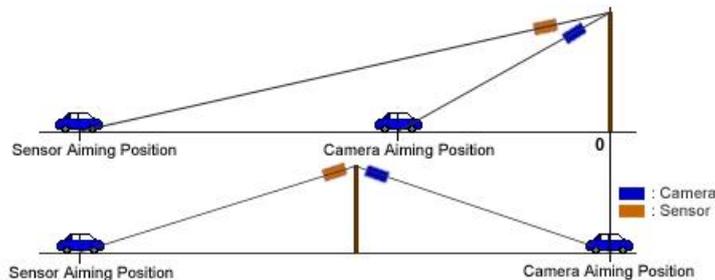
- **Current Port:** This shows the name of the port currently configured.
- **Current Protocol:** This shows the protocol currently being used. (RS-232 Only).
- **Serial Input Model:** Select the sensor's model number you want to use from the drop-down menu.

The following example is when a speed sensor, AGILIS-HE820-SINGAPORE, is selected.

### Serial Input Mode Configuration

Select the serial input device supported by the system.

Current Port	None
Current Protocol	None
Serial Input Model	AGILIS-HE820-SINGAPORE
Upper Limit	-1
Lower Limit	-1
Initial String Length	0
Initial String Data	
<b>(Speed) Delay configuration</b>	
(Speed)Delay	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Internal process delay	0
Sensor Aiming Position	0
Camera Aiming Position	0
Add Vehicle length to calculate delay time	<input type="radio"/> Add <input checked="" type="radio"/> Ignore



Back Apply

- **Upper Limit:** The highest value in the range to assign
- **Lower Limit:** The lowest value in the range to assign
- **Initial String Length:** The length of initial string from sensor
- **Initial String Data:** The initial string from sensor
- **(Speed) Delay:** select **Enable** if sensor input needs delay
- **Internal process delay:** The amount of delay for sensor input

- **Sensor Aiming Position:** The position for sensor to aim
- **Camera Aiming Position:** The position for camera to aim
- **Add Vehicle length to calculate delay time:** The length of vehicle for applying delay time

**8.1.2. Serial Output Mode**

Using Serial Output Mode, you can send commands from the Compressor to control PTZ devices, Multiplexer, Access control box, X10 Protocol, z256 protocol. For external devices control, the Compressor supports RS-232 or RS-485 communication.

Once an external device is properly connected to the Compressor for communication, select the protocol, baudrate, data bit, stop bi, parity bit, and transmission mode.

Click **'Apply'** to save, or **'Back'** to cancel.

**Serial Output Mode Configuration**

Current Port	None
Line Mode	RS-232
Baud Rate	38400
Data Bit	8 bit
Stop Bit	1 bit
Parity Bit	None
Mode	<input checked="" type="radio"/> By-Pass <input type="radio"/> X10 <input type="radio"/> Z256

Back Apply

» [Sample Page](#) provides an example how to output data through serial port.

**8.1.3. Transparent Mode**

When there are two or more Compressors on the same network, they can act like a transparent interface between two different UART devices, allowing the communication between the UART devices is made transparently without a flaw.

**Transparent Mode Configuration**

Current Port	None
Line Mode	RS-485
Baud Rate	9600
Data Bit	8 bit
Stop Bit	1 bit
Parity Bit	None
Network Protocol	UDP
Peer IP	127.0.0.1
Network Port	32000 (Default:32000, 10000 ~ 65535)
Data Start Pattern	<input type="checkbox"/> <input type="text"/>
Data Size	0

Back Apply

**Notice :** For using 'Data Start Pattern' please check 'Data Start Pattern' and input 'Data Size' 'Data Start Pattern' should be input as hexadecimal or character.  
 ex) 0x55,0x6A <== hexadecimal  
 AbCd <== character

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- **Line Mode:** The type of communication protocol
- **Baud Rate:** Data transfer rate
- **Data Bit:** The number of bits in data
- **Stop Bit:** The number of stop bit
- **Parity Bit:** Parity bit characteristic
- **Network Protocol:** The type of protocol used to send data
- **Peer IP:** IP address of other Compressor server
- **Network Port:** Network port number of the server
- **Data Start Pattern:** Data start pattern (Not used if unchecked)
- **Data Size:** Data size in single transfer (Not used if unchecked)

**8.1.4. PTZ Mode**

With the PTZ camera's RS-485 cable wired to the Compressor's COM or AUX port, select the proper PTZ model in **PTZ Mode Configuration** screen, and then click **Apply** to save the change.

**PTZ Mode Configuration**

Current Port	AUX			
Dummy Data	<input type="radio"/> On <input checked="" type="radio"/> Off			
Current Protocol	Default ▼			
Current Baudrate	Default ▼			
PTZ Model	Not Installed ▼			
Base Address	PTZ Install Flag			
	Ch 1	Ch 2	Ch 3	Ch 4
0 (0~255)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Notice:** 1Channel IP camera or video server  
 \* Base Address = 0 -> PTZ id = 1 for camera1 or 2  
 \* Base Address = 99 -> PTZ id = 100 for camera1 or 2

4Channel Network video server  
 \* Base Address = 0 ->  
 PTZ Id = 1 for camera1, PTZ id = 2 for camera2  
 PTZ Id = 3 for camera3, PTZ id = 4 for camera4  
 \* Base Address = 50 ->  
 PTZ Id = 51 for camera1, PTZ id = 52 for camera2  
 PTZ Id = 53 for camera3, PTZ id = 54 for camera4

Please click the below link to configure Preset Name for each PTZ camera.

<a href="#">» Camera 1</a>	<a href="#">» Camera 2</a>
<a href="#">» Camera 3</a>	<a href="#">» Camera 4</a>

Select the appropriate protocol from the drop-down menu. Please note that when a protocol is selected, the default baudrate value will automatically be entered. You can change that value at any time. Consult your camera's manual for additional information on the proper protocol, baudrate and address you should use.

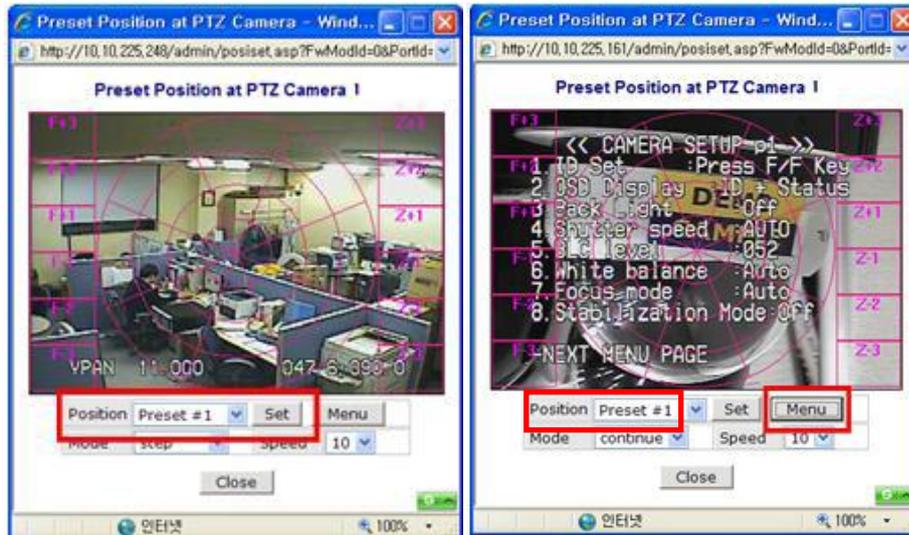
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Base Address should match the address of the PTZ camera or the receiver used here. (Base Address = PTZ Camera's Base Address – 1).

Once the Base Address of the camera is entered, select the channel that is connected to PTZ camera, and click 'Save'.

If the PTZ camera supports advanced functions such as preset swings, presets, groups, and tours, click **Devices Configuration > Serial Ports > PTZ Mode > Camera 1** and click on the **Preset & Menu** button. The video monitoring screen will appear as shown below.

Use the PTZ control to move the camera to a desired spot. Select the Preset number you'd like to assign to it. Click **Set** button to save the preset values in the Preset number.



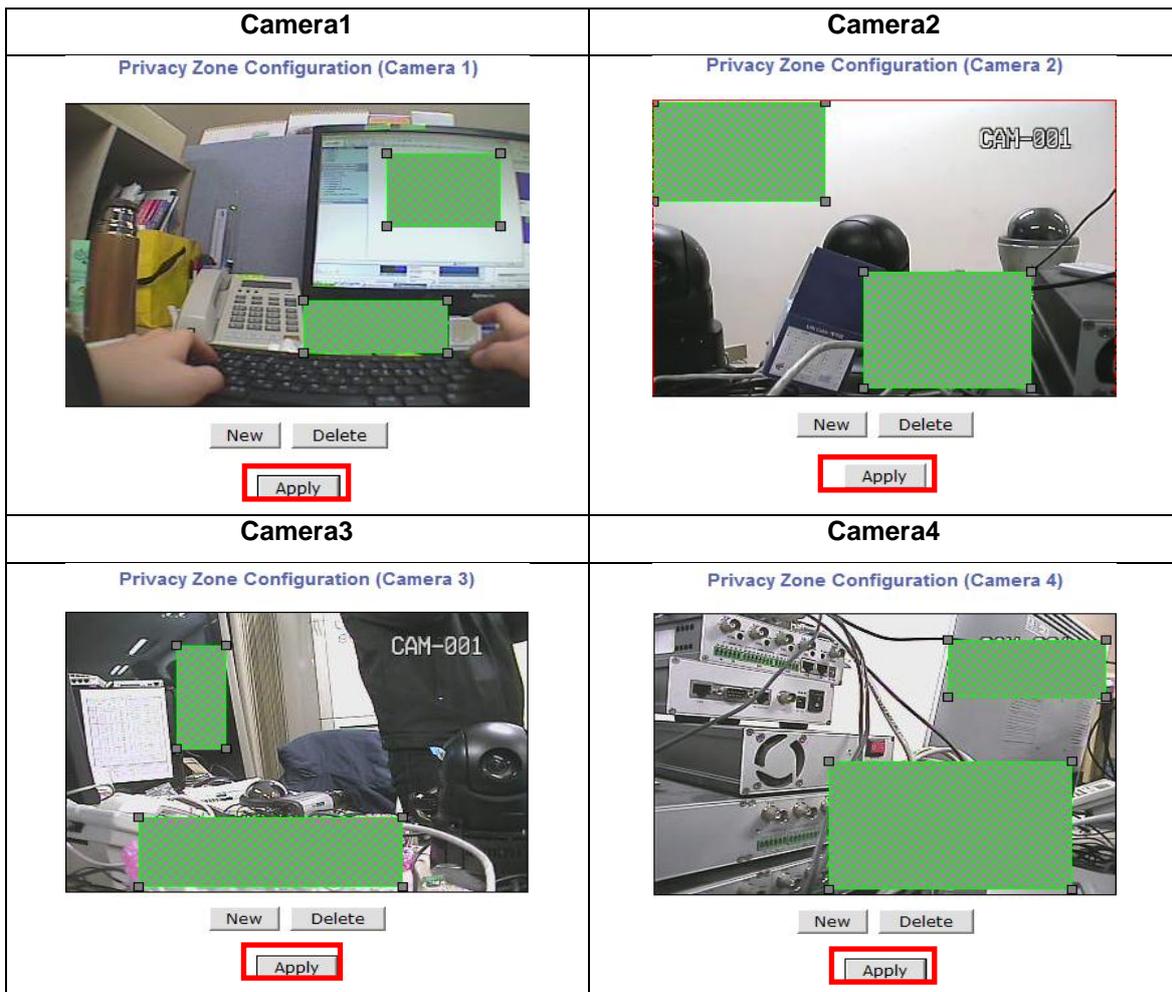
- **Mode:** When **Step** is selected, the camera will move as much as pre-defined distance. When **Continuous** is selected, it will keep moving as long as the button is being pressed.
- **Speed:** In **Step** mode, different Speed value is different Step size. In Continuous mode, it is different moving speed.

Click the **Menu** button to display the camera's OSD to adjust the camera's attributes. OSD setting can be controlled by using the Up, Down, Left, Right arrow keys. After setting is finished, click **Menu** button.

### 8.2. Privacy Zone

Users can set up to two (2) privacy zones per camera to block certain parts of the screen. To set the region:

1. Click **Privacy Zone** from **Device Configuration** category.
2. Select Camera 1~4. The selected camera's display will appear.
3. Click **New** to create a new masking. A red square will appear in the center of the screen.
4. To change the size of the mask:
  - A. Click and hold any of the mask's corners.
  - B. Move the corner away from the center of the mask to increase the size of the mask.
  - C. Move the corner towards the center of the mask to reduce the size of the mask.
5. To move the mask to a different position, click and hold the center of the mask. While clicking on the mask, move it to the desired position.
6. Click **Apply** to save the changes, or **Delete** to remove the mask from the display area. Saved masks will appear in green on the screen.



### 8.3. Camera & Motion

This menu is used to set up the recording video format, data added to video data, encoding speed, audio control, image resolution, video quality, motion detection, etc.

Click **Camera & Motion** on Device Configuration menu to open the configuration page as seen below:

Camera & Motion Configuration

Video with Flexible Extra System data	<input checked="" type="checkbox"/>	Enable
Video with user defined message	<input checked="" type="checkbox"/>	Enable
Video with PPP status	<input checked="" type="checkbox"/>	Enable
Video with camera name	<input checked="" type="checkbox"/>	Enable
Video with server name	<input checked="" type="checkbox"/>	Enable
Video with IP address	<input checked="" type="checkbox"/>	Enable
Audio	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
Image Size	704 x 480	
Camera 1	Frame Rate	30 fps
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Camera 2	Frame Rate	30 fps
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Camera 3	Frame Rate	30 fps
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Camera 4	Frame Rate	30 fps
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264

Please click the below link to configure each camera.

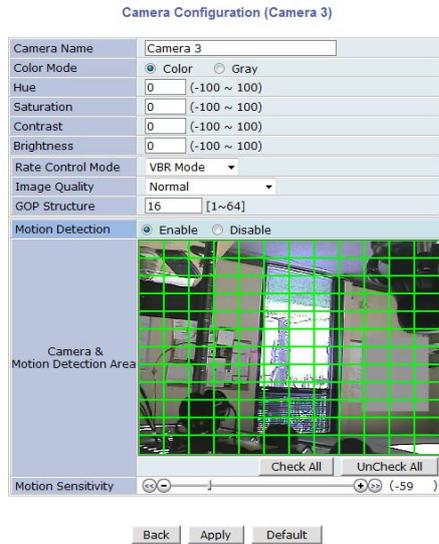
<a href="#">» Camera 1</a>	<a href="#">» Camera 2</a>
<a href="#">» Camera 3</a>	<a href="#">» Camera 4</a>

- **Video with Flexible Extra System data:** If **Enabled**, recorded video will contain Flexible Extra Data from COM port.
- **Video with user defined message:** If **Enabled**, recorded video will contain the user-defined data. (Reserved Field)
- **Video with PPP status:** If **Enabled**, recorded video will contain PPP connection status.
- **Video with camera name:** If **Enabled**, recorded video will contain camera’s name.
- **Video with server name:** If **Enabled**, recorded video will contain server’s name as defined by the user.
- **Video with IP address:** If **Enabled**, recorded video will contain the IP address of the server.
- **Audio:** Select if Audio function is to be used (applies to Primary Stream only). DW-CP04 supports 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.
- **Image Size:** Select the resolution of each channel’s video
- **Frame Rate:** Adjust the number of frames per second the channels are recording.
- **Encoding Standard:** Select the compression method of each video, either MJPEG or H.264 format. Both streams cannot be set to MJPEG
  - **H.264:** In this format, each frame data is related to other nearby frames. For this reason, it provides much higher compression ratio than MJPEG and is adequate for video transfer. However, if network condition is not very good and frames may drop, the video quality can be relatively low.
  - **MJPEG:** This format requires much higher network bandwidth than H.264 compression. But because of its higher quality of still image, it is adequate for detailed reviewing of stored video.

To save the setting, click **Apply** button.

### 8.3.1. Camera Configuration

On the lower part of **Camera & Motion Configuration** menu, select a channel you want to configure. Then, enter the detailed parameters of the camera selected here.



- **Camera Name:** Enter the name of the channel in up to 21 alphanumeric or up to 10 Unicode characters.
- **Color Mode:** Select if the image will be in Color or Gray
- **Hue:** Set the color of image between -100 and 100
- **Saturation:** Set the intensity of the image between -100 and 100
- **Contrast:** Set the contrast of the image between -100 and 100
- **Brightness:** Set the brightness of the image between -100 and 100
- **Rate Control Mode:** Select from VBR or CBR mode.
- **Image Quality:** Set the Image quality levels (Low Compression / Highest / High/Normal / Low / Lowest)

#### Image Quality Setup

If VBR [Variable Bit Rate] is selected:

Video frames are encoded with selected image quality and GOP. Encoded frames have different data size from each other.

**Image Quality:** one of 6 quality levels (Low Compression / Highest / High/ Normal / Low / Lowest)

**GOP Structure:** Distance between I-Frames. That is filled with P-frames.

If CBR [Constant Bit Rate] is selected:

Video frames are encoded with selected image quality and GOP. Encoded frames have the same data size as other frames. Due to the constant bit rate, it has better stable transmission performance.

**Bit Rate Control:** Total number of Bits encoded per second. The higher Bit Rate, the better image quality. Bit-rate can be set between 32kbps and 12Mbps.

**GOP:** Distance between I-Frames. That is filled with P-frames.

- **Motion Detection:** This decided whether the Motion Detection is to be used.
  - If **Enable** is selected, you can set which part of the camera's field of view will be set to motion detection.
  - A green grid will appear on the display, indicating that the entire field of view is set to motion detection.
  - Click on different parts of the field of view to turn the grid red, indicating no motion detection is set for those areas.

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- After configuration is finished, click **Apply** button to save the setting.
- **Default** will reset the motion detection's configuration back to factory default.
- **Motion Sensitivity:** Use the sensitivity bar to adjust the camera's sensitivity to motion. It can be between -100 and 100 while 100 is the most sensitive.

### 8.4. DI/DO

Select **DI/DO** from **Device Configuration** menu to configure Sensor Input and Alarm Output. Select **DI Status/DO Control** on Device Configuration menu to configure the behavior of those Input and Output ports.

DI(Sensor Input) / DO(Alarm Output) Setup

No	Sensor Input Name	Alarm Output Name
1	Di 1	Do 1
2	Di 2	Do 2
3	Di 3	Do 3
4	Di 4	Do 4

No	Sensor Input Type	Alarm Output Type
1	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close
2	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close
3	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close
4	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close

#### 8.4.1. DI/DO

There are 4 serial Input ports and 4 output ports in the DW-CP04. DI(Sensor Input)/DO(Alarm Output) Setup:

- Each Input and Output port can be assigned unique name respectively, so that you can easily distinguish every Input and Output ports from others by those names.
- DI/DO functionality can be set to either Normal Open or Normal Closed type as follows.
  - Normal Open Type: Normal is OPEN, and goes CLOSED when triggered by an event.
  - Normal Close Type: Normal is CLOSED, and goes OPEN when triggered by an event.

### 8.5. DI Status/DO Control

The DW-CP04 has 4 output ports that act like a push button. With **DI (Sensor Input) Status**, you can find out the status of the Alarm Input port. If the checkbox of **Check (On)** is displayed as checked, the alarm is activated. If not there are no check marks, the alarm is deactivated.

#### DO(Alarm Output) Control

DO(Alarm Output) Port Number	On / Off	
1	<input type="checkbox"/> On	<input type="checkbox"/> Off
2	<input type="checkbox"/> On	<input type="checkbox"/> Off
3	<input type="checkbox"/> On	<input type="checkbox"/> Off
4	<input type="checkbox"/> On	<input type="checkbox"/> Off

#### DI(Sensor Input) Status

DI(Sensor Input) Port Number	1	2	3	4
Check (On)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Notice :** This is the result of setting "DI/DO" menu.

## 9. Advanced Configuration

The Compressor can be configured to start and stop certain pre-defined services by scheduling, event, or conditions. There are two types of advanced service, one is **Buffered Service** and the other is **Periodic Service**. In Buffering Service, a series of images are continuously being stored in a buffer memory of server for a certain period of time. When the server is triggered by an event or schedule, the images or alarm status just before and after the event/schedule are reported to you by email or buffered FTP services.

### 9.1. Advanced Services

Total Pre-Alarm buffer size and buffering speed can be defined here.

- Pre-Alarm Buffer Size:** You can set the buffer size which will store the images before event. The unit is in frame, and each channel can be set with different values. The total number of frames for Pre-Alarm Buffer and Post-Alarm Buffer is limited to 10 frames.

**Advanced Configuration**

- [Advanced Services](#)
- E-mail
- FTP(Buffered)
- FTP(Periodic)
- Sensor Notification
- Alarm Output

	Ch 1	Ch 2	Ch 3	Ch 4	Sum
Pre-Alarm Buffer Size	0 (frames)	0 (frames)	0 (frames)	0 (frames)	0
Pre-Alarm Speed	Select Spe	Select Spe	Select Spe	Select Spe	

- Pre-Alarm Speed:** You can set the buffering speed. If it's set to Fastest, the server will store images as fast as it can. Each channel can be set with different values.

#### 9.1.1. E-mail Service Configuration

You can setup up to three (3) conditions where the DW-CP04 will send an e-mail notification to a predefined account.

##### E-mail Server Setup

To setup the SMTP server for the e-mail notifications:

- Go to Advanced Configuration > E-mail.
- Enter the SMTP server's address and port (default is 25)
- If authentication is necessary, enter the User ID and Password of an e-mail account associated with the DW-CP04.
- Enter the sender's information
- Enter up to 4 lines of text that would be sent with each e-mail notification.

##### E-mail Service Configuration

Please click the below link to configure E-mail service for each camera.

<a href="#">» Camera 1</a>	<a href="#">» Camera 2</a>
<a href="#">» Camera 3</a>	<a href="#">» Camera 4</a>

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP server address	<input type="text"/>
SMTP Port	25 (Default:25, 0 ~ 65535)
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>

**E-mail Service Setup for Each Channel**

For each channel, the following items can be configured for email service: Condition, Post-Alarm, Buffer Size, and Post-Alarm speed. The content of e-mail message and display style of DI value can be configured as well.

Please click below link to configure the service condition.

[» Condition 1](#) [Not Used]  
[» Condition 2](#) [Not Used]  
[» Condition 3](#) [Not Used]

Maximum 10 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size 0 (frames) [» Check video buffer](#)  
 Pre-Alarm Images 0 Post-Alarm Images 0  
 Pre-Alarm Speed Select Speed Post-Alarm Speed Select Speed  
 Subject Message From IP Device[0,0]

	Message	Value Format					
		NONE	INT	HEX	BIN	IPA	EVT
1		<input checked="" type="radio"/>	<input type="radio"/>				
2		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After finishing setup, click ‘Save’ button to apply. If you don’t want to change, click ‘Back’ button.

**Condition, Schedule & Event Configuration**

**Condition 1**

Service	E-mail
Module ID	0
Camera ID	1
Enable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Select Mode	<input checked="" type="radio"/> Always <input type="radio"/> Schedule Only <input type="radio"/> Event Only <input type="radio"/> Schedule and Event
<b>Schedule</b>	
Week	Sun Mon Tue Wed Thu Fri Sat
	<input type="checkbox"/>
Time (hh:mm)	XX : XX ~ XX : XX
Date (mm/dd)	XX / XX ~ XX / XX
<b>Event</b>	
Alarm Sensor	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
Motion Detection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
External Input Data	<input type="checkbox"/>
Camera Connected	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable
Serial Input	<input type="checkbox"/> Activated

If you click on a **Condition** link, the **Advanced Service** windows is displayed as shown below. Alarm Service is activated only when the conditions in Advanced Services are met.

Item	Description
Service	This shows what service this condition is for.
Module ID	Module ID for current setup
Camera ID	Channel ID for current setup
Enable / Disable	Select <b>Enable</b> to use Condition, otherwise select <b>Disable</b> .
Always	This Condition applies all the time. (Schedule or Event is not usable)
Schedule Only	Use Week, Time, and Date in Condition parameter.
Event Only	It is activated only when any of the following events occurs. (Sensor, Motion Detection, Camera Connection, Server Booting)

To save the setting, click ‘Save’ button. If you want to cancel it, click ‘Back’.

9.1.2. FTP(Buffered)Service Configuration

**FTP(Buffered) Service Configuration**

Please click the below link to configure FTP(Buffered) service for each camera.

<a href="#">» Camera 1</a>	<a href="#">» Camera 2</a>
<a href="#">» Camera 3</a>	<a href="#">» Camera 4</a>

<b>Service</b>	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Server Address	<input type="text"/>
Base Directory Name	<input type="text"/>
Base File Name	<input type="text"/>
User ID	<input type="text"/>
Password	<input type="text"/>
FTP Control Port	<input type="text" value="0"/> (Default:21, 0 ~ 65535)
Date Description Mode	<input type="text" value="American Style"/>
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

Option	Directory Name	File Name
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

Item	Description
Camera 1 - Camera 4	Select which channel to set up for FTP (Buffered).
Service	Select <b>Enable</b> to use the FTP (Buffered) service. Otherwise select <b>Disable</b> .
Server Address	FTP Server Address.
Base Directory Name	The directory in FTP server where the data will be uploaded. (You should make the directory in the FTP server before using the service.)
Base File Name	The base file name of the data to be uploaded in FTP server.
User ID	Enter a User ID to log in to FTP server.
Password	Enter the Password for the user ID to log in to FTP server
FTP Control Port	Port number for FTP server (Normally 21 is used)
Date Description Mode	Select Date Display Style (e.g. 20090228)
Connection Mode	Select connection mode for FTP server
Server Name	If <b>Directory Name</b> is checked, new directory is created with server name. If <b>File Name</b> is checked, new file is created with server name.
Weekday	If <b>Directory Name</b> is checked, new directory name is created with weekday. If <b>File Name</b> is checked, new file name is created with weekday.
Month	If <b>Directory Name</b> is checked, new directory name is created with month. If <b>File Name</b> is checked, new file name is created with month.
Day	If <b>Directory Name</b> is checked, new directory name is created with day. If <b>File Name</b> is checked, new file name is created with day.
Hour	If <b>Directory Name</b> is checked, new directory name is created with hour. If <b>File Name</b> is checked, new file name is created with hour.
Minute	If checked, new file name is created with minute.
Sec	If checked, new file name is created with second.
Sequence	If checked, new files are created starting from 0, with increment of 1.
Camera Number	If <b>Directory Name</b> is checked, new directory is created with camera number. If <b>File Name</b> is checked, new file is created with camera number.

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To create a directory with the options shown above, click **Make Directory**. After finishing the configuration, click **'Save'** button to apply the change and continue to the next page. Clicking **'Back'** button will cancel the changes and go back to the previous page. (This service is available only in MJPEG mode.)

### FTP(Buffered) Service Configuration for each Camera

#### FTP(Buffered) Service Configuration at Camera 1

Please click below link to configure the service condition.

※ Condition 1	[Not Used]
※ Condition 2	[Not Used]
※ Condition 3	[Not Used]

Maximum 256 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	0 (frames)	※ Check video buffer
Pre-Alarm Images	0 frames	Post-Alarm Images 0 frames
Pre-Alarm Speed	Select Speed ▾	Post-Alarm Speed Select Speed ▾

Item	Description
Condition 1 ~ Condition 3	Select a condition for FTP (Buffered) service to be activated. Up to 3 conditions can be set.
Pre-Alarm Buffer Size	The Buffer size assigned for Pre-Alarm.
Check Video buffer	Click this link to go to Advanced Services for video buffer setup.
Pre-Alarm Images	The number of image frames to store before Alarm.
Post-Alarm Images	The number of image frames to store after Alarm.
Pre-Alarm Speed	This field shows the speed of Pre-Alarm. Configuration can be done in Advances Services page.
Post-Alarm Speed	Select the speed of Post-Alarm. <b>Fastest</b> is the highest value.

After finishing setup, click **'Save'** button to apply. If you don't want to change, click **'Back'**.

9.1.3. FTP (Periodic) Service Configuration

**FTP(Periodic) Service Configuration**

Please click the below link to configure FTP(Periodic) service for each camera.

<a href="#">» Camera 1</a>	<a href="#">» Camera 2</a>
<a href="#">» Camera 3</a>	<a href="#">» Camera 4</a>

<b>Service</b>	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Server Address	<input type="text"/>
Base Directory Name	<input type="text"/>
Base File Name	<input type="text"/>
User ID	<input type="text"/>
Password	<input type="text"/>
Sequence Modulo	<input type="text" value="1"/>
FTP Control Port	<input type="text" value="0"/> (Default:21, 0 ~ 65535)
Date Description Mode	<input type="text" value="American Style"/>
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

Option	Directory Name	File Name
Overwrite		<input type="checkbox"/>
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

**FTP (Periodic) Service Configuration for each Camera**

Item	Description
Condition 1 ~ Condition 3	Select a condition for FTP (Periodic) service to be activated. Up to 3 conditions can be set respectively.
Alarm Speed	Select the speed of images to send in FTP(Periodic) service

**FTP(Periodic) Service Configuration at Camera 1**

Please click below link to configure the service condition.

<a href="#">» Condition 1</a>	<input type="text" value="[Not Used]"/>
<a href="#">» Condition 2</a>	<input type="text" value="[Not Used]"/>
<a href="#">» Condition 3</a>	<input type="text" value="[Not Used]"/>

FTP interval (msec)	<input type="text" value="0"/>	msec
---------------------	--------------------------------	------

After finishing setup, click **'Save'** button to apply. If you don't want to change, click **'Back'**.

9.1.4. Sensor Notification

Sensor Notification Service Configuration

Please click the below link to configure Sensor Notification service for each camera.

<a href="#">» Input 1</a>	<a href="#">» Input 2</a>
<a href="#">» Input 3</a>	<a href="#">» Input 4</a>

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Service Mode	<input checked="" type="radio"/> HTTP <input type="radio"/> TCP <input type="radio"/> UDP
Main IP address	<input type="text"/>
Aux1 IP address	<input type="text"/>
Aux2 IP address	<input type="text"/>
Aux3 IP address	<input type="text"/>
Port	<input type="text" value="80"/> (Default:80, 80 ~ 65535)
CGI Path or Alarm Common Message	<input type="text"/>
User ID	<input type="text"/>
Password	<input type="text"/>

Item	Description
Input 1 - Input 4	Select which input to set up for Sensor Notification Service
Service	Select <b>Enable</b> to use Sensor Notification.
Service Mode	Select network mode for CGI. Select: HTTP, TCP, or UDP.
Main IP address	Enter IP address to use in CGI or other functions
Aux1 ~ Aux 3 IP address	Enter 3 more addresses to use in CGI or other functions if needed.
Port	Enter port number for CGI or other functions. Default is 80.
CGI Path/ Alarm Common Message	Enter CGI Path for CGI or other functions.
User ID	Enter User ID to log in.
Password	Enter Password for the User ID to log in.

After finishing the configuration, click **'Save'** button to apply the change and continue to the next page. Clicking **'Back'** will cancel the changes and go back to the previous page.

**Sensor Notification Service Configuration.**

Sensor Notification Service Configuration at Input 1

Please click below link to configure the service condition.

<a href="#">» Condition 1</a>	[Not Used]
<a href="#">» Condition 2</a>	[Not Used]
<a href="#">» Condition 3</a>	[Not Used]

CGI Name or Alarm Port Message	<input type="text"/>
--------------------------------	----------------------

Item	Description
CGI Name or Alarm Port Message	Enter the contents of CGI when it is used.

Click **'Save'** button to save the change. Clicking **'Back'** will cancel the change and go back to previous page.

9.1.5. Alarm Output Service Configuration

**Alarm Output Service Configuration**

Please click the below link to configure Alarm Output service for each alarm output.

<a href="#">» Output 1</a>	<a href="#">» Output 2</a>
<a href="#">» Output 3</a>	<a href="#">» Output 4</a>

Service
 Enable
  Disable

Back Save

Category	Contents
Output 1 – Output 4	Select the output port to configure for <b>Alarm Output Service</b> .
Service	Select <b>Enable</b> to use the service, otherwise select <b>Disable</b> .

After finishing the configuration, click **'Save'** button to apply the change and continue to the next page. Clicking **'Back'** will cancel the changes and go back to the previous page.

**Alarm Output Service Configuration for each Input**

**Alarm Output Service Configuration at Input 1**

Please click below link to configure the service condition.

<a href="#">» Condition 1</a>	[Not Used]
<a href="#">» Condition 2</a>	[Not Used]
<a href="#">» Condition 3</a>	[Not Used]

Alarm Output Duration

sec

Back Save

Category	Contents
Condition 1 - Condition 3	Select a condition to configure Alarm Output Service. Up to 3 conditions can be set respectively.
Alarm Output Duration	Select how long the Alarm Output signal is maintained. Unit is in second.

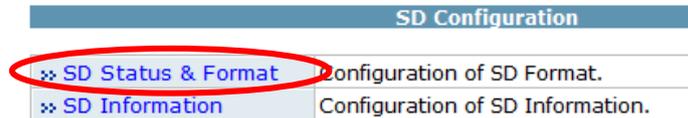
## 10. Recording Configuration

Use the recording configuration menu to setup recording parameters for the Compressors' SD card. The Compressor supports micro SD cards up to 32GB.

### 10.1. SD Configuration

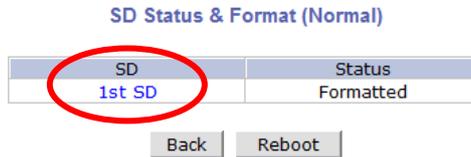
If a micro SD card (SD card) is not present in the slot already, turn the Compressor OFF before inserting a SD card. Make sure to turn the power on after inserting the SD card. Open a web browser, type in the IP address of the Compressor, log in as admin, and run **Recording Configuration**.

Enter **Recording Configuration** menu, then click the **SD Information** to find out the SD card's format information. If entire SD Information is shown as **-None-**, SD card might not be formatted. In that case, click the **Back** button and select **SD Status & Format**.



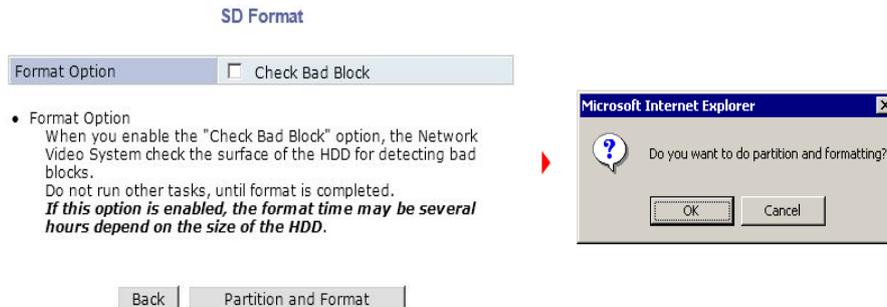
#### 10.1.1. SD Status & Format

A list of all SD cards available will be displayed including information on whether they are formatted or not. To perform formatting the unformatted one, click the SD card.



**Notice : Be careful! The system could be broken.**  
**If you inserted the SD memory with the power on, turn the power off and on again to format.**  
If you select a SD to format, you will be automatically guided to the format menu.  
Once SD format is completed, you need to reset system.  
Once format starts, recording stops automatically.  
After reset system, recording starts automatically.

Then the following window will be displayed.



Click the **Partition and Format** button, a pop-up window will be shown to confirm the formatting. Click the **OK** button to proceed, or click the **Cancel** button to abort the formatting.

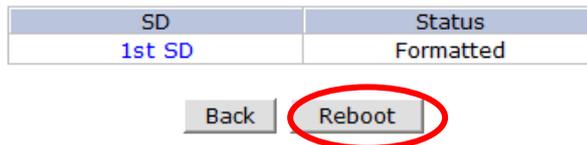
*Note: If the program is terminated during the format process, the SD card may be damaged. To avoid this problem, make sure to close the program in the right manner and check the SD card.*

Once formatting is complete, the following window will appear informing it. Click the **OK** button.



On **SD Status & Format** window, you will be able to see that the **1<sup>ST</sup> SD** is shown formatted. After formatting SD card is complete, click the **Reboot** button to restart the system.

**SD Status & Format (Normal)**



**Notice : Be careful! The system could be broken.**  
**If you inserted the SD memory with the power on, turn the power off and on again to format.**  
 If you select a SD to format, you will be automatically guided to the format menu.  
 Once SD format is completed, you need to reset system.  
 Once format starts, recording stops automatically.  
 After reset system, recording starts automatically.

**10.1.2. SD Information**

After about 30 seconds, the system will be rebooted. You will be able to see the following information when you log in to the Admin web page of the Compressor server.

**SD Information**

File System	Default format
Total Disk Size	3.64 GB
Free Disk Size	3.54 GB
Usage	2.79 %
Oldest Image	-none-
Last Image	-none-

Detail Stored Image Infomation

Back

### 10.2. Recording Configuration

Each camera can be configured for recording option. You can find out the list of servers with recording capability by clicking **Recording Configuration**.

Recording Configuration	
This category shows the detailed method for Recording Service configuration.	
❖ SD Configuration	For SD formatting & initialization. Please remember that you must set this configuration before the recording.
❖ Recording Configuration	Configure recording configuration for each Camera.
❖ Recording Profile	View all recording configurations.
❖ Recording Mode	Configure recording mode.
❖ SD Status Report	Configure Disk Full Notification.
❖ Clear Recording Configuration	Clear condition for recording.
❖ Delete Recorded Data	Delete all recorded data.

To setup a recording schedule for the Compressor, click **Recording Configuration** sub-menu. All 4 channels will be displayed with their recording setup status indicated in the far right side of the table as enabled or disabled. In this page you can also see the recording status of the entire Compressor, and stop recording to the SD card.

Recording Configuration

Please click camera name to configure Recording condition.

Recording Configuration						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 1</a>	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 2</a>	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 3</a>	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 4</a>	Disable

**Notice :** To start recording following your new recording configuration, click 'Apply' button. Otherwise, recording with new configuration will not be started, although all the recording configurations are correctly set up.

Click on a camera's name to go to the camera's recording setup page. Each camera can be configured to record based on three conditions. Each condition can include continuous recording, event recording, or schedule recording.

Recording Configuration (VS Module ID 0, Camera 1)

❖ Display current recording configurations  
Please click below link for the recording configuration.

❖ Condition 1 [Not Used]

❖ Condition 2 [Not Used]

❖ Condition 3 [Not Used]

❖ Condition 4 [Not Used]

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

	1	2	3	4	Camera Connected	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Disconnected	<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"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Always
Schedule
Schedule and Event

Recording Service:  Enable  Disable

Server Module ID: 0 Camera Number: 1

Camera Name: Camera 1

Pre-Alarm Images: 0 Post-Alarm Images: 0

Pre-Alarm Speed: fastest Post-Alarm Speed: fastest

**Notice :** It is recommended using MJPEG compression to use Pre-Alarm and Post Alarm service. If MPEG4 or H.264 video compression is selected, only 1 Frame will be recorded.



Item	Description
Condition 1~3	Set the conditions for recording
Graphs for Date & Time, Alarm, Motion, Camera Connection	Graphic displays of conditions for recording
Recording Service	Click <b>Enable</b> to record the video. Click <b>Disable</b> otherwise.
Server Module ID	Server ID number of the added VS Module ID (IP Devices).
Camera Number	Camera number to select.
Camera Name	The name of the camera selected. Use up to 31 alphanumeric or 15 Unicode characters.
Pre-Alarm Images	Recording speed before Event. Valid only when Recording condition is set to <b>Always</b> or <b>Schedule</b> .
Post-Alarm Images	The number of frames stored before Event. Up to 5 frames. Valid only for <b>Event-Driven Recording</b> .
Pre-Alarm Speed	Recording speed after Event. Valid only when Recording condition is set to <b>Event-Driven Recording</b> .
Post-Alarm Speed	The number of frames stored after Event. Up to 5 frames. Valid only for <b>Event-Driven Recording</b> .

Up to 4 different recording conditions can be set per camera. All the conditions are checked by **OR** logic, so it will start recording when at least one of the conditions is met. To set a condition, click **Condition 1**, then Condition setup screen will be displayed.

**Condition 1**

Service	Recording																							
Module ID	0																							
Camera ID	1																							
Enable <input type="radio"/> Disable <input checked="" type="radio"/>																								
Select Mode <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Always</li> <li><input type="radio"/> Schedule Only</li> <li><input type="radio"/> Event Only</li> <li><input type="radio"/> Schedule and Event</li> </ul>																								
<b>Schedule</b>																								
Sun Mon Tue Wed Thu Fri Sat																								
Week <input type="checkbox"/>																								
<input type="checkbox"/> Time (hh:mm) <input type="text" value="XX"/> : <input type="text" value="XX"/> ~ <input type="text" value="XX"/> : <input type="text" value="XX"/>																								
<input type="checkbox"/> Date (mm/dd) <input type="text" value="XX"/> / <input type="text" value="XX"/> ~ <input type="text" value="XX"/> / <input type="text" value="XX"/>																								
<b>Event</b>																								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Alarm Sensor</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Motion Detection</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>External Input Data</td> <td></td> <td></td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> </tr> </table>						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"/>	External Input Data			<input type="checkbox"/>	
	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"/>																				
External Input Data			<input type="checkbox"/>																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Camera Connected</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Camera Disconnected</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>					Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				

**Notice :** Motion Detection can be set at  
Device Configuration -> Camera & Motion -> Camera

Alarm Sensor can be set at  
Device Configuration -> DI/DO

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Category	Item	Description
Select Mode	Always	Recording is enabled all the time.
	Schedule Only	Recording is done by configured schedule.
	Event Only	Recording is controlled by configured event.
	Schedule and Event	Recording is controlled by both schedule and event.
Schedule	Week	Set day of week
	Time	Set time
	Date	Set date
Event	Alarm Sensor	Each of 1, 2, 3, 4 refers to the sensor number, and checked when Event-Driven Recording is selected. If all the four sensors are checked together, recording is enabled only when all four sensor are activated.
	Motion Detection	Each of 1, 2, 3, 4 refers to the sensor number, and checked when Motion Detection Recording is selected. If all the four sensors are checked together, recording is enabled only when all four sensor are activated. When Hardware motion detection is used, you should set the detection area in <b>Camera &amp; Motion</b> section.
	External Input Data	Recording is enabled when the data is externally input.
	Camera Connected	Recording is enabled when camera signal is detected.
	Camera Disconnected	Recording is enabled when camera signal is not detected.

Click **Enable** to activate a condition, and select the recording configuration, set the date and time limitations (if applicable), and select which sensors and which motion alarms will trigger video recording. Once recording conditions are set for an individual camera, the recording settings will appear in the **Recording Configuration** screen as seen below.

Condition 1	[SUN,SAT,] [M1,][D1,]
Condition 2	[Not Used]
Condition 3	[Not Used]
Condition 4	[Not Used]

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

	1	2	3	4		1	2	3	4
Alarm Sensor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Connected	<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"/>	Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

  Always
   Schedule
   Schedule and Event

Make sure the Recording Service below the calendar graph is set to **Enable**.

Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Server Module ID	0	Camera Number 1
Camera Name	Cam_1	
Pre-Alarm Images	5	Post-Alarm Images 5
Pre-Alarm Speed	1.0f/s	Post-Alarm Speed 1.0f/s



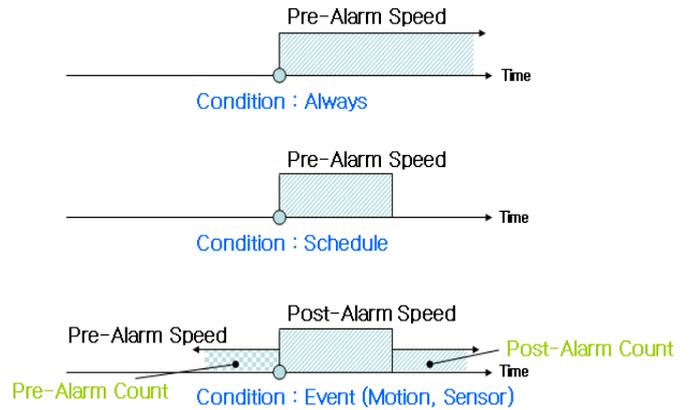
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If event recording is selected, adjust the pre and post alarm recording duration and frame-rate.

If continuous recording is selected, the speed set under Pre-Alarm speed will be the recording speed continuously.

If scheduled recording is selected, the speed set under Pre-Alarm speed will be the recording speed when the camera is set to be recording.

If Event recording is selected, the speed set under Pre-Alarm speed will be the recording speed before the event takes place, and the Post-Alarm speed will be the recording speed after the event is triggered.



If there are two recording conditions configured, it can start recording when at least one condition is valid. After configuration is finished, click the **Save** to apply the change and return to previous screen.

Now you will notice that the Recording Configuration is made. If the video is already being recorded, the status will display **Recording**. Click **Apply** to save the changes.

*Note: Record button will become Stop button after pressing. If you want stop recording, click the Stop button again.*

If recording conditions are configured properly and video is not being recorded at the moment, you need to click the **Record** button to start recording.

### Recording Configuration

Please **click camera name** to configure Recording condition.

Recording Configuration						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 1</a>	Enable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 2</a>	Enable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 3</a>	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	<a href="#">Camera 4</a>	Disable

**Notice :** To start recording following your new recording configuration,click **'Record'** button. Otherwise, recording with new configuration will not be started, although all the recording configurations are correctly set up.

### 10.3. View Recording Profile

You can get the overview of the recording configuration by clicking **View Recording Profile** on the menu. It will display a pop-up window that shows the recording configuration in one screen as seen below.

Recording Profile																
Server	Camera	REC. Config.	Status	Start Date		End Date		Start Time		End Time		W				
				Month	Day	Month	Day	Hour	Min	Hour	Min		Sun	Mon	Tue	V
Built-in Module 0 (Built-in Module 0)	Camera 1	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Camera 2	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Camera 3	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Camera 4	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### 10.4. Recording Mode

When the SD card or HDD become full, select whether to overwrite (circulation), or stop recording when the SD card is full.

**Recording Mode**

Circulation  
 Restrict Duration  
 Days (Default:90, 1 ~ 3650)

Pause at full

To view HDD status, go to "HDD Status Report".

- **Circulation:** The base file size for video is 630 Mbytes in HDD. So every time the HDD is out of space, it will delete the oldest 630 Mbytes file to make space.
- **Pause at full:** When the HDD is out of space, it will stop recording and display STOP status. You can setup e-mail notifications when the HDD is full and stops recording.

You can set a time limit on how long the recorded video will be kept in the hard drive by putting a check on **Restrict Duration**. If selected, a time setting menu will be enabled to enter in days. The default is 90 days and it can be changed between 1 and 3650. For instance, if it's set to 3 days, only the video from the last 3 days will be kept.

10.5. SD Status Report

The SD Status Report menu allows you to setup e-mail notifications regarding the storage’s status. Click **SD Status Report** on Recording Configuration menu. Set the condition of SD status for sending email, and Date/Time when email is sent.

**SD Status Report**

Disk Full Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Periodic Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Day	SUN <input type="checkbox"/> MON <input type="checkbox"/> TUE <input type="checkbox"/> WED <input type="checkbox"/> THU <input type="checkbox"/> FRI <input type="checkbox"/> SAT <input type="checkbox"/>
Time (hh:mm)	00 : 00
SD Error Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP Server	<input type="text"/>
Authentication Login	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>
===== User-Defined Message =====	
<input type="text"/>	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

**Notice :** 'Disk Full Notification' will be activated when 'Pause at full' is selected.

Disk Full Notification	Select <b>Enable</b> to use this feature.
Periodic Notification	Select <b>Enable</b> if you want to receive the HDD capacity information on specific Day of week and Time.
Day & Time	Set the <b>Day</b> of week and <b>Time</b> you want to receive email notification. (Above Example: Receiving SD capacity information at 3 pm every Monday and Wednesday)
SD Error Notification	Select <b>Enable</b> if you want to receive a notification upon SD Error.
SD Error Beep Sound	Select <b>Enable</b> if you want to sound Beep upon SD Error.

Enter the receiving email addresses and the default contents of the notification.

SMTP Server	kornet.net
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	abcd
Password	*****
Sender	dhhong@seyeon.co.kr
1st Recipient	seyeon@hanmail.net
2nd Recipient	flexwatch@shinbiro.com
3rd Recipient	fw5440@hotmail.com
===== User-Defined Message =====	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	
<input type="button" value="Back"/> <input type="button" value="Save"/>	

SMTP Server	IP address of the server for email service.
Authentication Login	Select <b>Enable</b> if the SMTP server requires user authentication.
User ID	User ID for authentication login
Password	Password for the User ID
Sender	Email address of sender
1st Recipient	
2nd Recipient	Email addresses of the recipients (up to 3 persons).
3rd Recipient	
User Defined Message	Contents of the message to add in the notification.

### 10.6. Clear Recording Configuration

Using the Clear Recording Configuration you can clear all the contents of Recording Configuration in a single step. Click **Clear Recording Configuration** on Recording Configuration menu. Click **Clear** button, and a confirmation window will be displayed as below. Click **OK** to delete all previous recording configurations, or cancel to exit.

#### Clear Recording Configuration

- Click 'Clear' to completely delete all the recording configuration you have made in the system and start new configuration.
- Please be more careful not to loose your current recording configuration.



### 10.7. Delete Recorded Data

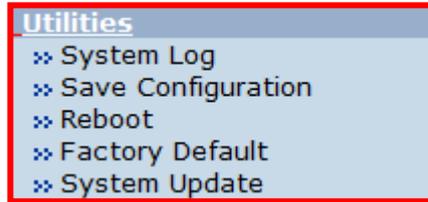
The Delete Recorded Data menu allows you to delete all previously recorded data on the HDD or SD card. Click **Delete Recorded Data** on Recording Configuration menu. The following window will be displayed. Select the HDD to be deleted, and click **Delete**. A confirmation window will be displayed as below. Click **OK** to delete all the stored video data or cancel to exit.

#### Delete Recorded Data



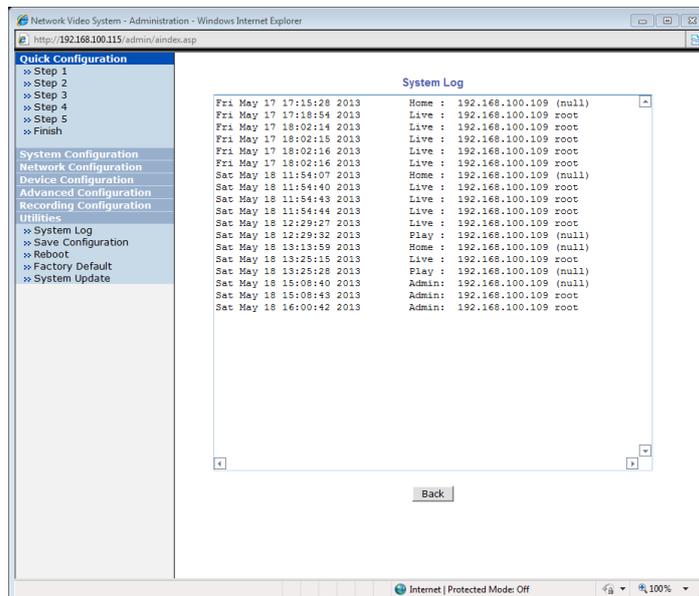
## 11. Utilities

In the **Utilities** part of the Admin menu, you can view the system log file, save any changed configurations, reboot the Compressor, restore the factory default conditions, and update the system.



### 11.1. System Log

Select the System Log menu to view what users connected to the Compressor, their IP address, and which section of the web viewer was accessed (Live/ admin/ player/ home).



### 11.2. Save Configuration

If you have made multiple configuration changes in the Compressor's admin menu, go to the Save Configuration menu to make sure all current settings are saved instantly.

#### Save Configuration

- Changes to configuration will be saved automatically for this model.

Back

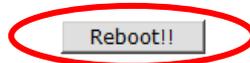
### 11.3. Reboot

It is recommended to reboot the system after making changes and saving the configuration. To reboot, click **“Reboot”** on Utilities menu. A confirmation screen will be displayed as shown. Click **“Save Configuration”** button, otherwise click **“Back”** button to cancel the rebooting.

The second confirmation screen will be shown. This will confirm to close the Compressor’s web viewer page. Click **“OK”** button to close the web browser and reboot right away. If you click **“Cancel”**, the web browser is still open, but you will not be able to access the Compressor Server until the rebooting is finished.

#### Reboot

System reboot is strongly recommended to apply all new configurations properly to the Network Video System.

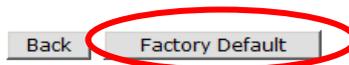


### 11.4. Factory Default

When selected, the Compressor will return to factory default conditions for all settings and configurations except Network configuration. Click **“Factory Default”** in the Utilities menu. A confirmation screen will be displayed. Click **“Factory Default”** to return the Compressor to its factory settings, or **“Back”** to cancel. The second confirmation screen will appear. Click **“OK”** to restore the factory default condition right away. If you click **“Cancel”**, web browser will go back to the previous screen without any changes made.

#### Factory Default

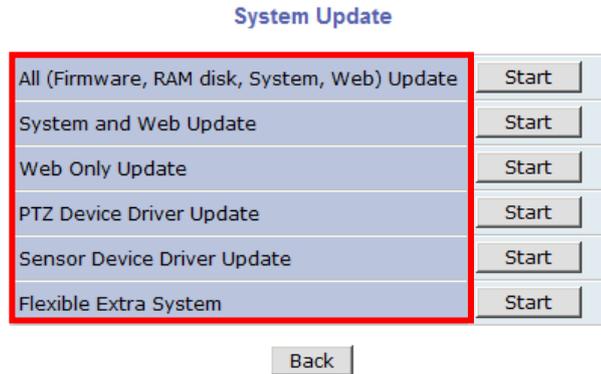
All of setting will be revert back to factory default except IP address, if you press "Factory Default" button.



### 11.5. System Update

In order to update the system, click “**System Update**” on Utilities menu, then the following window will be displayed. Chose the appropriate upgrade and press the **Start** button.

System upgrade can also be complete using the IP Installer tool.



System Information	
Mac Address (S/N)	00:30:6F:50:19:1E
Firmware version	4.17-06-d4
Webimage version	4.17-1400

Flexible Extra System Information	
System	No Extra System
Version	0.00.0000

- **All (Firmware, RAM disk, System, Web) Update:** Update all four system images.
- **System and Web Update:** Only System and Web images are to be updated.
- **Web Only Update:** Only Web image is to be updated.

Visit Digital Watchdog’s website at [www.digital-watchdog.com](http://www.digital-watchdog.com) to download the latest firmware for the Compressor.

#### 11.5.1. Update by Item

Click the “**Start**” button next to **All (Firmware, RAM disk, System, Web) Update** and the other items on the menu, and a confirmation window will appear. Click “**OK**” to proceed the update. The Compressor’s web page will close, and an upgrade window will appear.

Browse and select the upgrade file from your PC’s directory. Click **Next**.

Follow the instructions and upload each of the necessary files.

Select whether the Compressor should return to factory settings when the upgrade is complete, or click **Next** to save all current settings and configurations. The system will update the Compressor. Do not close the window until the installation is complete.

When the upgrade is complete, press the ‘**Reboot**’ button to reboot the server and apply all changes.

## 12. Appendix

### 12.1. Troubleshooting the Compressor Smart Live Viewer

#### 12.1.1. Installation

Q) I can't start installation of SmartViewer when I connect to the Compressor and click Live View.

A) The Internet connection is not available. Manual installation is required.

Q) It stopped during the installation showing the message 'Process is being used'.

A) Close all the Internet Explorer windows running, and try installing again.

Q) 'Reboot system' message is displayed after installation is finished.

A) SmartViewer was being used in another Internet Explorer during installation. Reboot is required.

Q) After installation is finished, it requires me to install SmartViewer again.

A) It is the case when SmartViewer program was updated. Install SmartViewer again.

Q) I still can't install SmartViewer despite the Internet connection is available.

A) It is cause by deleting any part of SmartViewer. Uninstall and reinstall SmartViewer.

#### 12.1.2. Server

Q) It shows a message saying 'Failed to retrieve server information from SmartViewer or unauthorized user access.'

A) Make sure the followings:

- The access to the Compressor is good on Internet Explorer.
- At least one camera is authorized for video viewing.
- At least one remote server is registered if you're running a network video record without a local camera.

#### 12.1.3. Video

Q) I can't see live view on screen.

A) Make sure that at least one camera is registered in groups of network video recorder. Also check whether Channel Hide button is pressed. If so, select the channel to see.

Q) 'Connecting' or 'Disconnected' message is displayed during live view.

A) It may be caused by either the network is not available or the Compressor is turned off or rebooting. Check if the network is working properly and the Compressor is turned on. If you still see the same message while the network is good and the power is on, try rebooting the Compressor.

Q) 'Extra users' message is displayed in live view.

A) It is displayed when there are excessive numbers of users viewing the video. You will be able to see the video when any of current users disconnects from the server.

Q) 'No Signal' is displayed in live view.

A) Camera may be disconnected from the Compressor. Make sure all cameras are properly connected to the Compressor and all power and video cables are intact.

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Q) Frame rate of live view is getting low.

A) It is caused by slow network. Improve the network condition or cancel the real-time monitoring by any other software.

Q) Only live view is displayed without Internet Explorer.

A) Click ESC key to escape from Full Screen mode in SmartViewer.

Q) I can't save images.

A) Make sure you have the permission to the folder. And check if you have enough space in hard drive.

Q) I can't save videos.

A) Make sure you have the permission to the folder. And check if you have enough space in hard drive.

Q) Video recording stopped by itself.

A) Video can be saved up to 10 minutes. It automatically stops recording if it exceed the 10 minutes. It also stops recording when image size is modified, video codec is changed, or video input is removed. For network video recorders, video input is removed when it is moved to other group. For network video servers or cameras, video input is removed when the channel button is pressed.

### 12.1.4. Audio

Q) Audio is not played.

A) First check if Audio-In port is connected to an audio source, and then select the camera linked to the Audio-In port on SmartViewer. Check if Mute is activated. Check if the computer has the sound card driver properly installed. Also check the level of speaker volume.

Q) I can't send audio to the Compressor.

A) Sending audio from SmartViewer to the Compressor is only allowed to the user who used that feature for the first time. Any other user can only receive audio from the server. Check if the computer has the sound card driver properly installed. Also check the level of speaker volume.

### 12.1.5. PTZ

Q) PTZ Control bar is not activated.

A) Connect to the Compressor, and make sure PTZ set up is properly done on Admin menu.

Q) Clicking PTZ buttons doesn't work.

A) When network condition is not good enough, there may be some latency time in camera movement. Try Step Mode if Move mode is currently set to Continuous.

Q) Advanced features for PTZ don't work.

A) Advanced features are only available for the supported cameras. Make sure the PTZ camera in use supports the advanced features.

### 12.1.6. Relay Output

Q) Relay Output button won't be activated.

A) The second channel of Dual Stream can be controlled only after Primary channel is set up for Relay Output control. Also make sure that the Compressor is connected to the network.

Q) Relay Output button won't work.

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A) Make sure that the Compressor is connected to the network.

### **12.1.7. Other**

Q) An error occurs if Internet Explorer is closed while SmartViewer is working.

A) It can be caused if you're using Internet Explorer 6.0. Upgrading Internet Explorer to 7 or higher can solve the issue.