

Web Admin User's Manual

Version 1.02

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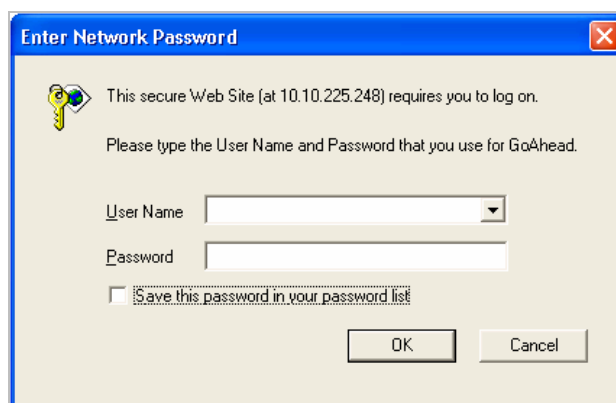
1. Admin Menu

After connecting to a 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 Server you're connecting to.

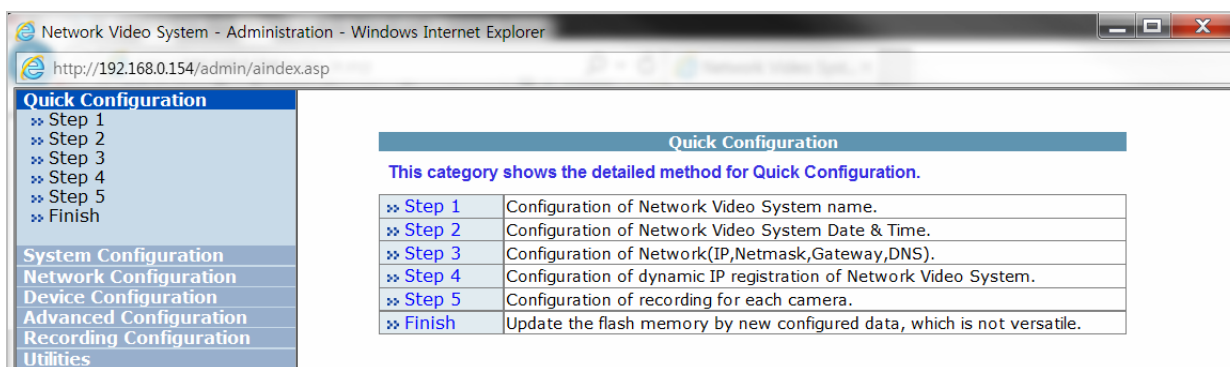


1.1. Entering Admin Menu

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.



Now 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.



1.2. 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	Step 1	n/a	n/a
	Step 2		
	Step 3		
	Step 4		
	Step 5		
	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	
		Transparent Mode	
		PTZ Mode	n/a
	Privacy zone	n/a	n/a
	PTZ	Alram	n/a
		Area	

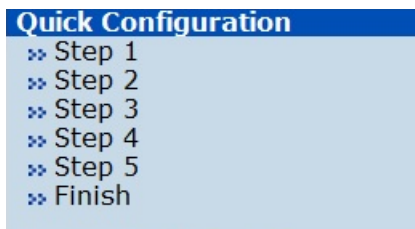
		Preset	n/a
		Scan	
		Pattern	
		Tour	
		Group	
		Park Action	
	Camera & Motion	Camera Control	n/a
		Motion Detection	
		Primary stream	
		Secondary stream	
		DI Status / DO Control	
	DI/DI	n/a	n/a
	DI Status / DO Control	n/a	n/a
Advanced Configuration	Advanced Services	E-mail	Camera 1 Camera 2
		FTP(Buffered)	Camera 1 Camera 2
		FTP(Periodic)	Camera 1 Camera 2
		Sensor Notification	Input 1 Input 2
		Alarm Output	Output 1
Recording Configuration	SD Configuration	SD Status & Format SD Information	n/a
	Recording Configuration	Built-in Module 0	Camera 1
			Camera 2
	Recording Profile	n/a	n/a
	Recording Mode		
	SD Status Report		
	Clear Recording Config. Delete Recorded Data		
Utilities	System Log	n/a	n/a
	Save Configuration		
	Reboot		
	Factory Default		
	System Update		

2. Quick Configuration

In Quick Configuration, you will be able to set up many of the essential parts of the configuration in a simple manner without going into details.

Selecting Quick Configuration gives you the menu as below.

You can perform each setup by clicking the one you would like to configure.



2.1. Step 1: Changing Server Name

Click Server Name on System Configuration menu, then Server Name Setup windows will be displayed. See the section **3.1 Server Name Setup** in page **8** to see how to change the server name.

2.2. Step 2: Time Setup

Click Date & Time on System Configuration menu, then Local Date & Time Configuration window will be displayed. See the section **3.2 Date & Time** in page **8** to see how to set up.

2.3. Step 3: Network Setup

To make a connection to the Internet, it is required to figure out the type of the Internet service you're using. See the section **4.1 Network Configuration** in page **14** to see how to set up.

2.4. Step 4: IP-CCTV DNS

When Server is used in a Dynamic IP environment, it is required to utilize **IP-CCTV DNS** feature. See the section **4.7 IP-CCTV DNS Setup** in page **20** to see how to set up.

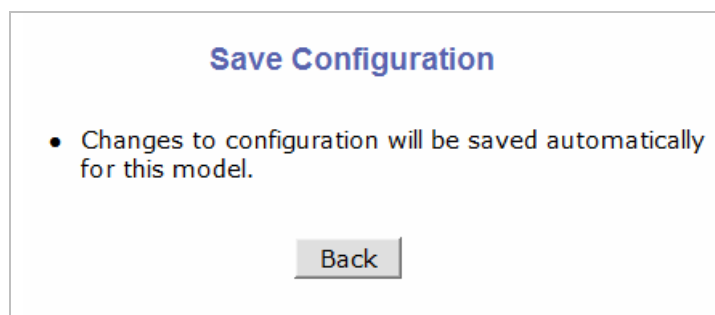
2.5. Step 5: Recording Configuration

Each camera can be configured for recording option in this section.

See the section **7.2 Recording Configuration** in page **66** for detail.

2.6. Finish

You need to save all the changes to the Flash Memory after finishing the configuration. The changes made to Server will be permanent by this step. **Quick Configuration** menu Click **Back** button.



3. System Configuration Menu

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

Quick Configuration	
System Configuration	
» Server Name	
» Date & Time	
» Admin. Password	
» Access Control	
» User Registration	
Network Configuration	
Device Configuration	
Advanced Configuration	
Recording Configuration	
Utilities	

Quick Configuration	
This category shows the detailed method for Quick Configuration.	
» 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.

3.1. Server Name Setup

Click **Step 1** on **Quick Configuration**, then the following will be displayed and you will find out the system information such as model number of the Server, server name, MAC address (serial number), firmware version, and Web Image version.

Server Name Setup

Product model name	
Server name	<input type="text" value="Network Video System"/>
Mac Address (S/N)	00:30:6F:83:E7:11
Firmware version	4.23-21-ds
Webimage version	4.23-1200_NB

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

As an administrator, you can change the name of the server name, but other values are not allowed to change. To change the server 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** button to save the setting and it will take effect immediately.

3.2. Date & Time

Click **Step 2** on **Quick Configuration**. Fill the **Date** and **Time** fields with your local time and date information. If you're in a different time zone, put a checkmark on **Change Time Zone**, then select the correct region from the list box. To take the time zone change in effect, you need to click **Apply** button and reboot the system.

Local Date & Time Configuration

Date (yyyy/mm/dd)	2013 / 9 / 26
Time (hh:mm:ss)	20 : 55 : 03
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

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

If you only changed **Date** and **Time** setting, simply click **Apply** button to take it into effect immediately. If you want to retrieve the exact current time from NTP server on the network, click **Get NTP Server Time** button. Clicking **Refresh** button will display the date and time retrieved from Server. Then click **Apply** button to save it.

Note: In order to retrieve Time and Date information from a NTP server, you need to put NTP server address in advance of setting up, such as pool.ntp.org.

3.3. Admin 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	<input type="password"/>
New Password	<input type="password"/>
Confirm Password	<input type="password"/>

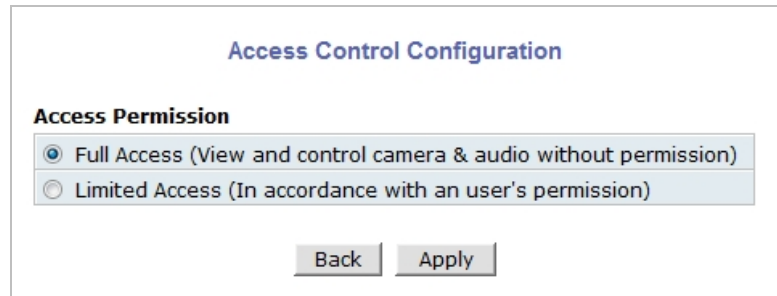
Notice : The password must be alphanumeric, within 4 ~ 23 characters.

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** button to put it into effect.

Because you have replaced the password with a new one, the existing network connection made with old password to Server is lost now. You will have to reconnect to the server using new password.

3.4. Access Control

Click **Access Control** on System Configuration menu. The following windows will be displayed.



The screenshot shows the 'Access Control Configuration' window. It has a title bar with the text 'Access Control Configuration'. Below the title bar, there is a section titled 'Access Permission'. Inside this section, there are two radio button options: 'Full Access (View and control camera & audio without permission)' which is selected, and 'Limited Access (In accordance with an user's permission)'. At the bottom of the window, there are two buttons: 'Back' and 'Apply'.

From the **Access Permission** window, select either one you would like to use. Click **Apply** button to save the change.

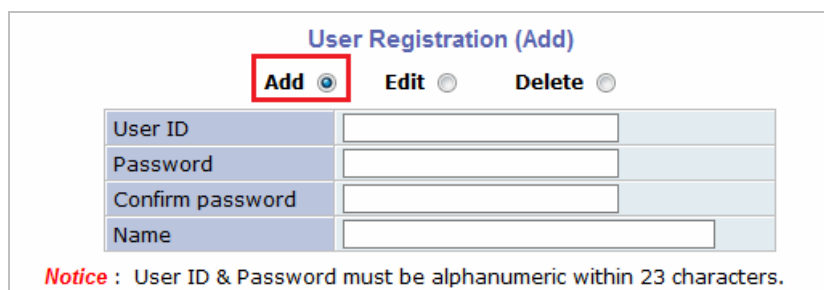
- **Full Access:** Any user can access the server and use all the features without limit.
- **Limited Access:** Only registered users can access the server and have limited privileges.

3.5. User Registration

You can add, modify, or delete users for your Server here. Once registered as **Limited Access** setting, the user can access the Server with some limited privileges.

3.5.1. Add

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



The screenshot shows the 'User Registration (Add)' window. It has a title bar with the text 'User Registration (Add)'. Below the title bar, there are three radio button options: 'Add' (which is selected and highlighted with a red box), 'Edit', and 'Delete'. Below these options, there is a form with four input fields: 'User ID', 'Password', 'Confirm password', and 'Name'. At the bottom of the window, there is a red notice that says: '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 respectively. 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.

Now select one of the four items from **System Resource Access Permission**, which defines the permission level for registered users to the 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

- **All Channels Access:** User can use all the features except for Configuration in Admin Page.
- **General Access (only live viewing access):** User can use only use Live View feature.
- **No Access:** User is not permitted of any of the features.
- **Selective Access:** User is allowed to use only the selected features. With this item selected, user can now configure the details under the menu.

Server can have multiple VS modules registered in it. When user ticks on any of **Enable** checkboxes, other fields in that row are enabled to select.

System Resource Access Permission							
<input type="radio"/>	All Channels Access						
<input type="radio"/>	General Access (only live viewing access)						
<input type="radio"/>	No Access						
<input checked="" type="radio"/>	Selective Access						
Enable	VS Module ID	Camera No.	Alarm Control	PTZ Control	Audio Control	Play Control	back
<input checked="" type="checkbox"/>	Built-in Module 0	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- **VS Module ID:** The registered user can select VS Modules that are available. (VS Module is a network device that has been registered in Server)
- **Camera No.:** Among the cameras of VS Module, select one to set up. (between 1 and 4)
- **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.
- **Playback:** Determine if searching can be done by recording conditions.

After finishing the registration process, click **Apply** button to add the user.

3.5.2. 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.

User Registration (Edit)

Add ☐
Edit ☒
Delete ☐

User ID	Select UserId
Password	<input type="text"/>
Confirm password	<input type="text"/>
Name	<input type="text"/>

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

To see existing users, click **Select User Id**, and select a user to be edited. 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.

3.5.3. Delete

To delete an existing user, select **Delete**.

The screenshot displays a web interface titled "User Registration (Delete)". At the top, there are three radio buttons labeled "Add", "Edit", and "Delete". The "Delete" radio button is selected, indicated by a blue dot and a red rectangular highlight. Below the buttons is a table with a single header row "UserID (GroupID)" and one data row containing the text "test". The "test" text is also highlighted with a red rectangular box. At the bottom of the interface, there are two buttons: "Back" and "Delete".

From the list of the users, select a user to delete. Click **Delete** button to confirm the deletion.

4. Network Configuration

Configuration the network is dependent on how an IP address is assigned in Ethernet-based environment, which is static IP, dynamic IP (DHCP), or PPPoE. For wireless LAN, additional configuration is necessary to have a connection with wireless AP.

In the case of wireless models, users have to choose between wired or wireless connection. In other words, both connections can't be used at the same time. The way how to choose one of them is whether wired LAN cable is plugged into the product. When LAN cable is plugged in for longer than 5 seconds, the wired LAN is activated for data transmission. If LAN cable is unplugged more than 5seconds, wireless LAN is activated instead. If PPPoE is selected by user, wired LAN will be activated regardless of condition of LAN cable. For network configuration, select **Network configuration** from Admin page.

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

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**. You need to set up the Server according to your network type.

4.1. Network Configuration

4.1.1. Static IP Configuration

Selecting Network Configuration under Network configuration will show variables. Below picture is for products without wireless LAN.

Quick Configuration	Network Configuration : Static IP
System Configuration	
Network Configuration	
» Network Configuration	Static IP <input checked="" type="radio"/> DHCP Client <input type="radio"/> PPPoE <input type="radio"/>
» Network Ports	
» Bandwidth Control	
» View Network Status	
» Network Status Notify	
» IP-CCTV DNS™	
» Port Forwarding & UPnP	
Device Configuration	
Advanced Configuration	
Recording Configuration	
Utilities	

IP Address	192.168.2.41
NetMask	255.255.255.0
GateWay	192.168.2.254
DNS 1	192.168.2.254
DNS 2	

For static IP, select static IP and input values for IP address, Net Mask, Gateway, DNS1, DNS2 and click apply for saving settings. After **apply**, program will ask closing web browser for updates, which will take 20~30 seconds. If **Back** button is pushed while configuration, all values will be discarded. If **Refresh** button is pushed, the program will load previous values.

4.1.2. DHCP Client Configuration

For DHCP, DHCP server must exist in the network environment. Select **DHCP Client** from Network Configuration, click **Apply**.

Network Configuration : Static IP	
<input checked="" type="radio"/> Static IP <input type="radio"/> DHCP Client <input type="radio"/> PPPoE	
IP Address	192.168.2.41
NetMask	255.255.255.0
GateWay	192.168.2.254
DNS 1	192.168.2.254
DNS 2	
<input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Refresh"/>	

4.1.3. PPPoE Configuration

PPPoE is used to connect products to PPPoE modem provided by ISP. Since PPPoE needs verification, ID and password are necessary to access network. Type ID and PW.

Network Configuration : PPPoE	
<input type="radio"/> Static IP <input type="radio"/> DHCP Client <input checked="" type="radio"/> PPPoE	
User ID	
User Password	
Confirm Password	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	
<p>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.</p>	

4.2. Wireless LAN Configuration

To use wireless LAN function, detailed information of AP (Access Point) such as ESSID, Auth Mode, Encryption, etc should be exactly provided. Please make sure that wired LAN and wireless LAN will work exclusively.

Static IP and DHCP client will be available for wireless LAN. When PPPoE is selected, wireless LAN is disabled. Even though LAN cable is unplugged, wireless LAN won't be enabled.

Wireless LAN models will show additional options under Network Configuration menu.

Network Configuration
 ❖ **Network Configuration**
 ❖ Network Ports
 ❖ Bandwidth Control
 ❖ View Network Status
 ❖ Network Status Notify
 ❖ IP-CCTV DNS™
 ❖ Port Forwarding & UPnP
Device Configuration
Advanced Configuration
Utilities

Network Configuration : Static IP

☒ Static IP
 ☐ DHCP Client
 ☐ PPPoE


IP Address	10.20.30.40
NetMask	255.255.255.0
GateWay	10.20.30.1
DNS 1	168.126.63.1
DNS 2	168.126.63.2

ESSID	AP-ESSID	Scan AP
Auth Mode	Open system	
Encryption	<input checked="" type="radio"/> None <input type="radio"/> WEP <input type="radio"/> TKIP <input type="radio"/> AES	





4.2.1. ESSID

ESSID(or SSID) stands for an dedicated name of AP(Access Point). Whether typing name of AP manually or select from results after scanning nearby AP.

To scan nearby AP, click **Scan AP**, which will pop up a new window. After a few seconds, results will be shown. Click desired AP from list.

Please wait for a while.


AP List

AP Name	Signal
myLGNetB5AB	
h2y-ap2	
myLGNet	
juse	

Note: Access points that are set to hide ESSID information for security won't be scanned by this method.

4.2.2. Authentication Mode & Encryption

Every AP has authentication process for security reasons. FW products support "Open, Shared, WPAPSK, WPA2PSK" authentication modes. Per each modes, encryptions such as WEP, TKIP, AES can be set. Relationships between authentication and encryption are listed below.

Authentication Mode	Supported encryption
Open, Shared	N.A or WEP
WPAPSK, WPA2PSK	TKIP, AES

For WEP, 64bit or 128bit mode can be selected and length of encryption key will be different. For WEP 64bit, 5 digits of ASCII or 10 digits of hex characters will be required. For WEP 128bit, 13 digits of ASCII or 26 digits of hex characters. Among 4 keys, appropriate key should be chosen according to key of AP.

ESSID	AP-ESSID	Scan AP
Auth Mode	Open system	
Encryption	<input type="radio"/> None <input checked="" type="radio"/> WEP <input type="radio"/> TKIP <input type="radio"/> AES	
WEP Mode	64 Bit	HEX
KEY1	<input checked="" type="radio"/> 1234567890	
KEY2	<input type="radio"/> 12345abcde	
KEY3	<input type="radio"/> abcdefghij	
KEY4	<input type="radio"/> 1234xyz122	

For WPASK or WPA2PSK, TKIP and AES can be available and the max length of encryption key is 63 digits of ASCII.

ESSID	AP-ESSID	Scan AP
Auth Mode	WPAPSK	
Encryption	<input type="radio"/> None <input type="radio"/> WEP <input checked="" type="radio"/> TKIP <input type="radio"/> AES	
KEY		

4.3. Network Ports

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

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 Server's Internet address. For example, when IP address is 192.168.1.00 and set the HTTP port to 8080, you will have to enter `http://192.168.1.100:8080` to connect to the server.

Network Configuration

- » Network Configuration
- » **Network Ports**
- » Bandwidth Control
- » View Network Status
- » Network Status Notify
- » IP-CCTV DNS™
- » Port Forwarding & UPnP
- » RTP/RTSP

Device Configuration

Advanced Configuration

Utilities

Network Ports Configuration

HTTP Port	80	(Default:80, 80 ~ 65535)
-----------	----	--------------------------

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

4.4. Bandwidth Control Configuration

Bandwidth control is for limiting maximum network traffic. If it is enabled with certain limit, maximum data size transferred from products won't exceed bandwidth limit set by users. If transferred data is

exceeded, part of data will be randomly lost

If multiple users try to access a FW product which bandwidth control is enabled, users connected to the FW product will share network bandwidth limit.

Bandwidth Control Configuration

Service	<input type="radio"/> Enable <input checked="" 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: This bandwidth control feature works fairly well in M-JPEG video transmission. But, for MPEG-4 and H.264, dropping data packets may cause low quality of video, so it is recommended to utilize CBR and frame rate control instead of bandwidth control for MPEG-4 and H.264 video.

Note: Network Bandwidth control is managed by Server and it drops any data packets if required, thus you may experience slow connection to the server when the feature is enabled.

4.5. View Network Status

This menu shows network status of products. Wireless LAN status will be added for wireless models.

Network Status

Common Status

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"/>

LAN Status

IP Address	<input type="text" value="10.10.213.26"/>
Netmask	<input type="text" value="255.255.0.0"/>
MAC Address	<input type="text" value="00:30:6F:81:3F:D2"/>

PPPoE Status

Connection Status	<input type="text" value="Link is down"/>
IP Address	<input type="text"/>
Netmask	<input type="text"/>

WAN-Modem Status

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"/>

Wireless LAN Status

Connection Status	<input type="text" value="ra0 is down"/>
IP Address	<input type="text"/>
Netmask	<input type="text"/>

4.6. Network Status Notify

This feature helps to send updated network status information to registered email address if any changes happen. This function will work under DHCP or PPPoE.

If **Network Status Notify** is set to **Enable**, Server's network status will be emailed to a specific person in case of the following events:

- When it is set to Dynamic IP on Network Configuration menu, and the 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 server has been connected to the network with ISP or PPP server.

To configure, click **Network Status Notify** on Network Configuration menu. The following window will be shown.

Network Status Notification

Mail 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="text"/>	
<input type="text"/>	
<input type="text"/>	

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

First, select **Enable** to use the feature. Then 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 ISP or network admin. Enter the ID and password.

In **Sender** field, enter your email address or other meaningful words that will show the message was sent from the server as a notification. Now enter the email addresses of the recipients in the **Recipient** fields, up to 3 persons. In the **User-Defined Message** box, you may put a message to explain why the message was sent. After finishing the setup, click **Apply** to save settings.

Mail Notification	Enable: Send email Disable: Do not send email
SMTP Server	SMTP Server address for email service
Authentication Login	Enable: user ID and password are required for SMTP server Disable: 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 persons)
User Defined Message	Message to be included in the Notification email

4.7. IP-CCTV DNS Setup

IP- CCTV DNS service provides a static & public domain name to help users access 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 have to create ID from IP-CCTV DNS server(<http://www.ipcctvdns.com>) and register products with MAC address and Product Key. Those information can be found from IP-CCTV DNS Setup menu. **Enable** service and click **Apply**. If it is configured properly, you can check the result by clicking **Confirm** button.

IP-CCTV DNS™ Setup

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
DNS Server IP	<input type="text" value="www.ipcctvdns.com"/>	Go
Mac Address	00306F813FD2	
Product-Key	FF8E9BB4	
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.
 Different IP address or URL must follow the same protocol of 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.

Note: Refer to IP-CCTV DNS™ User's Manual for further details of the configuration.

4.8. 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 is to assign a certain network port to a network product Proper so as users can access it from outside of Local Area Network. Generally, port forwarding can be configured from network router.

UPnP port forwarding is made up with finding available network port, assigning it to a product and

reporting overall network configuration of a product to IP-CCTV DNS server. Users have to register products to IPCCTVDNS server and IP-CCTV DNS service should be enabled.

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 products. In this case, users have to type already-assigned network port under **User Assigned port**
- **UPnP: User Assigned Port** is used when users want products to configure port forwarding menu of network hub with user-assigned network port. If it fails, try to change user-assigned port
- **UPnP: Auto Selected Port** is used to let products deal with all 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://10.10.213.26:80"/>
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.

4.9. RTP/RTSP Setup for Cameras

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

For Unicast Address:

Use "rtsp://network video server ip address/cam0_0". If there are multiple channels, use cam0_x, x (0~3) with each number applied. If there are multiple modules, use camx_0 x (0 ~ 3) with each module number applied.

For Multicast Address:

Use "rtsp://network video server ip address/mcam0_0". If there are multiple channels, use mcam0_x, x (0~3) with each channel number applied. If there are multiple modules, use mcamx_0 x (0 ~ 3) with each module number applied.

RTP/RTSP Setup			
Service		<input type="radio"/> Enable <input checked="" 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)
<div style="text-align: center;"> <input type="button" value="Back"/> <input type="button" value="Apply"/> </div> <p>Notice : This function is only for built in module. IP devices (added VS module) does not support this function.</p> <p>RTSP URL for Camera 1 rtsp://(Network Video Server IP Address)/cam0_0 -> cam(0 : VS Module number)_(0:Port number)</p> <p>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)</p>			

Service	Enable: Start RTSP service Disable: 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

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

4.10. SNMP Setup for Cameras

SNMP (Simple Network Management Protocol) is a protocol to monitor and configure network status of a network device. SNMP V1 and V2 are supported over MIB2 standard, and few functions are not supported.

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

SNMP Setup

SNMP V1/V2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Trap	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Destination IP Address	<input type="text"/>
Trap Community	<input type="text"/>
Available Traps	Cold Start / Authentication Failure

SNMP V1/V2	Enable: Start SNMP service Disable: Stop SNMP service
Trap	Enable: Start SNMP Trap service Disable: 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 <ol style="list-style-type: none"> 1. Cold Start : When SNMP starts 2. Authentication Failure : When key value of SNMP query is wrong

5. Device Configuration

You set up the connection between Server and the camera in this part of configuration. That includes Video data, external devices, Input / Output, Alarm control, and etc.

5.1. Serial Ports

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

Quick Configuration

System Configuration

Network Configuration

Device Configuration

⊕ Serial Ports

⊕ Camera & Motion

⊗ DI/DO

⊗ DI Status/DO Control

Advanced 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)
⊗ 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.

5.1.1 Serial Input Mode

When serial ports are in **Serial Input Mode**, Server can be triggered by the external sensors to send images from the camera by email, or FTP. It can also activate **Alarm Output** by input from sensors inputs. For example in a real life, if a dam's water level comes to a pre-defined value, the server can send the images of the dam's water level meter from cameras. Another example is, when a car running on highway exceed the speed limit, it can send the picture of the car.

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

Back

Apply

After rebooting, open the **Serial Ports** window in **Device Configuration** menu again. Select the **Serial Input Mode**, then the **Serial Input Mode Configuration** windows will be displayed as shown below.

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 being used. (only RS-232 can be displayed)
- **Serial Input Model:** You can select the sensor's model number to use for Serial Input.

Note: If additional sensors need to be added, it will require installation of the device drivers.

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	

(Speed) Delay configuration

(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

- **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

5.1.2 Serial Output Mode

Using Serial Output Mode, you can send UART device commands to Server in order to control PTZ devices, Multiplexer, Access control box, X10 Protocol, z256 protocol by RS-232 or RS-485/422 communication. In the picture below, serial output mode can be selected among By-Pass, X10, or Z256.

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	

5.1.3 Transparent Mode

When there are two Servers present on the network, they can act like a transparent interface between two different UART devices so that the communication between the UART devices can be 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 <input type="text"/>	

- **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 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)

5.1.4 PTZ Mode

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

PTZ Mode Configuration

Current Port	AUX	
Dummy Data	<input type="radio"/> On <input checked="" type="radio"/> Off	
Current Protocol	RS485 ▼	
Current Baudrate	2400 ▼	
PTZ Model	Pelco-D-Wonwoo : Spectra Dome ▼	

Base Address	PTZ Install Flag	
	Ch 1	Ch 2
0 (0~255)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Back Apply

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

Note: When a PTZ model is selected from the list, Current Protocol and Current Baud rate will be set to the default values. You can change them if required.

After selecting the proper PTZ model from the pull-down list, click **Module 0** to activate the camera channel and finish the configuration.

Base Address should be matched to the address of the PTZ camera or the receiver used here.

(Base Address = PTZ Camera's Base Address – 1).

For example, if PTZ camera's address is 1, then the base address becomes 0. You can find out the PTZ camera's address from its user's manual.

After put a checkmark on the channel that is connected to PTZ camera or receiver, click **Save** button to apply the change. The picture above is the example of PTZ camera wired to **Channel 1** only.

After all the Preset items are set up, click **Close** button to exit the configuration.

5.2 PTZ

Enter PTZ camera menu. Click "PTZ" and pop up the below page.

Quick Configuration System Configuration Network Configuration Device Configuration <ul style="list-style-type: none">Serial PortsPTZCamera & MotionDI/DODI Status/DO Control	<table border="1"><thead><tr><th colspan="2">PTZ Configuration</th></tr></thead><tbody><tr><td>» PTZ OSD Menu</td><td>Configuration of PTZ OSD Menu.</td></tr><tr><td>» PTZ Preset</td><td>Configuration of PTZ Preset.</td></tr></tbody></table> <div>Back</div>	PTZ Configuration		» PTZ OSD Menu	Configuration of PTZ OSD Menu.	» PTZ Preset	Configuration of PTZ Preset.
PTZ Configuration							
» PTZ OSD Menu	Configuration of PTZ OSD Menu.						
» PTZ Preset	Configuration of PTZ Preset.						
Advanced Configuration Recording Configuration Utilities							

5.2.1. Privacy Zone

Privacy Zone Configuration

Speed 10

▶

▲

↖

◀

⬆

▶

↗

▲

▶

⏮

⏪

⏩

⏭

PTZ Move Mode

Continuous

Privacy Number

1

Mode

On

Apply

Green Box

① Privacy Number

- Move to the recorded Privacy Number *If there is no recorded Privacy Number, Mask and "Pri Set Mode" shows up at the current display screen.

② Mode

- "On" to Save Mode, "Off" to Clear Mode

Red Box, Blue Box

- After set up Privacy Number, control Privacy Mask Position and Mask Size.

Apply Circle

: Save and Clear

5.2.2. PTZ Alarm

PTZ Alarm Configuration

Speed	10
<div>PTZ Move Mode</div> <div>Continuous</div>	
Alarm Number	None
Alarm Label	
Preset Number	None
Mode	Off

Apply

Green Box

① Alarm Number

- Set the Alarm Number to activate a Preset which is to be linked to the Alarm Number.

(None, 1~8)

※ A few Model 1~2

② Alarm Label

- Set the Alarm label up to 12characters. The character to be used is limited among them in PTZ camera OSD.

③ Preset Number

- Set the Preset Number to be linked to the Alarm Number. (1~255)

④ Mode

- Select On to save the setting and select Off to clear the setting.

Red Box

: Manual Move area

Apply Circle

: Press Apply button to save and command the settings.

5.2.3. PTZ Area

PTZ Area Configuration

Speed	10
PTZ Move Mode	Continuous
Area Number	None
Start / End	Start End
Area Label	
Mode	Off

Apply

Green Box

① Area Number

- By using Area function, you can make camera to move between 2 pan positions repeatedly. When Area functions runs, camera moves from the pan position assigned as the start pan position to the position assigned as the stop pan position. In case that the position assigned as the start point is same as the position assigned as the end position, camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction. Set the Area Number to let the camera move from Start position to End position. The Area Label is to be displayed on the screen. (None, 1~16)

② Start / End

- Set the Start Position and the End Position using the arrows in Red Box

③ Area Label

- Set the Area label up to 12characters. The character to be used is limited among them in PTZ

camera OSD.

④ Mode

- Select On to save the setting and select Off to clear the setting.

Apply Circle

: Press Apply button to save and command the settings.

5.2.4. PTZ Preset

PTZ Preset Configuration

Speed 10

PTZ Move Mode: Continuous

Preset Number	Preset Label	Mode	Focus Mode
None		Off	Auto

Apply

Green Box

① Preset Number

- Max. 255 positions can be stored as Preset position. The preset number can be assigned from 1 to 255. (But 95 is reserved for starting OSD menu) Camera characteristics (i.e. White Balance, Auto Exposure) except for Focus can be set up independently for each preset. (None, 1~255)

※ Other than hot key

② Preset Label

- Set the Preset Label to be displayed onto the main View Window. It's not displaying the Preset Name in the PTZ camera.

③ Mode

- Select On to save the setting and select Off to clear the setting.

④ Focus Mode : It enables to set the camera focus for each Preset position.

(Auto, Manual, One Shot)

Apply Circle

: Press Apply button to save and command the settings.

5.2.5. PTZ Scan

PTZ Scan Configuration

The interface is titled "PTZ Scan Configuration". It features a live camera feed of a room with several PTZ cameras mounted on a wall. To the left of the feed is a control panel with a "Speed" dropdown set to "10", a 9-directional arrow pad, zoom in/out buttons labeled "Z" and "F", and a "PTZ Move Mode" dropdown set to "Continuous". Below the feed is a configuration table with a green border around its settings rows. At the bottom center, an "Apply" button is circled in purple.

Speed	10
PTZ Move Mode	Continuous
Scan Number	None
Start / End	Start End
Scan Label	
Mode	Off
Speed	60 (Default:60, 0 ~ 63)
Dwelling	3 Sec (Default:3, 3 ~ 99)
Focus Mode	Auto

Apply

Green Box

① Scan Number

- By using Scan function, the camera moves between 2 positions if there is no PTZ command after passing the assigned Dwell time. When there is no camera movement, the Scan function runs and the camera moves from the position assigned as the start point to the position assigned as the end point in Clockwise. (None, 1~8)

② Start / End

- Set the Start Position and the End Position using the arrows in Red Box

③ Scan Label

- Set the Scan label up to 12 characters. The character to be used is limited among them in PTZ camera OSD.

④ Mode

- Select On to save the setting and select Off to clear the setting.

⑤ Speed

- Select the Speed level to be used in the Scan Number. (0~63, Default : 60)

⑥ Dwelling

- Select the Dwelling time to be used in the Scan Number. (3~99, Default : 3)

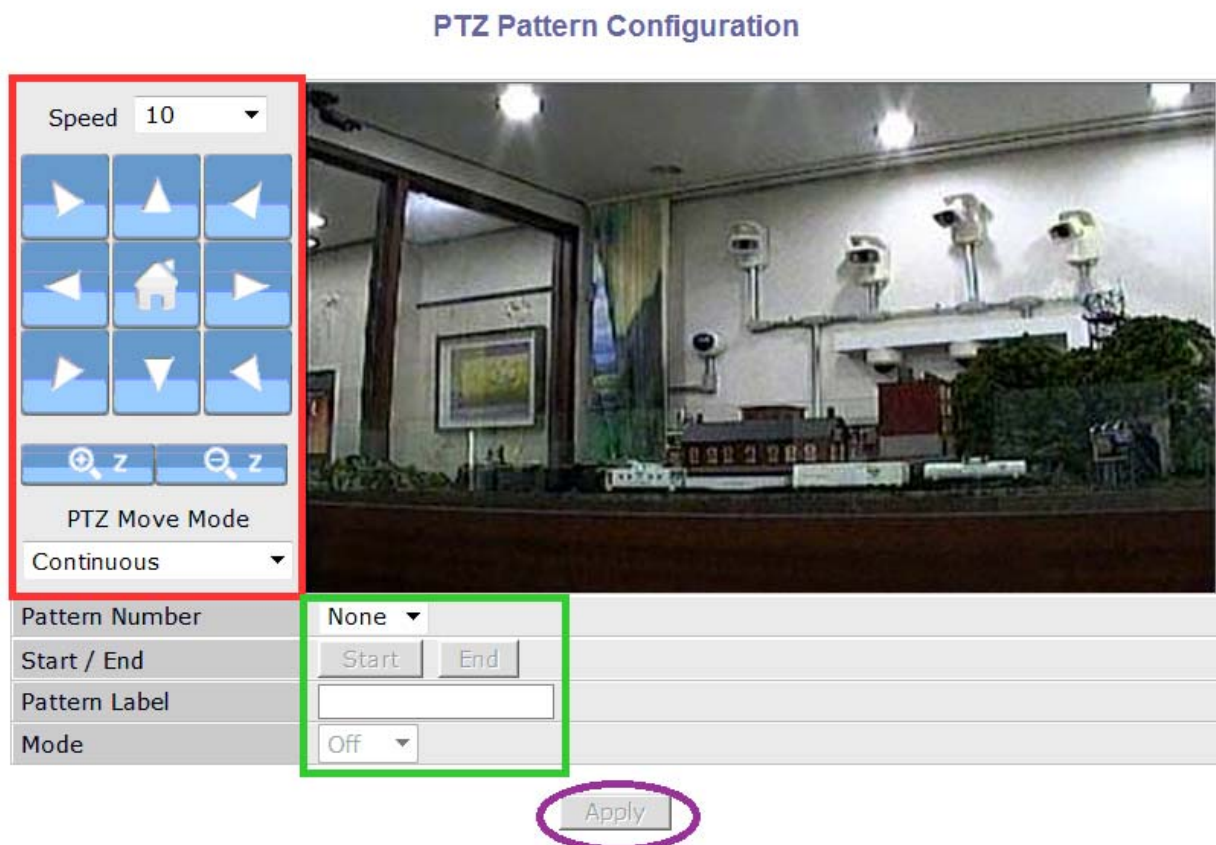
⑦ Focus Mode

- It enables to set the camera focus for each Scan. (Auto, Manual)

Apply Circle

: Press Apply button to save and command the settings.

5.2.6. PTZ Pattern



Green Box

① Pattern Number

- The Pattern function memorizes User's random moving path and zoom ratio. Total recording time limit is 60secs and maximum 4 Pattern functions are toured in order.

(None, 1~4)

② Start / End

- Set the Start Position and the End Position using the arrows in Red Box

③ Pattern Label

- Set the Pattern label up to 12characters. The character to be used is limited among them in PTZ camera OSD.

④ Mode

- Select On to save the setting and select Off to clear the setting.

Apply Circle

: Press Apply button to save and command the settings.

5.2.7. PTZ Tour

PTZ Tour Configuration

Speed 10

PTZ Move Mode: Continuous

Tour Number: None

Tour Label:

Mode: Off

Preset Number	Speed	Dwelling
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)
None	63 (0 ~ 63)	3 Sec (3 ~ 99)

Apply

Green Box

① Tour Number : The Tour function consists of several presets run by turn. It is also adjusts the moving speed (0~63 step) and dwell time (3~99secs). Maximum of 8 Tour functions are toured in order (None, 1~8)

※ 1 Tour can be set for 15 presets.

② Tour Label

- Set the Tour label up to 12characters. The character to be used is limited among them in PTZ

camera OSD.

③ Mode

- Select On to save the setting and select Off to clear the setting.

Red Box

① Preset Number

- Select the predefined Preset Data (1~255, Max 15 presets in one Tour)

② Speed

- Select the Speed level to move to the Preset position(0~63 per each Preset)

③ Dwelling

- Select the Dwelling time during one Preset to another Preset position.

(3~99 per each Preset)

c. Apply Circle

: Press Apply button to save and command the settings.

5.2.8. PTZ Group

PTZ Group Configuration

The interface displays a live camera feed of a room with several PTZ cameras mounted on a wall. To the left of the feed is a control panel with a 'Speed' dropdown set to 10, a 9-button directional pad, zoom in/out buttons, and a 'PTZ Move Mode' dropdown set to 'Continuous'. Below the feed is a configuration table with a green border around the first three rows and a red border around the last two rows. The 'Apply' button is circled in purple.

Index	Select ID ▼				
Group Label					
Mode	Off ▼				
Tour Number 1	Tour Number 2	Tour Number 3	Tour Number 4	Tour Number 5	Tour Number 6
None ▼	None ▼	None ▼	None ▼	None ▼	None ▼

Apply

Green Box

① Group Number

- The Tour function consists of several tours run by turn. Maximum of 6 group functions are toured in order (None, 1~6)

※ 1 Group can be set for 6 Tours.

② Group Label

- Set the Tour label up to 12characters. The character to be used is limited among them in PTZ camera OSD.

③ Mode

- Select On to save the setting and select Off to clear the setting.

Red Box

: Tour Number 1~6

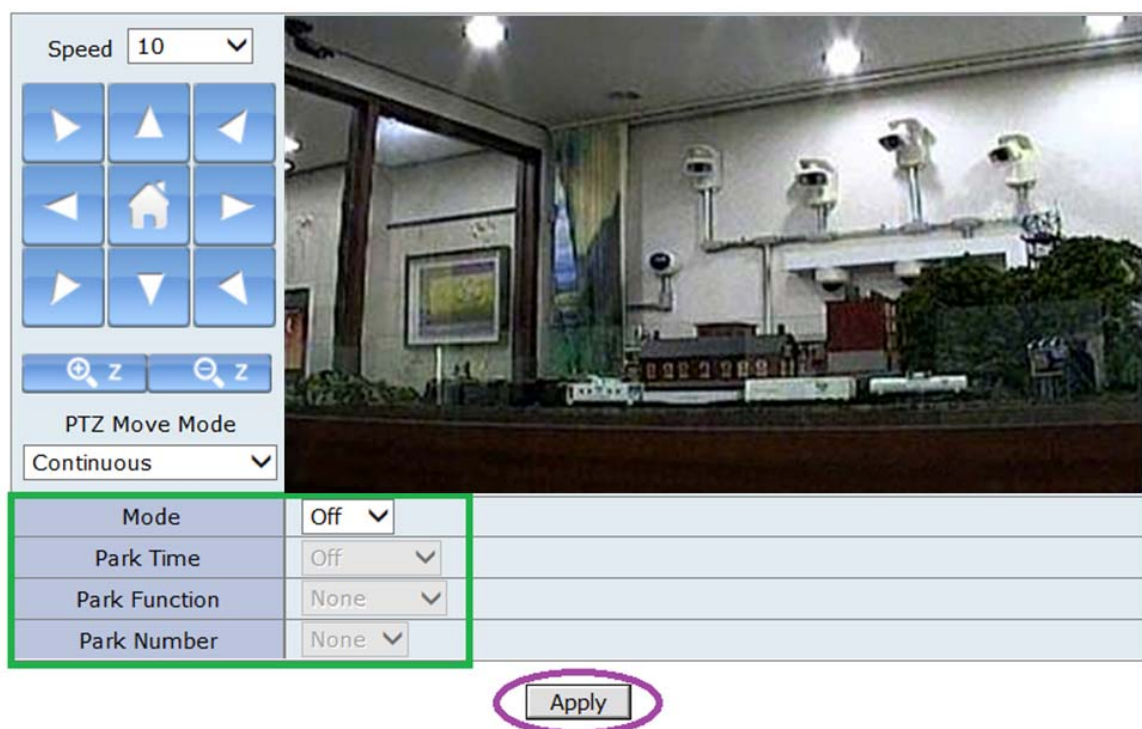
- Select the predefined Tour Data (1~8, Max 6 tours in one group)

Apply Circle

: Press Apply button to save and command the settings.

5.2.9. PTZ Park Action

PTZ Park Action Configuration



The interface shows a PTZ camera control panel on the left and a live video feed on the right. The control panel includes a Speed dropdown set to 10, a 9-directional arrow pad, a Home button, and PTZ Move Mode set to Continuous. Below these are four settings: Mode (Off), Park Time (Off), Park Function (None), and Park Number (None). These settings are enclosed in a green box. An Apply button, circled in purple, is located at the bottom center.

Speed	10
<div>PTZ Move Mode</div> <div>Continuous</div>	
Mode	Off
Park Time	Off
Park Function	None
Park Number	None

Apply

Green Box

① Mode

- This function enables to locate the camera to specific position automatically if operator doesn't operate. Select On to save the setting and select Off to clear the setting.

② Park Time

- Set the park time(Off, 10 Sec ~ 10 Min)

③ Park Function

- Select Function which will be back after the above set time.

(Preset, Tour, Group, Scan, Pattern)

④ Park Number

- Select the appointed function's number.

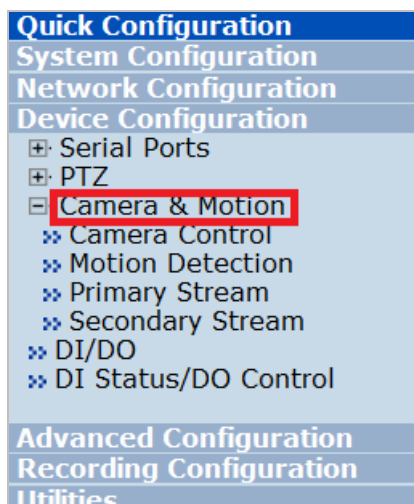
Apply Circle

: Press Apply button to save and command the settings.

5.3. Camera & Motion

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

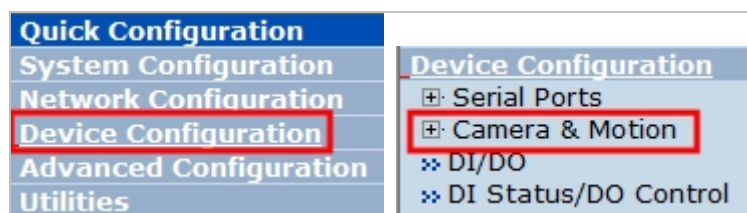
Click **Camera & Motion** on Device Configuration menu. The configuration menu will be displayed, and it may be different between models.



- **H.264:** In this format, each frame data is related to other nearby frames. For this reason, it provides much higher compression ratio than M-JPEG and is adequate for video transfer. However, if network condition is not very good and having dropped frames in video data, the video quality can be relatively low. With server, you can set the number of P-frames in the video which is independent still images between I-frames.
- **M-JPEG:** 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.

Note: For Dual Stream products, the most of parameters are dependent on primary stream value.

5.3.1. Camera & Motion



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

Note: The image size of Primary Stream is the maximum size of the Secondary Stream, because Secondary Stream's video is the output of the Primary Stream.

Note: For Dual Stream products, most of parameters are dependent on primary stream value.

Click **Camera & Motion** on Device Configuration menu, then the following window will be displayed. Configure the video data format and other information to be contained in it.

Camera & Motion Configuration		
Video with Flexible Extra System data		<input type="checkbox"/> Enable
Video with user defined message		<input type="checkbox"/> Enable
Video with PPP status		<input type="checkbox"/> Enable
Video with camera name		<input type="checkbox"/> Enable
Video with server name		<input type="checkbox"/> Enable
Video with IP address		<input type="checkbox"/> Enable
Audio		<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Time Stamp		<input type="radio"/> On <input checked="" type="radio"/> Off
Primary Stream	Frame Rate	30 fps
	Image Size	1920 x 1080
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Secondary Stream	Frame Rate	30 fps
	Image Size	704 x 480
	Encoding Standard	<input checked="" type="radio"/> M-JPEG <input type="radio"/> H.264
<input type="button" value="Back"/> <input checked="" type="button" value="Apply"/>		

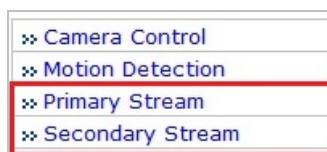
- **Default Video Format:** Select the video transmission format of the camera attached to Server. Select one from NTSC or PAL.
- **Video with UART sensor Data:** If **Enabled**, video data will contain UART sensor data from COM port.
- **Video with user defined message:** If **Enabled**, video data will contain the user-defined data. (Reserved Field)
- **Video with PPP status:** If **Enabled**, video data will contain PPP connection status.
- **Video with camera name:** If **Enabled**, video data will contain the camera name.
- **Video with server name:** If **Enabled**, video data will contain the server name that you defined.
- **Video with IP address:** If **Enabled**, video data will contain the IP address of the video server.
- **Audio:** Select if Audio function is to be used (applies to Primary Stream only). Server provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.
- **Time Stamp :** IP With imagery within the current server at the time.
- **Encoding Frame Rate (Per Channel):** Compression speed every second. This attribute applies to all the channels. You can control the server's total traffic with this parameter.
- **Image Size:** Select the resolution of each channel's video data.
- **Encoding Standard:** Select the compression method of each video, either M-JPEG or H.264.

Click **Apply** button to save the changes.

H.264	Rate Control Mode: VBR (Variable Bit Rate) 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.		
	Rate Control Mode: CBR (Constant Bit Rate) 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. Can be set between 32kbps and 2Mbps.		
M-JPEG	-				GOP: Distance between I-Frames. That is filled with P-frames.		
					Image Quality: one of 6 quality levels (Low Compression / Highest / High Normal / Low / Lowest)		
Low Compression		Highest	High	Normal	Low	Lowest	

Camera Configuration

On the lower part of **Camera & Motion Configuration** menu, select a channel to configure.



Enter detailed parameters of the camera selected here.

Camera Configuration (Primary Stream)

Camera Name	Camera 1
Image Quality	Highest

M-JPEG

Camera Configuration (Secondary Stream)

Camera Name	Camera 2
Rate Control Mode	VBR Mode
Image Quality	Highest
GOP Structure	16 [1~64]

H.264

- **Camera Name:** Enter the name of the channel in up to 21 alphanumeric or up to 10 Unicode letters.

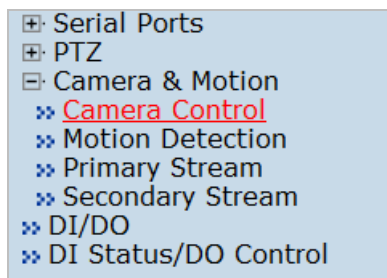
Image Quality Setup

H.264	Rate Control Mode: VBR (Variable Bit Rate) 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.			
	Rate Control Mode: CBR (Constant Bit Rate) 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. Can be set between 32kbps and 2Mbps.			
			GOP: Distance between I-Frames. That is filled with P-frames.			
M-JPEG	-		Image Quality: one of 6 quality levels (Low Compression / Highest / High Normal / Low / Lowest)			
Low Compression		Highest	High	Normal	Low	Lowest

In **Image Quality** level setup, selecting the left results in higher image quality, but requires higher network bandwidth. Selecting the right requires lower network bandwidth, but gives decreased image quality.

Camera Control

Click **Camera Control** on the bottom of **Camera & Motion Configuration** menu.



Camera Control Part

Camera Control



Camera | Temp | Dome

Zoom Part

- Same as Zoom Menu in PTZ, Speed Dome

Digital Zoom	<input type="radio"/> On <input checked="" type="radio"/> Off
Zoom Speed	User ▼
Zoom Display	<input type="radio"/> On <input checked="" type="radio"/> Off

- ① Digital Zoom : Select On / Off (Default : Off)
- ② Zoom Speed : 0 ~ 7, User (Default : User)
- ③ Zoom Value Display : Display Zoom ratio on screen Select On / Off (Default: Off)

Focus Part

- Same as Focus menu in PTZ, Speed Dome

Focus Mode	Auto ▼
Focus Speed	User ▼
Focus Near Limit	1.0 M ▼
AF Mode	Normal ▼

- ① Focus Mode : Auto, Manual, One Push, Infinity (Default: Auto)
 - ② Focus Speed : 0 ~ 7, User(Default: User)
 - ③ Focus Near Limit : OverInf, 25.0M, 11.0M, 7.0M, 4.9M, 3.7M, 2.9M, 2.3M, 1.85M, 1.5M, 1.23M, 1M, 30CM, 8CM, 1CM (Default: 1.0 M)
 - ④ AF Mode : Normal, Interval, Zoom (Default : Normal)
- AF Mode working with Focus Mode -> Auto

White Balance Part

- Same as White Balance Menu in PTZ, Speed Dome

White Balance Mode	Auto	
White Balance R Gain	10	(Default:10, 0 ~ 20)
White Balance B Gain	10	(Default:10, 0 ~ 20)

- ① White Balance Mode : Auto, Indoor, Outdoor, Manual, One Push AWG Mode (Default : Auto)
- ② White Balance R Gain : Activate under White Balance Manual Mode
0 ~ 20 (Only WB Manual Mode, Default : 10)
- ③ White Balance B Gain : Activate White Balance Manual Mode
0 ~ 20 (Only WB Manual Mode, Default : 10)

Auto Exposure Part

- Same as AE Menu in PTZ, Speed Dome

Exposure Mode	Auto	
Exp Comp Position	10	(Default:10, 0 ~ 20)
Exp AGC Mode / Level	<input checked="" type="radio"/> On <input type="radio"/> Off	
Exposure Shutter Speed	1/30	
Exposure Iris Level	10	(Default:10, 0 ~ 13)
Auto Slow Shutter	<input type="radio"/> On <input checked="" type="radio"/> Off	
DSS Level	x2	

- ① Exposure Mode : Auto, Manual, Shutter, Iris, Bright Mode (Default : Auto)
- ② Exp Comp Position : Activate with Exposure Auto, Shutter, Iris Mode
0 ~ 20(Default: 10)
- ③ Exp AGC Mode / Level : except Exposure Manual Mode
Mode On / Off (Default : On)
Setting level with Exposure Manual Mode

0 ~ 10 (Default : 0)

- ④ Exposure Shutter Speed : Change frame according to NTSC / PAL (Ex: 1/30, 1/25)

Activate with Manual Mode, Shutter Mode, Bright Mode
(Default: NTSC 1/30, PAL 1/25, Manual Mode DSS)

- ⑤ Exposure Iris Level : Iris Level Control in Exposure Manual / Iris Mode

0 ~ 13 (0 ~ 13)

- ⑥ Auto Slow Shutter : Activate On/Off Exposure Auto, Shutter, Iris Mode

(Slow Shutter On/Off, Default: Off)

AGC control in Exposure Manual Mode Manual Mode

(0 ~ 10, Default: 1)

- ⑦ DSS Level : Digital Slow Shutter Level Variable

Activate On Auto Slow Shutter Mode

(x2, x3, x4, Default : x2)

Wide Dynamic Range Part

- Same as WDR Menu in PTZ, Speed Dome

Exposure WDR Mode	<input type="radio"/> On <input checked="" type="radio"/> Off
Exposure WDR Level	2 (Default:2, 0 ~ 3)
Digital WDR Mode	<input type="radio"/> On <input checked="" type="radio"/> Off

- ① Exposure WDR Mode : Select On/Off except Exposure Manual Mode

(Default: Off)

Inactivate in Exposure Manual Mode

- ② Exposure WDR Level : Select level except Exposure Manual Mode

(Default: 2)

- ③ Digital WDR Mode : Select On/Off (Default: Off)

Activate Off Defog Mode

Camera Special Part

- Same as Camera Menu in PTZ, Speed Dome

Exposure Day & Night	Auto ▼
Sharpness Gain	5 (Default:5, 0 ~ 10)
DNR Level	Auto ▼
Back Light	<input type="radio"/> On <input checked="" type="radio"/> Off
Flickerless	<input type="radio"/> On <input checked="" type="radio"/> Off
Defog	<input type="radio"/> On <input checked="" type="radio"/> Off
Preset Freeze	<input type="radio"/> On <input checked="" type="radio"/> Off

① Exposure Day & Night : Same as ICR Menu, Selectable Auto, Day, Night

(Default: Auto)

∴ Threshold Level works as default value in PTZ, Speed Dome

② Sharpness Gain : This function adjusts the enhancement of the edge of objects

in the picture.

0 ~ 10 level (Default: 5)

③ DNR Level : Digital Noise Reduction Level

Off, LEV1, LEV2, LEV3, Auto (Default : Off)

④ Back Light : Back Light Compensation.

On/Off except in Exposure Manual Mode (Default : Off)

⑤ Flickerless : Activate in Exposure Auto, Iris Mode (Default : Off)

⑥ Defog : Eliminate amount of fog on display screen. When DEFOG is ON,

Digital WDR function can't turn on.

On/Off except in Digital WDR Mode On (Default : Off)

⑦ Preset Freeze : Picture Freeze.

On/Off (Default : Off)

Temp Control Part

Camera Control



Camera | Temp | Dome

- Same as Temp Menu in PTZ, Speed Dome

Heater ON Temp	<input type="text" value="5"/>	°C (Default:5, 0 ~ 70)
Heater OFF Temp	<input type="text" value="15"/>	°C (Default:15, 0 ~ 70)
Heater ON Time	<input type="text" value="30"/> Min ▼	
Fan ON Temp	<input type="text" value="50"/>	°C (Default:50, 0 ~ 70)
Fan OFF Temp	<input type="text" value="40"/>	°C (Default:40, 0 ~ 70)
Heater Status	<input type="radio"/> On <input checked="" type="radio"/> Auto	

- ① Heater ON Temp : 0 ~ 70° (Default: 5)
- ② Heater OFF Temp : 0 ~ 70° (Default: 15)
- ③ Heater ON Time : 10 Min, 20 Min, 30 Min, 40 Min, 50 Min, 60 Min
(Default: 30 Min)
- ④ Fan ON Temp : 0 ~ 70° (Default: 50)
- ⑤ Fan OFF Temp : 0 ~ 70° (Default: 40)
- ⑥ Heater Status : Select "On" Heater / Fan work by force

With "Auto(Off)" work as Temp Menu Setting value

Dome Control Part

Camera Control



Camera | Temp | Dome

- Same as PTZ, Speed Dome Menu & Dome Sub Menu

Video Format	<input checked="" type="radio"/> NTSC <input type="radio"/> PAL
Main Title	<input type="text"/>
Position Display	<input type="radio"/> On <input checked="" type="radio"/> Off
Preset Label Display	<input type="radio"/> On <input checked="" type="radio"/> Off
Power up Action	<input checked="" type="radio"/> On <input type="radio"/> Off
Speed by Zoom	<input checked="" type="radio"/> On <input type="radio"/> Off
Response Txd	<input type="radio"/> On <input checked="" type="radio"/> Off
Auto Filp	On ▼
Tilt Limit Angle	Off ▼

① Video Format : NTSC / PAL (Defalut : NTSC)

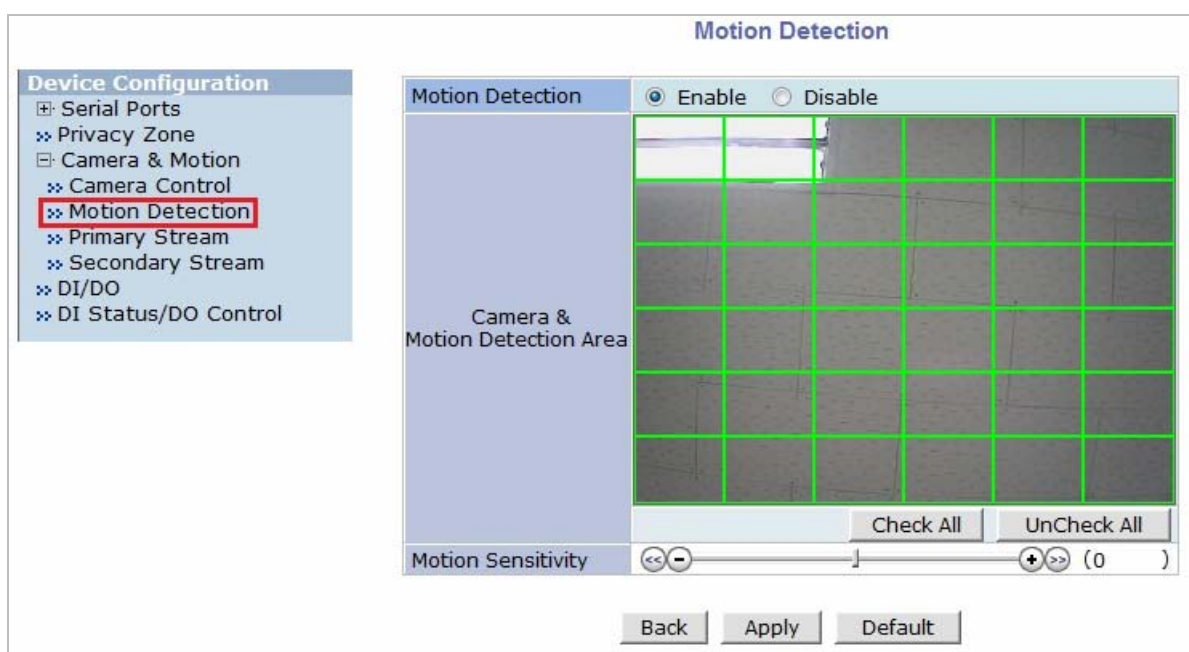
② Main Title : Same as Title Edit and use up to 12 letters with languages support

from PTZ, Speed Dome

- ③ Position Display : Degree Display On / Off (Default : Off)
- ④ Preset Label Display : Preset Title Display On/Off (Default : Off)
- ⑤ Power up Action : Action On / Off (Default : On)
- ⑥ Speed by Zoom : Variable according to an zoom value(x20, x30, Default : On)
- ⑦ Response Txd : RS-422, RS-485 Response On / Off (Default : Off)
- ③ Auto Flip : Speed Dome Model On / Off (Default : On),
PTZ Model Off / Auto / D Flip(Default : Off)
- ④ Tilt Limit Angle : Off, 1~15 Deg * Models with Tilt limit function,
(Only Speed Dome Model)

Motion Detection

Click **Motion Detection** on the bottom of **Camera & Motion Configuration** menu.

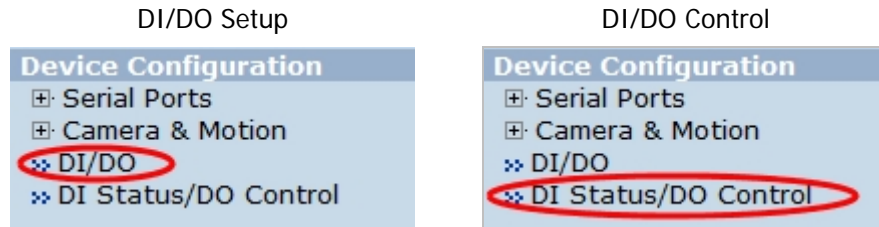


- **Motion Sensitivity:** This value sets how sensitively the motion detection works for the motion detection functionality. It can be between -100 and 100 while 100 is the most sensitive.
- **Motion Detection:** This decided whether the Motion Detection is to be used. If **Enable** is selected, you can set which part of the camera image the Motion Detection does functioning. (Primary Stream only)

After configuration is finished, click **Apply** button to save the setting. If you click **Default** button, the entire configuration will be reset to the original values.

5.4. DI (Sensor Input) / DO (Alarm Output)

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



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.

Note: Make sure the type of the sensor and use it correctly to the type. If a Sensor Input is not used, it must be set to Normal Open Type to avoid a false input.

5.4.1. DI/DO

DI/DO Setup

You can define **Sensor Input Name** and **Alarm Output Name** as you want, which should be up to 31 alphanumeric or up to 15 Unicode characters. After entering the names of Input and Output, click **Apply** button. (* In this model, it is not allowed to select the type of Sensor Input / Alarm Output)

DI/DO Control

These two models have **n** Alarm output port and they act like a push button. When you click **On** button, it is essentially like the push button pressed. When you click **Off** button, it is like the push button not pressed.

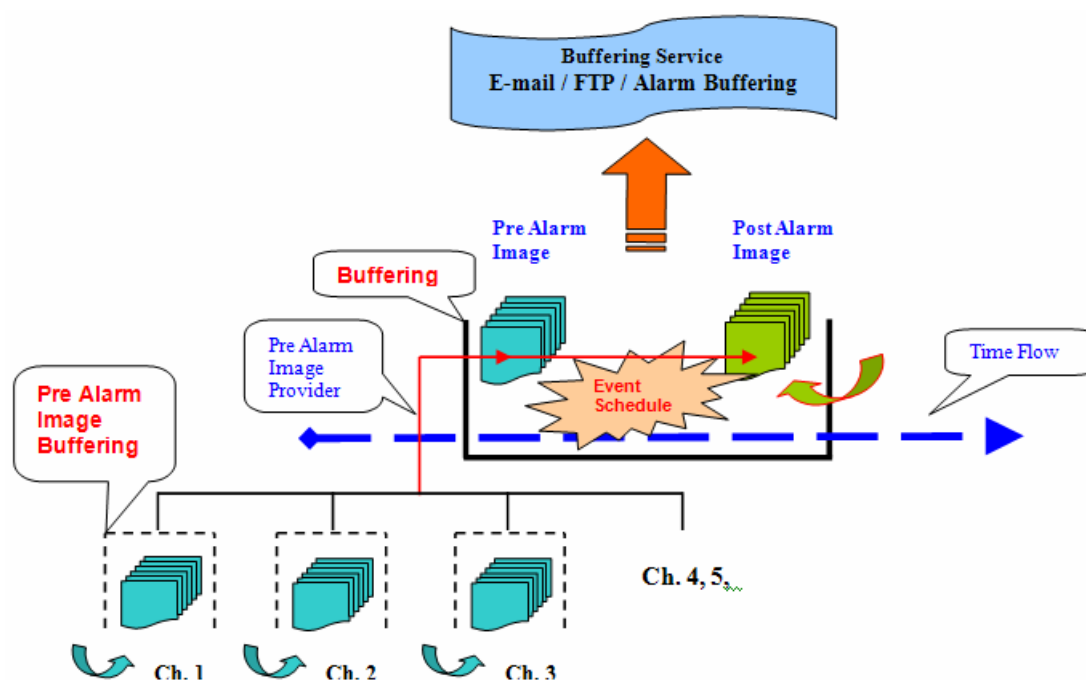
The status of Sensor Input can be monitored through DI. When the checkbox is marked, that means the Alarm is activated. When it's not marked, then the Alarm is not activated.

DI(Sensor Input) / DO(Alarm Output) Setup			DO(Alarm Output) Control	
No	Sensor Input Name	Alarm Output Name	DO(Alarm Output) Port Number	On / Off
1	Di 1	Do 1	1	<div><div>On</div><div>Off</div></div>
No	Sensor Input Type	Alarm Output Type	DI(Sensor Input) Status	
1	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close	DI(Sensor Input) Port Number	1
<div><div>Back</div><div>Apply</div></div>			Check (On)	<input checked="" type="checkbox"/>
			Notice : This is the result of setting "DI/DO" menu.	
			<div><div>Back</div><div>Refresh</div></div>	

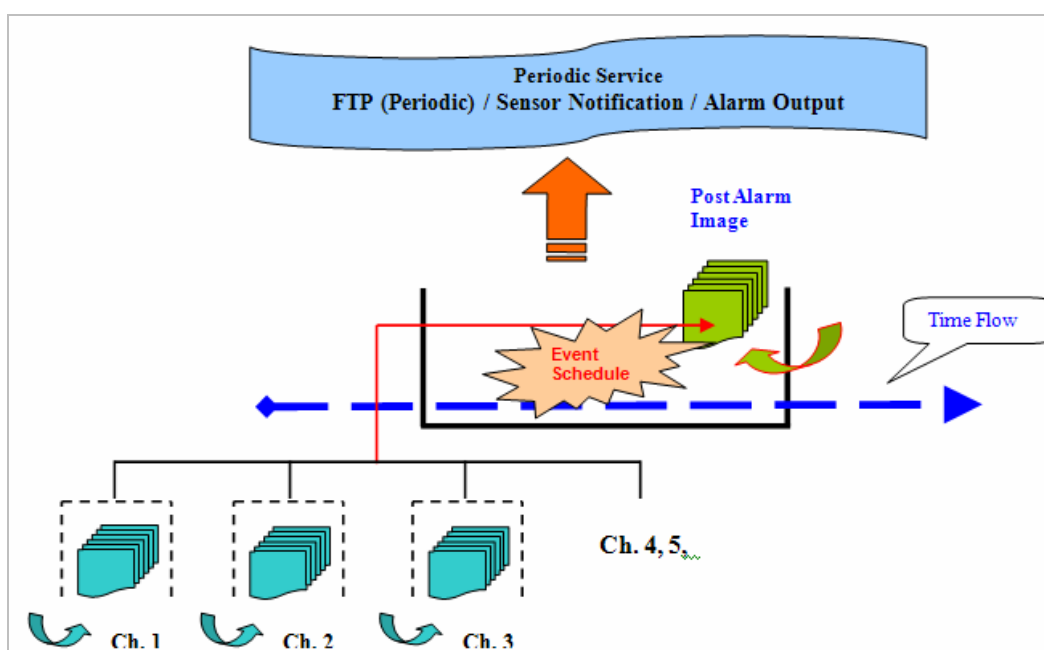
6. Advanced Configuration

Product can be configured to start and stop certain pre-defined services by scheduling, event, or conditions. It also has ISENS feature, which is a way of integrating with CMS software. You can set up the advanced services in **Advanced Configuration** menu.

There are two types of advanced service, one is **Buffered Service** and the other is **Periodic Service**. In Buffered 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.

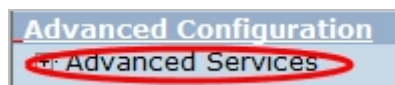


In Periodic Service, only the image, alarm/sensor status after an event/schedule is reported to you upon the server is triggered.



6.1. Advanced Services

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.

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	0 (frames)	0 (frames)	0
Pre-Alarm Speed	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.

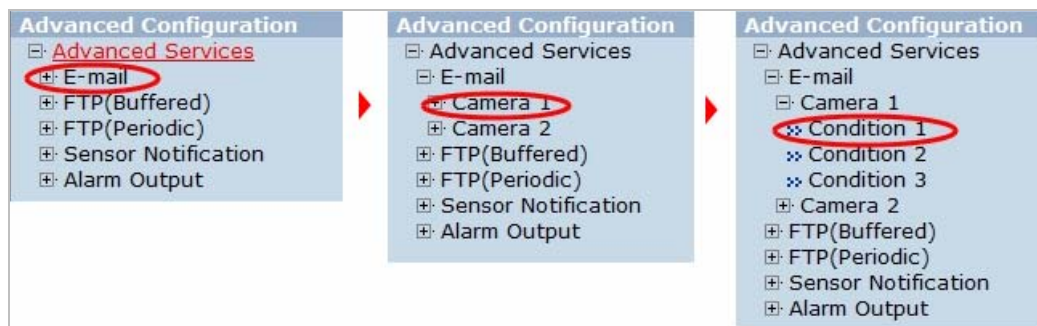
This configuration applies to E-mail and FTP (Buffered), and click **Save** button to apply changes.

❖ E-mail	Configuration of E-mail service to send pre-post alarm images.
❖ FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
❖ FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
❖ Sensor Notification	Configuration to notify sensor status to predefined IP address.
❖ Alarm Output	Configuration of alarm output duration according to service conditions.

- **E-mail:** Set up Email Service configuration
- **FTP (Buffered):** Set up FTP (Buffered) Service configuration
- **FTP (Periodic):** Set up FTP (Periodic) Service configuration
- **Sensor Notification:** Set up configuration such as CGI by notification
- **Alarm Output:** Set up Alarm Output (DO Control) configuration

6.1.1. E-mail Service Configuration

Email configuration is set up here for Alarm in case any event occurs.



E-mail Service Configuration

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

» Camera 1
» Camera 2

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP server address	<input type="text"/>
SMTP Port	<input type="text"/> (Default:25, 0 ~ 65535)
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"/>

Back
Save

Item	Description
Camera 1~2 (max 4)	Select a channel to be configured for email notification
Service	Select Enable in order to use this service
SMTP server address	Enter SMTP server's address for sending email.
Authentication Login	Select Enable if SMTP server requires ID and password
User ID	Enter User ID to log in to SMTP server
Password	Enter Password to log in to SMTP server
Sender	Enter email address of the sender
1st Recipient	Enter the email address of the first recipient
2nd Recipient	Enter the email address of the second recipient
3rd Recipient	Enter the email address of the third recipient

Click **Save** button to apply the change. If you don't want to change, click **Back** button.

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 text 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	5	Post-Alarm Images 5
Pre-Alarm Speed	Select Speed	Post-Alarm Speed Select Speed
Subject	Message From FlexWATCH ![0,0]	

?

Message		Value Format					
		NONE	INT	HEX	BIN	IPA	EVT
1	111	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2	222	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	333	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	444	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Item	Description
Condition 1 ~ Condition 3	Select a condition for Email service to be activated.
Pre-Alarm Buffer Size	The Buffer size assigned for Pre-Alarm.
Check Video buffer	Click this link to go to Advanced Services for 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. Fastest is the highest value.
Subject	Subject of the E-mail message to send.
1	Content of the first line in the email message.
2	Content of the second line in the email message.
3	Content of the third line in the email message.
4	Content of the fourth line in the email message
Value Format	Select the format for the Event or DI data to email. NONE: Don't Send, INT: Decimal, HEX: Hexadecimal, BIN: Binary, IPA: IP Address, EVT: Name of Event

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 checked="" type="radio"/>	Disable <input type="radio"/>				
Select Mode	<input type="radio"/> Always				
	<input checked="" type="radio"/> Schedule Only				
	<input type="radio"/> Event Only				
	<input type="radio"/> Schedule and Event				
Schedule					
<div style="text-align: center;"> Sun Mon Tue Wed Thu Fri Sat Week <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="margin-top: 5px;"> <input checked="" type="checkbox"/> Time (hh:mm) 19 : 46 ~ 19 : 46 </div> <div style="margin-top: 5px;"> <input type="checkbox"/> Date (mm/dd) XX / XX ~ XX / XX </div>					
Event					
		1	2	3	4
Alarm Sensor		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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			
Back Save					

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 Enable to use Condition, otherwise select Disable .
Always	This Condition applies all the time. (Schedule or Event is not usable)
Schedule Only	Use Week, Time, and Date in Condition parameter. If none of weekdays is set, it is activated every day.
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**.

6.1.2. FTP (Buffered) Service Configuration

Advanced Configuration

- ☐ Advanced Services
- ☐ E-mail
- ☒ **FTP(Buffered)**
- ☐ FTP(Periodic)
- ☐ Sensor Notification
- ☐ Alarm Output

FTP(Buffered) Service Configuration

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

※ Camera 1	※ Camera 2
Service	<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	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 Enable to use the FTP (Buffered) service. Otherwise select Disable .
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 Directory Name is checked, new directory is created with server name. If File Name is checked, new file is created with server name.
Weekday	If Directory Name is checked, new directory name is created with weekday. If File Name is checked, new file name is created with weekday.
Month	If Directory Name is checked, new directory name is created with month. If File Name is checked, new file name is created with month.

Day	If Directory Name is checked, new directory name is created with day. If File Name is checked, new file name is created with day.
Hour	If Directory Name is checked, new directory name is created with hour. If File Name 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 Directory Name is checked, new directory is created with camera number. If File Name is checked, new file is created with camera number.

To create a directory with the options shown above, click **Make Directory** button. 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 M-JPEG mode.)

FTP (Buffered) Service Configuration at Camera 1

Advanced Configuration
☐ Advanced Services
☐ E-mail
☐ FTP(Buffered)
☒ **Camera 1**
☐ Camera 2
☐ FTP(Periodic)
☐ Sensor Notification
☐ Alarm Output

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	10 frames	Post-Alarm Images 10 frames
Pre-Alarm Speed	Select Speed ▾	Post-Alarm Speed fastest ▾

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. Fastest is the highest value.

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

6.1.3. FTP (Periodic) Service Configuration

Advanced Configuration

- Advanced Services
 - E-mail
 - FTP(Buffered)
 - FTP(Periodic)**
 - Sensor Notification
 - Alarm Output

FTP(Periodic) Service Configuration

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

[» Camera 1](#)
[» Camera 2](#)

Service	<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	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"/>

Item	Description
Camera 1 - Camera 4	Select which channel to set up for FTP (Periodic) service
Service	Select Enable to use the FTP (Periodic) service. Otherwise select Disable .
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
Sequence Modulo	Maximum number used in sequential file name
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
Overwrite	If checked, new file overwrites the existing file with the same name.
Server Name	If Directory Name is checked, new directory is created with server name. If File Name is checked, new file is created with server name.

Weekday	If Directory Name is checked, new directory name is created with weekday. If File Name is checked, new file name is created with weekday.
Month	If Directory Name is checked, new directory name is created with month. If File Name is checked, new file name is created with month.
Day	If Directory Name is checked, new directory name is created with day. If File Name is checked, new file name is created with day.
Hour	If Directory Name is checked, new directory name is created with hour. If File Name 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 Directory Name is checked, new directory is created with camera number. If File Name is checked, new file is created with camera number.

To create a directory with the options shown above, click **Make Directory** button. 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 M-JPEG mode.)

FTP (Periodic) Service Configuration for each channel

Advanced Configuration
☐ Advanced Services
☐ E-mail
☐ FTP(Buffered)
☐ FTP(Periodic)
☒ **Camera 1**
☐ Camera 2
☐ Sensor Notification
☐ Alarm Output

FTP(Periodic) 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]

Alarm Speed
Select Speed ▼

Back Save

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

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

6.1.4. Sensor Notification Service Configuration

Advanced Configuration

Advanced Services

E-mail

FTP(Buffered)

FTP(Periodic)

Sensor Notification

Alarm Output

Sensor Notification Service Configuration

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

» Input 1

» Input 2

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

Back

Save

Item	Description
Input 1 - Input 4	Select which input to set up for Sensor Notification Service
Service	Select Enable to use Sensor Notification. Otherwise select Disable .
Service Mode	Select network mode for CGI. Select one among 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 or 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** button will cancel the changes and go back to the previous page.

6.1.5. Sensor Notification Service Configuration for Each Input

Advanced Configuration

- Advanced Services
 - E-mail
 - FTP(Buffered)
 - FTP(Periodic)
 - Sensor Notification
 - Input 1**
 - Input 2
 - Alarm Output

Please click below link to configure the service condition.

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

CGI Name
or
Alarm Port Message

Back

Save

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** button will cancel the change and go back to previous page.

6.1.6. Alarm Output Service Configuration

Advanced Configuration

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

Alarm Output Service Configuration

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

Output 1

Service

☐ Enable ☒ Disable

Back

Save

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

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.

6.1.7. Alarm Output Service Configuration for each Output

Advanced Configuration

- Advanced Services
 - E-mail
 - FTP(Buffered)
 - FTP(Periodic)
 - Sensor Notification
 - Alarm Output
 - Output 1**

Alarm Output Service Configuration at Input 1

Please click below link to configure the service condition.

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

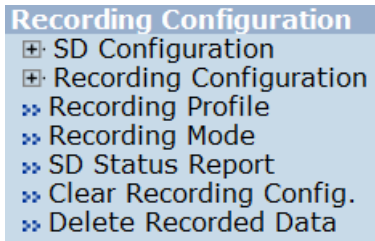
Alarm Output DurationInfinite sec

BackSave

Item	Description
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.

7. Recording Configuration

It is possible to record and search the video data sent from camera if the Server is equipped with a hard disk drive. Recording configuration is available only when a hard drive is up and running in the server. You can format the hard drive, check the information of the drive, and set the recording conditions of motion detection and event.



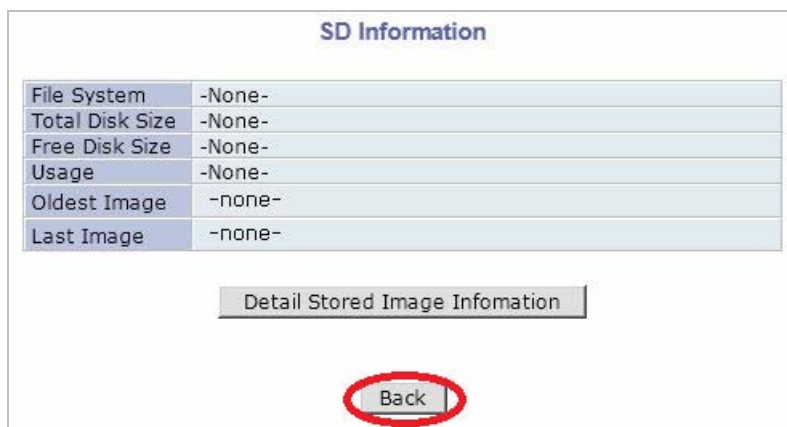
Some versions of network cameras have micro SD slots on the back. Those models can record video if microSD card is present in the slot, which supports 1GB to 32GB.

7.1. microSD Configuration

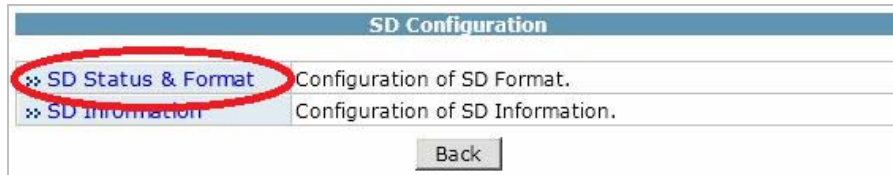
If a microSD card (SD card) is not present in the slot already, turn off the network camera before inserting a SD card. Make sure to turn the power on after inserting the SD card. Open a web browser, type in the IP address of the network camera. Log in as admin, and run **Recording Configuration**.

Note: Be sure to turn off the device before installing a SD card. Otherwise, the SD card may become defective. Always check the recommended type of SD card because non-conforming SD cards can cause abnormal behavior of the system.

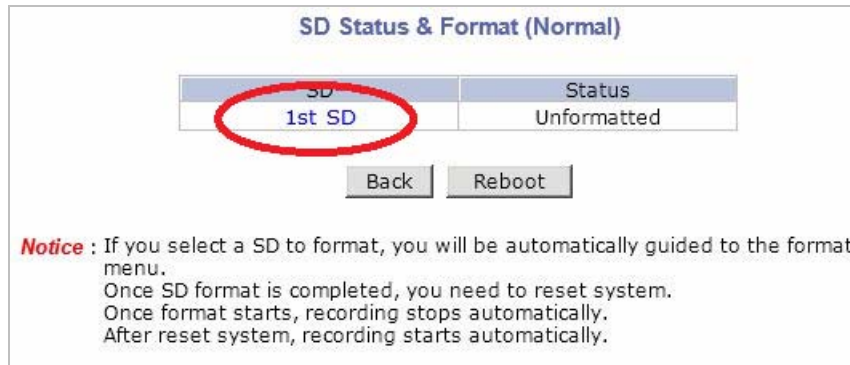
Enter Recording Configuration menu, then click the **SD Information** to find out the SD card's format information.



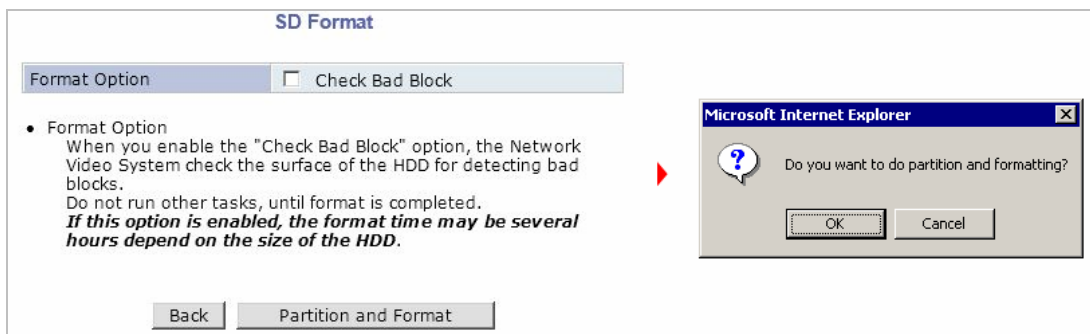
If entire SD Information is shown as **-None-**, that means the SD card is not formatted. In that case, click the **Back** button followed by clicking **SD Status & Format**.



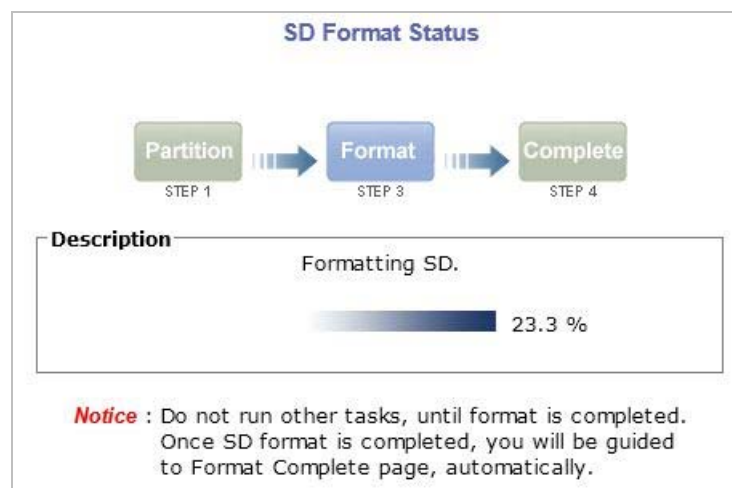
Now you will see the list of SD cards available and whether they are formatted or not. To perform formatting the unformatted one, click the SD card.



Then the following window will be displayed.

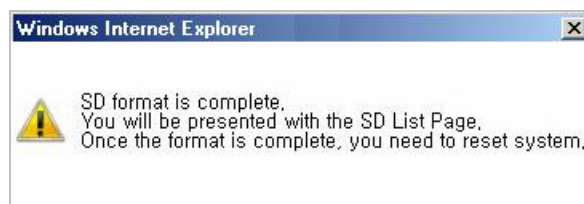


Click the **Partition and Format** button, then a pop-up window will be shown to confirm the formatting. Click the **OK** button to proceed, or click the **Cancel** button to abort the formatting.

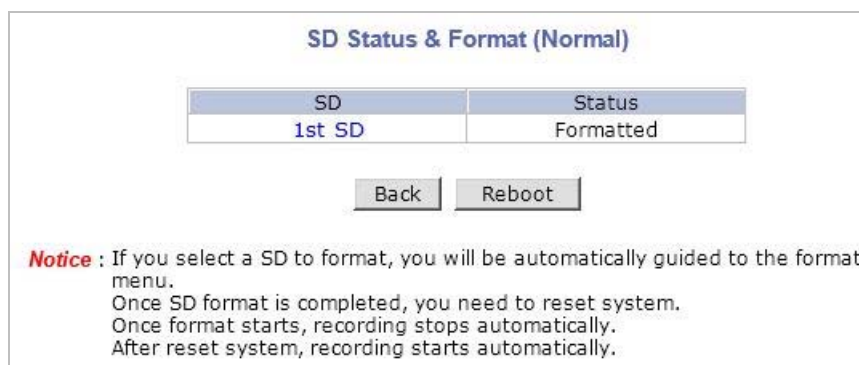


Note: If the program is terminated during the format process, the SD card may be damaged. To avoid this problem, make sure to close the program in the right manner and check the SD card.

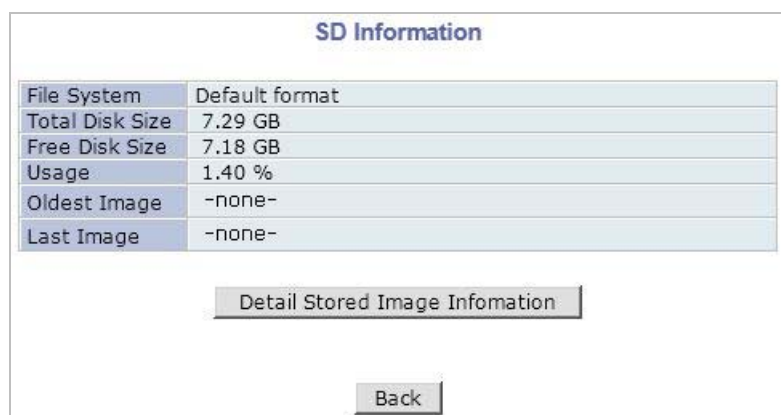
After formatting is finished, the following window will appear informing it. Click the **OK** button.



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



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 server.



7.2. Recording Configuration with microSD Slot

Each camera can be configured for recording option in this section. Configuration items include motion detection recording, 24-hour continuous recording, event-driven recording, and etc. If other vendor's products are added in the previous **IP Devices Registration** section, those cameras' video can be also recorded in your device.

You can find out the list of servers with recording capability by clicking **Recording Configuration**. Below is an example of configuring the motion detection-triggered recording for model. It starts by clicking **Recording Configuration**.

It displays the information of the recording-capable servers such as VS Module ID (IP Devices), Server Name, Server IP Address, Service Port Number, Vendor, Camera Name, and Record ability. To

configure, select a camera according to your need.

Below is the **Recording Configuration** screen when **Camera 1** is selected from Module **ID (IP Devices) 0**, which is attached to the FW5450 device.

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	Camera 1	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 2	Disable

Back

Apply

Status

Recording

Stop

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 **Camera 1**, and it will display the screen for detailed configuration such as recording speed, camera name, Pre- and Post-alarm image speed. After configuring them properly, click the **Save** button to save the change.

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]

	0	1	2	3	4	5	6	7	8	9	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
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"/>

	1	2	3	4
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"/>

Always
 Schedule
 Schedule and Event

Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> 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

Back Save

Item	Description
Condition 1~4	Set the conditions for recording
Graphs for Time, Day of week, Alarm, Motion, Camera Connection	Graphic displays of conditions for recording
Recording Service	Click Enable to record the video. Click Disable 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-Recording Speed	Recording speed before Event. Valid only when Recording condition is set to Always or Schedule .
Pre-Alarm Count	The number of frames stored before Event. Up to 5 frames. Valid only for Event-Driven Recording .
Post-Recording Speed	Recording speed after Event. Valid only when Recording condition is set to Event-Driven Recording .
Post-Alarm Count	The number of frames stored after Event. Up to 5 frames. Valid only for Event-Driven Recording .

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	[Not Used]
❖ Condition 2	[Not Used]
❖ Condition 3	[Not Used]
❖ Condition 4	[Not Used]

Condition 1

Service	Recording
Module ID	0
Camera ID	1
<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
Schedule	
Sun Mon Tue Wed Thu Fri Sat Week <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <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"/>
Event	
	1 2 3 4
Alarm Sensor	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Motion Detection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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

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 Camera & Motion section.
	Camera Connected	Recording is enabled when camera signal is detected.
	Camera Disconnected	Recording is enabled when camera signal is not detected.

Below is an example of configuring the recording condition, which means "Video is recorded if Alarm is activated or Motion is detected, on Saturday and Sunday every week." If time condition is not specified, it is taken as setting 24 hours. If date is not specified, it is taken as setting all the months

and weeks. Click the **Back** button if you want to return to previous page without saving. Click the **Save** button to save the change and return to previous page.

Condition 1

Service	Recording
Module ID	0
Camera ID	1

Enable ☒ **Disable** ☐

Select Mode

☐ Always
☐ Schedule Only
☐ Event Only
☒ Schedule and Event

Schedule

SunMonTueWedThuFriSat

Week

☒ ☐ ☐ ☐ ☐ ☐ ☒

☐ Time (hh:mm)

 : ~ :

☐ Date (mm/dd)

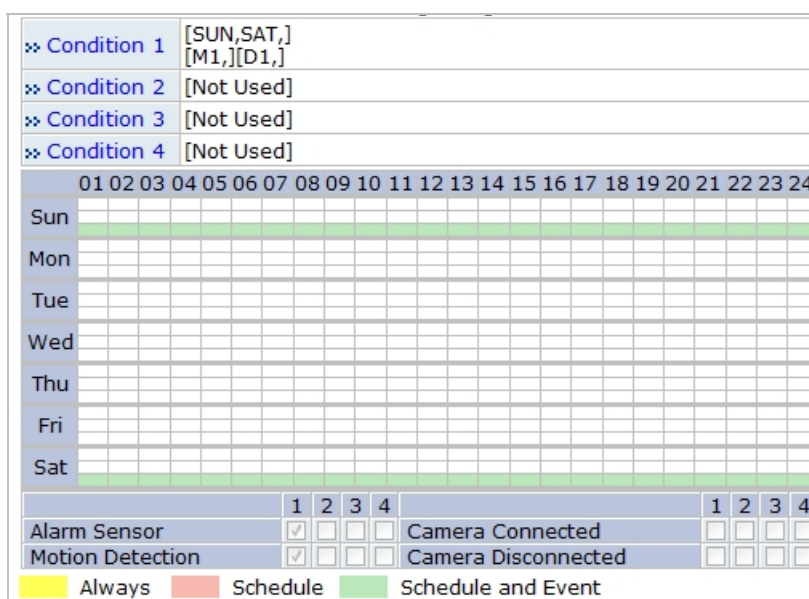
 / ~ /

Event

	1	2	3	4
Alarm Sensor	<input checked="" 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 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"/>

Back
Save

The graph displayed below means "Video is recorded if alarm is activated on Saturday and Sunday."



You need to select **Enable** on **Recording Service** field for recording to be made by recording condition setup. If you want to prevent recording from starting even though recording conditions are configure, select it as **Disable**. It is possible to set the number of video frames to be recorded by setting up a recording condition. You can configure it as shown below.

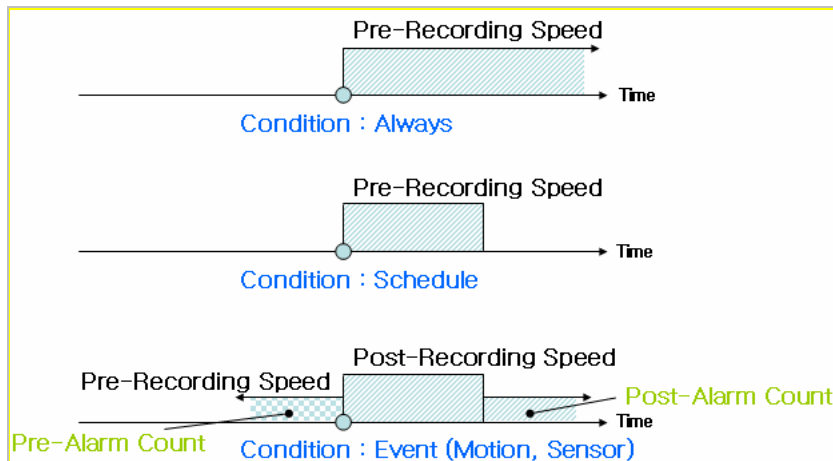
Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
Server Module ID	0	Camera Number	1
Camera Name	Camera 1		
Pre-Alarm Images	5	Post-Alarm Images	5
Pre-Alarm Speed	5.0f/s	Post-Alarm Speed	5.0f/s

Example 1) Recording Condition: **Always, Schedule**

- **Pre-Recording Speed:** 1 fps
- **Pre-Alarm Count:** 5
- **Post-Recording Speed:** 10 fps
- **Post-Alarm Count:** 5
- Since the recording condition is Always and Schedule, Pre-Recording Speed is in effect. So the recording speed is 1 fps. Other values don't affect the recording.

Example 2) Recording Condition: **Motion, Sensor**

- **Pre-Recording Speed:** 1 fps
- **Pre-Alarm Count:** 5
- **Post-Recording Speed:** 10 fps
- **Post-Alarm Count:** 5
- Post-Recording Speed is in effect. So the recording speed is 10 fps when Motion is detected. Also, Pre-Recording Speed is in effect, so image is stored by Pre-Alarm Count setting. So 5 images will be recorded before Motion is detected (speed: 1 image per second). After Motion Detection (or Sensor) is over, Post-Recording Speed becomes in effect now, so only 5 images out of 10 will be stored afterwards. That means that the images captured until 0.5 second after Post-Alarm images are stored.



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** button to apply the change and return to previous screen.

Recording Configuration (VS Module ID 0, Camera 1)

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

» 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

Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Server Module ID	0	Camera Number 1
Camera Name	Camera 1	
Pre-Alarm Images	5	Post-Alarm Images 5
Pre-Alarm Speed	5.0f/s	Post-Alarm Speed 5.0f/s

Now you will notice that the Recording Configuration is made. If the video is already being recorded, the status will display **Recording**. You need to click the **Apply** button in this case. 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.

Once recording has been started, the Status field will change to **Recording**. From that point on, when the conditions meet the setup value in recording condition, the video will be recorded to the MicroSD.

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	Camera 1	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 2	Disable

Back

Apply

Status

Recording

Stop

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.

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

7.3. View Recording Profile

When it's needed to check recording configurations which have been made to each camera, it may take quite some time to go through the menu tree. In this case, you can get the overview of the recording configuration by clicking **View Recording Profile** on the menu.

To view the recording profile, click **Recording Profile**. It will display a pop-up window that shows the recording configuration in one screen.

Recording Profile

Server	Camera	REC. Config.	Status	Start Date		End Date		Start Time		End Time		Sun	Mon	Tu
				Month	Day	Month	Day	Hour	Min	Hour	Min			
Built-in Module 0 (Built-in Module 0)	Camera 1	Disable	<input type="checkbox"/>	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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	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	<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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

7.4. Recording Mode

In this part, you can decide which action to take in case the MicroSD capacity becomes full during recording video. To configure, click **Recording Mode** on the menu. The following will be displayed.

Recording Mode

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

☐ Pause at full

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

Now you are to choose the action between two options. If you want the Server to keep recording without interruption, select **Circulation**. In this setting, the oldest file in MicroSD will be deleted first to make space for new video. If you want the Server to stop recording and let you to replace the MicroSD, click **Pause at full** and then select **Pause at Full**.

- **Circulation:** The base file size for video is 630 Mbytes in MicroSD. So every time the MicroSD is out of space, it will delete the oldest 630 Mbytes file to make space.
- **Pause at full:** When the MicroSD is out of space, it will stop recording and display STOP status. The capacity information of a MicroSD can be sent to you by email, so you can be aware of the MicroSD capacity information before it's full.
-

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 chosen to use, 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 since the 3 days ago will be kept.

7.5. MicroSD Status Report

If it is configured here, the capacity information of MicroSD can be sent by email. This feature is very useful when **Recording Mode** is set to **Pause at full**, so that you can prevent a service interruption by full MicroSD.

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	<div style="display: flex; justify-content: space-around; font-size: small;"> SUNMONTUEWEDTHUFRISAT </div> <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> </div>
Time (hh:mm)	<input type="text" value="00"/> : <input type="text" value="00"/>
SD Error Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

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

Now enter the email addresses to receive the email and the contents of the notification.

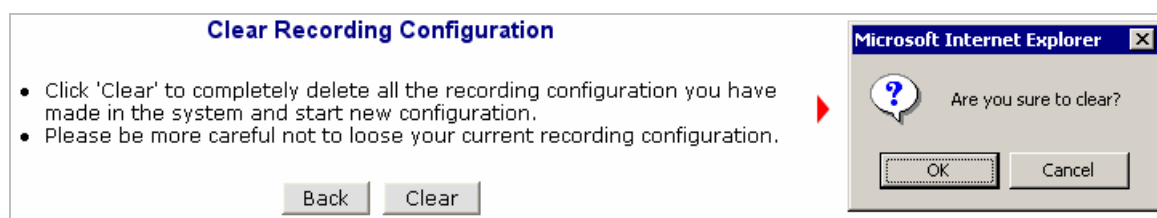
SMTP Server	<input type="text" value="kornet.net"/>
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	<input type="text" value="abcd"/>
Password	<input type="text" value="*****"/>
Sender	<input type="text" value="dhhong@seyeon.co.kr"/>
1st Recipient	<input type="text" value="seyeon@hanmail.net"/>
2nd Recipient	<input type="text" value="flexwatch@shinbiro.com"/>
3rd Recipient	<input type="text" value="fw5440@hotmail.com"/>
===== User-Defined Message =====	
<input type="text" value="It is necessary to disk space confirmation."/>	
<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 Enable 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	Email addresses of the recipients (up to 3 persons).
2nd Recipient	
3rd Recipient	
User Defined Message	Contents of the message to add in the notification.

7.6. Clear Recording Configuration

This feature is useful when there are configurations for multiple cameras and you want to clear them all. It'd take quite a time to delete them one by one. You can clear all the contents of Recording Configuration in a single step.

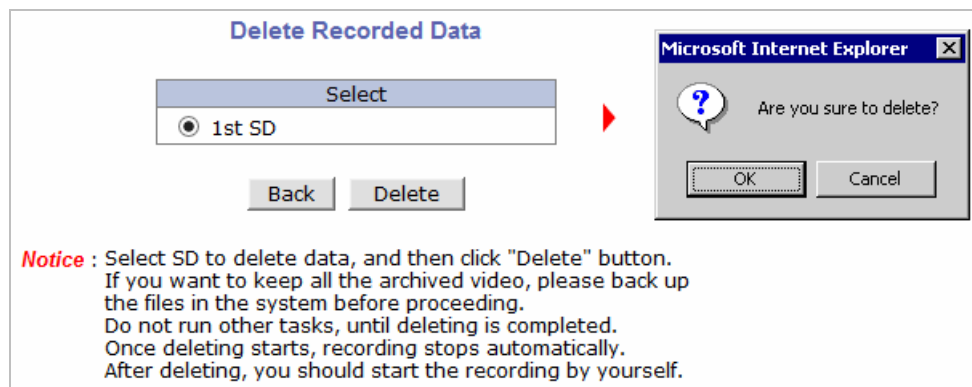
Click **Clear Recording Config** on Recording Configuration menu. Click **Clear** button, and a confirmation window will be displayed as below. Click **OK** button, then all the Recording Configuration data will be deleted from the server.



7.7. Delete Recorded Data

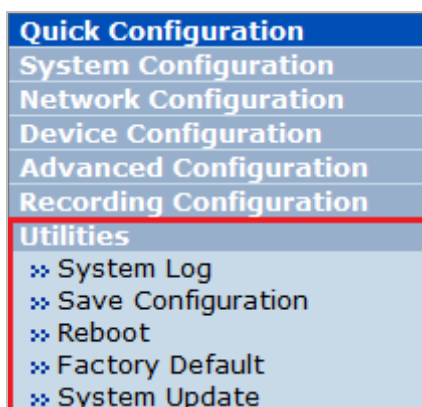
All the stored video data will be deleted with this feature. Click **Delete Recorded Data** on Recording Configuration menu. The following will be displayed. Select the MicroSD to be deleted, and click **Delete** button. A confirmation window will be displayed as below. Click **OK** button to delete all the

stored video data.



8. Utilities

In **Utilities** part of the Admin menu, you can view the system log file, save the changed value during the configuration, reboot, restore the factory default condition, and update the system.



8.1. System Log

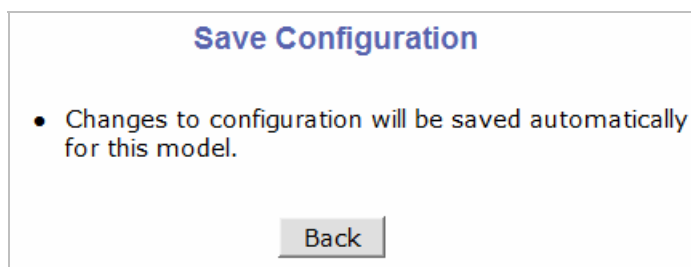
System log file provides you the information about when and who access the contents of Server such as HTTP file or CGI programs. In each line, log data consists of date, time, category, IP address, user ID logged in.

Day of Week	Month	Day	Hour:Minute:Second	Year	Category	IP Address	User ID
System Log							
Wed	Nov	25	14:20:09	2009	Live	10.10.227.1	root
Thu	Nov	26	09:33:18	2009	Admin	10.10.227.1	root
Thu	Nov	26	11:48:45	2009	Home	10.10.231.1	(null)
Thu	Nov	26	11:48:52	2009	Live	10.10.231.1	root
Thu	Nov	26	11:49:02	2009	Admin	10.10.231.1	(null)
Thu	Nov	26	11:49:05	2009	Admin	10.10.231.1	root
Thu	Nov	26	11:50:59	2009	Home	10.10.231.1	(null)
Thu	Nov	26	11:50:59	2009	Home	10.10.231.1	(null)
Thu	Nov	26	11:51:10	2009	Admin	10.10.231.1	(null)
Thu	Nov	26	11:51:12	2009	Admin	10.10.231.1	root
Thu	Nov	26	11:56:52	2009	Live	10.10.231.1	root
Thu	Nov	26	11:56:53	2009	Live	10.10.231.1	root
Thu	Nov	26	13:29:55	2009	Home	10.10.231.1	(null)
Thu	Nov	26	13:30:00	2009	Live	10.10.231.1	root
Thu	Nov	26	13:30:04	2009	Admin	10.10.231.1	root
Thu	Nov	26	13:32:37	2009	Live	10.10.231.1	root
Thu	Nov	26	13:32:38	2009	Live	10.10.231.1	root
Thu	Nov	26	13:38:02	2009	Home	10.10.213.91	(null)
Thu	Nov	26	13:38:07	2009	Live	10.10.213.91	root
Thu	Nov	26	13:38:19	2009	Admin	10.10.213.91	(null)
Thu	Nov	26	13:38:25	2009	Admin	10.10.213.91	root
Thu	Nov	26	13:39:24	2009	Live	10.10.213.91	root
Thu	Nov	26	13:39:25	2009	Live	10.10.213.91	root
Thu	Nov	26	15:05:56	2009	Home	10.10.221.5	(null)
Thu	Nov	26	15:06:32	2009	Live	10.10.221.5	root
Thu	Nov	26	16:46:27	2009	Home	10.10.227.1	(null)
Thu	Nov	26	16:46:35	2009	Live	10.10.227.1	root
Thu	Nov	26	16:52:14	2009	Live	10.10.227.1	root
Thu	Nov	26	16:52:14	2009	Live	10.10.227.1	root

8.2. Save Configuration

After setting up Server, it is recommended to make sure by saving the changes in Flash Memory in the system. To save all the changes made during configuration, first click on **Save Configuration** on Utilities

menu. The confirmation screen will be displayed as shown below. Click **Save Configuration** button to finalize the action, otherwise click **Back** button to cancel it.

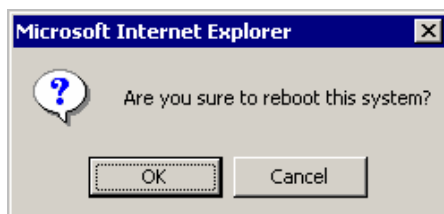


In some models which automatically save the configured contents, **Save Configuration** button will not be displayed.

8.3. 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 is only to confirm closing of web browser that Server is on. 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 Server until the rebooting is finished.



When choosing a total system reset with us, too.

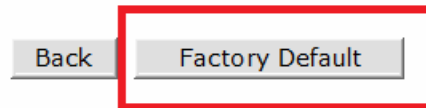
8.4. Factory Default

Whenever it is required to restore the configuration of Camera setup to factory default condition, you can do it here. Network configuration is not affected by this action.

Click **Factory Default** on Utilities menu. A confirmation screen will be displayed as shown Click **Factory Default** button, otherwise click **Back** button to cancel it. The second confirmation screen will appear. Click **OK** button to restore the factory default condition right away. If you click **Cancel**, web browser will go back to the previous screen without any change made.

Factory Default

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



: Click the Factory Default button to go back to default PTZ Factory settings.

(Motion Clear, Dome Setting, Camera Data will be initialized.)

=> After the process, reboot button will appear.

8.5. System Update

Server's system program and data are stored in Flash memory, and it consists of Kernel Image, RAM Disk Image, System Image, and Web Image. In order to update the system of the server, you should have proper image files ready in your PC.

Click **System Update** on Utilities menu, then the following window will be displayed. From the Start buttons displayed, choose the one that meets your needs.

A screenshot of the "System Update" window. It features a list of update options on the left and "Start" buttons on the right, all enclosed in a red border. Below the list is a "Back" button. At the bottom, there are two sections: "System Information" and "Flexible Extra System Information", each containing a table with system details.

System Information	
Mac Address (S/N)	00:30:6F:00:4D:93
Firmware version	4.10-06
Webimage version	4.10-06

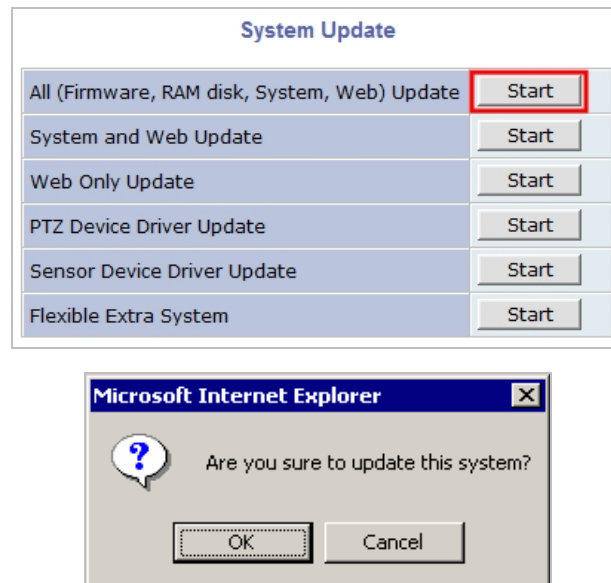
Flexible Extra System Information	
System	Aloha
Version	2.01.0000

- **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.

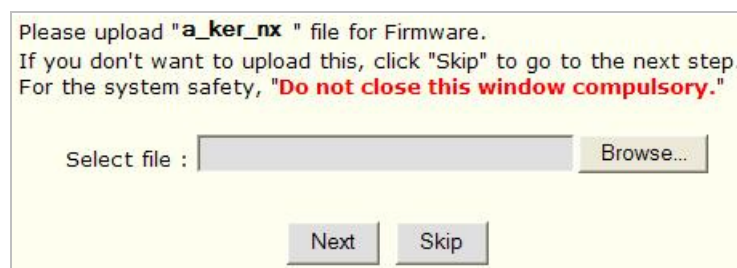
8.5.1 All (Kernel, RAM disk, System, Web) Update

Click the **Start** button next to **All (Firmware, RAM disk, System, Web) Update** item on the menu, and a confirmation window will appear. Click **OK** button to proceed the update, otherwise click **Cancel**.



Note: If your web browser's pop-up blocker is enabled, your PC may not display the confirmation window above. In that case, the pop-up blocking feature of the web browser should be disabled for system update to be completed.

In the next window, enter the location of the Firmware Image file to update with. You can use the **Browse** button to navigate the directories in your PC to find the file. Once the image file is selected, click **Next** button to proceed. You can cancel the update by clicking **Skip** button.



Now you can check the file name and the size in the new window. If you want to go back to the previous stage, click the **Previous** button. Click the **Next** button to update the firmware right away and proceed to next stage. If you want to stop the update process, click the **Cancel** button.

Please click "Next" and wait for a while.
(It will take a few seconds.)
After procedure is completed, you will go to the next step.

If you click "Cancel", this system will reboot.
For the system safety, **"Do not close this window compulsory."**

File Information	
File Name	a_ker_nx-4.04
File Size	1188 KB

Previous **Next** Cancel

The next window is for locating the RAM Disk Update file.

Please upload "a_rfs_n1.gz" file for RamDisk.
If you don't want to upload this, click "Skip" to go to the next step.
For the system safety, **"Do not close this window compulsory."**

Select file : Browse...

Previous Next Skip

Go through the same steps as in Firmware Update, and do the same in update process for **System and Web Update** files.

After all the update processes are finished, the window for **Factory Default** is displayed. If there was no problem in the entire update processes and you want to continue, click **Next** button. If you're not sure about the system update, you can restore the Factory Default condition by clicking **Factory Default** button.

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

To retain settings, click the "Next" button.

Next Factory Default

Now the final confirmation window will appear. Click **Reboot** button and the system will reboot.

This command will reset this system. All connections will be disconnected and Network Video System can not monitor your site within several seconds.

You should reboot this system.

After reboot, restart your browsers!!

Reboot!!

8.5.2 System and Web Update

Click the **Start** button next to **System and Web Update** item on the menu, and a confirmation window will appear. Click **OK** button to proceed the update, otherwise click **Cancel**.

Go through the same steps as in **All Update** process (Kernel and RAM Disk updates are not made here). After update is done, click **Reboot** to start the system over.

8.5.3 Web Only Update

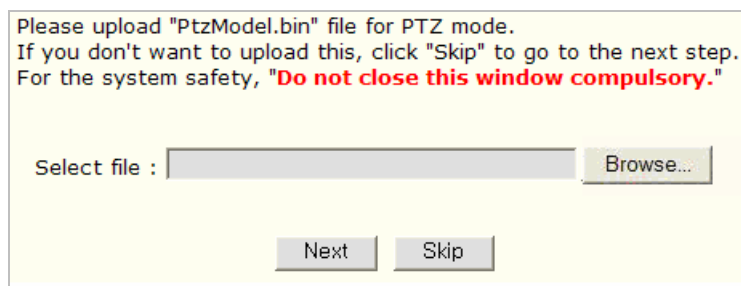
Click the **Start** button next to **Web Only Update** item on the menu, and a confirmation window will appear. Click **OK** button to proceed the update, otherwise click **Cancel**. The rest of the process is the same as in **All Update** part. After update is done, click **Reboot** to start the system over.

8.5.4 PTZ Device Driver Update

When adding a new PTZ model that doesn't have a proper driver found in Server, it is required to install a driver for the PTZ function. The name of the file used in update process is **a_sys_ds-xxx_xx.tar**.

Click the **Start** button next to **PTZ Device Driver Update** on the menu, and a confirmation window will appear. Click **OK** button to proceed the update, otherwise click **Cancel**. The rest of the update process is the same as in **All Update** part.

It displays the window that requests to enter the location of the PTZ Device Image file. The upper right corner of the window shows the progress of current update.

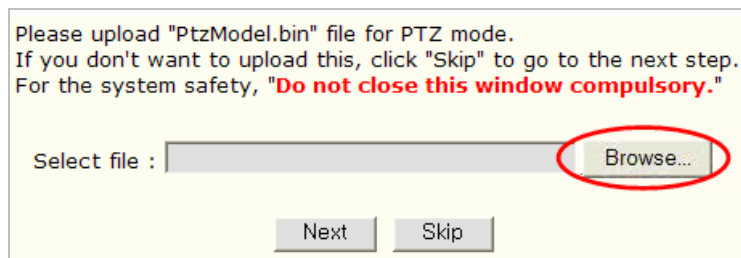


Please upload "PtzModel.bin" file for PTZ mode.
If you don't want to upload this, click "Skip" to go to the next step.
For the system safety, **"Do not close this window compulsory."**

Select file :

Using **Browse** button, locate the **a_sys_ds-xxx-xx-ds.tar** file from your PC.

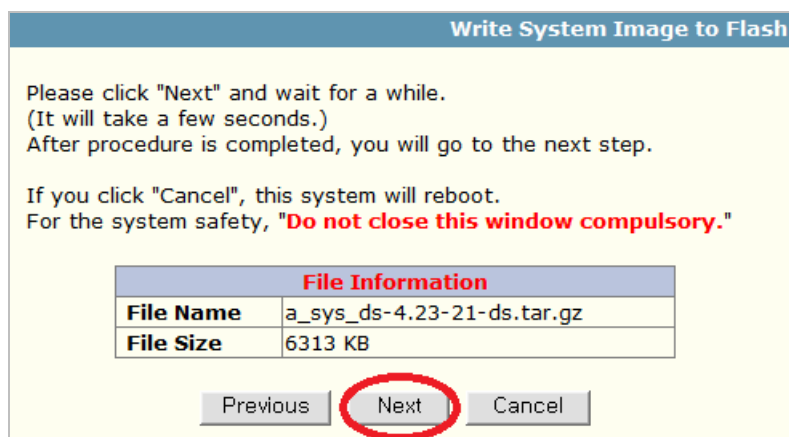
Note: If your web browser's pop-up blocker is enabled, the PC may not display the confirmation window above. In that case, the pop-up blocking feature of the web browser should be disabled for system update to be completed.



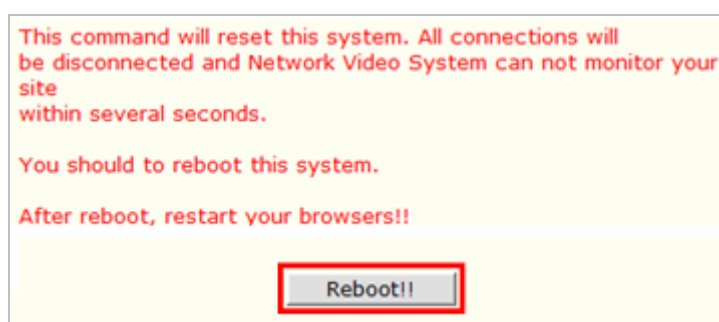
Please upload "PtzModel.bin" file for PTZ mode.
If you don't want to upload this, click "Skip" to go to the next step.
For the system safety, **"Do not close this window compulsory."**

Select file :

Click **Next button** to continue with the file. If **Skip** button is clicked, it will go to the next step without updating PTZ Device Image. If **Next** button was clicked in the previous step, you'll see the window displaying the file name and size.



Now the update process is finished and the window for rebooting will be displayed. Click **Reboot** button to start the server over.



8.5.5 Sensor Device Driver Update

When adding a new Sensor device that doesn't have a proper driver found in Server, it is required to install a driver for it. The name of the file used in update process is **xxx.bin**.

Click the **Start** button next to **Sensor Device Driver Update** on the menu, and a confirmation window will be shown. Click **OK** button to proceed the update, otherwise click **Cancel**. The rest of the update process is the same as in **PTZ Device Driver Update** part.

8.5.6 Flexible Extra system

Flexible Extra system is an integrated system combining Server's video with external devices. Examples of the external devices can be entry control equipment, POS terminal, intelligent video analyzer, GPS terminal, dust density monitor, license plate recognition system, and so on.

The files required for updates can be different in each case, but usually consists of a system file and a configure file.

Click the **Start** button next to **Flexible Extra System** on the menu, and a confirmation window will appear. Click **OK** button to proceed the update, otherwise click **Cancel**.

In the next window, enter the location of the System Image file to update with. You can use the **Browse** button to navigate the directories in your PC to find the file.

Once a System image file is selected, click **Next** button to proceed. If you click **Skip**, you will skip this step, and move to the next step. If you click **Go to Config Edit** button, it will go to the stage where you can edit the configuration file.

Please upload " **fes_sys** " file for FES System.
 If you don't want to upload this, click "Skip" to go to the next step.
 For the system safety, "**Do not close this window compulsory.**"

Select file :

Now you can check the file name and the size in the new window. If you want to go back to the previous stage, click **Previous** button. Click **Next** button to update the System Image right away and proceed to next stage. If you want to stop the update process, click **Cancel** button.

Please click "Next" and wait for a while.
 (It will take a few seconds.)
 After procedure is completed, you will go to the next step.

If you click "Cancel", this system will reboot.
 For the system safety, "**Do not close this window compulsory.**"

File Information	
File Name	fes_sys_pos-Aloha.tar.gz
File Size	39 KB

Now the window to locate the Config Image file is displayed. Select a file after clicking **Browse** button. Click **Next** button to move to the next stage. If **Previous** button is clicked, it will go back to the file selection step. If **Skip** button is clicked, it will go to the next step without updating the file.

Please upload " **fes_1st_cfg** " file for 1st FES Config.
 If you don't want to upload this, click "Skip" to go to the next step.
 For the system safety, "**Do not close this window compulsory.**"

Select file :

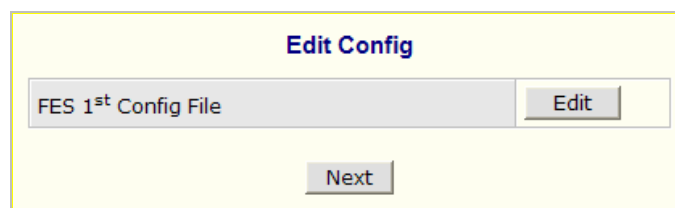
Check the file name and the size of Config Image file. If **Previous** button is clicked, it'll go back to start of file locating stage. If **Next** button is clicked, the update process will be done and go back to the next stage. If you want to stop the update, click **Cancel** button.

Please click "Next" and wait for a while.
 (It will take a few seconds.)
 After procedure is completed, you will go to the next step.

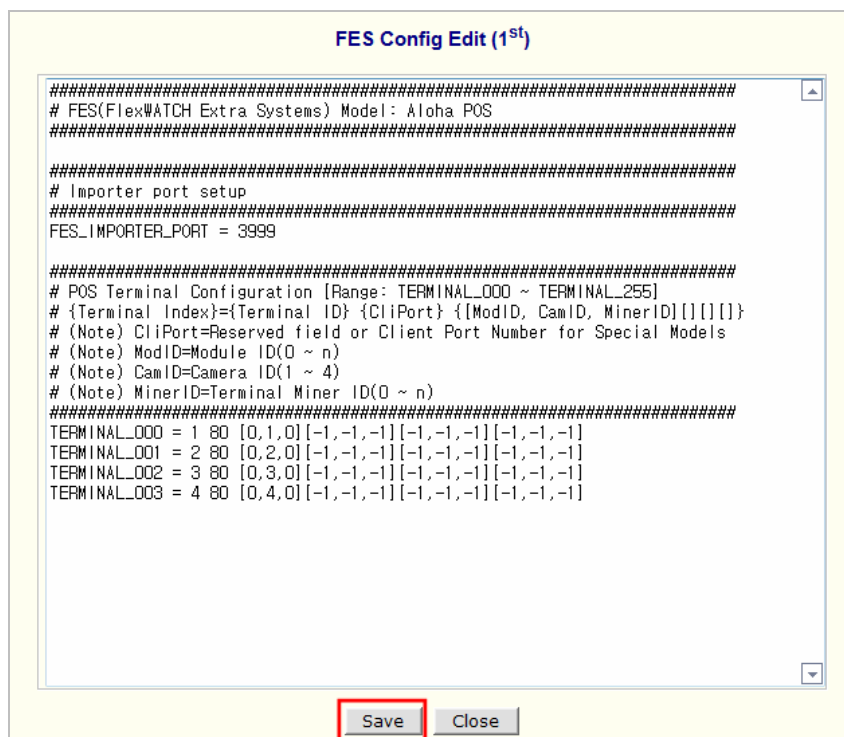
If you click "Cancel", this system will reboot.
 For the system safety, "**Do not close this window compulsory.**"

Please overwrite !!	
File Name	fes_1st_cfg_pos-import.conf
File Size	1 KB

After finishing all the update process, it displays a window for editing the configuration file.



If you click **Edit** button, now you can edit the Config file after clicking Edit button which is found on the right of the file name.



Click **Save** button to save the Config file. Click **Close** button to close the editing window.

If you click **Next** button, a window for rebooting is displayed. Click **Reboot** button, and the system will start over.

