

Costar Video[®] Web Admin User's Manual

Version 4.12
October 10, 2011

Costar Video Systems, LLC

www.costarvideo.com



Costar
VIDEO SYSTEMS

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Costar Video® Admin User's Manual

Document Version: 4.12

Revised: October 10, 2011

About This Document

This document is prepared for users of Costar Video products supplied by Costar Video Systems, LLC. It is assumed that the users are familiar with network equipment such as LAN, Hub, router, and having basic knowledge of network terminologies. If you have any questions regarding network installations, please contact your network equipment vendor or network administrator or Internet service providers.

For updated contents, detailed features and other applications from Costar Video, please refer to the user's manual in CD-ROM provided with the product you purchased, or visit Costar Video's website at www.costarvideo.com.

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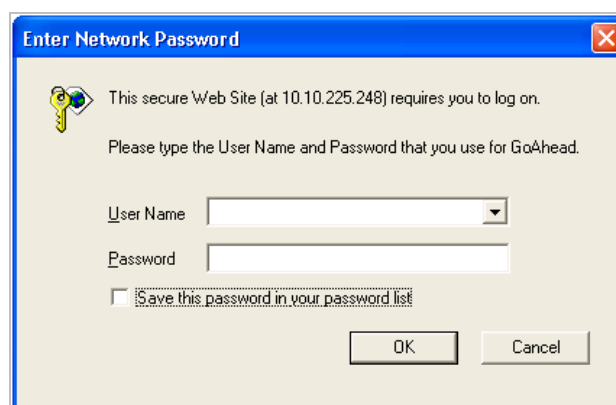
1. Admin Menu of Costar Video Servers

After connecting to a Costar Video 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 Costar Video Server you're connecting to.

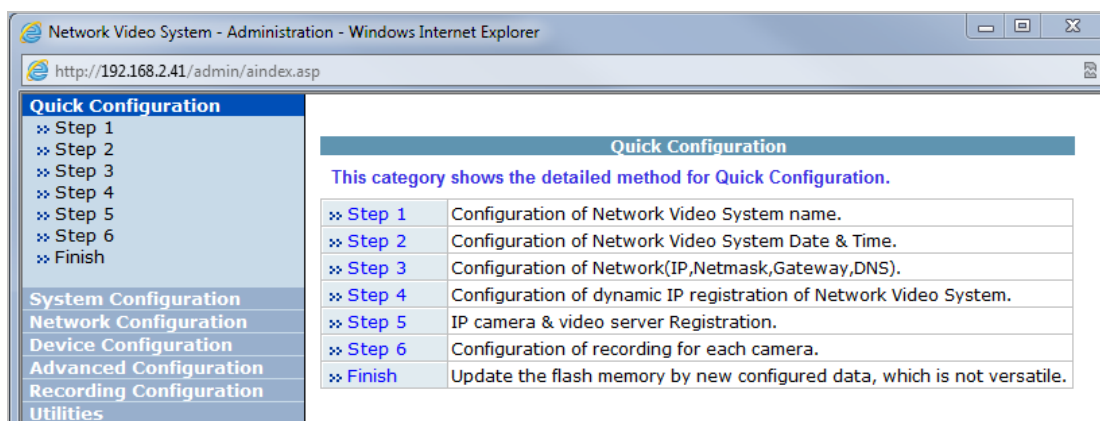


1.1. Entering Admin Menu

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		
	Step 6		
	Finish		
System Configuration	Server Name Setup	n/a	n/a
	Date & Time		
	Admin. Password		
	Access Control		
	User Registration		
	IP Devices Registration	IP Device 0 ~ 15	
Network Configuration	Network Configuration	n/a	n/a
	Network Ports		
	Bandwidth Control		
	View Network Status		
	Network Status Notify		
	IP-CCTV DNS™		
	Port Forwarding & UPnP		
Device Configuration	Serial ports	Serial Input Mode Serial Output Mode Transparent Mode	n/a

		PTZ Mode	Built-in module 0 Built-in module 1
	Built-in module 0 (FW-3450/5470)	Camera & Motion	Camera 1 Camera 2 Camera 3 Camera 4
		DI/DO DI Status / DO Control	n/a
	Built-in module 1 (FW-3850/5850/5870)	Camera & Motion	Camera 1 Camera 2 Camera 3 Camera 4
		DI/DO DI Status / DO Control	n/a
Advanced Configuration	Advanced Services (Network cameras)	E-mail FTP(Buffered) FTP(Periodic) Sensor Notification Alarm Output	Camera 1 Camera 2
	Built-in module 0 (FW-3450/5470)	E-mail FTP(Buffered) FTP(Periodic) Sensor Notification Alarm Output	Camera 1 Camera 2 Camera 3 Camera 4
	Built-in module 1 (FW-3850/5850/5870)	E-mail FTP(Buffered) FTP(Periodic) Sensor Notification Alarm Output	Camera 1 Camera 2 Camera 3 Camera 4
Recording Configuration	HDD Configuration	HDD Status & Format HDD Information	n/a
	Recording Configuration	Built-in Module 0 Built-in Module 1 (registered cam)	Camera 1 Camera 2 Camera 3 Camera 4
	Recording Profile	Server Module 0 Recording configuration	Camera 1 Camera 2 Camera 3 Camera 4
	Recording Mode	n/a	n/a
	HDD 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.

Quick Configuration

- » Step 1
- » Step 2
- » Step 3
- » Step 4
- » Step 5
- » Step 6
- » Finish

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 **11** 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 **11** 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 **18** to see how to set up.

2.4. Step 4: IP-CCTV DNS

When Costar Video 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 **24** to see how to set up.

2.5. Step 5: IP Devices Registration for FW-NVR series

You can add any of NVS (Network Video Server) and NCS (Network Camera Server) to NVR (Network Video Recorder) devices as a remote server device. See the section **3.6 IP Devices Registration** in page **15** to see how to set up.

2.6. Step 6: Recording Configuration for FW-NVR series

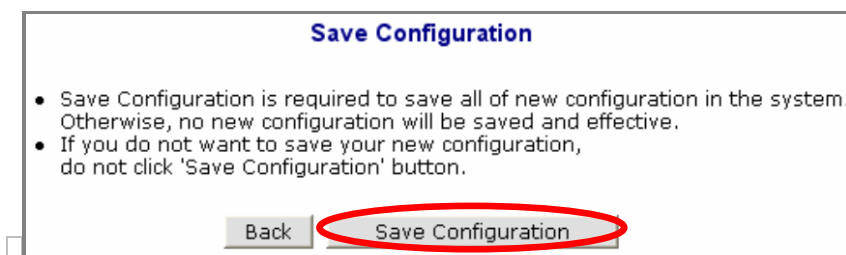
Each camera can be configured for recording option in this section.

See the section **7.3 Recording Configuration for FW-5050/5071/5450/5850/5870 NVR series** in page **79** for detail.

2.7. Finish

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

Click **Save Configuration** button. This will write the new settings to the system's flash memory. If you don't want to save them, 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 » IP Devices Registration Network Configuration Device Configuration Advanced Configuration Recording Configuration Utilities	<table border="1"> <tr> <th colspan="2">System Configuration</th></tr> <tr> <td colspan="2">This category shows the detailed method for System configuration.</td></tr> <tr> <td>» Server Name</td><td>Configuration of Network Video System name.</td></tr> <tr> <td>» Date & Time</td><td>Configuration of Network Video System Date & Time.</td></tr> <tr> <td>» Admin. Password</td><td>Change administrator's password.</td></tr> <tr> <td>» Access Control</td><td>Configuration to allow other users.</td></tr> <tr> <td>» User Registration</td><td>Add, Edit, Delete User ID & Password.</td></tr> <tr> <td>» IP Devices Registration</td><td>IP Devices Registration.</td></tr> </table>	System Configuration		This category shows the detailed method for System configuration.		» Server Name	Configuration of Network Video System name.	» Date & Time	Configuration of Network Video System Date & Time.	» Admin. Password	Change administrator's password.	» Access Control	Configuration to allow other users.	» User Registration	Add, Edit, Delete User ID & Password.	» IP Devices Registration	IP Devices Registration.
System Configuration																	
This category shows the detailed method for System configuration.																	
» Server Name	Configuration of Network Video System name.																
» Date & Time	Configuration of Network Video System Date & Time.																
» Admin. Password	Change administrator's password.																
» Access Control	Configuration to allow other users.																
» User Registration	Add, Edit, Delete User ID & Password.																
» IP Devices Registration	IP Devices Registration.																

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 Costar Video Server, server name, MAC address (serial number), firmware version, and Webimage version.

Server Name Setup

Product model name	FW5870-VR-C
Server name	<input type="text" value="FW-5870"/>
Mac Address (S/N)	00:30:6F:00:4D:93
Firmware version	4.10-06
Webimage version	4.10-06

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)	2011 / 10 / 26
Time (hh:mm:ss)	23 : 24 : 30
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 server time	Get NTP server time
<input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Refresh"/>	
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 Costar Video® 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"/>
<input type="button" value="Back"/> <input type="button" value="Apply"/>	
Notice : The password must be alphanumeric, within 4 ~ 23 characters.	

Default ID for admin account is fixed as "**root**" and not allowed to change. In **Old Password** field, enter the current password. In both **New Password** and **Confirm Password** fields, enter the same new password. The password must be between 4 and 23 alphanumeric letters. Click **Apply** 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 Costar Video Server is lost now. You will have to reconnect to the Costar Video server using new password.

3.4. Access Control

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

Access Control Configuration

Access Permission

☒ Full Access (View and control camera & audio without permission)
☐ Limited Access (In accordance with an user's permission)

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 Costar Video Server here. Once registered as **Limited Access** setting, the user can access the Costar Video 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.

User Registration (Add)

☒ **Add**
☐ Edit
 ☐ Delete

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

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 Costar Video server.

System Resource Access Permission

☒ All Channels Access
☐ General Access (only live viewing access)
☐ No Access
☐ 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.

Costar Video 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 Costar Video® 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 UserId**, 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**.

User Registration (Delete)

Add ☐ Edit ☐ **Delete ☒**

UserID (GroupID)
test

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

3.6. IP Devices Registration

In this section, you can add NVS (Network Video Server) and NCS (Network Camera Server) to the NVR (Network Video Recorder) as remote server devices. You can delete them from the server as well.

IP Devices Registration
(ADD IP camera or video server)

Please **click Video server module ID** to add IP device(IP camera or video server). ?

IP Devices Registration					
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Model
0	FW1173DS	10.10.100.1	80	FlexWATCH	2 Channels
1	FW1173MM	10.10.100.3	80	FlexWATCH	2 Channels
2		-		None	
3		-		None	
4		-		None	
5		-		None	
6		-		None	
7		-		None	
8		-		None	
9		-		None	
10		-		None	
11		-		None	
12		-		None	
13		-		None	
14		-		None	
15		-		None	

After each addition of VS Module ID (IP Devices), make sure to click **Apply** button to save settings.

3.6.1. Adding VS Module ID (IP Devices)

Select an item from **VS Module ID (ID Devices)**, then the device configuration screen will be displayed. Fill in each field as described in the following table.

IP Device Registration
(VS Module ID 0)

Vendor	FlexWATCH ▼		
Model	2Channel Model ▼		
Name	FW1173DS		
IP Address	10.10.100.1	VS Module ID	0 ▼
Service Port	80		
Login ID	root		
Login Password	••••		
Confirm Password	••••		
Available Resolution of the selected model			
<input checked="" type="checkbox"/>	QCIF (QQVGA)	176 x 144 ~ 160 x 112	
<input checked="" type="checkbox"/>	CIF (QVGA)	352 x 288 ~ 320 x 240	
<input type="checkbox"/>	Half D1 (Half VGA)	704 x 288 ~ 640 x 240	
<input checked="" type="checkbox"/>	D1 (VGA)	704 x 576 ~ 640 x 480	
<input type="checkbox"/>	SVGA	800 x 600 ~ 720 x 480	
<input type="checkbox"/>	XGA	1024 x 768	
<input type="checkbox"/>	HD720 (720P)	1280 x 720	
<input type="checkbox"/>	SXGA	1280 x 1024	
<input type="checkbox"/>	UXGA	1600 x 1200	
<input type="checkbox"/>	QXGA	2048 x 1536	
PTZ Installation Status			
<input type="checkbox"/>	Camera 1	<input type="checkbox"/>	Camera 2
<input type="checkbox"/>	Camera 3	<input type="checkbox"/>	Camera 4
<input type="button" value="Back"/> <input type="button" value="Save"/> <input type="button" value="Delete"/>			

Item	Description
Vendor	Vendor's name of the server
Model	Number of the channels to be added
Name	Name of the server
IP Address	IP Address of the server
VS Module ID	Applicable to Costar Video only. Enter 0 for other vendor's models. For FW-3850, FW-5071, FW-5450, FW-5470,FW-5850, or FW-5870, you can enter the value from 0 to 16.
Service Port	Web port number of the server
Login ID	User's ID
Password / Confirm Password	User ID and Password of the server

Now select the video resolution of the server to add. Put check marks on the resolutions supported by the server you're adding here. If PTZ functionality is provided by the server, put check marks on Camera 1 to 4 on **PTZ Installation Status**. Then you will be able to control each camera's PTZ in Live Viewer.

After setup is finished, click **Save** button to add the server. If **Delete** button is pressed, the added server is removed from the setup and Live Viewer doesn't provide you the video.

*Note: After you're back to the **IP Device Registration** menu by clicking **Save** button, make sure to click **Apply** button to take the changes into effect.*

Costar Video Server supports vendors such as Axis, Panasonic, Vivotek and more than 10 others as well as Costar Video products. When multiple servers are added, the maximum number of total channels from the servers can't exceed 16. Each Costar Video NVR model has different number of supported channels which can be added.

- **FW-5071**: Up to 16 channels including other vendor's model (3M pixel supported)
- **FW-5450**: Up to 16 channels including other vendor's model and analog (D1 supported)
- **FW-5470**: Up to 16 channels including other vendor's model and analog (D1 supported)
- **FW-5850**: Up to 16 channels including other vendor's model and analog (D1 supported)
- **FW-5870**: Up to 16 channels including other vendor's model and analog (D1 supported)

Note: Please refer to the User's Manual of each product to find out the supported resolutions.

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,Gateway,DNS).
» Network Ports	Modification of HTTP and other application network port numbers.
» Bandwidth Control	Configuration of bandwidth control.
» View Network Status	View of Network Status.
» Network Status Notify	It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).
» IP-CCTV DNS™	Configuration of dynamic IP registration of Network Video System.
» Port Forwarding & UPnP	Configuration of Port Forwarding & UPnP(Universal Plug and Play).
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 Costar Video 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	
» Network Ports	
» Bandwidth Control	
» View Network Status	
» Network Status Notify	
» IP-CCTV DNS™	
» Port Forwarding & UPnP	
Device Configuration	
Advanced Configuration	
Recording Configuration	
Utilities	

Static IP ☒ DHCP Client ☐ 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	

Back Apply Refresh

Note: For wireless models, additional options will be shown. Please refer to 오류! 참조 원본을 찾을 수 없습니다.오류! 참조 원본을 찾을 수 없습니다..

For static IP, select static IP and input values for IP address, NetMask, 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 Costar Video 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.

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 IP**, which will pop up a new window. After a few seconds, results will be shown. Click desired AP from 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 <input type="radio"/> HEX	
KEY1	<input checked="" type="radio"/> 1234567890	
KEY2	<input type="radio"/> 12345abcde	
KEY3	<input type="radio"/> abcdefghij	
KEY4	<input type="radio"/> 1234xyz122	
<div>Back Apply Refresh</div>		

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		
<div>Back Apply Refresh</div>		

4.3. Network Ports

In this configuration, you set up the HTTP port for Costar Video Server to communicate with the Client PC. HTTP Port is the network port that is used when a Client PC connects to the Costar Video 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 Costar Video Server's Internet address. For example, when Costar Video's 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)
<div>Back Apply</div>		

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 Costar Video 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 Costar Video 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 FW products. Wireless LAN status will be added for wireless models.

Network Status

Common Status

Gateway10.10.1.1

Gateway Deviceeth0

DNS1168.126.63.1

DNS2168.126.63.2

LAN Status

IP Address10.10.213.26

Netmask255.255.0.0

MAC Address00:30:6F:81:3F:D2

PPPoE Status

Connection StatusLink is down

IP Address

Netmask

WAN-Modem Status

Connection TypePPP Server (Dial In)

Connection StatusLink is down

Local IP

Remote IP

Netmask

Wireless LAN Status

Connection Statusra0 is down

IP Address

Netmask

Back

Refresh

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**, Costar Video 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 Costar Video 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 Costar Video 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"/>	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

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

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 Costar Video 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 Costar Video 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 Costar Video 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 Costar Video product and reporting overall network configuration of a Costar Video 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 Costar Video 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 Costar Video 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 Costar Video 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	Success
External Port No.	9080
Router Global Address	<input type="text"/>
System's IP address for Local Network Access	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

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 Costar Video 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

5. Device Configuration

You set up the connection between Costar Video 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	<table border="1"> <tr> <th colspan="2">Device Configuration</th></tr> <tr> <td colspan="2">This category shows the detailed method for Device Configuration.</td></tr> <tr> <td>Serial Ports</td><td>Configuration of serial ports(RS-232, RS-422, RS-485 ports)</td></tr> <tr> <td>Camera & Motion</td><td>Configuration of video mode and the details.</td></tr> <tr> <td>DI/DO</td><td>Configuration of DI(Sensor Input)/DO(Alarm Output).</td></tr> <tr> <td>DI Status/DO Control</td><td>Enable or Disable each DO(Alarm Output) port.</td></tr> </table>	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.
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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**, Costar Video 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

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

- **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.

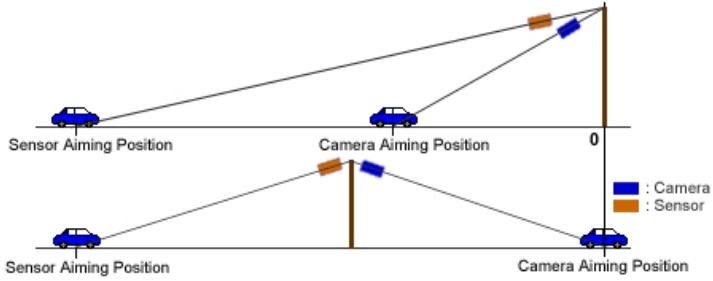
Note: If additional sensors need to be added, it will require installation of the device drivers.

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



Back Apply

- **Upper Limit:** The highest value in the range to assign
- **Lower Limit:** The lowest value in the range to assign
- **Initial String Length:** The length of initial string from sensor
- **Initial String Data:** The initial string from sensor
- **(Speed) Delay:** select **Enable** if sensor input needs delay
- **Internal process delay:** The amount of delay for sensor input
- **Sensor Aiming Position:** The position for sensor to aim
- **Camera Aiming Position:** The position for camera to aim
- **Add Vehicle length to calculate delay time:** The length of vehicle for applying delay time

5.1.2. Serial Output Mode

Using Serial Output Mode, you can send UART device commands to Costar Video® 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
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

5.1.3. Transparent Mode

When there are two Costar Video 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="button" value="Back"/> <input type="button" value="Apply"/>	

- **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 Costar Video 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 Costar Video 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	Default	
Current Baudrate	Default	
PTZ Model	Not Installed	

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

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

4Channel Network video server
 * Base Address = 0 ->
 PTZ Id = 1 for camera1, PTZ id = 2 for camera2
 PTZ Id = 3 for camera3, PTZ id = 4 for camera4
 * Base Address = 50 ->
 PTZ Id = 51 for camera1, PTZ id =52 for camera2
 PTZ Id = 53 for camera3, PTZ id =54 for cmaera4

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

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

Note: Before pFlxwatchhasing receivers or PTZ cameras, please contact Costar Videoor distributor to find out if the product's protocol is supported by Costar Video server.

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.

Note: The table below shows the PTZ protocols supported by Costar Video. (Currently 43 types of PTZ models are supported and subject to change in the future.)

Pelco-D : Spectra Dome	RNK : RNK-DOME
Pelco-P : Spectra Dome	ERNITEC : BDR-510
Costar Video: SRX-500/SPT-102	Inter-M : VSD-640/625L
Costar Video: FSD-230/270	KODICOM : KRE-301
Costar Video: FSD-301	FINE : CRR-1600I
ELMO : ELDOME	Dongyang : DY-XXXX
SANTEC : Santec Dome	Bosch : Auto Dome
Honeywell : HSDN-230/251(H)	Sungjin : SJ2000/3000RX
Honeywell : HSDN-251(P)	Honeywell : HRX-2000
SAMSUNG : SCC641/643A	Inter-M : VRX-2201
SAMSUNG : SCC641/643A(RS422)	LG : Speed Dome
SAMSUNG : MRX-1000	Lilin PIH-7000 Dome
VICON : V-1311RB	Yujin YRX-5000S(Pelco-D)
VICON : Surveyor-1000/2000	INTPLUS : Pelco-P PTZ 1
SAMSUNG Techwin : SPD1600	VICON : V-1311RB-600
SAMSUNG Techwin : SRX-100B	Pelco-D : SK-D106
SAMSUNG Techwin : SRX-100R	Pelco-D : YuJin
American Dynamics : DELTA DOME	Pelco-D-AUX : HUVIRON
KALATEL : CYBER DOME(KTA-xxxx)	Pelco-P-AUX : ONE KING
Panasonic : WV-CS854	Pelco-D-AUX : Probe
SONY : EVI-D30	Honeywell : HSDN-P 251(H)
CANON : VC-C4	

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.

If the PTZ camera or receiver has a Preset function, click **Camera 1** to configure the Preset Name and the camera location. With Preset function, you can move the camera directly to previously configured position promptly.

Up to 32 different Preset can be configured and saved. The picture above shows the example of four different Presets made. After configuring Preset is done, click **Save** button to take effect.

To preset the camera position, click **Preset & Menu**, then the video monitoring screen will appear as shown below. Control the camera's position as you desire, and click **Set** button.

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

Preset Name at PTZ Camera 1

No.	Preset Name	No.	Preset Name
1	Door	17	Preset #17
2	Tree	18	Preset #18
3	Room	19	Preset #19
4	Factory	20	Preset #20
5	Preset #5	21	Preset #21
6	Preset #6	22	Preset #22
7	Preset #7	23	Preset #23
8	Preset #8	24	Preset #24
9	Preset #9	25	Preset #25
10	Preset #10	26	Preset #26
11	Preset #11	27	Preset #27
12	Preset #12	28	Preset #28
13	Preset #13	29	Preset #29
14	Preset #14	30	Preset #30
15	Preset #15	31	Preset #31
16	Preset #16	32	Preset #32

Back Save

Notice : The preset name can be 63 alphanumeric or 31 unicode.

Preset & Menu

Preset Position at PTZ Camera - Wind...

http://10.10.225.248/admin/posiset.asp?FwModId=0&PortId=

Preset Position at PTZ Camera 1

Position Preset #1 Set Menu

Mode step Speed 10

Close

인터넷 100%

5.1.5. PTZ Mode for FW-1160/1161/1177/1178

These Costar Video Servers are Speed Dome models, which are all-in-one type network cameras and have PTZ configuration part. It's possible to set Preset, Swing, Group, and Tour functionalities in those servers and further detailed parts can be configured by use of OSD. Below is steps for configuration.

Click **Devices Configuration > Serial Ports > PTZ Mode > Built-in Module 0 > Camera 1**.

Quick Configuration

- System Configuration
- Network Configuration
- Device Configuration
 - Serial Ports
 - Serial Input Mode
 - Serial Output Mode
 - Transparent Mode
 - PTZ Mode
 - Built-in Module 0
 - Camera 1
 - Camera 2
 - Camera & Motion
 - DI/DO
 - DI Status/DO Control
- Advanced Configuration
- Utilities

Preset Name at PTZ Camera 1

No.	Preset Name	No.	Preset Name
1	Preset #1	17	Preset #17
2	Preset #2	18	Preset #18
3	Preset #3	19	Preset #19
4	Preset #4	20	Preset #20
5	Preset #5	21	Preset #21
6	Preset #6	22	Preset #22
7	Preset #7	23	Preset #23
8	Preset #8	24	Preset #24
9	Preset #9	25	Preset #25
10	Preset #10	26	Preset #26
11	Preset #11	27	Preset #27
12	Preset #12	28	Preset #28
13	Preset #13	29	Preset #29
14	Preset #14	30	Preset #30
15	Preset #15	31	Preset #31
16	Preset #16	32	Preset #32

Back Save

Notice : The preset name can be 63 alphanumeric or 31 unicode.

Preset & Menu

Enter the Preset names as required. You can make up to 32 Preset names. Below is the example of entering 4 different room names.

Preset Name at PTZ Camera 1

No.	Preset Name	No.	Preset Name
1	Door	17	Preset #17
2	Tree	18	Preset #18
3	Room	19	Preset #19
4	Factory	20	Preset #20
5	Preset #5	21	Preset #21
6	Preset #6	22	Preset #22
7	Preset #7	23	Preset #23
8	Preset #8	24	Preset #24
9	Preset #9	25	Preset #25
10	Preset #10	26	Preset #26
11	Preset #11	27	Preset #27
12	Preset #12	28	Preset #28
13	Preset #13	29	Preset #29
14	Preset #14	30	Preset #30
15	Preset #15	31	Preset #31
16	Preset #16	32	Preset #32

Notice : The preset name can be 63-alpha-numeric or 31-unicode.
(It means your own characters.)

Use the buttons to configure Preset, OSD, Swing, Group, and Tour. (Swing, Group, and Tour are supported in FW-1177PE and FW-1178PE)

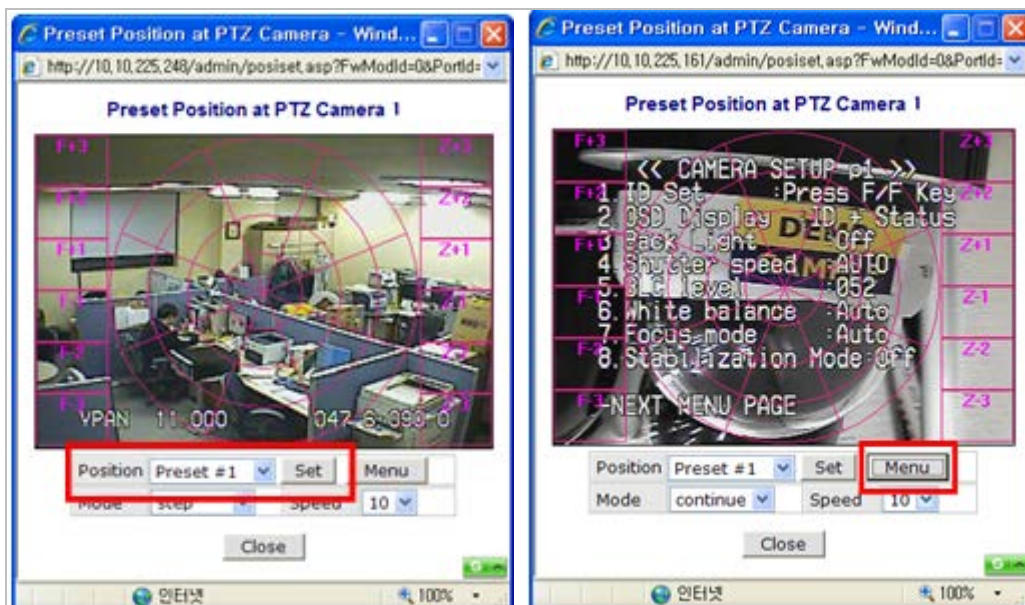
- **Preset & Menu:** You can pre-define the spot you want to see. Up to 32 settings can be stored. Click Menu button to configure the camera's attributes.
- **Swing:** Repeat moving between two positions in certain period.
- **Group:** Each group moves around up to 6 pre-defined positions in certain period.
- **Tour:** Move around up to 6 different groups in certain period.

Preset & Menu

Click on the button and it will display the video window as shown below. Use PTZ to control the camera to show the desired spot. Select the Preset number you'd like to assign to it. Click **Set** button to save the preset values in the Preset number.

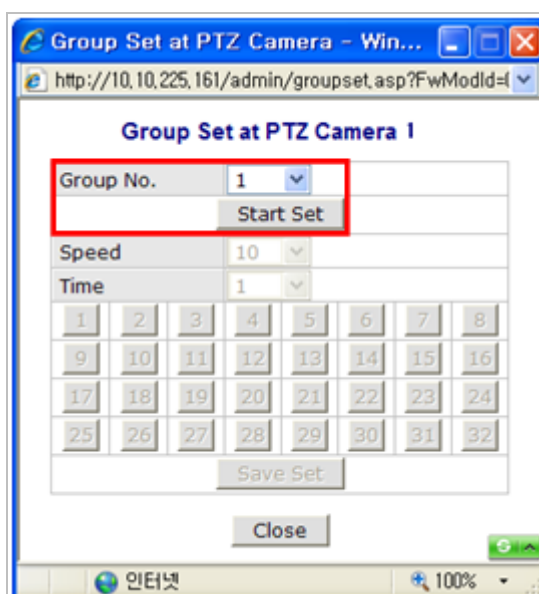
- **Mode:** When **Step** is selected, it will move as much as pre-defined distance. When **Continuous** is selected, it will keep moving as long as the button is being pressed.
- **Speed:** In **Step** mode, different Speed value is different Step size. In Continuous mode, it is different moving speed.

Click on **Menu** button, and it will display an OSD window for adjusting camera attributes. OSD setting can be made by Up, Down, Left, Right arrow keys. After setting is finished, click **Menu** button.



Group Set

Click the button and it will display the Group setting window as shown below. Select a group number as you'd like, and click **Start Set** button. Preset numbers from 1 to 32 will become active for the group.



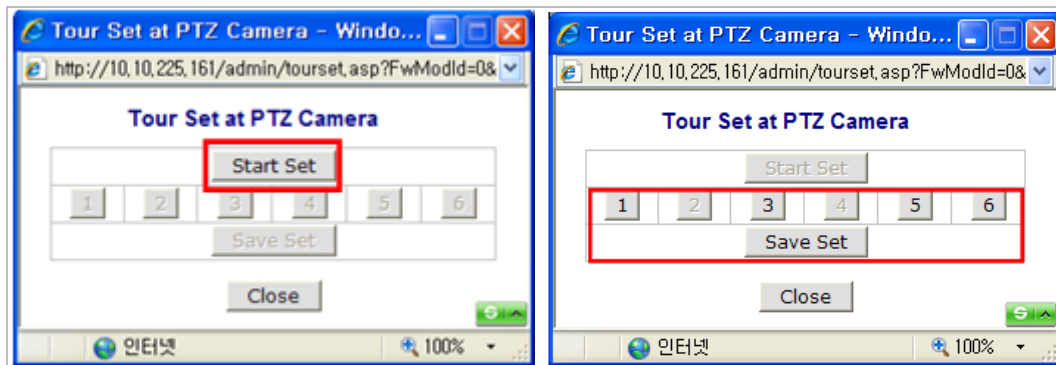
- **Speed:** How fast it will move between Preset items when Group function is executed.
- **Time:** How long it will stay at the Preset. Each Group can have up to 6 Presets.

After Preset is configured, click **Save Set** button. Group setup window will be displayed. You can configure up to 6 groups. The usage of Group can be controlled at PTZ Control window in Smart Viewer.

Tour Set

Click the button and it will display the Tour Set window. Up to 6 groups can be combined to run in

Tour mode.



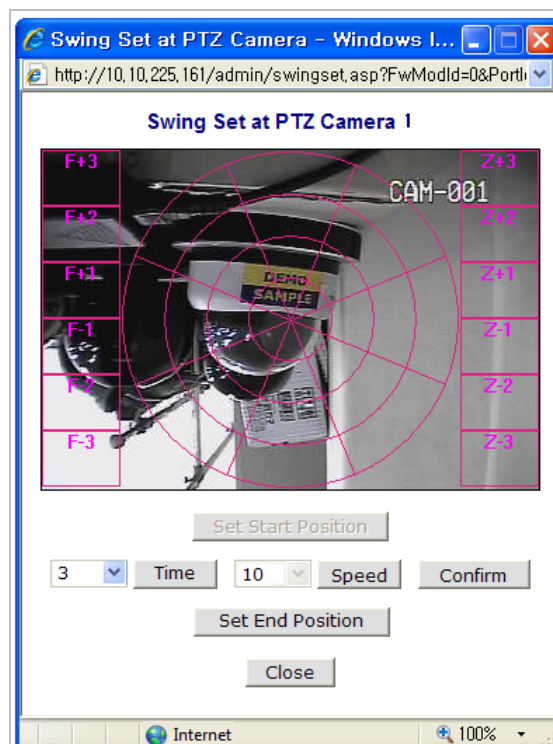
Select a Group number as desired, then click **Save Set** button to finish setup. The usage of Tour can be controlled at PTZ Control window in Smart Viewer.

Swing Set

Click the button and it will display the Swing Set window. Use PTZ to direct the camera to put the desired spot on the center of the camera viewing area, then click **Set Start Position** button.

Select the start position and the waiting period, then click **Time** button. Select the moving speed between the starting position and the ending position, then click **Speed** button. Click **Confirm** button. Now use PTZ to move to the ending position, and then click **Set End Position**.

The control of Swing function can be made at PTZ Control window in Smart Viewer.

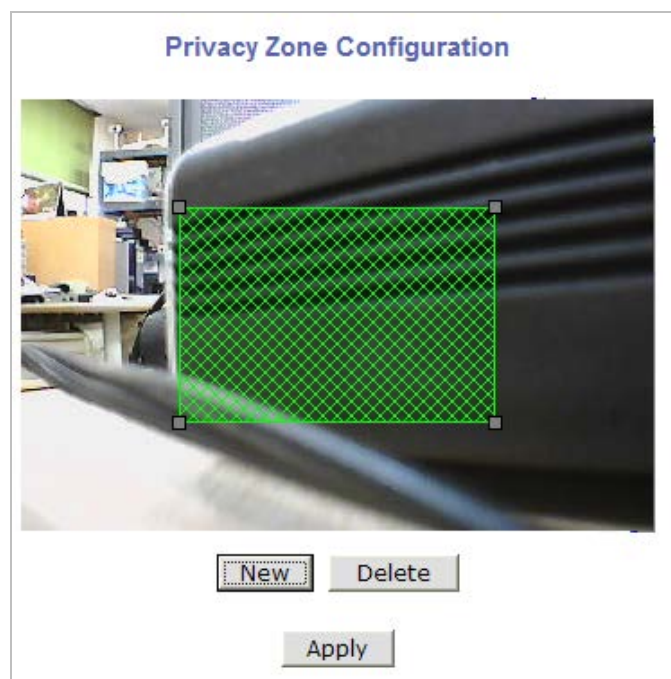


5.2. Privacy Zone

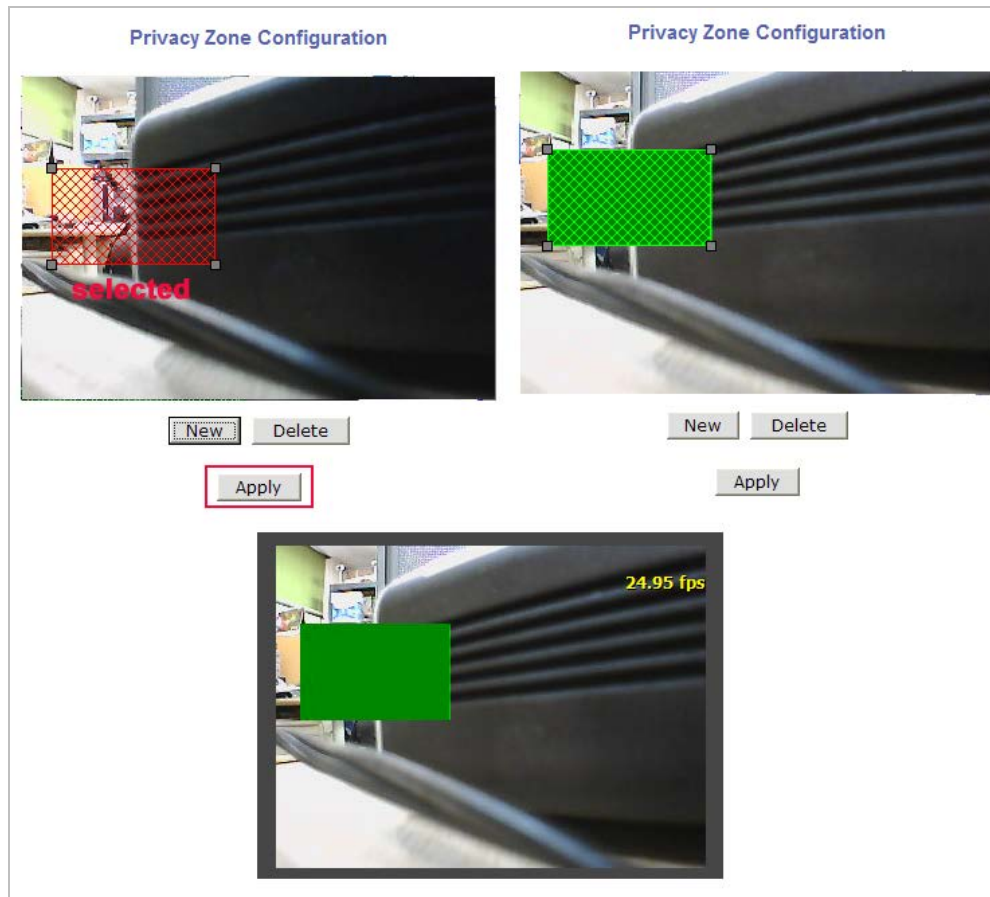
Users can set a privacy zone if a certain part of the screen needs to be unmonitored.

To set the region, click **Privacy Zone** from **Device Configuration** category.

Quick Configuration	Device Configuration
» Step 1 » Step 2 » Step 3 » Step 4 » Finish	This category shows the detailed method for Device Configuration.
System Configuration	» Serial Ports Configuration of serial ports(RS-232, RS-422, RS-485 ports)
Network Configuration	» Privacy Zone Configuration of Privacy Zone.
Device Configuration	» Camera & Motion Configuration of video mode and the details.
» Serial Ports	» DI/DO Configuration of DI(Sensor Input)/DO(Alarm Output).
» Privacy Zone	» DI Status/DO Control Enable or Disable each DO(Alarm Output) port.
» Camera & Motion	
» Primary Stream	
» Secondary Stream	
» DI/DO	
» DI Status/DO Control	
Advanced Configuration	
Utilities	



Privacy zone is marked with a rectangular shape. When you click **New** button, red-colored box will pop up and users can change its size and location. After that, click **Apply** button which will make box to green-color and finish the configuration.



Users can define the Privacy zone as many as 8 parts of the screen. If you add more than 8, an error message will pop up on the screen.

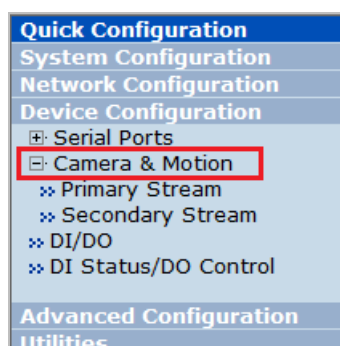
To delete a privacy zone, click the zone and click **Delete** button followed by **Apply** button.



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 Costar Video models.



- **Watermark:** The technique that imposes a particular pattern or code into images. Watermarking is used for identifying counterfeit or illegal copy.
- **M-JPEG:** This format requires much higher network bandwidth than MPEG-4 compression. But because of its higher quality of still image, it is adequate for detailed reviewing of stored video.

- **MPEG-4:** 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 Costar Video server, you can set the number of P-frames in the video which is independent still images between I-frames.

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

5.3.1. Camera & Motion for FW-1170/1173/1175/1176

You can configure the video data format and other information to be contained in it.

Camera & Motion Configuration		
Video with UART sensor 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 type="radio"/> Enable <input checked="" type="radio"/> Disable
Primary Stream	Frame Rate	15 fps ▾
	Image Size	1280 x 720 ▾
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Secondary Stream	Frame Rate	Primary fps ▾
	Image Size	320 x 176 ▾
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
<input type="button" value="Back"/> <input type="button" value="Apply"/>		
<div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> ✖ Camera Control ✖ Motion Detection ✖ Primary Stream ✖ Secondary Stream </div>		

(Above is the example of FW1173-VO-B model)

- **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). Costar Video Server provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.

- **Light Frequency:** Used for Flickering Reduction. Select the electric power frequency used in the region, either 50 or 60Hz.

Note: Light Frequency parameter is supported only in FW1170.

- **Frame Rate:** For Primary Stream, this is the number of frames compressed in every second. You can control the network traffic with this parameter. For Secondary Stream, it can be set to manner of 1/2, 1/4, 1/8... of the primary stream.

Note: Frame Rate control for secondary stream is not supported by FW1173-MM, FW-1175-MM, and FW-1176-MM.

- **Image Size:** Select the resolution of each channel's video
- **Encoding Standard:** Select the compression method of each video, either M-JPEG or H.264 format. It is not allowed to set both channels to M-JPEG.

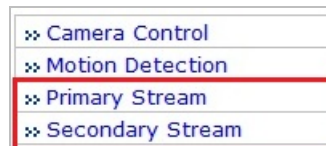
Below is the table of images sizes.

Video Format	SXGA	D1	CIF	QCIF
NTSC	-	704 x 480	352 x 240	160 x 112
PAL	-	704 x 576	352 x 288	160 x 144
VGA	-	640 x 480	320 x 240	160 x 112
1.3M Pixel	1280 x 1024	640 x 480	320 x 240	160 x 112

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

Camera Configuration

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



In the example shown below, Primary Stream is set to **M-JPEG**, and Secondary Stream set to **H.264** for compression format. Enter detailed parameters of the camera selected here.

Camera Configuration (Primary Stream)

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

Primary Stream of (H.264)

When the image sensor is VGA CMOS/CCD or 1.3M CMOS/CCD, there will be no Hue, Saturation, Contrast, or Brightness setting items shown. Only with NTSC or PAL will those parameters be configured.

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

Image Quality Setup

MPEG-4 / 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)			
	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.		GOP Structure: Distance between I-Frames. That is filled with P-frames.			
			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.			
Low Compression		Highest	High	Normal	Low	Lowest

In **Image Quality** level setup, select the left for higher image quality, but it requires higher network bandwidth. Selecting the right requires lower network bandwidth, but gives decreased image quality.

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.

Camera Control for FW-1173B-MS

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

Camera Control	
Power Frequency	<input type="radio"/> 50Hz <input checked="" type="radio"/> 60Hz
Lens Type	<input checked="" type="radio"/> DC Iris <input type="radio"/> Manual Iris
Brightness	100 (Default: 128, 0 ~ 256)
Contrast	16 (Default: 16, 0 ~ 30)
Sharpness	3 (Default: 3, 0 ~ 5)
Day & Night Control	Auto
Day & Night Detect	<input checked="" type="radio"/> Internal <input type="radio"/> External
The threshold of day to night	15 (Default: 15, 1 ~ 32)
The threshold of night to day	1 (Default: 1, 1 ~ 32)
Manual Shutter Enable	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Manual Shutter Speed	1/60
Video Output	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Video Output Channel	<input checked="" type="radio"/> Primary <input type="radio"/> Secondary

- **Power Frequency:** Select NTSC (60Hz) or PAL (50Hz) according to the region.
- **Lens Type:**

Lens Type	Description
DC IRIS	Select when automatic iris is used on the camera.
Manual IRIS	Select when manual iris is used on the camera.

- **Brightness:** Select the brightness of image between 0 and 256.

- **Contrast:** Select the contrast of image between 0 and 30.
- **Sharpness:** select the sharpness of image between 0 and 5.
- **Day & Night Control:** If used, the image will be in Color mode during daytime and Black& White mode during night time.

Day & Night Control	Description
Disable	(No Image Conversion)
Black & White	Black & White mode
Auto	Daytime: Color Mode Night time: Black & White mode

- **Day & Night Detect:**

Day & Night Detect	Description
Internal	Use Built-in Day & Night feature (Default)
External	Use IRED.

- **The threshold of day to night:** This is the point of transition from Day to Night mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **The threshold of night to day:** This is the point of transition from night to day mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **Manual Shutter Enable:** If enabled, the shutter speed will be selected manually. If disabled, it is controlled automatically.
- **Manual shutter Speed:** Select the shutter speed of camera between 1/30 and 1/24000.
- **Video Output:** Video output (NTSC/PAL) is enabled. (applies only on some models)

After all the setting is done, click **Apply** button to save it. If **Default** button is clicked, all the fields return back to original value.

Camera Control for FW-1173E-MS

- Serial Ports
- Privacy Zone
- Camera & Motion
 - Camera Control**
 - Motion Detection
 - Primary Stream
 - Secondary Stream
 - DI/DO
 - DI Status/DO Control

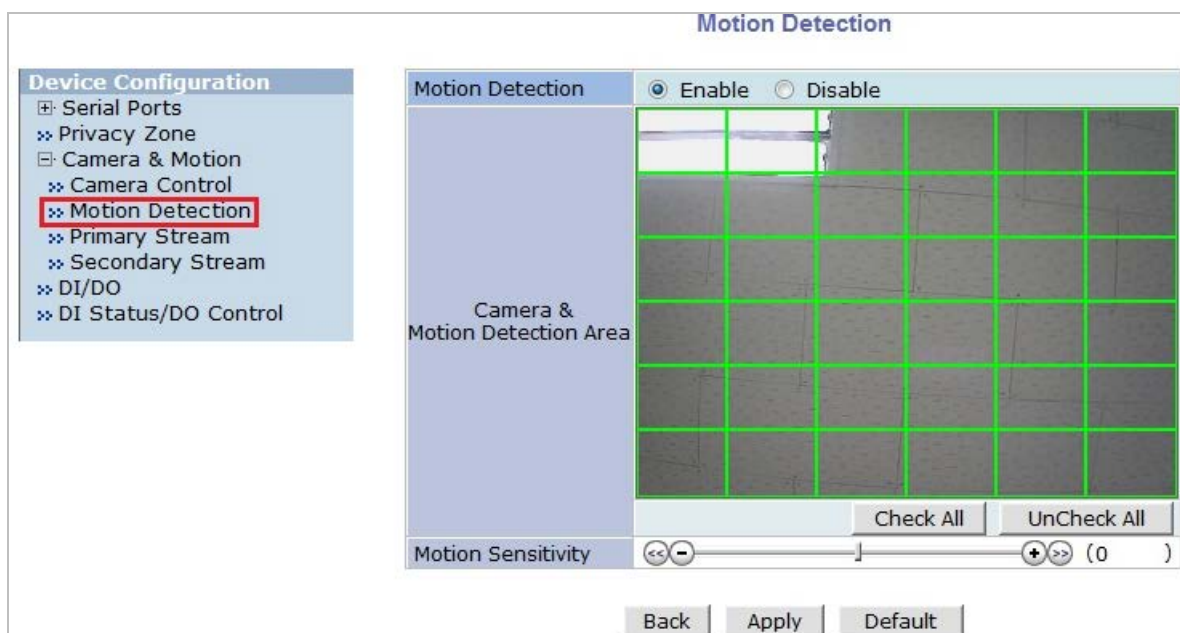
Camera Control

Power Frequency	<input type="radio"/> 50Hz <input checked="" type="radio"/> 60Hz
Lens Type	<input checked="" type="radio"/> DC Iris <input type="radio"/> Manual Iris
Brightness	128 (Default:128, 0 ~ 256)
Contrast	16 (Default:16, 0 ~ 30)
Sharpness	3 (Default:3, 0 ~ 5)
Day & Night Control	Auto
Day & Night Detect	<input checked="" type="radio"/> Internal <input type="radio"/> External
The threshold of day to night	15 (Default:15, 1 ~ 32)
The threshold of night to day	1 (Default:1, 1 ~ 32)
Vertical Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Horizontal Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Manual Shutter Enable	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Manual Shutter Speed	1/60
Video Output	<input type="radio"/> Disable <input type="radio"/> Enable
Video Output Channel	<input type="radio"/> Primary <input type="radio"/> Secondary

For FW-1173E-MS, the followings are added to settings on FW-1173B-MS.

- **Vertical flip:** If enabled, flip the image vertically.
- **Horizontal flip:** If enabled, flip the image horizontally.

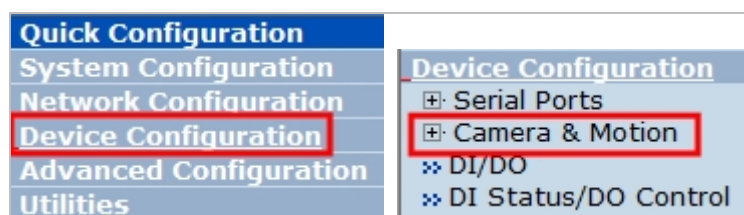
Motion Detection



- **Motion Detection:** If enabled, Motion Detection feature is activated and user can configure the areas where motion detection function will work. (this is only available in Primary Stream)
- **Motion Sensitivity:** Set the sensitivity of motion defined in Motion Detection Area. Select between -100 and 100. 100 is the most sensitive.

After all the setting is done, click **Apply** button to save it. If **Default** button is clicked, all the fields return back to original value.

5.3.2. Camera & Motion for FW-3170/1161/1177/1178



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 soFlxwatche 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 UART sensor 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 type="radio"/> Enable <input checked="" type="radio"/> Disable
Primary Stream	Frame Rate	15 fps
	Image Size	1280 x 720
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Secondary Stream	Frame Rate	Primary fps
	Image Size	320 x 176
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
<div>Back</div> <div>Apply</div>		
<div>» Camera Control</div> <div>» Motion Detection</div> <div>» Primary Stream</div> <div>» Secondary Stream</div>		

- **Default Video Format (FW-3170 only):** Select the video transmission format of the camera attached to Costar Video 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). Costar Video Server provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.
- **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.
- **Watermark (MPEG-4 Only):** If **Enabled**, video image will have water mark on it. This attribute applies to all the channels.

Below is the table of images sizes supported in this mode.

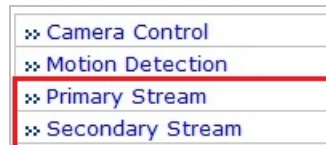
Video Format	D1	2CIF	CIF	QCIF
NTSC	704 x 480	704 x 240	352 x 240	176 x 112
PAL	704 x 576	704 x 288	352 x 288	176 x 144

MPEG-4 / 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)	
	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.				GOP Structure: Distance between I-Frames. That is filled with P-frames.	
					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

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

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

Back

Apply

Default

M-JPEG

Camera Configuration (Secondary Stream)

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

Back

Apply

Default

H.264

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

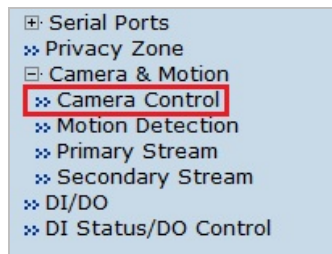
Image Quality Setup

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.



- **Hue:** Set the color of image between -100 and 100.
- **Saturation:** Set the intensity of the image between -100 and 100.
- **Contrast:** Set the contrast of the image between -100 and 100.
- **Brightness:** Set the brightness of the image between -100 and 100.

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.

5.3.3. Camera & Motion for FW-3470/5470

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.

Camera & Motion Configuration	
Default Video Format	<input checked="" type="radio"/> NTSC <input type="radio"/> PAL
Video with UART sensor 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
Time Stamp	<input type="checkbox"/> Enable
Image Size	352x240 / 352x288 ▼
Encoding Frame Rate (per channel)	30 fps ▼
Encoding Standard	<input checked="" type="radio"/> M-JPEG <input type="radio"/> MPEG-4
Watermark (MPEG-4 Only)	<input type="checkbox"/> Enable
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

- **Default Video Format:** Video transmitting format of the camera attached to Costar Video 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 you defined.
- **Video with IP address:** If Enabled, video data will contain the IP address of the video server.
- **Time Stamp:** If Enabled, encoded video image will have the time display on it.
- **Image Size:** Select the resolution of each channel's video data.
- **Encoding Frame Rate (per channel):** Video compression rate per second. You can control the total network traffic of the server with this parameter.
- **Encoding Standard:** Select the compression method of each video, either M-JPEG or MPEG-4.
- **Watermark (MPEG-4 only):** If Enabled, video image will have water mark on it when the Encoding Standard is set to MPEG-4. This attribute applies to all the channels.

Below is the table of images sizes supported in this mode.

Video Format	D1	2CIF	CIF	QCIF
NTSC	704 x 480	704 x 240	352 x 240	176 x 112
PAL	704 x 576	704 x 288	352 x 288	176 x 144

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

Camera Configuration

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

Please click the below link to configure each camera.

» Camera 1	» Camera 2
» Camera 3	» Camera 4

Camera Configuration

Camera Name

Camera 1

Audio

☐ Enable
 ☒ Disable

Image Quality

Highest

Color Mode

☒ Color
 ☐ Gray

Hue

0 (-100 ~ 100)

Saturation

0 (-100 ~ 100)

Contrast

0 (-100 ~ 100)


Brightness

0 (-100 ~ 100)

Motion Detection

☐ Enable
 ☒ Disable

Camera & Motion Detection Area



Motion Sensitivity

M-JPEG

Camera Configuration

Camera Name

Camera 1

Audio

☐ Enable
 ☒ Disable

Rate Control Mode

VBR Mode

Image Quality

Highest

GOP Structure

4 [1~64]

Color Mode

☒ Color
 ☐ Gray

Hue

0 (-100 ~ 100)

Saturation

0 (-100 ~ 100)

Contrast

0 (-100 ~ 100)


Brightness

0 (-100 ~ 100)

Motion Detection

☐ Enable
 ☒ Disable

Camera & Motion Detection Area



Motion Sensitivity

H.264

- **Camera Name:** Enter the name of the channel in up to 21 alphanumeric or up to 10 Unicode characters.
- **Audio:** Select if Audio function is to be used (applies to Primary Stream only) Costar Video Server provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.
- **Video Input:** Select to see camera's connection status.
- **Color Mode:** Select if the image will be in Color or Black & White (Applies to Primary Stream only)

Image Quality Setup

MPEG-4	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

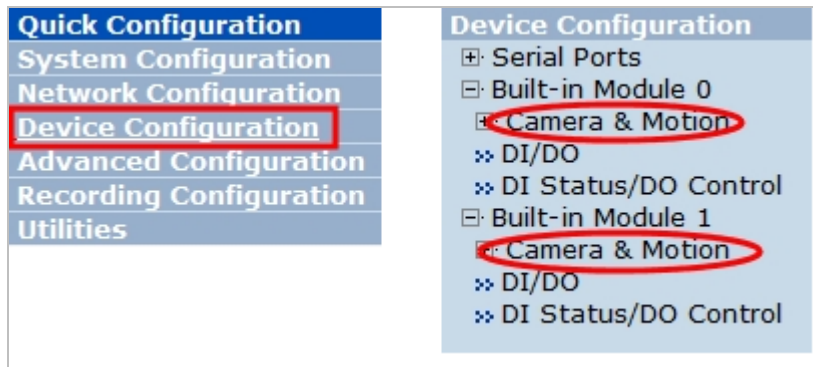
In Image quality level setup, selecting the left results in higher image quality, but requires higher network bandwidth. Selecting the right requires lower network bandwidth, but gives degraded image quality.

- **Hue:** Set the color of image between -100 and 100 (applicable to Primary Stream only)
- **Saturation:** Set the intensity of the image between -100 and 100 (applicable to Primary Stream only)
- **Contrast:** Set the contrast of the image between -100 and 100 (applicable to Primary Stream only)
- **Brightness:** Set the brightness of the image between -100 and 100 (applicable to Primary Stream only)
- **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. (applicable to 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.

5.3.4. Camera & Motion for FW-3850/5850/5870

This menu is used to set up the selection of video format, data added to video data, encryption of video, and etc. Click **Built-in Module 0** or **Built-in Module 1** on Device Configuration menu, and then click **Camera & Motion**.



Configure the video data format and other information to be contained in it.

- **Default Video Format:** Video transmitting format of the camera attached to Costar Video 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 you defined.
- **Video with IP address:** If Enabled, video data will contain the IP address of the video server.
- **Time Stamp:** If Enabled, encoded video image will have the time display on it.
- **Image Size:** Select the resolution of each channel's video data.
- **Encoding Frame Rate (per channel):** Video compression rate per second. You can control the total network traffic of the server with this parameter.
- **Encoding Standard:** Select the compression method of each video, either M-JPEG or H.264.
- **Watermark (MPEG-4 Only):** If enabled, MPEG-4 video will have the watermark blended on the image. This is applied on all the other settings.

Below is the table of images sizes supported in this mode.

Video Format	D1	2CIF	CIF	QCIF
NTSC	704 x 480	704 x 240	352 x 240	176 x 112
PAL	704 x 576	704 x 288	352 x 288	176 x 144

Click **Apply** button to save the changes. If required, click **Built-in Module 1** on Device Configuration menu to set up the other channel as well.


Camera Configuration

FW-3850 and FW-5850 have two modules, 8 channels respectively. Each channel represent the camera attached to FW-3850 or FW-5850.

On the lower part of **Module 0 > Camera & Motion Configuration** menu, select a channel you want to configure.

Please click the below link to configure each camera.	
❖ Camera 1	❖ Camera 2
❖ Camera 3	❖ Camera 4

Enter the detailed parameters of the camera selected here.

Camera Configuration	
Camera Name	Camera 1
Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Image Quality	Highest
Color Mode	<input checked="" type="radio"/> Color <input type="radio"/> Gray
Hue	0 (-100 ~ 100)
Saturation	0 (-100 ~ 100)
Contrast	0 (-100 ~ 100)
Brightness	0 (-100 ~ 100)
Motion Detection	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Camera & Motion Detection Area	
Motion Sensitivity	<input type="button" value="Check All"/> <input type="button" value="UnCheck All"/>
<input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Default"/> M-JPEG	

- **Camera Number:** The number of the channel in use. Not changeable. (1 to 4)
- **Camera Name:** Enter the name of the channel in up to 21 alphanumeric or up to 10 Unicode characters.
- **Audio:** Select if Audio function is to be used (applies to Primary Stream only). Costar Video Server provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio on PC speakers.
- **Video Input:** Select to see camera's connection status.
- **Color Mode:** Select if the image will be in Color or Black and White

Note: In M-JPEG mode, the Image Quality is locked at Normal.

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)			
	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.		GOP Structure: Distance between I-Frames. That is filled with P-frames.			
M-JPEG			Bit Rate Control: Total number of Bits encoded per second. The higher Bit Rate, the better image quality.			
			GOP: Distance between I-Frames. That is filled with P-frames.			
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 degraded image quality.

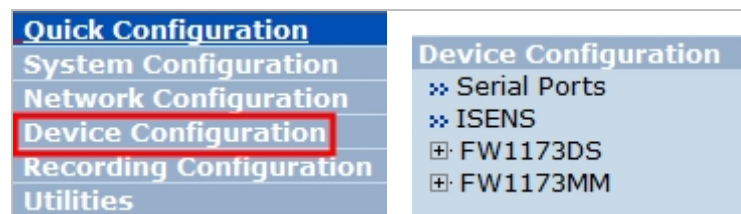
- **Hue:** Set the color of image between -100 and 100.
- **Saturation:** Set the intensity of the image between -100 and 100.
- **Contrast:** Set the contrast of the image between -100 and 100.
- **Brightness:** Set the brightness of the image between -100 and 100.
- **Motion Sensitivity:** This value 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.

After configuration is finished, click **Apply** button to save the setting. If required, click **Built-in Module 1** on Device Configuration menu to set up the other channel as well.

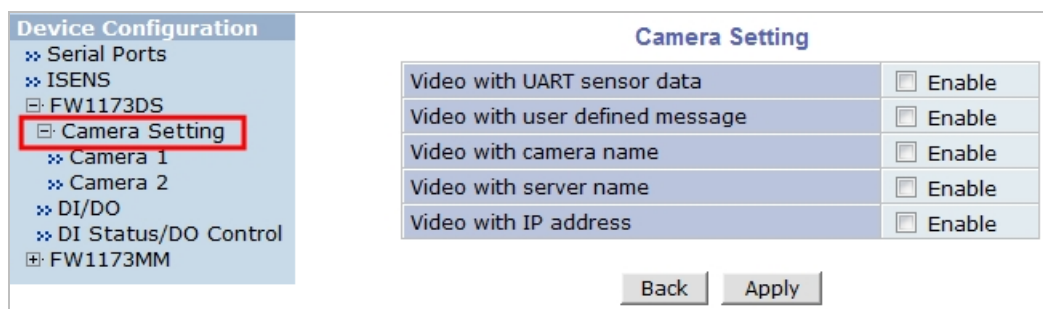
5.3.5. Camera Setting for FW-5071

When cameras are added through the network, you can set what data to be included, camera names, image size, and image quality.

Click the name of the camera you added, which can be found at **IP Devices Registration** on Device Configuration menu.



After selecting the camera, click **Camera Setting**.



Set the video data format and the information to be included in the data.

- **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 camera name:** If Enabled, video data will contain the camera name.
- **Video with server name:** If Enabled, video data will contain the server name you defined.
- **Video with IP address:** If Enabled, video data will contain the IP address of the video server.

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

Camera Configuration

Each camera's parameters can be defined in this section. Select a channel that you'd like to configure.

Camera Configuration

Please click the below link to configure each camera.

» Camera 1
» Camera 2

Camera Name	Camera 1
Image Size	352x288 ~ 320x240 ▼
Image Quality	Highest ▼

Set the information of the camera.

- **Camera Name:** Enter the name of the channel in up to 21 alphanumeric or up to 10 Unicode characters.
- **Image Size:** Select the resolution of each channel's video data. This attribute applies to all the channels. (You may set the Image Size to what you did in IP Devices Registration.)
- **Image Quality**

Low Compression	Highest	High	Normal	Low	Lowest
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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 degraded image quality.

After finishing the setting, click **Apply** button to save the changes. If you default button, every fields will be filled with the default values.

5.3.6. Built-in Camera Control for FW-1130/1131/1132/1173/1175

With this feature, you can send control signals to a camera when it supports functions such as AGC, ELC, AWB, etc. The OSD control window has four buttons of **Up**, **Down**, **Left**, **Right**, and **Enter** button.

	Up	
Left	Enter	Right
	Down	

On the center is the **Enter** button, and when it's pressed it goes to **Menu Mode** so that you can see the status of the menu. Moving on the menu items is done by **Up** and **Down** buttons, and the value change is done by **Left** and **Right** buttons.

SETUP Menu	Function	Description
LENS	MANUAL / DC / VIDEO	IRIS Control type of the lens mounted
SHUTTER	ESC / MANUAL / FLK	MANUAL : 1/60(50) - 1/120,000 sec, x2 - x128
WHITE BAL.	ATW / AWC / MANUAL	ATW: 1,800 10,500°K *AWC: ONE PUSH MANUAL: Adjustable between Red and Blue.
BACKLIGHT	OFF / LOW / MIDDLE / HIGH	Backlight compensation
AGC	OFF / LOW / MIDDLE / HIGH	Brightness can be adjusted.(1 - 70)
DNR	OFF / LOW / MIDDLE / HIGH	DNR is not functional if AGC is OFF.
SENS-UP	OFF / AUTO	SENS-UP is not functional if AGC is OFF.

SPECIAL	(* Refer to the table below)	-
EXIT		Exit from Menu Mode and save settings.

Special Menu	Function	Description
CAMERA ID	(Name of the camera)	Use up to 15 Alphanumeric and space
COLOR	AUTO / ON	AUTO : Automatic switch of Day & Night Mode (Day-time: Color Mode; Night-time: B/W mode) ON : Operate in COLOR mode always.
SYNC	INT / LL	LL : Adjustable between 0 - 359° Trigger Signal : Auto Sensing.
Motion Detection	OFF / ON	ON : Define 4 adjustable positions and sizes. When any motion is detected, it displays MOTION DETECTED on the screen.
PRIVACY	OFF / ON	ON : Define 4 positions, sizes, contrasts.
MIRROR	OFF / ON	Mirroring (Horizontal Image reversing)
SHARPNESS	OFF / ON	Adjustable between 0 - 31.
RESET		Reload the factory default condition.
RETURN		Return to SETUP menu after saving settings.

5.3.7. Mega Pixel Camera Control for FW-1173-MM/1175-MM/1176-MM

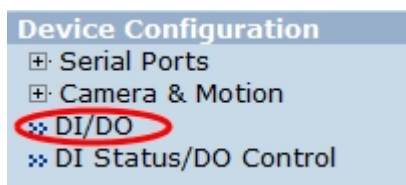
Camera Control Menu	
Max Exposure Time	1/10 sec
Brightness	Normal
Noise Filter	<input type="radio"/> On <input checked="" type="radio"/> Off
Sharpness	Normal

- **Max Exposure Time**: Select the exposure duration of the image sensor.
- **Brightness**: Select the brightness level of the screen.
- **Noise Filter**: Select **Enable** to use the noise filter.
- **Sharpness**: Select from 5 presets (Blur, Smooth, Normal, Enhanced, Sharp)

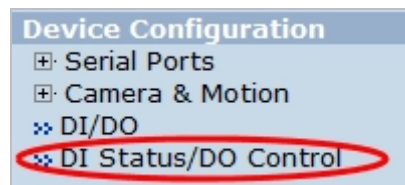
5.4. DI (Sensor Input) / DO (Alarm Output)

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 Setup



DI/DO Control



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 for FW-3450/5450/5470

There are 4 serial Input ports and 4 output ports in FW-3450 and FW-5450. A good example of the Input and Output usage is, an external sensor can be connected to the Input port, and a warning light is triggered by the Output port.

DI/DO Setup

Each Input and Output port can be assigned unique name respectively, so that you can easily distinguish every Input and Output ports from others by those names. This can be very useful in case of managing multiple sites with separate Costar Video Servers, where you can quickly and correctly identify which Sensor Input is detected or determines which Alarm Output needs to be activated.

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

No	Sensor Input Name	Alarm Output Name
1	<input type="text" value="Di 1"/>	<input type="text" value="Do 1"/>
2	<input type="text" value="Di 2"/>	<input type="text" value="Do 2"/>
3	<input type="text" value="Di 3"/>	<input type="text" value="Do 3"/>
4	<input type="text" value="Di 4"/>	<input type="text" value="Do 4"/>

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

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.

DI/DO Control

These models have 4 output ports and they act like a push button. When you click **On** button, it works like the push button pressed. When you click **Off** button, it works like the push button is released.

With **DI (Sensor Input) Status**, you can find out the status of the Alarm Input port. If the checkbox of **Check (On)** is displayed as checked, that means the alarm is activated. If not checked, that means no alarm is activated.

DO(Alarm Output) Control

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

DI(Sensor Input) Status

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

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

5.4.2. DI/DO for FW-3850/5850/5870

There are 8 serial Input ports and 8 output ports in FW-3850 and FW-5850 models. A good example of the Input and Output usage is, an external sensor can be connected to the Input port, and a warning light is triggered by the Output port.

DI/DO Setup

Each Input and Output port can be assigned unique name respectively, so that you can easily distinguish every Input and Output ports from others by those names. This can be very useful in case of managing multiple sites with separate Costar Video Servers, where you can quickly and correctly identify which Sensor Input is detected or determines which Alarm Output needs to be activated.

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

No	Sensor Input Name	Alarm Output Name
1	<input type="text" value="Di 1"/>	<input type="text" value="Do 1"/>
2	<input type="text" value="Di 2"/>	<input type="text" value="Do 2"/>
3	<input type="text" value="Di 3"/>	<input type="text" value="Do 3"/>
4	<input type="text" value="Di 4"/>	<input type="text" value="Do 4"/>

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

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 assigning names, click **Apply** button to take effect.

DI/DO Control

FW-3850 and FW-5850 have 8 output ports and they act like a push button. When you click **On** button, it is essentially like the push button is pressed. When you click **Off** button, it is like the push button is not pressed.

FW-3850 and FW-5850 have 2 built-in Module respectively, and each Built-in Module has 4 Alarm Outputs. 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.

DO(Alarm Output) Control

DO(Alarm Output) Port Number	On / Off	
1	On	Off
2	On	Off
3	On	Off
4	On	Off

DI(Sensor Input) Status

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

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

Back Refresh

5.4.3. DI/DO for FW-1130/1131/1132/1161/3150/1173/1175/1177/3170**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.

DI/DO Control

These Costar Video models have 1 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	On Off
No	Sensor Input Type	Alarm Output Type		
1	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close		
<input type="button" value="Back"/> <input type="button" value="Apply"/>				
<p style="text-align: center;">DI(Sensor Input) Status</p>				
DI(Sensor Input) Port Number			1	
Check (On)			<input checked="" type="checkbox"/>	
<p>Notice : This is the result of setting "DI/DO" menu.</p>				
<input type="button" value="Back"/>			<input type="button" value="Refresh"/>	

5.4.4. DI/DO for FW-5071

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 Costar Video 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.

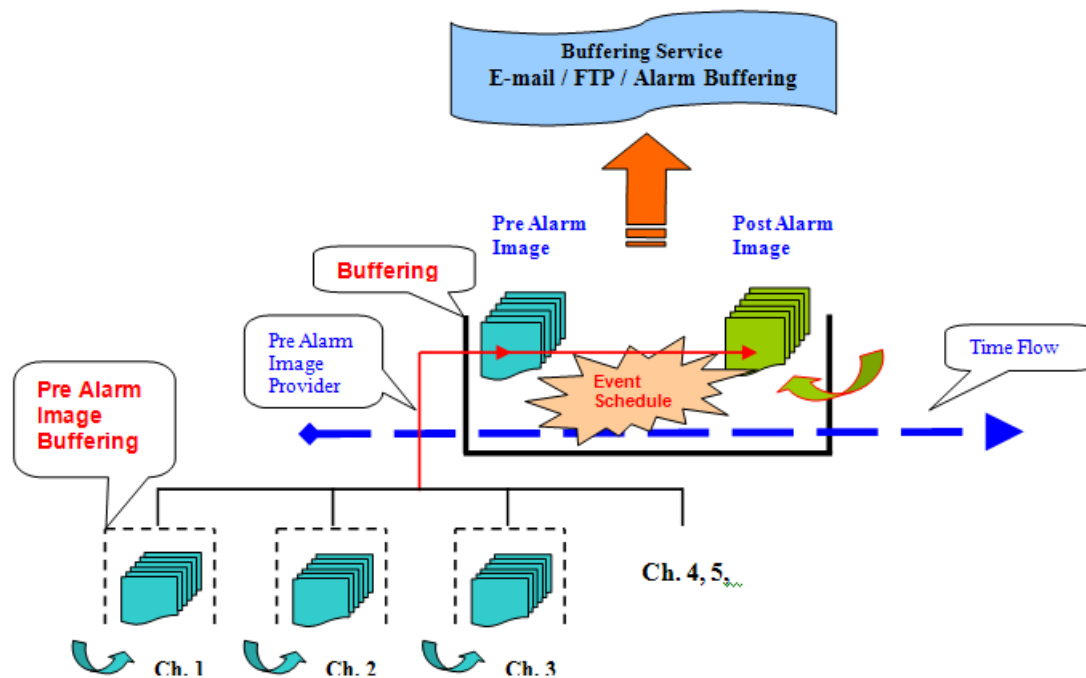
The status of Sensor Input can be monitored through DI. When the checkbox is marked, that means the Alarm is activated. When it's not marked, then the Alarm is not activated.

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	On Off
No	Sensor Input Type	Alarm Output Type		
1	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close		
<input type="button" value="Back"/> <input type="button" value="Apply"/>				
<p style="text-align: center;">DI(Sensor Input) Status</p>				
DI(Sensor Input) Port Number			1	
Check (On)			<input checked="" type="checkbox"/>	
<p>Notice : This is the result of setting "DI/DO" menu.</p>				
<input type="button" value="Back"/>			<input type="button" value="Refresh"/>	

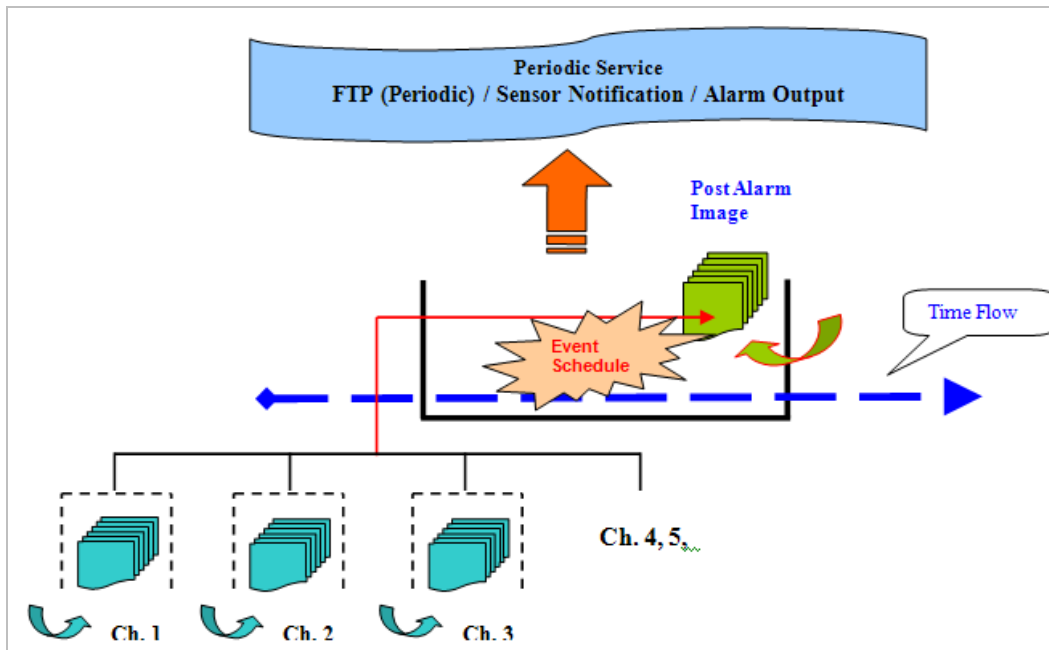
6. Advanced Configuration

Costar Video 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 Costar Video 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 Buffering Service, a series of images are continuously being stored in a buffer memory of server for a certain period of time. When the server is triggered by an event or schedule, the images or alarm status just before and after the event/schedule are reported to you by email or buffered FTP services.



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.

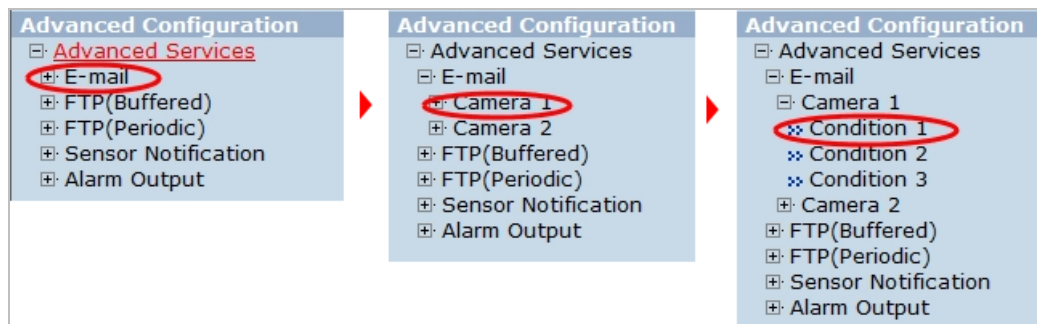
※ E-mail	Configuration of E-mail service to send pre-post alarm images.
※ FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
※ FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
※ Sensor Notification	Configuration to notify 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"/>

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"/>

[Back](#) [Save](#)

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 ☒ **Disable** ☐

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

Schedule

Sun Mon Tue Wed Thu Fri Sat
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

☒ Time (hh:mm) 19 : 46 ~ 19 : 46
☐ Date (mm/dd) XX / XX ~ XX / 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"/>

Boot Finished ☐ Enable
 Serial Input ☐ Activated

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

Item	Description
Service	This shows what service this condition is for.
Module ID	Module ID for current setup
Camera ID	Channel ID for current setup
Enable / Disable	Select 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

Back Save

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	<input type="text" value="American Style"/>
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

?

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

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 ▾

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"/> <small>(Default:80, 80 ~ 65535)</small>
CGI Path or Alarm Common Message	<div><input type="text"/></div>
User ID	<input type="text"/>
Password	<input type="text"/>

Item	Description
Input 1 - Input 4	Select which input to set up for Sensor Notification Service
Service	Select 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

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

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 Duration

Infinite sec

Back

Save

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 for FW-5071/5450/5850/5870 & FW-1170/1173/1175/1176 with microSD Slot

It is possible to record and search the video data sent from camera if the Costar Video 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 Costar Video network cameras (FW-1170/1173/1175/1176) have microSD slots on the back. Those models can record video if microSD card is present in the slot, which supports 1GB to 32GB.

Recording Configuration

- ⊕ HDD Configuration
- ⊕ Recording Configuration
 - ✧ Recording Profile
 - ✧ Recording Mode
 - ✧ HDD Status Report
 - ✧ Clear Recording Config.
 - ✧ Delete Recorded Data

7.1. HDD Configuration

If the HDD is not installed yet, turn off the Costar Video Server by using the power switch located on back or front panel. Install the hard drive in the Costar Video Server, and turn the power back on.

Now on your PC's web browser, connect the Costar Video Server with a proper IP address, and enter the server as admin.

Click **Recording Configuration**.

Note: Before attaching a hard disk drive, make sure the Costar Video Server is turned off. Otherwise, the hard drive may get defected. Also check if the hard drive you're installing is in the list of usable hard drive since an unlisted hard drive may not function properly.

Click **HDD Information** to see whether it is in a formatted condition.

HDD Information

File System	-None-
Total Disk Size	-None-
Free Disk Size	-None-
Usage	-None-
Oldest Image	-none-
Last Image	-none-

If **HDD Information** window displays all the fields as **-None-**, that means the hard drive is not in a formatted condition. To start formatting, click **Back** button to go back to the previous menu, and then click **HDD Status & Format**.

HDD Configuration

✧ HDD Status & Format	Configuration of HDD Format.
✧ HDD Information	Configuration of HDD Information.

The list of hard drives will be displayed with the format status. Click on the one you'd like to format.

HDD Status & Format

HDD	Status
1st HDD	No HDD

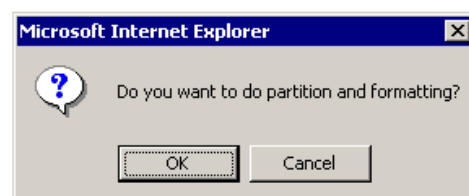
Notice : If you select a HDD to format, you will be automatically guided to the format menu.
 Once HDD format is completed, you need to reset system.
 Once format starts, recording stops automatically.
 After reset system, recording starts automatically.

If you put check mark on **Check Bad Block** option, it'll take much longer time to complete the formatting process. In case of installing a new hard drive, it's not necessary to use that option.

HDD Format

Format Option
 ☐ Check Bad Block

- **Format Option**
 When you enable the "Check Bad Block" option, the Network Video System check the surface of the HDD for detecting bad blocks.
If this option is enabled, the format time may be several hours depend on the size of the HDD.



Click **Partition and Format** button, then a confirmation window will be displayed. Click **OK** button to proceed formatting, otherwise click **Cancel** button. The progress of formatting will be displayed as below.

HDD Format Status

Partition

STEP 1

➡

Format

STEP 3

➡

Complete

STEP 4

Description
 Formatting HDD.
0.7 %

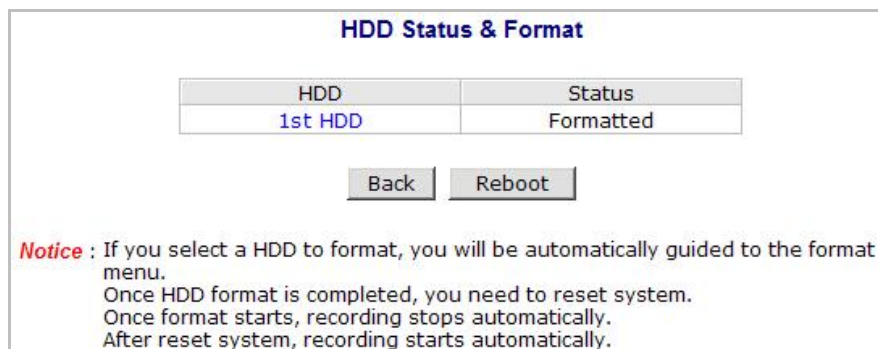
Notice : Do not run other tasks, until format is completed.
 Once HDD format is completed, you will be guided to Format Complete page, automatically.

Note: If an abnormal termination is happened during the formatting process, it is possible for the hard drive to be defected. Make sure to complete the process properly.

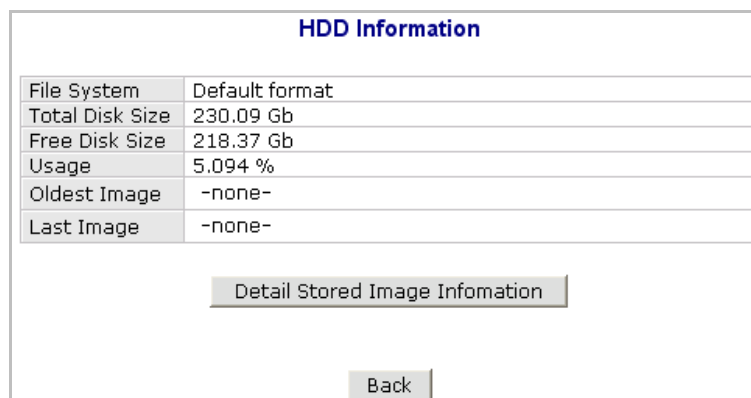
When formatting is finished, a notification window is displayed. Click **OK** button.



Now you will see the **HDD Status & Format** window, and the status of **1st HDD** has been changed to Formatted. If there're more HDD's newly installed, go ahead with formatting them. After completing all the hard drive's formatting, click **Reboot** button.



Reboot process will take about 30 seconds. Then with your PC's web browser, open the Admin Page of the Costar Video Server, and check **HDD Information** on **Recording Configuration** menu.



If you want to use RAID 1 feature, two hard drives are required in the system. It is strongly recommended to use the same sized drives. With two drives in the system, you will see the HDD mode configuration window will be shown as below. You have choice of **Normal** and **RAID1**. If you choose **Normal**, the two hard drives will store different data and the total amount of storage space will be the combined capacity of them. If you choose **RAID1**, there will be only one hard drive seen on the system and the total amount of storage space will be the capacity of smaller drive.

When using **RAID1** feature, if either one of the hard drives fails you will still be able to record and search video data without any problem. To replace the failed hard drive, it is required to turn the power off and replace it with a new one. Then turn the power back on, enter the **HDD Mode** page, choose **Data Recovery** menu, select the new hard drive, and click **Recovery**. By doing that procedure, RAID1 feature will start functioning again. If HDD Mode is set to Normal, Data Recovery menu is not shown on the window.

HDD Mode Configuration

HDD Mode ☐ Normal ☒ RAID 1

Notice : RAID1 must be operated under following conditions.

- * Only 2HDD should be connected.
- * Both HDD must be connected to SATA.
- * Both HDD must be of same model with equal quantity.

Data Recovery (RAID 1)

Select

☐ 1st HDD

☐ 2nd HDD

Notice : If you click "Recovery" button after replacing faulty HDD, HDD will recover.

7.2. microSD Configuration

If a microSD card (SD card) is not present in the slot already, turn off the Costar Video 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 Costar Video network camera. Log in as admin, and run **Recording Configuration**.

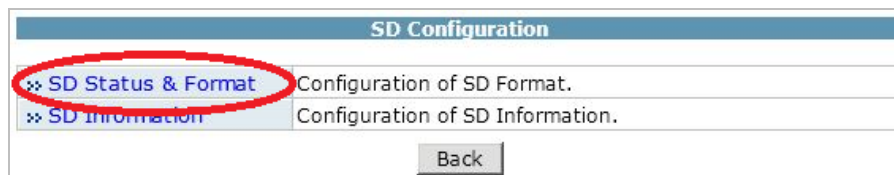
Note: Be sure to turn off the device before installing a SD card. Otherwise, the SD card may become defective. Always check the recommended type of SD card because non-conforming SD cards can cause abnormal behavior of the system.

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

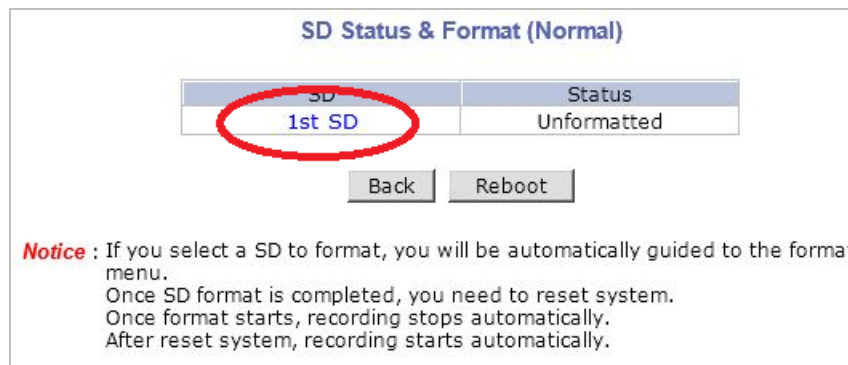
SD Information

File System	-None-
Total Disk Size	-None-
Free Disk Size	-None-
Usage	-None-
Oldest Image	-none-
Last Image	-none-

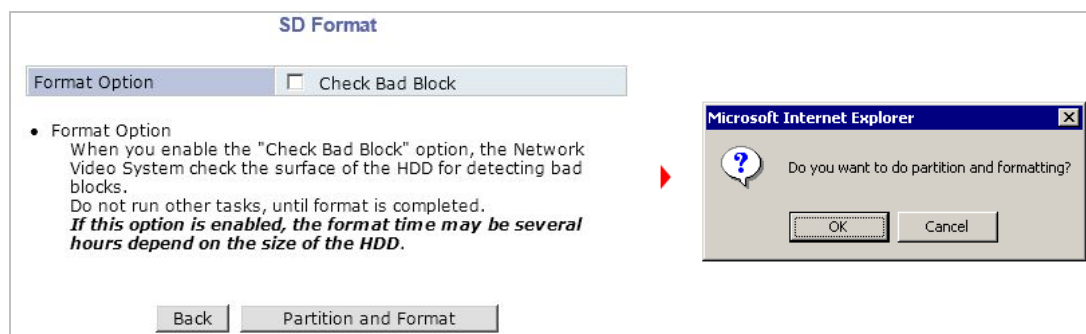
If entire SD Information is shown as **-None-**, that means the SD card is not formatted. In that case, click the **Back** button followed by clicking **SD Status & Format**.



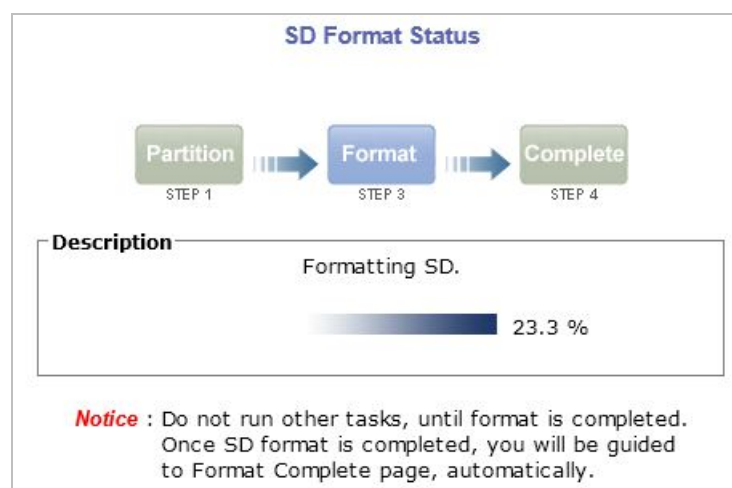
Now you will see the list of SD cards available and whether they are formatted or not. To perform formatting the unformatted one, click the SD card.



Then the following window will be displayed.

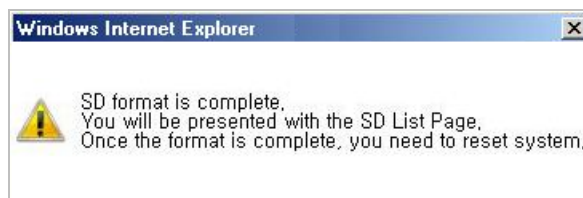


Click the **Partition and Format** button, then a pop-up window will be shown to confirm the formatting. Click the **OK** button to proceed, or click the **Cancel** button to abort the formatting.

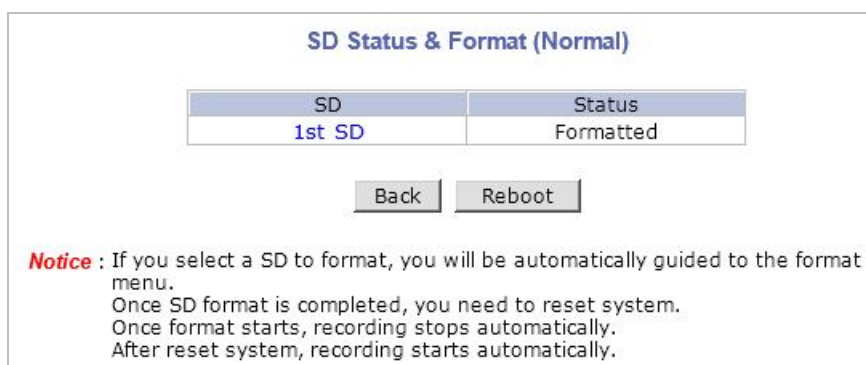


Note: If the program is terminated during the format process, the SD card may be damaged. To avoid this problem, make sure to close the program in the right manner and check the SD card.

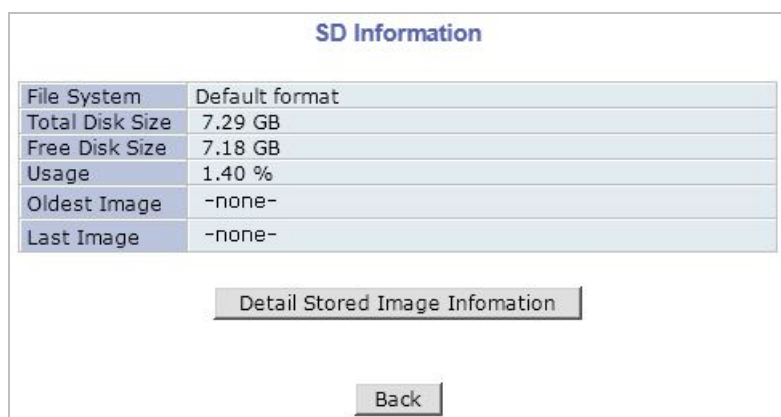
After formatting is finished, the following window will appear informing it. Click the **OK** button.



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 Costar Video server.



7.3. Recording Configuration for FW-5050/5071/5450/5850 & FW-1170/1173/1175/1176 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**. For example, you will see 12 channels from the list of **VS Module ID (IP Devices)** after adding two FW-3450 devices in **IP Devices Registration** of FW-5450. That means, FW-5450 can record the video sent from other remote cameras, as well as the four local cameras attached.

Below is an example of configuring the motion detection-triggered recording for FW-5450 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 FW-5450 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
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 3	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 4	Disable
1	Built-in Module 1	Built-in Module 1	1	Built-in Device	Camera 1	Disable
1	Built-in Module 1	Built-in Module 1	1	Built-in Device	Camera 2	Disable
1	Built-in Module 1	Built-in Module 1	1	Built-in Device	Camera 3	Disable
1	Built-in Module 1	Built-in Module 1	1	Built-in Device	Camera 4	Disable

Record Ready

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]

	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 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 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

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			
Enable	<input type="radio"/>	Disable	<input checked="" type="radio"/>	
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)	XX	:	XX	~ XX : XX
<input type="checkbox"/> Date (mm/dd)	XX	/	XX	~ XX / 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

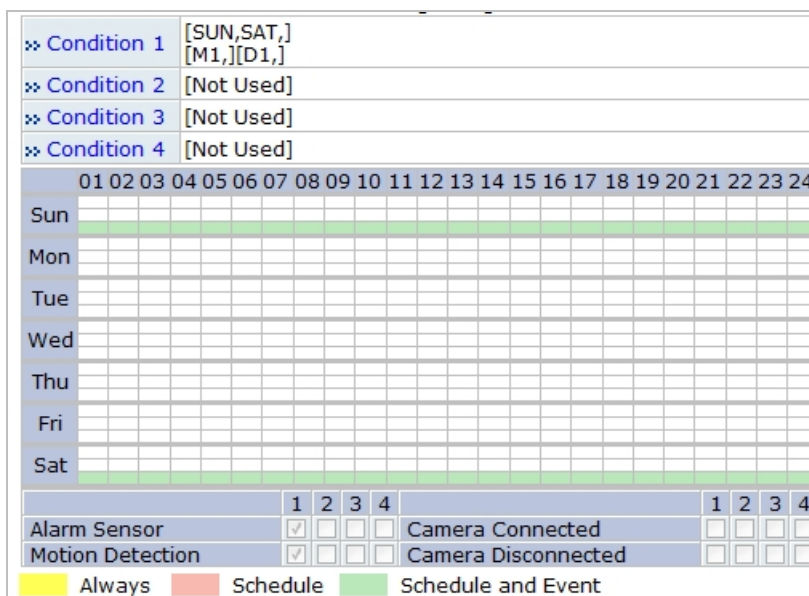
Alarm Sensor can be set at
Device Configuration -> DI/DO

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
<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
<input type="radio"/> Always <input type="radio"/> Schedule Only <input type="radio"/> Event Only <input checked="" type="radio"/> Schedule and Event	
Select Mode	
Schedule	
Sun Mon Tue Wed Thu Fri Sat Week <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
<input type="checkbox"/> Time (hh:mm)	XX : XX ~ XX : XX
<input type="checkbox"/> Date (mm/dd)	XX / XX ~ XX / XX
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"/>
<input type="button" value="Back"/> <input type="button" value="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.

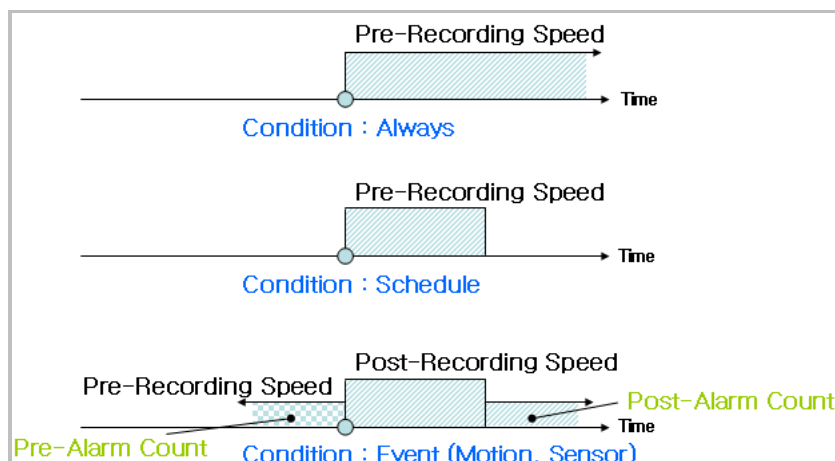
Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
Server Module ID	0	Camera Number	1
Camera Name	Camera 1		
Pre-Alarm Images	5	Post-Alarm Images	5
Pre-Alarm Speed	5.0f/s	Post-Alarm Speed	5.0f/s

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 HDD.

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	Enable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 2	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 3	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 4	Disable

Status
Recording

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.

7.4. 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		Week			
				Month	Day	Month	Day	Hour	Min	Hour	Min	Sun	Mon	Tue	V
Built-in Module 0 (Built-in Module 0)	Camera 1	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<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"/>	
	Camera 3	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 4	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"/>	

7.5. Recording Mode

In this part, you can decide which action to take in case the HDD's 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 HDD status, go to ["HDD Status Report"](#).

Now you are to choose the action between two options. If you want the Costar Video Server to keep recording without interruption, select **Circulation**. In this setting, the oldest file in HDD will be

deleted first to make space for new video. If you want the Costar Video Server to stop recording and let you to replace the HDD, click **Pause at full** and then select **Pause at Full**.

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

7.6. HDD Status Report

If it is configured here, the capacity information of HDD 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 HDD.

Click **HDD Status Report** on Recording Configuration menu. Set the condition of HDD status for sending email, and Date/Time when email is sent.

HDD Status Report							
Disk Full Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable						
Periodic Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable						
Day	SUN	MON	TUE	WED	THU	FRI	SAT
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time (hh:mm)	00	:	00				
HDD Error Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable						
HDD Error Beep Sound	<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 HDD 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 HDD capacity information at 3 pm every Monday and Wednesday)
HDD Error Notification	Select Enable if you want to receive a notification upon HDD Error.
HDD Error Beep Sound	Select Enable if you want to sound Beep upon HDD Error.

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

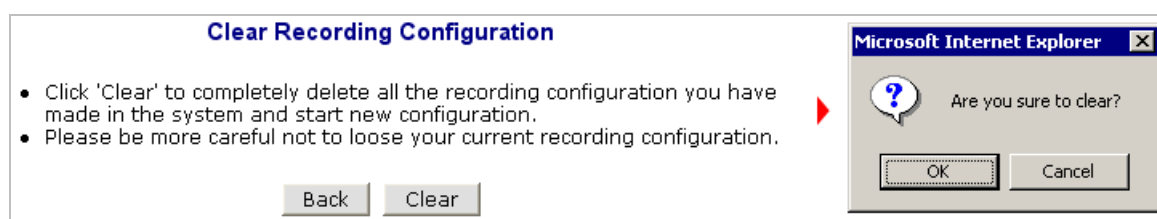
SMTP Server	<input type="text" value="kornet.net"/>
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	<input type="text" value="abcd"/>
Password	<input type="text" value="*****"/>
Sender	<input type="text" value="dhhong@seyeon.co.kr"/>
1st Recipient	<input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

7.7. Clear Recording Configuration

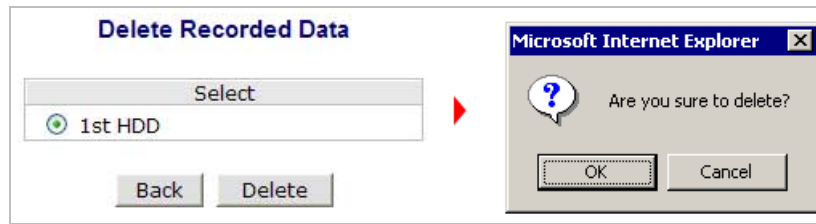
This feature is useful when there are configurations for multiple cameras and you want to clear them all. It'd take quite a time to delete them one by one. You can clear all the contents of Recording Configuration in a single step.

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.



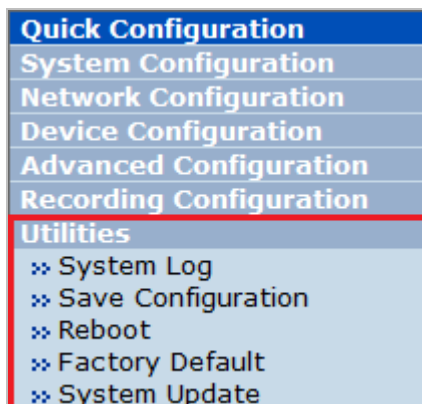
7.8. Delete Recorded Data

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 HDD 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 Costar Video Server such as HTTP file or CGI programs. In each line, log data consists of date, time, category, soFlxwatcher 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 Costar Video 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.

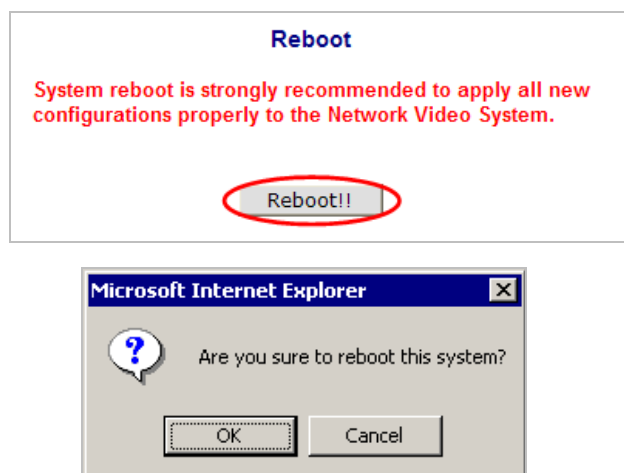


In some Costar Video models which automatically save the configured contents, **Save Configuration** button will not be displayed.

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.

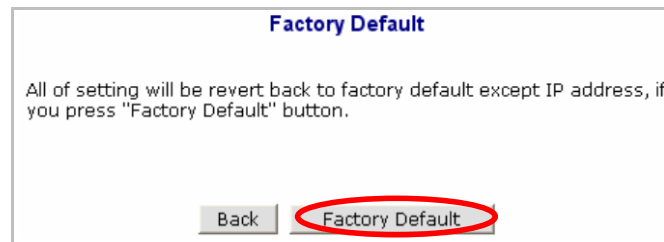
The second confirmation screen will be shown. This is only to confirm closing of web browser that Costar Video Server is on. Click **OK** button to close the web browser and reboot right away. If you click **Cancel**, the web browser is still open, but you will not be able to access the Costar Video Server until the rebooting is finished.



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.

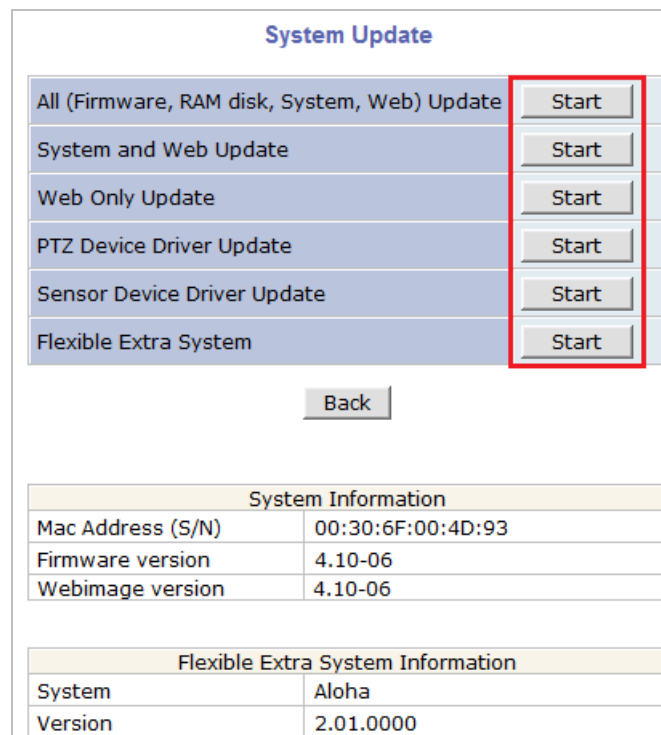
Click **Factory Default** on Utilities menu. A confirmation screen will be displayed as shown. Click **Factory Default** button, otherwise click **Back** button to cancel it. The second confirmation screen will appear. Click **OK** button to restore the factory default condition right away. If you click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



8.5. System Update

Costar Video 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.

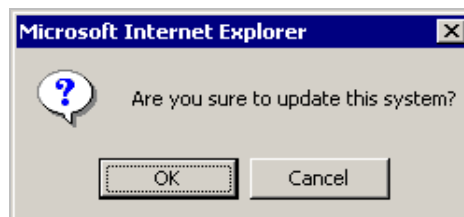
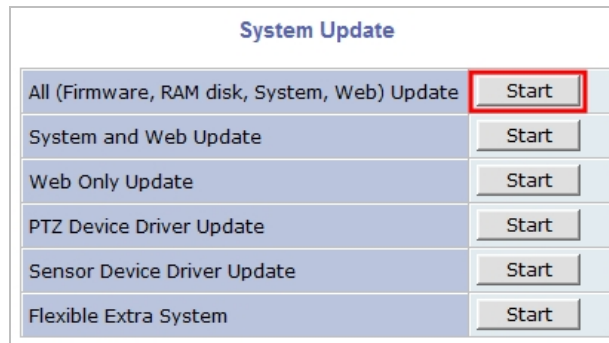


- **All (Firmware, RAM disk, System, Web) Update:** Update all four system images.
- **System and Web Update:** Only System and Web images are to be updated.
- **Web Only Update:** Only Web image is to be updated.

Up-to-date system files can be downloaded in Support page of Seyeon Tech's homepages at <http://www.Costar Video.com>. After the update is done, it is required to reboot the server.

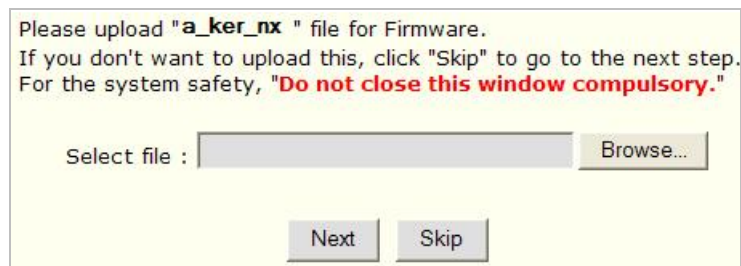
1.1.1. All (Kernel, RAM disk, System, Web) Update

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**.

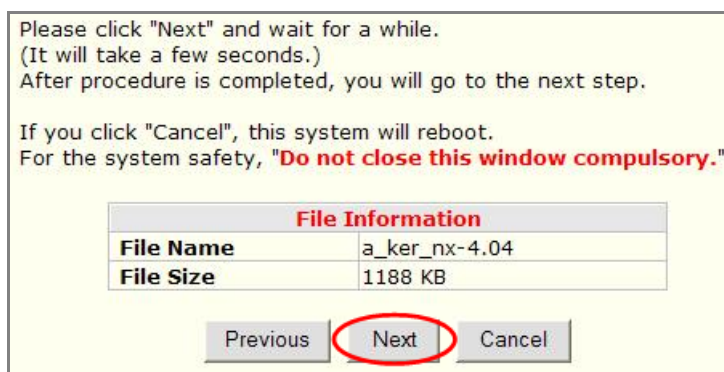


Note: If your web browser's pop-up blocker is enabled, your PC may not display the confirmation window above. In that case, the pop-up blocking feature of the web browser should be disabled for system update to be completed.

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.

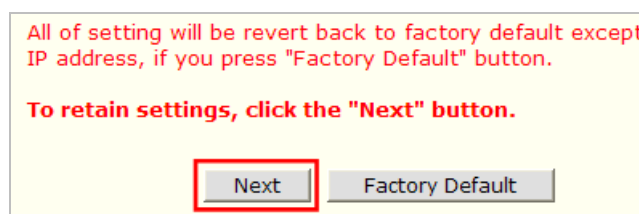


The next window is for locating the RAM Disk Update file.

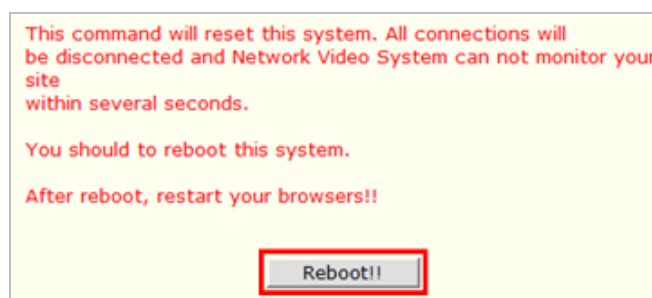


Go through the same steps as in Firmware Update, and do the same in update process for **System and Web Update** files.

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.



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



1.1.2. 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.

1.1.3. 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.

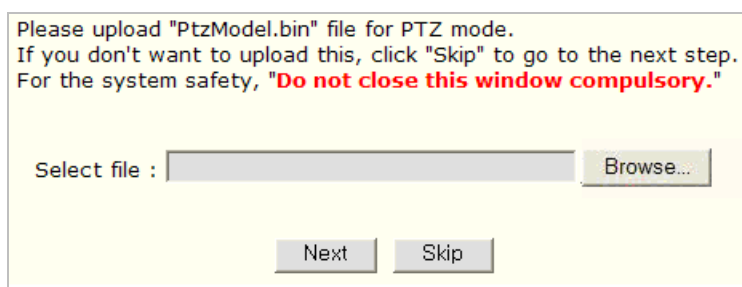
1.1.4. PTZ Device Driver Update

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

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.

Note: If a new PTZModel.bin file needs to be made, contact Seyeon Tech.



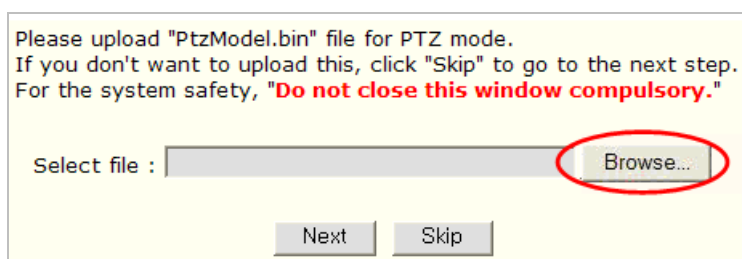
Please upload "PtzModel.bin" file for PTZ mode.
If you don't want to upload this, click "Skip" to go to the next step.
For the system safety, "Do not close this window compulsory."

Select file : Browse...

Next Skip

Using **Browse** button, locate the **PtzModel.bin** 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.

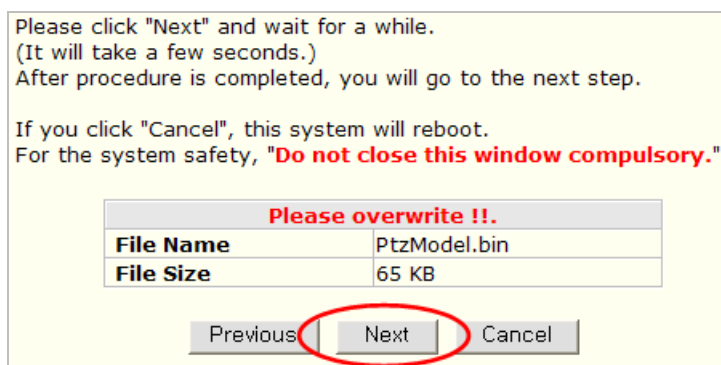


Please upload "PtzModel.bin" file for PTZ mode.
If you don't want to upload this, click "Skip" to go to the next step.
For the system safety, "Do not close this window compulsory."

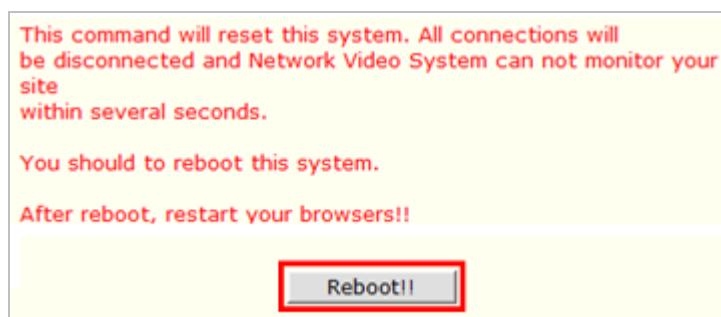
Select file : Browse...

Next Skip

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.



1.1.5. Sensor Device Driver Update

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

Note: If a new SensorModel.bin file needs to be made, please contact Seyeon Tech.

1.1.6. Flexible Extra system

Flexible Extra system is an integrated system combining Costar Video® 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 :

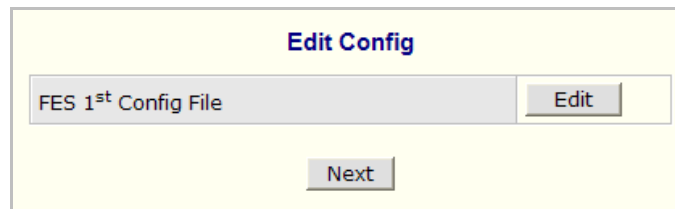
Check the file name and the size of Config Image file. If **Previous** button is clicked, it'll go back to start of file locating stage. If **Next** button is clicked, the update process will be done and go back to the next stage. If you want to stop the update, click **Cancel** button.

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.

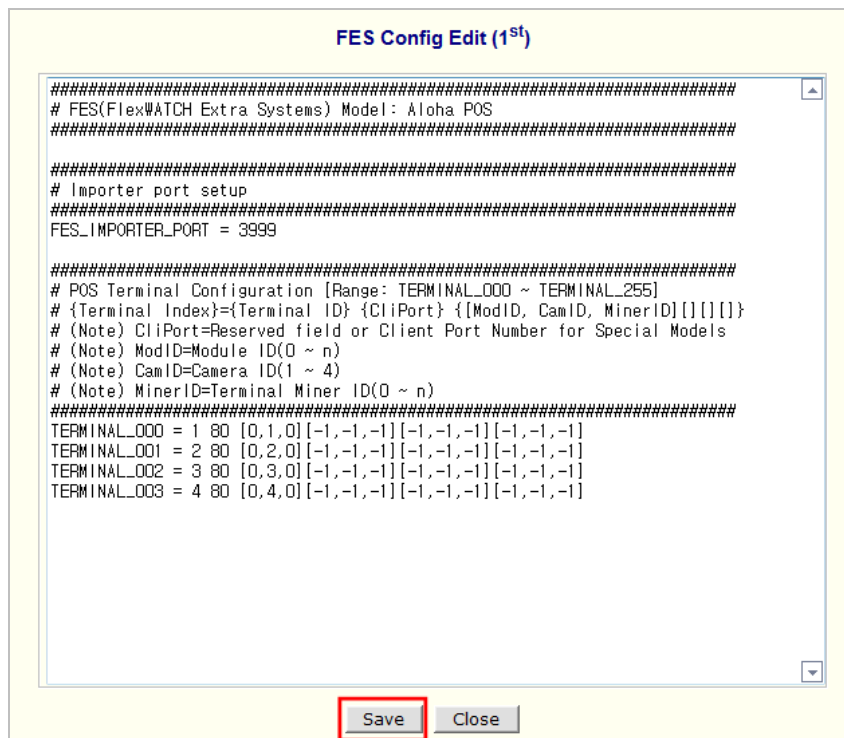
If you click "Cancel", this system will reboot.
For the system safety, "**Do not close this window compulsory.**"

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.

