Event Handler Guide

ACTi
Connecting Vision

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Introduction

Traditional CCTV Cameras are passive devices. They see, but cannot act. Whether all's quiet or something's afoot, they remain hapless observers. ACTi's Event Handler system turns our IP cameras into active partners in your security solution.

Event Handler is a rule-based software engine that is embedded into device firmware. Users do not have to replace existing cameras in order to make them smarter – they simply need to download and install a new firmware, for free.

How to use this Guide:

In the Event handler Guide, we describe concepts and setup details in separate sections. This allows you to go through concepts first without being bogged donw by details. Setup procedures and screens can be easily accessed via quick link icons on the right side of each section title. Click on the Setup icon for detail procedure, and click on the Info icon to understand a given concept or function. The Table of Content icon on top right of each page provides a quick way to navigate.

How does Event Handler work

When something happens at the camera site, such as when someone walks by, the door opens or closes, a fire breaks out or the sun goes down – these are all **Events**. Both events that occur in the environment or preprogrammed in the camera may be used as **Triggers**. Triggers cause the device to react with **Responses**. The link between trigger and response is governed by **Event Rules**. Event rules become active or inactive based upon a weekly **Schedule**. *Each event rule detects one specific trigger and may initiate multiple responses.*

The basic structure of an Event Rule consists of *Schedule, Trigger and Response.*
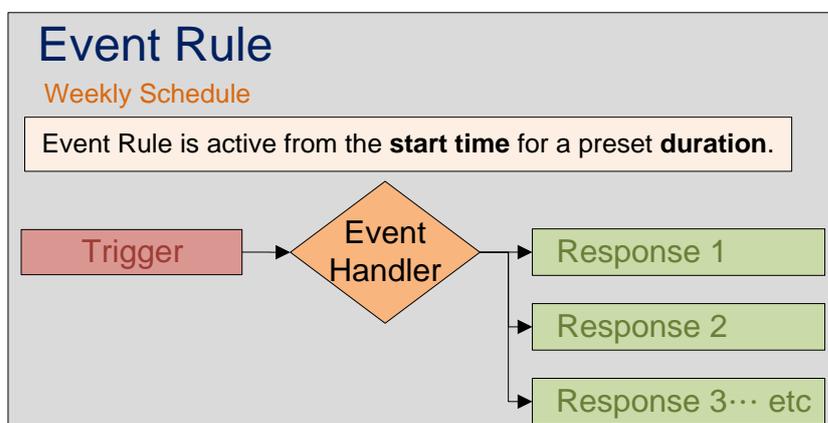
There are three types of settings in the user interface: **Event Lists**, **Event Configurations and Event Servers**.

Event Lists describe the event rules by scheduling when to initiate which responses from which triggers. **Event Configuration**s and **Event Servers** help define the building blocks of responses. **Event Servers** define whom the device may interact with. They can be SMTP/FTP servers, other devices on the network, or even the camera itself. **Event Configuration** set up the details of actual responses to perform. Many event configurations require choosing the related event server as part the setting. *The response options available for Event Rules are selected from the Event Configurations.*

You may define up to 10 event rules. The schedule of each rule is independent, but the triggers and responses will be shared. As an example, 3 sets of configurations are available for the response "Upload Video / snapshot". Each event rule will be a mix-and-match of available triggers and responses. The event rules will refer to these configurations, without needing to setup the same thing again within each rule.

Key Concepts

Schedule:

Event Handler operates by a weekly scheduler. User may select the days of the week, start time and duration for which the Event Rule becomes active. Triggers that occur when the Event rule is inactive will not cause any response from device. Response time may be equal to, longer or shorter than the trigger time.
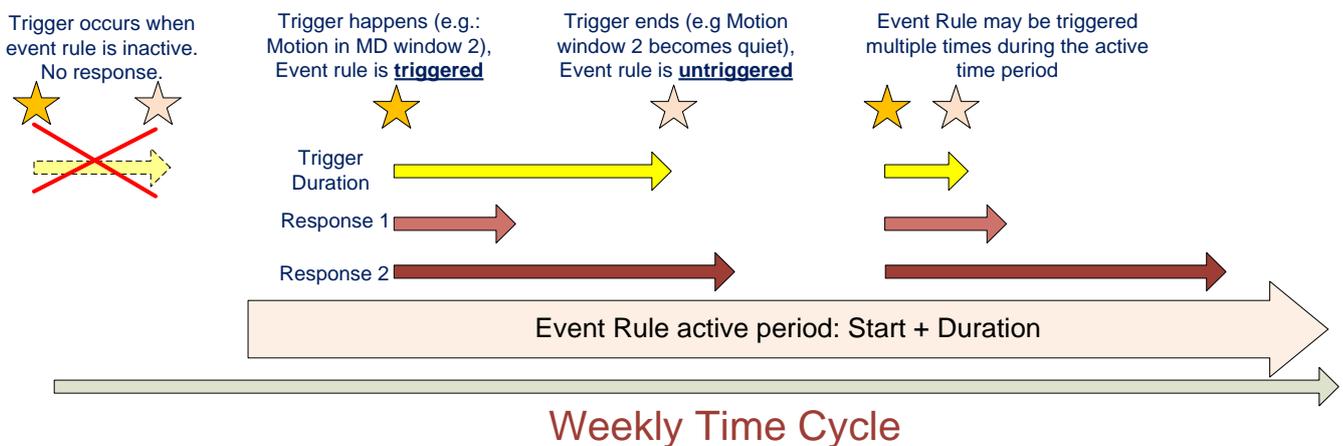
Event Trigger

While schedule define the active time window when an event rule may be triggered, it is the trigger source itself that actually decides when exactly is the rule triggered. Several types of triggers are available, and each influences the event rule in a different way. *Each event rule has only a single trigger.*

Scheduled

With "Scheduled" trigger, the event rule trigger / untrigger time is the same as the active / inactive time, or the start time plus the duration. This is different from other types of triggers. Event Handler will need to listen for activities in other types of triggers when the rules are active, which is not needed if the trigger type is "scheduled". The event rule will be triggered only once per event rule active period. Other trigger types may trigger the event rule multiple times during the event rule active period.

Event Rule
Triggered

Event Rule
Active

Start Time + Duration
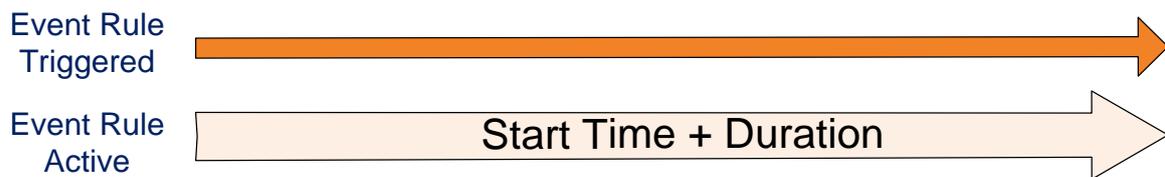
Motion Detection / Digital Input

Motion Detection (MD) and Digital Input (DI) trigger events in a similar manner. When the device detects activity in MD or DI, it will trigger the active event rules that are listening for MD or DI. The rules will be untriggered when the activity ends. Both of these trigger types have another parameter called "**trigger interval**". During the trigger interval, the event handler engine will consider the trigger to remain on even if the original activity has ended. If another short burst of activity occurs within the trigger interval, the device will ignore this as the trigger is already considered on. It will accept further triggers only after the interval has passed.

The length of time that the Event rule stays triggered is at least as long as the trigger interval. If the activity persists after the first trigger interval time is reached, the rule will stay triggered for another interval. The length of trigger interval thus serves as a "step" or the basic time unit for rule triggering length.

If the trigger interval value is set to zero, then the MD / DI trigger time will be the same as the length of actual activity. In some situations, however, this may be too short a time for the camera to react. It may also trigger a great number of responses if each and every activity is considered as a separate event. For example, Motion Detection is usually intermittent. In many situations a trigger interval of zero will likely generate dozens of emails within two or three minutes. So usually the trigger interval value is set at a small number of seconds, but not zero.
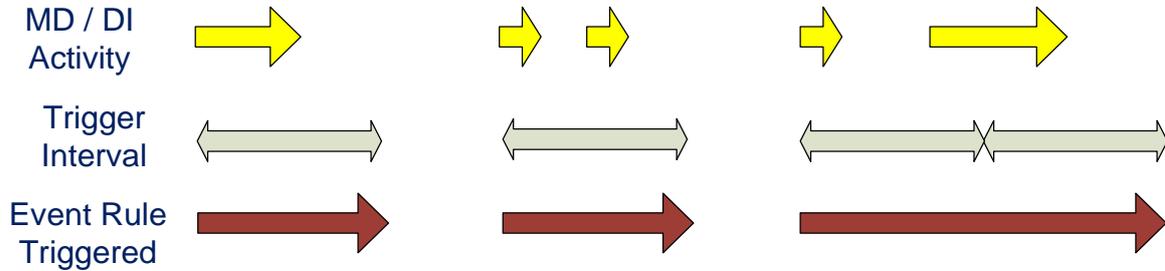
Switch to Night Mode

This type of trigger detects the internal Day / Night state. Event rule using this is triggered when the camera goes into Night mode (Black and White), and untriggered when the camera returns to Day mode (Color). If the camera is installed outdoors or affected by daylight, the trigger / untrigger time usually correspond to dusk / down. If the camera is installed indoors, this will allow camera to detect whether the lights are turned on.

Triggering day / night adaptations with this method is much more accurate than using a fixed schedule like 12 hours from 6pm every evening. This would automatically adjust to seasonal difference in daytime length instead of requiring seasonal or even monthly tune-ups of event rule.

Video Loss

Only Video servers (encoders) may use this as a trigger source. Event rules listening to video loss will be triggered when the analog in signal is stopped and untriggered only when the analog signal is restored. This is very useful as a self-diagnosis tool or timely warning against tampering.
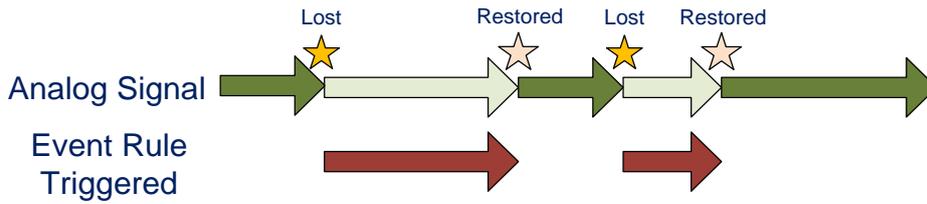
Event Servers

In many responses, the device would need to interact with a computer or device over the network. These are called event servers. They are classified as FTP servers, SMTP servers and HTTP CGI servers.

FTP (File Transfer Protocol)

FTP server can receive snapshot or video file uploads from the IP device. You may setup one FTP server

SMTP (Simple Mail transfer Protocol)

When sending emails from the device, you would need to setup SMTP servers. The emails may be pure text or attached with snapshot files. You may setup one primary SMTP server and one secondary SMTP server. The device will attempt to send email through the primary server first. If the primary server cannot be contacted within the Max connecting time, then the device will try to send email via the secondary SMTP server. If the device sends email successfully via the primary SMTP server, then it will not contact the secondary SMPT server.

HTTP CGI (Common gateway Interface)

CGI servers are programs that run on websites or network devices, including **computers, IP cameras and video encoders**. They can be custom programmed to perform a large variety of tasks based upon the input. You may define two separate CGI servers. By using HTTP CGI servers, IP video devices may now talk to and issue commands to each other. This creates endless possibilities for highly coordinated responses.

IP device may also use itself as the target. By using "localhost" or "127.0.0.1" as the network address in the HTTP CGI server, the cameras and encoders can give itself a loopback command, essentially opening up the whole device for dynamic reconfiguration. For detail on the commands used to control the devices, please refer to the "Using URL Commands" section.

Response

Response is the action taken by the device when an event rule is triggered. There may be many responses in a single event rule. Most responses are configured in the Event Configuration section. Many responses have three sets of possible settings, which may be selected in the event rules.

Each response setting also needs to be enabled to actually perform the task. You may configure a response but choose not to enable it. The device will remember the settings but will not apply it. This is a convenient way to do troubleshooting when testing new event rules.

Digital Output (DO)

Digital output is used to connect with external advices. You may use it to trigger alarms, access control devices or many further integration possibilities. The resting voltage level is defined in the Digital I/O ports section of the Event Configuration.

Digital output is the only response that has a "trigger interval" mechanism. This works in the same way as MD / DI trigger interval. The trigger interval value may be set to zero for DO length to follow event rule trigger time. Other trigger interval values may be used to precisely control how long will the DO be active when the event rule is triggered.

Send Notification message

Notification messages include two types, Email or HTTP CGI message. You may configure up to three preset messages. When a notification message is sent as Email, you may enter texts for the subject and email body text. If sent to a CGI server, it works as an URL command with an extra field for messages. Some CGI servers use this message field for special functions. ACTi IP devices do not require this field.

Upload video/snapshots

Both snapshots and videos are configured here. Snapshots may be sent to Email / FTP servers or HTTP CGI servers. Video will be in .RAW format, while snapshots will be .JPG files. You may define up to three groups of settings to upload video or snapshot. Snapshots can be sent to FTP / HTTP CGI and via Email, while video can only be uploaded to FTP or HTTP CGI servers.

Please go to ACTi website and download the latest Archive Player to play the .RAW files.

Change Motion Detection Profile

There are two sets of Motion Detection settings now, called **Motion Detection Profiles**. Normally the device will use the **Runtime Profile**. When this response is triggered by a certain event rule, you may select one or several of the Motion Detection windows to use **Event Profile** instead. The device will return to runtime profile when the event rule untriggers. You may change the sensitivity, trigger interval, threshold of the Motion Detection window. You may also enable an MD window only in runtime profile or event profile. By changing MD profile for this MD window, you can choose when to enable motion detection from this window.

Send URL command

By sending URL command to devices or CGI servers, you can change camera settings or link to other smart systems. You may setup three sets of URL commands. Each set of URL command include two lines. One will be sent when the event rule triggers, while the other will be sent when the event untriggers. Multiple commands may be stringed together in one line.

As the potential targets of URL commands include the IP device itself, or other cameras in the same network, this is useful for changing the device state temporarily, then returning to the original setting. Please check Using URL Commands section for detail.

Go to a preset point.

If the device is a PTZ camera, you may choose a preset point for the camera to go to when triggered by an event rule. The camera will remember the position right before this response is triggered, and return to that position when the event rule is untriggered.

Be sure to do Save and Reboot after you've updated the event settings. Only then will the settings be committed to flash memory. You may lose the settings to power loss or other issues if you do not perform this step.

Process Flowcharts

Event Handler Decision Tree

Event Rule Enabled?
- No → Nothing happens
- Yes → Event Rule Active?
  - No → Nothing happens
  - Yes → Trigger Type

Event Rule is Triggered When...	Video Loss	Enter Night Mode	Motion Activity Starts	DI Active	Start Time
Event Rule is Untriggered When...	Video Restored	Return to Day Mode	Motion Activity Ends	DI Inactive	Start Time + duration

Triggers

On Schedule	Motion Detection	DI Level Change	Video Loss (encoder only)	D/N Switch occurs

Responses

Upload Snapshots →
- SMTP Server → Email
- HTTP CGI Server
- FTP Server

Upload Video →
- FTP Server
- HTTP CGI Server

Send URL Command →
- HTTP CGI Server →
  - Self (via 127.0.0.1 or localhost)
  - Other IP devices / CGI Servers

Send Notification Messages →
- HTTP CGI Server →
  - Self (via 127.0.0.1 or localhost)
  - Other IP devices / CGI Servers
- SMTP Server → Email

Modify Settings with URL commands:
1. Frame rate
2. Bit Rate Mode (Variable or Constant)
3. Quality (When Variable)
4. Bit Rate (When Constant)
5. PTZ to Preset point
6. PTZ Tour Start / Pause
7. Resolution Change
8. Trigger DO (From other IP device)
9. GOP Settings
10. Privacy Mask region
11. Text Overlay
12. Exposure Control

DO Level Change → Relay Devices: Alarms, Access Control hardware and etc...

Switch to Event MD Profile →
1. MD region active or not
2. Sensitivity
3. Trigger Delay
4. Threshold

Goto PTZ Preset →
1. Preset No.
2. Park Time

Change Current Day/Night Mode →
1. Day
2. Night

Sample scenarios and rules

Event Handler is a powerful and versatile tool. But how powerful is it exactly? Sample scenarios will demonstrate the various uses much easier. In this section we provide a summary of each scenario, and corresponding Event Rule. We also provide actual screenshots of the setting pages in the appendix. You may click the setup icon 　　　 to the right of each rule to go to the proper section. Each rule is also stored as a .ini config file. You may load the sample .ini files to your device with IP Utility Version 3.05.20 or later, downloadable from http://www.acti.com/IP_Utility .

Rule 1: On Motion Detection, send Email with snapshot and video to FTP.

This rule is a very useful substitute when you do not have an NVR server in your system. Or even if you have, during periods when you don't need live video and wish to conserve bandwidth cost. The savings on total data flow comes from the fact that video upload only occurs when Motion Detection happens. If the scene is all quiet, the camera does not send out video stream. In motion recording done by video management software, the PC will still need to get continuous video feed to decide when to record, which is no longer needed in this scenario.

This will be useful when many cameras are deployed over a large area as in city surveillance or campus monitoring, as connection charges through ISP balloon with the number of cameras.

Rule 2: On Schedule, upload snapshots to FTP over a period of time, with regular intervals.

Sometimes we want to monitor a certain scene, but not constantly. We just need a general idea of the site status over a long period of time. In such cases we can use FTP upload with long duration as a way to keep monitoring it. If I want to monitor a certain intersection during rush hours, here's what to do:

We would set the event rule to be triggered by schedule, say 8 am. The response would be upload snapshot to FTP, with duration of 2 hours (7200 seconds). As I want one image per minute, the Image rate would then be set at 120. This means that we will get about one image per minute.

To use the event handler in this way, there are a few points to note. First you need to make sure that the connection to FTP is reliable, and FTP server does not disconnect the camera after a short time of inactivity. Set the timeout to "no timeout" or a long period of time from the FTP server

side. If you are doing snapshot over a very long period of time, please split the time into multiple rules to be safe from disconnecting. Secondly, the interval between each image is not exact, and may float around a bit. So please experiment a few times before you find the proper values for your application.

Rule 3: Swivel to PTZ preset location on Digital Input (Self)

PTZ cameras are flexible tools when a large field needs to be surveyed. Yet if no operator is on duty, or the camera is looking the wrong way when something happens on the other side, wouldn't it be nice to be able to focus the camera where it's needed? By combining Digital input and PTZ to preset point, this is easily done. A PTZ camera in the entrance hall can take a close look at the main gate when the door is accessed and get a good view of the visitor, while in other times it may go on auto scan duty to survey the whole scene.

Rule 4: On Motion Detection, command another camera to PTZ to preset location. Resume Preset Tour patrol after 30 seconds.

With Event handler, devices can talk to each other now. Here's an example: When a PTZ camera is located adjacent to a fixed camera (say, a corridor that feeds into an entrance hall), the fixed camera may alert the PTZ camera to pay attention to specific areas when motion is detected from the fixed camera. As URL commands allow sending two separate commands at trigger and un-trigger, the PTZ camera can be commanded to pause preset tour and go to specific location, then resume the auto tour after a specific time.

Rule 5: Lower Frame Rate / Bit Rate during Night time.

In some cases you need to provide 24/7 surveillance tapes, but cannot afford the huge cost required for full-time high quality storage. By combining two separate Event Rules, we can do just that.

The first rule is to lower frame rate / bit rate during the night. This would in effect be the "night time standby mode", where sufficient but not excessive quality video is good enough. This will solve the "save storage" part of the paradox. For "Clear image when you need it", we'll introduce a one-two punch with the next rule.

Rule 6: During the Night, raise Frame Rate / Bit Rate on DI input, return to standby values after 30 seconds.

Now that the baseline bit rate at night is lowered, we still need to ramp it up for "night time

alert mode". To do this, we would schedule another rule only during the night, and raise the frame rate / bit rate for bursts of crystal-clear images when someone comes through the door. The frame rate / bit rate will return to baseline night time standby levels after a preset duration, which we will use 30 seconds here. Keeping the savings AND the clear image when needed.

Voila! Now you can really have the best of both worlds.

Rule 7: Constant bit rate at night and VBR Middle in daytime.

Another possible solution to the storage / image quality paradox is to add Variable Bit Rate (VBR) mode into the mix. Instead of trying to control data flow, VBR mode aims to maintain video quality. When the scene has only moderate motion and is well lighted (as in most indoor scenes during office hours), Variable Bit Rate mode is a good choice. It will reduce the average bit rate while preserving high quality during bursts of activity.

Yet this benefit does not extend to low-light conditions. The unavoidable video noises at night will disrupt compression, and cause VBR to generate an unnaturally high amount of data. This means that the night time surveillance should be controlled with Constant Bit Rate mode when on standby. Activity during the night will be covered by Sample Rule 6 with higher Constant Bit Rate settings.

Rule 8: Force into Night mode on schedule.

In scenarios where the lighting condition is erratic, it is no longer reliable to use lighting sensors on camera to determine day / night switch. An example would be in nightclubs, which would be filled with strobe lights that go wild all over the place. In business hours, it is best to stop auto switch and stay in night mode, so that the camera does not flick back and forth between Day and Night modes by short flashes of light.

This would also apply to other scenarios where the source of change happens on a timescale of seconds instead of minutes as in outdoor environments. One possibility is considered in the next rule.

Rule 9: On DI signal force to Day mode.

Most surveillance cameras require a time lag before switching over to day or night mode. This is used to prevent fleeting lighting changes from causing needless switches. This is useful for outdoor environments and usual indoor scenarios. But what if the scene is regularly under brief lighting changes that require immediate action?

One scenario will be the safe deposit area in banks, or preservation chambers of art museums. The light will be off most of the time, to prevent damage to precious ancient manuscripts. Only when someone enters will the lighting be turned on. Yet if the camera waited for the usual amount of time before changing into day mode, the most crucial moments of a potential intrusion will be captured only in black and white. Thus a DI link to entrance / lighting will ensure that every instant is captured as clear as possible.

Rule 10: On Video Loss send email and DO to alarm until Analog video signal is restored.

Video Servers depend upon the analog cameras that provide video feeds to work properly. A timely warning and status report of whether analog cameras are working fine is important for peace of mind.

With the Event Handler embedded inside the video servers, you can setup a rule that is triggered upon video loss, which gives one response in email and another response via DO, which lights up a properly located warning light. You may set the DO signal to follow the length of trigger, which means that the warning light will stay on until video signal is restored, providing a handy reminder.

Rule 11: Change Motion detection parameters at night, and activate an additional MD region.

During night time or low light situation, the video signal is quite different from when it's properly lighted. The increased background noise will create more false alarms under day time settings. To better adapt to night time signals, sensitivity should be lowered, while at the same time threshold should also be slightly reduced in order to detect motion at the same object size.

There are also occasions when motion detection is required only during specific period. In such cases a motion region may be disabled in Runtime Setting, and Enabled only in Event setting. The switch may be performed either with time schedule or day/night switch.

User Interface and Setup Tips

The Event screen in the device web page is divided into three sections. They are Event Server, Event Configuration and Event List. Each setting must be enabled to take effect. Disabled setting will be remembered, but will not be activated when used in Event Rules. *Whenever you make changes to the device event settings, please be sure to save and reboot to commit settings to flash memory. You may lose the settings to power loss or other situations if you do not do this step.*

Event Server

The Event Server section shows the key settings at a glance, so that you may easily recognize the target device they are referring to.

Type	Network Address	Ports	User Name
FTPd	10.1.1.112	21	EventHandler
SMTP	smtp.test.com	25/110	account@yourdomain.com
HTTPd 1	localhost	80	admin
HTTPd 2	10.1.1.104	80	admin

FTP Server

When setting up FTP servers, be sure to take note of the connection time out period on the server side. If you are doing periodical snapshot uploads, please set your FTP server's disconnection time longer than the interval between images. Otherwise your upload will be disconnected halfway by the FTP server. You can setup only one FTP server.

FTP Server

Network Address	10.1.1.112
Port	21
User Name	EventHandler
User Password	●●●●●●●●
Mode	Passive
Max. Connecting Time	10 sec. (0~60 sec)

Apply   Reset

SMTP Server

When setting up SMTP server, pay attention to the authentication type. We do not support SMTP via SSL yet, please either allow logging in without SSL or choose another SMTP server.

The User Name is the account you use to login to the SMTP server. The sender Email address can be any email address. You can setup one primary and one secondary server. The device will only contact the secondary server when the primary server is timed out.

SMTP	
Primary SMTP Configurations	
Enable	☑
Authentication Type	Login ▼
User Name	account@yourdomain.com
User Password	●●●●●●●●
Sender Email Address	Sender@Name.com
SMTP Server Address	smtp.test.com
SMTP Port Number	25
Max. Connecting Time	10 sec. (0~300 sec)

HTTP CGI Server

HTTP CGI servers allow you to connect with different devices or computers. Often you would send URL command to the CGI server, which may be the IP device itself or another camera in the same network. You may setup two different HTTP CGI servers. If you are setting up this device itself as a HTTP CGI server, please use either "localhost" or 127.0.0.1 in the network address field to send loopback command.

HTTPD-1	
Enable	☑
User Name	admin
User Password	●●●●●●
Network Address	localhost
Port Number	80
Max. Connecting Time	10 sec. (0~60 sec)

Event Configuration

Event Configuration is where you configure the detail setting groups to be used as responses. Available configurations will be different between models.

Digital I/O ports (selected models only)

This is the only Event configuration that contains a trigger. Digital In ports detect voltage difference in the connected circuit, and serve as a trigger. Digital Output provides voltage to the connected circuit to act as a response. Both are setup here and both have a low voltage state and a high voltage state, noted as 0 and 1. For explanation of trigger interval, please see concepts section.

DI: To setup DI, please define the Active level as 0 or 1. 0 means low voltage, while 1 means high voltage. Default active level is 0. This means camera will consider a low voltage difference a trigger (when the circuit has been shorted). The event will end when the DI voltage goes back to high or 1.

DO: To setup DO, please define the Active level as 0 or 1. 0 means low voltage, while 1 means high voltage. Default active level is 1 (high voltage output from device). DO may be used to power up small devices or as a signal to other access control supplies.

Notification messages

You may configure up to 3 notification messages. Notification messages serve two functions. One is a one –time URL command with an extra field for messages, which may be required by certain CGI servers. The other is an email message with body text. When sending email, you may use the semi-colon symbol " ; " to separate emails of multiple recipients. To enter email body text, use the "Message" field. You need to setup SMTP server or HTTP CGI server first before using this function. See chapter "Using URL commands" for detail.

Upload video/snapshot

Both snapshots and videos are configured here. You may define up to three groups of settings to upload video or snapshot. Snapshots can be sent to FTP / HTTP CGI and via Email, while video can only be uploaded to FTP or HTTP CGI servers.

The fields to setup Upload video/snapshot are divided into two parts. The first half is the **file property**, which includes upload time / Image Rate / Pre Buffer and File name. The second part is the **upload property,** which includes Upload Path, CGI Settings, Email Recipient Address and Subject.

File Properties	Snapshot	Upload Time, Image Rate, File Name
	Video	Upload Time, Pre Buffer, File Name
Upload Properties	Email	Upload path*, Email Recipient Address, Subject
	FTP	Upload Path
	HTTP CGI	Upload Path, CGI Settings

Each Setting is explained in detail below:

Enable Video/Snapshot checkbox: this decides if this rule is in effect, or disabled. Sometimes it is useful to keep the settings, but not to enable it for troubleshooting purposes.

Upload Image type / Upload image to: these define the task at hand, and change the fields that needs to be filled out.

Upload Time: IP device will provide video/snapshots for the number of seconds here. It will stop uploading video/snapshot at the end of this period. If you have video management software recording from this camera at the same time, the normal recording through NVR will not be affected, and goes on throughout the event period and afterwards. But the special upload session will end as the upload time ends.

I**mage Rate:** This is used only by snapshots. This tells the camera how many snapshots it should attempt to capture during the Upload Time. If this value is set to 0, then the IP device will attempt to capture as many snapshots as possible. Depending upon the device loading, the number of snapshots taken may not reach the number you specified.

Pre Buffer: This is only used by video. If this is set to more than 0, then the IP device will start to buffer video in its internal memory. The maximum pre buffer is 3 seconds. When an event requires video upload, the IP device will first upload the video taken right before the event then keep uploading until it reaches the upload time.

File Name/ Upload Path: You will need to specify the naming rule for files and upload paths (upload path is not needed for Email. Just put a slash "/" in the field). The rules contain flexible parameters. A sample rule and corresponding filename will look like this:

Front_Door_%YYYY_%MM_%DD@%hh%mm%ss
Front_Door_2009_11_12@195037.JPG

Upload Path folders may also be named dynamically. For the IP device to create folders on FTP and HTTP CGI servers properly, your FTP/CGI account will need to have permission to create folders. For syntax on auto naming, please see online help or the inset box at the end of this section.

CGI settings: Some CGI servers may require special info and settings. Please refer to CGI server designer for this section. IP devices do not allow upload of Snapshots / Video into their embedded CGI servers.

Email Recipient Address / Subject: When uploading snapshots via email, these information are required.

Auto Naming Rules for Files and Folders:

To properly track images and videos, a well thought out naming rule is necessary. There are a number of automatic variables available to design a proper naming system, which may be used both on files and folders.

Symbol	Description	Example
%YYYY	4 digits for year	2009 for year 2009
%YY	the last 2 digits of 4 digits year	09 for year 2009
%MM	two digits for month. 01~12	01 for January
%DD	two digits for date. 01~31	01 for the 1st day of a month
%hh	two digits for hour. 00~23	
%mm	two digits for minute. 00~59	
%ss	two digits for second. 00~59	
%W	a space character. ' '	' '
%N	camera name	camera-1
%Y	File serial counter. It starts from 1 in every uploading task. The counter will be increased by 1 for next uploading file.	1,2,3,4,5,...

Example

1. Entrance-%YYYY-%MM-%DD@%hh%mm%ss for time 2009/06/05 22:50:30.

The full name is Entrance-2009-06-05@225030

2. X_%w-%N_TEST%Y for camera name is 'my-camera' and three successive uploaded files.

The full names of these three files are

X_ -my-camera_TEST1, X_ -my-camera_TEST2, X_ -my-camera_TEST3

Send URL commands

You may send URL command to devices when event rules trigger and untrigger. Each time you may send one line of maximum 119 characters. Multiple commands can fit into one line. You can program three sets of instructions for Send URL commands. Sample screenshots are as follows.

You may change the highlighted segments to fit your application. *Use the "&"connector to stringing multiple URL commands together in one line.* For detail, please check chapter "Using URL Commands".

Goto a preset point

This function is available only for PTZ cameras. Before using this function, you need to first define a preset point in the PTZ section when viewing live view. You may choose the preset point to go to when an event rule triggers. The Park Time is the time the PTZ camera will stay at the target preset point. At the end of the preset time, the PTZ camera will return to the location right before the event triggers. If the PTZ camera was doing preset tour when this response is triggered, the preset tour may interrupt and shorten the time the PTZ camera stays on the preset point. Please use URL commands PTZ_PRESET_GO and PTZ_TOUR_STATE commands together to pause Auto Tour. You may reference to Sample Rule 4.

Event List (Event Rules)

You may define a maximum of 10 Event rules, which will be shown in abbreviated form in the Event List panel. It will display under each Event ID, the days of the week it will be active, the start time and duration of the active period, the trigger source type, and the responses to be used. If the row is grayed out, this means the rule is currently not enabled and stays inactive.

ID	Week Day	Start	Duration	Source	Action
1	1234567	00:00	24:00	DI	GO|MSG|IMG|MD|CMD
2	12345	08:00	10:00	SCH	DO1
3	1234567	03:47	01:00	SCH	MSG1,MSG2,CMD1,CMD2
4	1234567	00:00	24:00	NONE	IMG1,CMD1
5	1234567	00:00	24:00	DI1	IMG1,GO,MD1
6	1234567	00:00	24:00	MD1,MD2,MD3	GO,CMD1

There are three parts in the event rule. They are Enable/Schedule, Trigger and Response. In the trigger and response sections there may be detail selections that appear after you've selected first tier choices. For example, Motion detection trigger will require you to specify which regions are included as triggers. For details please check the concepts section.

Using URL commands

URL commands are extremely flexible tools in tuning camera or encoder behaviors. You may also use them to communicate with custom-designed HTTP CGI servers. There are two ways to use URL commands in the Event Configuration section. One is through the Send Notification message screen, while the other is the Send URL command screen. The following discussions will focus on communicating with other IP devices from our product line.

The original format of URL commands looks like this:

http://*192.168.0.100:80*/cgi-bin/cmd/encoder?*VIDEO_FPS_NUM=8*

The highlighted segments are the ones you will need to customize for each application. The first segment defines the IP and port used to contact the other device. If you did not change the port settings, you may just use the proper IP to connect to the device. This is recorded in the **HTTP CGI server** screen in the Event Server section.

Type	Network Address	Ports	User Name
FTPd	10.1.1.112	21	EventHandler
SMTP	smtp.test.com	25/110	EventTester@test.com
HTTPd 1	192.168.0.105	80	admin
HTTPd 2	localhost	80	admin

The second highlighted segment is the actual URL command. This is divided in the variable and the value. The **variable** is the text (including underscore) before the "=" sign, this tells device what to change. *Always enter the variable in FULL UPPER CASE*. The **value** is the part after the "=" sign. This may be either text or numbers, which depends on the specific command. You should decide what values to use here. Sample values shown here and in the sample screenshots may not be perfect matches for your application. A list of acceptable values is included in descriptions for each URL command.

Using "Send notification messages" would require you to separate the CGI setting and the URL command into two fields. The CGI settings field will always be "*/cgi-bin/cmd/encoder*" if you are communicating with our devices. The URL command field is what we will explain in detail below. Some CGI-based devices require an additional filed "message". For our devices there is no such need, and you can put in any value there without affecting device behavior. Just put in "/" would be fine.

If you use the "Send URL Command" function, you will need to type in the full command, including the CGI path, the "?" question mark sign, and the variable / value. Please note that you will only need to type in the "?" question mark in "Send URL command'. In "Notification message" you should omit the "?" question mark.

The following sample screenshots are two ways of setting the same URL command.

Sample Screen: Notification messages

Sample Screen: Send URL command

You may wish to modify the highlighted parts to adapt to your application.

URL Command List

Function	URL command variable			Available Values
Frame rate	VIDEO_FPS_NUM	Resolution	1280x1024	1,2,4,8
			1280x720	1,2,5,10
			NTSC D1 or below	1,2,3,4,5,6,7,10,15,30
			PAL D1 or below	1,2,3,4,5,6,8,12,25
Bit Rate Mode / Quality	VIDEO_MPEG4_QUALITY	Bitrate Mode	Constant Bit Rate:	NONE
			Variable Bit Rate:	HIGH, MIDDLE, LOW
Bit Rate while Constant Bitrate Mode	VIDEO_BITRATE	Bitrate		28K, 56K, 128K, 256K, 384K, 500K, 750K, 1M, 1.2M, 1.5M, 2M, 2.5M, 3M
Brightness	VIDEO_BRIGHTNESS			0~100
Contrast	VIDEO_CONTRAST			0~100
Saturation	VIDEO_SATURATION			0~100

AGC Gain / Target Exposure value	VIDEO_AGC_GAIN		1~255
Go to PTZ Preset Point	PTZ_PRESET_GO		1~32
PTZ Preset Tour	PTZ_TOUR_STATE	No Tour	DISABLE
		Auto Scan	SCAN
		Specific Tour	TOUR1, TOUR2, TOUR3, TOUR4, TOUR5, TOUR6, TOUR7, TOUR8, TOUR9, TOUR10

Frame rate:

When changing frame rate for devices that use firmware versions 3.xx.xx, you should use the URL command in this format:

VIDEO_FPS_NUM=8

The possible values are different depending upon resolution:

Resolution	Available VIDEO_FPS_NUM Values
1280x1024	1,2,4,8
1280x720	1,2,5,10
NTSC D1 or below	1,2,3,4,5,6,7,10,15,30
PAL D1 or below	1,2,3,4,5,6,8,12,25

Bit Rate Mode / Quality while Variable Bit Rate Mode (VBR):

When using MPEG4, Bit Rate Mode and Quality while VBR is controlled with a single URL command. Constant Bit Rate (CBR) means that video quality is adaptive and changes with the scene. So the URL command for CBR is:

VIDEO_MPEG4_QUALITY=NONE

While under VBR, there are three quality levels. The URL Command would look like:

VIDEO_MPEG4_QUALITY=(HIGH, MIDDLE, LOW)

Bit Rate while Constant Bit Rate Mode:

When using Constant Bit Rate, you also need to specify the target bit rate. The URL command looks like:

VIDEO_BITRATE=3M

The target Bit rate level can be one many choices, which include: 28K, 56K, 128K, 256K, 384K, 500K, 750K, 1M, 1.2M, 1.5M, 2M, 2.5M, 3M.

If you are switching between VBR and CBR, you may need to connect this URL command with the VIDEO_MPEG4_QUALITY command. This would look like:

VIDEO_MPEG4_QUALITY=NONE&VIDEO_BITRATE=2M

Brightness / Contrast / Saturation

These values are controlled by these three commands:

VIDEO_BRIGHTNESS=25
VIDEO_CONTRAST=30
VIDEO_SATURATION=67

The range of available value is between 1 and 100.

AGC gain / Target exposure value:

This denotes how "bright" should the raw data look like to the sensor. The higher the value, the brighter the image. When the scene is under low light, the image will also become grainier with higher AGC Gain value. So reducing this at night time may help against random noise. The URL command is like this:

VIDEO_AGC_GAIN=44

The range of available value is between 1 and 255.

Go to PTZ preset point

This URL command will ask the PTZ camera to go to a preset point. Each preset point has a serial number. The URL command is in this format:

PTZ_PRESET_GO=1

Whereas the number is the serial of the target PTZ preset point.

Pause / Restart PTZ tour:

This URL command controls the PTZ auto tour behavior. PTZ camera may be in one of three states; No auto tour (static), Auto Scan (auto pan) and Preset Tour. Tours are a group of preset points, with dwelling time at each location defined. The URL command looks like this:

PTZ_TOUR_STATE= TOUR1

No Tour	DISABLE
Auto Scan	SCAN
Specific Tour	TOUR1, TOUR2, TOUR3, TOUR4, TOUR5, TOUR6, TOUR7, TOUR8, TOUR9, TOUR10

This URL command is useful when you have a tour going on in the background, and wish to interrupt the tour to go to a specific location, then go back to touring after some time. You would setup the command like Sample Rule 4.

How to setup Sample Rules

For every rule, we provide three types of instructions. They are the setting table, sample screenshots and backup .ini configuration files.

The setting table will list everything that needs to be setup for this rule to work. You should modify the settings based upon your actual application. The full list is also included in the **Sample rule Settings.xls** excel file in the .rar package.

Reference screenshots are designed to show you exactly how the setup screen will look like. Just copy everything except settings you need to change to your own. An example will be SMTP server account, which will only work if you enter your own proper info.

You may also load the sample rules directly into your device with IP Utility and the .ini files. Each rule is different and has a separate file. Configuration files are included in the .rar download package. Please also go to our website to get the latest version of IP Utility from this link:

http://www.acti.com/IP_Utility

Download and run IP Utility. Check the box before the device you wish to load sample rules to, enter the user name and password for the device (*Default: Admin / 123456*) and click "restore configuration". A dialog box will appear and ask for the .ini files. Find the appropriate file and click apply. Wait for about one minute, then check Event screen of the device again.
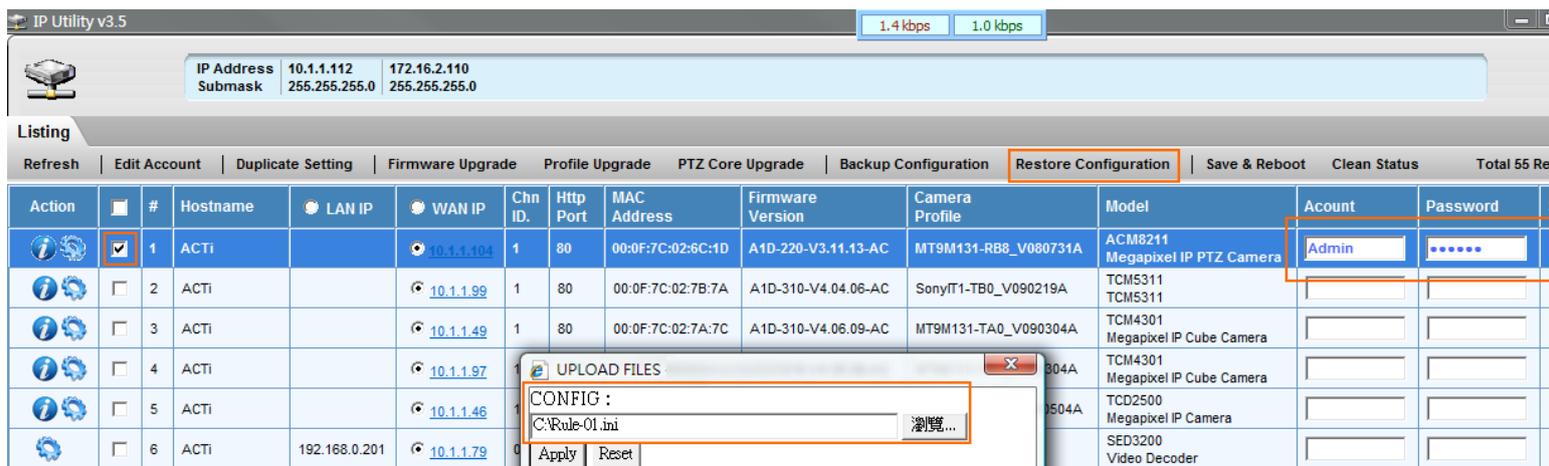
Some rules refer to functions that are not available to all devices, like PTZ preset or change day/night mode. If you load a rule with PTZ preset into a non-PTZ device, the rule will still load, but will not function.

Sample rules numbered 1 to 10 will load into the rule slot of the same number. Sample rule 11 will load into rule slot 10, as there are only 10 rules allowed per device. All sample rules will be disabled when restored to device, you will need to enable them and modify appropriate settings to use them. Event Configuration / Event servers will be enabled upon loading into device.

Rule 1: On Motion Detection, send Email with snapshot and video to FTP.

Screen	Section	Setting	Special Note
Video Adjust	Motion Enable - > Runtime MD profile -> Region # desired	Region 1 - Enable	Enable the proper region.(e.g. MD region 1 Set the position and size for Motion Detection Region.
		Sensitivity	
		Trigger Interval	Determine minimum event trigger length with this value. Set to 30 so that PTZ camera will stay at target location for 30 seconds.
		Trigger Threshold	
Event Server	FTP Server	Network Address	Check box to enable this server
		Port	
		User Name	
		User Password	
		Mode	
		Max Connecting Time	
Event Server	SMTP Server	Enable	Check box to enable this server
		Authentication Type	Select the proper authentication. Default is Login
		User Name	The account you use to log into the SMTP Server
		User Password	Password for SMTP server
		Sender email Address	This is the displayed sender's address. This can be anything you wish.
		SMTP Server Address	
		SMTP Port Number	
		Max Connecting Time	
Event Configuration	Upload Video/Snapshot 1	Enable	Check box to enable this setting
		Upload image type	Snapshot
		Upload image to	E-MAIL
		Upload Time	5
		Image Rate	0
		Image File Name	SnapShot-Backgate-%MM%DD%hh%mm%ss

		Upload Path of Image File	\
		Receipt of e-Mail addresses	supervisor@office.com ; guard@security.com
		Subject	Backgate Motion Detected
	Upload Video/Snapshot 2	Enable	Check box to enable this setting
		Upload image type	Video
		Upload image to	FTP Server
		Pre-Buffer Time	2
		Upload Time	30
		Image File Name	Video-Backgate-%MM%DD%hh%mm%ss
		Upload Path of Image File	\Backgate%MM%DD\
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	define active period for this rule
		Triggered by	Motion
		Trigger by Motion	Region 1
		Response to	Upload video/snapshots -> Image 1 & Image 2

SMTP

Primary SMTP Configurations

Enable	☑
Authentication Type	Login
User Name	account@yourdomain.com
User Password	••••••••
Sender Email Address	Sender@Name.com
SMTP Server Address	smtp.test.com
SMTP Port Number	25
Max. Connecting Time	10 sec. (0~300 sec)

FTP Server

Network Address	192.168.0.10
Port	21
User Name	EventHandler
User Password	••••••••
Mode	Passive
Max. Connecting Time	10000 msec. (0~60000 msec)

Upload video/snapshot

Enable Video/Snapshot 1 ☑

Upload image type	⦿ Snapshot ○ Video
Upload image to	E-MAIL
Upload Time	5 (0~86400 seconds)
Image Rate	0 (the # of images per upload time. 0 means the max. rate)
Image File Name	SnapShot-Backgate-%MM%DD%hh%mm%ss Refer to name rule description
Upload Path of Image File	\ Refer to name rule description
Receipt of E-Mail addresses	supervisor@office.com ; guard@security.com using ';' for multiple addresses
Subject	Backgate Motion Detected

Enable Video/Snapshot 2 ☑

Upload image type	○ Snapshot ⦿ Video
Upload image to	FTP Server ▾
Pre-Buffer Time	2 (0~3 seconds)
Upload Time	30 (0~86400 seconds)
Image File Name	Video-Backgate-%MM%DD%hh%mm%ss
	Refer to name rule description
Upload Path of Image File	\Backgate%MM%DD\
	Refer to name rule description

Event Rule 1

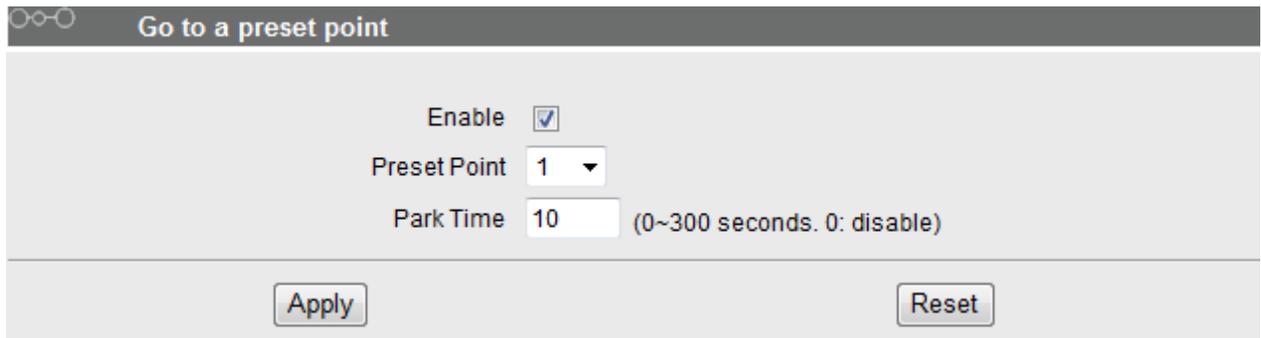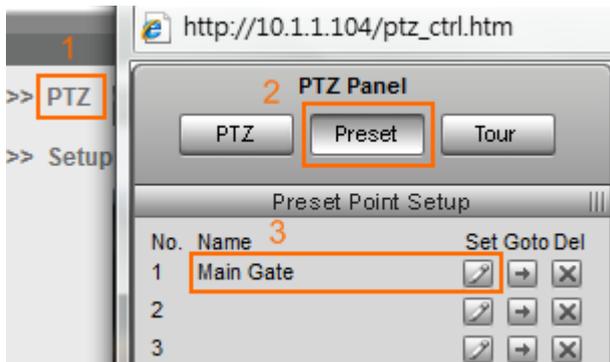|	
Enable	☑
Cycle of Time	☑ Mon ☑ Tue ☑ Wed ☑ Thr ☑ Fri ☑ Sat ☑ Sun
Start Time	00 ▾ : 00 ▾ Duration 24:00 (max. 168:00 hours)
Triggered by	Motion ▾
Trigger by Motion	☑ Region 1 ☐ Region 2 ☐ Region 3

Response To

☐ Digital Output

☐ Send notification message

☑ Upload video/snapshots

　　☑ Image 1 ☑ Image 2 ☐ Image 3

☐ Change Motion Detection Profile

☐ Send URL command

☐ Go to a preset point

Rule 2: On Schedule, upload snapshots to FTP over a period of time, with regular intervals.

Screen	Section	Setting	Special Note
Event Server	FTP Server * (FTP server should set itself to never disconnect Client. Please consult FTP server software for details)	Network Address	Check box to enable this server
		Port	
		User Name	
		User Password	
		Mode	
		Max Connecting Time	
Event Configuration	Upload Video/Snapshot 3	Enable	Check box to enable this setting
		Upload image type	Snapshot
		Upload image to	FTP Server
		Upload Time	7200
		Image Rate	150
		Image File Name	Intersection-MainSt-%MM%DD%hh%mm%ss
		Upload Path of Image File	\MainSt%MM%DD\
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	Mon to Fri, 8 am for 2 hours each day
		Triggered by	Scheduled
		Response to	Upload video/snapshots -> Image 3

FTP Server

Network Address	192.168.0.10
Port	21
User Name	EventHandler
User Password	••••••••
Mode	Passive
Max. Connecting Time	10000 msec. (0~60000 msec)

Enable Video/Snapshot 3 ☑

Upload image type   ● Snapshot ○ Video

Upload image to   FTP Server ▼

Upload Time   7200   (0~86400 seconds)

Image Rate   150   (the # of images per upload time. 0 means the max. rate)

Image File Name   Intersection-MainSt-%MM%DD%hh%mm%ss
Refer to name rule description

Upload Path of Image File   \MainSt%MM%DD\
Refer to name rule description

○○○○ **Event Rule 2**

Enable   ☑

Cycle of Time   ☑ Mon ☑ Tue ☑ Wed ☑ Thr ☑ Fri ☐ Sat ☐ Sun

Start Time   08 ▼ : 00 ▼   Duration   02:00   (max. 168:00 hours)

Triggered by   Scheduled   ▼

Response To

☐ Digital Output

☐ Send notification message

☑ Upload video/snapshots

☐ Image 1 ☐ Image 2 ☑ Image 3

☐ Change Motion Detection Profile

☐ Send URL command

☐ Go to a preset point

Rule 3: Swivel to PTZ preset location on Digital Input (Self)

Screen	Section	Setting	Special Note
Video Display	PTZ Panel	Preset	Set the proper Preset point, test if the preset point is in right location by moving away, then clicking Goto on PTZ panel.
Event Configuration	Go to a preset point	Enable	
		Preset Point	
		Park Time	
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	define active period for this rule
		Triggered by	DIs
		Trigger by DI	Select the DI source (if only one DI is available, check DI1 box)
		Response to	Go to a preset point

Event Rule 3

Enable	☑
Cycle of Time	☑ Mon ☑ Tue ☑ Wed ☑ Thr ☑ Fri ☑ Sat ☑ Sun
Start Time	00 ▼ : 00 ▼ Duration 24:00 (max. 168:00 hours)
Triggered by	DIs ▼
Trigger by DI	☑ DI1

Response To

☐ Digital Output

☐ Send notification message

☐ Upload video/snapshots

☐ Change Motion Detection Profile

☐ Send URL command

☑ Go to a preset point

Rule 4: On Motion Detection, command another camera to PTZ to preset location. Resume Auto Tour patrol after 30 seconds.

Screen	Section	Setting	Special Note
Video Adjust	Motion Enable -> Runtime MD profile -> Region # desired	Region 1 - Enable	Enable the proper region.(e.g. MD region 1 Set the position and size for Motion Detection Region.
		Sensitivity	
		Trigger Interval	Determine minimum event trigger length with this value. Set to 30 so that PTZ camera will stay at target location for 30 seconds.
		Trigger Threshold	
Event Server	HTTPd 1 (HTTP CGI 1)	Enable	Check box to enable this rule
		User name	
		User password	
		Network Address	
		Port Number	
		Max Connecting Time	
Video Display (Target PTZ Camera)	PTZ Panel	Tour	Define the PTZ tour on the target camera. Find out Tour serial e.g., TOUR1.
Event Configuration	Send URL Commands	Setting Group 1 - Enable	Check box to enable this URL command set
		Send Command to	Select Target device , e.g., HTTP CGI 1
		Command as event is triggered	/cgi-bin/cmd/encoder?PTZ_PRESET_GO=1&PTZ_TOUR_STATE=DISABLE
		Command as event becomes inactive	/cgi-bin/cmd/encoder?PTZ_PRESET_GO=2&PTZ_TOUR_STATE=TOUR1
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	define active period for this rule
		Triggered by	Motion
		Trigger by Motion	Region 1
		Response to	Send URL Command - > URL Command 1

Rule 5: Lower Frame Rate / Bit Rate during Night time.

Screen	Section	Setting	Special Note
Event Server	HTTPd 2　(HTTP CGI 2)	Enable	Check box to enable this rule
		User name	
		User password	
		Network Address	localhost (Use this when changing self configuration)
		Port Number	
		Max Connecting Time	
Event Configuration	Send URL Commands	Setting Group 2 - Enable	Check box to enable this URL command set
		Send Command to	Select Target device , e.g., HTTP CGI 2 (self)
		Command as event is triggered	/cgi-bin/cmd/encoder?VIDEO_BITRATE=750K&VIDEO_FPS_NUM=2
		Command as event becomes inactive	/cgi-bin/cmd/encoder?VIDEO_BITRATE=3M&VIDEO_FPS_NUM=8
Event List	Event Rule　ID	Enable	Check box to enable this rule
		Schedule	define active period for this rule
		Triggered by	Switch to Night Mode
		Response to	Send URL Command - > URL Command 2

Event Rule 5

Enable ☑

Cycle of Time ☑ Mon ☑ Tue ☑ Wed ☑ Thr ☑ Fri ☑ Sat ☑ Sun

Start Time 00 ▾ : 00 ▾ Duration 24:00 (max. 168:00 hours)

Triggered by Swith to Night Mode ▾

Response To

☐ Digital Output

☐ Send notification message

☐ Upload video/snapshots

☐ Change Motion Detection Profile

☑ Send URL command

☐ URL Command 1 ☑ URL Command 2 ☐ URL Command 3

Rule 6: During the Night, raise Frame Rate / Bit Rate on DI input, return to standby values after 30 seconds.

Screen	Section	Setting	Special Note
Event Server	HTTPd 2 (HTTP CGI 2)	Enable	Check box to enable this rule
		User name	
		User password	
		Network Address	localhost (Use this when changing self configuration)
		Port Number	
		Max Connecting Time	
Event Configuration	Digital I/O ports	Port DI 1 - Active Level	No change, keep at 0
		Port DI 1 - Interval	Set to 30, which will decide how long would high quality video last.
Event Configuration	Send URL Commands	Setting Group 2 - Enable	Check box to enable this URL command set
		Send Command to	Select Target device , e.g., HTTP CGI 2 (self)
		Command as event is triggered	/cgi-bin/cmd/encoder?VIDEO_BITRATE=3M&VIDEO_FPS_NUM=8
		Command as event becomes inactive	/cgi-bin/cmd/encoder?VIDEO_BITRATE=750K&VIDEO_FPS_NUM=2
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	Everyday Start Time 18:00 for 12 hours
		Triggered by	DIs
		Trigger by DI	Select the DI source (if only one DI is available, check DI1 box)
		Response to	Send URL Command - > URL Command 3

Digital I/O ports

Digital Input Port

Port	Active Level	Interval (0~86400 seconds)
DI 1	0	30

☑ Send Command 3 to HTTP CGI 2

Command as event is triggered: gi-bin/cmd/encoder?VIDEO_BITRATE=3M&VIDEO_FPS_NUM=8
including path of CGI program [max. 119 characters]

Command as event becomes inactive: bin/cmd/encoder?VIDEO_BITRATE=750K&VIDEO_FPS_NUM=2
including path of CGI program [max. 119 characters]

Event Rule 6

Enable ☑

Cycle of Time ☑ Mon ☑ Tue ☑ Wed ☑ Thr ☑ Fri ☑ Sat ☑ Sun

Start Time 18 : 00 Duration 12:00 (max. 168:00 hours)

Triggered by DIs

Trigger by DI ☑ DI1

Response To

☐ Digital Output

☐ Send notification message

☐ Upload video/snapshots

☐ Change Motion Detection Profile

☑ Send URL command

☐ URL Command 1 ☐ URL Command 2 ☑ URL Command 3

Rule 7: Constant bit rate at night and VBR Middle in daytime.

Screen	Section	Setting	Special Note
Event Server	HTTPd 2 (HTTP CGI 2)	Enable	Check box to enable this rule
		User name	
		User password	
		Network Address	localhost (Use this when changing self configuration)
		Port Number	
		Max Connecting Time	
Event Configuration	Send URL Commands	Setting Group 3 - Enable	Check box to enable this URL command set
		Send Command to	Select Target device , e.g., HTTP CGI 2 (self)
		Command as event is triggered	/cgi-bin/cmd/encoder?VIDEO_MPEG4_QUALITY=NONE&VIDEO_BITRATE=3M
		Command as event becomes inactive	/cgi-bin/cmd/encoder?VIDEO_MPEG4_QUALITY=HIGH
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	
		Triggered by	Switch to Night Mode
		Response to	Send URL Command - > URL Command 3

Rule 8: Force into Night mode on schedule.

Screen	Section	Setting	Special Note
Event List	Event Rule	ID	
		Enable	Check box to enable this rule
		Schedule	20:00 each day for 11 hours
		Triggered by	Scheduled
		Response to	Change Day/Night Mode -> Night

Rule 9: On DI signal force to Day mode.

Screen	Section	Setting	Special Note
Event Configuration	Digital I/O ports	Port DI 1 - Active Level	No change, keep at 0
		Port DI 1 - Interval	0
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	
		Triggered by	Dis
		Trigger by DI	DI 1
		Response to	Change Day/Night Mode -> Day

Rule 10: On Video Loss send email and DO to alarm until Analog video signal is restored.

Screen	Section	Setting	Special Note
Event Configuration	Digital I/O ports	Port DI 1 - Active Level	No change, keep at 0
		Port DI 1 - Interval	0
	Notification messages	Enable message 1	Check box to enable this setting
		Send message to	E-MAIL
		Receipt of e-Mail addresses	supervisor@headquarter.com ; guard@security.com
		Subject	Video loss - Camera 1 Frontdoor
		Message	Video signal lost at camera 1 Frontdoor
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	
		Triggered by	Video Loss
		Response to	Digital Output - > DO1
			Send notification message - > Message 1

Rule 11: Change Motion detection parameters at night, and activate an additional MD region.

Screen	Section	Setting	Special Note
Video Adjust	Motion Enable - > Runtime MD profile -> Region 1	Region 1 - Enable	Enabled
		Sensitivity	70
		Trigger Interval	30
		Trigger Threshold	5
	Motion Enable - > Runtime MD profile -> Region 2	Region 2 - Enable	Disabled.
	Motion Enable - > Event MD Profile -> Region 1	Region 1 - Enable	Enabled
		Sensitivity	62
		Trigger Interval	30
		Trigger Threshold	5
	Motion Enable - > Event MD Profile -> Region 2	Region 2 - Enable	Enabled
		Sensitivity	62
		Trigger Interval	30
		Trigger Threshold	8
Event List	Event Rule ID	Enable	Check box to enable this rule
		Schedule	
		Triggered by	Switch to Night Mode
		Response to	Change Motion Detection Profile -> Region 1 & Region 2