

## Smart Camera Event Handler

Category	Application Note
Sub-category	Application
Camera Model	All ACM-series and ACD-series
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### Introduction

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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 software package that is integrated to camera firmware. Our customers 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.

Some of the ACTi Event Handler functions are very innovative - no other IP-camera manufacturer has them yet.

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### What is Event Handler

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When something happens at the camera site, such as people walk by, door opens or closes, fire breaks out, or day and night changes – these are all **events**. If we want to detect those events automatically by a certain trigger, and respond to them properly then we need a special software called **event handler**. The combination of a trigger and a response is a **rule**. There can be many rules set in event handler.

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## The Main Benefits of Event Handler

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### **Active and Intelligent Response**

With a comprehensive rule-based Event Handler engine, ACTi provides a convenient one-stop user interface for managing all possible events. Unlike some other manufacturers' IP cameras, there is no longer any need to go back and forth between multiple confusing pages in order to complete the setup of desired action for each event. With ACTi Event Handler, you can simply pick any trigger and any response on same page. It is possible to let one single trigger initiate multiple responses.

With on-camera decision making, there is no need to wait for commands from recording servers, gaining critical time when most needed. With proper FTP and SMTP servers, you may even circumvent the need for NVR system for simple deployments.

### **Fully Automatic Day and Night Trigger / Dual Motion Detection profiles**

The difference between daytime and nighttime is like, well, night and day. Sometimes you wish your cameras do more than just turn into black and white on approach of the night. Before the Event Handler system, there's no way to do that. Now there is.

ACTi is the first camera manufacturer to allow use real time Day/Night changes as a signal to trigger subsequent actions. This will also enable a lot of flexible responses to be perfectly matched against lighting condition, instead of just saying "Do sequence A on 6 pm", and hope the sun sets at your desired hour. It works perfectly even during unpredictable lighting changes, such as inside an indoor security vault.

An example would be using day/night state to modify Motion Detection settings. If a camera supports only one profile for MD, there will be a problem – we cannot automatically re-locate MD areas on screen and we cannot re-adjust the sensitivity of MD when they day and night switch. As a result, we either miss a **criminal** activity or get too many false alarms. With ACTi you can set two Motion Detection profiles that are ideally matched for specific lighting conditions, and trigger the change at exactly the right time.

### **Automatic upload and notification**

In the past, keeping video evidence of what happened used to rely entirely upon the recording servers. In other words, the cameras were designed to send the video stream only to recording server, and if there was a failure of a recorder then the

precious video material was lost.

With active cameras, that is no longer the case. ACTi cameras are capable of uploading to FTP servers, sending emails and URL messages to wherever you choose. Motion Detection or DI changes can now trigger video clip upload to off-site FTP storage, protected against on-site damage.

When the criminal activity is detected by ACTi smart camera, it can automatically send an e-mail to proper authorities together with photos of the suspect as evidence. At the same time, the smart camera will ensure that video evidence is either properly streamed to original recorder or uploaded as a backup to FTP site.

### **PTZ on event saves crucial split-second**

By their very nature, PTZ cameras have a wide area to take care of. If something happens and the PTZ camera is looking the other way, there goes a golden opportunity to identify the suspect.

ACTi smart PTZ cameras can be triggered by a Motion Detection of other cameras in the same network or a Digital Input (such as doorbell or door alarm). They would then instantly swoop back and zoom in right at the hall entrance, then take a snapshot and upload it for safekeeping. When the trigger is switched off, it can go back to autopan mode to survey the whole scene. Even when the servers are down, the cameras know what they are doing.

### **Hundreds of Combinations of Triggers and Responses**

With the rich selection of Triggers and Responses, you can create dozens of smart rules for your ACTi camera. For better understanding of those combinations, please refer to the Event Handler Flow Chart on the next page.

## Event Handler Flow Chart

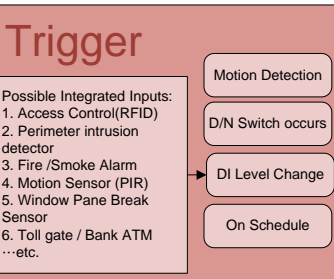
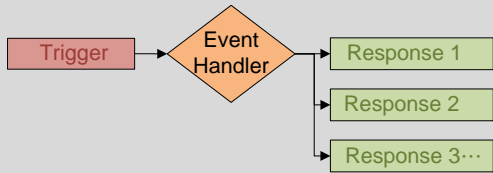
### Event Handler Explained

Event Handler is a groundbreaking new function from ACTi. This makes cameras active responders instead of passive observers. Up to 10 rules are allowed. Each will consist of a single trigger and multiple responses.

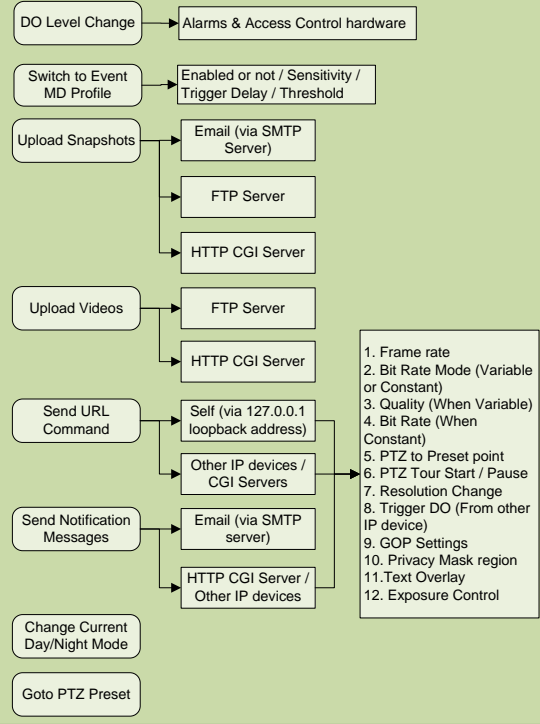
### Event Rule

#### Schedule

Event Rule is active from the **start time** for a preset **duration**.



### Response



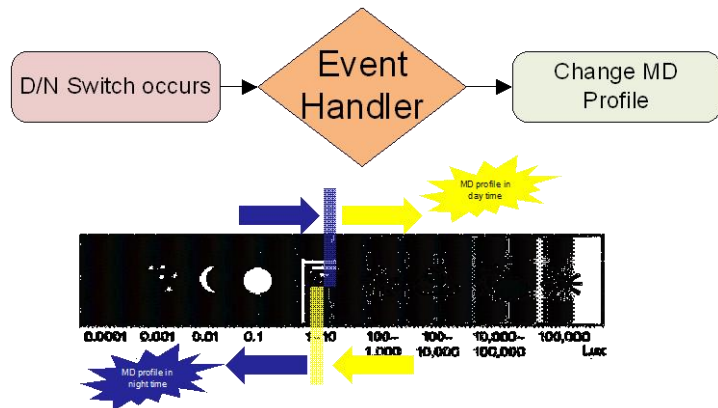
## Example Applications

### Example 1

Motion Detection settings at night has always been a headache for installers. When optimized for day, the high sensitivities create false alarms at night. When adjusted to work at night time, the low sensitivities means lost movements at day.

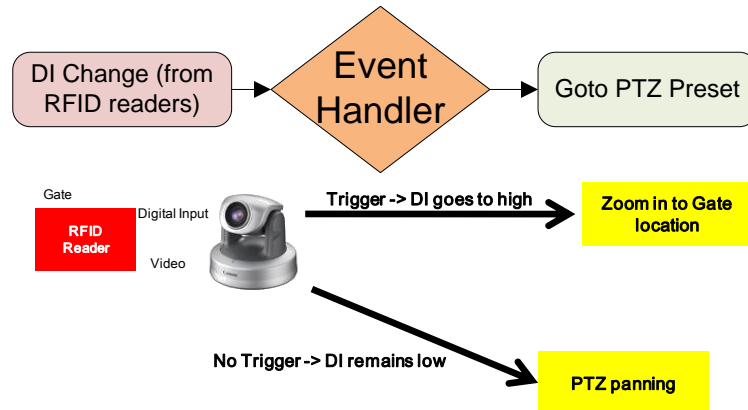
Other suppliers have tried to change MD profile on schedule, but this has to be adjusted seasonally, which is not a real solution.

Only the ACTi dynamic switching solution fully addresses the issue.



### Example 2

PTZ Cameras can survey a very wide scene easily. But without a controller on duty, the PTZ camera will most likely be looking in the wrong direction when something happens. With properly arranged settings, PTZ cameras can move to pre-identified hotspot when it received DI signal from entry choke points, and return to auto pan when there is no activity at the gate.



### Example 3

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. You can now setup the Video Server to alert the on-duty officer and administrator about lost Analog feed. This guarantees that the system will be well maintained and alert to all damage immediately.

