



## Events

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The Events windows let you configure event notification and history settings, and access event logs. The following sections describe the Feature Setup windows in detail:

- [Event Notification Window, page 5-1](#)
- [History Settings Window, page 5-7](#)
- [History Window, page 5-9](#)

## Event Notification Window

The Event Notification window provides options for how the IP camera handles system triggers and generates event notification. A system trigger is any of the following:

- A change of state from low to high or from high to low on an input port of the IP camera. For related information about input ports, see the [“IO Ports Window” section on page 4-25](#).
- Motion that the IP camera detects. For related information about motion detection, see the [“Motion Detection” rows in Table 3-1](#).
- An activity that is defined by a camera app.

When a system trigger occurs, it causes the IP camera to take certain configured actions. Actions include the following:

- Email notification—The IP camera sends a notification email message to designated recipients. The message can include a video clip or a snapshot of the activity that triggered the event.  
This message includes the same information that is provided with HTTP notification.
- Output port state change—Changes the state of an IP camera output port from low to high or from high to low.
- Syslog server message—The IP camera sends a notification message to the designated Syslog server.
- HTTP notification—The IP camera sends notification to a remote system via HTTP. This information includes the following:
  - Device ID—ID of the IP camera.
  - Device name—Name of the IP camera.
  - IP address—IP address of the IP camera.
  - MAC address—MAC address of the IP camera.

- Channel ID—Channel identification number (1 for primary stream or 2 for secondary stream).
- Channel name—Name that is configured for the channel.
- Date and time—Date and time that the event occurred.
- Active post Count—Sequence number of the notification for this event.
- Event type—Type of event.
- Event state—Indicates whether the event is active or inactive at the time that the event was detected for this notification.
- Event description—Description of the event.
- Input port ID—If the event was triggered by an input port state change, port ID of the port
- Region index—If the event was triggered by motion detection, identification number of the region in which the IP camera detected motion.
- Sensitivity level—If the event was triggered by motion detection, sensitivity that is configured for the region in which motion was detected.
- Detection threshold—If the event was triggered by motion detection, threshold that is configured for the region in which motion was detected.
- FTP notification—The IP camera uploads a video clip or a snapshot of the activity that triggered the event to an FTP server.

The Event Notification window also allows you to designate schedules. If an event takes place within a designated schedule, the IP camera takes the actions that you configure.

To display the Event Notification window, perform the following steps:

#### Procedure

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- Step 1** From the IP camera user interface, click the **Setup** link.
  - Step 2** Click **Events** to expand the menu.
  - Step 3** From the Feature Setup menu, click **Events**.

The Event Notification window appears. If you change any options in this window, you must click the **Save** button to save the changes. If you do not click this button, changes are not retained when you exit the window. The **Save** button appears at the bottom of the window. You might need to scroll down to it.

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[Table 5-1](#) describes the options in the Event Notification window.

Table 5-1 Event Notification Window Options

| Option                        | Description  |
|-------------------------------|--|
| <b>Event Triggering Area</b>  |  |
| Triggered by                  | <p>Check the desired check boxes to designate the events that trigger actions:</p> <ul style="list-style-type: none"> <li>• <b>Input 1</b>—Action is triggered when input port 1 on the IP camera changes state from high to low</li> <li>• <b>Motion Detection</b>—Action is triggered when the camera detects motion, if motion detection is configured as described the “<a href="#">Motion Detection</a>” rows in <a href="#">Table 3-1 on page 3-1</a>.</li> <li>• <b>App</b>—Action is triggered by an activity that is defined by an app that is running on the IP camera</li> </ul>  |
| Actions                       | <p>Check the desired check boxes to designate that actions that the IP camera takes when the corresponding trigger occurs.</p> <ul style="list-style-type: none"> <li>• <b>Email</b>—Sends information about the event in an email message to the designated recipient. You design the recipient and configure other email options in other fields in this window.</li> <li>• <b>Output 1</b>—Changes the state of the output 1 port on the IP camera as defined in the IO Ports window.</li> <li>• <b>Syslog</b>—Sends information about the event to a designated Syslog server.</li> <li>• <b>HTTP</b>—Sends information about the event as an HTTP stream to a remote system.</li> <li>• <b>FTP</b>—Uploads a snapshot or video clip of the event to an FTP server.</li> </ul> |
| Interval                      | Choose the time interval, in minutes, from the drop-down list to wait after an event occurs before detecting the next event.   |
| <b>Event Scheduling Area</b>  |  |
| Scheduling Grid               | <p>Designate the times at which an event causes the IP camera to take the designed actions. If an event occurs during a time that is not designated, the IP camera does not take any action.</p> <p>Each cell in this grid represents one hour on the corresponding day, starting at 12:00 a.m. (0:00). To designate times, click the desired cells. Selected cells appear shaded.</p>   |
| <b>Set All</b> button         | Select all times in the scheduling grid.   |
| <b>Clear All</b> button       | Deselect all times in the scheduling grid.   |
| <b>Undo All</b> button        | Change the scheduling settings to the last saved configuration.  |
| <b>HTTP Notification Area</b> |  |
| High Availability             | Check this check box to send HTTP messages to both the primary and secondary server that you configure for HTTP messages.  |
| Primary HTTP Server           | Identify the primary server to which HTTP messages are sent by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.  |

Table 5-1 Event Notification Window Options (continued)

| Option                         | Description  |
|--------------------------------|--|
| URL Base                       | Enter a string to be used as the prefix in the HTTP URL. The HTTP URL is sent in this format:<br><br><i>http://IP address/URL Base?system-provided-name-value-pairs</i><br>where <i>IP address</i> is the IP address of the destination server, <i>URL Base</i> is the string that you enter, and <i>system-provided-name-value-pairs</i> is information about the event.                          |
| Port Number                    | Enter the port number that receives messages on the primary server to which HTTP messages are sent.  |
| User Name                      | If authentication is required on the primary server to which HTTP messages are sent, enter the user name.  |
| Password                       | If authentication is required on the primary server to which HTTP messages are sent, enter the password.<br><br>Invalid characters are []\&:";<>?./+=%*'# space  |
| HTTP Authentication            | If authentication is required on the primary server to which HTTP messages are sent, choose the MD5 Digest Authentication method from the drop-down list.  |
| Secondary HTTP Server          | Identify an optional secondary server to which HTTP messages are sent by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.  |
| URL Base                       | Enter a string to be used as the prefix in the HTTP URL for the secondary server. The HTTP URL is sent in this format:<br><br><i>http://IP address/URL Base?system-provided-name-value-pairs</i><br>where <i>IP address</i> is the IP address of the destination server, <i>URL Base</i> is the string that you enter, and <i>system-provided-name-value-pairs</i> is information about the event. |
| Port Number                    | Enter the port number that receives messages on the secondary server to which HTTP messages are sent.  |
| User Name                      | If authentication is required on the secondary server to which HTTP messages are sent, enter the user name.  |
| Password                       | If authentication is required on the secondary server to which HTTP messages are sent, enter the password.<br><br>Invalid characters are []\&:";<>?./+=%*'# space  |
| HTTP Authentication            | If authentication is required on the secondary server to which HTTP messages are sent, choose the MD5 Digest Authentication method from the drop-down list.  |
| <b>Email Notification Area</b> |  |
| Primary SMTP Server            | Identify the primary SMTP server that is used for sending email by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.  |
| Primary SMTP Port              | Enter the port number for the primary SMTP server. The default SMTP port number is 25.   |

Table 5-1 Event Notification Window Options (continued)

| Option                             | Description   |
|------------------------------------|---|
| POP Server                         | Identify the primary POP server that is used for sending email by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.<br><br>This field is dimmed if you do not choose <b>Requires POP Before SMTP</b> in the Authentication field that follows.           |
| Authentication                     | If the primary SMTP server requires authentication to send email, choose the appropriate authentication type from the drop-down list. The authentication type typically is the same as that for the POP3 server that you use to receive email.  |
| Account Name                       | If the primary SMTP server requires authentication, enter the account name for the server.  |
| Password                           | If the primary SMTP server requires authentication, enter the account password for the server.  |
| Secondary SMTP Server              | Identify an optional secondary SMTP server that is used for sending email by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.   |
| Secondary SMTP Port                | Enter the port number for the secondary SMTP server. The default SMTP port number is 25.  |
| POP Server                         | Identify an optional secondary POP server that is used for sending email by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.<br><br>This field is dimmed if you do not choose <b>Requires POP Before SMTP</b> in the Authentication field that follows. |
| Authentication                     | If the secondary SMTP server requires authentication to send email, choose the appropriate authentication type from the drop-down list. The authentication type typically is the same as that for the POP3 server that you use to receive email.  |
| Account Name                       | If the secondary SMTP server requires authentication, enter the account name for the server.  |
| Password                           | If the secondary SMTP server requires authentication, enter the account password for the server.  |
| Send To                            | Enter an email address to which an email message is sent when a system trigger occurs.  |
| Show From Address As               | Enter the email address to be shown in the From field for the email message that is sent when a system trigger occurs.  |
| Subject                            | Enter the text to be shown in the Subject field for the email messages that the IP camera sends when system triggers occur. The subject can contain up to 118 characters, including spaces.   |
| Attach Video Streaming URL Address | Check this check box to include in the email message body the URL from which the recipient can access the live video stream from the camera on which the system trigger was detected.   |

Table 5-1 Event Notification Window Options (continued)

| Option                       | Description   |
|------------------------------|---|
| Attach Snapshot              | <p>Check this check box to include with the email message a still picture from the beginning of the event. This snapshot is stored on the IP camera until the message is sent.</p> <p>This functionality is available only when the secondary video stream is enabled.</p>  |
| Attach Video Clip            | <p>This option is available if the secondary video stream (H.264 only) is enabled.</p> <p>Check this check box and configure the following values to include with the email message a video clip of the event:</p> <ul style="list-style-type: none"> <li>• <b>Pre-Capture Length</b>—Enter the amount of video, in seconds, before the event to include in the video clip.<br/>The maximum pre-capture length is 5 seconds.</li> <li>• <b>Post-Capture Length</b>—Enter the amount of video, in seconds, after the event to include in the video clip.<br/>The maximum combined pre-capture and post-capture length is 10 seconds.</li> </ul> <p>This video clip is stored on the IP camera until the message is sent.</p> |
| <b>FTP Notification Area</b> |   |
| Primary FTP Server           | Identify the primary FTP server to which snapshots or video clips are uploaded by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.  |
| Primary FTP Port             | Enter the port number that receives messages on the primary FTP server. The default FTP port number is 21.  |
| User Name                    | Enter the primary FTP server login user name.   |
| Password                     | Enter the primary FTP server login password.  |
| Enable Passive Mode          | Check this check box to enable the passive mode feature of the primary FTP server.  |
| Secondary FTP Server         | Identify an optional secondary FTP server to which snapshots or video clips are uploaded by choosing <b>IP Address</b> or <b>Hostname</b> from the drop-down list and entering the IP address or host name in the corresponding field.  |
| Secondary FTP Port           | Enter the port number that receives messages on the secondary FTP server. The default FTP port number is 21.  |
| User Name                    | Enter the secondary FTP server login user name.   |
| Password                     | Enter the secondary FTP server login password.  |
| Enable Passive Mode          | Check this check box to enable the passive mode feature of the secondary FTP server.  |
| Upload Snapshot              | <p>This functionality is available only when the secondary video stream is enabled.</p> <p>Check this check box to upload a snapshot of the event that triggered the action.</p>  |

Table 5-1 Event Notification Window Options (continued)

| Option            | Description  |
|-------------------|--|
| Upload Video Clip | <p>This functionality is available only when the secondary video stream is enabled.</p> <p>Check this check box and enter the following values to upload a video clip of the event that triggered the action:</p> <ul style="list-style-type: none"> <li>• <b>Pre-Capture Length</b>—Enter the amount of video, in seconds, before the event to include in the video clip. The default pre-capture length is 0 seconds.<br/>The maximum pre-capture length is 5 seconds.</li> <li>• <b>Post-Capture Length</b>—Enter the amount of video, in seconds, after the event to include in the video clip. The default post-capture length is 5 seconds.<br/>The maximum combined pre-capture and post-capture length is 10 seconds.</li> </ul> |

## History Settings Window

The History Settings window provides options for how the IP camera stores and manages event histories. An event history includes *history*, which is information about the event, and an optional *recording*, which is captured video that is associated with the event.

A system trigger is any of the following:

- A change of state from low to high or from high to low on an input port of the IP camera. For related information about input ports, see the “[IO Ports Window](#)” section on page 4-25.
- Motion that the IP camera detects. For related information about motion detection, see the “[Motion Detection](#)” rows in [Table 3-1 on page 3-1](#).
- An activity that is defined by a camera app.

To display the History Settings window, perform the following steps:

### Procedure

- 
- Step 1** From the IP camera user interface, click the **Setup** link.
  - Step 2** Click **Events** to expand the menu.
  - Step 3** From the Feature Setup menu, click **History Settings**.

The History Settings window appears. If you change any options in this window, you must click the **Save** button to save the changes. If you do not click this button, changes are not retained when you exit the window. The **Save** button appears at the bottom of the window. You might need to scroll down to it.

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[Table 5-2](#) describes the options in the History Settings window.

Table 5-2 History Settings Window Options

| Option                         | Description   |
|--------------------------------|---|
| Triggered by                   | <i>Display only.</i> Shows the triggering settings that are configured in the Notification Settings window.   |
| Actions                        | <p>Check the desired check boxes to designate that actions that the IP camera takes when the corresponding trigger occurs.</p> <ul style="list-style-type: none"> <li>• <b>History</b>—Sends information about the event in an email message to the designated recipient. You design the recipient and configure other email options in other fields in this window.</li> <li>• <b>Recording</b>—Changes the state of the output 1 port on the IP camera as defined in the Port window.</li> </ul>  |
| Event History Storage Location | <p>Choose the location in which the IP camera stores event history that it captures:</p> <ul style="list-style-type: none"> <li>• <b>Internal Flash</b>—Stores event history in the camera internal flash memory</li> <li>• <b>SD Memory Card</b>—Stores event history on an SD or MicroSD card that is installed in the camera</li> </ul>  |
| Pre-Capture Length             | <p>Enabled when at least one <b>Recording</b> action is checked and Event History Storage location is configured as <b>SD Memory Card</b>.</p> <p>Enter the amount of video, in seconds, before the event to include with the stored history.</p> <p>Valid values are integers 0 through 180.</p>   |
| Post-Capture Length            | <p>Enabled when at least one <b>Recording</b> action is checked and Event History Storage location is configured as <b>SD Memory Card</b>.</p> <p>Enter the amount of video, in seconds, after the event to include in the video clip.</p> <p>Valid values are integers 0 through 180. The sum of the Pre-Capture Length and the Post-Capture Length values cannot exceed 360.</p>  |
| Maximum number of Events       | <p>Enter the maximum number of event histories that the camera will store.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> <li>• Integers 1 through 1000 when the IP camera stores event history in its camera internal flash memory</li> <li>• Integers 1 through 10000 when the IP camera stores event history on an SD or MicroSD card</li> </ul> <p>When the number of stored event histories reaches the configured maximum, the IP camera deletes event histories, beginning with the oldest one, to make room for new event histories.</p> |
| Event Lifetime (days)          | <p>Enter the number of days that the camera stores an event history.</p> <p>Valid values are integers 1 through 365.</p> <p>When an event history reaches the last day of its configured lifetime limit, the IP camera deletes it at the time that corresponds to the time that the event was created.</p>  |



**Table 5-2** *History Settings Window Options (continued)*

| Option                           | Description   |
|----------------------------------|---|
| Storage Allocation for Recording | <p>Enter the percentage of the SD or MicroSD card that is allocated for storing event history recordings.</p> <p>Valid values are integers 0 through 95.</p> <p>When the configured storage allocation is reached, the IP camera deletes events histories, beginning with the oldest one, to make room for new event histories.</p> |

## History Window

The IP camera can capture and store information about events, including video that is associated with an event. The History window lets you configure how the camera displays event history, see information about events, and download video files that are associated with events.

To display the History window, perform the following steps:

### Procedure

- 
- Step 1** From the IP camera user interface, click the **Setup** link.
- Step 2** Click **Events** to expand the menu.
- Step 3** From the Feature Setup menu, click **History**.
- The History Settings window appears.
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[Table 5-3](#) describes the options in the History window.

**Table 5-3** *History Window Options*

| Option  | Description   |
|---------|---|
| Display | <p>Choose one of the following options to designate the time period in which events that occurred are displayed:</p> <ul style="list-style-type: none"> <li>• <b>Last 30 Minutes</b>—Displays events that occurred within the past 30 minutes</li> <li>• <b>Last 1 hour</b>—Displays events that occurred within the past 60 minutes</li> <li>• <b>Last 5 hours</b>—Displays events that occurred within the past 5 hours</li> <li>• <b>Last 8 hours</b>—Displays events that occurred within the past 8 hours</li> <li>• <b>Last 12 hours</b>—Displays events that occurred within the past 12 hours</li> <li>• <b>Last 24 hours</b>—Displays events that occurred within the past 24 hours</li> <li>• <b>Special Range</b>—Displays the Start and End fields, which you can use to specify display events that occurred within a specified date and time range</li> </ul> |

Table 5-3 History Window Options (continued)

| Option       | Description  |
|--------------|--|
| Start        | <p>Appears if you choose <b>Special Range</b> from the Display drop-down list.</p> <p>In the left area of this field, enter the start date of a period in which events that occurred are displayed. Enter this value in <i>yyyy-mm-dd</i> format. You can click the date in this field to display a calendar from which you can choose a date.</p> <p>In the right area of this field, enter the start time of a period in which events that occurred are displayed. Enter this value in <i>hh-mm-ss</i> format, using a 24-hour clock.</p>  |
| End          | <p>Appears if you choose <b>Special Range</b> from the Display drop-down list.</p> <p>In the left area of this field, enter the end date of a period in which events that occurred are displayed. Enter this value in <i>yyyy-mm-dd</i> format. You can click the date in this field to display a calendar from which you can choose a date.</p> <p>In the right area of this field, enter the end time of a period in which events that occurred are displayed. Enter this value in <i>hh-mm-ss</i> format, using a 24-hour clock.</p>  |
| Event Type   | <p>Choose one of the following options to designate the type of event that is displayed:</p> <ul style="list-style-type: none"> <li>• <b>All</b>—Displays events that triggered any activity (input port 1 state change, motion detection, or app activity)</li> <li>• <b>I/O</b>—Displays events that triggered input port 1 on the IP camera to change state from high to low</li> <li>• <b>Motion Detection</b>—Displays events that triggered motion detection on the IP camera</li> <li>• <b>App</b>—Displays events that triggered an activity that is defined by an app that is running on the IP camera</li> </ul> |
| Apply Filter | <p>Click this button to update the event display according to the values in the Display and Event Type fields.</p>   |
| Reset Filter | <p>Click this button to set the Display and Event Type files to their default values. The default value for the Display field is <b>Last 24 Hours</b> and the default value for the Event Type field is <b>All</b>.</p>  |

Table 5-3 History Window Options (continued)

| Option     | Description   |
|------------|---|
| Event List | <p>Displays a list of events and their associated recordings and provides the following information:</p> <ul style="list-style-type: none"> <li>• <b>Event Type</b>—Type of event (<b>I/O</b>, <b>Motion Detection</b>, or <b>App</b>).</li> <li>• <b>Event Time (UTC)</b>—Date and time that the event occurred, in UTC format.</li> <li>• <b>Recording</b>—Displays <b>VIDEO</b> if a recording is associated with the event. Displays <b>N/A</b> if no video is associated with the event.</li> <li>• <b>Download From (UTC)</b>—When you download a recording, by default the recording includes video that starts before the event occurred according to the Pre-Capture Length value that is defined in the History Settings window. If you want the recording to include video that starts at another time, enter that time in this field.</li> <li>• <b>Duration</b>—Enter the duration, in <i>mm:ss</i> format, of video that you want the downloaded recording to include. The maximum duration is 6 minutes. The recording begins from the time that you entered in the <b>Download From (UTC)</b> field and lasts for the time that you enter in this <b>Duration</b> field.</li> <li>• <b>Progress (%)</b>—When a video is downloading, indicates the percentage of the download that is complete.</li> <li>• <b>Status</b>—Displays <b>Downloading</b> when a video is downloading. On Internet Explorer, displays <b>Processing</b> when the system converts a downloaded video to MP4 format.</li> </ul> <p>Each event includes an associated check box, which allows you to select the corresponding recording for downloading. See the <a href="#">Download</a> row in this table for more information.</p> |
| Download   | <p>After checking the check box for each recording that you want to download, click this button and follow the on-screen prompts to save the recording to your local drive or a network drive.</p> <p>When you download a recording:</p> <ul style="list-style-type: none"> <li>• If you are using Internet Explorer, the system creates a directory called <i>Recordings_TimeStamp</i> in the location that you choose and saves recordings in that directory. The system saves recordings as mp4 files.</li> <li>• If you are using a browser other than Internet Explorer browser, the system saves the recording in the Download folder of your user profile. The system saves recordings as H.264 or MJPEG files, depending on how the video stream is configured for the IP camera.</li> </ul>  |
| Delete All | <p>Click this button to delete all event history, including recordings that are associated with event histories.</p> <p><b>Note</b> This operation deletes all event history even if you filtered the display to show only certain events.</p>  |
| Refresh    | <p>Click this button to update information in the event list with current information</p>   |

**Table 5-3** *History Window Options (continued)*

| <b>Option</b> | <b>Description</b>   |
|---------------|--|
| Cancel        | Appears when you are using Internet Explorer and a download is in process. Click this button to cancel the download operation.<br><br>If you are using a browser other than Internet Explorer, you can cancel a download operation by using the cancel option in that browser. |
| Previous      | Click display the previous set of events in the event list.  |
| Next          | Click display the next set of events in the event list.  |