



Live Video Viewing

After you install and set up the Cisco Video Surveillance PTZ IP Camera, you can connect to the PTZ IP camera through Internet Explorer and access the Camera Video & Control window to view live video from the PTZ IP camera.

The Camera Video & Control window also provides for controlling the video display, configuring preset positions, and controlling certain PTZ IP camera functions. Available controls depend on the privilege level of the user.



View Video

To view live video, log in to the PTZ IP camera and click **View Video** in the PTZ IP camera Main window menu bar. The Camera Video & Control window appears. This window displays live video from the camera and lets you control a variety of camera and display functions.

The controls that you see in the Camera Video & Control window depend on your PTZ IP camera privilege level and the configuration settings for the PTZ IP camera. Users with the Administrator privilege can access all controls. Users with the Viewer privilege do not have access to the following controls:

- Video image controls
- Motion detection controls

This chapter includes these topics:

- [Main Camera Video & Control Window, page 3-1](#)
- [Camera Settings, page 3-4](#)
- [Motion Detection Settings, page 3-7](#)
- [Pan/Tilt/Zoom Settings, page 3-9](#)
- [Privacy Zone Settings, page 3-13](#)

Main Camera Video & Control Window

[Table 3-1](#) describes the controls in the main Camera Video & Control window.

Table 3-1 Camera Video & Control Window Controls

Control	Description
Video Control	
Video Codec drop-down list 	Choose the codec for video transmission (Pri. H.264 or MJPEG).
Video Resolution display 	Displays the resolution for video transmission. The resolutions in this depends on the video standard that you selected.
Viewer	
Video viewer drop-down list 	<p>Choose the viewer to use for video. Options are:</p> <ul style="list-style-type: none"> • ActiveX—Available only if you are using accessing the IP camera through Microsoft Internet Explorer. Allows you to configure several IP camera options, such as motion detection and privacy zone. • QuickTime—Allows viewing of H.264 streams only. Does not allow you to configure several IP camera options, such as motion detection and privacy zone. • VLC —Allows viewing of H.264 and MJPEG streams. Does not allow you to configure several IP camera options, such as motion detection and privacy zone. <p>The default video viewer value is ActiveX.</p>
Image tools	
Hotspot Zoom button 	<p>Click this latch button to enables the digital zoom feature, which provides five-step digital zooming in for the normal (not full screen) video display. Click this button again to disable the digital zoom feature.</p> <p>To perform a digital zoom, engage the Hotspot Zoom button and click the video display. The first five clicks zoom the display. The sixth click returns to unzoomed display.</p>
Hotspot Pan+Tilt button 	Not supported.
Save Snapshot button 	<p>Captures and saves a the current video image as a .gif file or a .jpg file in the location of your choice and with the file name of your choice.</p> <p>When you click this button, the Snapshot window appears. Click Save and follow the on-screen prompts to save the image with the name and in the location that you want.</p>
Flip button 	Rotates the video image by 180 degrees.
Mirror button 	Reverses the video image.

Table 3-1 Camera Video & Control Window Controls (continued)

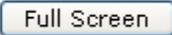
Control	Description
Restore button 	Displays the default video image, which is not rotated and not reversed.
Full Screen button 	Displays the video image in full screen mode. To return to normal display mode, click the full screen image.
Audio Control	
Enable/Disable Speaker toggle button	<p>Click the Disable Speaker button  to mute audio that is sent from the IP camera to the PC that you are using. The button changes to the Enable Speaker button .</p> <p>Click the Enable Speaker button to unmute audio. The button changes to the Disable Speaker button.</p>
Mute/Un-Mute Microphone toggle button	<p>Click the Mute Microphone button  to mute the audio stream that is captured and sent to the IP camera from the internal or external microphone of the PC that you are using. When you click this button, the speaker that is attached to the IP camera does not play audio that is transmitted from your PC.</p> <p>Note If you are simultaneously accessing other IP cameras in different browser sessions on the same PC, clicking this button in one browser session does not mute the audio that the PC sends to the other IP cameras.</p> <p>When you click the Mute Microphone button, it changes to the Un-Mute Microphone button .</p> <p>Click the Un-Mute Microphone button to unmute audio that is sent to the IP camera. The button changes to the Mute Microphone button.</p>
Restore button 	Resets audio controls to their default values.
Speaker Volume slider 	<p>When the speaker is unmuted, drag this slider to adjust the volume at which your PC speakers play the audio from the IP camera, or enter a value from 0 through 100 in the field and press the Enter key.</p> <p>The default value is 50.</p>
Microphone Sensitivity slider 	<p>Drag this slider to adjust the gain of the PC microphone (that is, how sensitive it is to the audio that it picks up and that is sent to the IP camera), or enter a value from 0 through 100 in the field and press the Enter key.</p> <p>The default value is 50.</p>
Camera Settings	See the “Camera Settings” section on page 3-4.
Motion Detection	See the “Motion Detection Settings” section on page 3-7.
Pan/Tilt/Zoom	See the “Pan/Tilt/Zoom Settings” section on page 3-9.

Table 3-1 Camera Video & Control Window Controls (continued)

Control	Description
Privacy Zone	See the “ Privacy Zone Settings ” section on page 3-13.

Camera Settings

The controls that [Table 3-2](#) describes appear when you click the Expand  icon next to Camera Settings under the video image. The icon changes to the Collapse icon . Click the Collapse icon to hide these controls.

If you make changes to any of the Camera Settings options, click the **Save** button to save the changes.

Table 3-2 Camera Settings

Control	Description
Picture Adjustments	
Brightness slider	To control the brightness of the video image, drag the slider. Values are 1 through 10. A higher value increases the brightness and a lower value decreases the brightness. For example, if the PTZ IP camera is facing a bright light and the video appears too dark, you can increase the brightness. The default value is 5.
Contrast slider	To control contrast of the video image, drag the slider. Values are 1 through 10. A higher value increases the contrast and a lower value decreases the contrast. The default value is 5.
Sharpness slider	To control the sharpness of the video from the PTZ IP camera, drag the slider. Values are 1 through 100. A higher value increases the sharpness and a lower value decreases the sharpness. The default value is 50.
Saturation slider	To control the saturation of the video from the PTZ IP camera, drag the slider to select a value from 1 through 100. A higher value increases the saturation and a lower value decreases the saturation. High saturation provides a vivid, intense color for a video image. With less saturation, the video image appears more muted and gray. The default value is 50. Note This control is not supported on the 2830 and 2835 PTZ IP cameras.
Restore button	Resets white balance, brightness, contrast, sharpness, and saturation to their default values.

Table 3-2 Camera Settings (continued)

Control	Description
White Balance Mode drop-down list	<p>Options are:</p> <ul style="list-style-type: none"> • Auto (default)—White balance is automatically set by the camera and is suitable for most conditions. • Indoor—Intended specifically for indoors. You can capture images with natural white balance. • Outdoor—Intended is specifically for outdoors. You can capture images with natural white balance in the morning and evening. • One Push WB—Fixed white balance mode You can automatically readjust as required, assuming that a white object, in suitable lighting conditions and occupying more than half of the image area, is seen by the camera. • Manual—lets set the white balance by setting red gain (RGain) and blue gain (BGain) manually. • Sodium Lamp—Fixed white balance mode intended specifically for sodium vapor lamps. • ATW—The camera automatically adjusts the white balance in response to varying light conditions.
Exposure Control	
Exposure level drop-down list	<p>Choose this option if you want to increase or decrease the exposure level. For example, if you want to add light to properly expose the image, set the value to +2. If you want to underexpose the scene, set value to -2. The range is -2.0 through +2.0. The default value is 0.</p>
Exposure mode drop-down list	<p>Options are:</p> <ul style="list-style-type: none"> • Auto (default)—Automatically sets the Exposure time. You can manually set the Gain control. • Shutter Priority—Allows you to manually set the Exposure time and Gain control. Choose longer exposures to create an impression of motion. Choose shorter exposures to ensure that the motion is effectively frozen in the resulting image. • Iris Priority—Allows you to manually set the Gain control and Iris adjustment to control the distance between the nearest and farthest objects in a scene that appear acceptably sharp in an image. • Manual—Allows you to manually set the Exposure time, Gain control, and Iris adjustment. Selecting this option sets the Switch Mode to Day on the Camera page.

Table 3-2 Camera Settings (continued)

Control	Description
Gain control slider	<p>To control the gain of the IP camera, drag the slider. A higher value increases the exposure of the image, which can cause the image to look brighter, but can also cause the image to appear more noisy.</p> <p>If a value is configured for the Day to Night Threshold option in the Setup> Feature Setup > Camera window, the Gain value cannot be less than that value. In addition, the difference between the Gain value and the Day to Night Threshold value cannot be greater than 6.</p> <p>The Gain range is 6dB through 28dB. The default value is 22dB.</p>
Exposure time slider	<p>Appears when you choose Shutter Priority or Manual from the Exposure mode drop-down menu.</p> <p>To control the length of time in seconds that the IP camera keeps its iris open for each frame, drag the slider.</p> <p>Choose longer exposures time for scenes that are dark and shorter exposure time for scenes that are bright.</p>
Iris Adjustment slider	<p>Appears when you choose Iris Priority or Manual from the Exposure mode drop-down menu. Drag the slider to choose an f-stop for the IP camera.</p> <p>The Close setting causes the IP camera iris to remain fully closed.</p>
Measurement Window	<p>Choose one of the following options to control how the IP camera calculates exposure:</p> <ul style="list-style-type: none"> • Full View—The entire IP camera image is considered for the exposure calculation. • BLC—Back Light Compensation causes only the middle part of the IP camera image, indicated by a white dashed rectangle, to be considered for the exposure calculation.

Table 3-2 Camera Settings (continued)

Control	Description
Advanced Settings	
Enable WDR	<p>Wide Dynamic Range (WDR) automatically adjusts the appearance of a video image that includes both dark and light areas by compensating for the differences in these areas. Images with wide dynamic range are produced by combining long-exposure signals (normal shutter) with the signals of the high-intensity portions obtained with a short exposure (high-speed shutter).</p> <p>Options are:</p> <ul style="list-style-type: none"> • Off—Disables WDR. • Auto—Switches WDR on or off automatically according to the intensity difference of the subject. Configure the sensitivity for the on/off switching by using the Sensitivity drop-down list that appears when you choose Auto. Choose the relative adjustment that you want to apply to the image from the Strength drop-down list that appears when you choose Auto. • Manual—Let you manually control the appearance of the darker part of an image. Choose the relative adjustment that you want to apply to the darker part of an image from the Strength drop-down list that appears when you choose Manual. Choose the magnification ratio between the short exposure time and the long exposure time by using the Short Exposure slider to set the ratio. This slider appears when you choose Manual.

Motion Detection Settings

The controls that [Table 3-3](#) describes appear when you click the Expand  icon next to Motion Detection under the video image. The icon changes to the Collapse icon . Click the Collapse icon to hide these controls

If you make changes to any of the Motion Detection options, click the **Save** button to save the changes.

**Note**

When you use PTZ on the camera, motion detection is disabled for 20 seconds.

Table 3-3 Motion Detection Settings

Control	Description
Enable Motion Detection check box	<p>Enables the motion detection feature.</p> <p>When motion detection is enabled, the IP camera monitors activity in the video field areas that you specify. If activity at a defined level occurs in any of these areas, the IP camera generates an alert and takes the configured actions.</p> <p>To designate regions, right-click the video image, choose Draw Region, then hold down the left mouse button and draw the region, which is indicated by a green rectangle (for an inclusion region) or a red rectangle (for an exclusion region).</p> <p>You can draw up to 4 Inclusion regions and up to 4 Exclusion regions for a total of up to 8 regions.</p> <p>To move a region, left-click it and drag its window to the desired area.</p> <p>To resize a region, left-click it and drag an edge or corner of the region to the desired size.</p> <p>To remove a region, left-click it, then right-click it and choose Delete Region.</p>
Region Properties	<p>To expand region properties information, click the + icon next to Region Properties. The icon changes to a – icon, which you click to collapse region properties information.</p> <ul style="list-style-type: none"> • IsActive—To indicate whether the IP camera monitors a region for motion detection, left-click that region, click IsActive, then choose True (consider region) or False (do not consider region) from the drop-down menu that appears on the IsActive line. Alternatively, you can double-click True or False to toggle between these values. • Location—X and Y coordinates, respectively, of the top left corner of the selected custom region. To expand location information, click the + icon next to Location. The icon changes to a – icon, which you click to collapse region location information. • Name—Name of the region. By default, the system assigns the name RegionX, where X is a number 1 through 8. To rename a region, click its name (which appears in bold type on this line) and type a unique name of up to 32 characters. • Region Type—Type of the region. To change the region type, left-click that region, click Region Type, then choose one of the following values from the drop-down menu that appears on the Region Type line. Alternatively, you can double-click Inclusion or Exclusion to toggle between these values. <ul style="list-style-type: none"> – Inclusion—The IP camera examines this region for motion – Exclusion—The IP camera ignores motion in this area

Table 3-3 Motion Detection Settings (continued)

Control	Description
Sensitivity slider	Becomes available when you left-click a motion detection region. Designates the relative amount of activity that the IP camera must detect in the area before it generates an alert. A lower value means that more, or faster, activity is required to trigger an alert. A higher value means that less, or slower, activity is required. The default value is 80.
Threshold slider	Becomes available when you left-click a motion detection region. Designates the percentage of pixels that the IP camera must identify as changed in the area before it generates an alert. The camera monitors for pixel changes at the defined sensitivity level. The default threshold value is Low.

Pan/Tilt/Zoom Settings

The controls that Table 3-4 describes appear when you click the Expand  icon next to Pan/Tilt/Zoom under the video image. The icon changes to the Collapse icon . Click the Collapse icon to hide these controls.

Pan, tilt, and zoom functions require that the IP camera be installed with a pan/tilt mount that supports the Pelco D protocol and that the Enable Pan and Tilt option is enabled as described in this section.

Table 3-4 Pan/Tilt/Zoom Settings

Control	Description
Pan Tilt Zoom	
Pan, Tilt, and Home buttons 	Click an arrow button to pan or tilt the IP camera in the corresponding direction. Click the Home button  to move the IP camera to its home pan, tilt, zoom, and focus position. You can also pan and tilt the IP camera by holding down the left mouse button on the video image and then dragging in the direction to pan or tilt.
Zoom buttons 	To control the field of view zoom factor: <ul style="list-style-type: none"> • Left click the Zoom Out button  to zoom out (wide). • Left click the Zoom In button  to zoom in (telephoto) You can hold the left mouse button on the Zoom Out or Zoom In button to continuously zoom out or in. Note To use these controls, you must enable Pan and Tilt.
Enable Pan and Tilt check box.	Check this check box to enable the IP camera pan, tilt, and zoom functions.
Enable Digital Zoom check box.	Check this check box to enable the IP camera digital zoom function. When this option is enabled, you can use the Zoom In button to zoom further than the optical zoom allows.

Table 3-4 Pan/Tilt/Zoom Settings (continued)

Control	Description
Enable Auto Focus check box.	Check this box to automatically focus the PTZ IP camera for the selected zoom.
Enable Joystick check box.	Check the Enable Joystick check box to enable the use of a USB joystick through the camera interface. This option is enabled automatically when you connect a joystick to the system.
Polling field	Enter a value in milliseconds at which the camera changes the display during a joystick PTZ operation. In general, a value of 200 provides smooth viewing of PTZ operations. Adjust this value if PTZ operations do not appear smooth.
Focus buttons 	Available if the Enable Auto Focus check box is not checked. To manually control the field of view focus, use the left arrow to focus on close objects. Use the right arrow to focus on far objects.
Preset & Home Position	
Use these controls to configure up to 16 preset positions for the IP camera.	
Preset Position drop-down-list and Go To button	To move the IP camera to a predefined preset position, choose the position from the drop-down list and then click the Go To button
Add Preset Position button 	To add a preset position for the IP camera, follow these steps: <ol style="list-style-type: none"> 1. Use the pan, tilt, zoom, and focus controls to set the IP camera to the position that you want to add. 2. Click the Add Preset Position button. 3. In the Preset Name field, enter a unique name for this position. The name can contain from 1 to 64 characters. Valid characters are letters, numbers, and the special characters ! % () , - = @ _ ~. Spaces and periods are not supported. 4. Click the Save button next to the Preset Name field.
Delete Selected Preset Position button 	To delete a preset position from the IP camera, perform the following steps. <p>Note You cannot delete a preset position that is part of a patrol list. Go to Patrol Settings to remove a preset position from the patrol list.</p> <ol style="list-style-type: none"> 1. From the Preset Position drop-down, choose the position that you want to delete. 2. Click the Delete Selected Preset Position button. 3. Click the OK button in the dialog box that appears to complete the deletion. If you do not want to delete the position, click the Cancel button.
Set Current Home Position button	Click to define the current IP camera pan, tilt, zoom, and focus settings as the home position.
Restore Default Home Position button	Click this button to set the IP camera home position to the factory default position.

Table 3-4 Pan/Tilt/Zoom Settings (continued)

Control	Description
Speed Control	
Pan Speed slider	To control the relative speed of panning for the IP camera, drag the slider to select a value from 1 through 100. A higher value increases pan speed and a lower value decreases pan speed. The default value is 50.
Tilt Speed slider	To control the relative speed of tilting for the IP camera, drag the slider to select a value from 1 through 100. A higher value increases tilt speed and a lower value decreases tilt speed. The default value is 50.
Zoom Speed slider	To control the relative speed of zooming for the IP camera, drag the slider to select a value from 1 through 100. A higher value increases zoom speed and a lower value decreases zoom speed. The default value is 50.
Focus Speed slider	To control the relative speed of focusing for the IP camera, drag the slider to select a value from 1 through 100. A higher value increases focus speed and a lower value decreases focus speed. The default value is 50.
Auto Pan/Patrol Speed slider	To control the speed that the IP camera moves between the steps in a patrol sequence, drag the slider to select a value from 1 through 100. A higher value increases the speed at which the movement between steps occurs. The default value is 50.

Patrol Settings

The patrol settings options let you configure a patrol sequence for the IP camera. A patrol sequence consists of up to 100 steps, each of which causes the camera to move to a designated preset position and remain in the position for a designated time.

When you create a patrol sequence, you define the order of the steps. When the patrol sequence executes, the IP camera goes to the preset position that is defined by the first step, then moves through each preset position in the configured order. It stops at the preset position that is defined by the last step.

Before you can configure a patrol sequence, you must define preset positions for the IP camera.

If you change any Patrol Settings options, you must click the **Save** button to save the change. If you do not click this button, changes are not retained when you exit the View Video window.

Table 3-4 Pan/Tilt/Zoom Settings (continued)

Control	Description
Presets list and Selected list	<p>The Presets list Displays a list of the preset positions that you defined as described with the Preset and Home position controls as described in the “Pan/Tilt/Zoom Settings” section on page 3-9. The Selected list defines the steps and their order in the patrol sequence, and defines the dwell time for each step.</p> <p>To create a patrol sequence for the IP camera, follow these steps:</p> <ol style="list-style-type: none"> Designate preset position to include in the patrol sequence by moving each position that you want from the Presets list to the Selected list. <p>To move preset positions between the Presets list and the Selected list, use the following buttons. Buttons become highlighted when they are available.</p> <ul style="list-style-type: none"> —Move the selected preset position or positions from the Presets list to the Selected list. To select a preset position, click it to highlight it. To select more than one preset positions, Ctrl-click each one. —Move all preset positions from the Presets list to the Selected list. —Move all patrol positions from the Selected list to the Presets list. —Move the selected patrol position or positions from the Selected list to the Presets list. To select a preset position, click it to highlight it. To select more than one preset positions, Ctrl-click each one. Arrange the steps in Selected list in the order in which they should be used in the patrol sequence. <p>To do so, click a step in the Selected list, then use the following buttons:</p> <ul style="list-style-type: none"> —Move the step up one position —Move the step down one position Configure the dwell time for each step in the patrol sequence. <p>Dwell time is the number of seconds that the IP camera remains in the position that the step defines. To configure a dwell time for a step, enter the desired value in the Dwell Time field for the step.</p> <p>The default dwell time is 5 seconds.</p> Click the Save button.
Start/Stop Patrol Sequence toggle button	<p>Click the Start Patrol Sequence button  to start the defined patrol sequence. The button changes to the Stop Patrol Sequence button .</p> <p>Click the Stop Patrol Sequence button to stop a patrol sequence that is executing. The button changes to the Start Patrol Sequence button.</p> <p>An executing patrol sequence also stops if you manually perform any pan, tilt, or zoom operation.</p>

Privacy Zone Settings

You can create up to four privacy zones. A privacy zone is a masking that is used to provide regions of privacy in the camera field of view. When the Privacy Zone feature is enabled, video within each region is not recorded in the camera, nor sent in the video stream. Instead of the actual video, privacy regions display as solid rectangles in the color that you choose.

The controls that [Table 3-5](#) describes appear when you click the Expand  icon next to Privacy Zone under the video image. The icon changes to the Collapse icon . Click the Collapse icon to hide these controls.

Table 3-5 Privacy Zone Controls

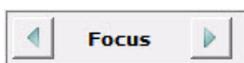
Control	Description
Privacy zone box	The green box in the center of the video view indicates the area of the view that will not be visible in video streaming when the privacy zone feature is enabled. To change the size of this box, click inside of it, then drag a black square on its border.
Pan, Tilt, and Home buttons 	Use these buttons to place the object or view inside the privacy zone box. Click an arrow button to pan or tilt the IP camera in the corresponding direction. Click the Home button  to move the IP camera to its home pan, tilt, zoom, and focus position. You can also pan and tilt the IP camera by holding down the left mouse button on the video image and then dragging in the direction to pan or tilt.
Zoom buttons 	Use these buttons to control the field of view zoom factor for the object or view inside the privacy zone box: <ul style="list-style-type: none"> • Left click the Zoom Out button  to zoom out (wide). • Left click the Zoom In button  to zoom in (telephoto) You can hold the left mouse button on the Zoom Out or Zoom In button to continuously zoom out or in. Note To use these controls, you must enable Pan and Tilt.
Focus buttons 	Available if the Enable Auto Focus check box is not checked in the Pan/Tilt/Zoom area. To manually control the field of view focus for the object or view inside the privacy zone box, use the left arrow to focus on close objects. Use the right arrow to focus on far objects.
Go To drop-down menu	To move the IP camera to a predefined preset position, choose the position from the drop-down list.
Pan Speed slider	To control the speed of panning for the IP camera when placing an object or view inside the privacy zone box, drag the slider to select a value from 1 through 100. A higher value increases pan speed and a lower value decreases pan speed. The default value is 50.

Table 3-5 Privacy Zone Controls (continued)

Control	Description
Zoom Speed slider	To control the speed of zooming for the IP camera when placing an object or view inside the privacy zone box, drag the slider to select a value from 1 through 100. A higher value increases zoom speed and a lower value decreases zoom speed. The default value is 50.
Tilt Speed slider	To control the speed of tilting for the IP camera when placing an object or view inside the privacy zone box, drag the slider to select a value from 1 through 100. A higher value increases tilt speed and a lower value decreases tilt speed. The default value is 50.
Focus Speed slider	To control the speed of focusing for the IP camera when placing an object or view inside the privacy zone box, drag the slider to select a value from 1 through 100. A higher value increases focus speed and a lower value decreases focus speed. The default value is 50.
Enable Privacy Region check box	Enables the Privacy Zone feature. You can create up to four privacy zones.
Region Color drop-down menu	Choose the color in which the system displays the zones that are defined by privacy regions. You can choose Red, Green, Black, or Blue.
Save button	Click to save the color setting that you choose from the Region Color drop-down menu.
Region Name field	Enter a name for this privacy region. A name can contain from 1 through 32 alphanumeric characters.
Privacy Mask drop-down menu	To move the camera field of view to a particular Privacy Zone, select the region name from Privacy Mask drop down list. The camera automatically pans, tilts, zooms, and focuses to that region
Delete button	Click to delete the current privacy mask.