



# CHAPTER 3

## 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.



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

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

**Table 3-1** Camera Video & Control Window Controls

Control	Description
<b>Video controls</b>	
Video Codec drop-down list 	Choose the codec for video transmission (H.264 or MJPEG). You can choose H.264 only if the primary video stream (channel 1) is enabled. You can choose MJPEG only if the secondary video stream (channel 2) is enabled. For information about enabling and disabling video streams, see the <a href="#">“Streaming Window” section on page 4-1</a> .

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

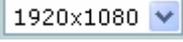
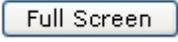
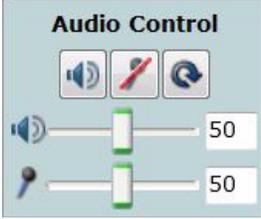
Control	Description
Video Resolution drop-down list 	<p>Choose the resolution for video transmission. The resolutions in this drop-down list depend on the video standard that you selected.</p> <p>The 2830 and 2835 cameras support D1 resolution. The 6930 camera supports HD resolution (1920 x 1080).</p> <p>You cannot configure a secondary stream if you configure this resolution for 1920 x 1080.</p> <p><b>Note</b> You can also change the resolution for video transmission by changing the value in the Video Resolution Type field, as described in the <a href="#">“Streaming Window” section on page 4-1</a>.</p>
<b>Image tools</b>	
<b>Hotspot zoom</b> button 	<p>Click this latch button to enable 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 <b>Hotspot zoom</b> button and click the video display. The first five clicks zoom the display. The sixth click returns to unzoomed display.</p>
<b>Hotspot pan+tilt</b> button 	<p>This button is disabled.</p>
<b>Save snapshot</b> 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 <b>Save</b> and follow the on-screen prompts to save the image with the name and in the location that you want.</p>
<b>Flip</b> button 	<p>Rotates the video image by 180 degrees.</p>
<b>Mirror</b> button 	<p>Reverses the video image.</p>
<b>Restore</b> button 	<p>Displays the default video image, which is not rotated and not reversed.</p>
<b>Full Screen</b> button 	<p>Displays the video image in full screen mode.</p> <p>To return to normal display mode, click the full screen image.</p>

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

Control	Description
<b>Audio Control</b>	
	<p>Displays the controls for audio when you enable audio. Controls are greyed out when audio is disabled. To enable audio:</p> <ul style="list-style-type: none"> <li>Click on the Setup link and select Streaming.</li> <li>From the Audio section of the Streaming page, check the Enable Audio box.</li> <li>Click <b>Save</b>.</li> </ul> <p>Use these controls to enable or disable the speaker and microphone. Use the sliders to adjust the volume.</p>

The following settings are accessible from the main Camera Video & Control window:

- [Camera Settings, page 3-3](#)
- [Motion Detection Settings, page 3-7](#)
- [Pan/Tilt/Zoom Settings, page 3-8](#)
- [Privacy Zone, page 3-10](#)

## Camera Settings

The controls in [Table 3-2](#) appear when you click the Up Arrow next to Camera Settings under the video image.

Table 3-2 Camera Settings

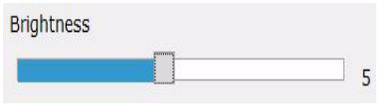
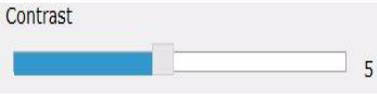
Control	Description
<b>Picture Adjustments</b>	
<p><b>Brightness</b> slider</p> 	<p>To control the brightness of the video image, drag the slider. Values are 1 through 10. A higher value increases the brightness and a lower value decreases the brightness. For example, if the PTZ IP camera is facing a bright light and the video appears too dark, you can increase the brightness.</p> <p>The default value is 5.</p>
<p><b>Contrast</b> slider</p> 	<p>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.</p> <p>The default value is 5.</p>

Table 3-2 Camera Settings (continued)

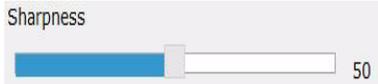
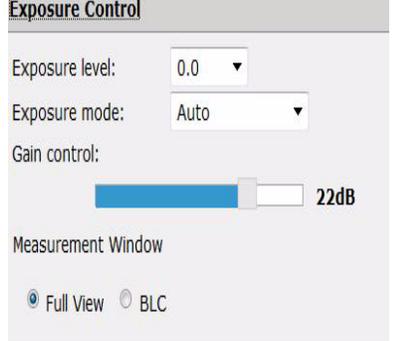
Control	Description
<p><b>Sharpness slider</b></p>  <p>The image shows a slider control labeled 'Sharpness'. The slider has a blue bar on the left and a white bar on the right. A vertical line indicates the current value, which is 50.</p>	<p>To control the sharpness of the video from the PTZ IP camera, drag the slider. Values are 1 through 100. A higher value increases the sharpness and a lower value decreases the sharpness.</p> <p>The default value is 50.</p>
<p><b>Saturation slider</b></p>  <p>The image shows a slider control labeled 'Saturation'. The slider has a blue bar on the left and a white bar on the right. A vertical line indicates the current value, which is 50.</p>	<p>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.</p> <p>High saturation provides a vivid, intense color for a video image. With less saturation, the video image appears more muted and gray.</p> <p>The default value is 50.</p> <p><b>Note</b> This control is not supported on the 2830 and 2835 PTZ PTZ IP cameras.</p>
<b>Restore button</b>	Resets white balance, brightness, contrast, sharpness, saturation, and hue to their default values.
<b>White Balance Mode</b>	<p>Options are</p> <ul style="list-style-type: none"> <li>• Auto (default)—White balance is automatically set by the camera and is suitable for most conditions.</li> <li>• Indoor—This white balance mode is specifically for indoors. You can capture images with natural white balance.</li> <li>• Outdoor—This white balance mode is specifically for outdoors. You can capture images with natural white balance in the morning and evening.</li> <li>• One Push WB—This option is a 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.</li> <li>• Manual—With this option you can set the white balance by setting red gain (RGain) and blue gain (BGain) manually.</li> <li>• Sodium Lamp—This option is a fixed white balance mode specifically for sodium vapor lamps.</li> <li>• ATW—The camera automatically adjusts the white balance in response to varying light conditions.</li> </ul>

Table 3-2 Camera Settings (continued)

Control	Description
<b>Exposure Control</b>	
<b>Note</b> Click on the Exposure Control heading to access the controls.	
	
<b>Exposure level</b>	<p>Choose this option if you want to increase or decrease the exposure level.</p> <p>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.</p> <p>Range is -2.0 through +2.0. Default is 0.</p>
<b>Exposure mode</b>	<p>Options are</p> <ul style="list-style-type: none"> <li>• Auto (default)—Automatically sets the Exposure time. You can manually set the Gain control.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>
<b>Gain control slider</b>	<p>Set the gain control.</p> <p>Range is 6dB through 28dB.</p> <p>Default is 22dB.</p> <p><b>Note</b> Changing gain control affects the Day to Night Threshold on the Camera page.</p>

**Table 3-2** Camera Settings (continued)

Control	Description
<b>Measurement Window</b>	Options are <ul style="list-style-type: none"> <li>• Full View—Exposure is calculated based on full view.</li> <li>• Back light compensation (BLC)—This option adds a weighted region in the middle of the image view to give necessary exposure compensation. The option is only available when the Exposure mode is set to Auto.</li> </ul>
<b>Advanced Settings</b>	
<b>Note</b> Click on the Advanced Settings title to access the control.	
Enable WDR	For extremely light and dark areas, enable the wide dynamic range (WDR) feature to ensure you can clearly view the objects in the scene. Options are <ul style="list-style-type: none"> <li>• Off (default)</li> <li>• Auto</li> <li>• Manual</li> </ul>

# Motion Detection Settings

The controls in [Table 3-3](#) appear when you click the Up Arrow in the **Motion Detection** area under the video image. These controls are available only when viewing the primary (H.264) stream.



**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 and displays a grid over the video image.</p> <p>When motion detection is enabled, the PTZ IP camera monitors activity in regions of the video that you specify. If activity at a defined level occurs in any of these areas, the PTZ IP camera generates an alert and takes the actions that are configured as described in the “<a href="#">Event Notification Window</a>” section on page 4-12.</p> <p>After motion detection has been enabled, you create specific regions that the PTZ IP camera monitors for activity. To create a motion detection region, right-click on the video image, choose <b>Draw Region</b>, and then click and drag across the motion detection grid to draw a green square or rectangle comprised of one or more grid squares. Up to eight of the following regions can be drawn:</p> <ul style="list-style-type: none"> <li>• <b>Motion inclusion regions</b>—Designate areas to examine for motion. You can draw up to four motion inclusion regions.</li> <li>• <b>Motion Exclusion Regions</b>—Designate areas to ignore for motion. You can draw up to four motion exclusion regions.</li> </ul> <p>For each region listed under the Region Properties area, you can configure the following properties:</p> <ul style="list-style-type: none"> <li>• <b>IsActive</b>—Specifies whether the region is active (enabled) or not active (disabled). Choose <b>true</b> to enable a region; choose <b>False</b> to disable a region.</li> <li>• <b>Location</b>—Specifies the grid coordinate (X, Y) for the upper left corner of the region.</li> <li>• <b>Name</b>—You can enter a name of up to 12 characters for a region.</li> <li>• <b>Region Type</b>—Specifies whether the region is an inclusion or an exclusion region. Choose <b>Inclusion</b> to have the region examine for motion; choose <b>Exclusion</b> to have the region ignore motion.</li> <li>• <b>Sensitivity</b>—Designates the relative amount of activity that the PTZ 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.</li> <li>• <b>Threshold</b>—Designates the percentage of pixels that the PTZ IP camera must identify as changed in the area before it generates an alert. The camera detects pixel changes at the defined sensitivity level. The default threshold value is 10.</li> </ul> <p>To reset the sensitivity and threshold to their default values of 80 and 10 respectively, right-click on the region, and choose <b>Restore Values</b>.</p> <p>To remove a region, right-click it, and choose <b>Delete Region</b>.</p>

# Pan/Tilt/Zoom Settings

The controls in [Table 3-4](#) appear when you click the Up Arrow in the **Pan/Tilt/Zoom** area at the bottom of the video image.

**Table 3-4** Pan/Tilt/Zoom Settings

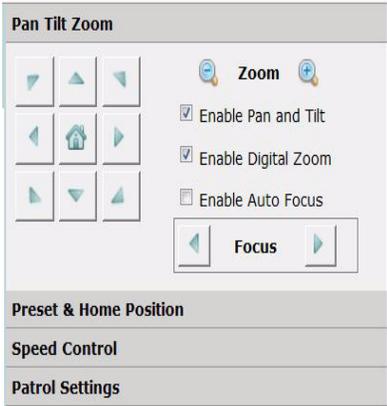
Control	Description
<b>Pan Tilt Zoom</b>	
	<p>Check the Enable Pan and Tilt box to enable the pan and tilt controls on the left and the zoom controls.</p> <p>Use the arrow buttons to manually position the camera to the desired area.</p> <p>Use the home button to return the camera to the original position.</p>
<b>Zoom</b>	<p>To control the field of view zoom factor, left click on the minus magnifier to zoom out (wide). Left click on the plus magnifier to zoom in (telephoto).</p> <p>Depress the left mouse button to continuously zoom in or out.</p> <p><b>Note</b> To use these controls, you must enable Pan and Tilt.</p>
<b>Enable Digital Zoom</b>	Check this box to enable digital zoom.
<b>Enable Auto Focus</b>	Check this box to automatically focus the PTZ IP camera for the selected zoom.
<b>Focus</b>	<p>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.</p> <p><b>Note</b> To use the Focus controls, ensure that the Enable Auto Focus option is not checked.</p>

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

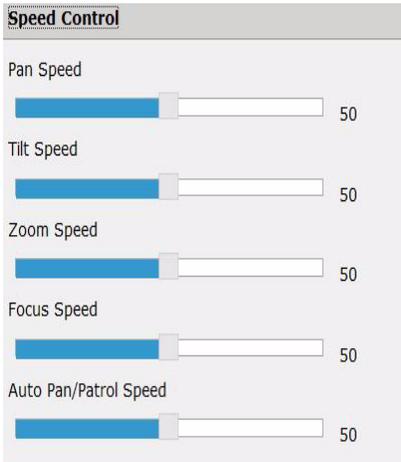
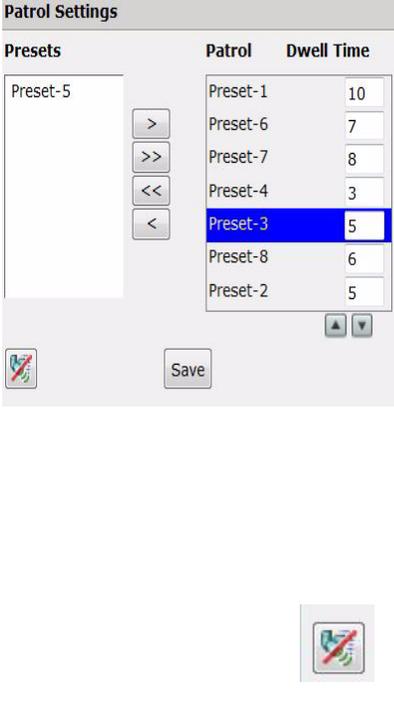
Control	Description
<b>Preset &amp; Home Position</b>	
<b>Note</b> Click on the title to access these controls.	
	<p>You can configure a maximum of eight preset positions.</p> <p>To add a preset position</p> <ul style="list-style-type: none"> <li>Click on the plus button.</li> <li>Enter a unique name for this preset position. The name can contain from 1 to 64 characters, which can be letters, numbers, and special characters, but no spaces. Special characters are: ! % ( ) , - = @ _ ~</li> <li>Click the <b>Save</b> button.</li> </ul> <p>If you already configured the maximum amount of preset positions, an error message displays.</p> <p>To delete a preset position, use the <b>trash</b> button.</p> <p><b>Note</b> You cannot delete a preset position that is part of a patrol list. Go to <b>Patrol Settings</b> to remove a preset position from the patrol list.</p> <p>To set one of the preset positions as the home position, click the <b>Set Current Home Position</b> button.</p> <p>To restore the default home position, click the <b>Restore default Home Position</b> button.</p>
<b>Speed Control</b>	
	<p><b>Pan Speed</b>—Use the slider to set the rate at which the camera pans to the desired location. Values are 1 through 100. Default is 50.</p> <p><b>Tilt Speed</b>—Use the slider to set the rate at which the camera tilts. Values are 1 through 100. Default is 50.</p> <p><b>Zoom Speed</b>—Use the slider to set the rate at which the camera zooms. Values are 1 through 100. Default is 50.</p> <p><b>Focus Speed</b>—Use the slider to set the rate at which the camera focuses on a desired location. Values are 1 through 100. Default is 50.</p> <p><b>Auto Pan/Patrol Speed</b>—Use the slider to set the rate at which the camera automatically pans and patrols based on the patrol list. Values are 1 through 100. Default is 50.</p>

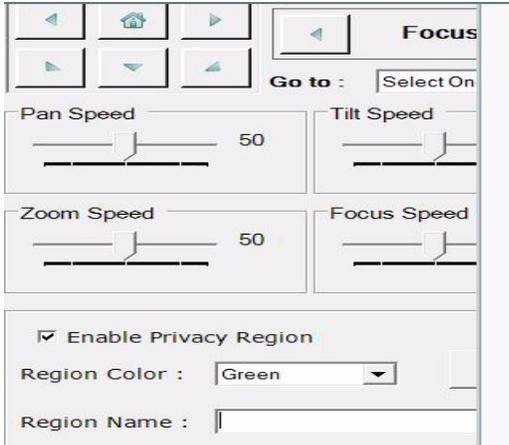
Table 3-4 Pan/Tilt/Zoom Settings (continued)

Control	Description
<p><b>Patrol Settings</b></p> 	<p>Use this screen to manage the patrol areas and times for each preset position.</p> <p>After adding the preset positions, select the preset position in the Presets list. Use the right arrow button (&gt;) to the patrol list. To add all of the preset positions, use the Shift key to highlight all of the positions. Click the double right arrow button (&gt;&gt;). These presets are now added to the Patrol list.</p> <p>Set the time that the Preset position patrols the area before moving to the next position by adding the time in the Dwell Time box next to each preset.</p> <p>Dwell Time is the time (in seconds) that the camera spends in a specific preset area.</p> <p>To set the priority of each preset, highlight the preset. Use the up and down arrows under the Patrol and Dwell Time window to set the priority of each preset.</p> <p>Click the <b>Save</b> button to save the patrol settings. An informational message appears indicating that the patrol settings are successfully stored on the camera.</p> <p>Use the <b>Auto Patrol</b> button to start patrolling the first preset area in the patrol list followed by the second, and so forth. Click the button to stop patrolling.</p>

## Privacy Zone

The controls in [Table 3-5](#) appear when you click the Up Arrow in the **Privacy Zone** area at the bottom of the video image.

Table 3-5 Privacy Zone Controls

Control	Description
	<p>Use the Privacy Zone section to mask particular regions that should not be visible in video streaming. Privacy Zone is drawn on the center of the image. In the Privacy Zone section, use the pan, tilt, zoom, and focus controls to place targeted object or view inside the green box in center. The green box can be resized to increase height and width.</p> <p>Once the target object is inside the green box, enter the name in the Region Name edit box and click the <b>Add</b> button to draw the mask on video.</p> <p>To change mask color, click the Region Color drop down box and select mask color. Click the <b>Save</b> button to apply new mask color to video.</p> <p>To remove a privacy region, select desired region from the Privacy Mask drop down list. The camera automatically goes to the position of the selected mask. Click the <b>Delete</b> button to delete the mask. The message, "Privacy Zone setting successfully stored on the camera" is displayed when region is deleted.</p> <p>To focus on a particular Privacy Zone, select the region name from Privacy Mask drop down list. The camera automatically pans and tilts to the masked region.</p>

