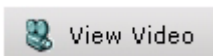# Viewing Live Video

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

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

To view live video, log in to the IP camera and click **View Video** in the 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 IP camera privilege level and the configurations settings for the 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 Control
- Camera Settings
- Motion Detection
- Privacy Zone

Table 3-1 describes the controls in the Camera Video & Control window.
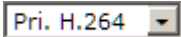
Table 3-1   Camera Video & Control Window Controls

Control	Description
Video Control	
Video Codec drop-down list Pri. H.264	Choose the codec for video transmission (H.264 or MJPEG). You can choose MJPEG or H.264 if the primary video stream (channel 1) is enabled. You can choose MJPEG or H.264 if the secondary video stream (channel 2) is enabled. For information about enabling and disabling video streams, see the "Streaming Window" section on page 4-1.

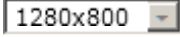*Table 3-1   Camera Video & Control Window Controls (continued)*

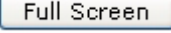| Control	Description
Video Resolution drop-down list 1280x800	Choose the resolution for video transmission. The resolutions in this drop-down list depend on the video standard that you selected. The default value for H.264 is 1280 x 800. The default value for MJPEG is 704 x 480. **Note** You can also change the resolution for video transmission by changing the value in the Video Resolution Type field, as described in the "Streaming Window" section on page 4-1.
Image Tools	
Hotspot zoom button	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. 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.
Hotspot pan+tilt button	Click this latch button to enable the hotspot pan/tilt feature, which lets you pan and tilt the IP camera toward a point that you click in the video display. To perform a hotspot pan/tilt action, engage the **Hotspot pan+tilt** button, then click the video image at the location toward which you want the IP camera to pan and tilt. This feature requires that the IP camera be installed with a pan/tilt mount that supports the Pelco D protocol and that pan and tilt functions are enabled.
Save snapshot button	Capture and save 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. 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.
Flip button	Rotate the video image by 180 degrees.
Mirror button	Reverse the video image.
Restore button	Display the default video image, which is not rotated and not reversed.
Full Screen button Full Screen	Display the video image in full screen mode. To return to normal display mode, click the full screen image.

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

Control	Description
Camera Settings	
Up Arrow toggle button ▲ Down Arrow toggle button ▼	Click the Up Arrow to display the camera settings. The button changes to the Down Arrow button Click the Down Arrow button to hide the camera settings. The button changes to the Up Arrow button. When the Up Arrow is clicked to display the camera settings, three drawers appear to the right of the video image. The camera settings are grouped into the three drawers as follows: • Picture Adjustments • Exposure Control • Advanced Settings To view the settings within a drawer, click on it to expand it. To hide the settings, click on the drawer to collapse it.
Save button	Saves the current camera settings configuration.
Picture Adjustments	
Note These controls appear when you click **Camera Settings Up Arrow > Picture Adjustments drawer**.	
Brightness slider Brightness ▬▬▬▬ 5	To control the brightness of the video image, drag the slider, or enter a value from 1 through 10 and press the **Enter** key. A higher value increases the brightness and a lower value decreases the brightness. For example, if the 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 Contrast ▬▬▬▬ 5	To control contrast of the video image, drag the slider, or enter a value from 1 through 10 and press the **Enter** key. A higher value increases the contrast and a lower value decreases the contrast. The default value is 5.
Sharpness slider Sharpness ▬▬▬▬ 50	To control the sharpness of the video from the IP camera, drag the slider, or enter a value from 1 through 100 and press the **Enter** key. A higher value increases the sharpness and a lower value decreases the sharpness. The default value is 50.
Saturation slider Saturation ▬▬▬▬ 50	To control the saturation of the video from the IP camera, drag the slider, or enter a value from 1 through 100 and press the **Enter** key. 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.

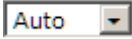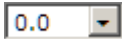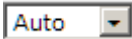*Table 3-1*   *Camera Video & Control Window Controls (continued)*

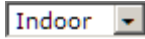| Control	Description
White Balance Mode Auto	Choose one the following White Balance modes from the drop-down list: • **Manual**—Choose this option if you want to set the white balance by setting RGain (Red Gain) and BGain (Blue Gain) manually. • **Auto**—White balance is automatically set by camera, which is suitable for most conditions. The default setting is Auto.
Exposure Control **Note** These controls appear when you click **Camera Settings Up Arrow > Exposure Control drawer**.	
Exposure Level 0.0	Increases or decreases the exposure level. For example, if you want to add light (overexpose) to properly expose the image, set the value to +1. If you need to underexposure the scene, set value to -1. Default value is 0.0
Exposure Mode Auto	Choose one of the following Exposure modes: • **Auto**—Automatically sets the exposure level, which is suitable for most conditions. • **Manual**—Choose this option if you want to set Exposure time and Gain control manually. Default setting is Auto.
Exposure Time 1/32000 1/5	The Exposure time option is available only when the Exposure mode is set to Manual. Specifies the range of shutter speed settings to be used by the IP camera. Shutter speed is measured in fractions of a second. You can adjust both ends of the shutter speed range. Default range is 1/5 sec to 1/32000 sec in Manual mode.
Gain Control 0 100	The Gain control option is available only when the Exposure mode is set to Manual. Specifies the range of gain (amount of amplification applied to pixel values) settings to be used by the IP camera. You can adjust both ends of the gain control range. Default range is to 0 to 100.
Iris Mode Indoor	The Iris mode is available only when the Exposure mode is set to Auto. Choose one of the following Iris modes: • Indoor—Suitable for indoor conditions. • Outdoor—Suitable for outdoor conditions. Default mode is Indoor.

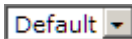*Table 3-1   Camera Video & Control Window Controls (continued)*

Control	Description
Measurement Window	Exposure is calculated based on video data from one of the following measurement windows: • **Full View**—Exposure is calculated based on full view. • **Custom**—You can designate specific regions (areas within the field of view) to use for exposure calculation. Inclusion regions designate areas that are used to calculate the exposure value. Exclusion regions designate a areas that are ignored when calculating the exposure value. You can draw up to four inclusion regions and four exclusion regions. To create a region, right-click on the video image and choose **Draw Region**. Drag the region to the desired area and drag an edge or corner of the region to resize it. To remove region, right-click on it and choose **Delete Region**. Inclusion regions are created by default. To toggle between inclusion and exclusion regions, right-click on a region and change the **Region Properties** > **Region Type** setting. • **BLC**—Back Light Compensation (BLC) window adds a weighted region in the middle of the image view to give necessary exposure compensation.

Advanced Settings

Note   These controls appear when you click **Camera Settings Up Arrow** > **Advanced Settings drawer**.

Control	Description
Enable Low Light Compensation	This option is useful in low light situations.
Enable DRX	Check this check box to enable the Dynamic Range Enhanced (DRX) feature. DRX helps recover washed out details when there is extreme contrast lighting conditions. To reach better image quality adjust Sensitivity (Low and High) and Strength (Low, Medium and High).
Sensitivity Low	The Sensitivity option is available only when DRX is enabled. Choose how sensitive (low or high) DRX is to extreme contrast lighting conditions.
Strength Low	The Strength option is available only when DRX is enabled. Choose how much DRX processing (low, medium, or high) to use for recovering washed out details.
Gamma Curve Default	Choose the value that provides the optimal gray-scale intensity. Larger gamma curve values make shadows darker and larger values make dark regions lighter.

Motion Detection

Control	Description
Up Arrow toggle button ▲	Click the Up Arrow to display the motion detection controls. The button changes to the Down Arrow button. Click the Down Arrow button to hide the motion detection controls. The button changes to the Up Arrow button.
Down Arrow toggle button ▼	

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

Control	Description
Motion detection controls	
Note	These controls appear when you click the Up Arrow in the Motion Detection area and are available only viewing the primary (H.264) stream.
Enable Motion Detection check box	Enables the motion detection feature and displays a grid over the video image. When motion detection is enabled, the 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 IP camera generates an alert and takes the actions that are configured as described in the "Event Notification Window" section on page 4-17. After motion detection has been enabled, you create specific regions that the IP camera monitors for activity. To create a motion detection region, right-click on the video image, choose **Draw Region**, 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: • **Motion inclusion regions**—Designate areas to examine for motion. You can draw up to four motion inclusion regions. • **Motion Exclusion Regions**—Designate areas to ignore for motion. You can draw up to four motion exclusion regions. Foe each region listed under the Region Properties area, you can configure the following properties: • **IsActive**—Specifies whether the region is active (enabled) or not active (disabled). Chose **true** to enable a region; choose **False** to disable a region. • **Location**—Specifies the grid coordinate (X, Y) for the upper left corner of the region. • **Name**—You can enter a name of up to 12 characters for a region. • **Region Type**—Specifies whether the region is an inclusion or an exclusion region. Choose **Inclusion** to have the region examine for motion; choose **Exclusion** to have the region ignore motion. • **Sensitivity**—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 90. • **Threshold**—Designates the percentage of pixels that the 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. To reset the sensitivity and threshold to their default values of 80 and 10 respectively, right-click on the region, and choose **Restore Values**. To remove a region, right-click it, and choose **Delete Region**.
Save button	Saves the current motion detection configuration.
Privacy Zone	

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

Control	Description
Up Arrow toggle button ▲ Down Arrow toggle button ▼	Click the Up Arrow to display the privacy zone controls. The button changes to the Down Arrow button. Click the Down Arrow button to hide the privacy zone controls. The button changes to the Up Arrow button.
Privacy Zone controls **Note** These controls appear when you click the Up Arrow in the Privacy Zone area.	
Enable Privacy Region	Check this check box to enable the privacy zone feature that allows you to create to four user-defined privacy regions. Any video within a privacy region is masked in the video stream. To create a region, right-click on the video image and choose **Draw Region**. Drag the region to the desired area and drag an edge or corner of the region to resize it. To remove region, right-click on it and choose **Delete Region**. Foe each region listed under the Privacy Zone Properties area, you can configure the following properties: • **Current Region**—You can enter a name of up to 12 characters for a region. • **IsActive**—Specifies whether the region is active (enabled) or not active (disabled). Chose true to enable a region; choose False to disable a region.
Region Color	Choose a color from the Region Color drop-down list to specify the color that will be used to mask the actual video in all privacy regions.
Save button	Saves the current privacy zone configuration.