ADMINISTRATION GUIDE

Cisco Small Business

SW-VMS16

Video Monitoring System

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Contents

Chapter 1: Getting Started 1

Before You Begin 1
Camera Installation Guidelines 2
System Requirements 3
What's In This Guide? 4

Chapter 2: Installing the Video Monitoring Software 5

Running the Installation CD 5
Launching the Video Monitoring Software 10

Chapter 3: Video Monitoring Software Quick Start 11

Adding Local Network Cameras 11
Adding Cameras Manually 15
Configuring a Schedule for Recording on Motion 18
Recording Events 22
Playing Back Recorded Events 23
Deleting Cameras 25

Chapter 4: Getting to Know the Video Monitoring Software 27

Understanding the Main Console Window 28
Recordings -> Start/Stop 28
Recordings -> Playback 28
Recordings -> Define Schedule 28
Devices -> Setup 28
Screen Division Options 29
Camera Control for PTZ Cameras 29
Patrol 29
Preset Points 30
Zoom 30
PTZ Directional Movement 31
Information Window 31

On Screen Menu 31
Exit and Minimize 32

Chapter 5: Using the Playback Application 33

Understanding the Playback Window 34
Video -> Open Recording 34
Video -> Enhance 34
Field Definitions 34
Video Settings 35
Export -> Save Video 35
Export -> Save Image 36
Export -> Print 37
Field Definitions 37
Management -> Back Up Video 37
Management -> Options 38
Management -> View Log 39
Viewing the System Log 39
Exporting from the Log Viewer 40
Playback Controls 41
Exit and Minimize 41
Accessing Recorded Video 42
Understanding the DateTime Search Dialog Window 42
Icons 42
Field Definitions 43
Using the DateTime Search Dialog Window 43
Setting Recording Options 44
Field Definitions 45

Chapter 6: Setting a Schedule 46

Day Mode 46
Load Preset Modes 47
Insert New Schedules Manually 48

Copying a Schedule 49
Week Mode 50
Copying a Schedule 51
Adjusting Configuration Settings 51
Field Definitions 52

Chapter 7: Configuring Video Settings 54

Configuring Settings 55
General Tab 55
Startup 55
Storage Settings 56
Audio Preview Settings 57
Informational Display 57
Auto Reboot 57
Camera Tab 58
Camera Functions 58
Camera Parameter 59
I/O Device Tab 60
I/O Device Tab 60
PTZ Config Tab 61
User Account Tab 62
Monitor Display Tab 63
Saving and Loading to a Configuration File 64
Log Viewer 64
Viewing the System Log 65
Exporting from the Log Viewer 65
Backup 66
Delete Recorded Information from the System 69
About Main Console 70

Appendix A: Frequently Asked Questions 71

Appendix B: Where to Go From Here 73

1

Getting Started

Cisco Small Business Video Surveillance Cameras provide a high quality monitoring system that can be optimized for many different applications. This guide instructs you how to use the camera monitoring system and recording technology on your PC, which allows you to easily monitor and record video.

This section includes the following topics:

- "Before You Begin," on page 1
- "System Requirements," on page 3
- "What's In This Guide?" section on page 4

Before You Begin

This document assumes that you have your camera or cameras previously installed and configured. For installation instructions, see the Quick Installation Guide, the Administration or User Guide, and the Datasheet for your particular Cisco Small Business Video Surveillance Camera model.

The following Cisco cameras use the video monitoring software described in this document:

- PVC2300—Cisco Small Business Video Camera with Audio and POE
- WVC2300—Cisco Small Business Wireless-G Video Camera with Audio
- WVC210—Cisco Small Business PTZ Video Camera with Audio
- PVC300—Cisco Small Business PTZ Video Camera with Audio and POE

Please check the following website for compatibility if your camera is not included in this list.

www.cisco.com/en/US/support/tsd_cisco_small_business_support_center_contacts.html

Camera Installation Guidelines

Consider the following guidelines before installing and mounting your cameras. While the detection window and the degree of sensitivity can be optimized later, it is best to optimize your camera location first.

- Choose a location that provides adequate coverage of the area to be monitored.
- The IP cameras have a built-in microphone. If using the microphone in the camera, note that the cameras are designed to pick up audio from a distance (up to six feet) unlike a web camera that you would place near you.
- Two-way audio requires an external speaker to be attached to the camera. If using an external microphone and a speaker (or PC speakers), place the microphone far enough away from the speaker to avoid feedback. The volume of the speaker and the background noise of the environment will determine the exact distance.
- Cameras mounted outdoors should be installed in an IP66-certified enclosure to protect the camera from the elements, while maintaining acceptable operating temperatures. If an enclosure is used, an external microphone is required for audio.
- If using motion detection, consider potential sources of false positives, such as trees and shrubs, drastic light changes, wandering animals, and traffic.
- Consider any wiring that you may need to do before installing the camera. You may want to connect the camera to devices such as:
  - sirens
  - passive infrared (PIR) sensors
  - smoke detectors
  - lighting controls (on/off)
  - door sensors
  - alarms
- The supported Ethernet speed of the IP cameras is 10/100 Mbps.
- If using the WVC2300 wireless camera, a wireless-enabled device (such as a WRVS4400N Wireless-N Gigabit Security Router with VPN) is required to provide connectivity to the camera.

System Requirements

The following is required to run the Cisco Video Monitoring Software on your camera.

Number of Cameras at VGA Resolution, 30 FPS	1-4	4-8	8-16
CPU	Intel P4 2.4 GHz	Intel P4 2.8 GHz	Intel Pentium D 930
RAM	512 MB	512 MB	1 GB
Motherboard	Intel 945 or 965 chip, Intel Chipset recommended		
Display	ATI Radeon 9200, nVIDIA GeForce FX-5200, Intel 945 / 965, or above (ATI recommended)		
Ethernet	100 BaseT or above, Gigabit LAN recommended		
Hard Disk	80 GB or above		
OS	MS Windows 2000 / XP Pro SP2 / 2003 MS Windows Vista (**Note**: You must disable User Account Control (UAC) before installing the Cisco Video Monitoring software. You can re-enable UAC after the software is installed.		

What's In This Guide?

This guide covers how to install and use the Cisco Video Monitoring System. For complete information on other components of the Cisco Video Monitoring System (for example, configuring your camera), see your particular camera documentation as found on https://www.cisco.com/en/US/products/ps9944/prod_maintenance_guides_list.html.

The following topics are covered in this guide:

- "Getting Started" section on page 1—Provides system requirements.
- "Installing the Video Monitoring Software" section on page 5—Describes the installation of the video monitoring software.
- "Video Monitoring Software Quick Start" section on page 11—Provides several procedures to set up and use the video monitoring software.
- "Getting to Know the Video Monitoring Software" section on page 27—Describes the icons found on the Main Console window of the video monitoring software.
- "Using the Playback Application" section on page 33—Describes the icons found on the Playback window and describes how to playback recorded events.
- "Setting a Schedule" section on page 46—Describes how to set up a recording schedule.
- "Configuring Video Settings" section on page 54—Describes how to configure cameras, save or load configuration settings, backup your data, or access information about the Main Console.

2

Installing the Video Monitoring Software

This chapter instructs you on how to install and use the Cisco Video Monitoring Software on your PC. The Cisco Video Monitoring Software allows you to easily view and record video.

The following procedures are discussed in this chapter:

- "Running the Installation CD" section on page 5
- "Launching the Video Monitoring Software" section on page 10

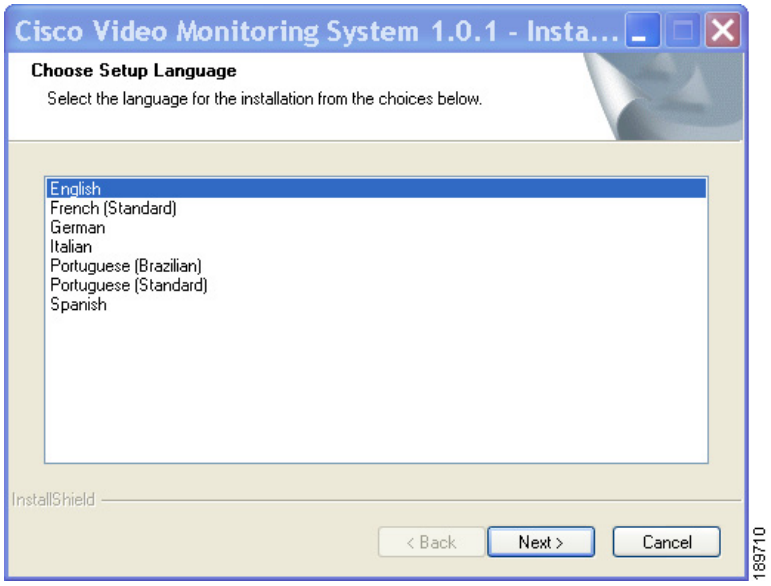
NOTE If you are using Windows Vista, disable UAC (User Access Control) before installing the software. UAC is found in the Control Panel. You can re-enable UAC after the installation is complete.

Running the Installation CD

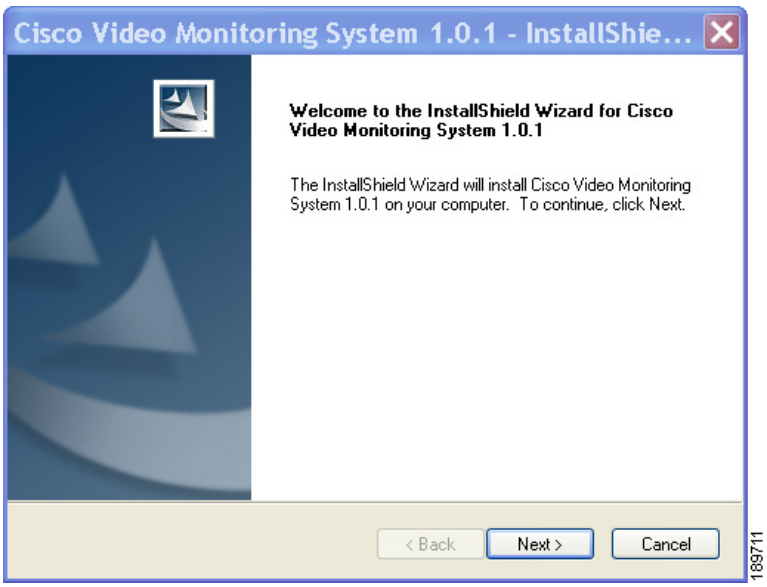
STEP 1 Insert the installation CD.

STEP 2 When the **Welcome** window appears, click **Install Video Monitoring System**.

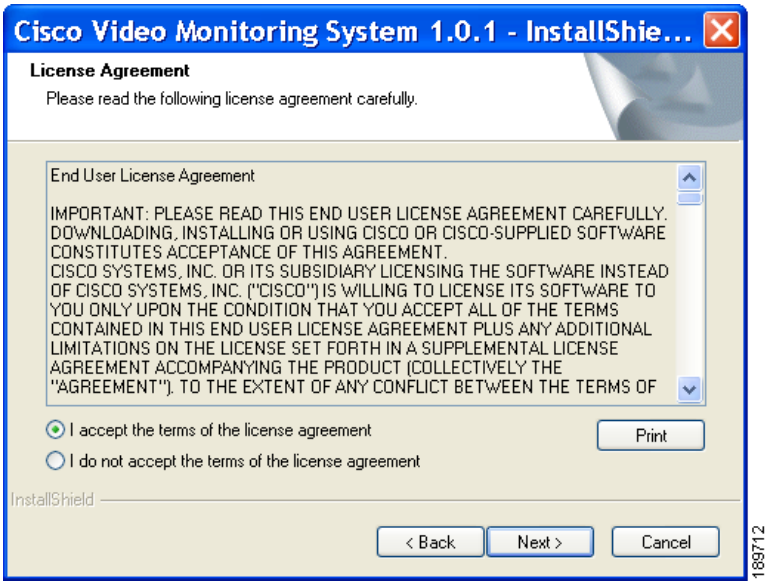
STEP 3 The **Select Language** window appears. Select your language, and press **Next**.



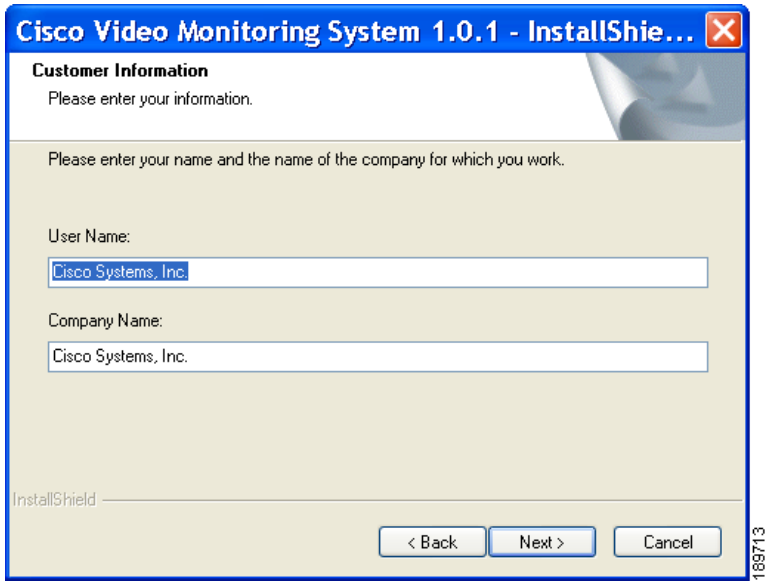
STEP 4 The **Welcome** window appears. Click the **Next** button to proceed.



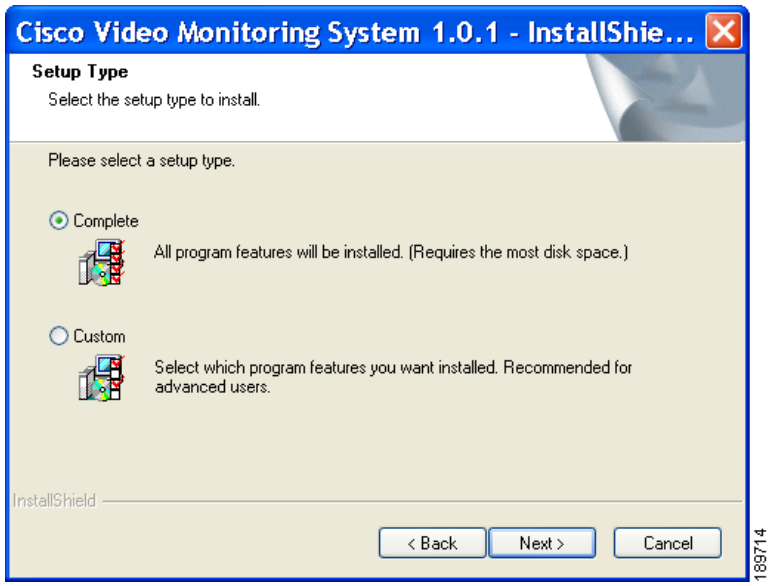
STEP 5 The **License Agreement** window appears. Read the content of the agreement, click "**I accept the terms of the license agreement**," and click the **Next** button to proceed.



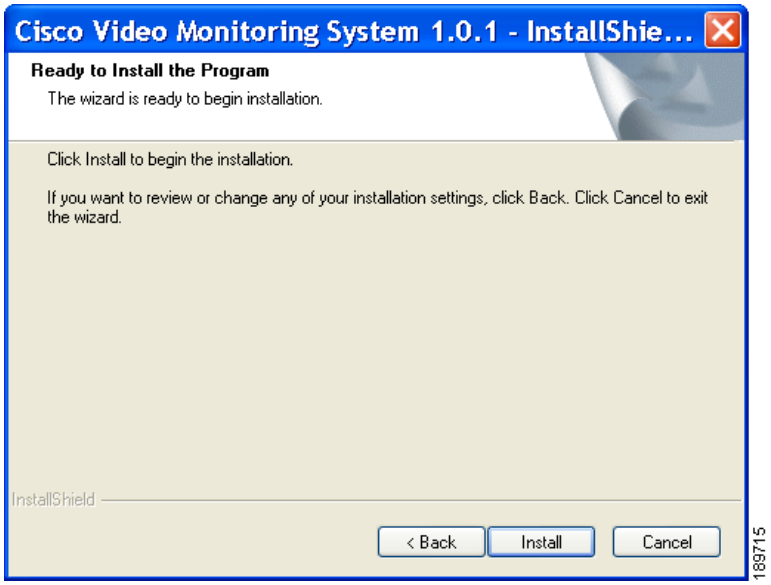
STEP 6 The **Customer Information** window appears. Provide your customer information and click the **Next** button to proceed.



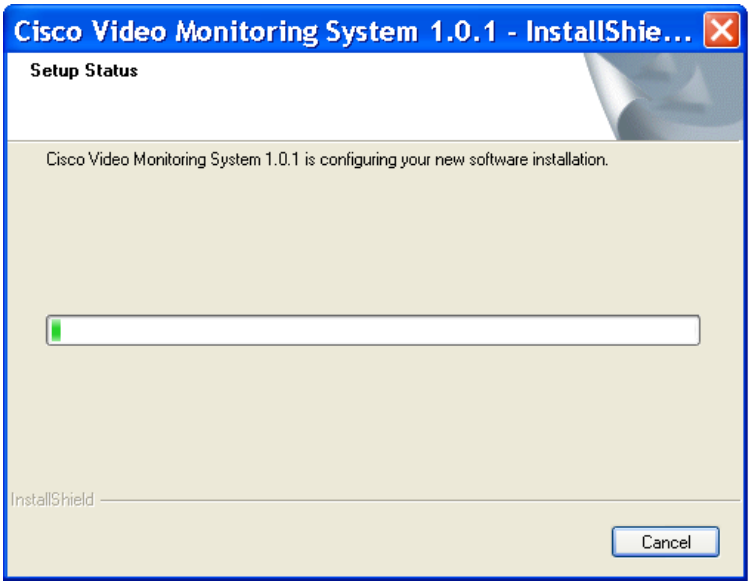
STEP 7 The **Setup Type** window appears. Select the type of installation and click the **Next** button. (**Complete** is recommended for most users.)



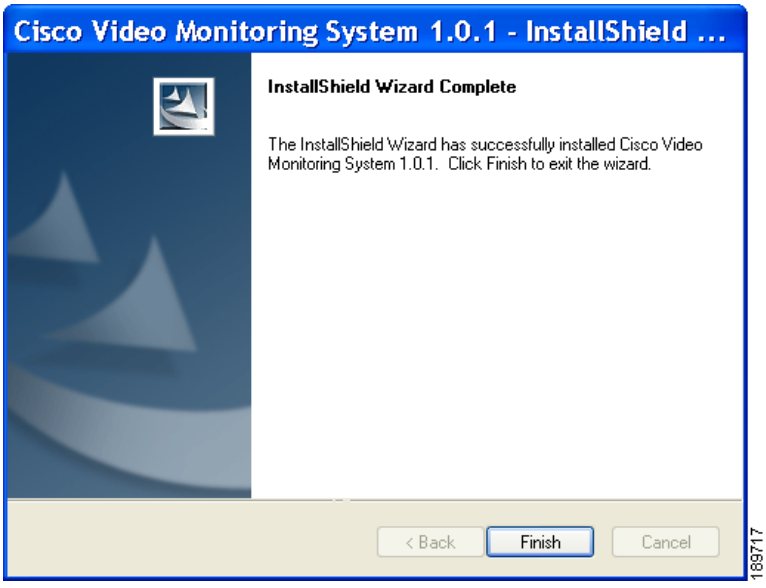
STEP 8 The **Ready to Install the Program** window appears. The selected destination path will be displayed. If you wish to change the path, click the **Back** button. If you are satisfied with the location, click **Install**.



As the program is installing, the **Setup Status** window displays the software installation status.



STEP 9 When completed, click **Finish** to exit the wizard.

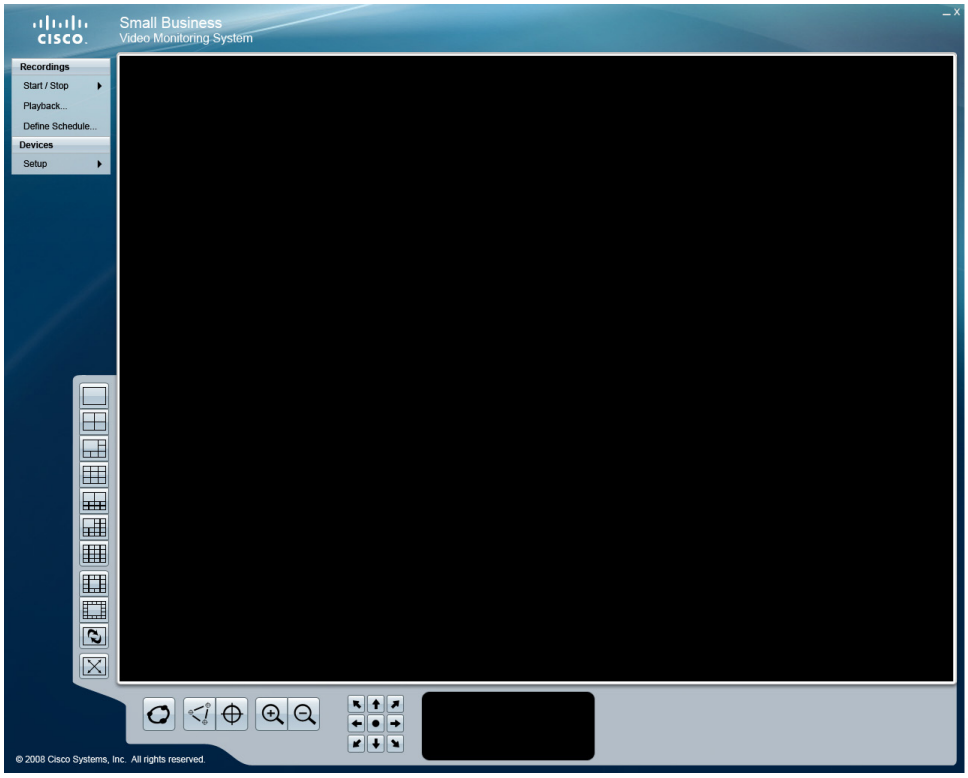


Launching the Video Monitoring Software

STEP 1 From the Microsoft Windows **Start** menu, launch the Cisco software by clicking on Main Console.

STEP 2 After launching, the **Login/Password** window appears. Enter a password into the edit box and enter it again to confirm. Click **OK**.

STEP 3 The **Main Console** window appears:



3

Video Monitoring Software Quick Start

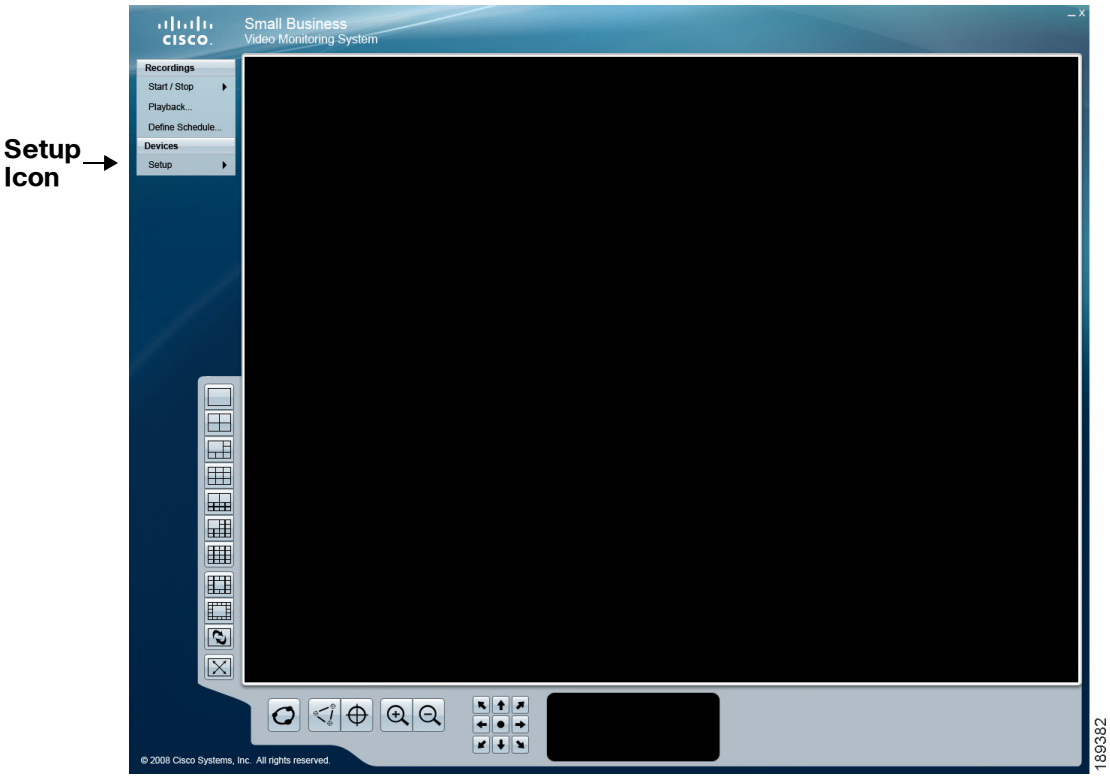
After you have installed your cameras and the video monitoring software, use this chapter to get started quickly with some basic video monitoring and recording operations. The following procedures can be found in this chapter:

- "Adding Local Network Cameras" section on page 11
- "Adding Cameras Manually" section on page 15
- "Configuring a Schedule for Recording on Motion" section on page 18
- "Recording Events" section on page 22
- "Playing Back Recorded Events" section on page 23
- "Deleting Cameras" section on page 25

Adding Local Network Cameras

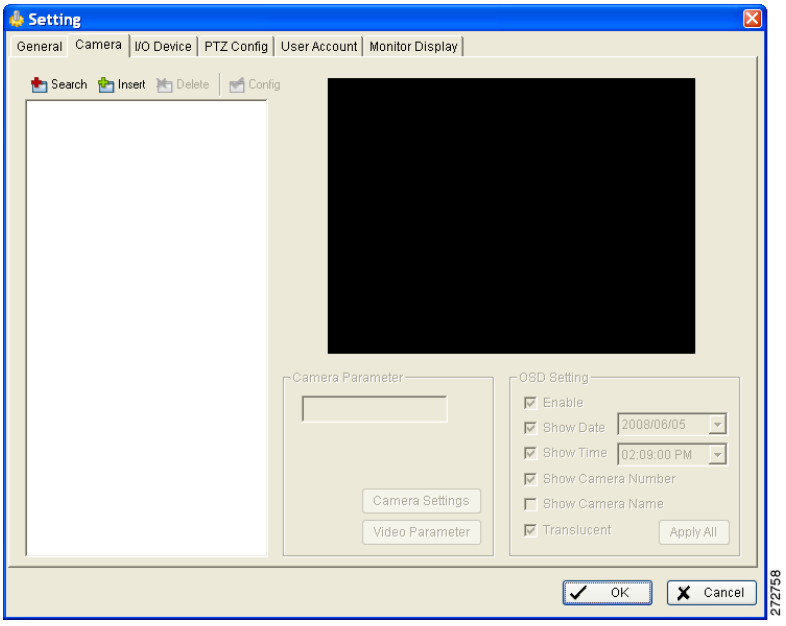
This procedure is for cameras within your local network. UPnP™ must be enabled on both the camera and the PC. To enable UPnP see Appendix A, "Frequently Asked Questions." If your camera is not within your local network, or if you wish to not enable UPnP™, you can manually insert your camera; see the "Adding Cameras Manually" section on page 15.

STEP 1 In the **Main Console** window, click the **Setup** icon.

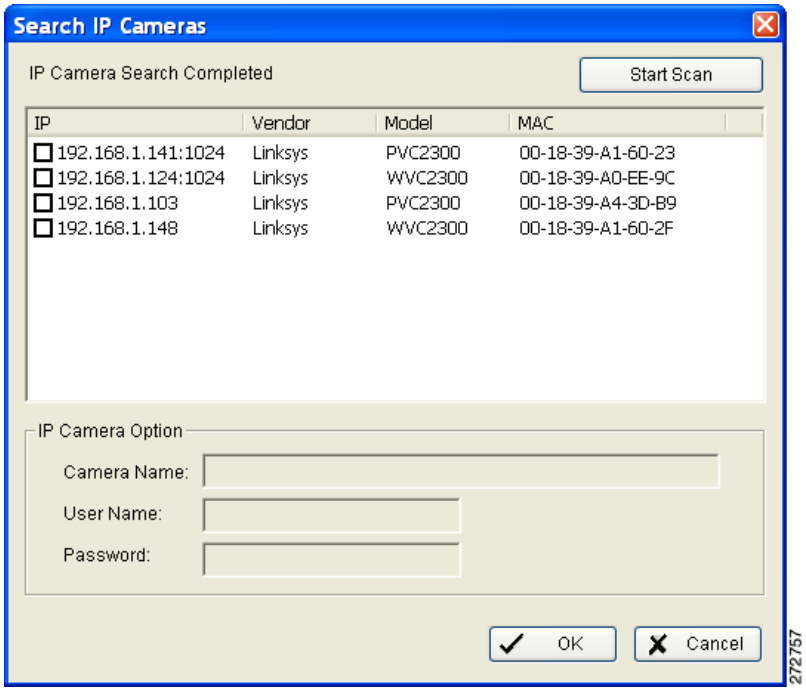


STEP 2 Choose **Setting** to bring up the **Setting** window.

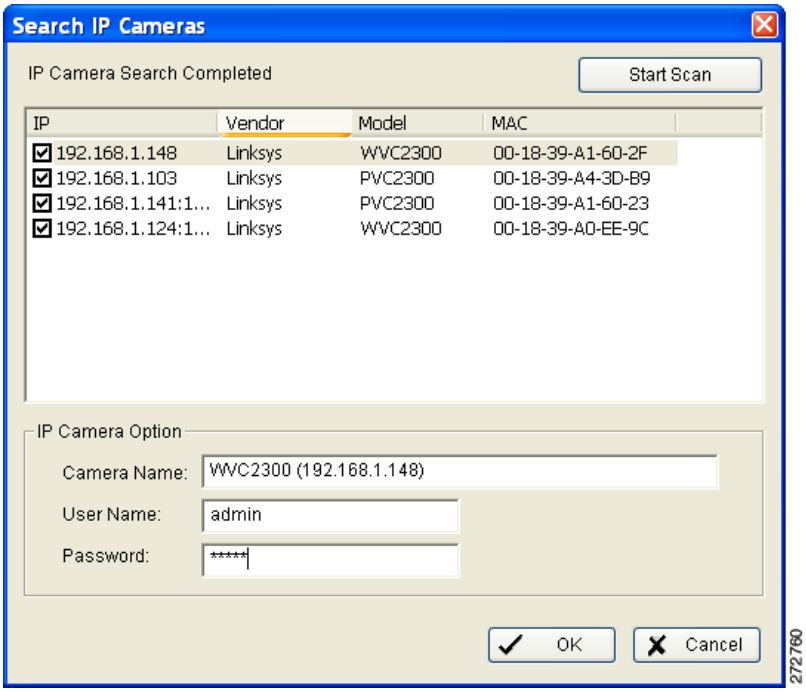
STEP 3 Click the **Camera** tab.



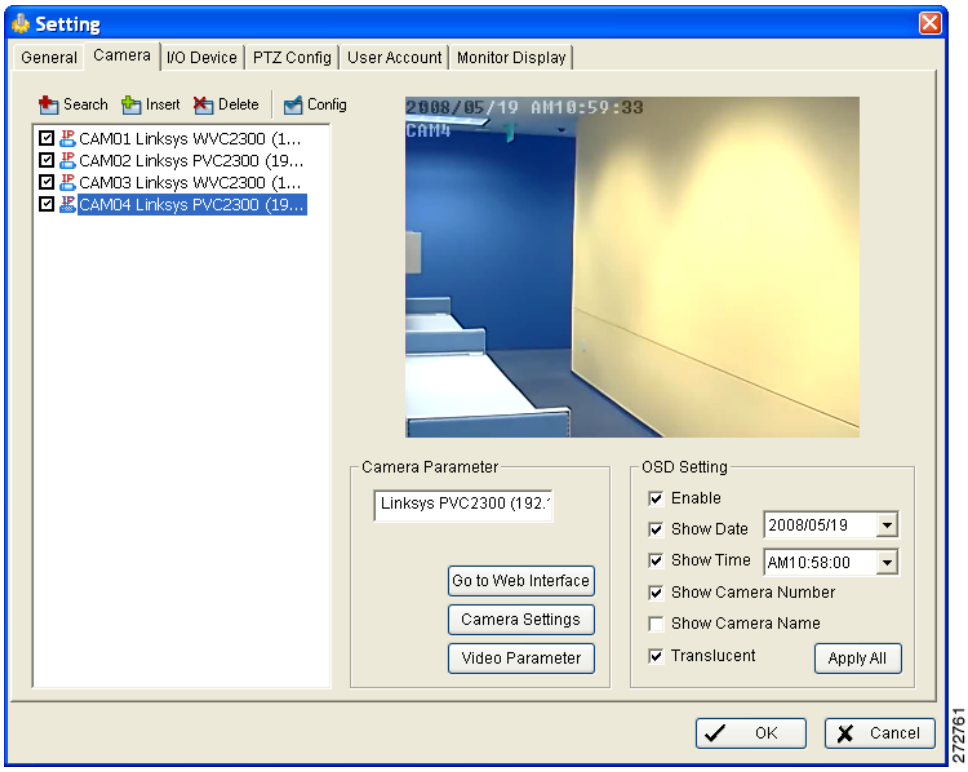
STEP 4 Click **Search** to search for the IP cameras that are available.



STEP 5 Select one IP camera at a time by checking and highlighting the camera. Enter the camera's username and password. Continue with all cameras, as desired.



STEP 6 Click **OK** to add the cameras. The detected cameras display in the camera window.



STEP 7 Configure any On Screen Display (OSD) Settings, Camera Settings, or Video Parameters as you wish. See the "Camera Tab" section on page 58.

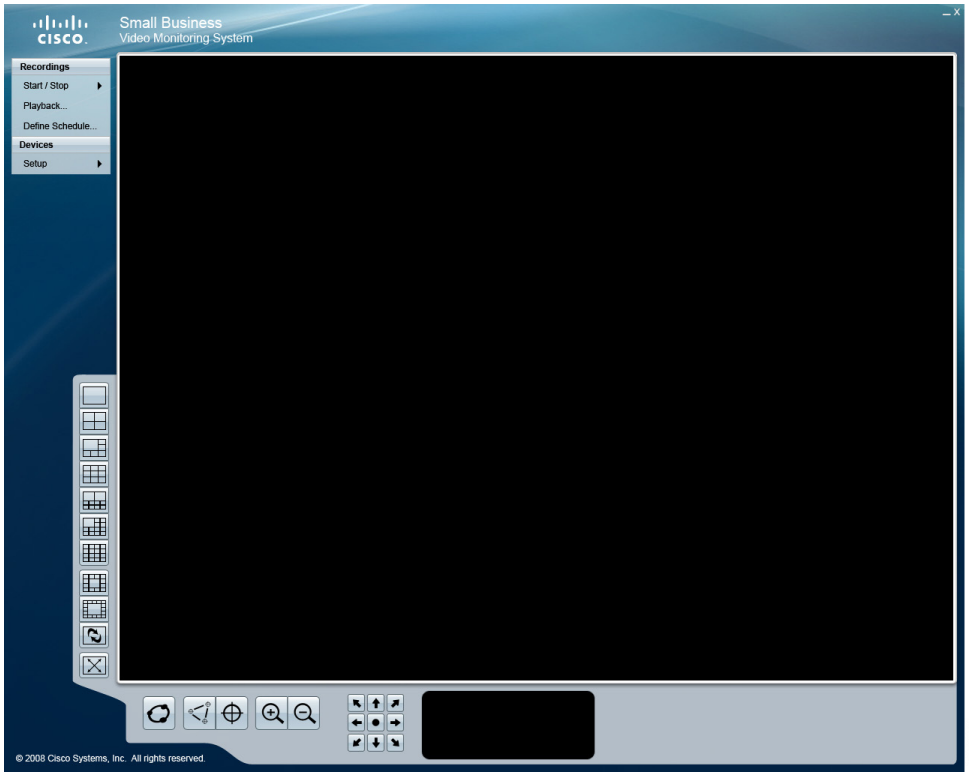
STEP 8 Click **OK** to add the cameras and go back to the Main Console. The Main Console window displays all available cameras.

Adding Cameras Manually

If your camera is not within your local network, or if you wish to not enable UPnP™, you can manually insert your camera.

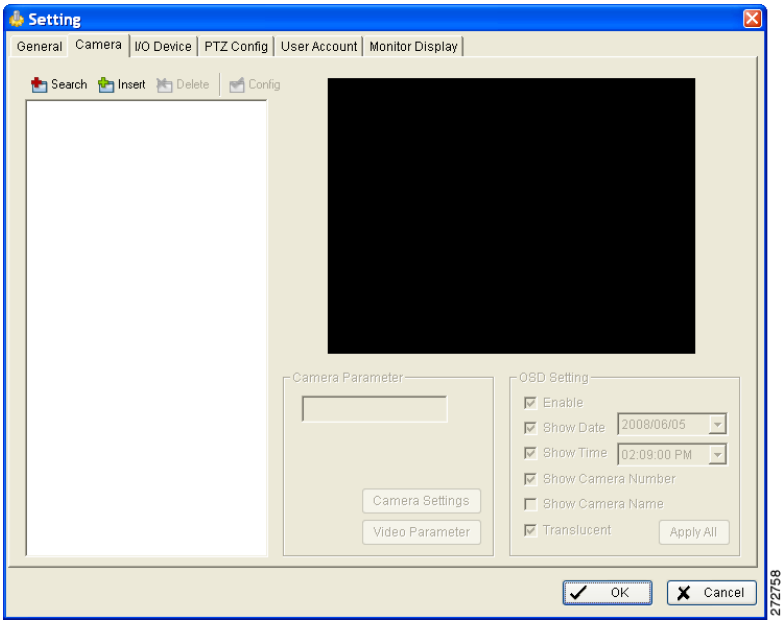
STEP 1 In the **Main Console** window, click the **Setup** icon

Setup Icon →



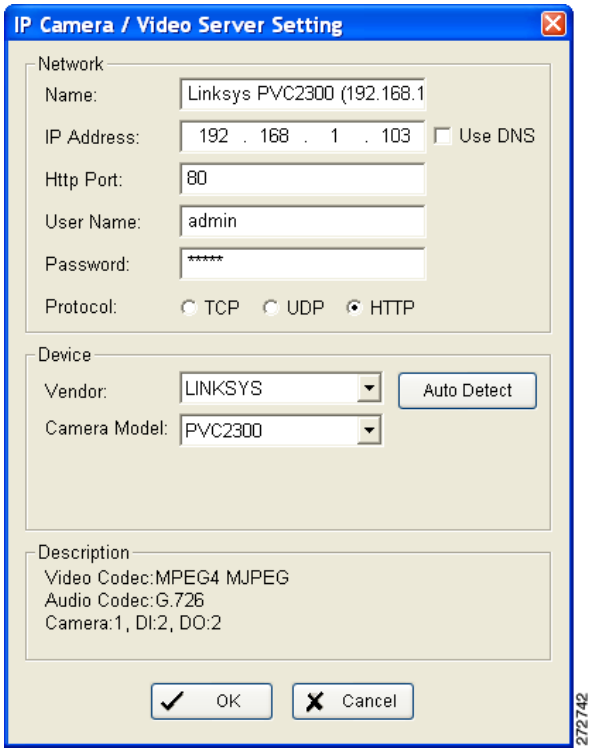
STEP 2 Choose **Setting** to bring up the **Setting** window.

STEP 3 Click the **Camera** tab.



STEP 4 Click the **Insert** icon; the **IP Camera /Video Server Setting** window appears.

STEP 5 In the **IP Camera /Video Server Setting** window, enter the IP address or domain name, HTTP Port, Username, and Password of the camera.



STEP 6 Click **Auto Detect**. **Auto Detect** automatically finds your camera model number, the supported video codec, audio codec, and input/output ports.

STEP 7 Click **OK** to add the camera.

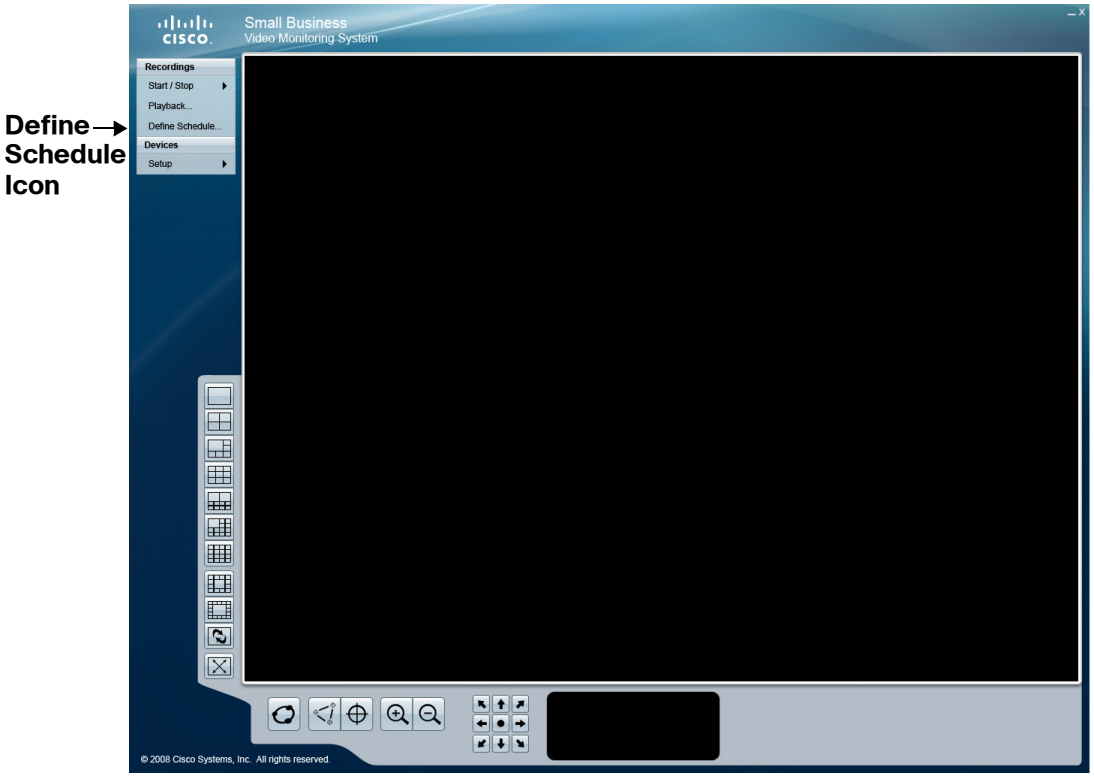
STEP 8 Configure any On Screen Display (OSD) Settings, Camera Settings, or Video Parameters. See the "Camera Tab" section on page 58.

STEP 9 Click **OK** to add the cameras and go back to the Main Console. The Main Console window displays all available cameras.

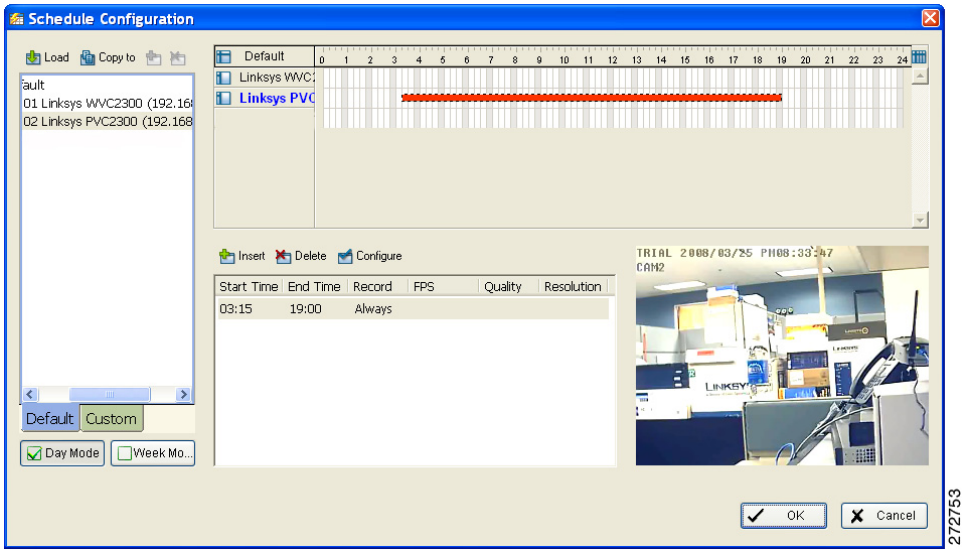
Configuring a Schedule for Recording on Motion

By default, after adding a camera into the system, the recording schedule is automatically set to record everything, 24 hours a day. This procedure allows you to change the recording schedule to record only when the camera detects motion, and record that motion only during certain times of the day.

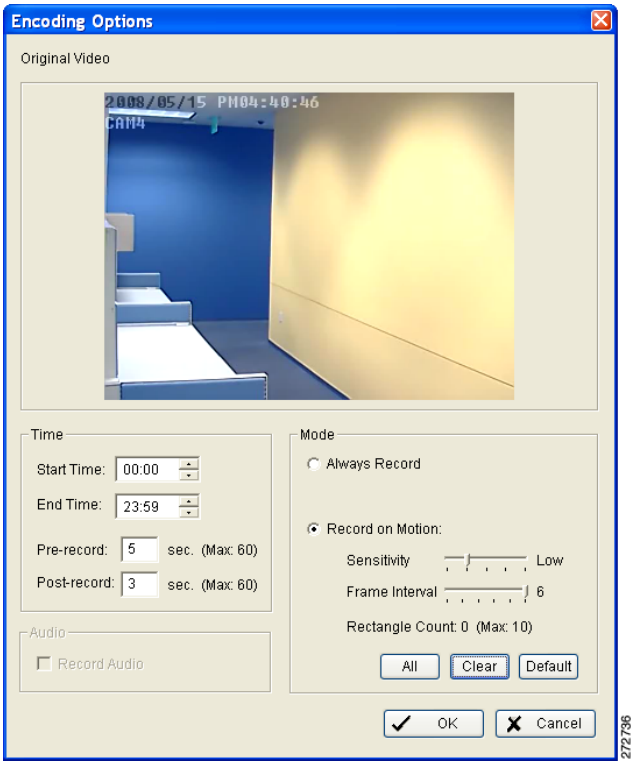
STEP 1 In the **Main Console** window, click the **Define Schedule** icon.



The **Schedule Configuration** window appears. A red bar indicates that the camera is always recording.

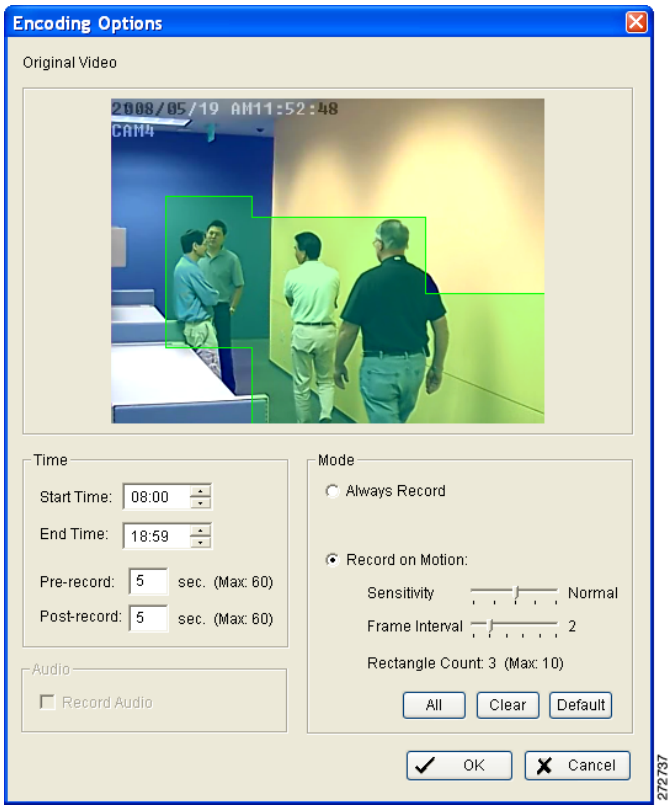


STEP 2 To change your default recording settings, double click the red bar of the camera you wish to configure. Or, you may click the camera you want to configure, and then click the **Configure** icon found in the middle of the Schedule Configuration window. The **Encoding Options** window appears:



STEP 3 Click the radio button for **Record on Motion**.

STEP 4 Left-click and drag the mouse to draw up to 10 (green) rectangular detection zones of the area you want to monitor.



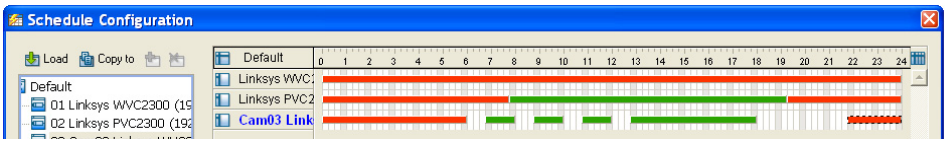
NOTE: When motion is detected in the defined area of interest, the area starts flashing green and red.

STEP 5 Configure the recording schedule on the right side of the screen.

STEP 6 Set the Sensitivity to “Normal” and the Frame Intervals to “5” to start. These settings may be adjusted later.

STEP 7 Click **OK** to go back to the Schedule Configuration window.

STEP 8 A green bar indicates that a motion detection is now set.



STEP 9 Click **OK** again to go back to the Main Console. When triggered, the area set as the detection zone area turns red.

Recording Events

To begin recording events, in the Main Console window, click **Start** > **Start Recording Schedule**.

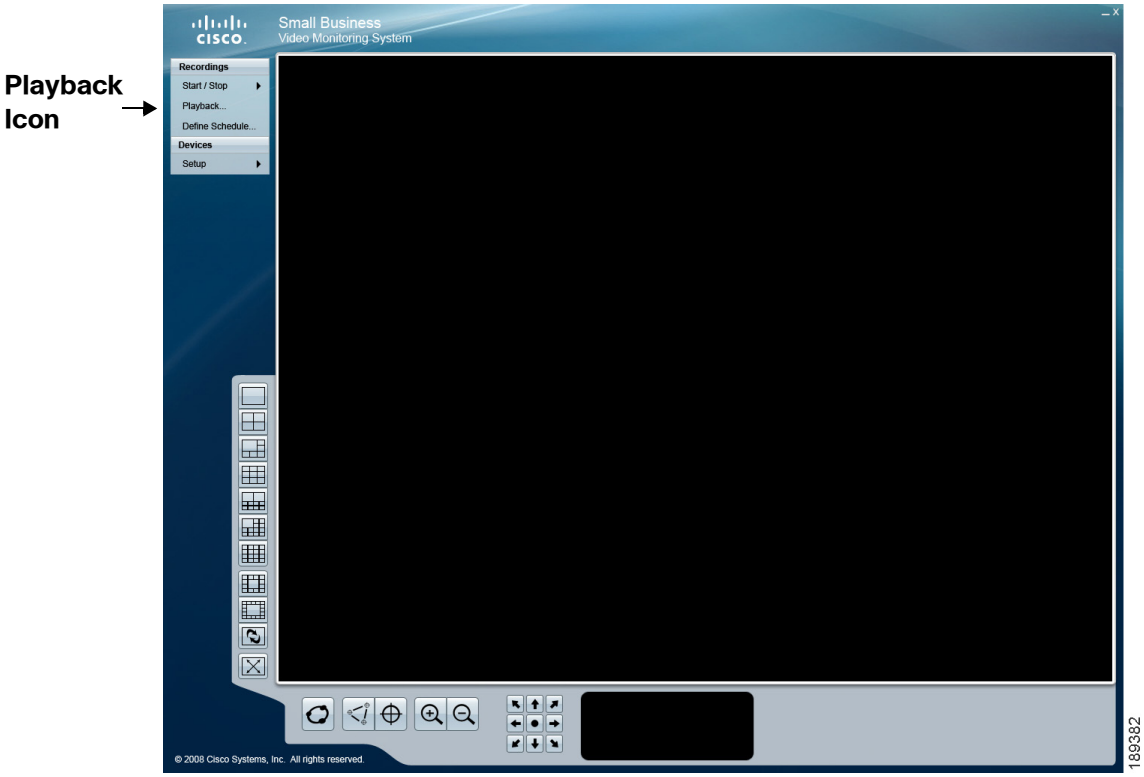
Recording begins immediately on all configured cameras. During recording, the Main Console window displays a radio button on the upper right hand corner. A red radio button means “recording (in session).” During motion recording, when the video monitoring software starts to record a motion, the radio button turns red. When there is no movement and nothing is being recorded, the radio button turns green.

If you choose “Always Record” instead of “Record on Motion” the radio button remains red.

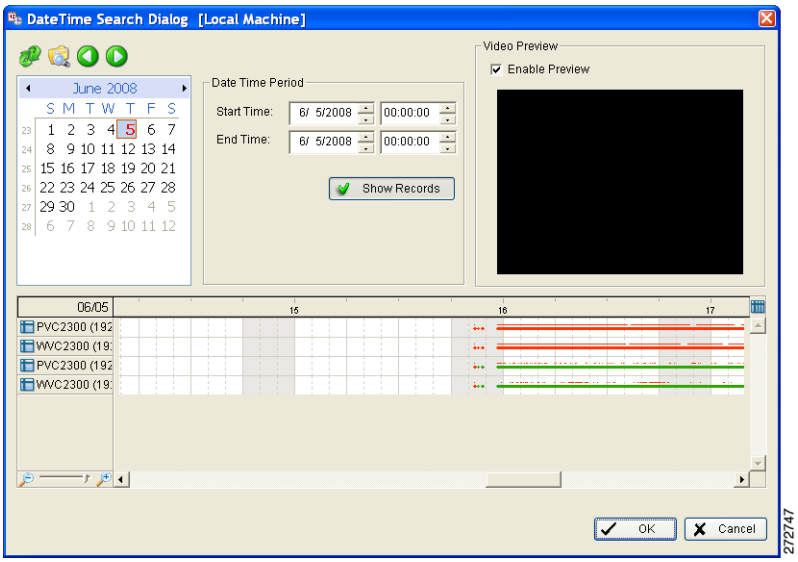
Playing Back Recorded Events

Use the following procedure to playback recorded events.

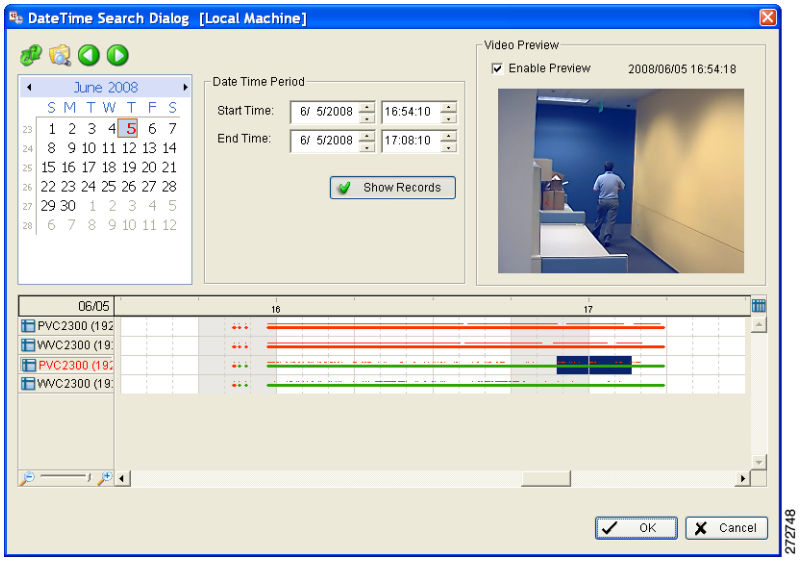
STEP 1 In the **Main Console** window, click the **Playback** icon.



STEP 2 The **Playback** window appears. Click on **Open Recording** to retrieve records from selected cameras at a specific date and time.



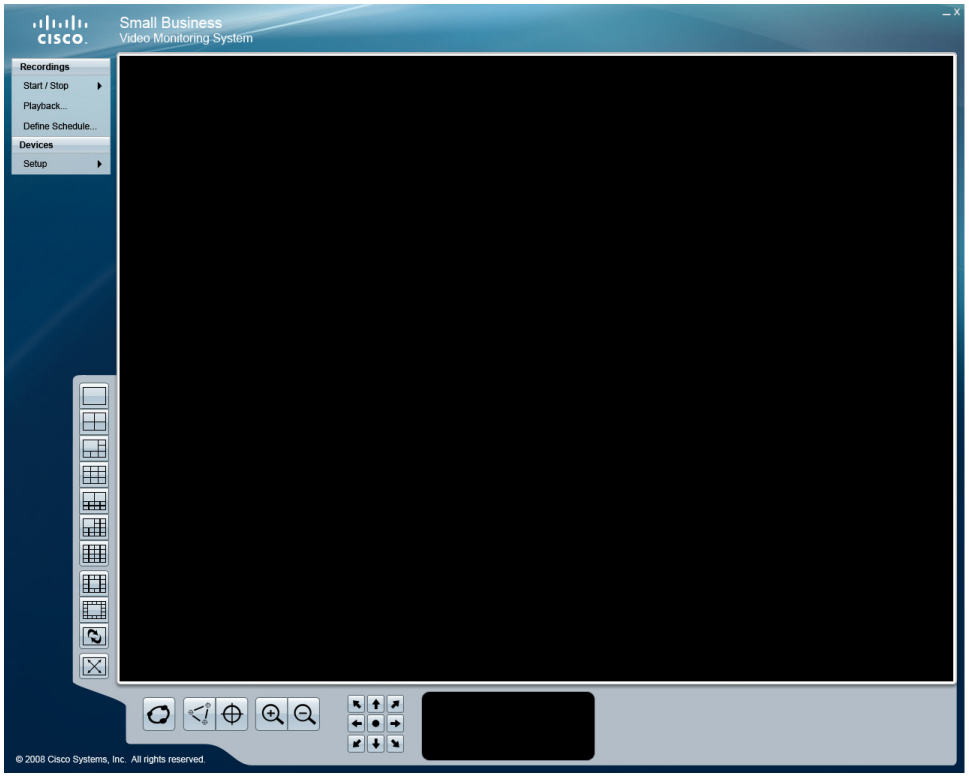
STEP 3 In the time table, recorded files are displayed in color bars or colored dots. Highlight any bar or dot to select playback section.



STEP 4 Click **OK** to return to Playback Console. The recorded files can now be viewed in the Playback window.

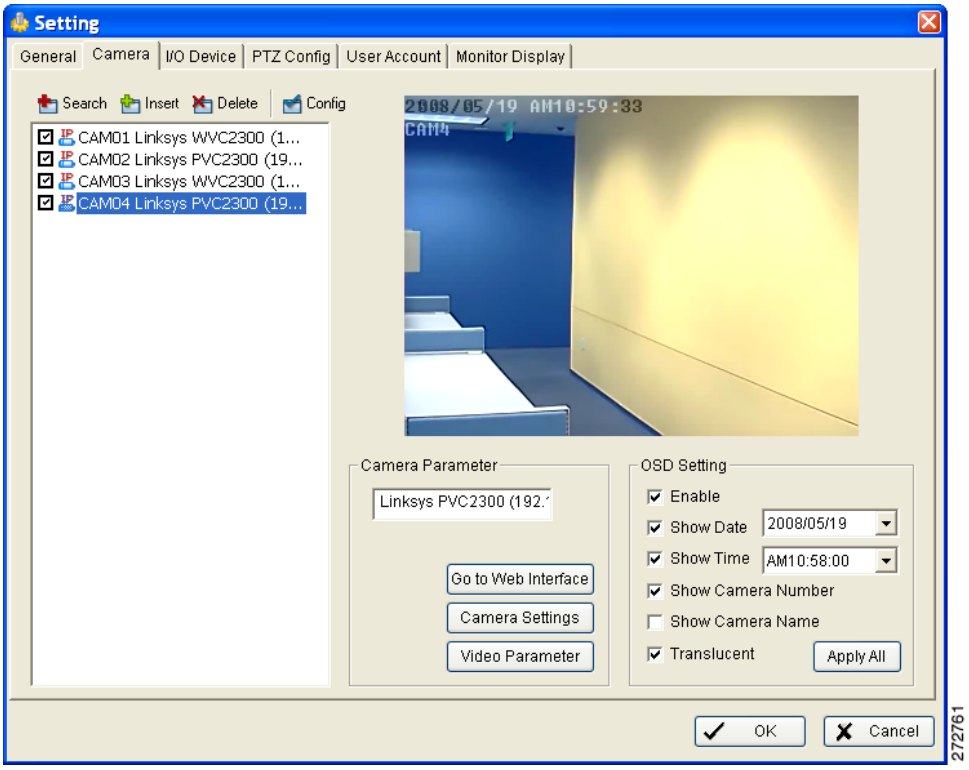
Deleting Cameras

STEP 1 In the **Main Console** window, click the **Setup** icon.



STEP 2 Choose **Setting** to bring up the **Setting** window.

STEP 3 Click the **Camera** tab.



STEP 4 In the left window, click on the camera or multiple cameras that you would like to delete.

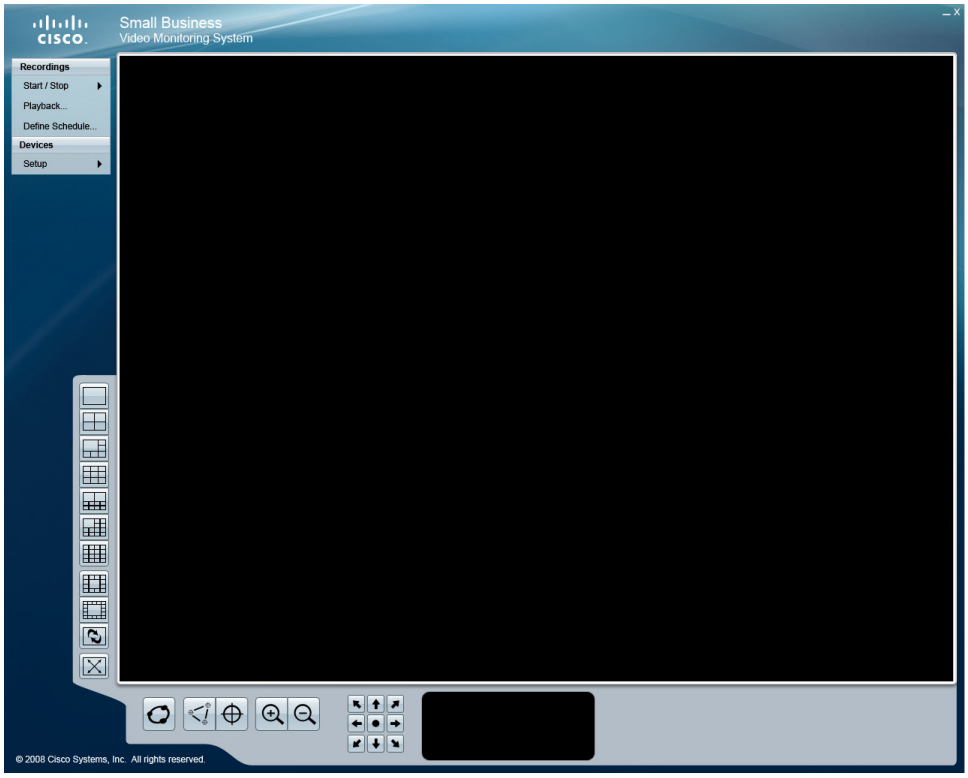
STEP 5 Click the **Delete** icon.

STEP 6 Click **OK**.

4

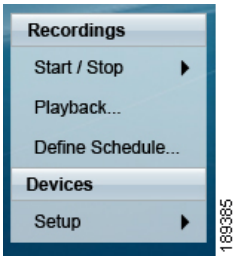
Getting to Know the Video Monitoring Software

Once you have launched the Cisco Video Monitoring software, you will see the **Main Console** window. From the Main Console window you can configure and control your cameras.



Understanding the Main Console Window

On the right side, the following menu icons are active.



Recordings -> Start/Stop

The Start and Stop icon allows you to activate Start or Stop recording. During recording, a radio button appears on the upper right corner of each camera. Red means that the camera is always recording. Green means the camera is recording only on motion.

Recordings -> Playback

Click on the **Playback** icon to access the Playback window. You can watch recorded videos, adjust images of the stored data, save video and pictures, print images, check log information and event records. See "Using the Playback Application," on page 33 for full information.

Recordings -> Define Schedule

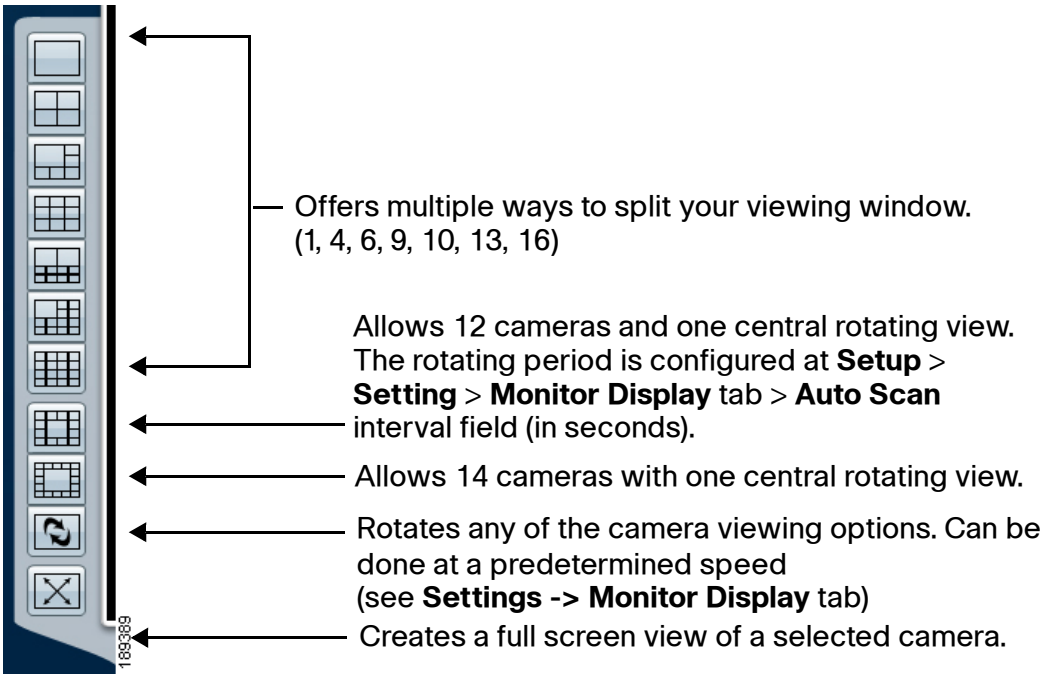
Click on the **Schedule** icon to set up a recording time schedule and to record on motion. See "Setting a Schedule," on page 46 for full information.

Devices -> Setup

Click on the **Setup** icon to configure and modify general camera settings, save or load configuration settings, view logging data, backup your data, or access information about the Main Console window. See "Configuring Video Settings," on page 54 for full information.

Screen Division Options

Under the menu icons are the screen division icons. Click on the desired layout icon.



This rotation can be done at a predetermined speed by the user in Settings>Monitor Display

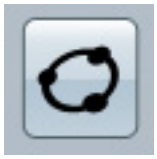
To switch to a single camera display, double-click on a particular sub-screen. Double click on the screen again to return to the previous screen layout. The **Esc** key on your keyboard will take you back to your default Main Console window

Camera Control for PTZ Cameras

At the bottom of the Main Console window are PTZ camera controls that allow you to direct the movement of your camera.

Patrol

The Patrol icon allows you to move the camera in a preconfigured pattern in order to scan the field of vision.



When you click the Patrol icon. The following menu items appear:

- **Start Patrol**—Rotates through the defined preset positions.
- **Stop Patrol**—Stops the patrol rotation.
- **Set Patrol**—Define the rotation sequence of the preset positions and the interval in seconds.
- **Start Autopan**—Continuous rotation of the camera in the horizontal axis.
- **Stop Autopan**—Stops the autopan rotation.

Preset Points

The Preset Point icons (Set and Go) allow you to set preset points and then move the camera in conjunction with these points.

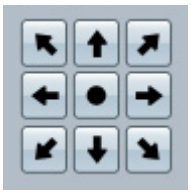
- **Set—**The **Set** icon allows you to adjust the camera view. Click on the **Set** icon and set up the view as the preset point 01. Adjust the camera view again and set up the preset point 02. Repeat the process until you finish setting up all preset points. You can enter any names you like to instead of the preset point 01, preset point 02, preset point 03.
- **Go**—View the result of your preset point settings.

Zoom

Click on the + and – signs to zoom the view in and out.

PTZ Directional Movement

Allows you to incrementally adjust the camera in eight directions, and back to home.

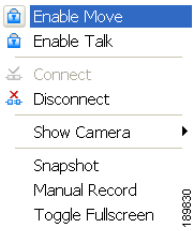


Information Window

At the bottom of the **Main Console** window, the **Information** window can display the video date and time and free disk space. You can change the information display at any time. See Informational Display, page 57.

On Screen Menu

Right click on the Main Console and the **On Screen Menu** appears:.



This menu allows you to do the following tasks:

- **Enable Move**—With cameras that support PTZ functionality, you may adjust the camera's view by clicking on the display screen. The clicked location

becomes the center of the view for the camera. To cancel this function, right click on the screen and select **Disable Move**,

NOTE: You can only work on the current camera after clicking Enable Move.

- **Enable Talk**—With cameras that have audio enabled, and that support two-way audio, this function enables two-way communication.

  The IP cameras have a built-in microphone or you can attach an external microphone and/or speakers. Two-way audio requires an external speaker to be attached to the camera. When using a two-way audio connection, consider setting the speaker a few feet away from the microphone on the camera.

NOTE: Audio must first be enabled on your camera. See your camera user guide for details.

- **Connect/ Disconnect**—Modifies the connecting status of the camera.
- **Show Camera**—Selects the camera to be displayed in the Show Camera Menu.
- **Snapshot**—Captures the current video image immediately. You have the option to copy the image to the clipboard so you can use it in graphic application software, or you can save the image on your PC.
- **Manual Record**—Saves the video clip to a defined storage path (defined in **Setup>Setting>General>Storage>Location**). Use the Playback window to retrieve the recording video clips.
- **Toggle Full Screen**—Turns the current viewing division into full display.

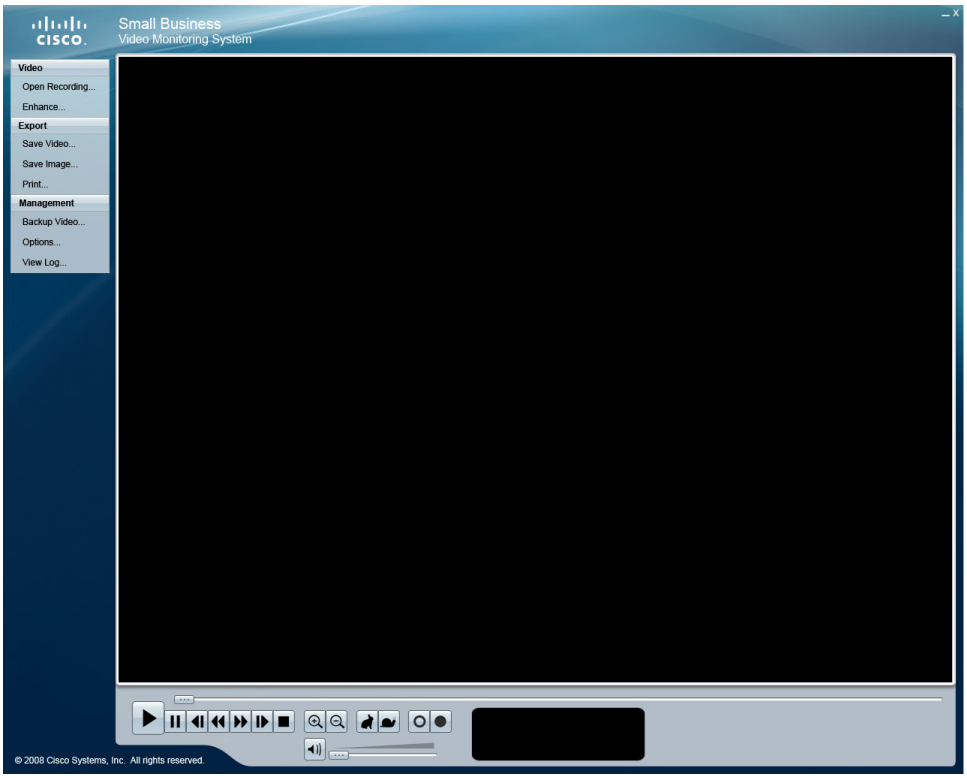
Exit and Minimize

As in most programs, click on the "_" to minimize and the "X" in the upper right hand corner to exit the application:.

5

Using the Playback Application

In the Playback window, you can watch the recorded video, set recording options, view log files, and save and print your files.

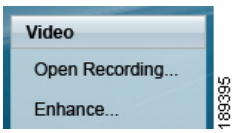


This chapter describes the options found on the Playback window and how to access recorded video:

- "Understanding the Playback Window" section on page 34
- "Accessing Recorded Video" section on page 42
- "Setting Recording Options" section on page 44

Understanding the Playback Window

On the right side of the window, the following menu icons are active immediately:

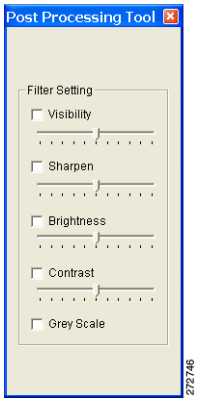


Video -> Open Recording

Click on the **Open Recording** button to access the **Date-Time Panel** and withdraw the video record that you want to review. See Accessing Recorded Video, page 42 for further information.

Video -> Enhance

Click on **Enhance** to bring up the Enhancement **Post Processing Tool. Enhance** allows you to enhance your playback video in real time according to the selections you make.



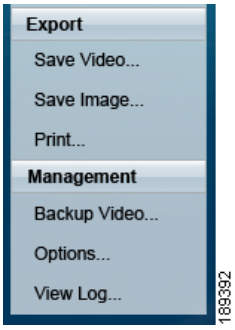
Field Definitions

- **Visibility**—Check the option and adjust the gamma value of the image to enhance the image and make it cleaner.
- **Sharpen**—Check the option to activate the function. Move the slider control to the right to sharpen the image, to the left to soften it.
- **Brightness**—Check the option to activate the function. Move the slider control to the right to make the image brighter.

- **Contrast**—Check the option to activate the function. Move the slider control to the right to increase contrast.
- **Grey Scale**—Check the option to show the record in grey scale mode so the image displays in black and white.

Video Settings

On the right side of the window, the following menu icons are active while video is played:



Export -> Save Video

The Cisco Video Monitoring Software stores all recorded data in a proprietary format. For video to be shared and viewed on common media players, the video must first be saved in a standard compression format. The choices of format are ASF and AVI.

STEP 1 Click on the display screen to choose the camera display that you want to save as a video clip.

STEP 2 Set up the cue in and cue out points; the cue in and cue out times will show on the Playback information window.

STEP 3 Click the **Save Video** icon and choose the folder where you want to save the file.

STEP 4 Enter the file name and click **Save**. After clicking **Save**, you may choose to export the file with both audio and video or video only.

STEP 5 Choose the compression format and then save the video.

Export -> Save Image

STEP 1 Click on the display screen to choose the camera display from which you want to save pictures.

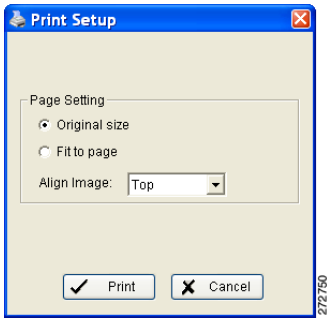
STEP 2 Click **Save Image** button when the image you want is shown on the screen. You may click **Pause** to freeze the video, or use the Step Forward/ Step Backward function to find the picture(s) that you want to save.

STEP 3 Choose the folder and the format of image (BMP or JPEG) you prefer and then click **Save**.

NOTE: You may skip step 3 by pre-setting a folder and format that you want to save the images. See **Automatically save the image file** in "Setting Recording Options," on page 44.

Export -> Print

This **Print Setup** window allows you to print the current image of a video.

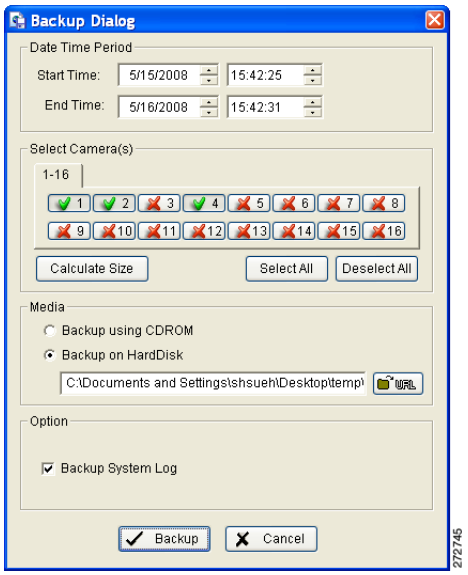


Field Definitions

- **Print in original size**—Select to have the image print in original size.
- **Fit the page**—Select to have the image fit the page.
- **Align Image**—Align the image to the top, center, or bottom.

Management -> Back Up Video

The **Backup Video** function saves video and log information. You can load backup files onto a fully- functioning Playback Console on any Microsoft Windows computer. This means that you can monitor the video real time on one PC and work on the backup files on different computer simultaneously.



Use the following procedure to backup your files:

STEP 1 Press **Open Recording** in the Playback window to select the data to backup. Click **OK**.

STEP 2 Press the **Backup** button.

STEP 3 Adjust the Start Time and End Time of the data that you want to backup.

STEP 4 Select the Cameras that you want to backup.

STEP 5 Calculate the size of the backup data.

STEP 6 Select how you want the backup data stored.

STEP 7 Check the log you want to backup.

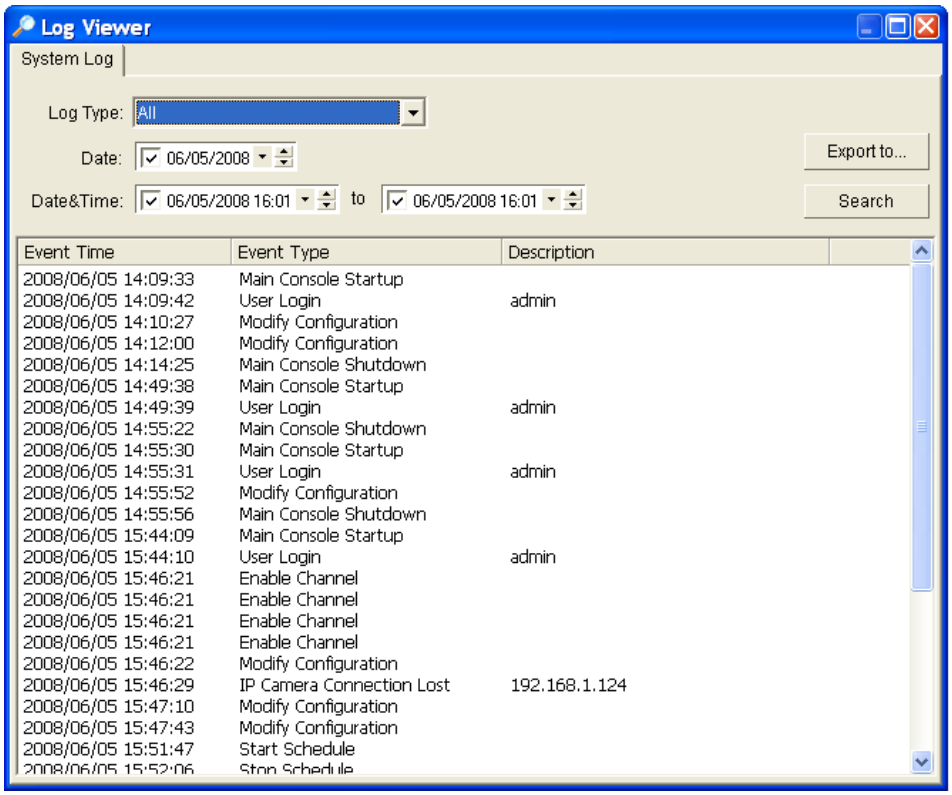
STEP 8 Press **Backup**.

Management -> Options

Brings up the Options menu. See Setting Recording Options, page 44 for more information.

Management -> View Log

Brings up the **Log Viewer** window, which allows you to view the system log.



Viewing the System Log

You can choose the log type from the drop-down menu. A list of some of the available log types follows:

Table 1 System Log

All	Execute Backup
Main Console Startup	Enable Channel
Main Console Shutdown	Disable Channel
User Login	Modify Schedule
User Login Failed	Modify Configuration
Start Schedule	IP Camera Connection Lost

Table 1 System Log

All	Execute Backup
Stop Schedule	Auto Restart Main Console
Execute Recycle	

STEP 1 Choose the event from the Log Type menu or select **All** from the drop-down menu for all types of events.

STEP 2 You may view events that happened on a particular date or during a given time period. To search and view unusual event happened on a particular date, mark the box right next to **Date** and indicate the date.

You may also point out two different time points and search for unusual events that happened during the period. Mark the box in the **Date&Time** column and then enter the date and time.

STEP 3 Click **Search**.

Exporting from the Log Viewer

After searching the log, you can export to an `.xls` or `.txt` file.

STEP 1 Press **Export to**.

STEP 2 Type the file name and choose the file format (`.xls` or `.txt`).

Playback Controls

At the bottom of the playback window are the playback controls.

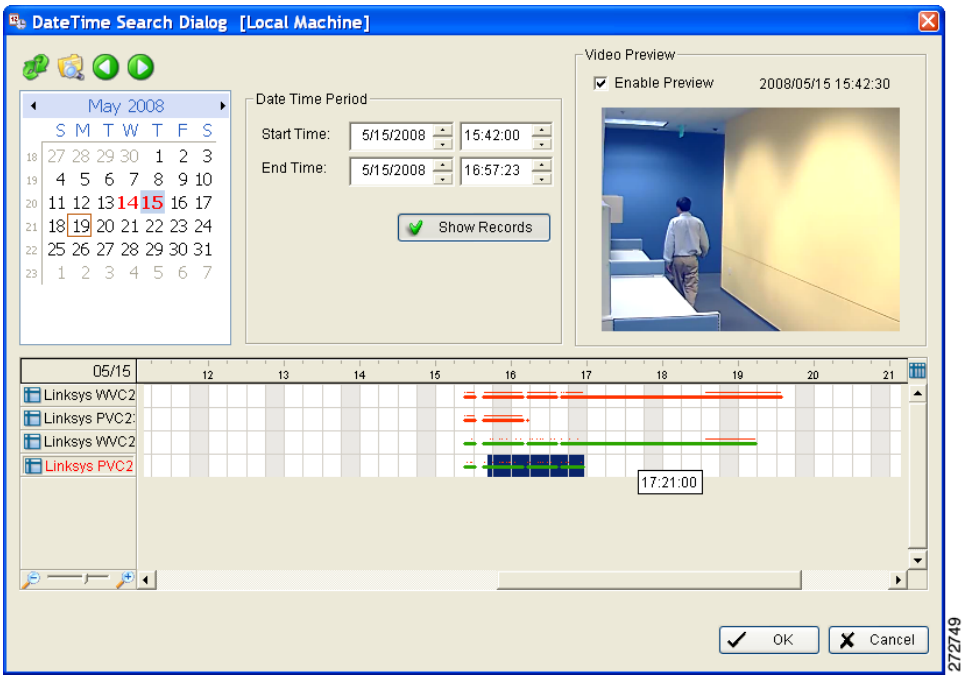
- **Play**—Plays the recorded video.
- **Pause**—Pauses the recorded video.
- **Step Forward/Step Backward**—Speeds the video forward by frame.
- **Previous/Next**—Speeds the video forward in minutes. You can set the amount of time in Setting Recording Options, page 44.
- **Stop**—Stops the playback of the video.
- **Zoom**—Click on the + and – signs to zoom the view in and out. To get a close up view of the recorded video; move to the spot you want to view by dragging the screen.
- **Speed**—Click the icons to control the speed of the playing video.
- **Cue In/Cue Out**— Click on the Cue In/ Cue Out icons during video playback to set the starting and ending points of a saved video clip. The Cue In/ Cue Out times are displayed on the Playback Information window. You may cue any portion of the current video and use **Save Video** to export the clips in an `.asf` or `.avi` file.
- **Scroll bar**—Indicates the progress of the playing video. Click and drag to view specific video segments.
- **Information Window**—Displays video date and time, current video status, cue in/ out time, and speed.
- **Audio Volume Control**—Adjusts the sound level.

Exit and Minimize

As in most programs, click on the "_" to minimize the Playback window and the "X" in the upper right hand corner to exit the Playback window (returns you to the Main Console window).

Accessing Recorded Video

The **Open Recording** button found in the Playback window, brings up the **DateTime Search Dialog** window. The **DateTime Search Dialog** window allows you to view recorded events. It may show in calendar or list control view. To change the view, see the **Options** window described in the "Setting Recording Options" section on page 44.



Understanding the DateTime Search Dialog Window

Icons

- The green arrow icons refresh the record display window.
- The file icon brings up Log Viewer. See "Management -> View Log" section on page 39.
- The forward and back icons allow you to switch between recording dates.

Field Definitions

- **Date Time Period**—Selects the start and end time points for the time period you would like to view.
- **Show Records**—Places a thin red line, a red dot, or a red dotted line above the recording bar when a recording occurs. This is especially useful when recording on motion. In such a case, a red dot or dotted line is placed over the green bar indicating motion-triggered recording.
- **Video Preview**—Check the **Enable Preview** option to view the selected video.
- **Time Table**—Shows the recording made throughout a 24-hour period. Use the scroll bar to zoom into a particular time period. The +/- in the time table help you change the resolution of the time graph so you can pick the correct time period you want to watch. When you zoom out you can see all 24 hours in the bar. To select a very small piece of video, zoom in so you can manage the time more minutely.

Using the DateTime Search Dialog Window

The **DateTime Search Dialog** window can be shown in (a) calendar view or (b) list control view. To modify the setting of the record display window, click on the **Setting** button (see Setting Recording Options, page 44) in the Playback Console.

To access immediate recorded events:

STEP 1 From the **Main Console** click the **Playback** icon. The Playback window appears.

STEP 2 Click the **Open Recording** button. The **DateTime Search Dialog** window appears.

STEP 3 Recorded events are shown in red (Record Always), or green (Record on Motion). Highlight the event in the main window by left clicking and dragging.

STEP 4 Check the **Enable Preview** option to see a preview of the video you selected.

STEP 5 Click **OK**.

To access recorded events by date:

STEP 1 From the **Main Console** click the **Playback** icon. The Playback window appears.

STEP 2 Click the **Open Recording** button. The **DateTime Search Dialog** window appears.

STEP 3 Select the date of the record that you want to withdraw. The red and green lines shown on the time table indicate available recorded video records.

STEP 4 Highlight the video clip you want to review by left-clicking and dragging for the required time period. You may also pick a Start Time and End Time.

STEP 5 Modify the scale of the time table with the + and – signs found at the bottom left of the screen.

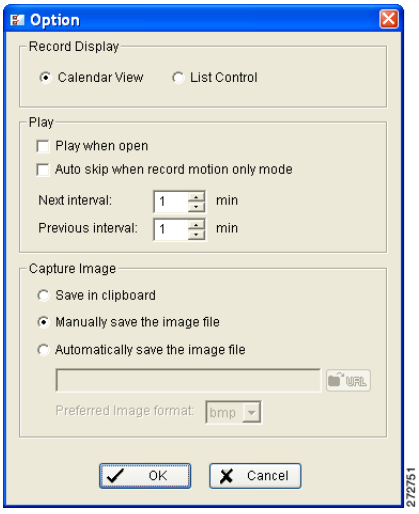
STEP 6 Check the **Enable Preview** option to get the preview of the video you select.

STEP 7 Click on specific camera names to increase or decrease the number of cameras you want to playback.

STEP 8 Click **OK**.

Setting Recording Options

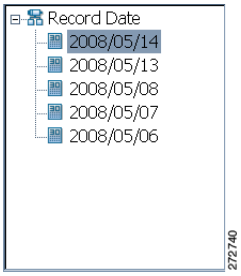
The **Options** window allows you to change the settings within the **DateTime Search Dialog** window. It also allows you to change video recording and saving parameters. To access this window, click the **Options** button in the Playback window.



Field Definitions

- **Calendar View**—Shows dates of recording in red, with the red square indicating the current date.

- **List Control**—Shows dates of recording.

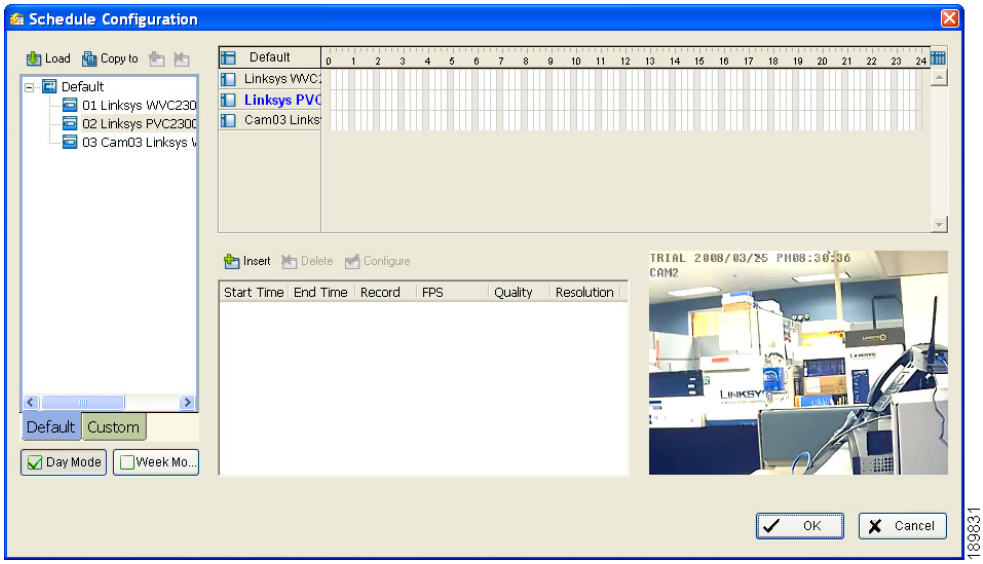


- **Play when open**— Check this option to start playing the video clip every time you highlight an area on the recorded line.
- **Auto skip when record motion only mode**—Check the option to set up the system to automatically skip to the points where there were motions recorded.
- **Next interval**—Set the time interval the video goes forward when you click on the **Next** icon on the control panel.
- **Previous interval**—Set the time interval the video goes backward when you click on the **Previous** icon on the control panel.
- **Save in clipboard**—The image is saved in the clipboard so you can use it in graphic application software.
- **Manually save the image file**—Select where you want to save the image, name the saved file, and choose the format you want to save the image.
- **Automatically save the image file**—By pre-setting a path/URL and the image format, the system automatically saves the image accordingly when you click the **Save** button in the control panel.

6

Setting a Schedule

Using the Schedule Configuration window you can set up the time duration for video recording.



Day Mode

You can schedule the cameras to turn the recorder on and off at the same time every day. To setup the time schedule for each camera, you may do one of the following:

- Load Preset Modes, page 47.

or

- Insert New Schedules Manually, page 48

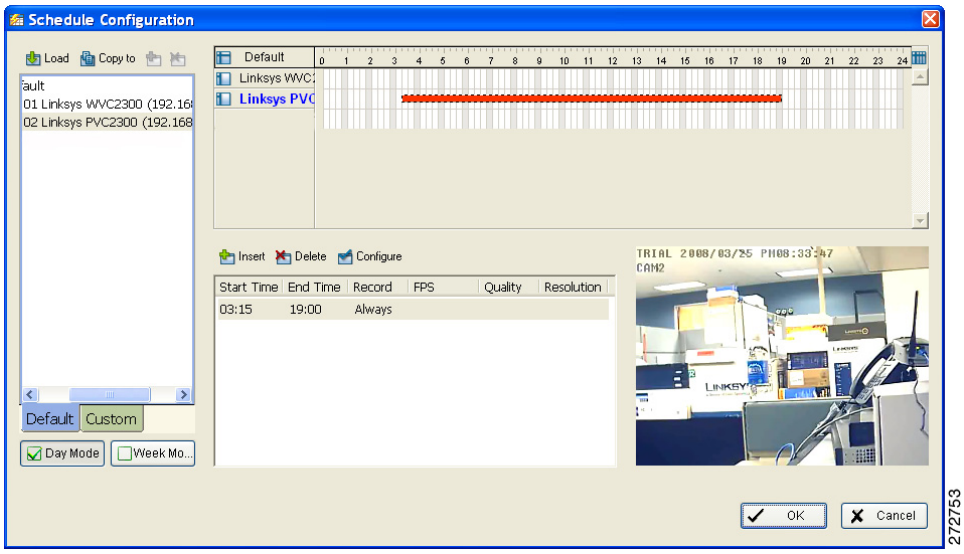
Load Preset Modes

Click on the **Load** icon (upper left of the Schedule window) for the drop-down menu. Choose one of the following modes:

- **Regular Mode**—Sets recording to 24-hours a day with the setting of 30 FPS (frames per second), normal video quality, and normal resolution.
- **Office Mode**—Sets recording from 8 am to 8 pm (08:00 – 20:00). The recording is shown on the red bar in the Schedule Configuration panel with the setting of 30 FPS, normal video quality, and normal resolution.
- **Shop Mode**—Sets recording from 10 am to 10 pm (10:00 – 22:00) with 30 FPS, normal video quality, and normal resolution.
- **Highly Secure Mode**—Sets recording 24-hours a day with the setting of 30 FPS, the highest video quality, and with high resolution.
- **Disk Saving Mode**—Sets recording to start only when a motion is detected on the screen, 24 hours a day (shown on the green bar in the Schedule Configuration panel), with the setting of 30 FPS, normal quality, and normal resolution. You can adjust the sensitivity, interval, and area of motion detection in the Schedule Configuration.
- **Minor Mode**—Sets recording to always record, with the setting of 15 FPS, low quality, and low resolution. You can adjust the sensitivity, interval and area of motion detection in the Schedule Configuration.

Insert New Schedules Manually

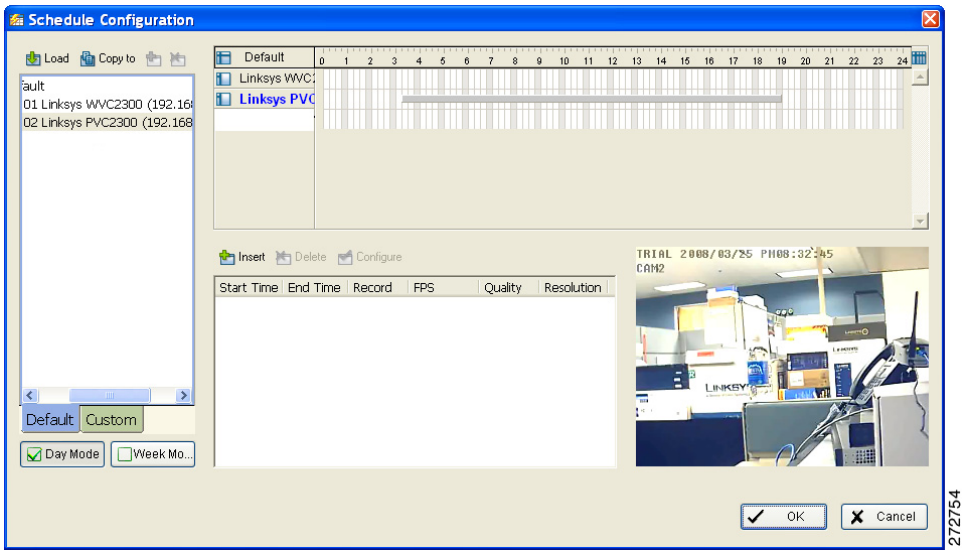
STEP 1 Click the **Define Schedule** icon. The Schedule Configuration window appears. The red bar indicates that the camera is always recording



STEP 2 Click the **Day Mode** button.

STEP 3 Choose a camera from the list on the left.

STEP 4 Left-click in the main window and draw a bar indicating the time that you want scheduled on the time table. The scheduled time shows as a grey bar.



STEP 5 Click the **Insert** icon to add a new schedule in the Regular Mode. That is, to record video during the time period you set with 30 FPS, normal video quality, and normal resolution.

STEP 6 Click **OK**.

Copying a Schedule

You may set up the schedule for each camera by repeating the process above, or by using the **Copy to** icon (upper left of the Schedule Configuration window) to apply the setting of a single camera to all the others.

Week Mode

You may schedule the cameras differently for each day of the week. In addition, you may assign extra holidays under Week Mode.

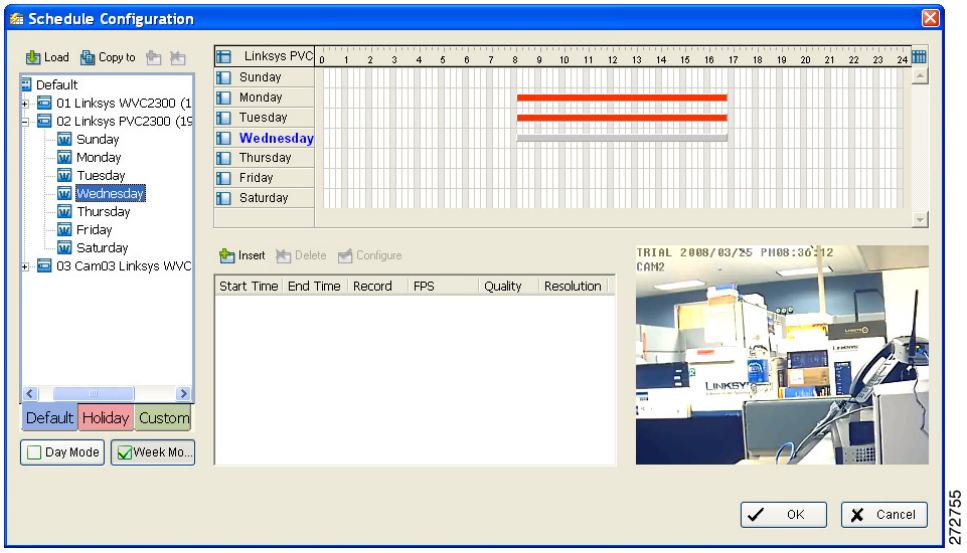
- **Default**—Sets up the schedule for every day in a week.
- **Holiday**—Assigns holidays and the system works according to a Sunday schedule.
- **Custom**—Assigns a particular date(s) and the system works according to a special schedule(s) different from the other schedules.

To set up a schedule for every day in a week:

STEP 1 Click **Week Mode**. The **Week Mode** window appears.

STEP 2 In the left window, scroll down to the selected day of the week.

STEP 3 Left-click in the main window and draw a bar indicating the time that you want scheduled on the time table. The scheduled time shows as a grey bar:



STEP 4 Click the **Insert** icon to add a new schedule in the Regular Mode. That is, to record video during the time period you set with 30 FPS, normal video quality, and normal resolution.

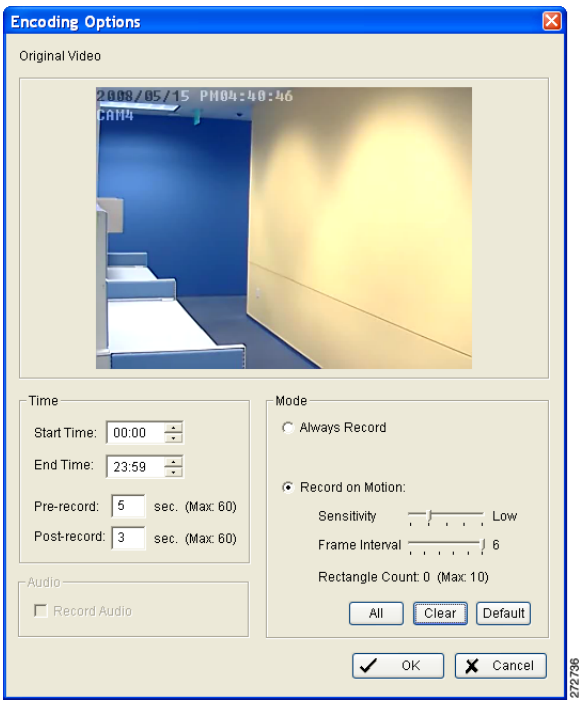
STEP 5 Click **OK**.

Copying a Schedule

You may set up the schedule for each camera by repeating the process above, or by using the **Copy to** icon (upper left of the Schedule Configuration window) to apply the setting of a single camera to all the others.

Adjusting Configuration Settings

Many settings are configurable and you can manually change the setting at any time after you insert or load a period of schedule in either **Day** or **Week** mode. To change your settings, click the **Configure** icon. The **Encoding Options** window appears:



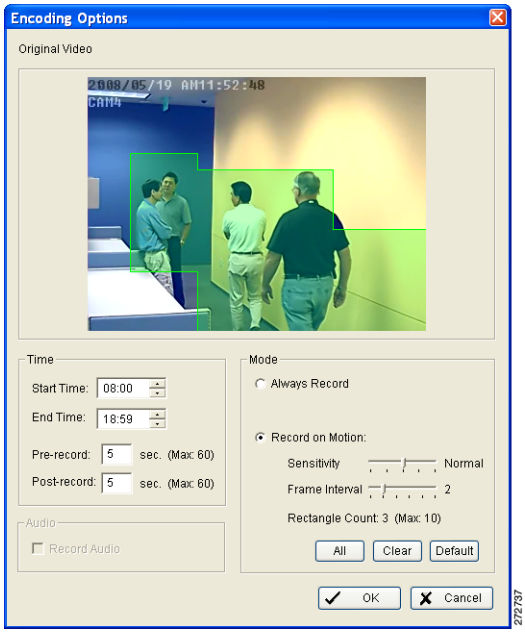
Field Definitions

- **Start and End Time**—Sets your recording time.
- **Pre-record and Post-record Time**—Saves the recording data accordingly. For instance, a 5-second pre-record time means the system starts saving the recording data 5 seconds before the event happens.
- **Always Record**—Select this option to record the video at all time.
- **Record on Motion**—Select this option to start recording when motion is detected.

To record motion, you need to define one or more detection zones:

STEP 1 Click the radio button for **Record on Motion**.

STEP 2 Left-click and drag the mouse to draw up to 10 (green) rectangular detection zones of the area you want to monitor.



NOTE: When motion is detected in the defined area of interest, the area starts flashing green and red.

STEP 3 Configure the recording schedule on the right side of the screen.

STEP 4 Set the Sensitivity to **Normal** and the Frame Intervals to **5** to start. These settings may be adjusted later

STEP 5 Click **OK** to go back to the Schedule Configuration window.

STEP 6 A green bar indicates that the recording is now done when motion is detected.

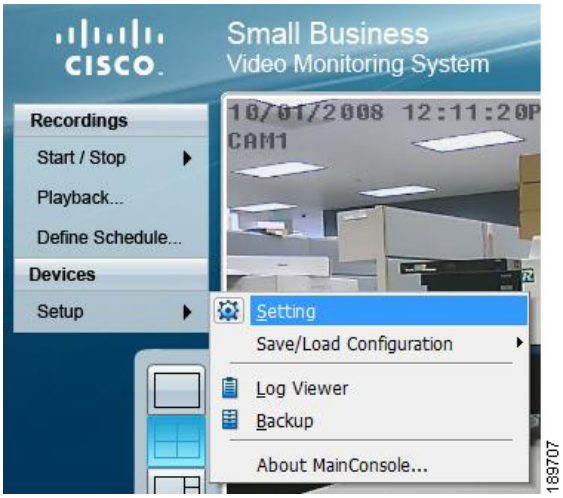
STEP 7 Click **OK** again to go back to the Main Console window. When triggered, the area set as the detection zone area turns red.

NOTE: Specific recording events are shown in the center of the Schedule window. Double click any event to go back to the **Encoding Options** window to change any setting.

7

Configuring Video Settings

- The **Setup** menu allows you to configure cameras, save or load configuration settings, backup your data, or access information about the Main Console. To access the **Setup** menu, click on the **Setup** icon in the main window and the following menu appears:

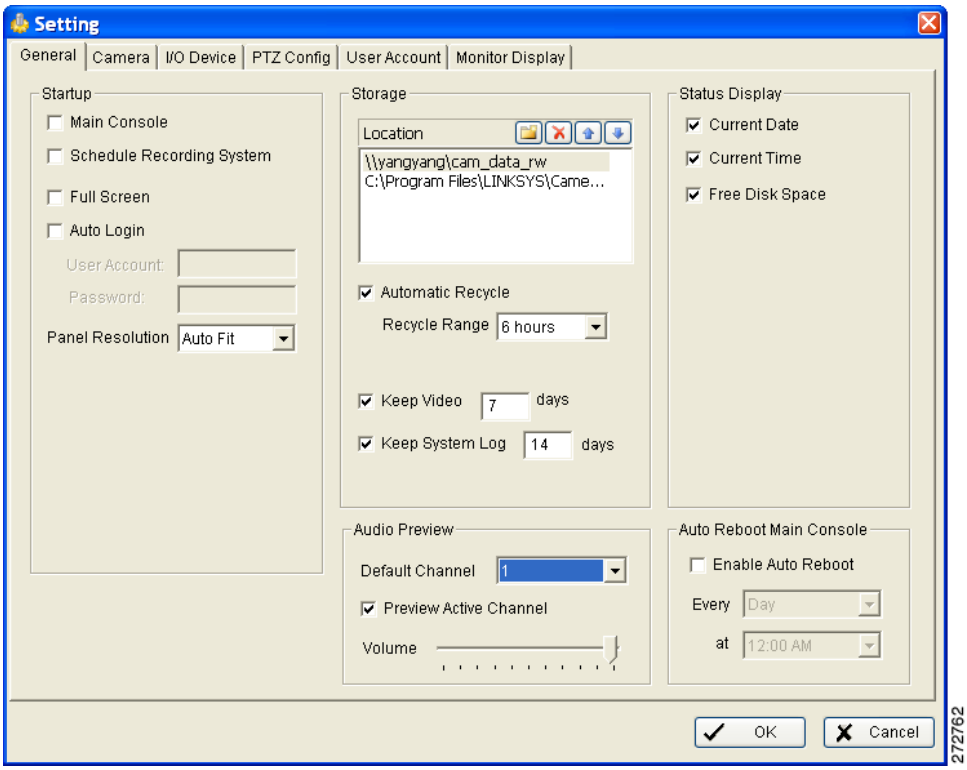


The following menu items that are discussed in this chapter:

- "Configuring Settings" section on page 55
- "Saving and Loading to a Configuration File" section on page 64
- "Log Viewer" section on page 64
- "Backup" section on page 66
- "About Main Console" section on page 70

Configuring Settings

When you choose the **Setting** from the **Setup** menu, the following window appears:



General Tab

The General tab consists of five active sections: **Startup**, **Storage**, **Audio Preview**, **Status Display**, and **Auto Reboot**.

Startup

Check the features that you would like active upon startup of the Cisco Video Monitoring Software. These features will also be active upon an "Auto Reboot".

- **Main Console**—Brings up the Main Console window when the Cisco Video Monitoring Software starts.
- **Schedule Recording System**—Activates recording upon startup. You may start or stop this function in the Main Console window.

- **Full Screen**—Opens the Cisco Video Monitoring Software to full screen upon startup.
- **Auto Login**—Automatically login with your pre-configured login name and password upon startup.
- **Panel Resolution**—Defines the system resolution upon startup. Select **Auto Fit** to have the system choose the best resolution for you.

Storage Settings

- **Location**—Used to assign the default folder for the system to store all data files. You can also define more than one location as a storage location. The configured locations are limited to one path per partition drive. For example, you may not set two or more paths in the same C:/ or D:/ drive, or two or more paths in one partition in a network storage unit.
- **Automatic Recycle**—Automatically deletes the earliest defined recycle range in the configured storage. For example, if your storage space is 30 Gb (which equals approximately 72 hours at 640x480, 10 FPS) and your Recycle Range is set for “6 hours,” the Cisco Video Monitoring Software deletes the first 6 recorded hours once the recording gets close to using up the full storage space.
- **Keep Video**—Keeps the recordings for the defined number of days. Only “0” or a positive number of days is allowed. When “0” (day) is entered, it means the video is only kept the day of the recording. If **Automatic Recycle** and **Keep Video** are both enabled, the recording is kept for the defined number of days and the earliest hours/days in the range are deleted. If your storage space is less than what is set in **Keep Video**, the Cisco Video Monitoring Software falls back to deleting the defined range set in **Automatic Recycle**, ignoring the days set in **Keep Video**.
- **Keep System Log**—Deletes the system log data that is older than the number of days set. Only “0” or a positive number of days is allowed. When “0” (day) is entered, it means the log is only kept the day of the recording.

Audio Preview Settings

NOTE: The IP cameras have a built-in microphone or you can attach an external microphone and/or speakers. Two-way audio requires an external speaker to be attached to the camera. When using a two-way audio connection, consider setting the speaker a few feet away from the microphone on the camera.

- **Default Channel**—Select a camera channel to play audio.
- **Preview Active Channel**—Check the **Preview Active Channel** option to hear the audio from the camera you selected on the Main Console. The camera selected in **Default Channel** plays if no camera was selected on the Main Console.
- **Volume**—Adjust the volume with the **volume bar**.

Informational Display

Check the boxes of the information that you wish displayed in the Information window at the bottom of the Main Console window:

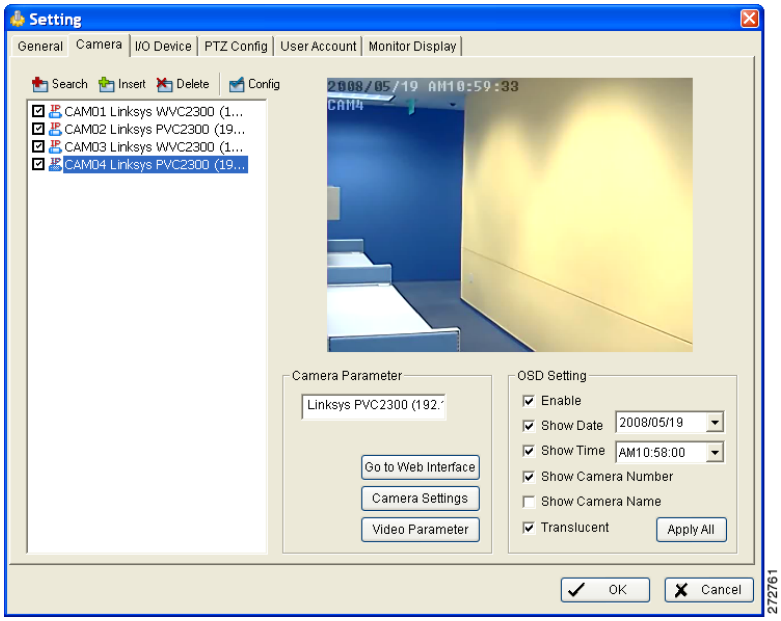
- **Current Date**
- **Current Time**
- **Free Disk Space**

Auto Reboot

Check **Enable Auto Reboot** so that you can reboot the system at the time you select, then select the reboot time.

Camera Tab

The following are descriptions of the fields found on the camera tab:



Camera Functions

Four function buttons are included in the Setting and Camera window.

- **Search**—Click on the **Search** icon to obtain the Search IP Camera panel. The system starts scanning automatically once the panel is opened; stop scanning by clicking on the **Stop Scan** button.

  Fill in the user name and password for each IP camera found and click **OK** to add it to the camera list.

- **Insert**—Click on the **Insert** icon to obtain the IP/Video Server Setting panel and add IP cameras to the list. See "Adding Cameras Manually" section on page 15 for details.

- **Delete**—Click on the **Delete** button to remove the selected IP camera(s) from the system. Click **OK** to finalize the modification.

- **Config**—Click on the **Config** button to obtain the **IP Camera/Video Server Setting** panel.

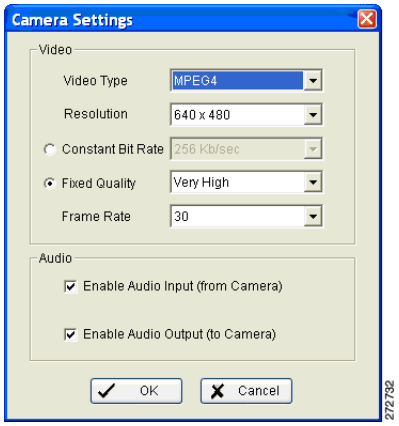
  - **Network**—Modify the IP camera settings including Name, IP Address, HTTP Port, User Name, Password and Protocol) as provided by the camera manufacturer. Check **Use DNS** to use domain name instead of IP address.

- **Device**—Choose the IP camera manufacturer from the drop-down menu. Click on **Auto Detect** and the model name will show in the box.
- **Description**—Shows information about the IP camera.

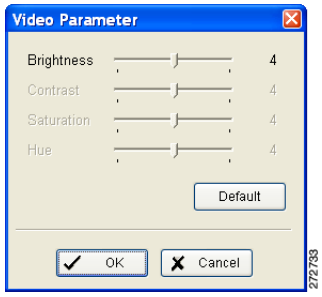
- **Camera List**—Lists the camera(s) connected to the system. Click the name of the camera to adjust the setting.

Camera Parameter

- **Go to Web Interface**—Takes you to the cameras main page, where you can view live video, control the camera, and set other camera functions.
- **Camera Settings**—Sets camera parameters such as video type (MPEG4, MJPEG), resolution, bit rate, quality, frame rate, and enabling audio inputs and outputs.



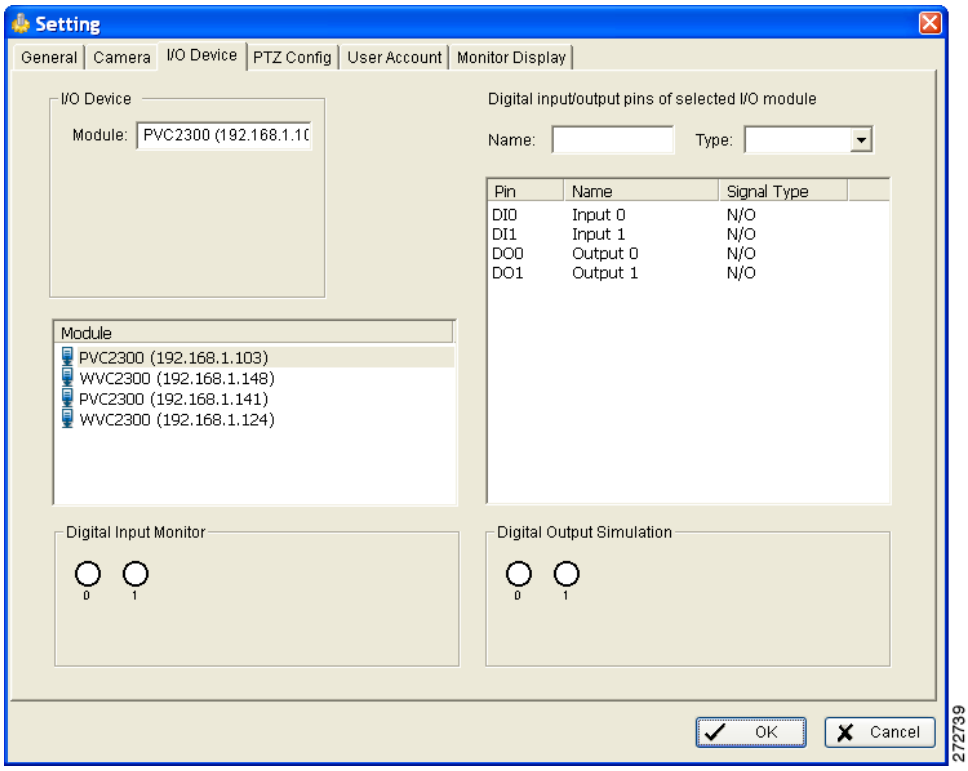
- **Video Parameter**—Adjusts the video's brightness, contrast, saturation, and color hue.



- **OSD Setting**—Selects the information that you wish to see in the on-screen display. Options include: enable, date, time, camera number and name, and translucent. Translucent allows OSD text to be transparent, and not block out the video.

I/O Device Tab

The I/O Device tab is for your information only and can not be configured. The following are descriptions of the fields found on the I/O Device tab.

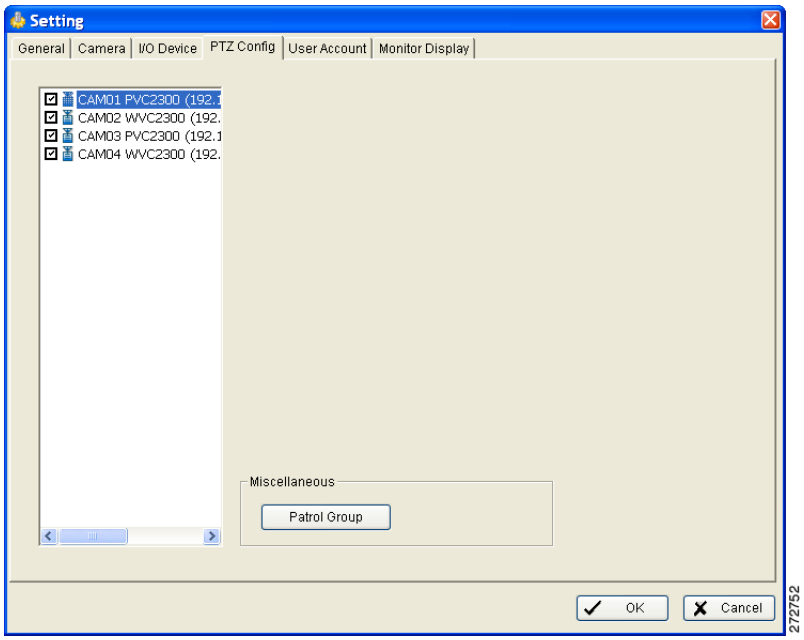


I/O Device Tab

- **Module**—Camera name.
- **Module**—Displays the device(s) already installed to the system.
- **Digital Input Monitor**—The device(s) is turned on if the dot is red.
- **Name**—These fields are not configurable.
- **Type**—These fields are not configurable.
  - **N/O**—Normal Open.
  - **N/C**—Normal Close.
- **Digital Output Simulation**—The device(s) is turned on if the dot is red.

PTZ Config Tab

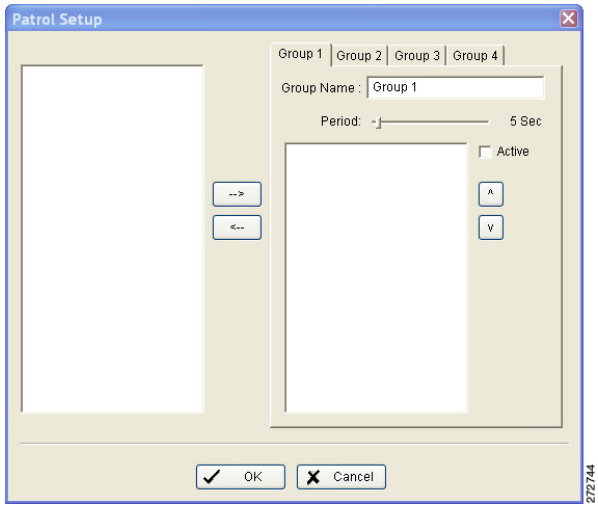
The following are descriptions of the fields found on the PTZ Config tab:



Cameras without built-in pan, tilt, and zoom capabilities control a PTZ base through an RS-485 serial connection. Refer to the camera user guide for setup and configuration of the RS-485 interface to a Pan/Tilt base.

Miscellaneous

Patrol Group—Setup the Patrol Group. The **Patrol Setup** window allows you to define the sequence of the preset positions and the interval periods between the preset points.

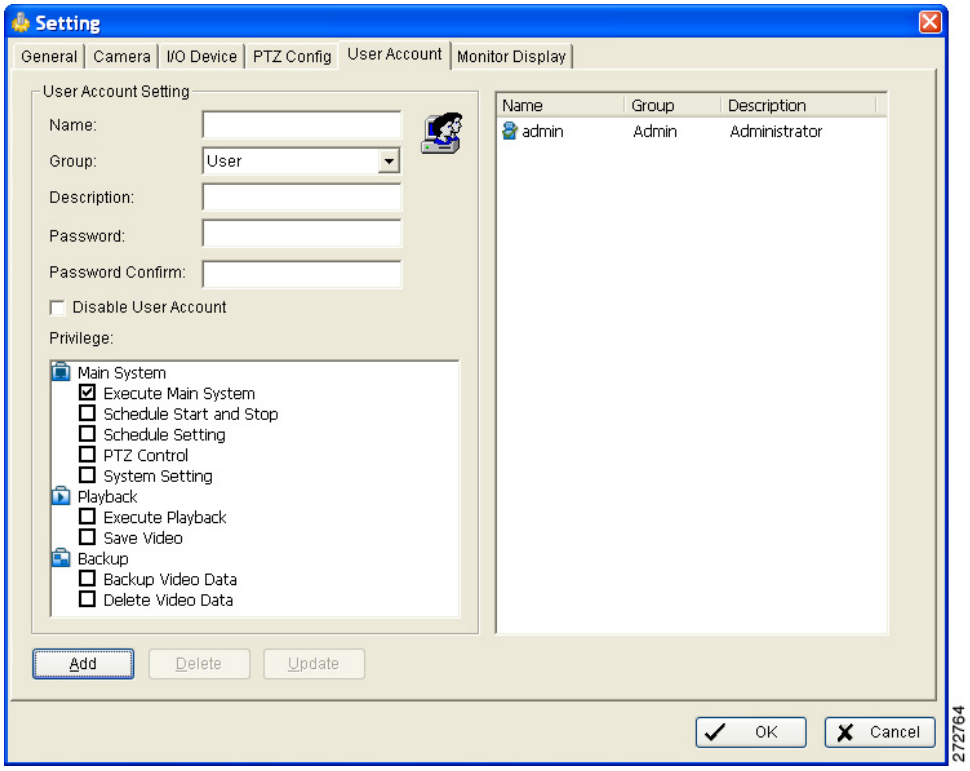


In the left side of the **Patrol Setup** window, select the cameras that you would like to have in the patrol group. Align the cameras in order in the right window and adjust the time. Rename the group name, as desired. After completing the setup, check the **Active** option, and then click **OK**.

You can setup up to four groups of auto patrol.

NOTE To set Patrol with the PVC300, preset points must be set on the PVC300 User Interface. Navigate to **Setup** -> **Setting** -> **Camera** and select *Go to Web Interface*. Once the preset points are set, the video monitoring system performs a single patrol using the defined preset points.
For more information on the PVC300 User Interface see the PVC300 Administration Guide.

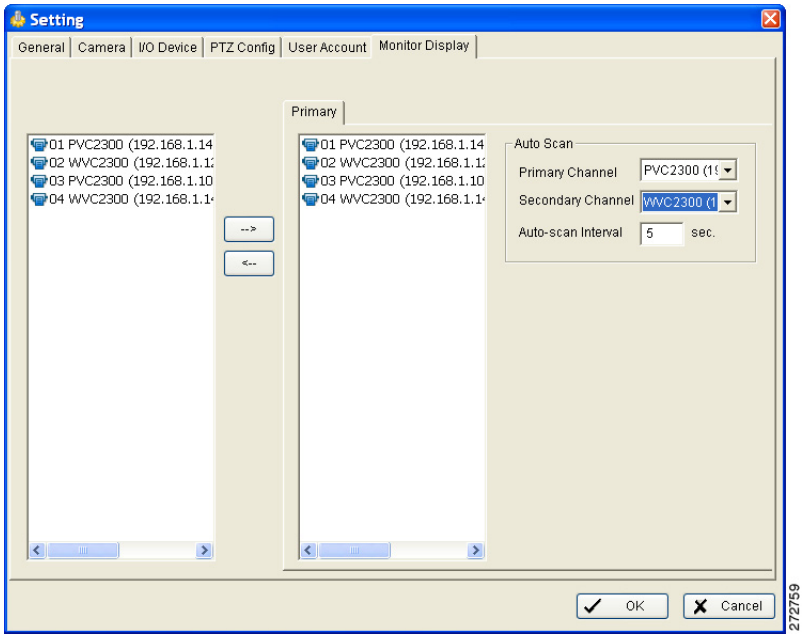
User Account Tab



The administrator may manage the user accounts here. From the list on the right, highlight each account and modify the privilege setting.

Monitor Display Tab

The following are descriptions of the fields found on the **Monitor Display** tab:



- **Cameras List**—The left side displays a list of all cameras; modify the cameras shown in the Primary (right) window.
- **Auto Scan**—Activate auto scan to rotate the channels/ cameras on the display screen.

  For instance, you may select to show only 4 sub-screens on the main console while having 16 channels connected to the system. With auto scan, you will be able to see all 16 channels in turn. You can set the auto-scan interval and a primary channel that will always be on the screen and a secondary channel that has secondary priority.

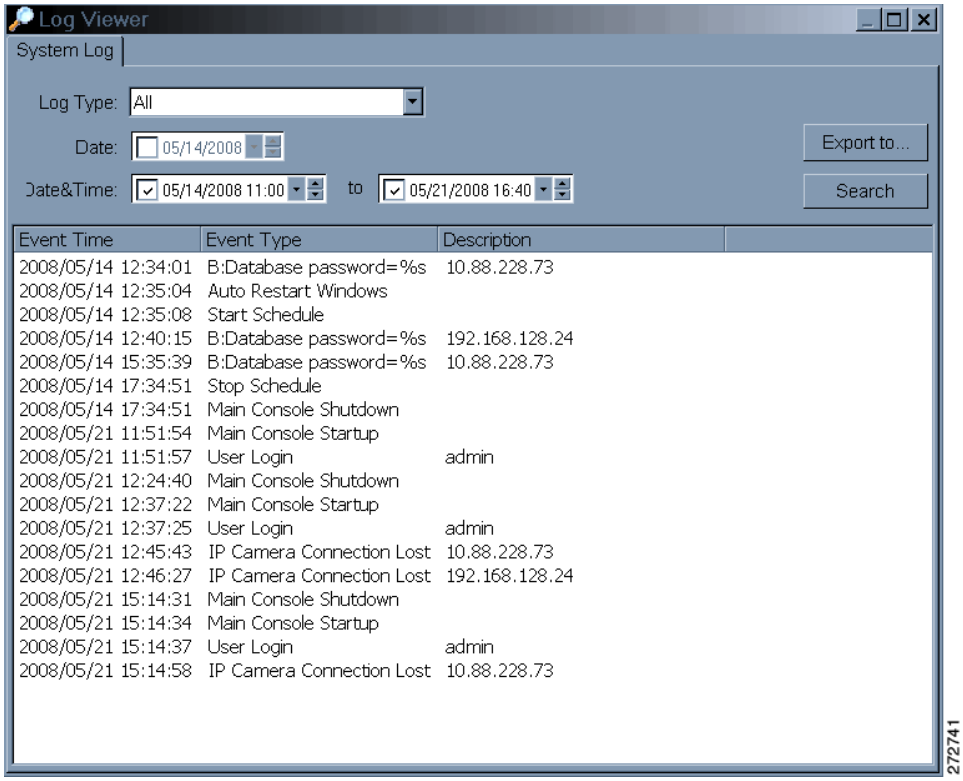
Saving and Loading to a Configuration File

The Save/ Load Configuration function allows system users to save any specific setting as a `.cfg` (config) file. You may save up several different `.cfg` files at any time

Save Configuration—To save a specific setting, go to **Setup** > **Save/ Load Configuration** > **Save**. In the popup window, type in the file name and then save it as a `.cfg` file.

Load Configuration—To load a specific setting, go to **Config** > **Save/ Load Configuration** > **Load**. In the popup window, go to the directory where you saved the `.cfg` files at, select any one of them and then click **OK** to load the file. The Main Console window is automatically shutdown after loading a new configuration. Please re-start the Main Console window manually.

Log Viewer



Viewing the System Log

You can choose the log type from the drop-down menu. A list of some of the available log types follows:

Table 1 System Log

All	Execute Backup
Main Console Startup	Enable Channel
Main Console Shutdown	Disable Channel
User Login	Modify Schedule
User Login Failed	Modify Configuration
Start Schedule	IP Camera Connection Lost
Stop Schedule	Auto Restart Main Console
Execute Recycle	

STEP 1 Choose the event from the Log Type menu or select **All** from the drop-down menu for all types of events.

STEP 2 You may view events that happened on a particular date or during a given time period. To search and view unusual event happened on a particular date, mark the box right next to **Date** and indicate the date.

You may also point out two different time points and search for unusual events that happened during the period. Mark the box in the **Date&Time** column and then enter the date and time.

STEP 3 Click **Search**.

Exporting from the Log Viewer

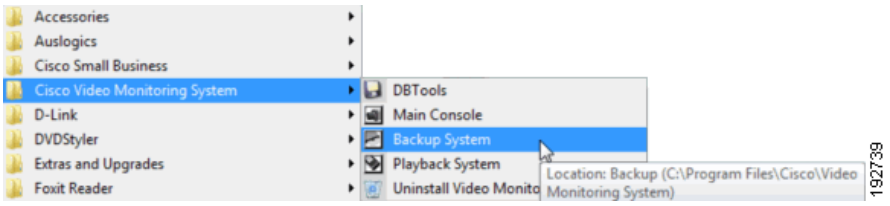
After searching the log, you can export to an `.xls` or `.txt` file.

STEP 1 Press the **Export to**.

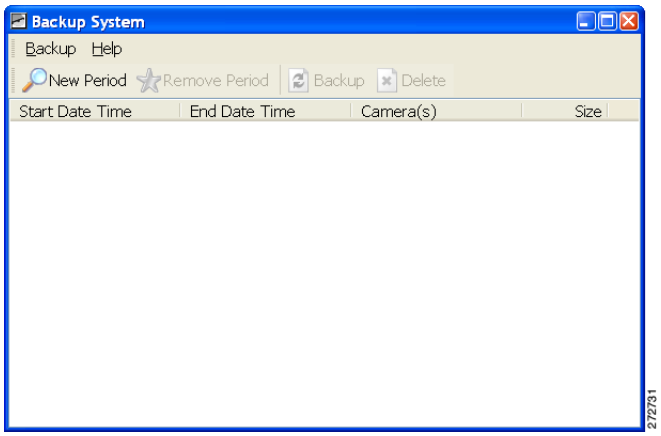
STEP 2 Type the file name and choose the file format (`.xls` or `.txt`).

Backup

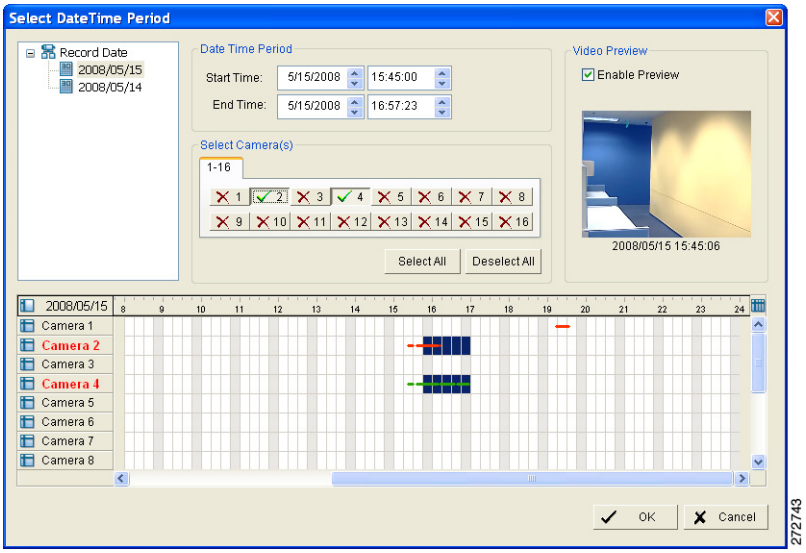
Different from **Save Video**, the Backup function saves everything from the Playback panel, including log information. You can find Backup on the main Window menu at **Start -> Programs -> Cisco Video Monitoring System -> Backup System**.



You can load backup files onto a fully- functioning Cisco Video Monitoring Playback Console on any Microsoft Windows computer. This means that you can monitor the video real time on one PC and work on the backup files on different computer simultaneously. Follow the instructions below to obtain backup files



STEP 1 Click on **New Period** to obtain the **Select DateTime Period** panel.



STEP 2 Select the date you want to backup. The color lines indicate available data recorded. Red indicates “record always”, and green indicates “record on motion”.

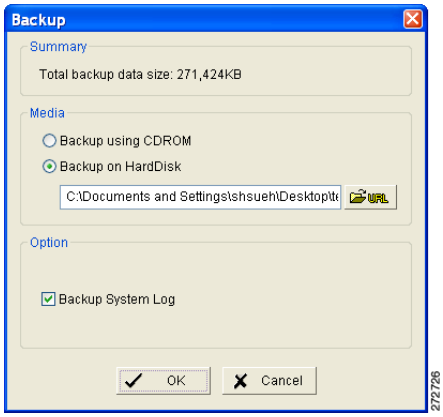
STEP 3 Select the data you want to backup by right clicking and dragging over the time period. Besides the time-table, you may also set up start time and end time in the Date Time Period section.

STEP 4 Click on the camera number icon to add camera(s) or click **Select All** to add all the cameras.

STEP 5 Check the **Enable Preview** box to get the preview of the video you select.

STEP 6 Click **OK** when the settings are complete.

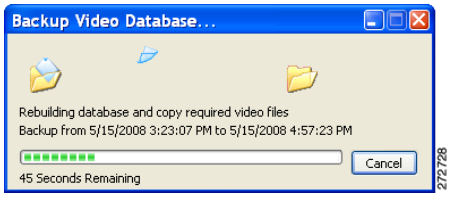
STEP 7 The **Backup** window appears, with your new data. Click the **Backup** icon to see the backup summary window.



STEP 8 The backup summary provides the size of the file. You can also choose the path where you want to save the file, or if you want to burn the file into a CD (direct CD burning is available for Windows XP only).

STEP 9 Select **Backup System Log**.

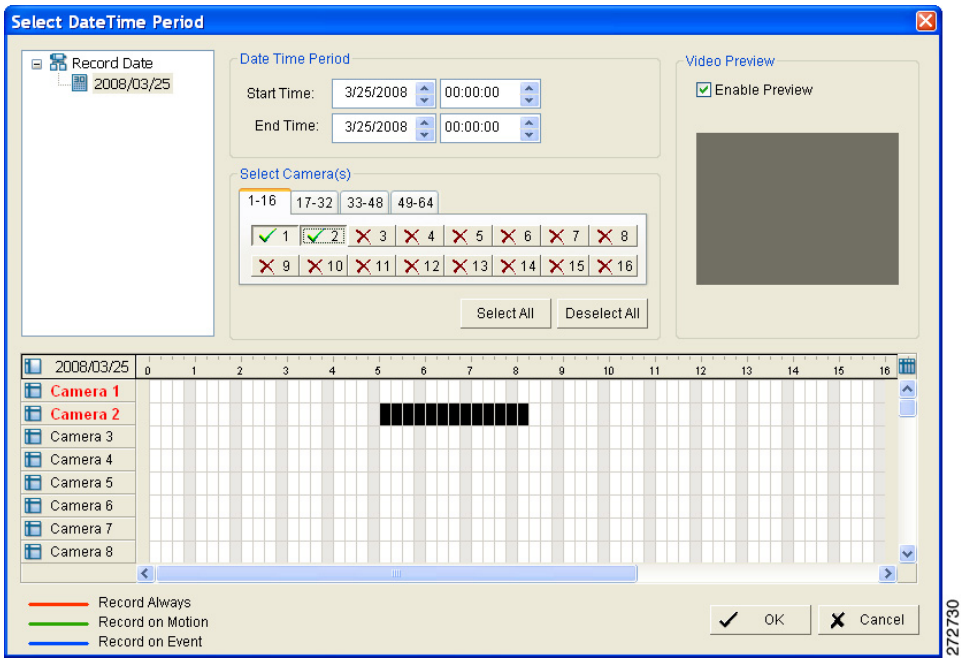
STEP 10 Click **OK**. As the backup process complete, a status dialog box appears.



STEP 11 A confirmation window appears when the backup is complete allowing you to view the video that was backed up.

Delete Recorded Information from the System

STEP 1 Click on **New Period** to obtain the **Select DateTime Period** panel.



STEP 2 From the record date section, select the date you want to backup. You will see color lines appear in the time table implying available data recorded. Red indicates “record always”, and green indicates “record on motion”.

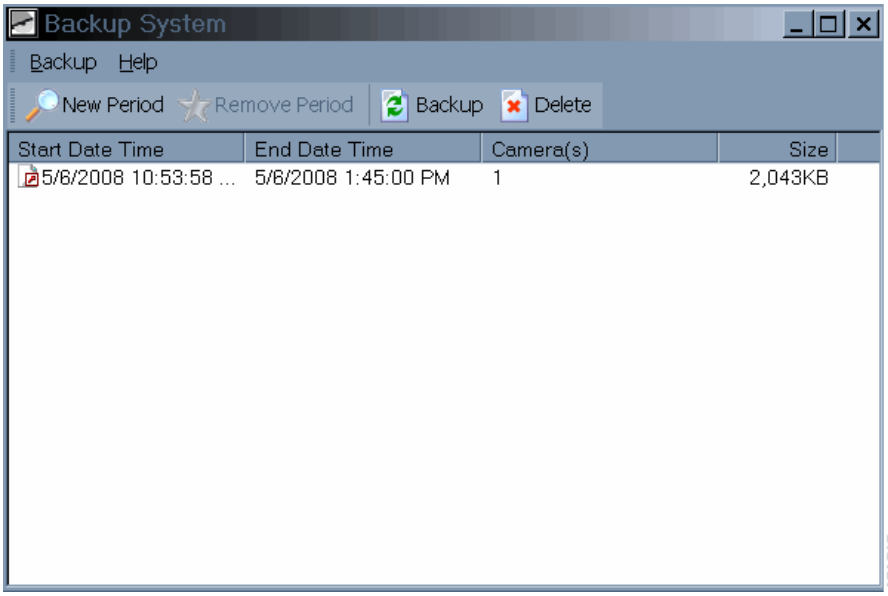
STEP 3 Select the data you want to delete by highlighting the time period. Besides the time-table, you may also set up start time and end time in the Date Time Period section.

STEP 4 Click on the camera number icon to add camera(s) or click **Select All** to add all the cameras.

STEP 5 Check the **Enable Preview** box to get the preview of the video you select.

STEP 6 Click **OK** when the settings are complete.

STEP 7 The Backup window appears, with your new data.

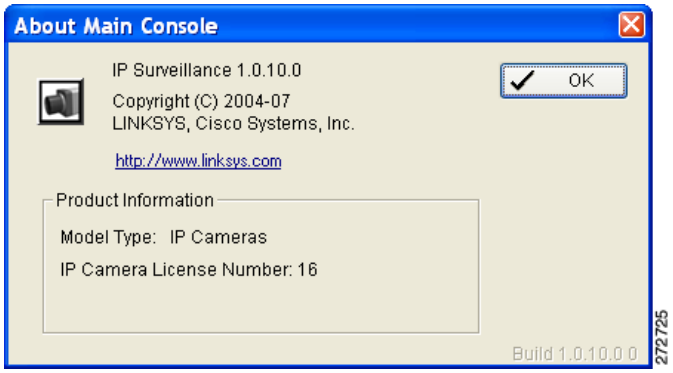


STEP 8 Highlight the data to delete, and click on the **Delete** icon to delete the data.

NOTE The deleted video cannot be recovered.

About Main Console

Go to About Main Console to view the version of your monitoring system and the hardware information.



A

Frequently Asked Questions

How many cameras can I monitor? How many people can monitor a camera?

You can monitor up to 16 cameras at one time. Each camera can be monitored by up to 10 different computers at the same time. When the 11th user tries to access the camera, that user will receive a message that indicates the maximum number of viewers has been reached. (One computer can also be set to monitor the same camera multiple times, up to the maximum of 10.)

Can I monitor cameras at other sites within my multi-site network?

You may use the Cisco Video Monitoring System to access cameras at a remote location (cameras located at a different network or on the Internet). However, you can not access the Cisco Video Monitoring System from a remote PC.

Can I place the camera in an enclosure?

The compact design of the PVC2300 and WVC2300 cameras allow them to be placed in a protective enclosure for exterior or interior installations. IP66-certified enclosures are recommended. Any camera enclosure should have sufficient ventilation and cooling to ensure that the camera stays within its environmental operating parameters.

My camera doesn't show up when do a search in settings/camera. But I can see the camera is working by logging into the IP address of the camera.

The camera must have UPnP enabled to be detected by the Cisco Video Monitoring System. Using a browser, login to the camera and verify that UPnP is enabled.

I save all of my videos in C:\My Documents\videos, but I can't play any of these files.

The Cisco Video Monitoring System stores all recorded data in a proprietary format. For video to be shared and viewed on common media players, the video must first be saved in a standard compression format. The choices of format are ASF and AVI. See Export -> Save Video, page 35 for more information.

I setup my recording schedule to record on motion. When I playback recordings, I don't see any motion. Why is the application recording?

Motion detection can be triggered by changes in lighting (such a clouds or sunset/sunrise). While no objects are physically moving in the video, the camera has detected changes which triggers the recording. You can adjust motion detection settings by changing the sensitivity and frame interval settings. See Adjusting Configuration Settings, page 51 for more information.

How do I set up UPnP so my cameras broadcast their availability to my network?

UPnP networking technology provides automatic IP configuration and dynamic discovery of devices added to a network. Services and capabilities offered by networked devices, such as printing and file sharing, are available among each other without bothersome network configuration.

Cisco cameras have UPnP enabled automatically. To configure UPnP in a Windows XP environment, log on to the computer as a system administrator to install the UPnP components. If using Windows Vista, it should be enabled automatically. If not, turn off UAC (User Access Control) before following this procedure.

Follow these steps to enable UPnP user interface on your computer:

STEP 1 Go to **Start**, click **Control Panel**, and then click **Add or Remove Programs**.

STEP 2 In the **Add or Remove Programs** dialog box, click **Add/Remove Windows Components.**

NOTE If the default ports are already used by other device connecting to the same router, the Network Camera will select other ports for the Network Camera.

STEP 3 In the **Windows Components Wizard** dialog box, make sure *Networking Services* is checked.

STEP 4 Highlight *Networking Services*, and then click **Details**.

STEP 5 In the *Networking Services* dialog box, select *Universal Plug and Play* and then click **OK**.

STEP 6 Click **Next** in the following window.

STEP 7 Click **Finish**. UPnP is enabled.

B

Where to Go From Here

Cisco provides a wide range of resources to help you and your customer.

Product Resources

Resource	Location
Technical Documentation	https://www.cisco.com/en/US/products/ps9944/prod_maintenance_guides_list.html
Firmware Downloads	www.cisco.com/en/US/products/ps9944/index.html
Customer Support	www.cisco.com/en/US/support/tsd_cisco_small_business_support_center_contacts.html
Warranty and End User License Agreement	www.cisco.com/go/warranty
Open Source License Notices	www.cisco.com/go/osln
Regulatory Compliance and Safety Information	https://www.cisco.com/en/US/products/ps9944/prod_maintenance_guides_list.html
Cisco Partner Central site for Small Business	www.cisco.com/web/partners/sell/smb