



Cisco Video Surveillance Manager Safety and Security Desktop User Guide

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Preface

Revised: April 12, 2013

Overview

This *Cisco Video Surveillance Manager Safety and Security Desktop User Guide* provides an overview of the desktop software used to view video from the Cisco Video Surveillance Manager (Cisco VSM).

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information about obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*. This document also lists all new and revised Cisco technical documentation. It is available at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

See also the [Related Documentation](#) section.





CHAPTER 1

Getting Started

Contents

- [Overview, page 1-1](#)
- [Understanding the Video Viewing Options, page 1-4](#)
- [Requirements, page 1-5](#)
- [Installing the Application, page 1-6](#)
- [Logging In, page 1-7](#)

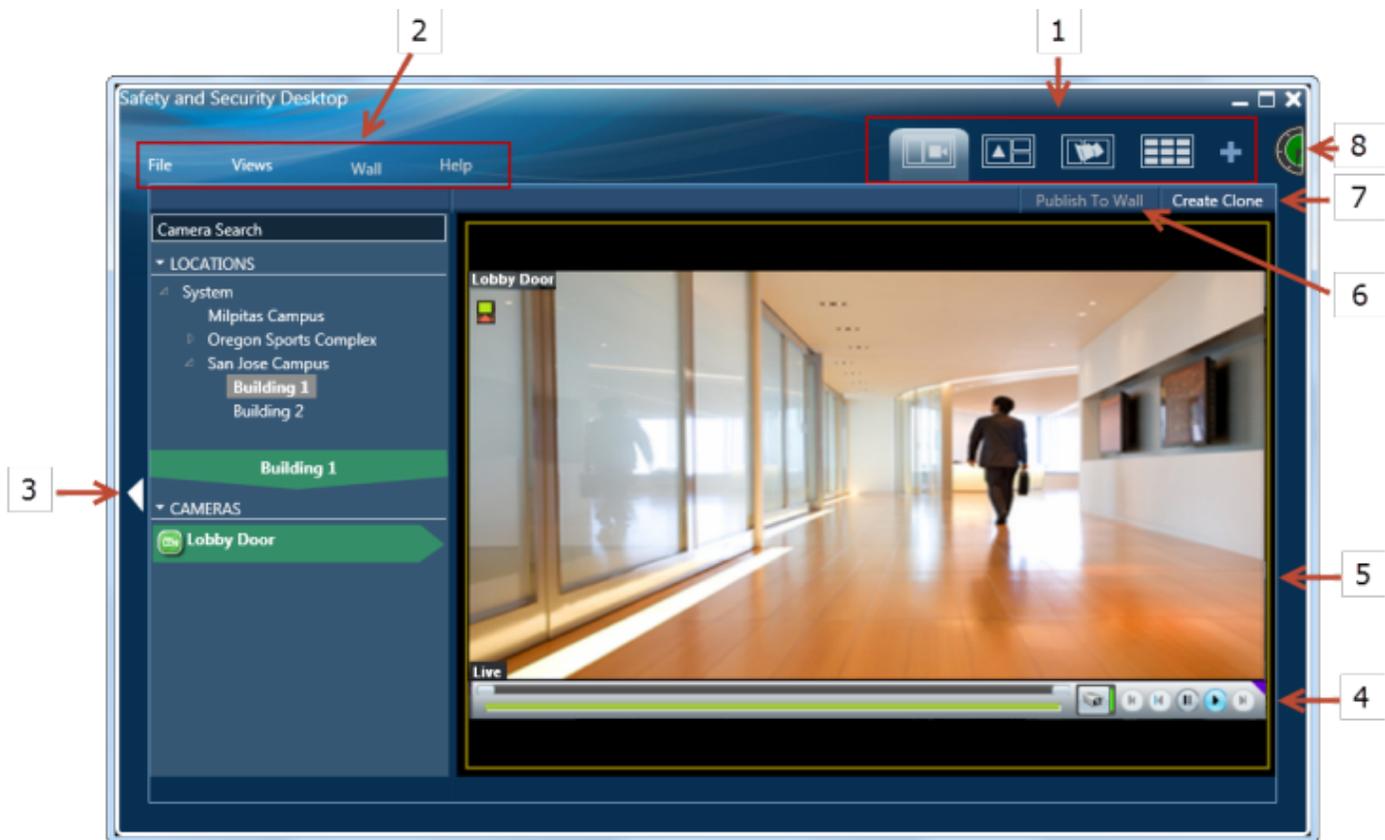
Overview

The Cisco Video Surveillance Safety and Security Desktop application (Cisco SASD) allows you to monitor live and recorded video surveillance using a variety of tools. For example:

- View a list of available cameras based on the camera location.
- View the cameras and related video on a map.
- View system alerts and the camera that generated the alert.
- View multiple cameras in a grid.
- Create multiple viewing windows and drag them onto additional monitors connected to the PC workstation.
- Create Video Walls to display the same pre-defined set of viewing panes on multiple workstations.
- Use Unattended Mode to automatically open the Video Walls on workstations that do not have a mouse or keyboard.

Figure 1-1 describes the main Cisco SASD features.

Figure 1-1 Overview of the Cisco SASD Features



1 Workspaces allow you to view video in a variety of formats:

- **Camera Centric Workspace** —Use the location tree to select a camera. Select a **View** to view multiple cameras in a grid. See the “[Viewing Video from Specific Cameras](#)” section on page 2-2.
- **Alert Centric Workspace** —View and modify system alerts. View the camera that generated the alert on a map, and video from that camera. See the “[Viewing Alerts](#)” section on page 5-1.
- **Map Centric Workspace** —Display maps of the Cisco VSM locations, including the camera and alerts at those locations. Click a camera name to view video. See the “[Viewing Cameras and Alerts on Map](#)” section on page 6-1.
- **Video Centric Workspace** —Display video from multiple cameras in a simple grid that maximizes the viewing area. Drag the See the grid to a separate monitor, if necessary. See the “[Viewing Camera Video in a Multi-Pane Grid](#)” section on page 2-4.
- **Duplicate** —Create an additional window of the workspace you are viewing. For example, select the Video Centric Workspace tab  and click the duplicate icon  to create a new window and drag it to a separate monitor. See the “[Viewing Camera Video in a Multi-Pane Grid](#)” section on page 2-4 and the “[Displaying a Video Grid on a Separate Monitor](#)” section on page 2-5.

2	<p>Select a menu to configure maps and locations, select a multi-pane View, create a Video Wall, or create an unattended workstation.</p> <ul style="list-style-type: none"> • File <ul style="list-style-type: none"> – Settings > Server—Displays the server IP address or hostname of the Operations Manager that you are connected to. – Unattended SASD Configuration—Configure a workstation to automatically open and operate Video Walls without user interaction. The workstation can be placed out of reach (such as below a desk) without a mouse or keyboard. See the “Configuring Unattended Windows” section on page 3-1. – Map Editor—Edit the location hierarchy and add map images to the locations. See the “Editing Locations and Maps” section on page 7-1. – Exit—Close the Cisco SASD application and disconnect from the Operations Manager. Unattended screens will still be displayed on the workstation, if configured. • Views <ul style="list-style-type: none"> – Blank—Create a blank matrix from the available layouts and drag cameras onto each viewing pane. – Views—Select a pre-defined matrix of cameras. The cameras can be configured to automatically rotate. See the “Viewing Camera Video in a Multi-Pane Grid” section on page 2-4. • Wall—Select a pre-defined matrix of viewing panes that can be displayed on multiple workstations (called Video Walls). You can also use Video Walls to create unattended workstations. <ul style="list-style-type: none"> – Creating a Video Wall, page 2-8. – “Configuring Unattended Windows” section on page 3-1. • Help—View additional information and documentation.
3	<p>Sidebar—Sidebars vary for each workspace. Click the triangle  to display or hide the sidebar.</p>
4	<p>Playback Controls—See the “Controlling Video Playback” section on page 4-1.</p>
5	<p>Viewing Pane—See the “Controlling Video Playback” section on page 4-1.</p>
6	<p>Publish to Wall—Display a View on all instances of a Video Wall, including Video Walls on other workstations. See the “Creating a Video Wall” section on page 2-8.</p>
7	<p>Create Clone—Create an exact duplicate of the Camera Centric workspace including the selected View and cameras.</p>
8	<p>Performance Meter—Displays the workstation’s CPU performance based on available memory and bandwidth.</p> <ul style="list-style-type: none"> • Green indicates that the workstation is meeting the demands of the Cisco SASD activities. • Yellow is a performance warning. • Red indicates that the workstation performance is poor and processing delays may occur.

Understanding the Video Viewing Options

Cisco SASD offers the following video viewing methods.

Table 1-1 Video Viewing Options

Viewing Mode	Description	More Information
Single Camera	View video from a single camera based on a location, alert or map.	<ul style="list-style-type: none"> • Viewing Video from Specific Cameras, page 2-2 • “Viewing Alerts” section on page 5-1 • “Viewing Cameras and Alerts on Map” section on page 6-1
Multiple Cameras	Select a View to view a multi-pane matrix of live or recorded video. The Views menu is available in the Camera Centric and Video Centric Workspaces (Figure 1-1).	<ul style="list-style-type: none"> • Viewing Camera Video in a Multi-Pane Grid, page 2-4 • Displaying a Video Grid on a Separate Monitor, page 2-5
Video Walls	View the same video pane matrix on multiple workstations.	Creating a Video Wall, page 2-8
Unattended Mode	Display a Video Wall on a workstation that does not include a keyboard or mouse. The Video Walls can appear automatically even if the workstation is rebooted.	Configuring Unattended Windows, page 3-1



Tip

See the “[Controlling Video Playback](#)” section on [page 4-1](#) for instructions to control playback of live or recorded video.

Requirements

Cisco Video Surveillance Safety and Security Desktop (Cisco SASD) requires the following.

Table 1-2 **Requirements**

Requirements	Requirement Complete? (✓)
<p>At least one Cisco VSM server must be installed on the network with the following applications enabled:</p> <ul style="list-style-type: none"> • Cisco Media Server application. • Cisco VSM Operations Manager application <p>See the following documentation for more information to install and configure the server:</p> <ul style="list-style-type: none"> • Cisco Physical Security Multiservices Platform Series User Guide for instructions to physically install the server. • Cisco Video Surveillance Management Console Administration Guide for instructions to enable the Media Server and Operations Manager applications. • Cisco Video Surveillance Operations Manager User Guide for instructions to configure network and analog cameras to stream live and recorded video. 	<input type="checkbox"/>
At least one camera physically installed and configured on Cisco VSM Operations Manager.	<input type="checkbox"/>
The IP address or hostname of the Cisco VSM Operations Manager.	<input type="checkbox"/>
<p>A valid Cisco Video Surveillance username and password.</p> <p>See the Cisco Video Surveillance Operations Manager User Guide for instructions to configure users and access permissions.</p>	<input type="checkbox"/>
<p>Workstation Requirements:</p> <p>See the Cisco Video Surveillance Monitoring Workstation Performance Baseline Specification for detailed requirements. The basic requirements are:</p> <ul style="list-style-type: none"> • A PC or laptop running Windows 7 64-bit operating system. • The Microsoft .NET Framework 4.0 (full setup) must be installed on the client PC. Go to http://www.microsoft.com/en-us/download/confirmation.aspx?id=17851 to download the installer. • A standard Windows 7 user account. <p>Note Logging in with a Guest account can prevent video streaming and result in an error to be displayed in the video pane: “Cannot create RTSP connection to server. Check network connection and server health status.”</p>	<input type="checkbox"/>
<p>Cisco Multi-Pane Video Surveillance client software, an Active X client that enables video playback and other features.</p> <p>Note You will be prompted to install this utility when installing or updating the Cisco SASD application. Complete the on-screen instructions, if prompted. You must have administrative privileges on the PC workstation to install the software.</p>	<input type="checkbox"/>

Installing the Application

Procedure

-
- Step 1** Verify that the system and workstation requirements are met, as described in the “Requirements” section on page 1-5.
- Step 2** Install the Microsoft .NET Framework 4.0, if necessary.
Go to <http://www.microsoft.com/en-us/download/confirmation.aspx?id=17851> to download the installer.
- Step 3** Log in to the Cisco VSM browser-based Operations Manager.
- Launch the 32-bit or 64-bit version of Internet Explorer 8 on your Windows 7 computer.
 - Enter the URL for the Cisco VSM Operations Manager.
 - Enter your username and password.
 - Choose the default “localhost” if your account was created using the Operations Manager. Select a Domain if you are a user from an external database (Active Directory LDAP domain).
 - Enter a new password if prompted.
 - You must enter a new username the first time you log in, or when your password periodically expires.
- Step 4** Select the **Operations** tab.
- Step 5** Click **Safety and Security Desktop** (under the *Software* heading).
- Step 6** Follow the onscreen instructions to complete the installation.



Tip

- To access the application on your workstation, double-click the Safety And Security Desktop icon on your desktop, or go to **Start > All Programs > Cisco > Cisco Safety And Security Desktop**.
 - You can save the installer file and use it to install the application on multiple workstations, if necessary. Users must have a valid Cisco VSM username and password to access the system.
 - An error appears if the Microsoft .NET Framework 4.0 is not installed. Go to <http://www.microsoft.com/en-us/download/confirmation.aspx?id=17851> to download the installer, then repeat this procedure.
 - If prompted, complete the on-screen instructions to install or upgrade the Cisco Multi-Pane Video Surveillance client software on your computer. This application is an Active X client that enables video playback and other features. Video will not play unless the Cisco Multi-Pane client software is correctly installed. You must have administrative privileges on the PC workstation to install the software.
-

Logging In

Procedure

-
- Step 1** Double-click the **Safety And Security Desktop** shortcut  on your desktop, or select **Start Menu > Programs > Cisco Safety And Security Desktop**.
- Step 2** Enter the following login information:
- **Server**—The IP address or hostname of the Cisco VSM Operations Manager.
 - **Domain**—Select “localhost” if your account was created using Cisco VSM, or select another option if logging in from an external database (Active Directory LDAP domain).
 - **Username**—Enter the username provided by your system administrator.
 - **Password**—Enter the password provided by your system administrator.



Note

-
- You will be prompted to change your password the first time you log on, or when your password expires. The first-time login password can only be changed by the Operations Manager administrator.
 - You must log in with a standard Windows 7 user account. Logging in with a Guest account can prevent video streaming and result in an error to be displayed in the video pane: “Cannot create RTSP connection to server. Check network connection and server health status.”
-
-

Changing Your Password

To change your password, log on to the browser-based Cisco VSM Operations Manager and click on your username.

-
- Step 1** Launch the Internet Explorer (IE) 8 web browser.
- Step 2** Enter the same IP address/hostname used to access the Cisco SASD.
- Step 3** Enter the same username and password used to access the Cisco SASD.
- Step 4** Click on your username in the upper right corner of the Cisco VSM Operations Manager.
- Step 5** Enter and reenter your new password.
-



CHAPTER 2

Viewing a Video Grid

To view video from multiple cameras in a grid layout, refer to the following topics.

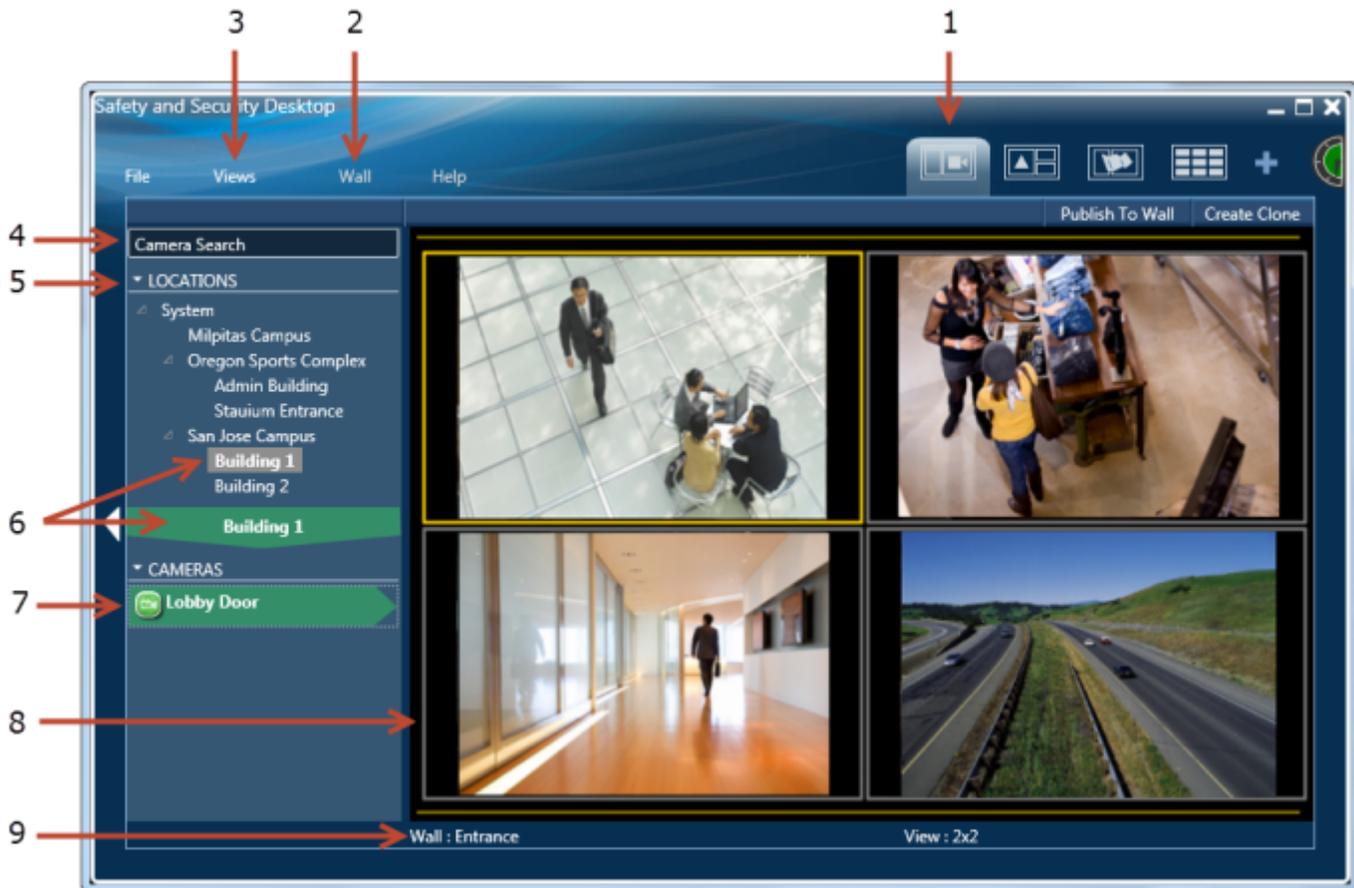
Contents

- [Viewing Video from Specific Cameras, page 2-2](#)
- [Viewing Camera Video in a Multi-Pane Grid, page 2-4](#)
- [Displaying a Video Grid on a Separate Monitor, page 2-5](#)
- [Creating a Video Wall, page 2-8](#)

Viewing Video from Specific Cameras

To view video from one or more selected cameras, click the Camera Centric Workspace  tab (Figure 2-1).

Figure 2-1 Camera Centric Workspace



1	Camera Centric Workspace tab ()
2	Wall—Select a Video Wall that can appear on multiple workstations. See the “ Creating a Video Wall ” section on page 2-8.
3	View menu. Select one of the following: <ul style="list-style-type: none"> • Blank—displays a blank matrix of video panes. • Views—displays video from a pre-defined set of cameras. See the “ Viewing Camera Video in a Multi-Pane Grid ” section on page 2-4
4	Camera Search—Enter a full or partial camera name to display a list of matching devices.
5	Locations—Select the location to view the cameras assigned to that location.
6	Selected Location.
7	Cameras available for the selected location. Drag and drop camera names onto the available panes, or highlight a pane and double-click the camera name.

8	Video Pane. See the “ Controlling Video Playback ” section on page 4-1 for instructions to control playback of live or recorded video.
9	(Read-only) The selected View and/or Video Wall.

Procedure

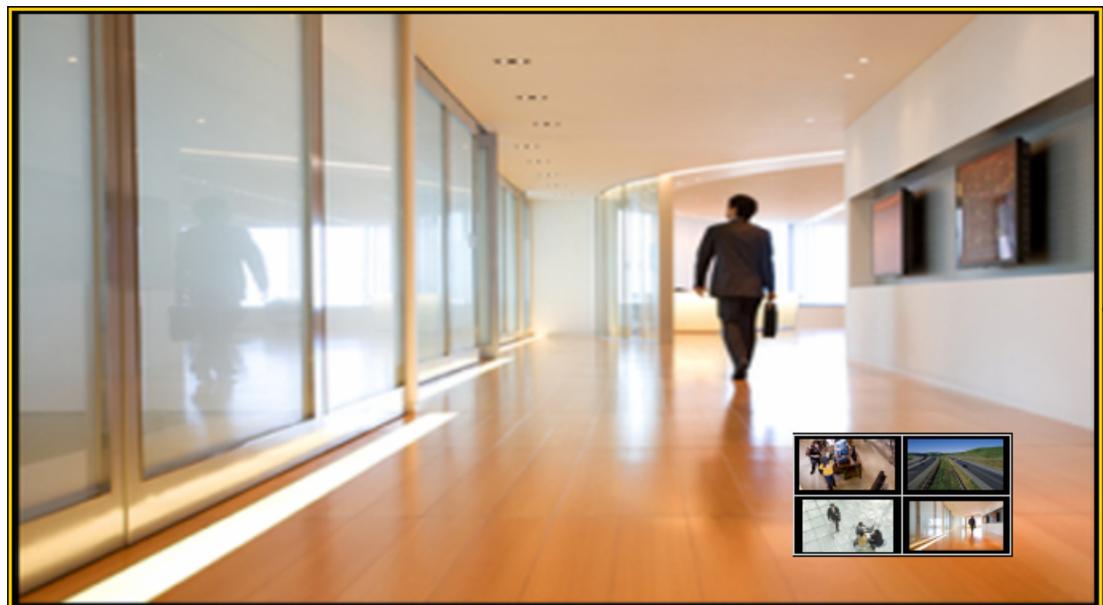
-
- Step 1** Select the Camera Centric Workspace tab .
- Step 2** Click the **Views** menu and select one of the following options:
- **Blank**—displays a blank matrix of video panes.
 - **Views**—displays video from a pre-defined set of cameras.
- Step 3** (Optional) Select a video source (camera) for each pane:
- a. Search for a camera name or select a location.
 - b. Drag-and-drop camera names onto the available viewing panes (you can also highlight a pane and double-click the camera name).
- Step 4** Use the video playback controls as described in the “[Controlling Video Playback](#)” section on page 4-1.
- Step 5** (Optional) Double-click a video pane to fill the Cisco SASD viewing area with that video ([Figure 2-2](#)). A preview of the other video panes is shown in a smaller grid at the bottom of the screen. Double-click the video pane again to return the grid to normal size.



Tip

To fill the screen, right-click the image and select **Full screen mode**.

Figure 2-2 *Enlarge a Video Pane*



Viewing Camera Video in a Multi-Pane Grid

Use the Camera Centric  or Video Centric Workspace  to view video in a grid.

Procedure

- Step 1** Open the **Camera Centric** or **Video Centric Workspace** tab.
- Step 2** From the **Views** menu, select a **Blank** layout or pre-defined **View** (Figure 2-3).
- Step 3** Drag cameras onto the available panes to change the video source.

Figure 2-3 Views Menu in the Camera Centric Workspace



Tip

- See the “[Displaying a Video Grid on a Separate Monitor](#)” section on page 2-5 to create a separate window of video panes.
- See the “[Creating a Video Wall](#)” section on page 2-8 to use pre-defined video grids that are displayed on multiple workstations.
- See the “[Configuring Unattended Windows](#)” section on page 3-1 for instructions to set up a workstation for viewing only. Unattended workstations can be operated without a mouse, keyboard, or other user input.

Displaying a *Video Grid* on a Separate Monitor

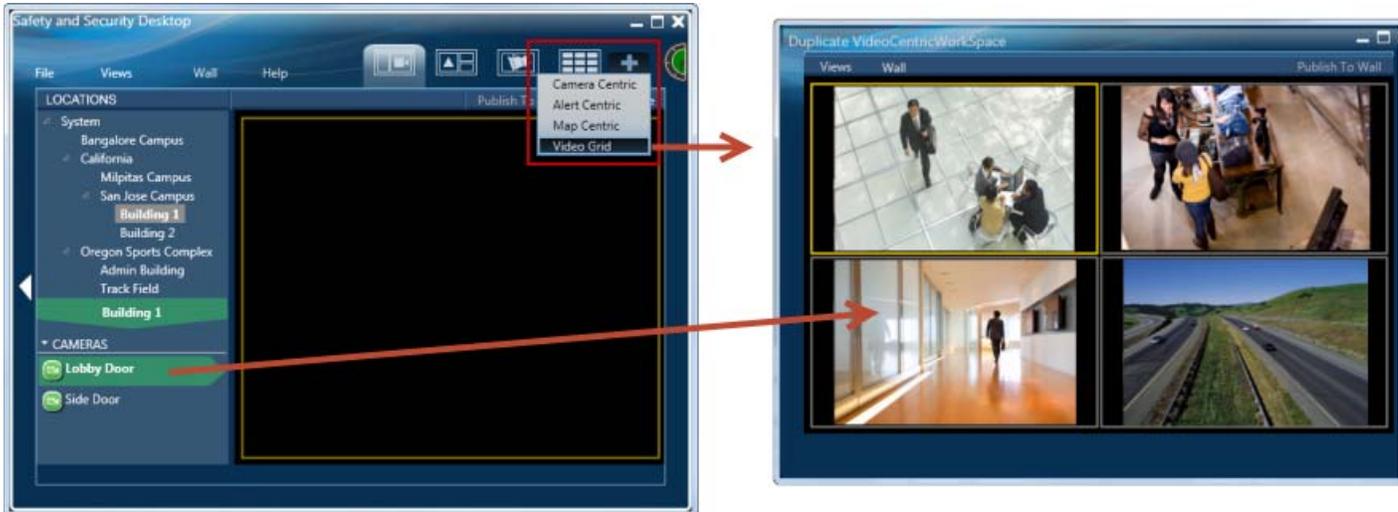
A *Video Grid* is a multi-pane matrix of video that does not include side-bar menus. To create a video grid, select the Video Centric Workspace tab  (Figure 2-4) and select a pre-defined **View**.

Figure 2-4 Video Centric Workspace



You can also click the duplicate icon  to create a separate **Video Grid** and then drag cameras onto the panes from the first window ([Figure 2-5](#)). The Video Grid maximizes video viewing space.

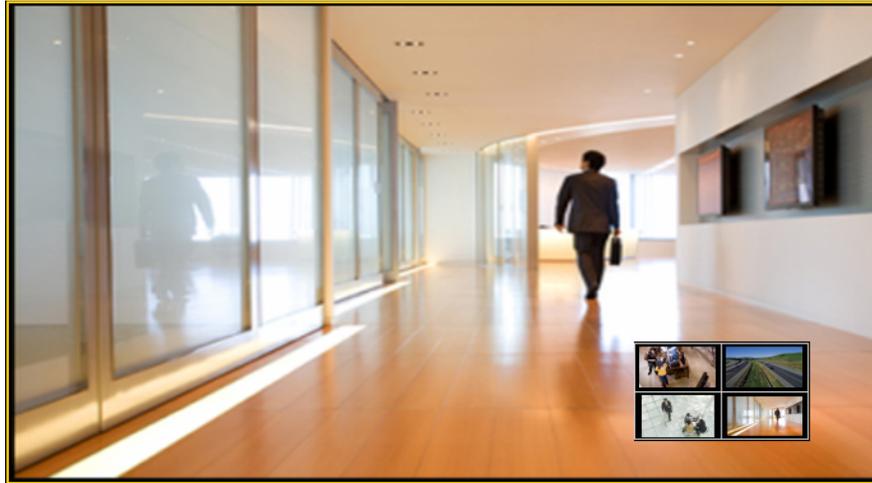
Figure 2-5 Creating a Separate Video Grid Window



Tip

- Dragging cameras to the video panes is only required in blank *Layouts*. The cameras in a *View* are pre-defined. If you drag cameras on to a *View* video pane, the existing video for that pane will be replaced by the new camera source.
- To maximize the video screens, move the new workspace to a separate monitor and expand to fill the entire screen.
- Double-click a video pane to fill the Cisco SASD viewing area with that video ([Figure 2-6](#)). A preview of the other video panes is shown in a smaller grid at the bottom of the screen. Double-click the video pane again to return the grid to normal size.
- To fill the screen, right-click the image and select **Full screen mode**.
- See the “[Controlling Video Playback](#)” section on [page 4-1](#) for video viewing options.

Figure 2-6 Double-click an Image to Cisco SASD Viewing Area

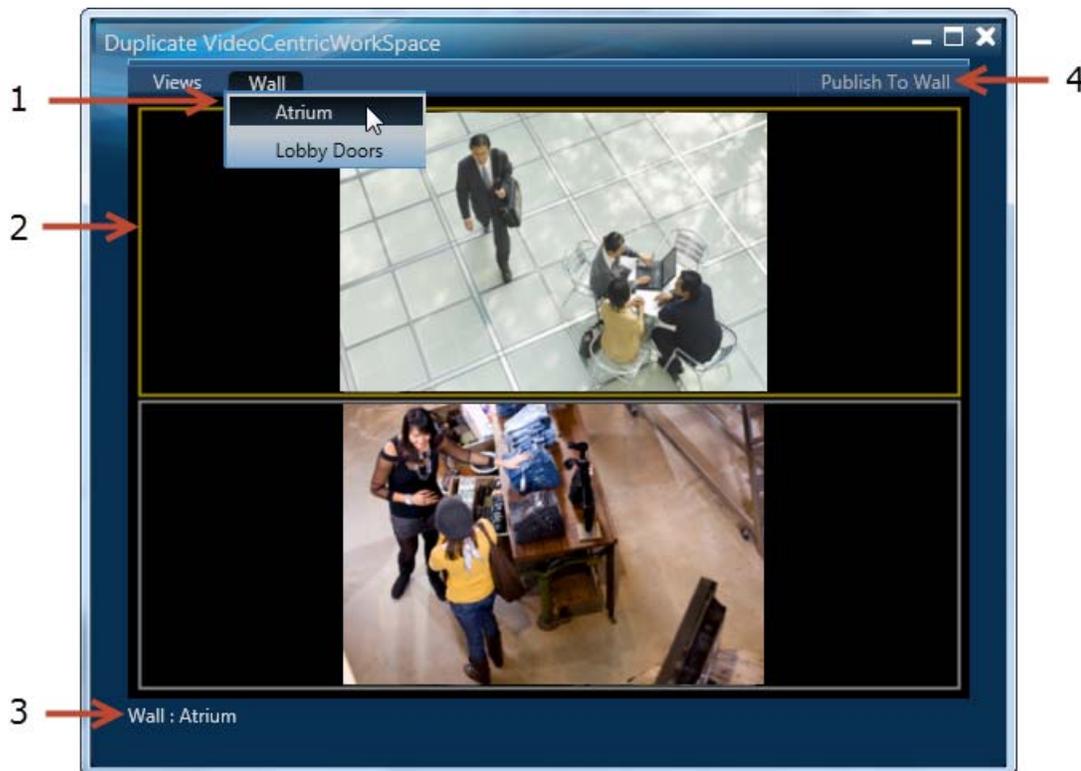


Creating a Video Wall

Video Walls are pre-defined *Views* that can be displayed on multiple workstations. All workstations that display the Video Wall will display the same set of pre-defined panes.

For example, a “Lobby Door” Video Wall includes cameras in buildings 1 through 4. Each workstation that uses the Video Wall will display the same set of cameras. If an attendant at one workstation changes the Video Wall view and clicks **Publish To Wall**, then the other workstations will also change (the operator must have access permissions to use this feature).

Figure 2-7 Video Walls



1	Select a Video Wall	3	The selected Video Wall name.
2	The video panes displayed by the selected Wall.	4	Publish To Wall —Click to display a different <i>View</i> on all instances of the Video Wall, including those on other workstations (if supported).

Usage Notes

- Video Walls are configured by system administrators using the Cisco Video Surveillance Operations Manager browser-based administration tool. See the [Cisco Video Surveillance Operations Manager User Guide](#) for more information.
- Video Walls can display a populated *View* or a blank matrix.
- To modify the Video Wall, drag cameras to the video panes or select a different *View*.

- To display a different view on all other workstations that display the Video Wall, select a new View and click **Publish to Wall**. If a Video Wall is configured with a *Default View*, the Video Wall will revert to the default after a pre-set amount of time (such as 40 seconds).
- See the “[Configuring Unattended Windows](#)” section on page 3-1 for instructions to set up a workstation for viewing only. Unattended workstations that display Video Walls can be operated without a mouse, keyboard, or other user input.

Procedure

- Step 1** Open a video viewing window using one of the following options:
- Select the **Camera Centric Workspace** tab.
 - Select the **Video Centric Workspace** tab.
 - Click the duplicate icon  and select **Video Grid** (Figure 2-5).
- Step 2** Select a Video Wall from the **Wall** menu (Figure 2-7).
- Step 3** (Optional) Change the displayed video:
- Drag cameras onto the available panes (you may need to click the duplicate icon  and open a **Camera Centric Workspace** to access the camera list).
 - Choose a different *View*.



Note When a pane is updated, all panes in the Video Wall will refresh, which can cause a loss of video for a few seconds.

- Step 4** (Optional) Display a different *View* on all instances of the Video Wall (such as other workstations that display the same Video Wall).
- a. Select a *View* from the **View** menu.
 - b. Click **Publish to Wall**.



-
- Tip**
- If a *Default View* is configured for the Video Wall, the window will revert to that *Default View* after a configured amount of time.
 - The **Publish to Wall** option is enabled only when you select a different View in the Video Wall window.
 - You must have access permissions for **Publish to Wall**. See the [Cisco Video Surveillance Operations Manager User Guide](#) for more information.
-



CHAPTER 3

Configuring Unattended Windows

Refer to the following topics.

Contents

- [Overview, page 3-1](#)
- [Requirements, page 3-2](#)
- [Usage Notes, page 3-2](#)
- [Launching the Unattended Windows, page 3-3](#)
- [Configuring Unattended Workstations, page 3-4](#)
- [Understanding Offline Mode, page 3-8](#)

Overview

Unattended mode allows video monitoring windows to display Video Walls without access to the Cisco SASD configuration interface.

For example:

- Once the unattended workstation is configured, you can exit the Cisco SASD application. The unattended screens remain open and will (optionally) re-appear when the workstation is rebooted.
- If the keyboard and mouse are removed, the operator can view video, but cannot interact with the video playback or configure Cisco SASD. The workstation can even be placed out of reach (such as below a desk or in a cabinet).
- If the keyboard and mouse remain connected, the operator can interact with the video, and close and reopen the unattended screens (using the Unattended SASD Launcher).
- If the workstation is rebooted, the same unattended windows will automatically reappear on the monitor(s) in the same position.
- You can create multiple unattended windows for display on different monitors. For example, one monitor can display a Video Wall of all Lobby Doors, and a second monitor can display a Video Wall that rotates the panes among all side entrances. If the workstation is rebooted, Cisco SASD automatically relaunches the Video Walls in the same monitor positions.

- Unattended mode can be set to launch automatically when the workstation is rebooted (it does not re-launch when a user logs off and logs back on). You can also use the Unattended SASD Launcher alias installed on your desktop to relaunch the unattended screens (the Launcher also closes any open unattended windows, and re-launches the unattended Video Wall windows configured on the PC).

Requirements

The following are required to configure unattended workstations:

- Administrative user privileges on the Windows workstation.
- You must belong to a Cisco VSM User Group with access permissions for *Video Walls*.
- At least one Video Wall must be configured on the system.
- All Video Walls used in unattended mode should be configured with a Default View in the Operations Manager. If a Video Wall without a Default View is selected, all video panes are blank.



Note Video Walls are configured using the browser-based Operations Manager. See your system administrator or the [Cisco Video Surveillance Operations Manager User Guide](#) for more information.

Usage Notes

- To change the video displayed in the Video Wall panes (such as changing the camera source), revise the Video Wall configuration using the browser-based Operations Manager (see your system administrator or the [Cisco Video Surveillance Operations Manager User Guide](#) for more information). The unattended windows revert to the Video Wall's *Default View* when the system is rebooted.
- Unattended configuration applies only to a single Cisco Video Surveillance system. If you log into a different Cisco Video Surveillance system on the same workstation, you cannot revise the existing unattended windows.
- If you close the unattended windows, they will remain closed until you reboot the system (if the **Launch at Startup** option is selected), or if you manually launch the unattended windows using the Unattended SASD Launcher.
- The unattended mode will repeatedly restart if video to all panes is lost. This can be caused by network or system issues, or if a Video Wall without a default view is selected. This allows unattended mode to recover when the problem is resolved. For example, if the video streams for all panes are provided by a single Media Server, and that Media Server goes down, then the unattended mode will restart until communication with the server is reestablished. If the Media Server fails over to another server, then the new server will provide video streaming and the video will be displayed.
- If the video stream is lost for one (but not all) of the video panes, unattended mode will not restart and the pane will display an error message and icon. The video will automatically re-appear only if the video is in unattended mode and the camera is enabled for failover.
- Operators cannot select a different video stream in an unattended window (right-click a video pane to select a video viewing option). See the

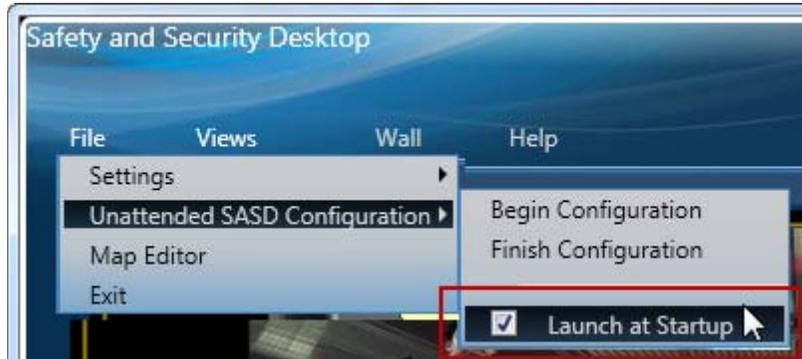
Launching the Unattended Windows

After the unattended windows are configured (as described in the “[Configuring Unattended Workstations](#)” section on page 3-4), you can display the windows using one of the following methods:

Option 1: Launch At Startup

Select the **Launch At Startup** option when defining the unattended windows.

Figure 3-1 *Launch At Startup*



To change the **Launch at Startup** option, reconfigure the Unattended Mode as described in the “[Configuring Unattended Workstations](#)” section on page 3-4.



Note

Unattended windows will *not* re-launch when a user logs off and logs back on. The windows re-launch only when the workstation is rebooted.

Option 2: Double-click the Launcher Icon

Double-click the “Cisco Unattended Safety And Security Desktop Launcher” icon on your desktop.

Figure 3-2 *Launcher Icon*



- Use this option to display the unattended windows without logging in to Cisco SASD.
- If any unattended windows are still open, the configuration is reset (the Launcher closes any open unattended windows, and re-launches the unattended Video Wall windows configured on the PC).

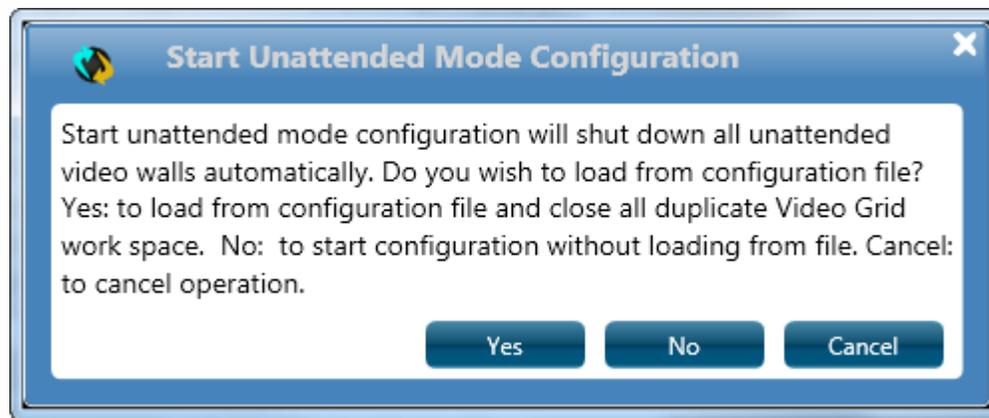
Configuring Unattended Workstations

Use Cisco SASD to configure the unattended windows. You can then close the Cisco SASD application to display only the unattended windows.

Procedure

- Step 1** Connect a keyboard and mouse to the workstation.
- Step 2** Launch Cisco SASD and log in to the application.
- Step 3** Select **File > Unattended SASD Configuration > Begin Configuration** and select one of the following options (Figure 3-3).

Figure 3-3 Unattended Mode Options



Option	Description
Yes	Revise the existing unattended windows.
No	Define a new set of unattended windows.
Cancel	Exit without changes.



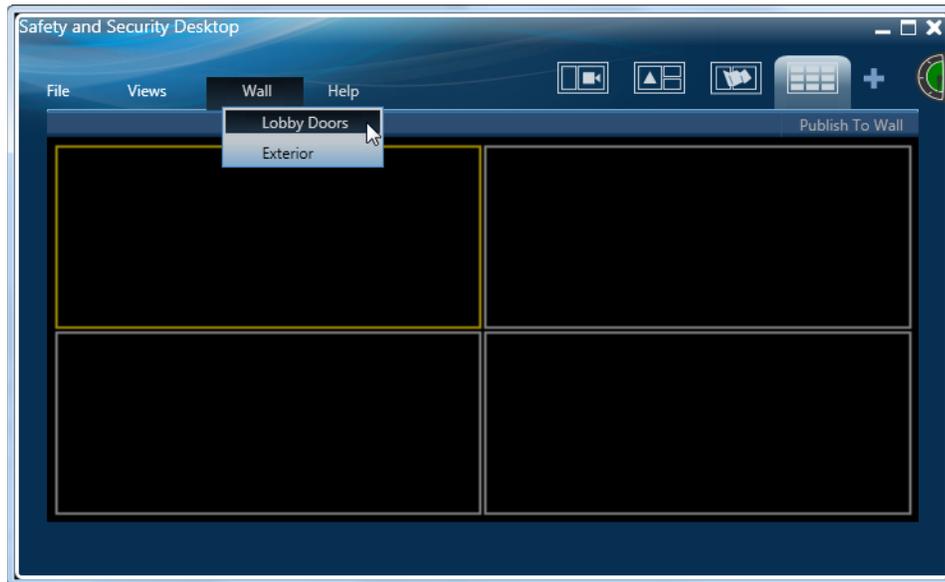
Note

If creating a new configuration, the window is blank (Figure 3-4).

If revising an existing configuration, the current windows are displayed (Figure 3-5).

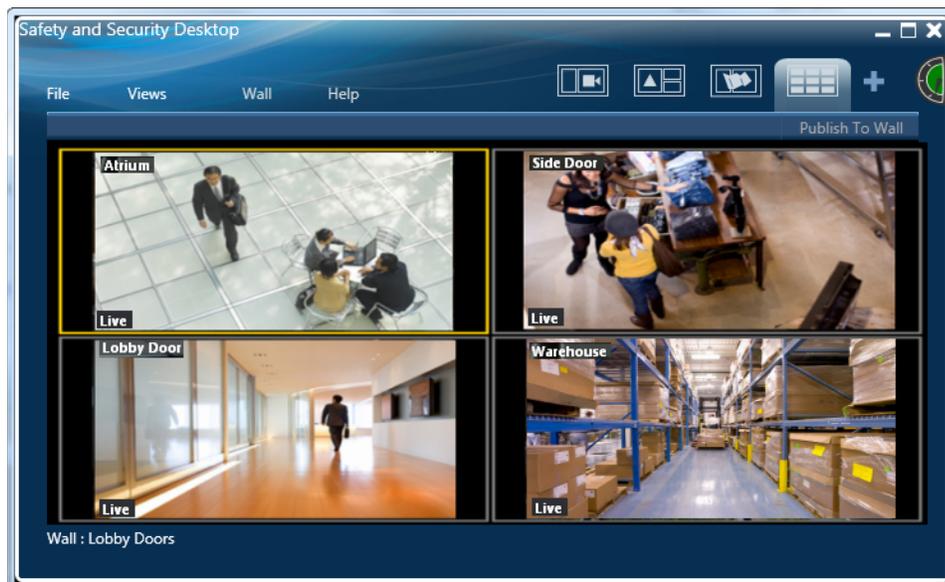
Unattended windows can only be defined in the Video Centric Workspace , as shown in Figure 3-4.

Figure 3-4 Blank Unattended Window (Configuration Mode)



- Step 4** Select a pre-defined Video Wall (from the **Wall** menu) as shown in [Figure 3-4](#). This defines the window pane layout and video source:
- Video Walls are configured using the Cisco VSM Operations Manager (see your systems administrator for more information).
 - The Video Wall should include a *Default View*, as shown in [Figure 3-5](#). See the “Usage Notes” section on [page 3-2](#).

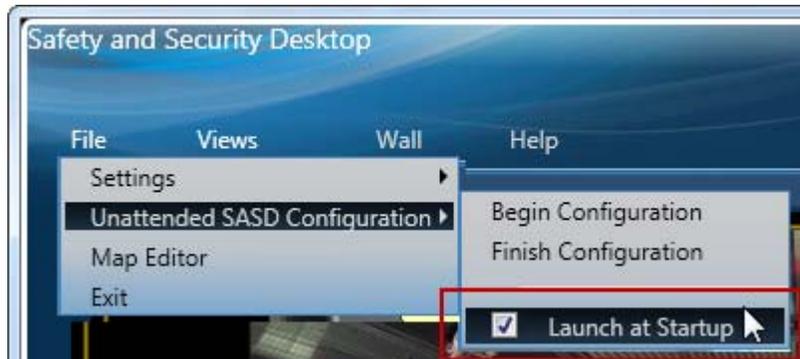
Figure 3-5 Unattended Window With Video Wall Default View



- Step 5** Position the Video Wall window(s) on the workstation monitors. The windows will re-display in the same position when the workstation is rebooted.

- Step 6** (Optional) Create additional unattended windows.
- Select the duplicate icon  and select **Video Grid** to create additional windows for the unattended mode. The unattended windows must be created using a Video Grid window.
 - Repeat [Step 4](#) through [Step 5](#) to select a Video Wall for each unattended window and position the window on the workstation display(s).
- Step 7** Select or deselect **Launch at Startup** ([Figure 3-6](#)) to launch unattended mode when the workstation is restarted.

Figure 3-6 Launch At Startup



Tip If deselected, the unattended windows will *not* appear when the workstation is restarted. Use the Launcher to open the unattended windows. See the [“Launching the Unattended Windows”](#) section on page 3-3.

- Step 8** Save the configuration: select **File > Unattended SASD Configuration > Finish Configuration** ([Figure 3-7](#)).

Figure 3-7 Save the Unattended Mode Configuration



**Tip**

Move the Cisco SASD window to display any unattended mode windows placed directly behind the Cisco SASD window, if necessary.

**Note**

If no Video Walls were selected in the unattended windows, the confirmation message says “0 Video Walls” were saved. No windows will appear. But if the selected Video Wall was configured to include a blank pane (no camera was selected as a video source in the Operations Manager), then the Video Wall will be saved to unattended mode. However, the unattended window will be repeatedly re-start since video streaming is not available (see the [Requirements](#) and [Usage Notes](#) for more information).

Step 9 (Optional) Exit the Cisco SASD application (**File > Exit**).

- Exit the Cisco SASD application so the operator cannot configure video features or access the Cisco SASD workspaces.
- The unattended workstation window(s) will remain open unless you manually close them.
- You must re-launch Cisco SASD to make additional changes to the unattended mode, if necessary.

Step 10 (Optional) Remove the keyboard and mouse.

- If the keyboard and mouse are removed, the user can only view video.
- Leave a mouse (and/or keyboard) attached to allow the user to control video playback (see the [“Controlling Video Playback”](#) section on page 4-1).

Understanding Offline Mode

Offline mode allows unattended screens to continue to display video if the network connection to Operations Manager is lost, but the connection to the cameras' Media Servers is still available. This can occur due to a network failure, or when the Operations Manager used to configure the system is located at a remote location.

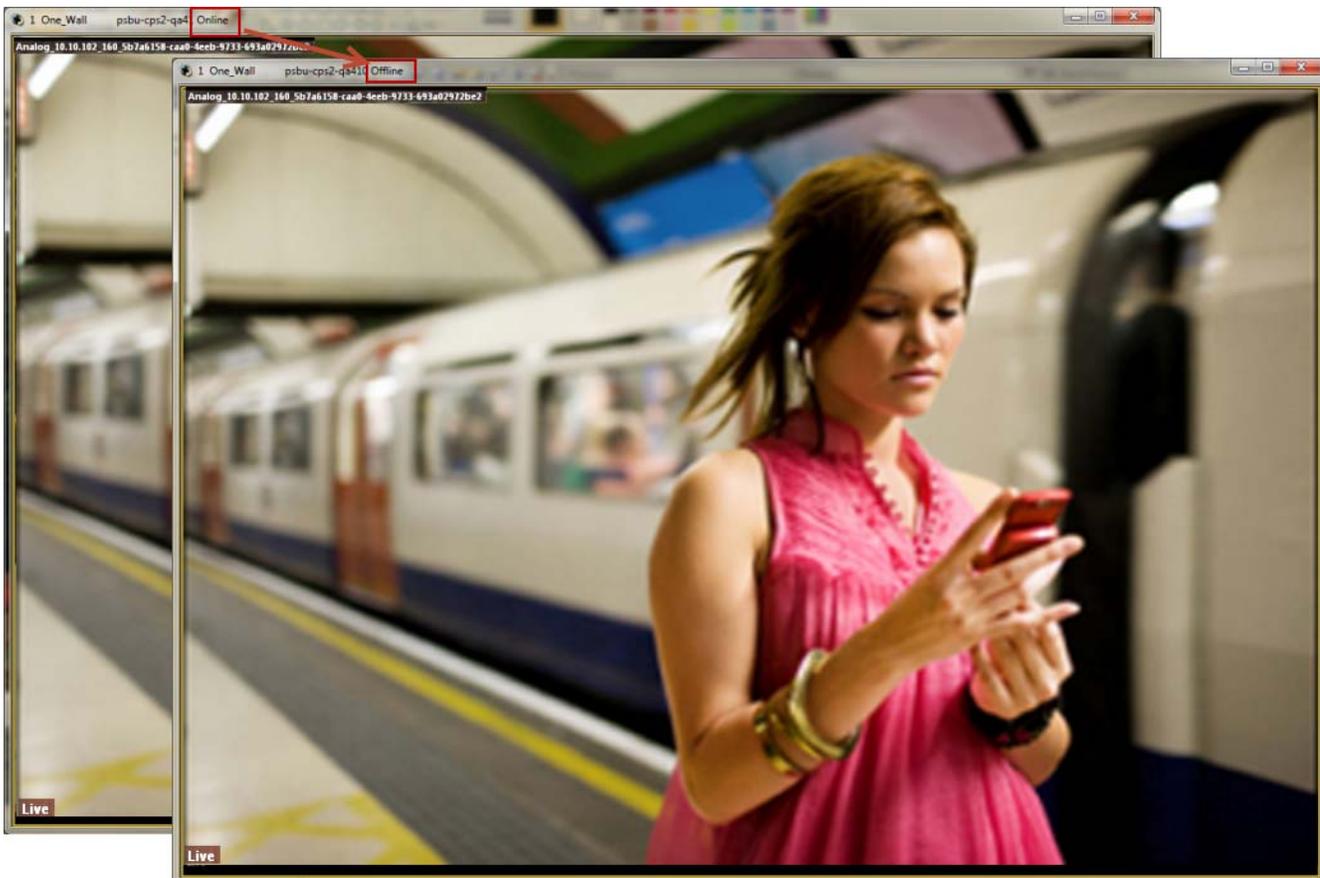


Note

If the window is in Offline mode, changes by another user to the Video Wall or View not updated until the window returns to Online mode.

“Offline” appears in the window title bar when the unattended window is operating in offline mode (Figure 3-8).

Figure 3-8 Offline Unattended Window



- If the network connection to the Operations Manager is lost, the unattended windows will relaunch in offline mode.
- If the Operations Manager is unavailable when the unattended windows launch, the unattended windows will restart in offline mode.

Transition Times

The Unattended windows periodically check for Operations Manager connectivity, and automatically switch between online and offline mode, if necessary. The system performs this check periodically to avoid switching back and forth if an intermittent network issue occurs (such as a jitter).

Table 3-1 Online/Offline Transition Times

Transition	Description
Online to Offline	If the Operations Manager connection is lost for 4 minutes, the unattended windows will switch to Offline mode.
Offline to Online	If the Operations Manager connection is restored for 12 minutes, the unattended windows will switch to Online mode.



CHAPTER 4

Controlling Video Playback

Each video viewing pane in a Cisco Video Surveillance monitoring application supports the following controls and features.

The features available on your workstation depend on the following:

- The camera and system configuration.
- Your user account access permissions.
- The features supported by the video monitoring application.

Contents

Refer to the following topics for more information.

- [Overview, page 4-2](#)
- [Viewing Live Video, page 4-3](#)
- [Viewing Recorded Video, page 4-6](#)
- [Creating Video Clips, page 4-10](#)
- [Using Record Now, page 4-17](#)
- [Using the Pop-Up Menu, page 4-18](#)
- [Understanding Video Pane Border Colors, page 4-19](#)
- [Using the Smooth Video Options When Viewing Live Video, page 4-20](#)
- [Synchronizing Video Playback in Multiple Panes, page 4-21](#)
- [Using Pan, Tilt, and Zoom \(PTZ\) Controls, page 4-24](#)

Overview

To view live and recorded video, log on to the monitoring application and drag and drop camera names onto the available viewing panes (you can also select a pane and double-click the camera name). Use Views to view multiple panes in a single window.

For example, [Figure 4-1](#) shows a multi-pane view using the Cisco Video Surveillance Safety and Security Desktop (Cisco SASD) application.

Figure 4-1 Multi-Pane View using the Cisco Video Surveillance Safety and Security Desktop



Each viewing pane includes various controls that allow you to do the following:

- Switch between live and recorded video.
- Select the playback timespan.
- Pause, play, or skip forward and back.
- Create and save video clips from recorded video
- Mute or un-mute the audio (if available).
- Synchronize the playback of multiple recordings.
- Control the Pan Tilt and Zoom (PTZ) movements of a camera (if supported by the camera).
- Additional options are available by right-clicking the image. Options include synchronizing multiple viewing panes, recording live video, expanding the image to fill the screen, creating a snapshot image, and configuring smooth video options to improve playback performance when network performance is poor.

**Note**

The available controls depend on the camera model and system configuration. For example, pan-tilt-zoom (PTZ) controls are available only on cameras that support PTZ. Recording options are available only if the camera is configured to record video. Synchronized playback is available for recorded video (not live video). See your system administrator for more information.

Viewing Live Video

Live video is displayed by default when you log in to the viewing application. [Figure 4-2](#) summarizes the controls available in each viewing pane.

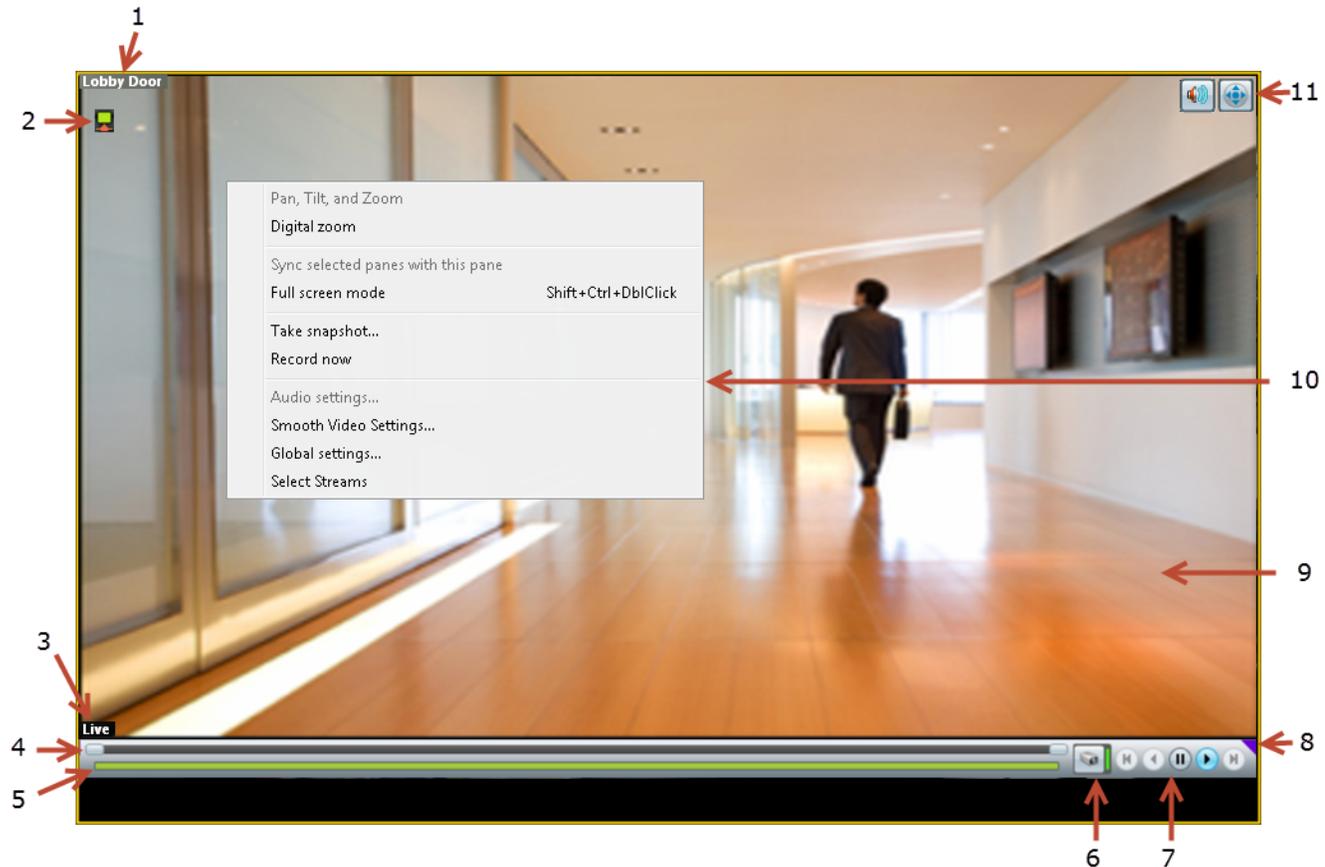
**Tip**

To control the playback in multiple video panes, `Shift-Click` or `Ctrl-Click` to select the panes. The borders of all selected panes turn to orange. Controls and actions performed in one pane also affect the other selected panes. To deselect panes, select a single pane, or use `Shift-Click` or `Ctrl-Click` to deselect the panes

**Note**

- Live video may be delayed 1-2 seconds. Live video can be further delayed if the smooth video option is enabled. See the [“Using the Smooth Video Options When Viewing Live Video”](#) section on [page 4-20](#) for more information.
- *Soft-deleted* cameras (shown with a  icon) are cameras that were removed from the system but still allow access to the camera's recorded video. You cannot display live video from *soft-deleted* cameras.
- The control bar and audio icon will not display if your workstation monitor is set to 16-bit color setting. Change your monitor *color* setting to 32-bit.

Figure 4-2 Video Pane Controls



1	Camera name—The source of the displayed video.
2	Indicates the quality of the primary live video stream. If the live video quality is poor,  , an alternative secondary or iFrame video stream can be automatically applied. See the “Using the Smooth Video Options When Viewing Live Video” section on page 4-20 for more information.
3	Indicates live or recorded video (recorded video displays a time stamp such as 4/2/2012 1:20:35:615 PM).
4	Range Bar—Used with recorded video (see the “Viewing Recorded Video” section on page 4-6 for more information).
5	Seek—Used with recorded video to choose a playback time (see the “Viewing Recorded Video” section on page 4-6 for more information).
6	The green  icon indicates live video. Click the icon to switch to the recorded view  .
7	Live video playback controls. <ul style="list-style-type: none"> —Pause the video playback. —Play the video forward at normal speed. Note The other playback controls are used with archived video only. See Figure 4-3 on page 4-7 for more information.
8	 —Click the triangle to pin the control bar to the screen, or auto-hide the bar when the cursor is moved. Note The control bar and audio icon will not display if your workstation monitor is set to 16-bit color setting. Change your monitor <i>color</i> setting to 32-bit.

9	Video image.
10	<p>Camera menu.</p> <p>Right-click the image to open the menu and select an option. Options not supported by the camera are disabled (shown in gray). See the “Using the Pop-Up Menu” section on page 4-18 for more information.</p>
11	<p>Control icons.</p> <ul style="list-style-type: none"> • —Audio. The audio icon appears if the camera supports audio. Click the icon to enable  or mute  live audio volume. This control does not affect recorded video. • —PTZ. Click to enable  or disable  the Pan, Tilt and Zoom (PTZ) controls. See the “Using Pan, Tilt, and Zoom (PTZ) Controls” section on page 4-24. • — See the “Synchronizing Video Playback in Multiple Panes” section on page 4-21. <p>Note The control bar and audio icon will not display if your workstation monitor is set to 16-bit color setting. Change your monitor <i>color</i> setting to 32-bit.</p>

Additional Information

Refer to the following topics for additional options:

- [Using Record Now, page 4-17](#)
- [Using the Pop-Up Menu, page 4-18](#)
- [Using the Smooth Video Options When Viewing Live Video, page 4-20](#)
- [Synchronizing Video Playback in Multiple Panes, page 4-21](#)
- [Using Pan, Tilt, and Zoom \(PTZ\) Controls, page 4-24](#)

Viewing Recorded Video

You can view recorded video from a continuous loop, for a motion event, or from a video clip. The camera must be configured to support each of these options, and you must have access to a video viewing application that supports these functions (some applications are used for viewing only).

For example, a camera can be configured to record the following:

- Continuous recordings that include video from a set amount of time, such as the past 60 minutes.
- Motion event recordings that are triggered whenever a motion event occurs. Video is recorded when the motion occurs, and for a configured number of seconds before and after the event. Use a video viewing application (such as the Cisco Video Surveillance Safety and Security Desktop) to view motion event video.



Tip

To control the playback in multiple video panes, press `Shift-Click` to select multiple concurrent panes, or `Ctrl-Click` to select individual panes. The borders of all selected panes turn to orange. Controls and actions performed in one pane also affect the other selected panes. To deselect panes, select a single pane, or use `Shift-Click` or `Ctrl-Click` to deselect the panes

Usage Notes

- Multi-pane video clips can also be saved to your desktop and played using the Cisco Video Surveillance Review Player.
- If the Record Now feature is enabled, right-click the image and choose **Record Now** to record live video.
- If a camera is *soft-deleted*, you can still access the camera's recorded video but cannot display live video. Recordings are retained on the system until removed according to the recording retention settings.
- Click the  icon to toggle between live and recorded video. The  icon appears when recorded video is displayed.
- The first time you select a camera's recorded video, the playback begins slightly behind the live (current) time. When you toggle between live and recorded, recorded video returns to the previously selected timestamp.

Figure 4-3 describes the main recording features and controls.

Figure 4-3 Viewing Recorded Video



1	Camera Name—Source of the recorded video.
2	Indicates the video quality, which can be affected by network and system performance. The icon turns red if the video quality is poor  . Note This icon is for informational purposes only when displayed with recorded video (the Smooth Video options do not apply).
3	Pop-up menu options. See the “Using the Pop-Up Menu” section on page 4-18 .
4	Timestamp for the currently displayed video image. For example: 7/12/2012 4:08:39:886 AM . Note Changes to Live when live video is displayed.
5	Range Bar—The span of video to work with. <ul style="list-style-type: none"> • The entire <i>range bar</i> represents the entire span of available recorded video. Slide the <i>range bar</i> selectors to shorten the range (see below). • The lower (green) <i>seek bar</i> represents the selected range (see below).

6 Range Bar selectors—Drag the *range bar* selectors to narrow the timespan of video you want to review.

For example, drag the selectors to create a 10 minute range. You can then drag that range left or right to the appropriate place in the recorded span.

In the following example, the entire range of recorded video is selected (the *range bar* selectors are to the far right and left). To display the timestamps, click a selector.



Click and drag the *range bar* selectors to choose a shorter period of time. In the following example, the *range bar* selectors are used to select approximately 10 minutes of video. Drag the selected range left or right to locate the desired range of recorded video.

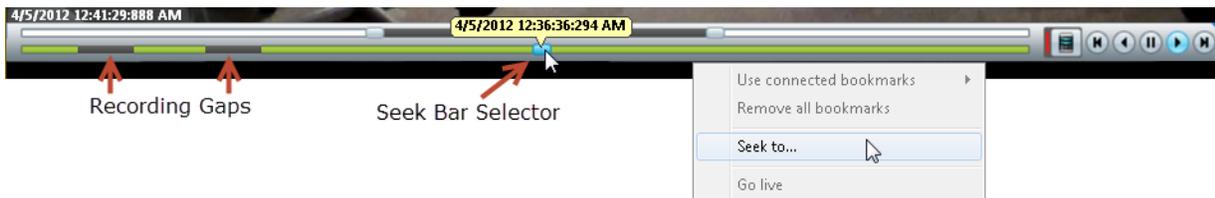


Tip The green *seek bar* represents the selected span. If the span in the top *range bar* is 10 minutes, then the green *seek bar* represents 10 minutes of video. Slide the *seek bar* selector to choose the playback time (see below).

Tip Double-click a *range bar* selector to playback the video from the beginning of that range.

7 Seek Bar —Represents the video range, and is used to select a playback time.

For example, if the *range* is 10 minutes, then the *seek bar* represents 10 minutes of video.



Tip Right-click the *seek bar* and select **Seek to...** to select a specific date and time.

Note Gaps in the recorded video are shown in gray. Recording gaps occur if there is a manually-triggered Record Now session, if recording was manually stopped, if recording was stopped by a schedule, or if video was unavailable due to network connectivity issues, device malfunctions, or other events.

8 Seek Bar selector—Drag the selector to play video from the selected time (as indicated by the timestamp).

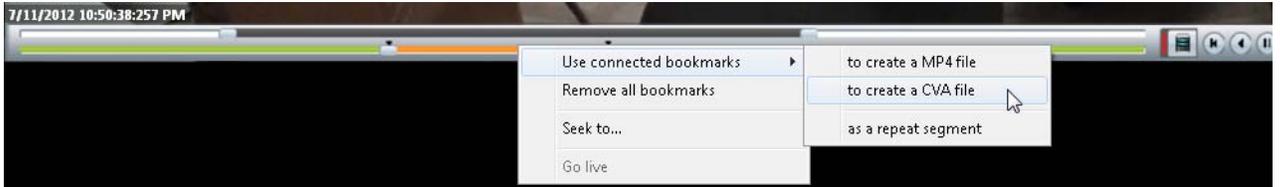
Note When you move the scroll bar for a video pane that is synchronized, that pane becomes the new synchronization master pane. The other synchronized panes play video according to the master pane. See the [“Synchronizing Video Playback in Multiple Panes”](#) section on page 4-21.

- 9 Bookmarks—Create bookmarks to save a video clip or a repeating segment (see below).

To create a bookmark, *Ctrl-Click-drag* the *seek bar*. The bookmark span is shown in orange.



- 10 Bookmarks menu—Right-click the *seek bar* to display the bookmark menu. You can save the bookmarked video as a clip in one of the supported formats, remove all bookmarks, or create a repeating segment.



See the following for more information:

- [Creating Video Clips, page 4-10](#)
- [Creating a Repeat Segment, page 4-16](#)

- 11 Indicates live or recorded video. Click the icon to switch between live and recorded video.

-  —Live video is displayed.
-  —Recorded video is displayed.

Tip The first time you select a camera's recorded video, the playback begins slightly behind the live (current) time. When you toggle between live and recorded, recorded video returns to the previously selected timestamp.

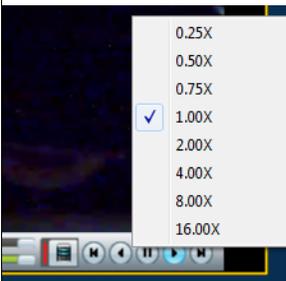
- 12 Recorded video playback controls.



-  —Step Reverse button—(Archived video only) Pauses the playback and steps back one frame at a time.
-  —Play Reverse button—(Archived video only) Plays the video archive in reverse at normal speed.
-  —Pause button—Pause the video playback.
-  —Play Forward button—Play the video forward at normal speed.
-  —Step Forward button—(Archived video only) Pauses the playback and steps forward one frame at a time.

Variable Speed Playback

Right-click the Play Reverse  or Play Forward  button to play the video slower or faster.



For example, select **0.50X** to play the video at half speed (forward or reverse). Select **4.00X** to play at 4 times the normal rate (forward or reverse).

13	 —Click the triangle to pin the control bar to the screen, or auto-hide it when the cursor is moved.
	Note The control bar and audio icon will not display if your workstation monitor is set to 16-bit color setting. Change your monitor <i>color</i> setting to 32-bit.
14	Camera feature icons. For example: <ul style="list-style-type: none"> •  or —Audio is supported by the camera and enabled or disabled in the viewing pane. • —The synchronization icon appears in video panes that play synchronized video. See the “Synchronizing Video Playback in Multiple Panes” section on page 4-21.
	Note The PTZ icons are enabled only for live video.
	Note The control bar and audio icon will not display if your workstation monitor is set to 16-bit color setting. Change your monitor <i>color</i> setting to 32-bit.

Creating Video Clips

Video clips can be created in multiple formats for playback using the Cisco VSM Review Player, or a third party player.



Note Timestamps are not displayed in 3rd-party video viewers. Use the Cisco Review Player to display timestamps (see the [Cisco Video Surveillance Review Player User Guide](#) for more information).

This section includes the following topics:

- [Supported File Formats](#), page 4-10
- [Creating Video Clips](#), page 4-11
- [Accessing and Playing Video Clips](#), page 4-13

Supported File Formats

Cisco Video Surveillance supports the creation and playback of the following video formats:

Table 4-1 Video Clip File Formats

File Format	Description
MP4	A standard video file format that is playable on most computers and useful for sending to 3rd parties. MP4 clips support a single video pane and can include audio (CVA/CVX files do not support audio). MP4 clips are saved on the server for 24 hours and must be downloaded using the Select Streams menu option (the MP4 clips are automatically deleted from the server 24 hours after creation). <ul style="list-style-type: none"> • MP4 audio playback is supported only with the Cisco VSM Review Player or VLC media player. • You can use the Cisco VSM Review Player to save MP4 files in the tamper proof MPX format. • See the Cisco Video Surveillance Review Player User Guide for more information.

Table 4-1 Video Clip File Formats (continued)

File Format	Description
CVA	Cisco video archives (CVA) can include multiple video panes that synchronize to the same time. CVA files can only be opened in applications that support the CVA format (such as the Cisco Review Player). CVA files do not support audio playback.
CVX	A tamper proof CVA file. CVX files require a password that is entered when the file is created. You must enter the password to open and view the video file. CVX video playback will shut down if the file is tampered with. CVX files do not support audio.

**Tip**

You can also right-click a video pane and select **Take Snapshot** to save a still image in BMP, JPEG, PNG, and TIFF formats. See the “Using the Pop-Up Menu” section on page 4-18 for more information.

Creating Video Clips

To create video clips, create a bookmark span and select the file format, as described in the following procedure.

Notes:

- The Media Server hard disk volume must have sufficient disk space to create the video clip or the operation will fail. See your system administrator for more information.
- MP4 clips:
 - MP4 files are stored on the server until you download them. Clips are automatically deleted after 24 hours, or when downloaded to a local disk.
 - MP4 clips can only be downloaded by the user who created the clip.
 - You can only create up to five MP4 clips at a time per Media Server.
 - MP4 clipping failure can only be viewed in the Cisco Video Surveillance Safety and Security Desktop (Cisco SASD) Alert workspace.
- CVA/CVX clips are downloaded immediately and not stored on the server.
- If the clipping fails, see your system administrator for assistance.

Procedure:

Step 1 Select a video pane from the viewing application (such as Cisco SASD or Operations Manager).

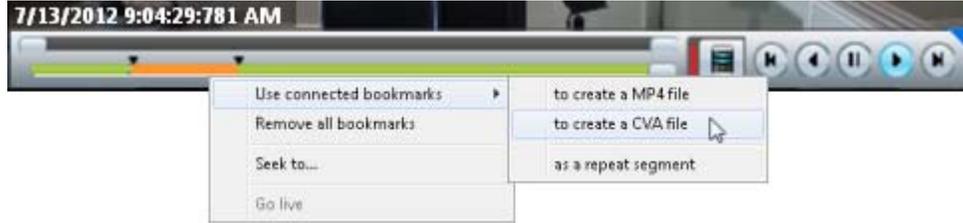
**Tip**

To create a multi-pane clip in the CVA format, press *Shift-Click* to select multiple concurrent panes, or *Ctrl-Click* to select individual panes.

Step 2 In the green *seek* bar, *Ctrl-Click* and drag the mouse cursor to create a bookmark span. The bookmark span is shown in orange (Figure 4-4).

Step 3 Right-click the bookmark and select **Use connected bookmarks** (Figure 4-4) to create a file in the desired format.

Figure 4-4 Creating a Video Clip

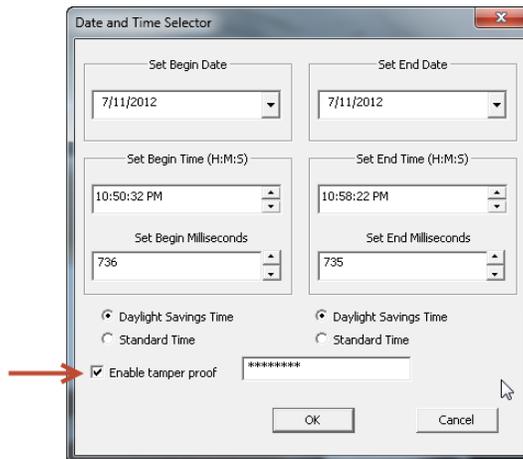


Step 4 Save the file:

CVA/CVX files

- a. (Optional) Revise the start and end date and time (Figure 4-5). Enter a time between 30 seconds and 4 hours (the range cannot include more than one codec and the start time must be before the end time).

Figure 4-5 CVA Clip Settings



- b. (Optional) Select **Enable tamper proof** and enter a password to create a password-protected CVX file.
- c. Click **OK**.
- d. Select a location on a local disk and click **Save**.
- e. Wait for the clip to be generated and downloaded. Video streaming is paused during CVA/CVX clip generation.

MP4 clips

- a. (Optional) Revise the start and end date and time (Figure 4-6). Enter a time between 30 seconds and 4 hours (the range cannot include more than one codec and the start time must be before the end time).

Figure 4-6 MP4 Clip Settings

- b. (Optional) Enter a clip name that identifies the recording on the server (Figure 4-7). For example, if you enter “My 4500 Camera” then the clip selection will be “My 4500 Camera__1347005138141”. If blank, the default name is “My Clip__system-timestamp”.
- c. (Optional) Select or deselect **Record Audio** (if the camera supports audio recordings) to include or exclude audio. Audio playback is supported only with the Cisco VSM Review Player or VLC media player.
- d. Click **OK** to save the clip to the server.

Step 5 Download and play the clip as described in the “[Accessing and Playing Video Clips](#)” section on page 4-13.



Note MP4 clips are automatically deleted from the server if not downloaded within 24 hours.

Accessing and Playing Video Clips

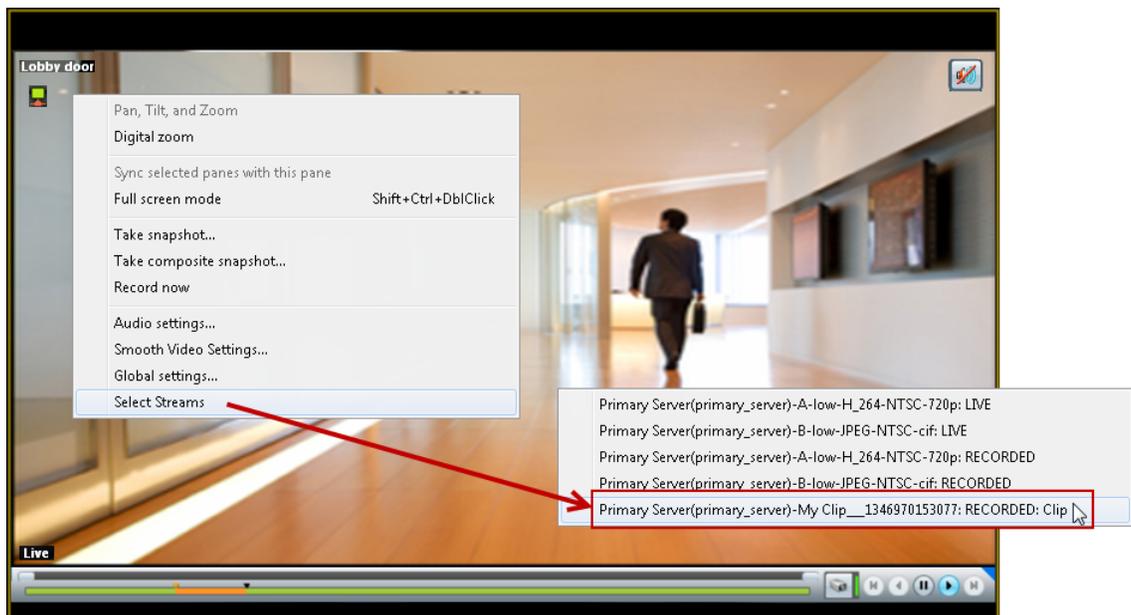
- CVA and CVX files are saved to your local disk when created. Use the Cisco VSM Review Player to open and play CVA and CVX clips.
- MP4 clips:
 - MP4 files are saved to the server and must be downloaded before being viewed. Clips are automatically deleted from the server after 24 hours, or when downloaded to a local disk.
 - You can create up to five MP4 clips at a time per Media Server.
 - MP4 clips play automatically in the pane when downloaded. The clips can also be viewed using the Cisco VSM Review Player or VLC media player.

- MP4 clips can only be downloaded by the user who created the clip.
- MP4 clips require that the clipping repository be selected on the Media Server associated with the camera.

To save and play MP4 clips, do the following:

- Step 1** Right-click the video pane and choose **Select Streams** (Figure 4-7).
- Step 2** Select the *Recorded:Clip* file.

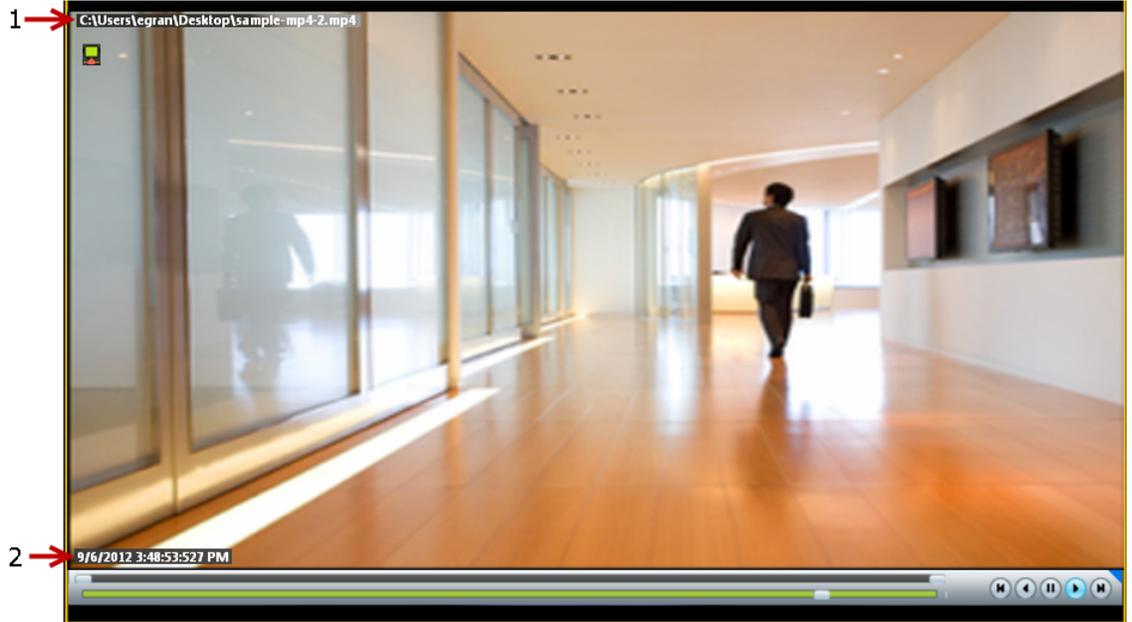
Figure 4-7 Accessing a MP4 Clip



Note Clips are automatically deleted from the server if not downloaded within 24 hours.

- Step 3** Enter a file name and location.
- Step 4** Click **Save**.
- Step 5** Wait for the clip to download.
- Step 6** The clip will automatically play in the pane the first time it is downloaded (Figure 4-8). To view the clips again, use a viewing application such as the Cisco Review Player.

Figure 4-8 MP4 Clip Viewing Pane



1	MP4 file name and location	2	Timestamp for currently displayed image.
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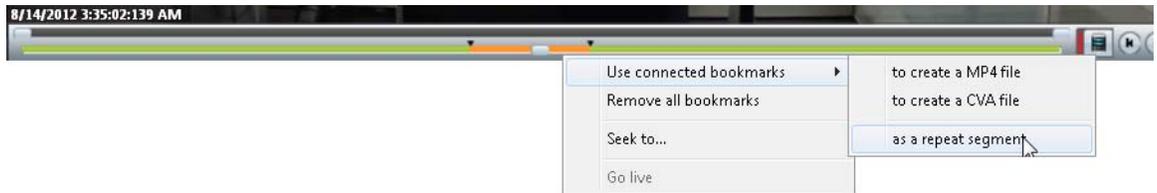
 **Tip** Choose **Select Streams** and select a different live or recorded stream when you are finished viewing the clip.

 **Tip** You can also open the clip in the Cisco VSM Review Player and create a tamper-proof MPX file. See the [Cisco Video Surveillance Review Player User Guide](#) for more information.

Creating a Repeat Segment

A *repeating segment* is a range selected on a recording that plays continuously in a loop. When the end of the segment is reached, playback starts over from the beginning of the segment. The video segment loops indefinitely until you cancel the segment or seek video outside the selected range (seeking inside the selected range does not cancel the segment).

Figure 4-9 Create a Repeating Segment



Note Repeating segments are used with recordings only.

Procedure

- Step 1** *Ctrl-Click-drag* the *seek bar* in a recording to create a bookmark (Figure 4-9).
The bookmark span is shown in orange.
- Step 2** Right-click the *seek bar* and select **as a repeat segment**.
- Step 3** (Optional) Enter a specific start and end date and time.
- Step 4** To cancel the segment, right click the segment and choose **Remove all Bookmarks**.
You can also click on the seek bar outside the selected range.

Using Record Now

To manually trigger recording of a live video stream, right-click the image and choose **Record Now**.

Requirements

- The Record Now option must be enabled for the camera configuration in the Operations Manager.
- Your use account must include access permissions to view recorded video.
- You can record video from the live primary video stream only.

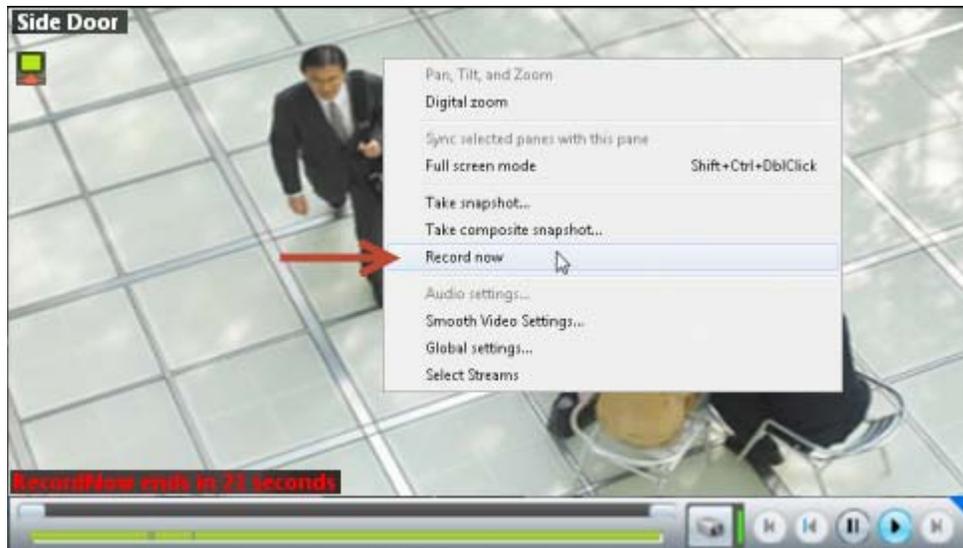
Usage Notes

- Audio is not recorded.
- Video is recorded for a system-defined length of time (the default is 5 minutes).
- The recording is retained on the system according to the event retention settings for the camera. For example, if the camera's event recordings are retained for 30 days, then the Record Now recordings will also be available for 30 days. When the retention time is exceeded, the recording is automatically deleted (see the “[Creating Video Clips](#)” section on page 4-10 to save the video to a separate file).

Procedure

- Step 1** Log in to the video viewing application and select a camera.
- Step 2** Choose live video  (see the “[Viewing Live Video](#)” section on page 4-3).
- Step 3** Right click the image and choose **Record Now** (Figure 4-10).
 - The recording is performed in the background. You can continue to use the other playback controls.
 - The recording status is displayed in red text (Figure 4-10) when the recording time nearly complete.

Figure 4-10 Record Now

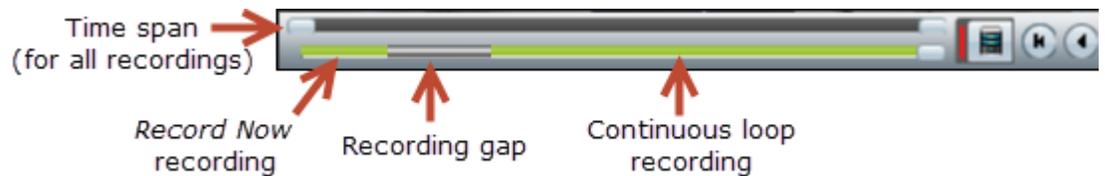


Step 4 To view the recorded video, review the following notes.

- Record Now clips are available from the primary stream only. Right click the image and choose **Select Streams** to view the recorded primary stream (disabled if the pane is synchronized).
- If the video is within the time span of other recorded video, there is no separate indication of the Record Now video. You can access the video as described in the “[Viewing Recorded Video](#)” section on page 4-6).



- If the Record Now video is older than the continuous loop, the gap between the recording times is shown in gray:



Note

When the event retention time is exceeded, the Record Now recording is automatically deleted. To save the recording, see the “[Creating Video Clips](#)” section on page 4-10.

Using the Pop-Up Menu

Select a video pane and right-click on the image to open a menu with the following options (see [Figure 4-2 on page 4-4](#)).

Table 4-2 Camera Pop-Up Menu (Right-Click the Video Image)

Camera Menu Item	Description
Pan, Tilt, and Zoom	(Live video only) Open the PTZ preset list that allows you to quickly adjust the camera view. See the “ Using Pan, Tilt, and Zoom (PTZ) Controls ” section on page 4-24
Digital zoom	Digitally enlarges the image to zoom in on a specific area. Double click the enlarged image to use a window-in window view. Adjust the viewing area in the small window to define the portion of enlarged video to display.
Sync selected panes with this pane	Synchronizes the playback from multiple video panes to the same time. <ul style="list-style-type: none"> After a pane is synchronized, the menu item changes to Remove this pane from sync. To synchronize additional panes, right-click an un-synchronized pane and select Add selected panes to sync. See the “ Synchronizing Video Playback in Multiple Panes ” section on page 4-21.

Table 4-2 Camera Pop-Up Menu (Right-Click the Video Image) (continued)

Camera Menu Item	Description
Full screen mode	Enlarges the video image to fill your display screen. Tip To exit, press <code>Esc</code> , or right-click and choose Full screen mode again.
Take snapshot	Saves a snapshot of a single video pane (<i>excluding</i> control icons, timestamps and other information) in BMP, JPEG, PNG, or TIFF format.
Take composite snapshot	Saves a snapshot of all panes in a multi-pane layout (<i>including</i> control icons, timestamps and other information) in BMP, JPEG, PNG, or TIFF format.
Record now	(Live video only) Immediately begins recording video. See the “Using Record Now” section on page 4-17 for more information. Note The Record Now option must be enabled in the camera configuration.
Audio settings	(Cameras with audio support only). Opens a window used to adjust video playback volume and balance.
Smooth video settings	(Live video only) Creates a smooth video playback if the playback is choppy or delayed due to network or other performance issues. See the “Using the Smooth Video Options When Viewing Live Video” section on page 4-20.
Global settings	Provides settings that apply to all video panes. For example: <i>UI transparency</i> and <i>zoom video to fit the pane</i> .
Select streams	Allows you to select the live and recorded video streams (primary or secondary) supported by the camera. Note <i>Select Streams</i> is disabled when the pane is synchronized. See the “Synchronizing Video Playback in Multiple Panes” section on page 4-21 for more information.

Understanding Video Pane Border Colors

The color that surrounds a video pane indicates the status of the video in that pane. For example, when you click anywhere in a video pane, the pane becomes active and the border changes to orange. The controls and actions performed apply to the active pane.

Table 4-3 describes the meaning of each color.

Table 4-3 Video Pane Border Colors

Color	Description
Gray	The pane is not highlighted. All panes have a gray border by default.
Orange	The pane is selected as the active pane, and the controls and actions apply to that pane. If multiple panes are selected as active panes, the controls and actions performed on one pane apply to all active panes.

Using the Smooth Video Options When Viewing Live Video

If live video playback is choppy due to network or other performance issues, use the **Smooth video settings** to automatically do the following:

- Create a video data buffer (in seconds) that delays live playback while video data is cached. Live video can then be played back smoothly despite network delays between the camera, Media Server, and workstation.
- Automatically switch to a different stream if the live video quality is poor.

Icon Colors

The video quality icons in each pane indicate the following:

- Green  indicates everything is fine.
- Yellow  indicates that the client workstation has detected the play back is not smooth.
- Red  indicates a severe adverse situation. Action will be taken to correct the situation, such as switching to secondary stream or iFrame streaming.

Usage Notes

- The *Smooth Video Options* are available only for live video on non-PTZ cameras (the *Smooth Video Options* are automatically disabled on PTZ cameras).
- The settings are applied to all non-PTZ cameras and are persistent for the current PC workstation. For example, the settings will remain if you log out and back in, or view a different camera and then return to the current camera.
- The settings also apply to the non-PTZ cameras when using the Cisco Safety and Security Desktop (SASD) application and the Cisco Video Surveillance Management Console.
- The Smooth Video options are disabled if you manually select a stream (right-click a video pane and choose **Select Streams**). The pane will display the selected stream even if the video quality is poor (the video will *not* automatically switch to the Smooth Video alternative stream). To cancel the manually selected stream and re-enable the Smooth Video settings, reload the view or drag and drop the camera again.
- If a video stream is selected from a redundant media server, the Smooth Video option is disabled (the camera will not use a secondary stream even if the video quality icon is red).

Procedure

-
- Step 1** Right-click a live video image to open the pop-up menu.
- Step 2** Select or deselect **Enable Smooth Video for Live non-PTZ Camera** to enable the smooth video options.
- Step 3** (Optional) Enter the **Preroll Buffer Size in Seconds** to define the number of seconds that live video will be delayed.

Video data is saved in a cache on your PC to avoid pauses caused by network bandwidth and other issues. We recommend a value between 1.5 and 3 seconds.

**Caution**

We strongly recommend that the **Preroll Buffer** be disabled (enter **0** or leave the field blank) since streaming delays can cause a potential security risk. We recommend that you address the network bandwidth or performance issues causing the delays. Use the **Preroll Buffer** only when significant stuttering occurs and a network resolution is not available.

Step 4

Use the **Smooth Video Options** to define an alternative video stream that will be used if video quality is poor despite the smooth video buffer (video quality is indicated by the  icon on the live viewing pane).

- **Secondary Stream**—(Only if configured on the camera) If the live video quality is poor , the secondary video stream is used. Secondary streams typically present a lower-quality image that requires less bandwidth and processing.
- **I frame only**—If the live video quality is poor , then only the iFrame video is displayed. iFrame video reduces the bandwidth requirement to correct the situation.
- **None**—If the live video quality is poor , no change is made and the selected stream is displayed even if it results in choppy or paused playback.

**Note**

- These options are not used if the video quality is *acceptable*  or if the icon is yellow (*intermediate*) . The selected stream is displayed normally.
- A down arrow  is displayed when the secondary or iFrame stream is applied.
- If an alternative stream is applied, the settings remain until you close and reopen the video source (camera).

Synchronizing Video Playback in Multiple Panes

To synchronize video playback from multiple panes, select multiple panes, right-click the pane that defines the master time, and choose **Sync Selected Panes With This Pane**. All panes will play video from the same date and time.

Usage Notes

- All panes will play forward when synchronization begins, even if one or more of the panes was playing in reverse.
- Synchronization for recorded video is performed only if the time in the selected panes overlap. If the time for a video pane does not overlap with the master pane, the pane is excluded from synchronization.
- When you move the scroll bar for a video pane that is synchronized, that pane becomes the new synchronization master pane. The other synchronized panes play video according to the new master pane.
- If the seek controls are used to search video, the other synchronized panes pause until the seek completes, then continue to display video that is synchronized with the new master pane time.
- You can switch the synchronized panes between live and recorded video.

- To remove a pane from the synchronized playback, right-click the pane and choose **Remove This Pane From Sync** to remove it.
- To add un-synchronized panes, right-click the pane and choose **Add selected panes to sync**.
- The **Select Streams** menu item is disabled when a pane is synchronized.

Figure 4-11 describes the main synchronization attributes.

Figure 4-11 Synchronized Playback of Recorded Video



- | | |
|---|---|
| 1 |  —The synchronization icon appears in the video panes that display synchronized video. |
| 2 | The timestamp for synchronized video is the same. |
| 3 | Roll over a synchronized pane to display the playback controls. Changes to any pane are mirrored by the other panes. |
| 4 | Unsyncronized panes can continue to display live or recorded video.
To add a pane to the synchronized group, right-click the pane and select Add selected panes to sync . |

Procedure

To play recorded video from multiple video panes synchronized to the same time, do the following:

-
- Step 1** Select a layout or pre-defined view from the **View** menu.
- Step 2** *Shift-click* or *Control-click* to select multiple video panes for synchronization.
The selected panes are displayed with a light yellow border.
- Step 3** Right-click a video pane and select **Sync Selected Panes With This Pane** from the menu.
The selected pane becomes the master pane.
- Step 4** (Optional) To remove a pane from the synchronized group, right-click the pane and choose **Remove This Pane From Sync**.



Note The pane continues to play video from the same timestamp, but the video can be stopped or altered without affecting the other panes.

- Step 5** (Optional) To add un-synchronized panes, right-click the pane and choose **Add selected panes to sync**.
-

Using Pan, Tilt, and Zoom (PTZ) Controls

Cameras that support pan, tilt and zoom (PTZ) movements display a PTZ icon . To pan and tilt, *left-click* the image (the movement icons  appear) and drag the mouse right, left, up and down. To zoom, *shift-click* the image and drag the mouse up and down (to zoom in and out).

You can also use a USB joystick. See the “[Calibrating a Joystick for Windows 7](#)” section on page 4-26.

In addition, PTZ presets allow the camera to quickly jump to a preset position. For example, a PTZ preset could zoom in on a doorway, or pan to the opposite end of a parking lot. PTZ presets can be triggered using a mouse, joystick or automatically triggered event.

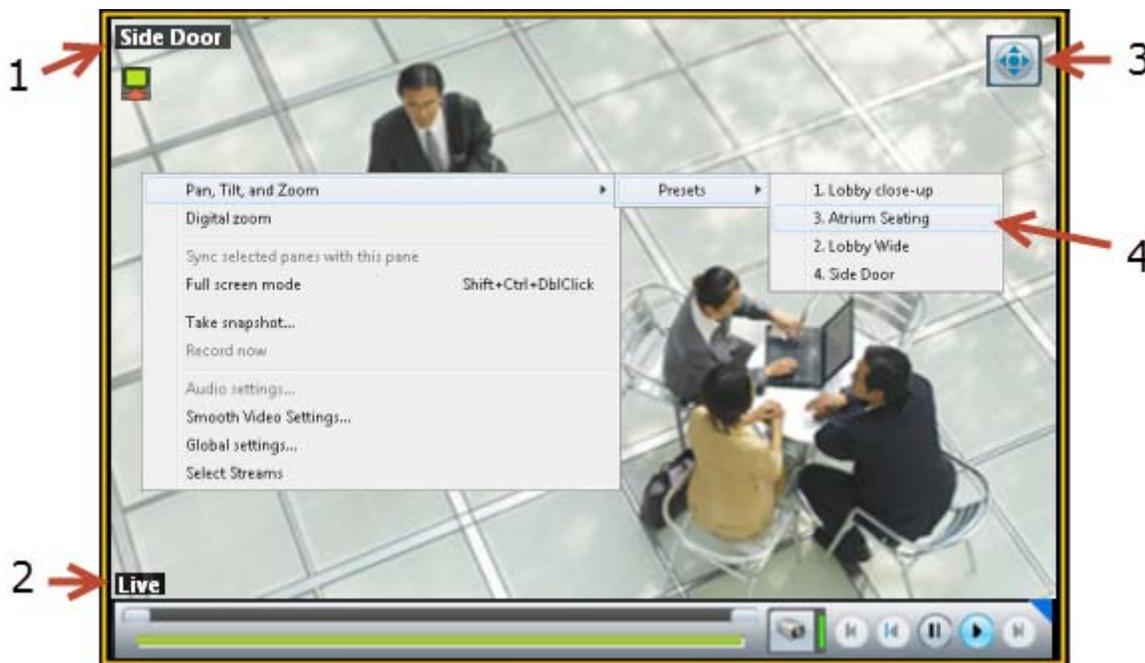


Note

Cameras can also be configured with PTZ tours that automatically cycle between PTZ preset positions. You can interrupt the tour using the PTZ controls, and the tour will resume after a set amount of time. See your system administrator for more information.

Figure 4-12 summarizes the controls and information available on each PTZ camera viewing pane.

Figure 4-12 Camera PTZ Controls



1	Selected Camera	3	PTZ Enabled/Disabled Icon (click to toggle)
2	PTZ is available in Live mode only	4	PTZ Preset Menu (right-click to access)

Usage Notes

- PTZ movements are available only when viewing live video.
- PTZ can only be enabled for a single video pane if multiple panes are displayed. See the “[Using PTZ Controls When Multiple Video Windows are Displayed](#)” section on page 4-27.
- You must also belong to a user group with *Perform PTZ* permissions.

Procedure

To control a camera's PTZ movement or trigger a PTZ preset position, do the following:

-
- Step 1** Display the live video from a PTZ-enabled camera:
- a. Click **Monitor Video**.
 - b. Expand the location tree and select the camera.
 - c. Highlight a video pane and double-click a camera name.

- Step 2** Verify that the PTZ controls are enabled:
- —PTZ controls are supported by the camera and enabled in the viewing pane.
 - —PTZ controls are disabled. Click the  icon to enable PTZ controls.



Note If a higher-priority user is using the PTZ controls, the PTZ controls remain locked and you cannot control the PTZ movements until released by the higher priority user.

- Step 3** To move the camera position, use the following controls.

Using a Mouse

- Pan and Tilt—*Left-click* the image and drag the mouse () right, left, up and down.
- Zoom—*Shift-click* the image and drag the mouse () up and down to zoom in and out.

Using a USB Joystick

- Pan—move the joystick bar horizontally.
- Tilt— move the joystick bar vertically.
- Zoom —twist the joystick.



Tip See the “[Calibrating a Joystick for Windows 7](#)” section on page 4-26 for information to set up a USB joystick for the first time.

- Step 4** (Optional) Select a PTZ preset position.

Using a Mouse

- *Right-click* the image and choose **Pan, Tilt, and Zoom** and then **Presets** (Figure 4-12).
- Choose a preset to move the camera to the defined position.

Using a USB Joystick

- Press the joystick button that corresponds to the PTZ preset number.
 - For example, joystick button 1 triggers PTZ preset 1, joystick button 2 triggers PTZ preset 2, etc.
-

Calibrating a Joystick for Windows 7

To use a USB joystick to control PTZ camera movements, connect the joystick to a USB port on the client PC and calibrate the device for Windows 7. You can use the software and instructions included with the joystick, or use the built-in Windows calibration utility, as described in the following procedure.

Procedure

- Step 1** Install and configure the USB joystick according to the manufacturer instructions.
- See the device documentation for more information.
 - The manufacturer may also include a calibration utility that can be used instead of the built-in Windows utility.
- Step 2** In Windows 7, calibrate the device using the **Game Controllers** control panel.
- a. Select **Control Panel** from the **Start** menu.
 - b. Select **Hardware and Sound**.
 - c. Select **Devices and Printers**.
 - d. Double-click **Game Controllers**.
 - e. Highlight the joystick device and click **Properties**.
 - f. Click **Calibrate** in the pop-up window.
 - g. Follow the on-screen instructions to complete the process.



Tip

You can also use the Windows search function: choose **Search** from the **Start** menu and enter “*set up USB game controllers*” to open the *Game Controllers* control panel. Highlight the joystick icon and click **Calibrate**. Follow the on-screen instructions to complete the process.

- Step 3** Click **Finish** or **OK** to close the windows.
-

Using PTZ Controls When Multiple Video Windows are Displayed

When multiple viewing panes are displayed, only a single pane can have PTZ controls enabled at a time (Figure 4-13). This prevents a USB joystick from affecting more than one pane.

- The pane with PTZ enabled displays a  icon. The  icon indicates that PTZ controls are disabled.
- Click the disabled icon  to enable the controls for a pane (and disable the controls for the other panes).
- If a pane does not display an icon, then the camera does not support PTZ movements.

Figure 4-13 PTZ Controls in a Multi-Pane View



1	PTZ enabled viewing pane	3	PTZ not supported by camera (no icon)
2	PTZ disabled viewing pane		



Note

PTZ movements are available only when viewing live video.



Tip

If multiple browser windows are used to display video, joystick PTZ commands will affect the enabled PTZ pane in each browser window.



CHAPTER 5

Viewing Alerts

Select the Alerts Centric Workspace  (Figure 5-2) to view system alerts, and the cameras and events related to those alert (if available). You can also do the following:

- Acknowledge, close, or re-open alerts
- Add a comment, or flag the alert as a false alarm.
- View recorded video related to an event (if available).
- View live or recorded video from a camera shown on a location map.

Refer to the following topics for more information:

Contents

- [Understanding Events and Alerts, page 5-2](#)
- [Alert Centric Workspace Overview, page 5-3](#)
- [Viewing Event URLs, page 5-6](#)
- [Common Tasks, page 5-7](#)
- [Impact of Device Location Changes on Alerts, page 5-8](#)
- [Summary of Events and Corresponding Alerts, page 5-9](#)

Understanding Events and Alerts

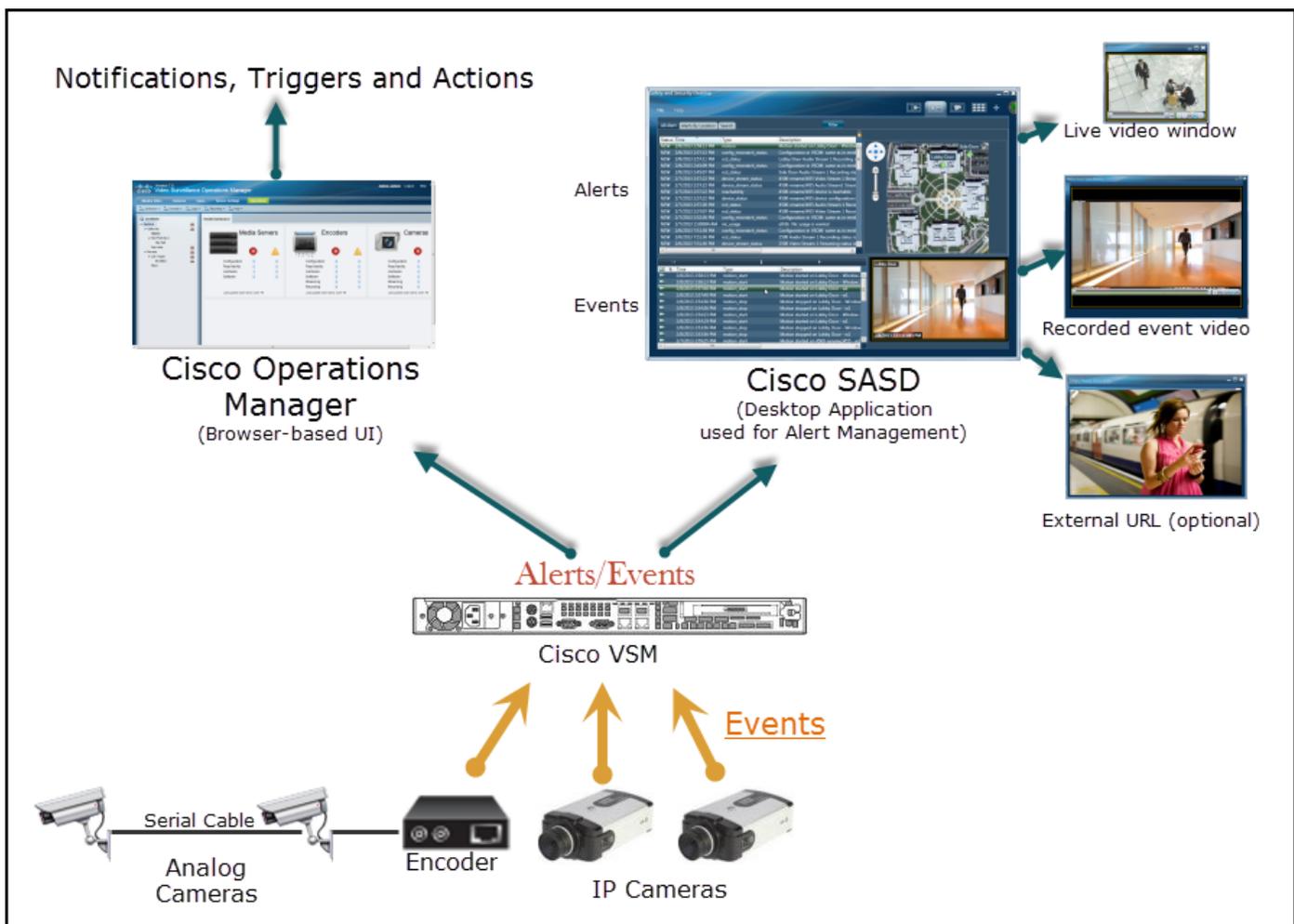
Events represent incidents that occur in the system and devices (such as cameras or camera encoders). Events are aggregated (grouped) into alerts for notification purposes. For example, if a camera goes offline, and comes back online repeatedly, all events for that issue are grouped under a single alert, which triggers a single notification. This prevents operators from being flooded with notifications for multiple occurrences of the same issue.

Cisco VSM generates two types of events: device health events and security events:

- **Health Events** are generated when a device health change occurs, such as reachability, fan speed, file system usage, or other device-related issues. Critical health events generate alerts by default.
- **Security Events**—Events such as motion stop or start, analytics, contact closures, or soft triggers from an external system can be configured to generate alerts, or perform other actions. Security events do not generate alerts by default.

Figure 5-1 summarizes how Cisco VSM events and alerts are generated, aggregated, and viewed.

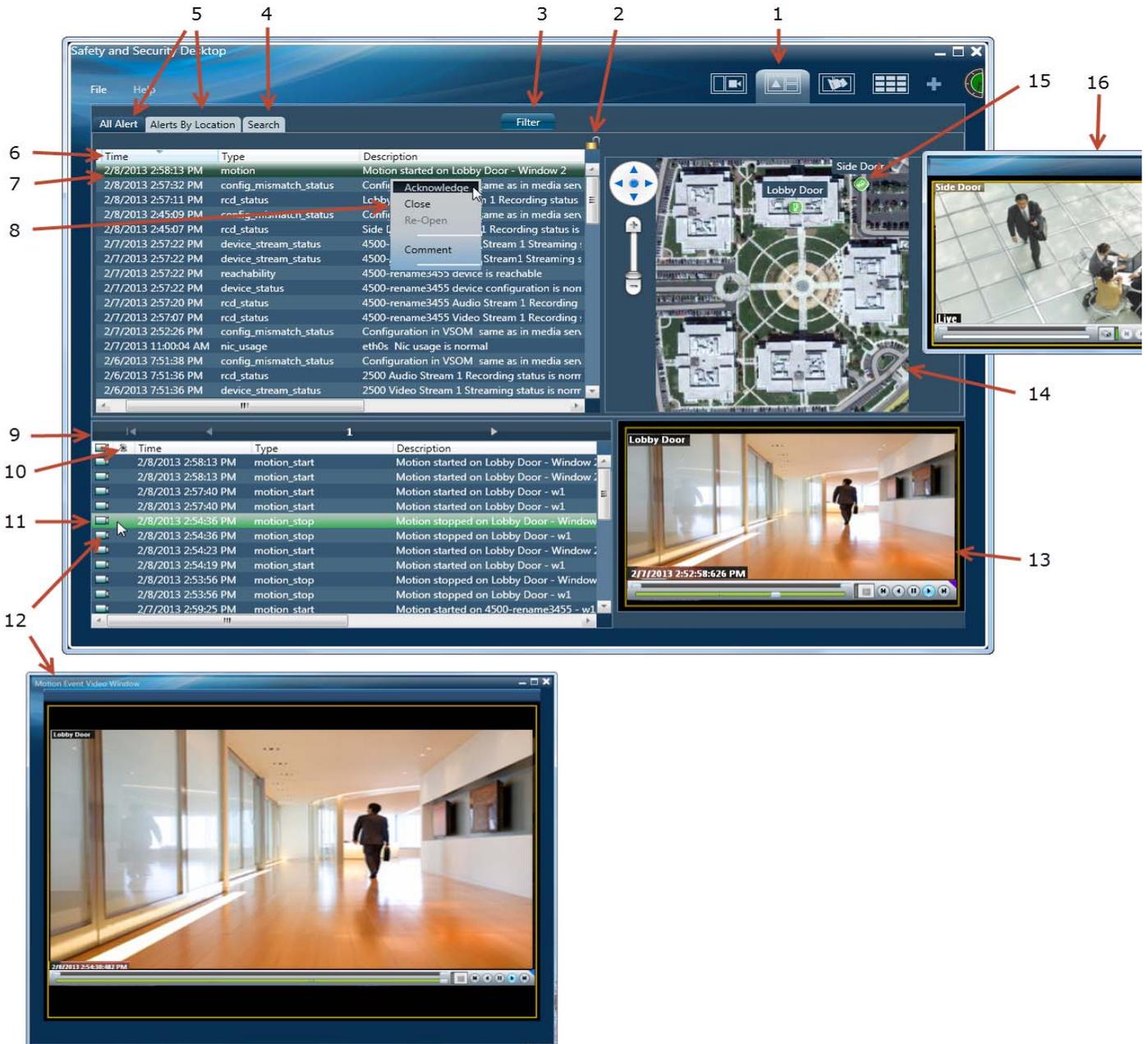
Figure 5-1 Health Events, Alerts, and Notifications



Alert Centric Workspace Overview

In the Alert Centric Workspace (Figure 5-2), select an alert to view the events related to that alert, as well as the location map, related cameras and related video. See the table following Figure 5-2 for the options to view and manage alerts. For example, you can right-click an alert to acknowledge, close, re-open, or comment on the alert. Double-click an event or camera icon to view live or recorded video (if available).

Figure 5-2 Alert Centric Workspace



1 Alert Centric Workspace tab

<p>2  —All Alert or Alerts By Location tabs only.</p> <p>Click the lock icon to stop or start auto-updates of the All Alert or Alerts By Location results.</p> <ul style="list-style-type: none"> • When unlocked , new alerts will be added to the list as they occur. • When locked , dynamic updating is paused and only the currently displayed alerts are shown. Unlock the display to refresh the results.
<p>3 Click Filter to display a sub-set of alerts.</p> <p>For example, view alerts by severity, view only open events, or only events related to system health.</p>
<p>4 Click Search and then Filter to select additional options such as a span of time, location, or device type.</p> <p>Note The search results do not auto-refresh. Re-search the alerts to view current results.</p>
<p>5</p> <ul style="list-style-type: none"> • All Alerts—Displays all alerts based on the selected filters. • Alerts by Location—Displays alerts for the devices and resources assigned to the selected location. <p>Tip The alert list will dynamically refresh unless locked .</p>
<p>6 Click the column headers to sort the displayed alerts.</p> <ul style="list-style-type: none"> • Only headings with an arrow are sortable. • In the Search tab, multiple columns are sortable. • In the the All Alert, Alert by Location, and Map Alert tabs, only Severity and Time are sortable. <ul style="list-style-type: none"> – The Time column sorts alerts with the newest alert at the top. – The Severity cloumn sorts alerts with the most severe alert at the top (in the order of CRITICAL, MAJOR, MINOR, WARNING, INFO).
<p>7 Select an alert to view the events related to that alert, as well as the location map, related cameras and related video.</p> <p>Note The alert severity reflects the severity of the most recently generated event. For example, if a camera becomes unreachable and the streaming status is Critical, the alert is Critical. When the camera becomes reachable again, and the streaming status normal event occurs, and the alert severity is changed to INFO. See the “Summary of Events and Corresponding Alerts” section on page 5-9 for the severity of each event.</p>
<p>8 Right-click an alert to acknowledge, close or re-open the alert.</p> <p>You can also add a comment to the alert or mark it as a false alarm.</p>
<p>9 The events associated with the alert (multiple events for the same issue are grouped under a single alarm).</p> <p>Click the right and left arrows to page through the events related to the alert.</p>
<p>10  — If the URL icon  appears, right-click the event to open a new web browser with additional information or images.</p> <p>See the “Viewing Event URLs” section on page 5-6.</p>
<p>11 Select an event to view video related to a motion or analytics event, if available.</p>

12	<p>—The camera icon  appears for the following event types:</p> <ul style="list-style-type: none"> – Motion start/stop – Contact closure open/close – Soft trigger – Analytics <ul style="list-style-type: none"> • If video is available for the event, a preview is displayed in the lower right video pane. • Double-click the event to open a large video playback window. • If video is not available (for example, if the video was automatically deleted after the duration defined by the camera retention rules), an error message appears when attempting to view the video.
13	Video related to a motion or analytics event, if available.
14	<p>The location map associated with the alert.</p> <ul style="list-style-type: none"> • If the alert is related to a camera, the camera icon is animated (in a breathing motion). • Double-click the camera name to enlarge the map. • Click and drag the image to move the map in the window.
15	<p>Camera icon .</p> <ul style="list-style-type: none"> • Double-click the icon  to view live or recorded video from the camera in a pop-up window. • Double-click anywhere on the map to zoom on on the map image. • Right click a camera icon (or camera name) to display camera details (name, description, timestamp and stream preview).
16	Pop-up video viewing window. Double-click a camera icon  to open the window.

Dynamic Updates of Alert Results

By default, new alerts are dynamically added to **All Alert** or **Alerts By Location** results as they occur. New alerts will appear at the top of the list if the results are sorted by time, or in the middle of the list if the results are sorted by severity.

Click the lock icon  to stop or start auto-updates of the **All Alert** or **Alerts By Location** results. When locked , dynamic updating is paused and only the currently displayed alerts are shown. Unlock the display to refresh the results.

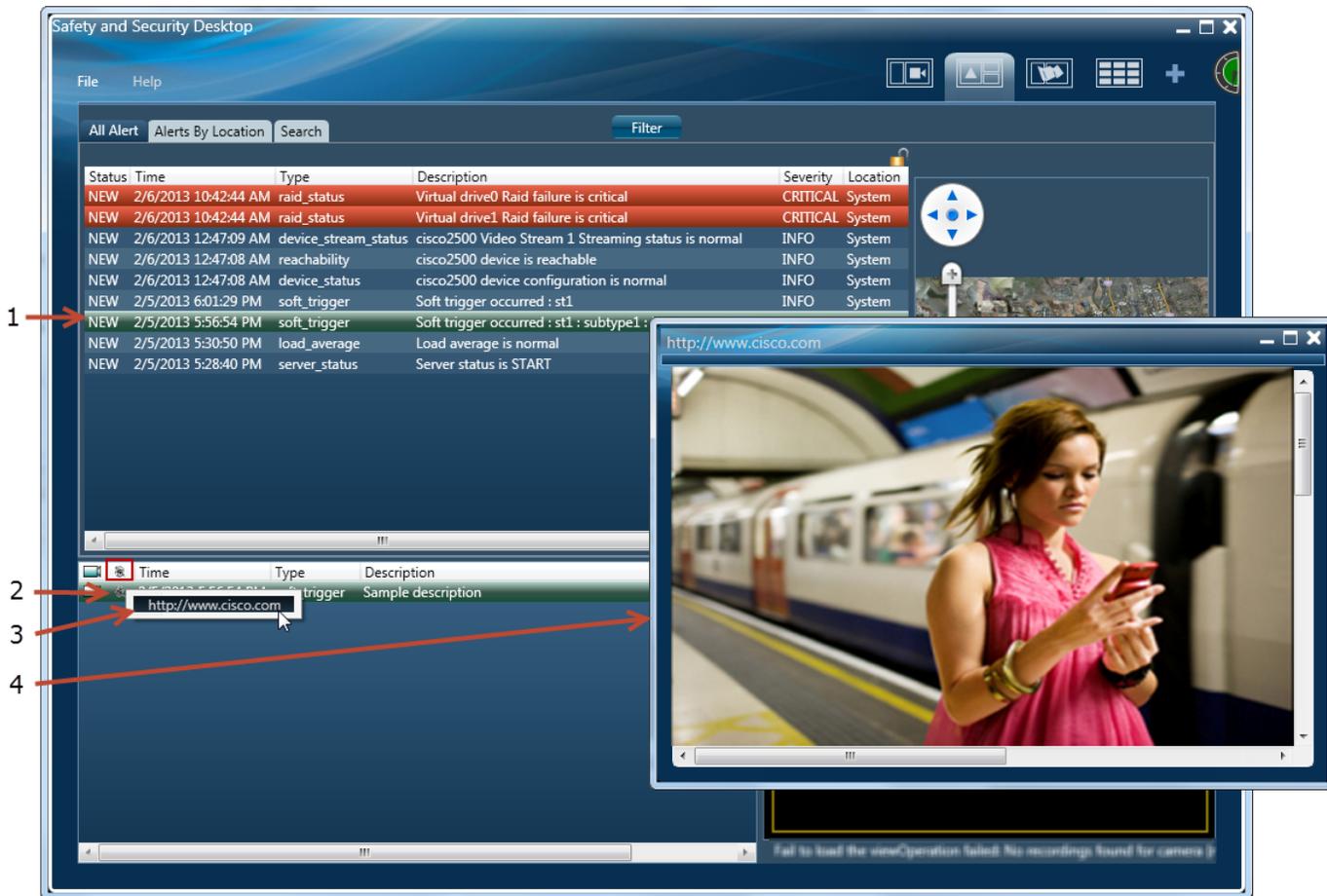
The **Search** tab results do not dynamically refresh. The alerts displayed remain static unless you perform another search.

Viewing Event URLs

Alerts can also include a custom URL that open a new web-browser window with additional information, such as a image snapshot or video clip.

To open the URL, right-click the URL icon for an event, as shown in [Figure 5-3](#).

Figure 5-3 Selecting a Soft Trigger Event URL in the Cisco SASD Monitoring Application



- 1 Select a soft-trigger alert that was customized to include an additional URL.
- 2 Right-click the URL icon for the event.
- 3 Select the URL.
- 4 View the information, image or video in the pop-up window.

Common Tasks

Table 5-1 describes common tasks that are performed with alerts.

Table 5-1 Common Alert Tasks

Task	Description
Narrow the list of displayed alerts	Click the tabs at the top of the alert list to display: <ul style="list-style-type: none"> All Alerts Alerts By Location Search— keywords Filter (narrow the results based on alert type, status, or severity, time, location, and/or device).
Display the events associated with the alert	Select an alert to view the associated events in the field below the alert list.
Acknowledge the alert	Right-click an alert and select Acknowledge .
Close, re-open, or flag the alert as a false alarm	Right-click an alert and select an option. <ul style="list-style-type: none"> • When an alert is closed, no new events can be added (unless the alert is reopened by a user). Any new events for the same device and issue are added to a new alert entry. • Users can still modify closed alerts, including the following: <ul style="list-style-type: none"> – Add a comment (the alert state is not changed). – Re-open the alert. New events for that device and issue will be added to the alert.
Add a comment	Right-click an alert and select Comment . Add the comment and click Apply .
View event video (motion and analytics alerts only)	Double-click a motion or analytics event to view the video in the lower right pane. Double-click the event to open a new video window.
View live or recorded video from the camera associated with the alert	Double-click a camera icon in the map pane to view video from the camera in a pop-up window.
View alerts associated with a location	<ul style="list-style-type: none"> • Click the Alerts By Location tab. • Click Filters and select the location. • Open the Map Centric Workspace . See the “Viewing Cameras and Alerts on Map” section on page 6-1
View alerts on a larger location map	Open the Map Centric Workspace  . See the “Viewing Cameras and Alerts on Map” section on page 6-1

Impact of Device Location Changes on Alerts

Because device locations rarely change, the alert location will normally be the same as the device location. However, if the device location is changed, the following will occur:

- New events show the new location, but are added to the existing (and open) alert at the old location.
- When the alert is closed by an operator, any new events create a new alert at the new location (the location reference in the alert is now consistent with the device location in the event).

For example:

1. Events are added to Alert 1 at the original *Location 1*:

```
Alert 1   Location 1   Device 1
          Event 99   Location1   device1
          Event 98   Location1   device1
          Etc.
```

2. The device location is changed to *Location 2*.

3. New events generated for an existing (and open) Alert 1 are added to the alert using the new *Location 2*, but the alert is still associated with the original *Location 1*.

```
Alert 1   Location 1   Device 1
          Event 101  Location2   device1
          Event 100  Location2   device1
          Event 99   Location1   device1
          Event 98   Location1   device1
          Etc.
```

4. An operator closes the alert (by right-clicking on it).

5. New events are associated with a new alert in the new *Location 2* (the location reference in the alert is now consistent with the device location in the event).

```
Alert 2   Location 2   Device 1
          Event 103  Location2   device1
          Event 102  Location2   device1
          Etc.
```

Summary of Events and Corresponding Alerts

The following table summarizes the events that are included in each Cisco VSM 7.0 alert.


Note

Some alerts include events of multiple types. For example, the motion alert can include the “motion_start” and “motion_stop” events.

Table 5-2 Events Included Under the Cisco VSM Alerts

Alerts	Events included in the alert	Severity	Description of the alert per event type
analytics	analytics_occurred	INFO	Analytics event of type {0} occurred for rule {1}
auto_discovery	auto_discovery	N/A	N/A
capability_mismatch_status	capability_mismatch_status	CRITICAL	Configuration defined in the template and the configuration supported by the camera do not match
		INFO	Issue with respect to configuration defined in the template and the configuration supported by the camera has been cleared
chassis_intrusion	chassis_intrusion	CRITICAL	Chassis Intrusion is critical
		INFO	Chassis Intrusion is normal
clipping	clip_start	INFO	Clipping initiated - {0}
	clip_completed	INFO	Clipping completed - {0}
	clip_deleted	INFO	Clipping deleted - {0}
	clip_failed	INFO	Clipping failed - {0}
config_mismatch_status	config_mismatch_status	CRITICAL	Configuration in VSOM is not the same as in Media Server for device {0}
		INFO	Configuration in VSOM same as in Media Server for device {0}
contact_closure	contact_closure_opened	INFO	Contact closure opened on port {0}
	contact_closure_closed	INFO	Contact closure closed on port {0}

Table 5-2 Events Included Under the Cisco VSM Alerts (continued)

contact_closure_unconfigured_status	contact_closure_unconfigured_status	CRITICAL	Camera contact closure is not configured but template defines advanced events with contact-closure
		INFO	Clearing contact closure configuration issue with camera and template
coredump	coredump	CRITICAL	{0} core dump critical
device_status	device_status	CRITICAL	{0} Streaming status is critical
		INFO	{0} Streaming status is normal
	device_config_status	CRITICAL	Error in {0} device configuration
		INFO	{0} device configuration is normal
device_stream_status	device_stream_status	CRITICAL	{0} Streaming videoloss
		INFO	{0} Streaming status is normal
	device_connection_status	CRITICAL	{0} Streaming connection loss occurred
		INFO	{0} Streaming status is normal
driverpack_mismatch_status	driverpack_mismatch_status	CRITICAL	Driver-packs in Media Server does not match with Driver-packs in VSOM
		INFO	Media Server's driver-pack matches Operations Manager's
encoder_max_streams_used_status	encoder_max_streams_used_status	CRITICAL	maximum number of streams reached for encoder
		INFO	max_streams_reached issue is resolved
event_overload_status	event_overload_status	CRITICAL	VSOM dropped {0} events due to a large number of events received
		INFO	Normal VSOM events processing has resumed
fan_speed	fan_speed	CRITICAL	{0} is critical
		INFO	{0} is normal
firmware_mismatch_status	firmware_mismatch_status	CRITICAL	Camera's template firmware does not match the camera's firmware
		INFO	Camera's template firmware matches the camera's firmware
fs_usage	fs_usage	CRITICAL	File system usage on {0} is critical
		INFO	File system usage on {0} is normal

Table 5-2 Events Included Under the Cisco VSM Alerts (continued)

ha_config_mismatch_status	ha_config_mismatch_status	CRITICAL	Configuration in VSOM and primary MS is not the same as in redundant/failover Media Servers {0}
		INFO	Configuration in VSOM and primary MS is same as in redundant/failover Media Servers {0}
identity_collision_status	identity_collision_status	CRITICAL	Another device with one or more identity criteria exists in the system.
		INFO	Identity collision is resolved.
insufficient_backup_space_status	insufficient_backup_space_status	CRITICAL	Insufficient space is stopping automatic VSOM database backup
		INFO	Automatic VSOM database backup is normal
load_average	load_average	CRITICAL	Load average is critical
		INFO	Load average is normal
mem_free	mem_free	CRITICAL	Memory usage is critical
		INFO	Memory usage is normal
motion	motion_start	INFO	Motion started on {0}
	motion_stop	INFO	Motion stopped on {0}
motion_unconfigured_status	motion_unconfigured_status	CRITICAL	Motion window is not configured on the camera. Record on motion and other actions will not work.
		INFO	Motion window is configured on the camera.
nic_usage	nic_usage	CRITICAL	{0}'s Nic usage is critical
		INFO	{0}'s Nic usage is normal
password_expired_status	password_expired_status	CRITICAL	Password expired - needs a password change
		INFO	password changed
power_supply	power_supply	CRITICAL	{0} Power supply is critical
		INFO	{0} Power supply is normal
raid_status	raid_status	CRITICAL	Virtual drive{0} Raid failure is critical
		INFO	Virtual drive{0} Raid failure is fixed
rcd_status	rcd_status	CRITICAL	{0} Recording status is critical
		INFO	{0} Recording status is normal
	recording_groomed	INFO	Parts of the recording {0} was groomed to free up disk space

Table 5-2 Events Included Under the Cisco VSM Alerts (continued)

reachability	reachability	CRITICAL	{0} device is unreachable
		INFO	{0} device is reachable
recorder_oversubscribed	recorder_Oversubscription	CRITICAL	{0} Disk space usage for recordings has been over-subscribed
		INFO	{0} Disk space usage for recordings is normal
redundancy_unconfigured_status	redundancy_unconfigured_status	CRITICAL	Failover/Redundancy servers are not configured for the camera's primary media-server.
		INFO	Failover/Redundancy servers are configured for the camera's primary media-server.
server_status	server_status	CRITICAL	Server status is {0}
		INFO	Server status is START
soft-trigger	soft_trigger	INFO	Soft trigger {0} occurred on camera
temperature	temperature	CRITICAL	{0} is critical
		INFO	{0} is normal
time_out_of_sync_status	time_out_of_sync_status	WARN	Media Server time does not match with the VSOM time.
		INFO	Media Server time matches with the VSOM time.
ums_config_change	ums_config_change	CRITICAL	{0} Change in Media Server configuration
		INFO	{0} No Change in Media Server configuration
ums_failover_status	ums_failover	WARN	UMS failed over {0}
	ums_failback	INFO	UMS failed back {0}
ums_identity_mismatch_status	ums_identity_mismatch_status	CRITICAL	UMS alternate id in Media Server does not match with alternate id in VSOM
		INFO	UMS alternate id in Media Server matches the alternate id in VSOM
ums_version_mismatch_status	ums_version_mismatch_status	CRITICAL	Media Server's version does not match Operations Manager
		INFO	Media Server's version matches Operations Manager
unknown_hw_sensor	unknown	CRITICAL	{0} Unknown hardware sensor is critical
		INFO	{0} Unknown hardware sensor is normal

Table 5-2 *Events Included Under the Cisco VSM Alerts (continued)*

voltage	voltage	CRITICAL	{0} is critical
		INFO	{0} is normal

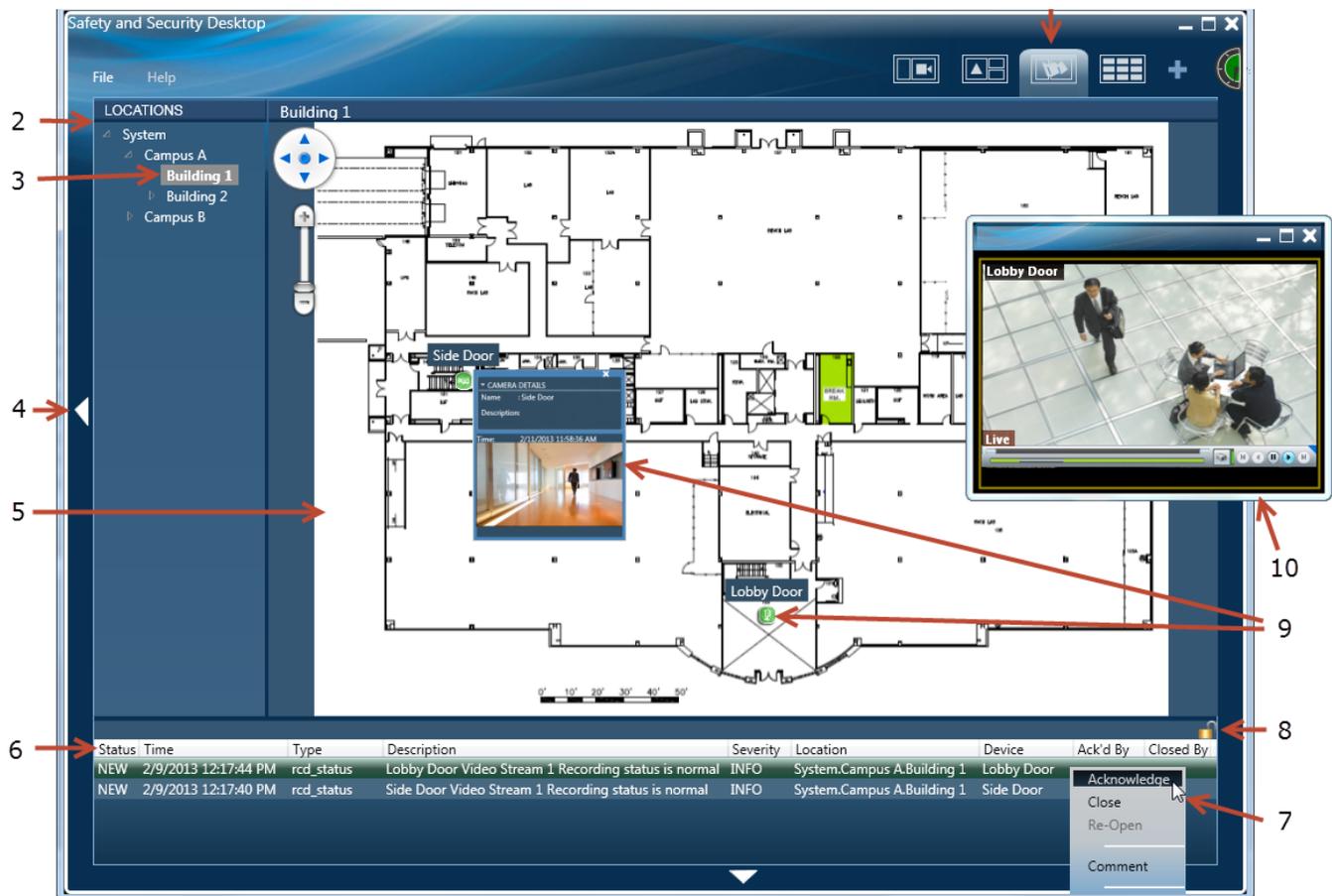


CHAPTER 6

Viewing Cameras and Alerts on Map

The Map Centric Workspace  (Figure 6-1) displays maps of the region, city, building or other areas where the Cisco VSM is deployed. Click a location to view the associated map, and a list of available cameras for that location. To view video, double-click a camera icon  to open a pop-up window.

Figure 6-1 Map Centric Workspace



1 Map Centric Workspace tab 

2 Location hierarchy

3 Selected location

4	Show/Hide the sidebar
5	Map for the selected location.
6	<p>Alerts for the selected location.</p> <p>Click the Time or Severity column headers to sort the displayed alerts.</p> <ul style="list-style-type: none"> • Only headings with an arrow are sortable. • The Time column sorts alerts with the newest alert at the top. • The Severity column sorts alerts with the most severe alert at the top (in the order of CRITICAL, MAJOR, MINOR, WARNING, INFO). <p>See the “Common Tasks” section on page 5-7 for more information.</p>
7	<p>Right-click an alert to change the status or enter a comment.</p> <p>See the “Common Tasks” section on page 5-7 for more information.</p>
8	<p>Click the lock icon to stop or start auto-updates.</p> <ul style="list-style-type: none"> • When unlocked , new alerts will be added to the list as they occur. • When locked , dynamic updating is paused and only the currently displayed alerts are shown. Unlock the display to refresh the results.
9	<p>Camera icon .</p> <ul style="list-style-type: none"> • Double-click the icon  to view live or recorded video from the camera in a pop-up window. • Double-click anywhere on the map to zoom on on the map image. • Right click a camera icon (or camera name) to display the camera details (name, description, timestamp and stream).
10	Pop-up video viewing window. Double-click a camera icon  to open the window.

Procedure

To view video from cameras at a specific location, do the following:

-
- Step 1** Select the Map Centric Workspace  (Figure 6-1).
 - Step 2** Expand the location hierarchy and select a location from the list.
 - Step 3** (Optional) Right-click an alert to change the status or enter a comment.
 - Step 4** (Optional) Double-click a camera icon  to view video for that camera in a pop-up window.
 - Step 5** Review [Figure 6-1](#) for additional options.
-



CHAPTER 7

Editing Locations and Maps

Refer to the following topics to edit the locations and associated map images displayed in the Cisco Video Surveillance Safety and Security Desktop (Cisco SASD) application.

Contents

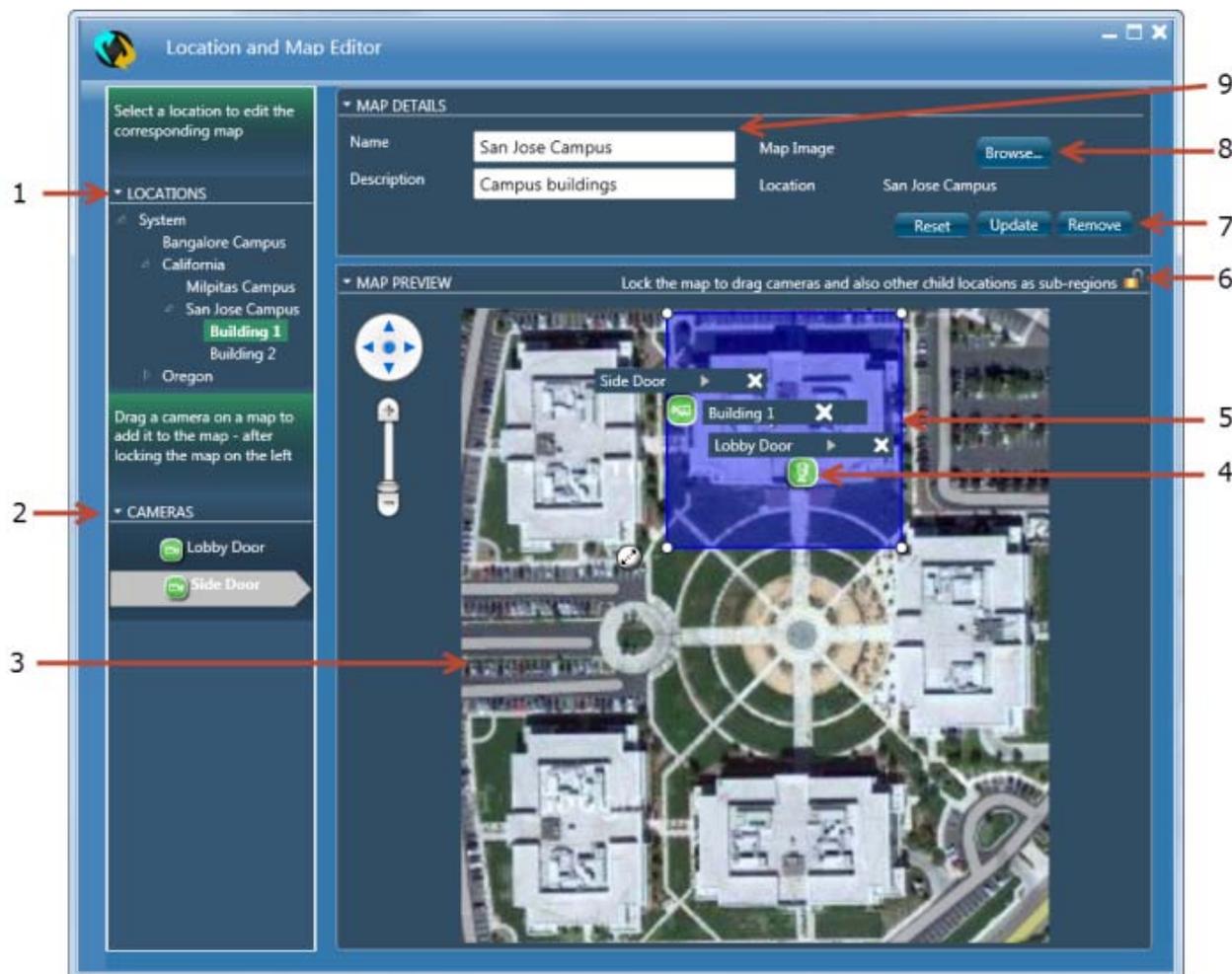
- [Map Editor Overview, page 7-2](#)
- [Editing Locations, page 7-3](#)
- [Adding or Updating Map Images, page 7-5](#)
- [Placing a Sub-Location on a Map, page 7-6](#)

Map Editor Overview

Use the Map Editor to add and edit locations, assign map images to the locations, and drag and drop cameras onto the maps. These locations, maps and cameras are displayed in the Map and Alert Centric Workspaces and help to visually identify the available video sources (see the “[Viewing Alerts](#)” section on page 5-1 and the “[Viewing Cameras and Alerts on Map](#)” section on page 6-1).

To edit the location names and maps, select **File > Map Editor**. [Figure 7-1](#) describes the main map editor features.

Figure 7-1 Map Editor



- | | |
|---|---|
| 1 | Locations—Right-click to add or edit locations. See the “ Editing Locations ” section on page 7-3. |
| 2 | Cameras—The cameras assigned to the selected location. Drag camera icons onto the map to represent the location of the video source.
Tip Use the browser-based Cisco VSM Operations Manager to add or edit the available cameras. |
| 3 | Map Image—The map for the selected location. Enter a map name and description, click Browse to select an image, and then click Add or Update to change the image. |

4	Camera icon—Represents a video source in the map image. Click the lock icon  to lock the image () and drag a camera name onto the map image. Click the arrow next to the camera name to rotate the icon.
5	Sub-Location—A clickable area on the map that represents a sub-location. Click the lock icon  to lock the image () and drag the sub-location onto the map. Use the tools in the corners and center of the blue box to resize or move the clickable area.
6	Lock icon—Click the lock icon  to lock the image () and prevent it from changing when you drag cameras and sub-locations onto the map (sub-locations are clickable areas that appear in the Map Centric Workspace).
7	Reset —Click to fit the map to the viewing area. This may be necessary after resizing the window. Add —Adds a new map if no map exists for the selected location (click Browse and select an image file from a local or network drive). Update —Saves changes to the image if a different map is selected or if sub-locations or cameras are added. Remove —Removes the location image, sub-locations and camera icons.
8	Browse —Identifies the map image file that will be used to Add or Update the image displayed for the location. The supported file formats are: jpg, jpeg, png, bmp, gif, tiff, and tif.
9	Map name and description.

Editing Locations

Locations allow you to organize your deployment according to the real-world location of equipment and users. Locations also allow administrators to restrict user access to the specific cameras, policies, and data (such as alerts) required by the user's role within the organization. For example, while a *super-admin* has full access to all locations and devices, a local campus administrator might have access only to the devices and policies required to manage that site.

For example, create a top-level location for a city or region. Then create sub-locations for the cities where Cisco VSM cameras are installed. You can create additional sub-locations for a geographic location, campus, building or other area, such as floors, lobbies, or doors.



Note

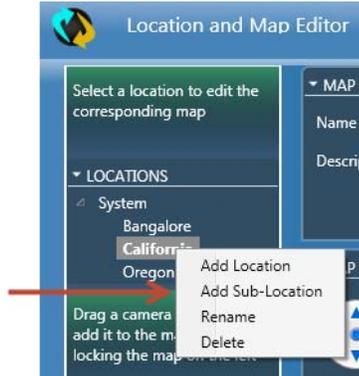
- The Locations displayed in the Cisco Safety and Security desktop application are the same as those displayed in the web-based Cisco VSOM administration tool. Changes to the Location hierarchy in either application are reflected in both tools. For example, if you add or rename a location using the desktop application, those changes also appear in the web-based administration tool.
- Locations are also edited using the browser-based Cisco VSM Operations Manager. Since Locations are also assigned to cameras, Media Servers, users, and other system attributes, only administrators should add or edit the locations to ensure system integrity.

Procedure

To add or edit a location, right-click a location name and select an option from the menu.

- Step 1** Select **File > Map Editor**.

Figure 7-2 Editing Locations



Step 2 Select an option from the menu.

- **Add Location**—Adds a location at the same level as the selected location.
- **Add Sub-Location**—Adds a Location as a child of the selected location.
- **Rename**—Changes the location name
- **Delete**—Removes the location. Locations can only be removed if no devices or other attributes are assigned to that location. Use the Cisco VSM Operations Manager to re-assign system attributes to another location, if necessary.

**Tip**

Drag-and-drop locations to change their position within the location hierarchy.

Step 3 (Optional) Add a map image to the location as described in the [Adding or Updating Map Images, page 5](#).

Step 4 (Optional) Drag and drop cameras on to the map image. Click the arrow next to the camera name to rotate the icon.

Adding or Updating Map Images

Map images are assigned to a location, and appear in the Map and Alert Centric Workspaces.

**Note**

The supported file formats are: jpg, jpeg, png, bmp, gif, tiff, and tif.

To add or update the map image for a location, select a location, and then select the map image file that should appear for that location, as shown in [Figure 7-1 on page 7-2](#). You can also enter a name and location for the map image.

Procedure

- Step 1** Select **File > Map Editor**.
- Step 2** Select a location.
- Step 3** In the Map Details section, define the map image:
- Enter a name and description for the map image.
 - Click **Browse** to select a map image file from a local or network drive.
- Step 4** (Optional) Drag and drop cameras on to the map image. Click the arrow next to the camera name to rotate the icon.
- Click a location to display the cameras associated with that location.
 - Click the arrow next to the camera name to rotate the icon.
- Step 5** Click **Add** or **Update**.

**Tip**

Click **Remove** to remove the map image. The map image is removed from the Cisco Safety and Security application, but the image file is *not* deleted from your hard drive.

- Step 6** Continue to the [“Placing a Sub-Location on a Map” section on page 7-6](#).
-

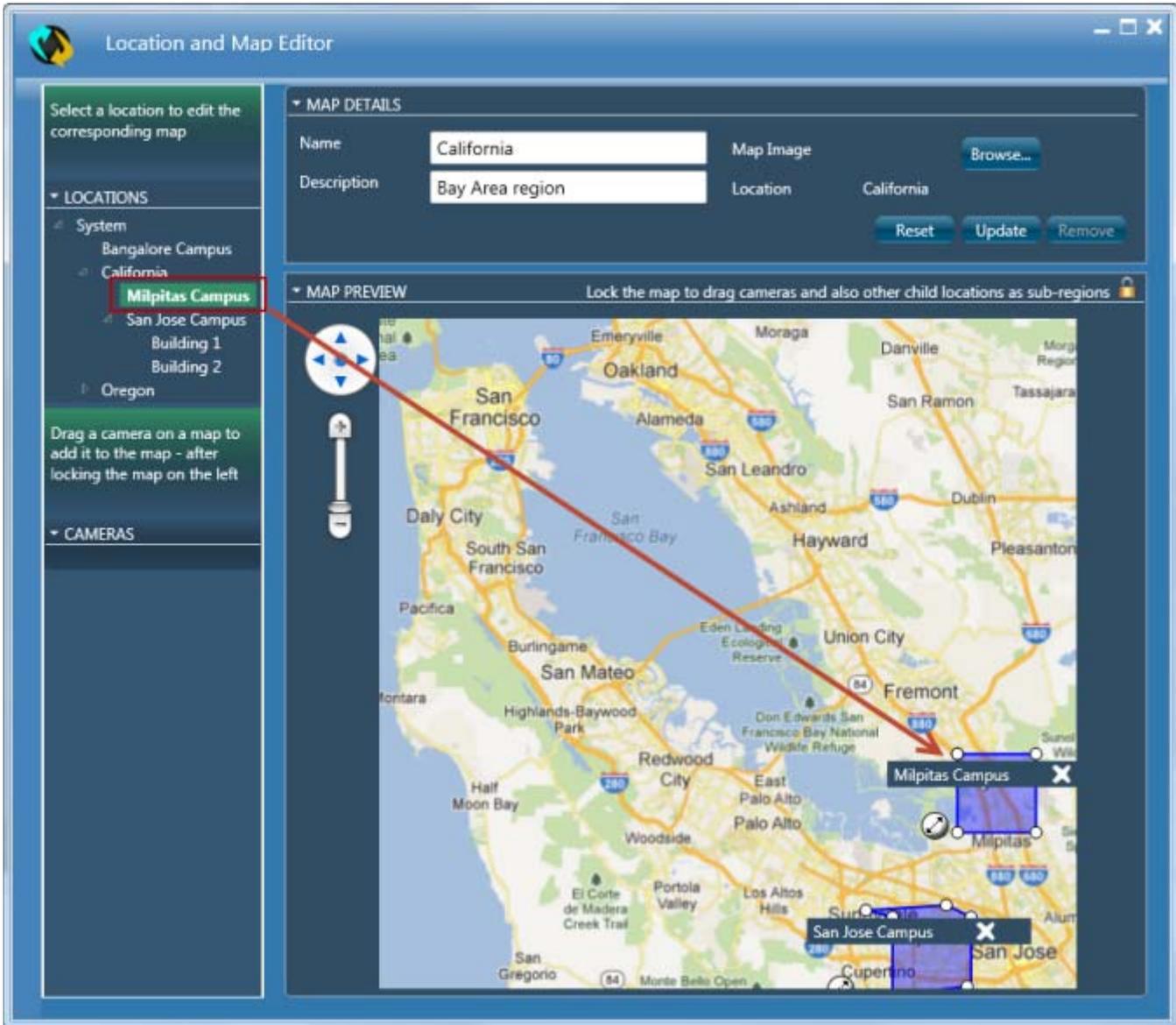
Related Documentation

- [Placing a Sub-Location on a Map, page 7-6](#)
- [Viewing Alerts, page 5-1](#)
- [Viewing Cameras and Alerts on Map, page 6-1](#)

Placing a Sub-Location on a Map

Sub-locations can be added on a map to indicate where Cisco VSM equipment is installed or managed (Figure 7-3). The sub-location is clickable and jumps the user to the sub-location map.

Figure 7-3 Adding a Sub-Location to a Map



Sub-locations allow users to view various levels of detail, depending on the location of the camera, alert, or other attribute. Figure 7-4 shows a regional map, the campus map for a sub-location, and the building map for further sub-location.

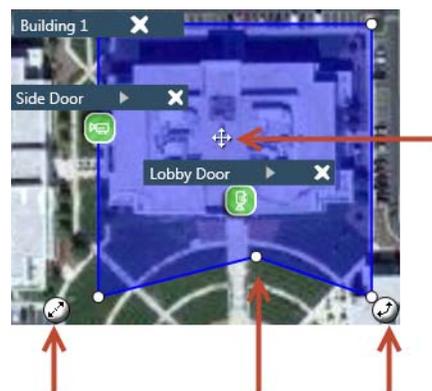
Figure 7-4 Sub-Locations: Region, Campus and Building



Procedure

- Step 1** Select **File > Map Editor** (Figure 7-1).
- Step 2** Select the parent location where the sub-location will be added.
For example: California.
- Step 3** Click the lock icon  to lock the image.
Tip When the icon is locked () , you can select a sub-location without changing the current view.
- Step 4** Drag and drop the sub-location to the map:
 - For example, drag the *Milpitas sub-location* onto the *California* map.
- Step 5** Resize the sub- location (Figure 7-1).

Figure 7-5 Sub-Locations: Region, Campus and Building



- Use the corner icons to resize  and rotate  the box.
- Drag the edge to change the shape.
- Click the center icon  to drag the box to a different position.

- Step 6** (Optional) Drag and drop cameras on to the map image. Click the arrow next to the camera name to rotate the icon.
- Click a location to display the cameras associated with that location.
 - Click the arrow next to the camera name to rotate the icon.
- Step 7** (Optional) Add a map image to the sub-location. The map image will appear when users click the shaded map area in the Map Centric Workspace. If no map image is added, then a detail view of the parent map is displayed.
- a. Click the lock icon  to unlock it.
 - b. Select the sub-location.
 - c. Add the map image, name and description, as described in the [“Adding or Updating Map Images” section on page 7-5](#).
 - d. (Optional) Drag and drop cameras on to the map image. Click the arrow next to the camera name to rotate the icon.
 - Click a location to display the cameras associated with that location.
 - Click the arrow next to the camera name to rotate the icon.
 - e. Click **Add** or **Update**.
-



APPENDIX **A**

Related Documentation

Use one of the following methods to access the Cisco Video Surveillance (Cisco VSM) documentation:

- Click **Help** at the top of the screen to open the online help system.
- Go to the [Cisco Video Surveillance documentation web site](#) (the documents and direct links are summarized below).

Documentation Summary and Links

Refer to the following documentation for additional information about Cisco Video Surveillance, including server installation, system configuration, video monitoring, and other features.

Topic	Related Document	Description
All Documents	Cisco Video Surveillance documentation web site	Links to all of the documents described in this table.
Release Notes	Release Notes for Cisco Video Surveillance Manager, Release 7.0.1	Describes the new and changed features, open and resolved caveats, and other information.
Server installation	Cisco Physical Security Multiservices Platform Series User Guide	Instructions to physically install and set up the Cisco VSM server appliance . Each server can run the Media Server application, the Operations Manager application, or both.
Management Console	Cisco Video Surveillance Management Console Administration Guide	Use the browser-based Cisco VSM Management Console to set up and maintain a Cisco VSM server. Tasks include server software and driver pack upgrades, Media Server backups.
Browser-based configuration and monitoring	Cisco Video Surveillance Operations Manager User Guide	Use the browser-based Operations Manager to configure and manage a Cisco VSM deployment. The Operation Manager can also be used to monitor live and recorded video.
Workstation video monitoring	Cisco Video Surveillance Safety and Security Desktop User Guide	Use the Cisco Video Surveillance Safety and Security Desktop (Cisco SASD) application to view cameras, video and alerts on a graphical map. You can also display a video grid on a separate monitor, view Video Walls on multiple workstations, or create unattended workstations.
Video clip player	Cisco Video Surveillance Review Player User Guide	Use the Cisco VSM Review Player desktop application for basic playback of multi-pane video clips.

Topic	Related Document	Description
Workstation requirements	Cisco Video Surveillance Monitoring Workstation Performance Baseline Specification	Baseline performance specifications for a video surveillance monitoring workstation.
Workstation Profiler Tool	Using the Cisco Video Surveillance Monitoring Workstation Profiler Tool	Describes how to use the Cisco Video Surveillance Workstation Profiler Tool tool to analyze the ability of a PC client to render video.
Deploy a Cisco VSM virtual machine.	Cisco Video Surveillance Virtual Machine Deployment Guide for UCS Platforms	Deploy a virtualized Cisco VSM on a supported Cisco Unified Computing System platform.
	VMware HA for Cisco VSM 7.0 Operations Manager on UCS B- and C-Series Platforms	Describes the key requirements and instructions for deploying a highly available Cisco Video Surveillance Manager (VSM) 7.0 Operations Manager in a virtualized environment on a UCS B- and C-Series server using VMware HA.
Restore or repair the server software	Cisco Video Surveillance Manager Flash Drive Recovery Guide	<p>Instructions to repair or restore the Cisco VSM server software.</p> <ul style="list-style-type: none"> • Repair: reinstalls the Operating System files and partitions without erasing video files stored on the server. You must backup the Cisco VSM database before using the recovery image, and then restore the database after the recovery process is complete. This action also preserves the RAID configuration. • Factory Restore: Restores the server to its factory default settings, reinstalls the operating system, and clears and reconfigures the RAID. This action deletes all data, configurations, software and video files from the appliance, and then reinstalls the operating system and Cisco VSM software. Perform this procedure only if necessary.
API Reference	<ul style="list-style-type: none"> • <i>Cisco Video Surveillance API Programming Guide</i> • <i>Cisco Video Surveillance API Reference Guide</i> 	<p>Describes the application programming interface (API) used to display video using third party applications.</p> <p>Note These documents are available on the Cisco Developer Network (CDN). See you Cisco support representative for more information.</p>
Migrating a 6.3.2 system to release 7.0	Cisco Video Surveillance Migration Guide, Release 6.3.2 to 7.0	<p>Describes how to migrate a release 6.3.2 Cisco Video Surveillance Manager (Cisco VSM) deployment to release 7.0.</p> <p>Migrating a Cisco Video Surveillance deployment from release 6.3.2 to release 7.0 is a one-time process that is performed using a special set of Cisco utilities. You can migrate the entire deployment, including all Media Servers at a single time, or migrate the Media Servers over an extended period of time.</p> <p>Note This document is available on the Cisco Developer Network (CDN). See you Cisco support representative for more information.</p>



APPENDIX **B**

Revision History

Revised: April 12, 2013

Table B-1 *Revision History*

Release	Document Revision Date	Change Summary
Release 7.0.0	January, 2013	Initial draft.
Release 7.0.1	March, 2013	<ul style="list-style-type: none">• Added overview information and user-interface (UI) enhancements to “Viewing Alerts”, including the following new and revised topics:<ul style="list-style-type: none">– “Understanding Events and Alerts”– “Alert Centric Workspace Overview”– “Viewing Event URLs”– “Summary of Events and Corresponding Alerts”• Added user-interface (UI) enhancements to “Viewing Cameras and Alerts on Map”.• Added a “Configuring Unattended Windows” section, including:<ul style="list-style-type: none">– “Launching the Unattended Windows”– “Understanding Offline Mode”• Various minor edits and revisions.• Revised the “Related Documentation” section.

