## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installing and Configuring VxOpsCenter</td>
<td>4</td>
</tr>
<tr>
<td>Running the Application for the First Time</td>
<td>4</td>
</tr>
<tr>
<td>Setting Up Your Workstation</td>
<td>5</td>
</tr>
<tr>
<td>Configuring System Server Connections</td>
<td>6</td>
</tr>
<tr>
<td>Adding Servers to VxOpsCenter</td>
<td>7</td>
</tr>
<tr>
<td>Editing or Deleting System Connections</td>
<td>7</td>
</tr>
<tr>
<td>Setting User Preferences</td>
<td>12</td>
</tr>
<tr>
<td>Changing Your Password</td>
<td>13</td>
</tr>
<tr>
<td>Configuring Your Workstation</td>
<td>13</td>
</tr>
<tr>
<td>Workspace Appearance and Behaviors</td>
<td>13</td>
</tr>
<tr>
<td>Changing Layouts</td>
<td>15</td>
</tr>
<tr>
<td>Recorded Video with Edge Storage</td>
<td>19</td>
</tr>
<tr>
<td>Editing and Deleting Bookmarks</td>
<td>19</td>
</tr>
<tr>
<td>Sending Views to Users, Workstations, or Shared Displays</td>
<td>16</td>
</tr>
<tr>
<td>Sending Cells to Shared Displays</td>
<td>17</td>
</tr>
<tr>
<td>Watching Video</td>
<td>18</td>
</tr>
<tr>
<td>Enabling and Disabling Audio</td>
<td>18</td>
</tr>
<tr>
<td>Expanding a Cell to Full-screen</td>
<td>18</td>
</tr>
<tr>
<td>Watching Recorded Video</td>
<td>18</td>
</tr>
<tr>
<td>Recorded Video with Edge Storage</td>
<td>19</td>
</tr>
<tr>
<td>Bookmarks and Bookmarking Video</td>
<td>19</td>
</tr>
<tr>
<td>Finding and Recalling Bookmarks</td>
<td>19</td>
</tr>
<tr>
<td>Editing and Deleting Bookmarks</td>
<td>19</td>
</tr>
<tr>
<td>Synchronizing Video Playback</td>
<td>19</td>
</tr>
<tr>
<td>Synchronizing Video Across Tabs or Monitors</td>
<td>19</td>
</tr>
<tr>
<td>Live Sequence Mode</td>
<td>20</td>
</tr>
</tbody>
</table>
Alarm Sequence Mode ................................................................. 20
Editing Sequences ........................................................................ 21
Pausing and Resuming Sequences .................................................. 21
Taking Snapshots ......................................................................... 21
Automatically Saving Snapshots ....................................................... 21
Finding and Filtering Sources ........................................................... 21
Saving and Restoring Filters ............................................................... 22
Creating and Assigning Tags ............................................................... 22
Creating and Assigning Tags ............................................................... 22
Editing and Deleting Tags ................................................................. 22
Playback Controls ............................................................................ 22
Controlling Cameras (PTZ) ............................................................... 23
Click-to-Center PTZ ........................................................................ 24
Executing PTZ Presets and Patterns .................................................. 24
Stopping a Preset or Pattern ............................................................. 24
Creating Presets ............................................................................. 24
Editing or Deleting Presets ............................................................... 25
Creating Presets ............................................................................. 24
Editing and Deleting Tags ................................................................. 25
Playing Back Video After Moving it to Storage ................................... 29
Pushing Video from the Camera to Storage ......................................... 29
Playing Back Files using the VideoXport Player .................................. 28
Opening an Encrypted Export ............................................................ 28
Changing Layouts (Viewing Multiple Clips Simultaneously) ................. 28
Using Investigations to View Video Stored on a Camera’s Local Storage ................................................................. 28
Pushing Video from the Camera to Storage ......................................... 29
Playing Back Video After Moving it to Storage ................................... 29
Using Investigation Mode .................................................................. 26
Entering Investigation Mode ............................................................... 26
Creating Playlists .......................................................................... 26
Previewing and Editing Playlists ........................................................ 26
Exporting a Playlist ......................................................................... 27
Encrypting Export Files .................................................................... 27
Downloading Exports ...................................................................... 27
Deleting Exports ............................................................................. 27
Using the VideoXport Player ............................................................. 28
Opening an Encrypted Export ............................................................ 28
Changing Layouts (Viewing Multiple Clips Simultaneously) ................. 28
Working with Plug-ins ..................................................................... 30
Installing Plug-ins ......................................................................... 30
Image Viewer Plug-in ..................................................................... 30
Using the eConnect Plug-in ............................................................... 30
Responding to Events ...................................................................... 31
Event Viewer ................................................................................. 31
Logging Out ..................................................................................... 32
Closing the Application .................................................................... 32
Installing and Configuring VxOpsCenter

Your system must meet the minimum requirements and have Microsoft®.NET 4.5 or later installed before you can install the Ops Center Client application.

1. Run the VxOpsCenter MSI installer.
2. Click Next.
3. Read and accept the terms of the End User License Agreement. Click Next.
4. Set the installation path, and then click Next.
5. Click Install.

Running the Application for the First Time

When you run the application for the first time, you will create your user account, configure basic VxOpsCenter and video behaviors, and, most importantly, point VxOpsCenter to the VideoXpert system(s) you want to use. Some steps in initial setup are optional; you only need to access these options if your workstation and network differ from default settings.

1. Run VxOpsCenter.
2. Create your Workstation Configuration Account. This account is local to the workstation and preserves your configuration and your VideoXpert system credentials from other users who might access your workstation. Your workstation configuration account credentials may be the same as your VideoXpert user credentials, though you may want to use different credentials for your workstation configuration account to maximize security.
3. Configure your workstation, including your monitor layout. See “Setting Up Your Workstation” on page 5 for more information about workstation configuration and monitor layout.
5. Indicate whether or not to allow multi-server access. See “Multi-System Access (Simultaneous Server Connections)” on page 8 for more information.
6. Click Save.
7. Login to VideoXpert with your standard credentials (not the Workstation configuration Account) to begin using VideoXpert.
Setting Up Your Workstation

Workstation settings determine the basic behavior of the system. You can re-configure the workstation at any time by logging in with the Workstation Configuration Account.

1. Log in using the Workstation Configuration Account.

2. Provide a Workstation Name. This is the name by which VxCore will recognize the workstation and the name by which other users will recognize the workstation when sending video, responding to workstation-related events, etc.

3. (Optional) Edit your Workstation Configuration Account credentials.

4. Under, Workstation Mode, determine whether or not the workstation will run as a Shared Display. Shared Display mode provides monitor-wall functionality for a workstation operating a single monitor. See “Configuring Shared Display Mode” on page 9 for more information about Shared Display Mode.

5. If your workstation will support multiple monitors through VxDecoders, click next to Monitor Configuration to configure monitor layout for the workstation. See “Configuring Monitors for VideoXpert Workstations” on page 1 to learn more about monitor configuration.

6. Enter your NTP Server Address.

7. (Optional) Enable or disable hardware acceleration. Hardware acceleration is enabled by default and should only be disabled if your workstation uses an unsupported graphics chipset or you need to troubleshoot graphics issues that may result from your graphics drivers and chipset.

8. Click Apply, OK, or System Server Connections to save your workstation configuration settings.

Configuring Monitors for VideoXpert Workstations

The Ops Center supports monitors connected directly or monitors connected through Enhanced Decoders over the network. For best performance, it is recommended that you run Windows® 8 or later on workstations operating decoder-driven monitors.
For workstations using multiple monitors driven by Enhanced Decoders, TightVNC server mirrors Windows elements on monitors driven by Enhanced Decoders over the network. Video decoding processes are handled by the decoders driving each monitor, but the user experiences what appears to be a single, unified Windows desktop.

1. Open VideoXpert Ops Center.

2. Select **Configure Monitors**. If you have already performed initial configuration for the system, log in as the Ops Center’s local administrator first, and then select **Configure Monitors**. To optimize decoder performance in Windows 7, download and install the DFMirage mirror driver.

   **NOTE:** Do not install the DFMirage driver if running a version of Windows other than Windows 7.

3. For each monitor, determine whether the monitor is connected directly to your workstation or through a decoder. For monitors connected through a decoder, enter the IP address of the decoder, and click **Connect**.

4. When you have configured all monitors, click **Finish**.

**Configuring System Server Connections**

The list of **System Server Connections** determines the VideoXpert environments your VxOpsCenter can connect to. When a users log in, they will use their VideoXpert system credentials, and VxOpsCenter will connect them to relevant VideoXpert environments. If a server is not in the list of system server connections, a VideoXpert user will not be able to connect to it using VxOpsCenter.

Only the **Workstation Configuration user** can define system server connections. When you add systems using the Workstation Configuration Account, you can elect to provide credentials. If you add credentials for systems, then your Workstation Configuration Account will also immediately connect you with your systems. If you do not provide credentials, then you must manually enter credentials for each system after you log in as the workstation configuration user.
When setting up a connection to a server, you can also determine streaming performance to the system. By default, system connections use the best possible streaming options, but you may need to disable settings or adjust your connection speed to account for the network between the workstation and the system you want to connect to.

Adding Servers to VxOpsCenter

1. Log into VxOpsCenter with the Workstation Configuration Account.
2. Click System Server Connections.
3. Click + to add a server.
4. (Optional) Provide notes about the server, if you choose. The notes are only available to the Workstation Configuration account.
5. Provide the IP Address of the server, and adjust the HTTPS Port if different from the default.
6. (Optional) Add credentials for the server. Your server credentials will allow the Workstation Configuration Account to connect directly to the server without providing a separate set of credentials.
8. Click Test Connection to ensure that you have provided the correct server address; testing the connection will require you to provide credentials to the server.
9. Click Save.

Editing or Deleting System Connections

After logging in with the Workstation Configuration account, you can select system connections and click to edit the connection or to remove the connection.

System Streaming Performance Settings

System streaming performance settings determine the quality of streams you receive or, in some cases, whether you receive a stream at all from a particular system. These settings affect framerate and latency of video, typically for the better with each subsequent setting. However, these options may not be available for your network. VxOpsCenter uses the deepest selected option that is provided by the server.

If you deselect all Streaming Performance options, you will engage JPEG-Pull streaming. JPEG Pull streaming is always available and works on virtually all network types (anywhere a TCP connection is available). It works even on slow connections, in part because of its lower quality (low frame rate and high latency).

To set your System Streaming Performance, log in with the Workstation Configuration Account and add or edit a system.

Allow RTSP/RTP is recommended for most system configurations. Select this to enable RTSP streaming over TCP (or Unicast or Multicast UDP, depending on subsequent settings). This option provides a higher quality stream than JPEG Pull on all but the slowest networks.

Allow UDP is recommended for most LAN configurations. This setting enables Unicast streaming over UDP. Streaming over UDP is more efficient and has lower latency than streaming over TCP. However, UDP traffic is blocked by some WAN networks, and by fewer LAN networks. If you encounter streaming problems, try deselecting it.

Allow Multicast is recommended for most for enterprise-level networks whose switches allow multicast traffic. This setting enables Multicast streaming over UDP. Multicast UDP streaming is even more efficient than unicast UDP streaming. However, multicast traffic is blocked by most WAN networks, and by some LAN networks.

Connection Speed determines the type and resolution of video available to you; at slower connection speeds, you will receive video transcoded into lower resolutions. When streaming JPEGs, your connection speed determines the compression of JPEG images (the lower the speed, the greater the compression).
- 512k restricts you to JPEG streaming
- 1 Mbps restricts video to CIF resolution (352 x 240) or smaller
- 5 Mbps restricts video to D1 resolution (720 x 480) or smaller
- 10 Mbps restricts video to secondary streams when available.
- Connection speeds greater than 10 Mbps can access full resolution video.

**Multi-System Access (Simultaneous Server Connections)**

**NOTE:** The Multi-server access option takes effect whether or not you have configured the workstation to connect to multiple systems.

Multi-system access allows you to access multiple VideoXpert environments simultaneously using your VX Workstation Account. When enabled, your VX Workstation account will store credentials for your VX system credentials, acting like a master key for VideoXpert (on this workstation). When you log in with your VX Workstation Account, you will be able to select and access video from all of your VX systems without having to provide credentials for each of your systems.

To enable Multi-system access, select the *Enable simultaneous access to multiple systems* option when configuring your workstation. With multi-server access enabled, the *Systems* section is available within VxOpsCenter. You can select or deselect systems to show or hide sources belonging to your various systems.

If the *Enable simultaneous access to multiple systems* setting is disabled, you must select the system you want to connect to before logging in; to log in as the Workstation Configuration User, you must select *None - Configure Workstation*.

![Login prompt with simultaneous system access disabled](image.png)

*Figure 2: Login prompt with simultaneous system access disabled*
Configuring Shared Display Mode

A **Shared Display** is a single-monitor workstation that provides monitor wall functionality within VideoXpert. In this mode, local controls are disabled; you will not control the application locally. Rather, you and other users will send tabs and video to the shared display and control the shared display remotely.

Your workstation must have only one, locally-connected monitor to support Shared Display mode. (If more than one monitor is connected to the workstation, you will be unable to put the workstation into Shared Display mode.) Putting the Ops Center in Shared Workstation mode causes the Ops Center application to start and log-in automatically when Windows starts. Because the workstation is intended to start without user interaction, it is recommended that you configure Windows to start and log-in automatically for shared displays.

The user account you provide when setting up Shared Display mode must have the **Setup Edge Devices** permission. The account should also have rights to view and control any cameras you send to the monitor; the shared display cannot display cameras it does not have permission to access, even if the user sending something to the shared display has permission to view those cameras.

To configure an Ops Center for Shared Display mode:

1. Log in using the Workstation Configuration Account.
2. Enable **Shared Display** mode.
3. Set the display name for the workstation; this is the name by which users will recognize and target the shared display within VideoXpert.
4. Provide a number for the monitor. The number will allow you to set rules to send video to your shared display, or to send video to the shared display by number.
5. Provide the user name and password of an account with credentials to view video; the account provided must have access to cameras and functions you want to use through the shared monitor.
6. Elect whether or not to show camera names and timestamps in video cells. Whether the user sharing video has names and timestamps enabled, the shared display uses this preference to determine whether or not to display overlays.
7. Click Save.
Logging In

1. Open the Ops Center application.
2. (Optional) If VxOpsCenter is configured to connect to a single system at a time, select the system you want to access.
3. Enter your credentials.
4. Click Log In.

User Account Types

VxOpsCenter supports two types of users:

- The Workstation Configuration Account provides access to VxOpsCenter settings and allows you to configure connections to VX systems. The configuration account should be reserved for administrators, especially if multiple users will share the same workstation.
- Logging in as a standard VideoXpert system user provides access to standard VX features - viewing video, controlling cameras, etc.

If your user account is both the workstation configuration account and a VideoXpert system user, VxOpsCenter will log you into applicable VideoXpert systems and allow access to workstation configuration settings.

When you log in as a standard VX user, the system will only populate sources and options you have permissions to see (determined by the roles assigned to your user account). If a system or camera does not appear when you log in, then the system or camera may be offline, or you may lack the appropriate permissions.

Setting your Display Language

The localization presented by the Ops Center client is based on the Region and Language settings within Windows. To set or change your Ops Center display language:

NOTE: You must have the appropriate Windows language pack to expose display languages in the Ops Center Client.

1. Close the Ops Center software if it is already running.
2. Click Start, and search for “Region and Language”. Open the Region and Language settings.
3. Under Formats Set the Format field to your language and region. Click Apply.
4. Run the VideoXpert Ops Center Client.
Ops Center Basics

1. **Playback Controls** and the timeline apply to selected cells. When using synchronized playback, playback controls shift to the bottom of the tab and apply to all cells in the tab.

2. A **Cell** displays a single camera or plug-in within VideoXpert. Cell highlights determine whether a cell is selected, playing-back video, or is in PTZ mode.

3. A **Tab** is a window of the Ops Center containing cells. Hover over the tab to reveal additional controls for the tab.

4. The **Layout controls** determine the number of cells in a tab.

5. **Mission Control**: Contains settings, and all the items with which you may populate workspaces. Click to dock or un-dock Mission Control to any tab in the workspace.

6. The **User Menu** contains preferences and controls specific to the current user. Through this menu, you can reach application Preferences, the Export Archive, and the View Launcher.

7. **Tab and Workspace Controls**: Your workspace consists of tabs and monitors populated with cameras or plug-ins. You may have 1 active workspace at a time containing some number of tabs (typically one tab per monitor, but that is not a limitation); each tab contains some number of video streams or plug-ins.

8. The **Plug-ins** menu contains Content and Overlay plug-ins. Content plug-ins consume a cell, like the Mapping or Image Viewer plug-ins. Overlay plug-ins operate in the same cell as video, providing additional information about the video in question.

9. The **Sources** panel shows all the video sources the current user can access. Use the filters in the panel to sort the list in real time.

10. **Tooltips** show additional information about your video sources. Hover over entries in the Sources and Bookmarks panels to reveal tooltips.

11. The **Bookmarks** panel shows clips of video that you or other users have bookmarked. Use the filters in the panel to sort the list in real time.

12. The **Event Counter** shows how many active events you (or someone with similar permissions) need to respond to.

**Context Menus (Right-Clicking)**

You can right-click entries in the source list or cameras in your active workspace to reveal additional options available to your user and the devices you want to click. VxOpsCenter provides users with only the options available to you at any given time; availability may be limited by your user permissions, the types of cameras you use, whether or not PTZ mode is engaged, and so on.
Tooltips

Hovering over any source or bookmark in Mission Control reveals additional information about the video source or bookmark. Click within the bookmark to show or hide information in the tooltip.

Watched By: (Multiview Support)

If you have the “Multiview” permission, you will see a “Watched by” field in tooltips throughout the Ops Center interface. The Watched by field shows users watching live video from a particular video source; the “Watched by” field does not show users playing back video recorded from a video source.

If the users listed in the Watched by field are viewing video from a different site than you, the tooltip will also attempt to indicate the site from which other users are watching video. If users are watching video from an aggregated site, the tooltip will state the site name in parenthesis. If you are watching video from an aggregated site, and the users listed in the Watched by field are accessing VideoXpert from the Ultimate (parent) site, then the tooltip will simply list parent site.

Setting User Preferences

When logged in to VideoXpert, you can set some basic preferences for behaviors within the Ops Center application. Click , and then click Preferences. Within the preferences dialog, you can change your password, set audio preferences, and set behaviors for the Ops Center and associated plug-ins.
Configuring Your Workstation

After initially configuring your workstation, you can change configuration settings or add server connections by either logging in with the Workstation Configuration Account, or selecting the Workstation Configuration option from within the Ops Center.

To reach workstation configuration options:
1. Click in Mission Control.
2. Click Configure Workstation.
3. Provide workstation configuration credentials.

Workspace Appearance and Behaviors

Click and then click Preferences to display viewing options. Under Workspace Appearance and Behaviors, you can determine the viewing behaviors for your Ops Center instance.

From here, you can determine behaviors for adding cameras to cells, sorting mechanisms for event alerts, and other basic controls. Of particular note:

- Display in-cell feedback for playback controls determines whether or not the cell flashes playback control changes as you make them.
- Always Show Source Names in Videos allows you to elect to show the name of the source in the cell at all times. Normally, source names will only show when you select a cell.
- Show Video Thumbnails on hover in source list enables video thumbnails in the context dialog that appears when you place your cursor on a source in Mission Control.

Changing Your Password

1. Click in Mission Control.
2. Click User Preferences.
3. Click Change Password.
4. Enter and confirm your new password.
Tabs and Workspaces

A workspace is comprised of tabs; each tab consists of a layout populated with sources and plug-ins. You can save your entire workspace or individual tabs for easy access later. Users with appropriate permissions can even make their workspaces or tabs arrangements available to other users. The server automatically saves your workspace when you log out, and recalls it when you log in again.

Tab View Options and Modes

You can determine the behavior of each individual tab using the View and Mode menus. Views affect tab behavior locally; modes affect the behavior and controls available to a tab in all instances. For example, a tab in “No Video” mode only ceases to display video locally; a tab in “Sequencing” mode will display the camera sequence and associated controls wherever it appears.

Tab View Options

From the View menu, you can determine whether or not to display the tab in full screen mode or not; in full screen mode, the tab controls and outer borders vanish, maximizing the size of video and cells.

From the View menu, you can also set video quality within the tab. Unless the tab is in collaborative mode, video quality settings affect video locally; they will not determine the behavior of a tab displayed on another user’s workspace or a shared display, nor do they affect the quality of recorded video.

- **Highest Available Quality**: sets the tab to behave normally; it will display the camera’s primary stream when possible, as dictated by cell size and system resources.
- **Secondary Stream**: forces the tab to display secondary streams for all cameras.
- **JPEG Stream**: sets the tab to have all streams transcoded into JPEG frames. The rate of the JPEG stream is dependent on network bandwidth and Media Gateway availability; this setting can be stressful on your Media Gateway.
- **Thumbnail**: sets the tab to show images that refresh roughly every 30 seconds, rather than video. This mode uses few resources and significantly reduces the impact of the tab on your workstation. Use this mode for large areas in which a low framerate is still enough to capture activity within the scene.
- **No Video**: prevents the tab from displaying video locally, so the tab has almost no impact on your workstation’s resources. Use this mode when controlling a tab on a monitor wall, so that the tab has little or no impact on your local workstation.

Tab Modes

Tab modes determine the features available to you within a tab. Changing tab modes without saving the current tab will cause you to lose your settings. Modes are exclusive; a tab cannot be both Collaborative and support sequencing. Putting the tab in either mode will remove the abilities granted by the previous mode.

- **Normal**: sets the tab to behave normally.
- **Collaborative**: allows you and other users to view and affect changes in the tab simultaneously; use this mode to collaborate with other users. See “Using Collaborative Tabs” on page 16 for more information about collaborative tabs.
- **Sequencing**: allows you to add more cameras to a tab than the layout would traditionally support and rotate cameras through the tab at a particular interval.
Opening a Saved Tab or Workspace

Opening a saved workspace will close your current workspace; you may want to save your current workspace before you open a new one. If you set a shortcut for a saved item, you can also recall it using keyboard shortcuts.

1. Click **Workspaces** or **Tabs**.
2. Double-click the workspace or tab you want to open, or drag a tab into the monitor in which you want it to open.

Creating a New Tab or Workspace

1. Click **New**, and select a layout for your new tab. Or, click the new tab icon in an open window, and then select a layout; you can open new tabs just like you would in a web browser.
2. Move the workspace to the monitor in which you want it to appear. When recalling this workspace, it will appear on the appropriate monitor.
3. Populate the tab with sources or plug-ins. Use the filter function in Mission Control to find cameras to add to your workspace. **NOTE:** You can also drag cells to rearrange your workspace.
4. If configuring a complete workspace, repeat the above steps for tabs to fill your remaining monitors.
5. Save the tab or workspace if you want to recall it later.

Saving a Tab or Workspace

Saving a tab or workspace allows you to recall the complete tab or workspace, including all cameras, viewing states (live or recorded video), and plug-ins. Save tabs or workspaces that you or other users will recall frequently.

1. Click **Workspaces**, and then click to save your workspace. To save a tab, click **File**, and then click **Save**.
2. Provide the following information:
   - A name for the tab or workspace.
   - The keyboard shortcut you want to map to the tab or workspace, if applicable.
   - Click **Save as global tab** or **Save as global workspace** to make the tab or workspace available to all users in the VideoXpert environment.
   - Click **Save as collaborative tab** to make the tab globally available, and allow multiple users to view and simultaneously manipulate the contents of the tab.
3. Click **OK** or **Save Changes**.

Editing Tabs and Workspaces

You can edit the contents (layout, plug-ins, sources, etc.) of a workspace at any time. Click **File** at the top of the workspace, and then click **Save** to save your changes.

To edit the name, hotkey, or description for tabs or workspaces, click **Tabs** or **Workspaces**, and then click . When complete, click **Save Changes**.

Changing Layouts

The grid icon in any tab shows your current layout. Click it to select a new layout option. If you select a layout with fewer cells than your current layout, the client will retain camera-cell assignments and repopulate cells accordingly if you return to the original layout or a layout with more cells than the original.
1. Click in the top right of the tab.
2. Select the new layout for the workspace.

### Entering Investigation Mode

Investigation mode provides robust, synchronized playback controls with up to 9 total cells, allowing users to fully investigate an incident across multiple cameras simultaneously. Investigation mode always opens in a new tab.

1. Click Layout, and select Investigation Mode.
2. Add cameras to the layout. As you add cameras, they will appear in the camera list at the bottom of the workspace, with a timeline indicating the availability of recorded video for all cameras.

### Using Collaborative Tabs

**NOTE:** Collaborative tabs do not support plug-ins.

Tabs marked with a 🎩 are collaborative, and allow multiple users to view and affect changes in the tab simultaneously. Users commands against the collaborative tab are performed on a first-come, first serve basis. Users should account for latency and the total number of collaborative users when affecting the tab to coordinate efforts.

Collaborative tabs are always global tabs; you cannot restrict the users who have access to the collaborative tab.

To make a tab collaborative:

1. In the tab, click **Mode**.
2. Select **Collaborative**.
3. Click **File** and select **Save** or **Save As...**; you must save the tab so that you can send it to others or select it from the menu.

### Sending Views to Users, Workstations, or Shared Displays

Using the **View Launcher**, you can send cameras or tabs to other workstations in your VideoXpert network. The recipient can choose to accept the view you send, or you can force the recipient to accept the view, upon receipt, the view will open in the user’s active window. When sending an individual source to a user, the source opens in a new 1 x 1 tab. When sending a saved tab, the tab will open as normal; if the tab is open and you have manipulated video within the tab at the time you send it, the recipient will receive the tab as it appears on the sender’s workstation.

The **View Launcher** displays the disposition of views sent to other users.
1. Click **File** in the tab and select **Send To**. To send an individual source, right click it and select **Send To**. You can also open the View Launcher from the Ops Center menu in Mission Control.

![View Launcher](image)

2. Select the View you want to send if it is not already selected.

3. Use the **Add** menu to select recipient workstations for the view you want to send; recipients marked by 📅 are shared displays. You can select multiple recipients.

4. (Optional) Select **Force Acceptance** to automatically launch the view in the user’s active window.

5. Click **Launch**. You can determine the disposition of the sent view using the Status column.

### Sending Cells to Shared Displays

To use the quick launch feature, your shared displays must be assigned numbers. See to “Configuring Shared Display Mode” on page 9 for more information about assigning numbers to your shared displays.

**Figure 1:** Quick Launch Dialog

You can quickly launch a cell to a shared display using the **Insert** key. Insert opens the Quick Launch feature within your selected cell.

Insert the number to which you want to send and then an M to indicate the monitor and C to indicate the cell you want to replace on the shared display. Command 1m2c would indicate that I want to send a cell to the second cell on shared display number 1.
Watching Video

The Sources section of Mission Control shows the list of video and audio sources you are authorized to access.

If a particular source is online but doesn't appear in your source list, try refreshing the list. Cameras that come online after you log in or perform a search will not appear until you refresh the list. If the camera still does not appear, request access to the source from your administrator.

When watching live video, cells 1/4 the size of the tab or larger will use the primary stream from a video source. Cells smaller than 1/4 the size the tab will use the secondary video stream. In a 2x2 layout, for example, all cells will use the primary stream. In a 1+12 tab, the largest cell will use the primary stream and the other twelve will use the secondary stream.

When watching recorded video, cells 1/4 the size of the tab or larger will display full-framerate video. Cells smaller than 1/4 the size of the tab will playback only iFrames.

1. Find the camera you want to watch. Use the Filter box to search for cameras.
2. Add the camera to your workspace.
   - Drag a camera to the cell in which you want it to appear.
   - Double-click a camera to add it to the next available cell in the current tab.

Enabling and Disabling Audio

Video sources marked with a 🎧 are associated with an audio source. In any cell containing or associated with an audio source, click 🎧 to enable or disable audio within a cell; you can control volume through Windows’ standard audio controls.

Click 🔊, click Preferences, and select the Audio tab to change audio behaviors within the Ops Center, including automatic playback and whether or not to play audio only when you select a video cell containing an audio source.

Expanding a Cell to Full-screen

Click ⬤ to expand a cell to the full-screen. Click ⬤ again or press Esc to exit full-screen mode.

Watching Recorded Video

Users with sufficient permissions can access recorded video from any video source in a workspace. Placing the pointer on a cell containing a source with recorded video will reveal playback controls.

1. Place your cursor over the cell containing the source containing recordings that you want to watch.
2. Click ⏯️ to select the date and time of the recording.
3. Use the timeline to quickly navigate to a different time in the recording. Green areas on the timeline represent recorded video.
   **NOTE:** Digital Sentry returns search results in 15 minute intervals. If any video was recorded on the Digital Sentry server in the 15 minute interval confined by the search, the Ops Center will report that recorded video is available for the entire 15 minute period; when searching for video from Digital Sentry, you may have to browse the timeline to find video within the 15 minute period you searched. If the Ops Center reaches a recording gap when playing back video from a DS recorder, it may loop video from within the gap, rather than skipping to the next recording or indicating that there is no video available. Move playback to a different time to correct the issue.
4. Use the playback controls to direct video playback. Click ⬇️ to jump to live video.
Recorded Video with Edge Storage

If your camera or video source is recording video locally (using an SD card or in concert with ONVIF Profile G), the timeline will display the , the device tooltip will also alert you to multiple recording locations. Click \( \text{\textbullet} \) to open an investigation tab showing the camera’s various recording locations as separate timelines.

You cannot view video while it is stored on the camera; you must push video from the camera to a VideoXpert Storage recorder, to view video stored on a camera.

Bookmarks and Bookmarking Video

When watching recorded video, you can implement a bookmarks to note a moment in video to reference later. Bookmarks appear in a section in Mission Control, and are global resources; all users can see the bookmarks you create. Within Mission Control, bookmarks behave like cameras; you can add a bookmark to a tab or workspace to recall the portion of video captured by the bookmark.

1. Click \( \text{\textbullet} \) while watching recorded video.
2. Provide a name for the bookmark; the name is searchable from within Mission Control.
3. Click \( \text{OK} \).

Finding and Recalling Bookmarks

Bookmarks behave like any other camera or video source. Adding a bookmark to a workspace adds the camera to the workspace in playback mode, paused at the date and time specified by the bookmark.

1. Click Bookmarks in Mission Control to expand bookmark resources.
2. Use the filters to search a bookmark. The list of results only displays the source, date, and time for the bookmark in question, but you can also search by the plain-text note attached to the bookmark. Hover the cursor over a bookmark to get more information about it.
3. Add the bookmark to a workspace.

Editing and Deleting Bookmarks

Select a bookmark in mission control and click \( \text{\textbullet} \) to edit the plain text for the bookmark. You cannot change the date, time, or camera. Select a bookmark in Mission Control and then click \( \text{\textbullet} \) to delete it.

Synchronizing Video Playback

You can synchronize playback across multiple cells within a tab to provide different perspectives for a single recording event.

1. Click Sync in the tab containing the cells you want to synchronize.
2. Select the cells you want to synchronize; select Sync All to select all cells in the tab.
3. Playback video. Cells will remain synchronized until you click Sync again, even if you jump to live video and re-engage playback.

Synchronizing Video Across Tabs or Monitors

When using sync playback on any of your current monitors, click \( \text{\textbullet} \) in the bottom left corner of the tab to add a tab to the sync group. The controls in any monitor belonging to the sync group will affect playback for all cells and tabs in the group.

Clicking \( \text{\textbullet} \) will add all cells in a tab to the global sync group. If you want to add individual cells in a monitor to the global sync group, click sync and select the cells you want to add to the group, and then click \( \text{\textbullet} \).
**Live Sequence Mode**

A video Sequence is a series of cameras set to rotate through a tab at a user-defined period of time. When you configure a sequence, you can determine which cameras appear in the sequence, how often the cameras rotate, and whether or not to rotate an entire set of cameras, or just one at a time. A sequence may be helpful when you have more locations to track than you have monitors or attention.

To create a sequence:

1. In any tab, click **Mode** and select **Sequence**.

2. Set the **Dwell** period. This is the length of time that the tab will dwell on cameras before advancing to the next camera(s) in the sequence.

3. Set the **Replacement Method**. This determines how many cameras you want to replace at the end of each dwell period: all of the cameras in the grid, or one camera at a time. When replacing a single camera at a time, the cameras rotate through the grid, left-to-right, top-to-bottom. (The next camera in the sequence moves into the top-left cell; the camera formerly in the top-left cell moves to the right, and so on. The bottom-right cell is bumped off the grid, until it re-enters the sequence.)

4. Add cameras to the sequence. While in Edit Mode, you can either double-click cameras, or drag cameras into the **Cameras in the Sequence** box.

5. Click **Save** to begin the sequence.

---

**Alarm Sequence Mode**

[Diagram of Alarm Sequence Mode]
Alarm Sequence mode allows you to designate cameras that you want to watch when - and only when - meaningful events occur, so that you never miss activity relevant to your surveillance operations.

By default, the sequence will any camera-associated events that have been configured to provide a notification for your user account and role. You can refine the sequence to a subset of system cameras and a subset of camera-associated events that you want to watch.

To create an alarm sequence:
1. In any tab, click **Mode** and select **Alarm Sequence**.
2. Set the Dwell time available when cells are full. This indicates how quickly video rotates through the sequence when you have more current events than available cells in the sequence.
3. (Optional) Click **Selected Events** if you only want to use a subset of events in your sequence. Click **to select or deselect events.**
4. (Optional) Click **Selected Cameras** if you want the sequence to follow a specific subset of cameras. Drag cameras into the sequence. The order does not matter for alarm sequences.
5. Determine when to close streams in the sequence: either when acknowledged or after a specific period of time.
6. Click **Resume Sequence** to run the sequence.

**Editing Sequences**
Click **to edit the cameras, events, and other settings belonging to a sequence.**

You do not need to pause the sequence to edit the cameras in the sequence.

**Pausing and Resuming Sequences**
Click **Pause Sequence** to stop cameras from rotating in or out of the sequence. The cameras in the tab will continue to play until you resume the sequence.

**Taking Snapshots**
Click **, select **Preferences**, and click **Cells** to find snapshot options. For snapshots, you can select the format of your snapshots (JPEG or PNG) and whether or not to include video overlays in snapshots.
1. Click **to take a snapshot of the current frame.
2. Provide a filename and location for the snapshot.
3. Click Save.

**Automatically Saving Snapshots**
You can automatically save snapshots in a folder of your choosing. Snapshots saved in this way are named...
1. Click **, select **Preferences**, and click **Cells** to find snapshot options.
2. **Select Auto-save snapshots**.
3. Click **Browse** and select the folder in which you want to save snapshots.

**Finding and Filtering Sources**
The Source section of Mission Control contains a list of all video and audio sources you are authorized to access. The list populates as you scroll down.
Use the Filter box to more easily find sources by name, ID, model or IP address. Click Advanced Filter Options to reveal additional options; you can find cameras by tag, and determine the criteria for devices that appear in your filter.

**Saving and Restoring Filters**

Clicking Advanced Filter Options reveals the option to save a filter. When you have populated a filter, click Saved Filter Sets, and then click **Save** to save the filter.

When the Filter fields are empty, click Saved Filters to find a filter.

**Creating and Assigning Tags**

Click  or right click a video source, and select Manage Tags to open the Manage Tags window. From this dialog, you can create and assign both global and personal tags; you can use these tags to filter devices within VideoXpert.

- **Global tags** are available to all users within the system. All users can filter sources, exports, and bookmarks according to the listed tags.
- **Personal tags** are tags that are only available to you and administrator-level users. You can use your personal tags to assign and sort resources in a way that best reflects how you use VideoXpert.

**Creating and Assigning Tags**

You create tags while assigning them. It is important to have a strategy for tags and camera organization before you begin creating and assigning tags.

1. Click  in Mission Control or right click a video source, and select Manage Tags.
2. Click within the tag field and type the name of the tag you want to assign; if the tag exists, you can select it and it will autofill. If the tag does not exist:
   - Click Create this tag (personal) to create a personal tag that is private to your user account.
   - Click Create this tag (global) to create a tag that other users can see and use.

**Editing and Deleting Tags**

Through the Ops Center, users with sufficient rights can delete global tags. (How long does it take to refresh?

1. Click  or right click a video source, and select Manage Tags.
2. Select the System tab.
3. Select the tag you want to remove or edit.
4. Click to delete the tag or to edit the tag.

**Playback Controls**

Playback controls appear when you hover over a cell containing recorded video.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>📅</td>
<td>Select the date and time of video you want to watch</td>
</tr>
</tbody>
</table>
Controlling Cameras (PTZ)

Engaging PTZ control changes the color of the border around the cell containing the source (camera) you want to control: blue indicates native PTZ control, and purple indicates digital PTZ mode.

**PTZ mode** functions for PTZ cameras operating in live mode.

**Digital PTZ** engages when you:

- Engage PTZ controls for cameras for fixed cameras.
- Attempt to PTZ cameras in playback mode; return to live video to engage native mode for supported cameras.
- Press Alt+Enter to force digital PTZ mode

In **Digital PTZ** mode, all PTZ controls affect their digital equivalents. Pan or tilt commands to a camera in digital PTZ mode cause the camera to digitally zoom in the requested direction (as opposed to physically moving the camera’s field of view). Zoom commands will digitally zoom the camera from the center of the field of view. Digital PTZ enhancements may affect video quality.

1. Select the cell you want to control.
2. Engage PTZ controls. The cell border will turn blue or purple depending on the PTZ mode supported by the source.
   - Click  to enter PTZ mode. Alternately, you can press  or Enter to engage standard PTZ mode.
   - Press Alt+Enter to force digital PTZ mode, or enter PTZ mode when standard PTZ controls are unavailable.

3. Control the camera. Use the joystick to affect broad motions and the keyboard to perform more precise movements.
   - Move the joystick up and down to tilt the camera; press the up and down arrows to nudge the camera vertically.
   - Move the joystick left and right or press to pan the camera; press the left and right arrows to nudge the camera laterally.
   - Twist the joystick right to zoom in and left to zoom out; press + or Page Up to zoom in and - or Page Down to zoom out. When zooming the camera in, video may jump briefly when the camera switches from physical to digital zoom; to prevent this behavior, disable the camera’s digital zoom feature.
   - Press  or Home to return to the preset “home” position.

4. When finished, click  to exit PTZ mode. Alternately, you can press  or Enter again to exit PTZ mode.

**Click-to-Center PTZ**

When PTZ mode is enabled, you can click within the cell to center a camera’s field of view on any point you click within the cell. Click-to-center functionality is not supported for all cameras.

When PTZ mode is enabled within a cell:
- Click in the cell to center the camera’s field of view.
- Double-click to center video and zoom in.
- Hold Alt and click to center video and zoom out.

**Executing PTZ Presets and Patterns**

A PTZ **preset** is a defined PTZ position; you can send the camera to the defined position by calling the preset. A PTZ **pattern** (or a **preset tour**) is a series of presets; you can configure most patterns to dwell at each preset for a specific period of time.

To execute a preset or pattern:
1. Click  to engage PTZ control.
2. Right click and select **PTZ** or **Pattern**. Select the preset or pattern you want to execute.

**Stopping a Preset or Pattern**

You can exit a preset or a pattern at any time by manually controlling the camera.

**Creating Presets**

VideoXpert does not store presets. Any presets or patterns you create through VxOpsCenter are created and stored camera-side. When you create a preset through VideoXpert, you will assign the preset a numerical value; the preset will appear in the camera or encoder interface as “Preset <value>”. Some cameras and encoders have limitations -- a maximum value for presets or reserved values that you cannot change.

If you want to assign a non-numerical friendly name to a preset, you must change the name of the preset from within the camera interface.

**NOTE:** For Pelco NET5500 and NET5400 series encoders, you can edit presets, but you cannot create new ones.
1. Click  to engage PTZ control.
2. Move the camera to the position you want to mark as a preset.
3. Right click and select *Create Preset*.
4. Provide a number for the preset. The maximum number for the preset is determined by the camera or encoder on which you are creating a preset. Some cameras have reserved values that you cannot use to set a new preset.

**Editing or Deleting Presets**

Some presets are pre-defined by the camera or encoder; you cannot delete or edit these presets.

**NOTE:** For Pelco NET5500 and NET5400 series encoders, you can edit presets, but you cannot create or delete presets.

1. Click to engage PTZ control.
2. Right click in the cell, go to presets, and hover over the preset you want to change.
3. Click to edit the preset, or click to delete the preset.

**PTZ Controls**

Press or Enter to engage PTZ controls.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="lock.png" alt="Lock Icon" /></td>
<td>Locks or unlocks PTZ controls for other users.</td>
</tr>
<tr>
<td><img src="zoom_in.png" alt="Zoom In Icon" /></td>
<td>Zoom in.</td>
</tr>
<tr>
<td><img src="zoom_out.png" alt="Zoom Out Icon" /></td>
<td>Zoom out.</td>
</tr>
<tr>
<td><img src="center_mode.png" alt="Center Mode Icon" /></td>
<td>Engages click-to-center mode.</td>
</tr>
<tr>
<td><img src="click_to_center.png" alt="Click to Center Video" /></td>
<td>• Click to center video.</td>
</tr>
<tr>
<td><img src="double_click.png" alt="Double-Click to Center Video" /></td>
<td>• Double-click to center video and zoom in.</td>
</tr>
<tr>
<td><img src="hold_alt.png" alt="Hold Alt and Click" /></td>
<td>• Hold Alt and click to center video and zoom out.</td>
</tr>
</tbody>
</table>
Using Investigation Mode

Investigation mode provides a more detailed interface for synchronized playback and video search in a single window, making it easier to investigate a scene. From investigation mode, users can also trim and export video clips from the system’s network video recorders for evidentiary safe keeping.

As you add cameras to the investigation window, the cameras appear in a detailed timeline at the bottom of the tab populates with recording information for each camera. The green areas for each camera indicate recorded video. You can use the timeline to navigate the composite recording.

Entering Investigation Mode

Investigation mode is only available within a new tab or workspace; you cannot switch between a standard layout and investigation mode.

1. In Mission Control, click New.
2. Select Investigation.
3. Add cameras to the tab.
4. Use the playback controls and the timeline to manipulate video as necessary to investigate the scene or incident.

Creating Playlists

A playlist is a series of recorded clips. Operators can trim video clips and save them to a playlist for safekeeping. Playlists are saved locally. You can reference your playlist later, but if you absolutely want to be sure that you don’t lose the clips or video in your investigation playlist, you should export the playlist to your Core server.

The trim tool enables users to select a portion of a recording and save it to a within an investigation as a clip. Clip selections persist in the timeline, even if you choose not to add the clip to the playlist. Once you’ve selected a clip, you can resize or delete the selection using the time-box controls on the timeline.

1. When in Investigation Mode, click on the timeline where you want to select a clip.
2. Drag to select the start and end time of the clip you want to add to a playlist.
3. Click and select Add to Playlist.

   If you’ve selected a clip in error, you can click and then click Delete to remove the clip from the timeline, or you can right click a clip in the playlist and select Delete selected clips.

4. Click to delete the selection. The selection persists until you add it or can it.

   If you’ve selected a clip in error, you can click Delete to remove the clip from the timeline, or you can right click a clip in the playlist and select Delete selected clips.

Previewing and Editing Playlists

You can preview your playlist at anytime to ensure that it adequately captures your investigation. If it does not, you can reorganize the clips in the playlist or re-trim clips to refine the action captured by each clip.

- Click and drag clips in the playlist to reorder the playlist.
- Click and then click Preview Playlist to playback your playlist as it appear. Clips are stitched together in the order they appear in the playlist.
- Right click a clip and select Re-trim clip to open a new Window in which you can manipulate the start and end times of the clip. Click Apply when complete to save your changes back to the clip and playlist.
Exporting a Playlist

Exporting a playlist allows you to save a collection of video clips, so that you can easily find and download your investigation later. Exporting video from network storage to your Core allows you to store video independently of your VideoXpert recorders for quick access later. The system exports unencrypted files in the MKV format, and encrypted files in ZIP format.

If you do not have permission to export video for the video sources in your investigation video, or the recordings saved to your playlist are no longer available from network storage, you will not be able to export a full playlist. You can still export a playlist with missing clips.

1. In the Playlist pane, click 
2. Provide a name for the export.
3. Select Encrypt this export and provide a password to secure your export; a user will need the VideoXport Player and the password to open and decrypt the export.
4. Click Save. Click Open Export Archive to view the status of your export. When your export is complete, you can click Download to download it locally.

Encrypting Export Files

When you export a playlist, the Ops Center gives you the option to encrypt the file. Encrypting the file ensures that no one can tamper with your exported video. To decrypt and playback an export, you must have the password used when generating the export and the VideoXport Player; you cannot playback encrypted exports with another video player.

Encrypted exports appear as ZIP archives containing the playlist file, video clips (MKV) and a signature file. When you attempt to open an encrypted export, it will prompt you for the password. The password will allow the player to decrypt the export. The player will then use the signature file and public key (within the signature) to validate the export and verify that it has not been tampered with. It will then playback the file.

If you lose or forget the password to an export, your administrator can recover it for you by returning to the export archive and selecting the export for which you need a password.

Downloading Exports

You can download or delete exports from the Export Archive, which appears automatically when you export a playlist. You can access the Export Archive at any time by clicking in mission control and selecting Show Export Archive.

Use the filters to sort the list of available exports by camera tag or other data associated with the export (camera name, ID, exporting user, etc).

Click Download and then click Download the export only to get the export file by itself, or Download with VideoXport Player to download both the VideoXport Player executable and the video export.

Unencrypted exports use the MKV format. Encrypted exports are ZIP files; if the export file has been encrypted, you will need the VideoXport Player to decrypt and playback the file.

Deleting Exports

Deleting an export from the Export Archive sends it to the Trash Bin; you must delete an export from the Trash Bin to permanently remove it from the system. This two-step process prevents users from inadvertently removing exported files from the system.

Open the Export Archive, and click to send an export to the trash bin; alternately, select Delete Permanently to skip the trash bin.

From the Export Archive, click and then click View Trash Bin to find and permanently delete exports. From the Trash Bin, you must again click Delete to permanently delete the export. Otherwise, you can click Restore to move the file back to the export archive.
Using the VideoXport Player

The VideoXport player decrypts, validates, and plays-back secured exports from VideoXpert. You can download the player directly from VideoXpert along with an exported video file or you can download it from Pelco.com. If you download the VideoXport Player with an export from the Ops Center, you will download two separate files; you must install the VideoXport Player before you can open the encrypted export file.

Opening an Encrypted Export

1. Run the VideoXport Player.
2. Click Open File and select the export file (.ZIP) that you want to play back.
3. Provide the password for the export.

Playing Back Files using the VideoXport Player

Video exports are stitched together from an investigation. At the end of each clip the player moves to the next clip in the export sequence. Otherwise, playback controls within the VideoXport player work as they do within the Ops Center.

Changing Layouts (Viewing Multiple Clips Simultaneously)

By default, exports play in order, stitched end-to-end. You can view up to 4 synced clips from your playlist by clicking View and selecting View Multiple Clips Simultaneously.

You can then drag clips from the playlist into the cells and use playback controls as you would in the Ops Center’s Investigation Mode.

You can deselect the View Multiple Clips Simultaneously to revert back to the single cell, stitched view.

Using Investigations to View Video Stored on a Camera’s Local Storage

If your camera or video source is recording video locally (using an SD card or in concert with ONVIF Profile G), the timeline will display the ; the device tooltip will also alert you to multiple recording locations. You cannot view video while it is stored on the camera; you must first push video from the camera to a VideoXpert Storage recorder in order to view a camera’s local recordings.

NOTE: Refer to documentation for your camera to enable and setup local recording. The process to enable and use local recordings may differ by camera model.

Click to open an investigation tab showing the camera’s various recording locations as separate timelines. The timelines are labeled as follows:

1) Default Storage: Video recorded by your VideoXpert Storage recorder. These are the recordings you would normally see when you playback video.
2) Downloaded from Camera: Video pushed from the camera to the recorder does not overwrite video already stored on the recorder; the video recorded on the camera and the video recorded on the VXS recorder coexist. This timeline shows video that has been pushed from the camera to the recorder. You can only view these recordings when in the multi-recording investigation tab.
3) Camera Storage: Displays thumbnails representing video stored on the camera. You must use the timeline to create and push video clips to Default Storage to view it.

Figure 1: Investigation with Edge Storage
Pushing Video from the Camera to Storage

This process assumes your camera is recording video locally.

1. Click to enter an investigation with timelines representing VideoXpert Storage, the camera’s local storage, and video pushed from the camera to the recorder.

2. Within the Camera Storage timeline, click and drag along the section of the Camera Storage timeline to indicate the clip or section of video that you want to view.

3. Right click and select Add to Default Recorder. Video from the camera’s timeline will now appear in the Downloaded from Camera timeline.

**RESULT:**

You can now play video that was moved from the camera to Storage; it will appear in the second timeline.

Playing Back Video After Moving it to Storage

Video that has been copied from the camera to Storage will appear in the second timeline, title Downloaded from Camera. Select the section of video you want to play from here and play back. Video is synchronized between your default recorder and the Downloaded from Camera timeline.
Working with Plug-ins

Plug-ins are components that add enhance the capabilities of your Ops Center Client. The Ops Center Client supports two types of plug-ins:

- **Overlay** plug-ins provide information supplemental to video and audio sources, and are meant to be used in conjunction with a source; both a source and overlay plug-in will populate the same cell.

- **Content** plug-ins consume a cell by themselves; adding a content plug-in to a cell that is already populated will replace whatever was in the cell.

1. Select the cell in which you want to add a plug-in.
2. Click Overlay or Content, and select the plug-in you want to add to your workspace.
3. Drag the plug-in to a cell or double-click it. Double clicking a plug-in will open the plug-in in a manner that is consistent with video sources, as defined by the *When double-clicking a source* setting, available under *Preferences*.

Installing Plug-ins

Close the Ops Center application before installing plug-ins.

To install a plug-in, run the plug-in installer, typically an MSI file.

Plug-ins install under *C:\ProgramData\Pelco\OpsCenter\Plugins*. The Ops Center application searches this directory recursively on start-up to populate the plug-ins available to it.

Image Viewer Plug-in

The Image Viewer Content plug-in allows you to display a directory of images within a cell of the Ops Center Client. The images rotate at a designated interval, or you can manually tab through the images. You can use the Image Viewer to scroll through important snapshots from your Ops Center, or to display a series of important images (persons of interest, etc) in the same workspace that you use for video.

**NOTE:** The Image Viewer path is stored on the Core, and will follow your account across workstations; if you set a path local to a particular workstation, you will not be able to view your images on another workstation.

1. Click **Content**, and select the **Image Viewer** plug-in.
2. Select the directory containing the images you want to view; this directory can be local or a network location.
3. Click  to change the image directory, the speed at which images scroll, and other options.

Using the eConnect Plug-in

The eConnect overlay plug-in displays real-time gaming and register data accompanying the view of a particular Video source. Sources are associated with gaming data by ID. Add the plug-in to a cell containing a camera, or a camera to a cell containing the plug-in to start streaming simultaneous video and gaming data. A camera that is not associated with gaming data will not produce gaming data in the plug-in.

Click  to move the eConnect data stream to the opposite side of the cell.

1. Click **Overlay**, and drag the **eConnect Data Stream** plug-in to the desired cell. You can drag the overlay into a cell already containing a camera, or drag a camera into the cell after adding the plug-in.
2. If this is your first time using the plug-in, provide the address of the eConnect server and your credentials; you can change this information by clicking **Advanced**. After logging in, the plug-in saves your eConnect credentials and automatically logs you in.
3. Add a camera to the cell if you did not drag the overlay into a cell already containing a camera.
Responding to Events

When an event pertinent to your user account occurs, a dialog box will appear. The dialog presents ways in which you can respond to the event.

The events icon in the lower-right corner of your workspaces shows the number of active events that require your attention. Click it to reveal event notifications. Event notifications requiring acknowledgment disappear when you or other users with the same role acknowledge them.

- Click ✗ to close events that don’t require acknowledgment.
- Click Event Log to open the Event in the Admin Portal. The Admin Portal provides more information about the event. If you have appropriate permissions, you can manage the way in which the event is logged or reported to users from the Admin Portal.
- Click ▼ to reveal responses for events that require acknowledgment:
  - **Snooze** allows you to hide an event notification for up to 60 minutes. The snooze function only affects notifications locally; it does not hide event notifications from other users.
  - **In Progress** indicates that you are either investigating the event or are in the process of correcting an event condition.
  - **Acknowledge** indicates that the event is no longer relevant; the event condition has been accounted for or corrected. Acknowledging an event clears the event notification.

Event Viewer

The Event Viewer is a content plug-in providing access to events and alarms in a format similar to the Events page in the Admin Portal, including filters allowing you to find events relevant to you. However, within the event viewer — unlike in the Admin Portal — you can open cameras or recorded video associated with an event.

Events requiring acknowledgment will allow you to acknowledge or mark them in progress.

Click the 🎬 for any event to open video associated with an event in a new tab; drag the icon to any cell in your current layout to open video in a current tab.
Logging Out

When you log out, the application saves your desktop configuration, including video stream and plug-ins.

1. Click ▾ in Mission Control.
2. Select Log Out.

Closing the Application

It is important to close the application gracefully. Attempting to close the application through the start bar or by other means will leave the application processes open, continuing to consume resources.

All plug-in processes must be closed before the application itself can close. When you attempt to exit the application, the application will first save and close all plug-in applications before it can close. Depending on the number of plug-ins populating your workspace, this may take a few moments; do not attempt to forcefully close the application while it is shutting down, or you may lose unsaved workspace information or leave plug-ins and application processes open.

1. Click ▾ in Mission Control.
2. Select Exit Ops Center.