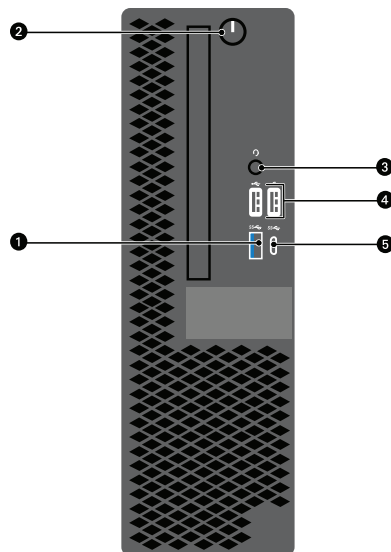


Connecting Your Workstation to the VideoXpert System

The VideoXpert Workstation connects to an already-configured VideoXpert System. To set up the Workstation:

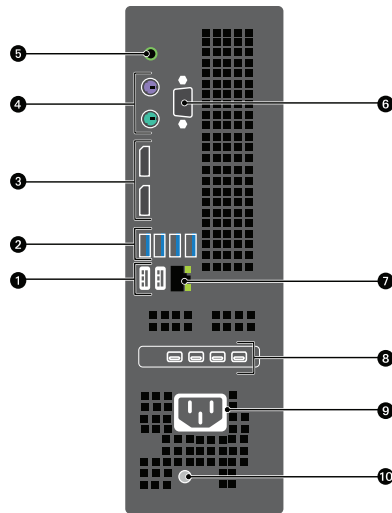
1. Unpack the Workstation.
2. Connect the system and its peripherals.
 - Connect a monitor to the Workstation using the Mini DisplayPort Connector (item 8 in [Locating Connections on the Back Panel](#)).
 - Connect the Workstation to your network using the Ethernet port (item 7 in [Locating Connections on the Back Panel](#)).
3. Connect the Workstation power supply (item 9 in [Locating Connections on the Back Panel](#)) to an electrical outlet.

Locating Connections on the Front Panel



| | | | |
|---|----------------------------|---|---------------------------|
| 1 | USB 3.1 Gen 1 port | 4 | USB 2.0 ports |
| 2 | Power button and indicator | 5 | USB 3.1 Gen 2 Type-C port |
| 3 | Headphone/audio jack | | |

Locating Connections on the Back Panel



| | | | |
|---|-------------------------------|----|-------------------------------|
| 1 | USB 2.0 ports | 6 | Serial port |
| 2 | USB 3.1 Gen 1 ports | 7 | Ethernet port |
| 3 | DisplayPort ports | 8 | Mini DisplayPort ports |
| 4 | PS/2 mouse and keyboard ports | 9 | Power |
| 5 | Audio out | 10 | Power supply diagnostic light |

Configuring VxOpsCenter

The Workstation is a client for VxOpsCenter on a VideoXpert system.

When you run the application for the first time, you will create your VX Workstation Account, configure basic VxOpsCenter and video behaviors, and most importantly, point VxOpsCenter to the system(s) you want to use.

1. Ensure that you have installed and configured the system as described in the current version of the *VideoXpert Enterprise Installation Manual* or the *VideoXpert Professional Operations Manual*.
2. Go to <https://www.pelco.com/video-management-solutions> to download and upgrade to the latest version of VxOpsCenter software.
3. Run VxOpsCenter.
4. Setup your workstation including creation of your Workstation account. See [Setting Up Your Workstation](#).
5. Configure System Server Connections. See [Configuring VX System Connections](#).
6. Click **OK** to close *Workstation Configuration* window.
7. Login to the VxOpsCenter using your VideoXpert user account.

For more detailed information and configuration instructions, see the section titled *Installing and Configuring VxOpsCenter* in the *VideoXpert OpsCenter Operations Manual*.

For more information about VideoXpert hardware and software, go to <https://www.pelco.com/video-management-solutions>.

Setting Up Your Workstation

Workstation settings determine the basic behavior of the system. These instructions apply to the initial configuration only. You can re-configure the workstation at any time using the instructions in the current version of the *VideoXpert OpsCenter Operations Manual*, in the section titled *Reconfiguring Your Workstation*.



This screen will look different after initial configuration. If you do not see the red triangles on the **Workstation Settings** and **VX System Connections** buttons, see the instructions in the current version of the *VideoXpert OpsCenter Operations Manual*, in the section titled *Reconfiguring Your Workstation*.

1. Enter 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.
2. Enter values in the **Username** and **Password** fields under **Vx Workstation Account**.
3. Under, **Workstation Mode**, select **Normal** or **Shared Display** mode. **Shared Display** mode provides monitor-wall functionality for a workstation operating a single monitor. See the section titled [Configuring Shared Display Mode](#) for more information about **Shared Display** mode.
4. In the **NTP Server for Enhanced Decoder** area, do one of the following:
 - Click to select the radio button for **Use Windows Time Service time server** (time.windows.com).

- Click to select the radio button for *Manually specify a time server*, and then enter your *NTP Server Address*.
- 5. (Optional) click the checkbox to select or deselect *Enable hardware acceleration*. Hardware acceleration is enabled by default and should only be disabled if your workstation uses an unsupported graphics chipset, or if you need to troubleshoot graphics issues that may result from your graphics drivers and chipset.
- 6. Click **Apply** to save your workstation configuration settings.
- 7. Click **VX System Connections** and follow the instructions in the section titled *Configuring VX System Connections*.

Configuring VX System Connections

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

Only the Workstation Configuration account can define system server connections. When you add systems using the Workstation Configuration account, and you are working in MSA mode, 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. If you are using Single Server Access mode (non-MSA mode), you must always provide the credentials when logging in.

When setting up a connection to a server, you can 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 to which you will connect. See the section titled *Understanding System Streaming Performance Settings*.

Enabling or Disabling Multi-System Access (Simultaneous Server Connections)

Multi-system access allows you to access multiple VideoXpert environments simultaneously using your Workstation Configuration account. When enabled, your Workstation Configuration account will store credentials for your VX systems, acting like a master key for VideoXpert (on this workstation). When you log in with your Workstation Configuration 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.



Note: The multi-system access option takes effect whether or not you have configured the workstation to connect to multiple systems.

To enable multi-system access:

1. If you have not already done so, access the *Configure Workstation* window:
 - a. Log into VxOpsCenter with the Workstation Configuration account.
 - b. In Mission Control, click the *User Menu* icon (▼), and then select **Configure Workstation**.
2. Click **VX System Connections**.
3. Click to select or deselect the checkbox for *Enable simultaneous access to multiple systems*. When you select this checkbox, the *Multi-System Access Login* dialog box opens. Click **OK** to acknowledge the information and close the dialog box.

VideoXpert Workstation Quick Start Guide

With multi-system 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, before you log in, you must select the system to which you will connect; to log in with the *Workstation Configuration* credentials, you must select **None - Configure Workstation**.

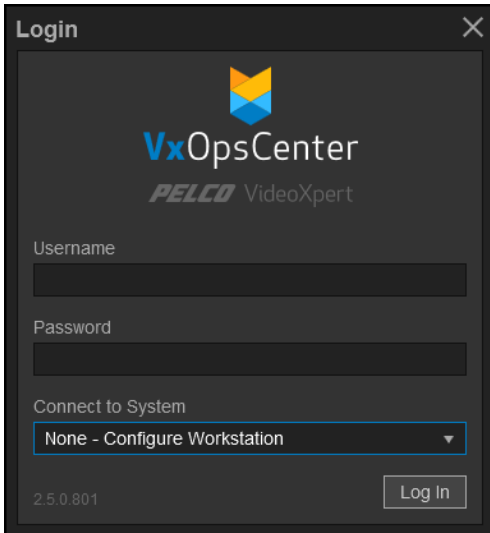





Figure 1: Login prompt with simultaneous system access disabled

Adding Servers to VxOpsCenter


1. If you have not already done so, access the *Configure Workstation* window:
 - a. Log into VxOpsCenter with the Workstation Configuration account.
 - b. In Mission Control, click the *User Menu* icon (▼), and then select **Configure Workstation**.
2. Click **VX System Connections**.
3. If there is an existing system list, import it.
 - a. Click the menu icon (☰) at the lower left of the *Workstation Configuration* window.
 - b. Click **Import System List**.
 - c. Click **Browse**, and then select the appropriate file.
 - d. Review the information in the *Import System List* window, and do one of the following:
 - Click to select the radio button for *Replace List*.
 - Click to select the radio button for *Merge Lists*, and then click to select the checkboxes for each system that you want to replace with the imported information.
 - e. Click **Import**.
4. To add another server:
 - a. Click the *Add System Connection* icon (+) at the lower right of the *Workstation Configuration* window.


- b. (Optional) Provide notes about the server. The notes are only available to the Workstation Configuration account.
 - c. Provide the IP of the server in the *Server Address* field, and adjust the *HTTPS Port* value if different from the default.
 - d. (Optional) Adjust *System Streaming Performance* settings. See the section titled *Understanding System Streaming Performance Settings*
 - e. (Optional) Click to select or deselect the checkbox for *Validate SSL/TLS Certificate...*
 - f. (Optional) Type values in the *Username* and *Password* fields.
 - g. Click *Test Connection* to verify that you have provided the correct server address; testing the connection will require you to provide credentials to the server.
 - h. Click **Save**.
5. If you want to export the System List:
 - a. Click the menu icon () at the lower left of the *Workstation Configuration* window.
 - b. Click **Export System List**.
 - c. In the *Export System List* window, enter a value in the *System List File Name* field,
 - d. In the *To Location* field, click **Browse** and browse to the location to which the file will be saved.
 - e. (Optional) Click to select *Include Username & Password for each System*.
 - f. Click **Save**.
6. When you have added all appropriate connections, click **OK**.
7. If the *Log Out Required* dialog box opens, click **OK**. You will be logged out. The configuration changes are applied when you log back in.

Editing a System Connection

1. If you have not already done so, access the *Configure Workstation* window:
 - a. Log into VxOpsCenter with the Workstation Configuration account.
 - b. In Mission Control, click the *User Menu* icon () and then select **Configure Workstation**.
2. Click **VX System Connections**.
3. Click to select the system connection to be edited.
4. Click the *Edit System Connection* icon () at the lower right of the *Workstation Configuration* dialog box.
5. In the *Configure System Connection* dialog box, make all necessary updates, and then click **Save**.
6. In the *Workstation Configuration* dialog box, click **OK** to save the settings.
7. If the *Log Out Required* dialog box opens, click **OK**. You will be logged out. The configuration changes are applied when you log back in.

Deleting a System Connection

1. If you have not already done so, access the *Configure Workstation* window:
 - a. Log into VxOpsCenter with the Workstation Configuration account.
 - b. In Mission Control, click the *User Menu* icon () and then select **Configure Workstation**.

2. Click **VX System Connections**.
3. Click to select the system connection to be deleted.
4. Click the *Delete System Connection* icon () at the lower right of the window to delete the connection to the server.
5. In the *Delete System Server Connection* dialog box, click **OK** to confirm the deletion.
6. In the *Workstation Configuration* window, click **OK** to save the settings.
7. If the *Log Out Required* dialog box opens, click **OK**. You will be logged out. The configuration changes are applied when you log back in.

Understanding 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 frame rate 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 the *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 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. Options are 50 Mbps, 100 Mbps, 1 Gbps, and 10 Gbps.

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 VxOpsCenter in Shared Display mode causes the VxOpsCenter 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.



Note: Shared display is not available if multi-system access is enabled.

To configure an VxOpsCenter for Shared Display mode:

1. If you have not already done so, access the *Configure Workstation* window:
 - a. Log into VxOpsCenter with the Workstation Configuration account.
 - b. In Mission Control, click the *User Menu* icon (▼), and then select **Configure Workstation**.
2. Click the **Workstation Settings** tab.
3. In the *Workstation Mode* section of the window, click to select the checkbox for *Shared Display*.

VideoXpert Workstation Quick Start Guide

Workstation Mode

☐ Normal

☒ **Shared Display** ⓘ

It is highly recommended that you configure Windows to log in automatically.

Number

ⓘ

VideoXpert Connection

*VX System

*Username (User must exist in selected VX System)

*Password (for above User)

☐ Show

Shared Display Preferences

☐ Show camera name and time stamp in video cells

☒ Show Shared Display title bar

Aspect Ratio

☒ Maintain video aspect ratios

☐ Stretch video to fill cells

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. (Optional) Enter or select a **VX System** to create a VideoXpert Connection. Selecting this option opens a dialog to configure system server connections. See the section titled [Configuring VX System Connections](#).
6. 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.
7. (Optional) Click the checkbox to select or deselect **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.
8. (Optional) Click the checkbox to select or deselect the **Show Shared Display title bar**.
9. In the **Aspect Ratio** area, click to select the radio button to either **Maintain video aspect ratios** or **Stretch video to fill the cells**. If you select **Stretch video to fill the cells**, an option appears that allows you to collapse space between cells.
10. Click **Save**.



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