



# Sequoia 4K60

Flexible 4K60 KVM-Multiview for Multi-Monitor User Workstations

## ABOUT THIS MANUAL

This manual contains information on how to use the Avitech Sequoia 4K60 KVM-Multiview Switch. There are five chapters and five appendixes in this manual.

- ✓ **Chapter 1 Getting Started** introduces the features and specifications as well as the external components of the Avitech Sequoia 4K60.
- ✓ **Chapter 2 System Configuration** discusses the process of setting up the Sequoia 4K60.
- ✓ **Chapter 3 Basic Operations** introduces the two types of operating modes. Also demonstrates use of the mouse and keyboard hotkeys to perform basic operations the Avitech Sequoia 4K60's compatibility with touch screen displays.
- ✓ **Chapter 4 Setup Using the Web Browser-based GUI** introduces all functions and components of the web browser-based GUI.
- ✓ **Chapter 5 Video Wall Management** provides the steps necessary to set up 2x2 and 1x(2 – 4) video wall management.

The following conventions are used to distinguish elements of text throughout the manual.



*provides additional hints or information that requires special attention.*



*identifies warnings which must be strictly followed.*

Any name of a menu, command, icon or button displayed on the screen is shown in a bold typeset. For example: On the **Start** menu select **Settings**.

To assist us in making improvements to this user manual, we welcome any comments and constructive criticism. Please email us at: [sales@avitechvideo.com](mailto:sales@avitechvideo.com).

## WARNING

Do not attempt to disassemble the Sequoia 4K60. Doing so may void the warranty. There are no serviceable parts inside. Please refer all servicing to qualified personnel.

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## TECHNICAL SUPPORT

For any questions regarding the information provided in this guide, call our technical support help line at 425-885-3863, or our toll free help line at 1-877-AVI-TECH, or email us at: [support@avitechvideo.com](mailto:support@avitechvideo.com).

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## Services and Repairs Outside the Warranty Period

Avitech makes its best offer to repair a product that is outside the warranty period, provided the product has not reached its end of life (EOL). The minimum charge for such repair excluding shipping and handling is \$200 (US dollars).

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## Regulatory Information

Marking labels located on the exterior of the device indicate the regulations that the model complies with. Please check the marking labels on the device and refer to the corresponding statements in this chapter. Some notices apply to specific models only.

## Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense. Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Avitech is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## European Union CE Marking and Compliance Notices Statements of Compliance

### English

This product follows the provisions of the European Directive 1999/5/EC.

### Dansk (Danish)

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC.

### Nederlands (Dutch)

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

### Suomi (Finnish)

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

### Français (French)

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

### Deutsch (German)

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC.

### Ελληνικά (Greek)

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/EC.

### Íslenska (Icelandic)

Þessi vara stendst reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC.

### Italiano (Italian)

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

### Norsk (Norwegian)

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

### Português (Portuguese)

Este produto cumpre com as normas da Diretiva Europeia 1999/5/EC.

### Español (Spanish)

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### Svenska (Swedish)

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

## Australia and New Zealand C-Tick Marking and Compliance Notice

### Statement of Compliance

This product complies with Australia and New Zealand's standards for radio interference.

# 1. Getting Started

The Sequoia 4K60 is Avitech's latest 4K60 multi-functional video processor with many unique features. It integrates functions of a 4-in-5-out UHD seamless video switcher, a multi-user KVM switch with multiview, and a UHD PiP video wall controller, with support for multi-user UHD multi-touch operations.

This chapter introduces the features and specifications, as well as the external components of the Sequoia 4K60.



To get the best results from Sequoia 4K60, we recommend when using your mouse with a 4K display, select a mouse that has a 2000 dpi setting.

## 1.1 Package Contents

After unpacking the shipping carton, the following standard items can be found:



**Avitech Sequoia 4K60**



**12 V DC/5A Power Adapter (optional)**



**HDMI Cable (optional)**



**Standard Power Cord (USA customer only)**



**DVI to HDMI Adapter (optional)**



**USB-A to USB-B Cable (optional)**



**Rubber Foot (4 pcs)**

**Table 1.1.1 Package Contents**

## 1.2 Product Features

- ✓ Four HDMI 2.0/1.4 input ports for 4K UHD/FHD sources with USB-B ports for KM operation
- ✓ Five HDMI 2.0/1.4 output at 4:4:4 along with five USB-A ports for KM or touch operation
- ✓ Plug and play, no software program setup required
- ✓ Freely adjustable multiview windows and fullscreen capability for all sources
- ✓ Support 4K UHD multi-touch operation in multiview
- ✓ Seamless switching between source images at fullscreen mode
- ✓ Support 4K60 UHD video wall control with PiP and free-scaling windows in 2 (row) x2 (column), 1x2, 1x3, 1x4 configurations
- ✓ Support multiple 4K60 UHD projectors with seamless switching of sources
- ✓ On screen pop-up icons for easy operation in multiview and fullscreen modes
- ✓ Seamless keyboard/mouse switching (“**Surfer**” mode) between computer sources in multiview operation
- ✓ Intuitive touch operation in multi-touch UHD multiview application
- ✓ On screen operation in closing and adding windows without needing a software program
- ✓ Web browser GUI for advanced settings
- ✓ HDCP compliant
- ✓ Third party control over Ethernet or serial ports

## 1.3 Specifications

HDMI Input Ports	
<b>Signal Type</b>	HDMI 2.0
<b>Connectors</b>	<p>Four HDMI Type-A connectors for HDMI/DVI input sources (DVI to HDMI adapters may be needed)</p> <p><i>Note: Transmission of embedded audio signal <u>is not supported</u> when passing an input signal through DVI to HDMI adapter.</i></p>
<b>Resolution</b>	<p>Automatic sensing, the following input signals are supported:</p> <ul style="list-style-type: none"> <li>❖ 640x480, 60Hz</li> <li>❖ 720x480i, 59.94Hz / 60Hz</li> <li>❖ 720x480p, 59.94Hz / 60Hz</li> <li>❖ 720x576p, 50Hz</li> <li>❖ 720x576i, 50Hz</li> <li>❖ 800x600, 60Hz</li> <li>❖ 1024x768, 60Hz / 70Hz / 75Hz</li> <li>❖ 1024x1280, 50Hz / 60Hz</li> <li>❖ 1280x720, 50Hz / 59.94Hz / 60Hz</li> <li>❖ 1280x768, 50Hz / 60Hz / 75Hz</li> <li>❖ 1280x800, 50Hz / 60Hz</li> <li>❖ 1280x960, 50Hz / 60Hz</li> <li>❖ 1280x1024, 50Hz / 60Hz / 75Hz</li> <li>❖ 1360x768, 50Hz / 60Hz</li> <li>❖ 1366x768, 50Hz / 60Hz</li> <li>❖ 1400x900, 50Hz / 60Hz</li> <li>❖ 1440x1050, 50Hz / 60Hz</li> <li>❖ 1600x1200, 50Hz / 60Hz</li> <li>❖ 1680x1050, 50Hz / 60Hz</li> <li>❖ 1920x1080i, 50Hz / 59.94Hz / 60Hz</li> <li>❖ 1920x1080p, 23.97Hz / 24Hz / 25Hz / 29.97Hz / 30Hz / 50Hz / 59.94Hz / 60Hz</li> <li>❖ 1920x1200, 50Hz / 60Hz (reduced blanking)</li> <li>❖ 2048x2048p, 56.57Hz</li> <li>❖ 2304x1440, 50Hz / 60Hz</li> <li>❖ 2560x1440, 50Hz / 60Hz</li> <li>❖ 2560x1600, 25Hz / 30Hz / 50Hz / 60Hz (reduced blanking)</li> <li>❖ 3840x2160p, 24Hz / 25Hz / 29.97Hz / 30Hz / 50Hz / 60Hz</li> <li>❖ 4096x2160p, 50Hz / 60Hz</li> </ul>

HDMI Input Ports	
HDCP Compliant	Yes

**Table 1.3.1** Supported HDMI Input Format



To understand the format of resolution, it is shown in the format: Width×Height (in pixels), **p** or **i**, Frame Rate (in **Hz**, or frames per second) where **p** means progressive scanning, and **i** means interlaced scanning i.e. 3840×2160p 60Hz is 3840 pixels wide, 2160 pixels high, progressive, and has a frame rate of 60Hz.

HDMI Output Ports	
Signal Type	HDMI 2.0
Connectors	Five HDMI Type-A connectors for HDMI/DVI monitor (a HDMI to DVI adapter may be needed) <i>Note:</i> 1. Transmission of embedded audio signal <u>is not supported</u> when passing an output signal through HDMI to DVI adapter. 2. Avitech recommends using a HDCP-compliant monitor for optimum performance.
Resolution	Supported resolutions include (but not limited to): ❖ 3840×2160 (4K UHD) at 25Hz / 30Hz / 50Hz / 60Hz ❖ 1920×1080 (FHD) at 50Hz / 60Hz ❖ 1280×1024 (SXGA) at 50Hz / 60Hz
HDCP Compliant	Yes
Color Depth	8 bit
Display Mode	Supports five display mode: ❖ <b>Workstation (Default)</b> : Supports simultaneous display of four signal sources in multiview layout on the 1 <sup>st</sup> output. Freely switch single-view fullscreen image, or duplicated multiview layout image on the 2 <sup>nd</sup> to 4 <sup>th</sup> outputs. The 5 <sup>th</sup> output can only have one of the input signal source display single-view fullscreen image. ❖ <b>Workstation (Quad + 4 Singles)</b> : Supports simultaneous display of four signal sources in multiview layout, and freely switch to single-view fullscreen image on the 1 <sup>st</sup> output. Freely switch single-view fullscreen image on 2 <sup>nd</sup> to 5 <sup>th</sup> outputs. ❖ <b>Video wall</b> : Supports a 2x2 video wall or video walls with 1 row and 2 to 4 columns with PiP display. ❖ <b>Projector (PiP)</b> : Creates a preview multiview on the 1 <sup>st</sup> output, and the 2 <sup>nd</sup> to 5 <sup>th</sup> outputs can duplicate two picture-in-picture (PiP) images. ❖ <b>Projector (Fullscreen)</b> : Creates a preview multiview on the 1 <sup>st</sup> output, and the 2 <sup>nd</sup> to 5 <sup>th</sup> outputs can duplicate two single-view fullscreen image for seamless switching of the input sources.

**Table 1.3.2** Supported HDMI Output Format



If the monitor's EDID is not detected, the output resolution of Sequoia 4K60 will automatically configure to 3840×2160p at 60Hz (default setting).

Others	
Computer	Up to four units (maximum for single Sequoia 4K60 system)
Port Switching	Method: ❖ Keyboard hotkeys in <u>Host</u> operation mode ❖ Mouse ✓ OSD (pop-up menu – in <u>Host</u> operation mode) ✓ “ <b>Surfer</b> ” feature (both in <u>Host</u> and <u>Remote</u> operation modes)

Others	
<b>Operating System</b>	<ul style="list-style-type: none"> <li>❖ Microsoft Windows 2000 Professional / XP / Vista / Server 2003 / Server 2008 / Windows 7 / Windows 8 / Windows 10 / Windows 11</li> <li>❖ Mac (O/S X 10.5 or later version only)</li> <li>❖ Linux OS: Fedora 10, Ubuntu 8.1, Scientific 5.2, RedHat, Mint 6.0, Debian 5.0, PC Linux OS 2009, SUSE 11.1, Mandriva 2009, CentOS 5.2, Raspbian</li> <li>❖ Android 4.4.2 / 6.0.1 or later version</li> </ul> <p><i>Note: Windows NT is not supported.</i></p>
<b>Power</b>	<ul style="list-style-type: none"> <li>❖ Power consumption is 50 Watt (maximum)</li> <li>❖ Power Supply (<i>adapter</i>):               <ul style="list-style-type: none"> <li>✓ <i>Input (AC): 100 to 240V 50Hz / 60Hz</i></li> <li>✓ <i>Output (DC): 12V DC / 5A</i></li> </ul> </li> </ul>
<b>Dimension/Weight</b>	<ul style="list-style-type: none"> <li>❖ Dimension: 11.42 × 6.90 × 1.70 inch (29.00 × 17.40 × 4.40 cm)</li> <li>❖ Weight: 2.66 lbs (1.21 Kg)</li> </ul>
<b>Environment/Safety</b>	<ul style="list-style-type: none"> <li>❖ Temperature:               <ul style="list-style-type: none"> <li>✓ <i>Operating: 0 °C (32 °F) to 40 °C (104 °F)</i></li> <li>✓ <i>Storage: -10 °C (14 °F) to 50 °C (122 °F)</i></li> </ul> </li> <li>❖ Humidity: 0% to 80% relative, non-condensing</li> <li>❖ Safety: FCC / CE / C-Tick / Class B</li> </ul>

**Table 1.3.3** Specifications



1. The Sequoia 4K60 supports DVI-D input(s) through optional HDMI to DVI adapter(s).
2. The Sequoia 4K60's HDMI input/output ports support HDMI revision 2.0 and HDCP revision 1.4.
3. For best results with HDMI/DVI, use cables under 5 meters long, or shorter if you use connection adapters. If you need to place your Sequoia 4K60 more than 5 meters away from your sources, use a signal extender that supports 4K60 resolution.
4. Use Ultra High Speed or Premium High Speed HDMI® cables or AOC (Active Optical Cable) for HDMI along with USB extender for keyboard and mouse operation.
5. To prevent temporary image discoloration when switching 4K input sources in fullscreen mode, make sure that the "Output color mode (color space)" setting on all connected computers' 4K display card have the same "RGB" or "YCbCr422" or "YCbCr444" setting.
6. For monitors whose display mode can be set between "Graphic" and "Video", select "Graphic"; for those whose display color format can be set between "RGB" and "YPbPr", select "RGB"; for those whose display mode can be set between "PC" and "AV", select "PC" (selecting the other ones may lead to display image inaccuracies). Other display modes not mentioned here can be tried when encountering display problems.
7. Reboot the Sequoia 4K60 after changing to a different monitor (especially one that supports a different optimal resolution); this will ensure the Sequoia 4K60 selects the correct output resolution and frame rate.



## 1.4 Connections to the Sequoia 4K60



Figure 1.4.1 Sequoia 4K60 Front Panel Components





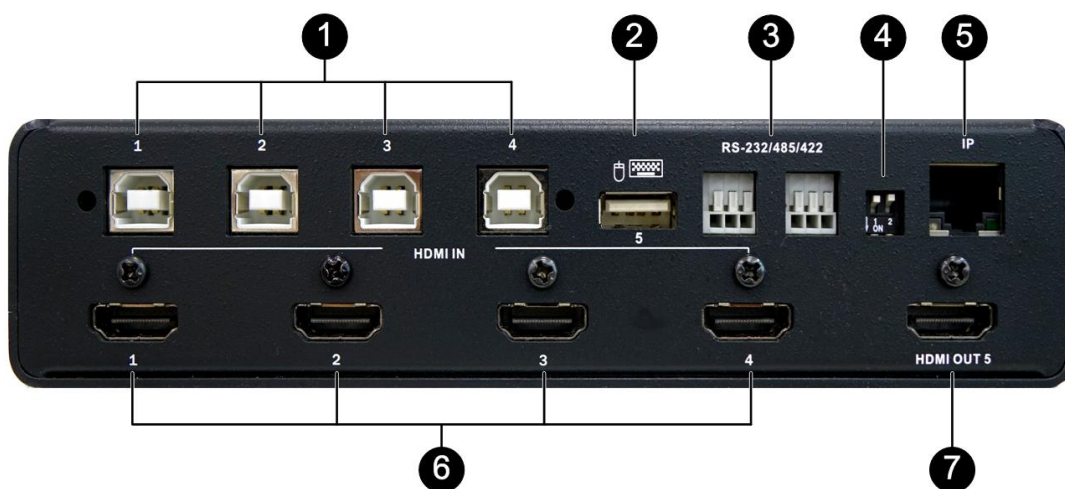

Front Panel	
<p>① HDMI OUT 1 – 4</p>	<p>Four HDMI Type-A connectors for multiview display or routing <b>HDMI IN 1 – 4</b> source signal in single-view fullscreen display on the connected monitors (HDMI to DVI adapters may be needed).  <i>Note:</i> Transmission of audio signal is not included when using DVI to HDMI adapter.</p>
<p>②  1 – 4</p>	<p>Four USB Type-A connectors for connecting to mouse/keyboard/touch screens (multiple USB devices can be connected with a USB hub) and controlling the connected four computer systems (<u>Remote</u> mode) and the Sequoia 4K60 <u>Host</u> mode operation.  <i>Note:</i></p> <ol style="list-style-type: none"> <li>The Sequoia 4K60 can provide a total maximum current of 500mA for both of USB Type-A port 1 and port 2; and another total maximum current of 500mA for both of USB Type-A port 3 and port 4.</li> <li>Please be advised when using wireless mouse/keyboard, signal interference may occur with other 2.4 GHz devices in close proximity, leading to slow mouse movement or other issues. The Sequoia 4K60 has multiple USB ports closely packed together, and with each USB port capable of supporting one user connection, it would be best to use short USB extension cables to physically separate the wireless USB receiver dongles, or use USB hubs for direct wired connections to mouse/keyboard/touch screens to avoid any interference.</li> <li>If you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen, it is strongly recommended to use a powered USB Hub to prevent any drops in performance. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.</li> <li>The following items can be commonly used for USB extension to avoid any interference: <ul style="list-style-type: none"> <li>✓ A short USB extension cable can physically separate multiple wireless USB receiver dongles concurrently connected to the Sequoia 4K60, preventing any signal interference. </li> <li>✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen is an option to completely prevent interference. </li> <li>✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended. </li> </ul> </li> </ol>
<p>③ Power (DC 12V 5A)</p>	<p>Connects to a DC 12V 5A power adapter.</p>
<p>④ Power Switch</p>	<p>Turns the Sequoia 4K60 power ON or OFF.</p>

Table 1.4.1 Sequoia 4K60 Front Panel Components Description





**Figure 1.4.2** Sequoia 4K60 Rear Panel Components


Rear Panel	
<b>1</b> <b>USB Type B</b>	Four USB Type-B connectors for connecting the respective computers' USB Type-A ports via standard USB A/B cables; and transmission of keyboard/mouse control signals to source computers.
<b>2</b>  <b>5</b>	USB Type-A connector for connecting mouse/keyboard (multiple USB devices can be connected with a USB hub) and controlling the display computer system ( <b>Remote</b> mode) on the monitor connected to <b>HDMI OUT 5</b> .
<b>3</b> <b>RS-232/485/422</b> (3-pin terminal block)	Reserved for future functions: Serial ports communication protocol support RS-232, RS-485 or RS-422. ❖ <b>RS-232</b> : for using Avitech's ASCII commands or using third-party controller to control the Sequoia 4K60. ❖ <b>RS-485/RS-422</b> : for using third-party controller to control Sequoia 4K60. <b>Note:</b> 1. For RS-485 and RS-422 protocol can only support either RS-485 or RS-422 in a time. 2. For the pin assignment for <b>RS-232/485/422</b> , refer to <a href="#">Appendix (D) "Serial Port Pin Out"</a> for more details.
<b>4</b> <b>Dip Switches</b>	Resets the Sequoia 4K60 to factory default settings. Refer to <a href="#">Appendix (C) "Resetting to the Factory Default State"</a> for more details.
<b>5</b> <b>Ethernet (IP)</b>	For connecting to the Web browser-based GUI and control using ASCII/Https commands via a network connection (Protocol: TCP/IP, UDP)
<b>6</b> <b>HDMI IN 1 – 4</b>	Four HDMI Type-A connectors for HDMI / DVI-D input sources (DVI to HDMI adapters may be needed). <b>Note:</b> Transmission of audio signal is not included when using the DVI to HDMI adapter.
<b>7</b> <b>HDMI OUT 5</b>	HDMI Type-A connector for routing <b>HDMI IN 1 – 4</b> source signal in single-view fullscreen display on the connected monitor (HDMI to DVI adapters may be needed). <b>Note:</b> Transmission of audio signal is not included when using the DVI to HDMI adapter to connect to monitor.

**Table 1.4.2** Sequoia 4K60 Rear Panel Components Description



1. Non-standard keyboards i.e. keyboards require manually installation of drivers are not supported.
2. Compatibility between the computer and the Sequoia 4K60 may depend on the computer's BIOS Setup. Refer to the computer's BIOS Setup and make sure "USB port" is enabled if this item exists in the computer's BIOS Setup (typically found in the "Advanced" or "Onboard Device Configuration" menu).


## 2. System Configuration

The Sequoia 4K60 features automatic sensing of input signals with “NO VIDEO” alarm, automatic detection and selection of optimum display resolution, and auto configuration of multiple user workstations with USB connections. Each USB port can be used to create a user workstation corresponding to the HDMI outputs with the matching and subsequent port numbers. For example, the mouse for workstation one with **HDMI OUT** port **1** and **2** must be connected to USB port **1**, and the mouse for workstation two with **HDMI OUT** port **3** and **4** must be connected to USB port **3**. To control your Sequoia 4K60 directly, connect one or more keyboard and mouse sets to the USB Type-A ports marked  on both of its front and rear panels. The Sequoia 4K60 supports five different display modes can meet various operating requirement. This chapter discusses the connections for different display modes (except Display Mode: Video wall, please refer to [section \(5.1\) “Video Wall Configuration”](#) for more details). For setting up display mode configuration of Sequoia 4K60, please refer to [section \(4.4.3\) “Configuration”](#) for more details.

### 2.1 Display Mode: Workstation (Default)

#### 2.1.1 Example 1: Four Operators at Four Independent Workstations

The following figure shows a typical setup with a single Sequoia 4K60 for four independent workstations operation for controlling four computer systems.

 **DO NOT** block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.

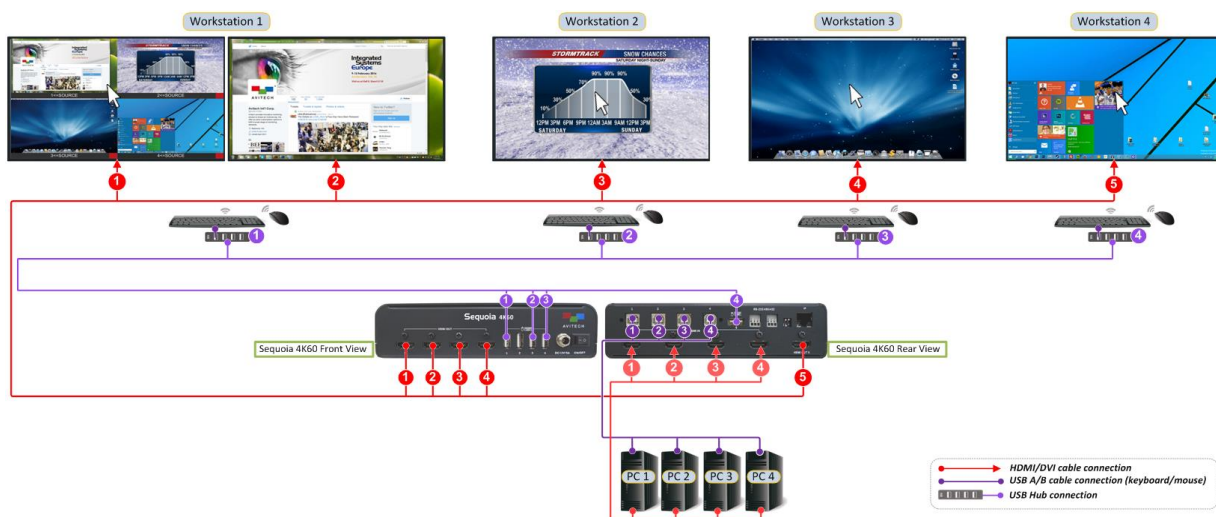


Figure 2.1.1.1 Four Workstations Connection Diagram

#### Four Computer Source Connections to Sequoia 4K60

**Step 1.** Connect the first computer’s display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60. Repeat this step for other three computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.

**Step 2.** Connect a USB A/B cable to the first computer’s USB Type-A port, and connect the other end to the USB Type-B port marked **1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.






1. Be sure to connect the first computer to the USB Type-B port marked **1**, the second computer to USB Type-B port marked **2**, and so forth.
2. (For Windows 2000 users) Upon connecting your Sequoia 4K60 to a computer through the USB interface for the first time, perform the Windows’ on-screen steps to initialize the USB connection.



### Connections to Workstation 1

- Step 1. To simultaneously view the four computer sources on a single monitor, connect the port marked **HDMI OUT 1** on the front panel of Sequoia 4K60 to the monitor using appropriate signal cable.
- Step 2. Connect the port marked **HDMI OUT 2** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.



The Sequoia 4K60 features auto configuration of multiple user workstations with USB connections. Each USB Type-A port marked  can be used to create a user workstation corresponding to the HDMI outputs with the matching and subsequent port numbers. For example, the mouse for workstation one with **HDMI OUT 1** and **2** must be connected to  port 1, and the mouse for workstation two with **HDMI OUT 3** and **4** must be connected to  port 3.




1. The Sequoia 4K60 can provide a total maximum current of 500mA for both USB Type-A port marked  1 and 2; and another total maximum current of 500mA for both USB Type-A port marked  3 and 4.
2. Please be advised when using wireless mouse/keyboard, signal interference may occur with other 2.4 GHz devices in close proximity, leading to slow mouse movement or other issues. The Sequoia 4K60 has multiple USB Type-A ports closely packed together, and with each USB Type-A port capable of supporting one user connection, it would be best to use short USB extension cables to physically separate the wireless USB receiver dongles, or use USB hubs for direct wired connections to mouse/keyboard/touch screens to avoid any interference.
3. If you plan to use a USB hub for to support more USB devices i.e. keyboard, mouse and touch screen, it is strongly recommended to use a powered USB Hub to prevent any drops in performance. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.


4. The following items can be commonly used for USB extension to avoid any interference:

- ✓ A short USB extension cable can physically separate multiple wireless USB receiver dongles concurrently connected to the Sequoia 4K60, preventing any signal interference.
- ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen is an option to completely prevent interference.
- ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.




Step 3. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  1 on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 1 and the four computer sources.


### Connections to Workstation 2

- Step 1. Connect the port marked **HDMI OUT 3** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  3 on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 2 and the four computer sources.

### Connections to Workstation 3

- Step 1. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  4 on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 3 and the four computer sources.


## Connections to Workstation 4

- Step 1. Connect the port marked **HDMI OUT 5** on the rear panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **5** on the rear panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 4 and the four computer sources.



Non-standard keyboards that require manual installation of drivers are not supported.

## Powering Up the Devices

- Step 1. Connect power to/and boot-up the four source computers.
- Step 2. Connect power to the monitors and turn on the monitors.
- Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.
- Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected computers) will appear, along with the Host cursor that can be controlled directly through the mouse connected to your Sequoia 4K60's USB Type-A ports marked .

For basic operation, please refer to [section \(3.3\) "Basic Operation for Workstations \(Default Configuration\)"](#) for more details.

### 2.1.2 Example 2: Two Operators at Two Workstations Sharing One Large 4K UHD Screen

The following figure shows another typical setup with a single Sequoia 4K60 for two operators at two independent workstations with one shared large 4K UHD screen for controlling four systems.



**DO NOT** block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.

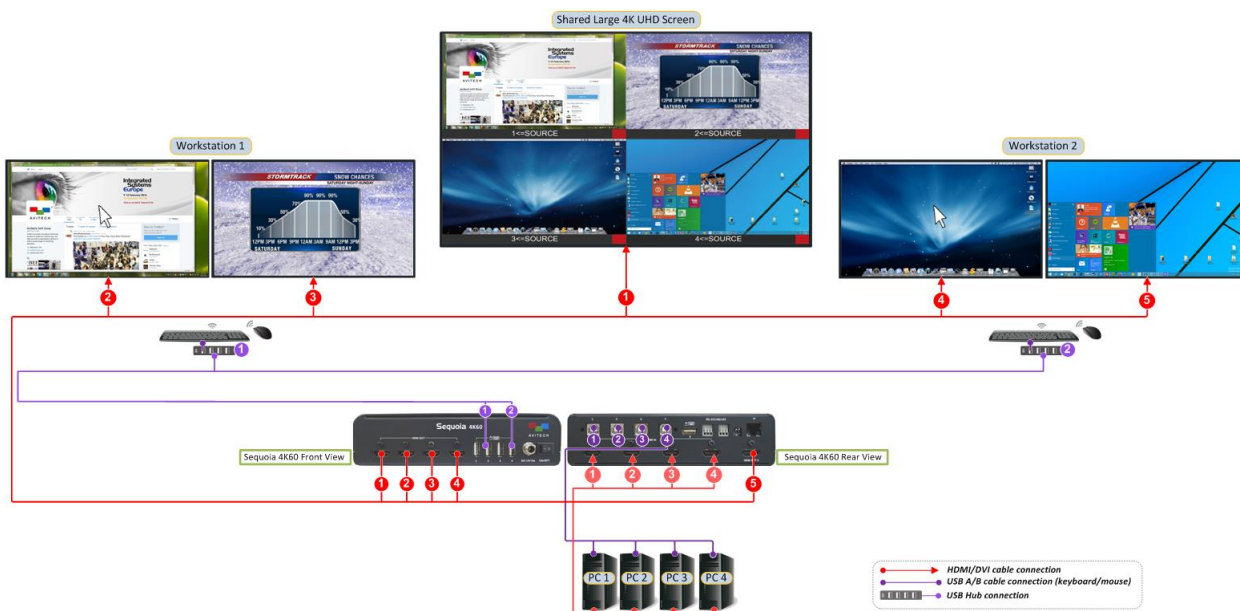


Figure 2.1.2.1 Two Workstations Sharing One Large 4K UHD Screen Connection Diagram



### Four Computer Source Connections to Sequoia 4K60

- Step 1. Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.
- Step 2. Connect a USB A/B cable to the first computer's USB Type-A port, and connect the other end to the USB Type-B port marked **1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.




1. Be sure to connect the first computer to the USB Type-B port marked **1**, the second computer to USB Type-B port marked **2**, and so forth.
2. (For Windows 2000 users) Upon connecting your Sequoia 4K60 to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.




### Connection to the Shared Large 4K UHD Screen

- Step 1. To simultaneously view four computer sources in a quad-view layout on the large 4K UHD screen, connect the port marked **HDMI OUT 1** on the front panel of Sequoia 4K60 to the shared large 4K UHD screen.


### Connections to Workstation 1

- Step 1. Connect the port marked **HDMI OUT 2** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect the port marked **HDMI OUT 3** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 3. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **2** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 1 and the four computer sources.




The Sequoia 4K60 features auto configuration of multiple user workstations with USB connections. Each USB Type-A port marked  can be used to create a user workstation corresponding to the HDMI outputs with the matching and subsequent port numbers. For example, the mouse for workstation one with **HDMI OUT 1** and **2** must be connected to  port **1**, and the mouse for workstation two with **HDMI OUT 3** and **4** must be connected to  port **3**.



1. The Sequoia 4K60 can provide a total maximum current of 500mA for both USB Type-A port marked  **1** and **2**; and another total maximum current of 500mA for both USB Type-A port **3** and port **4**.
2. Please be advised when using wireless mouse/keyboard, signal interference may occur with other 2.4 GHz devices in close proximity, leading to slow mouse movement or other issues. The Sequoia 4K60 has multiple USB Type-A ports closely packed together, and with each USB Type-A port capable of supporting one user connection, it would be best to use short USB extension cables to physically separate the wireless USB receiver dongles, or use USB hubs for direct wired connections to mouse/keyboard/touch screens to avoid any interference.
3. If you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen, it is strongly recommended to use a powered USB Hub to prevent any drops in performance. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.
4. The following items can be commonly used for USB extension to avoid any interference:
  - ✓ A short USB extension cable can physically separate multiple wireless USB receiver dongles concurrently connected to the Sequoia 4K60, preventing any signal interference.
  - ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen is an option to completely prevent interference.
  - ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.




## Connections to Workstation 2

- Step 1. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect the port marked **HDMI OUT 5** on the rear panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 3. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **4** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 2 and the four computer sources.

 Non-standard keyboards i.e. keyboards that require manual installation of drivers are not supported.


## Powering Up the Devices

- Step 1. Connect power to/and boot-up the four source computers.
- Step 2. Connect power to the monitors and turn on the monitors.
- Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.
- Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected computers) will appear, along with the *Host* cursor that can be controlled directly through the mouse connected to your Sequoia 4K60's USB Type-A ports marked .

For basic operation, please refer to [section \(3.3\) "Basic Operation for Workstations \(Default Configuration\)"](#) for more details.

## 2.2 Display Mode: Workstation (Quad + 4 Singles)

The following figure shows another typical setup with a single Sequoia 4K60 for four users at four independent workstations operation for controlling four systems.

 **DO NOT** block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.

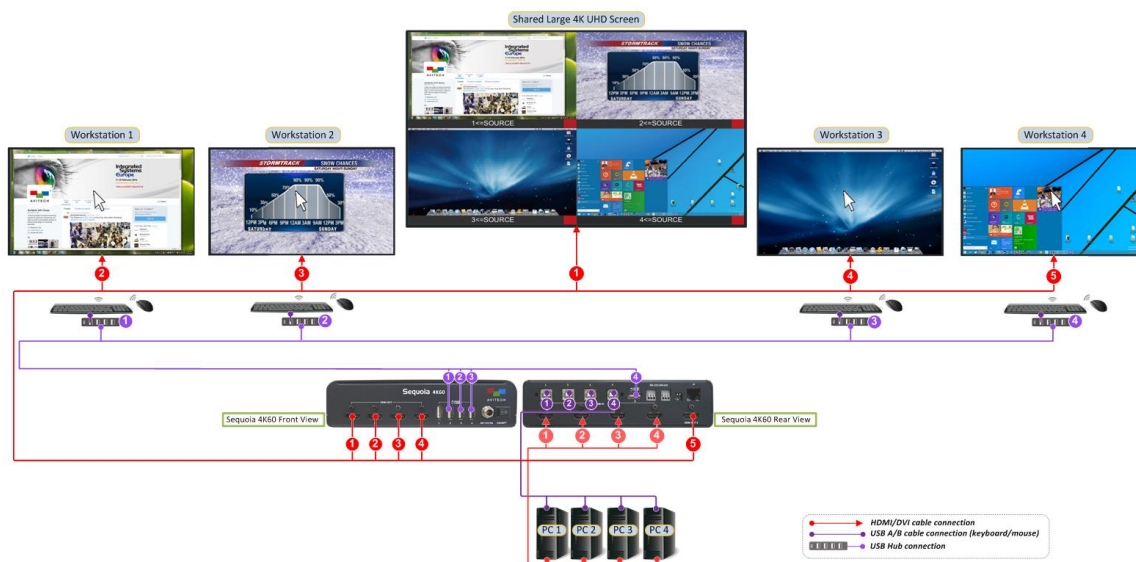


Figure 2.2.1 Four Workstations Shared One 4K UHD Screen Connection Diagram

### Four Computer Source Connections to Sequoia 4K60

- Step 1.** Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.
- Step 2.** Connect a USB A/B cable to the first computer's USB Type-A port, and connect the other end to the USB Type-B port marked **1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.




1. Be sure to connect the first computer to the USB Type-B port marked **1**, the second computer to USB Type-B port marked **2**, and so forth.
2. (For Windows 2000 users) Upon connecting your Sequoia 4K60 to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.




### Connection to the Shared Large 4K UHD Screen

- Step 1.** To simultaneously view four computer sources on a quad-view layout on a large 4K UHD screen, connect the port marked **HDMI OUT 1** of the Sequoia 4K60 to the shared large 4K UHD screen.



### Connections to Workstation 1

- Step 1.** Connect the port marked **HDMI OUT 2** on the front panel of Sequoia 4K60 to the monitor using an appropriate signal cable.
- Step 2.** Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **2** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 1 and the four computer sources.




The Sequoia 4K60 features auto configuration of multiple user workstations with USB connections. Each USB Type-A port marked  can be used to create a user workstation corresponding to the HDMI outputs with the matching and subsequent port numbers. For example, the mouse for workstation one with **HDMI OUT 1** and **2** must be connected to  port **1**, and the mouse for workstation two with **HDMI OUT 3** and **4** must be connected to  port **3**.




1. The Sequoia 4K60 can provide a total maximum current of 500mA for both USB Type-A port marked  **1** and **2**; and another total maximum current of 500mA for both USB Type-A port marked  **3** and **4**.
2. Please be advised when using wireless mouse/keyboard, signal interference may occur with other 2.4 GHz devices in close proximity, leading to slow mouse movement or other issues. The Sequoia 4K60 has multiple USB Type-A ports closely packed together, and with each USB Type-A port capable of supporting one user connection, it would be best to use short USB extension cables to physically separate the wireless USB receiver dongles, or use USB hubs for direct wired connections to mouse/keyboard/touch screens to avoid any interference.
3. If you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen, it is strongly recommended to use a powered USB Hub to prevent any drops in performance. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.
4. The following items can be commonly used for USB extension to avoid any interference:
  - ✓ A short USB extension cable can physically separate multiple wireless USB receiver dongles concurrently connected to the Sequoia 4K60, preventing any signal interference.
  - ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen is an option to completely prevent interference.
  - ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.




### Connections to Workstation 2

- Step 1. Connect the port marked **HDMI OUT 3** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **3** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 2 and the four computer sources.

### Connections to Workstation 3

- Step 1. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **4** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 3 and the four computer sources.


### Connections to Workstation 4

- Step 1. Connect the port marked **HDMI OUT 5** on the rear panel of Sequoia 4K60 to the monitor using the appropriate signal cable.
- Step 2. Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **5** on the rear panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the Workstation 4 and the four computer sources.



Non-standard keyboards that require manual installation of drivers are not supported.

### Powering Up the Devices

- Step 1. Connect power to/and boot-up the four source computers.
- Step 2. Connect power to the monitors and turn on the monitors.
- Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.
- Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected computers) will appear, along with the Host cursor that can be controlled directly through the mouse connected to your Sequoia 4K60's USB Type-A ports marked .

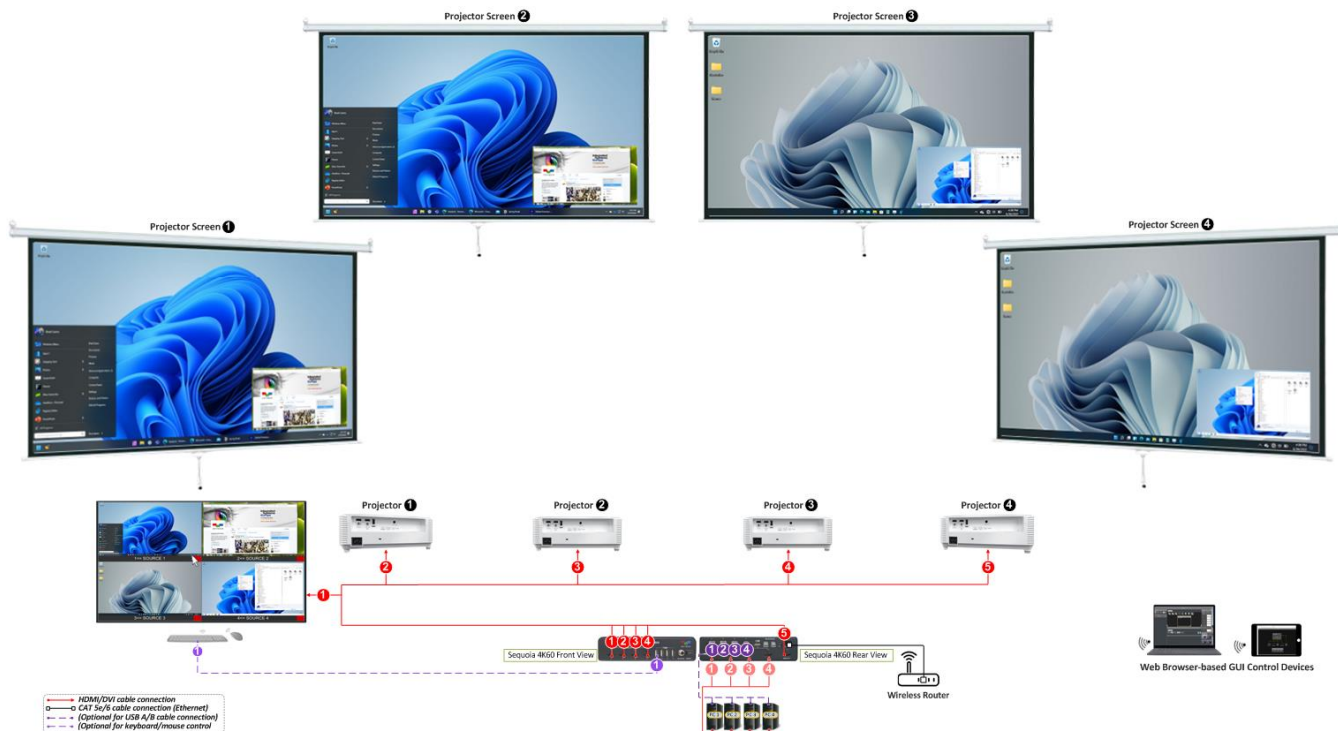
For basic operation, please refer to [section \(3.4\) “Basic Operation for Workstations \(Quad + 4 Singles\) Configuration”](#) for more details.



## 2.3 Display Mode: Projector (PiP)

The following figure shows a typical setup with a single Sequoia 4K60 supporting one output with a multiview display for controlling four systems and the four other outputs can duplicate two picture-in-picture (PiP) images.

**⚠** *DO NOT* block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.



**Figure 2.3.1** Projector (PiP) Display Mode Connection Diagram

### Four Computer Source Connections to Sequoia 4K60


**Step 1.** Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.

**Step 2.** (For video only application, you may skip this step) Connect a USB A/B cable to the first computer's USB Type-A port, and connect the other end to the USB Type-B port marked **1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.



1. Be sure to connect the first computer to the USB Type-B port marked **1**, the second computer to USB Type-B port marked **2**, and so forth.
2. (For Windows 2000 users) Upon connecting your Sequoia 4K60 to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.

### Connection to Multiview 4K UHD Screen

- Step 1. To simultaneously view four computer sources on a quad-view layout on a large 4K UHD screen, connect the port marked **HDMI OUT 1** of the Sequoia 4K60 to the multiview 4K UHD screen.
- Step 2. (For video only application, you may skip this step) Connect a short USB extension cable or a USB hub to the USB Type-A port marked  **1** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the four computer sources.




1. It is strongly recommended using a powered USB Hub to prevent any drops in performance if you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.
2. Non-standard keyboards that require manual installation of drivers are not supported.
3. The Sequoia 4K60 automatically detects monitor's EDID. When your Sequoia 4K60 is connecting with monitors support 4K UHD and FHD resolution and set the configuration to Projector (PiP) / Projector (fullscreen) mode, please connect the monitors support FHD resolution to the ports marked **HDMI OUT 2 / 4** to ensure the image display on all the monitors.

### Connections to Projector 1 – Projector 4

- Step 1. Connect the port marked **HDMI OUT 2** on the front panel of Sequoia 4K60 to the HDMI port of projector 1 using an appropriate signal cable.
- Step 2. Connect the port marked **HDMI OUT 3** on the front panel of Sequoia 4K60 to the HDMI port of projector 2 using the appropriate signal cable.
- Step 3. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60 to the HDMI port of projector 3 using the appropriate signal cable.
- Step 4. Connect the port marked **HDMI OUT 5** on the rear panel of Sequoia 4K60 to the HDMI port of projector 4 using the appropriate signal cable.


### Powering Up the Devices

- Step 1. Connect power to/and boot-up the four source computers.
- Step 2. Connect power to the monitor / projectors and turn on the monitors.
- Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.
- Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected computers) will appear, along with the Host cursor that can be controlled directly through the mouse connected to your Sequoia 4K60's USB Type-A port marked  **1**.

For basic operation, please refer to [section \(3.5\) “Basic Operation for Projector Configuration”](#) for more details.

## 2.4 Display Mode: Projector (Fullscreen)

The following figure shows another typical setup with a single Sequoia 4K60 supporting one output with a multiview display for controlling four systems and the four other outputs can duplicate two single-view (fullscreen) images.

 **DO NOT** block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.

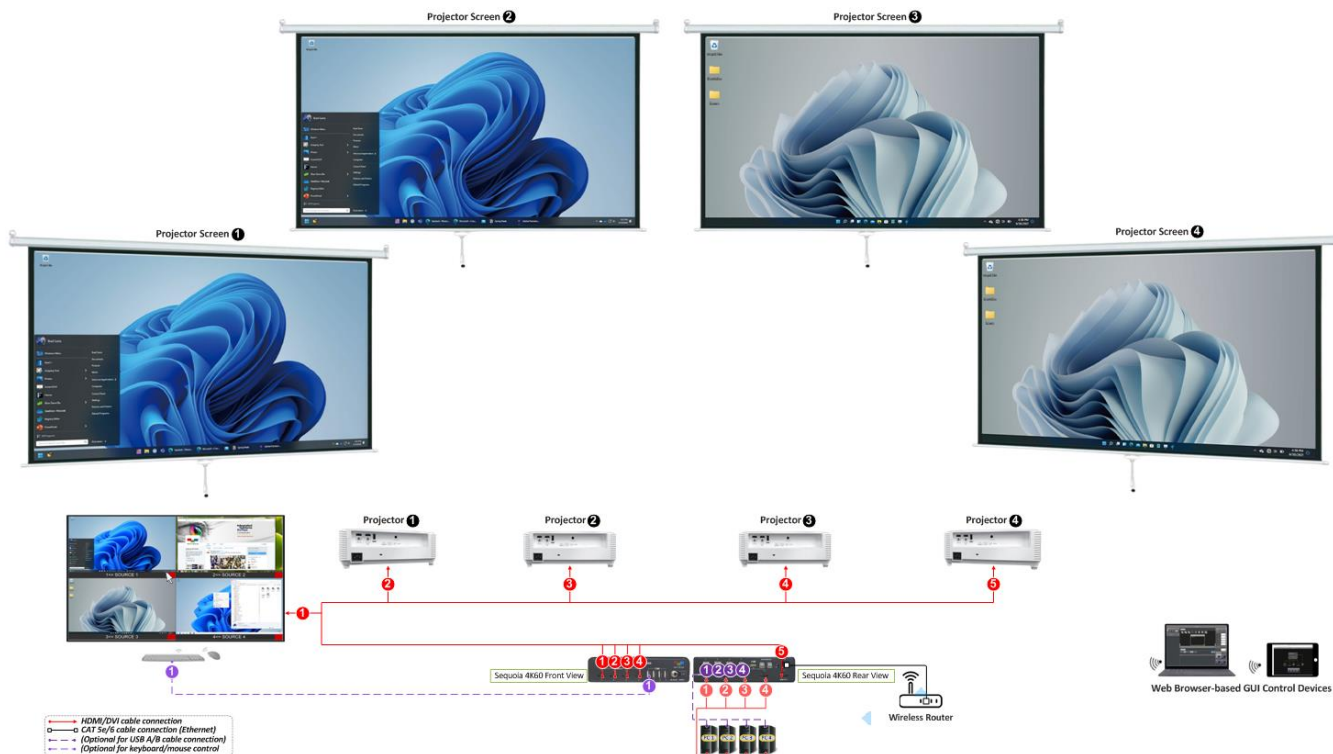


Figure 2.4.1 Projector (Fullscreen) Display Mode Connection Diagram

### Four Computer Source Connections to Sequoia 4K60

**Step 1.** Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.


**Step 2.** (For video only application, you may skip this step) Connect a USB A/B cable to the first computer's USB Type-A port, and connect the other end to the USB Type-B port marked **1** on the rear panel of the Sequoia 4K60. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.



1. Be sure to connect the first computer to the USB Type-B port marked **1**, the second computer to USB Type-B port marked **2**, and so forth.
2. (For Windows 2000 users) Upon connecting your Sequoia 4K60 to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.

### Connection to Multiview 4K UHD Screen

**Step 1.** To simultaneously view four computer sources on a quad-view layout on a large 4K UHD screen, connect the port marked **HDMI OUT 1** of the Sequoia 4K60 to the multiview 4K UHD screen.

Step 2. (For video only application, you may skip this step) Connect a short USB extension cable or a USB hub to the USB Type-A port marked  1 on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse; they will be used to control the four computer sources.



1. It is strongly recommended to use a powered USB Hub to prevent any drops in performance if you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.
2. Non-standard keyboards that require manual installation of drivers are not supported.
3. The Sequoia 4K60 automatically detects monitor's EDID. When your Sequoia 4K60 is connecting with monitors support 4K UHD and FHD resolution and set the configuration to Projector (PiP) / Projector (fullscreen) mode, please connect the monitors support FHD resolution to the ports marked **HDMI OUT 2 / 4** to ensure the image display on all the monitors.

### Connections to Projector 1 – Projector 4

Step 1. Connect the port marked **HDMI OUT 2** on the front panel of Sequoia 4K60 to the HDMI port of projector 1 using an appropriate signal cable.

Step 2. Connect the port marked **HDMI OUT 3** on the front panel of Sequoia 4K60 to the HDMI port of projector 2 using the appropriate signal cable.

Step 3. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60 to the HDMI port of projector 3 using the appropriate signal cable.


Step 4. Connect the port marked **HDMI OUT 5** on the rear panel of Sequoia 4K60 to the HDMI port of projector 4 using the appropriate signal cable.

### Powering Up the Devices

Step 1. Connect power to/and boot-up the four source computers.

Step 2. Connect power to the monitor / projectors and turn on the monitors.

Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.


Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected computers) will appear, along with the Host cursor that can be controlled directly through the mouse connected to your Sequoia 4K60's USB Type-A ports marked  1.

For basic operation, please refer to [section \(3.5\) “Basic Operation for Projector Configuration”](#) for more details.

### 3. Basic Operations

The Sequoia 4K60 always operates in one of its two operating modes: Host and Remote mode. Users are allowed to freely switch between these two modes anytime during the operation for different uses. This chapter discusses these operating modes, their functions, and hotkeys in detail.

#### Host Mode

When the Sequoia 4K60 is in Host mode, the Host cursor appears on the monitor corresponding to the USB-A port marked  of Sequoia 4K60 which the keyboard/mouse is connected to. The cursor will be controlled by this connected mouse.

- ❖ *Host mode provides a monitoring solution for the incoming computer/video signals. Users can use the Host cursor to select and adjust window size, position, and display layout directly through the on-screen interface.*
- ❖ *Double-click the mouse left button on a specific window to enter the Remote mode.*
- ❖ *Double-click the mouse right button on a specific window to close this window.*
- ❖ *To switch back to Host mode, use the keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.*
- ❖ *Other features such as the pop-up selection menu and hotkeys are features of this mode to enhance ease of control and operation and are discussed in detail in [section \(3.1\) “Host Mode”](#).*



Upon re-connecting a keyboard or mouse, the Host cursor may disappear. Move the mouse to allow it to re-appear.

#### Remote Mode



The Remote mode is only applicable for computer sources with USB A/B cables connection to Sequoia 4K60 for mouse/keyboard operation.


By default when Sequoia 4K60 enters Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**; this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature.

- ❖ *“**Surfer**” allows keyboard and mouse control switching by moving the mouse back and forth among the windows.*
- ❖ *Remote mode provides direct keyboard and mouse control to the selected computer system as you regularly would within the window.*
- ❖ *Your Sequoia 4K60 can only enter Remote to take control of a computer with correct USB Type-B port (marked **1** to **4**) connection to the rear panel.*
- ❖ *For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer.*
- ❖ *With “**Surfer**” feature turned off, the window’s border will turn **red** and the keyboard and mouse control will stay within the window.*

#### Tips on Navigating the Sequoia 4K60

- ✓ *A maximum of four computers can be connected to a single Sequoia 4K60. The Sequoia 4K60 puts the images of four computers onto four windows and simultaneously displays them on the monitor. Instant switching of inputs through the pop-up selections is supported; thus, any of the four computers can be monitored and controlled on the display.*
- ✓ *When Host mode of the quad-view monitor is active, use the mouse connected to your Sequoia 4K60 to resize and reposition windows on the display (only available for the first HDMI output).*














- ✓ To switch from Host mode to Remote mode, move the Host cursor to the top-right corner of the targeted window and then click the **Enter remote mode**  icon (or double-click your mouse's left button any area within that window).
- ✓ When entering Remote mode ("**Surfer**" feature is automatically active), your Sequoia 4K60 automatically transfers its keyboard and mouse control to the selected computer. Use the keyboard and mouse to control that computer as you regularly would.
- ✓ To switch back to Host mode, use the keyboard "**Pause/Break**" hotkey, or double-click the mouse scroll button. The Sequoia 4K60 will return to Host mode and the Host cursor will reappear.

### 3.1 Host Mode

In Host mode, users can monitor images of the connected computers and adjust the four windows using the provided selections and menu. Basic operations allowed in Host mode are mentioned below.


#### 3.1.1 Pop-up Selections

Upon moving the Host cursor to the top-right corner of a window, the following pop-up selections will appear:

- ✓  **Swap**: enable a window to switch its position with the other window (this icon only appears in quad-view mode)
- ✓  **Enter remote mode**: enter Remote operation mode and control the computer corresponding to the window (this icon only appears in quad-view mode)
- ✓  **Fullscreen**: set the selected window to fullscreen (this icon only appears in quad-view mode)
- ✓  Select **HDMI IN 1** input source (this icon only appears in fullscreen mode)
- ✓  Select **HDMI IN 2** input source (this icon only appears in fullscreen mode)
- ✓  Select **HDMI IN 3** input source (this icon only appears in fullscreen mode)
- ✓  Select **HDMI IN 4** input source (this icon only appears in fullscreen mode)
- ✓  Switch to default quad-view layout (this icon only appears in fullscreen mode for the first **HDMI OUT** port)
- ✓  **Restore**: return from a fullscreen view to previous layout (this icon only appears in fullscreen for **HDMI OUT** port 1 – 4 in Workstation (default) display mode )
- ✓  **HDMI audio**: embedded audio output in HDMI signal is enabled (this icon only appears in fullscreen mode)
- ✓  **HDMI audio**: embedded audio output in HDMI signal is disabled (this icon only appears in fullscreen mode)
















When Sequoia 4K60 detects:

1. A particular computer's USB port is not connected, the **Enter remote mode**  pop-up icon on the corresponding window will be disabled.
2. An input source was lost; the **HDMI IN #** icon in the pop-up selections will be disabled.

### 3.1.2 Functions







The Sequoia 4K60 allows free window resize/reposition directly through its on-screen user interface. The following is a list of summarized functions available in Host mode for HDMI outputs of Sequoia 4K60; additional functions can refer to [Chapter \(4\) “Setup Using the Web Browser-based GUI”](#) in details.





#### Available Functions in Host Mode of the Monitor Connected to First HDMI Out Port

Functions	
<b>Window resizing</b>	Drag any of the four corners or edges of a window to a desired size.
<b>Window repositioning</b>	Drag a window to a desired position.
<b>Window position swapping</b>	Move the <u>Host</u> cursor to the top-right corner of a window; click  icon. Then move the <u>Host</u> cursor to another window and click anywhere to swap two windows' including label's positions.
<b>Window closing</b>	Move the <u>Host</u> cursor on a specific window, and then double-click the mouse right key to close the window.
<b>Window adding</b>	On the blank area, click and hold the mouse left button to draw a rectangle outline, then release the mouse left button, the newly added window will appear on the display. <i>Note: The newly add window cannot overlay with other three windows during creation.</i>
<b>Access a remote computer</b>	Double-click the mouse left button when the <u>Host</u> cursor is on a remote computer window. Or, move the <u>Host</u> cursor to the top-right corner of a window; click  icon to enter <u>Remote</u> mode to the corresponding computer. The  icon will be disabled if the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB Type-A port.
<b>Fullscreen window</b>	Move the <u>Host</u> cursor to the top-right corner of a window; click  icon and then the window will maximize to fullscreen. Click  icon to return from fullscreen.
<b>Switching input source</b>	When in fullscreen mode, move the <u>Host</u> cursor to the top-right corner of a window; click  /  /  /  icon and then the corresponding input source will display on screen.
<b>Enable/disable audio output</b>	Move the <u>Host</u> cursor to the top-right corner of a window; when the pop-up selection appear: Click  (corresponds to red tally  ) icon to enable the embedded audio of corresponding source to output through HDMI OUT port to the monitor. Click  (corresponds to green tally  ) icon to mute the embedded audio of corresponding source.

**Table 3.1.2.1** Host Mode Functions for the First HDMI Out Port

#### Available Functions in Host Mode of the 2<sup>nd</sup> to 5<sup>th</sup> HDMI Out Ports

Functions	
<b>Access a remote computer</b>	Double-click the mouse left button when the <u>Host</u> cursor is on a remote computer window. Or, move the <u>Host</u> cursor to the top-right corner of a window; click  icon to enter <u>Remote</u> mode to the corresponding computer. The  icon will be disabled if the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.
<b>Switching input source</b>	Move the <u>Host</u> cursor to the top-right corner of a window; click  /  /  /  icon and then the corresponding input source will display on screen.

Functions	
<b>Enable/disable audio output</b>	Move the <u>Host</u> cursor to the top-right corner of a window; when the pop-up selection appear:
	Click  (corresponds to red tally  ; it will appear when move the <u>Host</u> cursor to the bottom-right corner of a fullscreen window) icon and click to enable the HDMI embedded audio of corresponding source to output through HDMI OUT port to the monitor.
	Click  (corresponds to green tally  ; it will appear when move the <u>Host</u> cursor to the bottom-right corner of a fullscreen window) icon and click to mute the HDMI embedded audio of corresponding source.

**Table 3.1.2.2** Host Mode Functions for the 2<sup>nd</sup> to 5<sup>th</sup> HDMI Out Ports

### 3.1.3 Hotkeys

Hotkeys are available when utilizing the Sequoia 4K60 under the Host operation mode. Details below are the Host operation mode hotkeys.

Keys	
<b>Ctrl – # – #</b> (1 to 5, 1 to 4)	To route an input source to display (in fullscreen mode) on the monitors connected to HDMI output ports (i.e. “ <b>Ctrl – 1 – 1</b> ” will load input source <b>1</b> to display in fullscreen mode of HDMI output port <b>1</b> ; “ <b>Ctrl – 5 – 2</b> ” will route input source <b>2</b> to HDMI output port <b>5</b> ).
<b>Ctrl – # – Q</b> (1 to 4)	Resume to the duplicate display layout of HDMI output <b>1</b> . <i>Note: only available when the system configuration is in Workstation (default) mode.</i>
<b>Home</b>	Returns to Sequoia 4K60 default layout.
<b>Ctrl + S</b>	Saves the display configuration as the latest preset to the Sequoia 4K60 so that on the next boot-up the latest preset will be loaded.
<b>Page Up/Page Down</b>	Switch between the three factory default quad layout presets.
↑	Load the previous user-created preset file.
↓	Load the next user-created preset file.
<b>Ctrl + Alt + Shift + R</b>	When using the mouse in a workstation operation, there may be times when mouse usage is not smooth or erratic behavior is observed. Use keyboard “ <b>Ctrl + Alt + Shift + R</b> ” hotkey to reset the mouse cursor return to <u>Host</u> mode of HDMI port’s monitor corresponding to the USB Type-A port connected the keyboard and mouse.

**Table 3.1.3.1** Hotkeys of Host Operation Mode



1. A defined hotkey combination with a plus symbol (“+”) means the keys joined by a plus symbol need to be pressed and held, before pressing the last key.
2. A defined hotkey combinations with a dash symbol (“–”) means the sequence needs to be followed exactly to carry out a complete switching/routing action. Sequential hotkeys usually involve pressing and releasing a dedicated key then pressing and releasing another key and so forth.

## 3.2 Remote Mode

The following hotkeys are available when utilizing your Sequoia 4K60 under Remote mode.

Keys	
<b>Pause Break</b>	Exits from <u>Remote</u> mode and returns to <u>Host</u> mode (or double-click the mouse scroll button). <i>Note: When using a keyboard without “Pause/Break” key, use “control + option (Alt) + shift + P” hotkey instead to perform <u>Remote</u> mode to <u>Host</u> mode switch.</i>



Keys	
<b>Ctrl + Shift + Alt + F8</b>	Toggle “ <b>Surfer</b> ” feature off/on; moving mouse to a border shared with another computer will cause the keyboard and mouse to control the other computer. By default, the “ <b>Surfer</b> ” feature is enabled upon starting up the Sequoia 4K60. For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “ <b>Surfer</b> ” feature by using keyboard “ <b>Ctrl + Alt + Shift + F8</b> ” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer.
<b>Ctrl + Alt + Shift + R</b>	When using the mouse in a workstation operation, there may be times when mouse usage is not smooth or erratic behavior is observed. Use keyboard “ <b>Ctrl + Alt + Shift + R</b> ” hotkey to reset the mouse cursor return to <u>Host</u> mode of HDMI port’s monitor corresponding to the USB Type-A port connected the keyboard and mouse.

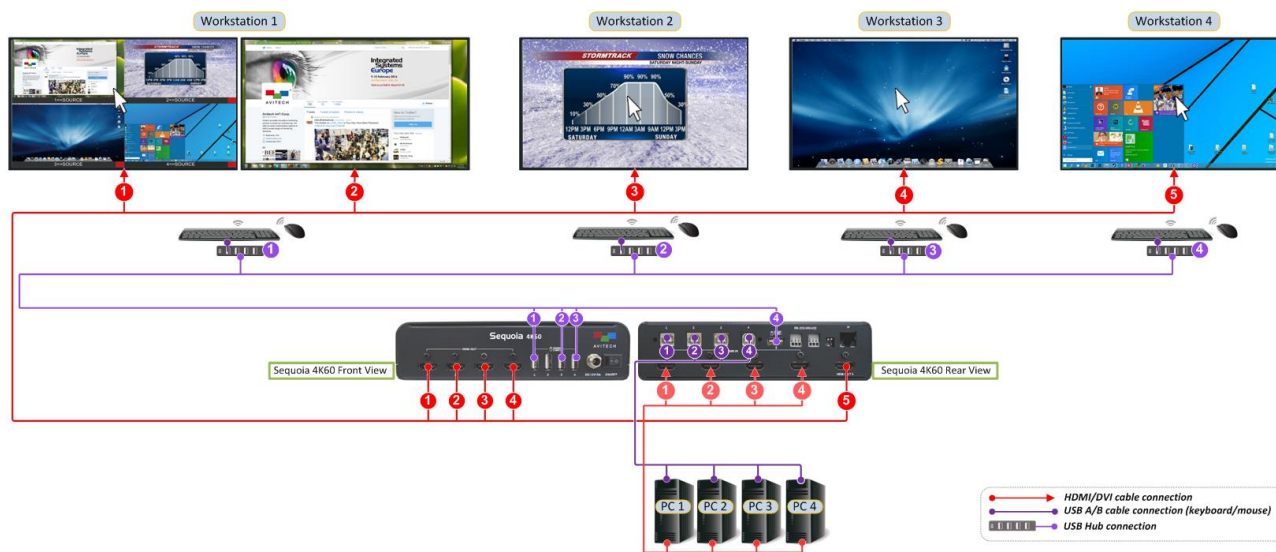
**Table 3.2.1** Hotkeys of Remote Mode



1. A defined hotkey combination with a plus symbol (“+”) means the keys joined by a plus symbol need to be pressed and held, before pressing the last key.
2. A defined hotkey combinations with a dash symbol (“-”) means the sequence needs to be followed exactly to carry out a complete switching/routing action. Sequential hotkeys usually involve pressing and releasing a dedicated key then pressing and releasing another key and so forth.

### 3.3 Basic Operation for Workstation (Default) Configuration


The following example figure shows a typical setup for Workstation (Default) configuration display mode with a single Sequoia 4K60 for multiple operators at multiple workstations control of the four computer systems.



**Figure 3.3.1** Example for Workstation (Default) Configuration

#### 3.3.1 Basic Operation of the First HDMI Out Port



##### Host Mode

When the monitor connected to HDMI port marked **OUT 1** of Sequoia 4K60 is in Host mode, the Host cursor appears on the display upon connecting a mouse device to USB Type-A port marked  **1** of Sequoia 4K60. The cursor will be controlled by this connected mouse.

- ❖ Host mode provides a monitoring solution for the incoming computer/video signals. Users can use the Host cursor to select and adjust window size, position, and display layout directly through the on-screen interface.




Upon re-connecting a keyboard or mouse, the Host cursor may disappear. Move the mouse to allow it to re-appear.

- ❖ Double-click the mouse left button any area within that specific window to enter the Remote mode (or move the Host cursor to the top-right corner of the targeted window and then click the **Enter remote mode**  icon).
  - ❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button. The Host cursor will reappear.
  - ❖ To close a specific window, move the Host cursor on the window and double-click the mouse right button to close it.
  - ❖ To add a window, move the Host cursor to the blank area, click and hold the mouse left button to draw a rectangle outline (the minimum size of the rectangle is one-sixth of width/height of the output resolution), then release the mouse left button, the newly added window will appear on the screen.
- ⚠** | Please keep in mind the newly add window CANNOT overlay with the other three windows during creation.
- ❖ To route an input source to display on the monitors, using keyboard “**Ctrl – 1 – 1**” hotkey will load input source 1 to display on the monitor in fullscreen mode; “**Ctrl – 1 – 4**” hotkey will load input source 4 to display on the monitor in fullscreen mode.
  - ❖ Move the Host cursor to the top-right position, the pop-up selections  will appear upon moving the Host cursor to the top-right of each window.















**Figure 3.3.1.1** Pop-up Selections of Quad-view Window

**⚠** | If there is a duplicated quad display on **HDMI OUT 2** to **HDMI OUT 4**, the fullscreen icon in pop-up selections for each window of **HDMI OUT 1** will be greyed out of the **HDMI OUT 1**.











Or, when in fullscreen window upon moving the Host cursor to the window’s top-right position, the pop-up selections  will appear.



**Figure 3.3.1.2** Pop-up Selections of Fullscreen Window

- ✓ Click  icon to switch its position and size with the other window. Upon clicking  icon, the Host cursor will change to , then move  cursor to the target window and click to swap.
- ✓ Click  icon or double-click the mouse left button on a selected window to enter the Remote mode.
- ✓ Click  icon to set the selected window to fullscreen.
- ✓ Click  (input 1) –  (input 4) icons to switch the input source when in fullscreen window.
- ✓ Click  icon to load default quad-view layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon for returning from a fullscreen view to previous layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon (the audio currently in off state) to turn on the HDMI embedded audio. Click  icon (the audio currently is playing) to turn off the HDMI embedded audio.



1. The pop-up selections          are only available for **HDMI OUT 1** when the source is in fullscreen mode.
2. When the **INPUT #** icon is greyed out, that means its source is currently displaying on the monitor.
3. When the  icon is greyed out, that means the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.

### Remote Mode

- ❖ When Sequoia 4K60 enters Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**, this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature.
- ❖ For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer. The window’s border will turn **red**, this signifies that your Sequoia 4K60 is now in Remote mode without “**Surfer**” feature. Your keyboard and mouse control will stay within that window and won’t be able to move across the border.
- ❖ Entering Remote mode, your Sequoia 4K60 transfers keyboard and mouse control to the selected computer system.
- ❖ You can then control the computer as you regularly would within the window on the display.
- ❖ Use keyboard “**Pause/Break**” hotkey or double-click the mouse scroll button connected to Sequoia 4K60 to return keyboard and mouse control to Host mode. The Host cursor will reappear.
- ❖ Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (marked **1 – 4**) on your Sequoia 4K60’s rear panel is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.

### In summary:

When utilizing the “**Surfer**” feature, moving away from quad-view to the neighboring fullscreen monitor the mouse will remain in the respective Remote or Host modes.

With the “**Surfer**” feature (default setting is **ON**) enabled. By moving your cursor out of your current window's border toward the other window, your Sequoia 4K60's keyboard and mouse control will automatically switch to that computer. Below figure shows the window control switching action upon moving the mouse to the window side. Moving the mouse from one window to another transfers control from the former window to the target window.



Figure 3.3.1.3 “Surfer” Feature on Quad-View Layout

Move the cursor across displays to access computer sources shown on the two monitors. While in the “**Surfer**” feature moving away from quad-view to the neighboring fullscreen monitor or vice versa the mouse will remain in the respective Remote or Host modes.





Figure 3.3.1.4 “Surfer” Feature on Two Display Monitors

 The keyboard/mouse control switching order will follow the sequence of HDMI OUT ports of Sequoia 4K60 when using the “**Surfer**” in a multiple monitor workstation operation.


### 3.3.2 Basic Operation for HDMI Out Port 2 to HDMI Out Port 5

#### Host Mode

The monitors connected to HDMI port marked **OUT 2** to **5** of Sequoia 4K60 will display in fullscreen Host mode, the Host cursor appears on the display upon connecting mouse devices to the corresponding USB Type-A ports marked  **2** to **5** of Sequoia 4K60. The cursor will be controlled by its locally connected mouse.


- ❖ Double-click the mouse left button on the fullscreen window or click the **Enter remote mode**  icon to enter the Remote mode.
- ❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.
- ❖ Use keyboard “**Ctrl – (2 to 5) – (1 to 4)**” hotkeys to route an input source to display on the corresponding monitors. For example, use keyboard “**Ctrl – 2 – 1**” hotkey will load input source 1 to display on the monitor of **HDMI OUT 2**; “**Ctrl – 3 – 4**” hotkey will load input source 4 to display on the monitor of **HDMI OUT 3**; “**Ctrl – 4 – 2**” hotkey will load input source 2 to display on the monitor of **HDMI OUT 4**; “**Ctrl – 5 – 4**” hotkey will load input source 4 to display on the monitor of **HDMI OUT 5**.



- ❖ Move the Host cursor to the top-right position of the monitor connected to **HDMI OUT 2 – HDMI OUT 4**, the pop-up selections  will appear. You can then switch source or enter to control the remote computer.









**Figure 3.3.2.1** Pop-up Selections for HDMI OUT 2 – HDMI OUT 4



- Move the Host cursor to the top-right position of the monitor connected to **HDMI OUT 5**, the pop-up selections  will appear. You can then switch source or enter to control the remote computer.



**Figure 3.3.2.2** Pop-up Selections for HDMI OUT 5

- ✓ Click  icon or double-click the mouse left button to enter the Remote mode.
- ✓ Click  (input 1) –  (input 4) icons to switch the input source.
- ✓ Click  icon for switching to display the duplicated quad-view source. The duplicated quad-view source does not support mouse control function. You can use keyboard “**Ctrl – (2 to 4) – (1 to 4)**” hotkeys to route any one of the input sources to display in fullscreen on the monitors. This icon is not available for **HDMI OUT 5**.
- ✓ Click  icon (the audio currently in off state) to turn on the HDMI embedded audio. Click  icon (the audio currently is playing) to turn off the HDMI embedded audio.




1. The pop-up selection  is not available for **HDMI OUT 5** due to the **HDMI OUT 5** does not support displaying duplicate quad-view as **HDMI OUT 2 – HDMI OUT 4**.
2. When the **INPUT #** icon is greyed out, that means its source is currently displaying on the monitor.
3. When the  icon is greyed out, that means the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.
4. The duplicated quad-view source is fixed at 3840x2160 resolution, please make sure the monitors connected to **HDMI OUT 2 – 4** support 4K UHD resolutions.

### Remote Mode

- ❖ When entering Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**, this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature.
- ❖ Entering Remote mode, your Sequoia 4K60 transfer keyboard and mouse control to the selected computer system.
- ❖ You can then control the computer as you regularly would within the window on the display.
- ❖ For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer. The window’s border will turn **red**, this signifies that your Sequoia 4K60 is now in Remote mode without “**Surfer**” feature. Your keyboard and mouse control will stay within that window and won’t be able to move across the border.
- ❖ Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (marked **1** to **4**) on the rear panel of Sequoia 4K60 is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.
- ❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.

### In summary:

- ❖ When utilizing the “**Surfer**” feature, moving away from the fullscreen monitor to the neighboring fullscreen monitor the mouse will remain in the respective Remote or Host modes.
- ❖ Upon switching (click  icon) to duplicated quad-view source, the Host cursor will be hidden due to the duplicated quad-view does not support mouse function, you can use keyboard “**Ctrl – (2 to 4) – (1 to 4)**” hotkeys to route any one of the input sources to display on the monitors. This icon is not available for **HDMI OUT 5**.



The keyboard/mouse control switching order will follow the sequence of **HDMI OUT** ports of Sequoia 4K60 when using the “**Surfer**” in a multiple monitor workstation operation.

### 3.4 Basic Operation for Workstations (Quad + 4 Singles) Configuration

The following example figure shows a typical setup for Workstation (Quad + 4 Singles) configuration display mode with a single Sequoia 4K60 for multiple operators at multiple workstations and control the four computer systems.

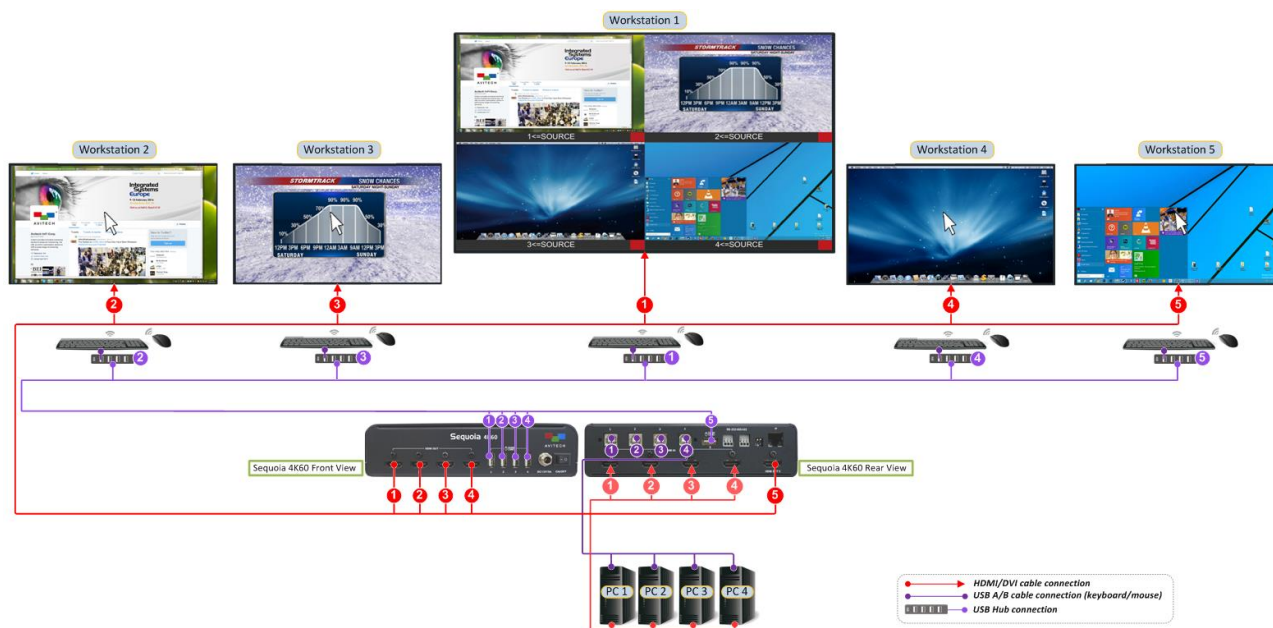




Figure 3.4.1 Example for Workstation (Quad + 4 Singles) Configuration


#### 3.4.1 Basic Operation of the First HDMI Out Port

##### Host Mode

When the monitor connected to HDMI port marked **OUT 1** of Sequoia 4K60 is in Host mode, the Host cursor appears on the display upon connecting a mouse device to USB Type-A port marked  **1** of Sequoia 4K60. The cursor will be controlled by this connected mouse.

❖ Host mode provides a monitoring solution for the incoming computer/video signals. Users can use the Host cursor to select and adjust window size, position, and display layout directly through the on-screen interface.


 Upon re-connecting a keyboard or mouse, the Host cursor may disappear. Move the mouse to allow it to re-appear.


❖ Double-click the mouse left button any area within that specific window to enter the Remote mode (or move the Host cursor to the top-right corner of the targeted window and then click the **Enter remote mode**  icon).

❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button. The Host cursor will reappear.

❖ To close a specific window, move the Host cursor on the window and double-click the mouse right button to close it.

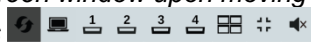
❖ To add a window, move the Host cursor to the blank area, click and hold the mouse left button to draw a rectangle outline (the minimum size of the rectangle is one-sixth of width/height of the output resolution), then release the mouse left button, the newly added window will appear on the screen.

 Please keep in mind the newly add window CANNOT overlay with the other three windows during creation.

- ❖ To route an input source to display on the monitor, use keyboard “**Ctrl – 1 – 3**” hotkey will load input source 3 to display on the monitor in fullscreen mode; “**Ctrl – 1 – 2**” hotkey will load input source 2 to display on the monitor in fullscreen mode.
- ❖ Move the Host cursor to the top-right position, the pop-up selections  will appear upon moving the Host cursor to the top-right of each window.















**Figure 3.4.1.1** Pop-up Selections of Quad-view Window

Or, when in fullscreen window upon moving the Host cursor to the window’s top-right position, the pop-up selections  will appear.





**Figure 3.4.1.2** Pop-up Selections of Fullscreen Window

- ✓ Click  icon to switch its position and size with the other window. Upon clicking  icon, the Host cursor will change to , then move  cursor to the target window and click to swap.
- ✓ Click  icon or double-click the mouse left button on a selected window to enter the Remote mode.
- ✓ Click  icon to set the selected window to fullscreen.
- ✓ Click  (input 1) –  (input 4) icons to switch the input source when in fullscreen window.
- ✓ Click  icon to load default quad-view layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon for returning from a fullscreen view to previous layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon (the audio currently in off state) to turn on the HDMI embedded audio. Click  icon (the audio currently is playing) to turn off the HDMI embedded audio.





1. The pop-up selections  are only available when source in fullscreen mode.
2. When the **INPUT #** icon is greyed out, that means its source is currently displaying on the monitor.
3. When the  icon is greyed out, that means the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.

### Remote Mode

- ❖ When Sequoia 4K60 enters Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**, this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature.
- ❖ For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer. The window’s border will turn **red**, this signifies that your Sequoia 4K60 is now in Remote mode without “**Surfer**” feature. Your keyboard and mouse control will stay within that window and won’t be able to move across the border.
- ❖ Entering Remote mode, your Sequoia 4K60 transfers keyboard and mouse control to the selected computer system.
- ❖ You can then control the computer as you regularly would within the window on the display.
- ❖ Use keyboard “**Pause/Break**” hotkey or double-click the mouse scroll button connected to Sequoia 4K60 to return keyboard and mouse control to Host mode. The Host cursor will reappear.
- ❖ Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (marked **1** to **4**) on your Sequoia 4K60’s rear panel is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.

### In summary:

When utilizing the “**Surfer**” feature, move away from quad-view to the neighboring fullscreen monitor the mouse will remain in the respective Remote or Host mode.

The “**Surfer**” feature (default setting is **ON**) is enabled. By moving your cursor out of your current window's border toward the other window, your Sequoia 4K60’s keyboard and mouse control will automatically switch to that computer. Below figure shows the window control switching action upon moving the mouse to the window side. Moving the mouse from one window to another transfers control from the former window to the target window.




**Figure 3.4.1.3 “Surfer” Feature on Quad-View Layout**



When your workstation configuration is composed by two or more monitors and is in “**Surfer**”, the mouse moving away from quad-view to the neighboring fullscreen will remain the current Remote or Host mode.

### 3.4.2 Basic Operation of HDMI Out Port 2 to HDMI Out Port 5

#### Host Mode

When the monitors connected to the **HDMI** ports marked **OUT 2 – OUT 5** of Sequoia 4K60 is in Host mode, the Host cursors appears on its corresponding display upon connecting a mouse device to one of the USB Type-A ports marked  **2 – 5** of Sequoia 4K60. The cursor will be controlled by its locally connected mouse.











- ❖ Double-click the mouse left button on the fullscreen window or click the **Enter remote mode**  icon to enter the Remote mode.
- ❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.
- ❖ Use keyboard “**Ctrl – (2 to 5) – (1 to 4)**” hotkey to route an input source to display on the monitor connected to **HDMI OUT** port; for example “**Ctrl – 3 – 4**” hotkey will load input source 4 to display on the monitor of **HDMI OUT 3**; “**Ctrl – 5 – 1**” hotkey will load input source 1 to display on the monitor of **HDMI OUT 5**; “**Ctrl – 2 – 2**” hotkey will load input source 2 to display on the monitor of **HDMI OUT 2**.
- ❖ Move the Host cursor to the top-right position, the pop-up selections  will appear. You can then switch source or enter to control the remote computer.



Figure 3.4.2.1 Pop-up Selections for HDMI OUT 3

- ✓ Click  icon or double-click the mouse left button to enter the Remote mode.
- ✓ Click  (input 1) –  (input 4) icons to switch the input source.
- ✓ Click  icon (the audio currently in off state) to turn on the HDMI embedded audio. Click  icon (the audio currently is playing) to turn off the HDMI embedded audio.

1. The pop-up selections for  /  are greyed out due to the **HDMI** port marked **OUT 2 – OUT 5** of Sequoia 4K60 is fixed in fullscreen display in Workstation (Quad + 4 Singles) display mode.
2. When the **INPUT #** icon is greyed out, that means its source is currently displaying on the monitor.
3. When the  icon is greyed out, that means the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.

#### Remote Mode

- ❖ When entering Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**, this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature.
- ❖ Entering Remote mode, your Sequoia 4K60 transfers keyboard and mouse control to the selected computer system.

- ❖ You can then control the computer as you regularly would within the window on the display.
- ❖ For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer. The window’s border will turn **red**, this signifies that your Sequoia 4K60 is now in Remote mode without “**Surfer**” feature. Your keyboard and mouse control will stay within that window and won’t be able to move across the border.
- ❖ Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (marked **1 to 4**) on the rear panel of Sequoia 4K60 is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.
- ❖ To switch back to Host mode, use keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.



When your workstation configuration is composed by two or more monitors and is in “**Surfer**”, the mouse moving away from quad-view to the neighboring fullscreen will remain the current Remote or Host mode.

### 3.5 Basic Operation for Projector Configuration

When in **Projector (PiP)** display mode, four outputs can duplicate two picture-in-picture (PiP) images, and one output can have a multiview display as shown in below figure. When in **Projector (fullscreen)** display mode, the Sequoia 4K60 offers seamless switching of the input sources to any of the single-view fullscreen outputs. The web-browser based GUI offers easy and intuitive control from computers and handheld touch devices.



1. The last switched or routed video source is automatically saved after five seconds by the Sequoia 4K60; until the next change in video routing. This means that if you will be powering off the Sequoia 4K60, but still wish to retain the last configured video routing, please wait five seconds or more before turning off power to your Sequoia 4K60 in order to retain the last configured video routing in system memory, and it will be automatically recalled upon the next power-on.
2. Embedded audio is switched/routed following the video signal (supporting HDMI with up to 8-channel embedded audio respectively).

#### 3.5.1 Source switching for the Projector (PiP) Display Mode

When in **Projector (PiP)** display mode, four outputs can duplicate two picture-in-picture (PiP) images. The web browser-based GUI comprises an input source bar and output displaying ports in subsequent order. Video switching can be achieved through simple drag- and-drop of input to the target output for video routing.

Use drag-and-drop to switch a source to destination port, perform the following steps:

Step 1. Select the target video source by holding the mouse left button on its input source icon.

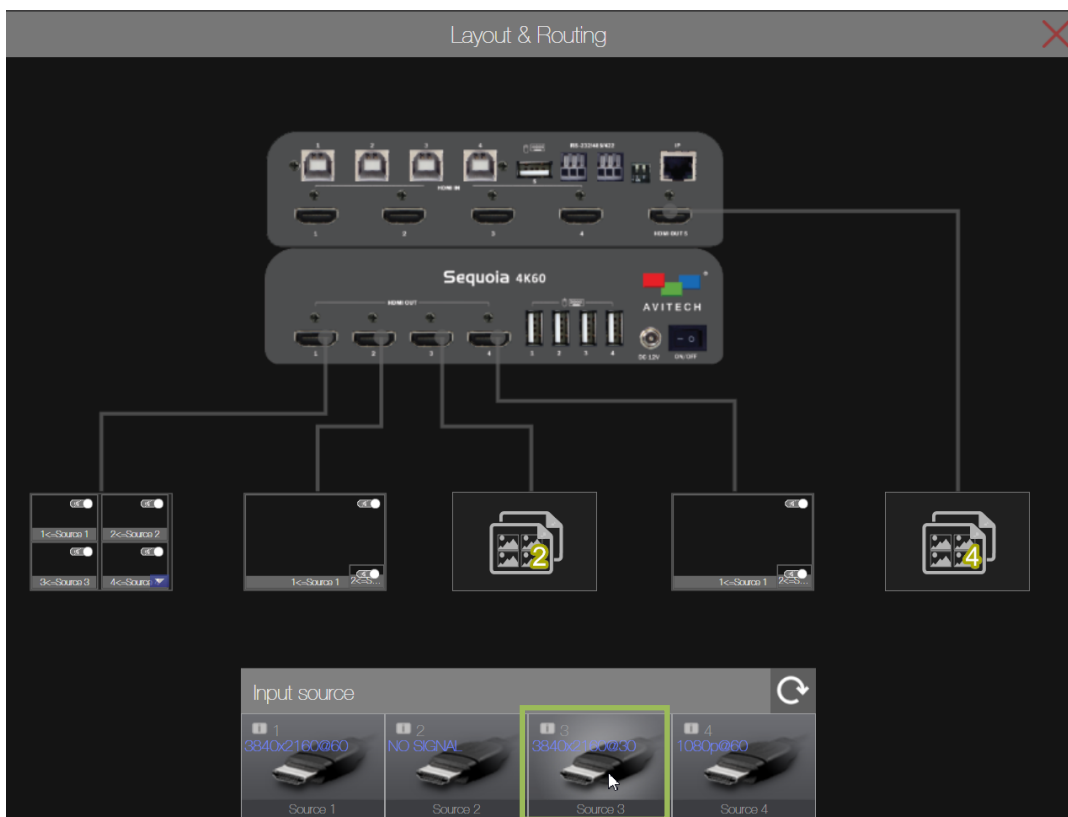


Figure 3.5.1.1 Web Browser-based GUI: Select Input Source

Step 2. Drag the selected source (the output icon will change to a two windows icon for input source can be easy to be routed) to the target output icon.

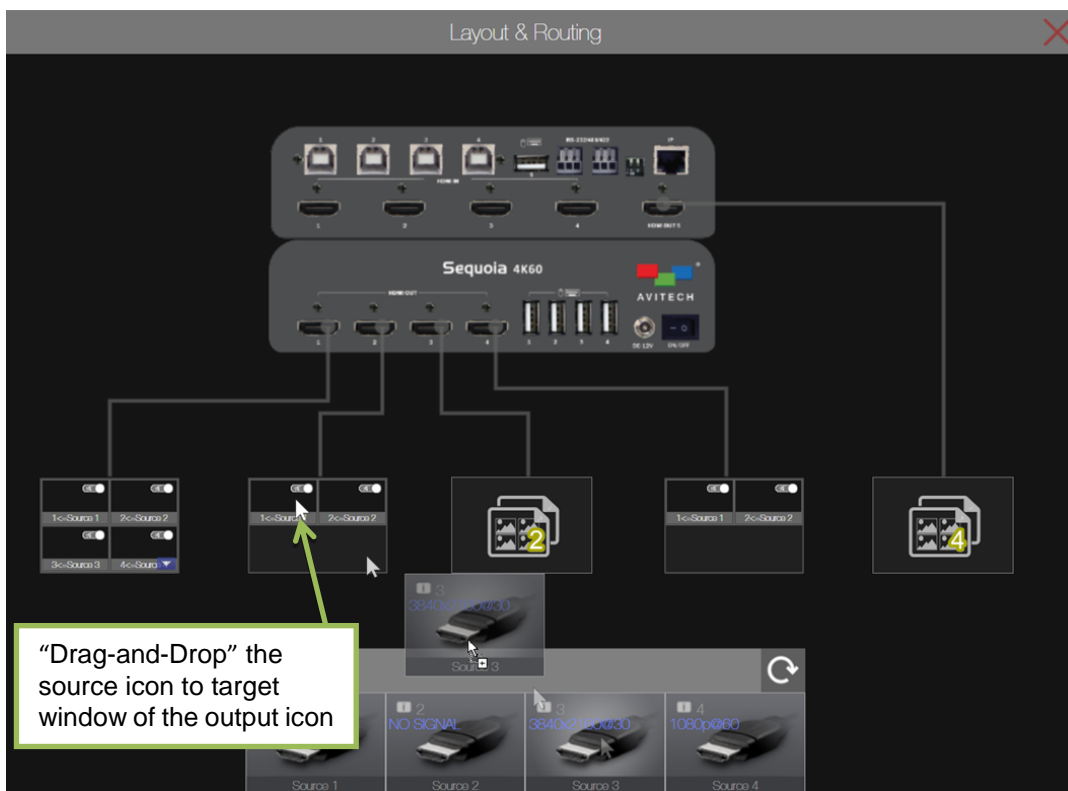


Figure 3.5.1.2 Web Browser-based GUI: Drag Source to Target Output Icon

Step 3. Drop the selected input source to the target window of the output.

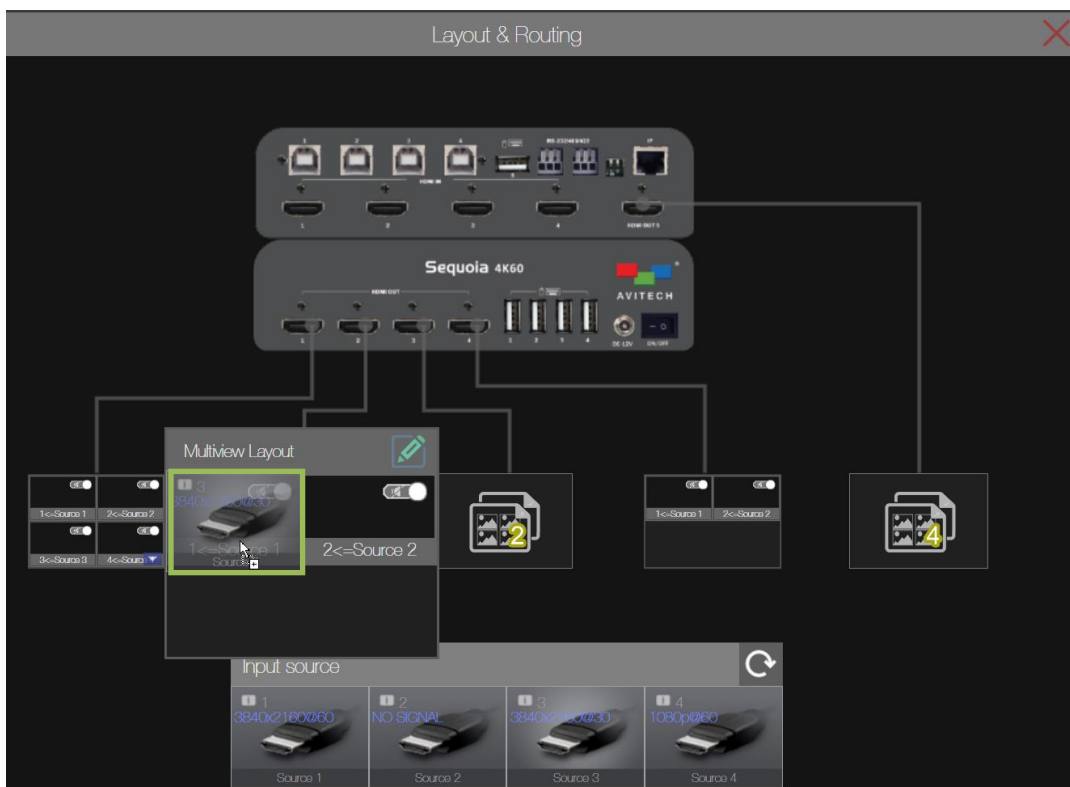


Figure 3.5.1.3 Web Browser-based GUI: Drag-and-Drop Source to Target Window

Step 4. The window label in output icon will show the newly routed input source's name.

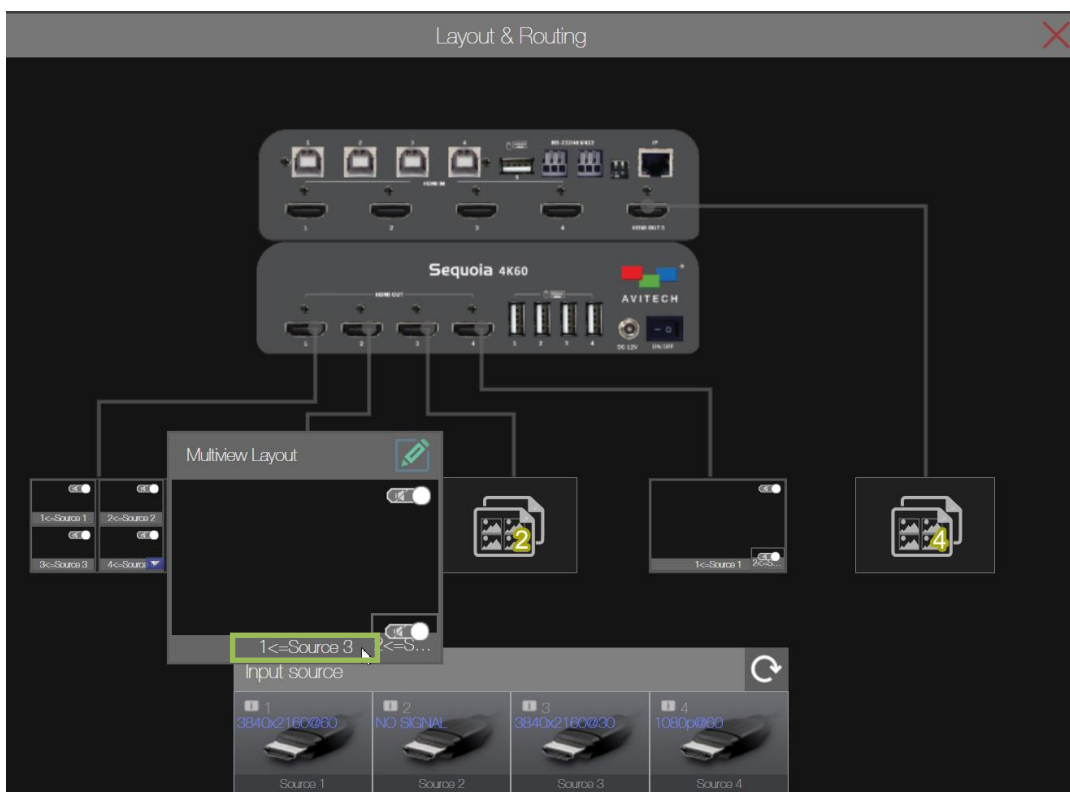


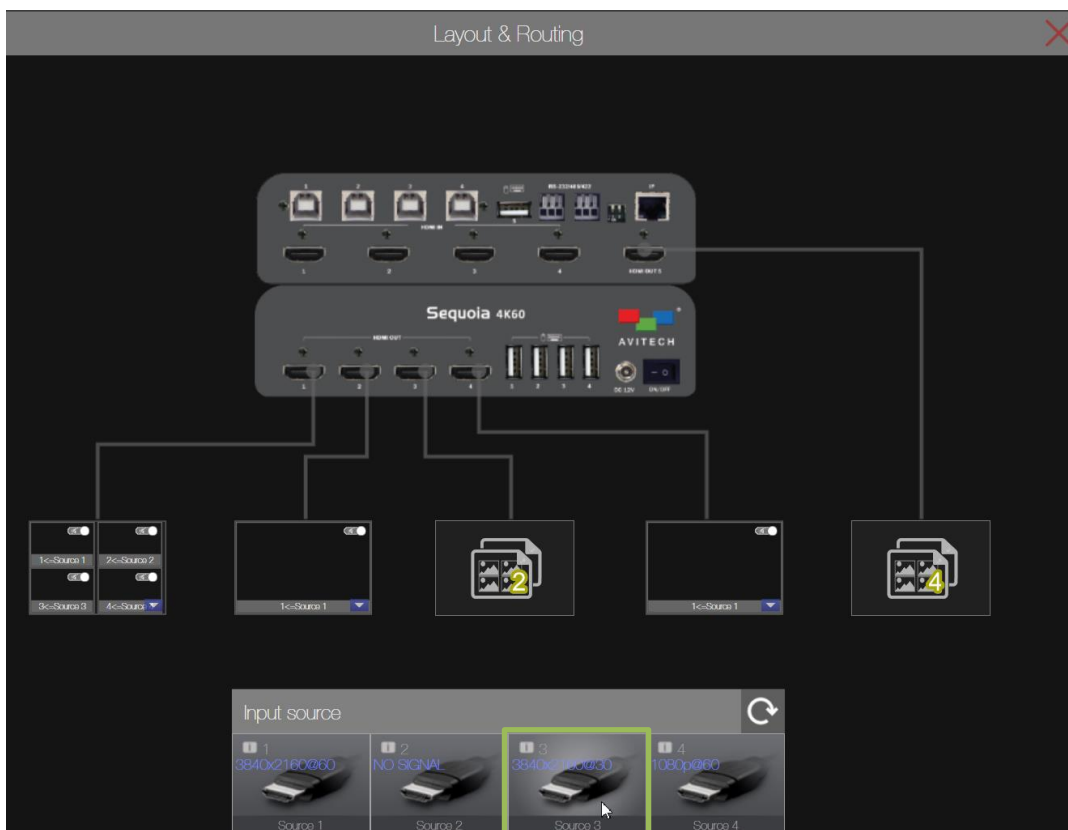
Figure 3.5.1.4 Web Browser-based GUI: Source “Drag-and-Drop” to Target Window

### 3.5.2 Source seamless switching for the Projector (Fullscreen) Display Mode

When in **Projector (fullscreen)** display mode, the Sequoia 4K60 offers seamless switching of the input sources to any of the single-view fullscreen outputs. The web browser-based GUI comprises an input source bar and output displaying ports in subsequent order. Video switching can be achieved through simple drag- and-drop of input to the target output for video routing.

Use drag-and-drop to switch a source to destination port, perform the following steps:

*Step 1. Select the target video source by holding the mouse left button on its input source icon.*



**Figure 3.5.2.1** Web Browser-based GUI: Select Input Source



Step 2. Drag-and-Drop the selected source to the target output icon.

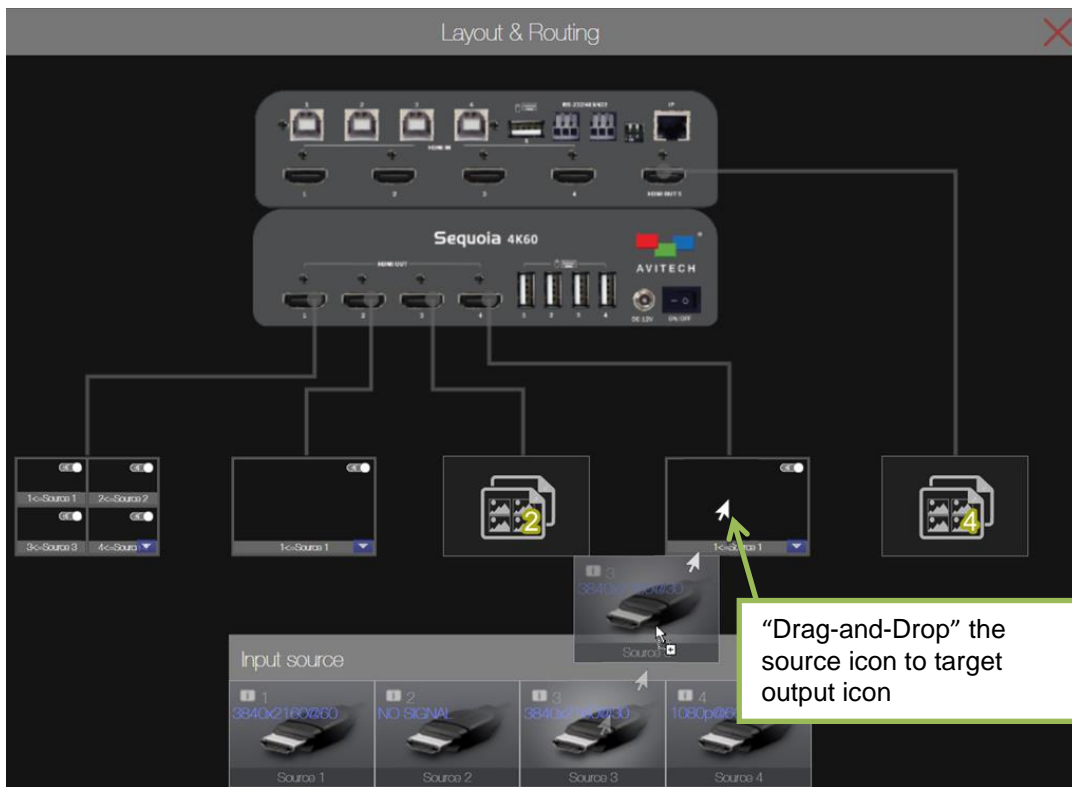


Figure 3.5.2.2 Web Browser-based GUI: Drag Source to Target Output Icon

Step 3. The label of output icon will show the newly routed input source's name.

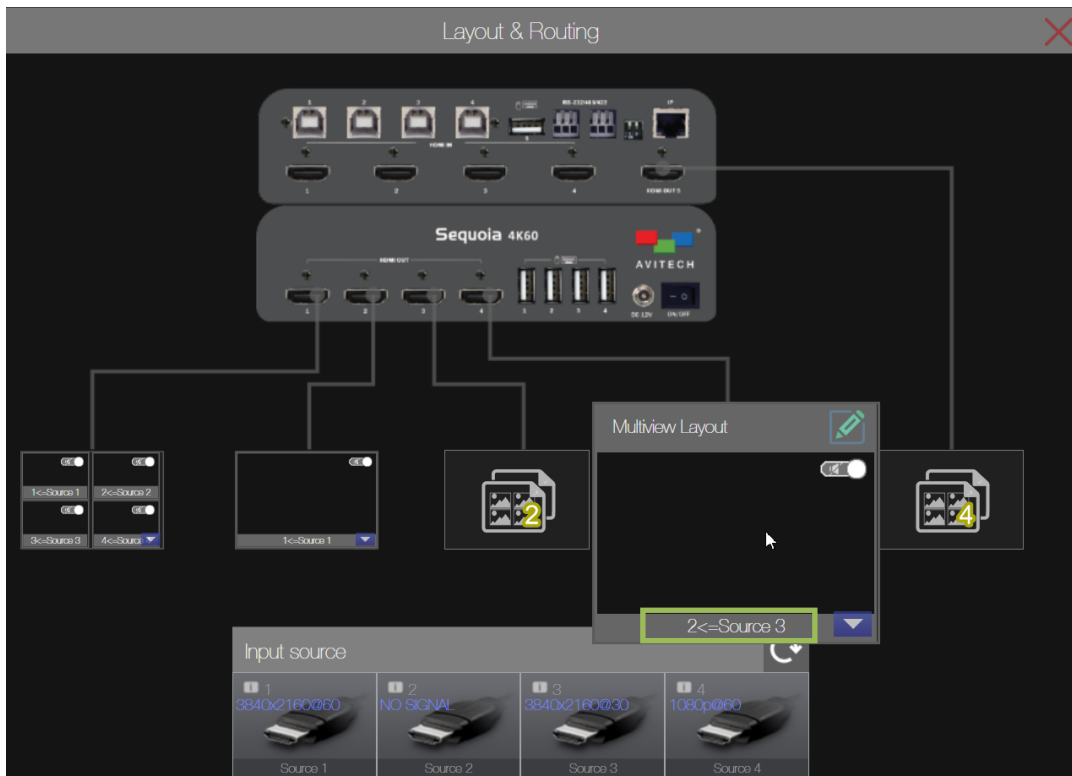





Figure 3.5.2.3 Web Browser-based GUI: Source "Drag-and-Drop" to Target Window

### 3.5.3 (Optional) Basic Operation of the Multiview 4K UHD Screen

 Depending on the application requirement, if only for video monitoring you may skip this section.

#### Host Mode

When the monitor connected to HDMI port marked **OUT 1** of Sequoia 4K60 is in Host mode, the Host cursor appears on the display upon connecting a mouse device to USB Type-A port marked  **1** of Sequoia 4K60. The cursor will be controlled by this connected mouse.

- ❖ Host mode provides a monitoring solution for the incoming computer/video signals. Users can use the Host cursor to select and adjust window size, position, and display layout directly through the on-screen interface.
- ❖ Double-click the mouse left button any area within that specific window to enter the Remote mode (or move the Host cursor to the top-right corner of the targeted window and then click the **Enter remote mode**  icon).
- ❖ To switch back to Host mode, use the keyboard “**Pause/Break**” hotkey, or double-click the mouse scroll button.
- ❖ To route an input source to display on the monitor, use keyboard “**Ctrl – 1 – (1 to 4)**” hotkeys will load input source to display on the monitor in fullscreen. For example, “**Ctrl – 1 – 4**” hotkey will switch input source 4 to display in fullscreen; “**Ctrl – 1 – 1**” hotkey will switch input source 1 to display in fullscreen.

 Upon re-connecting a keyboard or mouse, the Host cursor may disappear. Move the mouse to allow it to re-appear.


- ❖ Move the Host cursor to the top-right position, the pop-up selections  will appear upon moving the Host cursor to the top-right of each window.



Figure 3.5.3.1 Pop-up Selections of Quad-view Window

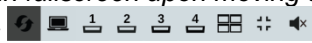






















Or, when in fullscreen upon moving the Host cursor to the window’s top-right position, the pop-up selections  will appear.



Figure 3.5.3.2 Pop-up Selections of Fullscreen Window

- ✓ Click  icon to switch its position and size with the other window. Upon clicking  icon, the Host cursor will change to , then move  cursor to the target window and click to swap.
- ✓ Click  icon or double-click the mouse left button on a selected window to enter the Remote mode.
- ✓ Click  icon to set the selected window to fullscreen.
- ✓ Click  (input 1) –  (input 4) icons to switch the input source when in fullscreen window.
- ✓ Click  icon to load default quad-view layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon for returning from a fullscreen view to previous layout (this icon only appears when in fullscreen mode).
- ✓ Click  icon (the audio currently in off state) to turn on the HDMI embedded audio. Click  icon (the audio currently is playing) to turn off the HDMI embedded audio.



1. The pop-up selections          are only available when source in fullscreen mode.
2. When the **INPUT #** icon is greyed out, that means its source is currently displaying on the monitor.
3. When the  icon is greyed out, that means the USB Type-B port of Sequoia 4K60 is not connected to a computer's USB port.

### Remote Mode

- ❖ When Sequoia 4K60 enters Remote mode, the Host cursor disappears, and the “**Surfer**” feature is enabled. The window’s border will turn **yellow**, this signifies that your Sequoia 4K60 is now in Remote mode with “**Surfer**” feature. You may use keyboard “**Ctrl + Shift + Alt + F8**” hotkey or press side-key of mouse (if applicable) to toggle “**Surfer**” feature off (**red** border) / on (**yellow** border). By default, the “**Surfer**” feature is on; moving mouse to the border will cause the keyboard and mouse to control the other computer. When the “**Surfer**” feature is off, moving the mouse to the border will remain in that window and keep control that computer. To switch control to another computer, you need to return to Host mode first, then double-click mouse left button on other window to enter Remote mode.
- ❖ Entering Remote mode, your Sequoia 4K60 transfers keyboard and mouse control to the selected computer system.
- ❖ You can then control the computer as you regularly would within the window on the display.
- ❖ Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (marked **1** to **4**) on your Sequoia 4K60's rear panel is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.

## 4. Setup Using the Web Browser-based GUI

The web browser-based GUI contains a collection of settings for the Sequoia 4K60. It provides multiview display layout adjustment and advanced features include customized labeling, OSD options and basic setting for system. It also allows easy and intuitive control from computers and handheld touch devices.



1. The IP address of the controlling computer must be in the same network mask as the Sequoia 4K60.
2. The default IP address of Sequoia 4K60 is **192.168.0.5**, if more than two Sequoia 4K60 devices are on the same network, please make sure each Sequoia 4K60 must have a unique IP address and all the Sequoia 4K60 devices must be connected to the same network mask. For more information on changing IP address, refer to [section \(4.3.2\) "Network"](#).
3. As of the writing of this manual, only Microsoft Edge (version 16.x.xxxx.xx or later), Mozilla Firefox (version 52.x.x or later), Google Chrome (version 106.x.xxxx.xx or later) and Safari (version 11.x or later) web browsers are supported.

Before connecting the controlling computer or handheld touch devices to the Sequoia 4K60, the IP address of the controlling computer will need to be changed to a static IP, and its subnet mask must be set to a similar range as the Sequoia 4K60 ("**192.168.0.5**" – factory- default IP address). Or, the IP address of the Sequoia 4K60 can be changed to a similar range as the controlling computer or handheld touch devices.

To start using the controlling computer or handheld touch devices to manage the video wall of Sequoia 4K60, perform the following steps:

**Step 1.** Use the computer's web browser and type "**192.168.0.5**" in the web browser URL bar (or replace the numbers with the current IP address of your Sequoia 4K60), the web browser-based GUI will appear and the Sequoia 4K60 is ready for operation in video switching/routing, modifying multiview layout or system setting.

*Or use the notebook or handheld touch device's web browser, once the Wi-Fi connection is made, then type "**192.168.0.5**" in the web browser URL bar (or replace the numbers with the current IP address of your Sequoia 4K60), the web browser-based GUI will appear and the Sequoia 4K60 is ready for operation in video switching/routing, modifying video wall layout or system setting.*



The IP address of the controlling computer (with Ethernet connection to Sequoia 4K60) must be in the same network mask as the Sequoia 4K60. If you use a notebook or handheld touch device, please turn on the Wi-Fi connection of your controlling device, search and select to connect the Wi-Fi network (password may be required) that the Sequoia 4K60 is connected to.

**Step 2.** When the **User Sign In** window appears on the webpage, enter the password (**admin** in lower case) to login to control of the Sequoia 4K60.



**Figure 4.1** User Sign In Window

The following table gives an overview of the entire web browser-based GUI's components and briefly describes their functions.

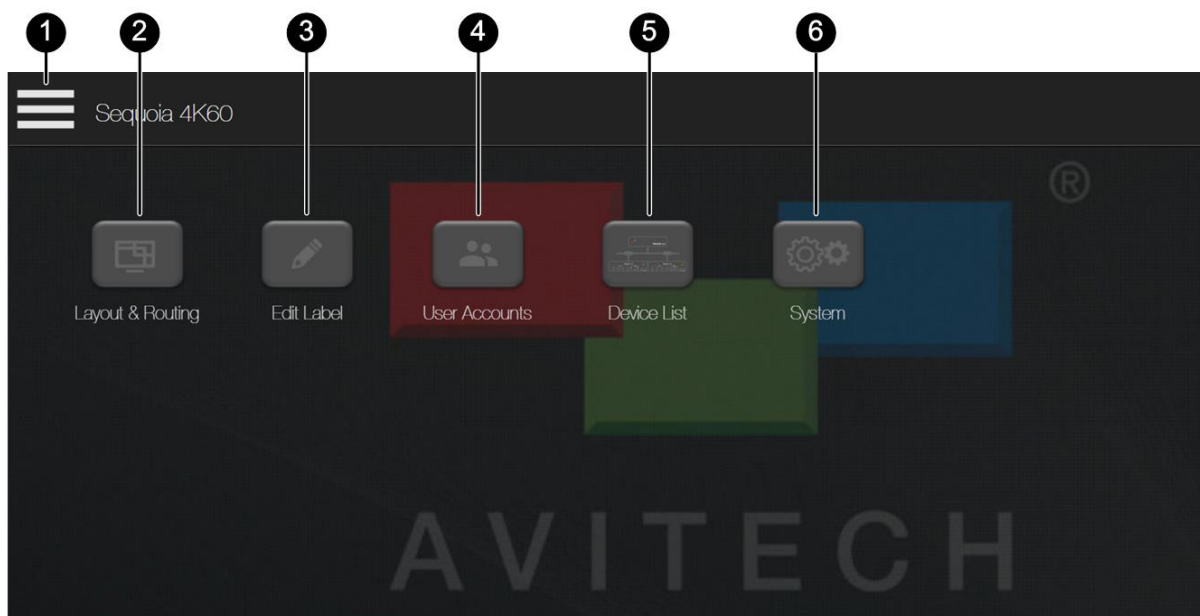


Figure 4.2 Web Browser-based GUI Component

Web Browser-Based GUI	
1 Global Menu	<p>Allows users to</p> <ul style="list-style-type: none"> <li>❖ <b>Logout</b> of Sequoia 4K60. The default user name and password for login to Sequoia 4K60 is <b>admin</b> (both in lower case).</li> <li>❖ <b>Enter fullscreen</b> allows the Web GUI page display in fullscreen mode.</li> <li>❖ <b>Close menu</b> to return to Web GUI page.</li> </ul>
2 Layout & Routing	Allows users to adjust the multiview display layout.
3 Edit Label	Allows users to customize input source names appearing on the web browser-based GUI and multiview display on monitor.
4 User Accounts	<p>Reserved for future option.</p> <p>Aims to improve the security of Sequoia 4K60 by limiting the access of input sources as well as the access of output ports. In this way, only the administrator has the privileges to assign the input signal sources and output ports to a specific user.</p>
5 Device List	<p>Reserved for future option.</p> <p>Allows users to select a specific Sequoia 4K60 in the list that you would like to connect and control.</p>
6 System	Allows users to change various system settings.

Table 4.1 Web Browser-based GUI Component Description

## 4.1 Layout & Routing

**Layout & Routing** provides an interface for user to adjust the multiview (window) layout, output resolution, OSD setting, fullscreen control and other features of Sequoia 4K60 directly from the web browser-based GUI. The table below provides information on each component of **Layout & Routing**.

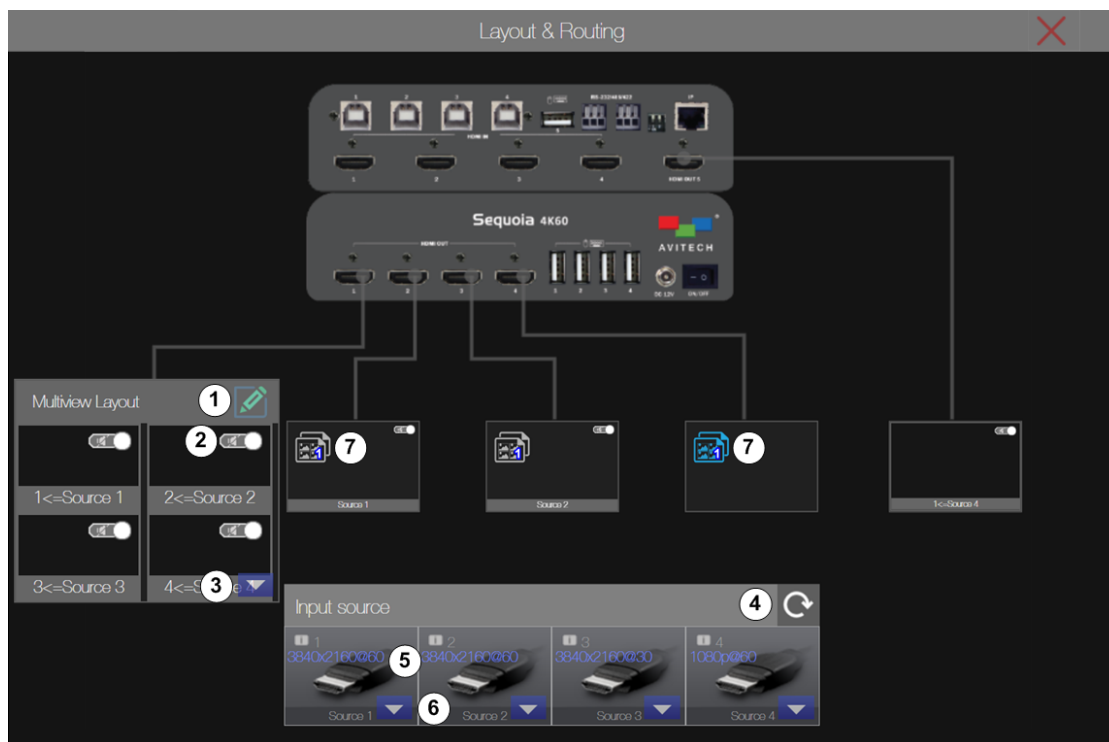


Figure 4.1.1 Multiview Layout Control Interface and Components

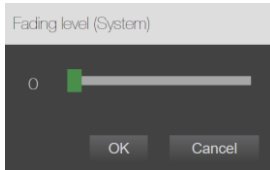



Layout & Routing	
1	<b>Multiview Layout</b> Allows user to adjust the multiview layout / output resolution / OSD setting / fullscreen control of Sequoia 4K60.
2	<b>Audio Switch</b> Allows user to enable/disable audio output through the HDMI port of Sequoia 4K60.
3	<b>Setting Menu</b> Allows user to set <ul style="list-style-type: none"> <li>❖ <b>Set fading level</b> – allows you to set the speed when one fullscreen image switches to another fullscreen image for seamless effect (one image fades from view while another takes its place). Select <b>Set fading level</b> and then select the desired <b>Fading level</b> (fading time) by using the slider (<b>0 – 255</b> levels), where <b>0</b> (default) is for instant switching while <b>255</b> corresponds to the slowest fading speed.</li> </ul> <div data-bbox="535 1417 803 1585" data-label="Image">  </div>
4	<b>Refresh</b> Allows user to update the input signal information.
5	<b>Signal Information</b> Display the detected input signal information.
6	<b>Mac PC</b> Allows user to enable (default disable) <b>Mac PC</b> function to set the video source display correctly when connect a MacBook or Mac-mini video source to the input port of Sequoia 4K60, if the video source display a white noise or black image on-screen.
7	<b>Duplicate Source Icon</b> Allows user clicking  icon to duplicate the display <b>HDMI OUT 1</b> . When the icon changes to  , it means that HDMI OUT is currently showing the same display of <b>HDMI OUT 1</b> . You can route any input source to this output port by drag-and-drop the input source icon to the HDMI OUT port.

Table 4.1.1 Layout & Routing Component and Description



### 4.1.1 Multiview Layout

To adjust the multiview layout, perform the following steps:

Step 1. Locate  **Layout & Routing** icon on the main page and click it, the **Layout & Routing** page will appear.

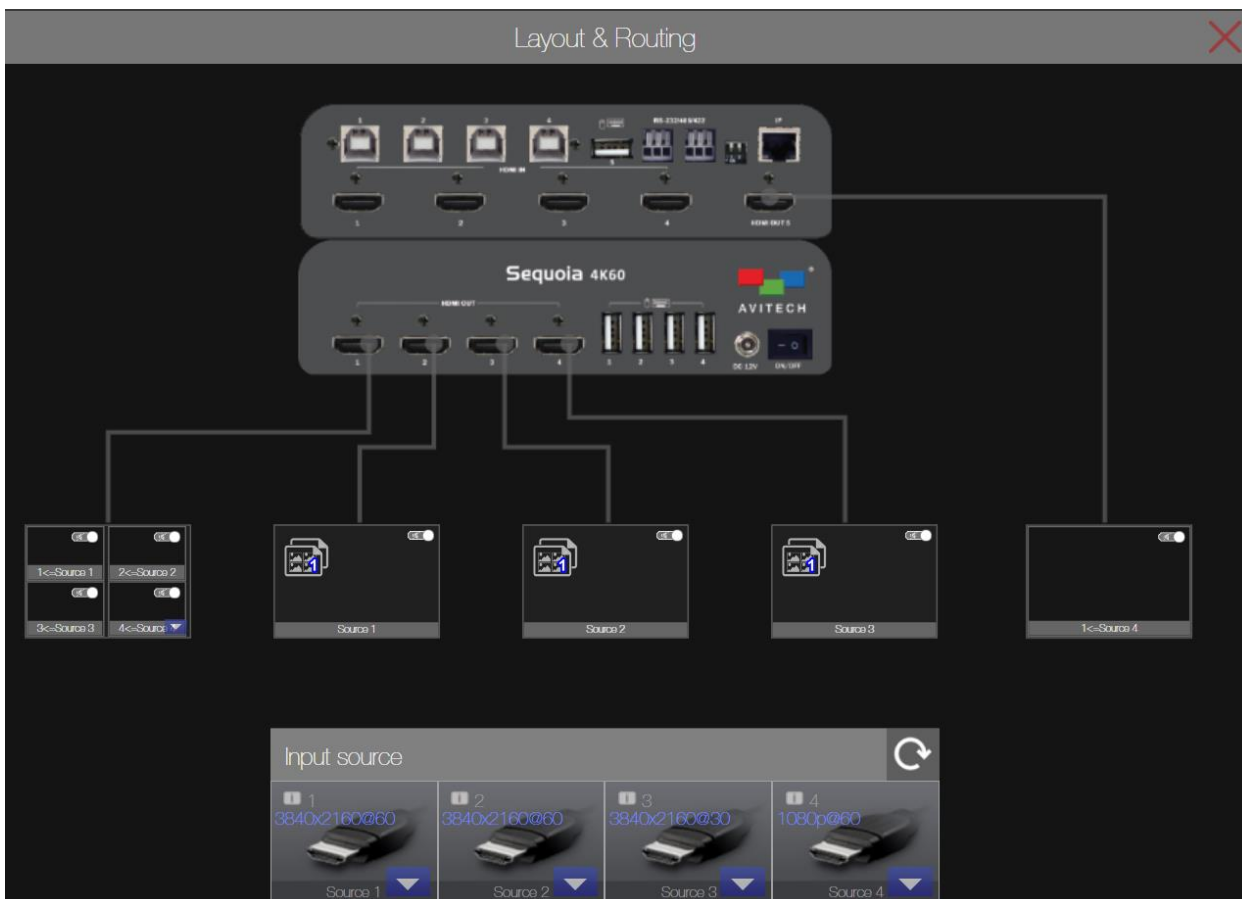


Figure 4.1.1.1 Web Browser-based GUI: Layout & Routing

Step 2. Locate  (upper right) on the **Multiview Layout** window and click it.

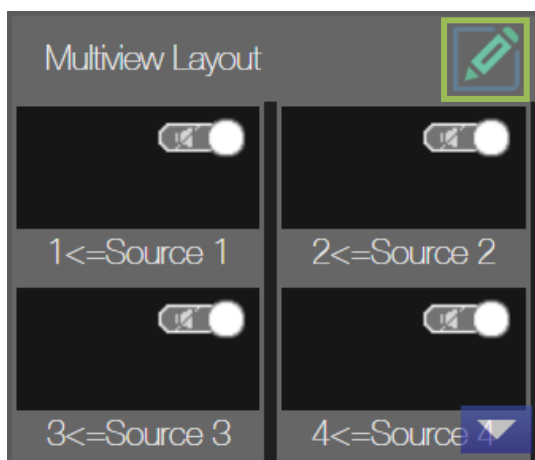
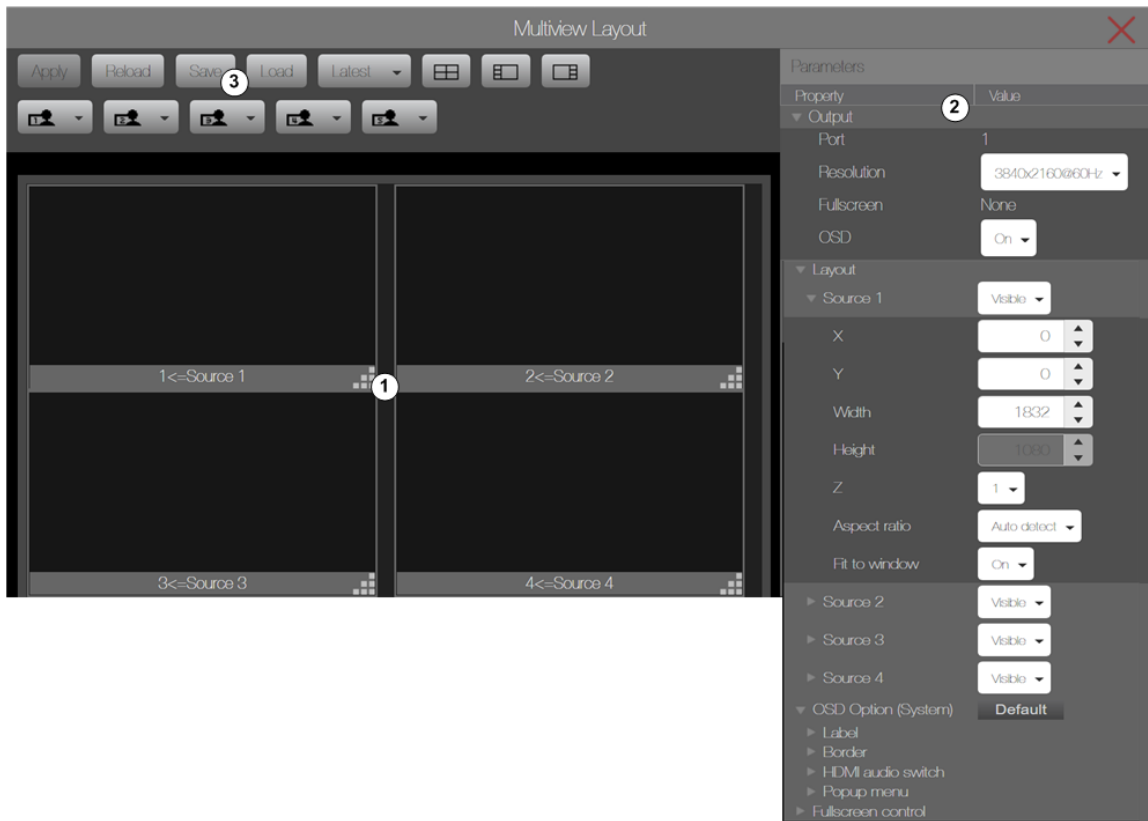
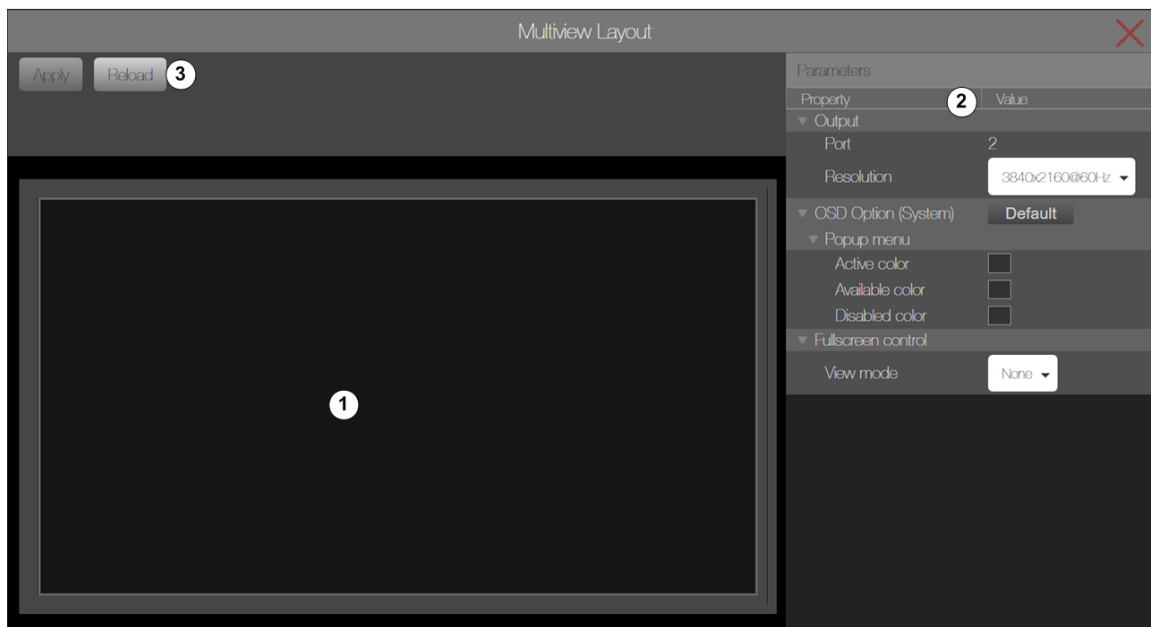


Figure 4.1.1.2 Web Browser-based GUI: Multiview Layout

The table below provides information on each component of **Multiview Layout**.



**Figure 4.1.1.3** Multiview Layout Control Interface and Components for HDMI OUT 1



**Figure 4.1.1.4** Multiview Layout Control Interface and Components for HDMI OUT 2 – HDMI OUT 5

### Multiview Layout

#### 1 Window Layout

Show the quad-view layout of Sequoia 4K60. Supports free-scaling position and size adjustment for each window (layer adjustment is only available when OSD is off) via drag-and-drop operation.

**Output** – information include:

- ❖ **Port** corresponds to the **HDMI OUT** port number.
- ❖ **Resolution** allows user to set the output display according to the connected monitor's resolution. You can select the output resolution for **Auto** (default) / **3840x2160 50/60Hz** / **3840x2160 25/30Hz** / **1920x1080 50/60Hz** / **1280x1024 50/60Hz** from the drop down menu.
- ❖ **Fullscreen** corresponds to the "**Source**" window number that is now in fullscreen mode.
- ❖ **OSD** allows user to turn **On** (default enable) / **Off** (disable) the display of audio tally, label and border.


**Layout** – free-scaling adjustment for each window on a pixel-basis. Configurable properties include:

- ❖ **Source 1 – 4** for **Visible** (default) or **Hidden** the window on the display connected to the Sequoia 4K60.
- ❖ **X** and **Y** adjust the window's starting position (top-left corner). Use the up/down icons on the right-edge to adjust.
- ❖ **Width** (2-pixel increments) and **Height** (1-pixel increment) adjusts the window's size. Use the up/down icons on the right-edge to adjust.
- ❖ **Z** value (**0** to **3**) shows the priority (layer) for each window; **0** represents the top-most layer. Use the up/down icons on the right-edge to select.
- ❖ **Aspect Ratio** for selecting between **Fill up screen** (the image will completely fill up the window but the image distortion may occur), **Auto detect** (default), **16:9** or **4:3**.
- ❖ **Fit to window** changes the window size to conform to the image's original aspect ratio **On** (default) or **Off**.

**OSD option (system)** – set the color properties of tally, pop-up menu, label color and text, set border color and border width as well.


- ❖ **Default** – resets the OSD to its factory default state.
- ❖ **Label** – sets the label property of the four windows on the display connected to the Sequoia 4K60.
  - ✓ **Enable** – enable label display on each windows.
  - ✓ **Font color** – click the color box to set the label color in the "Select Color" dialog box.
  - ✓ **Background color** – click the color box to set the label background in the "Select Color" dialog box.
- ❖ **Border** – sets the border color on windows as well as the border width.
  - ✓ **Color** – click the color box to set the border color in the "Select Color" dialog box.
  - ✓ **Width (0, 2, 4, 6)** – set the border width on all windows.
- ❖ **HDMI audio switch** – enable HDMI audio tally display on/off of embedded audio in HDMI output signal and the color of HDMI audio switch.
  - ✓ **Enable** – enable HDMI audio tally display on/off of embedded audio in HDMI output signal.
  - ✓ **On color** – setups the turn "on" color of HDMI audio switch. Click the color box to set the tally color in the "Select Color" dialog box.
  - ✓ **Off color** – setups the turn "off" color of HDMI with audio. Click the color box to set the tally color in the "Select Color" dialog box.
- ❖ **Popup menu** – customize the color of your popup menu. Click the color box to set the color in the "Select Color" dialog box.
  - ✓ **Active color** – indicates the input source is currently displaying on the monitor.
  - ✓ **Available color** – indicates the available input source.
  - ✓ **Disable color** – indicates the absent input source.

**Fullscreen Control** – sets the functions of KM control switching, layout changing and remains aspect ratio.

- ❖ **Enter Remote mode** –
  - ✓ Select **Automatically** to enable a particular window to enter **Remote** operation mode when using any of the below methods to switch to fullscreen view:
    - "**Ctrl – # (1 to 5) – # (1 to 4)**" hotkeys, or
    - Click  icon (top-right corner of windows and only available for **HDMI OUT 1**)
  - ✓ Select **None** to disable the K/M function automatically be switched to **Remote** operation mode when a particular window in fullscreen. Each time when a particular window set to fullscreen display, you need to double-click on the window to enter **Remote** operation mode for accessing the computer.

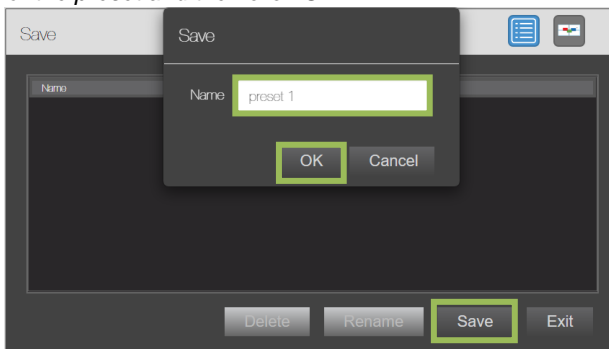
## 2 Property

## Multiview Layout

- ❖ **Exit Remote mode** –
  - ✓ Select **Restore Layout** to enable a particular window to apply the prior to switching to fullscreen view's multi-display layout when using any of the below methods to return to Host operation mode from Remote operation mode:
    - “Pause/Break” hotkey or “control + option (Alt) + shift + P”, or
    - Double-click the mouse scroll button.
  - ✓ Select **Remain fullscreen** to remain in fullscreen display when return to Host operation mode from Remote operation mode.
- ❖ **View mode** –
  - ✓ Select **Fill up screen** to enable the image display on a particular window to fill up screen when using any of the below methods to switch to fullscreen view:
    - “Ctrl – # (1 to 5) – # (1 to 4)” hotkeys, or
    - Click  icon (top-right corner of windows and only available for **HDMI OUT 1**)
  - ✓ Select **None** to keep the aspect ratio of the image.

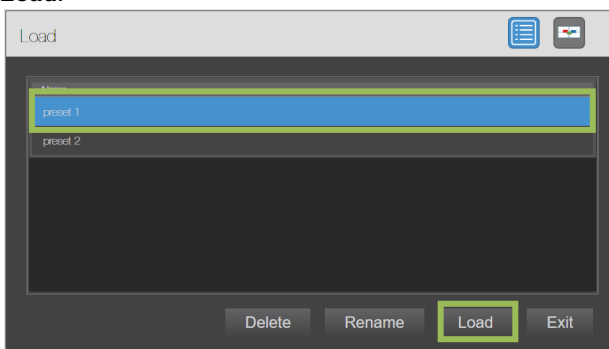
Allows user to instantly:

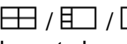


- ❖ **Apply** the adjusted layout to the respective output.
- ❖ **Reload** detects the latest layout from the output card again.
- ❖ **Save** allows you to save user-defined presets to files for recall later.  
*In the top bar, click **Save**, the Save window will appear. Click **Save**, designate the filename for the preset and then click **OK**.*



- ❖ **Load** allows you to load a user-defined preset.  
*In the top bar, click **Load**, the Load window will appear. Select the filename and then click **Load**.*

### 3 Top Bar



- ❖ **Latest** allows you to quickly load the latest saved layout after rebooting the Sequoia 4K60. Click the triangle on the right part of icon, a pull-down menu will appear and you click **Save** to store the present layout as the latest.
- ❖  **Factory default layout** allows you to select one of the factory-default layouts by clicking the corresponding icon.
- ❖  **Fullscreen** icon allows you to set any of the multiview layout windows to fullscreen.
- ❖  **User-icon layouts**. On any one of the user-icon, click the triangle on the right part of icon, a pull-down menu will appear and you can click **Save** to store the present layout (only save the four windows' size and position but not includes OSD) as a user-defined preset.

**Table 4.1.1.1** Multiview Layout Component and Description

Step 3. To rearrange any window's position, click and hold the mouse left button on the window and move to the desired position. To resize a window, move the cursor to the border of the window and drag to the desired size when the directional arrow appears.

The window layout can also be configured by adjusting the individual window's position, width and height utilizing the **Property** menu. Use the mouse to adjust each property by pixel.



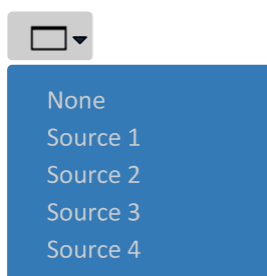
**Figure 4.1.1.5.** Multiview Layout: Set Window Properties

Alternatively, select one of the factory default layouts by clicking the corresponding icon.



**Figure 4.1.1.6** Multiview Layout: Factory Default Multiview Layouts

You may also click the down arrow on the fullscreen icon in the top bar and then click **Source 1** – **Source 4** from the drop-down menu to set the window to fullscreen. Clicking **None** to return to previous multiview layout.



**Figure 4.1.1.7** Multiview Layout: Fullscreen Mode

Step 4. Upon completing the layout adjustment, click **Apply** on the top-left corner. This will apply the multiview layout you have configured to the respective output.

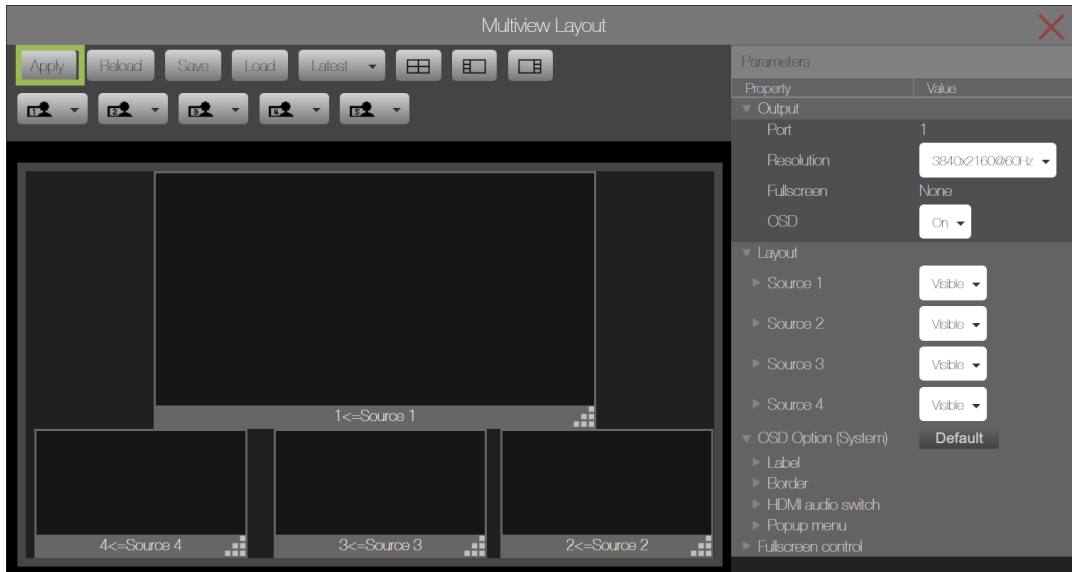


Figure 4.1.1.8 Multiview Layout: Apply

Step 5. To save the configured layout to a user-icon preset (1 – 5) for later use. Select any of the user-icon , and then click the down arrow on the user-icon

 (1 – 5) in the top bar and then click **Save** from the drop-down menu to save the configured layout as one of the user-icon layout (1 – 5). Or, click the **Save** button in the top bar and click **Save** button in the Save window.

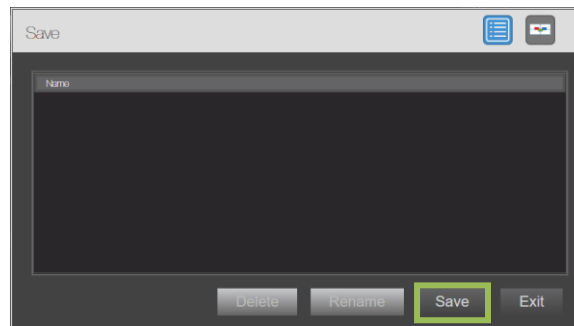


Figure 4.1.1.9 Multiview Layout: Save User Preset Window

Then designate the file name for the preset and then click **OK**.

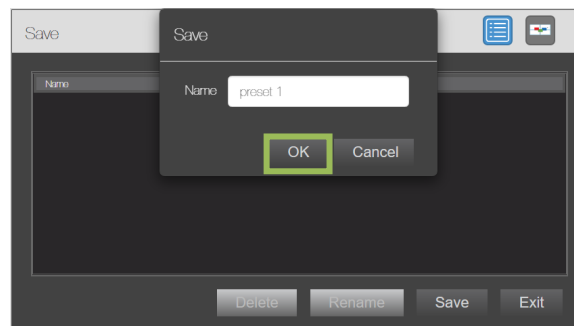


Figure 4.1.1.10 Multiview Layout: Save User Preset



When load a user-icon or latest preset with **OSD** turn **Off** and window overlay configuration, upon turning **On** the **OSD** feature, the Sequoia 4K60 will automatically return to factory default quad-view multiview layout due to hardware limitation.



Step 6. Save to **Latest** allows you to save the current preset that you have just created to be loaded upon next boot-up of your Sequoia 4K60.

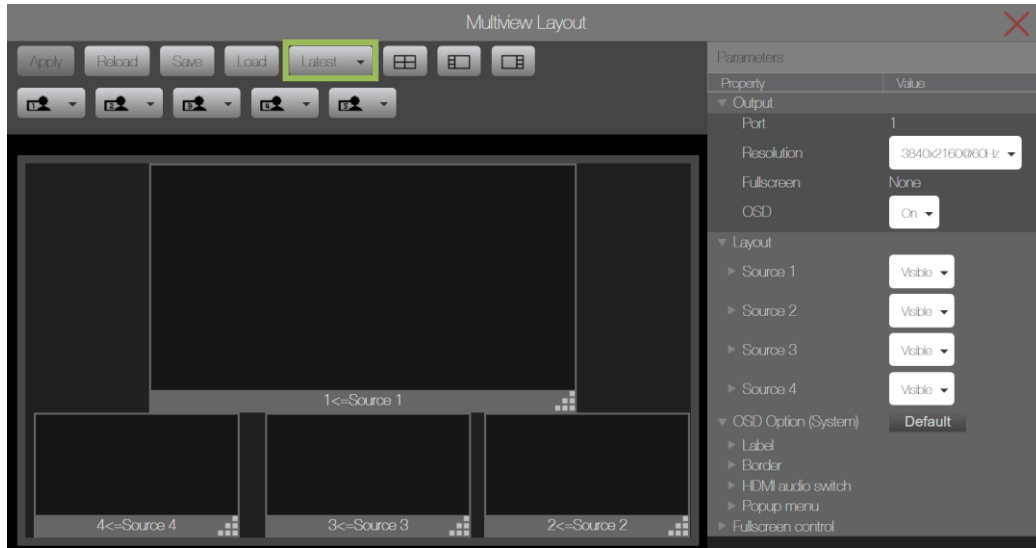


Figure 4.1.1.11 Multiview Layout: Latest

### Setup the Output Resolution

When set the output resolution to **Auto**, the Sequoia 4K60 will automatically detect the EDID of the connected monitors and display the optimum resolution. The Sequoia 4K60 also allows you to manually set the output resolution by selecting **3840x2160p 50/60Hz**, or **3840x2160p 25/30Hz**, or **1920x1080p 50/60Hz** or **1280x1024 50/60Hz** from the dropdown menu.



Figure 4.1.1.12 Multiview Layout: Output → Resolution

### Audio On/Off Switch

Move the mouse to **Multiview Layout**, then sliding the audio switch to the left (green indicates audio is turned on) to enable audio output via the HDMI monitor.

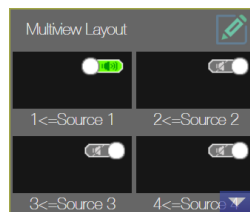

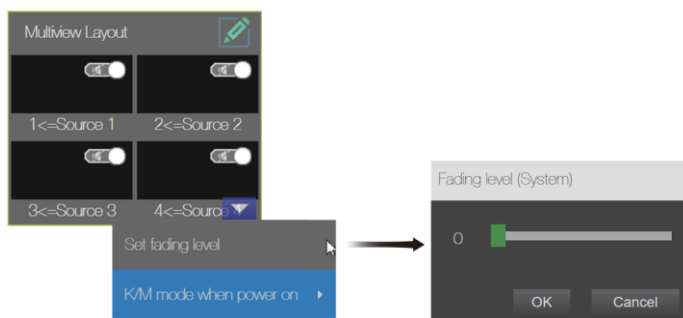


Figure 4.1.1.13 Multiview Layout: Audio On/Off Switch

### Set Fading Level

The Sequoia 4K60 allows you to set the speed when one fullscreen image switches to another fullscreen image for seamless effect (one image fades from view while another takes its place).

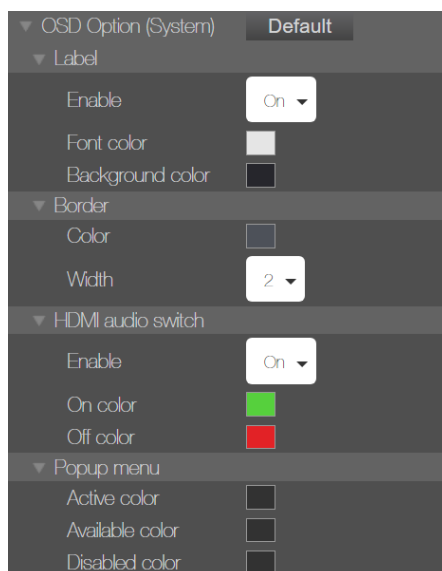
Click  icon. Select **Set fading level** and then select the desired **Fading level** (fading time) by using the slider (**0 – 255 levels**), where **0** is for instant switching while **255** corresponds to the slowest fading speed.



**Figure 4.1.1.14** Multiview Layout: Setting Menu → Set Fading Level

### 4.1.2 OSD Option

The **OSD Option** in the property UI of **Multiview Layout** page allow you to enable/disable the display of tally/label; set the color properties of tally, label, border and popup menu and set the border width as well. Upon completing the **OSD Option** adjustment, click **Apply** on the top-left corner. This will apply the OSD options to the entire system of Sequoia 4K60. Click **Default** to reset all the setting in **OSD Option** return to default.



**Figure 4.1.2.1** Multiview Layout: Property → OSD Option (System)

Label	
<b>Enable</b>	Enable label display on all windows.
<b>Font color</b>	Click the color box to set the font color in the “Select Color” dialog box.
<b>Background color</b>	Click the color box to set the background in the “Select Color” dialog box.
Border	
<b>Color</b>	Click the color box to set the border color in the “Select Color” dialog box.
<b>Width</b>	Set the border width on all windows. ❖ <i>Border width (0, 2, 4, 6)</i>

HDMI audio switch	
<b>Enable</b>	Enable tally display to toggle on/off output of embedded audio in HDMI output signal.
<b>On color</b>	Click the color box to set the tally color when turn “on” the HDMI audio switch in the “Select Color” dialog box.
<b>Off color</b>	Click the color box to set the tally color when turn “off” the HDMI audio switch in the “Select Color” dialog box.


Popup menu	
<b>Active color</b>	Click the color box to set the active input source color in the “Select Color” dialog box.
<b>Available color</b>	Click the color box to set the available input source color in the “Select Color” dialog box.
<b>Disabled color</b>	Click the color box to set the disabled input source color in the “Select Color” dialog box.

**Table 4.1.2.1** Multiview Layout: Property → OSD Option (System) Component and Description

### 4.1.3 Fullscreen Control

The **Fullscreen Control** in the property UI of **Multiview Layout** page allows you to enable/disable the K/M switching, window layout and maintain aspect ratio functions when set a particular window to fullscreen display. Upon completing the **Fullscreen Control** setting, click **Apply** on the top-left corner. This will apply the **Fullscreen Control** options to the Sequoia 4K60.


#### Enter Remote Mode

- ❖ Select **Automatically** in the option **Fullscreen control** → **Enter Remote mode** to enable a particular window to enter Remote operation mode when using any of the below methods to switch to fullscreen view:
  - ✓ “**Ctrl** – # (1 to 5) – # (1 to 4)” hotkeys, or
  - ✓ Click  icon (top-right corner of windows and only available for **HDMI OUT 1**)
- ❖ Select **None** in the option **Fullscreen control** → **Enter Remote mode** to disable the K/M function automatically be switched to Remote operation mode when a particular window in fullscreen. Each time when a particular window set to fullscreen display, you need to double-click on the window to enter Remote operation mode for accessing the computer.

#### Exit Remote Mode

- ❖ Select **Restore Layout** in the option **Fullscreen control** → **Exit Remote mode** to enable a particular window to apply the prior to switching to fullscreen view’s multi-display layout when using any of the below methods to return to Host operation mode from Remote operation mode:
  - ✓ “**Pause/Break**” hotkey or “**control** + **option (Alt)** + **shift** + **P**”, or
  - ✓ Double-click the mouse scroll button
- ❖ Select **Remain fullscreen** in the option **Fullscreen control** → **Exit Remote mode** to remain in fullscreen display when return to Host operation mode from Remote operation mode.

#### View Mode

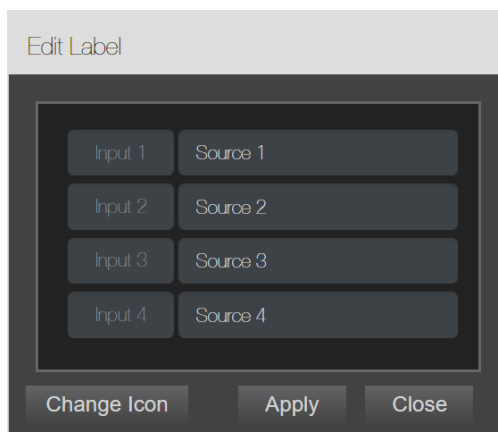
- ❖ Select **Fill up screen** in the option **Fullscreen control** → **View Mode** to enable the image display on a particular window to fill up screen when using any of the below methods to switch to fullscreen view:
  - ✓ “**Ctrl** – # (1 to 5) – # (1 to 4)” hotkeys, or
  - ✓ Click  icon (top-right corner of windows and only available for **HDMI OUT 1**)
- ❖ Select **None** in the option **Fullscreen control** → **View Mode** to keep the aspect ratio of the image.

## 4.2 Edit Label

The **Edit Label** function allows you to customize the name for each source input port. This enables more straightforward identification of individual sources display on screen and also viewed from the web browser-based GUI for management (as compared to the default label assigned by the system).

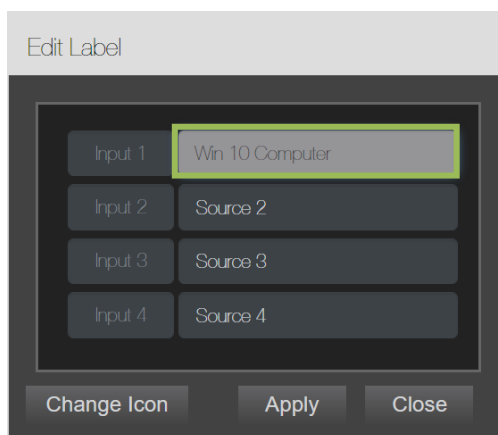
To customize names for input ports, perform the following steps:

**Step 1.** Locate **Edit Label** on the web GUI menu and click it. The **Edit Label** page will appear displaying all input ports of the Sequoia 4K60 and their default names.



**Figure 4.2.1** Web Browser-based GUI: Edit Label → Default Names

**Step 2.** Click to highlight the target port (enters the “text edit” mode) and directly modify its name.



**Figure 4.2.2** Edit Label: User-defined Names



The maximum length of each label is 32 characters. It must not include any of the following: < > ! @ # & \$ % ^ & \* ' / \ , . : ; ? =

**Step 3.** Click **Apply** to confirm the changes made to all the ports.



**Figure 4.2.3** Edit Label: Uploading User-defined BMP Label Names

The names of the input ports appearing on the window and Web GUI (Input source control bar) will both be updated accordingly.



Figure 4.2.4 Edit Label: Upload User-defined Label Names Appearing on Screen



Figure 4.2.5 Edit Label: Upload User-defined Label Names on Web GUI

Step 4. Click **Close** to exit label edit page.

#### 4.2.1 Change Icon

The **Change icon** feature allows you to select an image file to replace the input signal icon in the input control bar.



1. The allowed image file formats are: BMP/JPEG/JPG/PNG only.
2. It is highly recommended to use a PNG image file format with the background removed as icon.
3. Be aware that the image file selected to become your icon image will be scaled to a final resolution of 113x45.
4. When use **Change icon** feature, the changed icons only appears on Input source control bar in Web-browser GUI.

To replace the input signal icon, perform the following steps:

Step 1. Save the image file(s) into the computer controlled the Sequoia 4K60.



Step 2. Click **Change icon**.

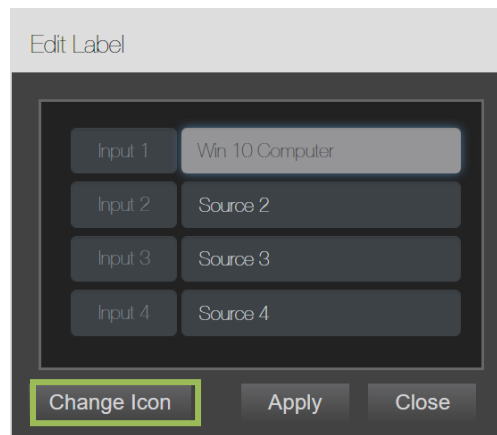


Figure 4.2.1.1 Edit Label: Change Icon

Step 3. The **Change Icon** window appears. Click the input signal that you wish to replace, and then click **Browse**.

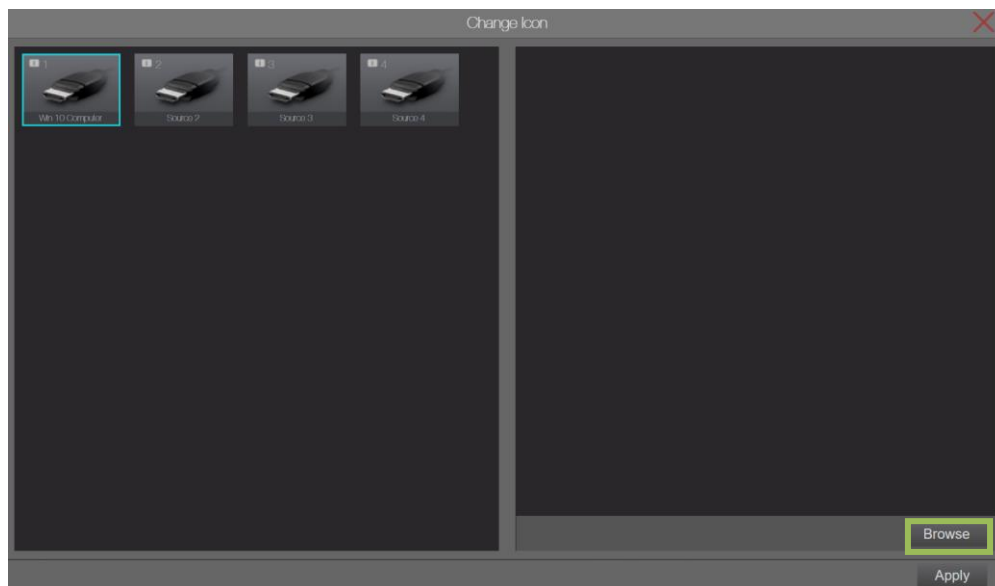


Figure 4.2.1.2 Click Browse Belonging to an Input Signal Icon

Step 4. Navigate to the file's directory, select the image file and click **Open**.

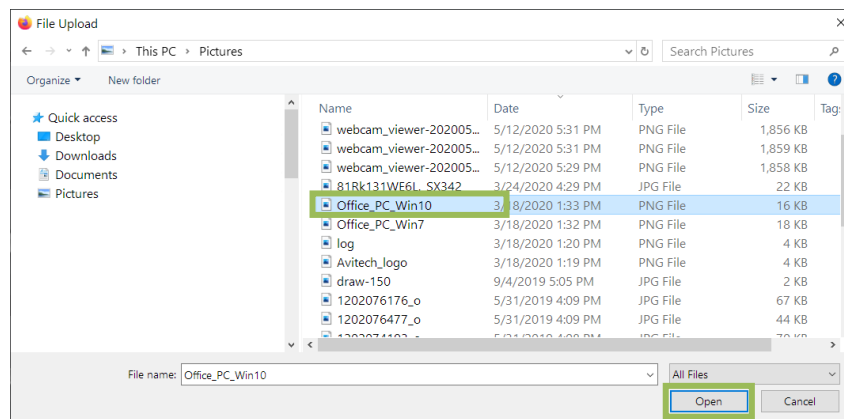
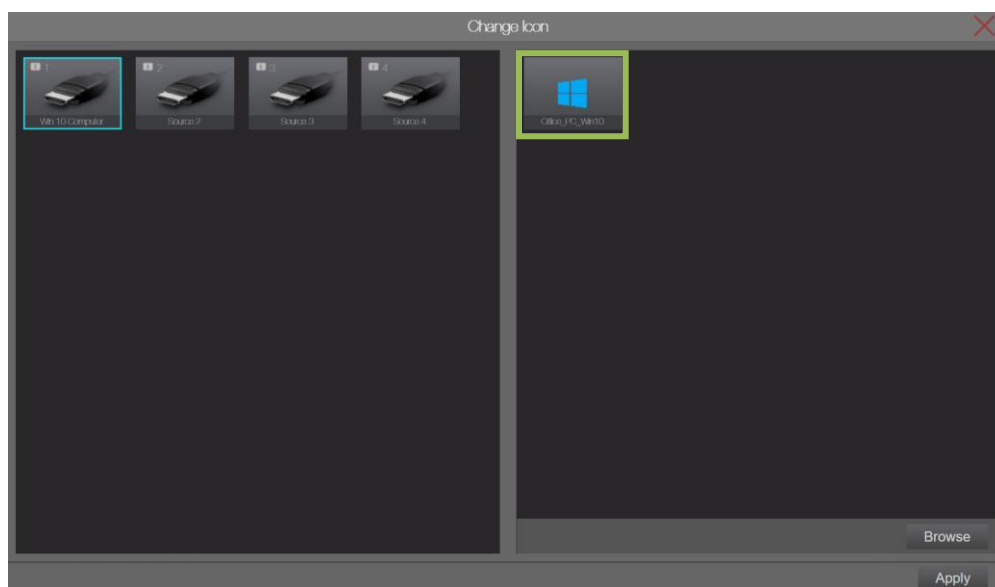


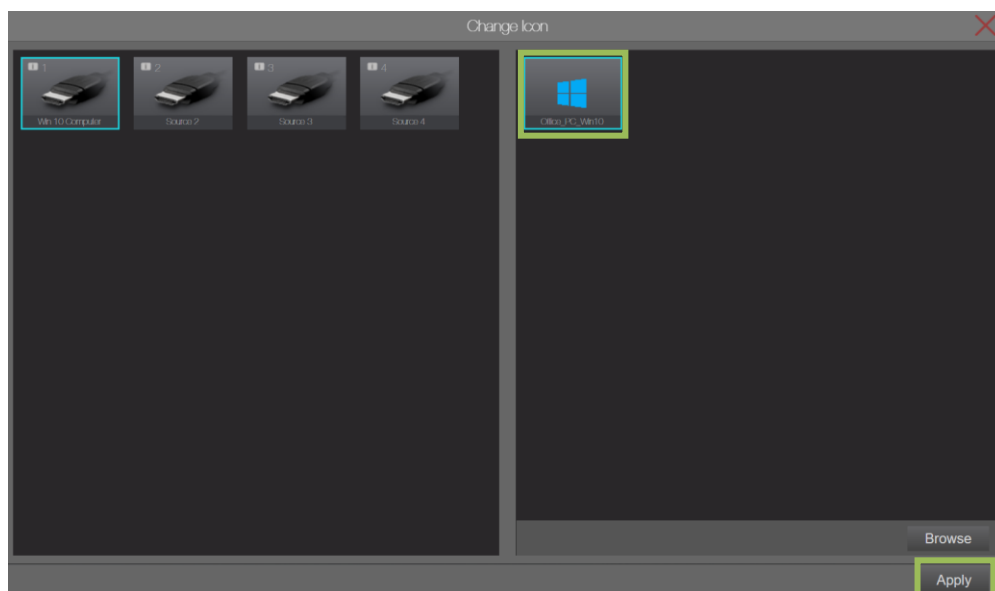
Figure 4.2.1.3 Load Icon File

Notice that the image will now be shown in the frame of right.



**Figure 4.2.1.4** Browse Image Window

Step 5. Click the image then click **Apply** to continue.



**Figure 4.2.1.5** Apply Icon

Notice that the selected image will now replace the default input port image shown in the input control bar. Perform the above steps to replace the other input signal icon(s) as desired.

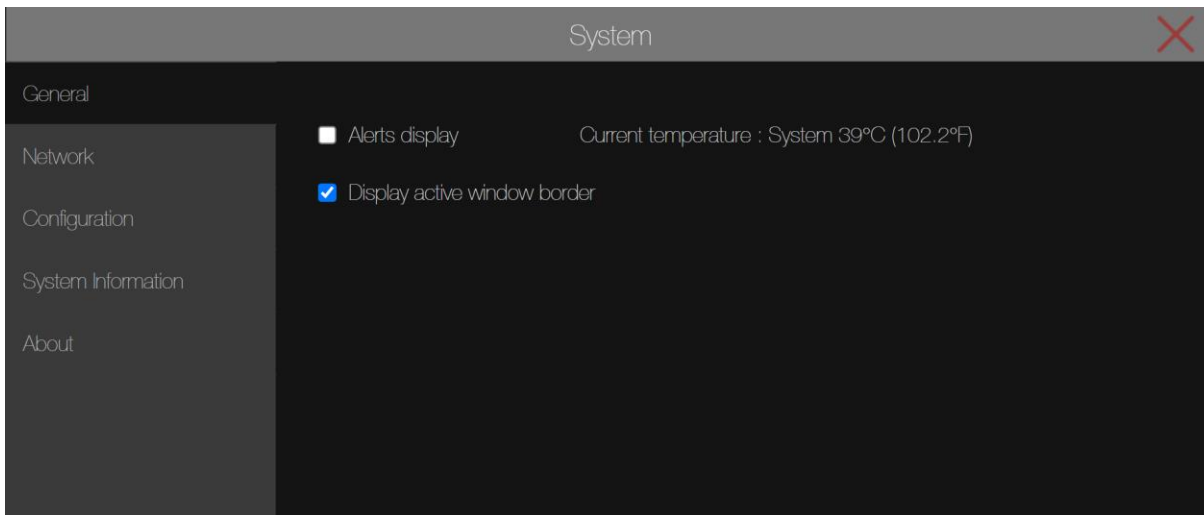


**Figure 4.2.1.6** Replaced Icon of Input in Input Source Control Bar

## 4.3 System

**System** contains a collection of settings for Sequoia 4K60 including **General**, **Network**, **System Information** and **About** for managing your Sequoia 4K60. To customize the system setting, move mouse pointer to **System** on the GUI menu and click it; the **System** page will appear.




### 4.3.1 General



**Figure 4.3.1.1** System Page

### Alerts display


**Alerts Display** allows you to enable/disable the display of system alerts. You can enable the alert when System fan or mainboard fan failure occurs or the system operating temperature is too high (above the normal operating temperature threshold of 75°C). Upon checking the **Alerts Display**, this will apply the setting to Sequoia 4K60.

Alerts Display	
<b>Enable/Disable Alerts Display</b>	Check/uncheck (enable/disable) the fan/temperature alerts that are triggered when a fan failure occurs; or when the system operating temperature is too high.
	If any of the fan modules fail, the Sequoia 4K60 can detect the failure and display alert:
	✓ A <b>“System fan failure detected!”</b> alert appears on top-left portion of monitor.
	
<b>Fan Alert</b>	✓ A <b>“Mainboard fan failure detected!”</b> alert appears on top-left portion of monitor.
	
	 <i>When a fan failure alert occurs, it is important that steps be taken to replace the system fan immediately (hot-swappable module). Failure to address this problem may cause irreparable damage to system components.</i>

## Alerts Display

Shows the current detected temperature of the Sequoia 4K60 system. If the temperature is above the normal operating temperature threshold of 75°C, a “**System operating temperature is too high!**” alert will appear on top-right portion of monitor.

System operating temperature is too high !

 *When a temperature alert occurs, it is important that steps be taken immediately to find out the cause. Failure to address this problem immediately may cause irreparable damage to system components.*

*When the Sequoia 4K60 is processing a lot of data it can become hot. If the environment around the module is too warm, or the fans cannot do their job properly, or the filters are blocked or clogged, the module can overheat. When the module becomes hot and there is a risk of overheating, the performance of the module is reduced to lower the amount of data processed and lower the temperature of the module.*

### Current Temperature

First try this:

1. Turn off your Sequoia 4K60. Allow your Sequoia 4K60 to cool down for at least 20 minutes.
2. Restart your Sequoia 4K60.

Then try this:

1. Place your hand near each fan outlet in turn and check that air is flowing out of your Sequoia 4K60.
2. Check the environment around your Sequoia 4K60:
  - Is there anything covering the fan outlets?
  - Is the space large enough?
  - Is there enough ventilation or cooling? For best results, make sure the air around your Sequoia 4K60 is a maximum of 25°C.
  - Is there an air gap all around your Sequoia 4K60?
3. If there are any issues with the environment around your Sequoia 4K60, switch off your Sequoia 4K60 and allow it to cool down while you fix the issues.

**Table 4.3.1.1** Alerts Display Functions

### Display active window border

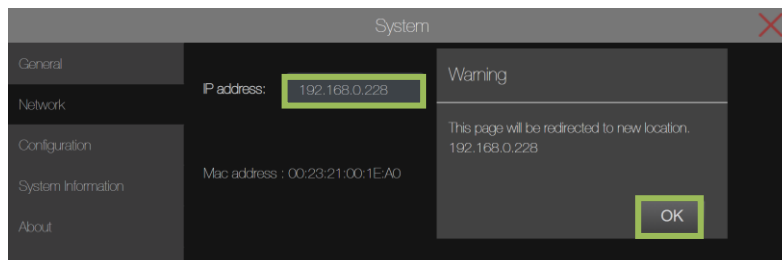
**Display active window border** allows you to easily identify the window which is currently in keyboard/mouse operation. The active window border is turn on by default; you can disable this active border indicator depending on your operation requirement. The active window border has two color, a **yellow** active window border signifies that you are in “**Surfer**” mode; a **red** active window border signifies that the “**Surfer**” feature is turn off.

### 4.3.2 Network

Select **Network** to set up the network connection.

#### IP address

The default **IP address** is **192.168.0.5**. The **Network** settings must be manually entered. Set the **Network** connection by entering the **IP address** to connect. This would be required for a network that uses fixed IP addresses. Upon completing **Network** adjustment, locate **Apply** and click it. When the warning window appears, click **OK**. This will apply the network setting to Sequoia 4K60.



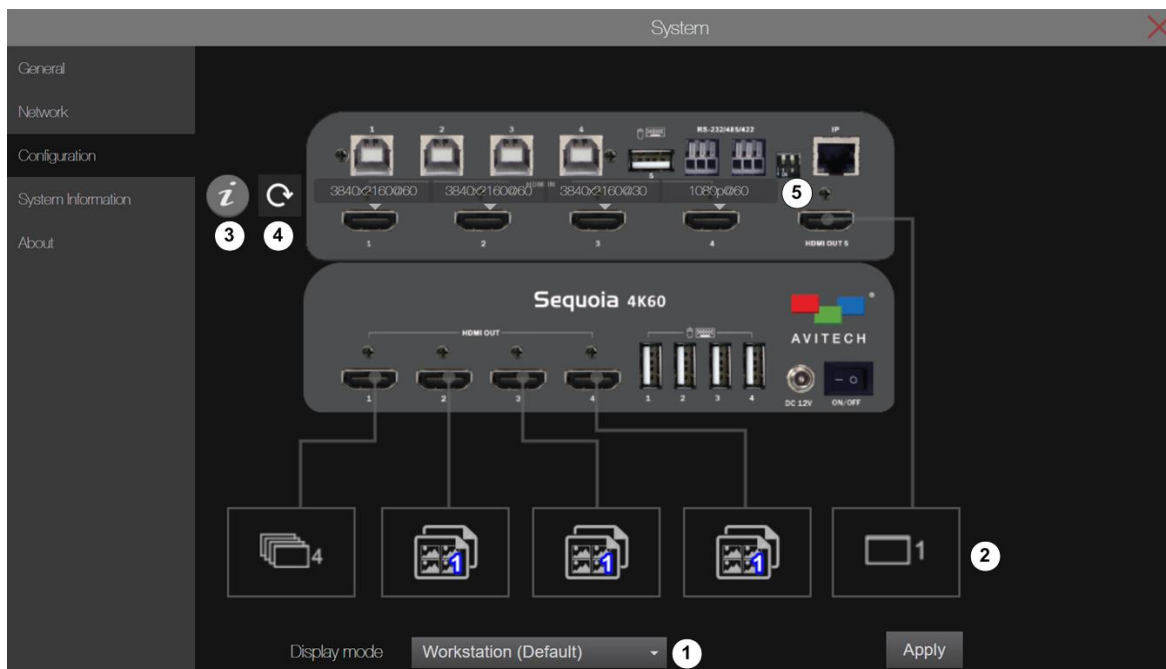
**Figure 4.3.2.1** System Page: Network → IP Address

### Mac address

The **MAC address** is an assigned and burned-in address by Avitech to the network interface chip in your Sequoia 4K60.

### 4.3.3 Configuration

**Configuration** provides an interface for user to switch among five display modes. Select one of the display modes from drop-down menu, locate **Apply** and click to take effect the display mode. The table below provides information on each component of **Configuration**.



**Figure 4.3.3.1** System Page: Configuration Control Interface and Components

#### Configuration

Allows user to select a display mode from the drop-down menu, then locate **Apply** and click to take effect the display mode.




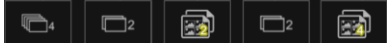

#### 1 Display Mode

- Workstation (Default)
- Workstation (Quad + 4 Singles)
- Video wall
- Projector (PIP)
- Projector (Fullscreen)

## Configuration

Shows the current display mode of system.

### 2 Display Mode Icon

- ❖  **Workstation (Default):** supports simultaneous display of four signal sources in multiview layout on the 1<sup>st</sup> output. Freely switch single-view fullscreen image, or duplicated multiview layout image on the 2<sup>nd</sup> to 4<sup>th</sup> outputs. The 5<sup>th</sup> output can only have one of the input signal source display single-view fullscreen image.
- ❖  **Workstation (Quad + 4 Singles):** supports simultaneous display of four signal sources in multiview layout, and freely switch to single-view fullscreen image on the 1<sup>st</sup> output. Freely switch single-view fullscreen image on 2<sup>nd</sup> to 5<sup>th</sup> outputs.
- ❖  **Video wall:** support a 2x2 video wall or video walls with 1 row and 2 to 4 columns with PiP display.
- ❖  **Projector (PiP):** creates a preview multiview on the 1<sup>st</sup> output, and the 2<sup>nd</sup> to 5<sup>th</sup> outputs can duplicate two picture-in-picture (PiP) images.
- ❖  **Projector (Fullscreen):** creates a preview multiview on the 1<sup>st</sup> output, and the 2<sup>nd</sup> to 5<sup>th</sup> outputs can duplicate two single-view fullscreen image for seamless switching of the input sources.

Click to display the detected input signal detail timing information.

### 3 Information

Signal information

<p>Input : 1 Pixel clock : 148.4 M-Hz Freq. : 60.00 H<sub>total</sub> : 2200 V<sub>total</sub> : 1125 H<sub>active</sub> : 1920 V<sub>active</sub> : 1080 H<sub>start</sub> : 41 V<sub>start</sub> : 41 Flag : 0x1</p>	<p>Input : 2 Pixel clock : 593.9 M-Hz Freq. : 60.00 H<sub>total</sub> : 4400 V<sub>total</sub> : 2250 H<sub>active</sub> : 3840 V<sub>active</sub> : 2160 H<sub>start</sub> : 82 V<sub>start</sub> : 82 Flag : 0x1</p>
<p>Input : 3 Pixel clock : 296.9 M-Hz Freq. : 30.00 H<sub>total</sub> : 4400 V<sub>total</sub> : 2250 H<sub>active</sub> : 3840 V<sub>active</sub> : 2160 H<sub>start</sub> : 82 V<sub>start</sub> : 82 Flag : 0x1</p>	<p>Input : 4 Pixel clock : 593.9 M-Hz Freq. : 60.00 H<sub>total</sub> : 4400 V<sub>total</sub> : 2250 H<sub>active</sub> : 3840 V<sub>active</sub> : 2160 H<sub>start</sub> : 82 V<sub>start</sub> : 82 Flag : 0x1</p>

Exit

### 4 Refresh

Allows user to update the input signal information.

### 5 Signal Information

Displays the detected input signal resolution.

**Table 4.3.3.1** Layout & Routing Component and Description



#### 4.3.4 System Information

Displays the firmware type and version for Sequoia 4K60.

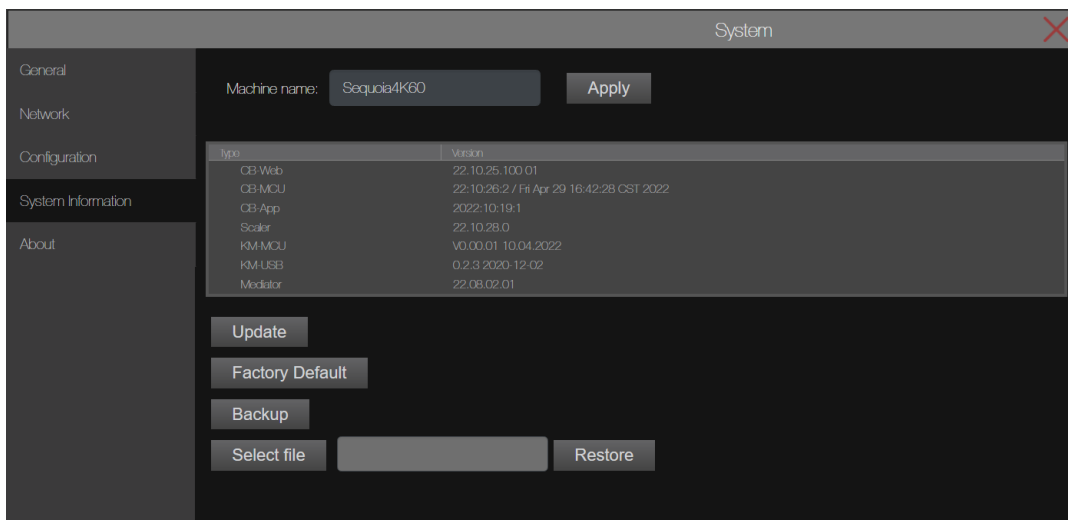


Figure 4.3.4.1 System Page → System Information

#### Change Sequoia 4K60 Machine Name

To change Sequoia 4K60 default name, click to highlight the **Machine name** (enters the “text edit” mode) and directly modify its name. Then click **Apply**.

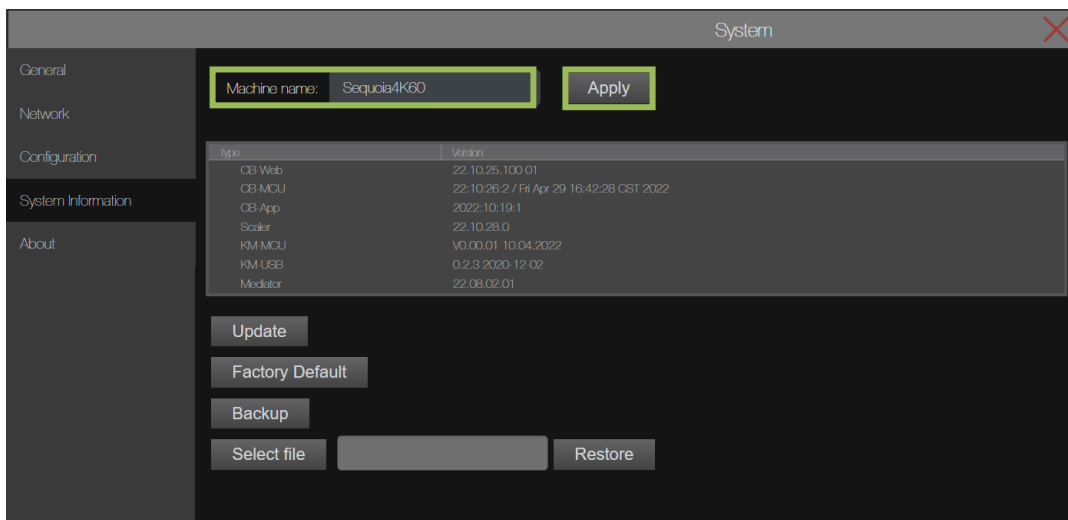


Figure 4.3.4.2 System Page: System Information → Change Machine Name



The maximum length of the **Machine name** is 32 characters. It must not include any of the following: < > ! @ # & \$ % ^ & \* “ ‘ / \ , . : ; ? =

#### Update (the Firmware)

When product developments occur, updates may be released to introduce new features or improve functionality by installing the latest firmware.

To update the firmware of the Sequoia 4K60, make sure to connect the local computer’s RJ-45 port to the rear panel’s IP port. Once the connection is made, you can use the computer’s web browser, type “**192.168.0.5/fw\_update.html**” directly in the web browser URL bar (*replace the numbers with the current IP address of your Sequoia 4K60 if the default IP address be changed*), or click **Update** to be able to update the firmware through the web browser-based GUI on your local computer.

To update any firmware of the Sequoia 4K60, perform the following steps:

Step 1. Copy the new firmware file(s) to your computer running the web browser-based GUI.

Step 2. On the **System Information** page, click **Update**.

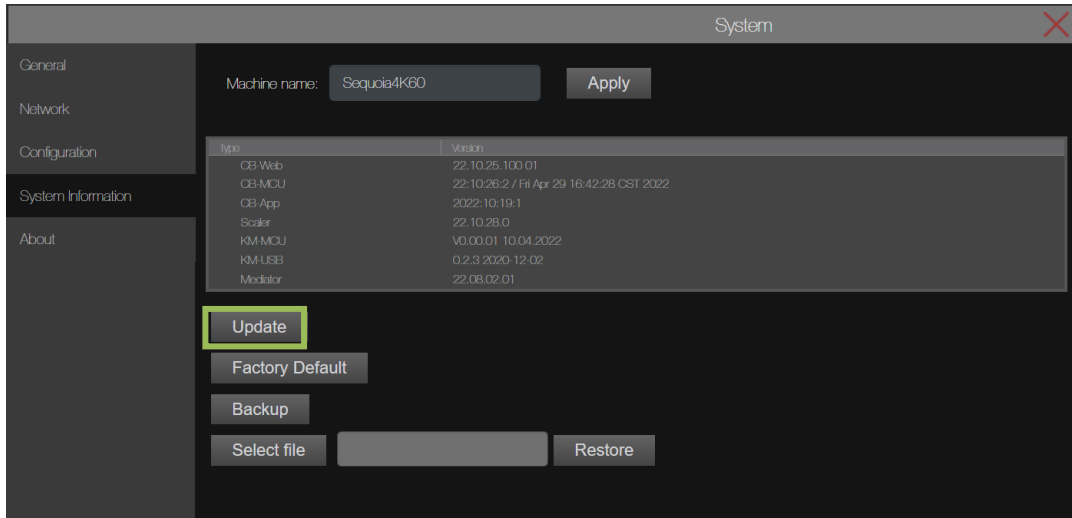


Figure 4.3.4.3 System: System Information → Update

Step 3. A new **Sequoia 4K60 Firmware Update** tab will appear on your web browser. Click **Select file**.

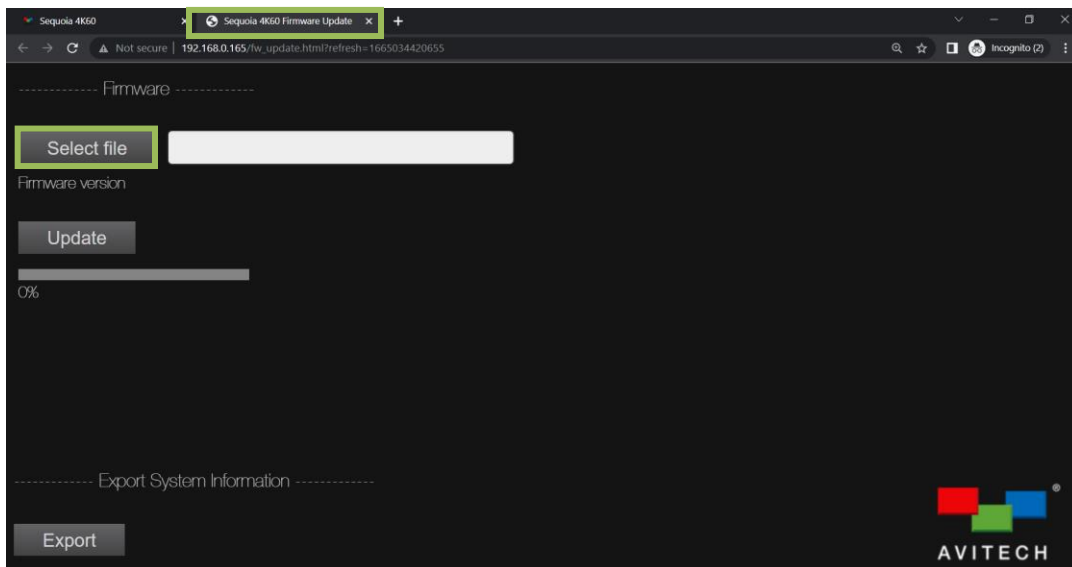


Figure 4.3.4.4 Sequoia 4K60 Firmware Update Page: Select File

Step 4. The **File Upload** window appears. Select the target firmware file and then click **Open**. For this example, "AT-Sequoia-4K60-CB-MCU\_xxxx" was selected.

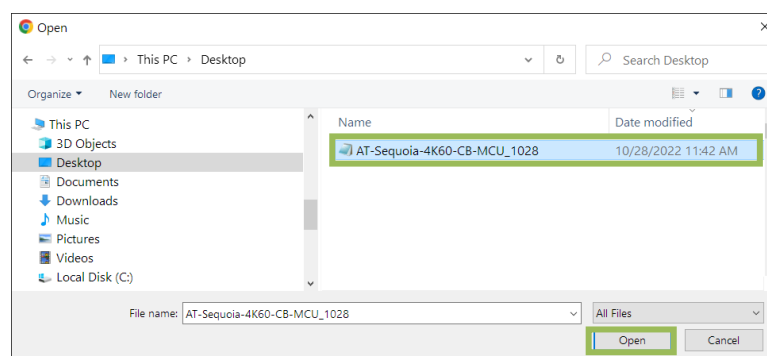
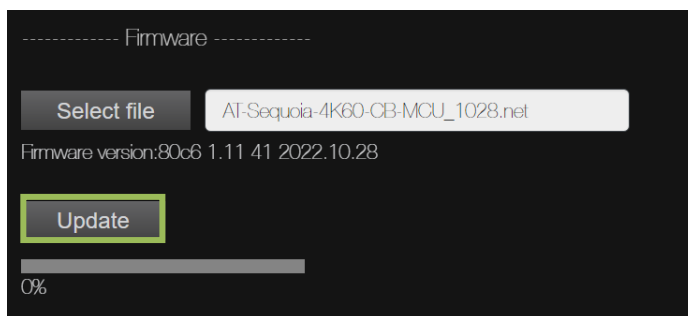


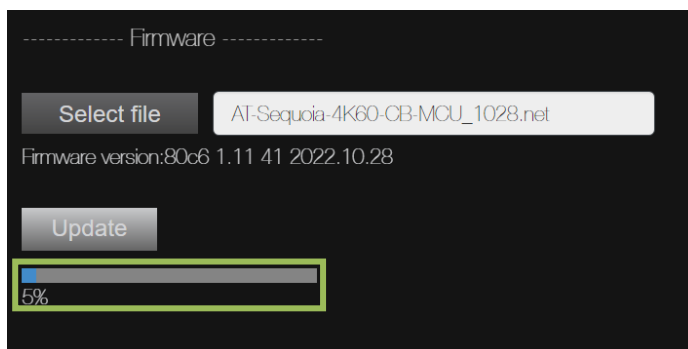
Figure 4.3.4.5 File Upload Window: Select Firmware File

Step 5. The selected firmware's version information will be shown (firmware information). Then click **Update** to start the firmware upgrade process.



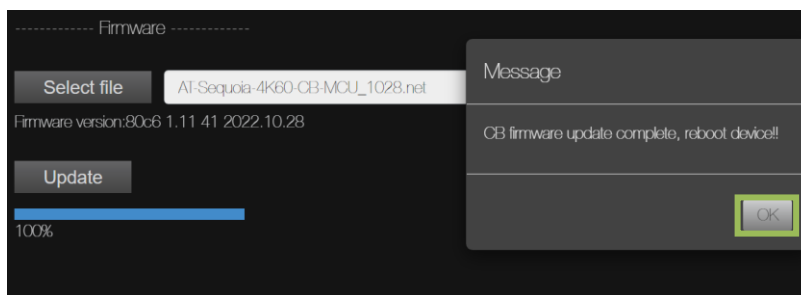
**Figure 4.3.4.6** Sample Firmware Upgrade

An upgrade progress bar will appear as shown in the following figure:



**Figure 4.3.4.7** Sample Firmware Upgrade in Progress

Step 6. The following message will appear when progress bar reaches 100 %. Click **OK**, and then reboot the Sequoia 4K60 by disconnecting and then reconnecting the power source to complete firmware upgrade. Repeat the above steps for any component that requires its firmware to be updated.



**Figure 4.3.4.8** Message for Reboot to Complete Firmware Upgrade



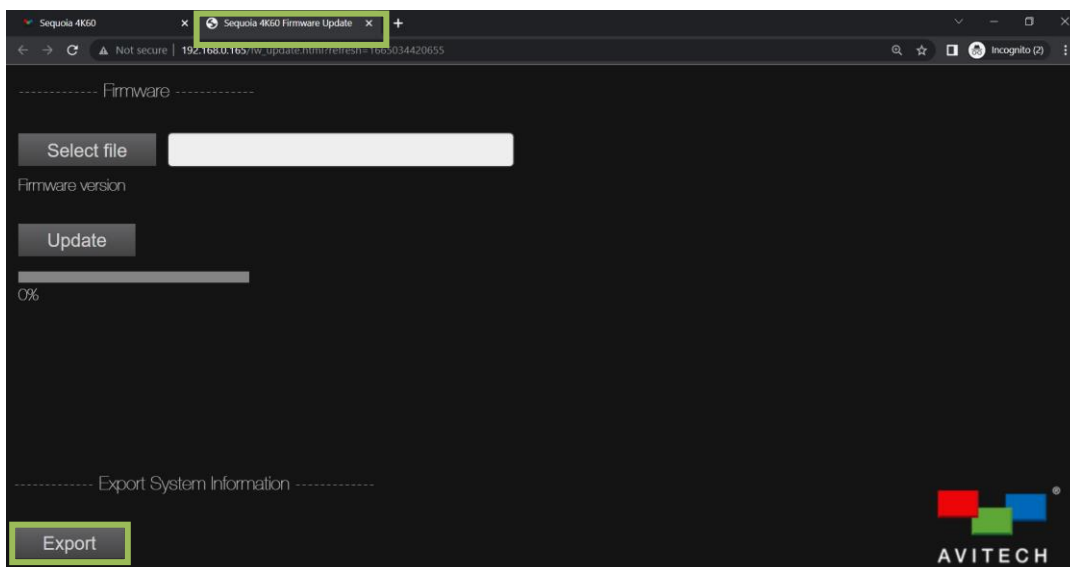
**DO NOT** at any time unplug the power cable connected to the Sequoia 4K60 during firmware upgrade.

### Export System Information

**Export System Information** allows you to export important Sequoia 4K60 system information and send this information back to Avitech for debug purpose.

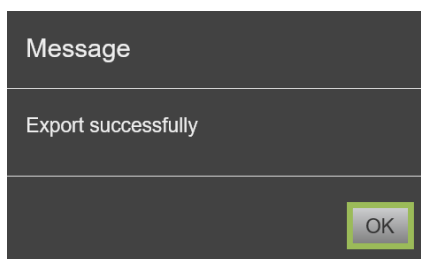
To export the system information of the Sequoia 4K60, perform the following steps:

Step 1. From the **Sequoia 4K60 Firmware Update** tab, click **Export**.



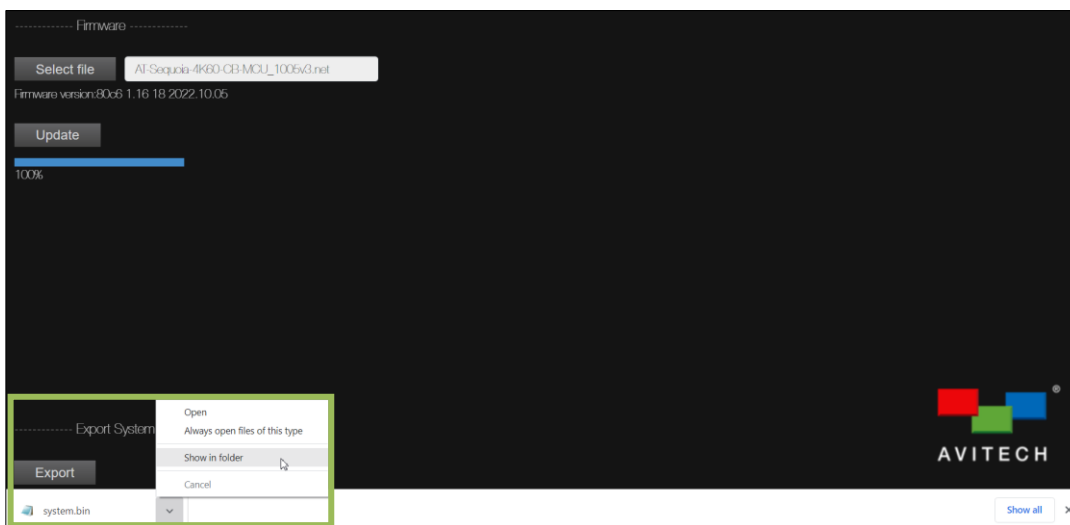
**Figure 4.3.4.9** Sequoia 4K60 Firmware Update Page: Export System Information

Step 2. When the below screen appears, then click **OK** to close the message window. (Using Google Chrome as example)



**Figure 4.3.4.10** Message for Export System Information Successfully

Step 3. Click  icon, then select **Show in folder**.



**Figure 4.3.4.11** Sequoia 4K60 Firmware Update Page: Open Folder Contain “System.bin” File

Step 4. Then move the file to the folder you preferred to keep it.

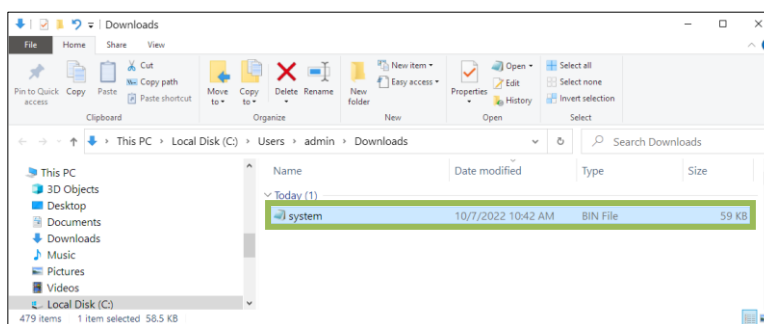


Figure 4.3.4.12 Select “System.bin” File

### Factory Default

If your Sequoia 4K60 has become unstable, or you have repeated errors that you cannot fix, you can reset your Sequoia 4K60 to its factory default settings. Click **Factory Default** to reset the Sequoia 4K60 to its factory default state. Below are the default settings:

- ❖ IP address is 192.168.0.5
- ❖ Output resolution will be set to Auto for each HDMI OUT port.
- ❖ Configuration → Display mode → Workstation (Default).
  - ✓ HDMI OUT 1 shows a quad-view display.
  - ✓ HDMI OUT 2 – 5 will sequentially show input source 1 – 4 in fullscreen mode.
- ❖ All the User icon presets / User presets configuration setup will be deleted.
- ❖ The OSD display is on:
  - ✓ Border width is in 2 pixels.
  - ✓ Label for window 1 is **Source 1**, window 2 is **Source 2**, window 3 is **Source 3** and window 4 is **Source 4**.
  - ✓ Audio tally are in off state.
- ❖ Auto-detect aspect ratio for each input source.
- ❖ Four Images are fit to window size.

To reset the Sequoia 4K60 to the factory default state, perform the following steps:

Step 1. Click **Factory Default** to start the reset process.

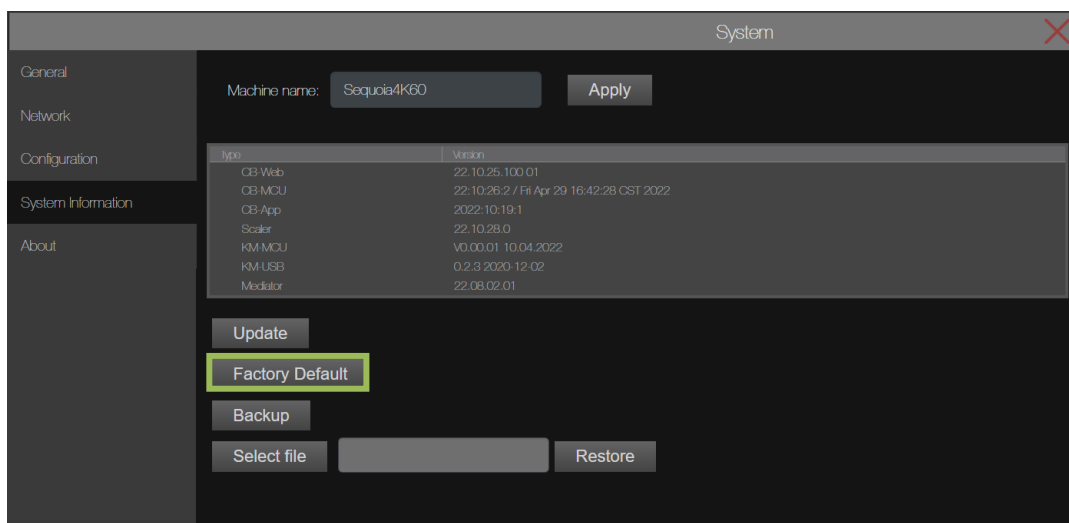
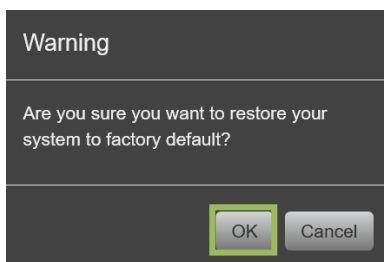


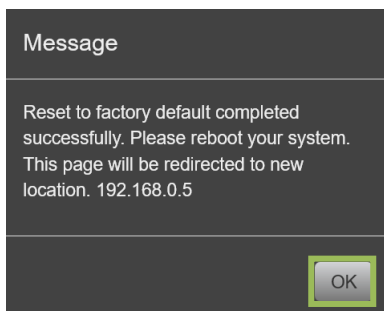
Figure 4.3.4.13 System Page: System Information → Factory Default

Step 2. When prompt appears onscreen with warning message window, click **OK** to complete the process of resetting to its factory default state.



**Figure 4.3.4.14** Warning Message Window to Confirm the Factory Default Process

Step 3. Reboot Sequoia 4K60 (power **OFF**, and then power **ON**) when the prompt appears onscreen to complete the process of resetting to its factory default state.



**Figure 4.3.4.15** Reboot to Complete Reset to Factory Default Process



1. When you reset the Sequoia 4K60 to factory default settings, all of your settings and configurations will be deleted.
2. Before you reset the Sequoia 4K60, you may back up your system file first. When you finished resetting your Sequoia 4K60 to factory default state, you can restore the system backup file to the Sequoia 4K60.
3. When restore your configuration to the Sequoia 4K60, it is recommended to change the IP address or it will stay **192.168.0.5**. (the default IP address)

Step 4. (Optional) Change the IP address of the Sequoia 4K60. Refer to [section \(4.3.2\) "IP address"](#) for details.

### Backup

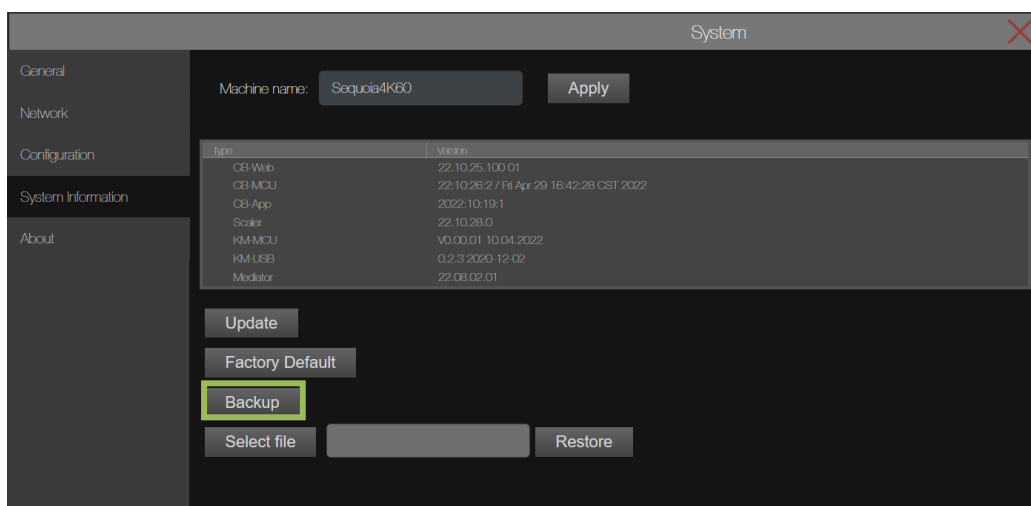
**Backup** allows you to export the Sequoia 4K60 settings; it will automatically save as **backup.bin** file that may include the following:

- ❖ **Layout & Routing** – last input/output source routing status.
- ❖ **Multiview Layout – OSD Option** settings, and upon clicking **OK**.
- ❖ **Multiview Layout – User icon preset / User preset / Latest preset** settings, and upon clicking **OK**.
- ❖ Latest **Label Edit** page configuration, and upon clicking **Apply**.  
This can also include the latest **Change icon** page configuration, and upon clicking **Apply**.
- ❖ **Video wall** – video wall preset files.
- ❖ **System – General** page settings, and upon checking.
- ❖ **System – Network** page settings, and upon clicking **Apply**.
- ❖ **System – Configuration** page settings, and upon clicking **Apply**.

To export the system information of the Sequoia 4K60, perform the following steps:

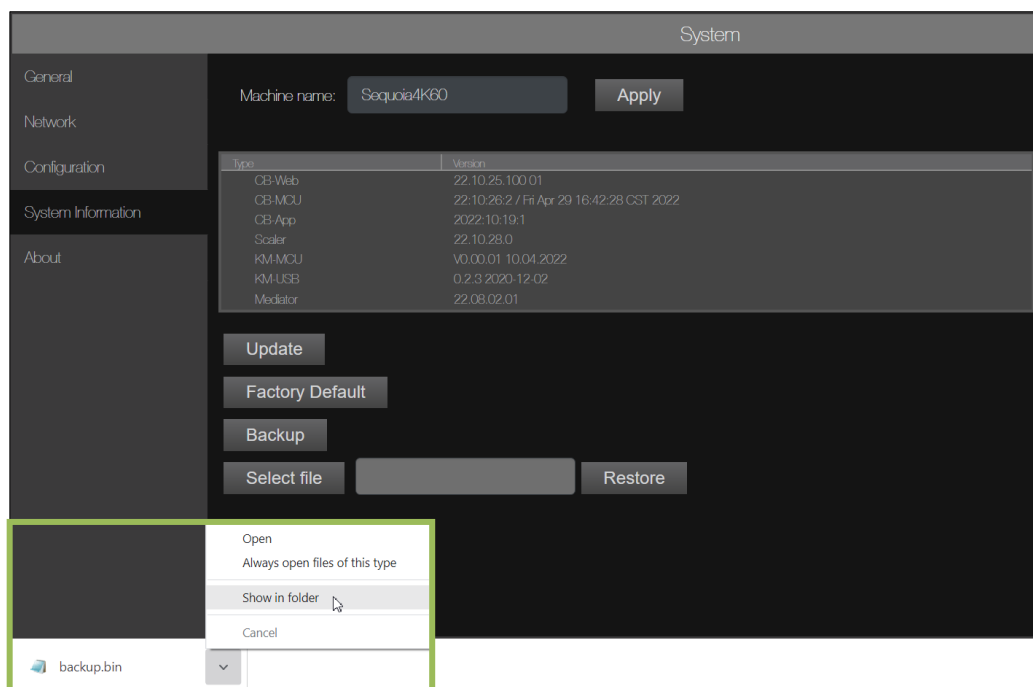


Step 1. From the **System** tab, under **System Information** page, click **Backup**.



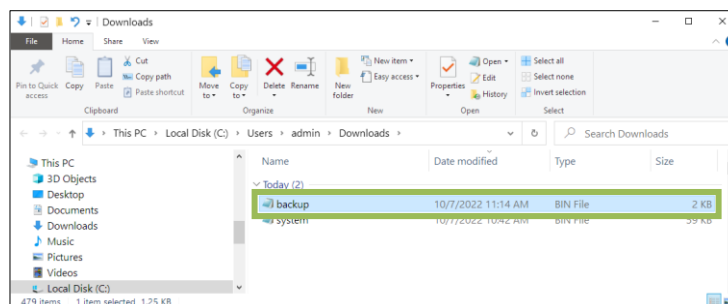
**Figure 4.3.4.16** System Page: System Information → Backup

Step 2. The web browser will automatically download to your computer. Click **Show in folder**. (Using Google Chrome as example)



**Figure 4.3.4.17** System Page: Click and Select Show in folder

Step 3. (Optional) To move the file to the folder you preferred to keep it.



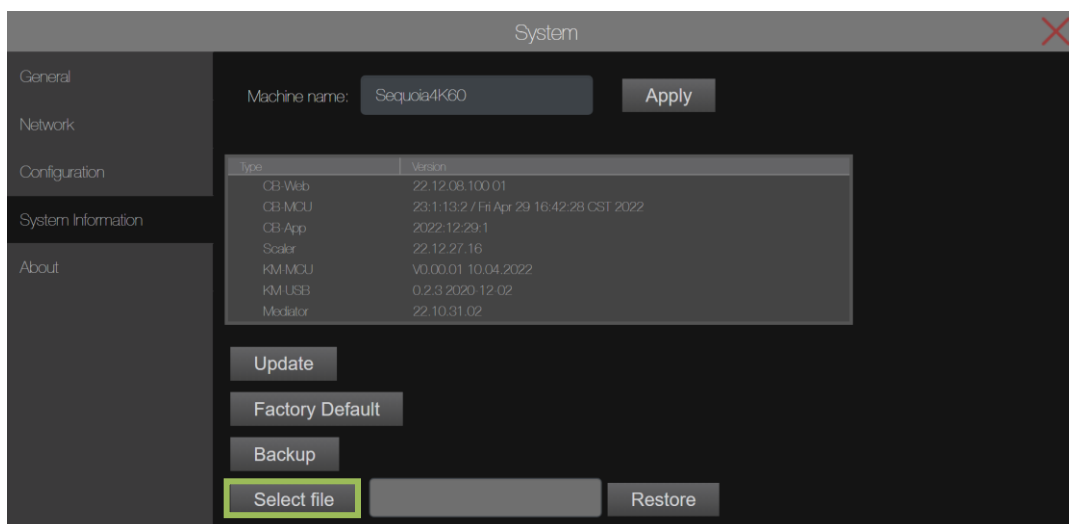
**Figure 4.3.4.18** Select "Backup.bin" File

## Restore

**Restore** function allows you to restore system settings using the previously saved **Backup.bin** file in your computer. See the previous section **Backup** for the saved system settings.

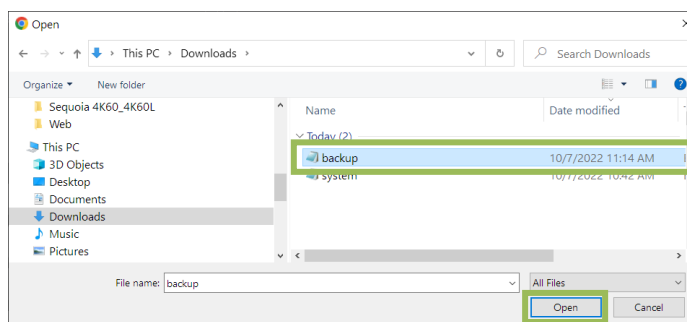
To restore the system settings to the Sequoia 4K60, perform the following steps:

**Step 1.** From the **System** tab, under **System Information** page, click **Select file**.



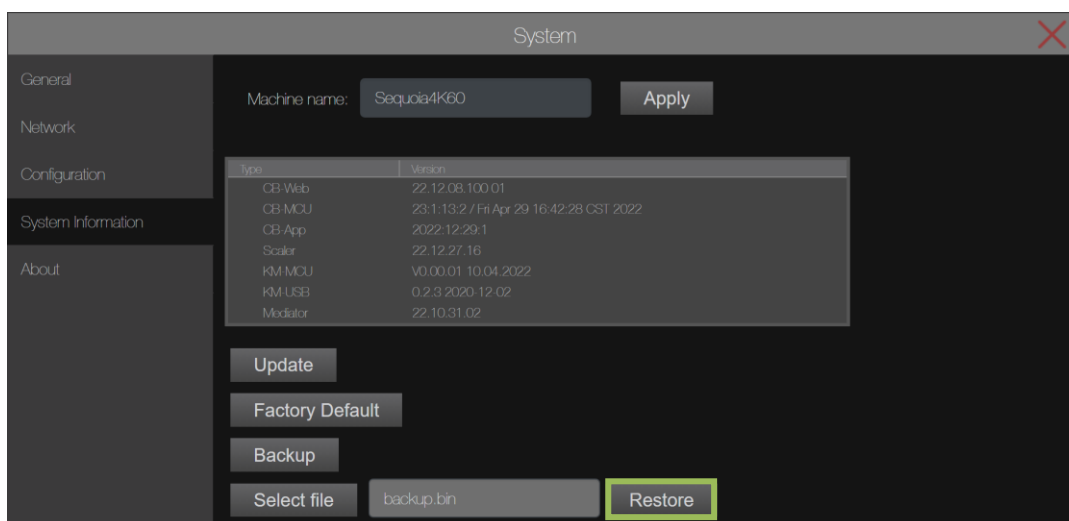
**Figure 4.3.4.19** System Page: System Information → Select file

**Step 2.** When the file selector window appears, locate and select the **Backup.bin** file and click **Open**.



**Figure 4.3.4.20** Select the Backup File

**Step 3.** Click **Restore**.



**Figure 4.3.4.21** Restore the System Setting From Computer

Step 4. Reboot Sequoia 4K60 when the prompt appears onscreen to complete the process of restoring the system setting.

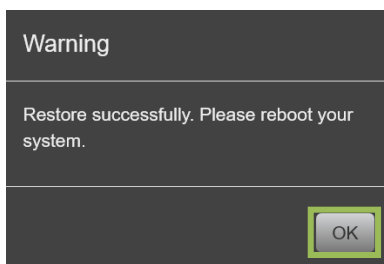


Figure 4.3.4.22 Reboot to Complete the Restore Process

#### 4.3.5 About

Click **About** to view the web browser-based GUI copyright page.

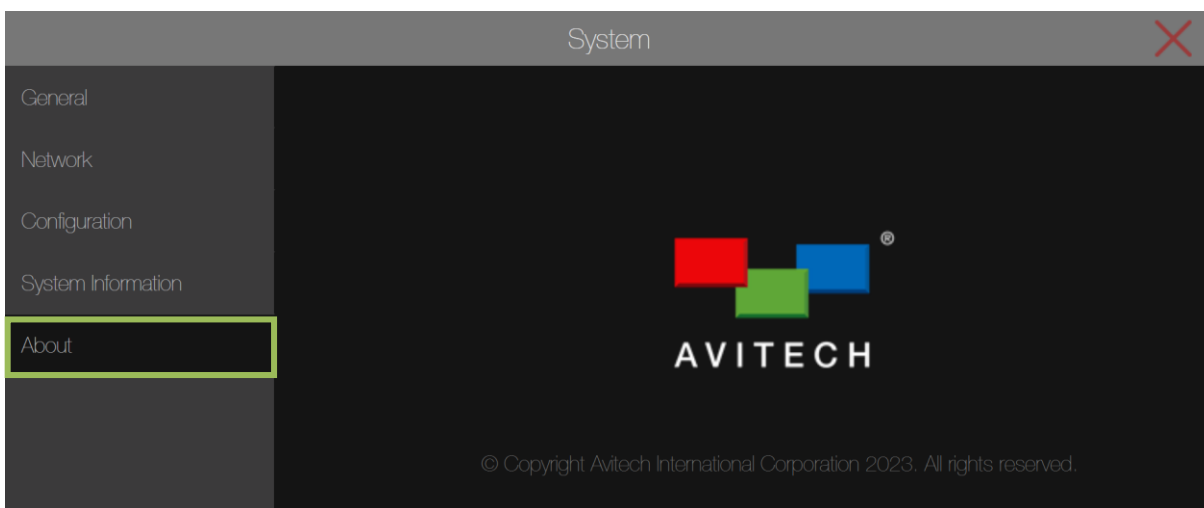


Figure 4.3.5.1 System → About

## 5. Video Wall Configuration and Management

Accessed from the Web browser-based GUI, video wall(s) can be created and managed resource through **Video Wall** page. The Sequoia 4K60 supports a 2x2 video wall or video walls with 1 row and 2 to 4 columns with PiP feature and seamless transition in switching between presets.

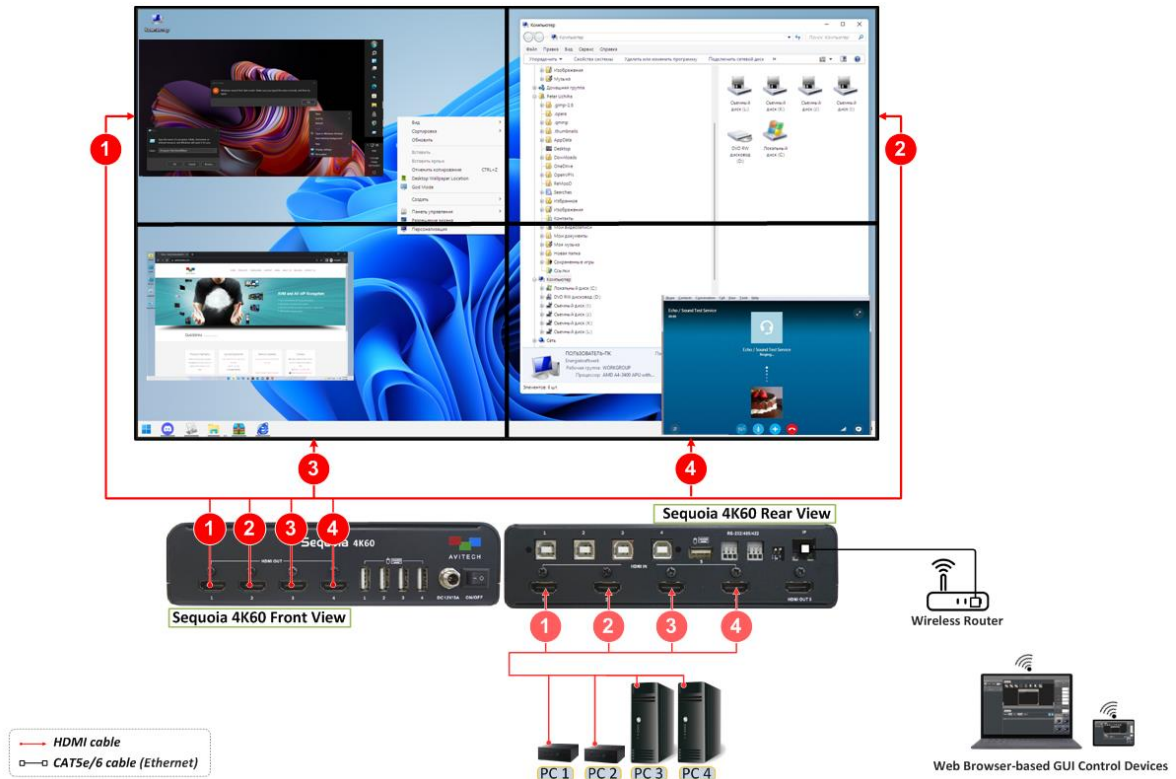


Figure 5.1 A 2x2 Video Wall Example

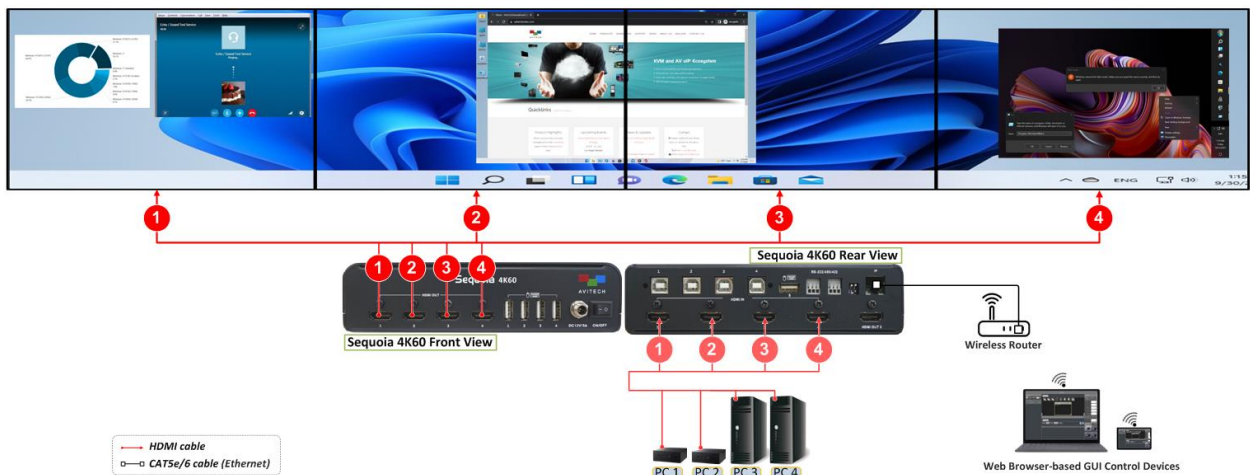



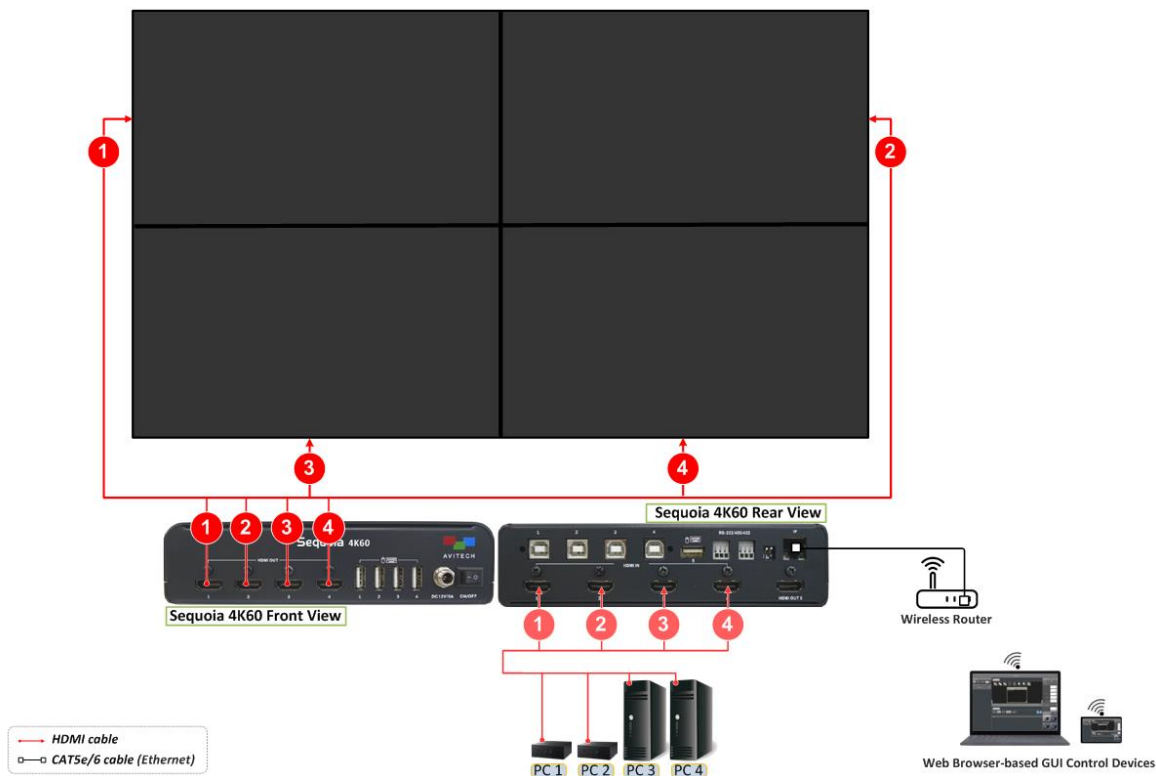
Figure 5.2 A 1x4 Video Wall Example

## 5.1 Video Wall Connection

### 5.1.1 A 2x2 Video Wall Connection

The following figure shows a typical setup with a single Sequoia 4K60 that supports 4K UHD in a 2x2 PiP Video Wall.

 **DO NOT** block the vents on the front and side panels of the Sequoia 4K60. Doing so may impair its internal components and/or its heat dissipation.



**Figure 5.1.1.1** A 2x2 Video Wall Connection Diagram

#### Four Source Connections to Sequoia 4K60

- Step 1. Connect the first video source's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60 using the appropriate signal cables.
- Step 2. Repeat previous step for other three video sources connect to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60 using the appropriate signal cables.

#### Connections to Video Wall 4K UHD Screen

- Step 1. Connect the port marked **HDMI OUT 1** on front panel of Sequoia 4K60 to the corresponding video wall screen **1** using the appropriate signal cable.
- Step 2. Repeat previous step for other three ports marked **HDMI OUT 2 – 4** on the front panel of Sequoia 4K60 to the corresponding video wall screen **2 – 4** using appropriate signal cables.

#### Connection to Control Device(s)

- Step 1. Connect a standard CAT-5e/6 Ethernet cable to the port marked **IP (Ethernet)** on rear panel of Sequoia 4K60, and connect the other end of the cable to the wireless router.

Step 2. Use a standard CAT-5e/6 Ethernet cable to connect the control computer's RJ-45 port and the wireless router. Or turn on the Wi-Fi connection of your notebook or handheld touch device and make sure to select the correct Wi-Fi network (The Wi-Fi name should be the name of the wireless router connected with Sequoia 4K60).

### Powering Up the Devices

Step 1. Connect power to and boot-up the four video source devices.

Step 2. Connect power to the monitors and turn on the monitors.

Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.

Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected sources) will appear.

### 5.1.2 A 1x4 Video Wall Connection

The following figure shows a typical setup with a single Sequoia 4K60 that supports 4K UHD in a 1x4 PiP Video Wall.

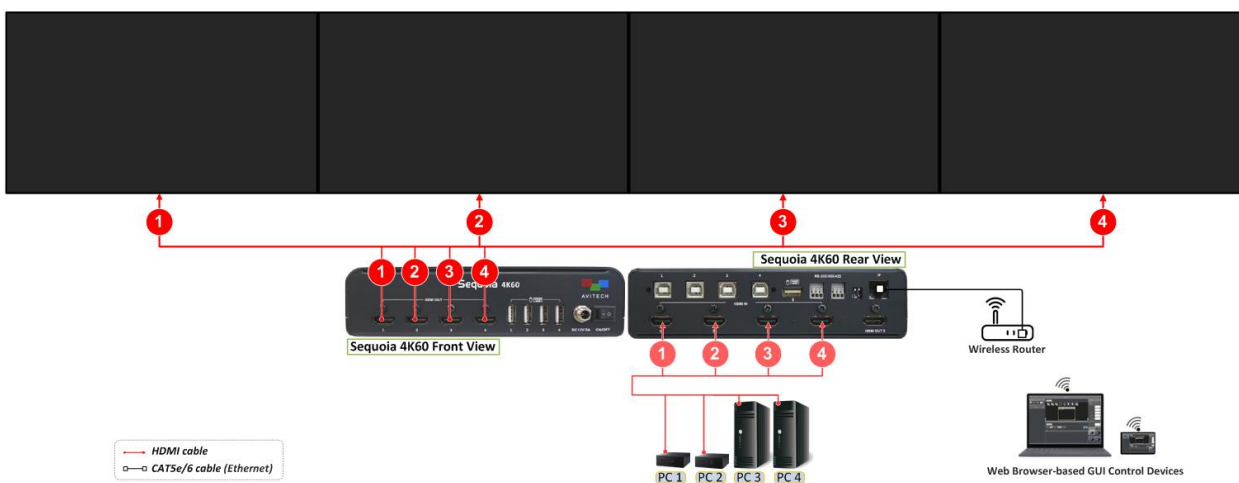


Figure 5.1.2.1 A 1x4 Video Wall Connection Diagram

### Four Source Connections to Sequoia 4K60

Step 1. Connect the first video source's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60 using the appropriate signal cables.

Step 2. Repeat previous step for other three video sources connect to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60 using the appropriate signal cables.

### Connections to Video Wall 4K UHD Screen

Step 1. Connect the port marked **HDMI OUT 1** on front panel of Sequoia 4K60 to the corresponding video wall screen **1** using the appropriate signal cable.

Step 2. Repeat previous step for other three ports marked **HDMI OUT 2 – 4** on the front panel of Sequoia 4K60 to the corresponding video wall screen **2 – 4** using appropriate signal cables.

### Connection to Control Device(s)

Step 1. Connect a standard CAT-5e/6 Ethernet cable to the port marked **IP (Ethernet)** on rear panel of Sequoia 4K60, and connect the other end of the cable to the wireless router.



Step 2. Use a standard CAT-5e/6 Ethernet cable to connect the control computer's RJ-45 port and the wireless router. Or turn on the Wi-Fi connection of your notebook or handheld touch device and make sure to select the correct Wi-Fi network (The Wi-Fi name should be the name of the wireless router connected with Sequoia 4K60).

### Powering Up the Devices

Step 1. Connect power to/and boot-up the four video source devices.

Step 2. Connect power to the monitors and turn on the monitors.

Step 3. Connect the power adapter to the DC 12V/5A power in jack on the Sequoia 4K60, and press the power switch so that the Sequoia 4K60 is turned on.

Step 4. The Avitech logo will appear briefly on the monitor, and after approximately 60 seconds the four windows (each containing an image from one of the connected sources) will appear.

## 5.2 Video Wall Configuration and Management



1. The layout / preset files of Video wall are saved in the Sequoia 4K60.
2. The keyboard/mouse function is not support when the Sequoia 4K60 is configured to Video wall display mode.

Before connecting the controlling computer to the Sequoia 4K60, the IP address of the controlling computer needs to be changed to a static IP, and its subnet mask must be set to a similar range as the Sequoia 4K60 ("192.168.0.5" – factory default IP address). Or, the IP address of the Sequoia 4K60 can be changed to a similar range as the controlling computer.

To start using the controlling computer to manage the video wall of Sequoia 4K60, perform the following steps:

Step 1. Use the computer's web browser and type "192.168.0.5" in the web browser URL bar (or replace the numbers with the current IP address of your Sequoia 4K60), the web browser-based GUI will appear and the Sequoia 4K60 is ready for operation in video switching/routing, modifying video wall layout or system setting.

Or use the notebook or handheld touch device's web browser, once the Wi-Fi connection is made, then type "192.168.0.5" in the web browser URL bar (or replace the numbers with the current IP address of your Sequoia 4K60), the web browser-based GUI will appear and the Sequoia 4K60 is ready for operation in video switching/routing, modifying video wall layout or system setting.



The IP address of the controlling computer (with Ethernet connection to Sequoia 4K60) must be in the same network mask as the Sequoia 4K60. If you use a notebook or handheld touch device, please turn on the Wi-Fi connection of your controlling device, search and select to connect the Wi-Fi network (password may be required) that the Sequoia 4K60 is connected to.

Step 2. When the **User Sign In** window appears on the webpage, enter the password (**admin** in lower case) to login to control of the Sequoia 4K60.



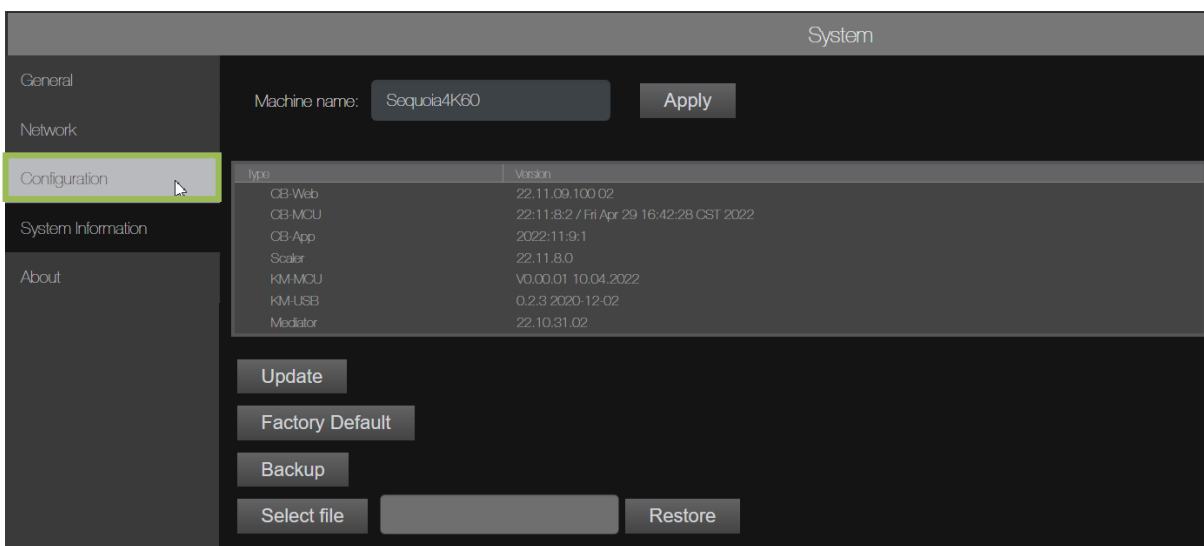
Figure 5.2.1 User Sign In Window

Step 3. The initial screen appears on the webpage. Locate **System** on the main page and click it; the **System** page will appear.



**Figure 5.2.2** Web Browser-based GUI Main Page

Click **Configuration** to setup up display mode of Sequoia 4K60.



**Figure 5.2.3** Web Browser-based GUI System Page

Step 4. Select **Video wall** from the drop-down menu.

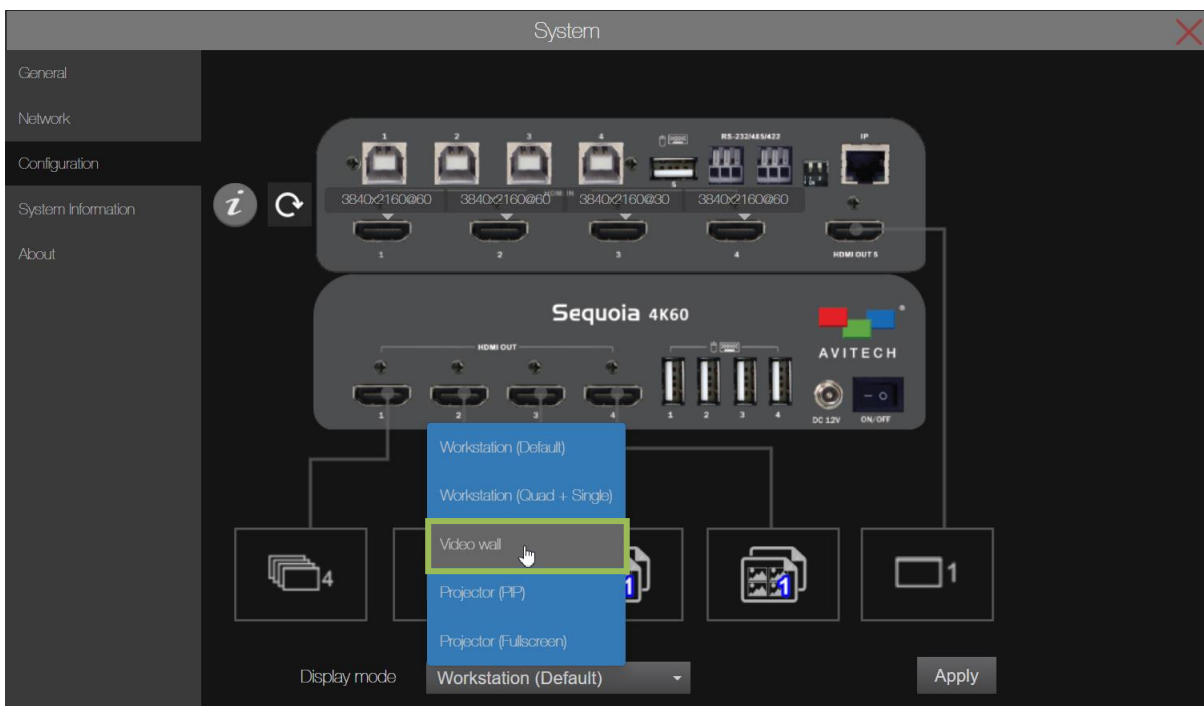


Figure 5.2.4 System Page → Configuration

Step 5. Click **Apply** then click  to start setting the video wall.

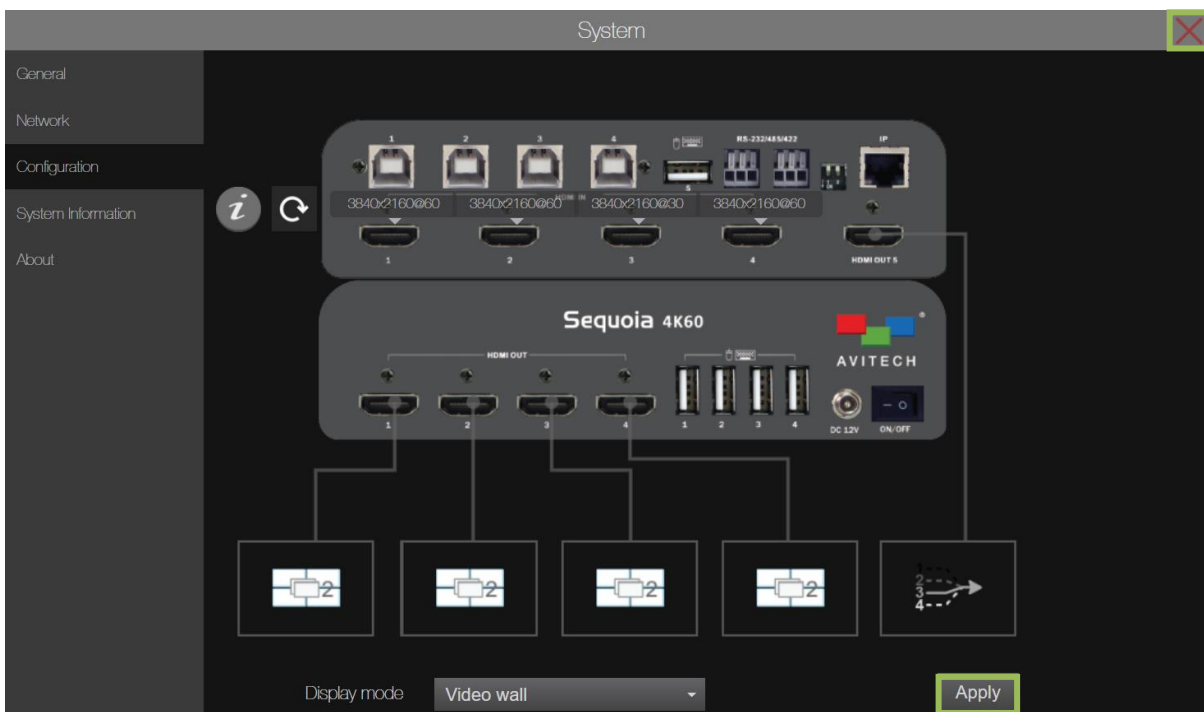
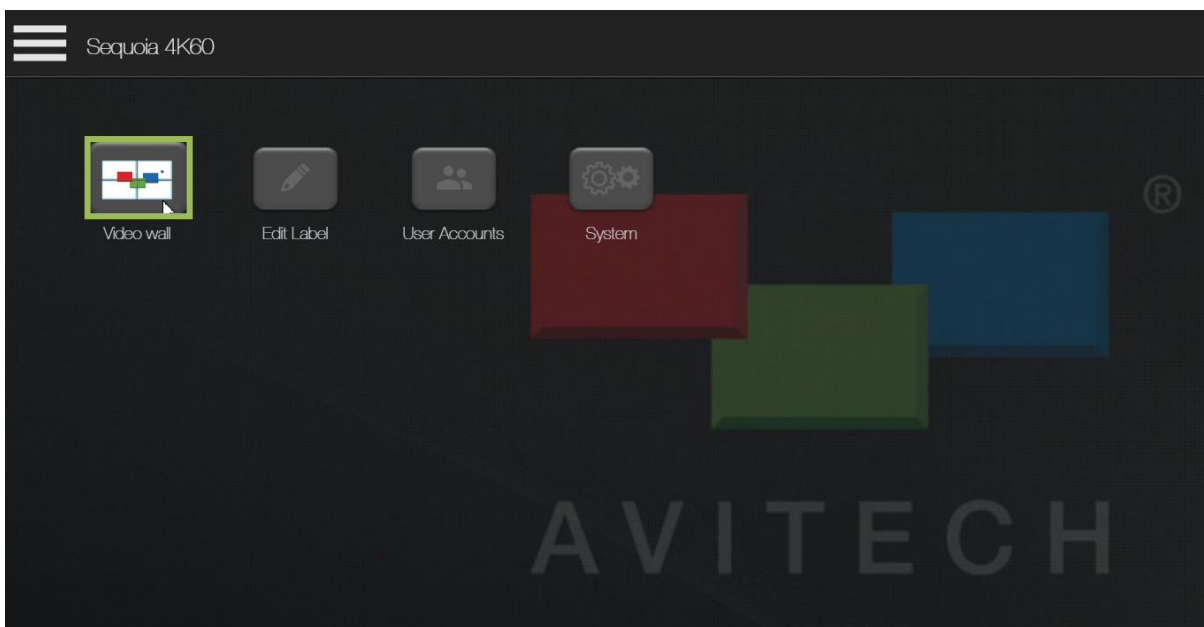


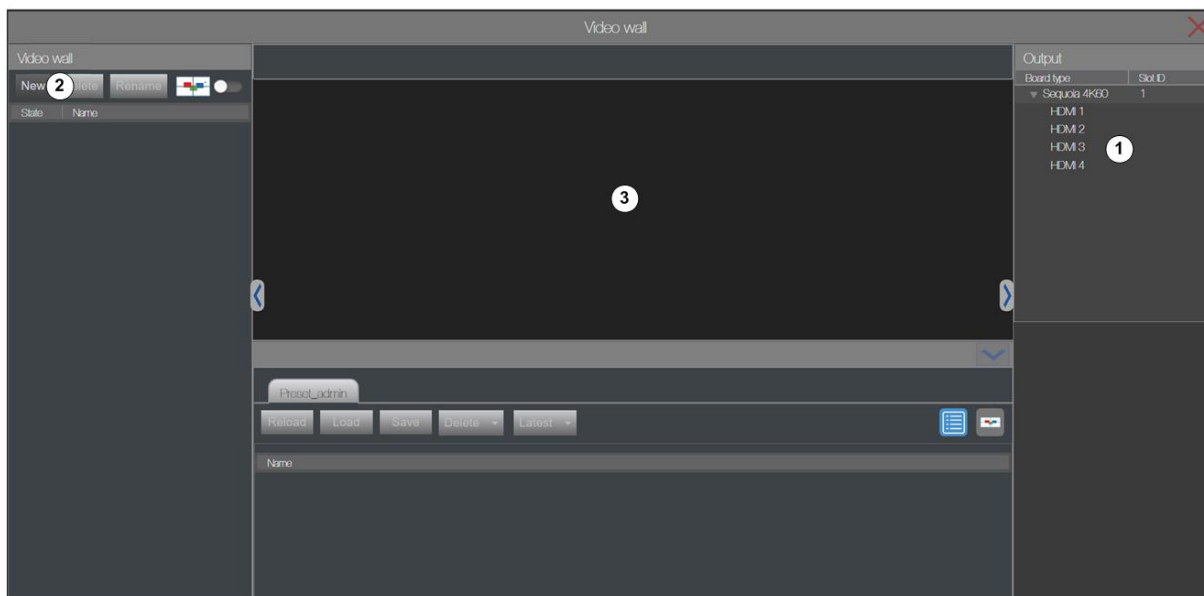
Figure 5.2.5 System Page → Apply Video Wall Configuration

Step 6. Locate **Video wall** icon on the main page and click it.





**Figure 5.2.6** Web Browser-based GUI Main Page

Then the **Video wall** page will appear. The table below provides information on each component of **Video Wall Initial page**.



**Figure 5.2.7** Video Wall Initial Page Components

Function	
① HDMI Output List	Shows the detected <b>HDMI OUT</b> ports of Sequoia 4K60.
② Top Function	<p>Allows user to instantly:</p> <ul style="list-style-type: none"> <li>❖ <b>New</b> = click <b>New</b> to create the video wall in the video wall design area.</li> <li>❖ <b>Delete</b> = click <b>Delete</b> to delete the designed video wall.</li> <li>❖ <b>Rename</b> = click <b>Rename</b> to modify the video wall name.</li> <li>❖ <b>Edit mode</b> = click <b>Wall Editor</b> switch to slide it to the left (  ) to modify the wall settings.</li> <li>❖ <b>Take mode</b> = click <b>Wall Editor</b> switch to slide it to the right (  ) to forbid modify the wall settings and only allow to load presets.</li> </ul>

**Function**

**3 Video wall Design Area**

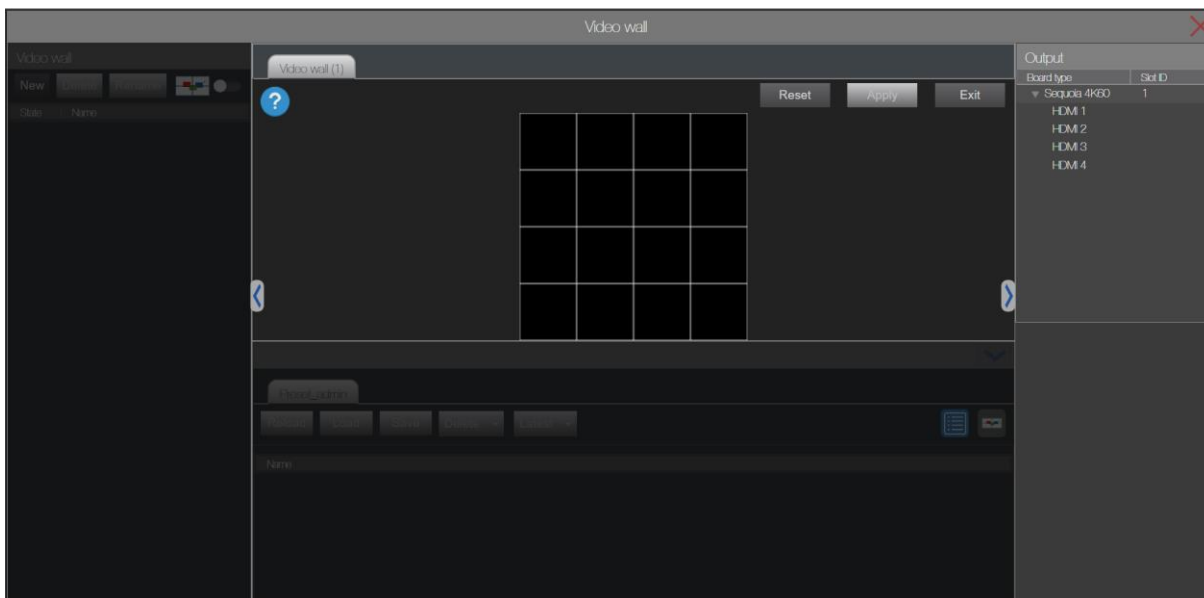
- Allows user to add/remove/move **HDMI OUT** port in this area. Examples:
- ❖ A 2x2 wall display is comprised of a 2x2 screen for a maximum of two windows for each screen and a maximum of eight windows for a 2x2 wall.
  - ❖ A 1x2 or 1x2 wall display is comprised of a 1x2 or 1x2 screen for a maximum of two windows for each screen and a maximum of four windows for 1x2 or 1x2 wall.
  - ❖ A 1x3 or 3x1 wall display is comprised of a 1x3 or 3x1 screen for a maximum of two windows for each screen and a maximum of six windows for 1x3 or 3x1 wall.
  - ❖ A 1x4 or 4x1 wall display is comprised of a 1x4 or 4x1 screen for a maximum of two windows for each screen and a maximum of eight windows for 1x4 or 4x1 wall.

Note:

1. For a window that straddles both screens will be counted as one window for each screen.
2. Adding a third window on either screen will cause the first window created or, from out of the two windows, the first window will become hidden from view by the system. But upon removing the newly added window, system will cause the hidden window to reappear on the same position/size prior to its being hidden.


**Table 5.2.1** Video Wall Page Components

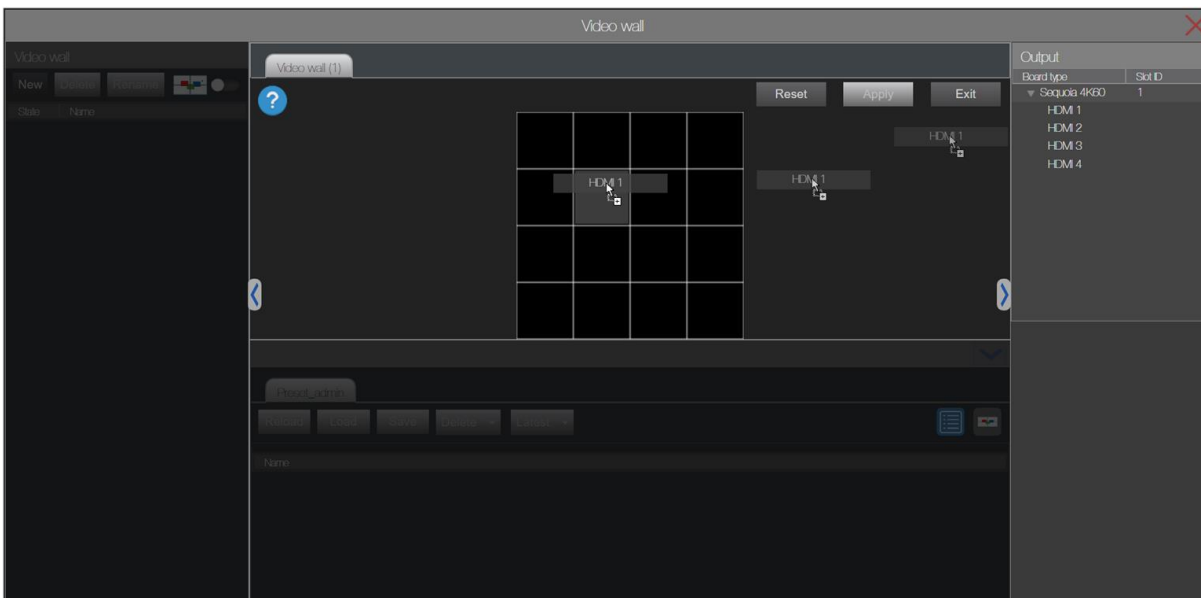
Step 7. On the video wall top bar area, click **New**. A new **Video wall (1)** (default name) window in the design area will be generated automatically by system.



**Figure 5.2.8** A Video Wall (1) Design Window

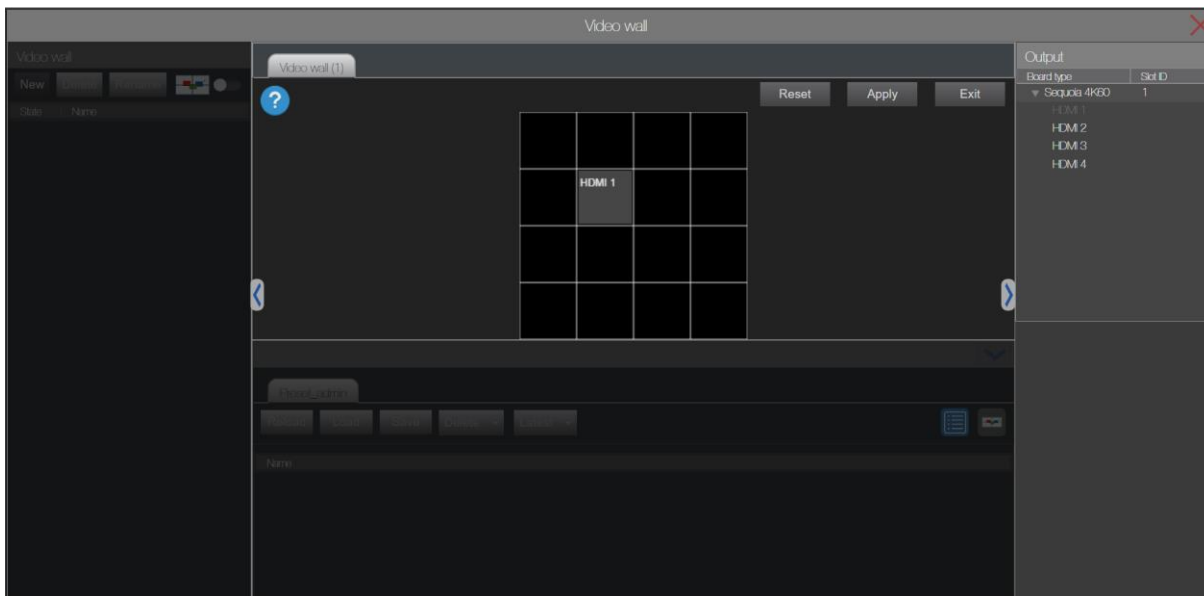
Step 8. Drag the **HDMI 1** to an empty block.

 This video wall configuration must correspond to the actual HDMI cables connection from Sequoia 4K60 to the screens.



**Figure 5.2.9** Assign HDMI 1 to Empty Block

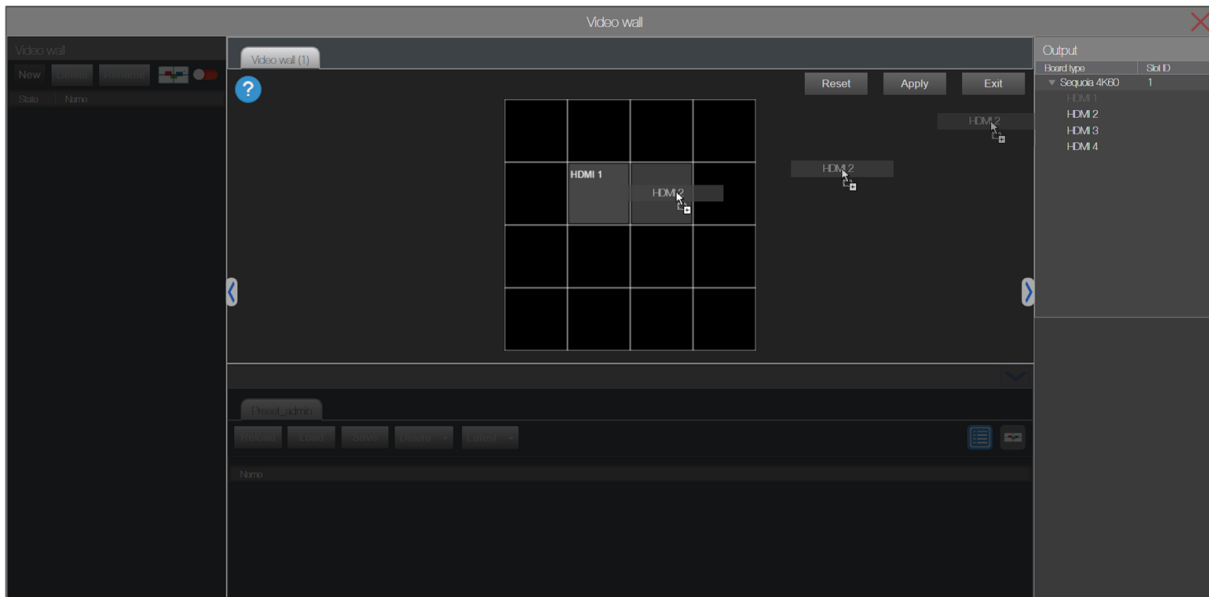
The name **HDMI 1** will be display at the upper left of the block.



**Figure 5.2.10** The First HDMI OUT Assigned

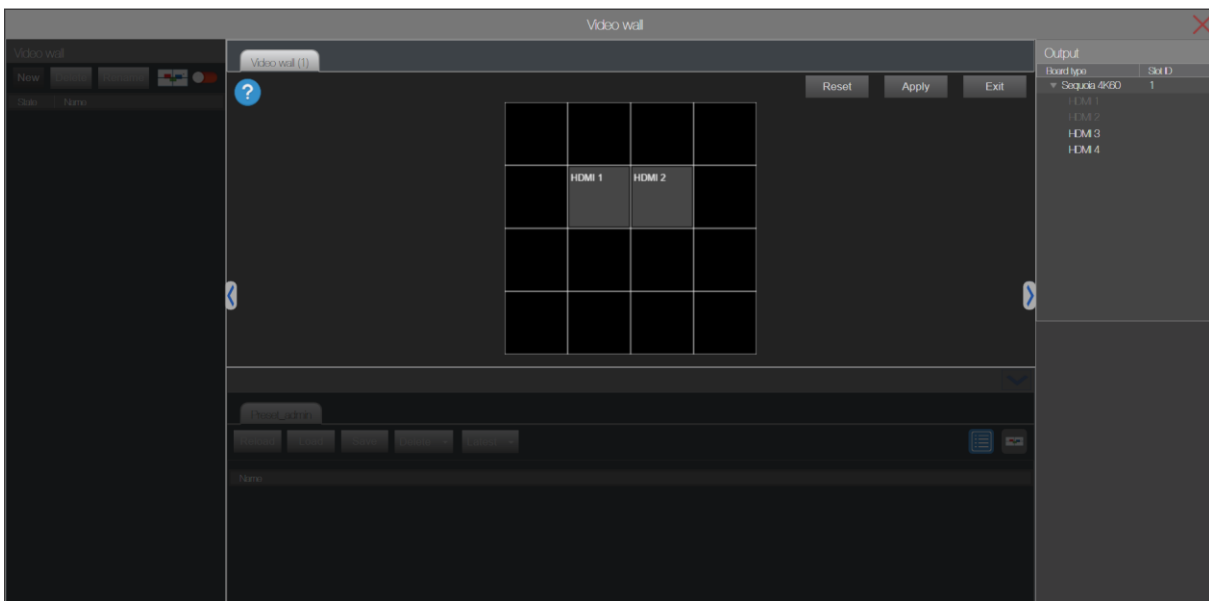


Step 9. Drag the **HDMI 2** to the empty block next to **HDMI 1**.



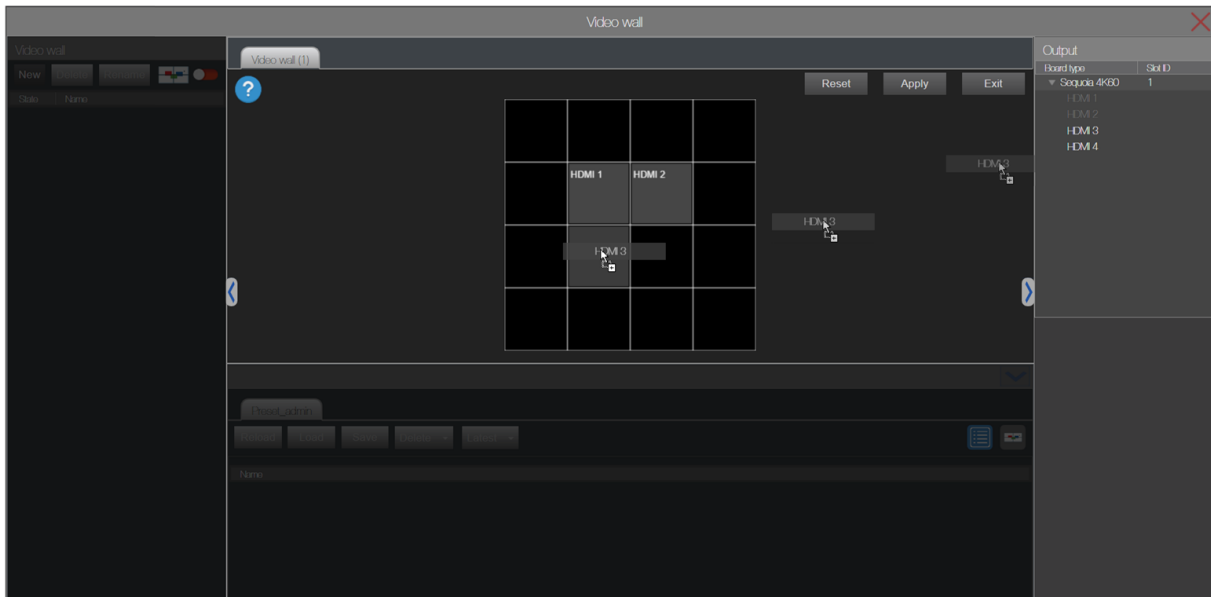
**Figure 5.2.11** Assign HDMI 2 to Empty Block

*The name **HDMI 2** will be display at the upper left of the block.*



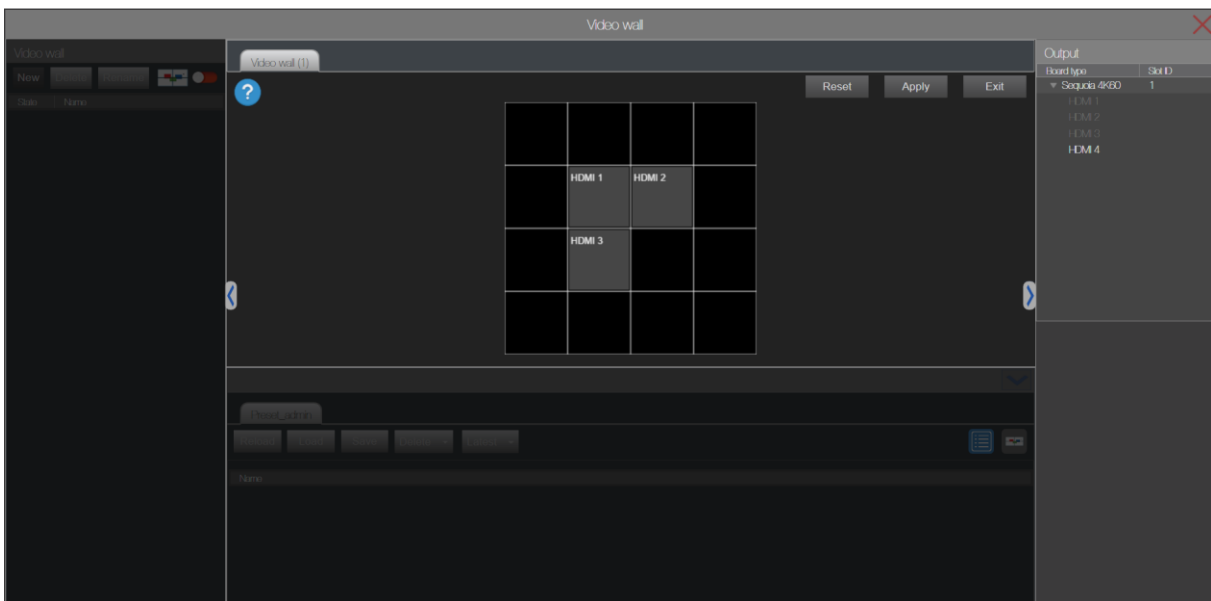
**Figure 5.2.12** The Second HDMI OUT Assigned

Step 10. Drag the **HDMI 3** to the empty block under the **HDMI 1**.



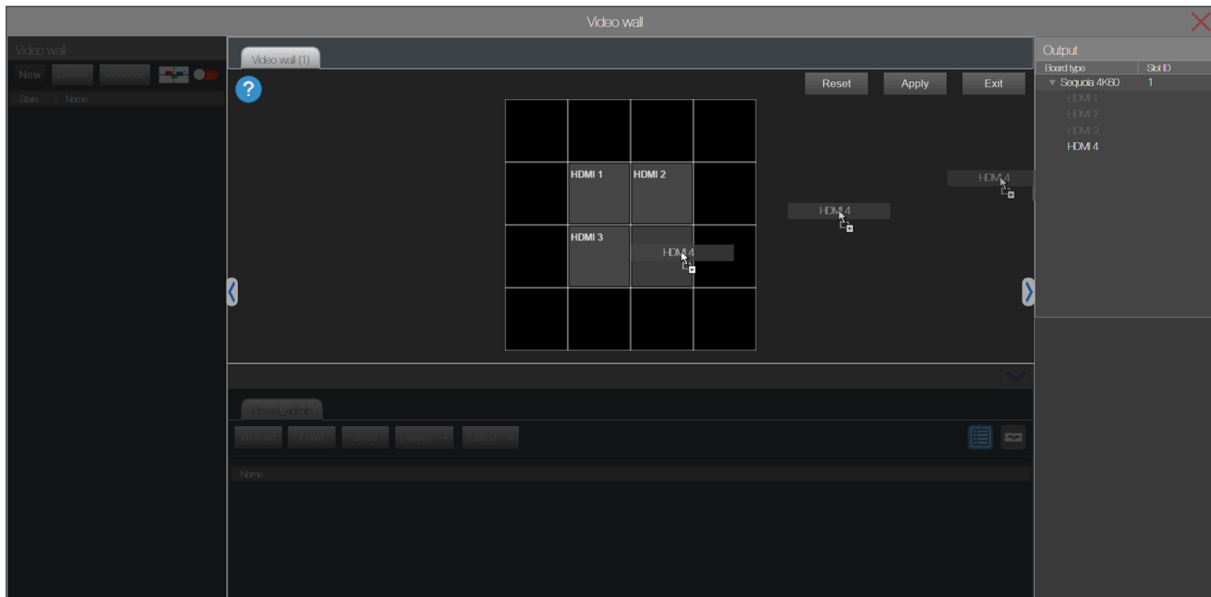
**Figure 5.2.13** Assign HDMI 3 to Empty Block

The name **HDMI 3** will be display at the upper left of the block.



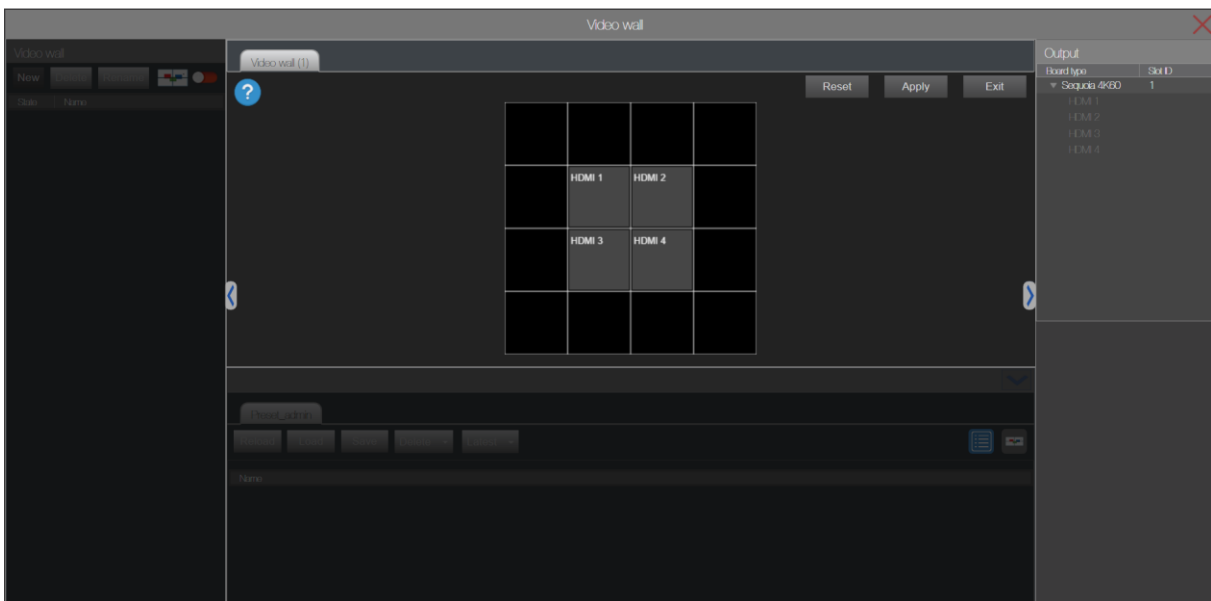
**Figure 5.2.14** The Third HDMI OUT Assigned

Step 11. Drag the **HDMI 4** to the empty block under the **HDMI 2**.



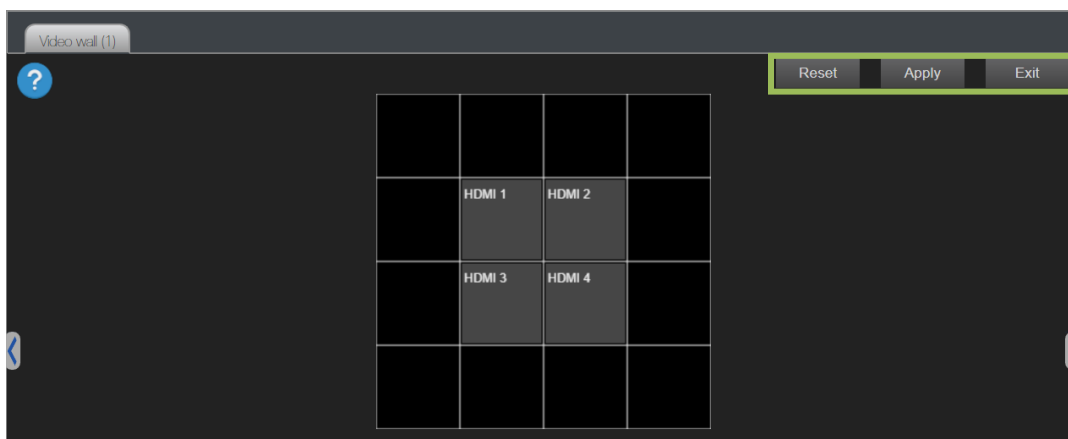
**Figure 5.2.15** Assign HDMI 4 to Empty Block

*The name **HDMI 4** will be display at the upper left of the block.*



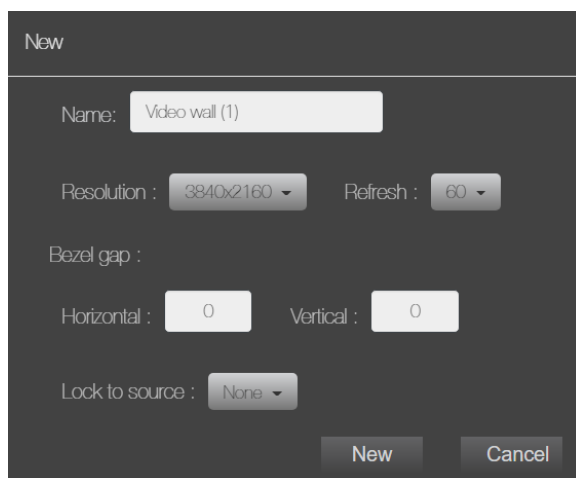
**Figure 5.2.16** The Fourth HDMI OUT Assigned

Step 12. Upon completing the video wall configuration,



**Figure 5.2.17** Video Wall Configuration Completed

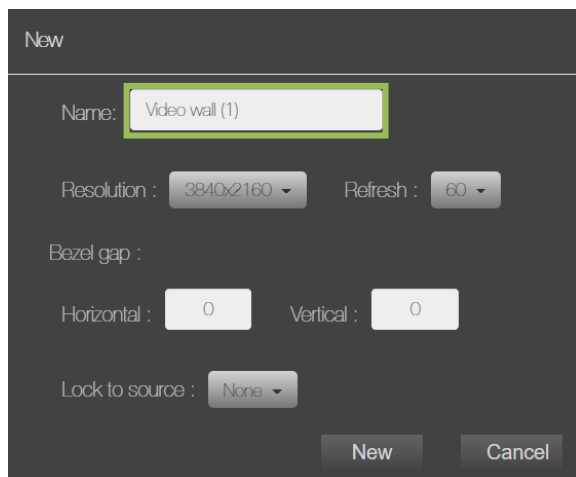
- ✓ Click **Reset** to clear the currently video wall configuration in the design area.
- ✓ Click **Exit** to leave the video wall design area window with designed wall configuration.
- ✓ Click **Apply**, a **New** window will be prompted for setting the property of the video wall.



**Figure 5.2.18** New Video Wall Property Setting Window

**Name**

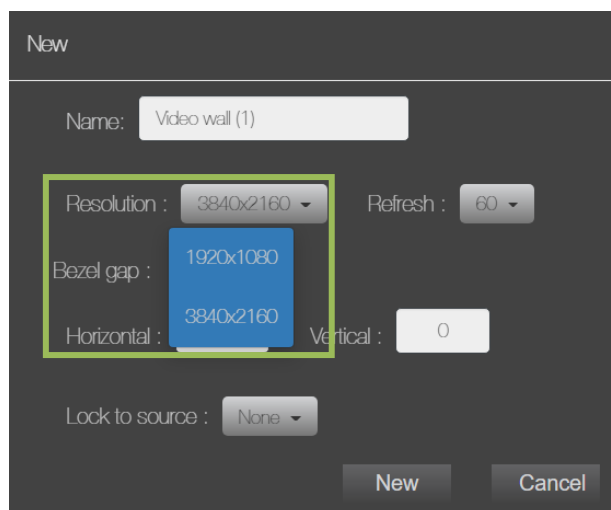
Enter the text to modify its name from default.



**Figure 5.2.19** Rename the Video Wall

### Resolution

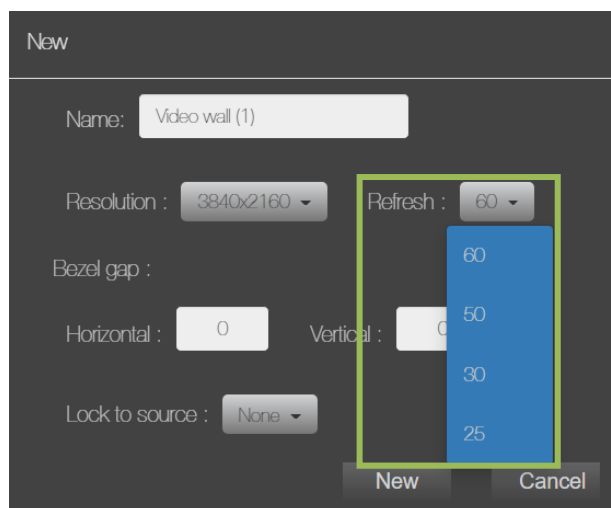
Set a desire display resolution from the drop-down menu to the video wall.



**Figure 5.2.20** Set Video Wall Display Resolution

### Refresh Rate

Select a refresh rate from the drop down menu to match the display devices of video wall.



**Figure 5.2.21** Set Video Wall Display Refresh Rate

### Bezel Gap

Carefully measure the **Horizontal** (width) and **Vertical** (height) bezel gap between displays, and then enter the values to compensate for the width/height of the display bezels.

 Both of the **Horizontal** (width) and **Vertical** (height) values of bezel gap compensation must be even.

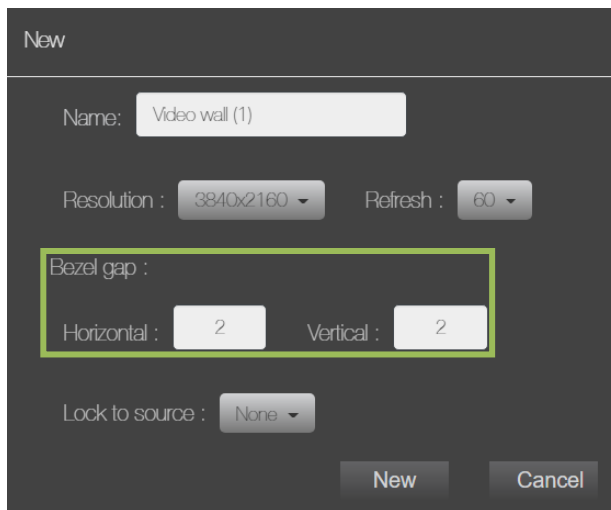


Figure 5.2.22 Bezel Defined

See the effect of the source display on the wall screen. If misalignment is seen, the **Bezel** section allows you to adjust the pixel (offset) needed to align the image seamlessly; more specifically the middle horizontal and vertical bezels of the wall display so that your image/video spread on the monitors will appear more natural. The next two illustrations show a sample 2x2 wall display before and after bezel adjustment.

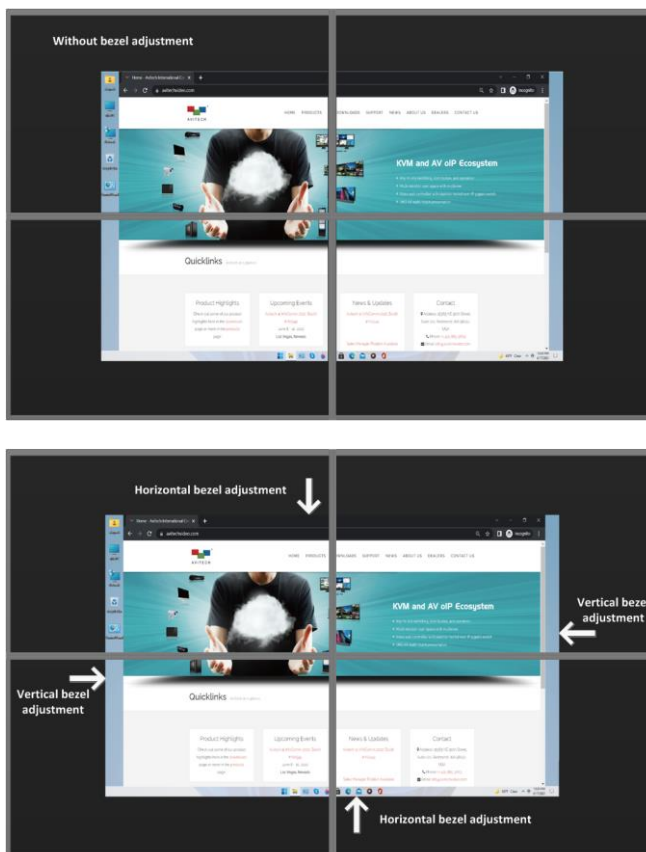


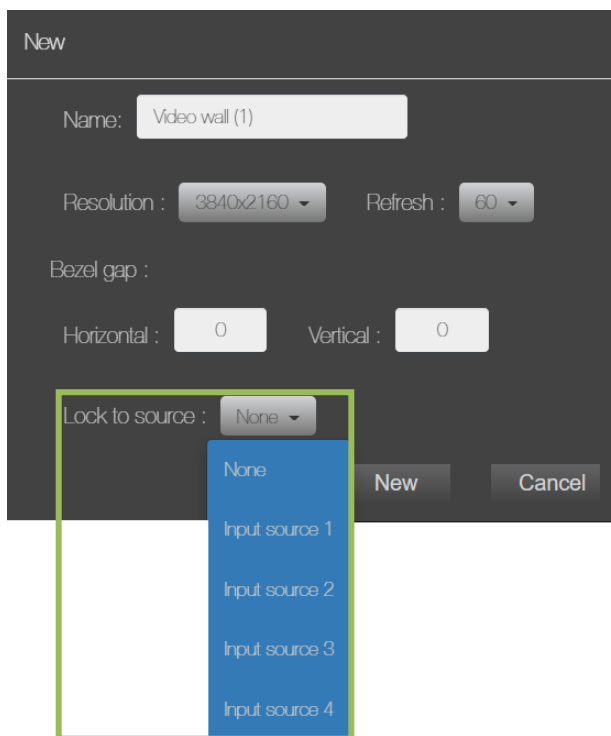
Figure 5.2.23 Sample 2x2 Wall Display Before and After Bezel Adjustment



1. It is highly recommended to use identical model and size of monitors when outputting a signal source simultaneously to any wall display configuration.
2. The **Bezel** setting need be performed only once unless the monitors have been replaced.

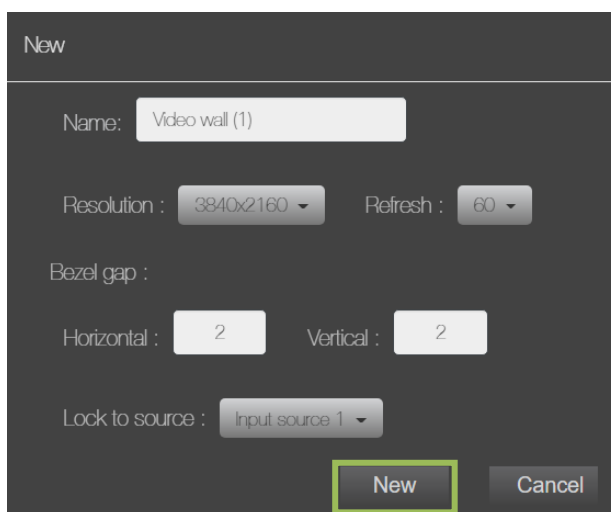
### Lock to Source

Allows the video input of one source (coming from the INPUT ports of Sequoia 4K60) to be used to synchronize another source(s) together, or **None** (free-running) to be used to synchronize another source(s) together. The aim in video applications is to ensure the coincidence of signals in time at a combining or switching point. When video sources are synchronized in this way, they are said to be generator-locked, or genlocked.



**Figure 5.2.24** New Video Wall Property Setting Window

Step 13. Click **New** to apply the video wall property setting.



**Figure 5.2.25** New Video Wall Property Setting Window



Step 14. A **Video wall** control user interface page appears. The table below provides information on each component of **Video Wall** control user interface page.

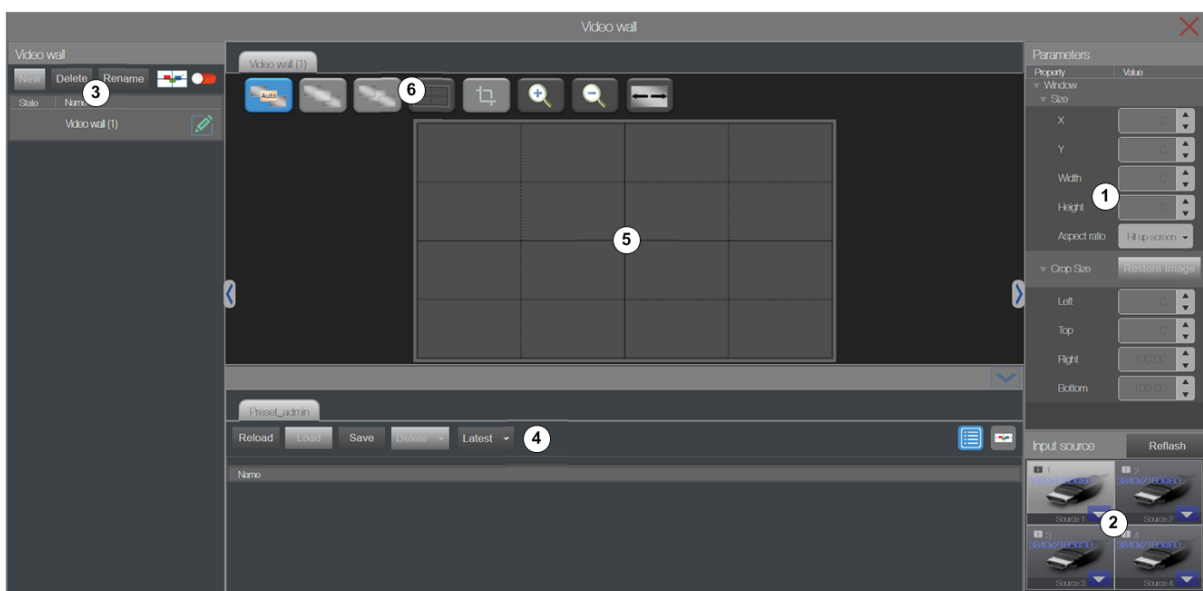












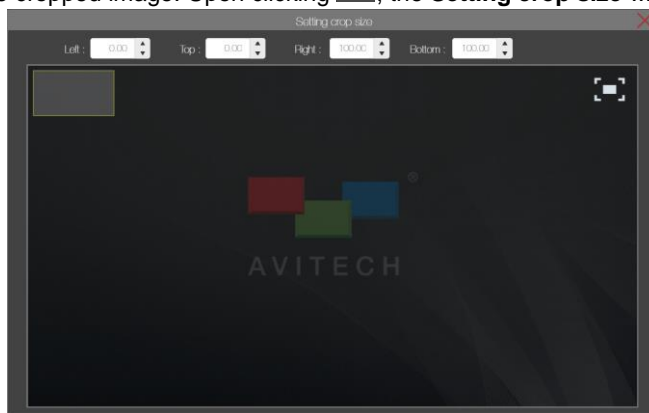
Figure 5.2.26 Video Wall Control User Interface and Components

Function	
<b>1 Window Property</b>	Shows the window size, position and crop size information. Supports free-scaling position, size and image crop adjustment for each window.
<b>2 Input Source List</b>	Shows the detected HDMI INPUT ports' source name and resolution of Sequoia 4K60. ❖ Click <b>Refresh</b> to update the input source latest data information. ❖ Click <input type="checkbox"/> to enable (default disable) <b>Mac PC</b> function for the video source display correctly. When connect a MacBook or Mac-mini source to the input port of Sequoia 4K60 and the video source display a white noise or black image on-screen, enable <b>Mac PC</b> to have the video source display normally.
<b>3 Top Function</b>	Allows user to instantly: ❖ <b>New</b> = click <b>New</b> to create the video wall in the video wall design area. ❖ <b>Delete</b> = click <b>Delete</b> to delete the designed video wall. ❖ <b>Rename</b> = click <b>Rename</b> to modify the video wall name. ❖ <b>Edit mode</b> = click <b>Wall Editor</b> switch to slide it to the left (  ) to modify the wall settings. ❖ <b>Take mode</b> = click <b>Wall Editor</b> switch to slide it to the right (  ) to forbid modify the wall settings and only allow to load presets.
<b>4 Preset Function</b>	Allows user to instantly: ❖ <b>Reload</b> = to acquire the latest layout from the wall again. ❖ <b>Load</b> = select from a list of previously saved preset(s) to be loaded as the wall layout. ❖ <b>Save</b> = saves the <b>Video wall</b> page's configuration into Sequoia 4K60 for automatic recall of settings upon its next power on. ❖ <b>Delete</b> = select a previously saved wall preset to be removed from memory. ❖ <b>Latest</b> allows you to quickly load the latest saved wall layout after rebooting the Sequoia 4K60. The triangle on the right lower part of button. Upon clicking it, click <b>Save</b> on the pull-down menu to store the present layout as the latest. Click <b>Delete</b> on the pull-down menu to remove the latest layout from the memory. ❖  <b>List mode</b> = click to switch to preset files in list mode. ❖  <b>Icon mode</b> = click to switch to preset files in icon (display windows layout) mode.
<b>5 Video wall Canvas</b>	Allows user to add/remove/move a window in the canvas. <u>Note:</u> 1. Each screen supports a maximum of two windows. 2. For a window that straddles both screens will be counted as one window for each screen. Adding a third window on either screen will cause the first window created or, from out of the two windows, the first window will become hidden from view by the system. But upon removing the newly added window, system will cause the hidden window to reappear on the same position/size prior to its being hidden.

**Function**

Allows user to instantly:

- ❖  **Auto bring to top** = click to auto set a selected window display in the front of the display.
- ❖  **Bring to front** = click to move the selected window to the front of the display so that it overlays with other window or hides other window.
- ❖  **Send to back** = click to move the selected window to the background of the display so that other window overlays on it.
- ❖  **Close all windows** = click to remove all the windows in canvas.
- ❖  **Crop** = set the specific size of the crop (zoom in) image on a particular window. Freely adjust the horizontal (**Left** and **Right**) and vertical (**Top** and **Bottom**) values to set the size of the cropped image. Upon clicking , the **Setting crop size** window will appear.

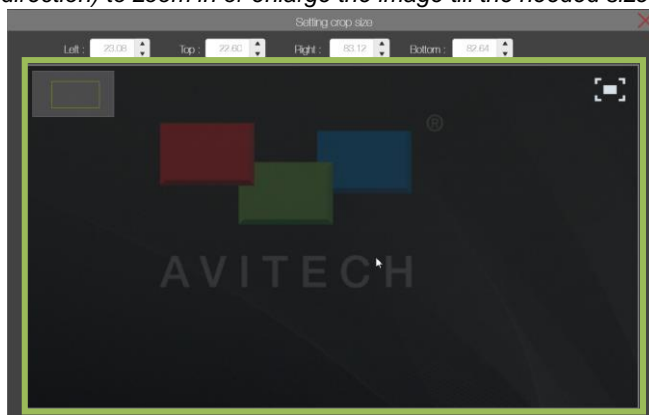






- ✓ *Input (edit) the **Top, Down, Left and Right** numerical values to create the crop area. Click **OK** to view the result. Or,*

**6 Window Function**



- ✓ *Move mouse cursor to your desire position onto the work area (corresponding to the whole image of the particular window), then roll the mouse scroll button (upwards direction) to zoom in or enlarge the image till the needed size.*



- ✓ *Move mouse cursor to your desire position onto the work area (corresponding to the whole image of the particular window), then roll the mouse scroll button (downwards direction) to zoom out or shrink the image till the needed size.*
- ✓ *Click  to restore the image prior to crop (1:1).*
- ❖  **Zoom in** = to zoom in or enlarge the video wall canvas (includes the wall and window contained therein).
- ❖  **Zoom out** = to zoom out or shrink the video wall canvas (includes the wall and window contained therein).
- ❖  **Zoom reset** = to reset the video wall canvas to its default state.

**Table 5.2.2** Video Wall Control User Interface Page Components

Step 15. Click to highlight (select) an input source.

Step 16. Click and holding the mouse left button and drag to select the display window size on the wall canvas. The new window already contains the corresponding input source image will display on the video wall instantly.

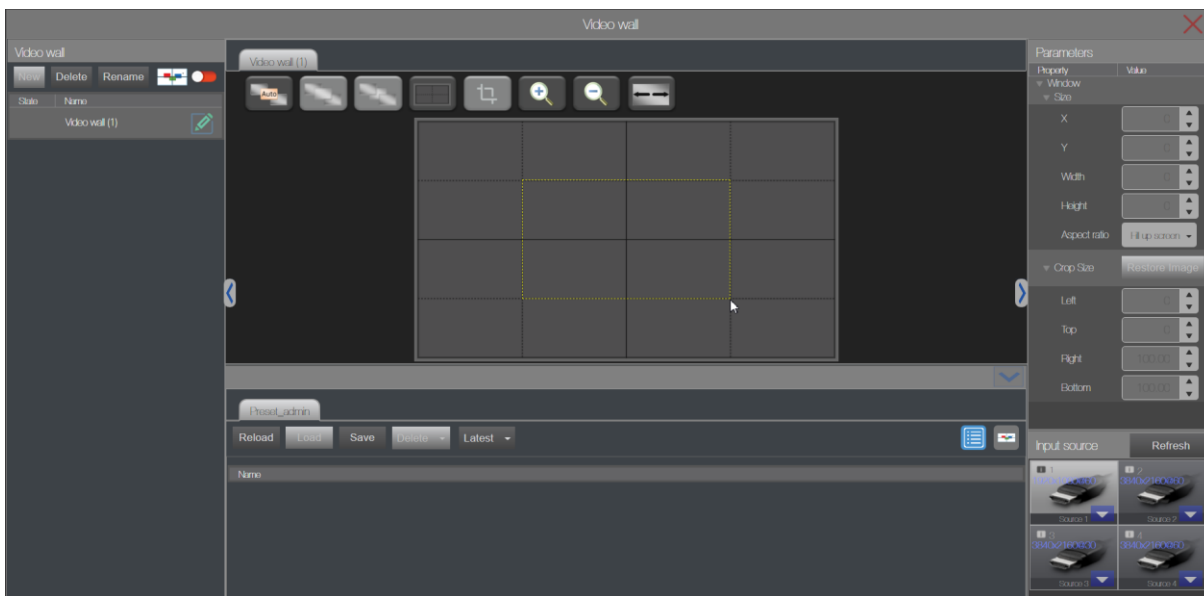



Figure 5.2.27 Add a New Window in Video Wall Canvas

Click  to expand the title menu for position and size adjustment.

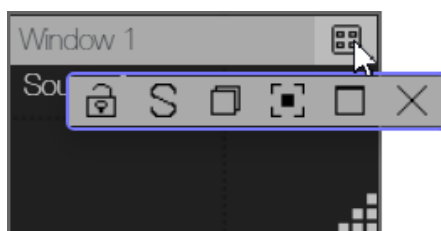








Figure 5.2.28 Window Title Menu and Components

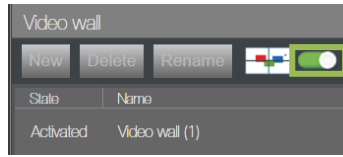
- ❖  : click to lock the window position and size.
- ❖  : click to swap the position and size with other window.
- ❖  : click to restore down the window position and size prior to fullscreen.
- ❖  : click to allow the window to be automatically aligned to the gridlines.
- ❖  : click to set the window to fullscreen.
- ❖  : click to close the window.

Step 17. Perform step 15 – step 16 to add more sources to the wall canvas.

Step 18. Click **Save** preset and enters a preset file name; then click **OK** to save the layout.

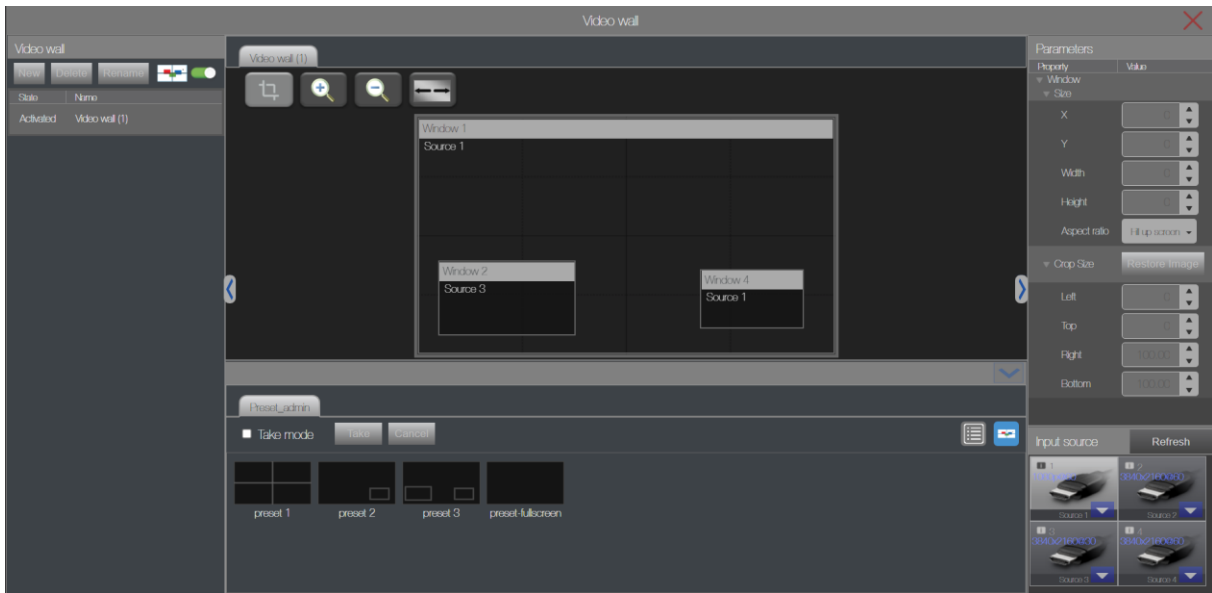
**To Switch Preset on created video wall:**

1. Lock the video wall layout editor by clicking the **Edit Mode** switch to slide it to the right (turns green). This completes setup of the video wall configuration.



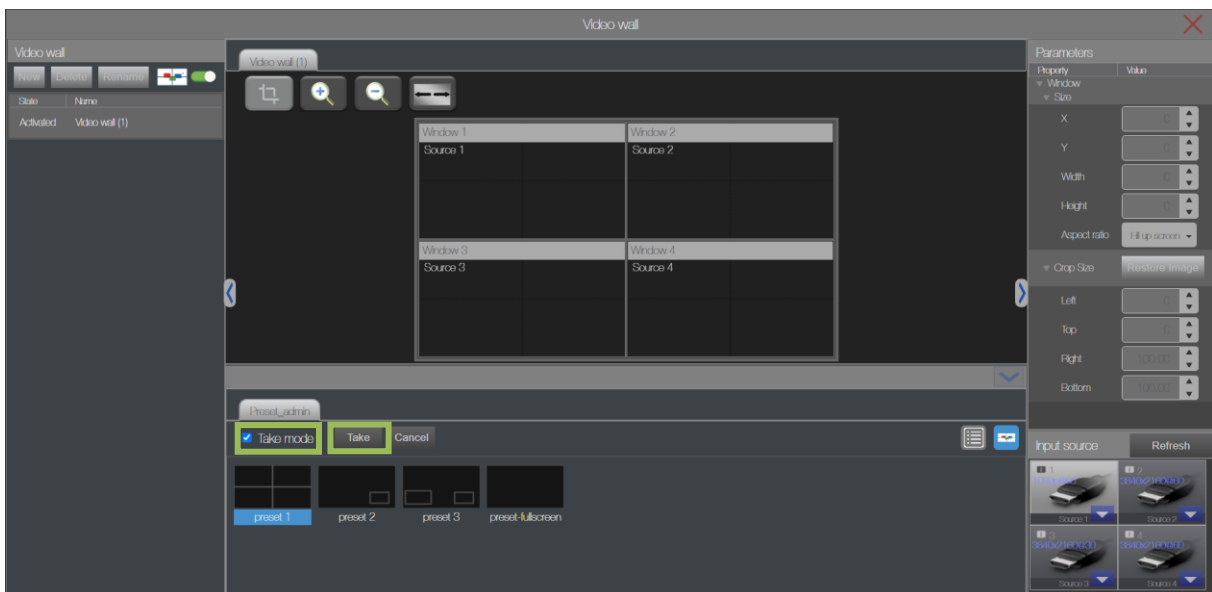
**Figure 5.2.29** Enable Lock Video Wall Edit Mode

The video wall controlling page will be changed to locked edit mode.



**Figure 5.2.30** Video Wall: Lock Edit Mode

2. Click **Preset name** to switch video wall layout instantly.
3. Or, checks **Take mode**, when switch window layout to other preset, you will need to select a preset file first, and then click **Take** to apply the window layout. This can ensure the window layout is loaded correctly.



**Figure 5.2.31** Video Wall: Enable Take Mode

## Appendix A Using the “Surfer” Feature

The “**Surfer**” feature is designed to make it easy to control multiple remote computer windows. Simply moving the mouse to the window of another computer will allow the Sequoia’s keyboard and mouse to control that computer.



By default, the “**Surfer**” feature is enabled upon starting up the Sequoia 4K60. For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off “**Surfer**” feature by using keyboard “**Ctrl + Alt + Shift + F8**” hotkey or pressing side-key of the mouse (if applicable) in order to control that computer.

### A.1 “Surfer” Feature on Uniform Quad Layout Fills Entire Screen

- ❖ Below figure shows the “Source” window control switching action upon moving the mouse to the window side. Moving the mouse from one “Source” window to another transfers control from the former window to the target window.



Figure A.1.1 “Surfer” Feature

- ❖ Below figure shows the allowed “Source” window control switching action upon moving the mouse to the window sides (“shaded area” indicators). Moving the mouse from one “Source” window to another transfers control from the former window to the target window. No “Source” window control switching action will occur upon moving the mouse to the outer borders of the screen.



Figure A.1.2 “Surfer” Feature on Default Preset 1



Figure A.1.3 “Surfer” Feature on Default Preset 2



Figure A.1.4 “Surfer” Feature on Default Preset 3



## A.2 “Surfer” Feature on Non-uniform Quad Layout

Below figure shows possible “Source” window control switching actions. By moving the mouse from one “Source” window to the other transfers control from the former window to the target window. No “Source” window control switching action will occur upon moving the mouse to the window sides without arrow and shaded area indicators.



Figure A.2.1 “Surfer” Feature on Non-uniform Quad Layout



### Scenario:

In case of overlaying “Source” windows, switching of control will occur when the mouse cursor has left the area where the 2 “Source” windows overlay.

## A.3 “Surfer” Feature on Workstation Operation

Below figure shows possible “Source” window control switching action upon moving the mouse to the sides of the window/monitor. Move the mouse from one “Source” window to the next transfers control from the former window/monitor to the latter one.

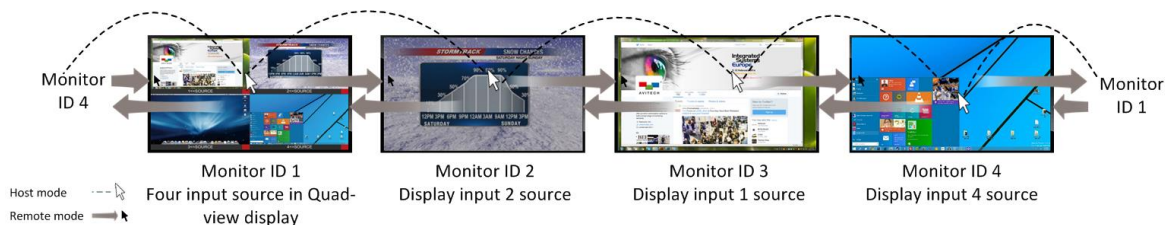


Figure A.3.1 “Surfer” Feature on Workstation Operation

## A.4 “Surfer” Feature on Routed Duplicated Source in Workstation Operation

Below figure shows possible control switching action when the monitor is displaying a duplicated multiview layout of the **HDMI OUT 1**, the K/M control will be skipping and switching to next monitor.

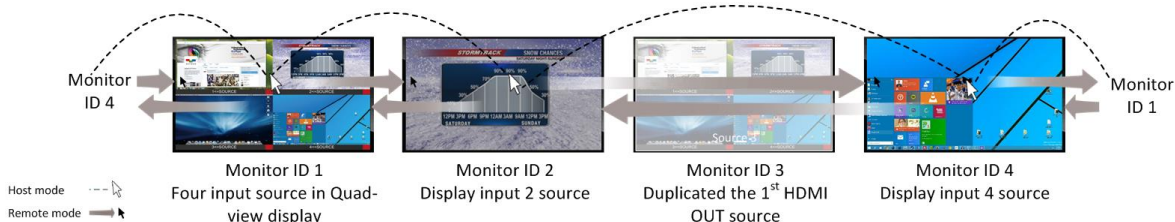


Figure A.4.1 “Surfer” Feature on Duplicated Source at Workstation Operation

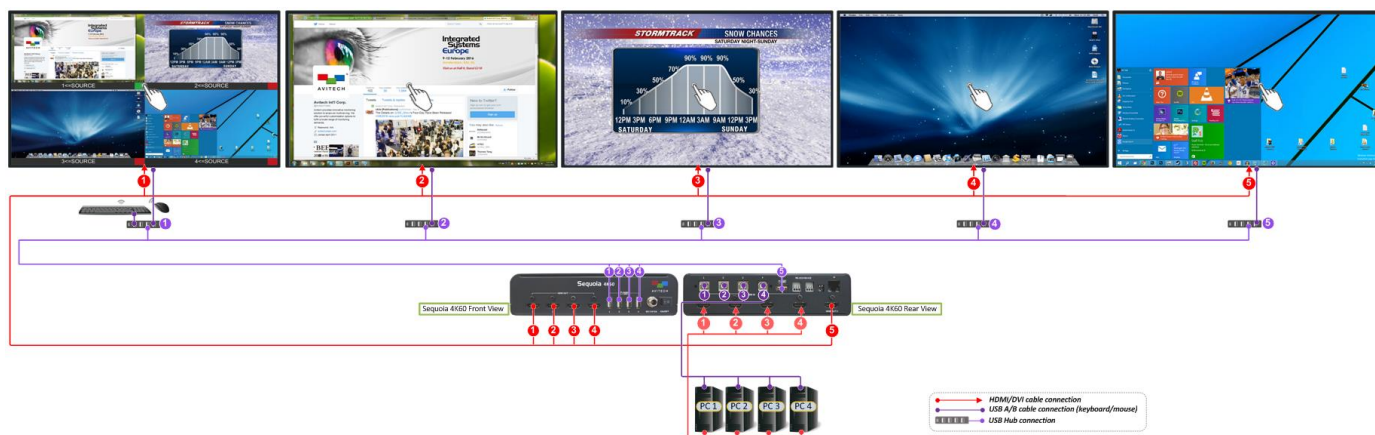


## Appendix B Using Touch Screen(s)

The Sequoia 4K60's five HDMI 2.0 outputs and five USB-A ports can connect to up to five 4K UHD multi-touch screens. On the single-view fullscreen monitors, the operator can use touch to quickly and easily switch between the different input sources, with touch control of the source computers. On the multiview, tap and drag to freely move the windows around and make them larger or smaller, and double-tap on a window to switch touch control to a different source computer.

### B.1 Basic Setup



The following figure shows a typical setup with a Sequoia 4K60 that connect to four computer systems and via five USB hubs to connect five touch screens. (Depending on your operation requirement, it is optional to connect an extra set of keyboard and mouse)



**Figure B.1.1** Sequoia 4K60 with Touch Screens Connection Diagram

- Step 1.** Connect one end of the USB A/B cable to the USB Type-B port marked **1** on the rear panel of Sequoia 4K60. Connect the other end to the first computer's USB Type-A port. Repeat this step for all source computers to the USB Type-B ports marked **2 – 4**.
- Step 2.** Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of Sequoia 4K60. Repeat this step for all source computers to the ports marked **HDMI IN 2 – 4** of the Sequoia 4K60.
- Step 3.** Connect one end of the HDMI signal cable to the port marked **HDMI OUT 1** on the front panel of Sequoia 4K60. Connect the other end to touch screen's HDMI port. Repeat this step for all touch screens to the ports marked **HDMI OUT 2 – 4** on the front panel and **HDMI OUT 5** on the rear panel of the Sequoia 4K60.
- Step 4.** Connect a USB hub to the USB Type-A port marked **1** on the front panel of Sequoia 4K60 for connection to a set of wireless keyboard/mouse and touch screen; they will be used to control the Workstation and the four computer sources.
- Step 5.** Connect other four USB hubs to the USB Type-A ports marked **2 – 4** on the front panel and **5** on the rear panel of Sequoia 4K60.



1. The Sequoia 4K60 can provide a total maximum current of 500mA for both of USB Type-A port marked  1 and 2; and another total maximum current of 500mA for both of USB Type-A port marked  3 and 4.
2. Please be advised when using wireless mouse/keyboard, signal interference may occur with other 2.4 GHz devices in close proximity, leading to slow mouse movement or other issues. The Sequoia 4K60 has multiple USB Type-A ports closely packed together, and with each USB Type-A port capable of supporting one user connection, it would be best to use short USB extension cables to physically separate the wireless USB receiver dongles, or use USB hubs for direct wired connections to mouse/keyboard/touch screens to avoid any interference.
3. If you plan to use a USB hub to support more USB devices i.e. keyboard, mouse and touch screen, it is strongly recommended to use a powered USB Hub to prevent any drops in performance. If a powered USB HUB is not available, you may use an unpowered USB 2.0 Hub instead.
4. The following items can be commonly used for USB extension to avoid any interference:
  - ✓ A short USB extension cable can physically separate multiple wireless USB receiver dongles concurrently connected to the Sequoia 4K60, preventing any signal interference.
  - ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen is an option to completely prevent interference.
  - ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.



Step 6. Connect one end of the USB A/B cables to the USB Type-B ports to touch screens and connect other end to the USB hubs corresponding to the **HDMI OUT** ports.

Step 7. Connect the 12 V DC/5A power adapters to the Sequoia 4K60. Then press the power switch button to **ON** position of Sequoia 4K60. The image will be displayed on touch screen around 60 seconds.

Step 8. Turn on power of the four computers and touch screens.

Step 9. Press **Ctrl + T** on your keyboard or tap anywhere (except the yellow and orange marks shown in below figure) and hold the spot for seven (7) seconds to perform touch screen calibration (when using the touch screen with the Sequoia 4K60 for the very first time or upon resetting your Sequoia 4K60 to its default state).



Figure B.1.2 Enable Calibration Function on Touch Screen




Step 10. Use your finger tip or a stylus to tap and continue pressing on the center of the  symbol that will appear on the top left portion for approximately five (5) seconds until the next  symbol appears on the top right portion. Perform the same step for this, as well as the  symbol that would appear on the lower left portion and lower right portion of your touch screen.



Figure B.1.3 Calibrate Touch Screen

Step 11. Repeat step 9 and step 10 for calibration for others touch screens connected to Sequoia 4K60.

Step 12. Upon completing touch screen calibration, tap anywhere on the touch screen or use keyboard "Pause/Break" hotkey and the mouse pointer will appear on touch screen.

Step 13. Move the mouse pointer to the window's top right portion of the particular computer. When the pop-up menu    appears, click  icon.

You can now use the mouse or keyboard hotkeys to perform various tasks. The default mouse and keyboard is located on the Sequoia 4K60 Host mode.

## B.2 Basic Operation for Using Touch Screen(s)

The Sequoia 4K60 with touch screen function always operates in one of its two operating modes: Host and Remote mode. Users are allowed to freely switch between these two modes anytime during the operation for different uses. This chapter discusses these operating modes with touch screen function in detail.


### Host Mode

When a window in Sequoia 4K60 with touch screen function is in Host mode, the cursor will be controlled by the tap of your finger on the window. Host mode provides a monitoring solution for the incoming computer/video signals. Users can use one/two/three fingers to select and adjust window size, position, close window and open window directly on the touch screen.


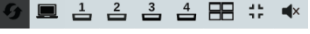
### Remote Mode

Upon double-tapping a multi-view window to enter Remote mode, the window's border will turn yellow, this signifies that your Sequoia 4K60 is now in Remote mode. Entering Remote mode, your Sequoia 4K60 transfers keyboard and mouse and touch control to the selected computer system. You can then control the computer as you regularly would within the window on the display. Your Sequoia 4K60 can only enter Remote mode to take control of a computer when the correct USB Type-B port (1 – 4) on your 4K60's rear panel is properly connected to the USB Type-A port of that computer (using a standard USB A/B cable). In addition, only windows corresponding to computer systems (as opposed to pure video systems) can be accessed through Remote mode.


## Tips on Navigating the Touch Screen Monitor Using the Sequoia 4K60

- ✓ A maximum of four computers can be connected to a single Sequoia 4K60. The Sequoia 4K60 puts the images of four computers onto four windows and simultaneously displays them on the touch screen.
- ✓ Instant switching of inputs through the pop-up selection on the touch screen is supported when is in fullscreen mode.
- ✓ When Host mode is active, use two fingers to resize, one finger to reposition, three fingers to close window and one finger to open window on the display (Details in a latter portion of this chapter).
- ✓ To switch from Host mode to Remote mode, tap (approximately two (2) seconds) the top-right corner of the targeted window and then tap the **Enter remote mode**  icon (or double-tap any area within that window).
- ✓ When entering Remote mode, your Sequoia 4K60 automatically transfers its keyboard and mouse control to the selected computer. Use your fingers to control that computer as you regularly would. Once in Remote mode, you can tap on other computer window directly to switch keyboard and mouse control to that computer without exiting Remote mode.
- ✓ To switch back to Host mode, press within half inch of the upper or lower edges of the touch screen and hold for approximately two (2) seconds. The Sequoia 4K60 will return to Host mode (Details in a latter portion of this chapter).

### B.2.1 Pop-up Selection

Use a stylus (or finger) to tap the top right corner of a window in Host mode and the following icons will appear  (in multiview layout) /  (in fullscreen mode).

To execute an icon's function press on it for approximately one (1) second.

To perform swap window function, press on the  icon for one (1) second, and then tap on the destination window.

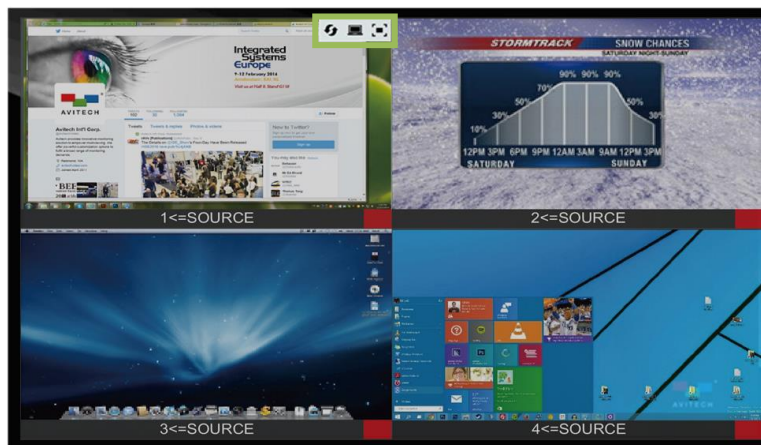








Figure B.2.1.1 Touch Screen: Pop-up Selection

To switch source while in fullscreen Host operation mode, tap on  /  /  icon for approximately one (1) second.



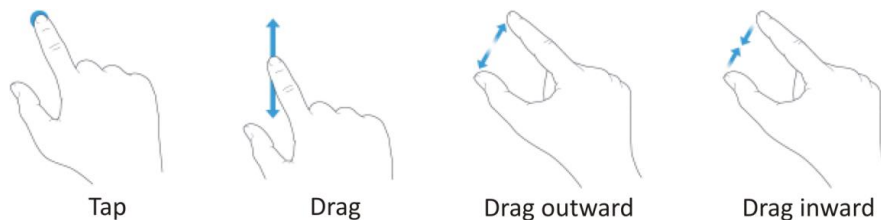
**Figure B.2.1.2** Touch Screen: Pop-up Selection (When in Fullscreen Mode)

## B.2.2 Audio Tally

To enable audio output on any window, tap once on the audio tally  (the audio is in off state), then it will turn to  (the audio is playing through HDMI to monitor) showing that audio output is coming from the window. Tap once again on the audio tally  to turn off the audio output through HDMI to monitor.

## B.2.3 Move/Resize/Close/Open Window

A few simple gestures – tap, drag, and pinch – are all you need to use the touch screen with Sequoia 4K60.



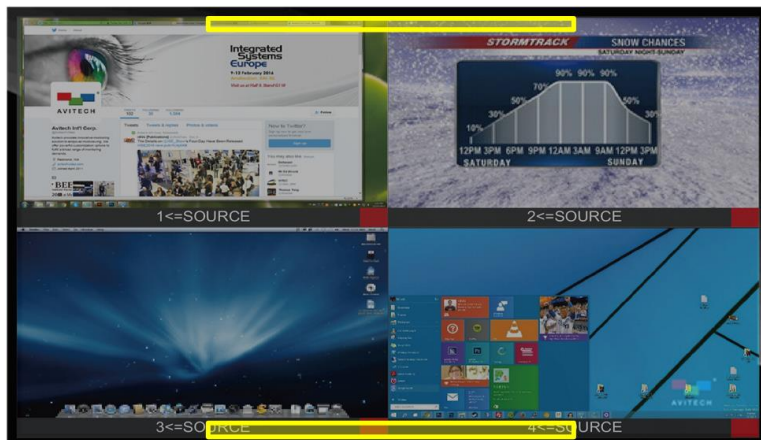
**Figure B.2.3.1** Using the Finger(s) to Tap and Drag

- ❖ To move a window, press and hold your finger on a window, and then drag your finger to move the window.
- ❖ To resize a window by placing two fingers apart on a window and then tap-and-drag (pinch) inward your fingers together to the desired size.
- ❖ To close a window by placing three fingers apart on the touch screen and then tap-and-drag (pinch) inward your fingers together.
- ❖ To add a closed window, press and hold your finger on blank area, and then drag your finger to open the window.



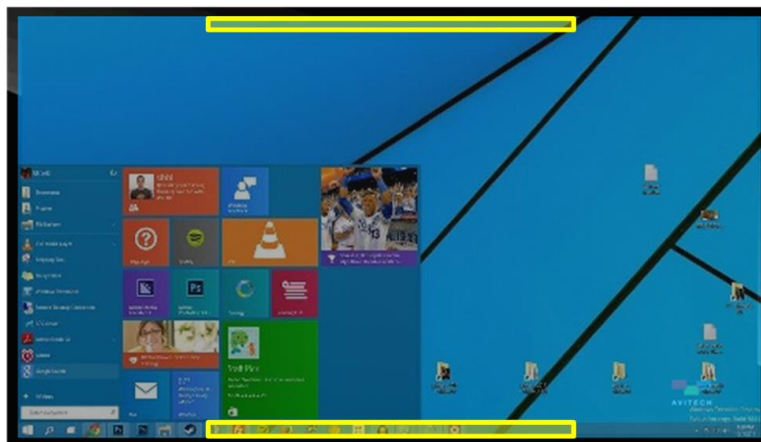
## B.2.4 Exit from Remote Operation Mode to Host Operation Mode

To exit from Remote operation mode to Host operation mode, press within half inch of the upper or lower edges of the touch screen and hold for approximately two (2) seconds. Figure B.2.4.1 figure indicates these areas with the yellow rectangles.



**Figure B.2.4.1** Touch Screen: Exit Remote Operation Mode

To exit from (Fullscreen) Remote operation mode, press within half inch of the upper or lower edges of the touch screen and hold for approximately two (2) seconds. Figure B.2.4.2 indicates these areas with the yellow rectangles.



**Figure B.2.4.2** Touch Screen: Exit Remote Operation Mode (When in Fullscreen)

## B.2.5 Switch Control (Cycle) Between Windows

To switch Source (cycle) while in fullscreen Remote operation mode, press within half inch of the left or right edges of the touch screen and hold for approximately two (2) seconds.

*Note: Figure B.2.5.1 indicates these areas with the blue rectangles.*

- **Cycle Forward:** press **right** side of screen:  
window 1 → window 2 → window 3 → window 4 → window 1
- **Cycle Backward:** press **left** side of screen:  
window 1 → window 4 → window 3 → window 2 → window 1

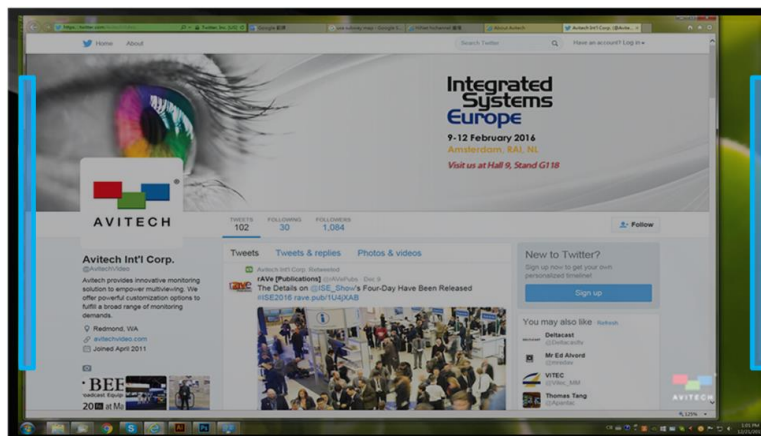


Figure B.2.5.1 Touch Screen: Switch Sources in Fullscreen Mode

## B.2.6 Returns to Default Layout

To switch the four windows' size and position back to its default layout (only available in Host mode), press within the area shown in below figure and hold for approximately two (2) seconds. Figure B.2.6.1 figure indicates these areas with the orange square.

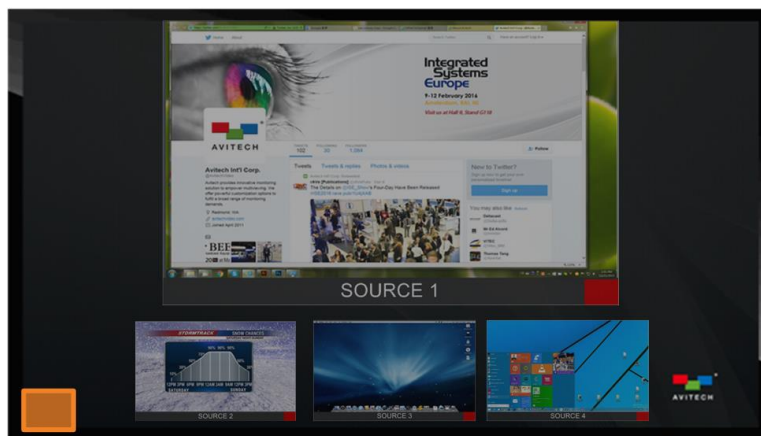


Figure B.2.6.1 Touch Screen: Return to Default Layout



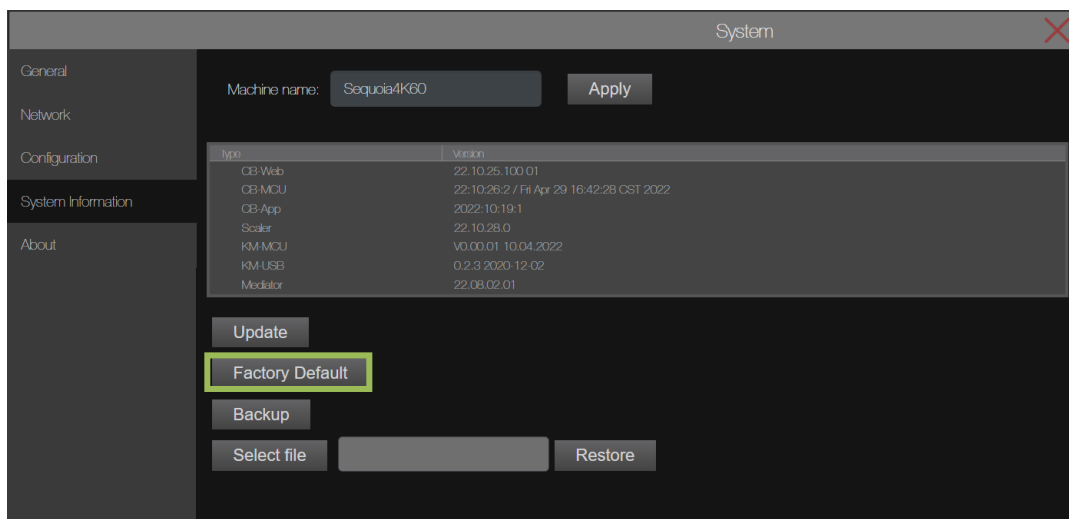
## Appendix C Resetting to the Factory Default State

If for any reason the current activated configuration fails, or you have repeated errors that you cannot fix, Sequoia 4K60 provides two methods for you can clear all memorized settings and restore the Sequoia 4K60 to the factory default configuration.

### C.1 Using Web Browser-based GUI

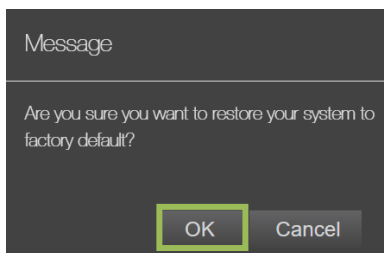
To restore the Sequoia 4K60 to the factory default configuration, perform the following steps:

*Step 1. Click **Factory Default** to start the reset process.*



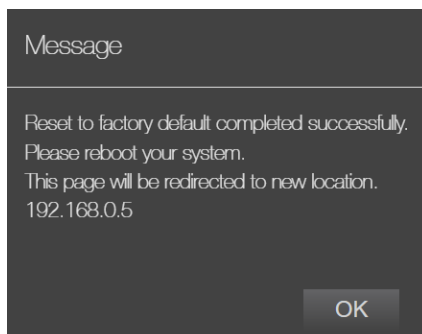
**Figure C.1.1** System Page: System Information → Factory Default

*Step 2. When prompt appears onscreen warning message window, click **OK** to complete the process of resetting to its factory default state.*



**Figure C.1.2** Warning Message Window to Confirm the Factory Default Process

*Step 3. Reboot Sequoia 4K60 (power **OFF**, and then power **ON**) when the prompt appears onscreen to complete the process of resetting to its factory default state.*

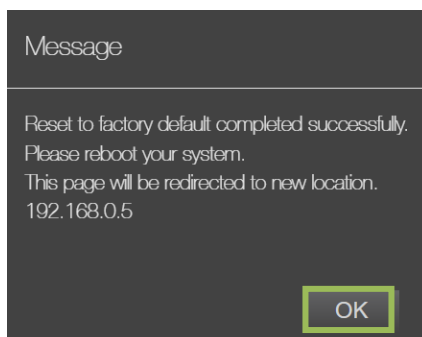


**Figure C.1.3** Reboot to Complete Reset to Factory Default Process



1. When you reset the Sequoia 4K60 to factory default settings, all of your settings and configurations are deleted.
2. Before you reset the Sequoia 4K60, it is recommended to first back up your configuration. When you finish resetting your Sequoia 4K60 to factory default state, you can restore the configuration to the Sequoia 4K60.
3. When restore your configuration to the Sequoia 4K60, it's recommended to change the IP address, or it will stay **192.168.0.5**. (the default IP address)

Step 4. When the images have appeared on each window, then click **OK** and the Web page will be redirected to default IP address.



**Figure C.1.4** Reboot to Complete Reset to Factory Default Process

Step 5. (Optional) Change the IP address of the Sequoia 4K60. Refer to [section \(4.4.2\) "IP address"](#) for details.

## C.2 Using the Dip Switch on Rear Panel

To reset your Sequoia 4K60 to its factory default state, perform the following steps:

Step 1. Power-off the Sequoia 4K60 by pressing the power switch.

Step 2. Push number **2** (right) dip switch located on Sequoia's rear panel downwards to the **ON** position.



**Figure C.2.1** Push down the Number 2 Dip Switch

Step 3. Power-on the Sequoia 4K60 by pressing the power switch.

Step 4. Then power-on the Sequoia 4K60 and wait until the images have appeared on each window.

Step 5. Push back the number **2** (right) dip switch upwards to the default position.



**Figure C.2.2** Push Upward the Number 2 Dip Switch



Upon resetting your Sequoia 4K60 to its factory default state, your previously saved Label name/Layout/System settings stored in the Sequoia 4K60's flash memory will be automatically removed; make sure to have your files saved externally before resetting the Sequoia 4K60 to the factory default state. Or, you may use Web browser-based GUI to set the output resolution, create preset file(s) and configure system setting again.

## Appendix D Serial Port Pin Out

There are two screwless 3-pin terminal blocks on the rear panel of Sequoia 4K60 for using third-party controller to transmit Avitech proprietary commands to control the Sequoia 4K60.

- ❖ Terminal block (1) indicate the left screwless 3-pin terminal block on the rear panel of Sequoia 4K60.
- ❖ Terminal block (2) indicate the right screwless 3-pin terminal block on the rear panel of Sequoia 4K60.

### Diagram

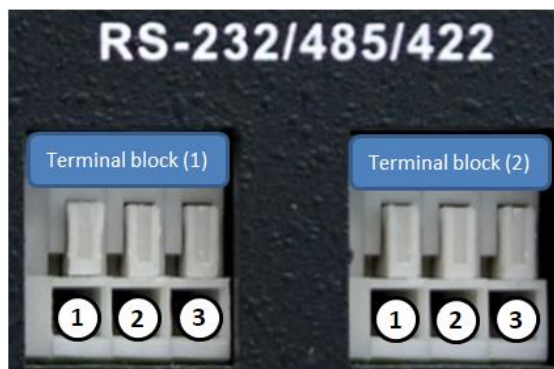


Figure D.1 Screwless 3-Pin Terminal Blocks

### Pin Assignment

**Pin definition when function as RS-232 (only use terminal block (1))**

		3-pin terminal block (1)		
Pin		1	2	3
Functions		TX	GND	RX

**Pin definition when function as RS-485 (only use terminal block (1))**

		3-pin terminal block (1)		
Pin		1	2	3
Functions		A1	GND	B1

**Pin definition when function as RS-422 (use both of the two terminal blocks)**

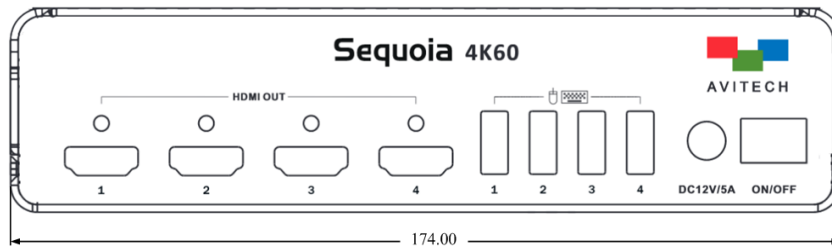
		3-pin terminal block (1)			3-pin terminal block (2)		
Pin		1	2	3	1	2	3
Functions		A1	GND	B1	A2	GND	B2

Figure D.2 RS-232/485/422 Pin Assignment

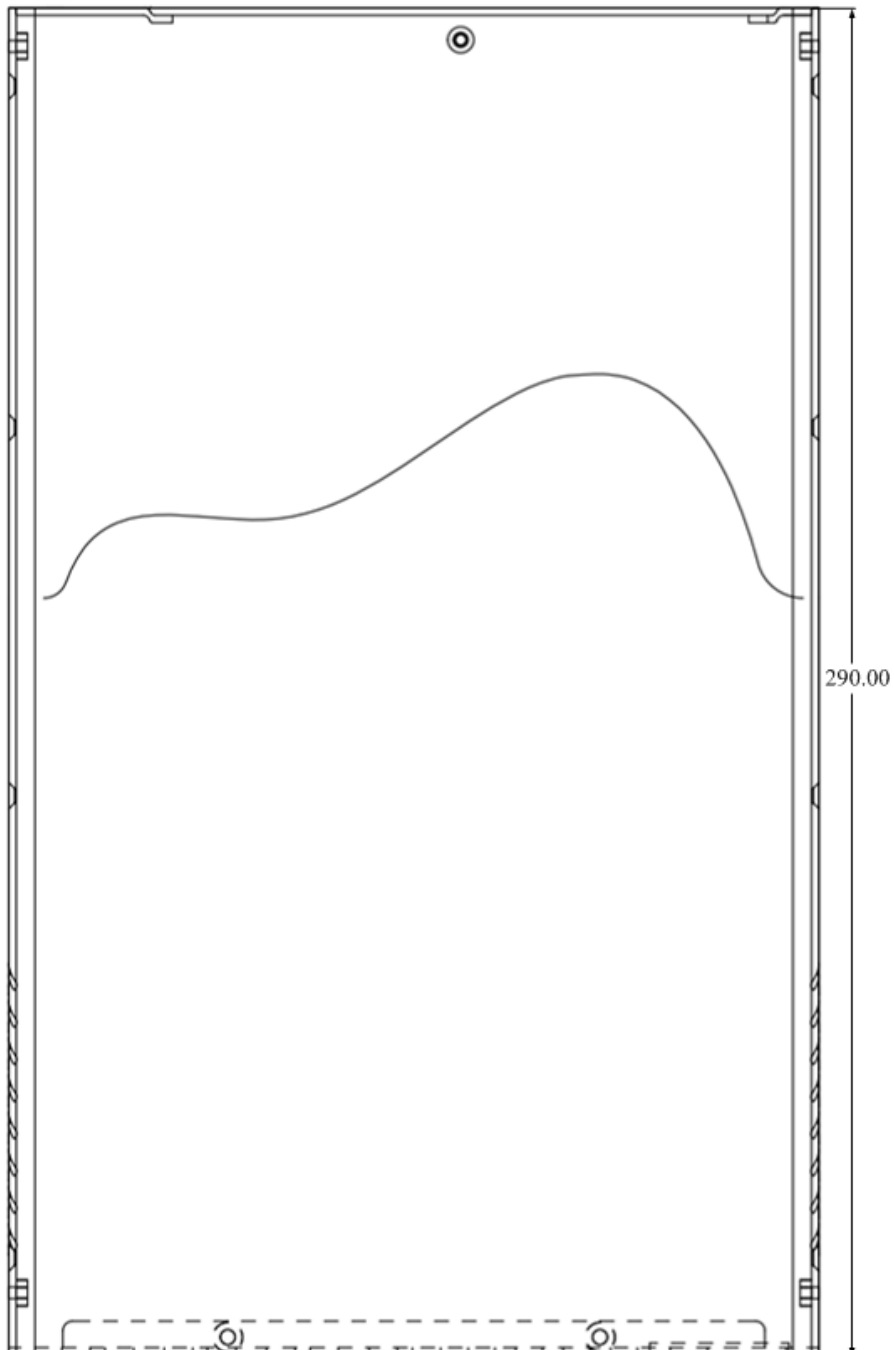
# Appendix E Dimensions

Unit: mm

## Front View



## Bottom View



**Side View**

