

# **Sequoia 4K60L** Flexible 4K60 KVM-Multiview User Workstation



#### **ABOUT THIS MANUAL**

This manual contains information on how to use the Avitech Sequoia 4K60L KVM-Multiview controller. There are six chapters and four appendixes in this manual.

- ✓ Chapter 1 Getting Started introduces the features and specifications as well as the external components of the Avitech Sequoia 4K60L.
- ✓ Chapter 2 System Configuration discusses various setup scenarios of Sequoia 4K60L.
- ✓ Chapter 3 Basic Operations introduces the two types of operating modes. Also demonstrates use of the mouse and keyboard hotkeys to perform basic operations and the Avitech Sequoia 4K60L's compatibility with touch screen display.
- ✓ 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.
- ✓ Chapter 6 Using A Touch Screen discusses the system connection and process of using the touch screen
  feature.

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.

#### **WARNING**

Do not attempt to disassemble the Sequoia 4K60L. Doing so may void the warranty. There are no serviceable parts inside. Please refer all servicing to qualified personnel.

## **TRADEMARKS**

All brand and product names are patented or registered trademarks of their respective companies.

#### **COPYRIGHT**

The information in this manual is subject to change without prior notice. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical for any purpose, without the express written permission of Avitech International Corporation. Avitech International Corporation may have patents, patent applications, trademarks, copyrights or other intellectual property rights covering the subject matter in this document. Except as expressly written by Avitech International Corporation, the furnishing of this document does not provide any license to patents, trademarks, copyrights or other intellectual property of Avitech International Corporation or any of its affiliates.

#### **TECHNICAL SUPPORT**

For any questions regarding the information provided in this guide, call our technical support help line at 425-885-3863, or email us at: support@avitechvideo.com.



# **Contents**

|    | ABOUT THIS MANUAL  | ii |
|----|--|----|
|    | Warranty   | vi |
|    | Limitation of Liability  | vi |
|    | Extended Warranty Options  | vi |
|    | Services and Repairs Outside the Warranty Period                     |    |
|    | Regulatory Information   | vi |
|    | Federal Communications Commission (FCC) Statement                    |    |
|    | European Union CE Marking and Compliance Notices                     | vi |
|    | Australia and New Zealand C-Tick Marking and Compliance Notice       | vi |
| 1. | Getting Started  | 7  |
| •• | 1.1 Package Contents   |    |
|    | •  |    |
|    | 1.2 Product Features   |    |
|    | 1.3 Specifications   | 9  |
|    | 1.4 Connections to the Sequoia 4K60L                                 | 12 |
| 2. | System Configuration   | 14 |
|    | 2.1 Display Mode: Quad Multiview + Bypass (Daisy Chain Capable)      | 14 |
|    | 2.2 Display Mode: Single-View Seamless Switching                     |    |
|    | 2.3 Display Mode: Video Wall Control                                 |    |
|    | 2.4 Daisy Chain  |    |
| 3. | Basic Operations   | 24 |
| ა. | Host Mode  |    |
|    | Remote Mode  |    |
|    | Tips on Navigating the Sequoia 4K60L                                 |    |
|    | 3.1 Host Mode  |    |
|    | 3.1.1 Pop-up Selections  |    |
|    | 3.1.2 Functions  |    |
|    | 3.1.3 Hotkeys  | 25 |
|    | Hotkeys Apply for Quad Multiview + Bypass (Daisy Chain Capable) Mode |    |
|    | Hotkeys Apply for Single-View Seamless Switching Mode                |    |
|    | Hotkeys Apply for Daisy Chain  | 28 |
|    | 3.2 Remote Mode  | 30 |
|    | 3.3 Surfer Feature on Multiple Monitors Workstation                  | 31 |
| 4. | Setup Using the Web Browser-based GUI                                | 32 |
|    | 4.1 Layout & Routing   |    |
|    | 4.1.1 Quad Multiview + Bypass (Daisy Chain Capable) Mode             | 35 |
|    | 4.1.1.1 Multiview Layout   |    |
|    | Setup the Output Resolution  |    |
|    | Crop Size  |    |
|    | Audio On/Off Switch  |    |
|    | KM Mode When Power On  |    |
|    | Enable / Disable KM Control for Bypass                               |    |
|    | 4.1.1.2 OSD Option   | 46 |

|   |   | L  |   | Į, |   |   |
|---|---|----|---|----|---|---|
|   |   |    |   |    |   |   |
| ٨ | v | ١. | т | _  | ^ | L |

|     |        | 4.1.1.3  | Fullscreen Control                                   |     |
|-----|--------|----------|--|-----|
|     |        |          | Enter Remote Mode                                    |     |
|     |        |          | Exit Remote Mode                                     |     |
|     | 412    | Lavout   | & Routing – Single-View Seamless Switching Mode      |     |
|     | 7.1.2  |          | Multiview Layout                                     |     |
|     |        |          | Setup the Output Resolution                          |     |
|     |        |          | Audio On/Off Switch                                  |     |
|     |        |          | Enable / Disable KM Control                          |     |
|     |        |          | OSD Option   |     |
|     |        | 4.1.2.3  | Fullscreen Control                                   |     |
|     |        |          | View Mode  |     |
| 4.2 | Daisy  | Chain (  | (Layout & Routing)                                   | 53  |
|     |        | Enable/  | Disable a Window                                     | 61  |
|     |        | Setup ti | he Output Resolution                                 | 62  |
|     |        | Audio C  | On/Off Switch  | 63  |
|     | 4.2.1  | OSD O    | ption  | 63  |
|     | 4.2.2  | Fullscr  | een Control  | 64  |
|     |        | Enter R  | emote Mode   | 65  |
|     |        | Exit Rea | mote Mode  | 65  |
|     |        | View Me  | ode  | 65  |
| 13  | Edit I | ahal     |  | 66  |
| 7.5 | Lait   |          | nd-alone   |     |
|     |        |          | sy Chain   |     |
|     | 121    |          | e Icon   |     |
|     |        |          |  |     |
| 4.4 | User . | Accoun   | t  | 73  |
|     | 4.4.1  | Add Us   | ser  | 73  |
|     | 4.4.2  | Modify   | Hotkey for Lock K/M and Monitor Sleep Mode functions | 75  |
| 45  | Devic  | e l ist  |  | 75  |
| 0   |        |          | e Name / IP for Secondary Devices in Daisy Chained   |     |
|     |        |          | are Update for Secondary Devices in Daisy Chained    |     |
|     |        |          |  |     |
| 4.6 | Syste  | m        |  | 79  |
|     | 4.6.1  | Genera   | al   | 79  |
|     |        | Alerts o | lisplay  | 80  |
|     |        | Display  | active window border                                 | 80  |
|     |        | •        | EDID   |     |
|     |        | Remove   | e EDID   | 85  |
|     |        | Lock So  | creen  | 87  |
|     |        | Mouse    | 87   |     |
|     | 4.6.2  |          | rk   |     |
|     |        |          | ess  |     |
|     |        |          | dress  |     |
|     |        | _        | uration  |     |
|     | 4.6.4  | •        | n Information  |     |
|     |        | •        | Sequoia 4K60L Machine Name                           |     |
|     |        | -        | (the Firmware)                                       |     |
|     |        | -        | System Information                                   |     |
|     |        | •        | Default  | 95  |
|     |        | Backup   |  |     |
|     | _      | Restore  | · · ·  |     |
|     | 4.6.5  | About.   |  | 100 |
| \   | 14/    | ^ 1      | invention and Management                             | 464 |
|     |        |          | iguration and Management                             |     |
| 5.1 | Video  | Wall Co  | onnection  | 102 |
|     | 5.1.1  | A 2x2 \  | Video Wall Connection                                | 102 |
|     |        |          |  |     |

5.

|      |            |        |   | AVITECH |
|------|------------|--------|---|---------|
|      |            |        | Four Source Connections to Sequoia 4K60L                            | 102     |
|      |            |        | Connections to Video Wall 4K UHD Screen                             |         |
|      |            |        | Connection to Control Device(s)                                     | 102     |
|      |            |        | Powering Up the Devices   | 103     |
|      |            |        | Using Hotkey to Switch to Video Wall Control Mode                   | 103     |
|      |            | 5.1.2  | A 1x4 Video Wall Connection   |         |
|      |            |        | Four Source Connections to Sequoia 4K60L                            |         |
|      |            |        | Connections to Video Wall 4K UHD Screen                             |         |
|      |            |        | Connection to Control Device(s)                                     |         |
|      |            |        | Powering Up the Devices   |         |
|      |            |        | Using Web Browser-based GUI to Configure the Video Wall             | 104     |
|      | 5.2        | Video  | Wall Configuration and Management                                   | 104     |
|      |            |        | To Switch Preset on created video wall:                             | 119     |
|      |            |        |   |         |
| 6.   | Usii       | ng A T | ouch Screen   | 122     |
|      | 6.1        | Basic  | Setup   | 122     |
|      | 6.2        | Basic  | Operation for Using A Touch Screen                                  | 124     |
|      |            |        | Host Mode   |         |
|      |            |        | Remote Mode   | 124     |
|      |            |        | Tips on Navigating the Touch Screen Monitor Using the Sequoia 4K60L | 124     |
|      |            | 6.2.1  | Pop-up Selection  | 124     |
|      |            | 6.2.2  | Audio Tally   | 125     |
|      |            | 6.2.3  | Move/Resize/Close/Open Window                                       | 125     |
|      |            |        | Exit from Remote Operation Mode to Host Operation Mode              |         |
|      |            | 6.2.5  | Switch Control (Cycle) Between Windows                              | 127     |
|      |            | 6.2.6  | Returns to Default Layout   | 127     |
| Δnr  | end        | lix A  | Using the "Surfer" Feature  | 128     |
| -1-1 |            |        | _   |         |
|      | A.1        | "Surte | er" Feature on Uniform Quad Layout Fills Entire Screen              | 128     |
|      | <b>A.2</b> | "Surfe | er" Feature on Non-uniform Quad Layout                              | 130     |
| Арр  | end        | lix B  | Resetting to the Factory Default State                              | 131     |
|      | B.1        | Using  | Web Browser-based GUI   | 131     |
|      | B.2        | Using  | the Dip Switch on Rear Panel  | 132     |



#### Warranty

Avitech International Corporation (herein after referred to as "Avitech") warrants to the original purchaser of the products manufactured in its facility (the "Product"), that these products will be free from defects in material and workmanship for a period of 2 years or 27 months from the date of shipment of the Product to the purchaser. There is a 3 month grace period between shipping and installation.

If the Product proves to be defective during the 1 year warranty period, the purchaser's exclusive remedy and Avitech's sole obligation under this warranty is expressly limited, at Avitech's sole option, to:
(a) repairing the defective Product without charge for parts and labor; or (b) providing a replacement in exchange for the defective Product; or (c) if after a reasonable time is unable to correct the defect or provide a replacement Product in good working order, then the purchaser shall be entitled to recover damages subject to the limitation of liability set forth below.

#### **Limitation of Liability**

Avitech's liability under this warranty shall not exceed the purchase price paid for the defective product. In no event shall Avitech be liable for any incidental, special, or consequential damages, including without limitation, loss of profits for any breach of this warranty.

If Avitech replaces the defective Product with a replacement Product as provided under the terms of this Warranty, in no event will the term of the warranty on the replacement Product exceed the number of months remaining on the warranty covering the defective Product. Equipment manufactured by other suppliers and supplied by Avitech carries the respective manufacturer's warranty. Avitech assumes no warranty responsibility either expressed or implied for equipment manufactured by others and supplied by Avitech.

This Warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty of merchantability or fitness for a particular purpose, all of which are expressly disclaimed.

This Hardware Warranty shall not apply to any defect, failure, or damage: (a) caused by improper use of the Product or inadequate maintenance and care of the Product; (b) resulting from attempts by other than Avitech representatives to install, repair, or service the Product; (c) caused by installation of the Product in a hostile operating environment or connection of the Product to incompatible equipment; or (d) caused by the modification of the Product or integration with other products when the effect of such modification or integration increases the time or difficulties of servicing the Product.

Any Product which fails under conditions other than those specifically covered by the Hardware Warranty, will be repaired at the price of parts and labor in effect at the time of repair. Such repairs are warranted for a period of 90 days from date of reshipment to customer.

#### **Extended Warranty Options**

Avitech offers OPTIONAL Extended Warranty plans that provide continuous coverage for the Product after the expiration of the Warranty Period. Contact an Avitech sales representative for details on the options that are available for the Avitech equipment.

## 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).

AVITECH INTERNATIONAL CORPORATION 15333 NE 90th Street, Suite 160, Redmond, WA 98052 USA

TOLL FREE 1 877 AVITECH PHONE 1 425 885 3863 FAX 1 425 885 4726 info@avitechvideo.com http://avitechvideo.com

#### 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 stenst 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 Européia 1999/5/EC.

## Español (Spanish)

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

#### 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 4K60L is Avitech's latest 4K UHD multi-functional video processor with many unique features. The Sequoia 4K60L integrates the functions of a 4-in-4-out 4K UHD seamless video switcher, a KVM switch with multiview, a UHD video wall controller, and with support for UHD multi-touch operations.

The Sequoia 4K60L is also extremely scalable; users can easily expand the system by cascading up to 5 units, which allows for controlling and monitoring of up to 16 signal sources on a single screen with just one set of keyboard and mouse.

This chapter introduces the features and specifications, as well as the external components of the Sequoia 4K60L.



To get the best results from Sequoia 4K60L, we recommend when using your mouse with a 4K display, select a mouse that can support at least 2000 dpi or more.

## 1.1 Package Contents

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



Table 1.1.1 Package Contents



The following items are included in the optional rack mount kit for one Sequoia 4K60L.



Table 1.1.2 Contents of Optional Rack Mount Package for One Sequoia 4K60L

The following items are included in the optional rack mount kit for two Sequoia 4K60L devices.



Table 1.1.3 Contents of Optional Rack Mount Package for Two Sequoia 4K60L



## 1.2 Product Features

- ✓ Four HDMI 2.0/1.4 input ports for 4K UHD/FHD sources with USB-B ports for keyboard/mouse (KM) operation
- ✓ Four HDMI 2.0/1.4 output at 4:4:4 along with three USB-A ports for KM or touch operation
- ✓ Plug and play, no software program setup required
- ✓ Freely adjustable multiview windows and full screen capability for all sources
- ✓ Support 4K UHD multi-touch operation in Multiview and full screen
- ✓ Seamless switching between source images in fullscreen mode
- ✓ Support 4K60 UHD video wall in 2(row)x2(column), 1x2, 1x3, 1x4 configurations
- ✓ On screen pop-up icons for easy operation in multiview and full screen modes
- ✓ Seamless keyboard/mouse switching ("Surfer" mode) between computer sources in multiview operation
- ✓ Crop input images, close and add windows with just a mouse and keyboard, without needing any software program
- ✓ Daisy chain multiple units for up to 16 sources in multiview, multi-touch, and KM operation
- √ Web browser-based GUI for advanced settings
- √ HDCP compliant
- √ Third party control over Ethernet or serial ports

## 1.3 Specifications

| <b>HDMI Input Ports</b> |   |
|-------------------------|---|
| Signal Type             | HDMI 2.0  |
| Connectors              | Four HDMI Type-A connectors for HDMI/DVI input sources (DVI to HDMI adapters may be needed)   |
| Connectors              | <u>Note</u> : Transmission of embedded audio signal <u>is not supported</u> when passing an input signal through DVI to HDMI adapter. |
|                         | Automatic sensing, the following input signals are supported:   |
|                         | ❖ 640×480, 60Hz   |
|                         | ❖ 720×480i, 59.94Hz / 60Hz  |
|                         | ❖ 720×480p, 59.94Hz / 60Hz  |
|                         | ❖ 720×576p, 50Hz  |
|                         | ❖ 720×576i, 50Hz  |
|                         | ❖ 800×600, 60Hz   |
|                         | ❖ 1024×768, 60Hz / 70Hz / 75Hz  |
|                         | ❖ 1024×1280, 50Hz / 60Hz  |
|                         | ❖ 1280×720, 50Hz / 59.94Hz / 60Hz   |
|                         | ❖ 1280×768, 50Hz / 60Hz / 75Hz  |
| Resolution              | ❖ 1280×800, 50Hz / 60Hz   |
| Resolution              | ❖ 1280×960, 50Hz / 60Hz   |
|                         | ❖ 1280×1024, 50Hz / 60Hz / 75Hz   |
|                         | ❖ 1360×768, 50Hz / 60Hz   |
|                         | ❖ 1366×768, 50Hz / 60Hz   |
|                         | ❖ 1400×900, 50Hz / 60Hz   |
|                         | ❖ 1440×1050, 50Hz / 60Hz  |
|                         | ❖ 1600×1200, 50Hz / 60Hz  |
|                         | ❖ 1680×1050, 50Hz / 60Hz  |
|                         | ❖ 1920×1080i, 50Hz / 59.94Hz / 60Hz   |
|                         | 1920×1080p, 23.97Hz / 24Hz / 25Hz / 29.97Hz / 30Hz / 50Hz /59.94Hz / 60Hz   |
|                         | ❖ 1920×1200, 50Hz / 60Hz (reduced blanking)   |
|                         | ❖ 2048×2048p, 56.57Hz   |



| <b>HDMI Input Ports</b> |   |
|-------------------------|---|
|                         | ❖ 2304×1440, 50Hz / 60Hz                                  |
|                         | ❖ 2560×1440, 50Hz / 60Hz                                  |
|                         | ❖ 2560×1600, 25Hz / 30Hz / 50Hz / 60Hz (reduced blanking) |
|                         | ❖ 3840×2160p, 24Hz / 25Hz / 29.97Hz / 30Hz / 50Hz / 60Hz  |
|                         | ❖ 4096×2160p, 50Hz / 60Hz                                 |
| 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  |
|                   | Four HDMI Type-A connectors for HDMI/DVI monitor (a HDMI to DVI adapter may be needed)  Note:   |
| Connectors        | <ol> <li>Transmission of embedded audio signal <u>is not supported</u> when passing an<br/>output signal through HDMI to DVI adapter.</li> </ol>  |
|                   | <ol><li>Avitech recommends using a HDCP-compliant monitor for optimum<br/>performance.</li></ol>  |
|                   | Automatic sensing and support resolution up to 4096 x 2160 at 60Hz allowed by HDMI based on the EDID obtained from the connected display.   |
|                   | Supported resolutions include (but not limited to):   |
|                   | ❖ 4096×2160p (4K DCI) at 50Hz / 60Hz  |
| Resolution        | 3840x2400p (WQUXGA) at 50Hz / 60Hz (reduced blanking)   |
|                   | ❖ 3840×2160p (4K UHD) at 25Hz / 30Hz / 50Hz / 60Hz  |
|                   | ❖ 1920×1200p (WUXGA) at 50Hz / 60Hz (reduced blanking)  |
|                   | ❖ 1920×1080p (FHD) at 50Hz / 60Hz   |
|                   | ❖ 1280×1024 (SXGA) at 50Hz / 60Hz   |
| HDCP Compliant    | Yes   |
| Color Depth       | 8 bit   |
|                   | Supports three display modes:  * Quad Multiview + Bypass (Daisy Chain Capable): Supports simultaneous display of four input signal sources in multiview layout on the monitor connected to HDMI OUT port. Freely switch any of the four input signal sources display in single-view fullscreen image on the monitors connected to HDMI OUT 2 / 3 ports. The monitor connected to HDMI OUT 4 port only shows a duplicated multiview image source of the HDMI OUT port. |
| Display Mode      | Single-View Seamless Switching: Supports seamless switching of the four input signal sources displayed in single-view fullscreen image on the monitors connected to HDMI OUT and HDMI OUT 2 to 4 ports.   |
|                   | ❖ Video Wall Control: Supports a video wall in 2(row)x2(column), 1x2, 1x3, 1x4 configurations.  |
|                   | <u>Note</u> : When switching between modes, the following setting will be reset to default setting:   |
|                   | The preset files will be deleted.   |
|                   | The power saving mode will be disabled.   |
|                   | The audio enable setting will be reset to disable.  |
|                   | The Crop setting will be restored to default.   |

Table 1.3.2 Supported HDMI Output Ports Format



If the monitor's EDID is not detected, the output resolution of Sequoia 4K60L will automatically configure to 3840×2160p at 60Hz (default setting). The output resolution can be changed from the web-browser based GUI.



| Others             |   |
|--------------------|---|
|                    | ❖ Up to four computers for a single Sequoia 4K60L.  |
| Computer           | Up to five Sequoia 4K60L devices can be daisy chained for controlling up to 16 computers.   |
|                    | Method:   |
|                    | ❖ Keyboard hotkeys in <u>Host</u> operation mode  |
| Port Switching     | ❖ Mouse   |
|                    | ✓ OSD (pop-up menu – in <u>Host</u> operation mode)   |
|                    | √ "Surfer" feature (both in Host and Remote operation modes)  |
|                    | Microsoft Windows 2000 Professional / XP / Vista / Server 2003 / Server 2008 / Windows 7 / Windows 8 / Windows 10 / Windows 11                  |
|                    | ♦ Mac (O/S X 10.5 or later version only)  |
| Operating System   | 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 |
|                    | ❖ Android 4.4.2 / 6.0.1 or later version  |
|                    | Note: Microsoft Windows NT is not supported   |
|                    | ❖ Power consumption is 25 Watt (maximum)  |
| Power              | ❖ Power Supply (adapter):   |
| Power              | ✓ Input (AC): 100 to 240V 50Hz / 60 Hz  |
|                    | ✓ Output (DC): 12V DC / 3A  |
| Dimension/Meight   | ❖ Dimension: 7.72 x 7.09 x 1.75 inch (19.6 x 18.00 x 4.45 cm)   |
| Dimension/Weight   | ❖ Weight: 2.12 lbs. (0.96 Kg)   |
|                    | ❖ Temperature:  |
|                    | ✓ Operating: 0 °C (32 °F) to 40 °C (104 °F)   |
| Environment/Safety | √ Storage: –10 °C (14 °F) to 50 °C (122 °F)   |
|                    | ❖ Humidity: 0% to 80% relative, non-condensing  |
|                    | ❖ Safety: FCC / CE / C-Tick / Class B   |

Table 1.3.3 Specifications



- 1. The Sequoia 4K60L supports DVI-D input through optional HDMI to DVI adapters.
- 2. The Sequoia 4K60L'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 4K60L more than 5 meters away from your sources or display devices, use a signal extender that supports 4K60 60Hz 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 has 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 4K60L after changing to a different monitor (especially one that supports a different optimal resolution); this will ensure the Sequoia 4K60L selects the correct output resolution and frame rate.



## 1.4 Connections to the Sequoia 4K60L

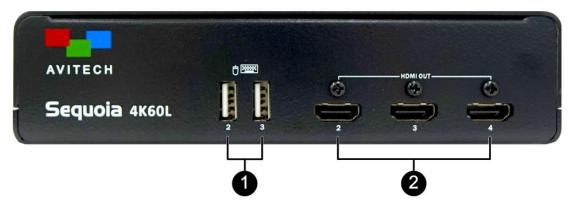


Figure 1.4.1 Sequoia 4K60L Front Panel Components

## **Front Panel**

Two USB Type-A connectors for connecting to mouse/keyboard/touch screens and controlling the connected four computer systems (<u>Remote</u> mode) and the Sequoia 4K60L <u>Host</u> mode operation.

#### Note:

- 1. The Sequoia 4K60L can provide a total maximum current of 500mA for each USB Type-A port.
- 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 4K60L 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.
- 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 4K60L, 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.



- ❖ The HDMI Type-A connectors marked HDMI OUT 2 3 will display routed HDMI IN 1 – 4 sources in fullscreen on the connected monitors when they are in Quad Multiview + Bypass (Daisy Chain Capable) or Single-View Seamless Switching mode.
- ❖ The HDMI Type-A connector marked HDMI OUT 4 will display a duplicated quad-view of HDMI OUT when in Quad Multiview + Bypass (Daisy Chain Capable) mode on the connected monitor; or will display routed HDMI IN 1 − 4 source in fullscreen when switch to Single-View Seamless Switching mode. (HDMI to DVI adapters may be needed)

<u>Note</u>: Transmission of audio signal is not included when using DVI to HDMI adapter.

Table 1.4.1 Sequoia 4K60L Front Panel Components Description

2 HDMI OUT 2 – 4



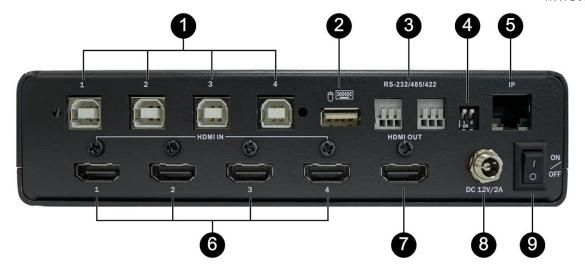


Figure 1.4.2 Sequoia 4K60L Rear Panel Components

| Rear Panel                                     |   |
|--|---|
| 1 USB Type-B                                   | Four USB Type-B ports 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.  |
| 2 † 🔤  | USB Type-A connector for connecting mouse/keyboard/touch screen and controlling the connected four computer systems (Remote mode) and the Sequoia 4K60L Host mode operation.  |
| <b>3</b> RS-232/485/422 (3-pin terminal block) | Reserved for future functions:  Serial ports communication protocol support RS-232, RS-485 or RS-422.  * RS-232: for using Avitech's ASCII commands or using third-party controller to control the Sequoia 4K60L.  * RS-485/RS-422: for using third-party controller to control Sequoia 4K60L.  Note:  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 RS-232/485/422, refer to Appendix (C) "Serial Port Pin Out" for more details. |
| 4 Dip Switches                                 | Resets the Sequoia 4K60L to factory default settings. Refer to Appendix (B)<br><u>"Resetting to the Factory Default State"</u> for more details.  |
| <b>5</b> Ethernet (IP)                         | For connecting to the web browser-based GUI and control using Http commands via a network connection (Protocol: TCP/IP, UDP)  |
| 6 HDMI IN 1 – 4                                | Four HDMI Type-A connectors for HDMI/DVI-D input sources (DVI to HDMI adapters may be needed).  Note: Transmission of audio signal is not included when using the DVI to HDMI adapter.  |
| 7 HDMI OUT                                     | HDMI Type-A connector for multiview display or routing <b>HDMI IN 1 – 4</b> source signal in single-view fullscreen display on the connected monitor (a HDMI to DVI adapter may be needed).  Note: Transmission of audio signal is not included when using DVI to HDMI adapter to connect to monitor.   |
| 8 Power<br>(DC 12V/2A)                         | Connects to a DC 12V 3A power adapter.  |
| Power Switch                                   | Turns the Sequoia 4K60L power ON or OFF.  |

Table 1.4.2 Sequoia 4K60L Rear Panel Components Description



- 1. Non-standard keyboards i.e. keyboards that require manual installation of drivers are not supported.
- 2. Compatibility between the computer and the Sequoia 4K60L 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 4K60L features automatic sensing of input signals with "NO VIDEO" alarm, automatic detection and selection of optimum display resolution, and auto configuration of a user workstation with mixed multiviewer and full screen displays base on the flexible monitors and USB connections. To control your Sequoia 4K60L directly, connect the keyboard and mouse to the USB Type-A ports marked on both of its front and rear panels. The Sequoia 4K60L supports three different display modes can meet various operating requirements. This chapter discusses the connections to different display modes and daisy chain. To change the display mode configuration of the Sequoia 4K60L, please refer to section (4.6.3) "Configuration" for more details. (For Video Wall Control mode, please refer to section (5.1) "Video Wall Configuration" for more details)

## 2.1 Display Mode: Quad Multiview + Bypass (Daisy Chain Capable)

By default, the Sequoia 4K60L is set to **Quad Multiview + Bypass (Daisy Chain Capable)** mode with a mixed multiviewer and full screen displays. To control your Sequoia 4K60L directly, connect a keyboard and mouse sets to the USB Type-A ports marked on its front or rear panel. If your Sequoia 4K60L had set to another display mode, you can use keyboard hotkey "**Alt - q - b**" (make sure the K/M control is in <u>Host</u> mode on the port marked **HDMI OUT** on rear panel) to switch back to **Quad Multiview + Bypass (Daisy Chain Capable)** 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. Press and release the key, then press and release the next key, until the hotkey is completed.

The following figure shows a typical setup with Sequoia 4K60L connected to 4K UHD monitors and one set of keyboard and mouse for controlling four systems.



<u>DO NOT</u> block the vents on the front and side panels of the Sequoia 4K60L. Doing so may impair its internal components and/or its heat dissipation.

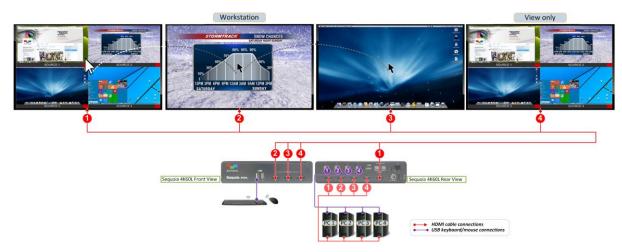


Figure 2.1.1 Quad Multiview + Bypass (Daisy Chain Capable) Connection Diagram White cursor represents the <u>Host</u> cursor; dark cursor represents the cursor of the operating system

Step 1. Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60L. Repeat this step for all source computers to the ports marked **HDMI IN 2** – **4** of the Sequoia 4K60L.



Step 2. (For video only sources, 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 4K60L. 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.
- (For Windows 2000 users) Upon connecting your Sequoia 4K60L to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.
- Step 3. Connect the port marked **HDMI OUT** on the rear panel of Sequoia 4K60L to the monitor using the appropriate signal cable.
- Step 4. Connect the port marked **HDMI OUT 2 3** on the front panel of Sequoia 4K60L to the monitors using the appropriate signal cables.
- Step 5. Connect the port marked **HDMI OUT 4** on the front panel of Sequoia 4K60L to the monitor using an appropriate signal cable for view only the duplicated image of the port marked **HDMI OUT**.
- Step 6. Connect a set of wireless keyboard/mouse to the USB Type-A port marked to mark



- 1. The Sequoia 4K60L can provide a total maximum current of 500mA for each USB Type-A port.
- 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.
- 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 4K60L, preventing any signal interference.
  - ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen display is an option to completely prevent interference.
  - ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.



- Non-standard keyboards i.e. keyboards that require manual installation of drivers are not supported.
- Step 7. Connect power to/and boot-up the four source computers.
- Step 8. Connect power to the monitors and turn on the monitors.
- Step 9. Connect the power adapter to the DC 12V/2A power in jack on the Sequoia 4K60L and press the power switch so that the Sequoia 4K60L is turned on.
- Step 10. The Avitech logo will appear briefly on the monitors and after approximately 100 seconds a quad-view display on screen 1, single-view fullscreen images on screen 2/3, and a duplicated quad-view display on screen 4 will appear, along with the Host cursor that can be controlled directly through the mouse connected to USB Type-A ports marked on the rear or front panels of the Sequoia 4K60L.



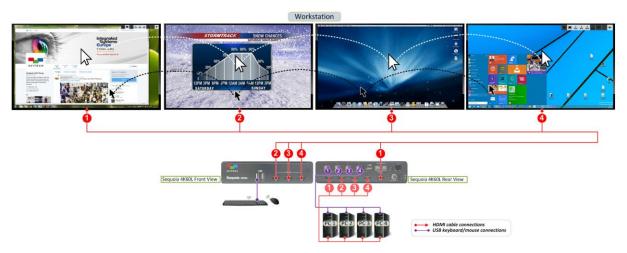
## 2.2 Display Mode: Single-View Seamless Switching

By default, the Sequoia 4K60L default is set to **Quad Multiview + Bypass (Daisy Chain Capable)** display mode, so use keyboard hotkey "**Alt - s - s**" (make sure the K/M control is in <u>Host</u> mode on the port marked **HDMI OUT**) to switch to **Single-View Seamless Switching** mode, then you can use the keyboard and mouse to control the four computers directly in **Single-View Seamless Switching** display mode. The display mode will be saved in the Sequoia 4K60L device automatically. After power cycle, the display mode will not be changed until the next display mode change through keyboard hotkey or web browser-based GUI.

The following figure shows the setup with Sequoia 4K60L connected to 4K UHD monitors and one set of keyboard and mouse for controlling four systems.



<u>DO NOT</u> block the vents on the front and side panels of the Sequoia 4K60L. Doing so may impair its internal components and/or its heat dissipation.



**Figure 2.2.1 Single-View Seamless Switching** Connection Diagram White cursor represents the <u>Host</u> cursor; dark cursor represents the cursor of the operating system

- Step 1. Connect the first computer's display output to the port marked **HDMI IN 1** of the rear panel of Sequoia 4K60L. Repeat the step for all source computers to the ports marked **HDMI IN 2 4** of the Sequoia 4K60L.
- 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 4K60L. 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. (<u>For Windows 2000 users</u>) Upon connecting your Sequoia 4K60L to a computer through the USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.
- Step 3. Connect the port marked **HDMI OUT** of on the rear panel of Sequoia 4K60L to the monitor using the appropriate signal cable.
- Step 4. Connect the port marked **HDMI OUT 2 4** on the front panel of Sequoia 4K60L to the monitors using the appropriate signal cables.
- Step 5. Connect a set of wireless keyboard/mouse to the USB Type-A port marked to on front or rear panel of Sequoia 4K60L that will be used to control the four computer sources.





- 1. The Sequoia 4K60L can provide a total maximum current of 500mA for each USB Type-A port.
- 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.
- 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 4K60L, preventing any signal interference.
  - ✓ A USB hub for direct wired connections to mouse/keyboard and/or touch screen display is an option to completely prevent interference.
  - ✓ For USB connections over longer distances (up to 150 feet), USB extension over CATx cable is recommended.



- Non-standard keyboards i.e. keyboards that require manual installation of drivers are not supported.
- Step 6. Connect power to/and boot-up the four source computers.
- Step 7. Connect power to the monitors and turn on the monitors.
- Step 8. Connect the power adapter to the DC 12V/2A power in jack on the Sequoia 4K60L and press the power switch so that the Sequoia 4K60L is turned on.
- Step 9. The Avitech logo will appear briefly on the monitors and after approximately 100 seconds, then a quad-view display on screen 1, single-view fullscreen on screen 2/3, and a duplicated quad-view display on screen 4 will appear. Now the Host cursor can be controlled directly through the mouse connected to USB Type-A ports marked to marked to use on rear or front panel of your Sequoia 4K60L.
- Step 10. Use keyboard hotkey "Alt s s" to change the display mode to **Single-View Seamless Switching**. Wait for the source images to appear on the display devices, and the Sequoia 4K60L will be in **Single-View Seamless Switching** mode.

## 2.3 Display Mode: Video Wall Control

To switch your Sequoia 4K60L to **Video Wall Control** display mode, connect a keyboard to the USB Type-A ports marked to make on its front or rear panel and use keyboard hotkey "**Alt – v – w**" to switch to **Video Wall Control** mode. The display mode will be saved in Sequoia 4K60L device automatically. After power cycle, the display mode will not be changed until the next display mode change through keyboard hotkey or web browser-based GUI.

The following figure shows the default 2x2 video wall setup when using the hotkey to switch to **Video Wall Control** mode.



<u>DO NOT</u> block the vents on the front and side panels of the Sequoia 4K60L. Doing so may impair its internal components and/or its heat dissipation.



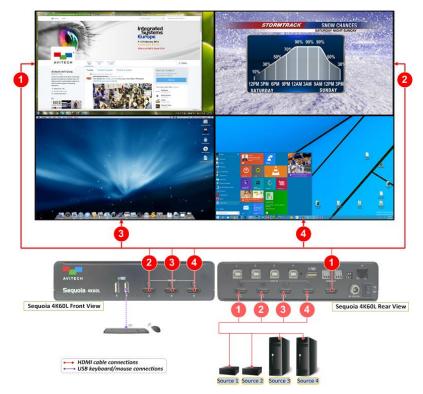


Figure 2.3.1 Sequoia 4K60L Video Wall Connection Diagram

- Step 1. Connect the first video source's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60L using an appropriate signal cable.
- Step 2. Repeat previous step for other three video sources connect to the ports marked **HDMI IN 2 4** of the Sequoia 4K60L using the appropriate signal cables.
- Step 3. Connect the port marked **HDMI OUT** on rear panel of Sequoia 4K60L to the corresponding video wall screen **1** using an appropriate signal cable.
- Step 4. Repeat previous step for other three ports marked **HDMI OUT 2 4** on the front panel of Sequoia 4K60L to the corresponding video wall screen **2 4** using the appropriate signal cables.
- Step 5. Connect power to/and boot-up the four video source devices.
- Step 6. Connect power to the monitors and turn on the monitors.
- Step 7. Connect the power adapter to the DC 12V/2A power in jack on the Sequoia 4K60L and press the power switch so that the Sequoia 4K60L is turned on.
- Step 8. The Avitech logo will appear briefly on the monitors and after approximately 100 seconds, then the display screen will show the default mode (a quad-view display on screen 1, single-view fullscreen on screen 2/3, and a duplicated quad-view display on screen 4).
- Step 9. Connect a keyboard to the USB Type-A ports marked to make on its front and rear panel and use keyboard hotkey "Alt v w" to switch to Video Wall Control mode.



## 2.4 Daisy Chain

The daisy chain function of the Sequoia 4K60L supports up to 16 UHD/FHD computer and video sources displayed on a UHD 4K monitor with mouse/keyboard/multi-touch operations. With automatic configuration of multiple daisy chained units on the same network, it is easy to add or remove Sequoia 4K60L units in a daisy chained group.



- 1. The default IP address of Sequoia 4K60L is **192.168.0.5**, if more than two Sequoia 4K60L are on the same network for daisy chain, please make sure the primary Sequoia 4K60L has a unique IP address. For more information on changing the IP address, refer to <u>section (4.6.2)</u> "Network".
- 2. Whenever the Sequoia 4K60L devices are used in daisy chain configuration, please flip the dip switch 1 to the **ON** position for each device before powering on the Sequoia 4K60L devices.



- 3. Before setting the dip switch 1 to the ON position, please make sure each Sequoia 4K60L device has been set to the **Quad Multiview + Bypass (Daisy Chain Capable)** display mode (may use hotkey "**Alt q b**" to set this display mode).
- 4. Whenever the Sequoia 4K60L devices are in daisy chain configuration, please power on all the secondary devices first (see Figure 2.4.1 for an example, the secondary devices are Sequoia 4K60L (2) to Sequoia 4K60L (5)), before powering on the primary device.
- 5. Whenever power or ethernet connection is interrupted to any of the secondary Sequoia 4K60L in a daisy chained configuration, upon restoring the connection, please reboot the primary Sequoia 4K60L (see Figure 2.4.1 as example, the primary device is the Sequoia 4K60L (1)).

The following figure shows an example of five Sequoia 4K60L units daisy chained in one group, with each Sequoia 4K60L connected to four source computers. Using just one set of keyboard/mouse, an operator can control the 16 computer sources on the display.

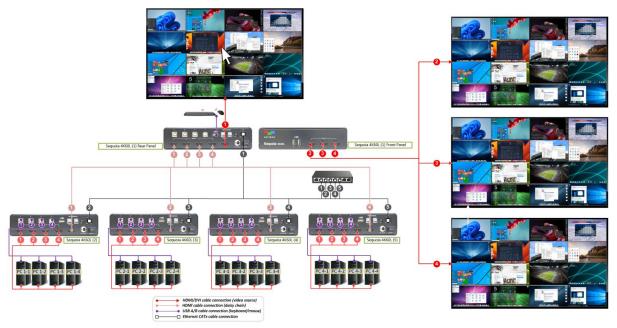


Figure 2.4.1 Daisy Chain Example of Five Sequoia 4K60L Devices



- Step 1. Connect the first computer's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60L (2). Repeat this step for the  $2^{nd} - 4^{th}$  computers to the ports marked **HDMI IN 2 – 4** on the rear panel of the Sequoia 4K60L (2); the  $5^{th}$  –  $8^{th}$  computers to the ports marked **HDMI IN 1 – 4** on the rear panel of the Sequoia 4K60L (3); the 9<sup>th</sup> – 12<sup>th</sup> computers to the ports marked **HDMI IN 1 – 4** on the rear panel of the Sequoia 4K60L (4); the 13th – 16th computers to the ports marked **HDMI IN 1 – 4** on the rear panel of the Seguoia 4K60L (5).
- 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 Sequoia 4K60L (2). Repeat this step for the 2<sup>nd</sup> – 4<sup>th</sup> computers to the USB Type-B ports marked 2 – 4 on the rear panel of Seguoia 4K60L (2); the  $5^{th} - 8^{th}$  computers to the USB Type-B ports marked **1 - 4** on the rear panel of the Sequoia 4K60L (3); the  $9^{th}$  –  $12^{th}$  computers to the USB Type-B ports marked 1 – 4 on the rear panel of Sequoia 4K60L (4); the 13th - 16th computers to the USB Type-B ports marked 1 - 4 on the rear panel of Sequoia 4K60L (5).
- Step 3. Connect the port marked HDMI OUT on the rear panel of Seguoia 4K60L (2) to the HDMI IN 1 on the rear panel of Sequoia 4K60L (1) using the appropriate signal cable.
- Step 4. Connect the port marked HDMI OUT on the rear panel of Seguoia 4K60L (3) to the HDMI IN 2 on the rear panel of Sequoia 4K60L (1) using the appropriate signal cable.
- Step 5. Connect the port marked HDMI OUT on the rear panel of Seguoia 4K60L (4) to the HDMI IN 3 on the rear panel of Sequoia 4K60L (1) using the appropriate signal cable.
- Step 6. Connect the port marked HDMI OUT on the rear panel of Seguoia 4K60L (5) to the HDMI IN 4 on the rear panel of Sequoia 4K60L (1) using the appropriate signal cable.
- Step 7. Connect the port marked HDMI OUT of on the rear panel of Sequoia 4K60L (1) to the monitor using the appropriate signal cable.
- Step 8. Connect a keyboard and mouse to the USB port marked be located on the rear or front panel of Sequoia 4K60L (1).
- Step 9. (Optional) Connect the ports marked HDMI OUT 2 4 of on the front panel of Sequoia 4K60L (1) to the monitors using the appropriate signal cables for the duplicate daisy chained multiview image.
- Step 10. Connect a standard CAT-5e/6 Ethernet cable to the port marked IP (Ethernet) of Sequoia 4K60L (1), then connect the other end of the standard CAT-5e/6 Ethernet cable to the Ethernet switch. Repeat this step for Sequoia 4K60L (2) – Sequoia 4K60L (5).
- Step 11. Connect power to/and boot-up the all the source computers.
- Step 12. Connect power to the Ethernet network switch.
- Step 13. Connect power to the monitor and turn on the monitor.
- Step 14. Flip the dip switch 1 to **ON** position for each Seguoia 4K60L device.
- ↑ Step 15. Connect the power adapters to the DC 12V/2A power in jack on the Sequoia 4K60L (1) Sequoia 4K60L (5). First, press the power switch of Sequoia 4K60L (2) – Sequoia 4K60L (5) to power on the secondary devices first. Next, press the power switch of Sequoia 4K60L (1) to power on the primary device, after the secondary devices have begun to power on.
  - Step 16. The Avitech logo will appear briefly on the monitor, and after approximately 160 seconds the 16 windows (each containing an image from one of the connected source computers) will appear, along with the Host cursor that can be controlled directly through the mouse connected to Seguoia 4K60L (1).



# 3. Basic Operations

The Sequoia 4K60L always operates in one of two mouse operating modes: <u>Host</u> and <u>Remote</u> mode. Users are able to freely switch between these two modes anytime during operation for different uses. This chapter discusses these operating modes, their functions, and hotkeys in detail.

## Host Mode

When the Sequoia 4K60L is in <u>Host</u> mode, the <u>Host</u> cursor appears on the display upon connecting a mouse device to USB Type-A port marked  $\Box$  on the Sequoia 4K60L. The cursor will be controlled by this connected mouse.

- Host mode provides a monitoring solution for computer/video input signals. Users can use the Host cursor to select and adjust window size, position, and multiview layout directly on the on-screen interface.
- ❖ Move the mouse cursor to a specific window and double-left-click to enter the Remote mode.
- To switch back to <u>Host</u> mode, use the keyboard hotkey "Pause/Break", or double-click the mouse scroll wheel.
- 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 <u>section (3.1) "Host Mode"</u>.
- In Host mode, double-click the mouse scroll button to cycle switch between the default layouts.
- To close a specific window, move the <u>Host</u> cursor onto the window and double-click the mouse right button to close it.
- ❖ To add a window, move the <u>Host</u> cursor to the blank area, left-click and drag the mouse to draw a rectangle, then release the mouse left button, and the newly added window will appear on the screen.
- ❖ To lock or unlock window size and position, move the <u>Host</u> cursor to the top left corner of the display until the cursor becomes □, then click to lock the window layout. Repeat these steps to unlock the layout.



- 1. The <u>Host</u> mode operation is available when:
  - ❖ The Sequoia 4K60L is in Quad Multiview + Bypass (Daisy Chain Capable) mode.
  - ❖ The Sequoia 4K60L is in Single-View Seamless Switching mode.
- 2. Upon re-connecting a keyboard or mouse, the <u>Host</u> cursor may disappear. Move the mouse to have it re-appear.



Please keep in mind, when adding a window, the newly added window cannot overlay the other three windows.

## Remote Mode



The <u>Remote</u> mode is only applicable for computer sources with USB A/B cables connection to Sequoia 4K60L for mouse/keyboard operation.

By default, when the Sequoia 4K60L enters <u>Remote</u> mode, the <u>Host</u> cursor disappears, and the "**Surfer**" feature is enabled. The window's border will turn <u>yellow</u>; this signifies that your Sequoia 4K60L is now in <u>Remote</u> mode with the "**Surfer**" function.

- The "Surfer" function allows keyboard and mouse switching by moving the mouse cursor between the windows.
- Remote mode provides direct keyboard and mouse control to the selected computer system within its window.
- ❖ The Sequoia 4K60L can only enter <u>Remote</u> to take control of a computer with the correct USB Type-B port (marked 1 4) connection.



- For computers hosting Linux, Android, or an Embedded Operating System, you will need to turn off the "Surfer" feature by using the keyboard hotkey "Ctrl + Alt + Shift + F8" or by pressing side-back-key of the mouse (if available) 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. You can still enter <u>Host</u> mode by using the keyboard hotkey "Pause/Break" or double-clicking the mouse scroll wheel.

## Tips on Navigating the Sequoia 4K60L

- A maximum of four computers can be connected to a single Sequoia 4K60L. The Sequoia 4K60L 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 on the display and controlled using a connected mouse and keyboard.
- When <u>Host</u> mode of the quad-view monitor is active, use the mouse connected to your Sequoia 4K60L to resize and reposition windows on the display.
- ❖ To switch from <u>Host</u> mode to <u>Remote</u> mode, move the <u>Host</u> cursor to the top-right corner of the targeted window and then click the **Enter <u>Remote</u> mode** icon (or move the <u>Host</u> cursor into that window and double-left-click your mouse).
- When entering <u>Remote</u> mode ("Surfer" feature is automatically active), your Sequoia 4K60L automatically transfers its keyboard and mouse control to the selected computer. Use the keyboard and mouse connected to the Sequoia 4K60L to control that computer.
- ❖ To switch back to <u>Host</u> mode, use the keyboard hotkey "Pause/Break", or double-click the mouse scroll wheel. The Sequoia 4K60L will return to <u>Host</u> mode and the <u>Host</u> cursor will reappear.

## 3.1 Host Mode

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



The <u>Host</u> mode operation is available when:

- 1. The Sequoia 4K60L is in Quad Multiview + Bypass (Daisy Chain Capable) mode.
- 2. The Seguoia 4K60L is in Single-View Seamless Switching mode.

## 3.1.1 Pop-up Selections

The following are the pop-up selections for Sequoia 4K60L:

- Swap: enables a window to switch its position with another window (this icon only appears in the quad-view layout in Quad Multiview + Bypass (Daisy Chain Capable) mode)
- Enter <u>Remote</u> mode: enter <u>Remote</u> operation mode and control the computer corresponding to the window
- Switch the window's source to display on **HDMI OUT 2** (this icon only appears on the quad-view layout display in **Quad Multiview + Bypass (Daisy Chain Capable)** mode)
- Switch the window's source to display on **HDMI OUT 3** (this icon only appears on the quad-view layout display in **Quad Multiview + Bypass (Daisy Chain Capable)** mode)
- Fullscreen: set a window to fullscreen (this icon only appears on the quad-view layout display in Quad Multiview + Bypass (Daisy Chain Capable) mode)
- Select **HDMI IN 1** input source (this icon only appears when in fullscreen)



- Select **HDMI IN 2** input source (this icon only appears when in fullscreen)
- Select **HDMI IN 3** input source (this icon only appears when in fullscreen)
- Select **HDMI IN 4** input source (this icon only appears when in fullscreen)
- Change to default quad-view layout (this icon only appears on the quad-view layout display in Quad Multiview + Bypass (Daisy Chain Capable) mode)
- Restore: return from a fullscreen view to previous layout (this icon only appears on the quad-view layout display in **Quad Multiview + Bypass (Daisy Chain Capable)** mode)
- HDMI audio: embedded audio output in HDMI signal is enabled (this icon only appears when in fullscreen)
- HDMI audio: embedded audio output in HDMI signal is disabled (this icon only appears when in fullscreen)



When the Sequoia 4K60L detects:

- 1. A source that does not have a USB connection, 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. When any of the displays from HDMI OUT 2 or 3 is closed, the corresponding HDMI IN icon in the pop-up selection will be disabled and cannot be selected to route to the display when it is fullscreen

The pop-up selections will appear upon moving the <u>Host</u> cursor to the top-right of each of the four windows.



Figure 3.1.1.1 Pop-up Selections of Quad-view Window in Host mode



Or, upon moving the <u>Host</u> cursor to the window's top-right position when any window is set to fullscreen mode, the pop-up selections  $\stackrel{\square}{=} \stackrel{\perp}{=} \stackrel{\perp}{=} \stackrel{\perp}{=} \stackrel{\perp}{=} \stackrel{\perp}{=} \stackrel{\square}{=} \stackrel{\square}{=$ 



Figure 3.1.1.2 Pop-up Selections of Fullscreen Window



- 1. The pop-up selections 💆 🗷 🛓 🚊 🛓 🖽 💠 are only available when any of the windows is set to fullscreen mode.
- 2. When the **INPUT** # icon is greyed out, it means its source is currently displaying on the monitor, or the source is not connected.
- Click the Enter Remote mode icon on a selected window or double-click the mouse left button to enter the Sequoia 4K60L's Remote mode.
  - ✓ Remote mode allows direct connection to the selected computer through the USB connection.
  - ✓ Your Sequoia 4K60L's keyboard and mouse will now control the selected computer; the <u>Host</u> cursor will disappear when your Sequoia 4K60L is in Remote mode.
- Press the keyboard hotkey "Pause/Break" or double-click the mouse scroll button connected to your Sequoia 4K60L to return keyboard and mouse control to the Sequoia 4K60L. The <u>Host</u> cursor will reappear.

## 3.1.2 Functions

The Sequoia 4K60L allows free control of the windows directly through the connected mouse. The following is a list of summarized functions available in Host mode.

| Function                  |  |  |
|---------------------------|--|--|
| Window resizing           | Drag any of the four corners or edges of a window to a desired size.   |  |
| Window repositioning      | Drag a window to a desired position.   |  |
| Window position swapping  | Move the <u>Host</u> cursor to the top-right corner of a window; click the ficon. Then move the <u>Host</u> cursor to another window and click anywhere in the second window to swap the two windows, including the window labels.       |  |
| Lock/unlock window layout | Move the <u>Host</u> cursor to the top left corner of the display until the mouse cursor becomes a capital letter <u>L</u> , then click to lock the window layout. Repeat these steps to unlock the layout.                              |  |
| Window closing            | Move the <u>Host</u> cursor onto the window, then double-click the mouse right key to close the window.  |  |
| Window adding             | In the blank area, left-click and drag the mouse to draw a rectangle, then release the mouse left button, and the newly added window will appear on the screen.  Note: The newly add window cannot be overlaid with other three windows. |  |
|                           | <u>note</u> . The newly add willdow carnot be overlaid with other trifee windows.  |  |



| Function                                   |   |
|--|---|
|  | Double-left-click when the Host cursor is on a window with a computer source,   |
| Access a remote                            | or move the Host cursor to the top-right corner of a window; click the 💻 icon to  |
| computer                                   | enter Remote mode on the corresponding computer. The licon will be disabled if the USB Type-B port of Sequoia 4K60L is not connected to a computer's USB Type-A port.   |
|  | Move the Host cursor to the top-right corner of a window; click the icon and  |
| Fullscreen window                          | then the window will maximize to fullscreen. Click the icon to return from fullscreen.  |
| Switch source to display on bypass monitor | Move the <u>Host</u> cursor to the top-right corner of a window; click the icon to switch the source in the window to display on HDMI OUT 2 or HDMI OUT 3.  |
|  | Move the <u>Host</u> cursor to the top-right corner of a window; when the pop-up selection appears:   |
| Enable/disable audio output                | Click (corresponds to red tally ) icon to disable output of HDMI embedded audio of corresponding source.  |
|  | Click the (corresponds to green tally ) icon to enable output of HDMI embedded audio.   |
| Cycle switch default multiview layouts     | Double-click the mouse scroll button to switch between the default multiview layouts.   |
|  | Move the mouse onto a particular window, then press keyboard hotkey "Ctrl + C" to enter cropping mode and the window will become fullscreen.  |
| Cropping image                             | Click and drag the mouse (continuous press of left mouse button) to produce a crop area. The crop area is the area in the green frame displayed on screen. Click and drag any of the edges of the green frame to enlarge/reduce the crop area. May also use the hotkeys detailed in the next section to fine-tune the scope of the area to be cropped without using the mouse button. |

Table 3.1.2.1 Host Mode Functions

## 3.1.3 Hotkeys



- 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 combination with a dash symbol ("-") means the sequence needs to be followed exactly to carry out a complete switching/routing action. Press and release the key, then press and release the next key, until the hotkey is completed.

## Hotkeys Apply for Quad Multiview + Bypass (Daisy Chain Capable) Mode

The hotkeys that are available when utilizing the Sequoia 4K60L under <u>Host</u> operation in **Quad Multiview + Bypass (Daisy Chain Capable)** mode are below:

| Keys                           |  |
|--------------------------------|--|
|                                | To set a window to display on the monitor connected to port marked <b>HDMI OUT</b> in fullscreen mode. (i.e. "Ctrl – 1 – 1" will set window 1 to display in fullscreen mode; "Ctrl – 1 – 3" will set window 3 to display in fullscreen mode) |
| Ctrl - 1 - # (window ID 1 - 4) | Note:  |
| 15 T – <del>4</del> )          | <ol> <li>When window was hidden from display, the hidden window cannot be set to<br/>fullscreen mode when using this hotkey.</li> </ol>  |
|                                | 2. This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L.   |



| Keys   |   |  |  |  |  |
|--|---|--|--|--|--|
| Ctrl – # (HDMI OUT<br>ID 2 – 3) – # (Input<br>ID 1 – 4)          | To route an input source to display on the monitors connected to the ports marked <b>HDMI OUT 2</b> and <b>HDMI OUT 3</b> . (i.e. "Ctrl – 2 – 1" will set input source 1 to display in fullscreen mode on <b>HDMI OUT 2</b> ; "Ctrl – 3 – 2" will set input source 2 to display in fullscreen mode on the monitor connected to <b>HDMI OUT 3</b> ).  Note: This hotkey is only available for the ports marked <b>HDMI OUT 2</b> and <b>HDMI OUT 3</b> of Sequoia 4K60L.                         |  |  |  |  |
| Ctrl – 1 – Q   | Resume to quad multiview display layout before fullscreen mode.  Note: This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L.  |  |  |  |  |
| Home   | Returns to Sequoia 4K60L default quad-view layout.<br><u>Note</u> : This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L.   |  |  |  |  |
| Ctrl + S   | Saves the display configuration as the latest preset to the Sequoia 4K60L so that on the next boot-up the latest preset will be loaded.   |  |  |  |  |
| Page Up/Page<br>Down   | Switch between the three factory default multiview layout presets.  |  |  |  |  |
| <b>↑</b>   | Load the previous user-icon preset. <u>Note</u> : The user-icon presets need to be preconfigured through web browser-based GUI.   |  |  |  |  |
| <b>V</b>   | Load the next user-icon preset. <u>Note</u> : The user-icon presets need to be preconfigured through web browser-based GU   |  |  |  |  |
| Shift + # (window ID)<br>- # (Input ID)<br>(the # value range is | To route an input source to display on other window for the port marked <b>HDMI OUT</b> of Sequoia 4K60L, i.e. " <b>Shift + 2 – 1</b> " will route input source <b>1</b> to display on window <b>2</b> ; " <b>Shift + 3 – 4</b> " will route input source <b>4</b> to display on window <b>3</b> ).  Note:  |  |  |  |  |
| from 1 to 4)   | <ol> <li>Must use the right Shift key on the keyboard to perform this function.</li> <li>This hotkey is only available for the port marked HDMI OUT of Sequoia 4K60L.</li> </ol>  |  |  |  |  |
| Ctrl + C   | To toggles on/off the <b>Crop</b> mode in <u>Host</u> mode. Upon pressing keyboard hotkey " <b>Ctrl</b> + <b>C</b> ", the image will automatically be switched to fullscreen and a <b>green</b> outline frame displayed on screen, you can drag the mouse (continuous press of left mouse button) to produce a crop area, and then use the following hotkeys to adjust or reset the cropping area. When complete crop area setting, use keyboard <b>Enter</b> key to apply the cropping effect. |  |  |  |  |
| L + →/←  | To adjust the left border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the left border will be adjusted in 50 pixel basis.  |  |  |  |  |
| R + <b>←</b> /→  | To adjust the right border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the right border will be adjusted in 50 pixel basis.  |  |  |  |  |
| <b>T</b> + <b>↓</b> / <b>↑</b>                                   | To adjust the top border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the top border will be adjusted in 50 pixel basis.  |  |  |  |  |
| B + <b>↑</b> /↓  | To adjust the bottom border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the bottom border will be adjusted in 50 pixel basis.  |  |  |  |  |
| Space  | To toggles on/off the cropped image preview function.   |  |  |  |  |
| S + ↑  | To reset the cropping area to default setting. Or click the mouse right button to reset the cropping area.  |  |  |  |  |
|  | Note:  1. The image (window) selected is where the Host cursor is currently residing.  2. The cropped area will be saved in Sequoia 4K60L and will be recalled upon using keyboard hotkey "Ctrl + C".   |  |  |  |  |
| Ctrl + X   | To return to the image native resolution.   |  |  |  |  |
| Alt – Q – B  | To switch display configuration to <b>Quad Multiview + Bypass (Daisy Chain Capable)</b> mode, (A Quad-view on the <b>HDMI OUT</b> port, single-view fullscreen on <b>HDMI OUT 2</b> / <b>3</b> ports and a duplicated Quad multiview image of <b>HDMI OUT</b> on <b>HDMI OUT 4</b> .  |  |  |  |  |



| Keys                             |   |
|----------------------------------|---|
| Alt - S - S                      | To switch display configuration to <b>Single-View Seamless Switching</b> mode. (the four HDMI output ports are all displaying in single-view fullscreen with each input source displayed)   |
| Alt – V – W                      | To switch display configuration to <b>Video Wall Control</b> mode. (a 2x2 video wall with each input source displayed on individual screen)   |
| password                         | Toggle to lock/unlock the keyboard/mouse function. Upon using keyboard hotkey "kmlock" (The default password is kmlock in lower-case) the keyboard/mouse function will be lock/unlock. You can change the password through web browser-based GUI. |
| Alt + L                          | To toggle lock/unlock the current window layout, and disables any adjustment of window size and position made by the <u>Host</u> cursor.  |
| s-blank – Enter<br>(lower-case)  | To toggle to turn off/on all of the display monitors connected to Sequoia 4K60L. Upon using keyboard hotkey " <b>s-blank</b> ", then press <b>Enter</b> to turn off / on all the display monitors.  |
| s-blank# - Enter<br>(lower-case) | To toggle to turn off/on a specified display monitor connected to Sequoia 4K60L. Upon using keyboard hotkey, i.e. "s-blank2", then press Enter will turn off / on the display monitor connected to the port marked HDMI OUT 2.                    |

Table 3.1.3.1 Hotkeys of Host Operation Mode

## Hotkeys Apply for Single-View Seamless Switching Mode

Hotkeys are available when utilizing the Sequoia 4K60L under the <u>Host</u> operation in **Single-View Seamless Switching** mode. Detailed below are the <u>Host</u> operation mode hotkeys.

| Keys   |   |
|--|---|
| Ctrl – # (HDMI OUT<br>ID 1 – 4) – # (Input<br>port ID 1 – 4) | To set an input source to display on the monitors connected to four HDMI output ports (i.e. "Ctrl – 1 – 1" will set input 1 to display on the port marked HDMI OUT; "Ctrl – 3 – 2" will set input 2 to display on the monitor connected to the port marked HDMI OUT 3).   |
| Ctrl + C   | To toggles on/off the <b>Crop</b> mode in <u>Host</u> mode. Upon pressing keyboard hotkey " <b>Ctrl</b> + <b>C</b> ", the image will automatically be switched to fullscreen and a <b>green</b> outline frame displayed on screen, you can drag the mouse (continuous press of left mouse button) to produce a crop area, and then use the following hotkeys to adjust or reset the cropping area. When complete crop area setting, use keyboard <b>Enter</b> key to apply the cropping effect. |
| L + →/←  | To adjust the left border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the left border will be adjusted in 50 pixel basis.  |
| R + <b>←</b> / <b>→</b>                                      | To adjust the right border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the right border will be adjusted in 50 pixel basis.  |
| T + ↓/↑  | To adjust the top border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the top border will be adjusted in 50 pixel basis.  |
| B + <b>↑</b> /↓  | To adjust the bottom border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the bottom border will be adjusted in 50 pixel basis.  |
| Space  | To toggles on/off the cropped image preview function.   |
| S + ↑  | To reset the cropping area to default setting. Or click the mouse right button to reset the cropping area.  |
|  | Note:  1. The image (window) selected is where the Host cursor is currently residing.  2. The cropped area will be saved in Sequoia 4K60L and will be recalled upon using keyboard hotkey "Ctrl + C".   |
| Ctrl + X   | To return to the image native resolution.   |



| Keys                     |   |
|--------------------------|---|
| Alt – Q – B              | To switch display configuration to <b>Quad Multiview + Bypass (Daisy Chain Capable)</b> mode. (A Quad-view on the port marked <b>HDMI OUT</b> of Sequoia 4K60L, single-view fullscreen on the ports marked <b>HDMI OUT 2</b> / <b>3</b> and a duplicated Quad multiview image of <b>HDMI OUT</b> on the port marked <b>HDMI OUT 4</b> . |
| Alt – S – S              | To switch display configuration to <b>Single-View Seamless Switching</b> mode, the four HDMI OUT ports are all displaying in single-view fullscreen with each input source displayed.   |
| Alt – V – W              | To switch display configuration to <b>Video Wall Control</b> mode, a 2x2 video wall with each input source displayed on individual screen.  |
| password                 | Toggle to lock/unlock the keyboard/mouse function. Upon using keyboard hotkey "kmlock" (The default password is kmlock in lower-case) the keyboard/mouse function will be lock/unlock. You can change the password through web browser-based GUI.   |
| Alt + L                  | To toggle lock/unlock the current window layout, and disables any adjustment of window size and position made by the <u>Host</u> cursor.  |
| s-blank<br>(lower-case)  | To toggle to turn off/on all of the display monitors connected to Sequoia 4K60L. Upon using keyboard hotkey " <b>s-blank</b> ", then press <b>Enter</b> to turn off / on all the display monitors.  |
| s-blank#<br>(lower-case) | To toggle to turn off/on a specified display monitor connected to Sequoia 4K60L. Upon using keyboard hotkey, i.e. "s-blank2", then press Enter will turn off / on the display monitor connected to the port marked HDMI OUT 2.  |

Table 3.1.3.2 Hotkeys of Host Operation Mode

## Hotkeys Apply for Daisy Chain

Hotkeys are available when utilizing the Sequoia 4K60L under the <u>Host</u> operation in **Daisy Chain** mode. Detailed below are the <u>Host</u> operation mode hotkeys.

## Keys

To set a window to display in fullscreen mode on the monitor connected to the port marked **HDMI OUT** (i.e. "**Ctrl – 1 – 1**" will set window **1** to display in fullscreen mode; "**Ctrl – 1 – A**" will set the window ID 10 to display in fullscreen mode).

#### <u>INote.</u>

Ctrl - 1 - # (the window ID range is from 1 to 9, A to G) 1. When multiple Sequoia 4K60L devices are in daisy chain configuration, the source routing hotkey is only available for the port marked **HDMI OUT**.

2. The corresponding window ID in default layout of different daisy chain configurations is as below table.

| Daisy<br>chain<br>quantity | Two Sequoia<br>4K60L |                       | Three Sequoia<br>4K60L  |       |      | Four Sequoia<br>4K60L |   |     |                                | Five Sequoia<br>4K60L  |       |   |   |   |
|----------------------------|----------------------|-----------------------|---|-------|------|-----------------------|---|-----|--------------------------------|--|-------|---|---|---|
| Window<br>ID               |                      | 5 fource 6 7 fource 7 | 3<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |       |      | 8 State 6 A Source 10 | 2 Searce 2 4 Scarce 4 A Source 10 C Source 12 |     | 6<br>560000 6<br>8<br>560000 6 | 7<br>5551700 7<br>9<br>5551700 7<br>5551700 7<br>5551700 7<br>5551700 7<br>5551700 7 | 1<br> | 2 Source 2 4 Source 4 A Source 15 C Source 12 | 5 Source 5 7 Source 7 D Source 13 F Source 15 | 6 Source 6 8 Source 8 E Source 14 G Source 16 |
| Documo t                   | o multiviow die      | colov                 | lavoi   | ıt ho | foro | fullco                | roon  | mad | <u></u>                        |  |       |   |   |   |

| Ctrl – 1 – Q         | Resume to multiview display layout before fullscreen mode.  Note: This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L in <b>Daisy Chain</b> mode. |  |
|----------------------|--|--|
| Home                 | Returns to Sequoia 4K60L default daisy chain's multiview layout.   |  |
| Ctrl + S             | Saves the display configuration as the latest preset to the Sequoia 4K60L so that on the next boot-up the latest preset will be loaded.  |  |
| Page Up/Page<br>Down | Switch between the factory default layout presets.   |  |
| <b>↑</b>             | Load the previous user-icon preset. <u>Note</u> : The user-icon presets need to be preconfigured through web browser-based GUI.  |  |
|                      |  |  |



| Keys  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| <b>\</b>  | Load the next user-icon preset.  |  |  |  |  |  |  |
|   | Note: The user-icon presets need to be preconfigured through web browser-based GUI.  |  |  |  |  |  |  |
| Shift +# (window ID) -# (Input ID) (the window ID is    | To duplicate a source to display on other window in the daisy chain configuration, i.e. "Shift + 2 - 4" will duplicate the input 4's image of the 2 <sup>nd</sup> Sequoia 4K60L to display on window ID 2; "Shift + A - 3" will duplicate input 3's image of the 4 <sup>th</sup> Sequoia 4K60L to display on window ID A).  Note:  1. Must use the right Shift key on the keyboard.  2. The corresponding window ID in default layout of different daisy chain configurations is as below table. |  |  |  |  |  |  |
| from 1 to 9, A to G,<br>the input ID is from 1<br>to 4) | Daisy chain quantity  Two Sequoia  4K60L  Three Sequoia  4K60L  Five Sequoia  4K60L  Five Sequoia  4K60L   |  |  |  |  |  |  |
|   | Window ID 2 9 4 5 8 9 1 6 7 8 1 9 1 6 7 8 1 9 1 6 7 8 1 9 1 6 7 8 1 9 1 6 7 8 1 9 1 6 7 8 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1  |  |  |  |  |  |  |
| Ctrl + C  | To toggles on/off the Image Cropping mode in <u>Host</u> mode. Upon pressing keyboard hotkey "Ctrl + C", the image will automatically be switched to fullscreen and a red outline frame displayed on screen, you can use the following hotkeys to adjust or reset the cropping area. When complete crop area setting, use keyboard Enter key to apply the cropping effect.   |  |  |  |  |  |  |
| L + →/←   | To adjust the left border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the left border will be adjusted in 50 pixel basis.   |  |  |  |  |  |  |
| R + ←/→   | To adjust the right border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the right border will be adjusted in 50 pixel basis.   |  |  |  |  |  |  |
| <b>T +  ↓</b> / <b>↑</b>                                | To adjust the top border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the top border will be adjusted in 50 pixel basis.   |  |  |  |  |  |  |
| B <b>+</b> ↑/↓  | To adjust the bottom border of cropping area by 1 pixel. When keyboard <b>Caps Lock</b> key is <b>On</b> , the bottom border will be adjusted in 50 pixel basis.   |  |  |  |  |  |  |
| Space   | To toggles on/off the cropped image preview function.  |  |  |  |  |  |  |
| S + ↑   | To reset the cropping area to default setting. Or click the mouse right button to reset the cropping area.   |  |  |  |  |  |  |
|   | Note:  1. The image (window) selected is where the Host cursor is currently residing.  2. The cropped area will be saved in Sequoia 4K60L and will be recalled upon using keyboard hotkey "Ctrl + C".  |  |  |  |  |  |  |
| Ctrl + X  | To return to the image native resolution.  |  |  |  |  |  |  |
| password  | Toggle to lock/unlock the keyboard/mouse function. Upon using keyboard hotkey "kmlock" (The default password is kmlock in lower-case) the keyboard/mouse function will be lock/unlock. You can change the password through web browser-based GUI.  |  |  |  |  |  |  |
| Alt + L   | To toggle lock/unlock the current window layout, and disables any adjustment of window size and position made by the <u>Host</u> cursor.   |  |  |  |  |  |  |
| s-blank<br>(lower-case)                                 | To toggle to turn off/on all of the display monitors connected to Sequoia 4K60L. Upon using keyboard hotkey "s-blank", then press Enter to turn off / on all the display monitors.   |  |  |  |  |  |  |
| s-blank#<br>(lower-case)                                | To toggle to turn off/on a specified display monitor connected to Sequoia 4K60L. Upon using keyboard hotkey, i.e. "s-blank2", then press Enter will turn off / on the display monitor connected to the port marked HDMI OUT 2.   |  |  |  |  |  |  |

**Table 3.1.3.3** Hotkeys of  $\underline{\mathsf{Host}}$  Operation Mode



## 3.2 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 combination with a dash symbol ("—") means the sequence needs to be followed exactly to carry out a complete switching/routing action. Press and release the key, then press and release the next key, until the hotkey is completed.

The following hotkeys are available when utilizing your Sequoia 4K60L under Remote mode.

| Keys  |  |
|---|--|
| Pause<br>Break  | Exits from Remote mode and returns to Host mode (or double-click the mouse scroll button).  Note: When using a keyboard without "Pause/Break" key, use hotkey "control + option (Alt) + shift + p" instead to perform Remote mode to Host mode switch.   |
| Ctrl + Shift + Alt +<br>F8                              | Toggle "Surfer" 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 "Surfer" feature is enabled upon starting up the Sequoia 4K60L. For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off "Surfer" feature by using keyboard hotkey "Ctrl + Alt + Shift + F8" or pressing side-key of the mouse (if applicable) in order to control that computer. |
| Ctrl – 1 – #<br>(window ID 1 – 4)                       | To set a window to display on the monitor connected to port marked <b>HDMI OUT</b> in fullscreen mode. (i.e. "Ctrl – 1 – 1" will set window 1 to display in fullscreen mode; "Ctrl – 1 – 3" will set window 3 to display in fullscreen mode)  Note:  1. When window was hidden from display, the hidden window cannot be set to fullscreen mode when using this hotkey.  2. This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L.                                    |
| Ctrl – 1 – Q  | Resume to quad multiview display layout before fullscreen mode.  Note: This hotkey is only available for the port marked <b>HDMI OUT</b> of Sequoia 4K60L.   |
| Ctrl - # (HDMI<br>OUT ID 2 - 3) - #<br>(Input ID 1 - 4) | To route an input source to display on the monitors connected to the ports marked HDMI OUT 2 and HDMI OUT 3. (i.e. "Ctrl – 2 – 1" will set input source 1 to display in fullscreen mode on HDMI OUT 2; "Ctrl – 3 – 2" will set input source 2 to display in fullscreen mode on the monitor connected to HDMI OUT 3).  Note: This hotkey is only available for the ports marked HDMI OUT 2 and HDMI OUT 3 of Sequoia 4K60L.   |
| password  | Toggle to lock/unlock the keyboard/mouse function. Upon using keyboard hotkey "kmlock" (The default password is kmlock in lower-case) the keyboard/mouse function will be lock/unlock. You can change the password through web browser-based GUI.  |
| s-blank<br>(lower-case)                                 | To toggle to turn off/on all of the display monitors connected to Sequoia 4K60L. Upon using keyboard hotkey "s-blank", then press Enter to turn off / on all the display monitors.   |
| s-blank#<br>(lower-case)                                | To toggle to turn off/on a specified display monitor connected to Sequoia 4K60L. Upon using keyboard hotkey, i.e. "s-blank2", then press Enter will turn off / on the display monitor connected to the port marked HDMI OUT 2.   |

Table 3.2.1 Hotkeys of Remote Mode



## 3.3 Surfer Feature on Multiple Monitors Workstation

The Sequoia 4K60L will be in a multiple monitor workstation by default, when switched into the 1<sup>st</sup> (the port marked **HDMI OUT**) display (The "**Surfer**" feature default setting is **ON**) and moving your cursor out of your current window's border toward the other window, your Sequoia 4K60L's keyboard and mouse control will automatically switch to that corresponding source 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 "Surfer" Feature on the Quad-View Layout of 1st Display

When switched from the <u>Host</u> mode or <u>Remote</u> mode of the 1<sup>st</sup> (the port marked **HDMI OUT**) display into the 2<sup>nd</sup> (the port marked **HDMI OUT 2**) to 3<sup>th</sup> (the port marked **HDMI OUT 3**) display, the keyboard/mouse control will be transferred to the corresponding source computer.



**Figure 3.3.2** Multiple Monitor Workstation Operation: White cursor represents the <u>Host</u> cursor; dark cursor represents the cursor of the operating system



# 4. Setup Using the Web Browser-based GUI

The web browser-based GUI contains a collection of settings for the Sequoia 4K60L. 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.



- The IP address of the controlling computer must be in the same network mask as the Sequoia 4K60L.
- 2. The default IP address of Sequoia 4K60L is 192.168.0.5, if more than two Sequoia 4K60L devices are on the same network, please make sure each Sequoia 4K60L has assigned a unique IP address and all the Sequoia 4K60L devices should be connected to the same network mask for controlling through web browser-based GUI. For more information on changing IP address, refer to section (4.6.2) "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.
- 4. Upon completing the advanced feature setting through web browser-based GUI, you can close the browser program. If you prefer to keep the browser program running on your computer, be sure to refresh your browser before proceeding to change any feature setting of your Sequoia 4K60L.

Before connecting the controlling computer or handheld touch devices to the Sequoia 4K60L, 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 4K60L ("192.168.0.5" – factory- default IP address). Or, the IP address of the Sequoia 4K60L 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 4K60L, 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 4K60L), the web browser-based GUI will appear and the Sequoia 4K60L is ready for operation for 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 4K60L), the web browser-based GUI will appear and the Sequoia 4K60L is ready for operation for modifying video wall layout or system setting.



The IP address of the controlling computer (with Ethernet connection to Sequoia 4K60L) must be in the same network mask as the Sequoia 4K60L. 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 4K60L is connected to.



Step 2. When the **User Sign In** window appears on the web page, enter the password **admin** (all lower-case) to login to control of the Sequoia 4K60L.



Figure 4.1 User Sign In Window

The following table and figure give an overview of the entire web browser-based GUI's components and briefly describes their functions for single Sequoia 4K60L device.

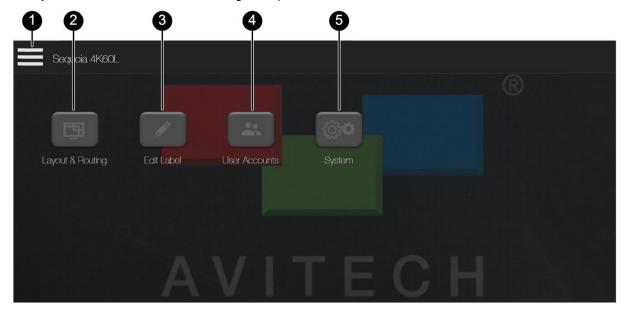


Figure 4.2 Web Browser-based GUI Component for Single Sequoia 4K60L Device

| Web Browser-based<br>GUI |  |
|--------------------------|--|
| 9                        | Allows users to  * Logout of Sequoia 4K60L. The default user name and password for login to Sequoia 4K60L is admin (lower case).                                       |
| Global Menu              | <ul> <li>Enter fullscreen allows the web GUI page display in fullscreen mode.</li> <li>Close menu to return to web GUI page.</li> </ul>                                |
| 2 Layout & Routing       | Multiview display layout adjustment.   |
| 3 Edit Label             | Customizes input source names appearing on the web browser-based GUI and multiview display on monitor.   |
| 4 User Accounts          | Reserved for future option. At present, you can modify the hotkey to toggle lock/unlock keyboard/mouse function or to toggle monitor entering or wake from sleep mode. |
| <b>5</b> System          | Allows the user to change various system settings.   |

Table 4.1 Web Browser-based GUI Component Description for Single Sequoia 4K60L Device



The following table and figure give an overview of the web browser-based GUI's components and briefly describes their functions for daisy chain multiple Sequoia 4K60L devices.

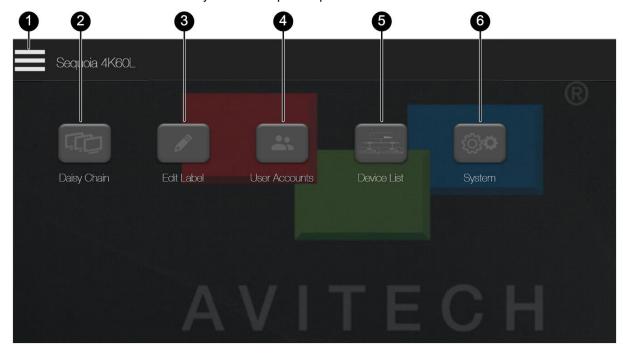


Figure 4.3 Web Browser-based GUI Component for Daisy Chained Sequoia 4K60L Devices

| Web<br>Browser-based GUI |  |
|--------------------------|--|
| Global Menu              | Allows user to   |
|                          | Logout of Sequoia 4K60L. The default user name and password for login to<br>Sequoia 4K60L is admin (lower case).   |
|                          | Enter fullscreen allows the web GUI page display in fullscreen mode.   |
|                          | ❖ Close menu to return to web GUI page.  |
| 2 Daisy Chain            | Allows user to adjust the multiview layout of daisy chain.   |
| 3 Edit Label             | Customizes input source names appearing on the web browser-based GUI and multiview display on monitor.   |
| 4 User Accounts          | Reserved for future option. At present, you can modify the hotkey to toggle lock/unlock keyboard/mouse function or to toggle monitor entering or wake from sleep mode. |
| 6 Device List            | List the Sequoia 4K60L devices daisy chained in the same network.  |
| 6 System                 | Allows the user to change various system settings.   |

Table 4.2 Web Browser-based GUI Component Description for Daisy Chained



## 4.1 Layout & Routing

## 4.1.1 Quad Multiview + Bypass (Daisy Chain Capable) Mode

**Layout & Routing** provides an interface for user to adjust the multiview (window) layout, output resolution, OSD setting, fullscreen control and other features when in **Quad Multiview + Bypass** (**Daisy Chain Capable**) mode of Sequoia 4K60L directly from the web browser-based GUI. The table below provides information on each component of **Layout & Routing**.

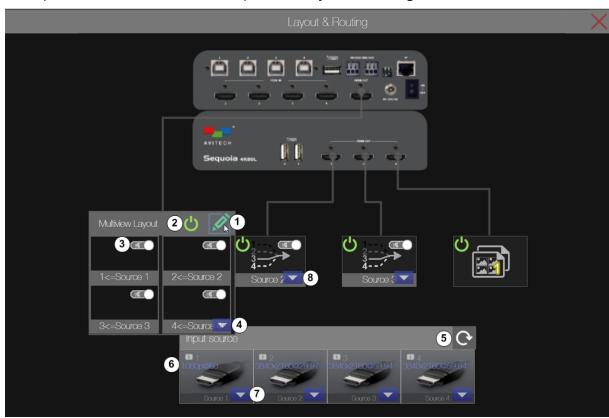


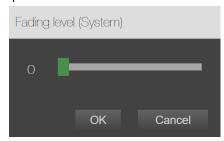
Figure 4.1.1.1 Multiview Layout Control Interface and Components

| Layout & Routing              |   |
|-------------------------------|---|
| Multiview Layout              | Allows user to adjust the multiview layout / output resolution / OSD setting / fullscreen control of Sequoia 4K60L.   |
| 2 Poewr Saving<br>Mode Switch | Allows user to turn off/on the display monitor connected to Sequoia 4K60L.  Click to turn off the monitor connected to the output port of Sequoia 4K60L.  |
|                               | Upon click the switch, the monitor will enter to power saving mode after five (5) minutes.  |
|                               | Click to turn on the monitor connected to the output port of Sequoia 4K60L. Upon clicking the switch, the monitor will be turn on later (depending on different brand of monitors, the response time for wake up from power saving mode will differ from brands).                   |
|                               | <u>Note</u> : When in <b>Quad Multiview + Bypass (Daisy Chain Capable)</b> mode, if you plan to set one of the showing quad-multiview monitors into power saving mode, to avoiding image become abnormal it is recommended turning off the monitor connected to <b>HDMI OUT 4</b> . |
| 3 Audio Switch                | Allows user to enable ( ) /disable ( ) audio output through the HDMI ports of Sequoia 4K60L.  |

## **Layout & Routing**

Allows user to set

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



## Setting Menu

- **❖ KM mode when power on** allows you to set the keyboard and mouse control in Host mode (default) or Remote mode after boot-up of your Sequoia 4K60L.
  - ✓ <u>Host</u> the K/M control will remain in <u>Host</u> mode after power on.
  - ✓ <u>Remote</u> (Window 1) the K/M control will remain in <u>Remote</u> mode of Window 1 after power on.
  - ✓ <u>Remote</u> (Window 2) the K/M control will remain in <u>Remote</u> mode of Window 2 after power on.
  - ✓ <u>Remote</u> (Window 3) the K/M control will remain in <u>Remote</u> mode of Window 3 after power on.
  - ✓ <u>Remote</u> (Window 4) the K/M control will remain in <u>Remote</u> mode of Window 4 after power on.

Note: If the K/M control is set to Remote (Window 1) but the window 1 is not connect to a computer with a USB A/B cable, the K/M control will be switch to Window 2 automatically and so forth.

|                      | William 2 date material and so forth.  |
|----------------------|--|
| 6 Refresh            | Allows user to update the input signal information.  |
| 6 Signal Information | Display the detected input signal information.   |
| Mac PC               | Allows user to enable (disable default) <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 4K60L, if the video source display a white noise or black image on-screen.   |
| <b>8</b> KM          | Allows user to enable ( <b>ON</b> default) / disable ( <b>Off</b> ) the <b>KM</b> function of <b>HDMI OUT 2</b> / <b>3</b> . If the KM function is to enable, when switch from the <u>Host</u> mode or <u>Remote</u> mode of 1 <sup>st</sup> display into the 2 <sup>nd</sup> or 3 <sup>th</sup> display, the keyboard/mouse control will be transferred to the corresponding source computer. |

Table 4.1.1.1 Layout & Routing Component and Description



#### 4.1.1.1 Multiview Layout

To adjust the multiview layout, perform the following steps:

Step 1. Locate Layout & Routing icon on the GUI menu and click it; the Layout & Routing page will appear.

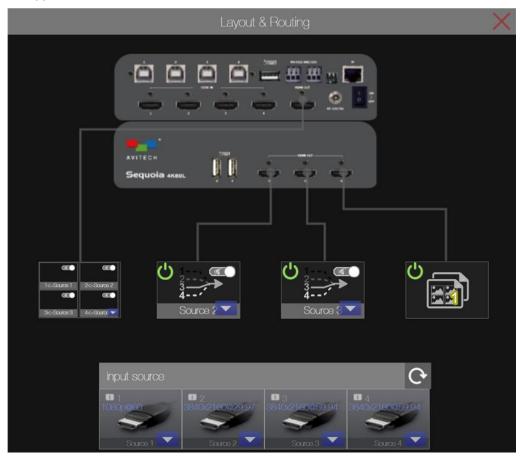


Figure 4.1.1.1 Web Browser-based GUI: Layout & Routing

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

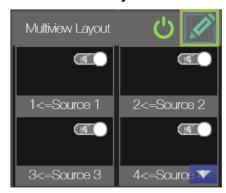


Figure 4.1.1.1.2 Web Browser-based GUI: Multiview Layout



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

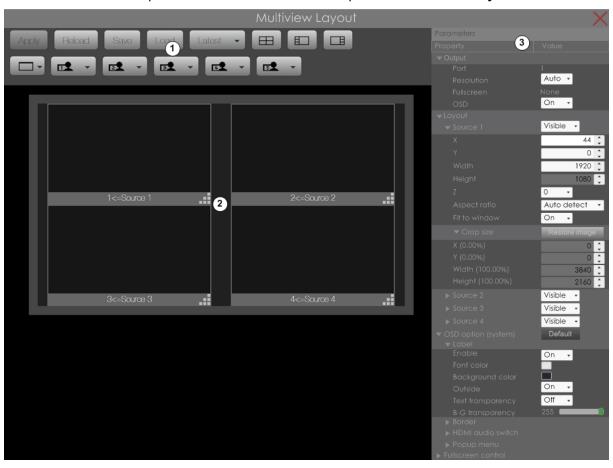


Figure 4.1.1.1.3 Multiview Layout Control Interface and Components

#### **Multiview Layout**

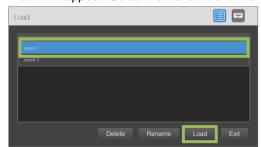
Allows user to instantly:

- ❖ **Apply** the adjusted layout to the respective output.
- ❖ Reload to obtain the current layout from the output.
- ❖ 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.



1 Top Bar

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.





#### **Multiview Layout**

- ❖ Latest allows you to quickly load the latest saved layout after rebooting the Sequoia 4K60L. If you 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 icons allow 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-icons (user defined layout icon). 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.

#### **2** Window Layout

Shows the quad-view layout of Sequoia 4K60L. 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), 4096×2160p 50/60Hz, 3840×2400p 50/60Hz (RB), 3840×2160p 50/60Hz, 3840×2160p 25/30Hz, 1920×1200p 50/60Hz, 1920×1080p 50/60Hz or 1280×1024 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 (enable) / Off (disable default) 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 Seguoia 4K60L.
- X and Y for adjusting 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) for adjusting 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. This feature only available when OSD is set to Off.

# 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), 4:3, 5:4, 16:9 or 16:10.

Fit to window for allowing the window size to conform to the image's original aspect ratio On (default) or Off.

**Crop size** – allows you to remove the unwanted outer areas from the source image.

- X (0.00%) and Y (0.00%) for adjusting the source image's starting position (top-left corner). Use the up/down icons on the right-edge to adjust (1-pixel increments/decrements).
- Width (0.00%) and Height (0.00%) for adjusting the cropping's size. Use the up/down icons on the right-edge to adjust (1-pixel increments/decrements).

**OSD option (system)** – set the color properties of tally and 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 4K60L.
  - ✓ Enable for 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.
  - ✓ Outside when this item is turned On (default) and the Aspect ratio is set to Auto detect (default), then the source image will be automatically shrink to accommodate the label.

## 3 Property



- ✓ Text transparency click to disable (Off) / enable (On) the text to become transparent together with label background and blend into the image displayed on the window (Off – default).
- ✓ B-G transparency select the desired background transparency level by using the slider (0 – 255 levels), all the windows' label will become transparent and blend into the image displayed on the windows. Transparency level is from 0 ~ 255 (default) where 0 is highest transparency level.
- ❖ 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 sets 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 sets 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 for custom 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 showing on the monitor.
  - ✓ Available color indicates the available input source.
  - ✓ Disable color indicates the absent input source.

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

#### \* Enter Remote mode -

- ✓ Select **Automatically** to enable a particular window to enter <u>Remote</u> operation mode when using any of the below methods to switch to fullscreen view:
  - > "Ctrl 1 # (1 to 4)" hotkeys, or
  - ➤ Click the icon (top-right corner of windows)
- ✓ Select None to disable the K/M function automatically be switched to <u>Remote</u> 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 <u>Remote</u> operation mode for accessing the computer.

#### \* 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 <u>Host</u> operation mode from <u>Remote</u> 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 <u>Host</u> 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 # (1 to 4)" hotkeys, or
- ➤ Click the icon (top-right corner of window)
- ✓ Select None to keep the aspect ratio of the image.

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 bottom-right of the window and drag to the desired size when the directional arrow appears.



Figure 4.1.1.1.4. Multiview Layout: Resize Window

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.

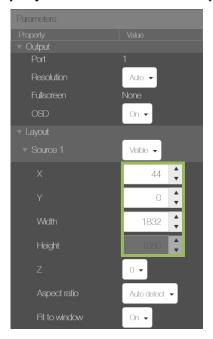


Figure 4.1.1.5. Multiview Layout: Set Window Properties

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



Figure 4.1.1.1.6 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 4.1.1.1.8 Multiview Layout: Apply

Step 5. To save the configured layout to an user-icon preset (1 – 5) for later use. Select any of the user-icon user-icon 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,

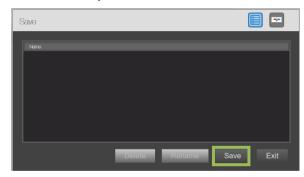


Figure 4.1.1.1.9 Multiview Layout: Save User Preset

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

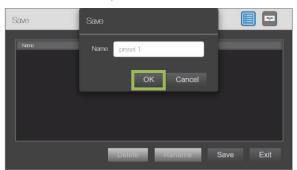


Figure 4.1.1.1.10 Multiview Layout: Save User Preset



When load a user-icon or latest preset with **OSD** turn **Off** and window overlay configuration, upon turning **On** the **OSD** feature, the Sequoia 4K60L 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 4K60L.



Figure 4.1.1.1.11 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 4096×2160p 50/60Hz, 3840×2400p 50/60Hz (RB), 3840×2160p 50/60Hz, 3840×2160p 25/30Hz, 1920×1200p 50/60Hz, 1920×1080p 50/60Hz or 1280×1024 50/60Hz from the dropdown menu.



Figure 4.1.1.1.12 Multiview Layout: Output → Resolution

Then a message window will appear, click Revert reverting to previous setting.



Figure 4.1.1.1.13 Confirm or Cancel to Change Output Resolution



#### Crop Size

This allows you to set the specific size of the crop (cut-out) image on a particular window. Freely adjust the position by click the buttons of **X** (0.00%) and **Y** (0.00%); adjust the size by click the buttons of the **Width** (100%) and **Height** (100%), or enter the numerical value to set the position/size of the cropped image.

Then click **Apply**. A cropped-out image of the former window will be created.



Figure 4.1.1.1.14 Setting Crop Size

Click Restore Image allows you to undo the previous cropping action and restore the image prior to cropping (1:1). Then adjust (enlarge) the window size manually by dragging on the corner.

#### Audio On/Off Switch

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



Figure 4.1.1.15 Multiview Layout: Audio On/Off Switch



#### Set Fading Level

The Sequoia 4K60L 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 the con. 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 4.1.1.1.16 Multiview Layout: Setting Menu → Set Fading Level

#### KM Mode When Power On

The **KM mode when power on** allows you to set the keyboard and mouse control in <u>Host</u> mode (default) or Remote mode after boot-up of your Sequoia 4K60L.

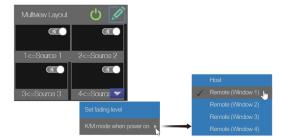


Figure 4.1.1.17 Multiview Layout: Setting Menu → Set KM Mode

Click the click to select **KM mode when power on** and then click to select your desired mode (<u>Host</u> or one of Remote mode).

- ❖ <u>Host</u> the K/M control will remain in <u>Host</u> mode after power on.
- \* Remote (Window 1) the K/M control will remain in Remote mode of Window 1 after power on.
- ❖ <u>Remote</u> (Window 2) the K/M control will remain in <u>Remote</u> mode of Window 2 after power on.
- \* Remote (Window 3) the K/M control will remain in Remote mode of Window 3 after power on.
- \* Remote (Window 4) the K/M control will remain in Remote mode of Window 4 after power on.



If the K/M control is set to Remote (Window 1) but the Window 1 did not connect to a computer with a USB A/B cable, the K/M control will be switch to Window 2 automatically and so forth.

#### Enable / Disable KM Control for Bypass

Allows user to enable (**ON** default) / disable the KM function for bypass display of the monitor connected to **HDMI OUT 2** / **3**. When switched from the <u>Host</u> mode or <u>Remote</u> mode of **HDMI OUT** into the **HDMI OUT 2** / **3**, the keyboard/mouse control will be transferred to the corresponding source computer. But vice versa, the keyboard/mouse control will not be transferred. This function is only applying for **HDMI OUT 2** and **HDMI OUT 3**.



Figure 4.1.1.1.18 Multiview Layout: Bypass Display → Set KM Function



#### 4.1.1.2 OSD Option

The **OSD Option** in the property UI of **Multiview Layout** page allows you to enable/disable the display of tally/label; set the color properties of tally, label, border and popup menu; 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 4K60L. Click **Default** to reset all the setting in OSD option return to default.

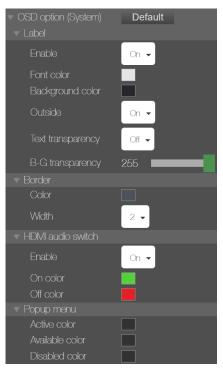


Figure 4.1.1.2.1 Multiview Layout: Property → OSD Option (System)

| Label             |   |
|-------------------|---|
| Enable            | Enable label display on all windows.  |
| Font color        | Click the color box to set the font color in the "Select Color" dialog box.   |
| Background color  | Click the color box to set the background in the "Select Color" dialog box.   |
| Outside           | Enable (On) / disable (Off) label outside. When label outside is turned On (default) and the Aspect ratio is set to Auto detect (default), then the source image will be automatically shrink to accommodate the label and window size.                         |
| Text transparency | Click to disable ( <b>Off</b> ) / enable ( <b>On</b> ) the text to become transparent together with label background and blend into the image displayed on the window ( <b>Off</b> – default)   |
| B-G transparency  | Click the slider to set the desired background transparency level. All the windows' label will become transparent and blend into the image displayed on the windows. Transparency level is from $0 \sim 255$ (default) where $0$ is highest transparency level. |
| Border            |   |
| Color             | Click the color box to set the border color in the "Select Color" dialog box.   |
| Width             | Set the border width on all windows.  ❖ Border width (0, 2, 4, 6)   |
| HDMI audio switch |   |
| Enable            | Enable tally display to toggle on/off output of embedded audio in HDMI output signal.   |
| On color          | Click the color box to set the tally color when turn "on" the HDMI audio switch in the "Select Color" dialog box.   |
| Off color         | Click the color box to set the tally color when turn "off" the HDMI audio switch in the "Select Color" dialog box.  |



| Popup menu      |  |
|-----------------|--|
| Active color    | Click the color box to set the active input source icon color in the "Select Color" dialog box.    |
| Available color | Click the color box to set the available input source icon color in the "Select Color" dialog box. |
| Disabled color  | Click the color box to set the disabled input source icon color in the "Select Color" dialog box.  |

**Table 4.1.1.2.1** Multiview Layout: Property → OSD Option (System) Component and Description

#### 4.1.1.3 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 4K60L.



Figure 4.1.1.3.1 Multiview Layout: Property → Fullscreen Control

#### 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 3) # (1 to 4)" hotkeys, or
  - ✓ Click the icon(top-right corner of window)
- ❖ 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" hotkey, 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 3) # (1 to 4)" hotkeys, or
  - ✓ Click the icon (top-right corner of window)
- ❖ Select **None** in the option **Fullscreen control** → **View Mode** to keep the aspect ratio of the image.



#### 4.1.2 Layout & Routing - Single-View Seamless Switching Mode

**Layout & Routing** provides an interface for user to adjust the output resolution, aspect ratio, OSD setting, fullscreen control and other features when in **Single-View Seamless Switching** mode of Sequoia 4K60L directly from the web browser-based GUI. The table below provides information on each component of **Layout & Routing**.

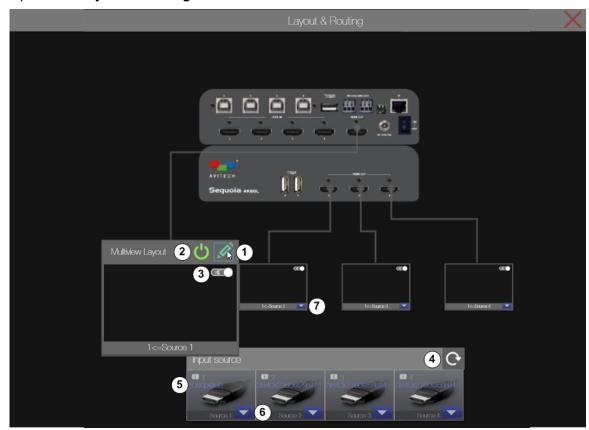


Figure 4.1.2.1 Multiview Layout Control Interface and Components

| Layout & Routing              |   |
|-------------------------------|---|
| 1 Multiview Layout            | Allows user to adjust the multiview output resolution /aspect ratio / OSD setting / fullscreen control of Sequoia 4K60L.  |
| 2 Poewr Saving<br>Mode Switch | Allows user to turn off/on the display monitor connected to Sequoia 4K60L.  Click to turn off the monitor connected to the output port of Sequoia 4K60L.  Upon click the switch, the monitor will enter to power saving mode after five (5)   |
|                               | minutes.  times click to turn on the monitor connected to the output port of Sequoia 4K60L.  Upon clicking the switch, the monitor will be turn on later (depending on different  |
|                               | brand of monitors, the response time for wake up from power saving mode will differ from brands).   |
| 3 Audio Switch                | Allows user to enable/disable audio output through the HDMI ports of Sequoia 4K60L.   |
| Refresh                       | Allows user to update the input signal information.   |
| <b>6</b> Signal Information   | Display the detected input signal information.  |
| 6 Mac PC                      | Allows user to enable (default default) <b>Mac PC</b> function when the specific input port connected to MacBook or Mac-mini source and happened to have a white noise or black image on screen.  |
| <b>7</b> км                   | Allows user to enable ( <b>ON</b> default) / disable the <b>KM</b> function for <b>HDMI OUT 2</b> / <b>3</b> . When switched from the <u>Host</u> mode or <u>Remote</u> mode of 1 <sup>st</sup> display into the 2 <sup>nd</sup> to 3 <sup>th</sup> display, the keyboard/mouse control will be transferred to the corresponding source computer. |

Table 4.1.2.1 Layout & Routing Component and Description



#### 4.1.2.1 Multiview Layout

To adjust the multiview layout, perform the following steps:

Step 1. Locate Layout & Routing icon on the GUI menu and click it; the Layout & Routing page will appear.

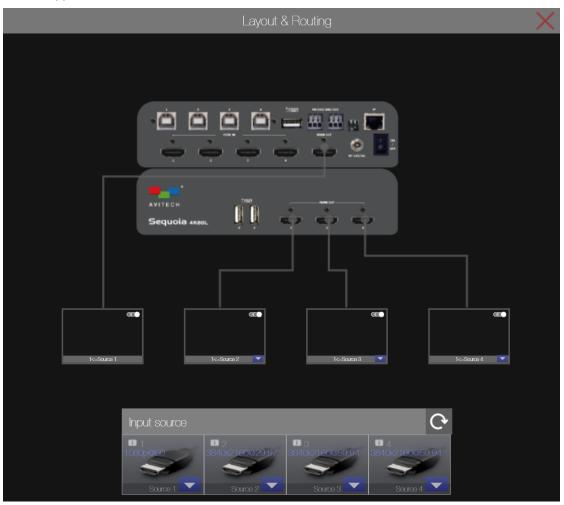


Figure 4.1.2.1.1 Web Browser-based GUI: Layout & Routing

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



Figure 4.1.2.1.2 Web Browser-based GUI: Multiview Layout



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

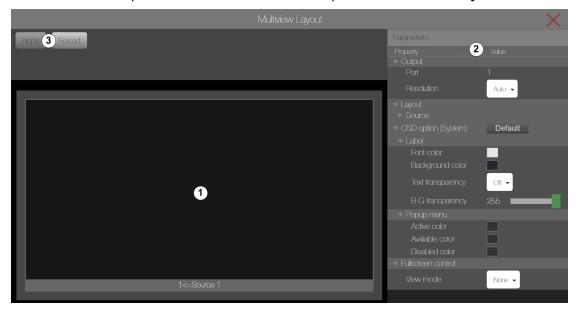


Figure 4.1.2.1.3 Multiview Layout Control Interface and Components

Multiview Layout

Window Layout

2 Property

Shows the fullscreen layout of Sequoia 4K60L.in Single-View Seamless Switching mode.

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), 4096×2160p 50/60Hz, 3840×2400p 50/60Hz (RB), 3840×2160p 25/30/50/60Hz, 1920×1200p 50/60Hz, 1920×1080p 50/60Hz or 1280×1024 50/60Hz from the drop down menu.

**Layout** – fixed fullscreen window. Configurable property includes:

\* 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), 4:3, 5:4, 16:9 or 16:10.

**OSD option (system)** – set the color properties of pop-up menu.

- ❖ Label sets the label property for the input sources to display on the connected monitors of Sequoia 4K60L.
  - ✓ 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.
  - ✓ Text transparency click to disable (Off) / enable (On) the text to become transparent together with label background and blend into the image displayed on the window (Off - default).
  - ✓ B-G transparency select the desired background transparency level by using the slider (0 - 255 levels), all the windows' label will become transparent and blend into the image displayed on the windows. Transparency level is from 0 ~ 255 (default) where **0** is highest transparency level.
- \* Popup menu for custom 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 showing on the monitor.
  - ✓ Available color indicates the available input source.
  - ✓ **Disable color** indicates the absent input source.
  - ✓ Click Default allows you to reset the color of popup menu to return default setting.

Fullscreen Control – allows setting the function of remaining aspect ratio in fullscreen.

- View mode
  - ✓ Select Fill up screen to enable the image display on a particular monitor to fill up scree when using keyboard "Ctrl - # (1 to 4) - # (1 to 4)" hotkeys to switch source.
  - ✓ Select None to keep the aspect ratio of the image.



| Multiview<br>Layout |  |
|---------------------|--|
| <b>6</b>            | Allows user to instantly:  |
| <b>③</b> Top Bar    | <ul> <li>Apply : click to apply the adjusted layout to the respective output.</li> <li>Reload : click to obtain the current layout from the output.</li> </ul> |

Table 4.1.2.1.1 Multiview Layout Component and Description

#### Setup the Output Resolution

When set the output resolution to **Auto**, the Sequoia 4K60L will automatically detect the EDID of the connected monitors and display the optimum resolution. The Sequoia 4K60L also allows you to set the output display according to the connected monitor's resolution. Or select **4096×2160p 50/60Hz**, **3840×2400p 50/60Hz** (RB), **3840×2160p 50/60Hz**, **3840×2160p 25/30Hz**, **1920×1200p 50/60Hz**, **1920×1080p 50/60Hz** or **1280×1024 50/60Hz**.

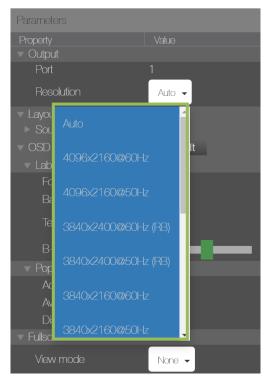


Figure 4.1.2.1.4 Multiview Layout: Output → Resolution

Then a message window will appear, click

Revert reverting to previous setting.

Keep changes to confirm the output resolution or click



Figure 4.1.2.1.5 Confirm or Cancel to Change Output Resolution



#### Audio On/Off Switch

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



Figure 4.1.2.1.6 Multiview Layout: Audio On/Off Switch

#### Enable / Disable KM Control

Allows user to enable (**ON** default) / disable the KM function for bypass display of the monitor connected to **HDMI OUT 2** – **4**. When switched from the <u>Host</u> mode or <u>Remote</u> mode of **HDMI OUT** into the **HDMI OUT 2** / **3** / **4**, the keyboard/mouse control will be transferred to the corresponding source computer. But vice versa, the keyboard/mouse control will not be transferred. This function is only applying for **HDMI OUT 2** – **4**.



Figure 4.1.2.1.7 Multiview Layout: Set KM Function

#### 4.1.2.2 OSD Option

The **OSD Option** in the property UI of **Multiview Layout** page in **Single-View Seamless Switching** mode allows you to set the color properties of popup menu. 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 4K60L. Click Default to reset all the setting in OSD option return to default.



Figure 4.1.2.2.1 Multiview Layout: Property → OSD Option (System)

| Popup menu      |  |
|-----------------|--|
| Active color    | Click the color box to set the active input source icon color in the "Select Color" dialog box.    |
| Available color | Click the color box to set the available input source icon color in the "Select Color" dialog box. |
| Disabled color  | Click the color box to set the disabled input source icon color in the "Select Color" dialog box.  |

Table 4.1.2.2.1 Multiview Layout: Property → OSD Option (System) Component and Description



#### 4.1.2.3 Fullscreen Control

The Fullscreen Control in the property UI of Multiview Layout page in Single-View Seamless Switching mode allows you to setting maintain aspect ratio functions. Upon completing the Fullscreen Control setting, click Apply on the top-left corner. This will apply the Fullscreen Control options to the Sequoia 4K60L.

#### 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 4) # (1 to 4)" hotkeys, or
  - ✓ Click the icon (top-right corner of window)
- ❖ Select **None** in the option **Fullscreen control** → **View Mode** to keep the aspect ratio of the image.

#### 4.2 Daisy Chain (Layout & Routing)

**Daisy Chain** provides an interface for user to adjust the multiview (window) layout, output resolution, OSD setting, fullscreen control and other features of Sequoia 4K60L directly from the web browser-based GUI. The table below provides information on each component of **Daisy Chain**.



The **Daisy Chain** icon will only appear when multiple Sequoia 4K60L devices are in daisy chain configuration.

To adjust the multiview layout in daisy chain, perform the following steps:

Step 1. Locate Daisy Chain icon on the GUI menu and click it; the Daisy chain page will appear.

The table below provides information on each component of Daisy chain.

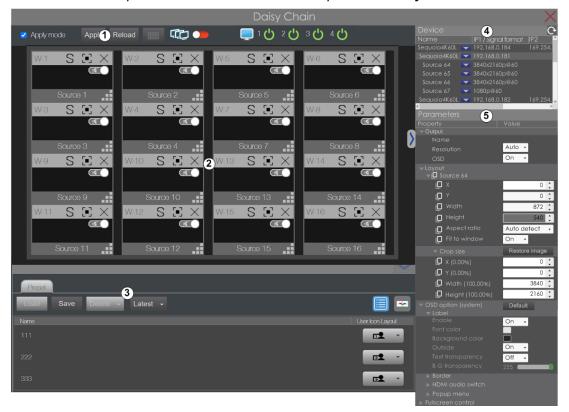


Figure 4.2.1 Daisy Chain Control Interface and Components

#### **Daisy Chain**

Allows user to instantly:

- Apply mode: the Apply mode helps you to confirm the changes before applying to display monitor. Click the checkbox to enable apply button. When change the size/position of any window or adjust the setting in parameter, must click "Apply button to apply the change.
- Apply : click to apply the adjusted layout to the respective output.
- Reload : click to obtain the current layout from the output.
- : click to allow you to quickly switch the windows in 4x4 layout.

### 1 Top Menu

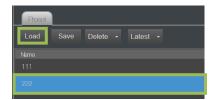
- : allows you to lock the multiview layout window's position and size.
  - ✓ > : to turn off the keyboard/mouse lock function by sliding to the left (turns red).
- : allow you to turn off/on the display monitor connected to Sequoia 4K60L.
  - ✓ U: click to turn off the monitor connected to the output port of Sequoia 4K60L.

    Upon click the switch, the monitor will enter to power saving mode after five (5) minutes
  - Upon clicking the switch, the monitor will be turn on later (depending on different brand of monitors, the response time for wake up from power saving mode will differ from brands).

## Window Layout

Shows the daisy chain multiview layout of Sequoia 4K60L. Supports free-scaling position and size adjustment for each window (layer adjustment is only available when **OSD** is **Off**) via drag-and-drop operation.

Load allows you to load a user-defined preset.
In the preset list, select a filename and then click Load in the menu bar to load a user-defined preset.



Save allows you to save user-defined layout to preset files for later recall. In the menu bar, click Save, the Save window will appear, designate the filename for the preset and then click OK.

#### **3** Preset Menu

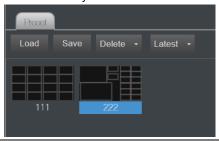


Then you may also click the down arrow and select any of the five user-icon (1-5) button to be saved as user-icon preset for recall by using keyboard " $\uparrow$ " or " $\downarrow$ " keys.



#### **Daisy Chain**

- Latest allows you to quickly load the latest saved layout after rebooting the Sequoia 4K60L. If you 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. Click Delete to delete the latest preset file.
- icon allow you to switch the user-defined preset files appear as icons view.



Shows the Sequoia 4K60L device/source names, the IP1 address/signal format, the IP2 address and Mac Address.

- 4 Device
- (on device name) Config EDID: Config EDID allows you to upload the edited extended display identification data (EDID) that is most common used in today's HDMI and DVI systems to a specified input port. Please refer to section (4.6.1) "Config EDID" for more details.
- (on source name) Mac PC: Allows user to enable Mac PC function when a specified input port connected to MacBook or Mac-mini source and happened to have a white noise or black image on screen.

Output - information include:

- Resolution allows user to set the output resolution according to the connected monitor's. You can select the output resolution for Auto (default), or 4096×2160p 50/60Hz, 3840×2400p 50/60Hz (RB), 3840×2160p 50/60Hz, 3840×2160p 25/30Hz, 1920×1200p 50/60Hz, 1920×1080p 50/60Hz, or 1280×1024 50/60Hz from the drop down menu.
- OSD allows user to turn On (enable) / Off (disable default) the audio tally, label and border.

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

- \* X and Y for adjusting 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) for adjusting 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. This feature only available when OSD is set to Off.

### **6** Property

- 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), 4:3, 5:4, 16:9 or 16:10.
- Fit to window for allowing the window size to conform to the image's original aspect ratio On (default) or Off.
- → Right-click an item (with licon) on the Properties window and click the following to quickly apply the settings to
  - ✓ All (All the windows)
  - √ Source # (A particular window)

<u>Note</u>: When **OSD** is turn **Off**, some (copy to) property may not be available (greyed out) due to hardware limitation.

**Crop Size** – allows you to remove the unwanted outer areas from the source image.

- X (0.00%) and Y (0.00%) for adjusting the source image's starting position (top-left corner). Use the up/down icons on the right-edge to adjust (1-pixel increments/decrements).
- Width (0.00%) and Height (0.00%) for adjusting the cropping's size. Use the up/down icons on the right-edge to adjust (1-pixel increments/decrements).



\*Click allows you to undo the previous cropping action and restore the image prior to cropping (1:1). Then adjust (enlarge) the window size manually by dragging on the corner.

**OSD option (system)** – set the color properties of tally and 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 Seguoia 4K60L.
  - ✓ Enable for 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.
  - ✓ Outside when this item is turned On (default) and the Aspect ratio is set to Auto detect (default), then the source image will be automatically shrink to accommodate the label.
  - ✓ Text transparency click to disable (Off) / enable (On) the text to become transparent together with label background and blend into the image displayed on the window (Off default).
  - ✓ B-G transparency select the desired background transparency level by using the slider (0 – 255 levels), all the windows' label will become transparent and blend into the image displayed on the windows. Transparency level is from 0 ~ 255 (default) where 0 is highest transparency level.
- ❖ 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 allows setting the HDMI embedded audio tally On (default) / Off.
  - ✓ On color sets 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 sets 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 for custom 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 showing on the monitor.
  - ✓ Available color indicates the available input source.
  - ✓ Disable color indicates the absent input source.

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

#### ❖ Enter Remote mode –

- ✓ Select **Automatically** to enable a particular window to enter <u>Remote</u> operation mode when using any of the below methods to switch to fullscreen view:
  - > "Ctrl 1 # (1 to 9, A to G)" hotkeys, or
  - > Click the icon (top-right corner of windows)
- ✓ Select **None** to disable the K/M function automatically be switched to <u>Remote</u> 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 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 <u>Host</u> operation mode from <u>Remote</u> 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 # (1 to 9, A to G)" hotkeys, or
    - ➤ Click the icon (top-right corner of window)
  - ✓ Select None to keep the aspect ratio of the image.

Table 4.2.1 Daisy Chain Component and Description

Step 2. 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 bottom-right of the window and drag to the desired size when the directional arrow appears.



Figure 4.2.2. Daisy Chain: Resize Window

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.

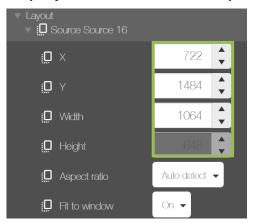


Figure 4.2.3. Daisy Chain: Set Window Properties

Alternatively, by clicking the corresponding icon to switch to the factory default layout.



Step 3. Upon completing the layout adjustment, click **Apply** (when **Apply mode** was checked) on the top-left corner. This will apply the multiview layout you have configured to the display monitor.

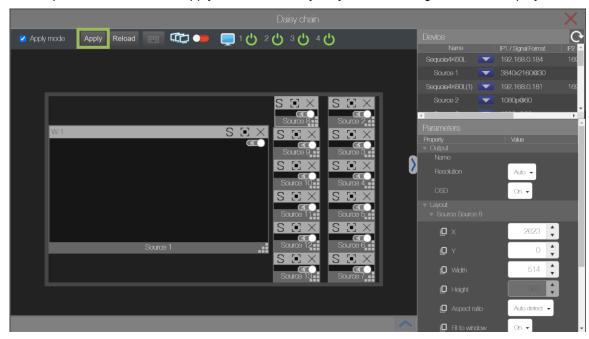


Figure 4.2.4 Daisy Chain: Apply Layout Adjustment

Step 4. To swap two windows' position/size, move mouse cursor to the top bar of the window, click "S" icon, and then move the cursor (now became a "S" icon) to the destination window. Click **Apply** on the top-left corner. This will swap the two window's position/size you have configured to the display monitor.

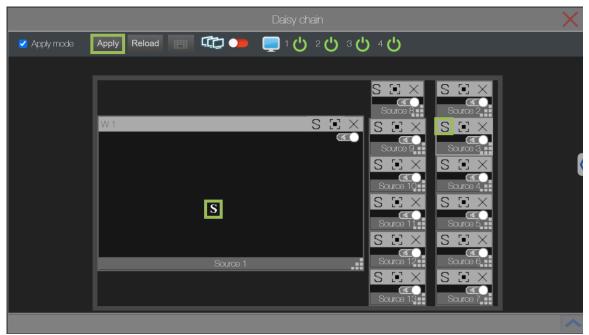


Figure 4.2.5 Daisy Chain: Swap Window



To set a window to fullscreen, move mouse cursor to the top bar of a specified window, then click "••" icon. Click **Apply** on the top-left corner. This will let the window you have configured to set in fullscreen mode on the display monitor.

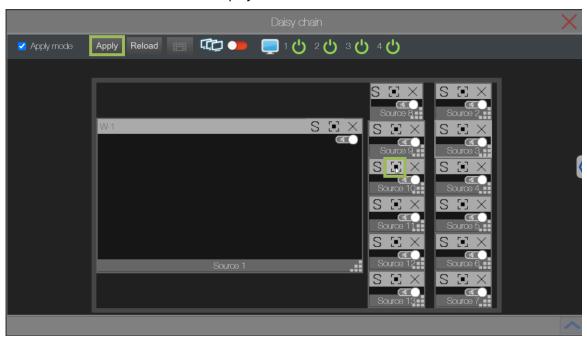


Figure 4.2.6 Daisy Chain: Set a Window to Fullscreen

Click "# "and then click **Apply** to resume multiview layout.

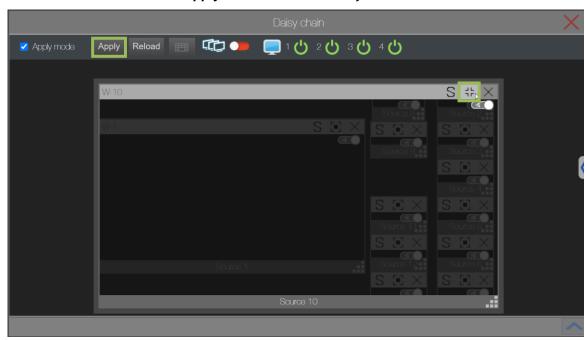


Figure 4.2.7 Daisy Chain: Resume to Multiview Layout



To close a window, move mouse cursor to the top bar of a specified window, then click "\sum" icon. Click **Apply** on the top-left corner. This will let the window you have configured to hide from the display monitor.

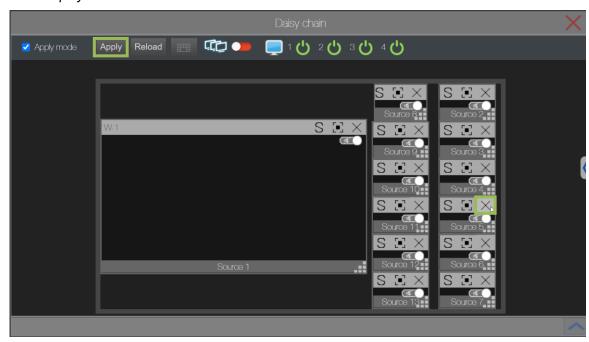


Figure 4.2.8 Daisy Chain: Close a Window

To add a window, on the blank area, click and hold the mouse left button to draw a rectangle outline, then release the mouse left button, then select the input source name from the drop-down menu, then click **OK** the newly added window will appear on the UI.



Figure 4.2.9 Daisy Chain: Add a Window

Click **Apply** on the top-left corner. This will let the newly added window you have configured to show on the display monitor. The newly add window cannot be overlay with other windows during creation.



Windows with **OS**D cannot be overlay with others due to hardware limitation. When load a user-icon or latest preset with **OSD** turn **Off** and window overlay configuration, upon turning **On** the **OSD** feature, the Sequoia 4K60L will automatically adjust the window's position and size.



Step 5. To save the configured layout to a user-icon preset (1-5) for later use. Click the down arrow on

the user-icon Then click on any of the user-icon None 12 12 13 to save the configured layout as one of the user-icon layout (1-5).

Or, click the **Save** button in the top bar, then designate the file name for the preset and then click **OK**.



Figure 4.2.10 Daisy Chain: Save User Icon Preset

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 4K60L.

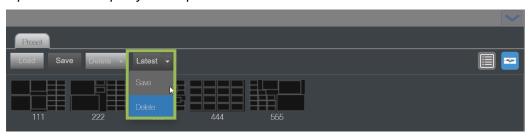


Figure 4.2.11 Daisy Chain: Save Latest

#### Enable/Disable a Window

Move the mouse to **Multiview Layout**, then click icon on the top menu of a particular window to hide the window from multiview layout design area.



Figure 4.2.12 Daisy Chain: Close a Window

To add a closed window, press and hold the left button of the mouse to draw a rectangle block in the blank area of multiview layout, and then select an input source from the drop-down menu. Click **OK** to open a window.



Figure 4.2.13 Daisy Chain: Add a Closed Window





Windows with **OSD** cannot be overlay with others due to hardware limitation. When load a user-icon or latest preset with **OSD** turn **Off** and window overlay configuration, upon turning **On** the **OSD** feature, the Sequoia 4K60L will automatically adjust the window's position and size.

#### Setup the Output Resolution

When set the output resolution to **Auto**, the Sequoia 4K60L will automatically detect the EDID of the monitor connected to the HDMI OUT port of primary Sequoia 4K60L and display the optimum resolution The Sequoia 4K60L also allows you to set the output display according to the connected monitor's resolution. Or select **4096×2160p 50/60Hz**, **3840×2400p 50/60Hz** (**RB**), **3840×2160p 50/60Hz**, **3840×2160p 50/60Hz**, **1920×1080p 50/60Hz** or **1280×1024 50/60Hz**. If the **HDMI OUT 2/3/4** also connected with monitors then they will have a duplicated multiview source with the same resolution display on the monitors.

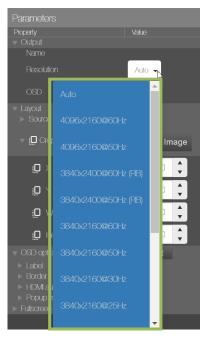


Figure 4.2.14 Daisy Chain: Output → Resolution



Figure 4.2.15 Confirm or Cancel to Change Output Resolution



#### Audio On/Off Switch

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

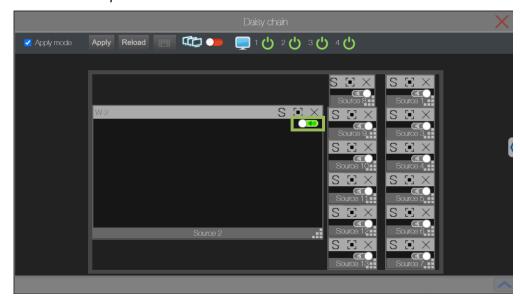


Figure 4.2.16 Daisy Chain: Audio On/Off Switch

#### 4.2.1 OSD Option

The **OSD Option** (**OSD** default is off) in the property UI of **Daisy Chain** page allows you to enable/disable the display of tally/label; set the color properties of tally, label, border and popup menu; 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 4K60L. Click **Default** to reset all the setting in OSD option return to default.

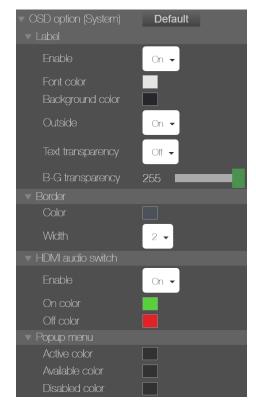


Figure 4.2.1.1 Daisy Chain: Property → OSD Option (System)



|                   | •   |
|-------------------|---|
| Label             |   |
| Enable            | Enable label display on all windows.  |
| Font color        | Click the color box to set the font color in the "Select Color" dialog box.   |
| Background color  | Click the color box to set the background in the "Select Color" dialog box.   |
| Outside           | Enable (On) / disable (Off) label outside. When label outside is turned On (default) and the Aspect ratio is set to Auto detect (default), then the source image will be automatically shrink to accommodate the label and window size.                         |
| Text transparency | Click to disable ( <b>Off</b> ) / enable ( <b>On</b> ) the text to become transparent together with label background and blend into the image displayed on the window ( <b>Off</b> – default)   |
| B-G transparency  | Click the slider to set the desired background transparency level. All the windows' label will become transparent and blend into the image displayed on the windows. Transparency level is from $0 \sim 255$ (default) where $0$ is highest transparency level. |
| Border            |   |
| Color             | Click the color box to set the border color in the "Select Color" dialog box.   |
| Width             | Set the border width on all windows.  * Border width (0, 2, 4, 6)   |
| HDMI audio switch |   |
| Enable            | Enable tally display to toggle on/off output of embedded audio in HDMI output signal.   |
| On color          | Click the color box to set the tally color when turn "on" the HDMI audio switch in the "Select Color" dialog box.   |
| Off color         | Click the color box to set the tally color when turn "off" the HDMI audio switch in the "Select Color" dialog box.  |
| Popup menu        |   |
| Active color      | Click the color box to set the active input source color in the "Select Color" dialog box.  |
| Available color   | Click the color box to set the available input source color in the "Select Color" dialog box.   |
| Disabled color    | Click the color box to set the disabled input source color in the "Select Color" dialog box.  |
|                   |   |

Table 4.2.1.1 Daisy Chain: Property → OSD Option (System) Component and Description

#### 4.2.2 Fullscreen Control

The **Fullscreen Control** in the property UI of **Daisy Chain** 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 4K60L.

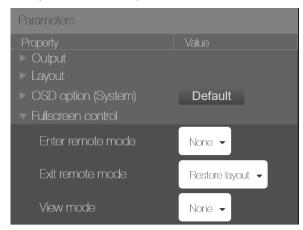


Figure 4.2.2.1 Daisy Chain: Property → Fullscreen Control



#### **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 # (1 to 9, A to G)" hotkeys, or
  - ✓ Click the icon(top-right corner of window)
- ❖ 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" hotkey, 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 - # (1 to 9, A to G)" hotkeys, or
  - ✓ Click the icon (top-right corner of window)
- ❖ Select None in the option Fullscreen control → View Mode to keep the aspect ratio of the image.



#### 4.3 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).

#### For Stand-alone

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 Seguoia 4K60L and their default names.



Figure 4.3.1 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.

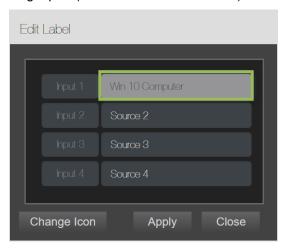


Figure 4.3.2 Edit Label: User-defined Names

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 4.3.3 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 4.3.4 Edit Label: Upload User-defined Label Names Appearing on Screen

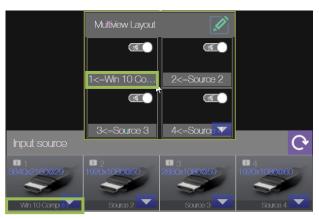


Figure 4.3.5 Edit Label: Upload User-defined Label Names on Web GUI

Step 4. Click Close to exit label edit page.



#### For Daisy Chain

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

Step 1. Locate on the web GUI menu and click it. The **Edit Label** page will appear displaying all input ports of the daisy chain Sequoia 4K60L devices and their default names.

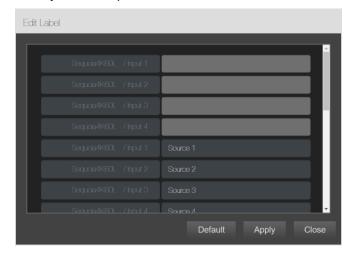


Figure 4.3.6 Web Browser-based GUI: Edit Label → Default Names

The default label name and window ID will be automatically assigned as following:

❖ When daisy chain two Seguoia 4K60L devices

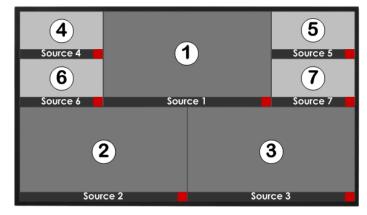


Figure 4.3.7 Edit Label → Default Names of Daisy Chain Two Sequoia 4K60L Devices

❖ When daisy chain three Sequoia 4K60L devices

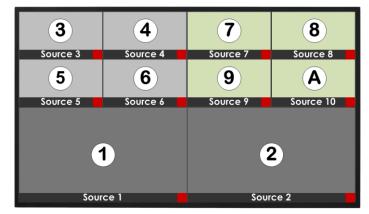


Figure 4.3.8 Edit Label  $\rightarrow$  Default Names of Daisy Chain Three Sequoia 4K60L Devices



❖ When daisy chain four Sequoia 4K60L devices

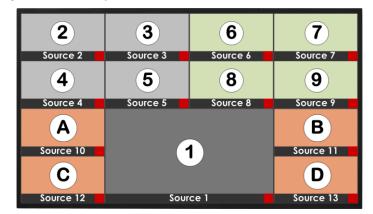


Figure 4.3.9 Edit Label → Default Names of Daisy Chain Four Sequoia 4K60L Devices

❖ When daisy chain five Sequoia 4K60L devices

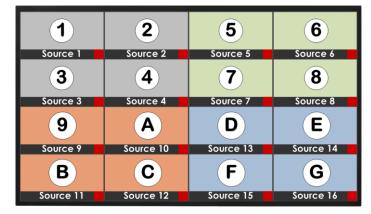


Figure 4.3.10 Edit Label → Default Names of Daisy Chain Five Sequoia 4K60L Devices

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

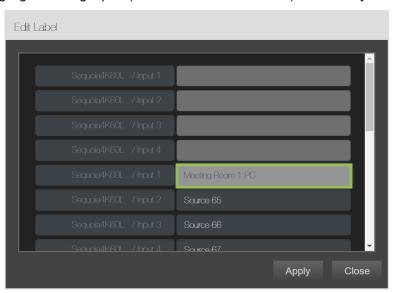


Figure 4.3.11 Edit Label: User-defined Names

<u>∧</u>

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 4.3.12 Edit Label: Uploading User-defined BMP Label Names

The names of the input ports appearing on the windows and web GUI (Daisy chain UI) will both be updated accordingly.



Figure 4.3.13 Edit Label: Upload User-defined Label Names Appearing on Screen

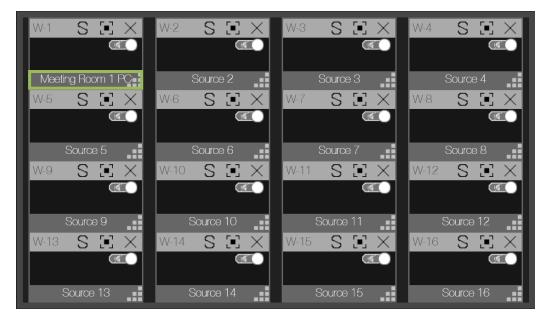


Figure 4.3.14 Edit Label: Upload User-defined Label Names on Web GUI

Step 4. Click Close to exit label edit page.



#### 4.3.1 Change Icon

The **Change icon** feature allows you to select an image file to replace the input signal icon in the input control bar. This feature is only available when your Sequoia 4K60L device is not in a daisy chained configuration.



- 1. The allowed image file formats are BMP, JPEG, JPG or 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 113×45.
- 4. When use **Change Icon** feature, the changed icons only appears on Input source control bar in web browser-based GUI.

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

- Step 1. Save the image file(s) into the computer controlled the Sequoia 4K60L.
- Step 2. Click Change icon.

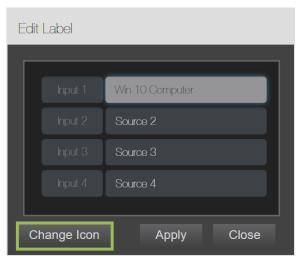


Figure 4.3.1.1 Edit Label: Change Icon

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



Figure 4.3.1.2 Click Browse Belonging to an Input Signal Icon



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

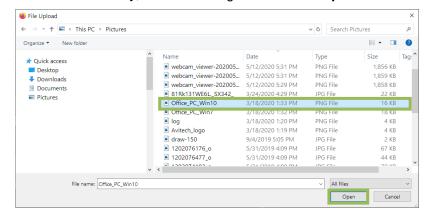


Figure 4.3.1.3 Load Icon File

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



Figure 4.3.1.4 Browse Image Window

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



Figure 4.3.1.5 Apply Icon



Notice that the selected image will now replace the default input port image shown in the input control bar.



Figure 4.3.1.6 Replaced Icon of Input in Input Source Control Bar

Perform the above steps to replace the other input signal icon(s) as desired.

#### 4.4 User Account

**User Accounts** allows you to improve the security of Sequoia 4K60L by limiting the access of keyboard/mouse control or modify the default hotkeys for lock keyboard/mouse function or enable/disable the monitors connected to Sequoia 4K60L entering/wake up from sleep mode. Besides, it also allows you to login into Sequoia 4K60L's web browser-based GUI for advanced setting and intuitive control from computers and handheld touch devices. A maximum of 10 user accounts can be created in your Sequoia 4K60L.

## 4.4.1 Add User

To customize the user account(s) setting, click on the web GUI menu and click it, the initial **User Account** page will appear.

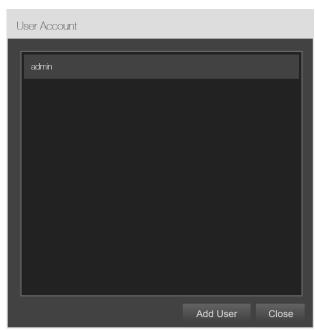


Figure 4.4.1.1 User Accounts: Initial Page



- 1. Upon opening the **User Account** page for the first time, note that only "**admin**" is listed. Click this account to enable the administrator to change the default password "**admin**" into a more secure one. The default user name "**admin**" is not changeable and clicking the "**Delete User**" button is not executable.
- 2. Only **admin** can perform hotkey to lock/unlock keyboard/mouse function and enable/disable monitors entering/wake up from sleep mode.
- 3. A maximum of 10 user accounts can be created in your Sequoia 4K60L.



To add and assign user account(s), perform the following steps:

Step 1. Click Add User on the initial User Account page. The following page will appear.

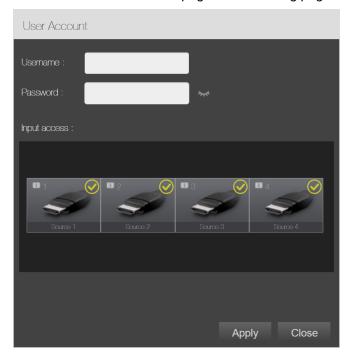


Figure 4.4.1.2 User Accounts: Assign User Account Privileges

Step 2. Assign a **User Name** and **Password**. Click (Show password) icon to enable the display of the entered password in plain text format.



- 1. The alphabet that use in both of the user name and password must be in lower case.
- 2. The character set that <u>CANNOT</u> be used in the password includes the following: <>! @#&\$ %^&\*"'/\,"."(period):;?=
- Step 3. Click **Apply** upon finishing, and then click **Close** to exit. Alternatively, click **Delete User** to remove any previously assigned privileges.
- Step 4. Upon returning to the initial User Account page, click Close to exit.



#### 4.4.2 Modify Hotkey for Lock K/M and Monitor Sleep Mode functions

To modify the hotkey for lock/unlock keyboard/mouse function or enable/disable monitor entering/wake up from sleep mode in user account(s), perform the following steps:

Step 1. Click admin on the initial User Account page. The following page will appear.

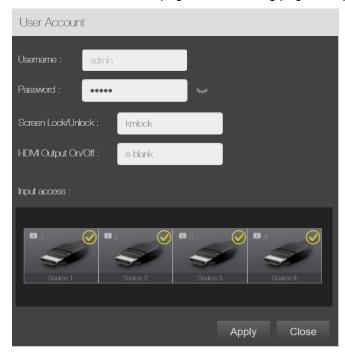


Figure 4.4.2.1 User Accounts: Modify Hotkey

Step 2. Click to highlight the target function for **Screen Lock/Unlock** or **HDMI Output On/Off**, then directly modify by entering plain text format.



- The alphabet that use in the hotkey for both of the Screen Lock/Unlock and HDMI Output On/Off must be in lower case.
- 2. The character set that <u>CANNOT</u> be used in the hotkey includes the following: < >! @ # & \$ % ^ & \* " ' / \, "."(period) : ; ? =
- Step 3. Click **Apply** upon finishing, and then click **Close** to exit. Alternatively, click **Delete User** to remove any previously assigned privileges.
- Step 4. Upon returning to the initial **User Account** page, click **Close** to exit.

## 4.5 Device List

**Device List** allows you to check the basic information of device name, IP address, and MAC address and firmware version for the Sequoia 4K 60L devices daisy chained in the same network. Besides, it also allows you to modify the device name, IP address and firmware update for each Sequoia 4K60L device. This feature is only available when your Sequoia 4K60L devices are in a daisy chained configuration.



To browse the Sequoia 4K60L device(s) on the same network, click on the web GUI menu and click it, the initial **Device List** page will appear.



Figure 4.5.1 Device List: Initial Page



- 1. The **Device List** icon will only appear when multiple Sequoia 4K60L devices are in daisy chained configuration.
- In IP1/IP2 columns, the IP addresses in blue color mean they are members of secondary devices, the IP address in gray color means it is the primary device in daisy chained configuration.

# 4.5.1 Change Name / IP for Secondary Devices in Daisy Chained

Locate and click it, the **Modify** window below provides information of the selected Sequoia 4K60L.

- Click to highlight the Machine name (enters the "text edit" mode) and directly modify its name. Then click Apply. It is recommended assigning a unique machine name for each Sequoia 4K60L devices, and it will be easy to identify the device for setup the property correctly.
- Click to highlight the IP1 address and directly modify its IP address. Then click Apply.
- (Optional if needed) Click to highlight the IP2 address and directly modify its IP address. Then click Apply.



Figure 4.5.1.1 Device List: Modify Page



#### 4.5.2 Firmware Update for Secondary Devices in Daisy Chained

To update the firmware for secondary devices of Sequoia 4K60L in daisy chained, perform the following steps:

To update the firmware for primary device, please refer to <u>section (4.6.4) "Update (the Firmware)"</u> for details.

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

Step 2. Click on the IP address on the IP1 column.



Figure 4.5.2.1 IP Address List of Secondary Devices

Step 3 A new "Sequoia 4K60L Firmware Update" tab will appear on your web browser. Click Select file.

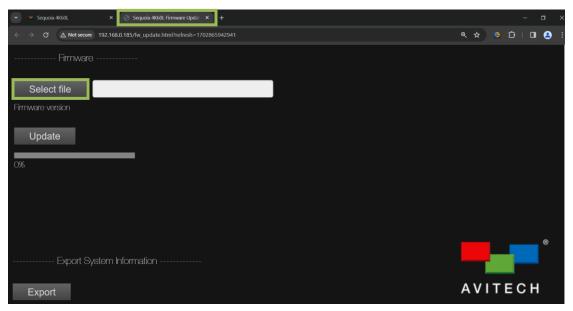


Figure 4.5.2.2 Sequoia 4K60L Firmware Update Page: Select File



Step 4. The **File Upload** window appears. Select the target firmware file and then click **Open**. For this example, "AT-Sequoia-4K60L-CB-MCU\_xxxx" was selected.

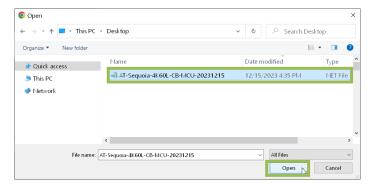


Figure 4.5.2.3 File Upload Window: Select Firmware File

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

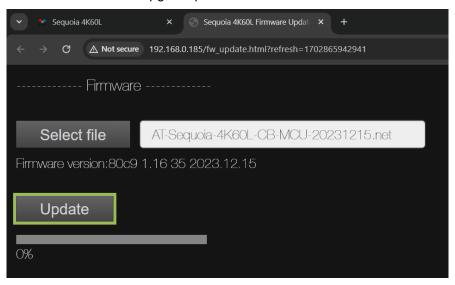


Figure 4.5.2.4 Sample "AT-Sequoia-4K60L-CB-MCU" Firmware Upgrade

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

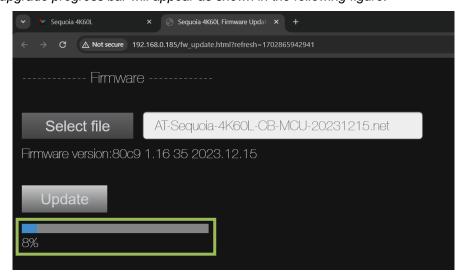


Figure 4.5.2.5 Sample Firmware Upgrade in Progress



Step 6. The following message will appear when progress bar reaches 100 %. Click **OK** then reboot the Sequoia 4K60L by switching the power button on rear panel to complete firmware grade. Repeat the above steps for any component that requires its firmware to be updated.

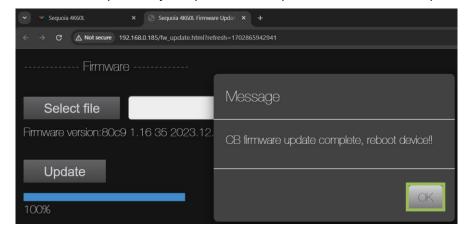


Figure 4.5.2.6 Reboot the Sequoia 4K60L - Complete Firmware Upgrade



<u>DO NOT</u> at any time unplugs the power cable connected to the Sequoia 4K60L during firmware upgrade.

# 4.6 System

**System** contains a collection of settings for Sequoia 4K60L including **General**, **Network**, **Configuration** (only available when in stand-alone application), **System Information** and **About** for managing your Sequoia 4K60L. To customize the system setting, move mouse pointer to **System** on the GUI menu and click it; the **System** page will appear.

# 4.6.1 General

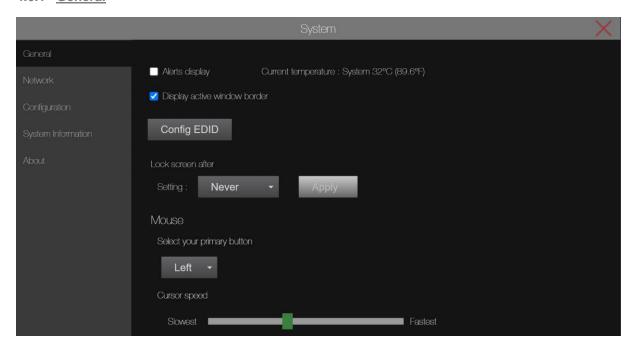


Figure 4.6.1.1 System Page



# Alerts display

**Alerts Display** allows you to enable/disable the display of system alerts. You can enable the alert when system fan failure occurs or the **System** operating temperature is too high (above the normal operating temperature threshold of 70°C). Upon checking the **Alerts Display**, this will apply the setting to Sequoia 4K60L.

| Alerts Display                   |  |
|----------------------------------|--|
| Enable/Disable<br>Alerts Display | 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.  |
| ❖ Fan Alert                      | If the system fan module fails, the Sequoia 4K60L can detect the failure and display alert System fan faillure detedted! on top-left portion of monitor.   |
|                                  | When a "fan failure" alert occurs, it is important to replace the system fan immediately. Failure to address this problem may cause irreparable damage to system components.   |
| ❖ Current<br>Temperature         | Shows the current detected temperature of the Sequoia 4K60L system. If the temperature is above the normal operating temperature threshold of 70°C, a  |
|                                  | "System operating temperature is too high!" alert will appears on top-right portion of monitor.  |
|                                  | When a "Temperature Alert" 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 4K60L 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, the module can overheat. When the module becomes hot and there is a risk of overheating, the performance of the module is reduced. |
|                                  | <ul><li>First try this:</li><li>1. Turn off your Sequoia 4K60L. Allow your Sequoia 4K60L to cool down for at least 20 minutes.</li><li>2. Restart your Sequoia 4K60L.</li></ul>  |
|                                  |  |
|                                  | Then try this:  1. Place your hand near each fan outlet in turn and check that air is flowing out of your Sequoia 4K60L.   |
|                                  | <ul><li>2. Check the environment around your Sequoia 4K60L:</li><li>– Is there anything covering the fan outlets?</li></ul>  |
|                                  | – Is the space large enough?   |
|                                  | <ul> <li>Is there enough ventilation or cooling? For best results, make sure the air around<br/>your Sequoia 4K60L is a maximum of 25°C.</li> </ul>  |
|                                  | – Is there an air gap all around your Sequoia 4K60L?   |
|                                  | 3. If there are any issues with the environment around your Sequoia 4K60L, switch off your Sequoia 4K60L and allow it to cool down while you fix the issues.   |

Table 4.6.1.1 Alerts Display Functions of the System

# 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 need. 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.



# **Config EDID**

**Config EDID** allows you to upload the edited extended display identification data (EDID) that is most common used in today's HDMI and DVI systems. Upload a preconfigured EDID file can be useful in certain situations, such as when you have a custom display that is not recognized by the input ports of Sequoia 4K60L, or when you need to ensure that your display's settings is correctly configured in a specific application. Furthermore, Sequoia 4K60L also allows you to obtain the monitor's EDID to save to the corresponding input port.

To configure the EDID for input port(s), perform the following steps:

Step 1. Click the Config EDID icon, the Config EDID page will appear.



Figure 4.6.1.2 Config EDID - Single Device



Figure 4.6.1.3 Config EDID - Daisy Chained

Step 2. To change the EDID setting, click the radio button on the specific input port icon.



Figure 4.6.1.4 Select an Input Port



Step 3. The following page will appear.



Figure 4.6.1.5 EDID Setting Page

# ✓ Built-in EDID

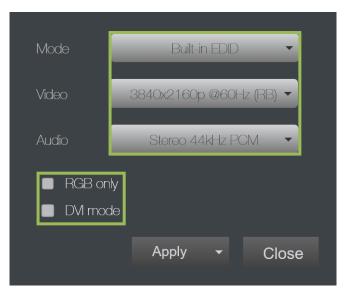


Figure 4.6.1.6 Built-in EDID Setting

- > Mode: select "Built-in EDID" from the drop-down list.
- Video: lists all available default EDID. Select a resolution from the drop-down list as for the selected input port.
- > Audio: lists the support audio formats. Select an audio format from the drop down list.
- > **RGB only**: DVI is limited to the RGB color model while HDMI also supports YCbCr color spaces. Depends on your source to set the color space accordingly.
  - o Unchecked (default): the input video source will be set with YCbCr color model.
  - o Checked: the input video source will be set with RGB color model.

#### > DVI mode:

- o Unchecked (default): the input video source will be HDMI mode.
- Checked: the input video source will be DVI mode and the previous item "RGB only" will be checked simultaneously base on the DVI specification.



# ✓ EDID From File

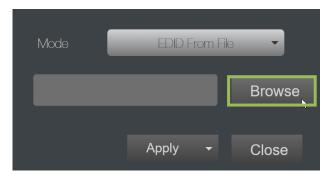


Figure 4.6.1.7 Browse EDID File

- ➤ Mode: select "EDID form file" from the drop-down list.
- > Click the Browse button.

An "Open" window will appear, and then selects the file with the proper EDID data. Click Open to exit the Load File window.

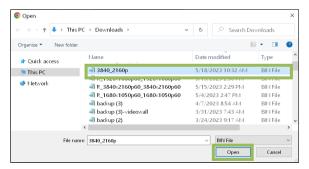


Figure 4.6.1.8 Select the EDID File

#### ✓ EDID From Monitor

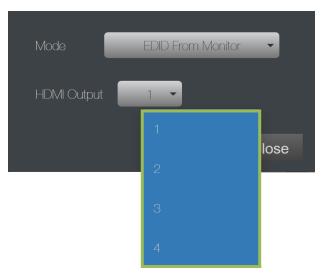


Figure 4.6.1.9 EDID From Monitor Setting

- > Mode: select "EDID From Monitor" from the drop-down list.
- > HDMI Output: select output port from the drop-down list.

Note: When Sequoia 4K60L is under **Quad Multiview + Bypass (Daisy Chain Capable)** mode, only output port **1** or **4** can be selected.



Step 4. Click Apply to allow the EDID update to the selected input port.

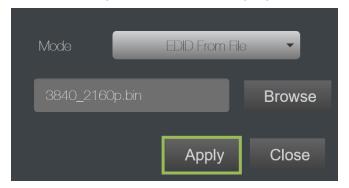


Figure 4.6.1.10 Apply EDID From File

When in daisy chained configuration, the EDID can also duplicate to the entire system (AII) or specific input port(s) by selecting from the drop-down list.

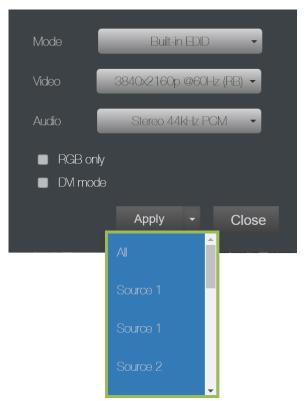


Figure 4.6.1.11 Duplicate the EDID to other Input Port

Step 5. The following message will appear when upload EDID successfully. Click **OK** to exit.

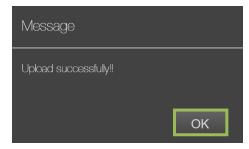


Figure 4.6.1.12 Completed EDID File Upload



Step 6 To view the EDID for each input port, click the **View** icon, the label name on **Config EDID** page will change to display the source's resolution of each input port.



Figure 4.6.1.13 View EDID - Single Device



Figure 4.6.1.14 View EDID - Daisy Chained

# Remove EDID

To remove the configured EDID from a specific input port(s), perform the following steps:

Step 1. Click the Config EDID icon, the Config EDID page will appear.



Figure 4.6.1.15 Config EDID – View Configured EDID



Step 2. Click the radio button on the specific input port icon.

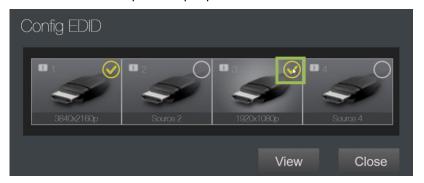


Figure 4.6.1.16 Select an Input Port

# Step 3. When the following message will appear, click **OK**.



Figure 4.6.1.17 Confirm Custom EDID Remove

# Step 4. Then click Close to exit.



Figure 4.6.1.18 Exit Config EDID Page



#### Lock Screen

**Lock screen after** allows you to lock keyboard/mouse function temporarily. In some occasions, you may require to lock the keyboard/mouse function of Sequoia 4K60L in order to prevent any accidental keystrokes and preconfigured layout be moved. To lock your keyboard/mouse function, use keyboard by pressing "**kmlock**" (default), then an "**Enter password to unlock**" message window will appear on the central of monitor. Use keyboard by pressing "**kmlock**" again to unlock lock keyboard/mouse function.

Or, you can designate a duration time for Sequoia 4K60L to detect the keyboard/mouse stop working, and then locks the keyboard/mouse function automatically. To change the **Lock screen after** setting from default (**Never**) by select a time from the drop-down menu.

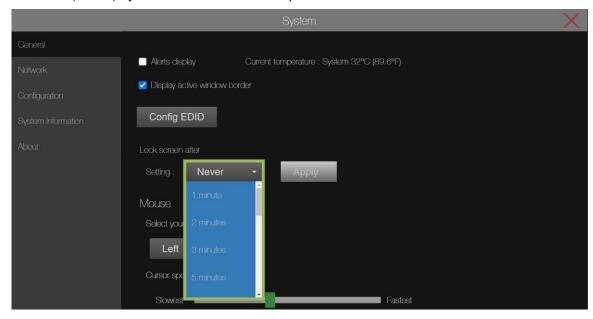


Figure 4.6.1.19 System Page: General → Lock Screen After

#### Mouse

**Mouse** allows configuring the essential features of your mouse.

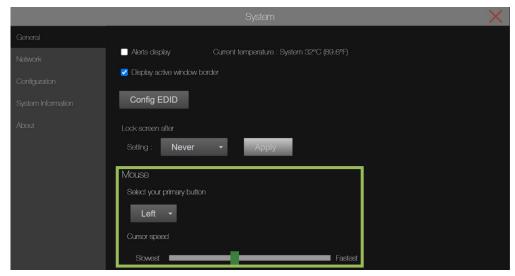


Figure 4.6.1.20 System Page: General → Mouse Setup



#### √ Select Primary Button

- Select **Primary** to make the left mouse button the one you use for primary functions such as selecting and dragging. Or,
- > Select **Secondary** to make the right mouse button the one you use for primary functions such as selecting and dragging.



Figure 4.6.1.21 System Page: General → Mouse Primary Button Setup

# ✓ Cursor Speed

According to the operator's personal preference, set the cursor speed when moving the mouse device to make various configurations in Host mode (six levels from **Slowest** to **Fastest**).



Figure 4.6.1.22 System Page: General → Cursor Speed Setup

#### 4.6.2 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 Seguoia 4K60L.



Figure 4.6.2.1 System Page: Network → IP1 Address

#### Mac address

Display the **MAC address** has assigned and burned-in by Avitech to the network interface chip in your Sequoia 4K60L.



#### 4.6.3 Configuration

**Configuration** provides an interface for user to switch among three 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**.



The **Configuration** feature will only appear when the Sequoia 4K60L device is in stand-alone application.

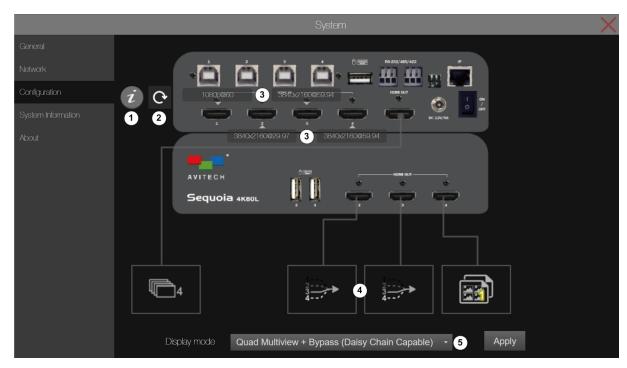
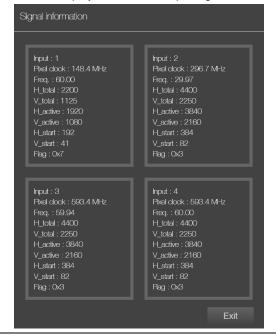


Figure 4.6.3.1 System Page: Configuration Control Interface and Components

# Configuration

1 Information

Click to display the detected input signal detail timing information.



2 C Refresh

Allows user to update the input signal information.

3 Signal Information

Displays the detected input signal resolution.

#### Configuration

Shows the current display mode of system.



**Quad Multiview + Bypass (Daisy Chain Capable)**: supports simultaneous display of four signal sources in multiview layout on the **HDMI OUT** port. Freely switch any one of the input source to display single-view fullscreen to **HDMI OUT 2** - 3 ports. A duplicated quad-view source display on **HDMI OUT 4**.

<u>Note</u>: In **Quad Multiview + Bypass (Daisy Chain Capable)** mode, the input source is using image bypass processing mode to the **HDMI OUT 2 – 3** ports; please make sure the monitors connected to the **HDMI OUT 2 – 3** ports are support the input sources' resolution.





**Single-View Seamless Switching**: supports four input sources display single-view fullscreen image on each monitor. In this display mode, it supports freely switch any input source to display on any single-view fullscreen image or on all monitors.



**Video Wall Control**: support a 2x2 video wall or video walls with each input source display on individual screen or 1x2, 2x1 or fullscreen image.

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

Quad Multiview + Bypass (Daisy Chain Capable)
Single-View Seamless Switching
Video Wall Control

# **5** Display Mode

Note: The three **Display modes** also can be switched by using keyboard hotkeys,

- \* "Alt Q B" to switch display mode to Quad Multiview + Bypass (Daisy Chain Capable), a Quad-view on HDMI OUT port, single-view fullscreen on HDMI OUT 2 3 ports and a duplicated quad-view source on HDMI OUT 4.
- \* "Alt S S" to switch display mode to Single-View Seamless Switching, the four HDMI OUT ports will all display in single-view fullscreen.
- ❖ "Alt V W" to switch display mode to Video Wall Control mode, a 2x2 video wall with each input source display on individual screen.

Table 4.6.3.1 Layout & Routing Component and Description



# 4.6.4 System Information

Display the installed firmware type and version for Sequoia 4K60L.

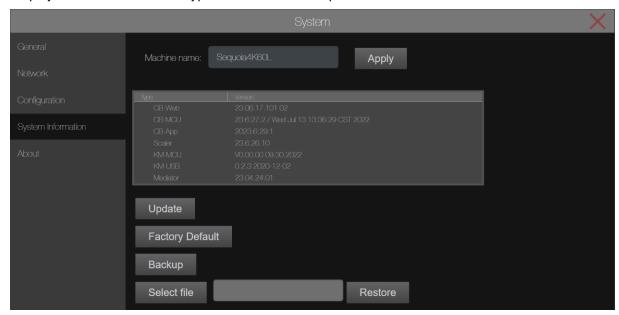


Figure 4.6.4.1 System Page → System Information

# Change Sequoia 4K60L Machine Name

To change Sequoia 4K60L default name, click to highlight the **Machine name** (enters the "text edit" mode) and directly modify its name. Then click **Apply**.

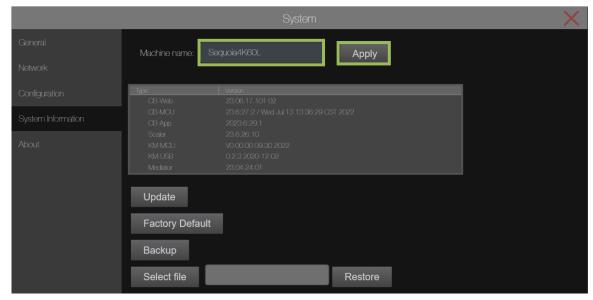


Figure 4.6.4.2 System Page: System Information → Change Machine Name

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



# **Update** (the Firmware)

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

Before performing to update the firmware of the Sequoia 4K60L, 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 4K60L 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 4K60L, perform the following steps:

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



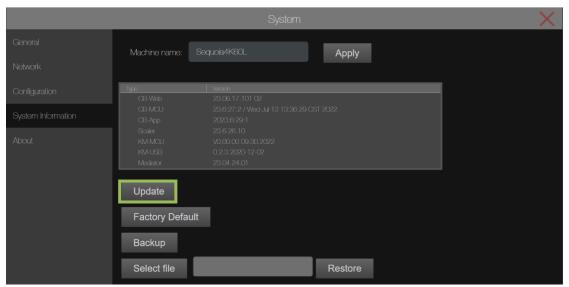


Figure 4.6.4.3 System: System Information → Update

Step 3. A new "Sequoia 4K60L Firmware Update" tab will appear on your web browser. Click Select file.

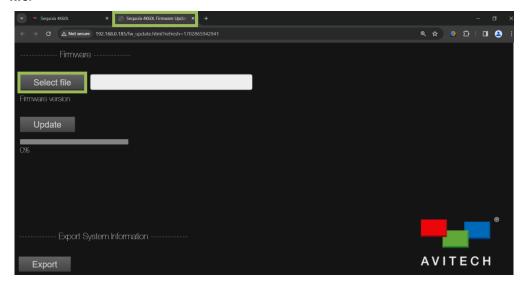


Figure 4.6.4.4 Sequoia 4K60 Firmware Update Page: Select File



Step 4. The **File Upload** window appears. Select the target firmware file and then click **Open**. For this example, "AT-Sequoia-4K60L-CB-MCU\_xxxx" was selected.

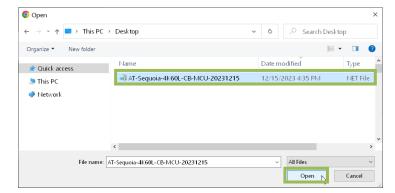


Figure 4.6.4.5 File Upload Window: Select Firmware File

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

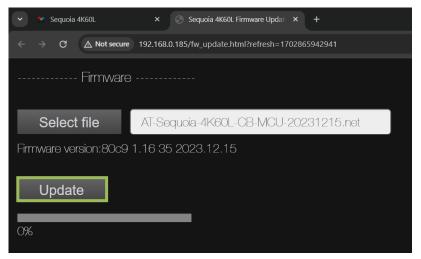


Figure 4.6.4.6 Sample "AT-Sequoia-4K60L-CB-MCU" Firmware Upgrade

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

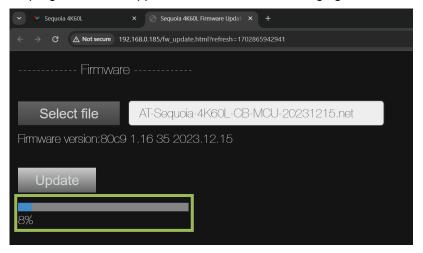


Figure 4.6.4.7 Sample Firmware Upgrade in Progress



Step 6. The following message will appear when progress bar reaches 100 %. Click **OK** then reboot the Sequoia 4K60L by switching the power button on rear panel to complete firmware upgrade. Repeat the above steps for any component that requires its firmware to be updated.

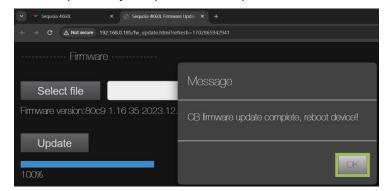


Figure 4.6.4.8 Reboot the Sequoia 4K60L - Complete Firmware Upgrade



<u>DO NOT</u> at any time unplugs the power cable connected to the Sequoia 4K60L during firmware upgrade.

# **Export System Information**

**Export System Information** allows you to export important Sequoia 4K60L system information and send this information back to Avitech for debug purpose.

To export the system information of the Sequoia 4K60L, perform the following steps:

Step 1. From the "Sequoia 4K60L Firmware Update" tab, click Export.

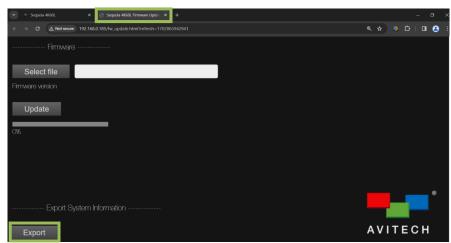


Figure 4.6.4.9 Sequoia 4K60L Firmware Update Page: Export System Information

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



Figure 4.6.4.10 Message for "Export System Information" Successfully



## Step 3. Then click icon and select the **Show in folder**.

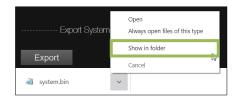


Figure 4.6.4.11 "Sequoia 4K60L Firmware Update" Page: Show in Folder

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

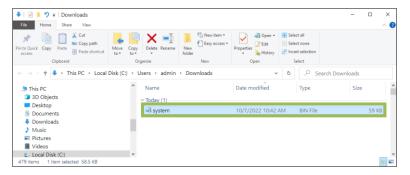


Figure 4.6.4.12 Select "System.bin" File

## Factory Default

If your Sequoia 4K60L has become unstable, or you have repeated errors that you cannot fix, you can reset your Sequoia 4K60L to its factory default settings. Click **Factory Default** to reset the Sequoia 4K60L to its factory default state. Below are the default settings:

- ❖ IP address is 192.168.0.5.
- Output resolution will be set to Auto.
- ❖ Configuration → Display mode → Quad Multiview + Bypass (Daisy Chain Capable).
  - ✓ **HDMI OUT** shows four input sources in a quad-view display.
  - ✓ **HDMI OUT 2 3** will sequentially show input source 2 3 in fullscreen mode.
  - √ HDMI OUT 4 will show a duplicated quad-view source of the port marked HDMI OUT.
- ❖ All the User icon presets, User presets and latest preset will be deleted.
- The OSD display is in off state. When turn on the OSD
  - ✓ Border width will be in 2 pixels when turn on.
  - ✓ Label outside will be set to on when label is enabled.
  - ✓ Label name for window 1 is Source 1, window 2 is Source 2, window 3 is Source 3 and window 4 is Source 4.
  - ✓ Audio tally is in off state.
- Auto-detect aspect ratio for each input source.
- Four Images will fit to window size.
- ❖ The KM mode (K/M control) will be in Host mode.
- The configured EDID setting will be deleted.
- The Crop setting will be deleted.



To reset the Sequoia 4K60L to the factory default state, perform the following steps:

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

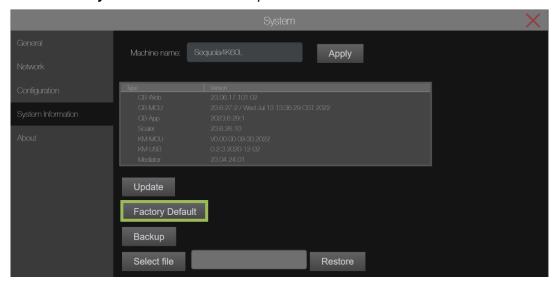


Figure 4.6.4.13 "System" Page: "System Information" → "Factory Default"

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



Figure 4.6.4.14 Warning Message Window to Confirm the Factory Default Process

Step 3. Reboot Sequoia 4K60L (power OFF and ON) when the prompt appears onscreen to complete the process of resetting to its factory default state.

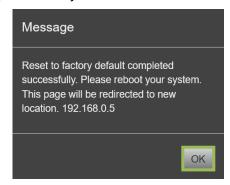


Figure 4.6.4.15 Reboot to Complete Reset to Factory Default Process



- 1. When you reset the Sequoia 4K60L to factory default settings, all of your settings and configurations will be deleted.
- 2. Before you reset the Sequoia 4K60L, please back up your configuration first. When you finished resetting your Sequoia 4K60L to factory default state, you may restore the configuration to the Sequoia 4K60L.
- 3. When restore your configuration to the Sequoia 4K60L, 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 4K60L. Refer to <u>section (4.6.2) "IP address"</u> for details.

## Backup

**Backup** allows you to export the Sequoia 4K60L settings; it will automatically save as **backup.bin** file that may include the following:

- ❖ Latest Label Edit page configuration, and upon clicking Apply.
  This can also include the latest Change icon page configuration, and upon clicking Apply.
- ❖ Latest KM Mode configuration, and upon clicking Apply.
- ❖ System General page settings, and upon checking and clicking Apply.
- ❖ System Network page settings, and upon clicking Apply.
- ❖ System Configuration page settings, and upon clicking Apply.
- ❖ Multiview Layout OSD Option settings, and upon clicking OK.
- \* Multiview Layout User icon preset / User preset / Latest preset settings, and upon clicking OK.

To export the system information of the Sequoia 4K60L, perform the following steps:

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

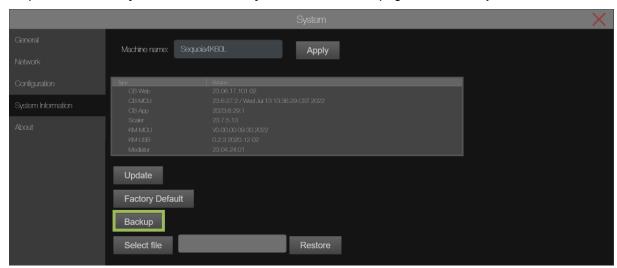


Figure 4.6.4.16 System Page: System Information → Backup



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

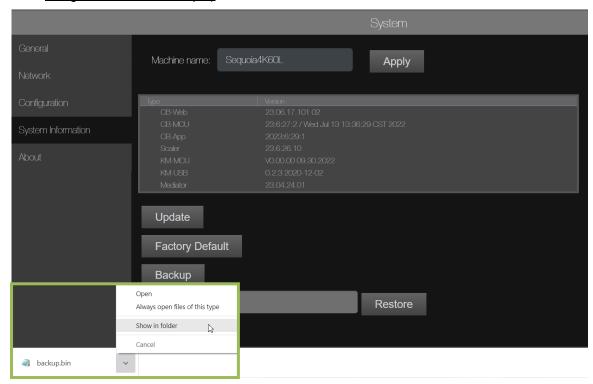


Figure 4.6.4.17 System Page: Right-click and Select "Show in folder"

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

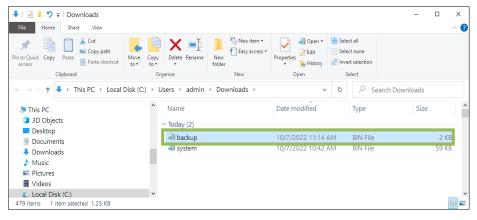


Figure 4.6.4.18 Select "Backup.bin" File

#### 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 4K60L, perform the following steps:

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

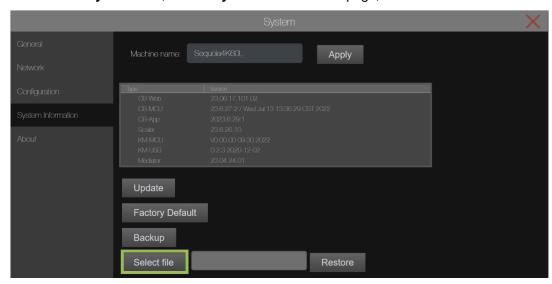


Figure 4.6.4.19 System Page: System Information → Select file

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

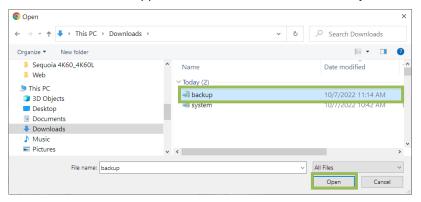


Figure 4.6.4.20 Select the Backup File

Step 3. Click Restore.

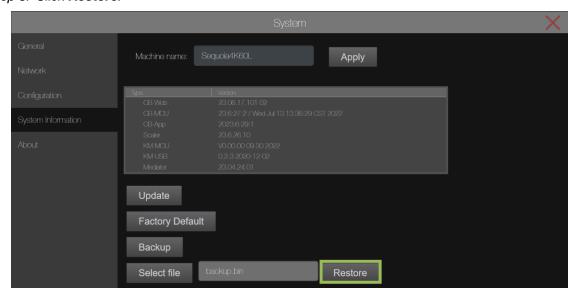


Figure 4.6.4.21 Restore the System Setting From Computer



Step 4. Reboot Sequoia 4K60L (power OFF and ON) when the prompt appears onscreen to complete the process of restoring the system setting.

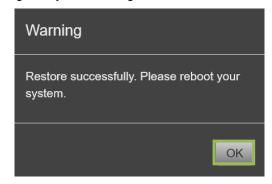


Figure 4.6.4.22 Reboot to Complete the Restore Process

# 4.6.5 About

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



Figure 4.6.5.1 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 4K60L supports a 2x2 video wall or video walls with 1 row and 2 to 4 columns with fullscreen and seamless transition in switching between sources.

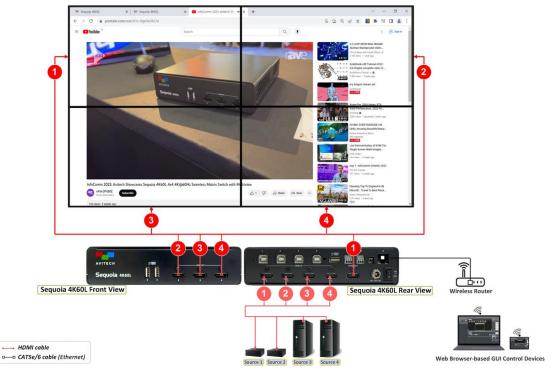


Figure 5.1 An Example for 2x2 Video Wall

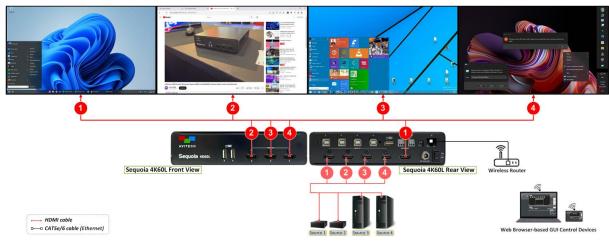


Figure 5.2 An Example for 1x4 Video Wall



## 5.1 Video Wall Connection

#### 5.1.1 A 2x2 Video Wall Connection

The following figure shows a typical setup with a single Sequoia 4K60L that support 4K UHD in a 2x2 Video Wall.



<u>DO NOT</u> block the vents on the front and side panels of the Sequoia 4K60L. Doing so may impair its internal components and/or its heat dissipation.

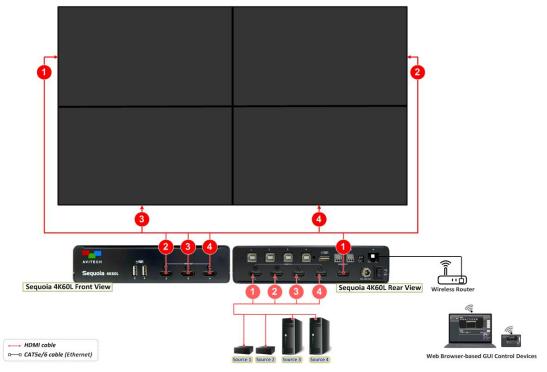


Figure 5.1.1.1 A 2x2 Video Wall Connection Diagram

#### Four Source Connections to Seguoia 4K60L

- Step 1. Connect the first video source's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60L using an appropriate signal cable.
- Step 2. Repeat previous step for other three video sources connect to the ports marked **HDMI IN 2 4** on the rear panel of the Seguoia 4K60L using the appropriate signal cables.

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

- Step 1. Connect the port marked **HDMI OUT** on rear panel of Sequoia 4K60L 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 4K60L to the corresponding video wall screen **2 4** using the 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 4K60L, 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 4K60L).



# 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/2A power in jack on the Sequoia 4K60L, and press the power switch so that the Sequoia 4K60L is turned on.
- Step 4. By default a Avitech logo will appear briefly on the monitor and after approximately 100 seconds a quad-view display on screen 1 and single-view fullscreen on screen 2/3, a duplicated quad-view display on screen 4.

#### Using Hotkey to Switch to Video Wall Control Mode

- Step 1. Use keyboard hotkey "Alt V W" (a message "Switch to Wall" will appear on screen 1) to switch to Video Wall Control mode.
- Step 2. Then a 2x2 video wall with each input source will display on individual screen.

#### 5.1.2 A 1x4 Video Wall Connection

The following figure shows a typical setup with a single Sequoia 4K60L that support 4K UHD in a 1x4 Video Wall.

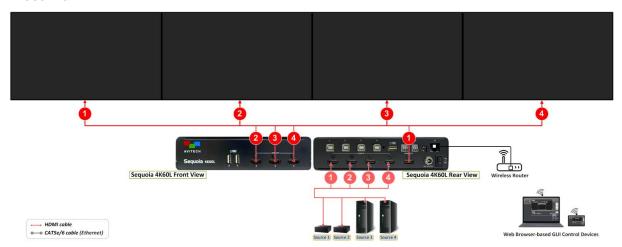


Figure 5.1.2.1 A 1x4 Video Wall Connection Diagram

# Four Source Connections to Sequoia 4K60L

- Step 1. Connect the first video source's display output to the port marked **HDMI IN 1** on the rear panel of the Sequoia 4K60L using an appropriate signal cable.
- Step 2. Repeat previous step for other three video sources connect to the ports marked **HDMI IN 2 4** on the rear panel of the Sequoia 4K60L using the appropriate signal cables.

# Connections to Video Wall 4K UHD Screen

- Step 1. Connect the port marked **HDMI OUT** on rear panel of Sequoia 4K60L to the corresponding video wall screen **1** using an appropriate signal cable.
- Step 2. Repeat previous step for other three ports marked **HDMI OUT 2 4** on the front panel of Sequoia 4K60L to the corresponding video wall screen **2 4** using the 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 4K60L, 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 4K60L).

#### 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/2A power in jack on the Sequoia 4K60L, and press the power switch so that the Sequoia 4K60L is turned on.
- Step 4. By default an Avitech logo will appear briefly on the monitor and after approximately 100 seconds a quad-view display on screen 1 and single-view fullscreen on screen 2/3, a duplicated quad-view display on screen 4.

#### Using Web Browser-based GUI to Configure the Video Wall

Use web browser-based GUI to setup the display mode and video wall. Please refer to <u>section (5.2)</u> "Video Wall Configuration and Management" for more details.

# 5.2 Video Wall Configuration and Management



- 1. The layout / preset files of Video wall are saved in the Sequoia 4K60L.
- The keyboard/mouse function is not support when the Sequoia 4K60L is configured to Video Wall Control mode (Keyboard can only use for switching to other display mode)

Before connecting the controlling computer to the Sequoia 4K60L, 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 4K60L ("192.168.0.5" – factory default IP address). Or, the IP address of the Sequoia 4K60L can be changed to a similar range as the controlling computer.

To start using the controlling computer to manage the video wall of Sequoia 4K60L, 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 4K60L), the web browser-based GUI will appear and the Sequoia 4K60L 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 4K60L), the web browser-based GUI will appear and the Sequoia 4K60L 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 4K60L must be in the same network mask as the Sequoia 4K60L. 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 4K60L is connected to.



Step 2. When the **User Sign In** window appears on the web page, enter the password (**admin** in lower case) to login to control of the Sequoia 4K60L.



Figure 5.2.1 User Sign In Window

Step 3. The initial screen appears on the web page. 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 4K60L.

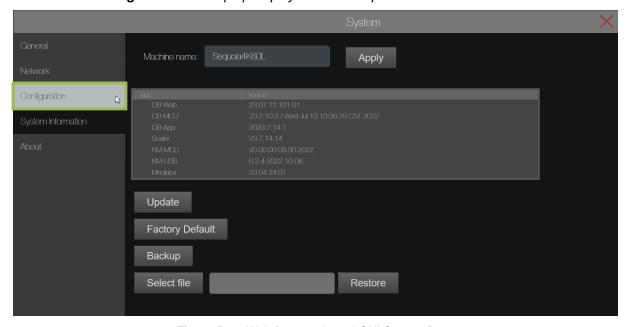


Figure 5.2.3 Web Browser-based GUI System Page



Step 4. Select Video Wall Control from the drop-down menu.

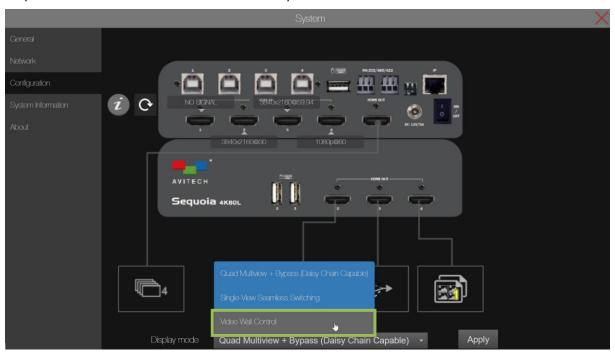


Figure 5.2.4 System Page → Configuration

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

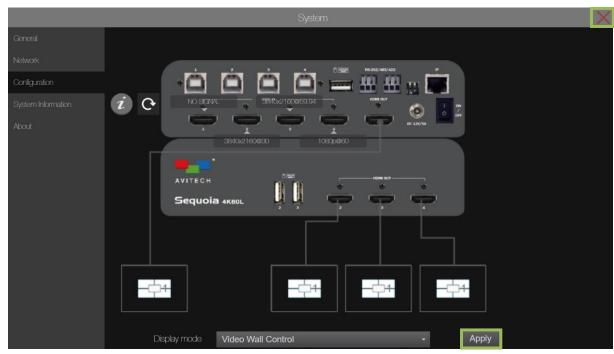


Figure 5.2.5 System Page → Apply Video Wall Configuration



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.

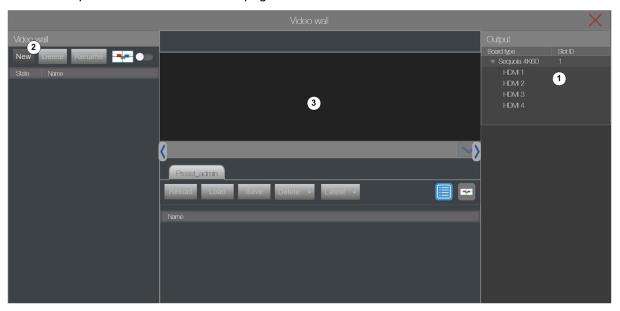


Figure 5.2.7 Video Wall Initial Page Components

| Function             |   |
|----------------------|---|
| HDMI Output     List | Shows the detected <b>HDMI OUT</b> ports of Sequoia 4K60L.  |
| 2 Top Function       | Allows user to instantly:   |
|                      | ❖ New = click New to create the video wall in the video wall design area.   |
|                      | ❖ Delete = click Delete to delete the designed video wall.  |
|                      | ❖ Rename = click Rename to modify the video wall name.  |
|                      | ❖ Edit mode = click Wall Editor switch to slide it to the left ( ▶) to modify the wall settings.  |
|                      | ❖ Take mode = click Wall Editor switch to slide it to the right (■ ) to forbid modify the wall settings and only allow to load presets. |

#### **Function**

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 window displays on each screen and a maximum of four windows or a fullscreen window display on a 2x2 video wall.
- ❖ A 1×2 or 1×2 wall display is comprised of a 1×2 or 1×2 screen, for a window displays on each screen and a maximum of two windows or a fullscreen window display on a 1×2 or 1×2 video wall.
- Wideo wall Design Area
- ❖ A 1x3 or 3x1 wall display is comprised of a 1x3 or 3x1 screen, for a window displays on each screen and a maximum of three windows or a fullscreen window display on a 1x3 or 3x1 video wall.
- ❖ A 1×4 or 4×1 wall display is comprised of a 1×4 or 4×1 screen, for a window displays on each screen and a maximum of four windows or a fullscreen window display on a 1×4 or 4×1 video wall.

<u>Note</u>: For a window that straddles both screens will be counted as one window for each screen.

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. (Take a 2x2 video wall configuration as an example)



The video wall configuration must correspond to the actual HDMI cables connection from Sequoia 4K60L 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.

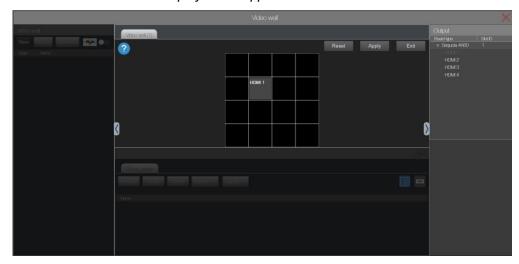


Figure 5.2.10 The First HDMI OUT Assigned

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

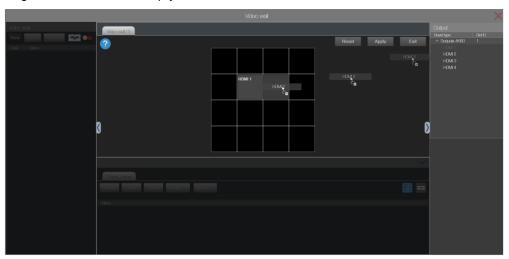


Figure 5.2.11 Assign HDMI 2 to Empty Block

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

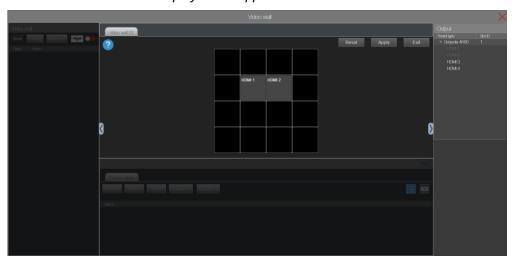


Figure 5.2.12 The Second HDMI OUT Assigned



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

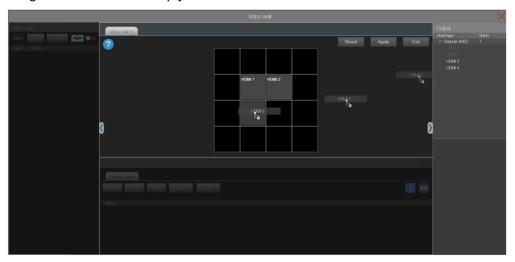


Figure 5.2.13 Assign HDMI 3 to Empty Block

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

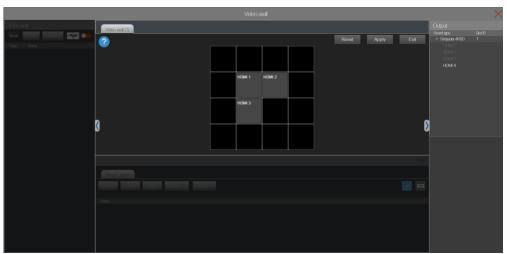


Figure 5.2.14 The Third HDMI OUT Assigned

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

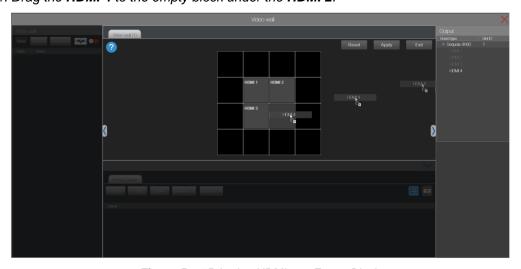


Figure 5.2.15 Assign HDMI 4 to Empty Block



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

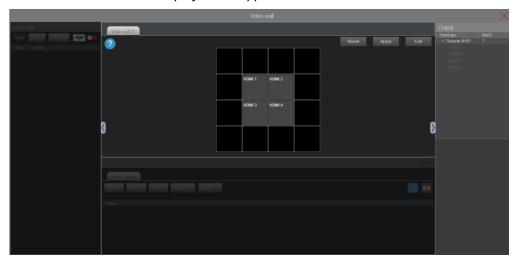


Figure 5.2.16 The Fourth HDMI OUT Assigned



You can also use mouse directly to select the wall configuration on the design area, the Sequoia 4K60L will automatically arrange the HDMI OUT ports by sequentially. Below are some examples for quickly setup the video wall configuration.

Example for configuring a 2x2 video wall.



Example for configuring a 1x3 video wall.



Example for configuring a 1x4 video wall.





Step 12. Upon completing the video wall configuration,

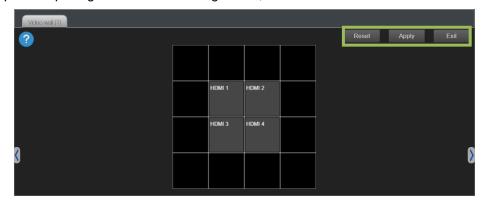


Figure 5.2.17 Video Wall Configuration Completed

- ✓ 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.

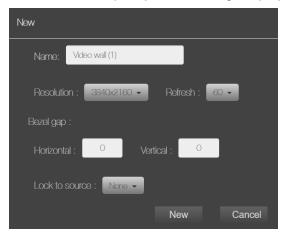


Figure 5.2.18 New Video Wall Property Setting Window

## Name

Enter the text to modify its name from default.

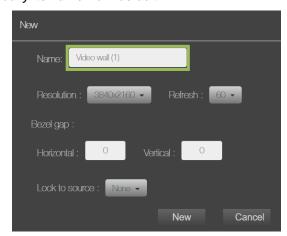


Figure 5.2.19 Rename the Video Wall



#### Resolution

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

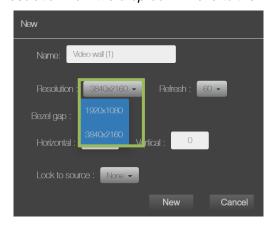


Figure 5.2.20 Set Video Wall Display Resolution

## Refresh Rate

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

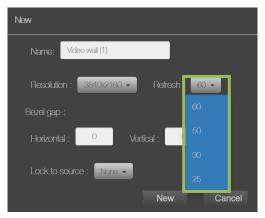


Figure 5.2.21 Set Video Wall Display Refresh Rate

## 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.

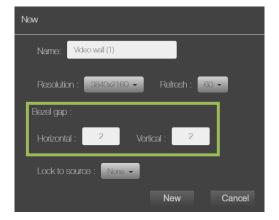
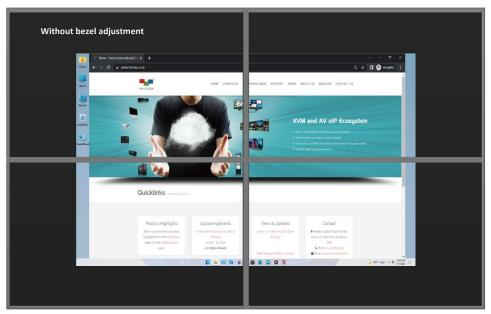


Figure 5.2.22 Bezel Defined



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 2×2 wall display before and after bezel adjustment.



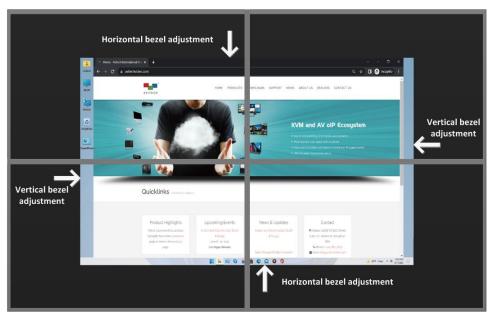


Figure 5.2.23 Sample 2x2 Wall Display Before and After Bezel Adjustment



- 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 4K60L) 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.

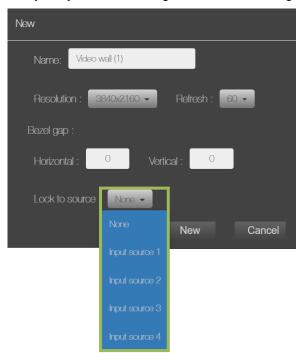


Figure 5.2.24 New Video Wall Property Setting Window

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

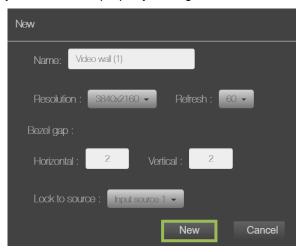


Figure 5.2.25 New Video Wall Property Setting Window



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

| the window size, position and crop size information. Supports free-scaling position, ad image crop adjustment for each window.  the detected HDMI INPUT ports' source name and resolution of Sequoia 4K60L. <b>Refresh</b> to update the input source latest data information.  To enable (disable default) <b>Mac PC</b> function for the video source display ectly. When connect a MacBook or Mac-mini source to the input port of Sequoia 0L and the video source display a white noise or black image on-screen, enable <b>Mac</b> to have the video source display normally.   |
|--|
| Refresh to update the input source latest data information.  It is not because the input source latest data information.  It is not because to enable (disable default) Mac PC function for the video source display ectly. When connect a MacBook or Mac-mini source to the input port of Sequoia DL and the video source display a white noise or black image on-screen, enable Mac  |
| o have the video octroe display hormany.   |
| user to instantly:  y = click <b>New</b> to create the video wall in the video wall design area.  ete = click <b>Delete</b> to delete the designed video wall.  ame = click <b>Rename</b> to modify the video wall name.  mode = click <b>Wall Editor</b> switch to slide it to the left ( ) to modify the wall settings.  e mode = click <b>Wall Editor</b> switch to slide it to the right ( ) to forbid modify the wall ngs and only allow to load presets.   |
| user to instantly:  pad = to acquire the latest layout from the wall again.  d = select from a list of previously saved preset(s) to be loaded as the wall layout.  e = saves the Video wall page's configuration into Sequoia 4K60L for automatic  ll of settings upon its next power on.  ete = select a previously saved wall preset to be removed from memory.  est allows you to quickly load the latest saved wall layout after rebooting the Sequoia  OL. The triangle on the right lower part of button. Upon clicking it, click Save on the  down menu to store the present layout as the latest. Click Delete on the pull-down  u to remove the latest layout from the memory. |
|  |



#### **Function**

Allows user to add/remove/move a window in the canvas.

#### Note:

Video wall Canvas

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.

Allows user to instantly:

- Bring to front = when arrange windows overlay layout, you can click a window, and then click to bring the window to front in canvas.
- ♣ Bring to back = when arrange windows overlay layout, you can click a window, and then click to bring the window to back in canvas.
- 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.



6 Window Function

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



✓ 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.
- : click to turn off the monitors connected to the output ports of Sequoia 4K60L. Upon click the switch, all the monitors will enter to power saving mode after five (5) minutes.
- : click to turn on the monitors connected to the output ports of Sequoia 4K60L. Upon clicking the switch, all the monitors will be turn on later (depending on different brand of monitors, the response time for wake up from power saving mode will differ from brands).

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 on the wall canvas. The new window already contains the corresponding input source image will display on the video wall instantly.

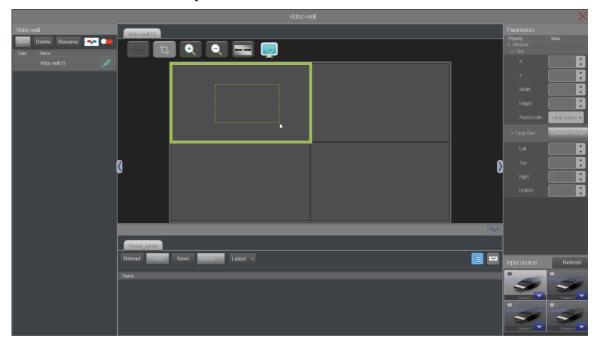


Figure 5.2.27 Add a New Window in Video Wall Canvas



Click the title menu for swapping windows' position or fullscreen setting.

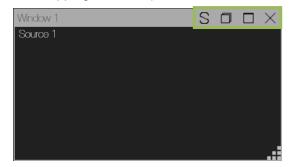


Figure 5.2.28 Window Title Menu and Components

S: click to swap the position and size with other window.

❖ □ : click to restore down the window position and size prior to fullscreen.

: 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.

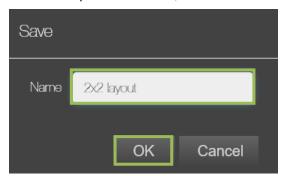


Figure 5.2.29 Save Video Wall Layout to Preset File

## 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 5.2.30 Enable Lock Video Wall Edit Mode



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

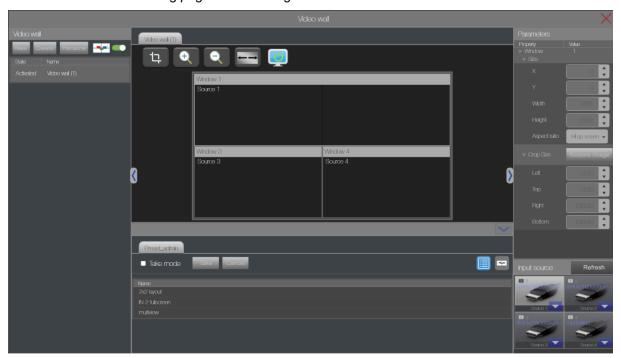


Figure 5.2.31 Video Wall: Lock Edit Mode

2. Click Preset name to switch video wall layout instantly.

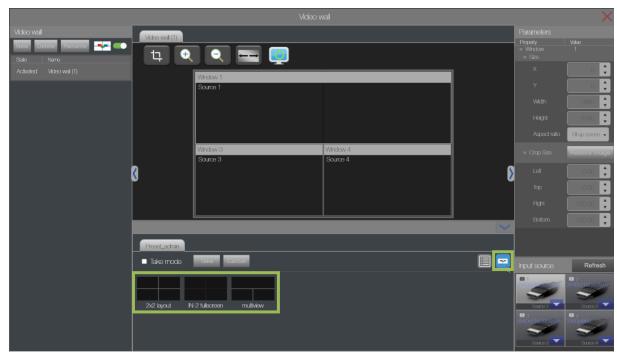


Figure 5.2.32 Video Wall: Presets in Layout View



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 5.2.33 Video Wall: Enable Take Mode



# 6. Using A Touch Screen

The Sequoia 4K60L's HDMI OUT and USB-A ports can connect to 4K UHD multi-touch monitors. A few simple gestures – tap, drag, and pinch – are all you need to use the touch screen with Sequoia 4K60L. User can tap and drag to freely move the windows around, zoom in/out of any window and double-tap on a window to switch touch control to a different source computer. This chapter discusses the basic setup and operating modes with touch screens function in detail.

## 6.1 Basic Setup

The following figure shows a typical setup with a Sequoia 4K60L connect to four computer systems and a touch screen display device. (Depending on your operation need, it is optional to connect one set of keyboard and mouse)

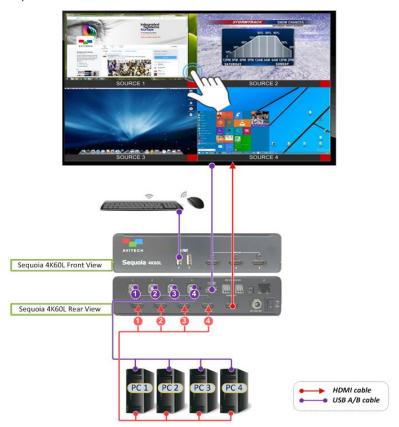


Figure 6.1.1 Sequoia 4K60L with Touch Screen Connection Diagram

- 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 4K60L. 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 4K60L. Repeat the step for all source computers to the ports marked **HDMI IN 2 4** of the Sequoia 4K60L.
- Step 3. Connect one end of the HDMI signal cable to the port marked **HDMI OUT** on the rear panel of Sequoia 4K60L. Connect the other end to touch Screen display device's HDMI port.
- Step 4. Connect one end of the USB A/B cable to the USB Type-B port to touch screen display device and connect other end to the USB Type-A port marked on the rear or front panel of Sequoia 4K60L.



- Step 5. Connect the mouse and keyboard devices to the USB Type-A port marked the mouse on the rear or front panel of Sequoia 4K60L.
- Step 6. Connect the 12 V DC power adapters to the Sequoia 4K60L. Then press the power switch to the **ON** position of Sequoia 4K60L. The image will be displayed on touch screen display device around 100 seconds.
- Step 7. Turn on power of the four computers and touch screen display device.
- Step 8. Press "Ctrl + T" on your keyboard or tap anywhere (except the yellow and orange marks shown in below figure) and hold the spot for at least seven (7) seconds to perform touch screen calibration (when using the touch screen display device with the Sequoia 4K60L for the very first time or upon resetting your Sequoia 4K60L to its default state).



Figure 6.1.2 Enable Calibration Function on Touch Screen Display

Step 9. 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 monitor display.



Figure 6.1.3 Calibrate Touch Screen Display

- Step 10. Upon completing touch screen calibration, tap anywhere on the touch screen display device or press the **Pause/Break** key and the mouse pointer will appear on touch screen display device.
- Step 11. Move the mouse pointer to the window's top right portion of the particular computer. When the pop-up menu pop-up menu appears, click the icon.

You can now use the mouse or keyboard hotkeys to perform various tasks. The default mouse and keyboard is located on the Sequoia 4K60L **Host** mode.



# 6.2 Basic Operation for Using A Touch Screen

The Sequoia 4K60L with touch screen function always operates in one of its two operating modes: <u>Host</u> and <u>Remote</u> mode. Users are allowed to freely switch between these two modes anytime during the operation for different uses.

#### Host Mode

When a window in Sequoia 4K60L with touch screen function are in <u>Host</u> mode, the cursor will be controlled by the tap of your finger on the window. <u>Host</u> 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 allow it to enter <u>Remote</u> mode, the window's border will turn "yellow", this signifies that your Sequoia 4K60L is now in <u>Remote</u> mode. Entering <u>Remote</u> mode, your Sequoia 4K60L transfer 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 4K60L can only enter <u>Remote</u> mode to take control of a computer when the correct USB Type-B port (USB IN 1 – 4) on your 4K60L'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 4K60L

- A maximum of four computers can be connected to a single Sequoia 4K60L. The Sequoia 4K60L puts the images of four computers onto four windows and simultaneously displays them on the touch screen monitor.
- When <u>Host</u> 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 <u>Host</u> mode to <u>Remote</u> mode, tap (approximately two (2) seconds) the top-right corner of the targeted window and then click the **Enter <u>Remote</u> mode** icon (or double-tap any area within that window).
- When entering <u>Remote</u> mode, your Sequoia 4K60L automatically transfers its keyboard and mouse control to the selected computer. Use your fingers to control that computer as you regularly would. Once in <u>Remote</u> mode, you can touch other computer window directly to switch keyboard and mouse control to that computer without exiting Remote mode.
- To switch back to <u>Host</u> mode, press within half inch of the upper or lower edges of the touch screen and hold for approximately two (2) seconds. The Sequoia 4K60L will return to <u>Host</u> mode. (Details in a latter portion of this chapter)

#### 6.2.1 Pop-up Selection

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



To perform the "swap window function", press on the figure icon for one second, and then tap on the destination window.



Figure 6.2.1.1 Touch Screen: Pop-up Selection

To switch source while in fullscreen  $\underline{\text{Host}}$  operation mode; press on the  $\frac{1}{2}$  /  $\frac{3}{2}$  icon for approximately one (1) second.



Figure 6.2.1.2 Touch Screen: Pop-up Selection (When in Fullscreen Mode)

## 6.2.2 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 output port to the 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.

#### 6.2.3 Move/Resize/Close/Open Window

A few simple gestures – tap, drag, and pinch – are all you need to use the touch screen with Sequoia 4K60L.

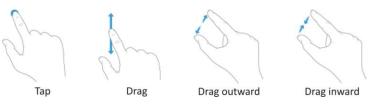


Figure 5.2.3.1 Touch Screen Gestures



- 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 a window.

#### 6.2.4 Exit from Remote Operation Mode to Host Operation Mode

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



Figure 5.2.4.1 Touch Screen Display: Exit Remote Operation Mode

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



Figure 5.2.4.2 Touch Screen Display: Exit Remote Operation Mode (When in Fullscreen)



#### 6.2.5 Switch Control (Cycle) Between Windows

To switch Source (cycle) while in fullscreen <u>Remote</u> 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 5.2.5.1 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

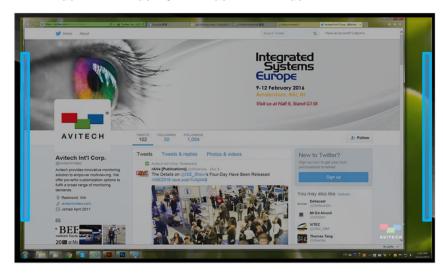


Figure 5.2.5.1 Touch Screen Display: Switch Sources in Fullscreen Remote Mode

#### 6.2.6 Returns to Default Layout

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



Figure 5.2.6.1 Touch Screen Display: Return to Default Layout



# Appendix A Using the "Surfer" Feature

The "**Surfer**" feature is designed to make it easy to control multiple remote computer windows. Just moving the mouse to the window of another computer will allow the Sequoia's (<u>Host</u>) keyboard and mouse to control that computer.



By default, the "Surfer" feature is enabled upon starting up the Sequoia 4K60L. For computers hosting Linux, or Android, or Embedded Operating System, you will need to switch off "Surfer" feature by using keyboard hotkey "Ctrl + Shift + Alt + F8" 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 (windows can be overlay only when OSD was set to off state), switching of control will occur when the mouse cursor has left the area where the two "Source" windows overlay.



# **Appendix B** 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 4K60L provides two methods for you can clear all memorized settings and restore the Sequoia 4K60L to the factory default configuration.

# **B.1 Using Web Browser-based GUI**

To restore the Sequoia 4K60L to the factory default configuration, perform the following steps:

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

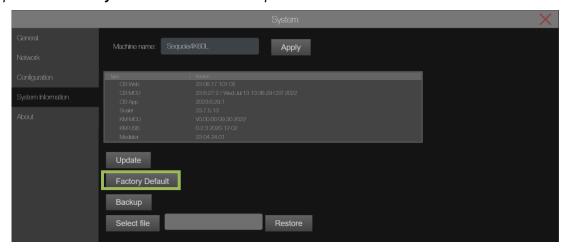


Figure B.1.1 System Page: System Information → Factory Default

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

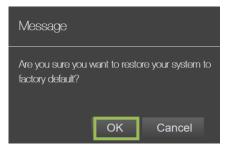


Figure B.1.2 Warning Message Window to Confirm the Factory Default Process

Step 3. Reboot Sequoia 4K60L (power OFF and ON) when the prompt appears onscreen to complete the process of resetting to its factory default state.

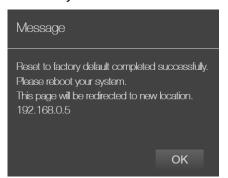


Figure B.1.3 Reboot to Complete Reset to Factory Default Process





- 1. When you reset the Sequoia 4K60L to factory default settings, all of your settings and configurations are deleted.
- 2. Before you reset the Sequoia 4K60L, it is recommended to first back up your configuration, When you finish resetting your Sequoia 4K60L to factory default state, you can restore the configuration to the Sequoia 4K60L.
- 3. When restore your configuration to the Sequoia 4K60L, 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.

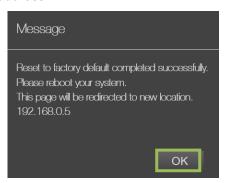


Figure B.1.4 Reboot to Complete Reset to Factory Default Process

Step 5. (Optional) Change the IP address of the Sequoia 4K60L. Refer to <u>section (4.3.2) "IP address"</u> for details.

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

To reset your Sequoia 4K60L to its factory default state, perform the following steps:

- Step 1. Power-off the Sequoia 4K60L 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 B.2.1 Push down the Number 2 Dip Switch

- Step 3. Power-on the Sequoia 4K60L by pressing the power switch.
- Step 4. Then power-on the Sequoia 4K60L 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 B.2.2 Push Upward the Number 2 Dip Switch

Step 6. Power-off and then power-on to finish the Sequoia 4K60L's factory default processing.



Upon resetting your Sequoia 4K60L to its factory default state, your previously saved Label name, Layout and System settings stored in the Sequoia 4K60L's flash memory will be automatically erased; make sure to have your files saved to an externally storage device before resetting the Sequoia 4K60L to the factory default state. Or, use web browser-based GUI to set your preferring output resolution; layout preset file(s) and advanced system setting.



# Appendix C Serial Port Pin Out

There are two screwless 3-pin terminal blocks on the rear panel of Sequoia 4K60L for using third-party controller to transmit Avitech proprietary commands to control the Sequoia 4K60L.

- Terminal block (1) indicates the left screwless 3-pin terminal block on the rear panel of Sequoia 4K60L.
- Terminal block (2) indicates the right screwless 3-pin terminal block on the rear panel of Sequoia 4K60L.

#### Diagram

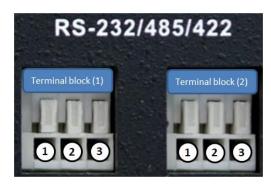


Figure C.1 Screwless 3-Pin Terminal Blocks

#### **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)

(2)

|     |        | 3-pin terminal block (1) |     |    | 3-pin te | erminal b | lock |
|-----|--------|--------------------------|-----|----|----------|-----------|------|
|     | Pin    | 1                        | 2   | 3  | 1        | 2         | 3    |
| Fun | ctions | A1                       | GND | B1 | A2       | GND       | В    |

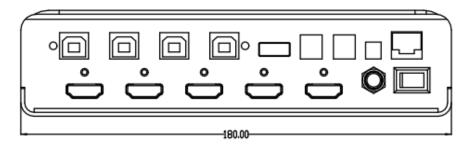
Figure C.2 RS-232/485/422 Pin Assignment



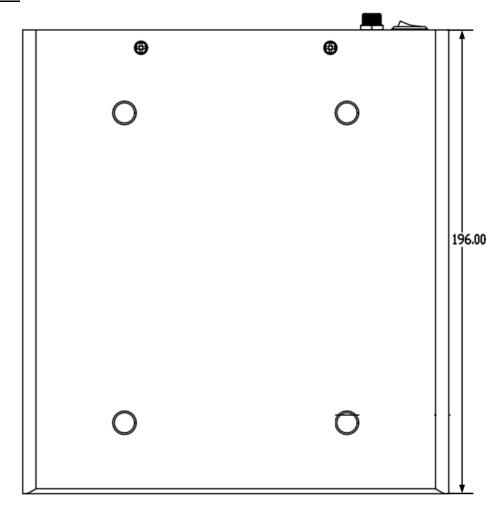
# **Appendix D Dimensions**

Unit: mm

# **Rear View**



# **Bottom View**



# Side View

