

Sequoia DualOne of a kind multiviewier



ABOUT THIS MANUAL

This manual contains information on how to use the Avitech Sequoia Dual mouse keyboard controller. There are 3 chapters in this manual.

- ✓ Getting Started introduces features and specifications as well as external components of the Avitech Sequoia Dual.
- ✓ System Configuration discusses the process of setting up your Sequoia Dual.
- ✓ Basic Operations introduces the two types of operating modes and demonstrates the mouse and keyboard hot-keys to perform basic operations, as well as using the on-screen user interface to configure your Sequoia Dual on regular and touch-screen monitors.

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



provides additional hints or information that require 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**.

Any name that refers to a mode is underlined.

For example: Windows can be adjusted by the <u>Host cursor</u> when the Sequoia Dual is in <u>Host mode</u>.

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 Dual. 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 trademarks 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 our toll free help line at 1-877-AVI-TECH, or email us at: support@avitechvideo.com.



Contents

About This Manual	ii
Warranty	iv
Limitation of Liability	iv
Extended Warranty Option	onsiv
Services and Repairs Ou	tside the Warranty Periodiv
Regulatory Information	iv
Federal Communications	Commission (FCC) Statementiv
European Union CE Mar	king and Compliance Noticesiv
Australia and New Zeala	nd C-Tick Marking and Compliance Noticeiv
1. Getting Started	1
1.1 Package Contents	
1.2 Product Features	3
1.3 Specifications	4
1.4 Connections to the	Sequoia Dual6
2. System Configuration	8
2.1 Getting the Sequoia	Dual Ready8
2.1.1 Basic Setup \	When Connecting a Regular Display or Touch-screen Display
	When Cascading the Sequoia Dual10
2.1.2 Basic Setup \	When Cascading the Sequoia Dual10
2.1.2 Basic Setup \ 3. Basic Operations	8
2.1.2 Basic Setup V 3. Basic Operations	When Cascading the Sequoia Dual 10
2.1.2 Basic Setup V 3. Basic Operations 3.1 Host Mode 3.1.1 Pop-up Select	Nhen Cascading the Sequoia Dual 10
2.1.2 Basic Setup N 3. Basic Operations	8 Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations 3.1 Host Mode 3.1.1 Pop-up Select 3.1.2 Functions 3.2 Remote Mode	8 Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations	8 Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations	Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations	Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations	8 Nhen Cascading the Sequoia Dual
2.1.2 Basic Setup N 3. Basic Operations	Nhen Cascading the Sequoia Dual



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 1 year or 15 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

- 15377 NE 90th Street 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. 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

Fnalish

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 Avitech Sequoia Dual is a highly innovative device that comes with its own embedded operating system and graphic engines. The Sequoia Dual integrates functions of a KVM (keyboard video mouse) switch and a robust multi-viewer into one enclosure, providing a simple multi-viewing solution for any user who works in an environment with multiple computer and video systems. With a single Sequoia Dual being able to connect up to four computers and instantly switch inputs among them, users can monitor and remotely control any two computers at the same time on a single display with just one set of keyboard and mouse. The Sequoia Dual also supports a variety of video formats from HDMI, DVI-I to VGA and YPbPr. Additionally, its scalability through cascading with other Sequoia devices makes the Sequoia Dual an ideal solution to both individual users and corporate applications.

The Sequoia Dual features an on-screen user interface which allows handy operation and control of the device. By giving relevant mouse commands through the interface, users can easily convert monitoring styles to various layouts, and adjust windows to any size and position on the display. The mouse right-click menu available through the on-screen interface allows users to freely set up or configure numerous features for different applications. In addition, the top menu allows users to lock their windows in size and position, and load previously saved layouts.

In addition to its freely adjustable interface and features, the Sequoia Dual can enter Remote mode to transfer mouse and keyboard control from the Sequoia to the connected computer systems. Users can then remotely control any of the connected computers with the set of keyboard and mouse on the Sequoia. The "Surfer" feature, along with other user-friendly commands supported by the Sequoia Dual allows users to freely switch control between the computers and the host Sequoia in an intuitive manner. Furthermore, for more hands-on user experiences, the Sequoia Dual can be used with a touch-screen display. The touch-screen controls are receptive and intuitive, allowing source switching, window resizing and repositioning, and control of remote computers with just a tap of your finger.

This chapter will continue to introduce more features and specifications as well as external components of your Sequoia Dual.

1.1 Package Contents

The following standard items are included in the shipping package:





Avitech Sequoia Dual

Utility Disc (software and user manual)







12 V DC/5A Power Adapter

Standard Power Cord (USA customer only)





Rubber Foot (4 pcs)

USB A/B Cable (Optional)





HDMI to DVI Adapter (optional)

Male to Dual Female Y Splitter Audio Cable (length 1.8 m – optional)





VGA to DVI Adapter (optional)

HDMI[®] Cable (length 1.8 m – 1 piece)

Table 1-1 Package Contents



1.2 Product Features

The Sequoia Dual is HDCP-compliant and capable of handling HDMI[®], DVI-I, VGA and YPbPr inputs. Featuring two DVI-I and two HDMI input ports, and one HDMI output port, a single Sequoia Dual can connect up to four computers, four videos, or any combination of four inputs. It can simultaneously display any two of the four inputs on a single display, and allows instant switching of inputs through its on-screen user interface.

The Sequoia Dual features in automatic sensing of input signals, automatic detection and selection of optimum display resolution; it also supports hot-swapping which allows addition and removal of any input/output signals without powering down the device.

For audio monitoring, the Sequoia Dual features a 1/8 inch headphone jack. It also accepts embedded HDMI[®] audio (8ch-stereo) and analog audio (2ch-stereo).

For operation, the Sequoia Dual provides a friendly on-screen user interface that can be controlled by a set of keyboard and mouse, allowing free switching of operating modes and adjustments for numerous behavior that suits different applications. In addition, with Avitech Hook Utility (patent pending), a computer with its own keyboard and mouse can also be used to control the Sequoia Dual through the USB type B port on its front panel . The Sequoia Dual also features in multi-touch support and is compatible with touch-screen displays, offering more flexibility for operation and control.

In addition to monitoring, the Sequoia Dual can remotely control the connected computers through the USB keyboard and mouse connected to its front panel. Utilizing the "Surfer" feature – which allows users to transfer keyboard and mouse control from one computer to another by simply moving the mouse cursor to the window border of the targeted computer, the Sequoia Dual is able to seamlessly switch between and control any of the four computers connected to it with just one set of keyboard and mouse.

Integrated file and folder transfer across computers provides convenient file management. By selecting an origin and a destination through the on-screen user interface, the Sequoia Dual allows simple copy/cut and paste of files/folders across connected computers using its embedded file managing utility, Go! Bridge.

The Sequoia Dual also supports streaming its display through Ethernet connection, allowing computers at far ends to perform remote monitoring and control of the Sequoia. Its video over IP operates on standard 100/1000Mb Ethernet networks for remote monitors.

The Sequoia's front panel features LED indicators for monitoring the followings: Connected Computers (Active or Standby), Operating Mode (Host or Remote), and Power.

The temperature monitor with automatic PWM fan speed controls to protect against system failure. The low noise and speed-varying fan along with the stand-alone and rack mountable module designs make the Sequoia Dual suitable for various work environments. The size of the Sequoia Dual is also greatly reduced to save working spaces and enhance mobility.

For larger applications, the Sequoia Dual can be cascaded with other Sequoia devices, enabling users to control up to five Sequoia Dual and 20 computers with just one set of keyboard and mouse.



- 1. Non-standard keyboards (e.g., keyboards with a USB hub, keyboards that need driver installation and programmable keyboard, etc.) are not supported.
- 2. Compatibility between the computer and the Sequoia Dual may depend on the computer's BIOS Setup. If an incompatibility occurs, 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).
- 3. The Hook Utility currently supports the Sequoia solo series (non-cascaded) and the Pacific X-HDU. Connect a laptop (or desktop) computer to the Sequoia solo series or Pacific X-HDU and simulate keyboard/mouse function for remote control processing (KVM feature).
- 4. Refer to the Hook Utility user manual for more details.



1.3

Specifications	
Input	
-	Automatic sensing
	HDMI/DVI-D mode:
	✓ 1920×1200, 50Hz/60Hz
	✓ 1920×1080, 50Hz/60Hz
	✓ 1680×1050, 50Hz/60Hz
	✓ 1600×1200, 50Hz/60Hz
	✓ 1400×1080, 50Hz/60Hz
LIDML on DV/	✓ 1360×765, 50Hz/60Hz ✓ 1380×1034, 50Hz/60Hz/75Hz
HDMI or DVI	✓ 1280×1024, 50Hz/60Hz/75Hz ✓ 1280×960, 50Hz/60Hz
	✓ 1024×768, 50Hz/60Hz/75Hz
	✓ 800×600, 50Hz/60Hz/75Hz
	✓ 720×400, 70Hz
	✓ 640×480, 60Hz/75Hz
	Automatic sensing/Manual adjustment
	❖ YPbPr:
	√ 1920×1035i, 59.94Hz/60Hz
	✓ 1920×1080PsF, 23.98Hz/24Hz
· · · VDI- D	✓ 1920x1080p, 24Hz/25Hz/29.97Hz/30Hz/50Hz/60Hz
or YPbPr	✓ 1920x1080i, 50Hz/59.94Hz/60Hz
(through DVI to YPbPr adapter)	✓ 1280x720p, 50Hz/59.94Hz/60Hz
/	✓ 576i, 50Hz
	✓ 576p, 50Hz
	✓ 480i, 59.94Hz
	✓ 480p, 59.94Hz
	♦ VGA mode:
	√ 1920×1200, 50Hz/60Hz √ 1920×1080, 50Hz/60Hz/30Hz
	✓ 1920×1080, 30Hz/30Hz ✓ 1920×1035, 60Hz/30Hz
	✓ 1760×1100, 60Hz
	✓ 1680×1050, 50Hz/60Hz/75Hz
	✓ 1600×1200, 50Hz/60Hz/75Hz
	✓ 1600×1024, 60Hz
	√ 1440×900, 50Hz/60Hz/75Hz
	√ 1400×1050, 50Hz/60Hz/75Hz
	✓ 1366×768, 60Hz
	✓ 1365×1024, 60Hz
	✓ 1365×768, 60Hz
	✓ 1360×1024, 75.1Hz
	✓ 1360×768, 50Hz/60Hz/75Hz
or VGA	✓ 1360×765, 60Hz ✓ 1380×1034, 50U=/50U=/75U=/75U=/75U=/85U=
(through DVI to VGA adapter)	√ 1280×1024, 50Hz/60Hz/72Hz/75Hz/76Hz/85Hz √ 1280×960. 60Hz/70Hz/75Hz
- , ,	✓ 1280×960, 60Hz/70Hz/15Hz ✓ 1280×768, 50Hz/56Hz/60Hz/75Hz
	✓ 1280×708, 30112/30112/70112/ ✓ 1280×720, 50Hz/59.94Hz/60Hz/75Hz
	✓ 1200×920, 30Hz/35:34Hz/36Hz/3Hz
	✓ 1152×900, 66Hz/76Hz
	✓ 1152×864, 75Hz
	✓ 1024×768, 50Hz/60Hz/70Hz/75Hz/85Hz
	✓ 1024×576, 60Hz/72Hz
	✓ 960×680, 60Hz
	✓ 960×620, 60Hz
	✓ 960×540, 60Hz
	✓ 852×480, 60Hz
	√ 848×480 60Hz

✓ 848×480, 60Hz

✓ 640×512, 60Hz ✓ 640×480, 60Hz/72Hz

✓ 800×600, 50Hz/56Hz/60Hz/72Hz/75Hz



Input

Transmission of embedded audio signal is supported when passing a HDMI input signal to the DVI-I port using a HDMI to DVI adapter, but not supported when passing a DVI, VGA or YPbPr signal.

Output	
Output HDMI or DVI (through DVI to HDMI adapter)	Automatic sensing or user selectable * 1920×1200 (WUXGA) at 50Hz/60Hz * 1920×1080 (HD1080) at 50Hz/60Hz * 1680×1050 (WSXGA+) at 50Hz/60Hz/75Hz * 1600×1200 (UXGA) at 50Hz/60Hz/75Hz * 1440×900 (WSXGA, WXGA) at 50Hz/60Hz/75Hz * 1400×1050 (SXGA+) at 50Hz/60Hz/75Hz * 1360×768 (WXGA) at 50Hz/60Hz/75Hz * 1280×1024 (SXGA) at 50Hz/60Hz/75Hz
(through DVI to HDMI adapter)	 1280×1024 (SXGA) at 50Hz/60Hz/75Hz 1280×768 (WSGA) at 50Hz/60Hz/75Hz 1280×720 (HD 720) at 50Hz/59.94Hz/60Hz/75Hz 1024×768 (XGA) at 50Hz/60Hz/75Hz 800×600 (SVGA) at 50Hz/60Hz/75Hz 640×480 (VGA) at 60Hz Transmission of embedded audio signal is not supported when passing an output signal through a HDMI to DVI adapter.

Others	
Peripheral/File Sharing	Method: ❖ USB type A port (for USB 2.0 hub) ❖ GO! Bridge Utility software
Computer Connection	Up to 4 units (maximum)
Port Switching	Method: ❖ "Surfer" feature ❖ OSD (pop-up menu)
Power	Power consumption is 25W Power Supply (adapter): Input (AC): 100 to 240V 50Hz/60Hz Output (DC): 12V DC/5A
Dimensions/Weight	Dimensions: 152×174×44 mm (6.0×6.9×1.7 inch) Weight: 0.70 kg (1.54 lb)
Environment/Safety	Temperature: ❖ Operating: 0 °C (32 °F) to 40 °C (104 °F) ❖ 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 1-2 Specifications



- 1. The Sequoia Dual supports VGA/YPbPr input(s) through the optional VGA/YPbPr to DVI adapter(s).
- 2. Upon inputting a 480i/576i/1080i signal, a judder on the Source 2 image may be observed. This is due to the fact that Source 2's de-interlace process is not as efficient as that of Source 1.
- 3. The Sequoia Dual's HDMI input/output ports support HDMI revision 1.3 and HDCP revision 1.2.
- 4. 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" (selecting the other ones may lead to corrupted displays).
- 5. It is suggested to always reboot the Sequoia Dual after switching to a different monitor (especially one that supports different optimal resolution); this will ensure the Sequoia Dual to select the correct output resolution and frame rate.



1.4 Connections to the Sequoia Dual

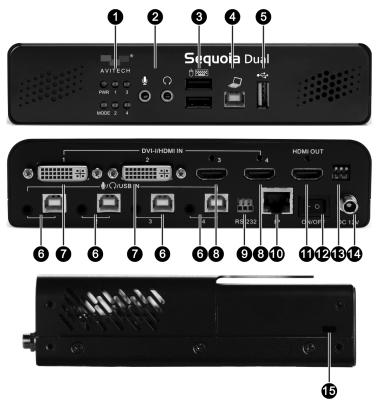


Figure 1-1 Sequoia Dual Components



Front Panel	
	→ PWR
	Glows green when the Seguoia Dual is turned ON
	→ MODE Output Description Output Descripti
	✓ Glows green when the Seguoia Dual is in Host mode
	✓ Glows amber when the Sequoia Dual is in Remote mode
1 Indicators	❖ 1 to 4
• indicators	✓ Glows green when a particular computer is operating under
	Remote mode (full control through keyboard and mouse)
	✓ Glows amber when a particular computer is operating under <u>Host</u>
	mode (monitoring only)
	✓ Blinks amber on a particular rebooting or powered-off computer
	connected to the Sequoia Dual
	\star Ω
2 Audio In/Out	Connects to the green connector for headphone function (mono)
Audio in/Out	. • •
	Connects to the red connector for microphone function
A	Connects to a USB mouse and keyboard (or connects to a touch-screen
USB Type A	display). Use these ports for operation and control in Host and Remote
(keyboard/mouse)	mode.
4 USB Type B	Connects to a computer with its own keyboard and mouse to control the
	Sequoia Dual (The Hook Utility needs to be installed on that computer to
	perform such control)
USB Type A	Connects to a USB 2.0 hub, USB flash disk, etc.
(peripheral sharing)	Connecte to a COD 2.0 mas, COD mash disk, etc.

	Rear Panel	
6	Microphone/ Headphone/ USB Input	Connect the remote computer's USB (through the USB A/B cable) and audio connectors (through the male to dual female Y splitter audio cable)
0	DVI Input	Connects HDMI/DVI-I/VGA/YPbPr inputs (an adapter may be required) <u>Note</u> : Transmission of embedded audio signal is supported when passing a HDMI input signal to the DVI-I port using a HDMI to DVI adapter, but not supported when passing a DVI, VGA or YPbPr signal.
8	HDMI Input	Connects HDMI/DVI inputs through HDMI or DVI signal cable (a DVI to HDMI adapter may be required)
9	Serial	Updates firmware Supports Avitech ASCII Protocol
10	Ethernet (IP)	For setup through a network connection For video streaming to remote PC monitoring over Ethernet Supports Avitech Http and ASCII command Protocol
•	HDMI OUT	Connects a monitor/display through HDMI or DVI signal cable (a HDMI to DVI adapter may be required)
P	Power Switch	Turns the Sequoia Dual power ON and OFF
B	Dip Switches	Resets the Sequoia Dual to factory-default settings; or updates firmware
•	Power (DC 12V)	Connects to the 12V DC/5A power adapter
1 5	Kensington [®] Security Slot	Attach a lock-and-cable apparatus for anti-theft purpose <u>Note</u> : Available on both sides of Sequoia Dual

Table 1-3 Sequoia Dual Component Description



2. System Configuration

This chapter discusses the process of setting up your Seguoia Dual.

2.1 Getting the Sequoia Dual Ready

To control your Sequoia Dual directly, connect a keyboard and mouse to the USB type A ports on its front panel. Alternatively, to control your Sequoia Dual on a computer, use a laptop (or desktop) computer with its own keyboard and mouse and connect to your Sequoia Dual's USB type B port on its front panel (use a USB A/B cable), and then run the Hook Utility on this controlling computer to simulate mouse and keyboard operation.

When using a touch-screen display, connect the display to one of the USB type A port with a USB cable to simulate mouse-click action. The Sequoia Dual can then be controlled by tapping your finger on the display.



- 1. The Hook Utility currently supports the Sequoia solo series (non-cascaded) and the Pacific X-HDU. With Hook Utility, use the connected computer to simulate keyboard and mouse function for remote control processing (KVM feature).
- 2. Refer to the Hook Utility user manual for more details.

2.1.1 Basic Setup When Connecting a Regular Display or Touch-screen Display

The following figures show a typical setup with a single Sequoia Dual connected to four computers and a regular/touch-screen display.



DO NOT place any object on the top or side panels of the Sequoia Dual. Doing so could affect its internal components and/or its heat dissipation.

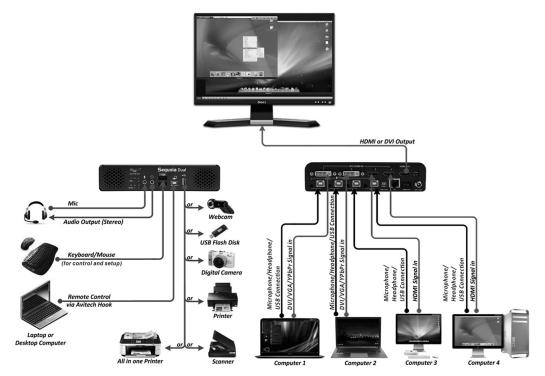


Figure 2-1 Sequoia Dual with Regular Display Setup



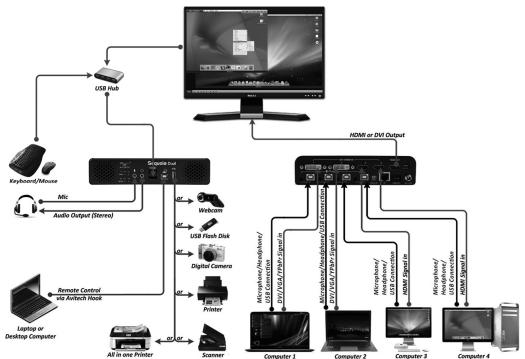


Figure 2-2 Sequoia Dual with Touch-screen Display Setup

Step 1. Connect a USB A/B cable to the first computer's USB type A port, and then connect the other end to your Sequoia Dual's source 1 port (USB type B port on its rear panel). Repeat this process for all succeeding computers.



(For Windows 2000 users) Upon connecting your Sequoia Dual to a computer through USB interface for the first time, perform the Windows' on-screen steps to initialize the USB connection.

- Step 2. Connect the male end of a male to dual female Y splitter audio cable to your Sequoia Dual's source 1 audio port on its rear panel. Connect the two dual female ends of the male to dual female Y splitter audio cable to the first computer's audio ports (mic in and audio out). Repeat this process for all succeeding computers.
- Step 3. Connect a HDMI or DVI (through a HDMI to DVI adapter) display to the **HDMI OUT** port on your Sequoia Dual's rear panel.
- Step 4. Connect the first computer's DVI or VGA/YPbPr (through an adapter) output to your Sequoia Dual's **DVI-L** port through a DVI cable. Repeat this procedure for the second computer to **DVI-R**.
 - Connect the third computer's HDMI output to your Sequoia Dual's **HDMI-L** port through a HDMI cable. Repeat this procedure for the fourth computer to **HDMI-R**.
- Step 5. Connect a set of mouse and keyboard to the mouse/keyboard USB ports located on your Sequoia Dual's front panel. When connecting to a touch-screen display, you can choose to connect the display to one of the USB port for the Sequoia Dual with a USB cable instead. When more than three devices (such as connecting a touch-screen display, a mouse and a keyboard) need to be connected to the Sequoia Dual at the same time, you can use a USB hub to increase the number of USB connections (Refer to figure 2-2).



Non-standard keyboards (e.g., keyboards with a USB hub, keyboards that need driver installation and programmable keyboard, etc.) are not supported.

Step 6. Connect the provided 12V DC power adapter to your Sequoia Dual and power it on.



Step 7. After the boot logo finishes loading, the Sequoia Dual's on-screen user interface with two windows each contains image from one of the connected computers will appear, along with the Host cursor that can be controlled directly through the mouse connected to your Sequoia Dual's front panel.

The pop-up selections will appear upon moving the <u>Host</u> cursor to a window's top-right position:

- ✓ Click the III icon on a selected window to enter the Sequoia Dual's Remote mode.
- ✓ Remote mode allows direct connection to the selected computer through USB interface.
- ✓ Your Sequoia Dual's (Host) keyboard and mouse will now control the selected computer; the Host cursor will disappear when your Sequoia Dual is in Remote mode.
- ✓ The "Surfer" feature (default setting is ON) is enabled. Moving your cursor out of your current window's border toward the other window, or to the edges that are shared with the other window will automatically switch over your Sequoia Dual's (Host) keyboard and mouse control to that computer.
- ✓ Press the **Pause/Break** hot-key on the keyboard connected to your Sequoia Dual's front panel to return keyboard and mouse control to the Sequoia Dual. The <u>Host</u> cursor will reappear. Right-click anywhere and select **Options** → **Surfer** to toggle off this feature if desired.

2.1.2 Basic Setup When Cascading the Sequoia Dual

Cascade is the technique of "daisy-chaining" multiple Sequoia Dual (up to five) through a USB A/B cable(s). It can be used when larger applications that involve having multiple computer systems controlled by a master device. It should be noted that only the keyboard and mouse are cascaded; in other words, when cascading, one set of keyboard and mouse can be used to control five Sequoia Dual (or other Sequoia series) by "surfing" the <u>Host</u> cursor across five displays and switch over control to any of the connected computers. Other functions (e.g., audio, video, and USB hub) are still confined to the associated Sequoia Dual to which they are connected (see Figure 2-3).

The following figure shows three Sequoia Dual cascaded together, with each Sequoia Dual connected to four computers.



Cascading is available on the Sequoia Dual, 4H, and 2H2U. A combination of any of these Sequoia devices can be cascaded to meet custom applications.

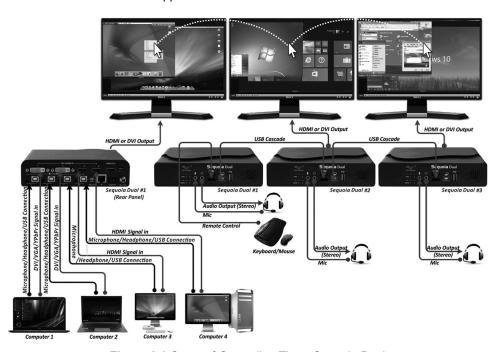


Figure 2-3 Setup of Cascading Three Sequoia Dual



- Step 1. Perform step 1 4 for your first Sequoia Dual as outlined in the previous section (2.1.1) "Basic Setup When Connecting to a Regular or Touch-screen Display."
- Step 2. Repeat the above-mentioned steps for your second and third Sequoia Dual to be cascaded.
- Step 3. Connect a mouse and keyboard to the USB type A ports located on your first Sequoia Dual's front panel.
- Step 4. Connect your first Sequoia Dual's USB type B port to one of the second Sequoia's USB type A port using a standard USB A/B cable. Repeat this procedure to connect the second Sequoia Dual to the third one.
- Step 5. Move your <u>Host</u> cursor across all three displays to allow the system to complete the USB device initialization.

If the <u>Host</u> cursor is unable to move over all three displays, perform step 5 and 6 again.

- Step 6. The pop-up selections will appear upon moving the <u>Host</u> cursor to a window's top-right position:
 - ✓ Click the III icon on a selected window to enter the Sequoia Dual's Remote mode.
 - ✓ Remote mode allows direct connection to the selected computer through USB interface.
 - ✓ Your Sequoia Dual's (Host) keyboard and mouse will now control the selected computer; the <u>Host</u> cursor will disappear when your Sequoia Dual is in <u>Remote</u> mode.
 - ✓ The "Surfer" feature (default setting is ON) is enabled. Moving your cursor out of your current window's border toward the other window, or to the edges that are shared with the other window will automatically switch over your Sequoia Dual's (Host) keyboard and mouse control to that computer.
 - ✓ Press the Pause/Break hot-key on the keyboard connected to your Sequoia Dual's front panel to return keyboard and mouse control to the Sequoia Dual. The <u>Host</u> cursor will reappear. Right-click anywhere and select Options→Surfer to toggle off this feature if desired.
 - ✓ Move the <u>Host</u> cursor across three displays to access computers confined to each Sequoia Dual.



3. Basic Operations

The Sequoia Dual 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. This chapter discusses these operating modes, their functions, and hot-keys in details.

✓ Host Mode

When your Sequoia Dual is in <u>Host</u> mode, the <u>Host</u> cursor appears on the display upon connecting a mouse device to the front panel of your Sequoia Dual. The cursor will be controlled by this locally connected mouse (In the case of a cascaded setup the cursor will be controlled by the mouse device connected to the Master Sequoia Dual; in the case of using a touch-screen display, the <u>Host</u> cursor can be controlled by a tap of a finger). <u>Host</u> mode provides a monitoring solution for the incoming computer/video signals. Users can use the <u>Host</u> cursor to select and adjust window size, position, and display layout directly through the on-screen interface. Other features such as the mouse right-click menu and the top menu are features of this mode to enhance ease of control and operation and are discussed in details in Appendix A and D.



Upon re-connecting a keyboard or mouse, the <u>Host</u> cursor may disappear. Press the **Pause/Break** key to solve this problem.

✓ Remote Mode

When your Sequoia Dual enters <u>Remote</u> mode, the <u>Host</u> cursor disappears, and your Sequoia Dual transfers the connected mouse and keyboard control to a selected computer system. You can then control this computer as you regularly would through the corresponding window on the display. Your Sequoia Dual can only enter <u>Remote</u> mode to take control of a computer when the correct USB type B port on your Sequoia Dual'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 <u>Remote</u> mode.

Tips on Navigating the Sequoia Dual:

- A maximum of four computers can be connected to a single Sequoia Dual. The Sequoia Dual puts the images of two selected computers onto two windows and simultaneously displays them on the monitor. Instant switching of inputs through the user interface is supported; thus, any two of the four computers can be monitored and controlled on the display.
- When <u>Host mode</u> is active, use the mouse connected to your Sequoia Dual 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 **Login** icon (or double-click your mouse's left button any area within that window).
- When entering <u>Remote</u> mode, your Sequoia Dual automatically transfers its mouse and keyboard control to the selected computer. Use the mouse and keyboard to control that computer as you regularly would.
- To switch back to <u>Host</u> mode, use the keyboard hot-key **Pause/Break**, or double-click the mouse scroll button. The Sequoia Dual 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 two windows at a time using the provided selections and menu. Basic operations allowed in <u>Host</u> mode are addressed below.

3.1.1 Pop-up Selections

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

- Swap: enable a window to switch its position with the other window
- Login: enter <u>Remote</u> mode and control the computer corresponding to the window
- Full screen: set a window to full screen
- Restore: return from a full-screen view to previous layout
- ❖ (left): select DVI-L port input signal
- (right): select DVI-R port input signal
- (left): select HDMI-L port input signal
- (right): select HDMI-R port input signal



When your Sequoia Dual detects that a particular computer's USB port is not connected, the **Login** pop-up icon on the corresponding window will be grayed-out.

3.1.2 Functions

The Sequoia Dual allows free window resize/reposition and selection of any video and audio inputs directly through its on-screen user interface. The following is a list of summarized functions available in <u>Host</u> mode; additional functions can be referred in Appendix A in details.

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 icon to swap two windows' positions.
Full screen window	Move the Host cursor to the top-right corner of a window; click the icon and then the window will maximize to full screen. Click the to return from full screen.
Access a remote computer	Move the <u>Host</u> cursor to the top-right corner of a window; click icon to enter <u>Remote</u> mode to the corresponding computer. The icon will be grayed-out if a window does not correspond to a computer system, or if the USB connection between the Sequoia Dual and the computer fails.
Select video source	Method 1: Move the Host cursor to the top-right corner of a window; click the icon (left) to select DVI-L as the input signal source; click the icon (right) to select DVI-R as the input signal source; click the icon (left) to select HDMI-L as the input signal source; click the icon (right) to select HDMI-R as the input signal source. Repeat the above procedure for the second window.



Function	
	Method 2: Right-click anywhere on the display to call the mouse right-click menu. On the right-click menu, select Source 1 and choose DVI (L/R) or HDMI (L/R) from the sub-menu as the input signal source. Repeat the above procedure for Source 2 .
Select audio source	Right-click anywhere on the display to call the mouse right-click menu, and then on the right-click menu, select Audio port to choose the source for audio output.

Table 3-1 Host Mode Functions



The minimum window size for the Sequoia Dual to process and display: width = 348 pixel, height = 162 pixel.

3.2 Remote Mode

The following hot-keys are available when utilizing your Sequoia Dual under Remote mode.

Keys	
<u>Pause</u> Break	Exits from Remote mode and returns to Host mode.
Ctrl + Shift + Alt + V	This command is used to read the Sequoia Dual's USB device firmware version (USB type B port (source 1 to 4 port) located on the Sequoia Dual's rear panel that connects to the computer's USB type A port through a USB A/B cable). Open Microsoft® Notepad and then press Ctrl + Shift + Alt + V to paste the firmware text to Notepad.

Table 3-2 Hot-keys of Remote Mode



When using an Apple's MacBook computer, use **control** + **option** (Alt) + **shift** + **k** to perform <u>Host/Remote</u> mode switch since there is no **Pause/Break** key.



Appendix A: Using the Mouse Right-click Menu

The mouse right-click menu contains a collective of display and feature settings for the Sequoia Dual such as customization of the user interface, video/audio source selections, remote monitoring, presets save/load, and port selections for file/folder transfer across computers. The menu, as shown in the figure below, can be called upon right-clicking anywhere on the on-screen interface when the Sequoia Dual is in Host mode.

This appendix discusses each item listed on the mouse right-click menu.

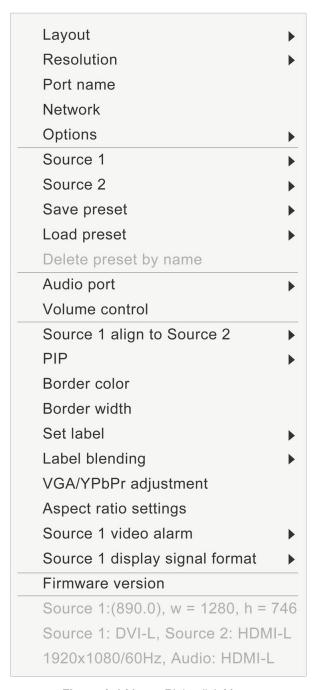


Figure A-1 Mouse Right-click Menu



Layout

Picture Over Picture
Picture In Picture
Picture By Picture
Full Screen

Arrange the two windows on the display into **Picture Over Picture**, **Picture In Picture**, or **Picture By Picture** layout, or **Full Screen** for Source 1 window.



Resolution

Set the frame rate and display resolution of your Sequoia Dual's display. The supported frame rates and display resolutions can be referred in 1.3, Specifications.

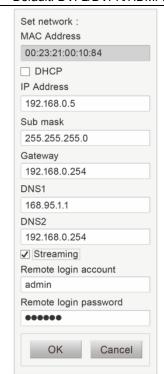
EDID Check (*default setting is ON*) allows the Sequoia Dual to output the optimum frame rate and resolution supported by the connected display (if no resolution is specified).

<u>Note</u>: If **EDID Check** is disabled, the Sequoia Dual will automatically output 1024×768 instead (if no resolution is specified).

Port name



Set the name(s) of the video input port(s). Default: DVI-L/DVI-R/HDMI-L/ HDMI-R.



Network

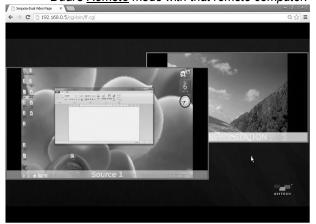


Enable remote monitoring of the Sequoia Dual's display on another computer (multiple computers can perform remote monitoring simultaneously). To perform remote monitoring on one computer, follow the procedures below:

- Step 1. Toggle ON the **Streaming** check box on the **Network** window.
- Step 2. Connect your Sequoia Dual to a computer intended for remote monitoring through Ethernet cable(s) (direct connection or through a Ethernet hub). Streaming video can only be run with VLC Media Player, so make sure your remote computer has the player properly installed before proceeding.
- Step 3. Check whether your Sequoia Dual and the remote computer are under the same network by pinging the IP address of the Sequoia Dual on that computer's command prompt.
- Step 4. Once the connection is established, type in the IP address of your Sequoia Dual (set on the **Network** window) on a web browser (Chrome/Firefox) on the remote computer. Then log in with the user account set up on the **Network** window. Once logged in you will see the streaming video of your Sequoia Dual's display.



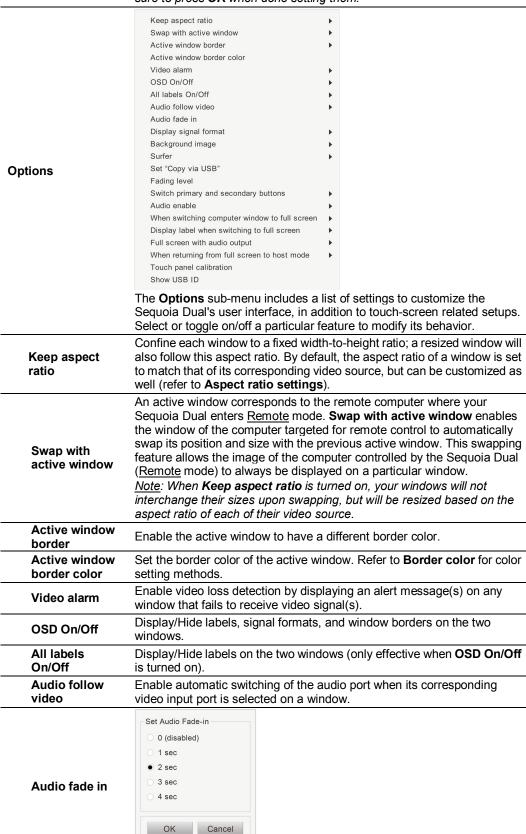
Step 5. When your Sequoia Dual is in <u>Host</u> mode, you can control it through that remote computer's keyboard and mouse. It should be noted that this control is only limited to <u>Host</u> mode control; you will not be able to control other computers through the Sequoia Dual's Remote mode with that remote computer.



Note: Referring to the **Network** window, the **MAC** Address is a fixed address corresponding to the network interface card inserted in your Sequoia Dual. The **DHCP** check box (if toggled on) enables automatic assignment of an IP address to your Sequoia Dual; instead you can choose to manually input an address or use the factory-default one (192.168.0.5) for the **IP** Address. The **Sub mask** sets the number of IP addresses available in your local area network; in other words, the



number of remote computers supported for remote monitoring. The **Remote login account** and the **Remote login password** (default: 123456) are used to access streaming video on a web browser(s). Make sure to press **OK** when done setting them.



18

Set the level of audio fade-in effect upon switching between audio ports.



Right-click Menu	
Display signal format	Display/Hide resolutions and frame rates of the video inputs currently selected on the two windows. This switch, if turned off, disables Source 1/2 display signal format
Background image	Display/Hide the background image on the display. Images that are not provided by default can be saved to the Sequoia Dual through the USB type A port (for mouse and keyboard) on its front panel (supported image formats are jpg, bmp, and png).
Surfer	Enable automatic switching of the Sequoia Dual's keyboard and mouse control from a computer to another by moving the mouse cursor from the former window to the latter one. This feature allows your Sequoia Dual's keyboard and mouse control to transfer to different remote computers without the need to return to Host mode. Please refer to Appendix C for details.
Set "Copy via USB"	Set USB Copy Manual Select: Auto Auto Port 1 to Port 2 Port 1 vs Port 3 Port 2 vs Port 4 Port 2 vs Port 4 Port 3 vs Port 4 Connection off Select two USB ports corresponding to two connected computers as endpoints for file and folder transfer. The Go! Bridge Utility will only initiate when both of the selected ports are currently displayed on the two windows. Select Auto if your Sequoia Dual is connected to exactly two computers, and select Connection off to terminate file/folder transfer. Please refer to Appendix B for details
Fading level	Set the speed of an overlaying window that fades into the background when the other window is selected.
Switch primary and secondary buttons	Interchange the functions of the connected mouse's primary and secondary button (default: left button is set as the primary button).
Audio enable	Turn on the audio output of your Sequoia Dual.
When switching computer window to full screen	Transfer control to this remote computer Not transfer control to this remote computer Enable/Disable automatic transfer of keyboard and mouse control from the Sequoia Dual to a computer when its corresponding window is set to full screen (in other words, if this feature is turned on, your Sequoia Dual will automatically enter Remote mode to a computer when its corresponding window is set to full screen).
Display label when switching to full screen	Enable the two windows to display their labels when set to full screen (only effective when OSD On/Off and All labels On/Off are both turned on).
Full screen with audio output	Enable automatic switching of the audio port to follow the video input port selected on a window when that window is set to full screen.
When returning from full screen to host mode	Remain full screen upon pressing Pause/Break Key Return to previous layout upon pressing Pause/Break Key Enable/Disable a full screen Remote mode window to automatically return to its non-full-screen layout upon exiting Remote mode.
Touch panel calibration	Calibrate tapping-actions when connecting a touch-screen display to the Sequoia Dual for the first time
Show USB ID	For any touch-screen display that does not recognize the Sequoia Dual after performing Touch panel calibration , click Show USB ID . After its pop-window appears, unplug the USB cable connected to the



touch-screen display, and then the ID number corresponding to that display will appear on the pop-up window. Please send this string of ID number to Avitech. An updated firmware that supports the corresponding touch-screen display will be delivered.

Source 1

DVI-L
DVI-R
HDMI-L
HDMI-R

Select the input signal source for Source 1 window. Select from **DVI-L/R** or **HDMI-L/R** ports. The icon of the selected port will be marked with a red check.



Source 2

Select the input signal source for Source 2 window. Select from **DVI-L/R or HDMI-L/R** ports. The icon of the selected port will be marked with a red check.

Save to preset Save to latest Backup

Presets are files that contain user-configured display layouts with already-adjusted settings. They allow users to keep their desired layouts for later uses without the need to repeatedly perform the same configuration. Saved presets are stored to the Sequoia Dual's flash memory and can be loaded anytime during the operation.

To save a preset, perform the following steps:

Step 1. Configure a new display layout and change settings if desired.

Step 2. Click **Save to preset**. A pop-up window with a default filename will appear on the display.



Save preset

Step 3. Edit the filename if desired (the file extension **sav** will be automatically added to the filename), and then click **OK** to save the file. Repeat step 1-3 for each additional preset.

Alternatively, click **Save to latest**, and then click **Load latest** (refer to **Load preset**). Your Sequoia Dual will immediately recall the display layout that was last **Save to latest**.

Or, click **Backup** to save presets to a USB device. A pop-up window will appear upon clicking **Backup** only when a USB device is connected to your Sequoia Dual's USB type A port (for mouse and keyboard) on the front panel. This enables presets to be stored externally, allowing them to be transferred to other Sequoia Dual as well.

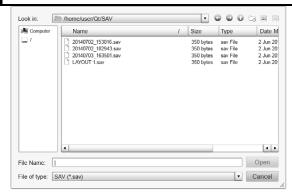
<u>Note</u>: Files will not be saved when **Save to preset** is executed by pressing **Enter** on the keyboard. It is suggested to always click the **OK** button to save the preset files.

Load preset

Load from saved preset
Load latest
Load factory default

Load a preset previously created by clicking **Load from saved preset**, and then select the desired file from the pop-up window.





Alternatively, click **Load latest** to load the window layout that was last saved using **Save to latest**. This layout will also be the master layout which gets loaded when your Sequoia Dual is powered on.

Or, click Load factory default for the default layout if desired.

Delete preset by name



Delete a saved preset file appearing on the list of the drop-down menu.

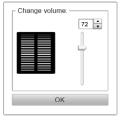


Audio port

Select the audio source to be played. Select from **DVI-L/R**, **HDMI-L/R** or **Analog 1/2/3/4** (from the remote computer's audio ports through the male to dual female Y splitter audio cable) ports. The icon of the selected port will be marked with a red check.

<u>Note</u>: Transmission of embedded audio signal is supported when passing a HDMI input signal to the DVI-I port using a HDMI to DVI adapter, but not supported when passing a DVI, VGA or YPbPr signal.

Volume control



Adjust volume for audio output by using the slider on the pop-up window.

Align to top
Align to bottom
Align to left
Align to right
Align to width
Align to height

Source align

Align a selected window with the other one by specifying the reference edge/size.

Align to top/bottom/left/right: move the selected window to where its top/bottom/left/right edge aligns with that of the other window. Window size does not alter in this case. If a window exceeds the border of the



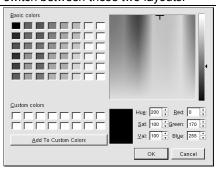
display, that window jumps back to align with the display instead.

Align to width/height: set the selected window to have the same width/height as the other one. Window position does not alter in this case

<u>Note:</u> Align to width/height will not be effective when **Keep aspect ratio** is turned on.

PIP

This switch appears on the menu when the two windows are in **Picture In Picture** layout, or when a window is set to **Full Screen**. Select on/off to switch between these two layouts.



Border color

Change the border color of a selected window by performing the followings:

- Step 1. In **Basic colors** on the top-left corner of the pop-up window, click to select a desired color.
- Step 2. Adjust the **Hue**, **Saturation**, and Brightness **Val**ues.
- Step 3. Adjust the Red, Green, and Blue values.
- Step 4. Add the adjusted color to **Custom colors** by clicking the **Add to Custom Colors** button (or directly drag a color from **Basic colors** to **Custom colors** if no adjustment is needed).
- Step 5. Repeat step 1-4 for any additional color. Click to select a desired color from **Custom colors** to be the border color.

Border width



Set the border width of a selected window.



Set label

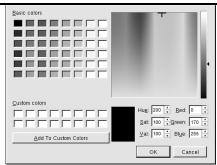


Define label: input a text string that will appear as the label of the selected window (up to 32 characters).

<u>Note</u>: This entire user manual refers to the two windows based on their default labels: **Source 1** window and **Source 2** window.



Font size: set the font size for a label's text.

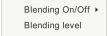


Font fg & bg color: change a label's foreground/background color by performing the followings:

- Step 1. In **Basic colors** on the top-left corner of the pop-up window, click to select a desired color.
- Step 2. Adjust the Hue, Saturation, and Brightness Values.
- Step 3. Adjust the Red, Green, and Blue values.
- Step 4. Add the adjusted color to **Custom colors** by clicking the **Add to Custom Colors** button (or directly drag a color from **Basic colors** to **Custom colors** if no adjustment is needed).

Step 5. Repeat step 1-4 for any additional color. Click to select a desired color from **Custom colors** to be the label color.

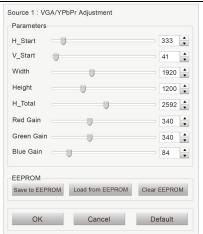
Label On/Off: display/hide the label of a selected window (only effective when **OSD On/Off** and **All labels On/Off** are both turned on).



Label blending

Enable a window's label to become transparent and blend into the image displayed on the window. Transparency level can be set by adjusting the arrow buttons on the **Blending level** pop-up window.





VGA/YPbPr adjustment

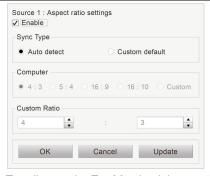
Manual adjustment for VGA/YPbPr input(s) when an image(s) appears off-centered or off-colored; this item only appears for window(s) with VGA/YPbPr input(s):

- Use the slider to change the H_Start value. The image on the selected window will move towards the left/right upon increasing/decreasing the value on the slider. Continue the adjustment until the image is aligned horizontally.
- Use the slider to change the V_Start value. The image on the selected window will move upwards/downwards upon increasing/decreasing the value on the slider. Continue the

- adjustment until the image is aligned vertically.
- Use the slider to change the Width/Height value if the image(s) is deformed.
- Use the slider to change the Red/Green/Blue Gain value if the image(s) is off-colored.

Note.

- 1. The values of **H** Start plus Width must not exceed that of **H** Total.
- 2. The value of V_Total based on the values of **V_Start** plus **Height** must not exceed the value automatically computed (by the software) based on the input signal's pre-determined value for V_Total.
- 3. If a VGA/YPbPr source is selected to be displayed on both windows, adjusting one of the images on a window will change the VGA/YPbPr adjustment parameters for both images. Each window can however, save its own parameters to EEPROM and load the parameters without affecting the other window.
- Click Save to EEPROM to save the adjusted parameters to EEPROM (changed VGA/YPbPr parameters will not be saved using Save preset).
- Click Load from EEPROM to use the saved parameters.
- Click Clear EEPROM to delete saved parameters.
- Click **Default** to return to the factory-default parameters.



Aspect ratio settings

Toggling on the **Enable** check box on the pop-up window enables users to confine a selected window to an aspect ratio (only effective when **Keep aspect ratio** is turned on).

Under **Sync Type**, the default **Auto detect** sets the aspect ratio of the selected window to be identical to that of its video source; selecting **Custom default** instead enables users to alter the aspect ratio to the followings:

- **4**:3
- ***** 5:4
- ***** 16:9
- ***** 16:10
- custom

Select **custom** and adjust the width-to-height ratio if the desired aspect ratio is not listed above.

Click **Update** to view changes without closing the pop-up window.

Source 1/2 video alarm

Enable an alert message to be displayed on Source 1/2 window upon detecting no video input.

Source 1/2 display signal format

Enable the resolution and frame rate of Source 1/2 window's corresponding image to be displayed on its window's top-left corner (only effective when **Display signal format** under **Options** sub-menu is turned on).



Firmware Version Dual-0017 1.00 01 12.29.2014 FPGA-0018 1.00 00 11.11.2014 ST-0019 1.00 01 12.24.2014 Multi-Touch-0052 1.00 00 12.29.2014

Firmware version

Others

Display information of the firmware version and associated chips embedded in your Sequoia Dual.

The last three items on the mouse right-click menu contain the following information (this portion is grayed-out and not selectable):

Coordinate of the selected window's starting point/pixel (a window's top-left corner is defined as its starting point; the top-left corner of the display is defined as (0,0))

Width and height of the selected window

Video input ports selected for the two windows

Resolution and frame rate of the Sequoia Dual's display

❖ Audio port selected for the Sequoia Dual's audio output

Table A-1 Mouse Right-click Menu Description



Appendix B Using the GO! Bridge Utility

A single Sequoia Dual can connect up to four computer systems. The Sequoia Dual puts the images of two selected computer systems onto two windows and simultaneously displays them. Instant switching of inputs through your Sequoia Dual's user interface is supported in <u>Host</u> mode; thus, any two of the four connected computers can be displayed and controlled on a single monitor.

In addition to monitoring solutions, the Sequoia Dual also features in file and folder transfer across the connected computers. This appendix introduces the GO! Bridge Utility - a handy feature not only to browse the files and folders contained in the hard drives of the connected computers, but also use the copy-and-paste or drag-and-drop methods to manage and transfer these files and folders across computers.

The following steps show how to start up GO! Suite to use the GO! Bridge Utility:

Step 1. Connect a USB A/B cable to the first computer's USB type A port and then connect the other end to the Sequoia Dual's source 1 port (USB type B port on its rear panel). The computer will start recognizing the USB connection. When initialization is complete, the following will be displayed on Source 1 window.



Figure B-1 GO! Bridge Initialization



Go! Bridge will not be executed automatically under Win7/Win8 operating systems; therefore manual installation will be required.

Step 2. Connect another USB A/B cable to the second computer's USB type A port and then connect the other end to the Sequoia Dual's source 2 port (USB type B port on its rear panel). The computer will start recognizing the USB connection. When initialization is complete, the next sample screen will appear showing the Desktop content of the first computer on Source 2 window. A similar window as figure B-2 below will also be displayed on Source 1 window, showing the Desktop content of the second computer. A "bridge" between the two computers is now established allowing transfer (copy/paste) as well as deletion of files and folders through the Sequoia Dual.

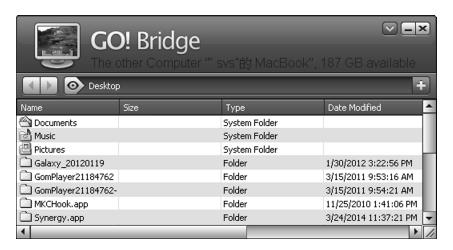


Figure B-2 GO! Bridge Initialization



Step 3. Click this icon on the top-right corner of the Go! Bridge's interface, and then select **Open Dock** to open up the Dock panel as shown below. Multiple files/folders can be placed onto the Dock panel so that those destined for the same destination can be transferred at the same time.

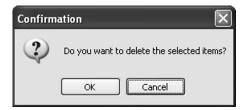
About GO!Bridge
Always On Top



Figure B-3 Dock Panel



- Step 4. To manage files or folders on Go! Bridge's Main panel, or add them to the Dock panel, right-click the desired file or folder on the Main panel, and then on the pop-up menu, select any of the followings:
 - Open open the selected file/folder (can also double-click it). <u>Note</u>: Some executable files (".exe") that require other supporting files such as graphic resources, library, etc. may not run on the remote computer.
 - Add to Dock add the selected file/folder to the Dock panel (can also drag-and drop to the Dock panel)
 - * Rename change the name of a selected file/folder.
 - Copy copy the selected file/folder to paste to another destination. After copying the file/folder, select
 - Paste complete the file/folder transfer by pasting the file/folder to the desired destination. Note: Pasting to the same destination as the source location or pasting to the same computer is not allowed.
 - ❖ Delete remove the file/folder from the list. Click OK to confirm.



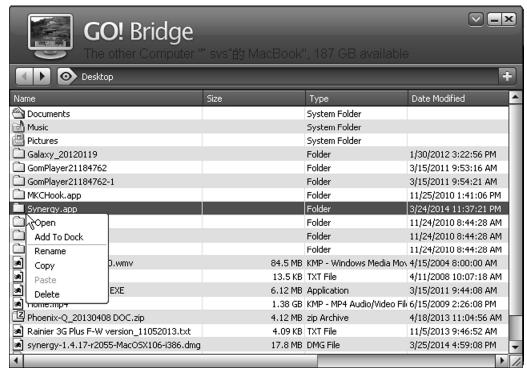


Figure B-4 Right-click File/Folder Menu on Main Panel



- Step 5. To manage files or folders added to the Dock panel, right-click the desired file or folder on the Dock panel, and then in the pop-up menu, select any of the followings:
 - Copy copy the selected file/folder to paste to another destination. After copying the file/folder, select
 - Paste complete the file/folder transfer by pasting the file/folder to the desired destination.
 - **❖ Remove from Dock** remove the selected file/folder from the Dock panel.
 - Select All select all the files/folders on the Dock panel. This will make the transfer much easier if all the files/ folders are to be moved to the same destination; perform copy-and-paste to the selected files/folders or simply drag-and-drop them to the desired destination.

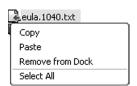


Figure B-5 Right-click File/Folder Menu on Dock Panel





Click the **view** icon as shown below to bring up the list of the default directory, the devices of the other computer, and recent path(s) previously browsed.

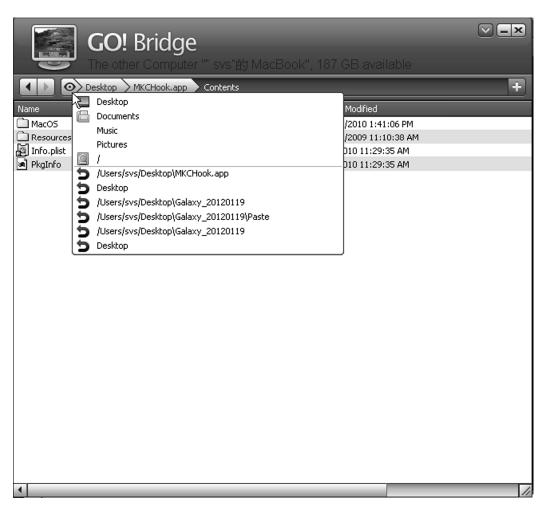


Figure B-6 View Button





Click the **add folder** icon as shown below to add a new folder to the present directory of the other computer. You can also designate the name of the new folder.



Figure B-7 Add New Folder and Designate the Name



GO! Bridge
Switch to Icon Mode
monito

Click the monitor icon to switch from the main panel display (window mode) to icon mode. In icon mode, dragging the file/folder(s) from the host computer onto the Go! Bridge icon transfers them only to the root directory of the other computer.



monitor icon again to switch back to the main panel display

(window mode).



Appendix C Using the "Surfer" Feature

The "Surfer" feature is designed for ease of switching the Sequoia Dual's keyboard and mouse control from one remote computer to another. When under non-full-screen Remote mode, simply move the cursor from the current window toward the nearest edge(s) of the other window. The Sequoia Dual's keyboard and mouse control will automatically be transferred to the computer corresponding to that window when the mouse cursor leaves the former window to the later one. This appendix discusses different "Surfer" scenarios for single and cascaded Sequoia Dual. It should be noted that "Surfer" is a Remote mode feature, and the following scenarios presume that your Sequoia Dual is in Remote mode.



By default, the "Surfer" feature is enabled upon starting up the Sequoia Dual.
Select **Options >Surfer** under the mouse right-click menu to toggle off this feature desired.

C.1 "Surfer" Feature on Uniform Dual Layout That Fills Entire Screen

The figure below shows an allowed control switching action upon moving the mouse cursor toward the window border of Source 1, as indicated by the arrow and shaded line. Moving the cursor from Source 1 window to Source 2 window transfers keyboard and mouse control from the former window to the latter one (transfer occurs upon the cursor touches the edge shared by both windows). Moving the cursor from Source 2 window to Source 1 window also transfers control from Source 2 to Source 1 (not shown). It should be noted that the arrow and shaded line shown in the figure only indicate the direction the cursor moves; they will not appear on the actual display.



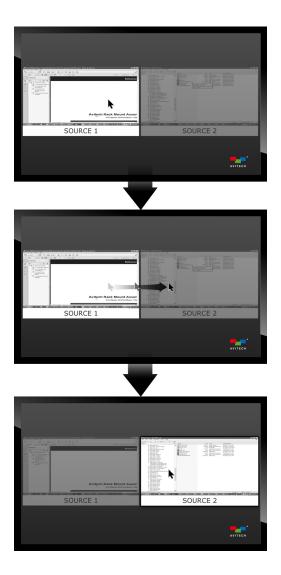


Figure C-1 "Surfer" Feature on Uniform Dual Layout

C.2 "Surfer" Feature on Non-adjoining Dual Layout

The figure below shows an allowed control switching action upon moving the mouse cursor toward the border of a non-adjoining window (indicated by the arrow and line indicator). Moving the cursor from Source 1 window to Source 2 window transfers keyboard and mouse control from the former window to the later one (transfer occurs upon the cursor leaves the right edge of Source 1 window). The arrow and shaded line shown in the figure only indicate the direction the cursor moves; they will not appear on the actual display.



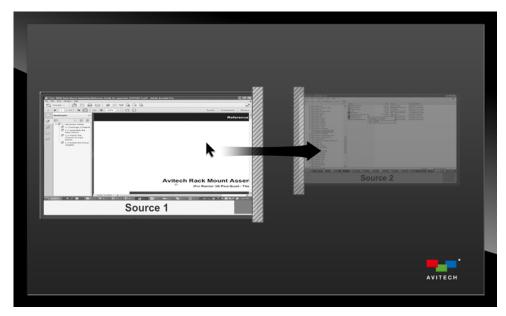


Figure C-2 "Surfer" Feature on Non-uniform, Non-adjoining Dual Layout



In the case of a source window overlaid with the other one, switching of control will occur when the mouse cursor has left the area where the two windows overlay (toward the targeted window).

C.3 "Surfer" Feature on Full Screen "Source" Window

The figure below shows allowed control switching actions upon moving the mouse cursor to the left or right edge of a full-screen window (indicated by arrows and line indicators). Moving the cursor in such ways switches the full-screen window to the other window, and transfers keyboard and mouse control from the former window to the latter one.

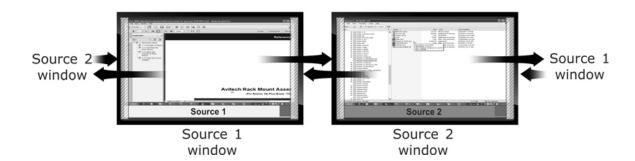


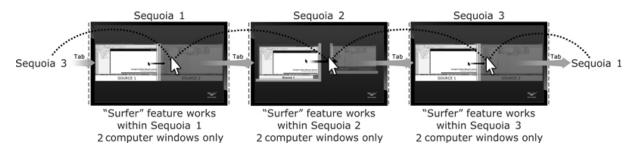
Figure C-3 "Surfer" Feature on Full Screen Source Window



C.4 "Surfer" Feature on Cascaded System

- The figure below shows a sample of 3-Sequoia Dual cascaded system. The "Surfer" feature is confined within each Sequoia Dual only (refer to the above-mentioned illustrations on using the "Surfer" feature within each Sequoia Dual).
- For example, if a user is currently in control of Source 1 window on Sequoia 2 (<u>Remote</u> mode), and wishes to switch control to Source 2 window on Sequoia 3 (<u>Remote</u> mode), perform the followings:
 - <u>Step 1</u>: Press **Pause/Break** key (or double-click the mouse scroll button) to exit <u>Remote</u> mode and re-enter <u>Host</u> mode. Control of Source 1 window on Sequoia 2 has now been disengaged.
 - <u>Step 2</u>: Move the <u>Host</u> cursor to the right edge of the display of Sequoia 2 to allow the cursor to jump to the left edge of the display of Sequoia 3 (still in <u>Host</u> mode, but this time the location of the <u>Host</u> cursor is now in Sequoia 3).
 - Step 3: Move the <u>Host</u> cursor over to the top-right corner of Source 2 window on Sequoia 3 and click the **Login** icon of the pop-up selections (or double-click the mouse left button anywhere within the window) to switch control to Source 2 (enter <u>Remote mode</u>).

The "Surfer" feature can now be used within Sequoia 3.



Legend:

<u>Host</u> mode action (moving between multiple Sequoia Dual): dotted lines and gray arrows <u>Remote</u> mode action (moving within a particular Sequoia Dual): black arrows

Figure C-4 "Surfer" Feature on Cascaded System



Up to five Sequoia Dual can be cascaded together.



Appendix D Using the Top Menu

The top menu is a <u>Host</u> mode feature designed for ease of shifting between multiple display layouts. It also has the "lock" function to suit applications that prefer fixed windows on the display. This menu locates at the bottom of the display and pops up when the <u>Host</u> cursor is near by. Simply click a particular icon to execute its function.



Figure D-1 Top menu with its functional icons

- The top menu contains eight functional icons as indicated in the figure above (the Menu icon is not functional).
- The lock icon locks the current layout of the Sequoia Dual's display, and disables any adjustment of window size and position made by the Host cursor. In the case when two windows overlay, the selected window will come to the top-most layer of the display and the other one will fade into background. Other functions such as those on the pop-up selections and the mouse right-click menu are still available even when the "lock" function is enabled. To disable the "lock" function, click the unlock icon (the unlock icon replaces the lock icon when "lock" is enabled).
- ❖ The next four icons provide the same functions that are also available in Layout under the mouse right-click menu: Picture Over Picture □, Picture By Picture □, Picture In Picture □, and Full Screen □ respectively. These icons on the top menu serve as shortcuts for the mouse right-click menu, and can be used to alter your display layout even when the "lock" function is enabled.
- The three icons on the right of the top menu (also shown below) each represent a saved preset. A preset is a file that contains user-configured layout with already-adjusted settings. Users can have multiple presets stored to the Sequoia Dual for future references, but only the latest three presets saved can be loaded from the top menu as shortcuts (only presets saved by Save to preset are linked to the top menu). When the number of presets reaches or exceeds three, any new preset saved will replace the old one (in the order of preset 1, 2, and 3). Presets that are replaced are still stored in the Sequoia Dual and can be accessed by the mouse right-click menu. Switching between presets under the top menu can also be achieved when the "lock" function is enabled.

Load user-defined preset 1

: Load user-defined preset 2

: Load user-defined preset 3



Appendix E Using the Touch-screen

The Sequoia Dual features in multi-touch support for touch-screen displays. To operate the Sequoia Dual on a touch-screen display for the first time, perform setups instructed in 2.1.1. Once the setup is complete, select **Touch panel calibration** under the mouse right click menu - **Options** sub-menu. Finish the calibrating process by tapping the red dots shown on four corners of the display. When done with the calibration, you will be able to operate your Sequoia Dual as you regularly would with a mouse by performing tapping actions on the display.

This appendix discusses different tapping actions that simulate mouse-clicking actions.

E.1 Move/Resize Window

- To move a window, tap anywhere within the window and then drag it to a new position.
- To resize a window, tap anywhere near the edge or corner of the window. When the directional arrow appears, drag the window's border to the desired size.

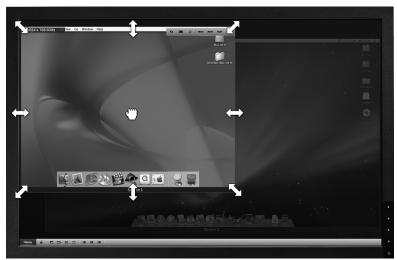


Figure E-1 Touch-screen: Move/Resize Window

E.2 Pop-up Selection

Use a stylus (or finger) to tap area near the top-right corner of a window, and then the following pop-up selections will appear:
To execute the function a particular icon, tap the icon once more (for more information regarding the pop-up selections, refer to p.13).

E.3 Top menu



E.4 Mouse right-click menu

Use a stylus (or finger) to long-tap anywhere on the display for approximately 1 second, and then the mouse right-click menu will appear (Refer to Figure A-1). To extend a sub-menu from an item that has an arrow on its right side, tap the item once more; to execute the function of an item, double-tap the item instead (for more information regarding the mouse right-click menu, refer to Appendix A).

E.5 Enter/Exit Remote Mode and Host Mode

To have the Sequoia Dual enter Remote mode to a connected computer, tap the Login icon from the pop-up selections of the corresponding window; alternatively, double-tap anywhere within the corresponding window.

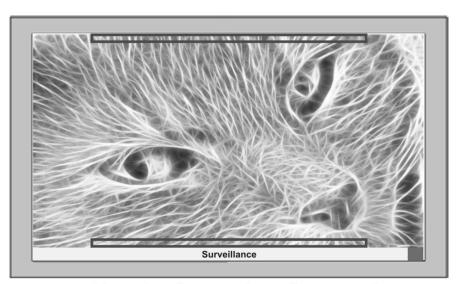


To exit Remote mode from a non-full-screen window, double-tap anywhere outside that window.



When working with a touch-screen display, sometimes it takes 2-4 trials of double-tapping (simulating a mouse double-click action) on the display to have the Sequoia Dual enter Remote mode. This may occur when the precise location of the second tap is slightly away from that of the first tap; or the time interval between the two taps is too long.

To exit Remote mode from a full screen window, press the upper or lower inch of the touch-screen display for approximately 1.5 seconds (Refer to Figure E-2).



Tap and continue pressing on the upper or lower areas indicated by the black rectangles

Figure E-2 Touch-screen: Exit Remote Mode while in Full Screen

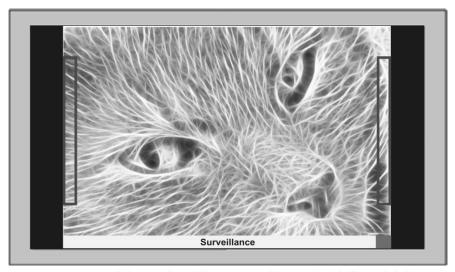


When the Sequoia Dual returns from Remote mode to Host mode, the Host cursor will reappear where it last located before that Remote mode; it will not reappear where the double-tapping action outside the active window took place.



E.6 Switch Control Between Windows

- ❖ To switch windows while in full screen <u>Remote</u> mode, press within an inch of the left or right edge of the touch-screen display and hold for approximately 1.5 seconds (Refer to Figure E-3).
- ❖ To switch windows while in non-full-screen <u>Remote</u> mode, simply long press within the area of the targeted window for approximately 1 second.



Tap and continue pressing on the left or right areas indicated by the black rectangles

Figure E-3 Touch-screen: Switch Sources while in Full Screen



Appendix F Using the Touch-to-Mouse Utility (for Windows XP only)

The Touch-to-Mouse Utility is designed for using a touch-screen display to control a remote computer that runs on Windows XP. To start the Touch-to-Mouse Utility, perform the following steps:

- Step 1. Copy the file "Sequoia USB Touch Tool.exe" to the designated computer.
- Step 2. Run the file: "Sequoia USB Touch Tool.exe".
- Step 3. Right-click the Touch-to-Mouse icon appearing on Windows task bar and then select Settings.
- Step 4. Set the **Double-click Speed** with the slider or enter the time in the box next to **ms**. <u>Note</u>: two successive taps on a touch-screen mimic double-clicking the left-mouse button.

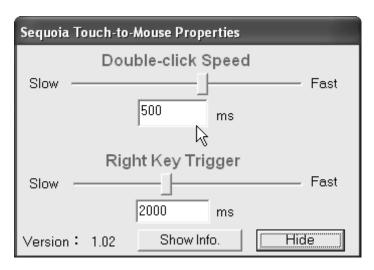


Figure F-1 Touch-to-Mouse Utility Setup

Step 5. Set the **Right Key Trigger** with the slider or enter the time in the box next to **ms**. To mimic a right-click action, hold your finger on the touch-screen display until the specified time has elapsed.

Step 6. Click Hide when finished.



To have your Windows XP automatically start running the Touch-to-Mouse Utility upon the next boot-up, right-click the Touch-to-Mouse icon and select **Auto-start when Windows starts-up** (a check mark will appear signifying it is enabled).



Appendix G Resetting to the Factory-Default State

To reset your Sequoia Dual to its factory-default state, perform the following steps:

Step 1. Power-off the Sequoia Dual.

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

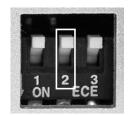


Figure G-1 Push down the Number 2 (Middle) Dip Switch

Step 3. Power-on the Sequoia Dual.

Step 4. Push number **2** (middle) dip switch located on Sequoia Dual's rear panel upwards to the **OFF** position (the Sequoia Dual will not proceed after loading the boot logo if leaving this dip switch **ON**).



Upon resetting your Sequoia Dual to its factory-default state, your previously saved presets stored in the Sequoia Dual's flash memory will be automatically removed; make sure to have your files saved externally before resetting the Sequoia Dual to the factory-default state.