



# Sequoia 4H

One of a kind multiviewing

## ABOUT THIS MANUAL

This manual contains information on how to use Avitech proprietary Phoenix-G (formerly Galaxy) software to configure the Sequoia 4H.

Throughout the manual, the following conventions are used to distinguish elements of text.



*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. Email us at: [sales@avitechvideo.com](mailto:sales@avitechvideo.com).

## WARNING

Do not attempt to disassemble the Sequoia 4H. 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 also at [support@avitechvideo.com](mailto:support@avitechvideo.com)

# Contents

About This Manual .....	ii
Technical Support.....	ii
User Manual Application .....	v
User Manual History .....	v
Warranty.....	vi
Limitation of Liability .....	vi
Extended Warranty Options.....	vi
Services and Repairs Outside the Warranty Period.....	vi
Regulatory Information .....	vi
Federal Communications Commission (FCC) Statement.....	vi
European Union CE Marking and Compliance Notices .....	vi
Australia and New Zealand C-Tick Marking and Compliance Notice .....	vi
<b>1. Phoenix-G Configuration .....</b>	<b>1</b>
1.1 Connection Method .....	1
1.2 Pinging the Sequoia 4H.....	1
1.3 Starting Up the Phoenix-G Software.....	1
<b>2. Basic Setup Using the Phoenix-G Software .....</b>	<b>4</b>
2.1 Group Layout Menu.....	4
2.2 Select Menu .....	4
2.3 Settings Menu .....	5
2.4 System Parameter Menu .....	9
2.5 Module Parameter Menu .....	13
2.6 GUI View Menu.....	20
2.7 Special Screen Layout Menu.....	20
2.8 Help Menu.....	22
2.9 Quick Keys – Change Window to/from Full Screen Mode; Swap Window Contents	27
2.10 Window Layout .....	28
2.10.1 Default Window Layouts.....	28
2.10.2 Arranging Windows .....	29
2.11 Mouse Right-click Menu.....	30
2.11.1 Resizing Window.....	31
2.11.2 Setting Label Properties.....	32
2.11.3 Setting Border Properties .....	33
2.11.4 Setting Alarm .....	34
2.11.5 Check Signal.....	35
2.11.6 Auto Remove Black Bar .....	35
2.11.7 Quick Cropping an Image on a Window .....	36
2.11.8 Specifying the Size of a Cropped Image.....	36

<b>2.11.9 Restore</b> .....	36
<b>2.11.10 Pan Image</b> .....	37
<b>2.11.11 Aspect Auto Detect</b> .....	38
<b>2.12Turning On/Off the Window/Label</b> .....	39
<b>2.13Saving to a Flash File</b> .....	40
<b>2.14Saving a Preset</b> .....	41
<b>2.15Loading File</b> .....	42
<b>2.16Making Adjustments</b> .....	43
<b>2.17Audio Setup</b> .....	44
<b>2.18Control Video Fade</b> .....	45
<b>Appendix A Setting Up Static IP</b> .....	<b>46</b>
<b>A.1 Method 1: Change IP Address of Sequoia 4H Chassis</b> .....	46
<b>A.2 Method 2: Change IP Address of the Controlling Computer</b> .....	49
<b>For Windows XP</b> .....	49
<b>For Windows 7</b> .....	49

## USER MANUAL APPLICATION

This manual contains information that is compatible to the following Sequoia 4H model:

	Cascade and "Surfer" feature version	Cascade and Touch-Screen version
<b>Hardware</b>		
Main Board	R5	R5
Upper Board	R6	R6
<b>Firmware</b>		
USB Host	V0.00.39S11.26.2013	V0.00.33 05.27.2013
USB Device	V0.01.12s 4h bldr1.40 11.13.2013	V0.01.09m 4h bldr1.40 06.29.2012* V0.01.09t 4h bldr1.40 06.29.2012 (* apply for regular shipment only)
Control Board	V1.00.17 12.24.2013	V1.00.17 12.24.2013
Upper Board FPGA	V1.00.g9 04.11.2012	V1.00.g9 04.11.2012
ST	V5.01.g0 04.01.2013	V5.01.g0 04.01.2013
<b>Software (Utility)</b>		
Phoenix-G	V1.03 or later	V1.03 or later
Hook	V1.06	V1.06
USB Touch Tool	V1.03	V1.03
Avitech Control Panel (ACP)	V2.04	V2.04
ASCII Test	V4.3	V4.3

## USER MANUAL HISTORY

Revision No.	Date	Changes Applied
1.0.0	4/28/2011	First version
	7/8/2011	Edited "background picture" portion.
	7/15/2011	Edited "Others" UI screenshot.
	9/9/2011	Updated "Sequoia Properties" UI and description.
	4/6/2012	Edited "crop size" & "pan image" portions.
	6/15/2012	Incomplete info in Import/Export (.txt) portion. Added new program functions.
	7/9/2013	Updates based on new program version.
	9/23/2013	Updates based on new program version.

## 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

### 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 stent reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC.

### Italiano (Italian)

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

### Norsk (Norwegian)

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

### Português (Portuguese)

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

### Español (Spanish)

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. Phoenix-G Configuration

The Avitech Phoenix-G program (formerly Galaxy) requires no installation. Just copy the system files to your computer's hard drive. This chapter introduces the Phoenix-G software for setting up the Sequoia 4H.



*Make sure the Sequoia 4H is powered on and connected properly to your computer through Ethernet before launching the Phoenix-G software.*

## 1.1 Connection Method

Connect your Sequoia 4H to the controlling computer through an Ethernet cable.

Before running the Phoenix-G software, change the computer's DHCP LAN connection to a static IP, with a similar range as the Sequoia 4H (e.g., "210.100.100.151" – factory-default setting). Or, change the IP address of the Sequoia 4H to a similar range as the controlling computer. See Appendix A for details.

## 1.2 Pinging the Sequoia 4H

Make sure you can ping the chassis at "210.100.100.151" (factory-default IP address).

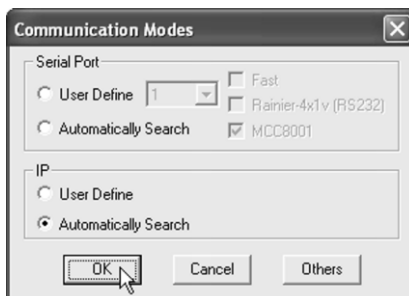
*Step 1. Click **Start**→**All Programs**→**Accessories**→**Command Prompt**. The **Command Prompt** screen will appear.*

*Step 2. Type "ping 210.100.100.151" and press Enter.*

*Step 3. Type "exit" to exit the **Command Prompt** screen.*

## 1.3 Starting Up the Phoenix-G Software

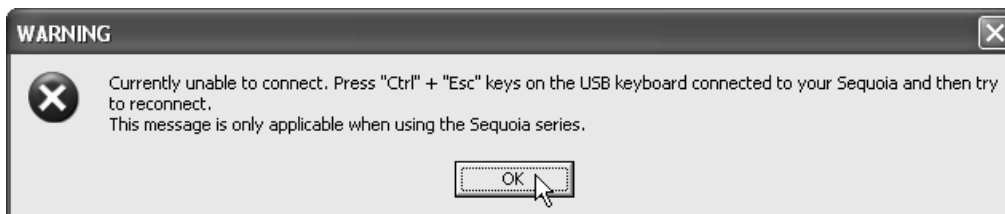
*Step 1. Run the Phoenix-G software by double-clicking **Phoenix-G.exe**. Under **IP** select **User Define** and enter the Sequoia's IP address, or select **Automatically Search**.*



**Figure 1-1** Phoenix-G Software: Set Communication Mode

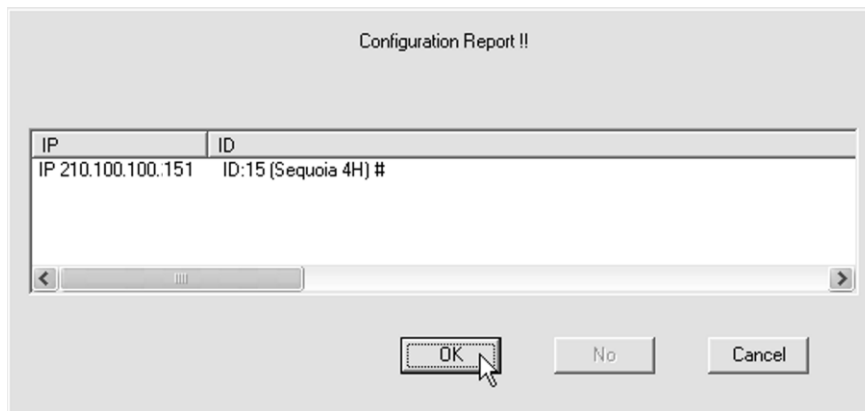
*Step 2. Before clicking **OK** (next step), press the **Ctrl + Esc** keys (on keyboard connected to front panel of Sequoia 4H) to make sure that you are not in host (MKC – mouse keyboard controller) mode.*

The following warning message may appear in case **Ctrl + Esc** keys were not pressed. Click **OK**.



**Figure 1-2** Phoenix-G Software: Press "Ctrl" + "Esc" Keys

*Step 3.* The computer will start searching for Sequoia and then ask to confirm connection. Click **OK**.



**Figure 1-3** Phoenix-G Software: Connection Configuration



Phoenix-G “Control” and “Option” window will appear.

- ✓ “Control” window is for creating and configuring the layout.
  - ✓ Logo icon **Avitech Phoenix-G** (formerly Galaxy): proprietary logo and name of software.
  - ✓ **1920x1200 (60Hz)**: shows the output resolution and frequency of the monitor.
- ✓ “Option” window is for video window/label setup; save/load file; adjust image; window size/ position setting, monitor audio, and fader control.

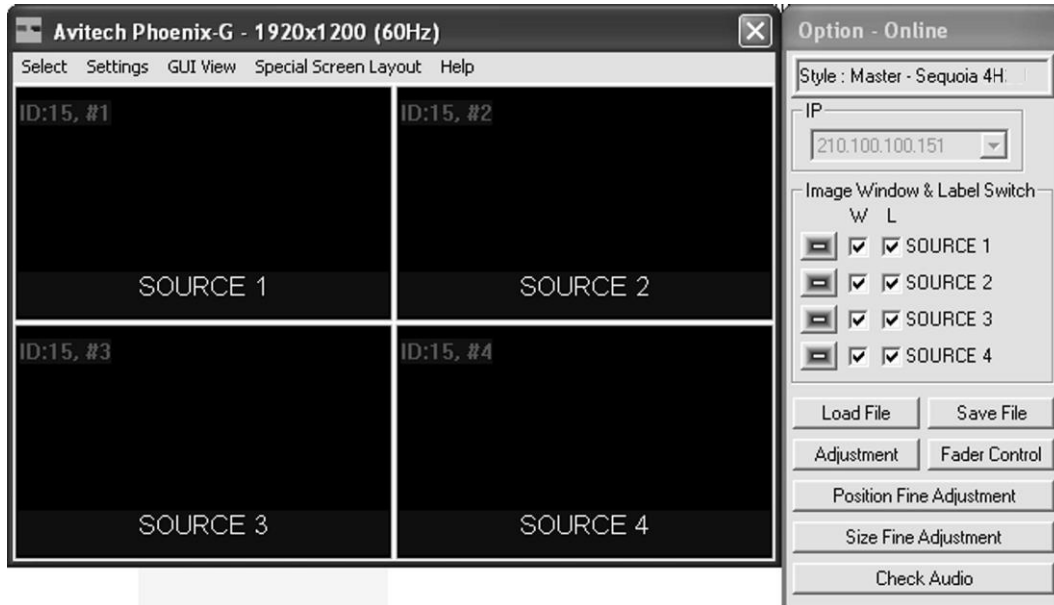


Figure 1-4 Phoenix-G Software: Control and Option Window


## 2. Basic Setup Using the Phoenix-G Software

This chapter introduces you to the Phoenix-G (formerly Galaxy) software for setting the features of your Sequoia 4H, and familiarizes you with the menus appearing on the Phoenix-G software.

 | Some items appearing on the menus of the Phoenix-G software may not be available (grayed-out).

### 2.1 Group Layout Menu

Right-click the title bar to access the **Group Layout** menu. Select from **2x2** up to **8x8** as possible grid positions on the monitor.

 | The layout size available for your particular model will depend on the monitor's resolution as well as the smallest window-size limitation.

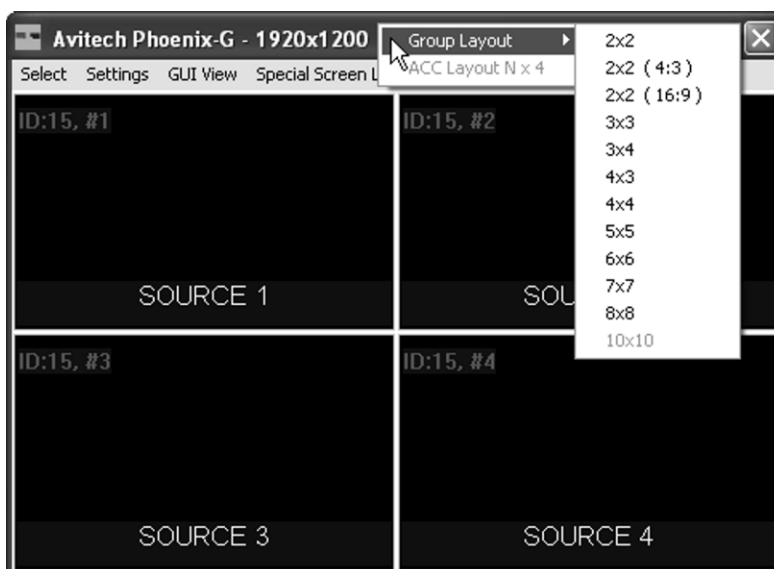


Figure 2-1 Phoenix-G Software: Group Layout Menu

### 2.2 Select Menu

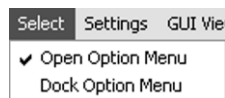


Figure 2-2 Phoenix-G Software: Select Menu

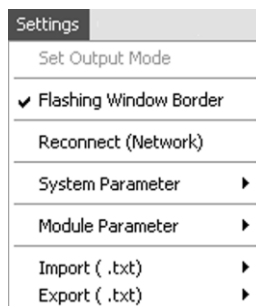
#### Open Option Menu

Toggle on/off the **Option** window.

#### Dock Option Menu

Return the **Option** window to its default position on the right side of the Phoenix-G control window. This option will not be available (grayed-out) if the previous item **Open Option Menu** is disabled (without checkmark).

## 2.3 Settings Menu

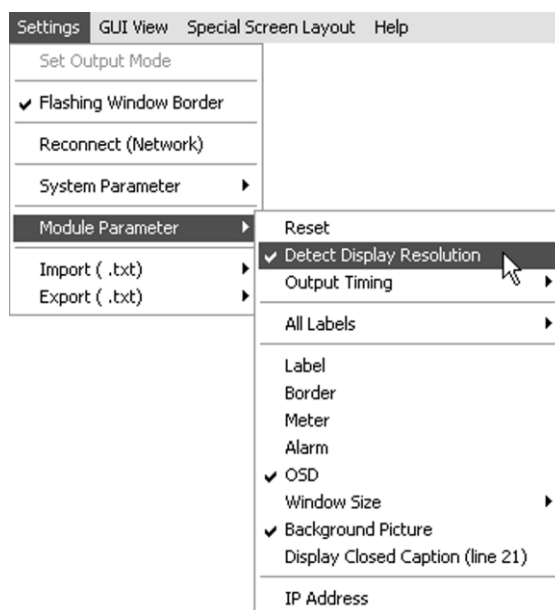


**Figure 2-3** Phoenix-G Software: Settings Menu

By default the Sequoia will automatically set the optimum display resolution so **Set Output Mode** will be grayed-out (disabled). When using the Sequoia for the first time or upon setting the device to its factory-default setting, automatic detection of optimum display resolution will occur. Use the Phoenix-G software to disable this feature by performing the following steps:

*Step 1. Click **Settings** then **Module Parameter**.*

*Step 2. Click to unselect (remove the checkmark) the **Detect Display Resolution** option.*



**Figure 2-4** Phoenix-G Software: “Settings”→”Module Parameter”→”Detect Display Resolution”



1. When the monitor is unable to provide the EDID signal it will display at 1024x768 / 60Hz. The extended display identification data (EDID) is a data structure provided by a computer display to describe its capabilities to a graphics card.
2. When the **Detect Display Resolution** option is selected (with checkmark) all the presets will be displayed in the optimum resolution. Likewise, when the **Detect Display Resolution** option is not selected (without checkmark) and you have set the desired resolution using the **Set Output Mode**, all the presets will be displayed in the desired resolution that you have set.

Step 3. Click **Settings** and then click **Set Output Mode**.

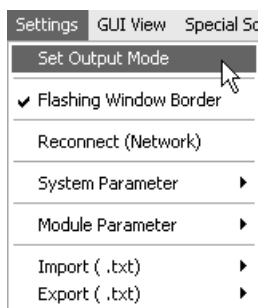



Figure 2-5 Phoenix-G Software: “Settings”→”Set Output Mode”

 When the **Detect Display Resolution** option is “on,” the **Set Output Mode** function is not available (grayed-out).

Step 4. Set the output resolution to match the monitor’s resolution. Select the **Refresh Frequency**, then the **Mode**, and then click **OK**. You will notice that the selected resolution is displayed on the title bar of Phoenix-G software.

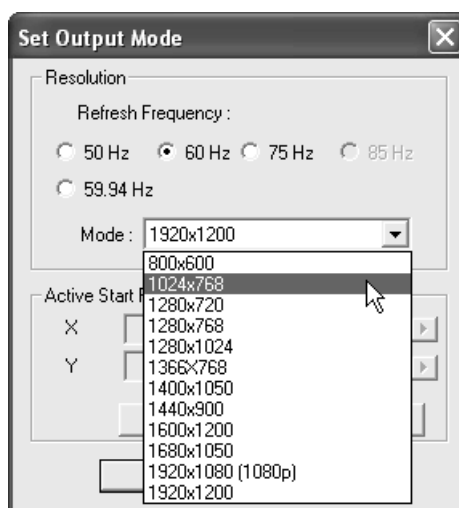




Figure 2-6 Phoenix-G Software: Select “Refresh Frequency” and “Mode”

 Changing the output resolution for overlay will cause the output windows to appear on the monitor or, in the case of fixed window layout (e.g., 2x2, 3x3, 4x4, etc.), may cause misalignment. To fix this, just choose a new window layout.

 When the **Flashing Window Border** option is enabled (with checkmark) the border of the window where the mouse cursor just resided will blink twice to notify you of its location.

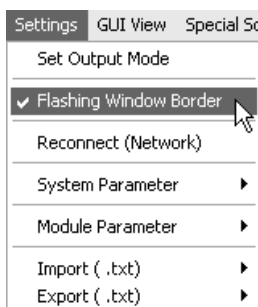


Figure 2-7 Phoenix-G Software: “Settings”→”Flashing Window Border”

When you have unplugged the IP cable and re-connected it, click **Reconnect (Network)** to continue the configuration process.

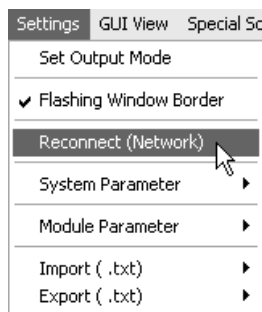


Figure 2-8 Phoenix-G Software: “Settings”→”Reconnect (Network)”

**Import/Export (.txt)** allows you to import a label from / export label to Microsoft® Office Word or Notepad to be edited externally.

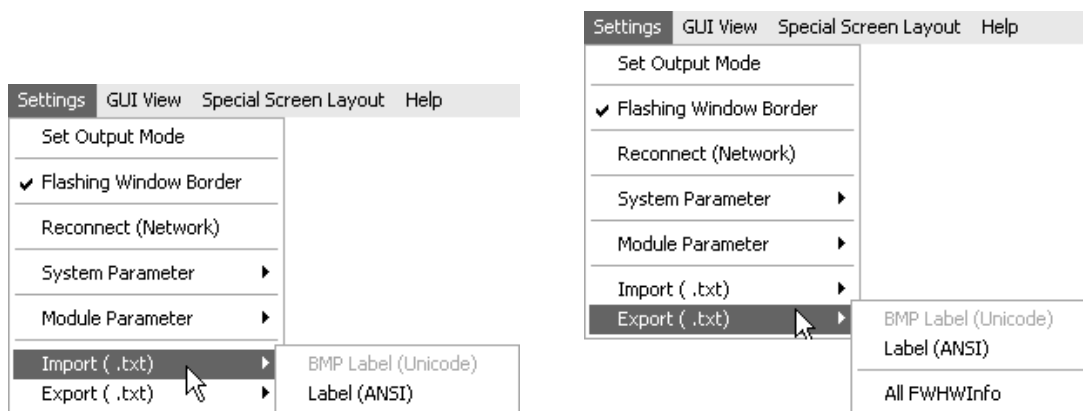


Figure 2-9 Phoenix-G Software: “Settings”→”Import/Export (.txt)”

Step 1. The convenient way is to export file (label) as a **Label (ANSI)** “txt” file by assigning a filename.



Figure 2-10 Phoenix-G Software: Export Label as Text File

Step 2. Edit the text in the file. When you are done editing the label (highlighted as shown below), save the “txt” file and import it. The on-screen labels will be updated.

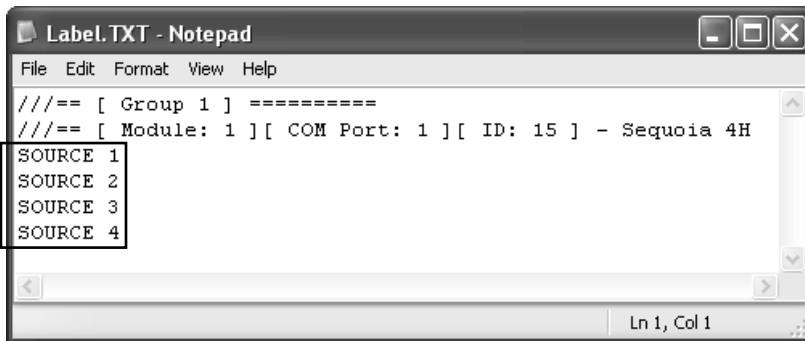


Figure 2-11 Phoenix-G Software: Edit the Label

Step 3. Export all firmware/hardware information to a text file by clicking **Export (.txt)** and assigning a filename.

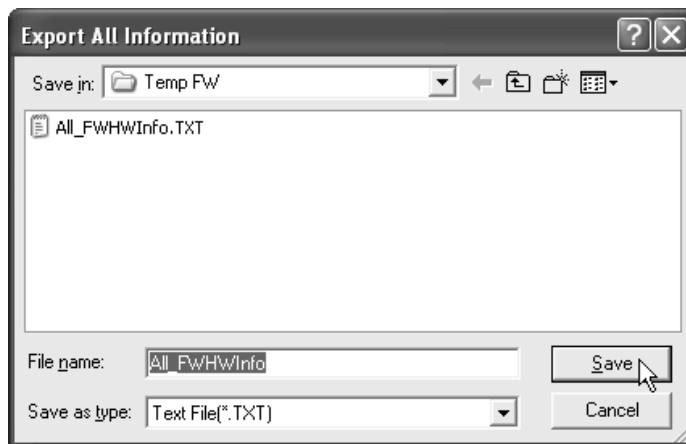


Figure 2-12 Phoenix-G Software: Export Information as Text File

Step 4. Click **Save**. The next screen shows the text file opened using **Notepad**.

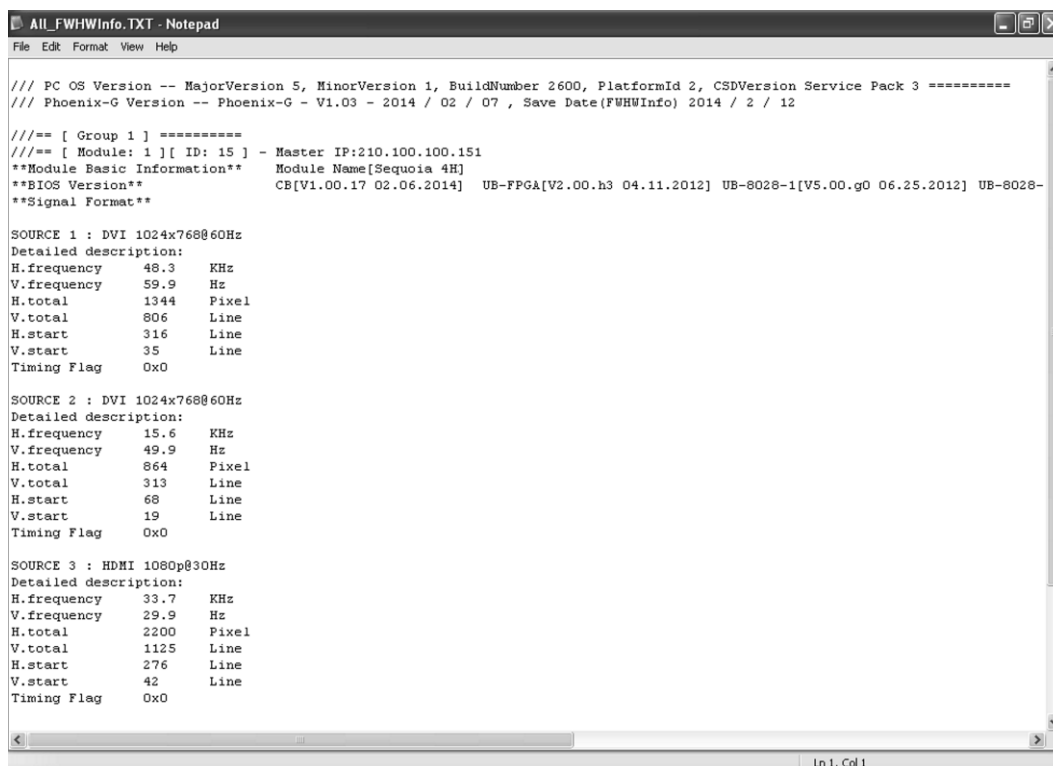


Figure 2-13 Sample Firmware/Hardware Information Text File

## 2.4 System Parameter Menu

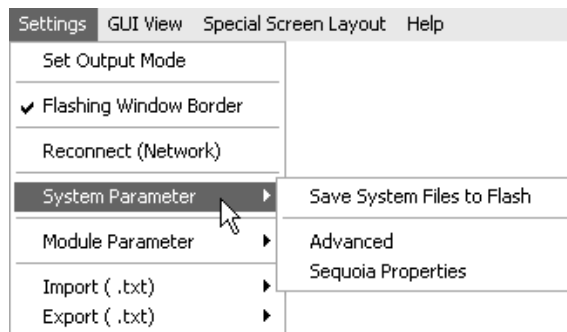


Figure 2-14 Phoenix-G Software: “System Parameter” Menu



**Save System Files to Flash** allows you to save all configuration settings to flash memory. If the system configuration has been changed, save the changes first before continuing to other configuration settings. The progress of saving to flash memory will be displayed.

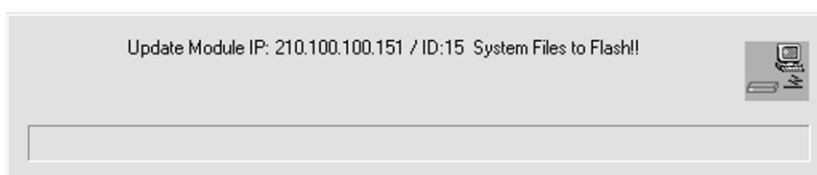
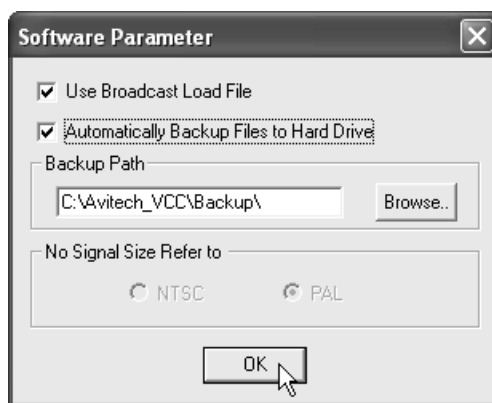


Figure 2-15 Phoenix-G Software: Save System Files to Flash



**Figure 2-16** Phoenix-G Software: “Advanced”

**Use Broadcast Load File –**

*is for loading presets / switching resolutions / group reset. When enabled (with a checkmark), Phoenix-G software will broadcast the command allowing simultaneous execution of the command. This feature should always be enabled.*

**Automatically Backup Files to Hard Drive –**

*When enabled (with checkmark), the Phoenix-G software will save all backup files to the computer hard drive's "c:\Avitech\_VCC\Backup\IP210.100.100.151" folder. You may change the destination folder by clicking **Browse** to select a different location for the backup information.*



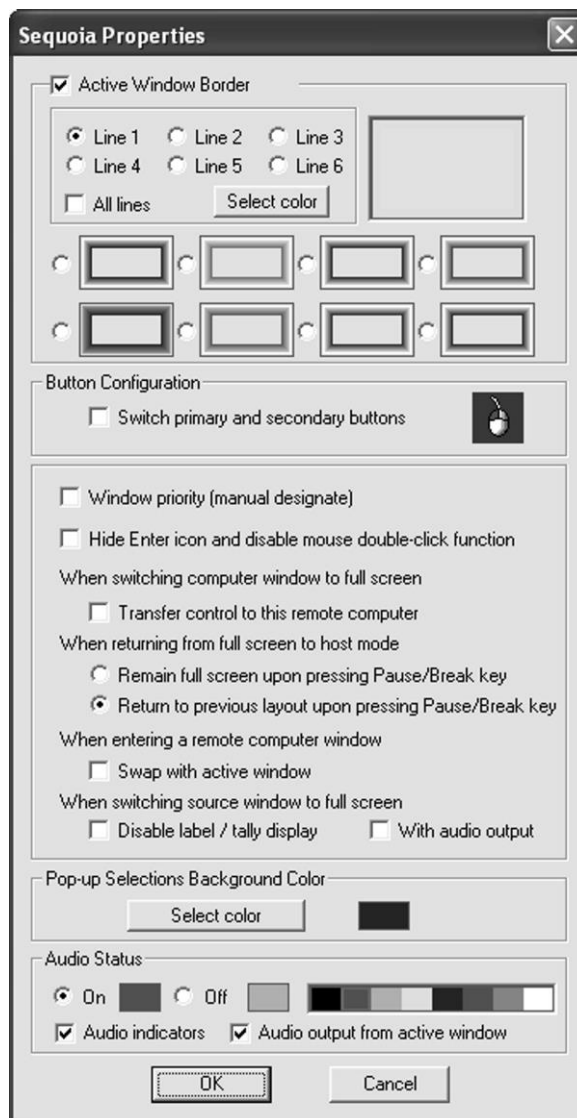


Figure 2-17 Phoenix-G Software: “Sequoia Properties” Window

**Active Window Border –**

Allows you to set the border color of the active window. Each pixel/line can be set to have a different color; all lines can be set to be the same color (**All lines**) by clicking the radio button (**Line #**). Then click **Select color** to choose the color. There are 8 options for choosing the 3D border. Click the radio button for one of the 3D borders to select it.

**Switch primary and secondary buttons –**

To swap the two mouse buttons so that you can use the right button as the left button and the left button as the right button, click the checkbox to enable this.

### Window priority (manual designate) –

If enabled (with checkmark) – in case of overlaying windows, clicking a window will not cause the window to become the topmost window. Disable (without checkmark) or click the corresponding button on the “Option” window to change window priority (to become the topmost window).

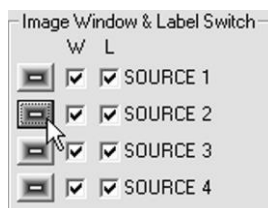



Figure 2-18 Phoenix-G Software: “Option” Window Priority Button

### Hide Enter icon and disable mouse double-click function –

If enabled (with checkmark) – the ↵ “enter icon” will not appear upon moving the Host cursor to the top right corner of a particular window, nor will double-clicking the left mouse button allow switching operation to a remote computer.

### Transfer control to this remote computer –

If enabled (with checkmark) – keyboard/ mouse control will transfer to the particular window (computer) that has just entered full screen mode.

 Default setting is disabled (keyboard/mouse control does not transfer to a particular computer that enters full screen mode).


### Remain full screen upon pressing Pause/Break key –

Click the radio button to **Remain full screen upon pressing Pause/Break key** under the item **When returning from full screen to host mode** if you wish to remain in full screen mode upon pressing the **Pause/Break** key.

 Default setting is **Return to previous layout upon pressing Pause/Break key**.

### Swap with active window –

When enabled (with checkmark) – the action of entering a computer window (not the current active window) will cause both active and newly entered windows to swap position.


 1. Default setting is disabled for this item.  
2. When this item is enabled, pressing the **F#** hotkey (or double-click) will cause both active and newly entered windows to swap position. Likewise, pressing **Shift + F#** hotkey (or **Shift + double-click**) will not cause both active and newly entered windows to swap position.

### Disable label/tally display –

When enabled (with checkmark) – label and tally will be turned off to the particular window that has just entered full screen mode.

### With audio output –

When enabled (with checkmark) – audio output will be turned on in the particular window that has just entered full screen mode.

 Default setting is disabled for these items.

### Select color –

Change the background color of the pop-up selections (default color is dark blue).

### Audio Status –

Allows you to set the color indicator showing whether audio is turned **On/Off** for a window (only one window can output audio at a time). There are 8 colors for choosing the audio status. Click the **On** radio button, and then click one of the color boxes to select. Do the same for the **Off** radio button. You can also turn on/off the **Audio indicators**. By default, the audio output would correspond to the active window. To enable audio output other than the active window, disable the item **Audio output from active window** (remove checkmark).



Click **OK** when finished and exit the **Sequoia Properties** window. The Phoenix-G software will retain the settings when the settings are changed again in the **Sequoia Properties** window or when the system is returned to the factory-default state.

## 2.5 Module Parameter Menu

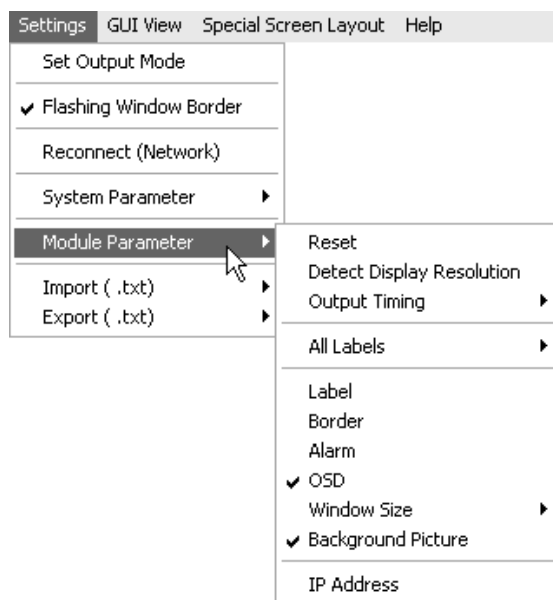


Figure 2-19 Phoenix-G Software: “Module Parameter” Menu

### Reset –

Allows you to refresh the module (the current settings on the Phoenix-G software will be the same as for the module).

### Detect Display Resolution –

Sequoia 4H can automatically detect the display’s optimum resolution. To enable/disable this feature click **Detect Display Resolution** to toggle between on (with checkmark) or off.



When the **Detect Display Resolution** option is set to **On**, all the presets will be displayed in the optimum resolution.


### Output Timing –

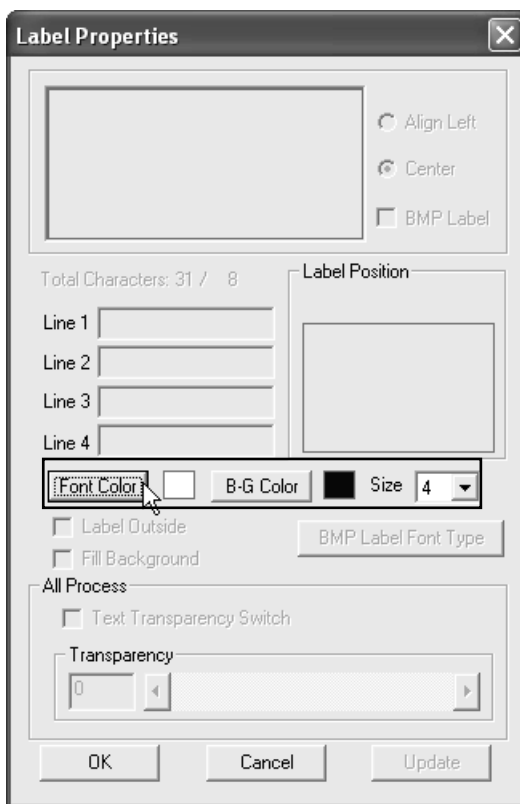
**Normal** output timing is designed for some brands of monitor that do not support the **VESA** standard. The default setting for output timing is **Normal**.

### All Labels –


Turn on/off all labels for all the windows by clicking **ON/OFF**.


**Label –** Adjust the **Font Color**, **B-G (background) Color**, and font **Size** for all labels in the group.

 Make sure to turn on all labels (see previous item) before setting the label properties.



**Figure 2-20** Phoenix-G Software: “Label Properties” Window

 Each window supports one line of text (up to 31 characters).

 Borders are turned on by default.

Step 1. Upon clicking **Border** the following screen appears. Remove the **Enable** checkmark or change the **Border Width** to **0** to turn off the border.

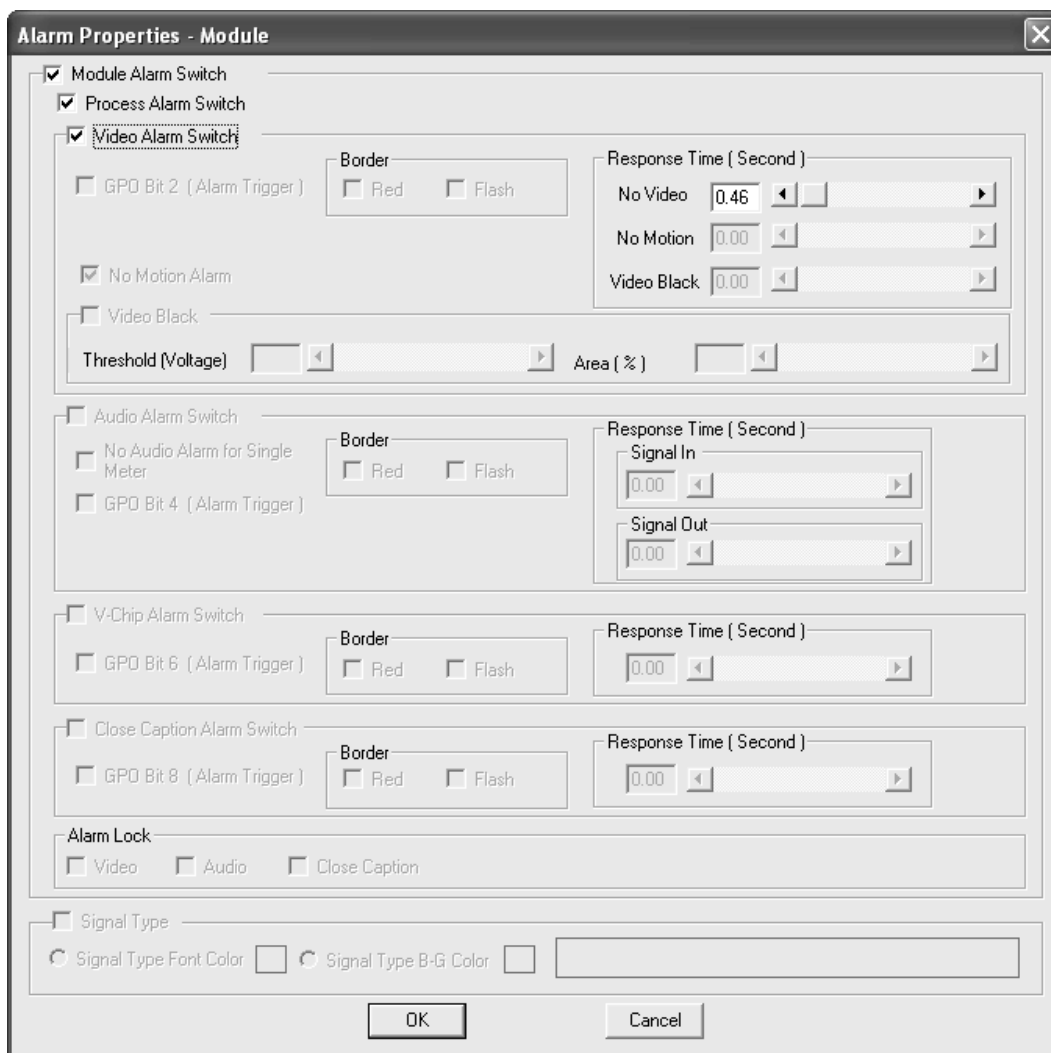


**Figure 2-21** Phoenix-G Software: “Border Properties” Window

Step 2. You can also change the border color. Each pixel/line/3D border can have a different color.



**Setting Alarm Properties** allows you to setup the notification when a signal is missing. To set the alarm properties, click **Alarm**. By clicking **Module Alarm Switch**, you will set the **Process/Video Alarm Switch** and adjust the **No Video's Response Time**.



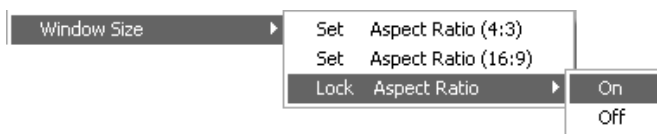
**Figure 2-22** Phoenix-G Software: “Alarm Properties – Module” Window




**OSD** allows you to turn on (with checkmark) or off your Sequoia's OSD (on screen display) feature. Click the item to toggle between on/off.

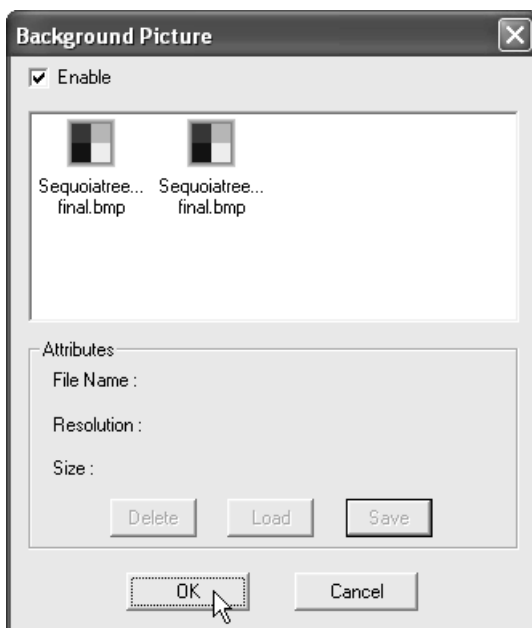


There are 3 **Window Sizes** that can be selected to display the windows in a group: **4:3**, **16:9**, or **Lock Aspect Ratio**. When changing the width of the window, the height will automatically adjust to match the aspect ratio. When **Lock Aspect Ratio** is set **On**, the aspect ratio of the video display will be maintained even if the window is stretched. If the image is **4:3** and it is stretched to **16:9**, the results are two vertical black bars appearing on either side of the display. If the image is **16:9** and it is scaled down to **4:3**, then it will have a letterbox effect.



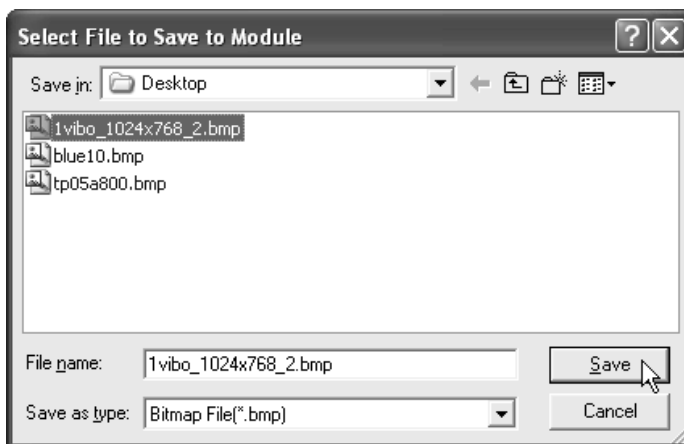
**Figure 2-23** Phoenix-G Software: “Window Size” → “Lock Aspect Ratio”

 **Background Picture** allows you to select a BMP picture file (to fill up the entire monitor screen) in order to prevent the display of dark (empty) patches (e.g., spaces between windows). You can turn on (with checkmark on **Enable**) or off the background picture display.




**Figure 2-24** Phoenix-G Software: “Background Picture” Window

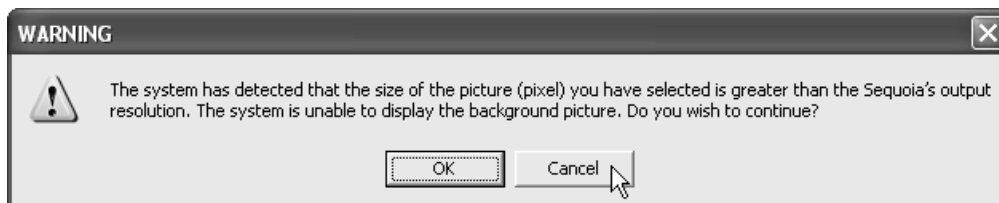
- Step 1. Click the **Enable** checkbox to toggle between on/off.
- Step 2. When only one or no BMP picture file has been saved to your module’s flash memory, click the **Save** button.




**Figure 2-25** Phoenix-G Software: “Select File to Save to Module” Window

- Step 3. Select the desired background picture file. Then click **Save**.

 To fill the entire screen of monitor, the size of the background picture must be the same as the monitor resolution. In the case that the size of the file is larger than the Sequoia's output resolution (see **Settings** → **Set Output Mode**), the system will automatically detect and prevent it from displaying as your background picture (**WARNING** message will appear).

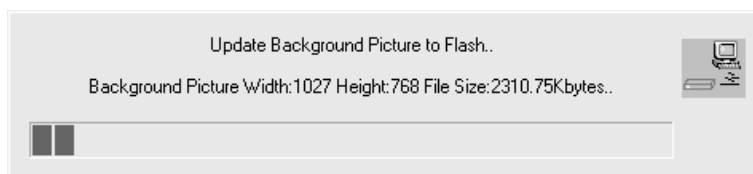


**Figure 2-26** Phoenix-G Software: "Size of Picture is Greater Than Output Resolution" Warning

 The background picture file must conform to the following conditions–

1. BMP file format
2. 24-bit color
3. Size up to 1920x1200 pixels only
4. Up to two background picture files can be stored to flash memory only

Progress of updating the background picture to flash memory would be shown.




**Figure 2-27** Phoenix-G Software: Progress of Updating Background Picture to Flash Memory

Step 4. Click **OK**.



**Figure 2-28** Phoenix-G Software: File Successfully Saved

 If the updating process is prematurely terminated, no background picture will appear on screen (dark background). Perform the above steps again to correct this.



Step 5. Click the **Load** button to select another background picture file (in the case that 2 background picture files have been saved to flash memory).

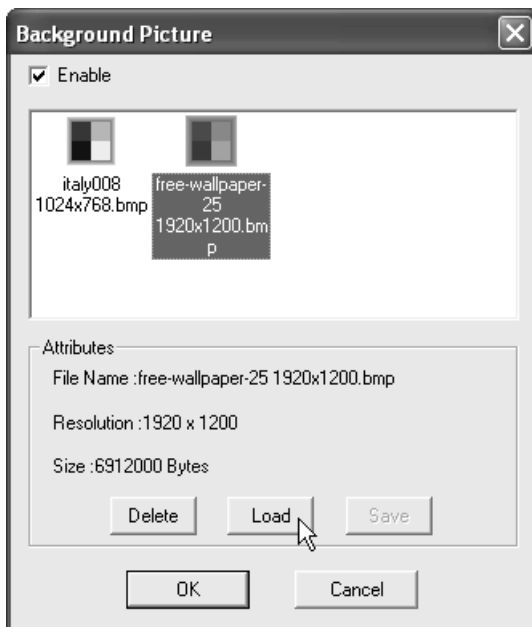


Figure 2-29 Phoenix-G Software: Load Background Picture

Step 6. Click **OK** upon successfully loading a background picture file.



Figure 2-30 Phoenix-G Software: File Loaded Successfully

Step 7. Or, click the **Delete** button to remove a previously saved background picture file from flash memory. Then click **OK** to confirm.

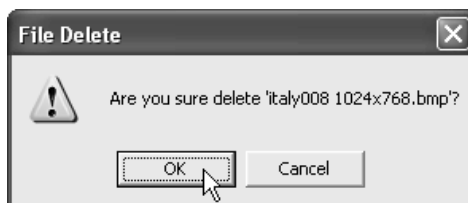


Figure 2-31 Phoenix-G Software: Confirm File Deletion


 IP Address allows you to change to an IP address different from the default one.



Figure 2-32 Phoenix-G Software: “Set IP Address” Window

## 2.6 GUI View Menu

This allows you to set the Phoenix-G control window’s display size. For example, when the resolution under **Set Output Mode** is 800x600, the **GUI View** set at **50 %** would give you a 400x300 Phoenix-G control window display size; while a **GUI View** set at **25 %** would give you a 200x150 Phoenix-G control window display size.

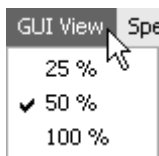


Figure 2-33 Phoenix-G Software: “GUI View” Menu

## 2.7 Special Screen Layout Menu

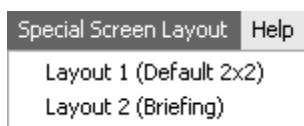


Figure 2-34 Phoenix-G Software: “Special Screen Layout” Menu

Special screen layouts are available for the Sequoia:

- ✓ **Layout 1 (Default 2x2)** – quad split mode
- ✓ **Layout 2 (Briefing)** – cycle between presets for a slideshow effect

Step 1. Click **Add**.

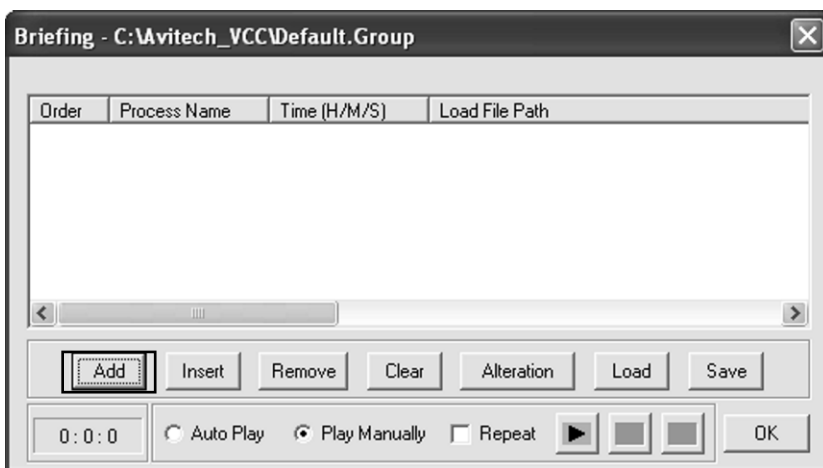


Figure 2-35 Phoenix-G Software: “Briefing” Window

Step 2. Enter the **Process name**, specify the **Time (H : M : S)**, then select the previously saved preset **File**. Click **OK** to continue. Continue adding new processes as necessary.

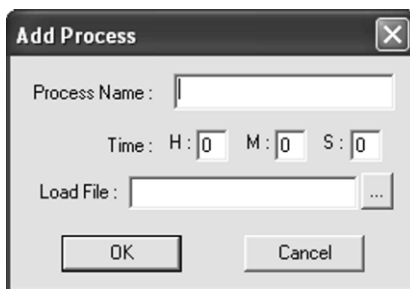


Figure 2-36 Phoenix-G Software: “Add Process” Window

Step 3. Select **Auto Play**, **Play Manually**, or **Repeat**. Click play ► to start viewing the slideshow.

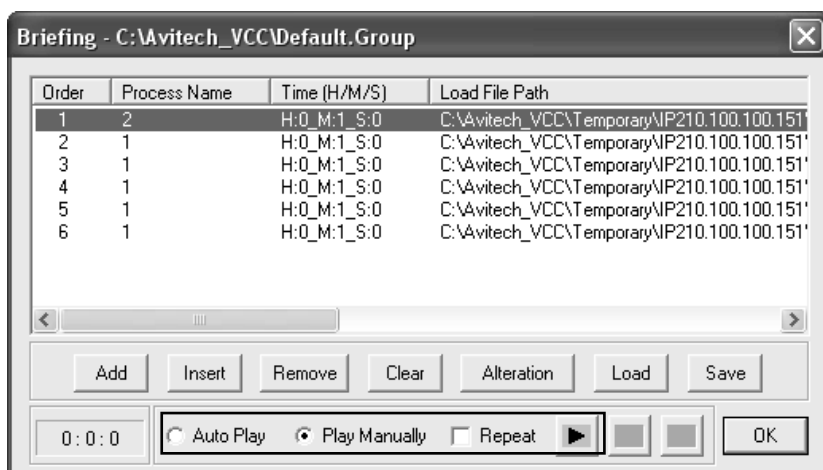
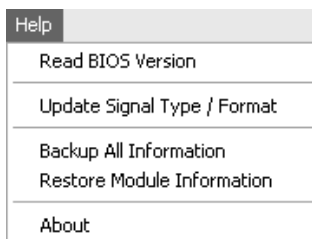


Figure 2-37 Briefing: Select Type of Playback

## 2.8 Help Menu

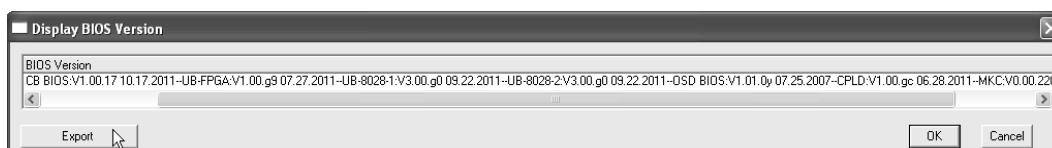


**Figure 2-38** Phoenix-G Software: “Help” Menu

 To **Read** the Avitech Sequoia’s **BIOS Version**, perform the following steps:

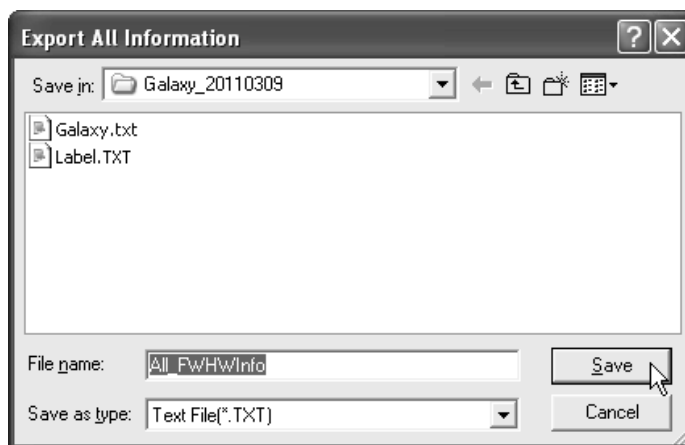
**Step 1.** Click **Help** and then click **Read BIOS Version**.

**Step 2.** Click **Export**.



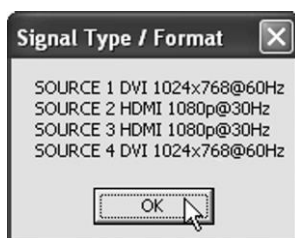
**Figure 2-39** Phoenix-G Software: “Display BIOS Version” Window

**Step 3.** Assign a filename and click **Save** to save the data.




**Figure 2-40** Phoenix-G Software: “Export All Information” Window

 To update signal type/format, click **Update Signal Type/Format** and the image’s signal type/format will be shown.

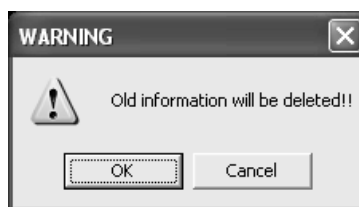


**Figure 2-41** Phoenix-G Software: “Signal Type/Format” Window

 To backup a preset, perform the following steps:

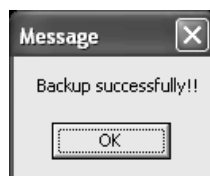
Step 1. Click **Help** and then click **Backup All Information**.

Step 2. Click **OK** to continue.





**Figure 2-42** Phoenix-G Software: Old Information Deletion Confirmation

Step 3. When backup is successful, click **OK** to continue. This will backup all saved presets and system configuration files to the computer's "c:\Avitech\_VCC\Backup\IPxxx.xxx.xxx.xxx\xxxx#\_#".



**Figure 2-43** Phoenix-G Software: Backup Successful

 Everything previously in the **Backup** folder will be erased. If you have previously backed up presets, they will all be written over when you backup presets again. If you want to keep the old presets, move the entire **Backup** folder to a different directory (e.g., **c:\temp**).

 To manually restore a preset perform the following steps:

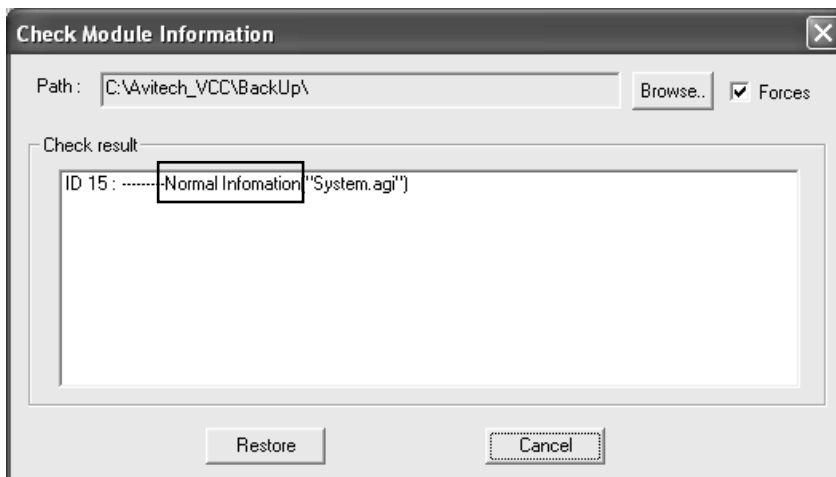
Step 1. Set the Sequoia to the factory-default value.

Step 2. If the backup content is somewhere else other than at the "c:\Avitech\_VCC\Backup\IPxxx.xxx.xxx.xxx\xxxx#\_#", copy the backup data "xxxx#\_#" into the "c:\Avitech\_VCC\Backup\IPxxx.xxx.xxx.xxx\" location.

Step 3. Run the Phoenix-G software and select **Yes** when prompted whether to restore the Sequoia using the backup data.

Step 4. Click **Help** and then click **Restore Module Information**. You should see a progress bar showing the preset being loaded into the Sequoia.

Step 5. If the checking result confirms that everything is normal, click **Cancel** to exit the restoring of preset(s). Skip steps 6 and 7 if the checking result is normal.

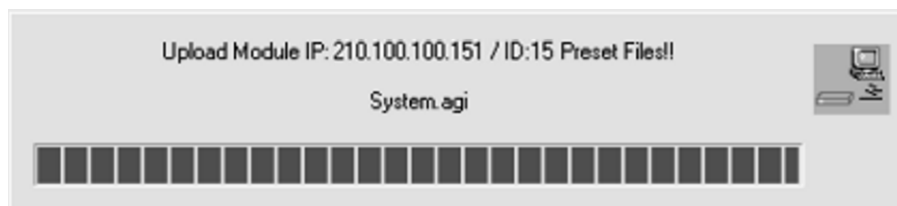


**Figure 2-44** Phoenix-G Software: "Check Module Information" Window



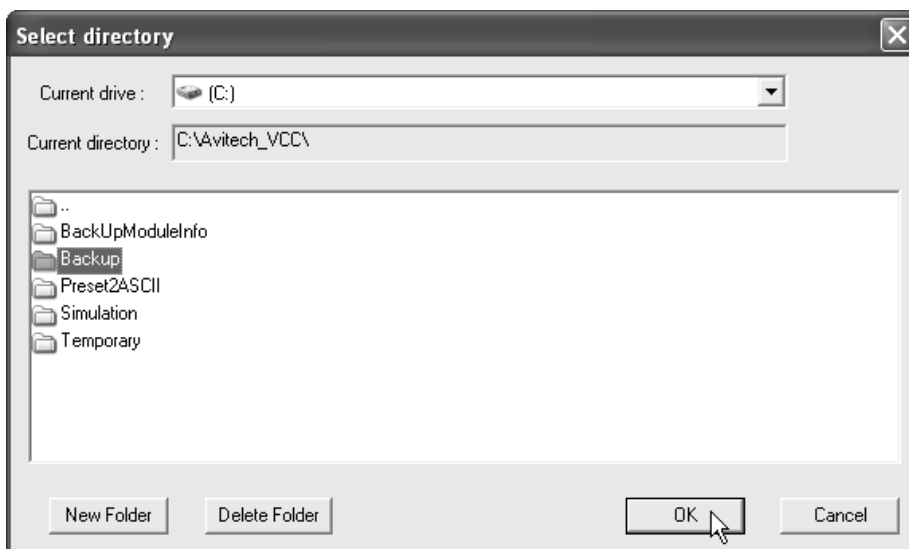
You can click to enable the **Forces** checkbox (located on the upper right corner) that allows the backup information to be written to all the module(s) flash memory. The **Restore** button will then be enabled to click.

If the checking result shows an **Abnormal** report, confirm if the backup **Path** is correct. Then click **Restore**.



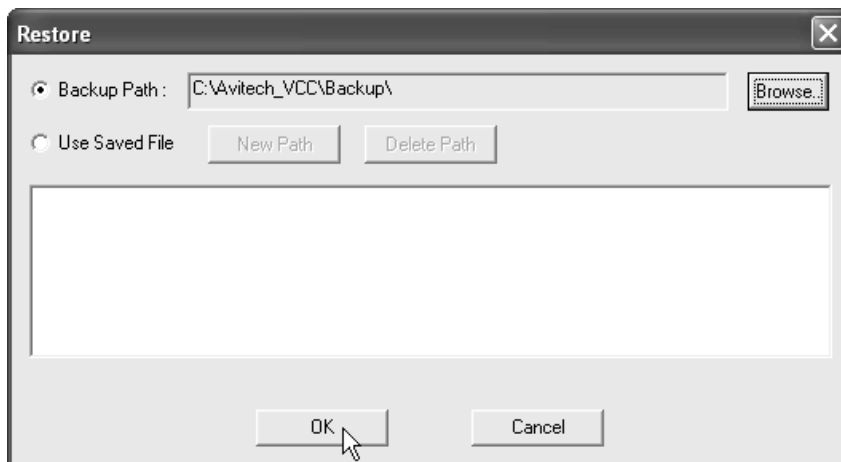
**Figure 2-45** Phoenix-G Software: Progress of Restore Process

If backup **Path** is incorrect, click **Browse** to select correct location. Then click **OK** to continue.



**Figure 2-46** Phoenix-G Software: Select Directory

Step 6. Click **OK**.




**Figure 2-47** Phoenix-G Software: Restore Window

Step 7. Click **OK** to restart the Phoenix-G software (formerly Galaxy).



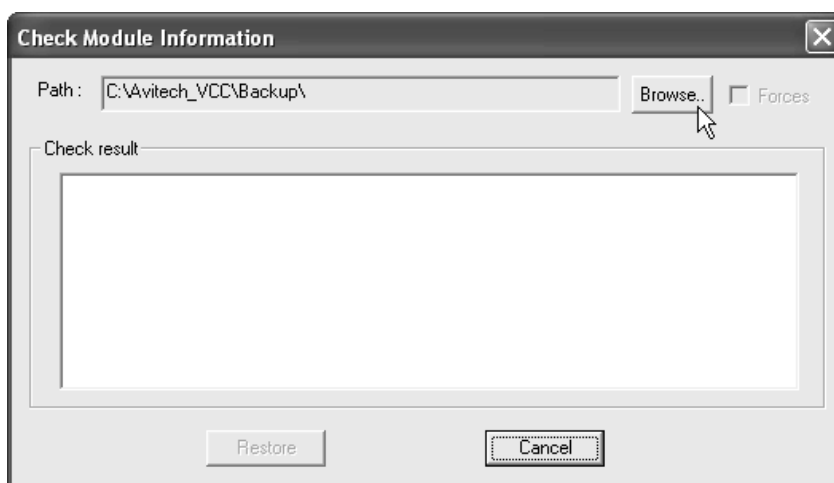
**Figure 2-48** Phoenix-G Software: Restart Phoenix-G

 If upon clicking **Restore Module Information** on the **Help** menu and an error message appears, click **OK**.



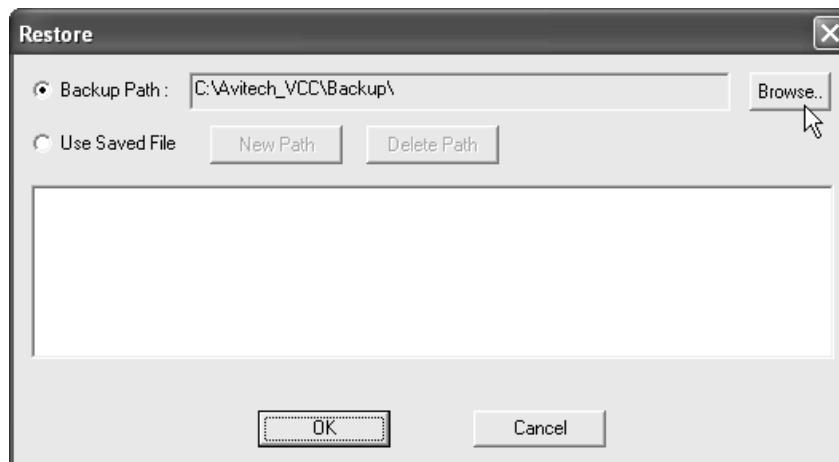
**Figure 2-49** Phoenix-G Software: Module Information Not Found

Click **Browse**.




**Figure 2-50** Phoenix-G Software: Click “Browse”

Click **Browse** again to specify the correct backup **Path**.



**Figure 2-51** Phoenix-G Software: Specify Correct Backup Path



 To find out the Phoenix-G software version, click **Help** and then click **About**.

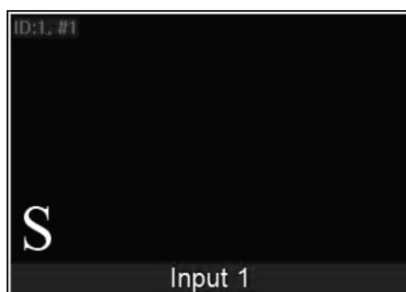


**Figure 2-52** Phoenix-G Software: Version Information

## 2.9 Quick Keys – Change Window to/from Full Screen Mode; Swap Window Contents

Two quick keys are available to quickly bring a window to/from full screen mode as well as swap contents from one window to another by performing the following steps:

- Step 1. To change to full screen mode, double-click the window. Double-click again to return from full screen mode.*
- Step 2. To access the swap window quick key, move your cursor to the bottom left hand corner of a window until a capital letter **S** appears.*



**Figure 2-53** Phoenix-G Software: Swap Window Quick Key

- Step 3. Click the capital letter **S** to select the source window and then click again at a destination window (where you want to swap the contents from the source). This will swap all the contents and properties of the source window to the destination window.*

## 2.10 Window Layout

### 2.10.1 Default Window Layouts

Three default window layouts are available:

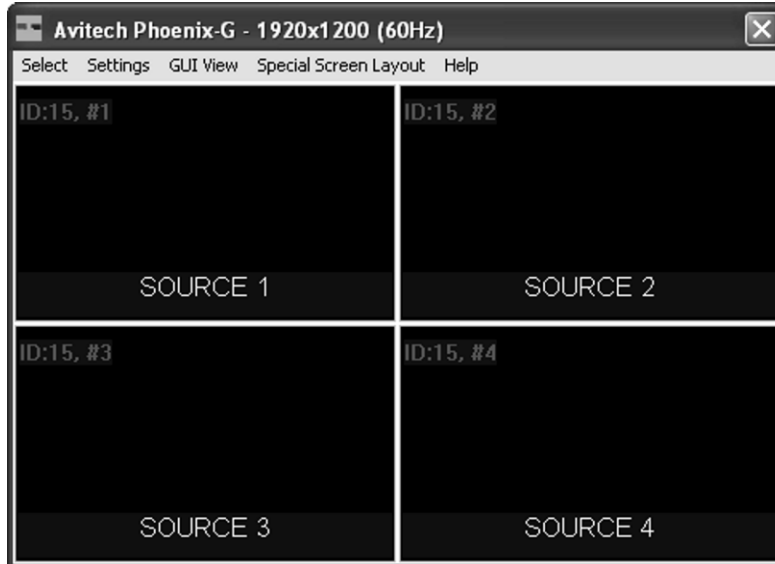


Figure 2-54 Phoenix-G Software: "layout1.GP1"

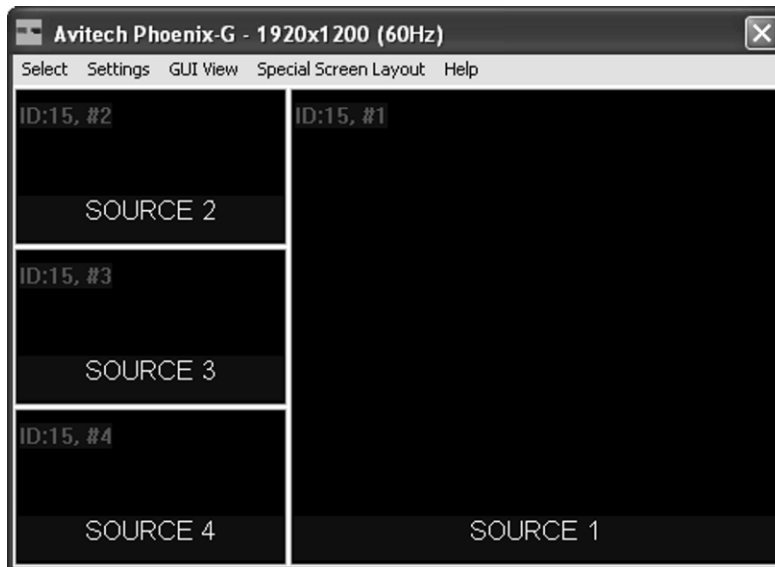



Figure 2-55 Phoenix-G Software: "layout2.GP1"




Figure 2-56 Phoenix-G Software: "layout3.GP1"

 To switch between the three factory-default presets use the **Page Up/Page Down** hot-keys.

### 2.10.2 Arranging Windows

To quickly setup the layout for your video windows, right-click the title bar to access the **Group Layout** menu. Select from **2x2** up to **8x8** as possible grid positions on the monitor.

 The layout size available for your particular model will depend on the monitor's resolution as well as the smallest window size limitation.

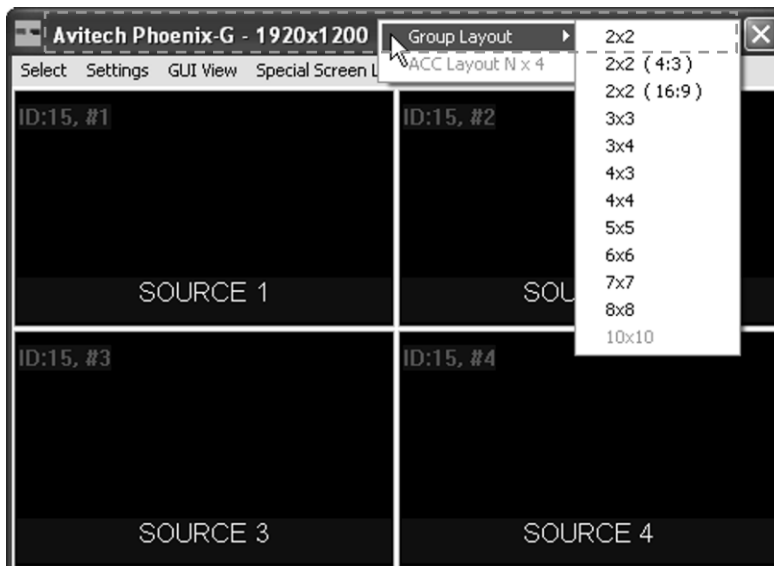


Figure 2-57 Phoenix-G Software: "Group Layout" Menu

To reposition a window, drag the center of a window and drop it to a new position. This will update the monitor. Or, use the **Position Fine Adjustment** menu to adjust the position of any window on a pixel basis. Keep in mind that width increases in 16 pixel increments and height in 1 pixel increments.

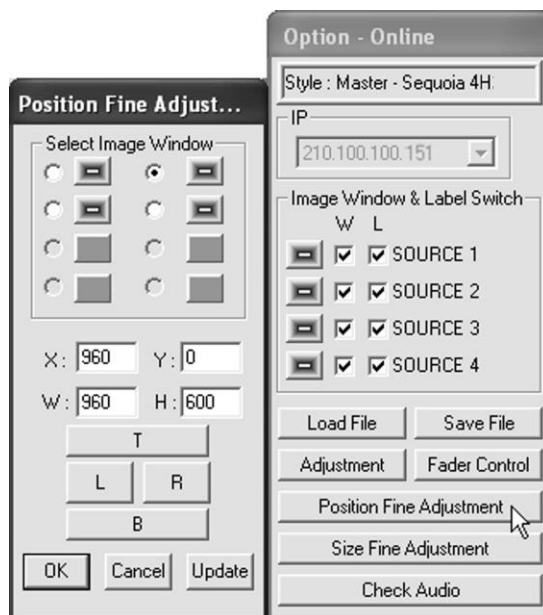


Figure 2-58 Phoenix-G Software: “Position Fine Adjustment” Window

## 2.11 Mouse Right-click Menu

To change the properties of an individual window, right-click the particular window to access the window’s menu.

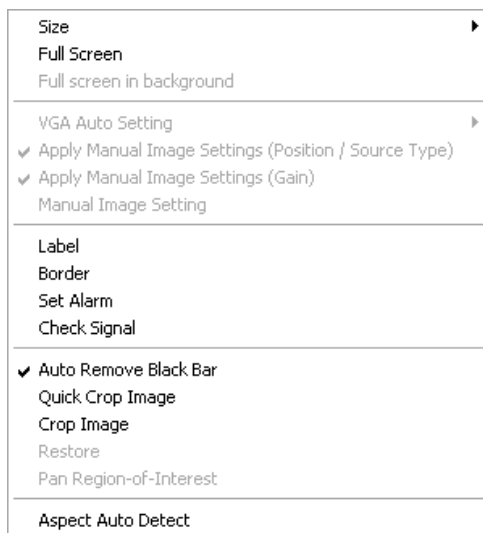
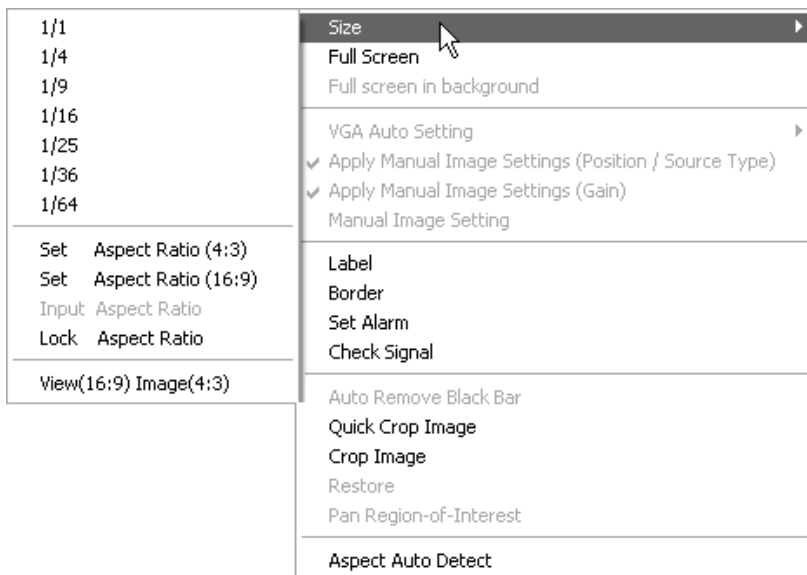


Figure 2-59 Phoenix-G Software: Window Right-click Menu

### 2.11.1 Resizing Window

To resize a single window to one of the preset sizes, perform the following steps:

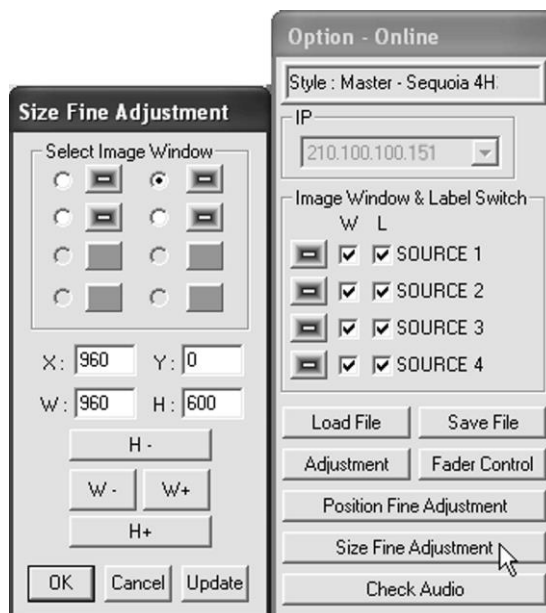
*Step 1. Right-click a particular window and select **Size** followed by the desired preset size selection.*



**Figure 2-60** Phoenix-G Software: “Size” Menu

*Step 2. Alternatively, you can resize a window by dragging the border of a window to the desired size.*

*Step 3. Another option is to use **Size Fine Adjustment** menu to adjust each window on a pixel by pixel basis. Keep in mind that width increases in 2 pixel increments and height in 1 pixel increments.*



**Figure 2-61** Phoenix-G Software: “Size Fine Adjustment” Window

**Full Screen –**

On a particular window, select this to maximize the image and fill up the whole screen. You can click the desired window button to switch windows in full screen mode.



Figure 2-62 Phoenix-G Software: “Full Screen Mode” Window

**Full screen in background –**

If so desired, select this (with checkmark) to allow the window (image) in full screen mode to appear in the background. Select **Full screen in background** (without checkmark) to allow the window (image) in full screen mode to reappear in the foreground (fill up the whole screen).

**2.11.2 Setting Label Properties**

Step 1. Right-click a window and select **Label** to enter text.

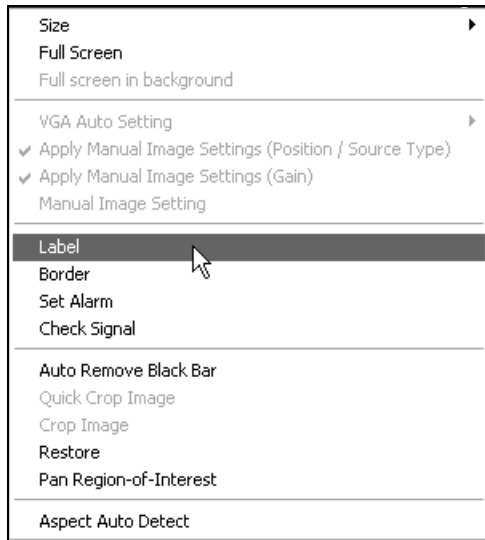


Figure 2-63 Phoenix-G Software: Right-click Window and Click “Label”

Step 2. Keep in mind that each window supports one line of text (up to 31 characters).

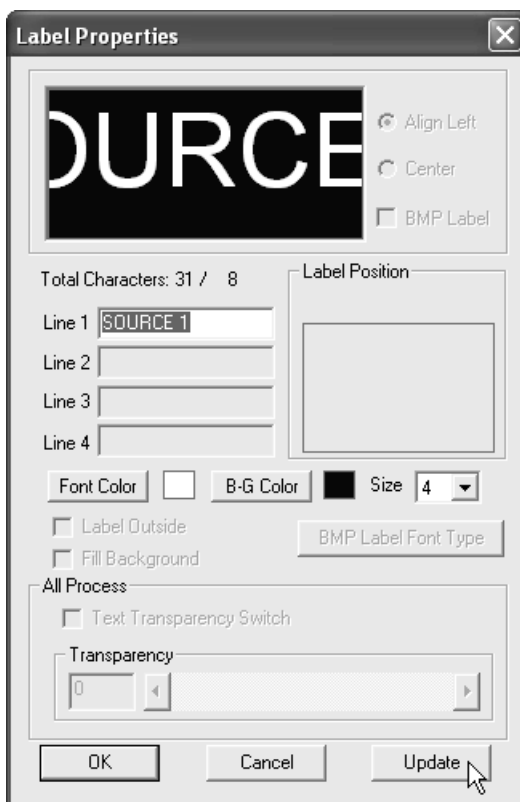


Figure 2-64 Phoenix-G Software: “Label Properties” Window

### 2.11.3 Setting Border Properties

Borders are turned on by default. To turn off the border perform the following steps:

Step 1. Click **Border**.

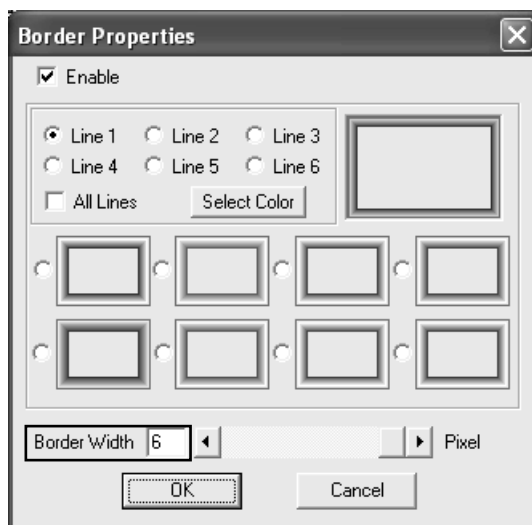


Figure 2-65 Phoenix-G Software: Set Border Width

Step 2. Change the **Border Width** to 0.

Step 3. You can also change the border color.

- ✓ Each pixel/line can have a different color
- ✓ 3D border

### 2.11.4 Setting Alarm

Upon right-clicking a particular window, select **Set Alarm**.

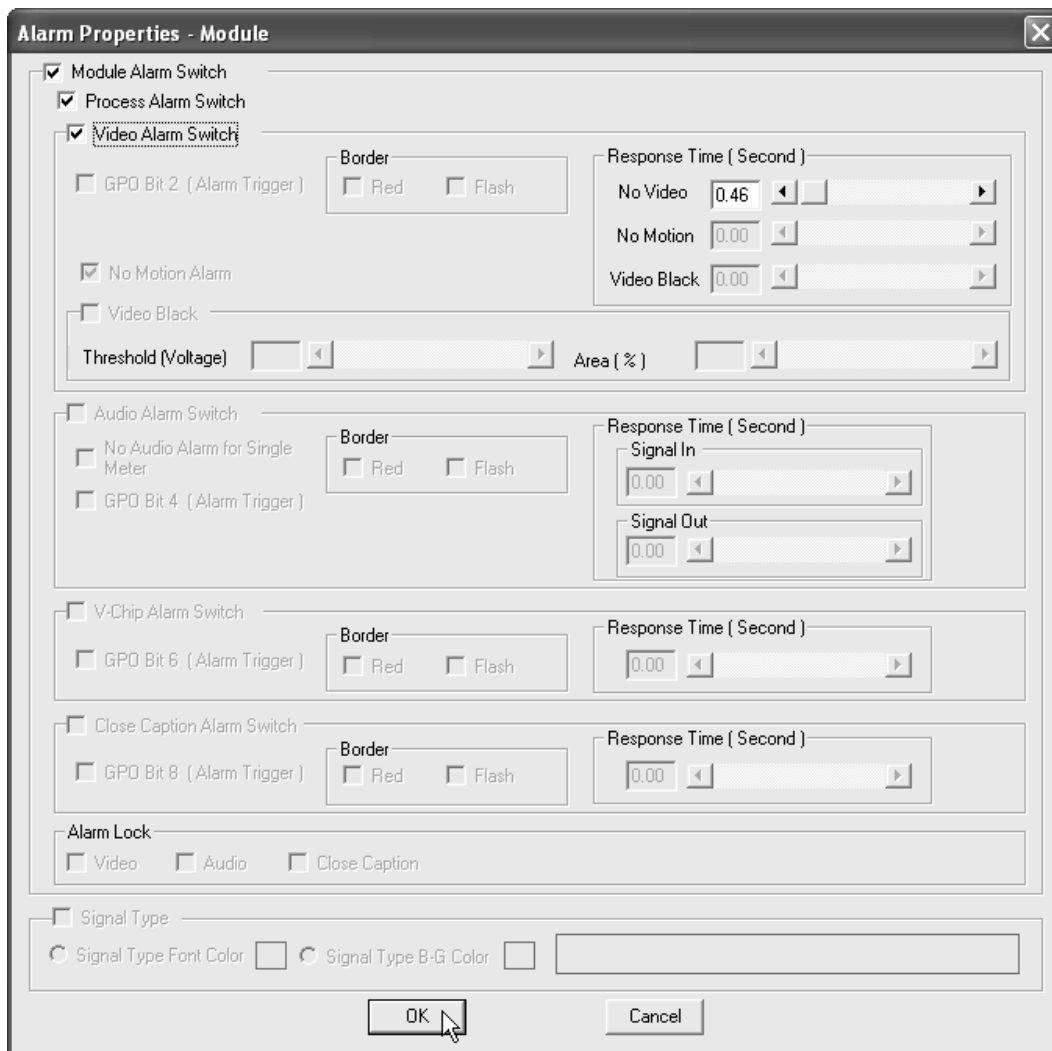


Figure 2-66 Phoenix-G Software: “Alarm Properties – Module” Window

- ✓ **Module/Process Alarm Switch:** to turn on the alarm setting, make sure that both options are enabled (with checkmark)
- ✓ **Video Alarm Switch:** to turn on/off the “no video” signal
- ✓ **Response Time (Second):** to set the “no video” alarm response time from 0 to 23 seconds



### 2.11.5 Check Signal

To determine if the video signal is being fed into the selected window, right-click a particular window and click **Check Signal**. One of the following screens may appear:

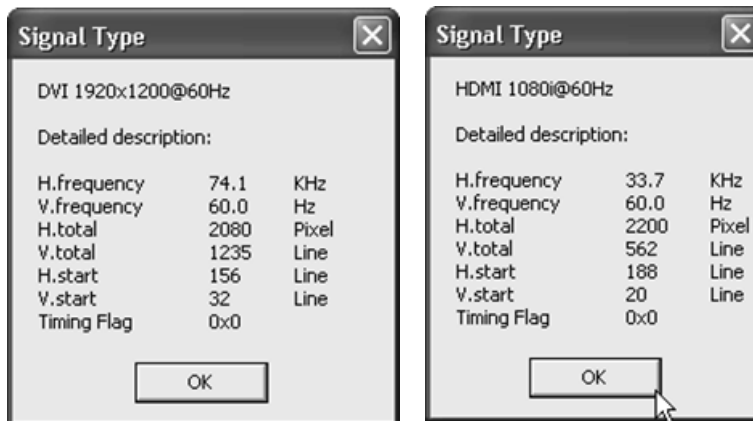


Figure 2-67 Phoenix-G Software: “Signal Type” Window

### 2.11.6 Auto Remove Black Bar

Ever notice those annoying black bars on the sides or along the top and bottom of a video? Often, the culprit is an aspect ratio that was incorrectly set. The black bars serve to fill in the empty space that is left behind when the video does not fill up the entire frame. Usually, the video will be blown up to fit the frame, but in order to avoid distorting the picture or cutting off part of the video, the item you are placing inside the frame will maintain its aspect ratio (this is considered to be a good thing). If you do not want to see the black bars, right-click the particular window and select **Auto Remove Black Bar** (with checkmark) to try to fix this problem.



1. This function is applicable for HDMI and DVI input signal only.
2. When enabling this function, make sure the image does not have a black or dark grey background to avoid cropping off part of the image.

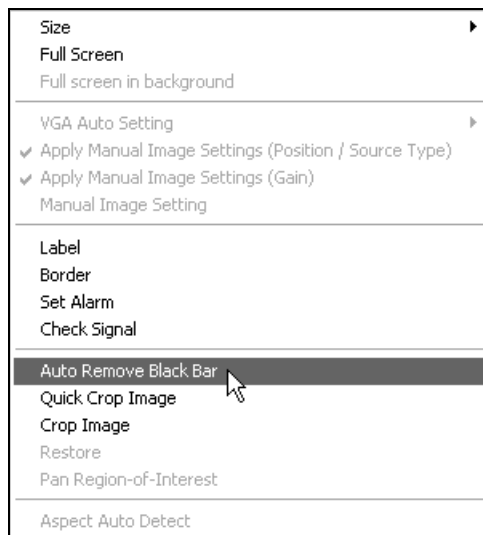



Figure 2-68 Phoenix-G Software: Auto Remove Black Bar


### 2.11.7 Quick Cropping an Image on a Window

This allows you to crop (cut-out) an image on a particular window. Click **Quick Crop Image Box Size** to create a starting point and then drag it to the desired location. Release the mouse to set the end point. A cropped out image of the former window will be created.

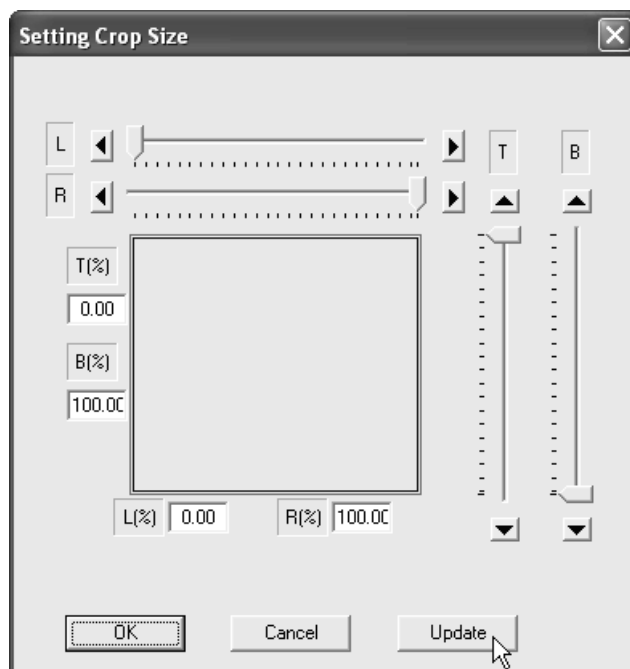
 | *The smallest allowed size of crop area is 96x80 pixels based on the Sequoia's output resolution (not based on the "source" resolution).*

### 2.11.8 Specifying the Size of a Cropped Image

This allows you to set the specific size of the crop (cut-out) image on a particular window. Freely adjust the horizontal (**L** and **R**) and vertical (**T** and **B**) markers, or enter the numerical value to set the size of the cropped image.

You can also click the  buttons to make smaller adjustments to the markers.

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




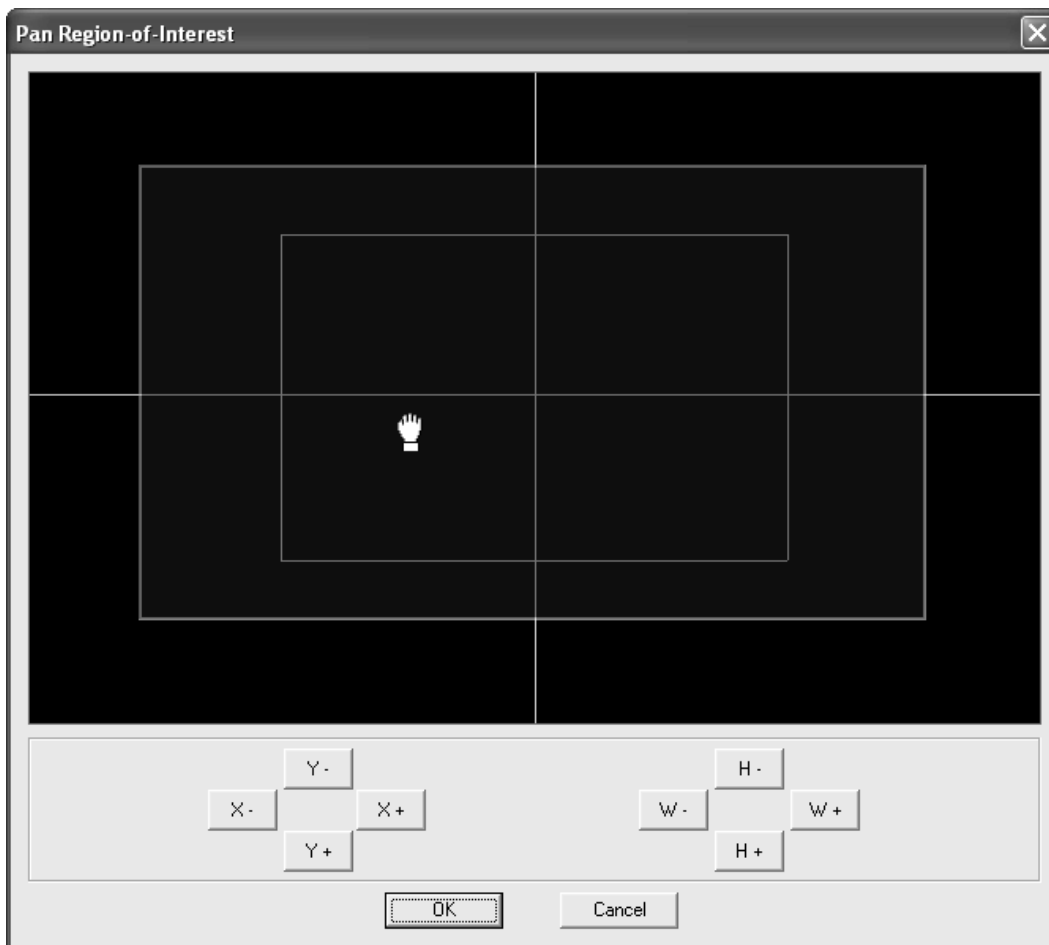
**Figure 2-69** Phoenix-G Software: "Setting Crop Size" Window

### 2.11.9 Restore

This 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 sides/corners.

### 2.11.10 Pan Image

Click **Pan Image**. This allows you to use the mouse (drag using the  symbol) to pan (see the **NOTE** below for description of pan) the cropped image window (zoom in area). You can also click the **X-** / **X+** / **Y-** / **Y+** (x / y-axis coordinates, plus or minus) or **H-** / **H+** / **W-** / **W+** (height/width, plus or minus) buttons to make smaller adjustments.



**Figure 2-70** Phoenix-G Software: “Pan Region-of-Interest” Window



To pan is to move the image around in the image window, usually when the image is larger than its window. Panning changes the image view in the same way that scrolling moves the image up, down, to the left, or to the right in the image window. When the entire image is not displayed, you can quickly pan to see parts of the image that were previously hidden.

### 2.11.11 Aspect Auto Detect

By default, the image appearing inside a window will be shown in its native aspect ratio. This means that upon dragging the border to enlarge or shrink a window, the aspect ratio will still be maintained.

By default, the image is also made to “Fit window size.” This means that the window’s size will conform to the aspect ratio of the image. If this item is disabled, black bars will be shown on areas that are not covered by the image upon dragging the window border.

Select “Custom default” instead of “Auto detect” under “Sync Type” to set the input signal’s aspect ratio for a particular window. If the input signal is a different aspect ratio than the monitor in which it is displayed, you may change the monitor’s aspect ratio to display the signal without deformation.

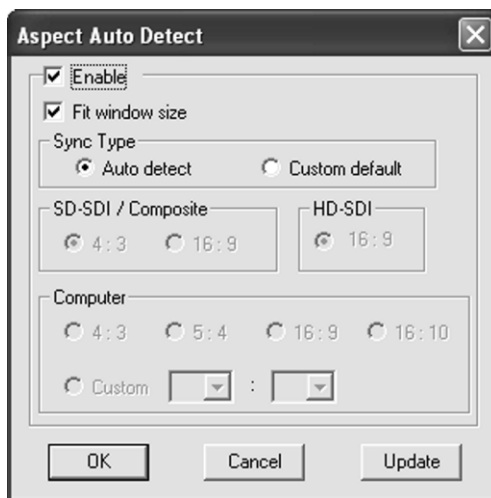


Figure 2-71 Phoenix-G Software: “Aspect Auto Detect” Window



**For example:**

1366x768 or 1360x768 (Wide eXtended Graphics Array – Wide XGA or WXGA) are both considered as none standard display resolution. A 16:9 (approximate) aspect ratio will be applied. This means that when displaying at 16:9, it will be readjusted to 1360x765 display resolution.

## 2.12 Turning On/Off the Window/Label

Step 1. The **Option** window has two checkboxes that can be used to close an image window (**W**) or turn off the label (**L**) for each window.

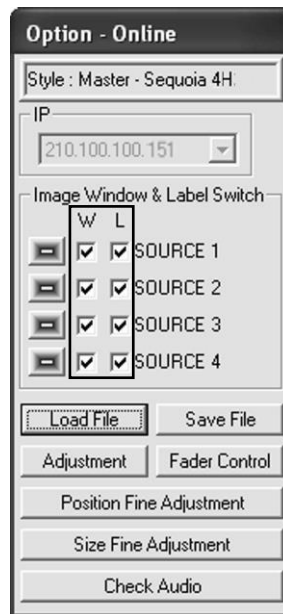


Figure 2-72 Phoenix-G Software: “Option” Window (W and L)

Step 2. To turn off a window or label, find the checkbox that represents the selected window and check to enable or un-check to disable the **Window** or **Label**.

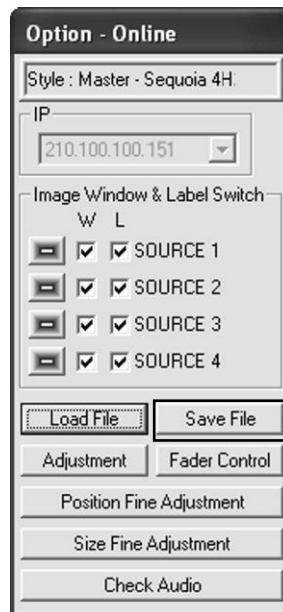
## 2.13 Saving to a Flash File

There are 2 instances in which you will need to use the save to flash feature:

- ✓ After creating the master layout and you want the Sequoia to load it again when the unit is power cycled (shutdown and restart).
- ✓ After you are done saving presets and you want to save all the presets that were created (up to 23) into the internal flash memory of the Sequoia. If you skip this action, the Sequoia will lose all the presets that were created.

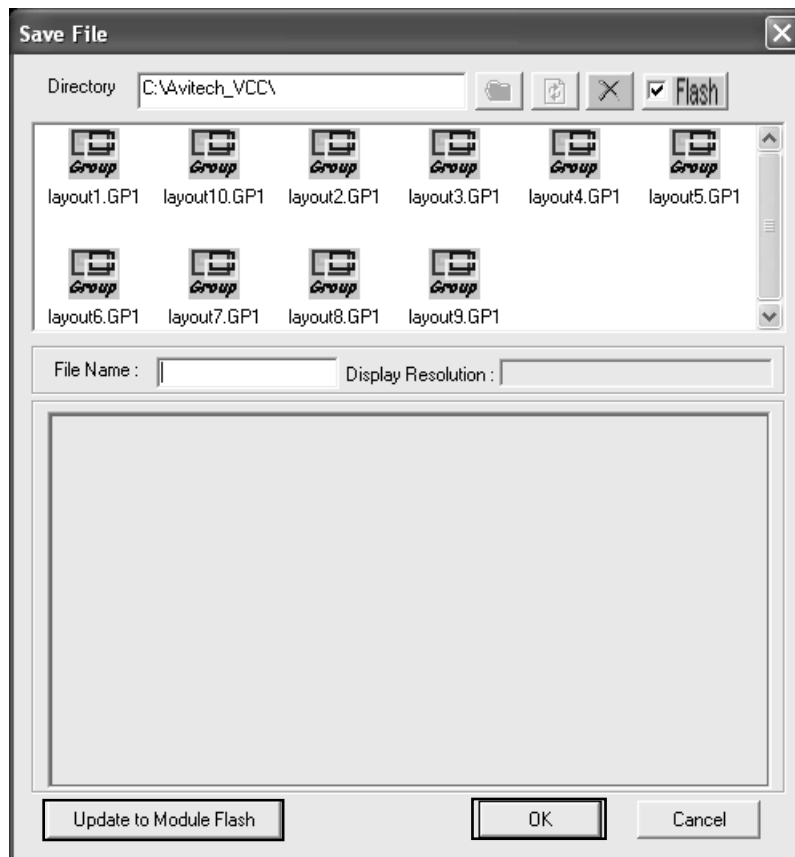
To save to flash perform the following steps:

Step 1. Click **Save File** in the **Option** window.



**Figure 2-73** Phoenix-G Software: Click “Save File” in “Option” Window

Step 2. Click **Update to Module Flash**, then click **OK**.



**Figure 2-74** Phoenix-G Software: “Save File” Window

Alternatively, close the Phoenix-G software. Select **Yes** when prompted to save.

## 2.14 Saving a Preset

All the presets you create (up to 23) are stored in the Sequoia, not in the computer that is running the Phoenix-G software. In order to write all the presets into the internal flash memory of the Sequoia after creating it, you will need to save to flash. To save a preset, perform the following steps:

Step 1. Configure the layout you want the Sequoia to display.

Step 2. Click **Save File** in the **Option** window.

Step 3. Enter a unique filename for the preset and select **OK** to save. The file extension “GP#” will be automatically added to the file name.

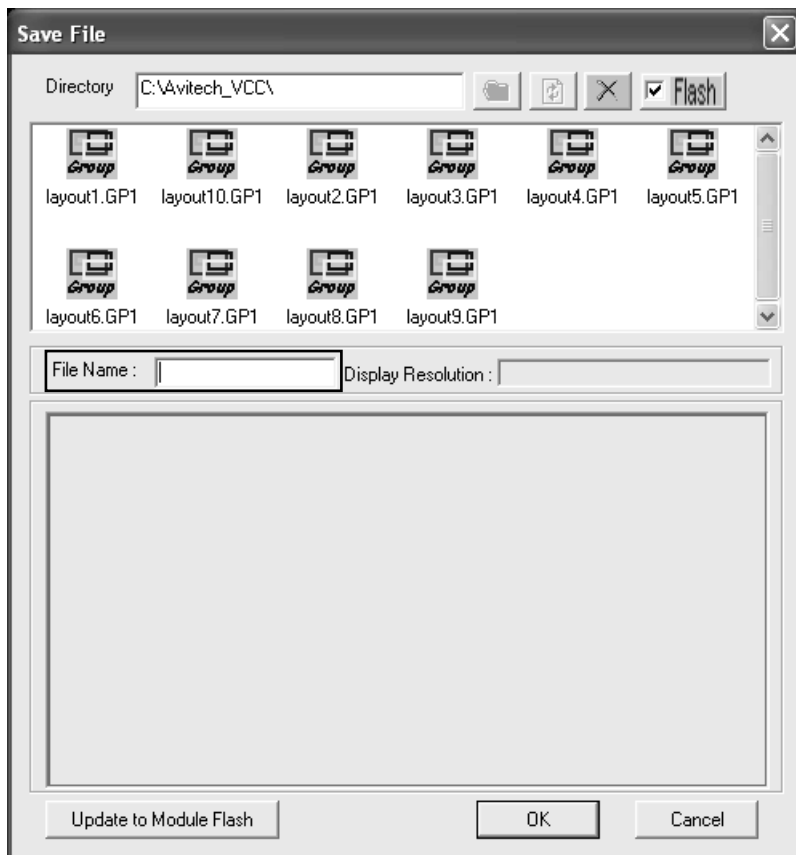


Figure 2-75 Phoenix-G Software: “Save File” Window Enter Unique Filename

Step 4. Repeat the above steps for each additional preset.

Step 5. After you are done creating presets, load the file that you want to be the master layout (layout loaded when the module is powered on).

Step 6. Close the Phoenix-G software and select **Yes** when prompted to save to flash.

## 2.15 Loading File

Step 1. In the **Option** window click **Load File**.

Step 2. Select a saved file and then click **OK** to load the preset.



1. When saving your preset, do not use the same filename as the system's default preset filename (**layout1.GP1** / **layout2.GP1** / **layout3.GP1**).
2. The sequence for loading the preset file when using the hotkeys (↑/↓ arrow keys) is based on the time when the preset file was first created and saved. Subsequent modification and saves will not affect this sequence (order).
3. The hotkey **Ctrl + S** can save the latest preset to flash memory so that, on the next boot-up, the preset will be loaded.



## 2.16 Making Adjustments

- Step 1. In the **Option** window click **Adjustment**.
- Step 2. **Select the Image Window** then adjust the input signal such as **Brightness** (–128 – 127) and **Contrast** (0 – 1023) parameters directly by using the sliders. Click the **Default** button on the lower right portion of the screen to reset the values to the factory-default.

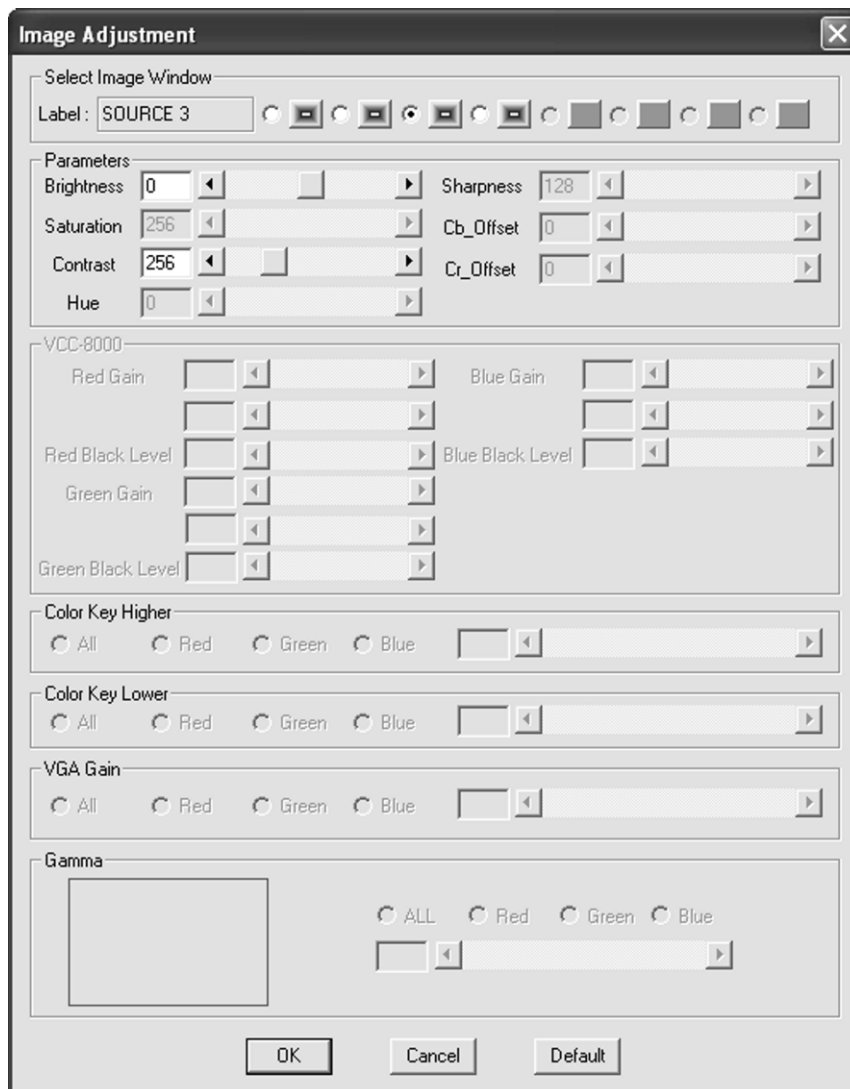



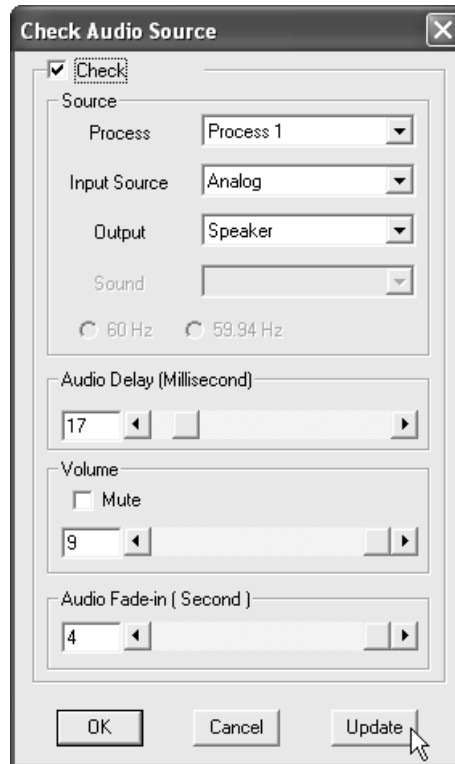
Figure 2-76 Phoenix-G Software: “Image Adjustment” Window

 **Saturation and Hue** are not available for DVI/HDMI signal input.

## 2.17 Audio Setup

Step 1. In the **Option** window click **Check Audio**.

Step 2. Click the audio **Check** option.



**Figure 2-77** Phoenix-G Software: “Check Audio Source” Window

Step 3. Select the **Process** window on the drop-down menu.

Step 4. Select the correct **Input Source (Analog/Digital (HDMI))**.

Step 5. Select the desired **Output** channel (**Speaker / HDMI OUT**).

Step 6. Use the slider to set the **Audio Delay** time (**Millisecond**).

Step 7. Use the slider to select the desired **Volume** level (**0 to 9**). Click the **Mute** checkbox to quickly turn off the volume.

Step 8. Use the slider to set the **Audio Fade-in** time (**Second**).

Step 9. Click the **Update** button and click **OK** to exit.

## 2.18 Control Video Fade

This allows you to set the speed of an overlaying window fading into the background when another window becomes the active window.

*Step 1. In the **Option** window click **Fader Control**.*

*Step 2. Adjust **Fading Speed** directly by using the slider to select **Slow (1)** – **Fast (10)**. Then click **OK**.*



**Figure 2-78** Phoenix-G Software: “Fader Control” Window

## Appendix A Setting Up Static IP

The following 2 methods allow Sequoia 4H to be in the same network mask with the connected computer.

### A.1 Method 1: Change IP Address of Sequoia 4H Chassis

Step 1. Run the Phoenix-G software by double-clicking **Phoenix-G.exe**. Under **IP** select **User Define** if you know the IP address assigned to the Sequoia. If not, select **Automatically Search**.

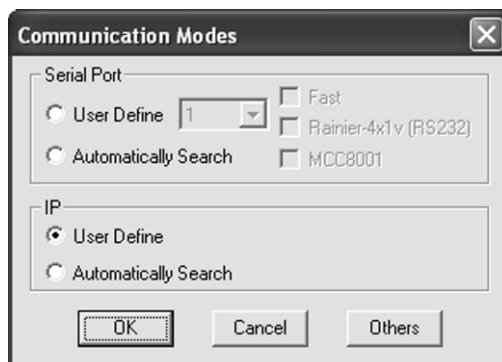


Figure A-1 Phoenix-G Software: Set Communication Mode

Step 2. Before clicking **OK** (next step), press the **Ctrl + Esc** keys to make sure that you are not in host (MKC – mouse keyboard controller) mode.

Following warning message may appear in the case that **Ctrl + Esc** keys were not pressed. Click **OK**.

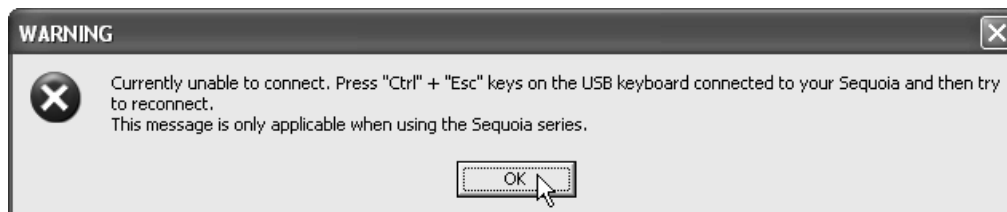
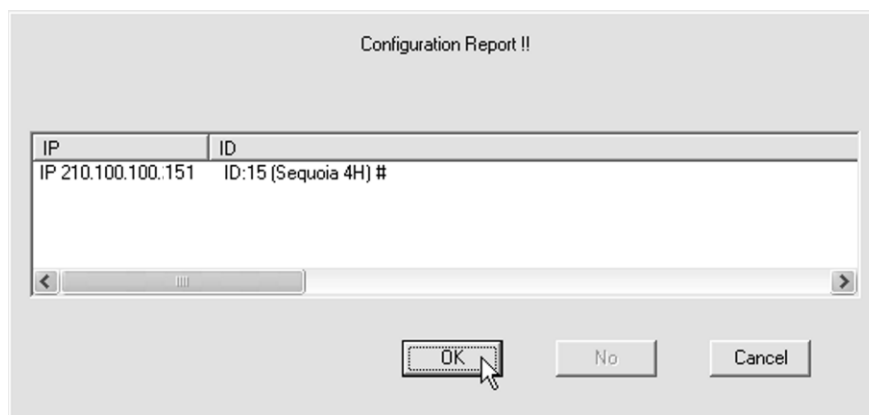


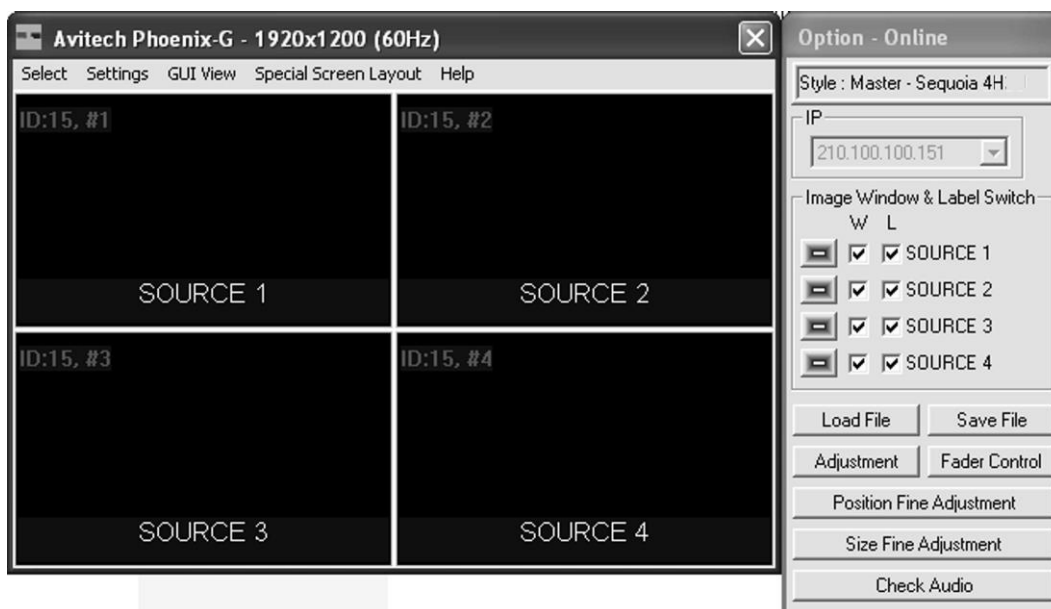
Figure A-2 Phoenix-G Software: Press “Ctrl” + “Esc” Keys

Step 3. The computer will start searching for Sequoia. To confirm connection, click **OK**.



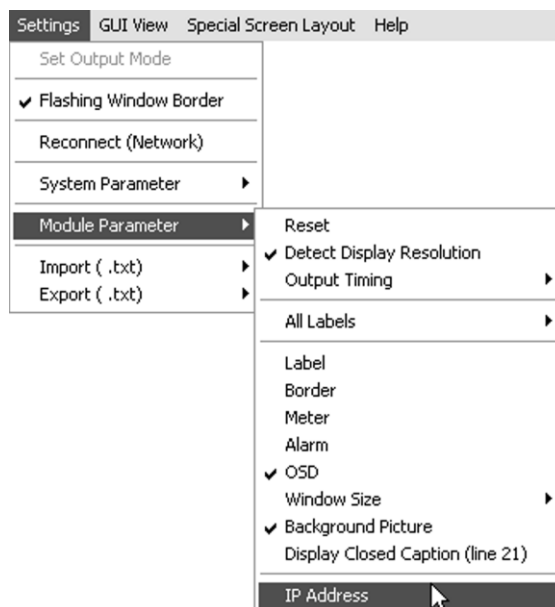
**Figure A-3** Phoenix-G Software: Connection Configuration

“Control” window and “Option” window will appear.



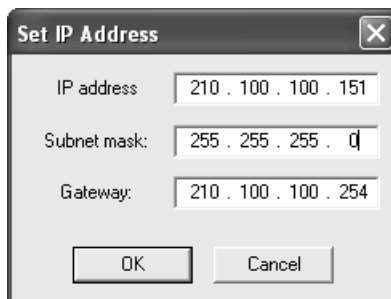
**Figure A-4** Phoenix-G Software: Control and Option Window

Step 4. Click **Settings** then **Module Parameter**. Then click **IP Address**.



**Figure A-5** Phoenix-G Software: Click “Settings”→”Module Parameter”→”IP Address”

Step 5. Enter the new **IP address**, **Subnet mask**, and **Gateway** to match the value of the controlling computer. Then, click **OK**.



**Figure A-6** Phoenix-G Software: Set IP Address, Subnet Mask and Gateway

Step 6. Click **OK** to close the Phoenix-G (formerly Galaxy) program and restart the Sequoia.



**Figure A-7** Phoenix-G Software: Close and Restart Sequoia

## A.2 Method 2: Change IP Address of the Controlling Computer

### For Windows XP

- Step 1. Click **Start**, right-click **My Network Places**, and then click **Properties**.
- Step 2. When the next screen appears, right-click the **Local Area Connection** icon, then click **Properties**.
- Step 3. When the next screen appears, click to highlight **Internet Protocol (TCP/IP)**, then click **Properties**.
- Step 4. When the next screen appears, click the radio button to select **Use the following IP address:**, and then enter the **IP address: 210 . 100 . 100 . x** (where **x** is any value from **1 – 253**) and **Subnet mask: 255 . 255 . 255 . 0**.
- Step 5. Click **OK** to exit.

### For Windows 7

- Step 1. Click **Start** and type in **Network and Sharing Center**.
- Step 2. Click **Change Adapter Settings** on the left.
- Step 3. Right-click the **Local Area Connection** the Sequoia is connected to, then select **Properties**.
- Step 4. When the next screen appears, click to highlight **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**.
- Step 5. When the next screen appears, click the radio button to select **Use the following IP address:**, then enter the **IP address: 210 . 100 . 100 . x** (where **x** is any value from **1 – 253**) and the **Subnet mask: 255 . 255 . 255 . 0**.
- Step 6. Click **OK** to exit.