

# pro-xi<sup>®</sup> 100

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Workstation Integrator User Guide

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# pro-xi 100 - User Guide

- Ross Part Number: **2300DR-004-04**
- Release Date: October 22, 2019.

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Compliance documentation, such as certification or Declaration of Compliance for the product is available upon request by contacting [techsupport@rossvideo.com](mailto:techsupport@rossvideo.com). Please include the product; model number identifiers and serial number and country that compliance information is needed in request.

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### United States of America - FCC Part 15

This equipment has been tested and found to comply with the limits for a class A 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.



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**Notice** — *Changes or modifications to this equipment not expressly approved by Ross Video Ltd. could void the user's authority to operate this equipment.*

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### Canada

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### European Union

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**Warning** — *This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.*

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### International

This equipment has been tested under the requirements of CISPR 22:2008 or CISPR 32:2015 and found to comply with the limits for a Class A Digital device.

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**Notice** — *This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.*

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## Emissions Certifications

EN 55022:2010

FCC Part 15, Class A

ICES-003, Issue 5

AS/NZS CISPR 22:2009

## Immunity Certifications

EN 55024:2010

EN 61000-3-2:2006 + A1:2009 + A2:2009

EN 61000-3-3:2008

## Safety Certifications

IEC 60950-1:2005(Second Edition) +

AM 1:2009 + AM 2:2013

EN 60950-1:2006/A11:2009/A1:2010

## CE Certifications

EMC Directive 2004/108/EEC

Low Voltage Directive 2006/95/EC

## FCC Certifications

Part 15 of the FCC Rules

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Routine maintenance to this Ross product is not required. This product contains no user serviceable parts. If the module does not appear to be working properly, please contact Technical Support using the numbers listed under the section “**Contacting Technical Support**” on page 12. This product is covered by a generous 1-year warranty and will be repaired without charge for materials or labor within this period. See the section “**Warranty and Repair Policy**” on page 123 for details.

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To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration. You can also contact Ross Video for more information on the environmental performances of our products.

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# Introduction

This guide covers the installation, configuration, and use of the pro-xi 100 Workstation Integrator. The following chapters are included:

- **“Introduction”** summarizes the guide and provides important terms, and conventions.
- **“Hardware Overview”** presents information on the pro-xi 100 hardware components and features.
- **“Physical Installation”** summarizes the installation of the pro-xi 100.
- **“Cabling”** provides interconnect diagrams and examples of how to cable single-head and dual-head setups.
- **“Initial Startup Display”** describes the initial display window areas and features.
- **“Connected System Windows”** outlines how to move a window and resize a window.
- **“Controlling Connected Systems”** outlines the ways of taking control of connected computer systems.
- **“Creating and Using Sub-windows”** describes how to create, move, resize and pan sub-windows.
- **“Creating and Using Layouts”** provides information about the layout function of the pro-xi 100.
- **“System Menus”** provides information on the menus for the pro-xi 100 system.
- **“Installing the prox-app Utility”** briefly outlines how to install the prox-app utility which is used to create or edit configurations for your pro-xi 100 system.
- **“Creating a New Configuration”** outlines how to launch the prox-app utility and create a new configuration including configuring the VOC cards, the ISC cards, and specifying the network settings.
- **“Testing a Configuration Using a USB Drive”** describes how to format and create a USB drive that can be used to export the pro-xi 100 system.
- **“Exporting a Configuration via USB”** outlines the process of using a USB drive to export a configuration to the pro-xi 100 system.
- **“Exporting a Configuration Across the Network”** outlines the process of exporting a configuration to the pro-xi 100 system over your facility network.
- **“System Upgrades via a USB”** outlines how to upgrade your system using a USB drive.
- **“System Upgrades via a Network”** outlines how to upgrade your system using a network connection.
- **“System Window Frames”** describes the components and configuration options of the system window frames.
- **“Bezel Color Notifications”** outlines how to customize the illuminated front bezel of the pro-xi 100.
- **“Real Time Clock Display”** outlines the display and configuration options for the RTC feature of the pro-xi 100.
- **“Desktop Settings”** provides information on the desktop options, such as the status bar and the bug icon, for the pro-xi 100 system.
- **“Dual Operator Configuration”** describes the steps for configuring the pro-xi 100 system for dual operators.
- **“Dual Operator Operations”** provides an overview of controlling a dual operator system.
- **“Keyboard Shortcuts”** lists the keyboard shortcuts for carousel control, system activation, and other common functions.
- **“Video Test Patterns”** briefly summarizes the elements of the available video test patterns.
- **“Technical Specifications”** provides the technical specifications for the pro-xi 100 system.
- **“Software Licenses”** provides third-party software license information for the pro-xi 100 system.
- **“Creative Commons 3.0 License”** provides information on the movie images licensed under the Creative Commons 3.0 Attribution license.
- **“Service Information”** provides information on the warranty and repair policy for your pro-xi 100 system.
- **“Glossary”** provides a list of terms used throughout this guide.

## Related Publications

It is recommended to consult the following Ross documentation before installing and configuring your unit:

- *pro-xi 100 Quick Start Guide*, Ross Part Number: PRO100DR-002

## Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

### Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **Edit** dialog, click **Apply**.

### User Entered Text

Courier text is used to identify text that a user must enter. For example:

In the **Language** box, enter **English**.

### Referenced Guides

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

For more information, refer to the *pro-xi 100 Quick Start Guide*.

### Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads “**File > Save As**,” you would select the **File** menu and then select **Save As**.

### Important Instructions

Star icons are used to identify important instructions or features. For example:

- ★ Contact your IT department before connecting to your facility network to ensure that there are no conflicts. They will provide you with an appropriate value for the IP Address, Subnet Mask, and Gateway for your pro-xi 100.

## Contacting Technical Support

At Ross Video, we take pride in the quality of our products, but if problems occur, help is as close as the nearest telephone.

Our 24-hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel. During business hours (Eastern Time), technical support personnel are available by telephone. After hours and on weekends, a direct emergency technical support phone line is available. If the technical support person who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. This team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

- **Technical Support:** (+1) 613-652-4886
- **After Hours Emergency:** (+1) 613-349-0006
- **E-mail:** [techsupport@rossvideo.com](mailto:techsupport@rossvideo.com)
- **Website:** <http://www.rossvideo.com>

# Hardware Overview

Each pro-xi 100 system rack frame provides dual redundant AC power inputs, a Single Controller card (CTC), one or two Video Output Controller cards (VOC), and up to eight Video Input Controller cards (ISC). This chapter presents information on all of the pro-xi 100 hardware components and features.

## Overview

The primary pro-xi 100 system rack frame supports:

- one or two Operator positions
- one or two output displays
- up to eight controlled systems.

## Rear Panel Overview

The rear view of the pro-xi 100 system is shown in **Figure 2.1**, along with the location of each of the cards in the rack frame.

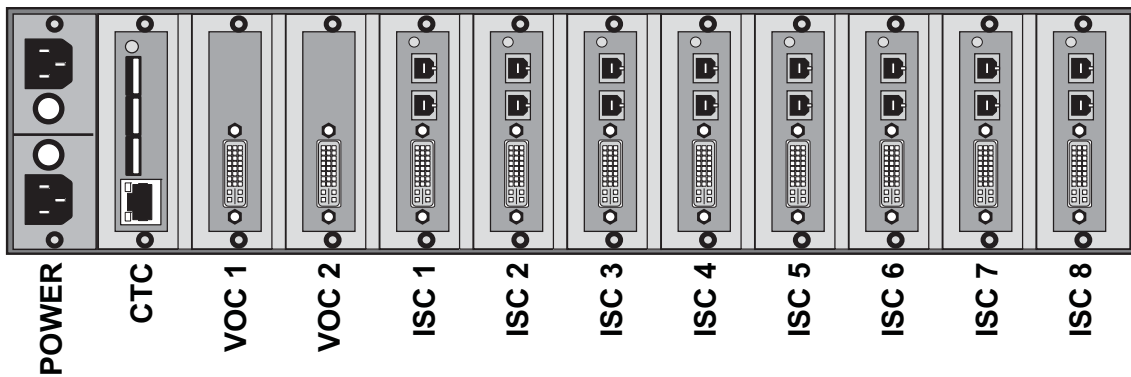


Figure 2.1 pro-xi 100 — Rear Panel Components

The Operator stations use a combination of the CTC card (for mouse, keyboard and audio out) and one or both VOC cards (for video output). Each of the connected computer systems are attached to the various ISC cards using two USB A-to-B cables, a DVI/VGA cable and (optionally) an audio input cable.

## CTC Card Connections

**Figure 2.2** illustrates the connections to the Single Controller Card (CTC) of the pro-xi 100 system.

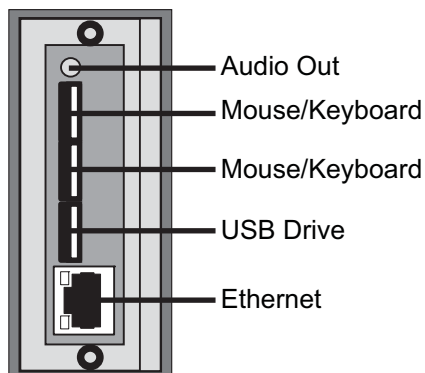


Figure 2.2 CTC Card — Connections

## Audio Out Port

The audio out connection is a standard 3.5mm stereo audio signal that can be connected to an amplified speaker pair or other audio device.

## Mouse/Keyboard Ports

The top two USB connections are used to attach your USB mouse and keyboard to the pro-xi 100 system.

## USB Drive

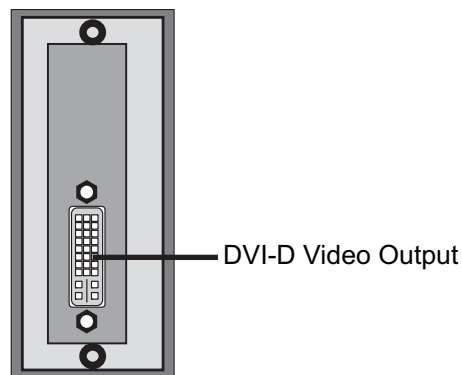
The bottom USB connection is used for a USB drive.

## Ethernet Port

The Ethernet connection supplies a 10/100Mbps network connection to a switch, hub or other network device.

## VOC Card Connections

**Figure 2.3** illustrates the connections to the pro-xi 100 system's Video Output Card (VOC).



*Figure 2.3 VOC Card — Connections*

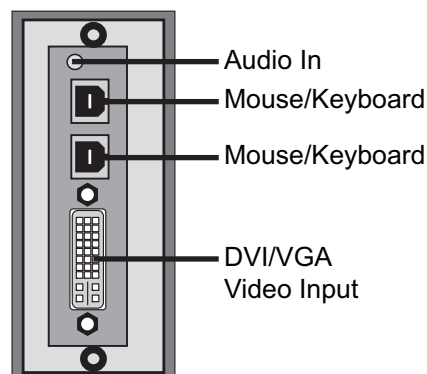
## DVI-D Video Output Port

The DVI-D output can drive any standard DVI video monitor, and can support output resolutions as high as 2560x1600.

When using two VOC cards as a single Operator station, the output of the pro-xi 100 system appears as a standard dual-head computer, and can provide a working canvas that is 5120x1600 in size.

## ISC Card Connections

**Figure 2.4** illustrates the connections to the pro-xi 100 system's ISC card.



*Figure 2.4 ISC Card — Connections*

### Audio In Port

The audio in connection is a standard 3.5mm stereo audio signal that can be connected to the output of any desktop or laptop computer, hand-held device, or racked system.

### Mouse/Keyboard Ports

The two USB connections are used to attach the USB mouse and keyboard to the connected computer.

### DVI/VGA Video Input Port

The DVI/VGA video input connection is used to attach the video output from the connected computer to the pro-xi 100 system. It can support input resolutions as high as 2048x1536.

When connected, the pro-xi 100 system will appear as a standard USB mouse, USB keyboard and DVI or VGA monitor to the connected computer. No drivers or other software needs to be installed on the connected computer for it to operate with the pro-xi 100 system.

★ Two USB A-To-B cables must be used to connect the host computer to the pro-xi 100 system.





# Physical Installation

If you have questions pertaining to the installation of pro-xi 100, please contact us at the numbers listed in the section “**Contacting Technical Support**”. Our technical staff is always available for consultation, training, or service.

## For More Information on...

- the technical specifications for the pro-xi 100, refer to the chapter “**Technical Specifications**” on page 109.
- notices to service personnel, refer to the document *pro-xi 100 Important Regulatory and Safety Notices* that shipped with your pro-xi 100.

## Static Discharge

Throughout this guide, please heed the following cautionary note:



**ESD Susceptibility** — *Static discharge can cause serious damage to sensitive semiconductor devices. Avoid handling circuit boards in high static environments such as carpeted areas and when synthetic fiber clothing is worn. Always exercise proper grounding precautions when working on circuit boards and related equipment.*

## Unpacking the pro-xi 100 System

Unpack each pro-xi 100 you received from the shipping container and ensure that all items are included. If any items are missing or damaged, contact your sales representative or Ross Video directly.

When unpacking the system, be sure to verify that it contains:

- the pro-xi 100 system
- a keyboard
- a mouse
- two power cords
- a rack-mount hardware kit

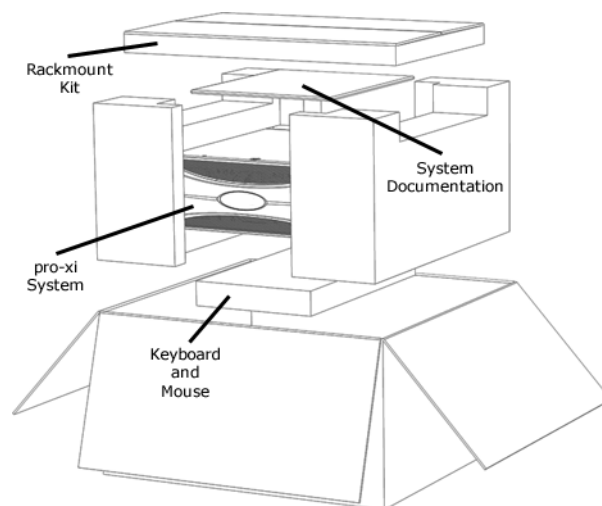


Figure 3.1 Example of pro-xi 100 Shipping Box Contents

## Rack-mounting and Installing the pro-xi 100

The pro-xi 100 system requires three rack-units (5.25" / 13.34 cm) of vertical rack space.

The pro-xi 100 system is shipped with a rack mount kit, and installation of the pro-xi 100 system in a rack is done in three steps:

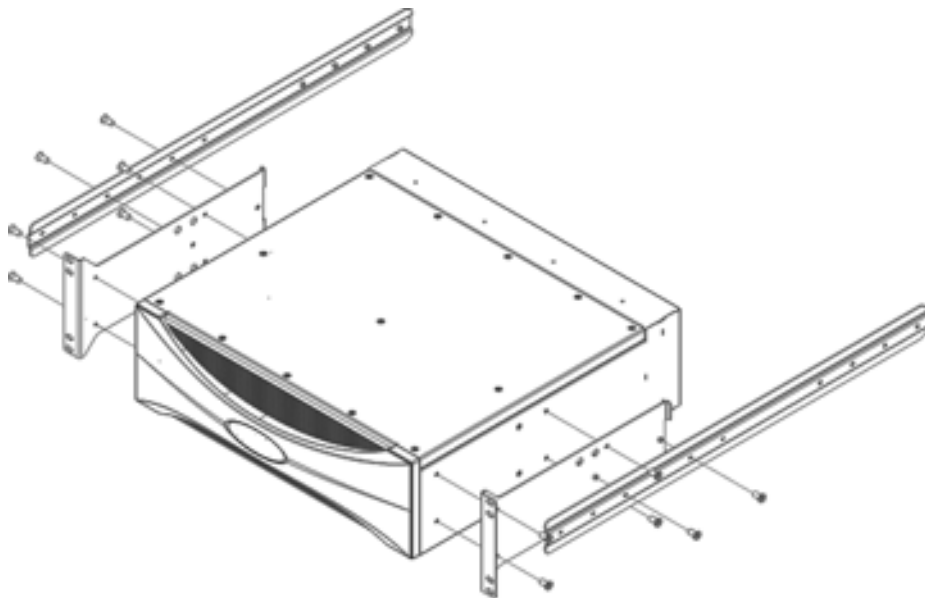
1. Attach rack rails to the pro-xi 100 system.
2. Attach rail supports to the rear rack rails.
3. Mount the pro-xi 100 system in the rack and attach it to the front rack rails.

To ensure long life for this product, observe the following precautions and operating requirements:

- Maintain an ambient temperature of 0°C to 40°C (32°F to 104°F).
- Allow for air circulation around the chassis for convective cooling.

### Attaching the Rack Rails to the pro-xi 100 System

The rail extensions can be attached to the mounting brackets in a number of different locations to set their extension distance to fit racks of varying depths.



*Figure 3.2 Example of Attaching the Rack Rails*

#### To attach the rack rails to the pro-xi 100 system

1. Measure the depth of the rack the pro-xi 100 system is to be mounted in.
2. Set the extension distance as required.
3. Attach the left and right mounting brackets to the pro-xi 100 system. (**Figure 3.2**)
4. Attach the rail extensions to the pro-xi 100 system. (**Figure 3.2**)

## Attaching the Rail Supports to the Rear Rack Rails

Attach the rail supports to the rear rack rails as shown in **Figure 3.3**.

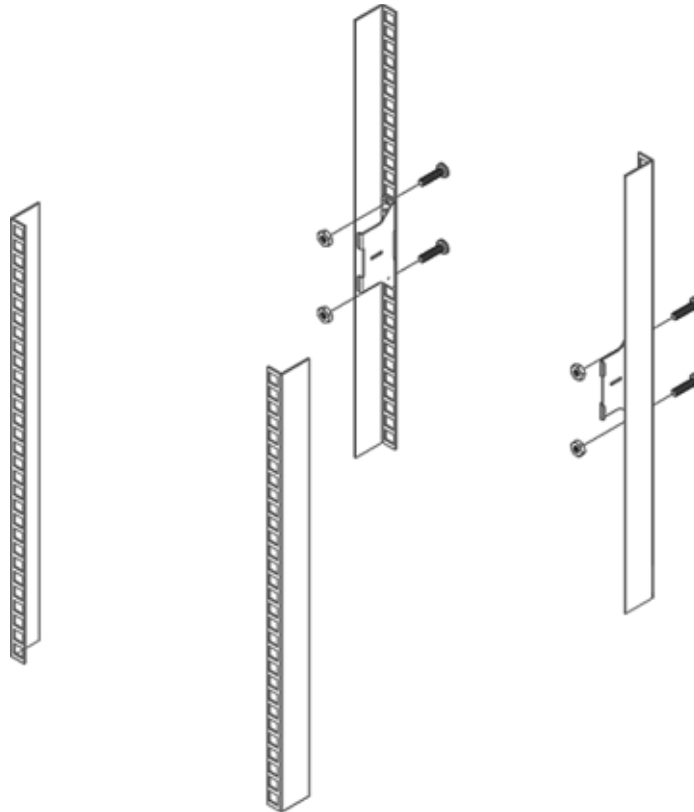


Figure 3.3 Example of Attaching Rail Supports to the Rear Rack Rails

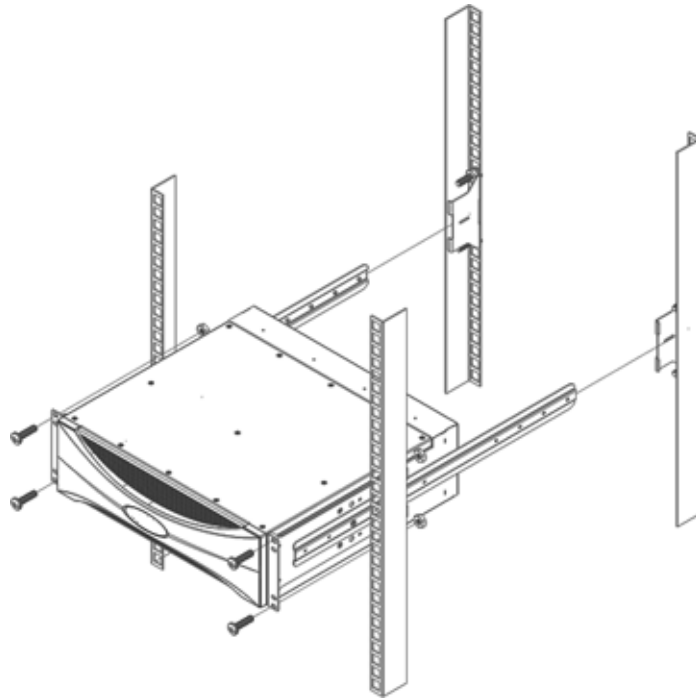
## Mounting the pro-xi 100 System in the Rack



**Caution** — The pro-xi 100 system weighs approximately 42 pounds (19kg). Two people should work together to lift it into place to avoid physical injury.

### To mount the pro-xi 100 system in the rack

1. Lift the pro-xi 100 system into place.
2. Slide the rail extensions into the rail supports.
3. Secure the pro-xi 100 chassis to the rack with four standard rack bolts and nuts.



*Figure 3.4 Example of Attaching the pro-xi 100 System to a Rack*

# Cabling

This chapter provides interconnect diagrams and examples of how to cable single-head and dual-head setups.

## Before You Begin

Keep the following in mind when cabling your system:

- If the connected computer systems output a VGA video signal, a VGA-to-DVI-I adapter is required.
- If the connected computer system outputs an HDMI video signal, an HDMI-to-DVI-D adapter is required.
- If the pro-xi 100 outputs are connected to HDMI monitors or KVM TX units that utilize HDMI, then the appropriate cable or adapter is required.

## Direct Keyboard and Mouse

Figure 4.5 illustrates an operator station with a direct keyboard and mouse connection to the pro-xi 100 system.

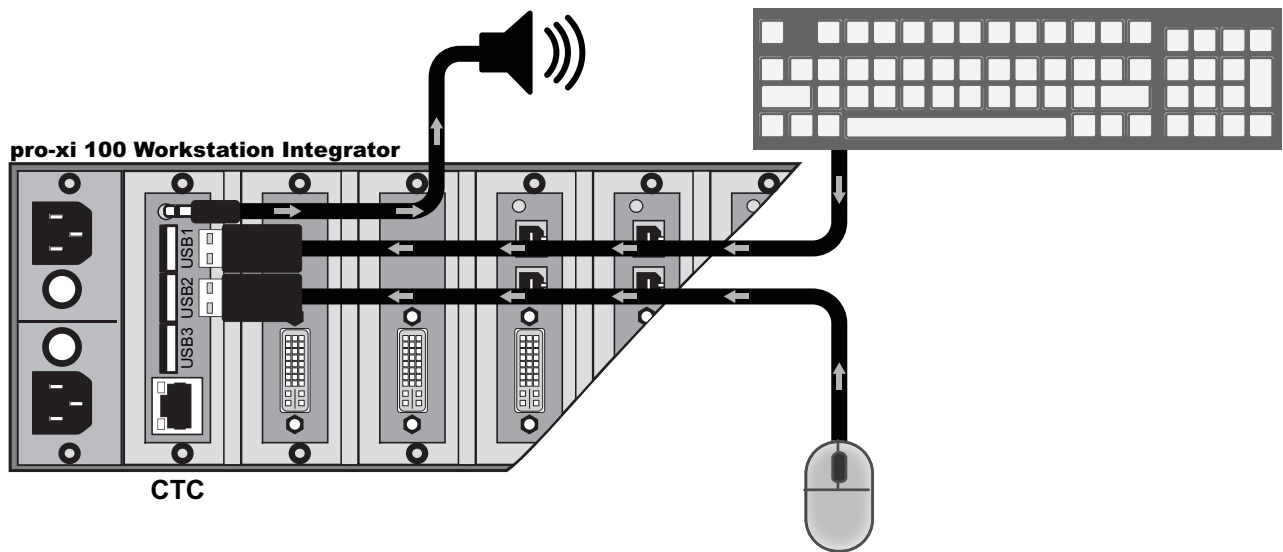


Figure 4.5 Operator Station — Direct Keyboard and Mouse

## Single-Head Direct Monitor

Figure 4.6 illustrates an operator station with a direct monitor connection to the pro-xi 100 system.

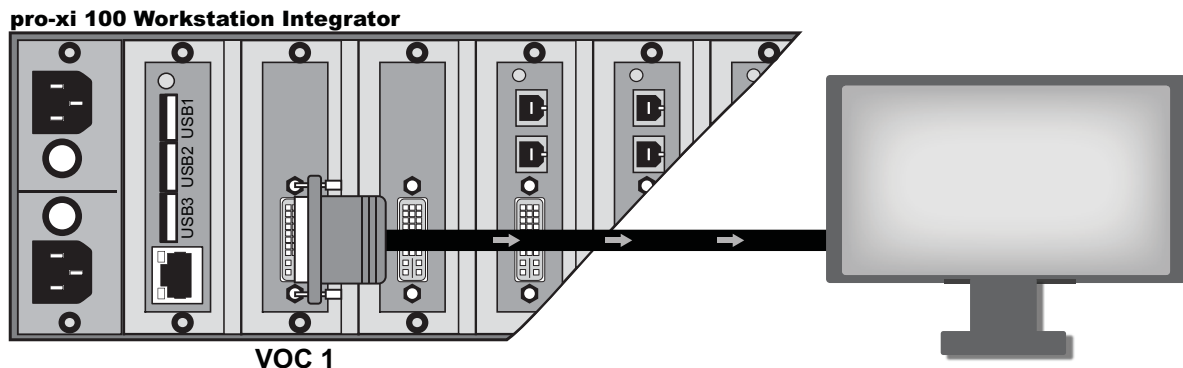


Figure 4.6 Operator Station — Single-Head Direct Monitor

## Dual-Head Direct Monitor

Figure 4.7 illustrates an operator dual-head station with a direct connections to the pro-xi 100 system.

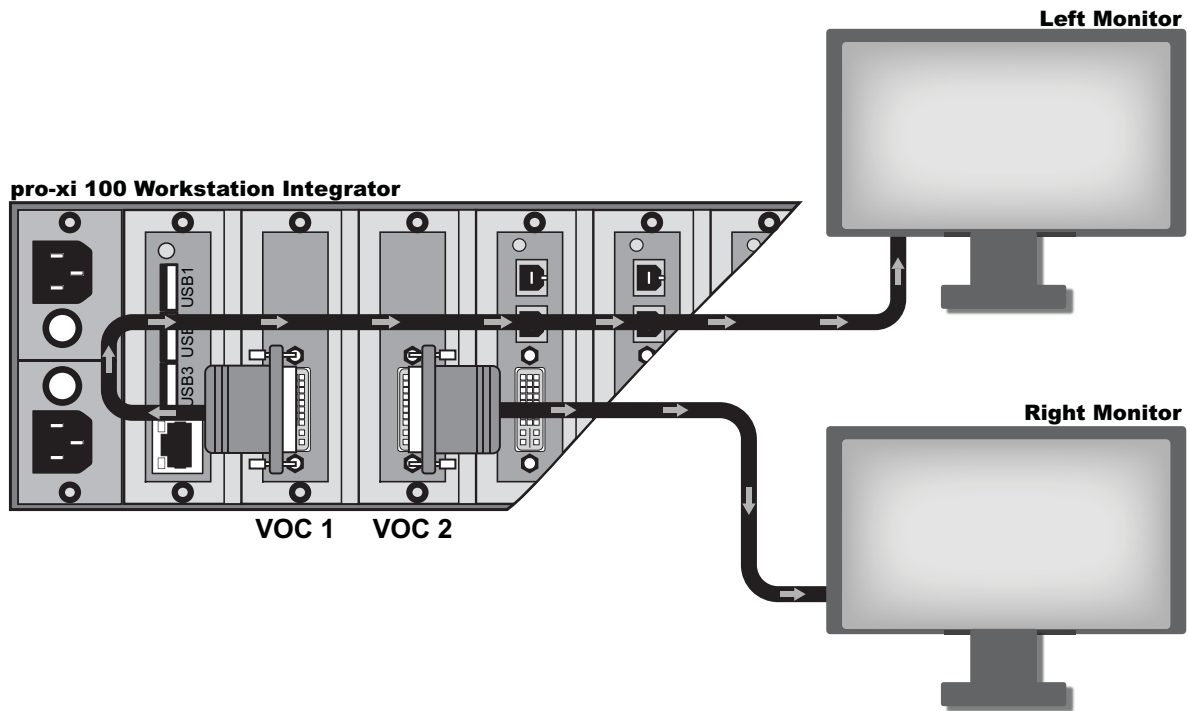


Figure 4.7 Operator Station — Dual-Head Monitors

## Single Output (Single-Head) Direct Keyboard, Video, and Mouse

Figure 4.8 illustrates the cabling required to connect a computer system to the pro-xi 100 system.

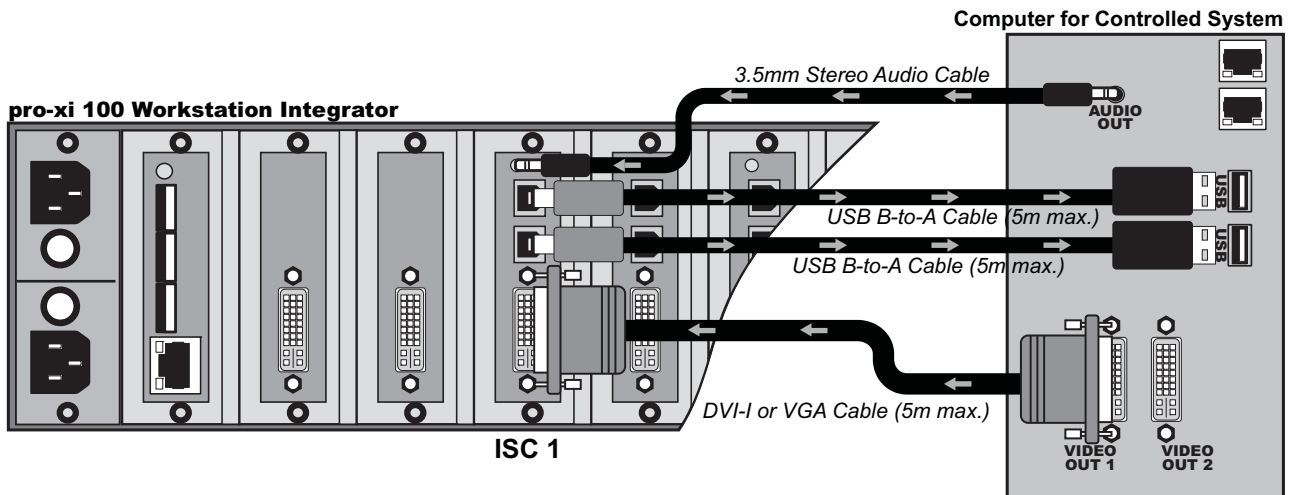


Figure 4.8 Single Output, Single-Head Connections

## Dual Output (Dual-Head) Direct Keyboard, Video, and Mouse

Figure 4.9 illustrates the cabling required to connect a computer system to the pro-xi 100 system.

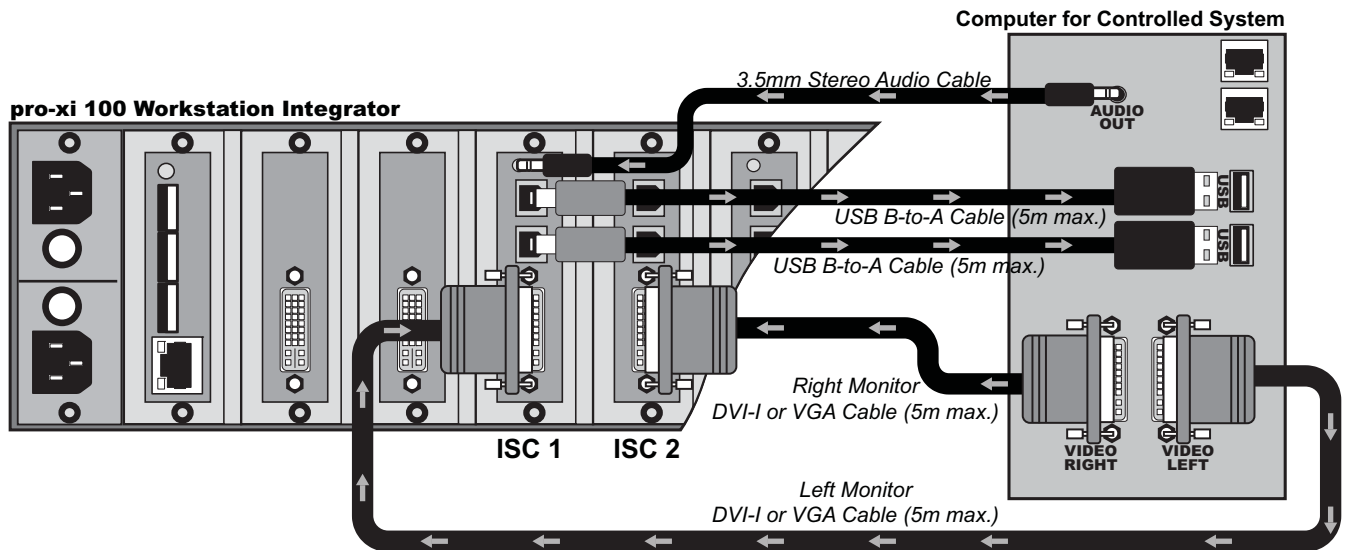


Figure 4.9 Dual Output, Dual-Head Connections

## Interconnect, Single-Head Operator Station KVM Extender

Figure 4.10 illustrates a single-head operator station with the pro-xi 100 system and KVM Extenders.

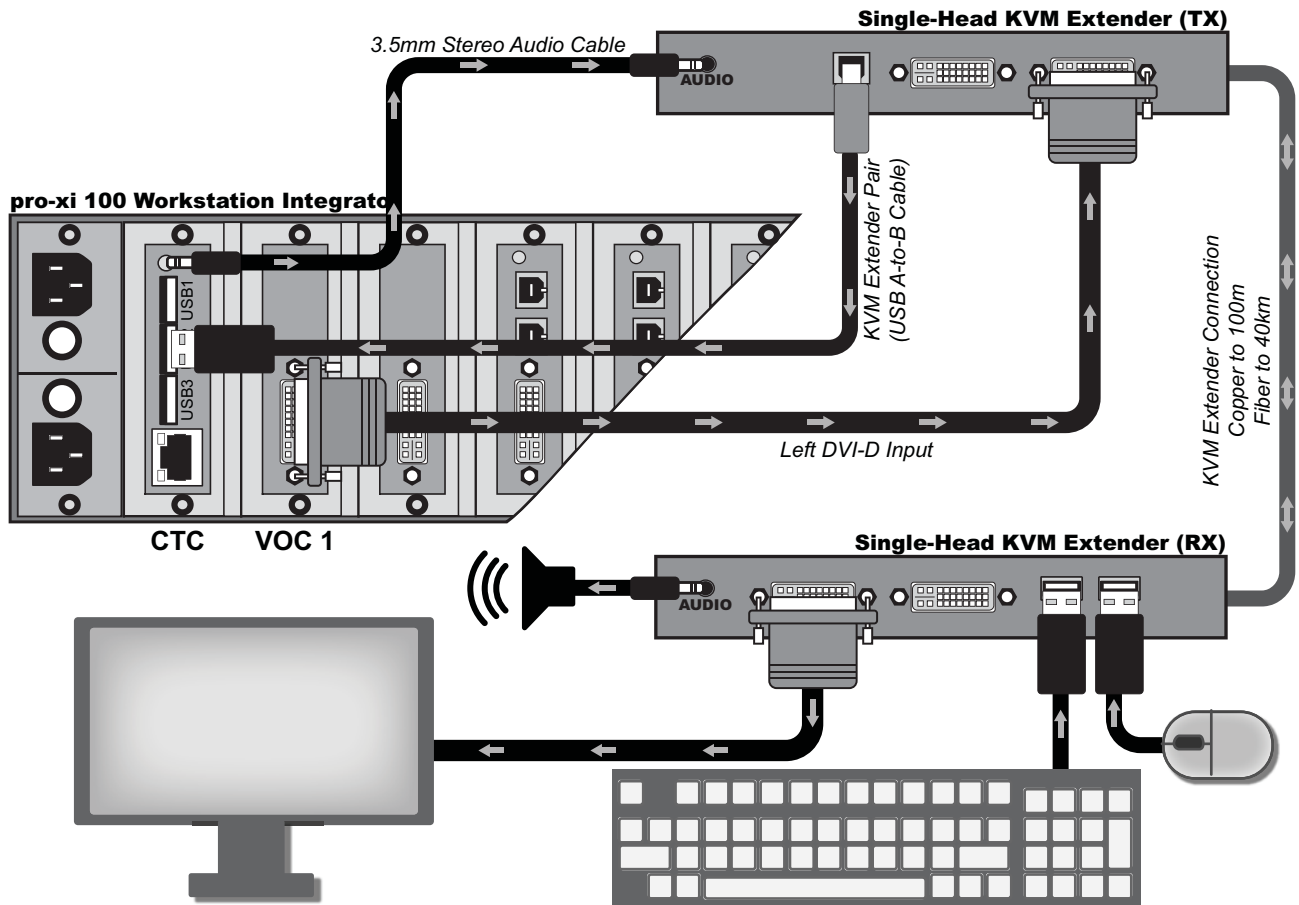


Figure 4.10 Operator Station — Single-Head with KVM Extender

## Interconnect, Dual-Head Operator Station KVM Extender

Figure 4.11 illustrates a dual-head operator station with the pro-xi 100 system and two KVM Extenders.

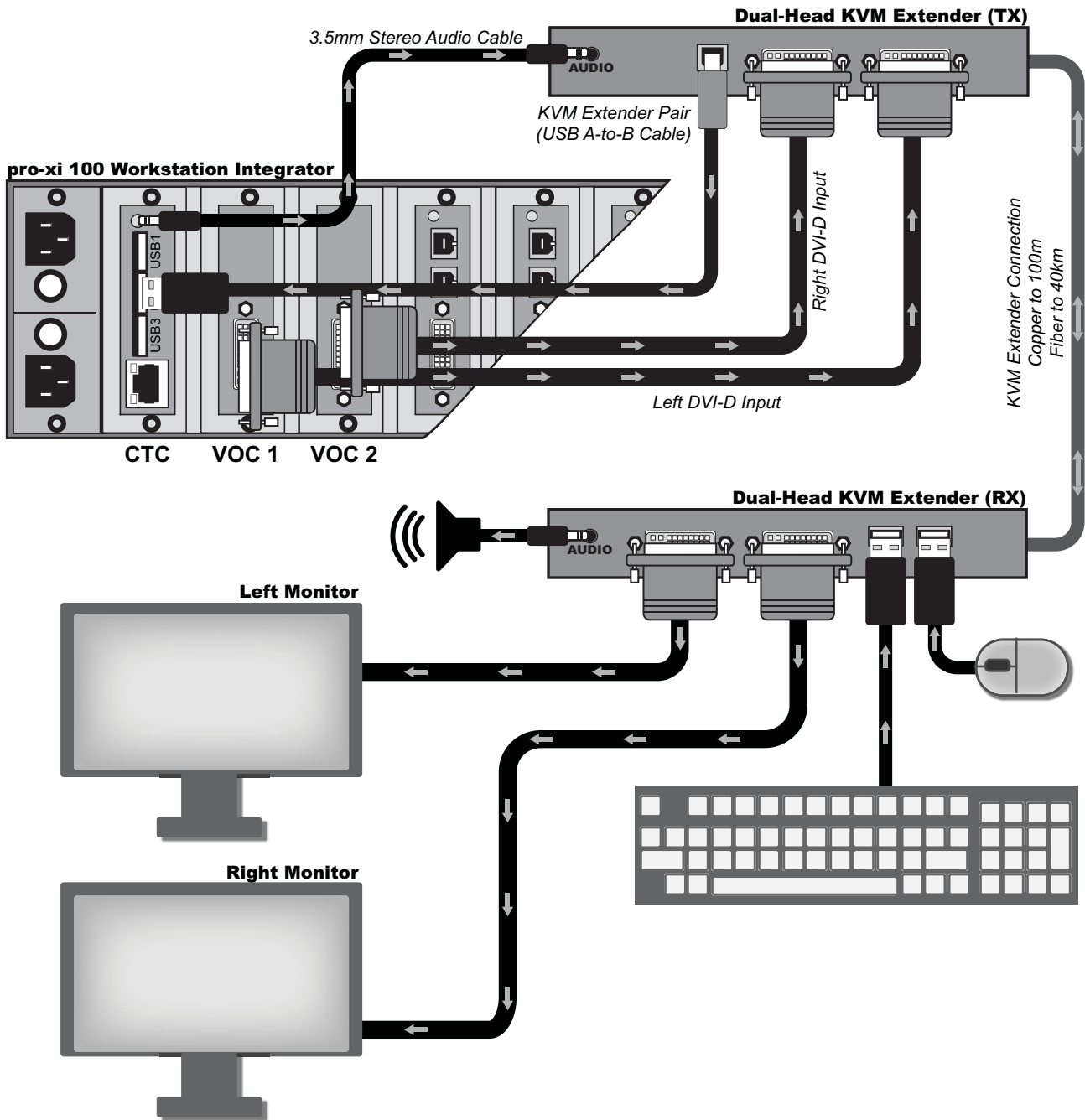


Figure 4.11 Operator Station — Dual-Head with KVM Extender



## Single Video (Single-Head) KVM Extender

Figure 4.12 illustrates a single video operator station with the pro-xi 100 system and two KVM Extenders.

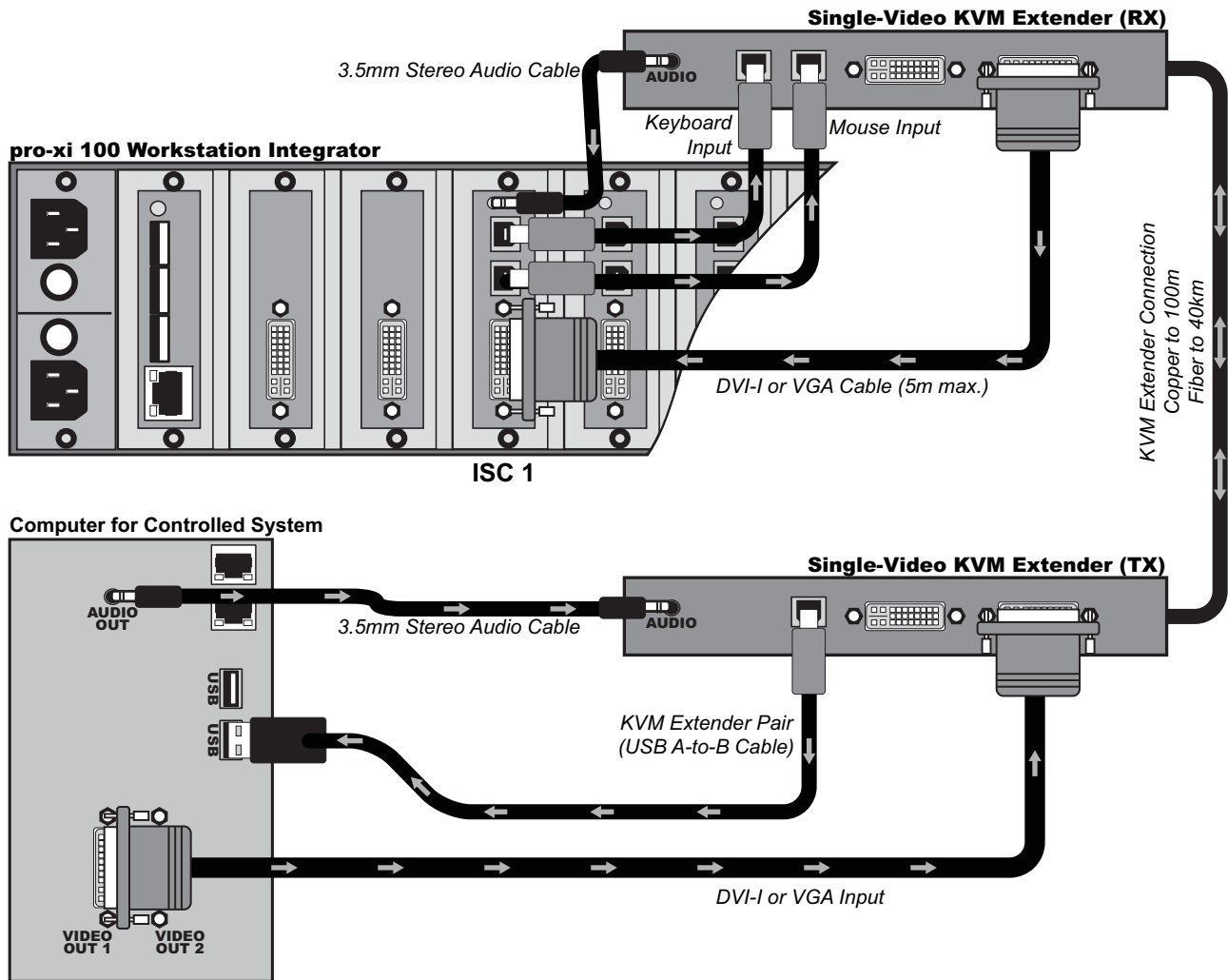


Figure 4.12 Operator Station — Single Output (Single-Head) with KVM Extenders

## Dual Output (Dual-Head) Using Single-Head KVM Extenders

Figure 4.13 illustrates a dual video output station with the pro-xi 100 system and two KVM Extenders.

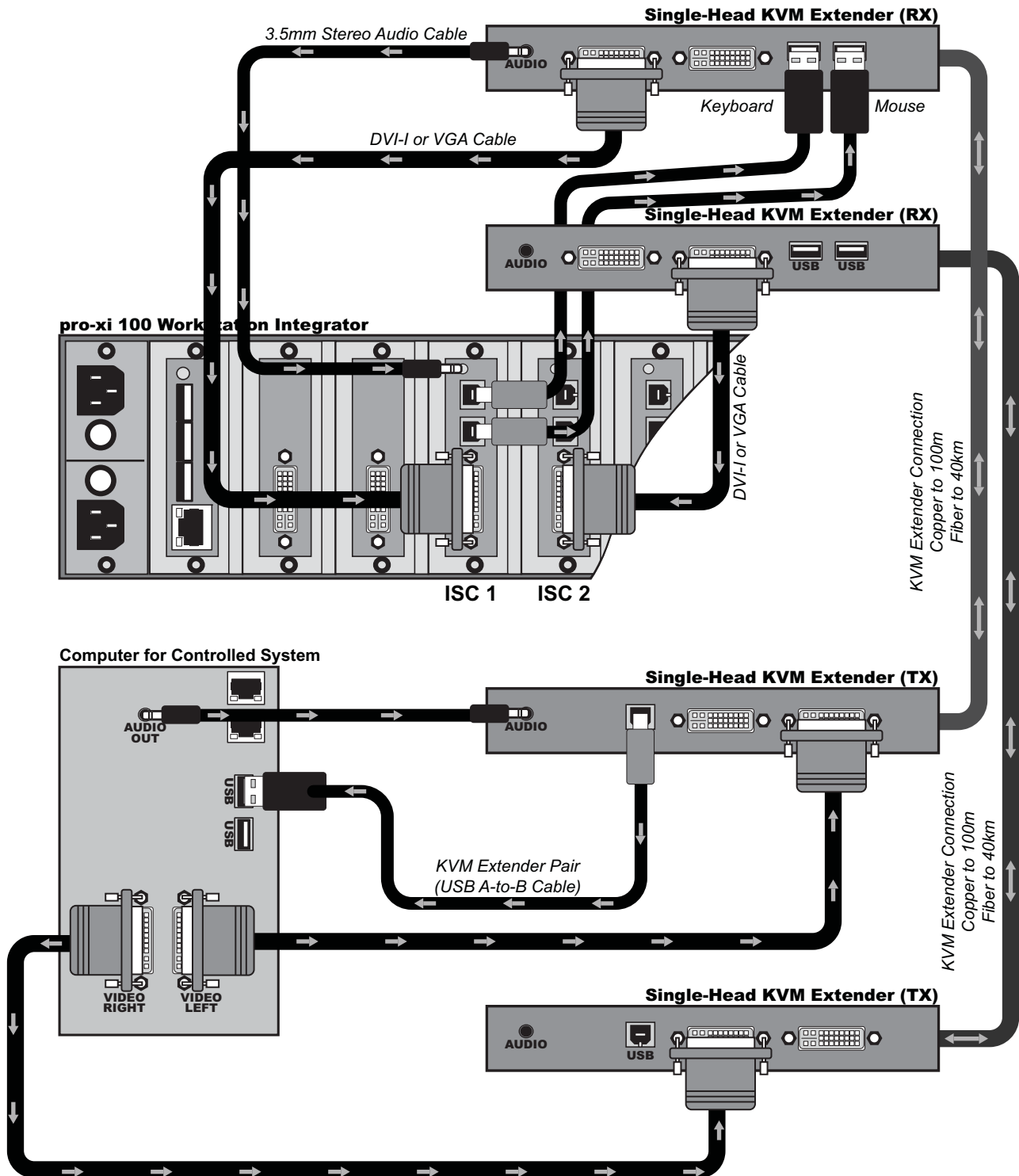


Figure 4.13 ISC Interconnect — Dual Output (Dual-Head) with Single-Head KVM Extenders (2 Pairs)

## Dual Output (Dual-Head) Using Dual-Head KVM Extenders

Figure 4.14 illustrates a dual video output station with the pro-xi 100 system and two dual-head KVM Extenders.

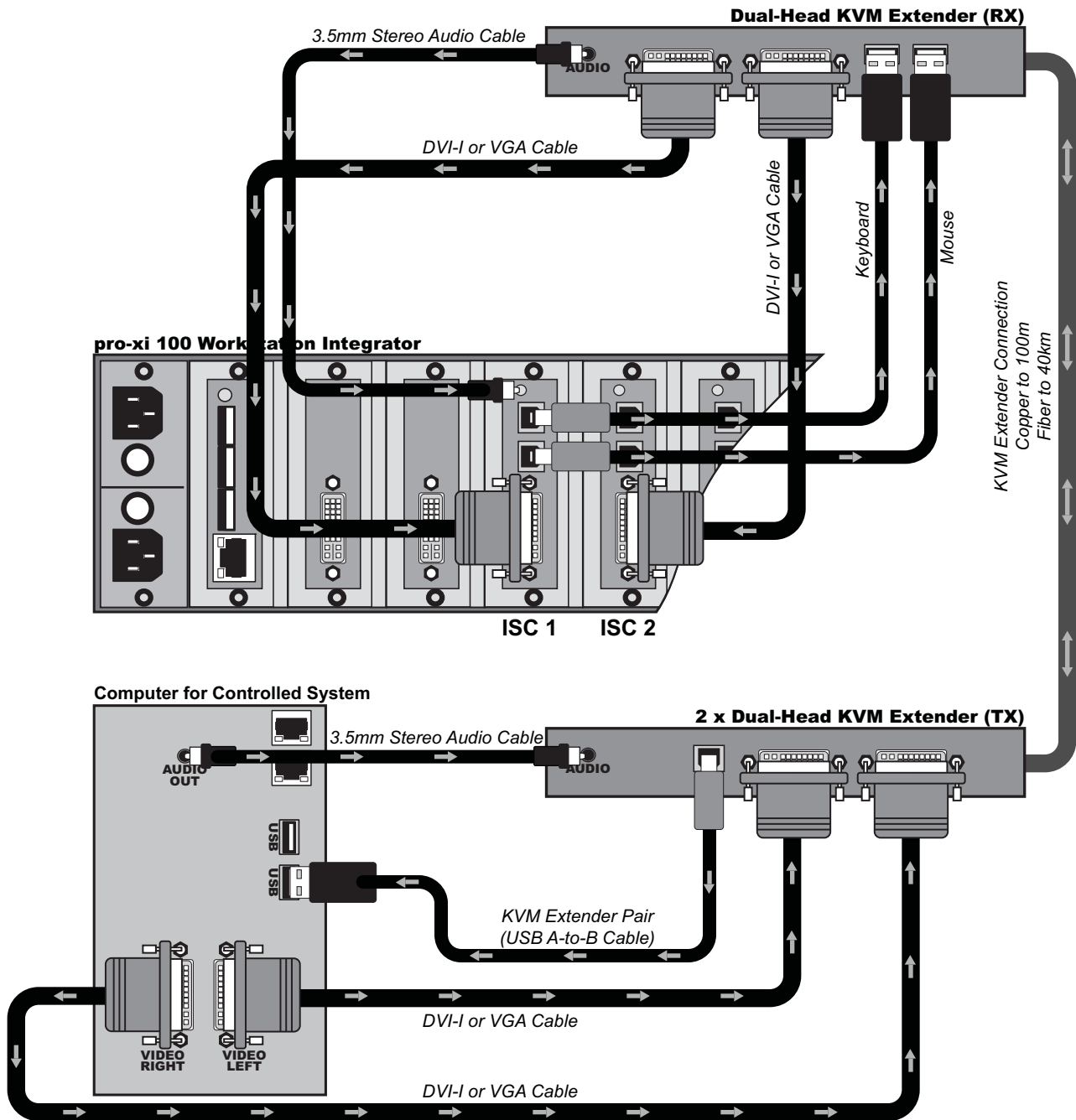


Figure 4.14 ISC Interconnect — Dual Output (Dual-Head) with Dual-Head KVM Extenders (1 Pair)



# Initial Startup Display

This chapter describes the initial pro-xi 100 system display window areas and features.

## Display Screen

After the pro-xi 100 system has completed its boot-up and initialization, and the background wallpaper has been loaded, the system will be at its initial display, as shown in **Figure 5.1**.



Figure 5.1 Example of the Initial Startup Display

## Connected Systems

The connected computer systems will be arranged using the pro-xi 100 system's initial layout, starting from the left side at the top of the display and finishing at the bottom of the right side of the display. In **Figure 5.1**, there are six single-head connected systems and one dual-head connected system, where the left and right displays of the dual-head system are joined together.

At this point, none of the connected computer systems are “active”, or under control of the Operator, and the Operator can move the pro-xi 100 cursor about the display and can move, resize and take control of any of the connected computer systems.

## Work Area

This layout also creates a default “work area” in the lower-left portion of the screen that is used to take control of one connected computer system while still being able to view all other systems. The work area size is dynamically calculated, so if the Operator moves connected system windows away from (or into) this area, the new work area size will be enlarged or reduced based on the location of all connected computer system windows.

## Real-Time Clock

If the pro-xi 100 system was configured to display a real-time clock, it will be displayed as well, but may be covered up by the initial layout if it was placed at the top of the screen. In **Figure 5.1**, the real-time clock is shown in the smallest font size and placed at the “bottom-center” location.

## Dual VOC Output

If the pro-xi 100 system has been configured for dual VOC output cards, the second display will also be active, although no connected computer systems will be seen:



Figure 5.2 Example of the First Display



Figure 5.3 Example of a Second Display

# Connected System Windows

This chapter outlines how to move a window and resize a window.

## Moving a Window

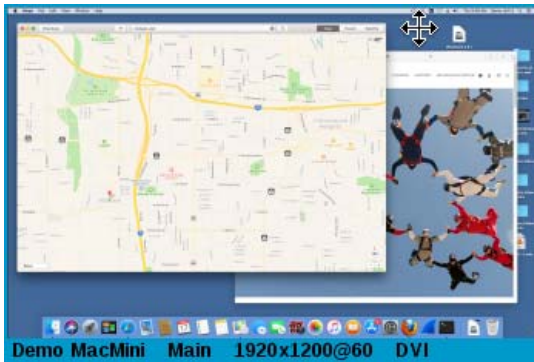
★ It is possible to move a window so that most of it is above the top of the display. If the cursor is released at this location, it will be difficult to move it back onto the display. Press **F1** to restore all windows to their original position.

### To move a single window

1. Move the cursor to the window and single-click it.

When a window is selected, the frame color around the window will change color to indicate it's been selected.

2. Move the cursor to the top area of the window until the cursor changes shape to the “move” cursor.



3. Hold down the left mouse button.
4. Drag the window to the new location.

### To move a dual-head window

1. Position the cursor across the top of either the left or right display.
2. Single-click the window.
3. Drag the window.

Both windows are attached to each other and will move at the same time.

## Resizing a Window

Keep the following in mind when resizing a window:

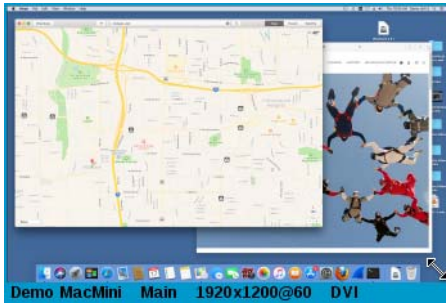
- Window sizes may be reduced from 1/8 the original size up to 8X the original size, or until the window size reaches the maximum input width of an ISC card.
- As the windows are resized, the connected system's original display aspect ratio is preserved.
- When sizing a dual-head window, position the cursor at the lower-right corner of the right display, and then drag. Both windows are attached to each other and will be resized at the same time.

### To resize a connected system window

1. Selected the window by moving the cursor to the window and single-clicking it.
2. Move the cursor to the lower-right corner of the window until the cursor changes shape to the “resize” cursor.



3. Hold down the left mouse button on the mouse.



4. Drag the window corner to increase or decrease the size of the window.

The upper-left corner of the window will remain “pinned” in the same location as the window is resized:





# Controlling Connected Systems

Taking control of connected computer systems is the primary function of the pro-xi 100 system, and there are a variety of ways for the Operator to accomplish this operation:

- Using the mouse to take control, leaving the window at the same size and location.
- Using the mouse to take control, filling the work area or the screen with the window as it is activated.
- Using the keyboard to step through all windows and take control, filling the work area or the screen with each window as they are activated.
- Using the keyboard to select a specific window to control, filling the work area or the screen as it is activated.

When a connected computer system is made active, all mouse and keyboard signals are routed to the connected system, and the system's audio (if connected) is routed to the pro-xi 100 system's audio output. In addition, the window's frame color will change to the "active" color, indicating that the window is now active and responding to both mouse and keyboard data.

## Mouse Control with No Size or Position Changes

To take control of a connected computer system without changing its window size or location, first select the window and then double-click the window to take control. The active window is highlighted as shown in **Figure 7.1**.



*Figure 7.1 Example of Active Window in Mouse Control*

## Mouse Control, Filling the Work Area

To take control of a connected computer system while filling the work area with window, first select the window and then hold down the **CTRL** button while double-clicking the window to take control. The active window is highlighted and fills the work area as shown in **Figure 7.2**.



Figure 7.2 Example of Active Window Filling the Work Area

## Mouse Control, Filling the Screen

To take control of a connected computer system while filling the screen, first select the window and then hold down the **SHIFT + CTRL** buttons while double-clicking the window to take control. The active window is highlighted and fills the screen as shown in **Figure 7.3**.

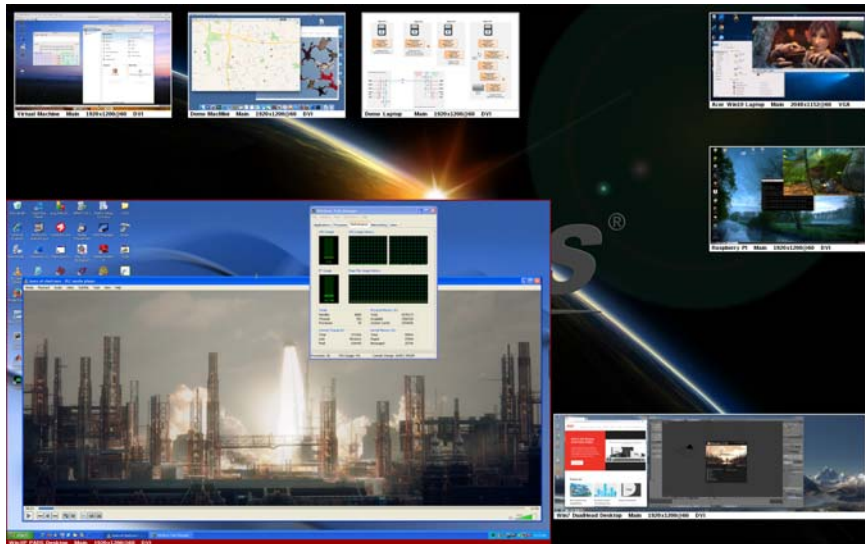


Figure 7.3 Example of Active Window Filling the Work Area

When sizing windows to fill the screen, the connected computer system's display aspect ratio is used to calculate and size the window as large as possible while still maintaining the aspect ratio. In some cases this may cause the active window to fill the screen vertically but not horizontally (**Figure 7.3**), or horizontally but not vertically (**Figure 7.4**).

If the connected computer system's aspect ratio matches that of the pro-xi 100 outputs, the screen will be completely filled (**Figure 7.5**).

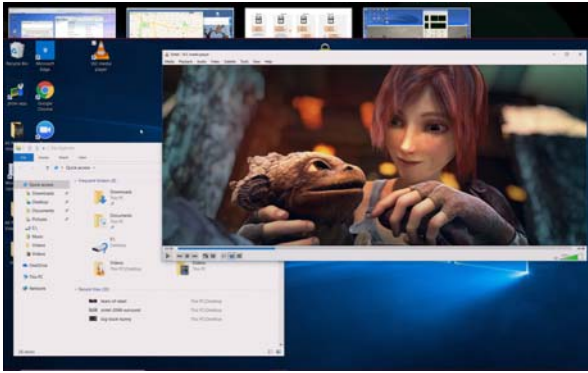


Figure 7.4 Example of the Selected Display (Horizontal)



Figure 7.5 Example of the Active Display (Filled)

## Control of Dual-Head Connected Systems

When taking control of a dual-head connected system, there are slight differences in behavior when making them active to fill the work area or the screen.

When making a dual-head system active without changing the size or position, the system behaves as before, with the dual-head window being highlighted in the active color, no change in size or position (**Figure 7.6**), and nothing appearing on the right display (**Figure 7.7**).



Figure 7.6 Example of the Selected Display



Figure 7.7 Example of the Right Display

When making a dual-head system active to fill the work area, the dual-head window is highlighted in the active color, both left and right display windows are positioned in the work area (**Figure 7.8**), and nothing appears on the right display (**Figure 7.9**).



Figure 7.8 Example of the Selected Display



Figure 7.9 Example of the Right Display

When making a dual-head system active to fill the screen, the left and right displays are shown on their respective outputs. (Figure 7.10)

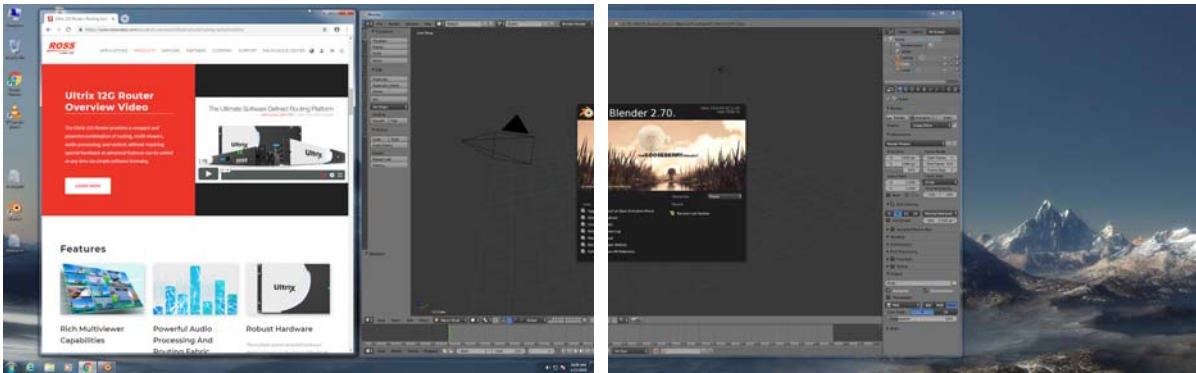


Figure 7.10 Example of Dual-Active Screen (Left and Right Outputs)

## Keyboard Control, Carousel Operation

Connected systems can also be accessed by rapidly activating them in a circular, round-robin, “carousel” fashion. To carousel from one system to the next, hold down the **SHIFT + CTRL** keys and press the space bar.

Each time the space bar is pressed, the next system is activated and will fill the work area. (Figure 7.11)

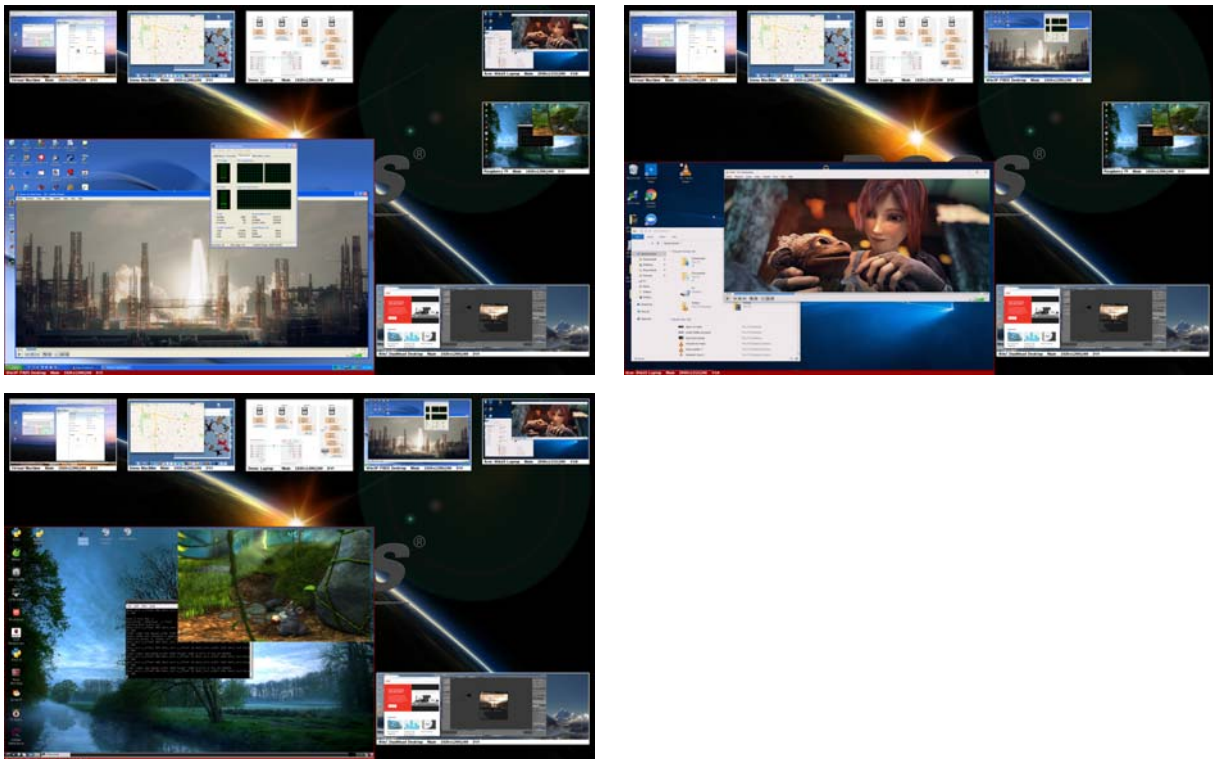


Figure 7.11 Example of Carousel Displays

In Figure 7.11, each time the **SHIFT + CTRL + space bar** is pressed, the pro-xi 100 system rapidly switches from the connected system on ISC4 to ISC5 and then to ISC6. Each time the connected system is made active, it fills the work area.



In some cases, the Operator may want to carousel from one system to the next, but needs the connected systems to be larger than the work area. To carousel from one system to the next while filling an area larger than the work area, hold down **SHIFT + CTRL + ALT** and press the **space bar**.

Each time the **space bar** is pressed, the next system is activated and will fill a percentage of the screen. (Figure 7.12)

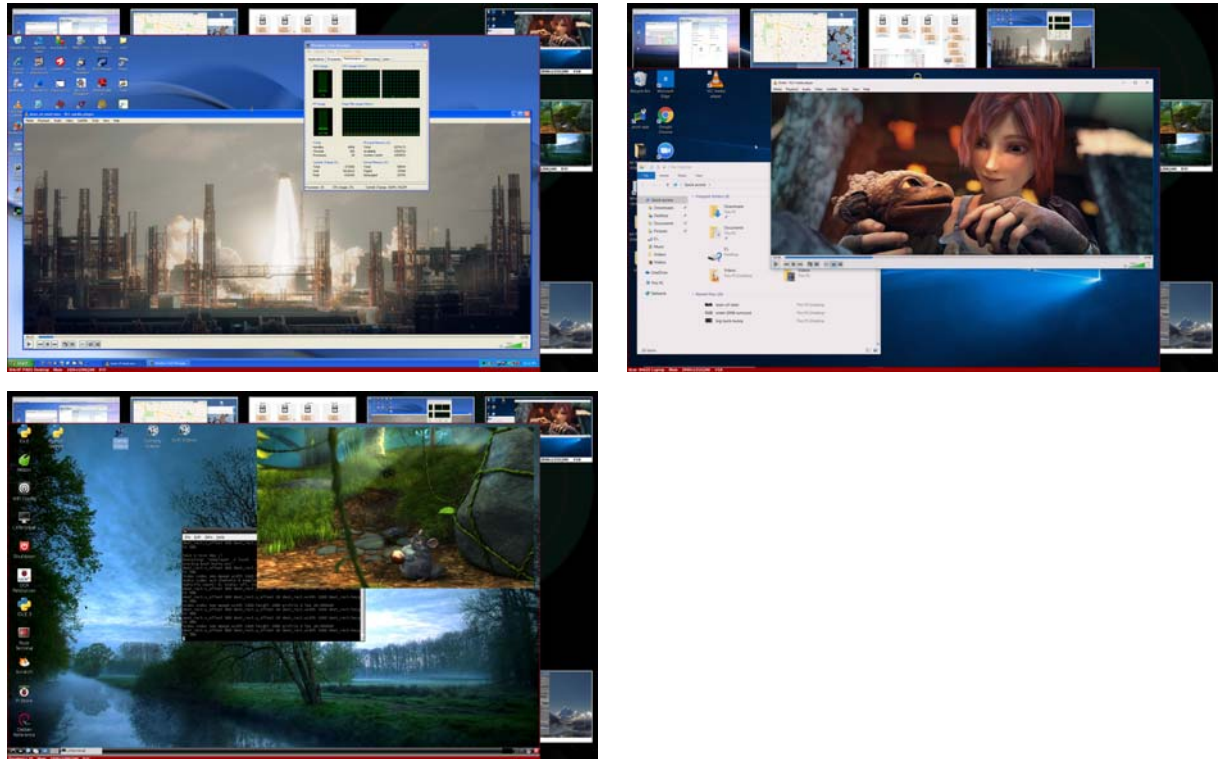


Figure 7.12 Example of Using the Carousel Function

In **Figure 7.12**, each time the **SHIFT + CTRL + ALT + space bar** is pressed, the pro-xi 100 system rapidly switches from the connected system on ISC4 to ISC5 and then to ISC6. Each time the connected system is made active, it fills a percentage of the screen, which allows the active system to overlap the other connected systems.

## Adjusting the Size

You can adjust the size (or percentage of the workspace filled) of the connected systems, so when you carousel through them, and activate them, the activated system fills a greater/lesser percentage of the screen. This can be done from almost any layout whether you have a controlled window open or not.

### To increase the size of a connected system window

1. Press and hold **SHIFT + CTRL + ALT**.
2. Click the right arrow until you arrive at your desired window size.
3. Carousel through the connected systems by pressing and holding **SHIFT + CTRL + ALT** and then pressing the **space bar**.

The percentage of the workspace filled with each activated window increased.

### To decrease the size of a connected system window

1. Press and hold **SHIFT + CTRL + ALT**.
2. Click the left arrow until you arrive at your desired window size.

3. Carousel through the connected systems by pressing and holding **SHIFT + CTRL + ALT** and then pressing the **space bar**.

The percentage of the workspace filled with each activated window decreased.

## Keyboard Control, Keypad Selection

The keypad on the pro-xi 100 system's keyboard can also be used to instantly activate any connected system.

### To activate a specific input computer

1. Press and hold **SHIFT + CTRL**.
2. Press any key on the numeric keypad (**1-8**) to activate a specific computer and fill the available workspace.

### To close the currently active system using the keypad

1. Press and hold **SHIFT + CTRL**.
2. Perform one of the following:

- Press the number **0**.
- Press **ESC**.

### To close the currently active system using a mouse

1. Press and hold **SHIFT**.
2. Right-click the mouse.

# Creating and Using Sub-windows

Sub-windows allow the Operator to create a second window for each of the connected computer systems. The sub-window can be the same size and shape as the original, or the Operator can choose to create a rectangular window spanning any area of the parent window.

Once a sub-window has been created, it behaves like any other window in the pro-xi 100 system — it can be moved anywhere on the display, resized (larger or smaller), and can also be saved as part of a layout. Sub-windows can have any rectangular shape.

Sub-windows can be used to perform a variety of tasks, including:

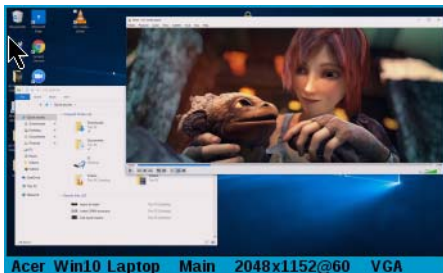
- Mark a small area of text to be enlarged so it is visible from across the room.
  - Highlight a widget, progress bar or other indicator for easier viewing.
  - Focus in on any part of the computer display - even a computers Status Bar or icon tray.
  - Enlarge a digital control, readout or clock for greater visibility.
  - Focus on a specific region of a movie, security camera video or any streaming content.
- ★ Each main window supports one sub-window. If a sub-window already exists when a new sub-window is created, the old sub-window is automatically deleted.

## Creating a Sub-window

### To create a sub-window

1. Position the pro-xi 100 cursor to the upper-left corner of the area on the main window that will form the sub-window.

In the following example, the Operator wants to create a sub-window for the Firefox® and firewall icons.



2. Hold down the right mouse button (the cross-hair cursor will appear) and drag the semi-transparent sub-window overlay to cover the area for the sub-window (as shown below).



- ★ If the position of the sub-window is not correct, release the right mouse button. The cross-hair cursor and sub-window overlay will disappear, giving the Operator the option to try again.

- When the sub-window overlay is positioned and sized correctly, hold down the **CTRL** key when releasing the right mouse button to create the sub-window (as shown below).



When the new sub-window is created, it will be positioned in the center of the display and is ready for the Operator to move and/or resize it. Sub-windows can be created in any rectangular size. The example above shows a sub-window that is wider than it is tall, but sub-windows can also be created that are vertically oriented.

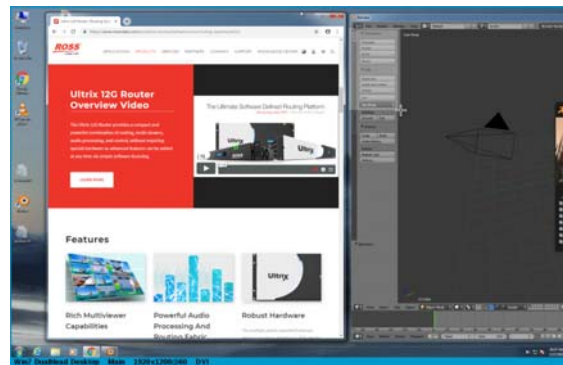


Figure 8.1 Sub-window Example — Vertically Oriented

In **Figure 8.1**, the Operator is creating a vertical sub-window to focus on a section of a menu. The resulting sub-window, after resizing, is shown in **Figure 8.2**.



Figure 8.2 Sub-window Example — Resized



## Moving, Resizing, and Panning Sub-windows

Once the sub-window has been created, it can be moved and resized like any other connected computer system window. Select the sub-window, and then position the cursor at the top of the window to move it, or at the lower-right corner to resize it.

Sometimes when the sub-window is created, the size is correct but the window content just needs to be “nudged” slightly in one or both directions for optimal coverage. **Figure 8.3** shows a sub-window that's been created and enlarged before panning.



*Figure 8.3 Sub-window Example*

To pan the underlying display content of a sub-window, select the sub-window and hold down the left mouse button and drag the image around inside the sub-window until it is positioned correctly. **Figure 8.4** shows the sub-window from above after it was panned downwards.



*Figure 8.4 Sub-window Example — Panned to the Right*

## Creating a Cloned Sub-window

In some cases, the Operator may need to create a copy of a main window that's the same size as the original. To create a sub-window that's an exact copy of a main window, click on the main window to select it and then hold down the **GUI** (the left **Start** button on your keyboard) and press **C**.

When a cloned sub-window is created, it is not positioned in the middle of the display. Instead, it is positioned adjacent to the main window it was cloned from.

## Deleting Sub-windows

To delete a sub-window, select it and then double right-click on it.



# Creating and Using Layouts

Layouts provide an easy way for the Operator to save the current display organization of all connected system windows (including any sub-windows) for later single-key recall.

## Creating a Layout

When a layout is saved, the location on the screen of each window, along with the size and whether or not the window is hidden, is stored into one of the 11 available storage locations. Each of these storage locations are accessed by hitting one of the 12 function keys.

★ The layout on **F1** is reserved to hold the default system layout, and cannot be overwritten with another layout.

### To save a layout using one of the function keys

1. Press and hold down the **SHIFT** key.
2. Press any of the functions keys (**F2 - F12**).

The current screen organization will be saved to that function key.

The layout stored on **F1** will always restore the initial pro-xi 100 system layout. (**Figure 9.1**)



Figure 9.1 Example of Restored Layout

## Using Layouts

Layouts allow the Operator to save the size and position of all connected system windows. **Figure 9.2** shows another layout, where all eight of the connected systems have been organized to be shown as large as possible.

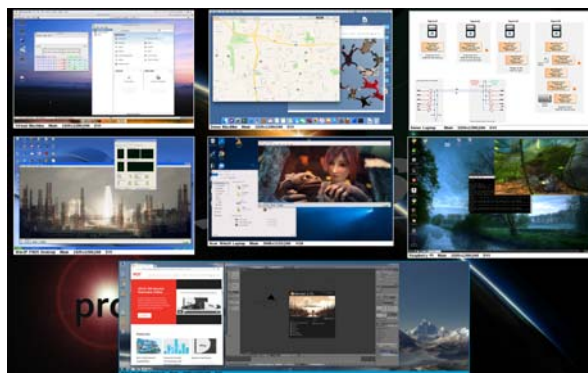


Figure 9.2 Example of a Layout with Eight Connected Systems

As mentioned before, both the main connected system windows and any sub-windows are saved in the layout. **Figure 9.3** all eight sub-windows have been created on top of their associated main windows.



Figure 9.3 Example of a Layout with Eight Connected Systems with Sub-windows

Finally, when a second VOC is installed in the pro-xi 100 system, layouts can span both displays. (**Figure 9.4**)

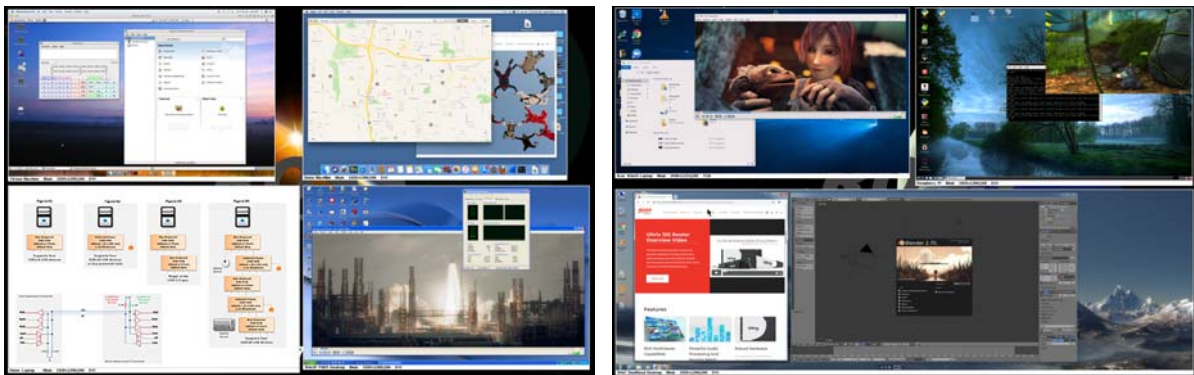


Figure 9.4 Example of Second VOC and Dual Displays

★ To recall a layout, press the corresponding function key (F1 - F12).

# System Menus

This chapter summarizes the system menus for your pro-xi 100 system.

## Status Bar Overview

The Status Bar is used to gain access to the pro-xi 100 system menu operations. When the Status Bar is displayed, the Operator can open menus to:

- Display system health
- Perform firmware, gateway, and software upgrades
- Format USB drives for use in changing configurations
- Shutdown or reboot the pro-xi 100 system

## Using the Status Bar

★ While the Status Bar is displayed and the pro-xi 100 system is in menu mode, the Operator will not be able to take control of any system.

### To reveal the Status Bar

1. Press the **ESC** key on the keyboard to put the pro-xi 100 system into “menu” mode.
2. Press the **ESC** key again will take the system out of menu mode and remove the Status Bar.

Depending on how the Status Bar options have been configured, when the Status Bar is revealed it may appear on the top of the screen or the bottom. It may pop in, fade in, or slide in depending on its animation setting.

Once the Status Bar has been revealed, it will stretch across the entire length of the display, regardless of the VOC output width setting. The Status Bar contains four icons and is shown below:



*Figure 10.1 Example of a Revealed Status Bar*

Clicking on one of the icons will open up the menu for that operation. Since the menus are “modal”, the selected operation must be completed or the Operator must click **Close** before starting the operation. Only after the menu has been closed will the Operator be able to press the **ESC** key to remove the Status Bar and return to being able to control the connected systems.

## Health Menu

The health menu provides a complete listing of all health-related system components, including voltages, temperatures, fan speeds and the status of the AC power supplies and their inputs.

These values are presented in a familiar spreadsheet format with the rear panel and the various cards organized into columns, and the health components being organized into rows. (**Figure 10.2**)

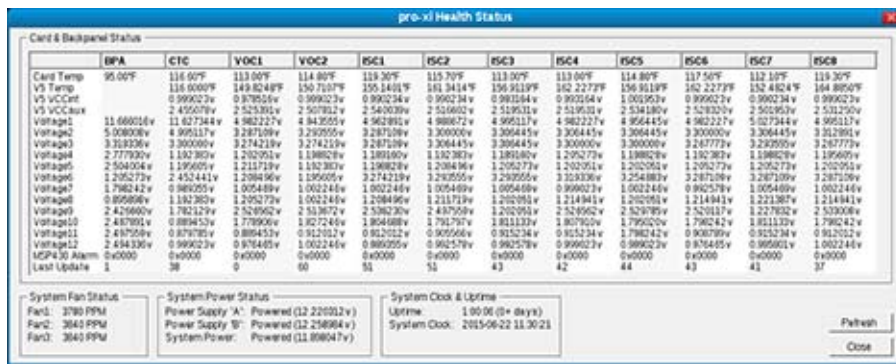


Figure 10.2 Example of a Health Menu

A detail of the left side of the Health Menu showing the monitored health components is shown in Figure 10.3.

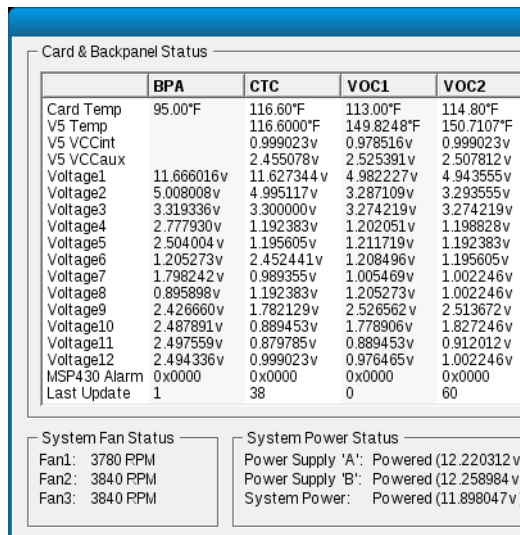


Figure 10.3 Example of a Health Menu — Left Pane

## Using the Health Menu

When the menu is first displayed, a snapshot of all health components is displayed. The Operator can click **Refresh** button at any time to recover a new snapshot, which will be immediately displayed.

The Operator can click **Close** to remove the menu.

## Upgrade Menu

The upgrade menu is used to update the firmware, gateway and software in the pro-xi 100 system, providing Operators new features and enhancements.

When a new release is available, it will be posted on the Ross Video website. The designated personnel at your company will be given login credentials to access and download the new updates.

Each new release will include instructions on how to install it, including which Upgrade Options boxes to check. These options are used to specify which new upgrade components are to be “burned” into the pro-xi 100 system, installing them permanently in the system's non-volatile memory.

## Performing an Upgrade

When the upgrade icon is clicked on the Status Bar, the Upgrade Menu will be displayed (Figure 10.4).



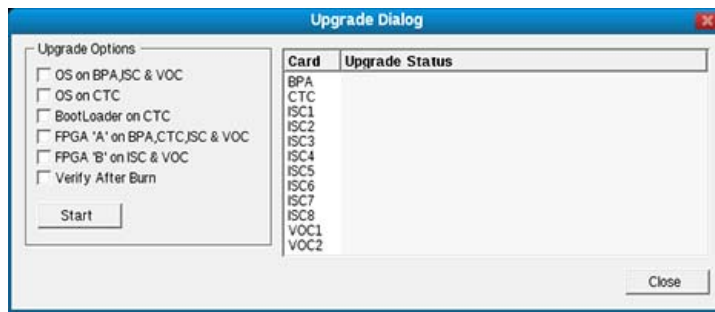


Figure 10.4 Example of an Upgrade Menu

The Upgrade Options section to the left allows the Operator to specify which upgrade options are to be performed. The status area on the right shows the progress of the upgrade operation.

### Selecting the Upgrade Options

After installing the new proxi-app and using it to export the new firmware, gateway, and software files to the pro-xi 100 system, the **Software Release Notes** will contain step-by-step instructions on how to perform the upgrade - including which **Upgrade Options** boxes to select.

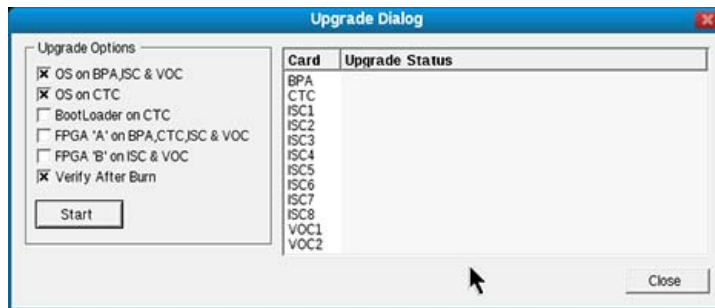


Figure 10.5 Example of Selecting the Upgrade Options

In **Figure 10.5**, options have been checked to install a new Operating System on the BPA, ISC, VOC and CTC card, and to verify the installation after the burn.

- ★ It is recommended that the **Verify After Burn** option be selected every time new firmware, gateway or software upgrades are installed.

### Starting the Upgrade Operation

Once the applicable Upgrade Options are selected, click **Start** to begin the upgrade operation.



Figure 10.6 Example of Confirm Upgrade Operation Dialog

As shown in **Figure 10.6**, the system will display a confirmation menu that provides the Operator one last chance to exit the upgrade operation before it starts. Click **OK** to start the upgrade operation.

Keep the following in mind when upgrading your pro-xi 100 system:

- Before beginning the upgrade process, make sure there is reliable power available for the upgrade operation, which may take as long as 50 minutes. The use of an Uninterrupted Power Supply (UPS) is highly recommended.



**Notice** — If power is lost during the upgrade process, the pro-xi 100 system may become inoperative and need to be returned to the factory to be restored.

- During the upgrade procedure, the pro-xi 100 system will be unavailable for normal operations.

## Status Displayed During the Upgrade Operation

During the upgrade operation, status information will be displayed for each card, as shown in **Figure 10.7**.

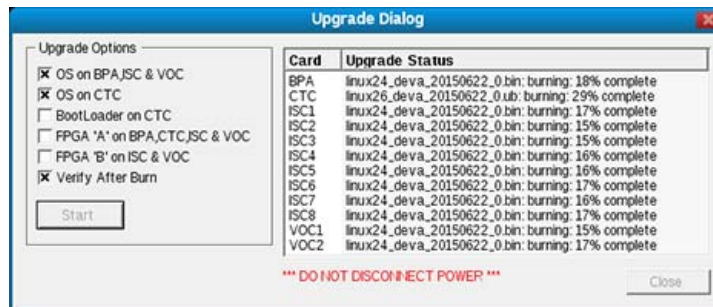


Figure 10.7 Example of the Upgrade Status Dialog

Status information will include:

- downloading of specific files
- downloaded file validation
- non-volatile memory erase operations
- non-volatile memory burn operations
- burn verification

★ It is important to maintain power to the pro-xi 100 system and avoid interfering with the system during the upgrade.

## Completion of the Upgrade Operation

Once the upgrade operation is completed, the status area will report the success of the operation for each of the cards in the pro-xi 100 system, as shown in **Figure 10.8**.

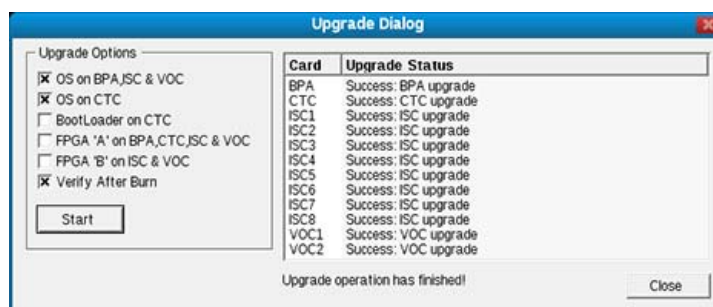


Figure 10.8 Example of the Completed Upgrade Message

If all cards report success, then the Upgrade dialog can be closed and the system can be rebooted for the new upgrades to take effect. The Operator can also choose to continue normal operations (using the existing firmware, gateway, and software) and reboot at a later time.



- ★ You must reboot the pro-xi 100 system for the new features and capabilities to be available, and to remove the previous version.

## USB Format Menu

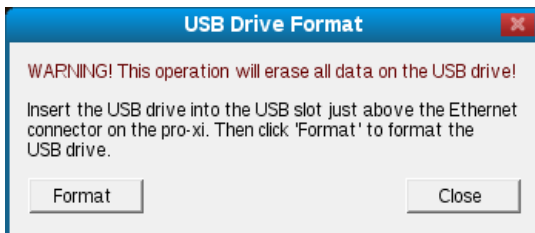
The pro-xi 100 system utilizes USB memory devices in a number of ways:

- To copy files to the pro-xi 100 system from other computer systems
- As a rescue-recovery device to restore the pro-xi 100 system
- To store different configurations that the pro-xi 100 system can boot from

In each of these cases, the USB memory device must first be formatted to a file-system structure that is compatible with the pro-xi 100 system. The USB Format menu is used for this purpose.

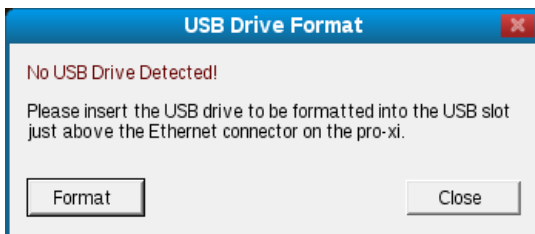
### To format a USB device for use in the pro-xi 100 system

1. Click the **USB** icon on the Status Bar.  
The **USB Drive Format** menu opens.



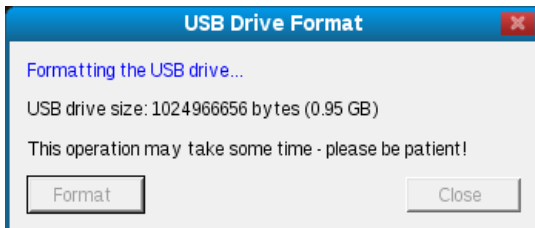
2. Insert a USB device into the bottom USB slot on the back of the pro-xi 100 system.  
★ The USB device should not be any larger than 8GB in size.
3. Click **Format**.

If the USB device is too large, or no USB device is detected, an error message is displayed, as shown below.

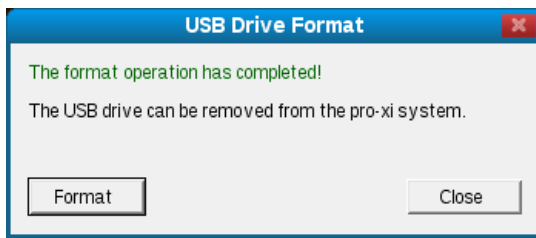


4. When the USB device is detected, the format operation will begin.

Depending on the size of the USB device, the format operation may take several minutes to complete. During the format operation, the following message is displayed.



5. Once the format operation is complete the USB device can be removed from the pro-xi 100 system.
6. Click **Close** to exit the **USB Drive Format** menu.



## System Reboot/Shutdown Menu

The System Reboot / Shutdown menu is used to safely power-down the pro-xi 100 system. This is required to make sure the system preserves its operating environment, logs, system settings and other dynamic components prior to disconnecting power.



**Notice** — If power is disconnected from the pro-xi 100 system before it is safely shutdown, it may become inoperative and need to be returned to the factory to be restored.

## Rebooting the pro-xi 100 System

Click the **Shutdown** icon on the Status Bar to display the System Reboot / Shutdown menu (**Figure 10.9**).

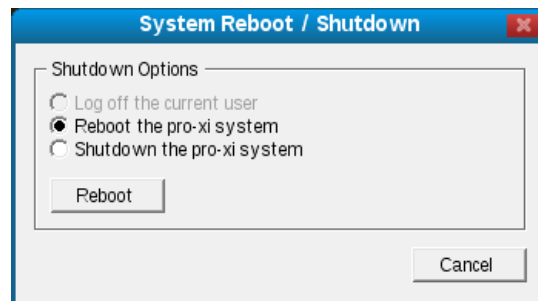


Figure 10.9 System Reboot/Shutdown Dialog.

When the menu is first displayed, the **Reboot** option will be selected. After new firmware, gateway, and software upgrades are installed, the pro-xi 100 system needs to be rebooted. To do this, click **Reboot**. As the system is shut down, the dialog will display a number of status items:

- Closing configuration manager
- Disabling logging
- Saving system logs
- Sending shutdown notifications
- Waiting for files to be written
- Terminating psmfm
- Setting eUSB to safe mode
- Unmounting the eUSB drive
- eUSB unmounted
- System halted — safe to disconnect power!

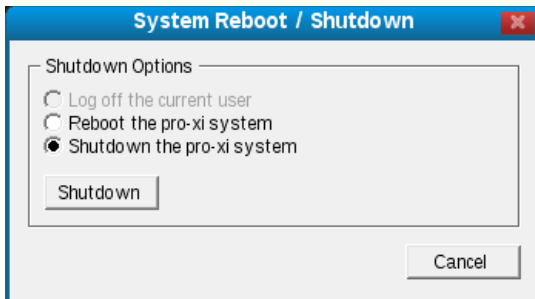
Once the last item is displayed, the pro-xi 100 system will begin the reboot sequence. This is characterized by the system fans all spinning up to maximum cooling capability.

## Shutting Down the pro-xi 100 System

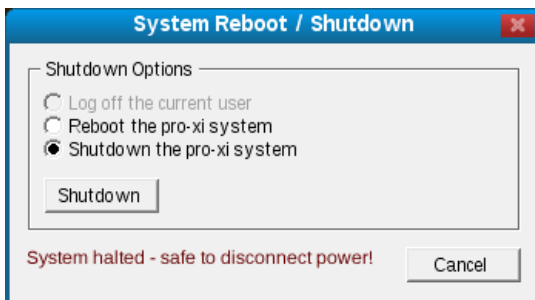
Prior to disconnecting power to the pro-xi 100 system, it needs to be shut down.

### To shut down the pro-xi 100 system

1. From the System Reboot/Shutdown menu, select **Shutdown the pro-xi system**.
2. Click **Shutdown**.



3. As the system is shut down, the dialog displays the same status items as when the system is being rebooted.
4. Once the shutdown sequence is complete, the system will indicate that it is safe to disconnect power.





# Installing the proxi-app Utility

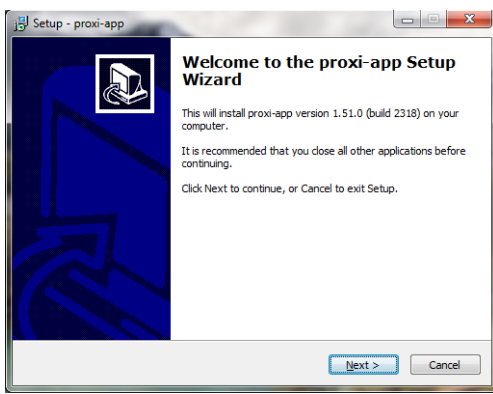
The proxi-app utility can be installed on any computer system running the Microsoft® Windows® XP, Windows® Vista, Windows® 7, Windows® 8, and Windows® 10 operating systems.

- ★ After the installation is complete you can launch the proxi-app utility and utilize it to create or edit configurations for your pro-xi 100 system. Refer to “**Creating a New Configuration**” on page 55 for additional information.

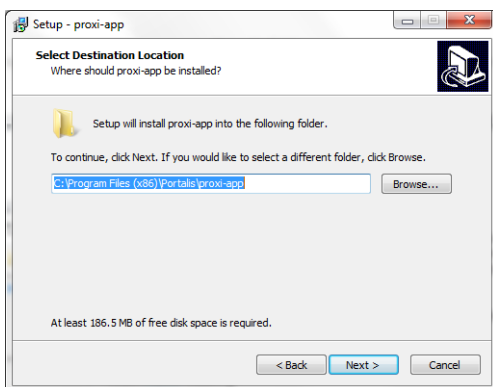
## To install the proxi-app utility

1. Navigate to the Ross Video website and download the latest install file.
2. Copy the downloaded install file to a known location on your computer system.
3. Double-click the install file to execute it.

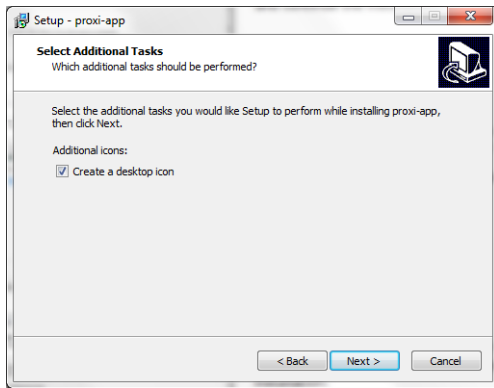
The **Setup proxi-app** dialog opens.



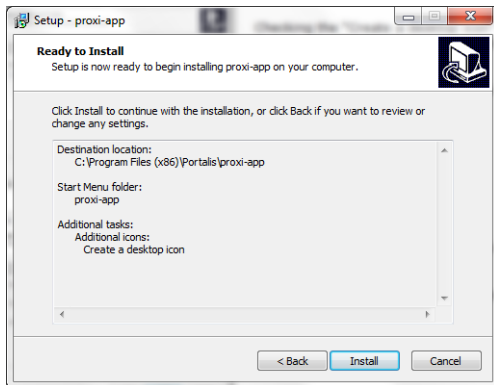
4. Click **Next**.
  5. On the **License Agreement** dialog, review the text and click **Next** to continue the installation.
  6. Use the **Destination Location** dialog to choose a location on your system to install the proxi-app utility.
- ★ We recommend using the default setting to remain compatible with future versions of this utility.



7. Click **Next** to accept the specified destination location and continue the installation.
8. If required, use the **Start Menu Folder** dialog to name your desktop shortcut to something other than proxi-app utility.
9. Click **Next** to accept the specified shortcut name and continue the installation.
10. On the **Additional Tasks** dialog, selecting the **Create a desktop** will add the proxi-app shortcut icon to your desktop during installation.



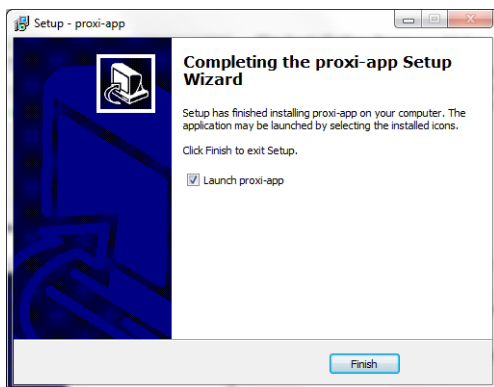
11. Click **Next** to continue the installation.
12. Use the **Ready to Install** dialog to confirm the selections you made during the installation wizard.



13. Click **Next** when you are ready to start the software installation.
14. Use the **Installation Progress** dialog to monitor the installation.

During software installation, cursor files, font files, FPGA binary files, Linux® operating system binary files, and wallpaper images are copied over to your system.

15. Once the installation has completed:
  - a. Leave the **Launch proxi-app** box selected.
  - b. Click **Finish** to exit the software installation.




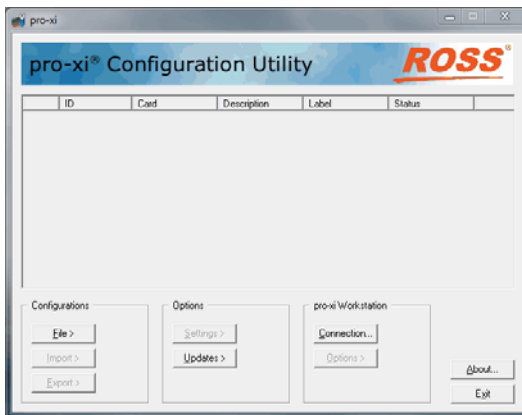
# Creating a New Configuration

After installing the proxi-app utility in the previous chapter, you can now launch the utility and utilize it to create or edit configurations for your pro-xi 100 system.

## Launching the proxi-app Utility

### To launch the proxi-app utility

1. Locate the  icon on the Microsoft® Windows® desktop.
2. Double-click the icon to display the proxi-app dialog.



## Creating a New Configuration

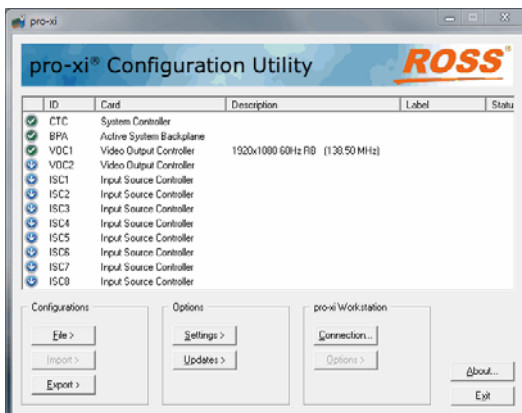
The process of creating a new configuration involves:

- Enabling the video output card(s) and specifying the output resolution for the pro-xi 100 system
- Enabling the input system card(s) and selecting their video sources and resolutions
- Specifying the network parameters (such as its IP address and netmask) for the pro-xi 100 system
- Exporting the configuration to the pro-xi 100 across the network or with a USB drive

### To create a new pro-xi 100 system configuration





- Click **File > New**.

The new configuration will be created, loaded, and displayed in the card inventory list:



The card inventory list shows configuration information for each card that can be installed into a pro-xi 100 system. The first column contains icons indicating the associated card's status:

**Table 12.1 Card Status Icons**

Icon	Description
	Card is enabled and operational
	Card is disabled
	Card is enabled, but has operational issues
	Card is enabled, but has experienced errors

The second column displays the card's abbreviated ID, and the third column displays the card's functional name. The fourth column displays the card's input video source and resolution, while the fifth column displays the card's label - which is the text displayed in the frame surrounding the card's primary and sub windows. Finally, the sixth column displays information regarding the card's current status.

## Configuring the Video Output Cards (VOC)

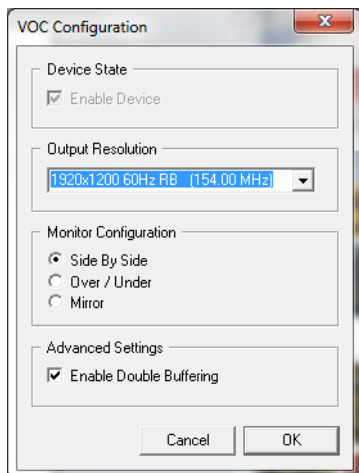
The first step in creating a new configuration is to enable the VOC card(s) and select a video output resolution.

Every pro-xi 100 system has one Video Output Card (VOC) installed, and a second VOC card can be added as an option to provide dual-screen, dual-head and dual-operator capabilities. The VOC card provides a DVI output (single-link or dual-link, depending on the selected video resolution) that connects to the Operator's computer displays using standard DVI cables.

### To configure the VOC cards

1. Double-click the **VOC1** or **VOC2** entry in the card list.

The **VOC Configuration** dialog opens.



- ★ Because every pro-xi 100 system requires at least one VOC card, the **Enable Device** box will always be selected for VOC1, and cannot be cleared.
2. To enable a second VOC card, click **Enable Device**.
  3. Once the VOC card(s) are enabled, the output resolution must be selected. Refer to “**Technical Specifications**” on page 109 for a list of all supported input and output resolutions.



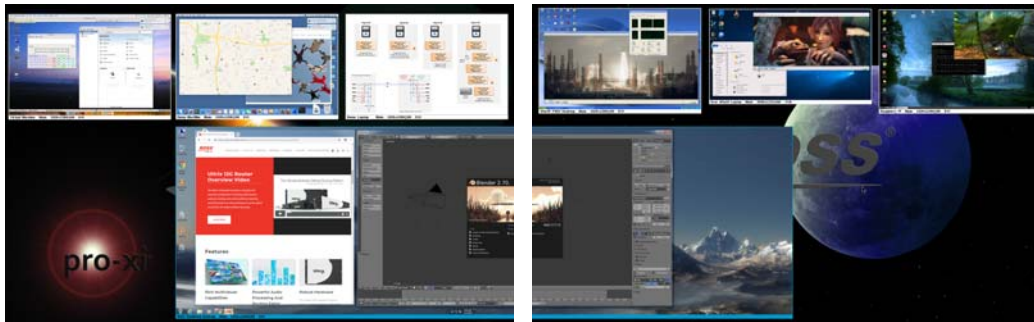
★ If two VOC cards are installed and enabled in a system, changing the output resolution on one VOC card will automatically set the other VOC card to the same resolution.

4. If two VOC cards are installed in the system, configure the video output. Choose from the following:

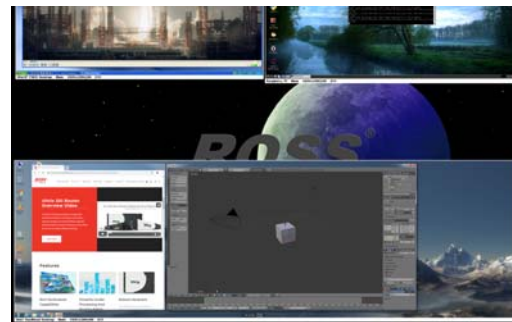
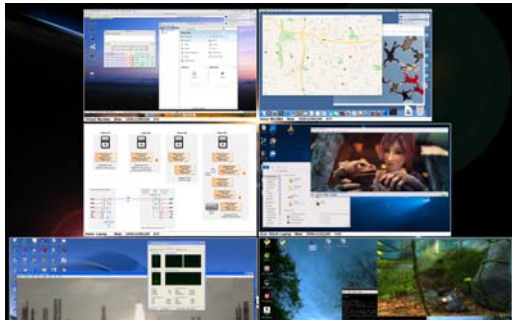
- **Mirror** — In this mode, the video feeding the left monitor from VOC1 is simply mirrored over on VOC2.



- **Side by Side** — In this mode, VOC1 feeds the left display and VOC2 feeds the right display. The video canvas stretches across both monitors horizontally, giving the Operator a wide area to work in.



- **Over/Under** — In this mode, VOC1 feeds the upper monitor and VOC2 feeds the lower monitor. The video canvas stretches across both monitors vertically, giving the Operator a tall area to work in.



5. Verify that:

- the VOC card is enabled,

- the output resolution selected, and
  - the monitor configuration is set.
6. Click **OK** to accept the new VOC settings.



---

**Notice** — Do not enable a VOC card that is not installed in your system or the pro-xi 100 system may not operate properly.

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## Configuring the Input System Cards (ISC)

The second step in creating a new configuration is to enable each ISC card, select its input video source, system type, input resolution options, and provide a system label.

### EDID Support

The pro-xi 100 system supports the Extended Display Identification Data (EDID) protocol. Each ISC card in the pro-xi 100 system appears to the external computer system as just another monitor, and just like a monitor will provide an EDID data block to the computer system that describes the video parameters it supports.

If auto-res is enabled, then the resolution selected in the drop-down list will appear in the EDID information as the 'preferred' resolution to be used, even though the ISC card will lock to any input resolution. This preferred resolution in the EDID table will help the external computer system to run at the desired resolution.

If auto-res is not enabled, then the resolution selected in the drop-down list appears in the EDID information as the preferred resolution, as well as being the only resolution the ISC card will lock to.

### Configuring the ISC Cards

Every pro-xi 100 system has at least two Input System Cards (ISC) installed. The ISC cards provide the interface to the external computer system or KVM receiver that is to be controlled and accessed by the pro-xi 100 system. The external computer system is connected to the ISC card using:

- DVI video is connected directly to the ISC's DVI video connector
- HDMI video is connected through an inexpensive HDMI-to-DVI adapter to the ISC's DVI video connector
- VGA video is connected through an inexpensive VGA-to-DVI adapter to the ISC's DVI video connector
- Keyboard and mouse are connected using USB A/B cables
- Stereo audio is connected using 3.5mm stereo audio cables

#### To configure the ISC cards

1. Double-click the ISC entry in the card inventory list to be configured.

The **ISC Configuration** dialog opens.

2. To enable the ISC card, click **Enable Device**.
3. Use the **Device Label** to assign a name or ID that uniquely identifies the system that will be connected to this ISC. This label will appear on the pro-xi 100 system's screen in the frame that surrounds the system, making it easy to know which system is which. If the name is not known at this time, you can leave it as undefined, change it to input #1, etc.
4. Select the video input source.

The ISC video input can be from a DVI source, or from an HDMI or VGA source through inexpensive adapters. If the input source is known and will not change often, select the DVI option for DVI or HDMI input sources, or VGA for analog VGA sources. The pro-xi 100 system can also auto-sense which kind of video source is present, and selecting Auto-Sense enables this feature - and is the recommended setting for this feature.

5. Select the input resolution.

Just like the auto-sense feature, the pro-xi 100 system can detect the input video resolution and automatically lock to it. This feature is enabled by selecting **Enable Auto-Res**. If left unselected, the input resolution is selected from the drop-down list, and will be the only resolution that will be locked to. Selecting Enable Auto-Res is the recommended setting for this feature.

6. Select the input type. The input type describes the kind of external computer system being connected to the pro-xi 100 system. Choose from the following:
  - **System** — This option is used when connecting an external computer system with a single video output. This is the most common option.
  - **Dual-Head System - Left Display** — This option is used when connecting an external computer system that has dual outputs, and the ISC card is being connected to the left display.
  - **Dual-Head System - Right Display** — This option is used when connecting an external computer system that has dual outputs, and the ISC card is being connected to the right display.
  - **Static Image** — This option is used to display a static image on the ISC card. When this option is selected, no input video from the external system will be seen; instead the **Browse** button is enabled and the user can select a standard BMP image file.
7. After the ISC card has been enabled, its label entered, its input source and input resolution selected, and the input type is set, click **OK** to accept the new ISC settings.
8. Repeat these steps for each of the ISC cards installed in your system.



---

**Notice** — Do not enable an ISC card that is not installed in your system or the pro-xi 100 system may not operate properly.

---

## Specifying the Network Settings

The third step in creating a new configuration is to specify the systems network parameters, such as IP address, netmask, gateway, etc.

The pro-xi 100 system does not require a network connection for normal operation, so this step is optional. However, being able to transfer updated configurations, software updates, license files, etc. across the network is the easiest and most efficient way of updating the pro-xi 100 system. In addition, a network connection provides additional capabilities:

- Existing configurations can be imported from the of the pro-xi 100 system, and configurations can be moved from one system to another.
- Product information and build data can be retrieved and displayed
- The inventory of the pro-xi 100 system can be retrieved and displayed
- The real-time clock of the pro-xi 100 system can be set and adjusted.
- System status reports can be retrieved for troubleshooting and remote diagnostics.

### To configure the network settings

1. Click **Settings > Network**.

The **Network Settings** dialog opens.



2. Enter the IP address and netmask for the pro-xi 100 system in their associated fields.  
These are the only two fields that are required for proper network operation.
3. If you have the IP addresses for the network gateway, DNS name servers and a preferred host name, they can also be entered here.
4. Once the required IP address and netmask fields have been set, as well as any of the optional fields, click **OK** to accept the new network settings.

## Saving the New Configuration

After configuring the VOC and ISC cards, the card inventory list should look similar to **Figure 12.1**.

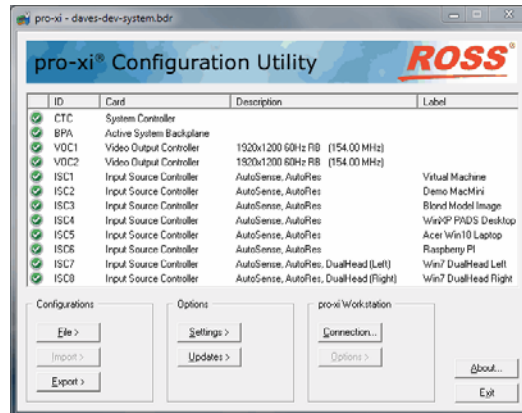


Figure 12.1 Example of a Valid Configuration List

### To save this configuration

1. Click **File > Save As...**  
The **File** dialog opens.
2. Enter a filename to assign to the configuration.
3. Click **OK**.

You are now ready to export the configuration to the pro-xi 100 system. If this is the first time a configuration is exported to the pro-xi 100 system (or the system is not connected to the network), then follow the instructions found in “**Exporting a Configuration via USB**” on page 63.

If the pro-xi 100 system is connected to the network, you can more easily and efficiently export the configuration following the instructions found in “**Exporting a Configuration Across the Network**” on page 67.

If you want to test the new configuration before exporting it, follow the instructions in “**Testing a Configuration Using a USB Drive**” on page 61.

# Testing a Configuration Using a USB Drive

This chapter describes how to format and create a USB drive that can be used to export the pro-xi 100 system.

## Before You Begin

When the pro-xi 100 system boots at power-up, it normally utilizes an internal USB drive that holds all the files needed for the system to operate:

- The system configuration file
- The video resolutions file
- Cursors, fonts, skins and sound files
- Images used on ISC cards
- Background wallpaper

When a configuration is exported to the pro-xi 100 system, the various configuration files are written to the internal USB drive, and then when the system is rebooted, it utilizes the new files.

However, it is also possible to boot the pro-xi 100 system using an external USB drive that has been written with these same files. When the pro-xi 100 system boots, it first looks to see if there is an external USB drive inserted into the system; if one is found, it boots using this USB drive rather than the internal USB drive. In this manner, new configurations can be created, written to a USB drive, and tested without altering the original configuration information written to the internal USB drive of the pro-xi 100 system. If the configuration is faulty for whatever reason, simply removing the USB drive and re-booting the pro-xi 100 system will restore the original configuration.

After the configuration has been tested, it can be exported to the pro-xi 100 system using a USB drive (see “**Exporting a Configuration via USB**” on page 63) or across the network (see “**Exporting a Configuration Across the Network**” on page 67).

## Formatting and Creating a Bootable USB Drive

To create a bootable USB drive, it must first be formatted with the FAT16 file system.

### To format a USB drive

1. Insert a USB drive that is 8GB or less in size into any Microsoft® Windows® XP, Windows® Vista, Windows® 7, Windows® 8, or Windows® 10 system.
2. Once the drive appears in the dialog, right-click it.
3. Click **Format...** to display the **Windows® Format** menu.
4. Make sure that FAT is selected for the file system.
5. Click **Start** to begin the formatting operation.

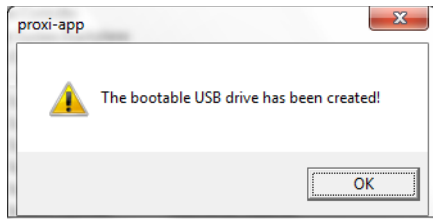
### To create a bootable USB drive

1. Click **File > Open**.
2. Select the configuration you wish to export to the bootable USB drive.
3. Click **Export > Create Bootable USB Drive**.
4. Select the drive (formatted in the previous procedure “**To format a USB drive**”) from the list:
5. Select the formatted USB drive.
6. Click **OK**.

All necessary files will be copied to the USB drive and the **Export Configuration Fileset** status dialog opens.

★ This operation will take a few minutes.

7. Once all files have been copied to the USB drive, the proxi-app utility dialog opens to indicate the USB drive has been created.



8. Eject the USB drive to ensure all files are written to the drive before removal:
  - a. Return to the Microsoft Windows drive listing.
  - b. Select the bootable USB drive from the list.
  - c. Click **Eject or Safely Remove Drive**.

## Insert the USB Drive

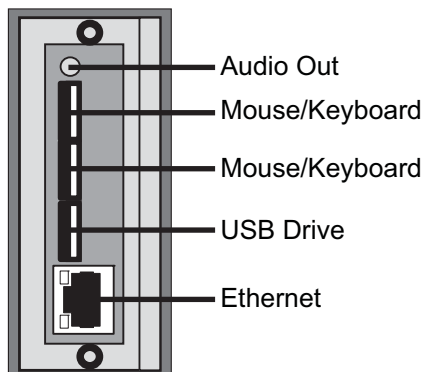
Before proceeding, ensure the pro-xi 100 system is powered down.

### To power down the system

1. If the system is currently running, use the **System Reboot / Shutdown** menu, to execute a safe system shutdown. Refer to the section “**System Reboot/Shutdown Menu**” on page 50 for details.
2. After the pro-xi 100 system indicates it is safe to remove power, disconnect power to both AC inputs on the rear of the chassis.

### To insert the USB Drive

1. Insert the USB drive into the CTC card in the **USB3** slot, which is just above the Ethernet port.



2. Apply power to the pro-xi 100 system by connecting power to both inputs on the rear of the chassis.

# Exporting a Configuration via USB

This chapter outlines the process of using a USB drive to export a configuration to the pro-xi 100 system.

## Before You Begin

Once a configuration is created or updated, it must be exported to the pro-xi 100 system. When exporting a configuration using a USB drive, the process involves writing the configuration onto a USB drive and then rebooting the pro-xi 100 system with the USB drive inserted in the system.

During the boot process, the pro-xi 100 system will detect the USB drive with the updated configuration has been inserted, and copy all configuration files over to the internal USB drive. After all files are copied, the USB drive is removed and the pro-xi 100 system is restarted to utilize the new configuration.

★ When exporting a configuration using a USB drive, the old configuration is over-written and replaced with the new one.

## Formatting a USB Drive for Exporting

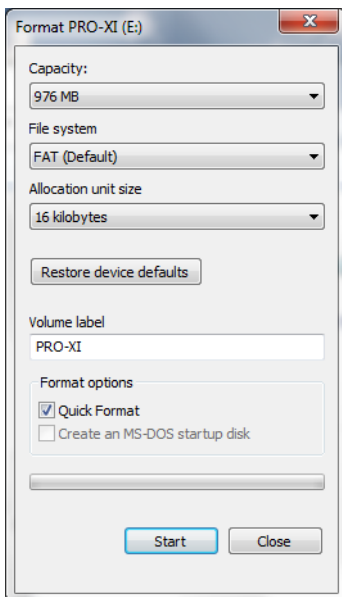
To create a USB drive for export, it must first be formatted with the FAT16 file system.

### To format a USB Drive for exporting

1. Insert a USB drive that is 8GB or less in size into any Microsoft® Windows® XP, Windows® Vista, Windows® 7, Windows® 8, or Windows® 10 system.

After a few moments, the USB drive will appear on the computer as a **Removable Storage** device. In some cases, Windows® will automatically install a device driver to support the USB drive.

2. Right-click on the USB drive.
3. Click **Format** to open the **Format** menu.



4. Make sure that **FAT** is selected for the file system.
5. If the **Quick Format** option is available, it can be selected to speed up the format operation.
6. If required, specify a **Volume Label** to describe the USB device.

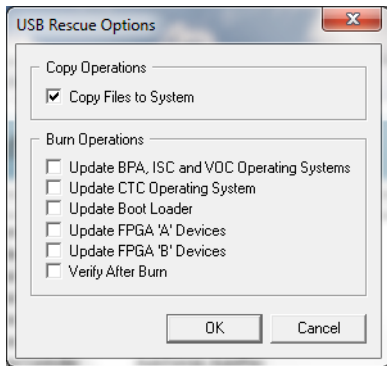


7. Once the settings are selected, click **Start** to begin the formatting operation.
8. When the format operation is complete:
  - a. Click **OK** to close the **Complete** dialog.
  - b. Click **Close** to close the **Format** menu.

## Creating a USB Drive for Exporting

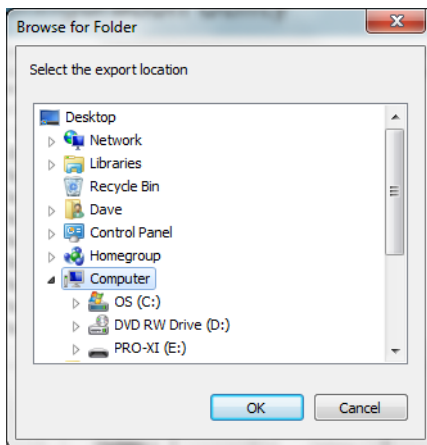
### To create a USB drive for export

1. Click **File > Open**.
2. Select the configuration you wish to export to the USB drive.
3. Click **Export > Create Rescue USB Drive** to display the **USB Rescue Options** dialog.



4. Select the **Copy Files to System** box.
5. Confirm that none of the boxes in the **Burn Operations** area are checked.
6. Click **OK** to accept these settings.

The **Browse for Folder** dialog opens.



7. Select the formatted USB drive.
8. Click **OK**.

All necessary files will be copied to the USB drive and the **Export Configuration Fileset** dialog opens.

★ This operation will take several minutes.

9. Once all files have been copied to the USB drive, the **proxi-app** dialog opens to indicate the USB drive has been created.



10. Eject the USB drive to ensure all files are written to the drive before removal:
  - a. Return to the Windows® drive listing.
  - b. Select the USB drive in the list.
  - c. Click **Eject or Safely Remove Drive**.

## Inserting the USB Drive

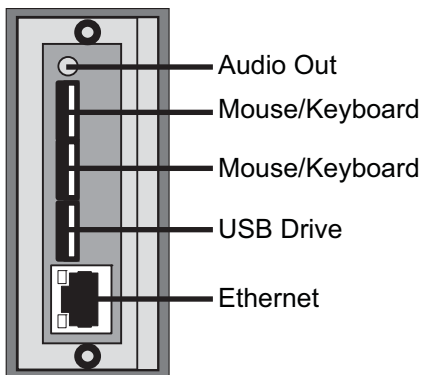
Before proceeding, ensure the pro-xi 100 system is powered down.

### To power down the system

1. If the system is currently running, use the **System Reboot / Shutdown** menu, to execute a safe system shutdown. Refer to the section “**System Reboot/Shutdown Menu**” on page 50 for details.
2. After the pro-xi 100 system indicates it is safe to remove power, disconnect power to both AC inputs on the rear of the chassis.

### To insert the USB Drive

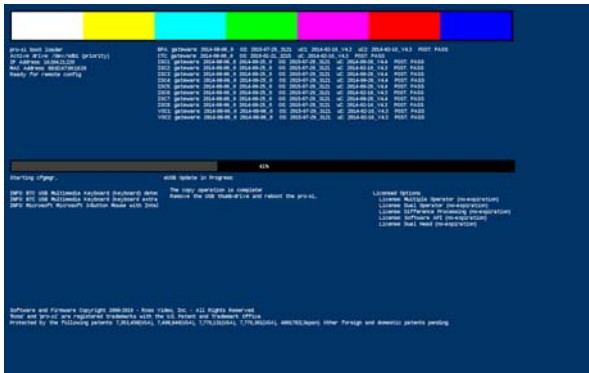
1. Insert the USB drive into the CTC card in the **USB3** slot, which is just above the Ethernet port.



2. Apply power to the pro-xi 100 system by connecting power to both inputs on the rear of the chassis.
3. As the pro-xi 100 system boots, the boot screen will display.
4. At approximately the 40% point, the configuration copy operation will begin.



5. When the configuration copy operation is complete, the boot screen will indicate this status and prompt the user to remove the USB drive and reboot the pro-xi 100 system.



6. Disconnect power to both AC inputs on the rear of the chassis.
7. Remove the USB drive.
8. After the USB drive has been removed and power has been off for a minimum of 10 seconds, re-apply power to both AC inputs on the rear of the chassis.

The pro-xi 100 system will reboot using the updated configuration.

# Exporting a Configuration Across the Network

Once a configuration has been created or updated, it must be exported to the pro-xi 100 system. When exporting a configuration across the network, the process involves creating or opening a connection to the target pro-xi 100 system, copying the files across the network, and then rebooting the pro-xi 100 system to use the updated configuration.

- ★ When exporting a configuration across the network, the old configuration is over-written and replaced with the new one.

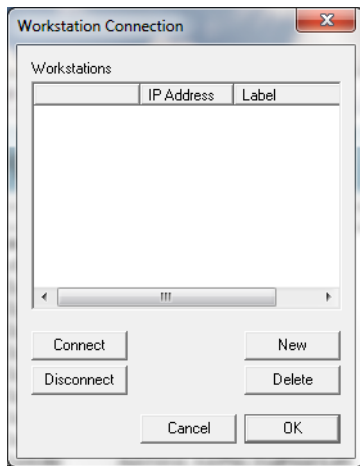
## Creating a Network Connection

The first step in exporting a configuration across the network is to create a network connection to the pro-xi 100 system. If a network connection for the target pro-xi 100 system already exists, this step can be skipped and you can proceed to “**Opening a Network Connection**” on page 68.

- ★ These steps only need to be done once, for each pro-xi 100 system in use. After the network connection entry has been created, the connection can now be opened.

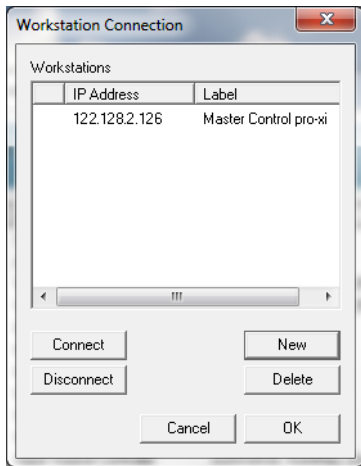
### To create a network connection

1. Click **Connection...** to open the **Workstation Connection** dialog.



2. Click **New** to open the **Add Workstation** dialog.
3. Enter the IP address assigned to the pro-xi 100 system in the IP Address control, and provide a label to make identifying the system easier.
4. Click **OK** to accept the settings.

The new network connection entry displays.

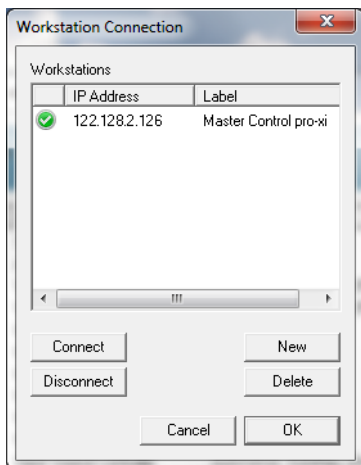


## Opening a Network Connection

★ Before opening a network connection to a pro-xi 100 system, make sure it is powered on and has completed its boot-up operation.

### To open a network connection

1. Ensure the pro-xi 100 system network connection has been created as outlined in the previous section.
2. Connect to the pro-xi 100 system by clicking on the entry in the list for the target pro-xi 100 system.
3. Click **Connect**.
4. If the network connection is successfully established, a green check-mark displays.



5. Once the network connection is established, proceed to “**Exporting the Configuration**”.

## Exporting the Configuration

### To export a configuration across the network

1. Click **File > Open**.
2. Select the configuration you wish to export.
3. Click **Export > Export fileset to remote system**.

The **Remote Export Options** dialog opens.



4. When exporting a new configuration, only the **Export Configuration Files** entry needs to be selected.
5. If static images were selected for any of the ISC cards, the **Export System Files** entry should also be selected.
6. Click **OK** to accept the settings and begin the export operation.
7. Use the **Export Configuration Fileset** dialog to monitor the export progress.  
After the files are exported to the pro-xi 100 system, the **Completion** dialog opens.
8. Click **OK** to close the dialog.
9. Once the updated configuration is exported to the pro-xi 100 system, you must reboot the system so that it will utilize the updated configuration. To execute a safe system shutdown, refer to “**System Reboot/Shutdown Menu**” on page 50.
10. After the pro-xi 100 system indicates it is safe to remove power, disconnect power to both AC inputs on the rear of the chassis and wait a minimum of 10 seconds before re-connecting power to both AC inputs.

The pro-xi 100 system will reboot using the updated configuration.



# System Upgrades via a USB

The pro-xi 100 system is based on Field Programmable Gate Array (FPGA) technology, which means that not only can new software features be added in the field, but new hardware features can as well. The data used to initialize the FPGA devices are stored in non-volatile memory, and these memory devices also hold the Linux® operating system software images that drive and operate the pro-xi 100 system.

## Before You Begin

During the boot process, the pro-xi 100 system will detect the USB drive with the system upgrades has been inserted, and will first copy all files and data over to the internal USB drive. After the copy operation is completed, the data and Linux images are burned into the non-volatile memory. Once these memory devices are updated, the pro-xi 100 system is restarted to utilize the new hardware and software upgrades.

Before beginning the upgrade process:

- ★ Make sure there is reliable power available for the 45-minute (approximate) upgrade time frame. The use of an Uninterrupted Power Supply (UPS) is highly recommended.



**Notice** — *If power is lost during the upgrade process, the pro-xi 100 system may become inoperative and need to be returned to the factory to be restored.*

- ★ During the upgrade procedure, the pro-xi 100 system will be unavailable for normal operations.

## Formatting a USB Drive for System Upgrades

To create a USB drive for export, it must first be formatted with the FAT16 file system.

### To format a USB Drive for exporting

1. Insert a USB drive that is 8GB or less in size into any Windows® XP, Windows® Vista, Windows® 7, Windows® 8, or Windows® 10 system.

After a few moments, the USB drive will appear on the computer as a **Removable Storage** device. In some cases, Windows® will automatically install a device driver to support the USB drive.

2. Right-click on the USB drive.
3. Click **Format** to display the **Format** menu.
4. Make sure that **FAT** is selected for the file system.
5. If the **Quick Format** option is available, it can be selected to speed up the format operation.
6. If required, specify a Volume Label to describe the USB device.
7. Once the settings have been selected, click **Start** to begin the formatting operation.
8. When the format operation is complete:
  - a. Click **OK** to close the **Complete** dialog.
  - b. Click **Close** to close the **Format** menu.

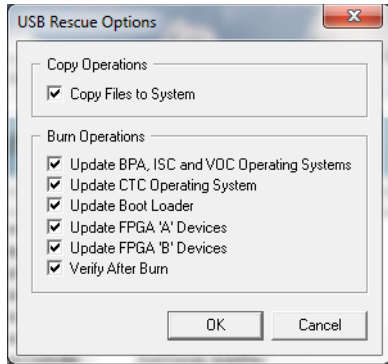
## Creating a USB Drive for System Upgrades

The procedure for performing a system upgrade using a USB drive involves writing all system files onto a USB drive and then rebooting the pro-xi 100 system with the USB drive inserted in the system — similar to the way updated configurations are installed with a USB drive.

### To create a USB drive for system upgrades

1. Click **File > Open**.
2. Select the configuration you wish to export as part of the system upgrade to the USB drive.
3. Click **Export > Create Rescue USB Drive**.

The **USB Rescue Options** dialog opens.



4. Confirm that **Copy Files to System** is selected, so the latest system upgrades will be copied to the pro-xi 100 system.
5. Ensure that all boxes in the **Burn Operations** section are selected. This will ensure that all FPGA files, Linux® operating system files and the boot loader are all burned into non-volatile memory.
6. Click **OK** to accept these settings.

The **Browse** dialog opens.

7. Select the formatted USB drive.
8. Click **OK**.

All necessary files will be copied to the USB drive and the **Export Configuration Fileset** status dialog opens.

★ This operation will take several minutes.

9. Once all files have been copied to the USB drive, a dialog displays to indicate the USB drive was created.
10. Eject the USB drive to ensure all files are written to the drive before its removal:
  - a. Return to the Windows® drive listing.
  - b. Select the USB drive in the list.
  - c. Click **Eject or Safely Remove Drive**.

## Inserting the USB Drive

Before proceeding, ensure the pro-xi 100 system is powered down.

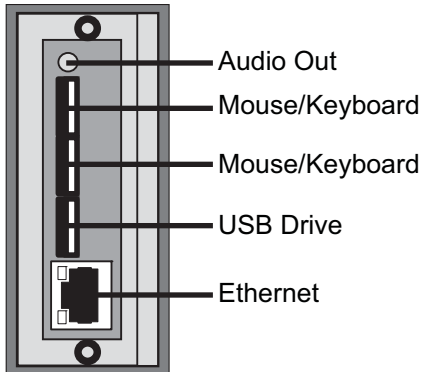
### To power down the system

1. If the system is currently running, use the **System Reboot / Shutdown** menu, to execute a safe system shutdown. Refer to the section “**System Reboot/Shutdown Menu**” on page 50 for details.
2. After the pro-xi 100 system indicates it is safe to remove power, disconnect power to both AC inputs on the rear of the chassis.

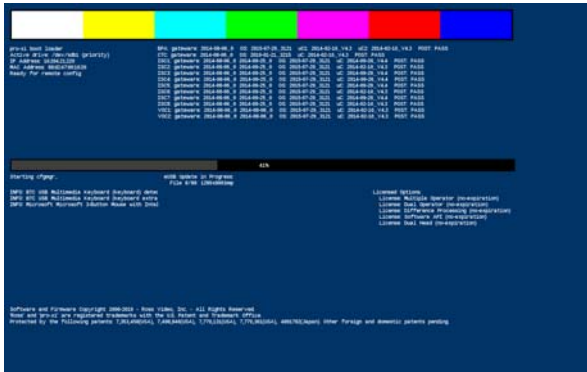


## To insert the USB Drive

1. Insert the USB drive into the CTC card in the **USB3** slot, which is just above the Ethernet port.



2. Apply power to the pro-xi 100 system by connecting power to both inputs on the rear of the chassis.
3. As the pro-xi 100 system boots, the boot screen is displayed.
4. At approximately the 40% point, the configuration copy and burn operation begins.



5. When the configuration copy and burn operation is complete, the boot screen will indicate this status and prompt the user to remove the USB drive and reboot the pro-xi 100 system.



6. Disconnect power to both AC inputs on the rear of the chassis.
7. Remove the USB drive.
8. After the USB drive has been removed and power has been off for a minimum of 10 seconds, re-apply power to both AC inputs on the rear of the chassis.

The pro-xi 100 system will reboot using the updated configuration.



# System Upgrades via a Network

The pro-xi 100 system is based on Field Programmable Gate Array (FPGA) technology, which means that not only can new software features be added in the field, but new hardware features can as well. The data used to initialize the FPGA devices are stored in non-volatile memory, and these memory devices also hold the Linux® operating system software images that drive and operate the pro-xi 100 system.

The procedure for performing a system upgrade across the network involves creating or opening a connection to the target pro-xi 100 system, copying the files across the network, and starting the system upgrade process from the keyboard so the gateway data and Linux images are burned into the non-volatile memory. Once these memory devices are updated, the pro-xi 100 system is restarted to utilize the new hardware and software upgrades.

## Before You Begin

Before beginning the upgrade process:

- Make sure there is reliable power available for the 45-minute (approximate) upgrade time frame. The use of an Uninterrupted Power Supply (UPS) is highly recommended.



**Notice** — If power is lost during the upgrade process, the pro-xi 100 system may become inoperative and need to be returned to the factory to be restored.

- During the upgrade procedure, the pro-xi 100 system will be unavailable for normal operations.

## Creating a Network Connection

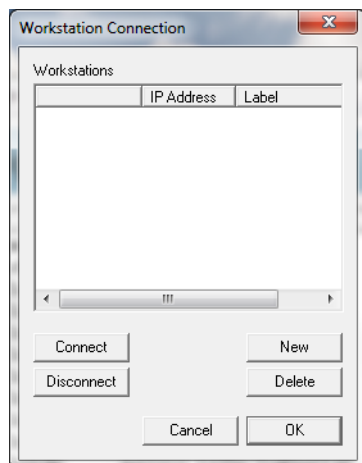
The first step in performing a system upgrade across the network is to create a network connection to the pro-xi 100 system. If a network connection for the target pro-xi 100 system already exists, this step can be skipped and you can proceed to “**Opening a Network Connection**” on page 76.

- ★ These steps only need to be done once for each pro-xi 100 system in use. After the network connection entry is created, the connection can be opened.

### To create a network connection

1. Click **Connection**.

The **Workstation Connection** dialog opens.

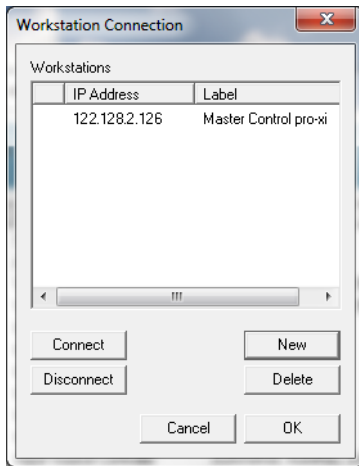


2. Click **New**.

The **Add Workstation** dialog opens.

3. Enter the IP address assigned to the pro-xi 100 system in the **IP Address** field.
4. Provide a label to make identifying the pro-xi 100 system easier.
5. Click **OK** to accept the settings.

The new network connection entry displays.

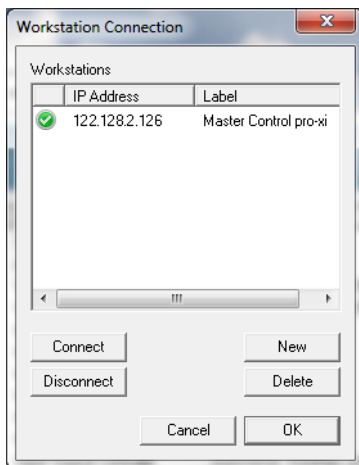


## Opening a Network Connection

- ★ Before opening a network connection to a pro-xi 100 system, make sure it is powered on and has completed its boot-up operation.

### To open a network connection to a pro-xi 100 system

1. Create a pro-xi 100 system network connection as outlined in the previous section.
2. Connect to the pro-xi 100 system by selecting the entry in the list for the target pro-xi 100 system.
3. Click **Connect**.
4. If the network connection is successfully established, a green check-mark displays.



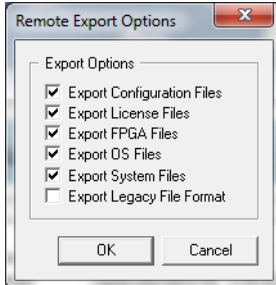
## Exporting the System Upgrades

Once the network connection is established, it is time to open a configuration and export it, and all system upgrades, across the network.

### To export a system upgrade across the network

1. Click **File > Open**.
2. Select the configuration you wish to export.
3. Click **Export > Export fileset to remote system...**

The the **Remote Export Options** dialog opens.



- ★ When a system upgrade is provided, the instructions will specify which export options should be selected.
4. When exporting system upgrades, refer to the release notes for instructions as to which check boxes in the **Export Options** area should be selected.
  5. Click **OK** to accept the settings and begin the export operation.
  6. Use the **Export Configuration Fileset** dialog to monitor the export progress.
  7. After the files are exported to the pro-xi 100 system, the completion dialog opens.
  8. Click **OK** to close the dialog.

## Burning the Upgrades

Now that the system upgrades have been exported to the pro-xi 100 system, the burn operation must be started from the keyboard of the pro-xi 100 system. Refer to “**Upgrade Menu**” on page 46 for information on how to start an upgrade operation.

- ★ Depending on the number and types of upgrades being installed, the upgrade operation can take between 10-50 minutes to complete. Once the upgrade is complete, the pro-xi 100 system will indicate it is completed.

All that is needed is to reboot the pro-xi 100 system so that it will utilize the new system upgrades. To execute a safe system shutdown, refer to “**System Reboot/Shutdown Menu**” on page 50.

After the pro-xi 100 system indicates it is safe to remove power, disconnect power to both AC inputs on the rear of the chassis and wait a minimum of 10 seconds before re-connecting power to both AC inputs.

The pro-xi 100 system will reboot using the new software and gateway updates.



# System Window Frames

The pro-xi 100 system inserts a graphical frame around the window of each external computer system displayed on the screen. This chapter outlines the components and configuration options of the pro-xi 100 system window frames.

## Introduction to Frames

The frame is color-keyed, and text is inserted at the bottom of the frame (also known as Under Monitor Display or UMD) or the top of the frame (also known as Over Monitor Display or OMD). The text provides information about the connected computer system it surrounds. A portion of a frame is in **Figure 18.1**, with the text at the UMD position.



*Figure 18.1 Example of an UMD Frame*

In **Figure 18.1**, the external computer system has been labeled **Lab Win7 DualHead**, and the window being displayed is the Main system window - as opposed to the sub-window for this same system. The external computer system's video output is sending 1920 pixels by 1200 scans, is displaying 60 frames-per-second (60Hz), and is supplying the pro-xi 100 system with a DVI signal.

Frames are color-keyed to assist the Operator in determining which external computer system is active or selected, as well as which sub-window is associated with which main window. As the Operator selects and activates external computer systems, the frame colors will change to show the new status. The Operator has full control over the frame and text colors, and can easily change them.

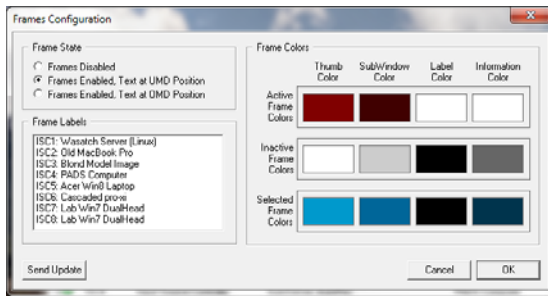
## Frames Configuration Dialog

The Frames Configuration dialog contains sections where the frame state and text position can be selected, the frame labels can be modified, and the frame and text colors can be updated.

★ Prior to opening the Frames Configuration dialog, make sure a network connection has been established with the pro-xi 100 system.

### To change frame selections on the pro-xi 100 system

1. Click **File > Open**.
2. Select the configuration to be changed from the list.  
The selected configuration opens.
3. Click **Settings > Frames Configuration**.  
The **Frames Configuration** dialog opens.



## Enabling Frames and Changing the Text Position

You can view the frame changes being made on the pro-xi 100 system in real-time.

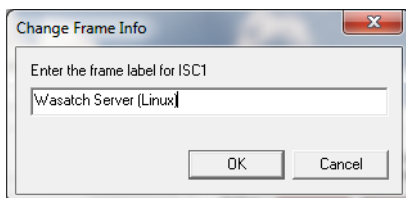
### To enable frames

1. To enable frames select from the following:
  - **Frames Enabled, Text at UMD Position** — Select this option to have the frame text be displayed underneath the external computer system screen.
  - **Frames Enabled, Text at OMD Position** — Select this option to enable frames and have the frame text be displayed at the top of the screen.
  - **Frames Disabled** — Select this option to disable frames.
- ★ If a network connection is established, clicking **Send Update** after any changes will display them on the pro-xi 100 system. Send Update only makes temporary changes to the pro-xi 100 system, which will be lost if the system is rebooted. To make the changes permanent, the configuration must be saved and exported to the pro-xi 100 system.
2. Click **OK** to accept the changes, or **Cancel** to exit.
- ★ If Cancel is selected, any changes made to frame state, labels or colors will be removed, and the original state, labels and colors will be restored. This allows the Operator to experiment with all the frame options and easily revert back to the original settings if needed.
3. Once the frame selections have been made, the configuration should be saved and then exported to the pro-xi 100 system. Refer to “**Exporting a Configuration via USB**” on page 63 or “**Exporting a Configuration Across the Network**” on page 67 for more information.

## Changing Frame Labels

### To change the frame labels

1. Click one of the labels in the **Frame Labels** list to open the **Change Frame Info** dialog.



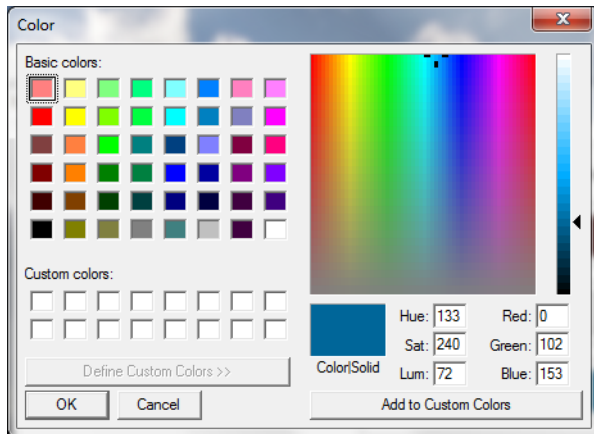
2. Enter the new label for the specified external computer system.
3. Click **OK**.  
The updated label will be displayed in the list.
4. Click **Send Update** to display the new label on the pro-xi 100 system.



## Changing Frame Colors

### To change a specific frame color

1. Click the color swatch for the color item to be changed to open the **Color Selection** dialog.



2. Select the new color for the color item to be changed.
3. Click **OK**.  
The updated color will display in the Color Swatch field.
4. Click **Send Update** to display the new color item on the pro-xi 100 system.

## Differences in Sub-window Frames

In a Sub-window frame, the label and video source are displayed the same as the Main window. But instead of showing the pixel and scan size of the external computer system's video output, the Sub-window will display its own current width and height, along with text identifying it as a Sub-window. (**Figure 18.2**)

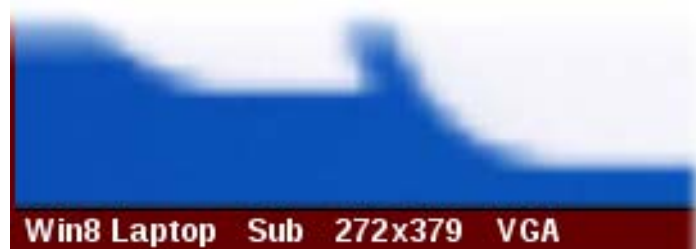


Figure 18.2 Example of a Sub-window UMD Frame

## Changing the Frame Text Position

The frame's text is normally positioned underneath the external computer system's screen. This is known as the Under-Monitor-Display (UMD) location. Some Operators prefer the text to be displayed above the external computer system's screen at the Over-Monitor-Display (OMD) location.

Use the following key sequence to toggle between disabled frames, text at the UMD position and text at the OMD position:



- ★ The **Start** key is the left GUI key on your keyboard.

## Windows Select Mode

When the Operator chooses to disable frames, they may still want a visual mechanism to see which connected system has been selected or is active. This operational mode is called **Windows Select**, and is enabled from the keyboard by holding down **SHIFT + CTRL** and pressing **F6**.

In **Figure 18.3**, both images have their frames disabled, the image on the left has windows select mode disabled, and the one on the right has windows select mode enabled.



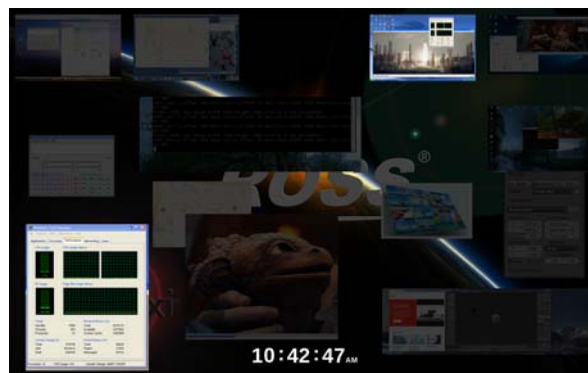
*Figure 18.3 Example of a Window Select Mode*

As the example shows, all of the connected system windows appear dim when windows select mode is enabled and the window is not selected or active. When a window is selected or is made active, the window will immediately switch to full brightness, as shown in **Figure 18.4**.



*Figure 18.4 Example of a Selected Window*

When the windows select mode is enabled, if a sub-window is associated with a selected or active window, it will also be displayed at full brightness. In **Figure 18.5**, all eight main windows have an associated sub-window, but only the selected window and its sub-window are displayed at full brightness.



*Figure 18.5 Example of a Selected Window and its Sub-window*

The dimness or brightness of all non-selected windows can be adjusted from the keyboard.

**To decrease the brightness of non-selected windows**

- Hold down the **SHIFT + CTRL** and press **F7**.

**To increase the brightness**

- Hold down **SHIFT + CTRL** and press **F8**.



# Bezel Color Notifications

The illuminated front bezel on the pro-xi 100 system is used to provide color-based notifications to operators, system administrators and other engineering and IT personnel who work in the physical area the pro-xi 100 system has been installed, but who may not have immediate access to the system to view the notifications.

Colors are displayed for each of the four primary system notification groups:

- Normal operations
- Informational notifications
- Warning and urgent notifications
- Critical and failure notifications

Each of the notification groups are associated with a specific bezel color. During normal operations (and with no notifications pending), the bezel color will be set to the color of normal operations. If notifications of any type are generated by the pro-xi 100 system, the bezel color will change to indicate the type of notification, and will remain that color until the notification has been cleared, or a higher-priority notification is received.

A priority scheme has been implemented so that more severe system notifications over-ride lower-level notifications. This means that if an informational notification had been posted earlier and the bezel color was changed, and a warning notification occurred later, the bezel color would change to indicate the warning.

The bezel colors associated with the four notification groups can be changed by the Operator.

## Bezel Configuration Dialog

The Bezel Configuration dialog contains sections where colors for each of the four notification groups can be changed, along with a brief description of the notification group.

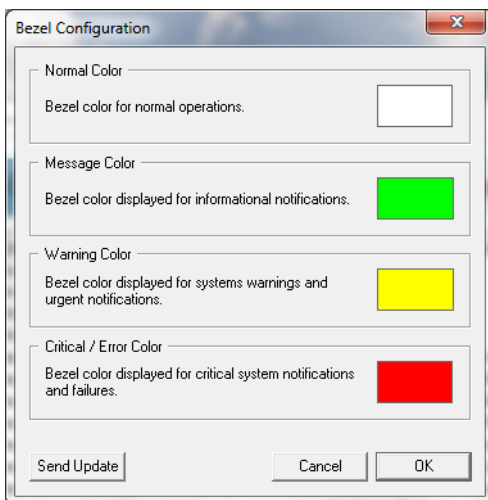
★ Prior to opening the Bezel Configuration dialog, make sure a network connection has been established with the pro-xi 100 system.

### To change bezel notification colors on the pro-xi 100 system

1. Click **File > Open**.
2. Select the configuration to be changed from the list.

The selected configuration opens.

3. Click **Settings > Bezel Configuration** to display the **Bezel Configuration** dialog.



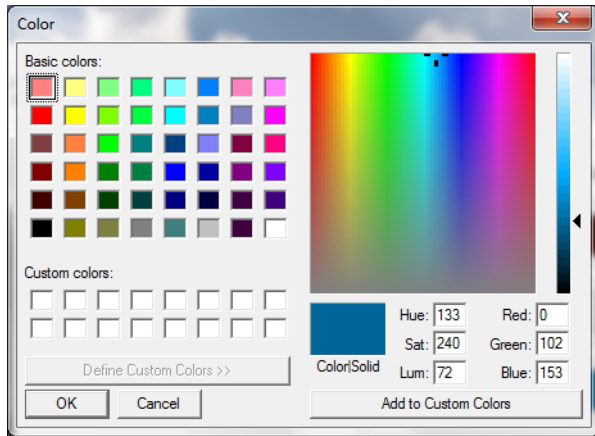
## Changing Bezel Notification Colors

You can view the bezel changes being made on the pro-xi 100 system in real-time.

### To change a specific bezel notification color

1. Select the color swatch for the item to be changed.

The **Color Selection** dialog opens.



2. Select the new color for the item to be changed.
3. Click **OK**.

The updated color will appear in the color swatch.

4. If a network connection is established, clicking **Send Update** after any changes will display them on the pro-xi 100 system.

Send Update only makes temporary changes to the pro-xi 100 system, which will be lost if the system is rebooted. To make the changes permanent, the configuration must be saved and exported to the pro-xi 100 system.

5. Click **OK** to accept the changes, or **Cancel** to exit.

If Cancel is selected, any changes made to the bezel notification color will be removed, and the original colors will be restored. This allows the Operator to experiment with the bezel color options and easily revert back to the original settings if needed.

6. Once the bezel notification color selections have been made, the configuration should be saved and then exported to the pro-xi 100 system. Refer to “**Exporting a Configuration via USB**” on page 63 or “**Exporting a Configuration Across the Network**” on page 67 for more information.

# Real Time Clock Display

The pro-xi 100 system can be configured to display a real-time clock (RTC) as part of the background canvas. This chapter outlines the RTC display and configuration options.

## Overview

The clock can be configured for 12-hour or 24-hour time formats, can be positioned at any of nine different locations on the screen, and can be set to one of three different sizes. In **Figure 20.1**, the RTC has been set to the largest size, positioned in the middle of the screen, and has been set to the 12-hour time format.



*Figure 20.1 Example of a Display with RTC*

If the pro-xi 100 system has been connected to a network, the RTC can be externally synchronized to a Network Time Protocol (NTP) time reference found on the Internet, or to an internal facility reference.

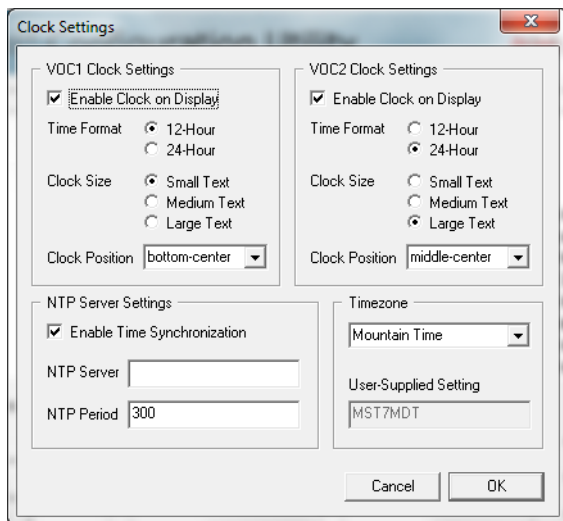
## Real Time Clock Configuration Dialog

The Clock Settings dialog contains the following sections:

- The VOC1 and VOC2 Settings sections for configuring the clock display options.
- The NTP Server Settings section for synchronizing with an external time reference.
- The Timezone section for specifying the local time zone.

### To display the real time clock settings on the pro-xi 100 system

1. Click **File > Open**.
2. Select the configuration to be changed from the list.  
The configuration opens.
3. Click **Settings > Clock Settings**.  
The **Clock Settings** dialog opens.



## Modifying the Clock Settings

The RTC can be displayed on one or both VOC outputs of the pro-xi 100 system.

### To enable the RTC display

1. Ensure the **Enable Clock on Display** box is selected.
2. Specify the time format and clock size.
3. Select a clock position. Choose from the following:
  - top-left
  - top-center
  - top-right
  - middle-left
  - middle-center
  - middle-right
  - bottom-left
  - bottom-center
  - bottom-right

## Enabling Internet-Based NTP Time Synchronization

The NTP protocol provides only a 1-second resolution clock reference. Because of this, it is possible for the pro-xi 100 system to be up to one second early or late in time when compared to other systems synchronized to the same NTP server.

To synchronize the pro-xi 100 system with an external NTP time reference on the Internet, make sure the **Enable Time Synchronization** box is selected.

To use the default NTP servers on the Internet, clear the **NTP Server** box. When this is the case, the pro-xi 100 system will synchronize itself with the huge NTP server pool at ntp.org. There is a set of four virtual NTP servers found at these locations:

- 0.pool.ntp.org
- 1.pool.ntp.org
- 2.pool.ntp.org
- 3.pool.ntp.org



When referenced, each of these four virtual NTP servers will randomly select one of several hundred NTP servers on the Internet that participate in the ntp.org pool. This ensures that all servers in the pool share the connection load.

How often the pro-xi 100 system synchronizes itself with the servers at ntp.org is specified by setting the value in the **NTP Period** box. This value is the number of seconds between synchronization operations.

★ To prevent the pro-xi 100 system from being blocked by the servers at ntp.org, do not set the NTP period any lower than 180 seconds.

## Enabling Facility-Based NTP Time Synchronization

**To synchronize the pro-xi 100 system with an internal facility time reference**

1. Ensure the **Enable Time Synchronization** box is selected.
2. Set the **NTP Server** menu to the IP address of the internal facility time reference.
3. Set the **NTP Period** menu to the synchronization rate suggested by the internal time reference device.

★ If no value is suggested, a period of 300 seconds (5 minutes) can be used as a default.

## Configuring the Local Timezone

The pro-xi 100 system supports timezone settings for all standard US timezones:

- Hawaii-Aleutian Standard Time
- Alaska Standard Time
- Pacific Time
- Mountain Time
- Mountain Time (No DST)
- Central Time
- Central Time (No DST)
- Eastern Time

The pro-xi 100 settings can also support a user-supplied timezone value.

**To set the timezone**

- Select it from the timezone list, or
- Select **User-Supplied** to enter a custom designation.



# Desktop Settings

Operators of the pro-xi 100 system utilize a Status Bar to gain access to the various menus and dialogs used to control the system. The Desktop Settings dialog allows the Operator to configure the location and animation used to display the Status Bar, as well as the **Bug** option which can provide a visual hint to the Operator that the display they are looking at is coming from a connected pro-xi 100 system that is full-screen.

## Desktop Settings Dialog

The Desktop Settings dialog contains two sections: Status Bar Options and Bug Options.

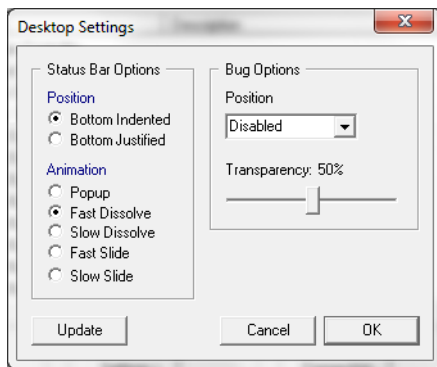
### To change the desktop settings on the pro-xi 100 system

1. Click **File > Open**.
2. Select the configuration to be changed from the list.

The configuration opens.

3. Click **Settings > Desktop Settings**.

The **Desktop Settings** dialog opens.



## Status Bar Options

The Status Bar will always appear at the bottom of the display, and it can be configured to be flush with the bottom of the display or indented. The **Position** section is used to specify the location of the Status Bar.

The **Animation** section is used to specify what type of animation (if any) is used to display the Status Bar. In the example above, the Fast Dissolve animation is selected to fade in and out the Status Bar at a fast speed. Other animations can be selected to pop the Status Bar in and out without any animation, perform a slow dissolve, or fast or slow sliding of the Status Bar.

## Bug Options

The bug is a small icon that can be displayed in any of the four corners of the active system, and can be set completely opaque, entirely transparent, or anywhere in between. The bug icon is shown in **Figure 21.1**.



Figure 21.1 Example of a Bug Icon

The bug is used to watermark an active connected computer system so that if the Operator were to approach the display, they could determine visually if the display was a pro-xi 100 output of a connected system being shown full-screen, or another computer system.

**To enable the bug on active connected systems**

1. Select one of the four positions from the **Position** menu.
2. Select the transparency value.

When a connected system is made active and taken full-screen, the bug will appear in one of the corners of the active system, as shown in **Figure 21.2**.



Figure 21.2 Example of a Bug Icon on an Active Screen

In **Figure 21.2**, the bug is set to appear in the upper-right corner and has a transparency value of 50%. If a connected system is taken full-size but its aspect ratio is such that it won't fill the screen, the bug will still appear in the selected corner, as shown in **Figure 21.3**.



Figure 21.3 Example of a Bug Icon in a Selected Corner

In **Figure 21.3**, the bug can be seen in the upper-right corner of the active system, and the top of the video window can be seen through it. A magnified view is shown in **Figure 21.4**.

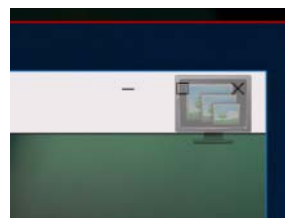


Figure 21.4 Example of a Bug Icon with a Search Box

★ If a network connection is established, clicking **Update** after any changes will transfer them to the pro-xi 100 system. Update only makes temporary changes to the pro-xi 100 system, which will be lost if the system is rebooted. To make the changes permanent, the configuration must be saved and exported to the system.

# Dual Operator Configuration

When configuring the pro-xi 100 system for Dual Operators, four operations are performed, all done while the pro-xi 100 system is still running in its original single-operator configuration:

- Physically setting up the keyboard, mouse and monitor at the two Operator positions
- Identifying the USB ports used for both keyboards and both mice
- Determining which connected systems will be shared by both Operators, and which connected systems will be owned by one or the other Operator
- Sending the new configuration to the pro-xi 100 system

Each of these steps are described in this chapter.

## Setting Up the Second Operator Position

When operating the pro-xi 100 system in a Dual Operator configuration, the video output from VOC1 is used as the video output for the Operator1 position, the video output from VOC2 is used as the video output for the Operator2 position, and a USB hub is used to connect both keyboard and mouse pairs to the pro-xi 100 system.

The USB hub must support the USB 2.0 protocol, and support at least four ports, but larger hubs may also be used. In addition, smaller hubs, such as a four-port hub, can draw their power from the pro-xi 100 system and will not require an external power source. Usually, when hubs support more than four ports, they will require an external power source.

**Figure 22.1** is the connection diagram for the Dual Operator configuration.

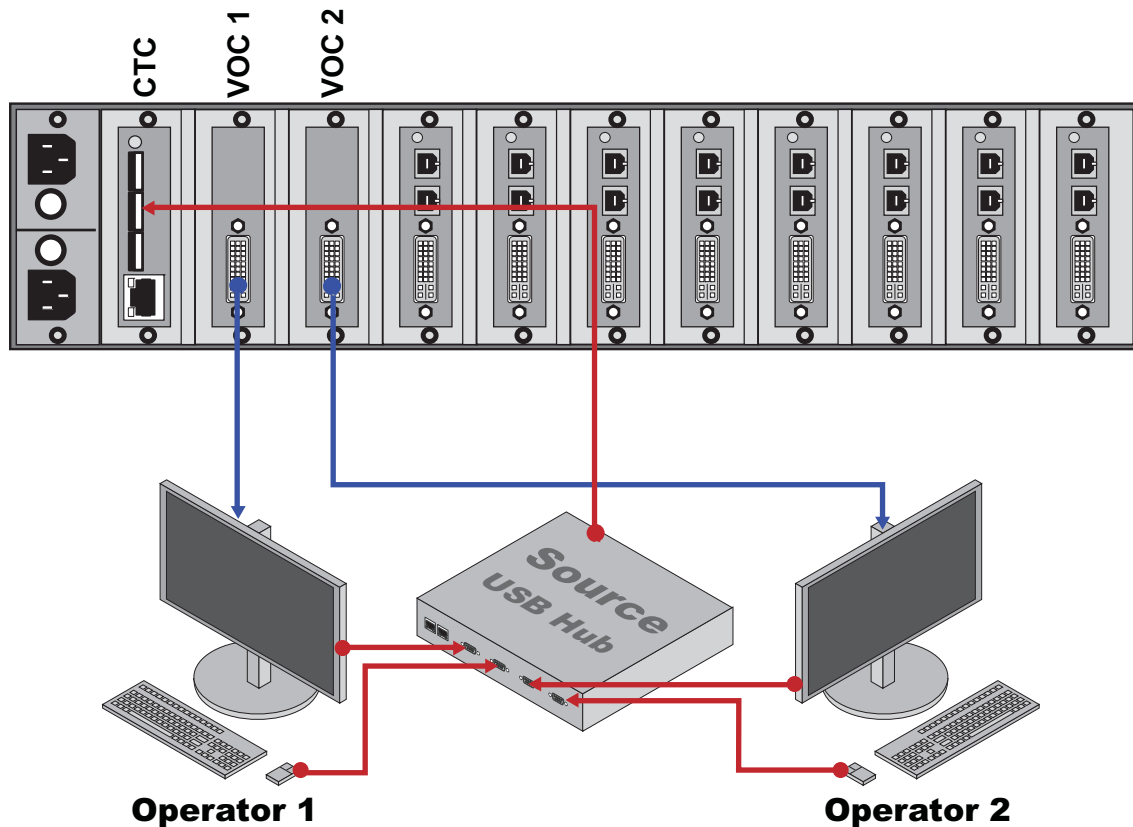


Figure 22.1 Connections — Dual Operator Setup

## Identifying the USB Port Numbers

When connecting the two keyboard/mouse pairs, it's not critical which of the USB ports they are plugged into. What is important is to note which USB port number is displayed on the pro-xi 100 system monitor when the USB keyboard or mouse is attached. When a USB keyboard or mouse device is removed or attached to the pro-xi 100 system, a pop-up dialog display that contains the USB port information (**Figure 22.2**).

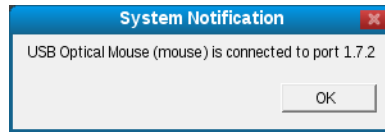


Figure 22.2 System Notification Dialog

In **Figure 22.2**, the pop-up dialog reports the name the USB device (USB Optical Mouse), along with the device type (mouse) and the port number (1.7.2). As the keyboard and mouse devices for each of the Operator positions is attached, make note of the USB port number for later use when setting up a configuration for Dual Operator.

## Shared Versus Owned Connected Systems

Each connected system must be chosen to be either “shared” by both Operators or “owned” by one of the two Operators. The differences between shared and owned systems are described below.

An owned connected system can:

- be moved from one desktop to the other, or can span both desktops so either Operator can access it
- have sub-windows
- be recalled with a layout key and “recalled” from the other Operator
- be “cloned” and the cloned copy shared with the other Operator

A shared connected system:

- appears on both desktops at the same time
- cannot be moved to the other Operator's desktop
- does not have sub-windows
- can never be “recalled” by the other Operator

To better illustrate the differences, consider the following images, which show a Dual Operator configuration where three connected systems are owned by Operator1, three connected systems are owned by Operator2 (two ISC cards are configured as a dual-head system in this example), and the last two connected systems are shared between them:

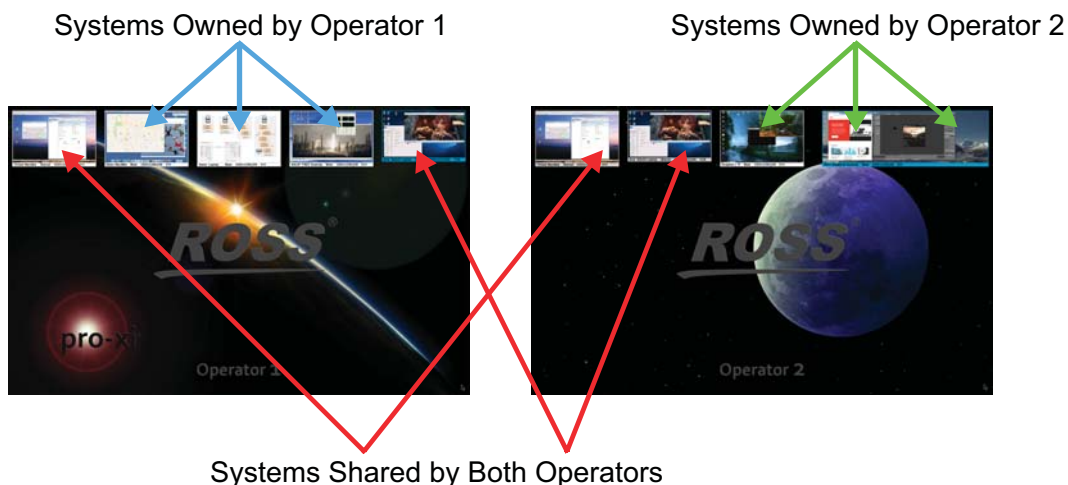


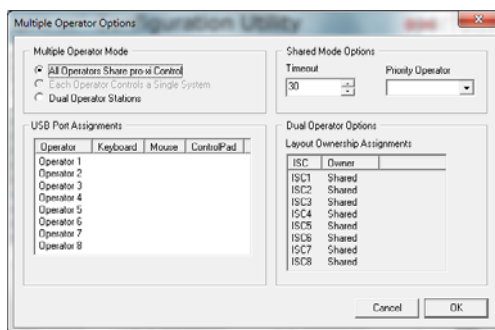
Figure 22.3 Example of Dual Operator Configuration

## Configuring the Dual Operator Options

To create a Dual Operator configuration, it's easiest to start with an existing single-operator configuration.

### To create a dual-operator configuration

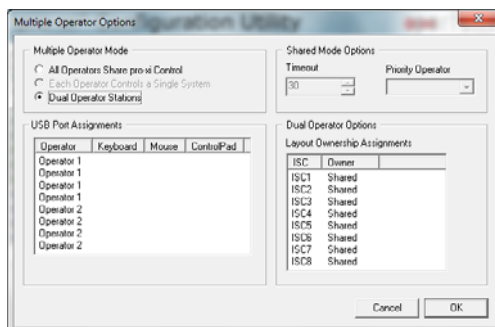
1. Launch the proxi-app utility.
2. Select **File > Open**.
3. Select the configuration to be used as the reference.
4. Save this configuration using a new name:
  - a. Select **File > Save As**.
  - b. Enter the new configuration's name.
  - c. Follow the on-screen instructions.
5. Select **Settings > Multiple Operators** to display the **Multiple Operator Options** dialog.



★ When running as a single-operator system, the **All Operators Share pro-xi Control** radio button will be selected, and the USB Port Assignments and Dual Operator Options sections are uninitialized.

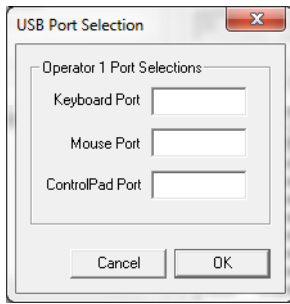
6. To switch over to Dual Operator, click **Dual Operator Stations**.

The USB Port Assignments section will change to display only Operator 1 and Operator 2, and the Dual Operator Options section will become active:



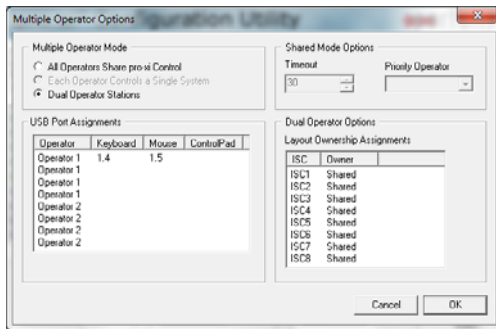
7. To set the USB port assignments, double-click the first **Operator 1** entry in the list.

The **USB Port Selection** dialog opens.

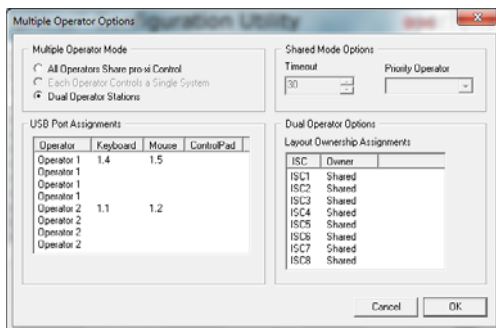


8. Enter the keyboard and mouse USB ports for Operator1 that were displayed when the keyboard and mouse devices for Operator1 were inserted into the USB hub.
9. Click **OK**.

The new port assignments display.

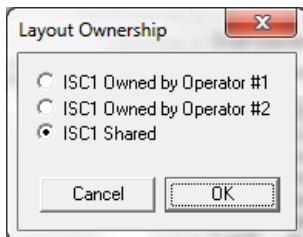


10. Double-click the first Operator 2 entry in the list and do the same for the second Operator.
11. Click **OK** to save the second set of port assignments.



12. Set the ownership of each of the ISC cards by double-clicking on each entry in the **Layout Ownership Assignments** area.

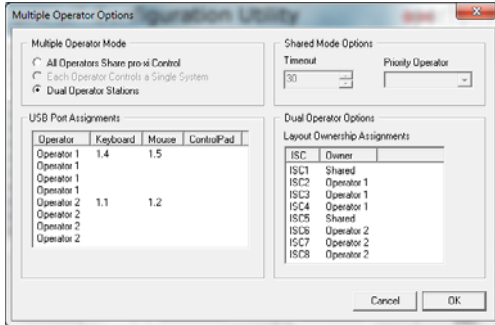
As each ISC entry is clicked, the **Layout Ownership** dialog is displayed.



13. Click the associated radio button to set the ownership of the connected system to Operator 1, Operator 2, or shared by both Operators.



Once all the assignments have been made, the ownership list is displayed.



★ A Dual Operator system may be configured with all connected systems shared between both Operators, but it cannot be configured for all connected systems to be owned by one Operator.

14. Click **OK** to close the **Multiple Operators Options** dialog.

15. Save the new configuration.

16. Export the new configuration to the pro-xi 100 system.



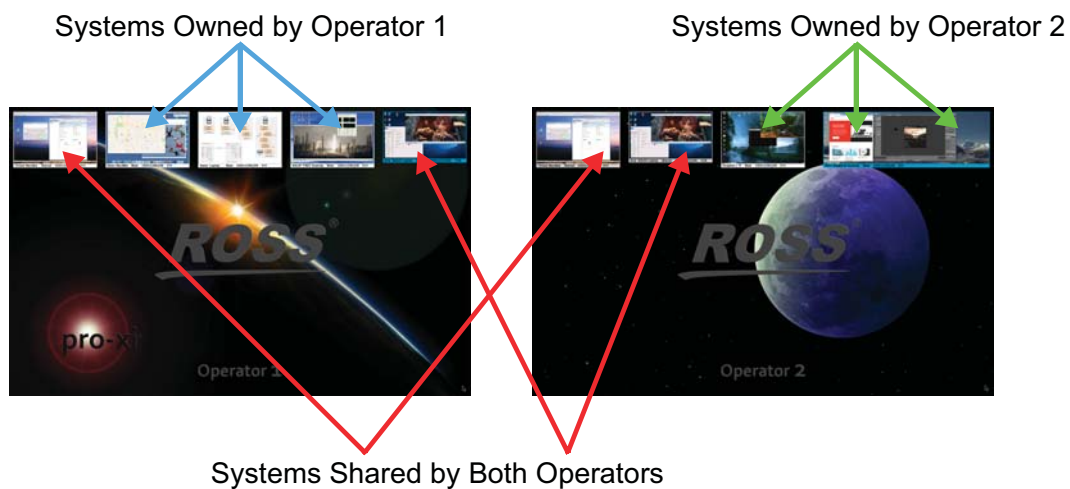
# Dual Operator Operations

When operating the pro-xi 100 system in a Dual Operator configuration, there are a number of features and enhancements available:

- Connected systems that are *shared* will be displayed on both Operator desktops, and cannot be moved off the display.
- Connected systems that are *owned* can be moved from one Operator desktop to the other, and can also be positioned so that the system spans both displays — allowing either operator to take control.
- Owned systems can be recalled back from the other Operator — even if they happen to be in control of that system.
- When a system is actively controlled by one Operator, that system will be locked out from access by the other Operator.
- Each Operator can independently position and scale their windows, and they have their own set of layouts.
- Each Operator has their own Status Bar with access to all the system dialogs.
- If a connected system is *owned*, it can be cloned and the cloned window can be pushed over to the other Operator desktop.

## Controlling a Dual Operator System

In the following examples and explanations, the pro-xi 100 system has been configured with three connected systems owned by Operator 1, three connected systems owned by Operator 2, and two connected systems shared between them, as shown in **Figure 23.1**.



*Figure 23.1 Example of Dual Operator System Configuration*

Each Operator has full control over the placement and size of connected system windows on their desktop. In **Figure 23.2**, we see that Operator 1 has selected one of the shared systems by the color change in the frame; we can also see the frame has changed color on Operator 2's desktop.

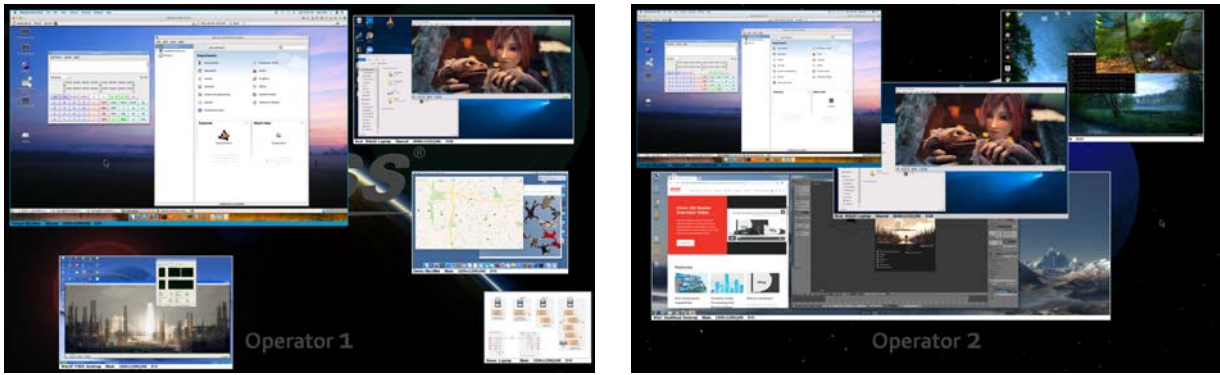


Figure 23.2 Example of Two Operator Desktops

When a connected system is made active and is under control by one of the Operators, it will be locked out from the other Operator and an overlay is applied to inform the second Operator that this system is unavailable. In **Figure 23.3**, we see that Operator 1 has taken control of one of the shared systems and has locked out Operator 2.

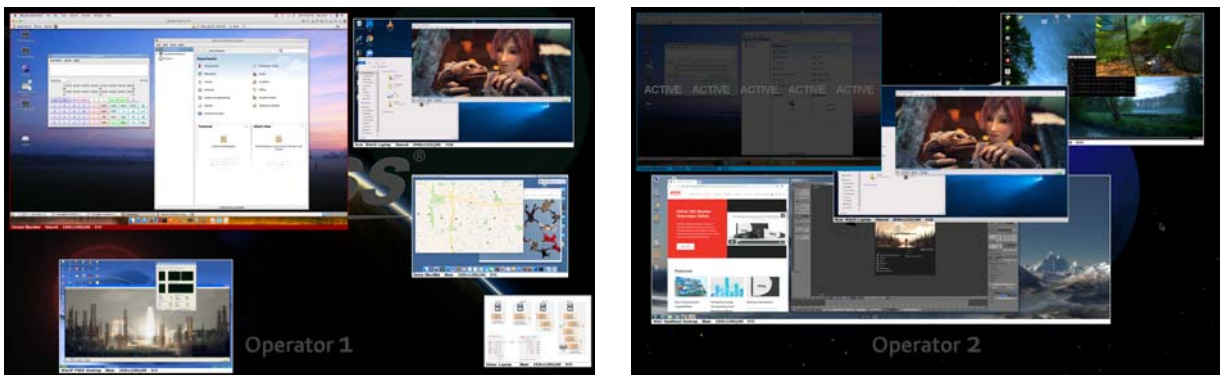


Figure 23.3 Example of a Shared System where Operator2 is Locked Out

When a connected system is owned, it can be positioned so that it spans both desktops, allowing either Operator to access it. In **Figure 23.4**, we see that Operator 2 has positioned a dual-head connected system so it appears on both desktops, and that Operator 2 has selected the dual-head system (due to the change in color of its frame):

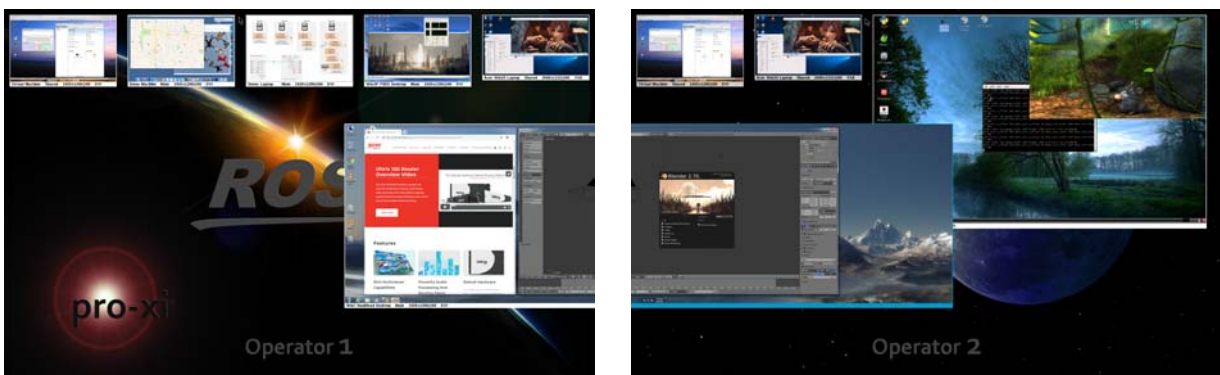


Figure 23.4 Example of a Shared System with Dual Heads

When a system spans both displays and is under control by one Operator, the other Operator will still see that the system is locked out and unavailable. In **Figure 23.5**, we see Operator 1 has taken control of the dual-head system and has locked out Operator 2.

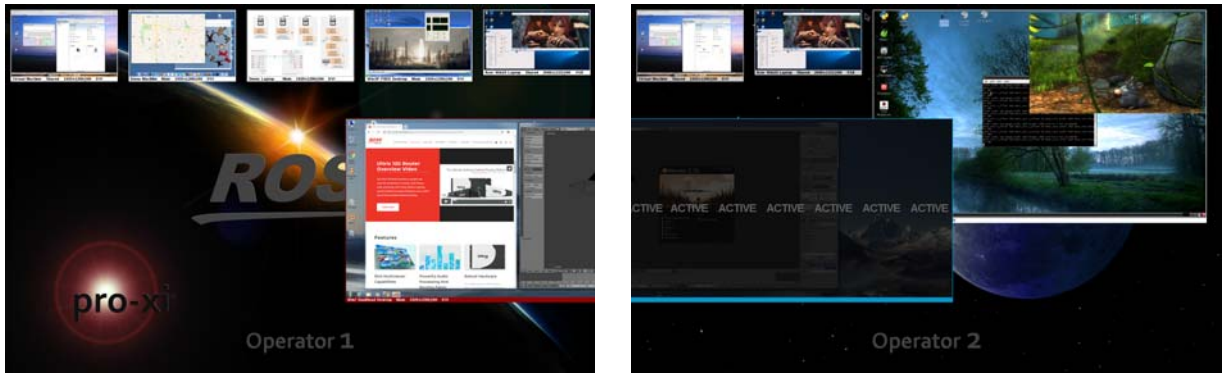


Figure 23.5 Example of a Dual-Head System with Operator 2 Locked Out

Each Operator has access to their own Status Bar and system dialogs. In **Figure 23.6**, Operator 1 opened the Health Status dialog while Operator 2 is actively controlling the dual-head system.

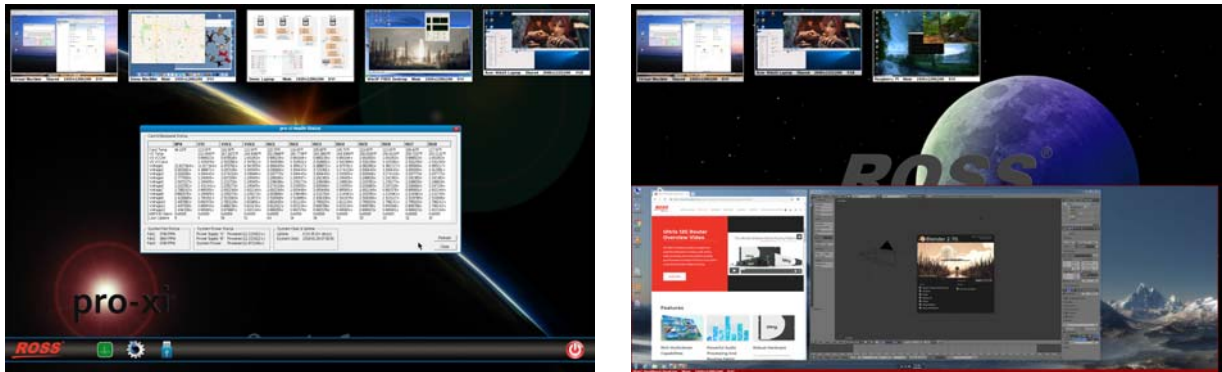


Figure 23.6 Example of Status Bar and System Dialogs in a Dual-Head System



# Keyboard Shortcuts

This chapter lists the keyboard shortcuts for carousel control, system activation, and other common functions.

## Carousel Control













Function	Keyboard Shortcut
Rotate through and take control of each system (work area)	Shift + Ctrl + Space
Rotate through and take control of each system (scaled)	Shift + Ctrl + Alt + Space
Decrease carousel scale size	Shift + Ctrl + Alt + ←
Increase carousel scale size	Shift + Ctrl + Alt + →

## System Activation

★ Use the number keys located in the keypad area of your keyboard.







Function	Keyboard Shortcut
Activate connected system	Shift + Ctrl + Alt + 1 End ... 8 ↑
Deactivate the active system	Shift + Ctrl + Alt + 0 Ins
Deactivate the active system	Shift + Ctrl + Alt + Esc

## Window Select Mode







Function	Keyboard Shortcut
Disable window select mode	 +  + 
Enable window select mode	 +  + 
Decrease unselected window brightness	 +  + 
Increase unselected window brightness	 +  + 

## Window Control

★ The **Start** key is the left Windows key on your keyboard.

Function	Keyboard Shortcut
Clone the selected window	 + 
Hide the selected window	 + 
Reveal all hidden windows	 + 

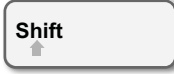













## Cursor Speed and Sensitivity

Function	Keyboard Shortcut
Decrease cursor speed	 +  + 
Increase cursor speed	 +  + 



## System Commands

★ The **Start** key is the left Windows key on your keyboard.

Function	Keyboard Shortcut
Re-synchronize selected system's video source	 +  + 
Display on-screen help pages	 + 
Toggle the active bug position	 + 
Display system video test patterns	 + 
Display / hide system information screen	 + 
Toggle frame text position and state	 + 
Display / hide system Status Bar	



# Video Test Patterns

The pro-xi 100 system can generate internal video test patterns that are displayed on both video outputs. The video test patterns are generated digitally, and are of the highest resolution and quality.

These video test patterns are used as a technical reference to evaluate computer monitors, television displays and video walls attached to the pro-xi 100 system, as well as the video signal processing components that are inserted between the pro-xi 100 systems output cards and the final display output device. These processing components include KVM extenders, KVM matrix systems, frame synchronizers, video compression/decompression systems, standards converters, video routers, etc.

★ To display the video test patterns, hold down the **Start** key and press **P** to toggle through the test pattern set.

## Circular Elements

The circular elements in the test patterns show distortions in the image if it is stretched as it is being displayed. For example, many computer monitors with a 16:10 aspect ratio will stretch a 16:9 aspect ratio image to fill the display. If this happens, the circular elements will appear oblong.

## Ramp Elements

The gray, red, green and blue ramps in the test patterns show distortions in color processing, color space conversion and compression artifacts. The ramps should be a single, continuous, smooth ramp from one end to the other.

## Horizontal Resolution Elements

The square horizontal resolution elements in the test patterns are used to determine the highest video resolution available for the video output pipeline. The left-most squares interleave single white and black lines together. If the video output pipeline is unable to support this resolution, the viewer will be unable to resolve the individual black and white lines and the block will appear smeared.

As the viewer looks at the blocks from left-to-right, the thickness of the black and white lines are increased (2 black, 2 white; 3 black, 3 white; etc.), and the viewer should eventually locate a block where the white and black lines can be seen with no distortions. This block represents the highest Lines of Horizontal Resolution (LHR) value the video output pipeline is able to sustain.

If the highest LHR block that can be viewed properly is not the left-most, then the video output pipeline and/or display devices are unable to display the pro-xi 100 system at its highest possible video quality level.

# Test Pattern Examples

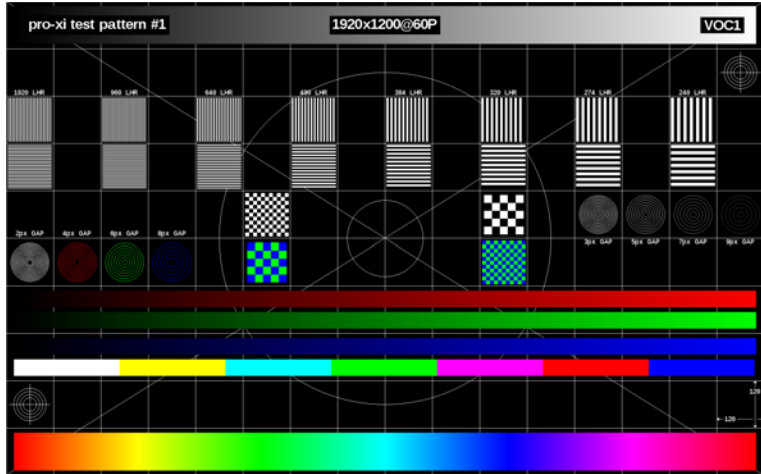


Figure 25.1 Test Pattern 1

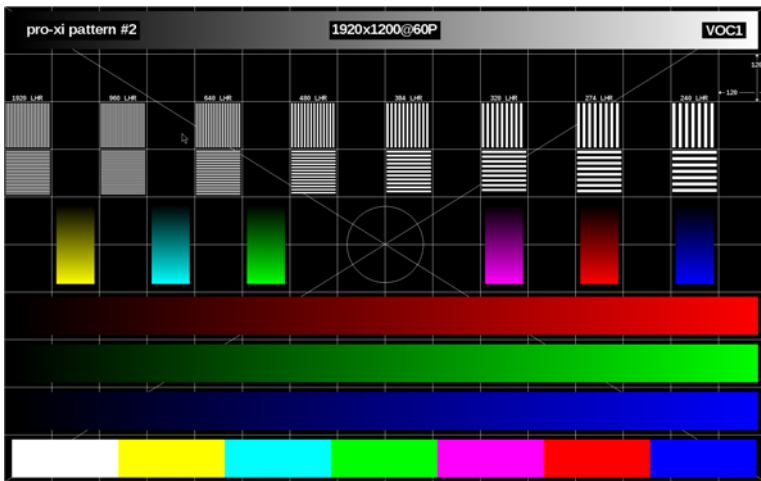


Figure 25.2 Test Pattern 2

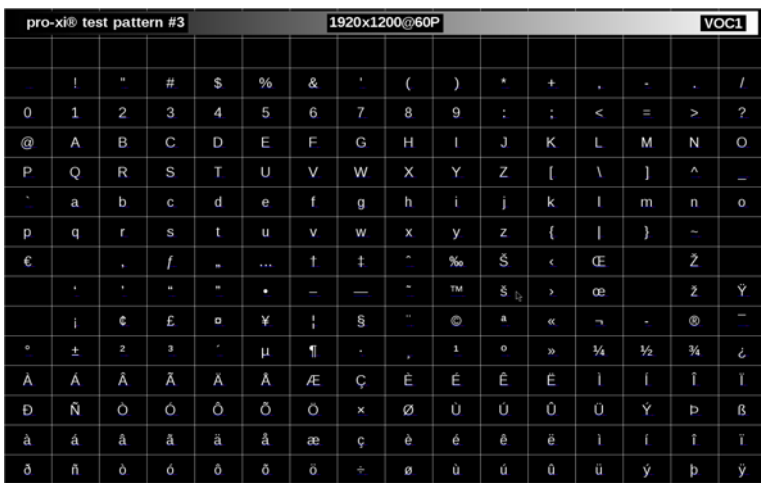


Figure 25.3 Test Pattern 3

# Technical Specifications

This chapter provides technical information for the pro-xi 100 system.

★ Specifications are subject to change without notice.

## Supported Video Resolutions

★ The pro-xi 100 system supports more than 140 progressive-scan input resolutions, but does not support any interlaced-scan resolutions.

**Table 26.1 Supported Video Resolutions**

Video Resolution	Aspect Ratio	Refresh Rates	DVI Input	VGA Input	DVI Output
2560 x 1600	16:10	60Hz			•
2560 x 1440	16:9	60Hz			•
2048 x 1536	4:3	60Hz 75Hz 85Hz	•	•	•
2048 x 1280	16:10	60Hz	•	•	•
2048 x 1152	16:9	60Hz	•	•	•
1920 x 2400	4:5	25Hz 30Hz	•	•	•
1920 x 1200	16:10	60Hz 72Hz 75Hz	•	•	•
1920 x 1080	16:9	24Hz 25Hz 29Hz 30Hz 50Hz 60Hz 75Hz	•	•	•
1856 x 1392	4:3	60Hz 75Hz	•	•	•
1800 x 1440	5:4	60Hz	•	•	•
1792 x 1344	4:3	60Hz 75Hz	•	•	•
1680 x 1050	16:10	60Hz	•	•	•
1600 x 1200	4:3	60Hz 65Hz 70Hz 75Hz 85Hz 100Hz	•	•	•
1600 x 1024	25:16	60Hz 75Hz 85Hz	•	•	•
1600 x 1000	16:10	60Hz 75Hz 85Hz 100Hz	•	•	•
1600 x 900	16:9	60Hz	•	•	•
1440 x 1050		60Hz	•	•	•
1440 x 900	16:10	60Hz	•	•	•
1400 x 1050	4:3	60Hz 70Hz 72Hz 75Hz 85Hz 100Hz	•	•	•
1368 x 768	16:9	60Hz	•	•	•
1360 x 768	16:9	60Hz	•	•	•
1280 x 1024	5:4	60Hz 75Hz 85Hz 100Hz 120Hz	•	•	•
1280 x 960	4:3	60Hz 75Hz 85Hz 100Hz	•	•	•
1280 x 800	16:10	60Hz 75Hz	•	•	•
1280 x 768	5:3	60Hz	•	•	•
1280 x 720	16:9	50Hz 60Hz	•	•	•
1152 x 864	4:3	60Hz 70Hz 75Hz 85Hz 100Hz	•	•	•
1152 x 768		55Hz	•	•	•
1024 x 768	4:3	60Hz 70Hz 75Hz 85Hz 100Hz 120Hz	•	•	•

**Table 26.1 Supported Video Resolutions**

Video Resolution	Aspect Ratio	Refresh Rates	DVI Input	VGA Input	DVI Output
1024 x 600		60Hz	•	•	•
720 x 576	5:4	50Hz	•	•	•
720 x 480		60Hz	•	•	•
720 x 400		85Hz	•	•	•
640 x 480	4:3	60Hz 72Hz 75Hz 85Hz 100Hz		•	
640 x 400	16:10	85Hz		•	
640 x 350		85Hz		•	

## Incoming System Card (ISC)

**Table 26.2 Technical Specifications — ISC**

Item	Specifications
Input Video	DVI Single-Link, DVI Dual-Link, HDMI <sup>a</sup> , VGA <sup>b</sup>
Max. Input Resolution	2048 x 1536
HDCP, interlaced video formats	Not supported
Power Consumption	24 VA Max
Max. Number of Cards/Frame	8
Redundancy	Hot-swappable
AUDIO IN Connector	3.5mm stereo (TRS) female
USB Connector	Two USB Type 'B' female
VIDEO IN Connector	DVI-I Single/Dual Link female (HDMI and VGA with adapter)

a. Requires an HDMI-to-DVI adapter.

b. Requires a VGA-to-DVI adapter.

## Video Output Card (VOC)

**Table 26.3 Technical Specifications — VOC**

Item	Specifications
Output Video	DVI-D Single-Link, DVI-D Dual-Link
Max. Output Resolution	2560 x 1600
Power Consumption	21 VA Max
Max. # of Cards/Frame	2
Redundancy	Hot-swappable
Video Output Connector	DVI-D Single / Dual-Link female

## Controller Card (CTC)

**Table 26.4 Technical Specifications — CTC**

Item	Specifications
Network	Ethernet, 10-100 Mbps
Power Consumption	24 VA Max
Redundancy	n/a
Audio Out Connector	3.5mm (TRS) female
Ethernet Connector	RJ-45 CAT5 female
USB Connector	Three USB Type 'A' female

## Cabling

**Table 26.5 Technical Specifications — Cabling (Recommended Maximums)**

Item	Specifications
DVI Cables	16.4' (5m) 24AWG for all video resolutions above 1280x1024
VGA Cables	16.4' (5m) 24AWG
USB Cables	16.4' (5m)

## Power

**Table 26.6 Technical Specifications — Power**

Item	Specifications
Input Voltage	100-240 VAC
Redundancy	Dual redundant power supplies, dual redundant power paths
Line Frequency	50Hz - 60Hz
Power Consumption	300 VA Max

## Environmental

**Table 26.7 Technical Specifications — Environment**

Item	Specifications
Operating Temperature	10°C - 40°C
Humidity	0-90% (non-condensing)

## Mechanical

**Table 26.8 Technical Specifications — Mechanical**

Item	Specifications
Height	5.25" (13.34 cm) 3RU
Width	17" (43.18 cm) chassis 19" rack mount standard
Depth	19.5" (49.53 cm) bezel – latch
Weight	42 lb.





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- e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

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## zlib

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <ftp://ds.internic.net/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](ftp://ds.internic.net/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](ftp://ds.internic.net/rfc/rfc1952.txt) (gzip format).





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## **Big Buck Bunny**

The story of a large bunny defending his woodland friends against a trio of evil forest animals.

Website:[peach.blender.org](http://peach.blender.org)

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Changes:None

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## **Tears of Steel**

The story of a romance gone bad between a boy and a girl - who later transforms herself into a cyborg, builds a robot army, and attempts to destroy the world.

Website:[mango.blender.org](http://mango.blender.org)

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Changes:None

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## **Sintel**

The story of a girl's search for her pet baby dragon - stolen from her by another dragon.

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# Service Information

This chapter provides information on the warranty and repair policy for your pro-xi 100 system.

## Troubleshooting Checklist

Routine maintenance to this Ross product is not required. In the event of problems with your pro-xi 100, the following basic troubleshooting checklist may help identify the source of the problem. If the pro-xi 100 still does not appear to be working properly after checking all possible causes, please contact your Ross products distributor, or the Technical Support department at the numbers listed under the “**Contacting Technical Support**” on page 12.

1. Visual Review — Performing a quick visual check may reveal many problems, such as connectors not properly seated or loose cables. Check the pro-xi 100 unit and any associated peripheral equipment for signs of trouble.
2. Power Check — Verify the power cable is connected to a power source and that power is available at the power main.
3. Input Signal Status — Verify that source equipment is operating correctly and that a valid signal is supplied.
4. Output Signal Path — Verify that destination equipment is operating correctly and receiving a valid signal.
5. Module Exchange — Exchanging a suspect module with a module that is known to be working correctly is an efficient method for localizing problems to individual modules.

## Warranty and Repair Policy

The pro-xi 100 is warranted to be free of any defect with respect to performance, quality, reliability, and workmanship for a period of ONE (1) year from the date of delivery to the customer. In the event that your pro-xi 100 proves to be defective in any way during this warranty period, Ross Video Limited reserves the right to repair or replace this piece of equipment with a unit of equal or superior performance characteristics.

Should you find that this pro-xi 100 has failed after your warranty period has expired, we will repair your defective product should suitable replacement components be available. You, the owner, will bear any labor and/or part costs incurred in the repair or refurbishment of said equipment beyond the ONE (1) year warranty period.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profits) incurred by the use of this product. Implied warranties are expressly limited to the duration of this warranty.

This pro-xi 100 User Guide provides all pertinent information for the safe installation and operation of your pro-xi 100. Ross Video policy dictates that all repairs to the pro-xi 100 are to be conducted only by an authorized Ross Video Limited factory representative. Therefore, any unauthorized attempt to repair this product, by anyone other than an authorized Ross Video Limited factory representative, will automatically void the warranty. Please contact Ross Video Technical Support for more information.

## In Case of Problems

Should any problem arise with your pro-xi 100, please contact the Ross Video Technical Support Department. (Contact information is supplied at in the section “**Contacting Technical Support**” on page 12.)

A Return Material Authorization number (RMA) will be issued to you, as well as specific shipping instructions, should you wish our factory to repair your pro-xi 100. If required, a temporary replacement will be made available at a nominal charge. Any shipping costs incurred will be the responsibility of you, the customer. All products shipped to you from Ross Video Limited will be shipped collect.

The Ross Video Technical Support Department will continue to provide advice on any product manufactured by Ross Video Limited, beyond the warranty period without charge, for the life of the equipment.



# Glossary

The following terms are used throughout this guide:

**CTC** — Single Controller Card

**Device** — A physical, virtual, or software application that may include multiple sources, destinations, senders, or receivers.

**EDID** — Extended Display Identification Data

**GUI button** — refers to the left Windows® button (located between the Ctrl and Alt buttons) on your keyboard.

**ISC** — Incoming System Card

**OMD** — Over Monitor Display

**Start button** — refers to the left Windows® button (located between the Ctrl and Alt buttons) on your keyboard.

**System**— The mix of interconnected production and terminal equipment in your environment.

**UMD** — Under Monitor Display

**VOC** — Video Output Card

