Panasonic Camera Control Panel User Guide

Version 2.0

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David Ross
CEO, Ross Video
dross@rossvideo.com

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Panasonic Camera Control Panel User Guide

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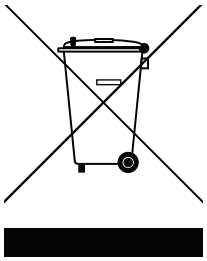
The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

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.

Company Address

Ross Video Limited
8 John Street
Iroquois, Ontario
Canada, K0E 1K0

Ross Video Incorporated
P.O. Box 880
Ogdensburg, New York
USA 13669-0880

General Business Office: (+1) 613 • 652 • 4886
Fax: (+1) 613 • 652 • 4425

Technical Support: (+1) 613 • 652 • 4886
After Hours Emergency: (+1) 613 • 349 • 0006

E-mail (Technical Support): techsupport@rossvideo.com
E-mail (General Information): solutions@rossvideo.com
Website: http://www.rossvideo.com

Contents

Introduction

This chapter contains the following sections:

Overview

This guide describes how to use the Panasonic camera control panel to configure and control selected Panasonic robotic cameras.

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 submenus 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 **Media Manager Client**, tap **Channel 1** in the **Channels** section.

Touch-Screen Support

This guide assumes you are using a touch-screen. The guide includes instructions to tap user interface elements. If you are using a mouse instead of a touch screen, click the mouse instead of tapping.

User Entered Text

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

In the **File Name** box, enter `Channel01.property`.

Referenced Guides

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

DashBoard Server and User Rights Management User's 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 "**Server** > **Save As**," you would tap the **Server** menu and then tap **Save As**.

Important Instructions

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

✶ Contact your I.T. Department if you experience communication issues with DashBoard and are running anti-virus software.

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
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The Panasonic Control Panel

The Panasonic camera control panel is a DashBoard panel that enables you to configure and control up to ten Panasonic robotic cameras. You can control cameras manually, store and recall shots, and adjust shading controls and shot recall speeds.

This document describes the Panasonic camera control panel and how to use it. The following topics are included:

Installing the Camera Control Panel Files

The camera control panel is a DashBoard panel. DashBoard must be installed to run the camera control panel. DashBoard is available as a free download from www.rossvideo.com.

To install the camera control panel:

1. Ensure that DashBoard is installed.
2. Open the camera control panel zip file and then extract the **Panasonic HE-120** folder into the **C:** directory.

Launching the Camera Control Panel

Add the camera control panel to the DashBoard File Navigator, to make it readily available from DashBoard.

To add the camera control panel to DashBoard File Navigator:

1. Start DashBoard.
2. From the **Views** menu, tap **File Navigator**.
3. On the **File Navigator** tab, tap the green + symbol.

   The **Browse for Folder** dialog appears.
4. Navigate to the **Panasonic HE-120** folder located in **Computer > OS (C)**, and then tap **OK**.
5. In the **File Navigator** tree, expand the **Panasonic HE-120** folder to show the **PanasonicCamera.grid** file.
6. To open the camera control panel anytime, double-tap the **PanasonicCamera.grid** file.

   The camera control panel will always be available from the DashBoard File Navigator.

Configuration

This section describes how to perform the following configuration tasks:

For more detailed information about specific configuration settings, see "**Camera Configuration Window**" on page 2–7.

Configuring Connectivity

You can configure settings that enable the camera control panel to communicate with cameras.

To configure connectivity:

1. In the camera control panel, tap the **Config** button.
2. If you are using a **Panasonic AW-RP120** control console (joystick console), do the following:

   a. On the **General** tab, turn the **Panasonic Controller** option **ON**.

   b. In the **Controller IP** box, type the IP address of the **Panasonic AW-RP120** control console.

   Note: A Panasonic joystick console is not required to use the Panasonic camera control panel.

   Tip: When enabled, the Panasonic joystick control follows the selected camera. For example, if you select a camera in the camera control panel, the Panasonic joystick can immediately control it.
3. On the **Cameras** tab, tap the camera number to highlight the settings for that camera.
4. In the **Camera IP Address** box, type the IP address of the camera.
5. If any of the cameras are mounted in an inverted position, select the **Invert Horizontal Axis** and **Invert Vertical Axis** check boxes as required.

   Tip: Invert camera axes as required to make all cameras behave consistently when manipulated by any controls, including the Panasonic control console, and the camera control panel.
6. Repeat **Steps 3 to 5** for each Panasonic camera in your system.
7. If your system includes a Ross Video joystick panel, on the **Joystick** tab, check that joystick data is shown.

   The **Joystick** tab displays raw data from the Ross Video joystick panel (if equipped), for diagnostic purposes. The data is not configurable. If the tab does not show data, or says **No Connection**, then no connection to the joystick is detected.

Adjusting Camera Shading Controls

You can adjust camera shading controls (also known as paint controls). Shading controls are used to ensure consistent video quality from each camera.

To set camera shading controls:

1. In the camera control panel, tap the **Controls** button.
2. Tap the camera button for the camera you want to adjust.
3. Tap the **Shading Controls** button, and then adjust the following as required:
   - **Camera Output** — Choose between normal camera output and test bars.
   - **Shutter Speed** — Select a shutter speed.
   - **Gain** — Specify a gain value (0 to 30).
   - **Chroma** — Specify a chroma value (-3 to 3).
   - **Detail** — Select a level of detail (High, Low, Off)
   - **White Balance** — Select a white balance option from the list, to perform a camera white balance:
     - **ATW** — Auto-Tracing White Balance. White balance adjusts continuously as you shoot.
     - **AWB A** — Auto White Balance A. Applies a saved white balance preset.
     - **AWB B** — Auto White Balance B. Applies a saved white balance preset.
     - **Preset 3200K** — Applies white balance for typical indoor (incandescent) conditions.
     - **Preset 5600K** — Applies white balance for typical outdoor (daylight) conditions.

     Alternatively, to perform a manual white balance, tap the **Execute AWB** button. If **AWB A** or **AWB B** are selected, the **Execute AWB** button also stores the white balance level in the preset shown (**AWB A** or **AWB B**).
   - **Execute ABB** — Tap this button to perform a black balance.
   - **Pedestal** — Specify a black pedestal level (-150 to 150).
   - **Digital Noise Reduction** — Select a level of digital noise reduction (High, Low, Off).
   - **Flesh Tone Noise Suppress** — Select a level of flesh tone noise suppression (High, Low, Off).

   Note: When you store a shot, shading controls are not saved as part of the shot.
4. Repeat **Steps 2 to 3** for each Panasonic camera in your system.

Configuring Shot Store Mode

The camera control panel has three buttons related to storing and recalling shots: **Store Shot**, **Recall Shot**, and **Delete Shot**. By default, after you use the **Store Shot** button or the **Delete Shot** button, the **Recall Shot** button becomes the active button. If you then tap a shot button, the shot is recalled because the **Recall Shot** button is active. This helps protect you from overwriting or deleting shots if you accidentally tap a shot button without first tapping the **Recall Shot** button.

You can change the behavior of these buttons so that whichever button you tap remains active until you tap a different one.

To configure shot store mode:

1. In the camera control panel, tap the **Config** button.
2. In the **Store Mode** list, select one of the following options:
   - **1-Time** — After you store or delete a shot, the **Recall Shot** button becomes the active button.
   - **Hold** — Whichever button you tap (**Store Shot**, **Recall Shot**, or **Delete Shot**) remains active until you tap a different one.
3. Tap the **Save** button.

Setting Camera Recall Speed

You can change how quickly the cameras move when they recall presets.

To set the camera preset speed

1. In the camera control panel, tap the **Config** button.
2. On the **Recall Speed** tab, do one of the following to set the speed of each camera:
   - Tap and drag the speed slider. The speed is shown in a box to the right of the slider.
   - Type a number in the speed box to the right of the slider.
   - Tap the up and down arrows beside the speed box.

   Tip: Higher numbers represent faster speeds.

Renaming Presets (Shots)

Every preset, or shot, has a number. They also have names. You can change the shot names to make them more meaningful.

To rename a preset:

1. In the camera control panel, tap the **Config** button.
2. On the **Preset Names** tab, tap the camera button corresponding to the camera for which you want to rename presets.
3. In the list of presets, find the preset you want to rename.
4. In the **Preset Names** box for the preset you want to rename, delete the old name, and then type a new one.
5. Rename other presets, as required.

Saving and Loading Camera Data

You can save all camera data in a file, and later load that file back into your camera control panel. Camera data includes camera configuration data and preset (shot) data.

Note: When you load a camera data file, any unsaved changes you made are lost. If you want to save your current camera data, do so before you load a camera data file.

To save a camera data file:

1. In the camera control panel, tap the **Config** button.
2. Beside the **Camera Data** box, tap the **Save As** button.

   The **Save Camera Data** dialog box appears.
3. In the **Filename** box, type a new name for the camera data file.
4. Tap **Save As**.

   The camera data file is saved.

To load a camera data file:

1. In the camera control panel, tap the **Config** button.
2. Beside the **Camera Data** box, tap the **Load** button.

   The **Load Camera Data** dialog box appears.
3. Tap the name of the file you want to load, and then tap the **Load Data** button.

   The camera data file loads.

Controlling Cameras and Storing, Recalling, and Deleting Shots

This section describes how to manually control cameras, and how to store, recall, and delete shots.

Controlling a Camera

This section describes how to use the camera control panel to control cameras. After you move a camera, you can save its position as a shot to be recalled later.

Tip: If your system includes a control console (joystick), you can use the joystick to move cameras and use the camera control panel to store and recall shots.

To position a camera:

1. In the camera control panel, tap the **Controls** button.
2. Tap a camera button to control that camera.

   Tip: The ten camera buttons are in a row along the top of the window.
3. Move the camera using either the control console that came with your camera system, or the Camera Control window:
   - To use the Camera Control window, tap the **PTZ Controls** button, and then adjust the following as required:
     - › **Pan and Tilt** — Tap the **Positioner** button to choose between **PAN** / **TILT** sliders or the pan/tilt positioner, and then move the camera.
     - › **Zoom** — Tap and drag the **ZOOM** slider handle to adjust the zoom.
     - › **Focus** — Tap and drag the **FOCUS** slider handle to adjust the focus.

       Tip: If the **FOCUS** slider is visible but not available, tap the **Auto Focus** button to turn off auto focus.
     - › **Iris** — Tap and drag the **IRIS** slider handle to adjust the iris.

       Tip: If the **IRIS** slider is visible but not available, tap the **Auto Iris** button to turn off automatic iris.

Storing, Recalling, and Deleting Shots

You can save a camera's position as a shot and recall it later. You can also delete shots.

After you create and store shots, you can save them in a camera data file. For more information, see "**Saving and Loading Camera Data**" on page 2–4.

To store a shot:

1. Move the camera to the position you want to store as a shot.

   For more information, see "**Controlling a Camera**" on page 2–5.
2. Tap the **Store/Recall Shots** button.
3. Tap the **Store Shot** button.
4. Do one of the following to store the shot:
   - On the numeric keypad, type the shot number and then tap **Enter**.
   - Store the shot graphically:
     - › Tap a **Bank** button to select a shot bank.

       Tip: Each shot bank contains 100 shots. Bank 0 contains shots 0 to 99, bank 1 contains shots 100 to 199, and so on.
     - › Tap a shot button to store the shot.

       The shot button turns blue to indicate that it contains a shot.

5. Rename the shot, if necessary.

   For more information, see "**Renaming Presets (Shots)**" on page 2–4.

To recall a shot:

1. Tap the **Store/Recall Shots** button.
2. Tap the **Recall Shot** button.
3. Do one of the following to recall the shot:
   - On the numeric keypad, type the shot number and then tap **Enter**.
   - Recall the shot graphically:
     › Tap a **Bank** button to select a shot bank.

     Tip: Each shot bank contains 100 shots. Bank 0 contains shots 0 to 99, bank 1 contains shots 100 to 199, and so on.

     › Tap a shot button to recall the shot.

     Tip: Only blue buttons contain shots.

To delete a shot:

1. Tap the **Store/Recall Shots** button.
2. Tap the **Delete Shot** button.
3. Do one of the following to delete the shot:
   - On the numeric keypad, type the shot number and then tap **Enter**.
   - Delete the shot graphically:
     › Tap a **Bank** button to select a shot bank.

     Tip: Each shot bank contains 100 shots. Bank 0 contains shots 0 to 99, bank 1 contains shots 100 to 199, and so on.

     › Tap a shot button to delete the shot.

     Tip: Only blue buttons contain shots.

Backing up Camera Control Panel Data

When your camera panel is completely configured and ready for use, back up the camera control panel files.

To back up camera control panel files:

1. On the camera control computer, navigate to the **C:** directory.
2. Create a copy of the **Panasonic HE-120** folder and save it with a new name.
3. Store a copy of the backup folder in a safe place, such as on a different computer, in a backed-up network location, or on a mobile storage device such as a USB stick.

User Interface Reference

This section describes the controls available in the Panasonic camera control panel.

The camera control panel consists of two interfaces:

- **Camera Configuration (Config) Window** — Enables you to configure camera settings such as camera names, IP addresses, recall speeds, and preset (shot) names. For more information, see "**Camera Configuration Window**" on page 2–7.
- **Camera Control (Controls) Window** — Enables you to operate cameras. You can move cameras, store and recall shots, and adjust shading controls. For more information, see "**Camera Control Window**" on page 2–11.

Camera Configuration Window

The camera configuration window enables you to configure camera settings such as camera names, IP addresses, recall speeds, and preset (shot) names.

To access the camera configuration window:

- Tap the **Config** button.

The **Config** window includes the following tabs:

- "**General Tab**" on page 2–7
- "**Cameras Tab**" on page 2–8
- "**Recall Speed Tab**" on page 2–9
- "**Preset Names Tab**" on page 2–10
- "**Joystick Tab**" on page 2–10

General Tab

The **General** tab includes the following settings and buttons:

Setting or Button	Description
Debug	Debug mode collects information about camera control panel performance. Turn Debug mode on only if asked to do so by Ross Video Technical Support.
Panasonic Controller	If you are using a **Panasonic AW-RP120** control console (joystick console), turn the **Panasonic Controller** option **ON**. **Note:** A Panasonic joystick console is not required to use the Panasonic camera control panel.
Controller IP	Specify the IP address of the **Panasonic AW-RP120** control console (joystick console), if present. **Note:** A Panasonic joystick console is not required to use the Panasonic camera control panel. **Tip:** When enabled, the Panasonic joystick control follows the selected camera. For example, if you select a camera in the camera control panel, the Panasonic joystick can immediately control it.
Joystick Server	Shows the IP address of the Ross Video joystick server (if equipped). This is not configurable.

Setting or Button	Description
Store Mode	By default, after you use the **Store Shot** button or the **Delete Shot** button, the **Recall Shot** button becomes the active button. If you then tap a shot button, the shot is recalled because the **Recall Shot** button is active. This helps protect you from overwriting or deleting shots if you accidentally tap a shot button without first tapping the **Recall Shot** button. The Store Mode feature enables you to change the behavior of these buttons so that whichever button you tap remains active until you tap a different one. The options are as follows: • **1-Time** — After you store or delete a shot, the **Recall Shot** button becomes the active button. • **Hold** — Whichever button you tap (**Store Shot**, **Recall Shot**, or **Delete Shot**) remains active until you tap a different one.
Camera Data	Shows the name of the current camera data file. Camera data includes camera configuration data and preset (shot) data.
Load button	Enables you to load a camera data file.
Save As button	Enables you to save a camera data file.
Send Camera Preset Names	Tap this button to send the names of presets (shots) to other inter-connected DashBoard panels, such as a Legislative Control System (LCS) panel. Sending the preset names enables the other panel(s) to display them. **Tip:** Preset names are defined on the Preset Names tab.
Save	Saves changes made on the **General** tab. If you do not save your changes, they may be lost.

Cameras Tab

Figure 2.1 shows the **Cameras** tab.

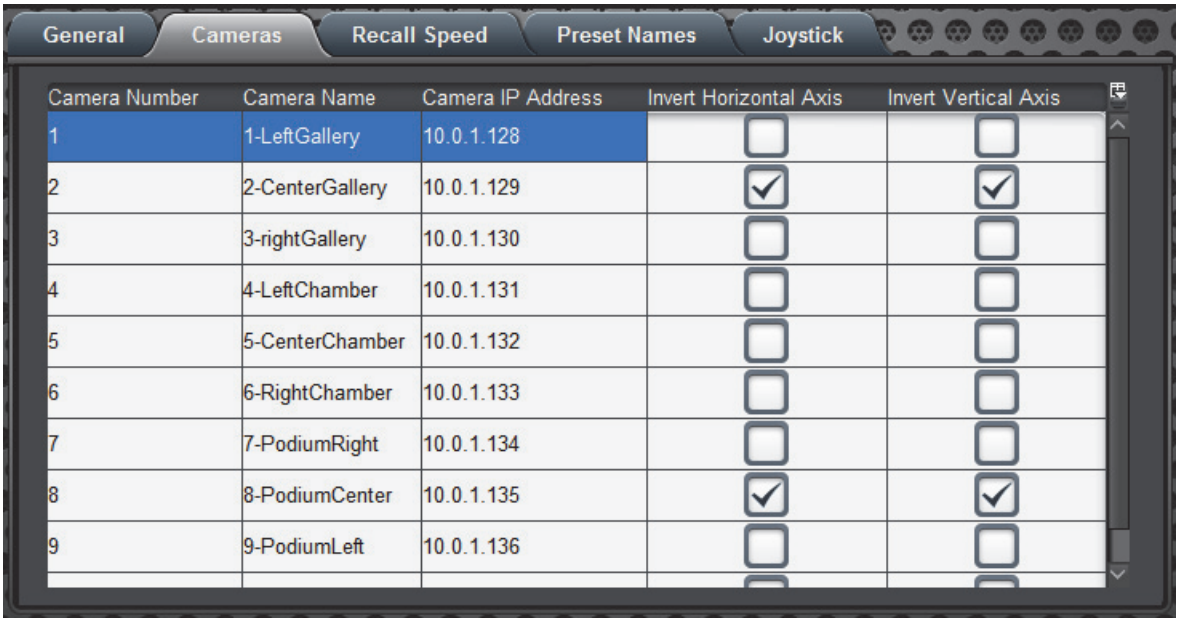


Figure 2.1 *Cameras Tab*

The **Cameras** tab includes the following settings and buttons:

Setting or Button	Description
Camera Number	The number of the camera being controlled. This is not editable. Each row in the table represents one camera.
Camera Name	Specify a meaningful name for the camera.
Camera IP Address	Specify the IP address of the camera. Every camera must have a unique IP address.
Invert Horizontal Axis	Reverses the direction the camera pans when manipulated by a joystick or the Camera Control window. Use this option if the camera is mounted in an inverted position.
Invert Vertical Axis	Reverses the direction the camera tilts when manipulated by a joystick or the Camera Control window. Use this option if the camera is mounted in an inverted position.

Recall Speed Tab

Figure 2.3 shows the **Recall Speed** tab.

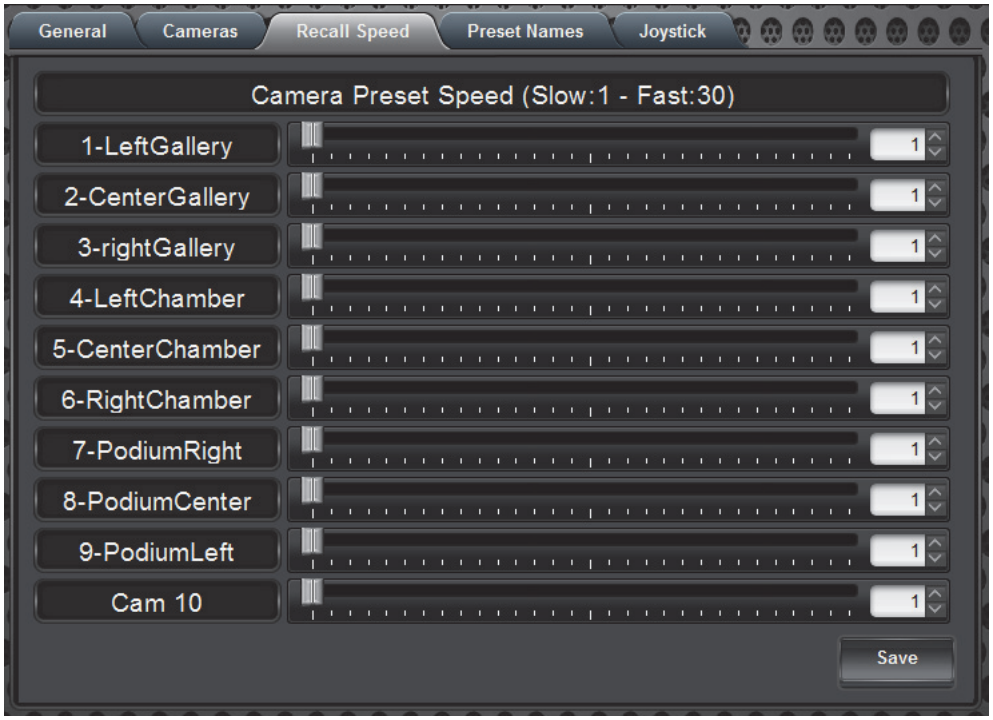


Figure 2.2 *Recall Speed Tab*

The **Recall Speed** tab includes the following settings and buttons:

Setting or Button	Description
Camera preset speeds	Do one of the following to set the speed of each camera: • Tap and drag the speed slider. The speed is shown in a box to the right of the slider. • Type a number in the speed box to the right of the slider. • Tap the up and down arrows beside the speed box. **Tip:** Higher numbers represent faster speeds
Save	Saves changes made on the **Save** tab. If you do not save your changes, they may be lost.

Preset Names Tab

Figure 2.3 shows the **Preset Names** tab.

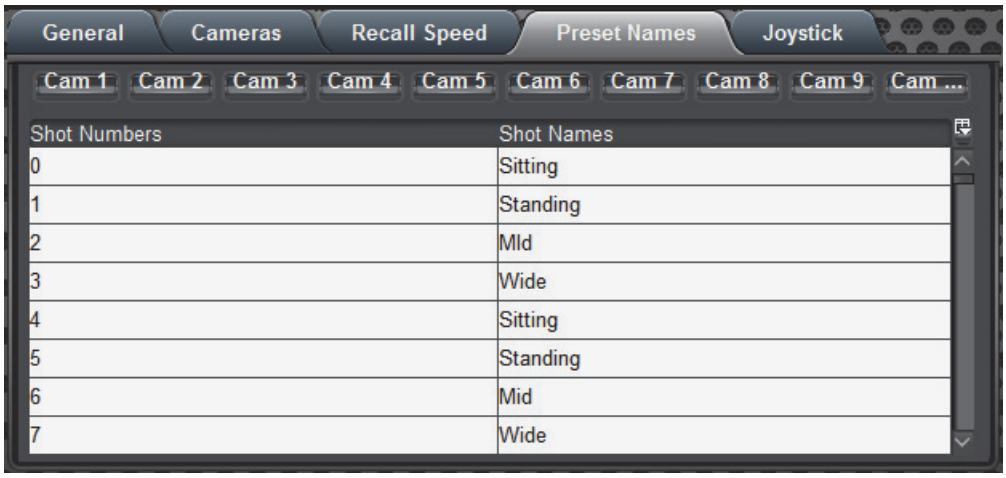


Figure 2.3 *Preset Names Tab*

The **Preset Names** tab includes the following settings and buttons:

Setting or Button	Description
Camera buttons	Each camera button corresponds to a camera in the system. Each camera has a separate list of presets. Tap a tab to set preset names for shots on a different camera.
Shot Numbers	Each preset on a given camera has a unique preset number, or shot number, to identify the preset. This is not configurable.
Shot Names	Specify a meaningful name for the preset (also known as a shot). Examples of typical shot names include, “sitting”, “standing”, “close”, “far”, “tight”, and “wide”.

Joystick Tab

The **Joystick** tab displays raw data from the Ross Video joystick panel (if equipped), for diagnostic purposes. The data is not configurable. If the tab does not show data, or says **No Connection**, then no connection to the joystick is detected.

Camera Control Window

The camera control window enables you to operate cameras. You can move cameras, store and recall shots, and adjust shading controls.

To access the camera control interface:

- Tap the **Controls** button.

The **Controls** interface includes the following windows:

- "**Store/Recall Shots Window**" on page 2–11
- "**PTZ Controls Window**" on page 2–12
- "**Shading Controls Window**" on page 2–14

Store/Recall Shots Window

The **Store/Recall Shots** window enables you to store camera positions as shots for future recall. It also enables you to recall those shots. The **Store/Recall Shots** window is used as an operator interface for controlling cameras during a presentation.

To access the Store/Recall Shots window:

- From the camera control interface, tap the **Store/Recall Shots** button.

Figure 2.4 shows the **Store/Recall Shots** window.

Figure 2.4 *Store/Recall Shots Window*

The **Store/Recall Shots** window includes the following settings and buttons:

Setting or Button	Description
Camera buttons	The row of ten buttons across the top of the **Store/Recall Shots** window includes one button per camera. Tap a button to select the camera to which you want to store shots, or from which you want to recall them.
Store Shot button	Tap the button to switch to **Store Shot** mode. In **Store Shot** mode, you can save the current camera position as a shot for future recall.
Recall Shot button	Tap the button to switch to **Recall Shot** mode. In **Recall Shot** mode, you can recall saved shots for the current camera. **Recall Shot** mode is used for camera operation.
Delete Shot button	Tap the button to switch to **Delete Shot** mode. In **Delete Shot** mode, you can delete existing shots. **Tip:** Shot buttons that contain shots are blue.
Shot Selection keypad	Type a shot number and then press the **Enter** button on the keypad to store or recall a shot, depending on the current mode. Alternatively, you can type a number in the box above the keypad and then press the **Enter** button on the keypad.
Bank buttons	Tap a bank button to quickly access a group of shots. The camera control panel can only display 100 shot buttons at a time. Shot banks enable you to change which group of 100 shots is shown.
Shot buttons	Tap a **Shot** button to store, recall, or delete a shot, depending on the current mode. **Shot** buttons are used for camera operation. **Tip:** Be aware of the current mode (**Store Shot**, **Recall Shot**, or **Delete Shot**) before you tap a **Shot** button.

PTZ Controls Window

The **PTZ Controls** window enables you to manually adjust the position of the currently-selected camera. You can move cameras during a presentation, or move them into position to store a shot.

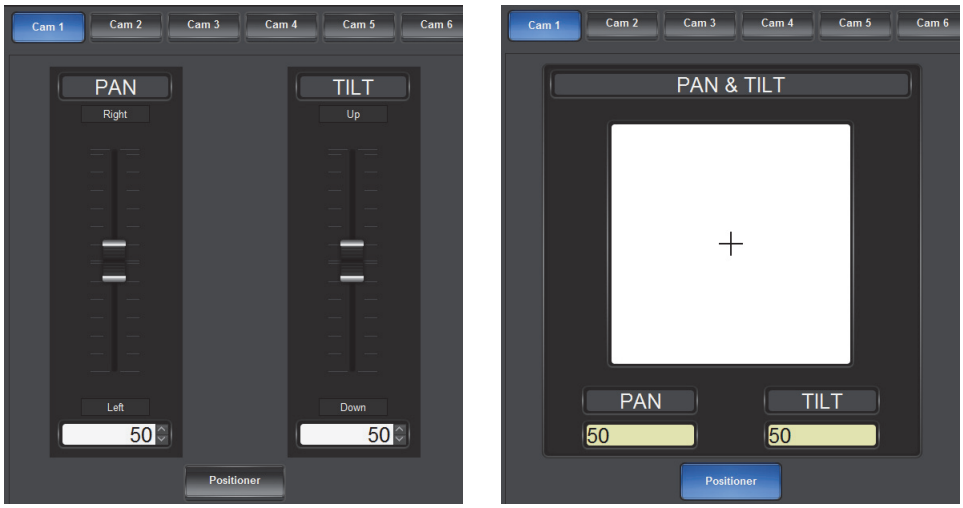
To access the PTZ Controls window:

- From the camera control interface, tap the **PTZ Controls** button.

Figure 2.5 shows the **PTZ Controls** window.

Figure 2.5 *PTZ Controls Window (showing Pan/Tilt positioner)*

The **PTZ Controls** window includes the following settings and buttons:

Setting or Button	Description
Camera buttons	The row of ten buttons across the top of the **PTZ Controls** window includes one button per camera. Tap a button to select which camera you want to move.
Positioner button	Switches between interfaces for adjusting pan and tilt positions: • **PAN and TILT sliders** — enable you to adjust pan and tilt separately. • **PAN & TILT Positioner** — enables you to adjust pan and tilt simultaneously.  ***Figure 2.6*** *Pan/Tilt Sliders (left) and Pan/Tilt Positioner (Right)*

Setting or Button	Description
PAN and TILT sliders	Tap and drag the **PAN** or **TILT** slider handles to pan or tilt the camera. Alternatively, you can type a value in the box below the slider, or use the up/down arrows beside the box to select a value. The value range is **1** to **99**. Higher pan values pan right. Higher tilt values tilt upwards. Pan and tilt slider values are relative, not absolute. When you release the slider, the value shown returns to zero.
PAN & TILT Positioner	Tap and drag the cross-hairs within the white box until the camera is in the desired pan/tilt position. Positioner values are relative, not absolute. When you release the cross-hairs, they return to the center and the values return to **50**.
ZOOM slider	Tap and drag the **ZOOM** slider handle up or down to zoom the lens. Alternatively, you can type a value in the box below the slider, or use the up/down arrows beside the box to select a value. The value range is **1** to **99**. Higher values are towards telephoto, and lower values are towards wide. Zoom slider values are relative, not absolute. When you release the slider, the value shown returns to zero.
Auto Focus button	Tap to switch between automatic focus and manual focus control. When **Auto Focus** is **OFF**, you can adjust focus using the **FOCUS** slider.
FOCUS slider	Tap and drag the **FOCUS** slider handle up or down to focus the lens manually. Alternatively, you can type a value in the box below the slider, or use the up/down arrows beside the box to select a value. The value range is **1** to **99**. Higher values are towards far focus, and lower values are towards near focus. Focus slider values are relative, not absolute. When you release the slider, the value shown returns to zero. **Note:** If the **FOCUS** controls are shown but not available, tap the **Auto Focus** button below the slider to turn auto focus **OFF**. You cannot adjust focus if auto focus is **ON**.
Auto Iris button	Tap to switch between automatic and manual iris control. When **Auto Iris** is **OFF**, you can adjust the iris using the **IRIS** slider.
Iris slider	If you want to adjust the iris, tap and drag the **IRIS** slider handle up or down. Alternatively, you can type a value in the box below the slider, or use the up/down arrows beside the box to select a value. The value range is **1** to **99**. Higher values open the iris, and lower values close it. Iris slider values are absolute. When you release the slider, the value you set remains. **Note:** If the **IRIS** controls are shown but not available, tap the **Auto Iris** button below the slider to turn automatic iris **OFF**. You cannot adjust the iris if automatic iris is **ON**.

Shading Controls Window

The **Shading Controls** window enables you to adjust selected camera controls, including shading and shutter speed. Shading settings remain until changed again. They are not saved as part of the shots.

Note: For more information about the effect of these camera controls, refer to the documentation that came with your camera system.

To access the Shading Controls window:

- From the camera control interface, tap the **Shading Controls** button.

Figure 2.7 shows the **Shading Controls** window.

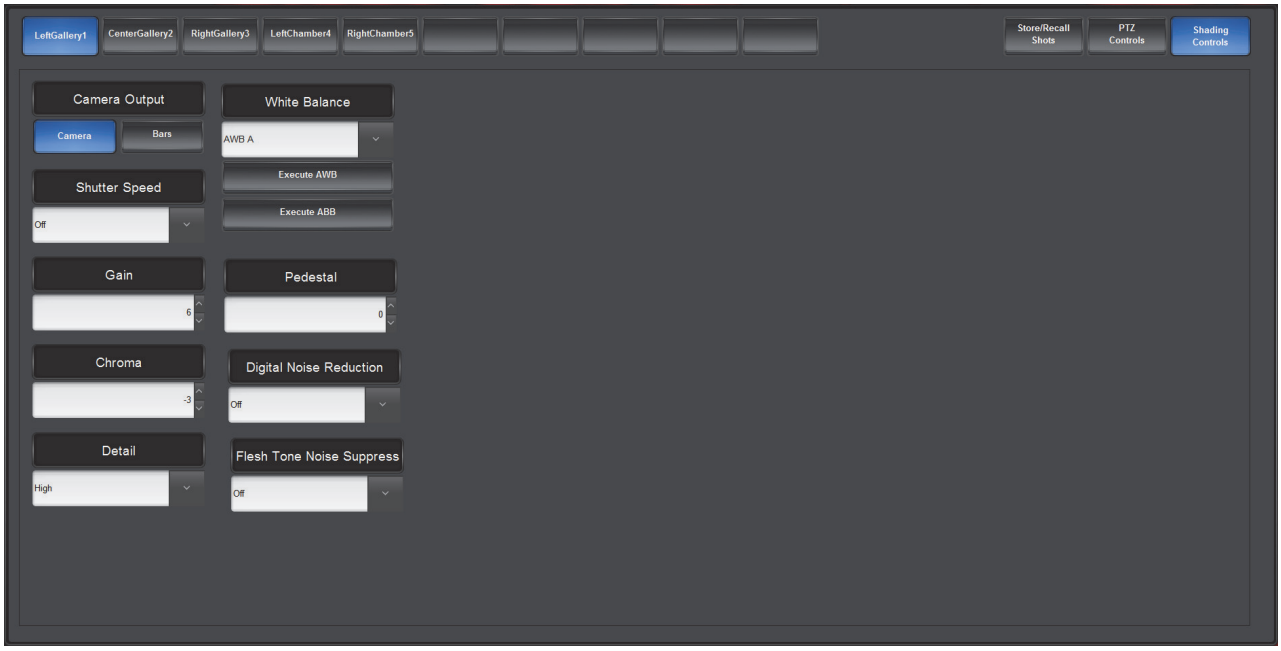


***Figure 2.7** Shading Controls Window*

The **Shading Controls** tab includes the following settings and buttons:

Setting or Button	Description
Camera buttons	The row of ten buttons across the top of the **Shading Controls** window includes one button per camera. Tap a button to select which camera you want to adjust.
Camera Output	Switches between normal camera output and test bars.
Shutter Speed	Select a shutter speed from the list, or select **Off**. **Tip:** When this setting is **Off**, the shutter will not operate, even if the **Shutter** button on the camera is pressed.
Gain	Specify a gain value. The range is 0 to 30.
Chroma	Specify a chroma value. The range is -3 to 3.
Detail	Select a level of image detail (sharpness) from the list. The options are **High**, **Low**, or **Off**. **Tip:** If **Detail** is set to **High**, detail is enhanced.
White Balance	Select a white balance option from the list, to perform a camera white balance: • **ATW** — Auto-Tracing White Balance. White balance adjusts continuously as you shoot. • **AWB A** — Auto White Balance A. Applies a saved white balance preset. • **AWB B** — Auto White Balance B. Applies a saved white balance preset. • **Preset 3200K** — Applies white balance for typical indoor (incandescent) conditions. • **Preset 5600K** — Applies white balance for typical outdoor (daylight) conditions. **Note:** When you store a shot, white balance and other shading controls are not saved as part of the shot.
Execute AWB button	Tap this button to perform a white balance. If **AWB A** or **AWB B** are selected, tapping **Execute AWB** also stores the white balance level in the preset shown (**AWB A** or **AWB B**).

Setting or Button	Description
Execute ABB button	Tap this button to perform an Automatic Black Balance (**ABB**).
Pedestal	Specify a black pedestal level. The range is **-150** to **150**.
Digital Noise Reduction	Select a level of digital noise reduction. The options are **Off**, **Low**, and **High**.
Flesh Tone Noise Suppress	Select a level of flesh tone noise suppression. The options are **Off**, **Low**, and **High**.