

DashBoard



User Manual for PTZ Camera Control Plugin

for DashBoard v9.15 (or higher)

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User Manual for PTZ Camera Control Plugin

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Introduction

This chapter contains the following sections:

- “**Overview**”
- “**Documentation Conventions**”
- “**Contacting Technical Support**”

Overview

The PTZ Camera Control plugin is a DashBoard application that enables you to configure and control supported PTZ cameras such as Ross Video’s PTZ-12G and PTZ-NDI cameras. You can control cameras manually, store and recall presets, and configure camera settings.

This manual describes how to use the PTZ Camera Control plugin to operate PTZ cameras.

Documentation Conventions

Special text formats are used in this manual 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:

On the **Manage Deleted presets page**, tap the **ALL BANKS** tab to view all deleted presets.

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-Typed Text

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

In the **File Name** box, type `Channel02.property`.

Referenced Guides

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

User Manual for PTZ Camera Control Plugin (8351DR-015-xx)

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**.

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 any time. Emergency after hours calls are answered by an answering service (live person) who will patch your call to the on-call support specialist. In the event that the on-call person is assisting another customer, the answering service will contact the back-up support specialist.

Our team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

- **Toll Free Technical Support 24/7:** 1-844-652-0645 (North America), or +800 1005 0100 (International)
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System Setup

This section describes how to set up a PTZ Camera Control system.

Complete the following major tasks, in the order presented:

- “**Install Cameras**”
- “**Install DashBoard Software**”
- “**Add Cameras to DashBoard**”
- “**Establish Bank Structure (Rebuild Banks)**”
- “**Specify Where Presets are Stored, and from Where they are Recalled**”

After you complete the tasks listed above, you can customize the configuration for each camera. For information about configuration settings, see “**Configuration Settings and On-Screen Menu**”.

Install Cameras

Before you can use the PTZ Camera Control plugin to control your cameras, they must be securely mounted, cabled, and turned on.

Configure each camera to have a unique IP addresses. All PTZ cameras must be accessible by the PTZ Camera Control computer over the IP network. For more information about configuring IP addresses for the cameras, refer to the documentation that came with them.

DashBoard supported PTZ Cameras include:

- Ross Video **PTZ-12G+**, **PTZ-12G**, and **PTZ-NDI**
- **PIVOTCam-SE**
- **Sony BRC-H900**, **BRC-X1000**, **ILME-FR7**, and **BRC-AM7**
- **Panasonic AW-UE150**, **AW-UE160**, and **AW-HR140**
- **Lumens VC-A71P** and **VC-A71PN**
- **Canon CR-N300**, **CR-N500**, and **CR-X300**

Note: The **Sony ILME-FR7** and **BRC-AM7** both feature a physical **Setup switch** that must be turned ON to enable remote **VISCA control** via DashBoard. Refer to the camera’s user manual for the exact switch location and configuration procedure.

Install DashBoard Software

Install the latest version of the DashBoard Control System application on the PTZ Camera Control computer. The PTZ Camera Control plugin is automatically installed as part of DashBoard.

DashBoard and the DashBoard User Guide are available as free downloads from Ross Video. The DashBoard User Guide contains instructions for installing DashBoard. Both are available at the following location:

<https://www.rossvideo.com/products-services/management-systems/automated-production-control/dashboard/>

Add Cameras to DashBoard

Add each camera as a device in DashBoard.

Control of Ross Video PTZ cameras is free and requires no software license. If you are using one or more third-party cameras, such as Sony BRC cameras or Panasonic PTZ cameras, you will require a license key code from Ross Video. Because the key code is a response to a prompt that appears while you are adding the first camera, the key code cannot be obtained in advance. Be prepared to contact Ross Video Technical Support when you add the first camera. For third-party **Software Based Licensing** or **Ross Key Based Licensing**, refer to **“To add a camera:”**.

Note: PTZ-12G+, PTZ-12G, and PTZ-NDI cameras, PIVOTCam-SE cameras, Sony PTZ cameras, Canon PTZ cameras, and Lumens PTZ cameras communicate with DashBoard via UDP through port 52381 on the DashBoard computer. If you are using these types of cameras, ensure that port 52381 is accessible and is not blocked by a firewall application.

Note: When adding a Panasonic PTZ camera with **user authentication** enabled, it is recommended to **disable authentication** on the camera before adding it to DashBoard. Once the camera has been successfully added, you can configure the **username** and **password** in DashBoard, then re-enable **authentication** on the camera. Refer to **Configuring Authentication (Panasonic Cameras Only)**.

To add a camera:

1. On the PTZ Camera Control computer, open DashBoard.
2. From the **File** menu, tap **New**, and then tap **Other**.
The **New** dialog box appears.
3. Expand the **Cameras** node, tap **PTZ Camera**, and then tap **Next**.
The **New PTZ Cameras Connection** dialog box appears ([Figure 1](#)).

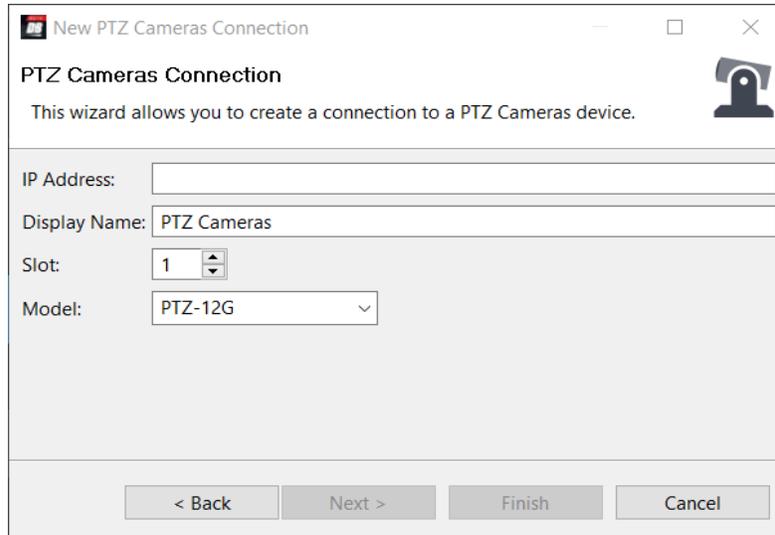


Figure 1 - The New PTZ Cameras Connection dialog box

4. In the **IP Address** box, type the IP address of the camera.
5. In the **Display Name** box, type the name of the camera, as you want it to appear in DashBoard.
6. In the **Model** list, select the model of the camera.
Note: For **Panasonic PTZ cameras** with **user authentication** enabled, it is recommended to **disable authentication** on the camera before adding it to DashBoard. Once added, you can enter the required credentials in DashBoard and then **re-enable authentication** on the camera.
7. In the **Slot** box, select or type a slot number (1 or higher) to specify the order in which the camera is to be listed in the DashBoard tree.
Tip: If you do not specify a slot number, or if you specify one that is already in use, the camera is assigned the lowest available slot number.

Note: When adding a **Panasonic AW-UE150, AW-UE160, or AW-HR140** PTZ camera, for DashBoard v9.8 or higher, a **Port** box appears. The default port is 80. Refer to ([Figure 2](#)).

Figure 2 - Connecting a Panasonic AW-UE150 PTZ camera in DashBoard

The port value should be set to match the value configured on the camera. DashBoard connects to the provided port when selecting **Finish**.

8. Tap Finish.

The camera should appear in the DashBoard tree, within the **PTZ Cameras** node ([Figure 3](#)).

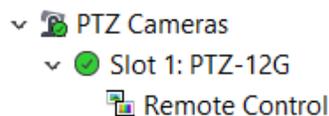


Figure 3 - The PTZ Cameras node in the DashBoard tree

9. If the camera fails to appear in the DashBoard tree, or appears with a red dot, do the following:
 - a. Ensure that power is connected to the camera, and that the camera is turned **ON**.
 - b. Check the IP address you typed in **Step 4** and ensure that it matches the IP address of the camera.
 - c. Ensure that no other application on the computer is already connected to, or trying to connect to, the camera (for example, another instance of DashBoard).

Tip: If an instance of DashBoard is already connected to the camera, the following error message may appear:

Error - unable to bind to UDP port for camera

10. Integrating a third-party camera with DashBoard necessitates license activation. DashBoard supports two licensing options: **Software-Based Licensing** and **Ross Key Based Licensing**.

Software-based licensing involves connection of DashBoard to the Ross activation server either directly or via a Ross Product Manager licensing server on prem. To use software-based licensing, you will need a product key provided by Ross.

Ross Key Based Licensing is a fixed license tied to your hardware. During the licensing process you will need to send a key code to Ross technical support who will return a license key for you to enter into DashBoard.

For more information, refer to the DashBoard User Guide **8351DR-004-XX**.

Note: Product key packs do not require a hardware request code but does require an RPM sever or access to the Activation server.

For activating DashBoard licensed features, refer to the following procedures:

To update DashBoard licensed features (Software Based Licensing method)

- a. From the main toolbar, select **Window > Preferences**. Refer to [Figure 4](#).

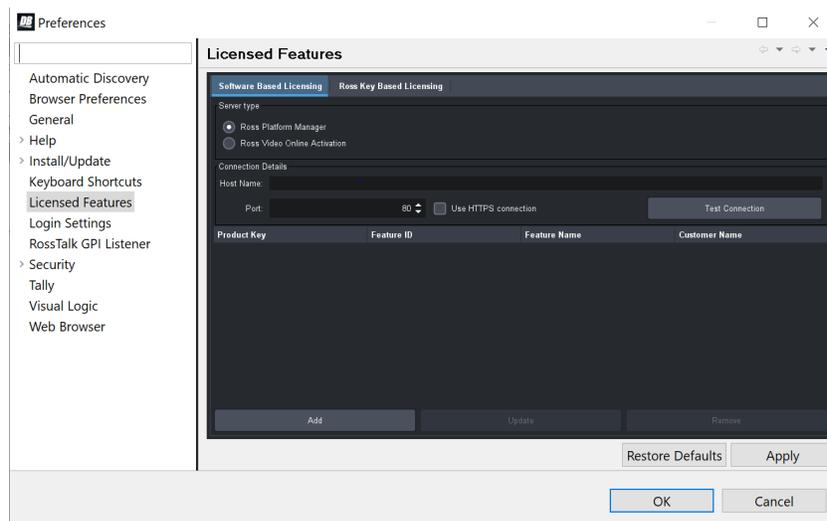


Figure 4 - DashBoard Licensed Features - Software Based Licensing tab

- b. The **Preferences** dialog box opens.
- c. From the **Preferences** dialog box, select **Licensed Features**.
- d. In the **Licensed Features** dialog box, ensure the **Software Based License** tab is selected.
- e. Select the **Server type** that you are using to provide licensing.
- f. If you are using the Ross Platform Manager server type, enter the **Host Name** and **Port** of the server and whether to **Use HTTPS connection**.
Note: Select **Apply** to save your server settings.
Note: Use the **Test Connection** button to confirm a successful connection if necessary.
- g. Once connection to the server is established, select **Add** and enter the product key provided to you.
If successful, the feature you added will appear in the **Licensed Features** table.
Note: Select **Apply** to confirm your changes.

To update DashBoard licensed features (Ross Keys Based Licensing method)

For obtaining and entering a Ross licensing key code, complete the following:

- a. From the main toolbar, select **Window > Preferences**. Refer to [Figure 5](#).

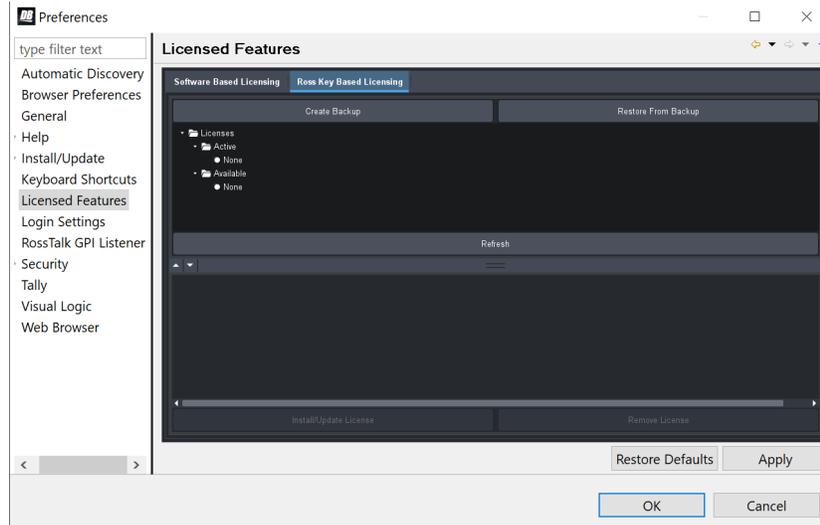


Figure 5 - DashBoard Licensed Features - Ross Key Based Licensing tab

- b. The **Preferences** dialog box opens.
- c. From the **Preferences** dialog box, select **Licensed Features**.
- d. In the **Licensed Features** dialog box, ensure the **Ross Key Based License** tab is selected.
- e. From either the **Active** or **Available** subfolder, select the feature you want to update.
- f. To obtain a Ross License Key by completing the following:
 - i. Click **Install/Update License**.
 - ii. The **Enter License Key** dialog box opens. Refer to [Figure 6](#).

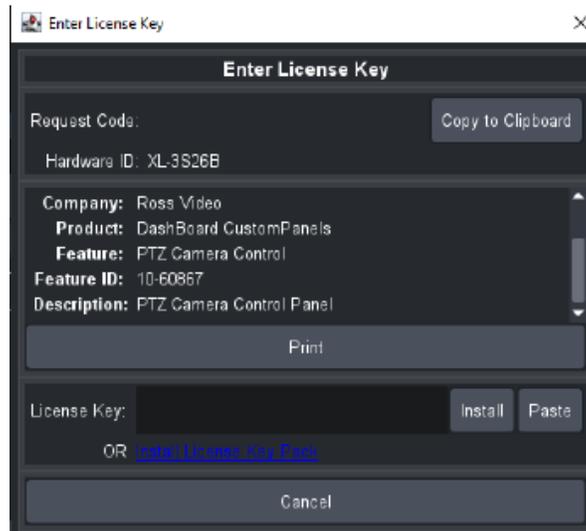


Figure 6 - DashBoard Licensed Features - Enter License Key

- iii. Select **Copy to Clipboard** to copy your request code.
- iv. Paste the request code into an e-mail to Ross Video (techsupport@rossvideo.com), requesting a corresponding license key. Be sure to include the original Ross Video sales order number.

CAUTION: Do not close the **Enter License Key** dialog box until you receive and apply an activation code from Ross Video. If you leave the **Enter License Key** dialog box, the activation code you receive will not work. It is valid only for the session during which it was generated.

- v. When you receive the license key via email, copy and paste it into the **License Key** box, and then tap Install.
- vi. The selected feature updates and the most current data is displayed in the **License Details**.

11. If the camera is ceiling-mounted (inverted), we recommend you turn **On** the **Image Flip** and **Image Mirror** options (also known as **Ceiling Mount** for some cameras) before you create any presets. Changing these settings after presets exist renders the presets useless. The **Image Flip** and **Image Mirror** options are available in the PTZ Camera Control plugin at **Config > Camera > Camera Options**.

For more information, see “**Image Flip and Image Mirror**”.

Establish Bank Structure (Rebuild Banks)

A bank is a grid of preset buttons, each of which represents a camera preset. The PTZ Camera Control plugin can store multiple banks of preset buttons. You can configure the banks to suit your requirements.

For each camera, it is important to establish the structure of its banks (rebuild banks) **BEFORE** you start storing presets, because rebuilding banks requires all presets to be permanently discarded.

For information about establishing the bank structure for a camera, see “**Rebuild Banks**”.

Note: If you intend to configure a camera by importing a camera settings (.camera) file, rebuilding banks does not apply. The bank structure is imported as part of the camera settings file. For more information about importing camera settings, see “**Load (Import) Banks, Presets, and Camera Settings (.camera file)**”.

Specify Where Presets are Stored, and from Where they are Recalled

You can specify whether presets stored by the PTZ Camera Control plugin are stored in local memory AND in the camera's memory, or only in local memory. You can also specify whether the PTZ Camera Control plugin recalls presets from local memory or from the camera's memory.

By default, the PTZ Camera Control plugin does not store presets on the camera, and recalls them from local memory only.

Note: For Canon PTZ cameras, presets can only be stored in the camera's memory. The DashBoard computer does not support local memory storage.

We recommend you configure these settings before creating presets:

- The setting to specify whether presets are stored locally is in the **Interface** area of the **Config** page (**Config > Operation > Interface > Store Presets on Camera**).
- The setting to specify whether presets are recalled from local memory or from the camera's memory is in the **Interface** area of the **Config** page (**Config > Operation > Interface > Recall Presets From**).
- The setting to specify whether DashBoard will recall presets from camera memory even when no preset is stored locally (**Blind Recall**).

For more information, see “**Operation Settings Page**”.

PTZ, Iris, and Focus Controls

This section contains topics about controls that are available on the **PTZ** page:

- “**Pan/Tilt Controls**”
- “**Zoom Controls**”
- “**Iris Controls**”
- “**Focus Controls**”

Note: Some features described in this section are not available on all cameras. The selection of features and the appearance of the interface may vary between camera models. Unless stated otherwise, figures and feature descriptions in this section describe the interface as it appears for Ross Video PTZ-12G+, PTZ-12G, and PTZ-NDI cameras. For information about controls for other camera types, refer to the user manuals for those cameras.

To access the **PTZ** page:



- Tap the **PTZ** button.

If a message about enabling joystick control appears, click the **Enable Joystick Control** button.

The PTZ page appears ([Figure 7](#)).

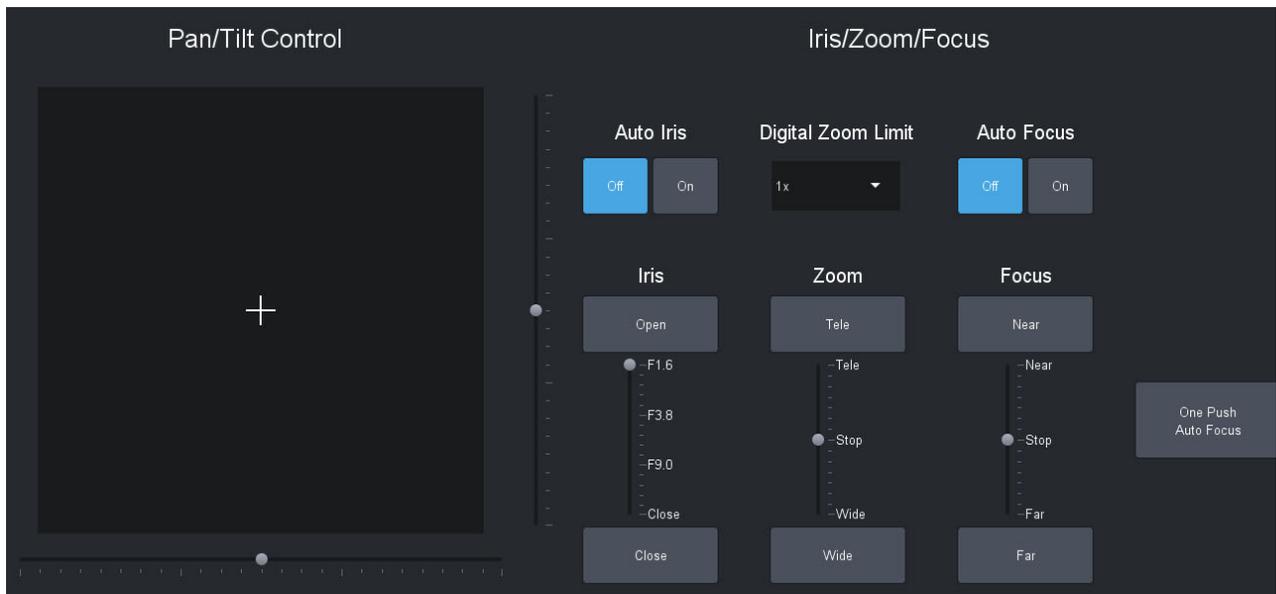


Figure 7 - Pan/Tilt controls and Iris/Zoom/Focus controls

Pan/Tilt Controls

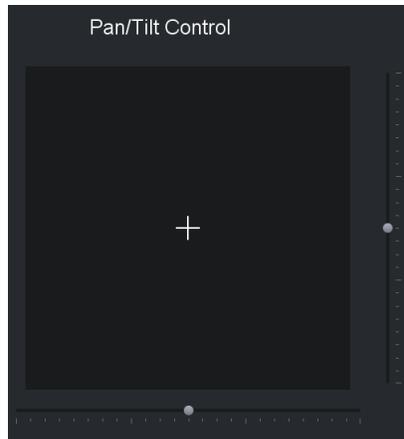


Figure 8 - Pan/Tilt controls

To pan and/or tilt the camera, do one of the following:

- Tap and drag the cross-hairs away from center. The farther the cross-hairs are from center, the faster the camera moves.
- Tap and drag either the pan slider or the tilt slider away from center. The farther the slider handle is from center, the faster the camera moves.

Zoom Controls

This section describes zoom controls as they appear for PTZ-12G+, PTZ-12G, and PTZ-NDI cameras. Zoom controls vary by camera model. Some do not have digital zoom controls. Others have an On/Off setting for digital zoom.



Figure 9 - Zoom controls

To adjust the Digital Zoom Limit (maximum zoom value):

1. Tap the **Digital Zoom Limit** drop down menu.
2. Select the zoom limit (**1x** to **12x**).

To adjust the Zoom setting, do one of the following:

- Tap and drag the **Zoom** slider handle upwards to zoom in (telephoto), or downwards to zoom out (wide). The farther the **Zoom** slider handle is from center, the faster the lens zooms.
- Tap and hold the **Tele** button or the **Wide** button.

Tip: To adjust the zoom rate, go to the **Config > Operation > Joystick** area, and then adjust **Zoom Tele/Wide Button Sensitivity**.

Iris Controls



Figure 10 - Iris Controls

To turn on Auto Iris:

- Tap Auto **Iris > On**.

Note: The Iris controls for the Sony ILME-FR7 are velocity based (just as the Zoom and Focus controls are).

To adjust the iris manually:

- Tap **Auto Iris > Off**, and then do one of the following:
 - › On the **Iris** slider, tap either **Open** or **Close**. The iris moves one step with each tap.
 - › Tap and drag the Iris slider handle upwards to open the iris, or downwards to close it.

Tip: To adjust the **Iris Open/Close Sensitivity** on Sony ILME-FR7, BRC-AM7, and Panasonic PTZ cameras, go to the **Config > Operation > Joystick** area, and then adjust **Iris Open/Close Button Sensitivity**.

Focus Controls

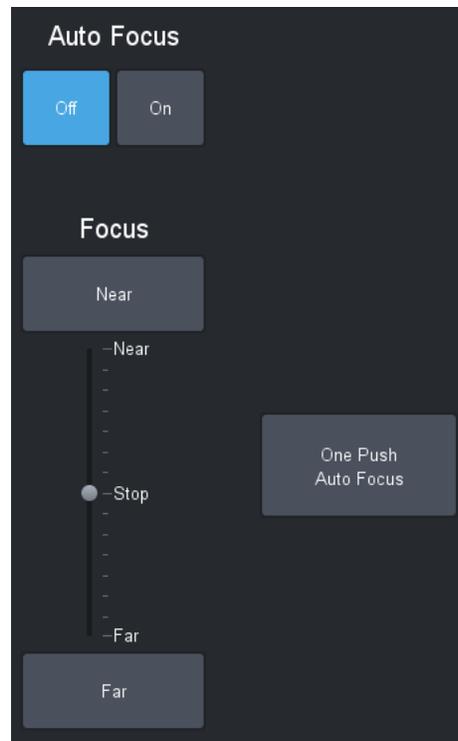


Figure 11 - Focus controls

To turn on Auto Focus:

- Tap **Auto Focus** > **On**.

To automatically focus the lens once:

- Tap **Auto Focus** > **Off**, and then tap the **One Push Auto Focus** button.

To adjust focus manually:

- Tap **Auto Focus** > **Off**, and then do one of the following:
 - › Tap and drag the **Focus** slider handle upwards (**Near**), or downwards (**Far**). The farther the **Focus** slider handle is from center, the faster the lens focuses.
 - › Tap and hold the **Near** button or the **Far** button.

Tip: To adjust the focus rate, go the **Config** > **Operation** > **Joystick** area, and then adjust **Focus Near/Far Button Sensitivity**.

Presets Page

The **Presets** page consists of banks of preset buttons, each of which can store a preset for future recall.

A preset is a record of all controllable axis positions and selected settings for a camera, including pan, tilt, focus, zoom, iris, exposure, white balance, etc.



To access the panel, tap the **Presets** button.

This section of the User Manual includes the following topics:

- “**Interface Overview**”
- “**About Preset Modes**”
- “**Presets Page (in Panel Mode)**”
- “**Presets Page (in Shotbox Mode)**”

Interface Overview

Navigation between pages, camera refresh, and tally indication are all available along the top of the Dashboard UI, as shown in [Figure 12](#).



Figure 12 - Buttons at the top of the DashBoard UI

- **Refresh Camera** — Retrieves updated status information from the camera.
- **Presets Page** — Opens the **Presets** page, which can be set to either **Panel Mode** or **Shotbox Mode**, depending on the configuration settings.
- **PTZ Page** — Opens the **PTZ** page to allow pan, tilt, and zoom control.
- **Paint Page** — Opens the **Paint** page to allow customized **Paint** setting configuration.
- **Config Page** — Opens the **Configuration** page, which allows modification of the **Camera**, **Operation**, and **Gateway** settings.
- **ON/OFF-AIR** — Displays the tally indicator, which responds in accordance with the tally state.
- **Status** — Indicates the connection status.

About Preset Modes

The PTZ Camera Control interface has two operation modes, also known as **Preset Modes**, which define the behavior of the **Presets** page:

- **Panel mode** — In this mode, you tap a preset to select it, and then tap an action button (**Recall**, **Store**, **Edit Preset Options**, or **Delete**) at the bottom of the **Presets** page. When you select a preset, the border of the preset button turns purple.
- **Shotbox mode** — In this mode, you tap an action button at the bottom of the **Presets** page to enter an action mode (**Recall**, **Store**, **Edit Preset Options**, or **Delete**), and then tap the preset to which you want to apply the action.

Tip: If one of the action buttons is colored (purple, yellow, green, or red), the interface is in **Shotbox** mode.

For information about switching between operation modes, see “**Preset Mode**”.

Presets Page (in Panel Mode)

This section describes features of the **Presets** page. Information presented here applies only when the PTZ Camera Control interface is in **Panel** mode (as opposed to **Shotbox** mode). For more information about the **Presets** page as it appears in **Shotbox** mode, refer to “**Presets Page (in Shotbox Mode)**”.

[Figure 13](#) shows the **Presets** page in **Panel** mode. The yellow circles identify buttons and areas of the user interface that are described in the sections that follow. If you are reading this document on a computer, tap the numbered buttons or areas of the diagram to jump to the descriptions.

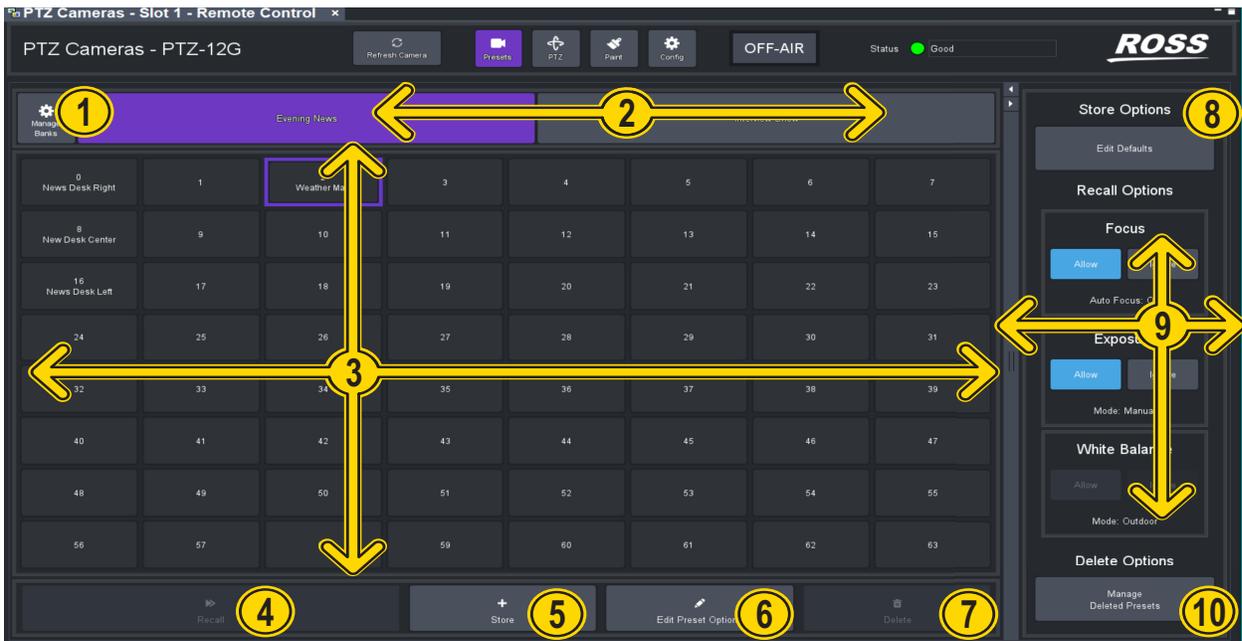


Figure 13 - Presets page (in Panel mode)

① Manage Banks Button

Opens the **Manage Banks** page, which enables you to configure banks, import and export saved presets, and edit names and **Recall Options** for presets.

For more information, see “**Managing Banks and Files**”.

Tap [HERE](#) to return to the **Presets** page diagram.

② Bank Tabs

Tap a bank tab to switch to that bank of presets. The bank tab turns purple.

Tap [HERE](#) to return to the **Presets** page diagram.

③ Preset Buttons

The **Presets** page displays banks of preset buttons:

- Blue preset buttons represent presets than can be run.

- Gray preset buttons are either empty, or contain data about deleted presets which can be edited, restored, or discarded.
- Shaded preset buttons indicate that presets will be stored and/or recalled from the camera. Depending on the **Operation** configuration, the following will result:
 - › If **Store Presets on Camera** is enabled, storing data to one of these presets will also push data to the camera.
 - › If **Blind Recall** is enabled, you can attempt to recall these presets from the camera, even though no data is stored locally.

To work with presets, tap a preset button to select a preset, and then tap an action button. When you select a preset, the border of its button turns purple.

For more information, see “**Working with Presets in Panel Mode**”.

Tap [HERE](#) to return to the **Presets** page diagram.

4 Recall Button

Recalls the selected preset.

Before you recall the preset, you can set **Recall Options**. For more information about recalling a preset in **Panel** mode, see “**Recall a Preset from Camera**”.

Tap [HERE](#) to return to the **Presets** page diagram.

Note: The **Recall** button displays “**Recall From Camera**” when a preset will be recalled from camera storage. If no data is stored in the matching slot on the camera, recall will fail silently.

Note: When presets are recalled from, or stored on, the camera, slots that are mapped to the camera but have no data stored locally appear faded blue. If **Blind Recall** is enabled when these slots are selected, the **Recall** button displays **Recall from Camera** and will attempt to recall the preset on the camera. When no preset is stored on the matching slot on the camera, recall will fail silently.

5 Store Button

Stores the current camera position as a preset on the selected preset button.

Depending on the current **Store** mode, you may be able to review and modify the **Preset Options** that are stored as part of the preset.

For more information about storing presets in Panel mode, see “**Store a Preset**”.

Tap [HERE](#) to return to the **Presets** page diagram.

Note: When storing to a preset causes data to be stored in the matching preset slot on the camera and in local Dashboard storage, the Store button label changes to Store on Camera.

6 Edit Preset Options Button

Opens the **Edit Options** dialog box, which enables you to specify **Preset Options** for the selected preset.

For more information, see “**Edit Preset Options**”.

Tap [HERE](#) to return to the **Presets** page diagram.

7 Delete Button

Deletes the local copy of the selected preset.

A deleted preset cannot be recalled, but its data persists. The deleted preset can later be edited, restored, or discarded. For more information, see “**Manage Deleted Presets (Restore or Discard)**”.

Note: The **Delete** button deletes the local copy of the preset, but does not delete presets stored on the camera. This note is relevant only if your system is configured to store presets locally and on the camera (**Manage Presets on Camera** setting is **Enabled**).

Tap [HERE](#) to return to the **Presets** page diagram.

8 Store Options > Edit Defaults Button

Opens a dialog box where you can specify default **Preset Options**. When an operator stores a preset, the default **Preset Options** are either presented for review and approval or automatically applied, depending on the current **Store** mode.

For more information, see “**Edit Default Preset Options**”.

Tap [HERE](#) to return to the **Presets** page diagram.

9 Recall Options Area

Recall Options determine whether **Preset Options** specified in the preset are to be applied during recall.

The **Recall Options** settings enable you to **Allow** or **Ignore** the **Preset Options** for **Focus**, **Exposure**, and **White Balance**.

If **Allow** and **Ignore** buttons are not available for an option, it is because the mode/setting listed directly below it overrides that option.

For more information about recalling presets, see “**Recall a Preset from Camera**”.

Tap [HERE](#) to return to the **Presets** page diagram.

10 Delete Options > Manage Deleted Presets Button

Opens the **Manage Deleted Presets** page, which enables you to restore or discard deleted presets.

For more information, see “**Manage Deleted Presets (Restore or Discard)**”

Tap [HERE](#) to return to the **Presets** page diagram.

Presets Page (in Shotbox Mode)

This section describes Preset panel features and how to use them. It applies only when the PTZ Camera Control interface is in **Shotbox** mode (as opposed to **Panel** mode). For more information about the **Presets** page as it appears in **Panel** mode, refer to “**Presets Page (in Panel Mode)**”.

[Figure 14](#) shows the **Presets** page in Shotbox mode. The red circles identify buttons and areas of the user interface that are described in the sections that follow. If you are reading this document on a computer, tap the numbered buttons or areas of the diagram to jump to the descriptions.

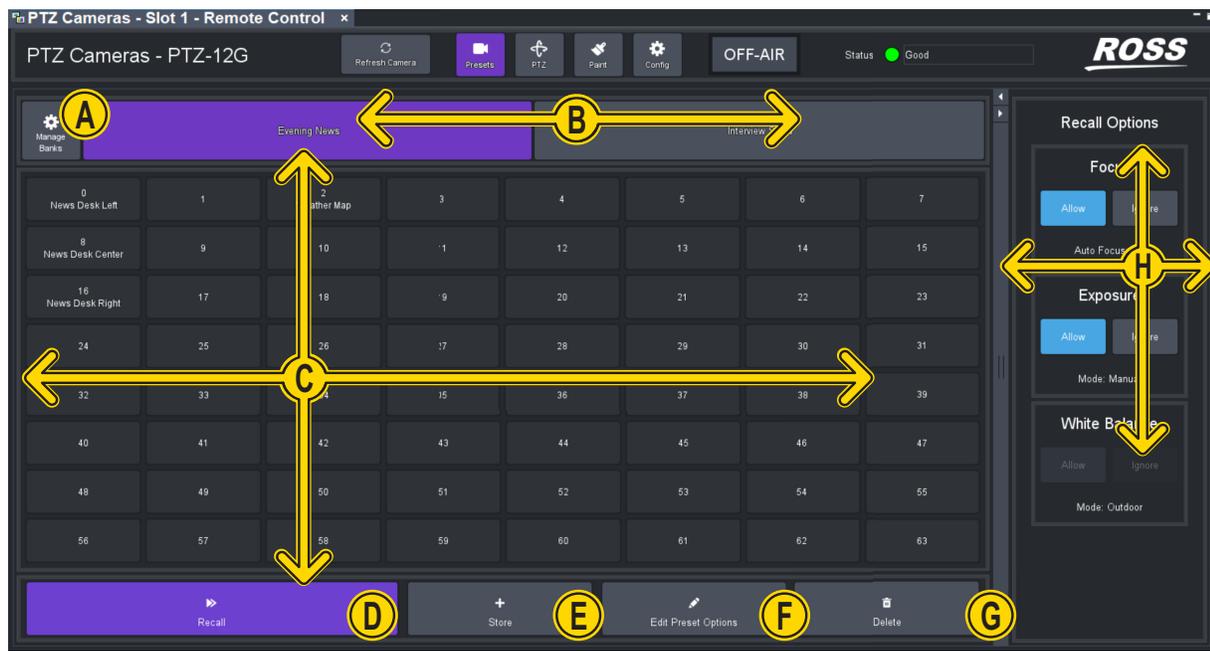


Figure 14 - Presets page (in Shotbox mode, with Recall mode enabled)

A Manage Banks Button

Opens the **Manage Banks** page, which enables you to configure banks, import and export saved presets, and edit names and **Recall Options** for presets.

For more information, see “**Managing Banks and Files**”.

Tap [HERE](#) to return to the **Presets** page diagram.

B Bank Tabs

Tap a bank tab to switch to that bank of presets. The bank tab turns purple.

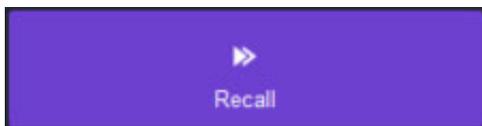
Tap [HERE](#) to return to the **Presets** page diagram.

C Preset Buttons

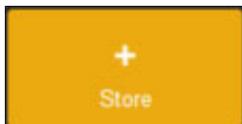
The **Presets** page displays banks of preset buttons:

Colored buttons represent presets that have not been deleted. The color of all such buttons is the same at any given time, and represents the current action mode:

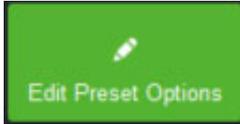
- **Purple** — **Recall** mode. Tap a preset button to recall its preset.



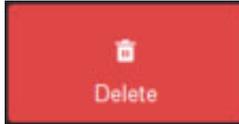
- **Yellow** — **Store** mode. Tap a preset button to store a preset on it.



- **Green** — **Edit Preset Options** mode. Tap a button to edit **Preset Options** for the preset.



- **Red** — **Delete** mode. Tap a preset button to delete its preset.



- **Gray** — empty, or contain **Preset Options** data about deleted presets, which can be restored or discarded.
- **Shaded** — preset locations that will be recalled from camera and pushed to camera when saved.

To work with presets, tap an action button at the bottom of the **Presets** page to enter an action mode (**Recall**, **Store**, **Edit Preset Options**, or **Delete**), and then tap the preset to which you want to apply the action.

For more information, see “**Working with Presets in Shotbox Mode**”.

Tap [HERE](#) to return to the **Presets** page diagram.

D Recall Button (Recall Mode)

The **Recall** button places the **Presets** page into **Recall** mode. Preset buttons containing presets that can be recalled turn purple. Tap a purple preset button to recall its preset.

Faded purple slots indicate mapped slots have no locally stored data, but can be recalled from camera storage when **Blind Shot Recall** is enabled. If no data is stored on the camera, the recall will fail silently.

When the **Presets** page is in **Recall** mode, the **Recall Options** area is available ([Figure 15](#)).

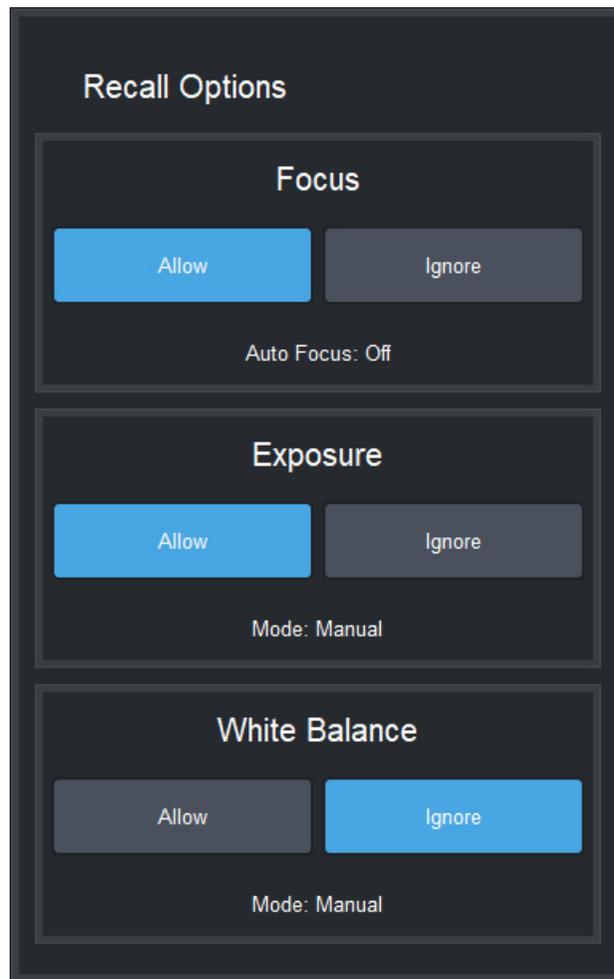


Figure 15 - The Recall Options area

Recall Options determine whether **Preset Options** specified in the preset are to be applied during recall.

The **Recall Options** settings enable you to **Allow** or **Ignore** the **Preset Options** for **Focus**, **Exposure**, and **White Balance**.

If **Allow** and **Ignore** buttons are not available for an option, it is because the mode/setting listed directly below it overrides that option.

Note: Recall options only apply when presets are stored locally on the DashBoard computer. For Canon PTZ cameras where local storage is not supported, recall options are not shown.

For more information about recalling presets, see “**Recall a Preset**”.

Tap [HERE](#) to return to the **Presets** page diagram.

E Store Button (Store Mode)

Places the **Presets** page into **Store** mode. Preset buttons containing presets that can be recalled turn yellow. Tap any preset button to store the current camera position as a preset.4

Faded yellow mapped slots indicate locations mapped to camera storage but have no data stored locally when **Store Presets on Camera** is enabled. Storing to a shaded slot causes data to be stored to both local and camera storage on the matching slot.

Store Options Area

When the **Presets** page is in **Store** mode, the **Store Options** area is available ([Figure 16](#)).

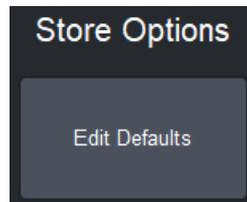


Figure 16 - Store Options area

The **Edit Defaults** button opens the **Edit Default Preset Options** dialog box ([Figure 17](#)).

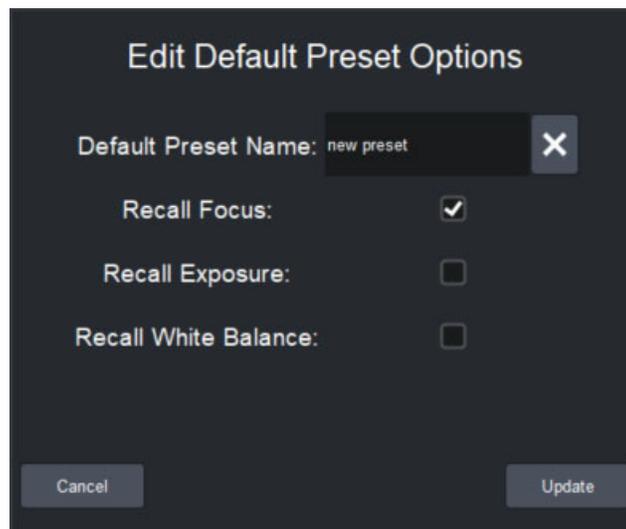


Figure 17 - Edit Default Preset Options dialog box

In this dialog box, you can define the default **Preset Options**, which are presented and/or applied each time you create a preset.

Note: Preset recall options only apply when presets are stored locally on the DashBoard computer. For Canon PTZ cameras where local storage is not supported, preset recall options are not shown.

For more information, see "**Edit Default Preset Options**".

Camera Control Area

When the **Presets** page is in **Store** mode, the **Camera Control** area is available ([Figure 18](#)).

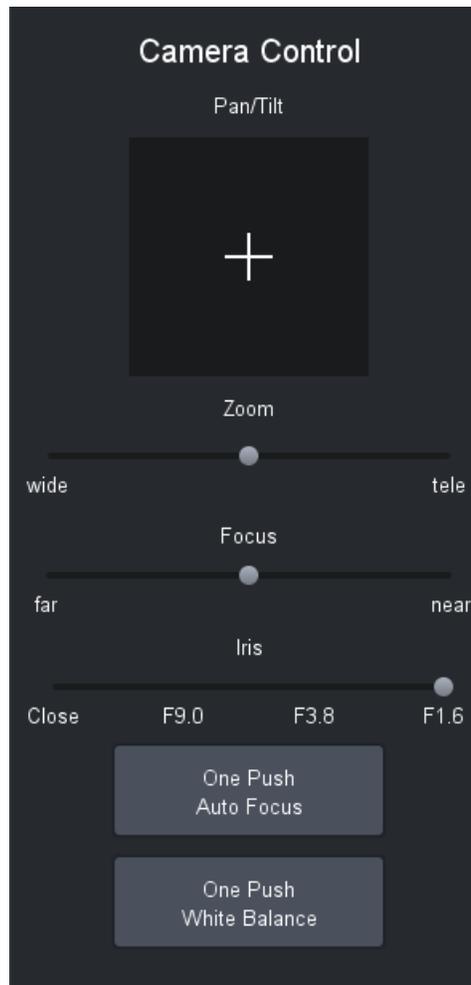


Figure 18 - Camera Control area

The **Camera Control** area includes the following controls:

- **Pan/Tilt** — Tap and drag the cross-hairs away from center. The farther the cross-hairs are from center, the faster the camera moves.
- **Zoom** — Tap and drag the **Zoom** slider handle to the right to zoom in (telephoto), or to the left to zoom out (wide). The farther the **Zoom** slider handle is from center, the faster the lens zooms.
- **Focus** — Tap and drag the **Focus** slider handle to the right (near), or to the left (far). The farther the **Focus** slider handle is from center, the faster the lens focuses.

Note: The **Focus** slider handle is available only if **Auto Focus** is **Off**. For more information, see “**PTZ, Iris, and Focus Controls**”.

- **Iris** — Tap and drag the **Iris** slider handle to the right to open the iris, or to the left to close it.

Note: The **Iris** slider handle is available only if **Auto Iris** is **Off**. For more information, see “**PTZ, Iris, and Focus Controls**”.

- **One Push Auto Focus** — Tap this button to perform a one-time auto focus.
Note: The **One Push Auto Focus** button is available only if **Auto Focus** is **Off**. For more information, see “**PTZ, Iris, and Focus Controls**”.
- **One Push White Balance** — Tap this button to perform a one-time white balance. Applies to Ross Video PTZ cameras and Sony BRC cameras.
Note: The **One Push White Balance** button is available only if the **White Balance Mode** is set to **One Push**. For more information, see “**Paint Controls**”.
- **Trigger AWB** — Tap this button to perform a one-time white balance. Applies to Panasonic cameras.
Note: The **Trigger AWB** button is available only if the **White Balance Mode** is set to **AWB A** or **AWB A**. For more information, see “**Paint Controls**”.

Tap [HERE](#) to return to the **Presets** page diagram.

For more information about storing presets in Shotbox mode, see “**Store a Preset**”.

F Edit Preset Options Button (Edit Preset Options Mode)

Places the **Presets** page into **Edit Preset Options** mode. Preset buttons containing presets that can be recalled turn green. Tap any preset button to update the name and preset options for that preset.

For more information, see “**Edit Preset Options**”.

Tap [HERE](#) to return to the **Presets** page diagram.

G Delete Button (Delete Mode)

Places the **Presets** page into **Delete** mode. Preset buttons containing presets that can be deleted turn red.

Tap any red preset button to delete its preset. The preset button turns gray. A deleted preset cannot be recalled, but its data persists. It can later be edited, restored, or discarded.

To manage deleted presets, in the **Delete Options** area, tap the **Manage Deleted Presets** button. The **Manage Deleted Presets** page appears. For more information, see “**Manage Deleted Presets (Restore or Discard)**”

Tap [HERE](#) to return to the **Presets** page diagram.

Note: When you delete a preset, only the local copy is deleted. If your system is configured to store presets locally and on the camera (**Manage Presets on Camera** setting is **Enabled**), the camera still retains the preset in its memory.

H Options Area

The Options area contains options that are specific to the current action mode:

- **Recall** mode — **Recall Options**. For more information, see “**Recall Button (Recall Mode)**”.
- **Store** mode — **Store Options** and **Camera Controls**. For more information, see “**Store Button (Store Mode)**”.
- **Edit Preset Options** mode — No options are presented for this mode.
- **Delete** mode — **Delete Options**. For more information, see “**Delete Button (Delete Mode)**”.

Tap [HERE](#) to return to the **Presets** page diagram.

Paint Controls

This section contains topics about controls that are available on the **Paint** page:

- “**Exposure Controls**”
- “**Color Controls**”
- “**Open On-Screen Menu Button**”

Note: Some features described in this section are not available on all cameras. The selection of features and the appearance of the interface may vary between camera models. Unless stated otherwise, figures and feature descriptions in this section describe the interface as it appears for Ross Video PTZ Cameras. For information about paint controls for other camera brands, refer to the user manuals for those cameras.



To access the **Paint** page, tap the **Paint** button.

Exposure Controls

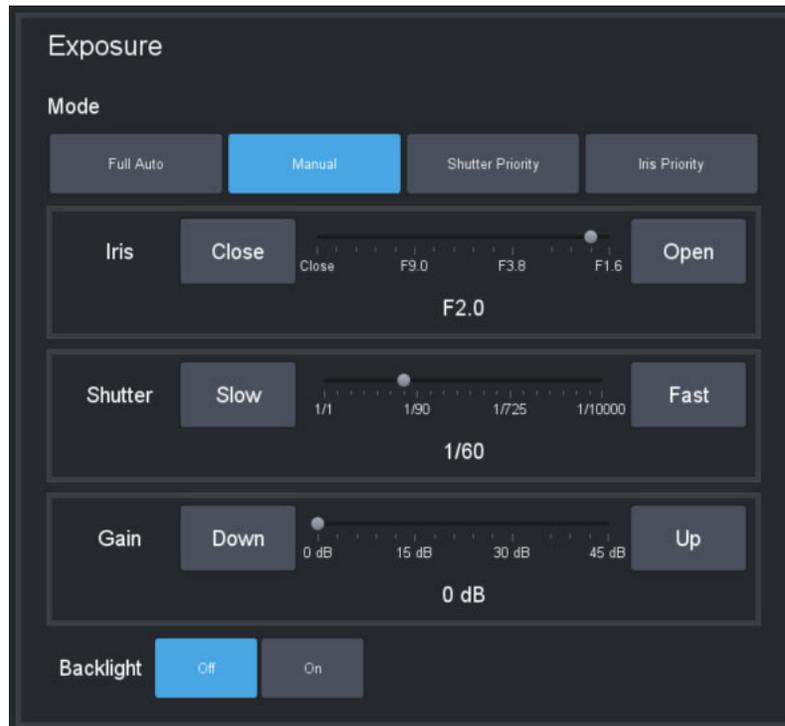


Figure 19 - Exposure controls for PTZ Cameras

Mode Buttons

- **Full Auto** — The exposure settings are automatic. Manual adjustment is not available.
- **Manual** — You can manually adjust **Iris**, **Shutter**, and **Gain** settings. To adjust exposure settings, either tap and drag the appropriate slider handle, or tap the buttons at the ends of the slider.
- **Shutter Priority** — You can manually adjust the **Shutter**. The **Iris** and **Gain** settings are automatic.
- **Iris Priority** — You can manually adjust the **Iris**. The **Shutter** and **Gain** settings are automatic.

Backlight Button

When the backlight setting is **On**, automatic exposure settings assume the subject is backlit, and adjust accordingly. **Backlight** mode is available only when **Full Auto Exposure** is enabled.

Note: For the Sony ILME-FR7 and BRC-AM7 camera, settings such as Iris, Shutter, and Gain through Visca are either unavailable or limited. The following controls are:

- › **Iris** — Auto On/Off and Open/Close increments
- › **Shutter** — Auto On/Off only
- › **Gain** — Auto On/Off only

Note: The extended ND Filter controls are also available.

Color Controls

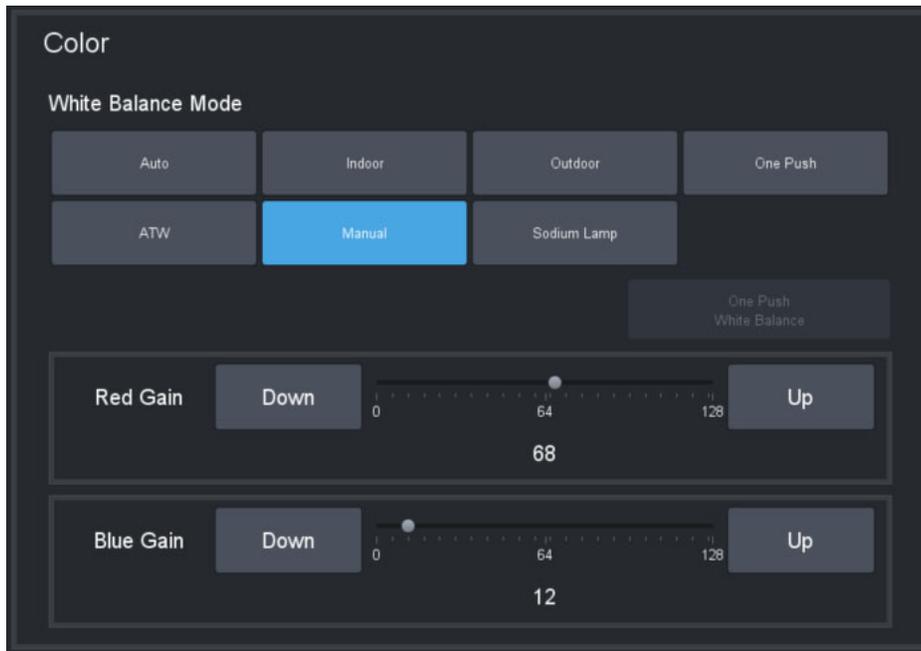


Figure 20 - Color Controls

Tap a button to select a **White Balance Mode**:

- In **Manual** mode, you can adjust **Red Gain** and **Blue Gain** manually.
- For most modes, the **Red Gain** and **Blue Gain** sliders adjust to predetermined positions automatically.
- **One Push** mode makes the **One Push White Balance** button available.
- On Panasonic cameras, **AWB A** mode or **AWB B** mode makes the **Trigger AWB** button available.

Open On-Screen Menu Button

The **Open On-Screen Menu** button ([Figure 21 -](#)) opens the **Menu Control** page, which enables you to adjust camera settings using the on-screen menu. For more information, see "**On-Screen Menu**".

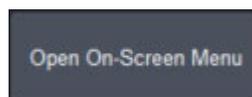


Figure 21 - - The Open On-Screen Menu button

Configuration Settings and On-Screen Menu



This section contains topics about controls that are available on the **Config** page. To open the main **Configuration Settings** page, tap the **Config** button.

Depending on the model of camera, the main **Configuration Settings** page includes some or all of the buttons shown in [Figure 22](#). Some camera models have an **Video Mode** button instead of an **Audio/Video** button.

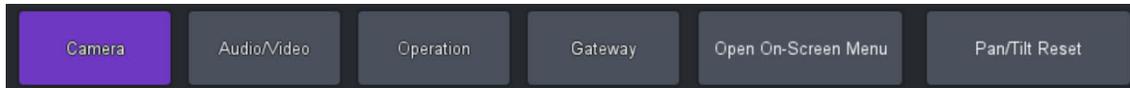


Figure 22 - Buttons at the top of the Configuration Settings page

- **Camera** — Opens the **Camera Settings** page, which includes **Camera Info** settings and **Camera Options** settings. For more information, see "**Camera Settings Page**".
- **Audio/Video** — Opens the **Audio/Video Settings** page, which includes **SDI Video** settings and **Audio** settings. For more information, see "**Audio/Video Settings Page**".
- **Video Mode** — Opens the **Video Mode** page, which enables you to set video modes for SDI Video, Mainstream Video, and Substream Video. For more information, see "**Video Mode Settings Page**".
- **Operation** — Opens the **Operation Settings** page, which includes **Joystick** settings and **Interface** settings. For more information, see "**Operation Settings Page**".
- **Gateway** — Opens the **Gateway Settings** page, which includes tally interface settings, as well as settings for establishing VISCA and/or Furio communication gateways that enable external systems to control the camera. For more information, see "**Gateway Settings Page**".
- **Open On-Screen Menu** — Opens the **Menu Control** page, which enables you to adjust camera settings using the on-screen menu. For more information, see "**On-Screen Menu**".
- **Pan/Tilt Reset** — Returns the camera to a known home position.

Note: Some features described in this section are not available on all cameras. The selection of features and the appearance of the interface may vary between camera models. Unless stated otherwise, figures and feature descriptions in this section describe the interface as it appears for Ross Video PTZ-12G cameras. For information about configuration controls for other camera types, refer to the user manuals for those cameras.

Camera Settings Page

The **Camera Settings** page includes the **Camera Info** area and the **Camera Options** area ([Figure 23](#)).

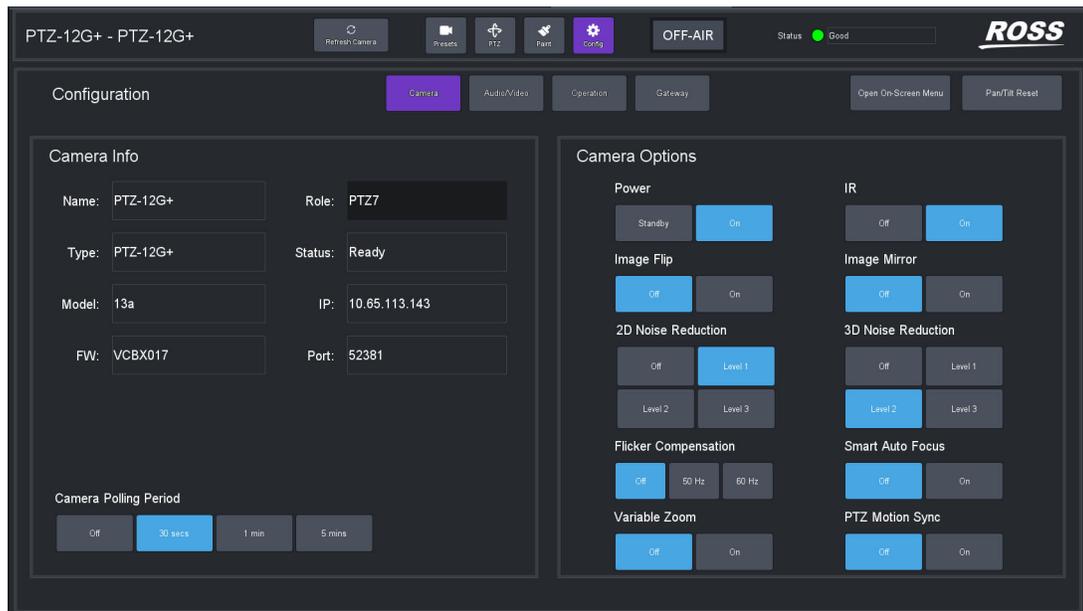


Figure 23 - Camera Settings page for a PTZ-12G+ camera (PTZ-NDI has same settings)

Note: Configuration settings vary between camera models. Some settings shown and described in this section may not apply to your camera.

Camera Info Area

The **Camera Info** area displays camera information, as provided by the camera ([Figure 24](#)).

This section describes camera information provided by Ross Video PTZ-12G cameras. Information provided by other types of PTZ cameras may vary.

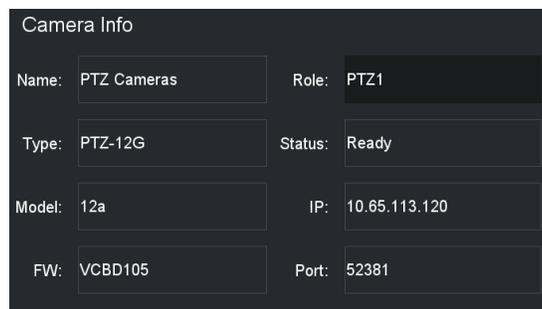


Figure 24 - Camera Info area for a PTZ-12G+, PTZ-12G, or PTZ-NDI camera

Name

The name of the camera, as it appears in the DashBoard tree and in the PTZ Camera Control Plugin. The camera name is defined when you add the camera to DashBoard.

Role

A unique identifier for the camera, as a reference to enable the capture and storage of thumbnail images in camera control systems such as SmartShell, via the Furio gateway.

The **Role** value can be edited. By default, the **Role** value is **PTZx**, where **x** is the camera's slot number in the DashBoard tree. Other device types, such as Ross Video pan & tilt heads, have different default prefixes instead of **PTZ**. It is important to ensure that all **Role** values are unique, and conform to the requirements of the system(s) using them.

Valid characters are limited to alpha-numeric characters and the underscore (**_**) symbol. Other characters are automatically removed.

Notes: If you set a **Role** value that is already in use for another camera, the new **Role** value is ignored, and the previous camera retains its role value.

Type

The type of camera, such as Ross Video **PTZ-12G+**, **PTZ-12G** or **PTZ-NDI**, **PIVOTCam-SE**, **Sony BRC-H900**, **Sony BRC-X1000**, **Sony ILME-FR7**, **Sony BRC-AM7**, **Panasonic AW-UE150**, **AW-UE160**, **AW-HR140**, **Lumens VC-A71P**, **Lumens VC-A71PN**, **Canon CR-N300**, **Canon CR-N500**, or **CR-X300**.

Status

The operational status of the camera.

Model

Additional model number, as reported by the camera.

IP

The IP address of the camera.

FW

The version(s) of firmware currently installed on the camera.

Port

The port number used to communicate with the camera.

Camera Options Area

The **Camera Options** area ([Figure 25](#)) includes camera settings, some of which may be specific to the model of camera you are configuring. Some settings described in this section of the manual are not available on all camera models.

For detailed information about camera settings, consult your camera manual.

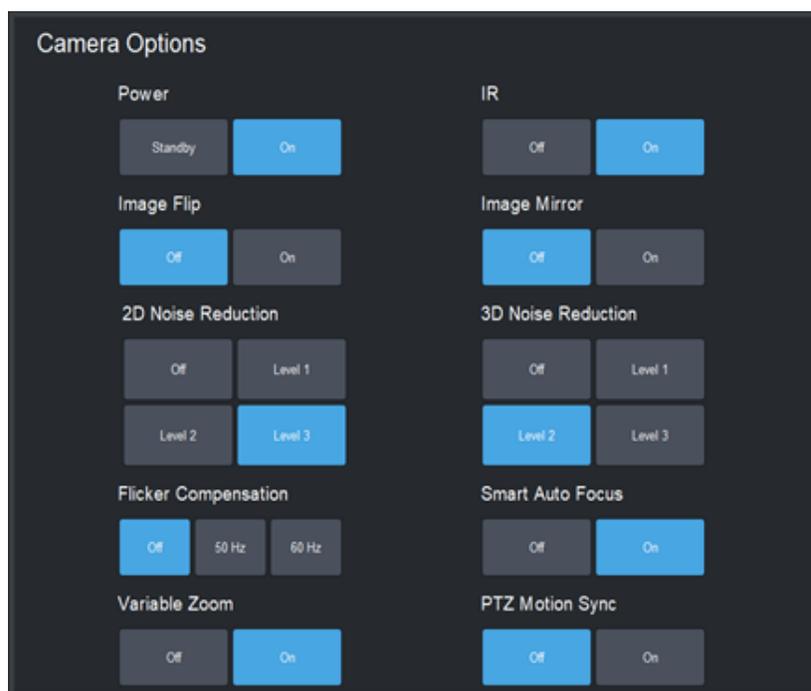


Figure 25 - Camera Options area for a PTZ-12G+, PTZ-12G, or PTZ-NDI camera

Power

Tap **On** to turn the camera on. Tap **Standby** to put the camera in standby (non-operational) mode.

IR

Controls whether the camera can receive commands from the IR (infra-red) remote control unit.

Tap **On** to turn on the IR receiver. Tap **Off** to turn off the IR receiver.

Image Flip and Image Mirror

Image Flip reverses the video image vertically.

Image Mirror reverses the image horizontally.

Tips:

- Configure the **Image Flip and Image Mirror** settings before you create any presets. Changing camera orientation makes existing presets useless.
- For cameras mounted upside-down on the ceiling, set **Image Flip** and **Image Mirror** to **On**.
- If you change the **Image Flip** and **Image Mirror** settings remember to configure the **Horizontal Axis** and/or **Vertical Axis** joystick settings (**Config > Operation > Joystick**) so the direction of joystick motion corresponds with the direction of camera movement.

Ceiling Mount

For some cameras, such as Sony cameras and PIVOTCam-SE cameras, a **Ceiling Mount** setting ([Figure 26](#)) is shown instead of **Image Flip** and **Image Mirror**. When **On**, **Ceiling Mount** rotates the camera image 180 degrees.

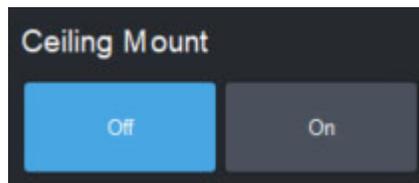


Figure 26 - Ceiling Mount setting

Note: If you change the **Ceiling Mount** setting for a Sony camera, you must power cycle the camera afterwards to apply the change. All presets are erased.

Tips:

- Configure the **Ceiling Mount** setting before you create any presets. Changing camera orientation makes existing presets useless.
- For cameras mounted upside-down on the ceiling, set **Ceiling Mount** to **On**.
- If you change the **Ceiling Mount** setting, remember to configure the **Horizontal Axis** and **Vertical Axis** joystick settings (**Config > Operation > Joystick**) so the direction of joystick motion corresponds with the direction of camera movement.

2D Noise Reduction

2D noise reduction creates clearer images in low light conditions through temporal noise reduction, which is based on analysis of differences between video frames.

You can turn this feature **Off** or select one of three levels from **Level 1** (weak) to **Level 3** (Strong).

3D Noise Reduction

3D noise reduction creates clearer images in low light conditions through both temporal and spatial noise reduction:

- Temporal noise reduction is based on analysis of differences between video frames.
- Spatial noise reduction reduces noise within each video frame without comparison to other frames.

You can turn this feature **Off** or select one of three levels from **Level 1** (weak) to **Level 3** (Strong).

Flicker Compensation

Compensates for light flicker caused by disparity between the video frame rate and the frequency of the AC power supply for lighting.

Smart Auto Focus

Enables face detection and auto focus. When **On**, **Auto Focus** focuses mainly on the face.

This setting is available only when the **Auto Focus** option on the **PTZ** page is **On**. For more information, see "**Focus Controls**".

Note: When you change this setting, the video feed is briefly interrupted. Tap **OK** if you wish to proceed.

Variable Zoom

Varies the speed of the pan and tilt axes when you control them manually, based on the zoom position. When the lens is zoomed in, the affected axis moves more slowly. When the lens is zoomed out, the affected axis moves more quickly.

Wiper Connection (CR-X300 only)

The Canon-X300 plugin can be configured to expose controls to activate the wiper mechanism on the camera. To do this, a separate HTTP connection must be established with the camera. When a wiper control connection is successfully established, wiper buttons will be enabled on the Presets and PTZ pages of the plugin.

Note: Configuring the HTTP connection is not necessary if wiper control is not required.

Depending on your setup, you may need to configure HTTP authentication with a username and password. This can only be done when the wiper connection is disabled.

To configure the wiper connection

1. Navigate to the **Wiper Control Connection** section in the **Camera Options** area. Refer to [Figure 27](#).

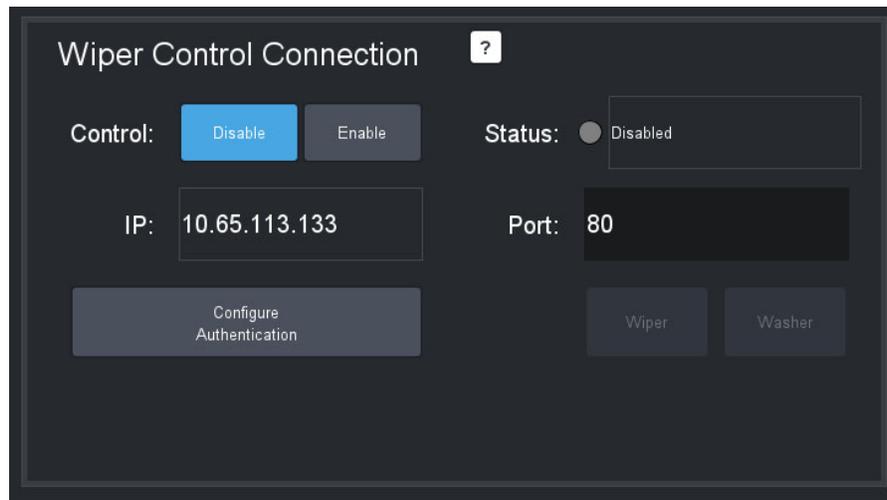


Figure 27 - Wiper Control Connection section

2. Set the **Port** number to the configured port on the camera.
3. Select **Configure Authentication** (if required). Refer to [Figure 28](#).

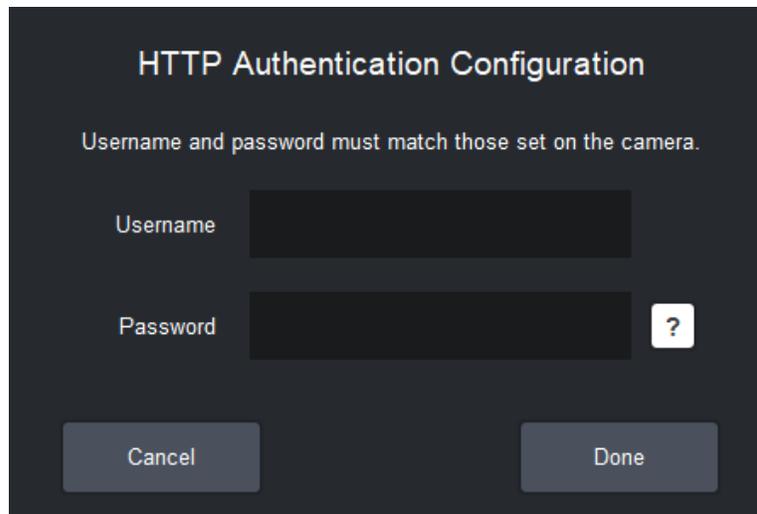


Figure 28 - HTTP Authentication Configuration dialog box

Note: The HTTP connection depends on the camera settings and how **User Management** is set up for the CR-X300:

- If the Guest User has Camera Control privileges, no authentication is required in DashBoard. Leave the Username and Password fields empty.
- If the Guest User does not have Camera Control privileges, authentication is required in DashBoard. Enter a **Username** and **Password** with Camera Control privileges that match a user account previously set on the camera.

Tip: To configure the camera for secure connection, go to **System > Server > HTTP Video** in the camera Web UI and set **Authentication Method** to **Digest Authentication**.

4. Select **Done** to return to **Wiper Control Connection**.

5. Select **Enable** in the **Control** setting.

Note: The camera's Port connection and IP address display automatically if the camera connection is established on DashBoard already.

To confirm everything works correctly, select either the **Wiper** or **Washer** buttons to activate the camera's wiper and washer functions.

Note: Presets cannot be recalled while the washer is in operation. Wiper controls are disabled when the camera is on-air.

Connection status

The connection status indicates whether the wiper link is properly configured and the connection is successfully established.

Connection statuses include the following:

- **Disabled** — Wiper control is disabled.
- **Error** — Wiper control is enabled, but not properly configured. Wiper controls are inaccessible and device status displays a warning of "No wiper control." Refer to [Figure 29](#).

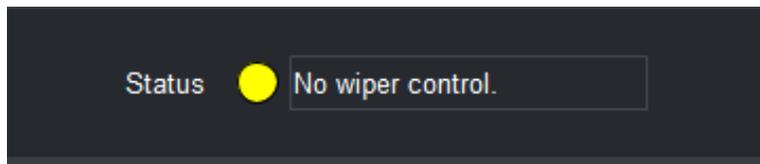


Figure 29 - No wiper control message

Status messages provide information on the error, including:

- › **Failed authentication** — Verify that the provided username and password align with a valid set of credentials within the camera control permissions on the connected camera.
- › **Offline - no communication** — Confirm that the port matches the port set on the camera.
- **OK** — Wiper control is enabled and correctly configured. Wiper controls are accessible in DashBoard.

To set up wiper and washer joystick control

To control the wiper and washer, refer to instructions on setting up a joystick are available in "**Adding USB Joysticks or Other USB Controllers**", and **Table 2** on [page 77](#).

Camera Polling

The **Camera Polling Period** setting allows you to define an interval to poll the camera to pick up changes made by controllers other than DashBoard. Polling is disabled by default. Refer to [Figure 30](#).

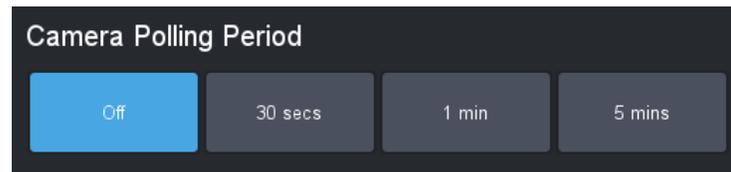


Figure 30 - The Camera Polling Period settings

Note: This feature generates a lot of message traffic if enabled. Many PTZ cameras polling on the same network may cause slowdowns.

Configuring Authentication (Panasonic Cameras Only)

To enable communication with a Panasonic PTZ camera that has authentication enabled, configure the required username and password in DashBoard.

To configure authentication:

1. In the **PTZ Camera Control** plugin, navigate to **Config > Camera > Configure Authentication**.
2. In the **HTTP Authentication Configuration** dialog box, enter the required **Username** and **Password**, then tap **Done**.

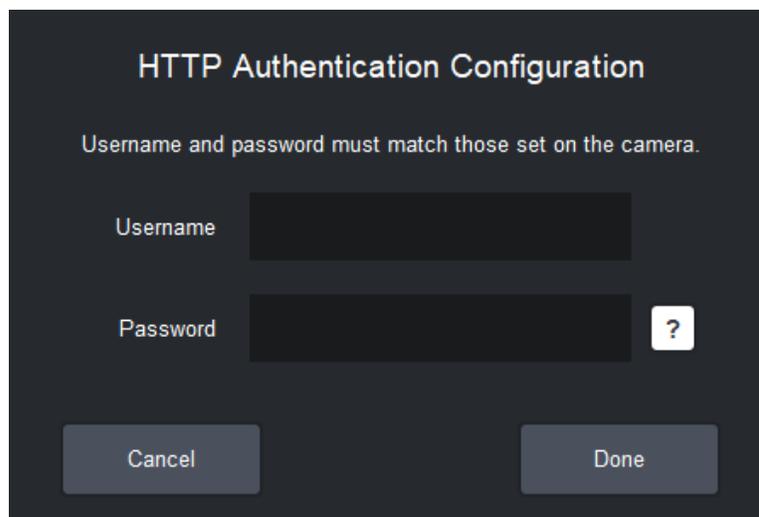


Figure 31 - HTTP Authentication Configuration dialog box

Note: For authentication to function correctly:

- The camera must be set to use Digest authentication.
- The user account must have at least Camera Control privileges.
- If available on your camera model, set Wait Time Mode to Mode 2.

Tip: It is recommended to enter the credentials in DashBoard before enabling authentication on the camera. Enabling authentication first may prevent DashBoard from connecting, as the camera may reject all HTTP connection attempts.

Refer to the Panasonic camera's operator manual for model-specific setup instructions

Audio/Video Settings Page

The **Audio/Video Settings** page includes the **SDI Video** area and the **Audio** area (Figure 32).

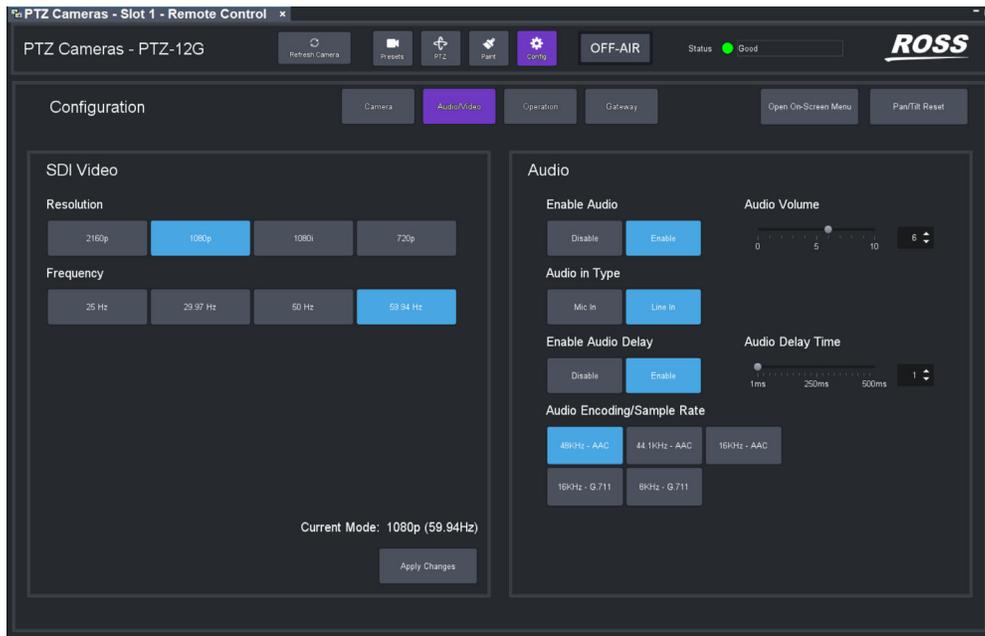


Figure 32 - Audio Video settings page for a PTZ-12G camera

SDI Video Area

The **SDI Video** area (Figure 33) enables you to set the resolution and frequency for SDI video output.

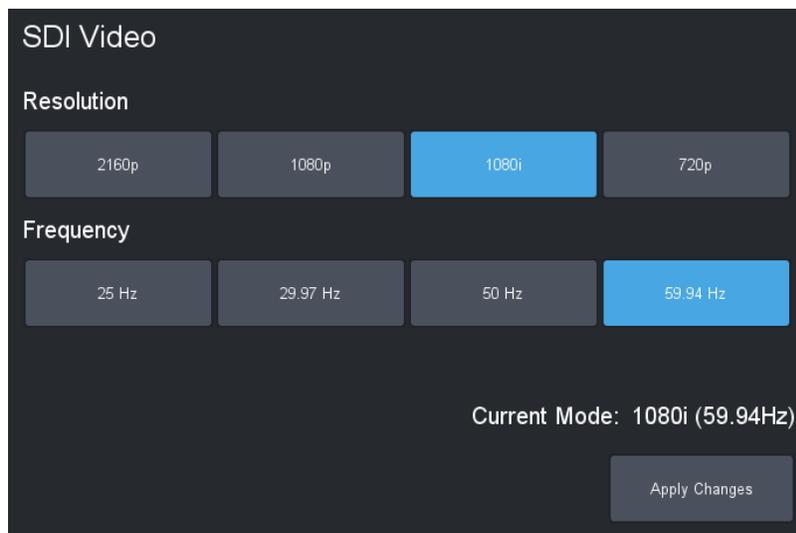


Figure 33 - SDI Video area

Select a **Resolution** and a **Frequency**, and then tap the **Apply Changes** button.

Note: Some combinations of resolution and frequency are non-standard and not supported. The **Apply Changes** button is available only if the selected video format is supported.

Audio Area

The **Audio** area ([Figure 34](#)) enables you to specify audio input properties.

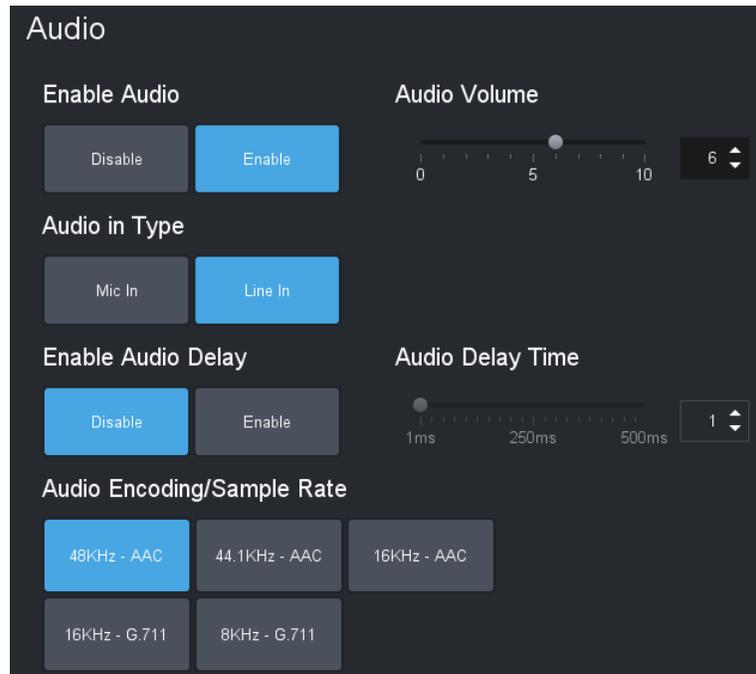


Figure 34 - Audio area

Enable Audio

Enables or disables audio input.

Note: When you **Enable** or **Disable** audio input, the video feed is briefly interrupted. Tap **OK** if you wish to proceed.

Audio Volume

Sets the audio volume from **0** (lowest) to **10** (highest).

This setting is available only when audio is enabled.

Audio in Type

Selects the type of audio input (**Mic in** or **Line in**).

This setting is available only when audio is enabled.

Enable Audio Delay

When enabled, audio is delayed. Use this feature to synchronize audio and video.

To set the delay period, adjust the **Audio Delay Time** slider or specify a delay value (**1** to **500** milliseconds) in the **Audio Delay Time** box.

This setting is not supported on PTZ-12G+ and PTZ-NDI cameras when **NDI|HX** video is enabled in the web interface.

Audio Encoding/Sample Rate

Sets the encoding type and sample rate for encoding incoming audio. For SDI video on PTZ-12G cameras, only **48 kHz (AAC)** is supported. This setting is not supported on PTZ-12G+ and PTZ-NDI cameras when **NDI|HX** video is enabled in the web interface.

This setting is available only when audio is enabled.

Video Mode Settings Page

For the **PIVOT-SE**, the **Video Mode** page is shown instead of the **Audio/Video** page.

This allows you to configure the main SDI video and also the mainstream and substream video options for the camera.

Operation Settings Page

The **Operation Settings** page (Figure 35) includes the **Joystick** area and the **Interface** area.

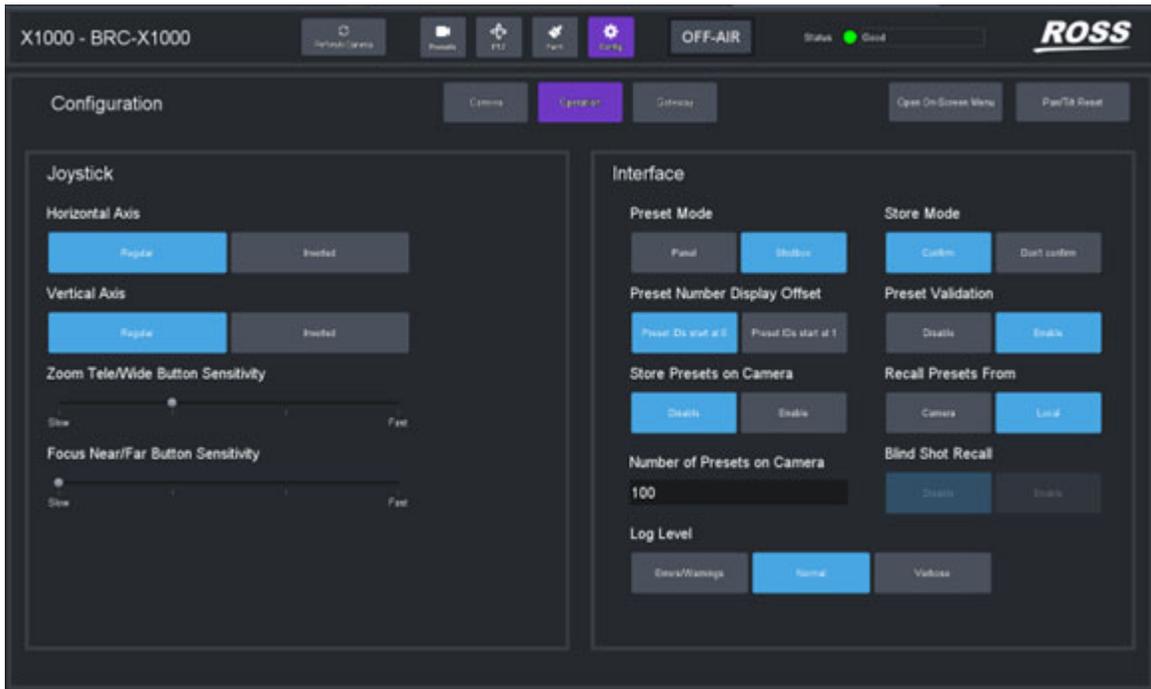


Figure 35 - Operation Settings page for a Sony RBC-X1000 camera

Joystick Area

The **Joystick** area (Figure 36) includes settings related to joystick behavior, and to the sensitivity of **Zoom** and **Focus** buttons on the **PTZ** page.

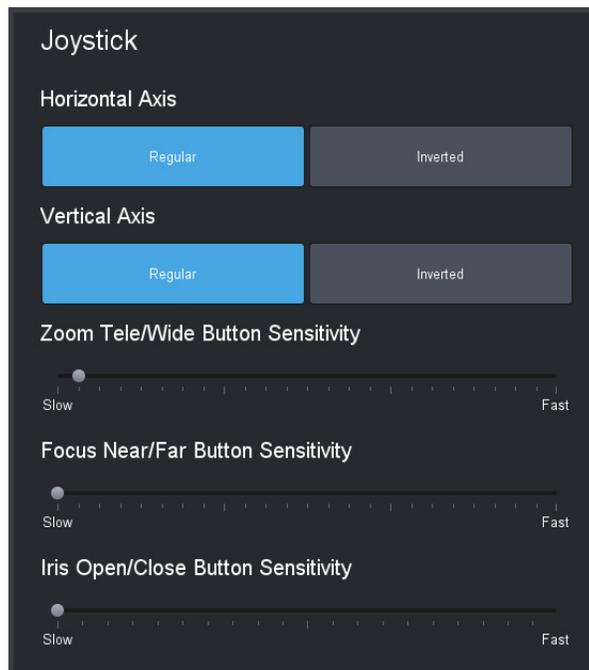


Figure 36 - Joystick area for a Panasonic PTZ camera

Horizontal Axis and Vertical Axis

You can co-ordinate the direction of joystick motion with the direction of camera motion:

- **Horizontal Axis** — Determines which direction (right/left) you need to push the joystick to pan the camera right or left.
- **Vertical Axis** — Determines which direction (forward/back) you need to push the joystick to tilt the camera up or down.

Use the joystick to move the camera, observe the camera motion, and then adjust these settings as desired.

Note: For PIVOTCam-SE cameras, Sony BRC cameras, and Lumens PTZ cameras, these axis direction settings affect pan and tilt controls in DashBoard and in any external controllers.

Note: For Ross Video PTZ-12G+, PTZ-12G, and PTZ-NDI cameras, Panasonic models, and Sony ILME-FR7 and BRC-AM7 cameras, these axis direction settings apply within DashBoard only, and do not change any settings on the camera or affect control by any external controllers.

Zoom Tele/Wide Button Sensitivity

The **Zoom** control on the **PTZ** page includes **Tele** and **Wide** buttons that enable you to manually zoom the camera lens. Use the **Zoom Tele/Wide Button Sensitivity** slider to set how quickly the camera zooms.

Focus Near/Far Button Sensitivity

The **Focus** control on the **PTZ** page includes **Near** and **Far** buttons that enable you to manually focus the camera lens. Use the **Focus Near/Far Button Sensitivity** slider to set how quickly the camera focuses.

Iris Open/Close Button Sensitivity (Panasonic, Sony ILME-FR7, and Sony AM7 cameras only)

The **Iris** control on the **PTZ** page includes **Open** and **Close** buttons that enable you to manually adjust the aperture. Use the **Iris Open/Close Button Sensitivity** slider to set how quickly the iris opens and closes.

Note: This sensitivity slider affects the behavior of iris controls within DashBoard, but does not change any settings on the camera.

Interface Area

The **Interface** area ([Figure 37-](#)) includes settings related to the behavior of the user interface.

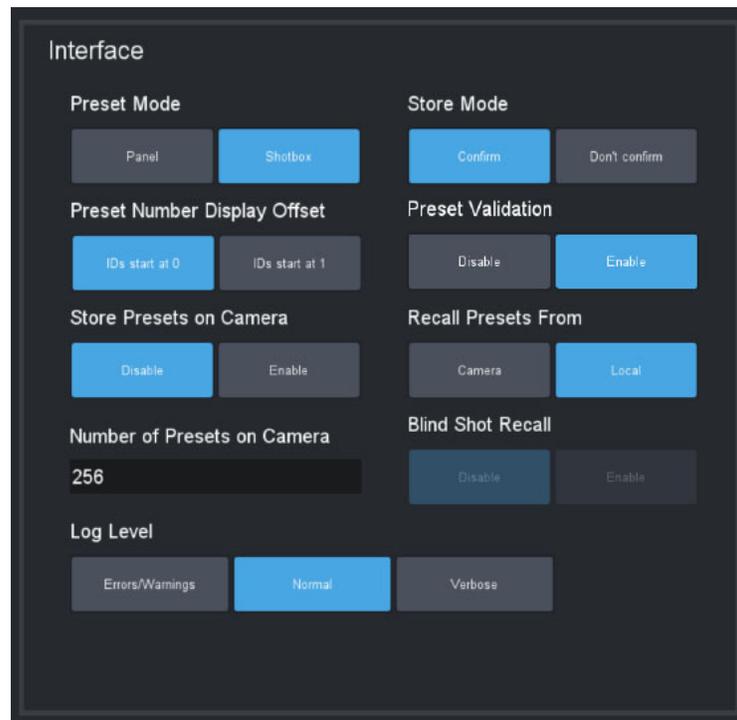


Figure 37 - Interface area

The **Blind Shot Recall** setting specifies whether you can attempt to recall a shot from the camera when there is no locally stored data in the slot:

- **Disable** — Empty camera slots cannot be recalled.
- **Enable** — Empty camera slots can be recalled.

Preset Mode

Tap one of the following **Preset Mode** buttons to define the behavior of the **Presets** page:

- **Panel** — In this mode, you tap a preset to select it, and then tap an action button (**Recall**, **Store**, **Edit Preset Options**, or **Delete**). When you select a preset, the border of the preset button turns purple.
- **Shotbox** — In this mode, you tap an action button at the bottom of the **Presets** page to enter an action mode (**Recall**, **Store**, **Edit Preset Options**, or **Delete**), and then tap the preset to which you want to apply the action.

Store Mode

There are two store modes:

- If **Store Mode** is set to **Confirm**, the operator can review and modify **Preset Options** when they store a preset.
- If **Store Mode** is set to **Don't confirm**, default **Preset Options** are automatically stored with the preset.

To access settings to define the default Preset Options:

- Tap **Presets**, and then do one of the following:
 - › If the **Store Options** area is visible (top right corner), tap the **Edit Defaults** button. The **Edit Default Preset Options** dialog box appears.
 - › If the **Store Options** area is not visible, tap the **Store** button. The **Store Options** area appears. Tap the **Edit Defaults** button. The **Edit Default Preset Options** dialog box appears.

Preset Number Display Offset

Presets are numbered. You can set the numbering to start at **0** or at **1**.

This is an aesthetic choice; changing between **ID start at 0** and **ID start at 1** does not change how presets are stored in DashBoard or on the camera. The setting can be changed at any time.

For many external VISCA controllers, such as Carbonite, preset numbering starts at **1**. If such a VISCA controller recalls preset **1**, the first preset is recalled, regardless of whether the PTZ Camera Control plugin shows it as preset **0** or **1**. To avoid confusion, when using an external VISCA controller we recommend you set **Preset Number Display Offset** to match the controller's numbering. By default, preset numbering on PTZ-12G+, PTZ-12G, and PTZ-NDI cameras starts at **0**.

Preset Validation

Preset Validation ensures that all expected shot data is present before saving a preset and is enabled by default. However, some third-party PTZ cameras that are not directly supported by the plugins do not provide all the expected preset data, therefore validation can be disabled to support storing these presets.

The options are as follows:

- **Enable:** Ensures complete data availability before storing a preset, ideal for full compatibility.
- **Disable:** DashBoard attempts to store available data, placing the responsibility on the user to verify preset success. This mode accommodates use with certain unsupported cameras.

Note: This feature is specifically available for Panasonic and Sony camera plugins. For all other camera plugins, preset validation remains perpetually active, ensuring reliability across diverse hardware setups.

Store Presets on Camera

You can specify whether presets stored by the PTZ Camera Control plugin are stored in local memory AND in the camera's memory, or only in local memory:

- **Disable** — Presets are stored in local memory only.
- **Enable** — Presets are stored in local memory and on the camera.

Note: Each camera can store a limited number of presets. Any presets numbered higher than the storage capacity of the camera are stored in local memory only.

For Canon PTZ cameras, this setting is read-only, as presets will always be stored in the Camera.

Tip: PTZ-12G+, PTZ-12G, and PTZ-NDI cameras can store up to 256 presets (**0 - 255**).

Recall Presets From

You can specify whether presets are recalled from the camera or from local memory:

- **Local** — Presets are recalled from local memory only, not from the camera.
- **Camera** — Presets are recalled from camera memory. Presets numbered higher than the storage capacity of the camera are recalled from local memory. For example, if the camera capacity is 256 presets starting at 0, then presets 0 to 255 are recalled from camera memory, and presets 256 onwards are recalled from local memory.

WARNING: If no data is stored for a slot on the camera, the shot recall will fail silently.

Tip: If there is no preset stored in a given preset memory on the camera, and that preset is recalled, nothing happens. The camera position does not change, and there is no error message to tell you the preset is empty.

Note: For Canon PTZ cameras, this setting is read-only, as presets will always be stored in the Camera.

Number of Presets on Camera

You can limit the number of camera-memory presets the PTZ Camera Control plugin interacts with.

If **Manage Presets on Camera** is set to **Enable**, we recommend setting the **Number of Presets on Camera** to a quantity that fills a number of banks precisely.

IMPORTANT: Do not set this value to a number greater than the number of preset slots available on your camera.

For example, if camera can store up to 128 presets, and you want each bank to contain 40 shots, then we recommend that you set **Number of Presets on Camera** to **120**. This results in the first three banks ($3 \times 40 = 120$) consisting entirely of presets stored on camera. Any presets numbered higher than the **Number of Presets on Camera** are stored in local memory only.

Note: This setting is read-only for Canon PTZ cameras.

Tip: PTZ-12G and PTZ-NDI cameras can store up to 256 presets.

Blind Shot Recall

The **Blind Shot Recall** setting specifies whether you can attempt to recall a shot from the camera when there is no locally stored data in the slot:

- **Disable** — Empty camera slots cannot be recalled.
- **Enable** — Empty camera slots can be recalled.

WARNING: If no data is stored for a slot on the camera for **Blind Shot Recall**, recall will fail silently.

Log Level

You can set the level of detail recorded in system activity logs. More intensive logging consumes CPU capacity and results in more logging data.

The default setting is **Normal**. There is no need to adjust the logging level unless requested to do so by Ross Video.

Gateway Settings Page

The **Gateway Settings** page ([Figure 38](#)) has settings for establishing VISCA and/or Furio communication gateways, to enable external systems to control the camera. It also includes tally interface settings.

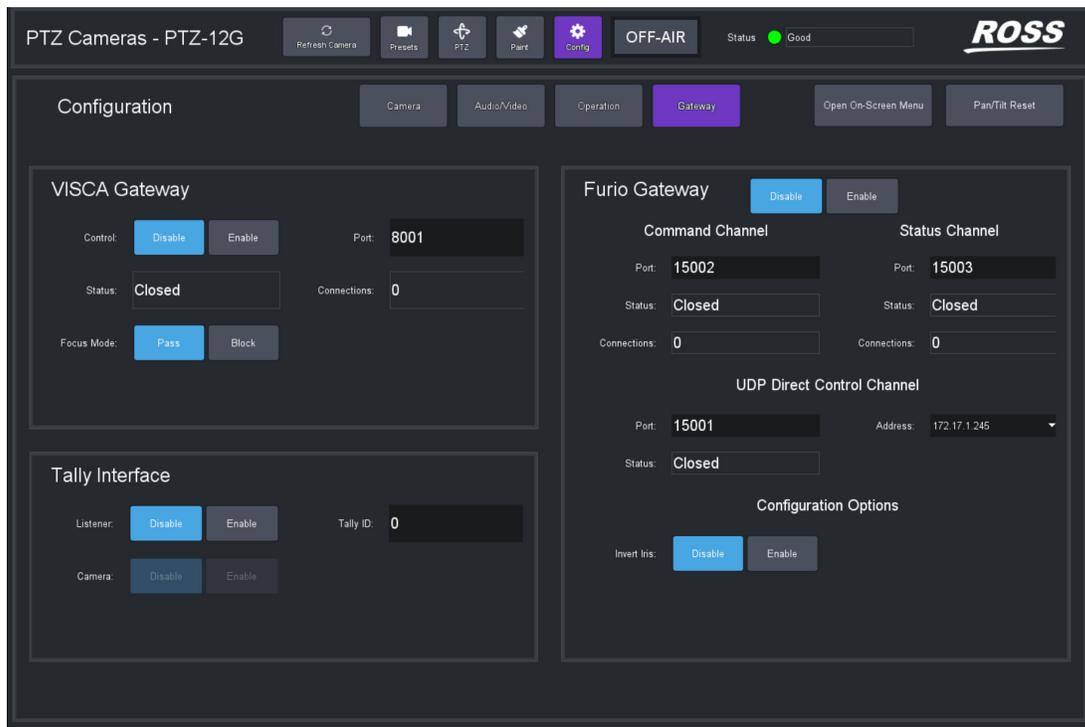


Figure 38 - Gateway Settings page

VISCA Gateway

VISCA Gateway settings (Figure 39) enable you to open a server port to connect VISCA controllers, such as a Carbonite switcher, to the camera via the camera control panel.

The communication protocol is serial VISCA over TCP. Only a subset of VISCA commands is supported. This VISCA gateway implementation is not compatible with the legacy PIVOTCam Control Panel.

Tip: In the PTZ Camera Control plugin, you can configure whether the numbering of presets starts at **0** or **1**. The setting is purely aesthetic, and can be changed at any time. For many external VISCA controllers, such as Carbonite, preset numbering starts at **1**. If such a VISCA controller recalls preset **1**, the first preset is recalled, regardless of whether the PTZ Camera Control plugin shows it as preset **0** or **1**. To avoid confusion, when using an external VISCA controller we recommend you set **Preset Number Display Offset** to match the controller’s numbering. For more information, see “**Preset Number Display Offset**”, which is within the section, “**Operation Settings Page**”.

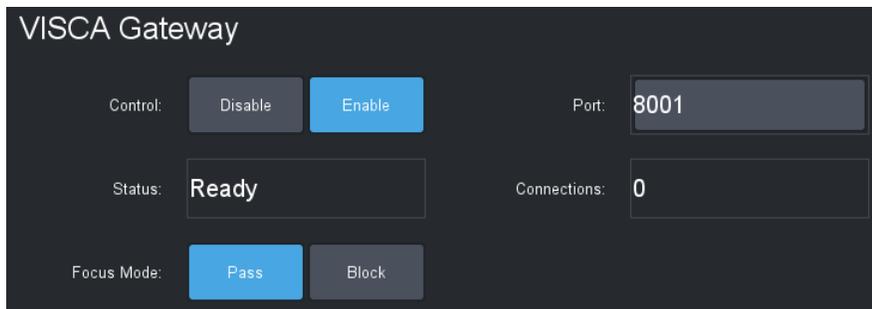


Figure 39 - VISCA Gateway settings

VISCA Gateway settings include the following:

- **Control** — To open a server port, set **Control** to **Enable**.
- **Port** — The port number. Can be edited only when **Control** is set to **Disable**.

- **Status** (read-only):
 - › **Closed** — The port is closed, either because the gateway is disabled or because DashBoard is not connected to the target camera.
 - › **Ready** — The port is open, but no controllers are currently connected to it.
 - › **Connected** — The port is open and one or more controllers are connected to it.
 - › **Error** — Typically means that the selected port is unavailable. For example, it may be in use by a different service or as a gateway for a different camera.
- **Connections** (read-only) — When status is **Connected**, shows how many connections are established.
- **Focus Mode:**
 - › **Pass** — External controllers are allowed to send focus mode control messages through the gateway.
 - › **Block** — Prevents focus mode control messages from being passed through the gateway to the camera. External controller can still read the current state of camera auto focus mode from the camera control panel. This is done because Carbonite always pushes its desired auto focus mode, which means that when Carbonite is connected, no other controller can set auto focus.

Note: If a VISCA controller triggers a preset store in an empty DashBoard slot, the preset is given the name "**Remote**", and default store options are applied. If a preset is stored to a location that already has name and preset options set, that name and preset options are retained and the preset is updated with the current camera position.

Furio Gateway

Furio Gateway settings (Figure 40) enable you to open server ports to allow external devices to control the camera using Furio API commands. You can control the camera using SmartShell, an Acuity production switcher, or another device that sends Furio API commands.

The screenshot shows the Furio Gateway settings interface. At the top, there is a title "Furio Gateway" and two buttons: "Disable" and "Enable". Below this, there are three main sections: "Command Channel", "Status Channel", and "UDP Direct Control Channel". Each section has input fields for "Port", "Status", and "Connections". The "Command Channel" has a port of 15004, status of Ready, and 0 connections. The "Status Channel" has a port of 15005, status of Ready, and 0 connections. The "UDP Direct Control Channel" has a port of 15002, an address of 172.25.224.1, and a status of Ready. At the bottom, there is a "Configuration Options" section with an "Invert Iris" label and two buttons: "Disable" and "Enable".

Figure 40 - Furio Gateway settings

Both the DashBoard computer running the PTZ Camera Control Plugin, and the external Furio control device must be properly configured to establish control of the camera.

The **Command Channel** and **Status Channel** are ports on the DashBoard computer that must be opened to enable an external Furio control device to communicate with the PTZ cameras.

The **UDP Direct Control Channel** consists of a **Port** and **IP Address** on the DashBoard computer. The Furio Joystick Panel must be able to access the port and IP address.

The **Status** box for each channel may display any of the following messages:

- **Closed** — The port is closed, either because the gateway is disabled or because DashBoard is not connected to the target camera.
- **Ready** — The port is open, but no controllers are currently connected to it.
- **Connected** — The port is open and one or more controllers are connected to it.
- **Error** — Typically means that the selected port is unavailable. For example, it may be in use by a different service or as a gateway for a different camera.

When the gateway is enabled, the **Connections** box in the **Command Channel** area and in the **Status Channel** area display the number of established connections.

Tip: Port numbers and IP addresses for the Furio Gateway can be configured only while the gateway is **Disabled**.

The **Configuration Options** to **Invert Iris** is available for all PTZ cameras. When enabled, iris velocity changes requested through Furio Gateway are inverted. To revert to Dashboard v9.15 or earlier version behavior, **Enable** the **Invert Iris** option.

Reporting of Movement Away from Preset Position

When controlling a PTZ camera through the Furio Gateway, the gateway reports when the camera has moved away from a preset position. In SmartShell this would have the effect of changing the border around the last recalled preset from dark blue to light blue. Motion is reported only for pan, tilt, zoom and focus axes changed by a controller connected to the DashBoard plugin hosting the gateway, such as when one of the following occurs:

- Movement is requested by the PTZ Camera Control plugin, either by using PTZ controls in the plugin interface, or by using a USB game controller.
- Movement is requested by a controller connected to the VISCA or Furio Gateway hosted by the DashBoard plugin (for example a SmartShell joystick or Carbonite).

Reporting of Variable Zoom Settings

For cameras that feature a Variable Zoom setting, the variable zoom value is reflected through the Furio gateway when it reports the **zoomVar** setting for the Pan and Tilt axes:

- When Variable Zoom is **OFF**, **zoomVar** for Pan and Tilt is reported as **0**.
- When Variable Zoom is **ON**, **zoomVar** for Pan and Tilt is reported as **100**.
- When Variable Zoom is not available, or for all other axes (Zoom, Focus, Iris), **zoomVar** is reported as **50**.

In all cases, **zoomVar** cannot be changed through the Furio Gateway.

Tally Interface

Settings in the **Tally Interface** area ([Figure 41](#)) enable listeners to receive tally signals, assign a tally ID for the camera, and specify control of the tally indicator on the camera.

The top of the PTZ Camera Control interface features a tally indicator (ON-AIR / PREVIEW / OFF-AIR).

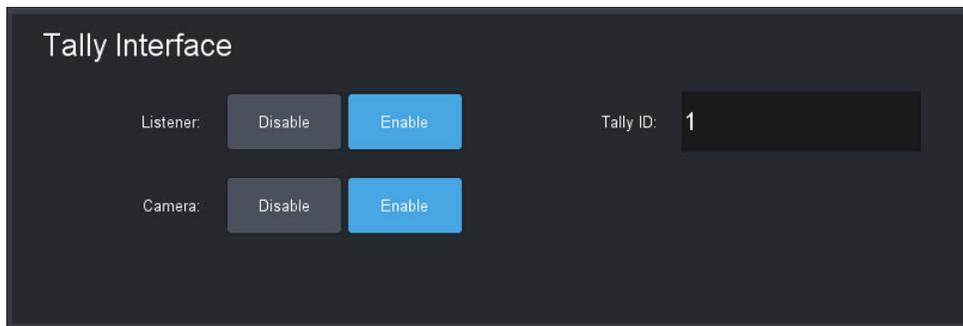


Figure 41 - Tally Interface settings

Settings in the **Tally Interface** work in conjunction with the **DashBoard Tally Service**. You must enable the **DashBoard Tally Service** and then configure tally settings for your camera.

To enable the DashBoard Tally Service:

1. From the DashBoard Tree, expand **DashBoard Services** and the double-tap **Tally**.



Figure 42 - DashBoard Tree, showing DashBoard Services > Tally

The **DashBoard Tally Service** interface appears ([Figure 43](#)).

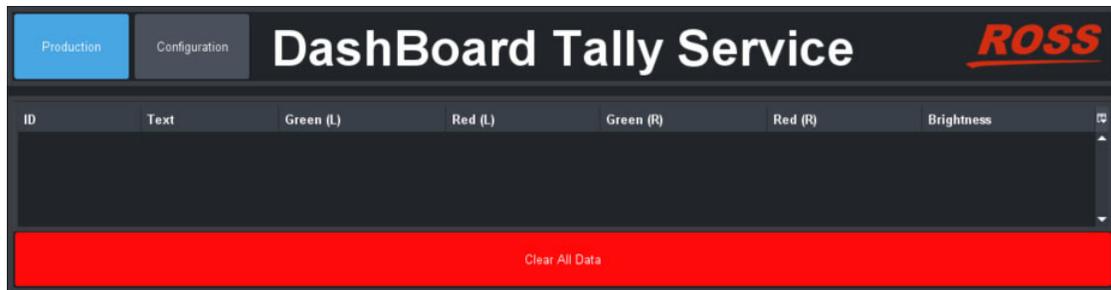


Figure 43 - DashBoard Tally Service interface

2. Tap the **Configuration** button, and then turn **ON** the tally listener type used in your facility ([Figure 44](#)).

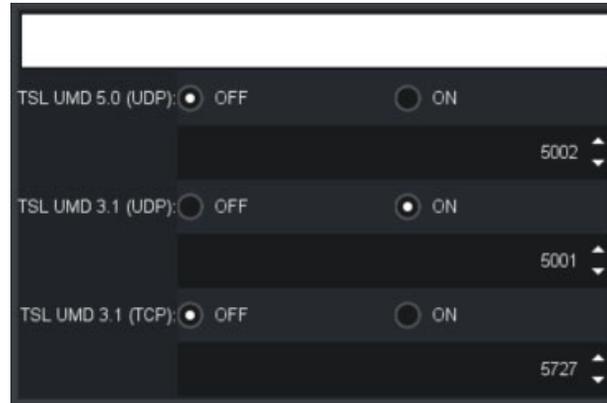


Figure 44 - Specifying a Tally Listener

Tip: To observe incoming tally data, tap the **Production** button.

To configure tally settings for your camera:

1. In the **PTZ Camera Control** interface, navigate to **Config > Gateway**.
2. In the **Tally Interface** area, specify tally settings for the camera:

- a. Set **Listener** to **Enable**.

Enabling a listener activates the tally indicator (**ON-AIR / PREVIEW / OFF-AIR**) at the top of the PTZ Camera Control interface. Whenever the tally state changes, the tally indicator responds accordingly. Notification of each state change is also delivered to SmartShell over the Furio Gateway (if configured).

- b. In the **Tally ID** box, type the tally number for the camera.

- c. If you want Dashboard to control the camera's tally light, set **Camera** to **Enable**:

- › For PTZ-12G+, PTZ-12G, and PTZ-NDI cameras, PIVOTCam cameras, and Lumens PTZ cameras, the tally light is red when the camera is **ON-AIR**, and green when the camera is in **PREVIEW**.
- › For Sony BRC cameras, there is a red tally light on the camera, which is illuminated when the camera is **ON-AIR**.
- › For Sony ILME-FRZ cameras, there are green and red tally lights, which are illuminated when the camera is **ON-AIR**.
- › For Panasonic and Canon PTZ cameras, there are separate tally lights for **ON-AIR** (red) and **PREVIEW** (green).

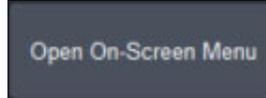
Note: If you enable control of the camera tally light, the ability to directly control the tally light through the VISCA gateway or from a Dashboard CustomPanel is disabled.

On-Screen Menu

The on-screen menu, controlled through the **Menu Control** page, enables you to adjust camera settings without using the remote control unit that came with the camera. For information about which settings are available in the on-screen menu, consult the User Manual that came with your camera.

To access the on-screen menu:

- Tap the **Open On-Screen Menu** button.



The **Menu Control** interface appears ([Figure 45](#)).

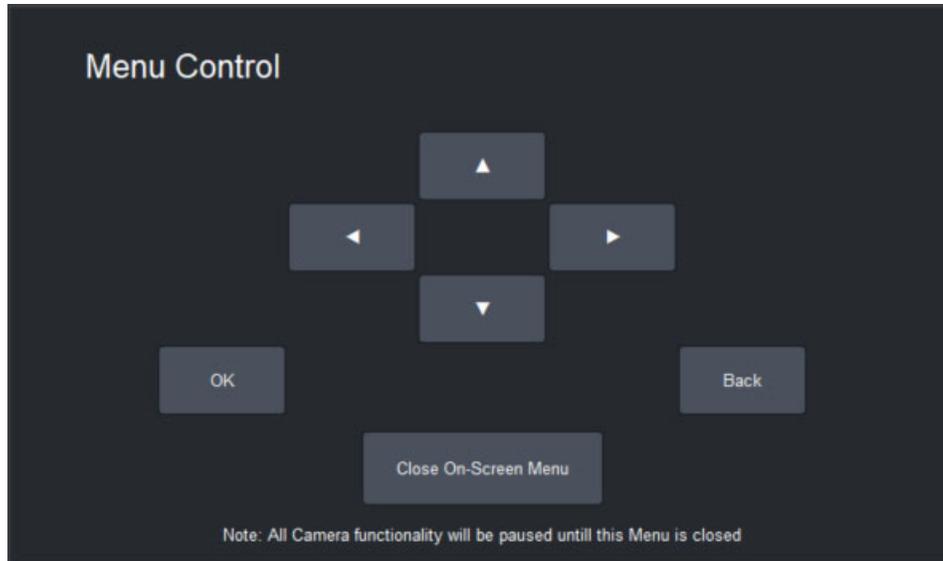


Figure 45 - Menu Control interface

To adjust settings in the on-screen menu:

1. Connect video output from the camera to a video monitor so you can see the menu options.
2. Tap the up/down and left/right arrows to navigate to the desired setting, and then tap **OK** button to select it.

Note: The on-screen menu is not available for Canon PTZ cameras.

Tips:

- If you want to go up one level in the menu hierarchy, tap the **Back** button.
- After a period of inactivity (15 seconds for PTZ-12G+, PTZ-12G, and PTZ-NDI cameras), the on-screen menu closes automatically. You must close and re-open the **Menu Control** page to continue using the on-screen menu.
- While the on-screen menu is active, all other camera activity is paused.
- The Sony ILME-FR7 menu supports press-and-hold on the on-screen menu buttons.

Working with Presets

A preset is a saved camera position. It can record all controllable axes and some settings, including pan, tilt, focus, zoom, iris, white balance, etc.

This section describes how to work with presets, including creating, editing, and recalling them. It includes the following major topics:

- “**About Preset Modes**”
- “**Working with Presets in Panel Mode**”
- “**Working with Presets in Shotbox Mode**”
- “**About Preset Options and Recall Options**”

About Preset Modes

The PTZ Camera Control interface has two operation modes, also known as **Preset Modes**, which define the behavior of the **Presets** page:

- **Panel mode** — In this mode, you tap a preset to select it, and then tap an action button (**Recall**, **Store**, **Edit Preset Options**, or **Delete**) at the bottom of the **Presets** page. When you select a preset, the border of the preset button turns purple.
- **Shotbox mode** — In this mode, you tap an action button at the bottom of the **Presets** page to enter an action mode (**Recall**, **Store**, **Edit Preset Options**, or **Delete**), and then tap the preset to which you want to apply the action.

Tip: If one of the action buttons is colored (purple, yellow, green, or red), the interface is in **Shotbox** mode.

For information about switching between operation modes, see “**Preset Mode**”.

Working with Presets in Panel Mode

This section describes how to work with presets in **Panel** mode. Information presented here applies only when the PTZ Camera Control interface is in **Panel** mode (as opposed to **Shotbox** mode). For information about using the **Presets** page in **Shotbox** mode, refer to “**Working with Presets in Shotbox Mode**”.

Unless stated otherwise, tasks described in this section are performed from the **Presets** page.



To access the **Presets** page, tap the **Presets** button.

Before you attempt these procedures, we suggest you review the various controls available on the **Presets** page. For a description of these controls, see “**Presets Page (in Panel Mode)**”.

This section includes information about performing the following tasks in panel mode:

- “**Switch Between Banks of Presets**”
- “**Store a Preset**”
- “**Recall a Preset from Camera**”
- “**Edit a Preset to Change Camera Position**”
- “**Edit Preset Options**”
- “**Delete a Preset**”
- “**Edit Default Preset Options**”
- “**Manage Deleted Presets (Restore or Discard)**”

Switch Between Banks of Presets

The PTZ Camera Control plugin can store multiple banks of preset buttons.

Banks are represented by bank tabs above the preset buttons. The current bank tab is always purple.

To switch to a different bank:

- Tap the bank tab representing the desired bank.
The bank tab turns purple, and the presets in that bank are accessible.

Store a Preset

A preset is a record of all controllable axis positions and selected settings for a camera, including pan, tilt, focus, zoom, iris, exposure, white balance, etc.

When a preset is stored, it includes a set of **Preset Options**. In addition to the name of the preset, these options define whether the **Focus**, **Exposure**, and **White Balance** settings that are saved with the preset can be applied when the preset is later recalled. The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled. For more information about **Preset Options**, see “**About Preset Options and Recall Options**”.

Depending on the current **Store Mode**, you may be required to review the **Preset Options**. For more information, see “**Store Mode**”.

Important: Recall options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.

Note: For all supported VISCA cameras (PTZ-12G+, PTZ-12G, and PTZ-NDI, PIVOTCam-SE, Sony BRC, and Lumens PTZ cameras), a preset does not store the on/off status of automatic camera modes, such as **Auto Focus**, **Exposure (Full Auto)**, and **White Balance**. It stores the actual values for these settings, but not the fact that the camera is in an automatic mode *only when recalling from local*. For example, if you save a preset while **Auto Focus** is **ON**, the focus value is stored but the fact that **Auto Focus** was **ON** is not stored. When the preset is recalled, the focus value is applied, unless the camera is in **Auto Focus** mode. Recalling a preset does not override automatic mode settings. For Panasonic cameras, **Auto Focus** mode is not stored, but exposure and white balance modes are stored and recalled with presets.

Note: With the Sony ILME-FR7 camera, a preset does not store any information about **Exposure** or **White Balance** settings. Only **Pan**, **Tilt**, **Zoom**, and **Focus** are stored.

Tip: Before you store presets, specify where they are stored and from where they are recalled. For more information, see “**Specify Where Presets are Stored, and from Where they are Recalled**”.

To store a preset:

1. Adjust the camera position and settings to prepare the shot.
2. Tap the preset button that you want to use to store the shot.
3. Tap the **Store** button.

Note: In some modes, this may show **Store on Camera** to indicate that storing will store both locally and in mapped slot in camera storage.

4. If the **Store Preset** dialog box appears, review and/or modify the **Preset Options** as follows:
 - a. In the **Preset Name** box, type a name for the preset. The name appears on the preset button.
 - b. Specify whether the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.
Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.
 - c. Tap **Store**.

Recall a Preset from Camera

When you recall a preset, its stored pan, tilt, and zoom settings are applied to the camera. Other stored settings may also be applied.

Important: Recall options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.

To recall a preset:

1. Tap the preset button that represents the preset you want to recall.
Tip or separate section about recalling a preset from an empty slot
2. In the **Recall Options** area, specify whether to **Allow** or **Ignore** the **Preset Options** for **Focus**, **Exposure**, and **White Balance**.
Tip: If **Allow** and **Ignore** buttons are not available for an option, it is because the mode/setting listed directly below it overrides that option. Recalling a preset does not always override automatic mode settings.
For more information about **Recall Options**, see “**About Preset Options and Recall Options**”.
3. Tap the **Recall** button.

Note: In Panel mode, this displays **Recall From Camera** when a recall is from camera storage.

Edit a Preset to Change Camera Position

To change the camera position or other settings that are recorded as part of the preset, recall the original preset, change the camera position and/or settings as required, and then **Store** on the same preset button.

For information about recalling a preset, see “**Recall a Preset from Camera**”.

For information about storing a preset, see “**Store a Preset**”.

Edit Preset Options

When a preset is stored, it includes a set of **Preset Options**. In addition to the name of the preset, these options define whether the **Focus**, **Exposure**, and **White Balance** settings that are saved with the preset can be applied when it is later recalled. The final decision to **Allow** or **Ignore** these recall defaults is made when the preset is recalled. For more information about how **Preset Options** are applied, see “**About Preset Options and Recall Options**”.

Important: These options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.

You can edit preset options for any preset button, even if the preset on that button has been deleted, or is empty. If you edit **Preset Options** for a deleted or empty preset button (a gray button), those options are presented as defaults when you later store a preset on that button.

To edit the Preset Options for a preset:

1. Tap the preset button for which you want to edit **Preset Options**.
2. Tap the **Edit Preset Options** button.
The **Edit Options** dialog box appears.
3. In the **Edit Options** dialog box, review and/or modify the **Preset Options** as follows:
 - a. In the **Preset Name** box, type a name for the preset. The name appears on the preset button.
 - b. Specify whether the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.

Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.

- c. Tap **Update**.

Delete a Preset

When you delete a preset, it can no longer be recalled.

Data about the preset is stored until the preset is restored or discarded. For more information, see “**Manage Deleted Presets (Restore or Discard)**”.

To delete a preset:

1. Tap the preset button that represents the preset you want to delete.
2. Tap the **Delete** button.
The preset is deleted. The preset button turns gray.

Edit Default Preset Options

When you store a preset, **Preset Options** are also stored. Depending on the **Store Mode**, you may or may not have an opportunity to review and edit the **Preset Options** before they are stored with the preset. For more information about Store Modes, see “**Operation Settings Page**”.

You can edit the default values for the **Preset Options**, which are the values presented for review or automatically applied each time you store a preset.

To define the default Preset Options:

1. In the **Store Options** area, tap the **Edit Defaults** button.
The **Edit Default Preset Options** dialog box appears ([Figure 46](#)).

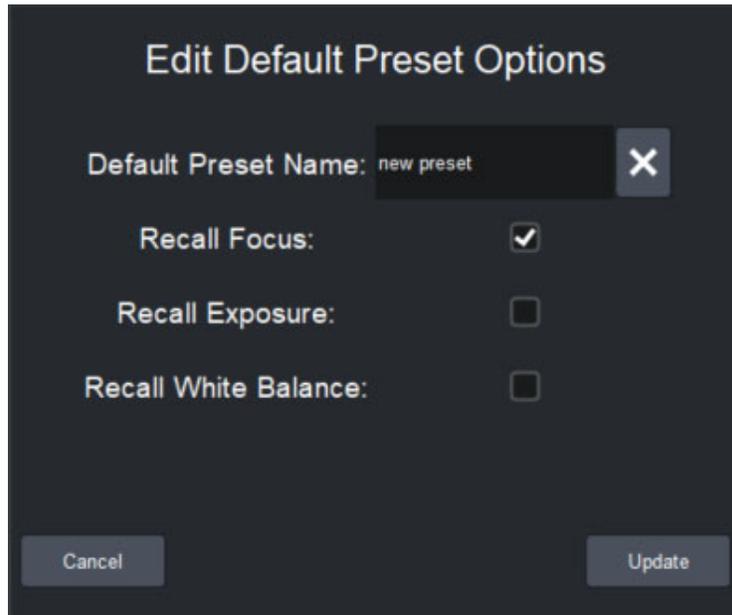


Figure 46 - Edit Default Preset Options dialog box

Note: Preset options, except for **Default Preset Name**, are not shown for the Canon PTZ cameras as recall options do not apply when presets are recalled from camera storage.

2. Review and/or modify the default **Preset Options** as follows:
 - a. In the **Default Preset Name** box, type a default name for presets.
 - b. Specify whether, by default, the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.

Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.

- c. Tap **Update**.

Manage Deleted Presets (Restore or Discard)

When you delete a preset, it can no longer be recalled. Data about the preset is stored until the preset is restored or discarded.

To Manage Deleted Presets (Restore or Discard):

1. In the **Delete Options** area, tap the **Manage Deleted Presets** button.
The **Manage Deleted presets** page appears (Figure 47) and displays a button for each of the deleted presets on the current bank.

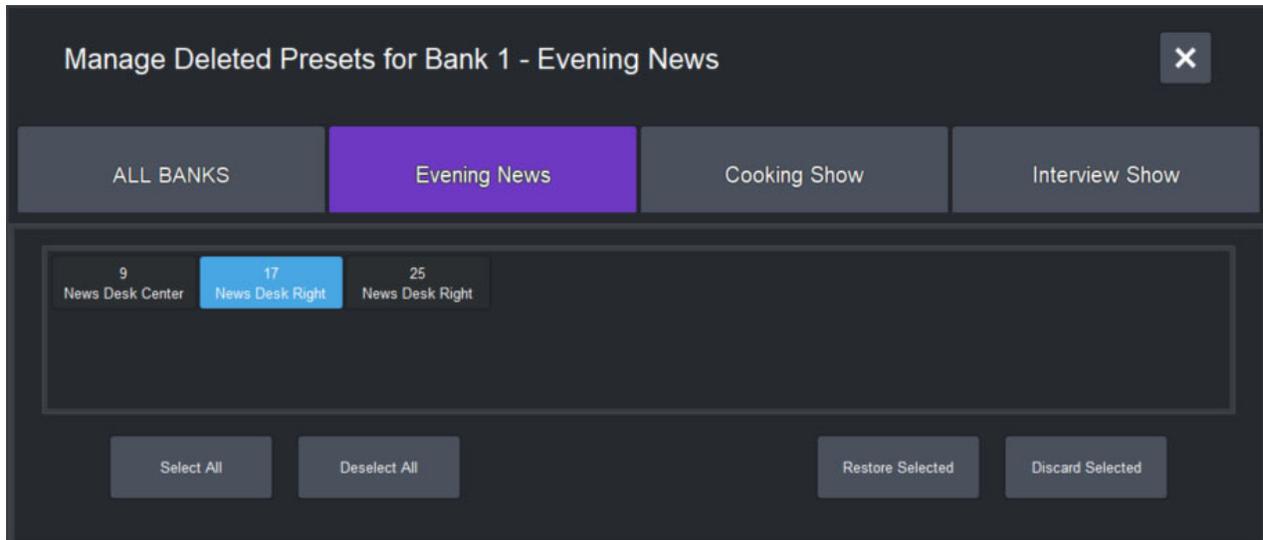


Figure 47 - The Manage Deleted Presets page

2. Select the deleted preset(s) you want to manage.
Tip: If you want to select deleted presets from a different bank, tap that bank button to switch banks.
Tip: If you want to select deleted presets from multiple banks, tap the **ALL BANKS** button. The **Manage Deleted Presets** page displays all deleted presets from all banks.
3. If you want to restore the selected presets, tap **Restore Selected**.
4. If you want to permanently discard the selected presets, tap **Discard Selected**.
5. When you are finished managing deleted presets, tap the **X** button to close the **Manage Deleted Presets** page.



Working with Presets in Shotbox Mode

This section describes how to work with presets in **Shotbox** mode. Information presented here applies only when the PTZ Camera Control interface is in **Shotbox** mode (as opposed to **Panel** mode). For information about using the **Presets** page in **Panel** mode, refer to "**Working with Presets in Panel Mode**".

Unless stated otherwise, tasks described in this section are performed from the **Presets** page.



To access the **Presets** page, tap the **Presets** button.

Before you attempt these procedures, we suggest you review the various controls available on the **Presets** page. For a description of these controls, see "**Presets Page (in Shotbox Mode)**".

This section includes information about performing the following tasks in Shotbox mode:

- “**Switch Between Banks of Presets**”
- “**Store a Preset**”
- “**Recall a Preset**”
- “**Edit a Preset to Change Camera Position or Settings**”
- “**Edit Preset Options**”
- “**Delete a Preset**”
- “**Edit Default Preset Options**”
- “**Manage Deleted Presets (Restore or Discard)**”

Switch Between Banks of Presets

The PTZ Camera Control plugin can store multiple banks of preset buttons.

Banks are represented by bank tabs above the preset buttons. The current bank tab is always purple.

To switch to a different bank:

- Tap the bank tab representing the desired bank.
The bank tab turns purple, and the presets in that bank are accessible.

Store a Preset

A preset is a record of all controllable axis positions and selected settings for a camera, including pan, tilt, focus, zoom, iris, exposure, white balance, etc.

When a preset is stored, it includes a set of **Preset Options**. In addition to the name of the preset, these options define whether the **Focus**, **Exposure**, and **White Balance** settings that are saved with the preset can be applied when the preset is later recalled. The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled. For more information about **Preset Options**, see “**About Preset Options and Recall Options**”.

Depending on the current **Store Mode**, you may be required to review the **Preset Options**. For more information, see “**Store Mode**”.

Note: For PTZ-12G+, PTZ-12G, and PTZ-NDI cameras, PIVOTCam-SE cameras, Sony BRC cameras, and Lumens PTZ cameras, a preset does not store the on/off status of automatic camera modes, such as **Auto Focus**, **Exposure (Full Auto)**, and **White Balance**. It stores the actual values for these settings, but not the fact that the camera is in an automatic mode. For example, if you save a preset while **Auto Focus** is **ON**, the focus value is stored but the fact that **Auto Focus** was **ON** is not stored. When the preset is recalled, the focus value is applied, unless the camera is in **Auto Focus** mode. Recalling a preset does not override automatic mode settings. For Panasonic cameras, **Auto Focus** mode is not stored, but exposure and white balance modes are stored and recalled with presets.

Note: With the Sony ILME-FR7 camera, a preset does not store any information about **Exposure** or **White Balance** settings. Only **Pan**, **Tilt**, **Zoom**, and **Focus** are stored.

Tip: Before you store presets, specify where they are stored and from where they are recalled. For more information, see “**Specify Where Presets are Stored, and from Where they are Recalled**”.

To store a preset:

1. Adjust the camera position and settings to prepare the shot.
2. Tap the **Store** button to place the interface into **Store** mode.
The **Store** button turns yellow.
3. Tap the preset button that you want to use to store the shot.
4. If the **Store Preset** dialog box appears, review and/or modify the **Preset Options** as follows:

- a. In the **Preset Name** box, type a name for the preset. The name appears on the preset button.
- b. Specify whether the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.
Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.
- c. Tap **Store**.

Recall a Preset

When you recall a preset, its stored pan, tilt, and zoom settings are applied to the camera. Other stored settings may also be applied.

To recall a preset:

1. Tap the **Recall** button to place the interface into **Recall** mode.
The **Recall** button turns purple.
2. In the **Recall Options** area, specify whether to **Allow** or **Ignore** the **Preset Options** for **Focus**, **Exposure**, and **White Balance**.
Tip: If **Allow** and **Ignore** buttons are not available for an option, it is because the mode/setting listed directly below it overrides that option. Recalling a preset does not always override automatic mode settings.
For more information about **Recall Options**, see “**About Preset Options and Recall Options**”.
Important: Recall options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.
3. Tap the preset button that represents the preset you want to recall.

Edit a Preset to Change Camera Position or Settings

To change the camera position or other settings that are recorded as part of the preset, recall the original preset, change the camera position and/or settings as required, and then **Store** on the same preset button.

For information about recalling presets, see “**Recall a Preset**”.

For information about storing presets, see “**Store a Preset**”.

Edit Preset Options

When a preset is stored, it includes a set of **Preset Options**. In addition to the name of the preset, these options define whether the **Focus**, **Exposure**, and **White Balance** settings that are saved with the preset can be applied when it is later recalled. The final decision to **Allow** or **Ignore** these recall defaults is made when the preset is recalled. For more information about how **Preset Options** are applied, see “**About Preset Options and Recall Options**”.

You can edit preset options for any preset button, even if the preset on that button has been deleted, or is empty. If you edit **Preset Options** for a deleted or empty preset button (a gray button), those options are presented as defaults when you later store a preset on that button.

To edit the Preset Options for a preset:

1. Tap the **Edit Preset Options** button to place the interface into **Edit Preset Options** mode.
The **Edit Preset Options** button turns green.
2. Tap the preset button for which you want to edit **Preset Options**.
The **Edit Options** dialog box appears.

3. In the **Edit Options** dialog box, review and/or modify the **Preset Options** as follows:
 - a. In the **Preset Name** box, type a name for the preset. The name appears on the preset button.
 - b. Specify whether the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.

Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.
Important: Recall options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.
 - c. Tap **Update**.

Delete a Preset

When you delete a preset, it can no longer be recalled.

Data about the preset is stored until the preset is restored or discarded. For more information, see **“Manage Deleted Presets (Restore or Discard)”**.

To delete a preset:

1. Tap the **Delete** button to place the interface into **Delete** mode.
The **Delete** button turns red.
2. Tap the preset button that represents the preset you want to delete.
The preset is deleted. The preset button turns gray.

Edit Default Preset Options

When you store a preset, **Preset Options** are also stored. Depending on the **Store Mode**, you may or may not have an opportunity to review and edit the **Preset Options** before they are stored with the preset. For more information about Store Modes, see **“Operation Settings Page”**.

You can edit the default values for the **Preset Options**, which are the values presented for review or automatically applied each time you store a preset.

To define the default Preset Options:

1. Tap the **Store** button to place the interface into **Store** mode.
The **Store** button turns yellow.
2. In the **Store Options** area, tap the **Edit Defaults** button.
The **Edit Default Preset Options** dialog box appears ([Figure 48](#)).

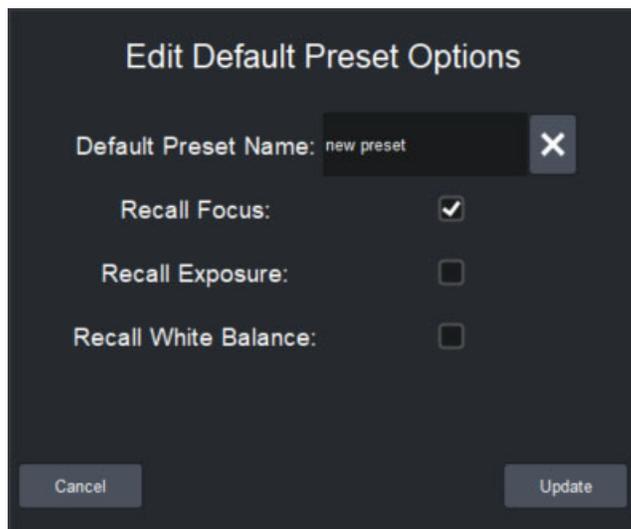


Figure 48 - Edit Default Preset Options dialog box

3. Review and/or modify the default **Preset Options** as follows:
 - a. In the **Default Preset Name** box, type a default name for presets.
 - b. Specify whether, by default, the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.

Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.

Important: Recall options are only applicable when recalling a preset from local storage. For Canon PTZ cameras, which do not support local storage, these options are not relevant.
 - c. Tap **Update**.

Manage Deleted Presets (Restore or Discard)

When you delete a preset, it can no longer be recalled. Data about the preset is stored until the preset is restored or discarded.

To Manage Deleted Presets (Restore or Discard):

1. Tap the **Delete** button to place the interface into **Delete** mode. The **Delete** button turns red.
2. In the **Delete Options** area, tap the **Manage Deleted Presets** button. The **Manage Deleted Presets** page appears ([Figure 49](#)), and displays a button for each of the deleted presets on the current bank.

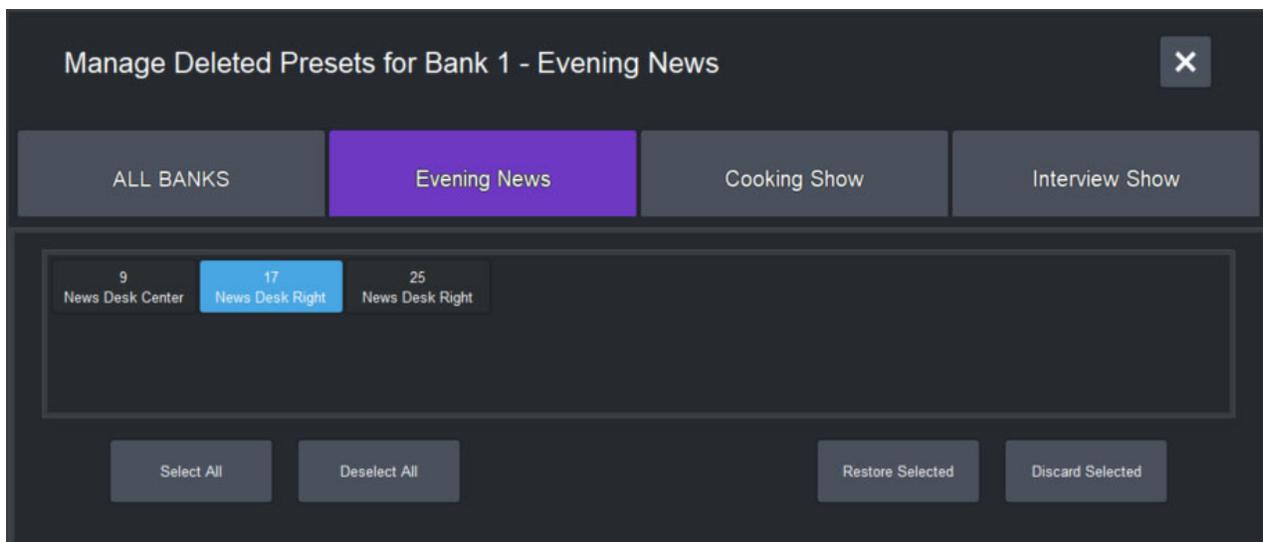


Figure 49 - The Manage Deleted Presets page

3. Select the deleted preset(s) you want to manage.

Tip: If you want to select deleted presets from a different bank, tap that bank button to switch banks.

Tip: If you want to select deleted presets from multiple banks, tap the **ALL BANKS** button. The **Manage Deleted Presets** page displays all deleted presets from all banks.
4. If you want to restore the selected presets, tap **Restore Selected**.
5. If you want to permanently discard the selected presets, tap **Discard Selected**.
6. When you are finished managing deleted presets, tap the **X** to exit the **Manage Deleted Presets** page.

About Preset Options and Recall Options

The PTZ Camera Control plugin has flexible options for managing **Focus**, **Exposure**, and **White Balance** values that are recorded as part of a preset.

These options enable you to control how the values are applied. For example, if the lighting conditions have changed since a preset was stored, you may not want to apply the stored **Exposure** values when you recall the preset.

When you store a preset, values for **Focus**, **Exposure**, and **White Balance** settings are always recorded. For Panasonic cameras, **Exposure Modes** (auto iris, shutter mode, and AGC) and the White Balance Mode are also recorded.

You can specify whether each type of recorded values is a recallable part of the preset, meaning that it is made available to be applied when the preset is recalled. The options to make the values available for recall are called **Preset Options**.

When you recall a preset, you can specify whether the **Preset Options** that were stored with the preset are to be **Allowed** (honored) or **Ignored**. The options to **Allow** or **Ignore** the **Preset Options** are called **Recall Options**.

Note: These only apply for presets recalled from local storage and not for Canon PTZ.

It is important to note that **Recall Options** you **Allow** do not always override automatic camera modes when recalling from local:

- If **Auto Focus** is **ON** when the preset is recalled, the **Focus** value stored in the preset is not applied. The **Auto Focus** mode remains active.
- For all supported VISCA cameras (PTZ-12G+, PTZ-12G, and PTZ-NDI, PIVOTCam-SE, Sony BRC, and Lumens PTZ cameras), if the **Exposure Mode** is set to **Full Auto** when the preset is recalled, the **Exposure** values (**Iris**, **Shutter**, **Gain**) stored in the preset are not applied. The exposure mode remains set to **Full Auto**.
- For Panasonic cameras, the **Exposure** modes stored with the preset are applied. If a stored mode (**Iris**, **Shutter**, **AGC**) is a manual mode, its manual values stored with the preset are applied.
- For all supported VISCA cameras (PTZ-12G+, PTZ-12G, and PTZ-NDI, PIVOTCam-SE, Sony BRC, and Lumens PTZ cameras), if **White Balance** is set to anything other than **Manual** when the preset is recalled, the **Color** values stored in the preset (**Red Gain**, **Blue Gain**) are not applied. The **White Balance** mode remains active.
- For Panasonic cameras, the **White Balance** mode stored with the preset is applied. If the stored mode is a manual mode, the **Color** values stored in the preset (**Red Gain**, **Blue Gain**, and, for the UE160, **Green Gain**) are applied.

Preset Options and Recall Options: An Example

This section presents an example of how **Preset Options**, **Recall Options**, and automatic camera modes can affect how recorded **Focus**, **Exposure**, and **White Balance** values are applied.

This example is based on PTZ-12G+, PTZ-12G, and PTZ-NDI cameras, and recalling from local.

[Figure 50](#) shows a set of **Preset Options**, which are specified when the preset is stored. In this example, **Recall Exposure** and **Recall White Balance** are selected. **Recall Focus** is not. When the preset is recalled, the recorded **Focus** value will not be available for recall.

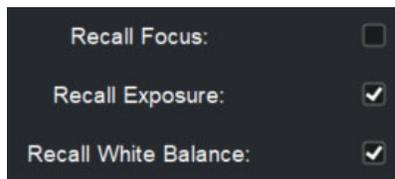


Figure 50 - Preset Options, stored as part of a preset

[Figure 51](#) shows a set of **Recall Options**, which are specified immediately before the preset is recalled. **Focus** and **White Balance** are set to **Allow**. The **Exposure Recall Option** is not available, because the **Exposure Mode** for the camera is set to **Full Auto**.

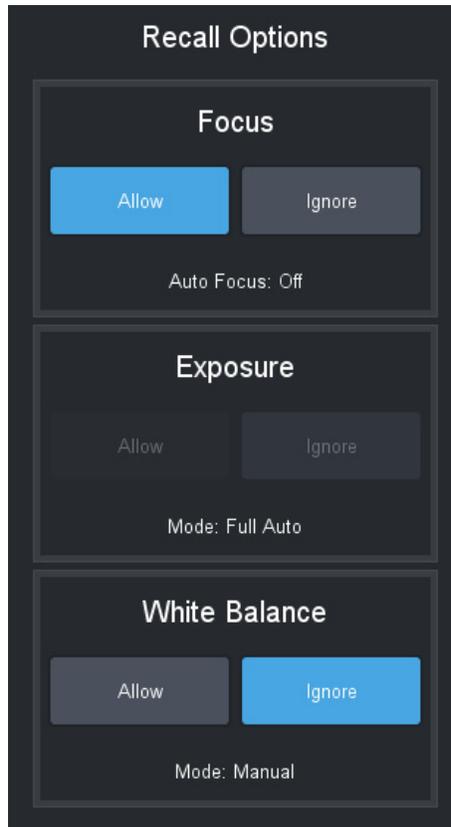


Figure 51 - Recall Options, specified immediately before preset recall

The combination of **Preset Options** in [Figure 50](#) and **Recall Options** in [Figure 51](#) would result in the following:

- The **Focus** value is not applied because the **Focus** preset option was not selected when the preset was stored.
- The **Exposure** values (**Iris**, **Shutter**, **Gain**) are not applied because the camera setting for **Exposure Mode** is set to **Full Auto**.
- The stored **Color** values (**Red Gain**, **Blue Gain**) are applied because the camera's **White Balance Mode** is set to **Manual**, and **White Balance** was selected as a **Preset Option** and **Allowed** as a **Recall Option**.

Managing Banks and Files

A bank is a grid of preset buttons, each of which represents a camera preset. The PTZ Camera Control plugin can store multiple banks of preset buttons. You can configure the banks to suit your requirements. For more information, see “**Managing Banks**”.

A camera settings file (.**camera** file) contains data about camera settings, banks, and presets. You can import or export .**camera** files. For more information, see “**Managing Files**”.

Managing Banks

This section includes the following topics:

- “**View Edit Bank Properties and Edit Bank Settings (ALL BANKS)**”
- “**Add a New Bank**”
- “**Remove a Bank**”
- “**Rebuild Banks**”
- “**Discard All Presets on a Bank, or Discard All Presets**”
- “**View and Edit Preset Options for All Presets on a Bank**”

Note: All procedures in this section are performed from the **Manage Banks** page.

To access the **Manage Banks** page:



1. Tap the **Presets** button.
The **Presets** page opens.



2. Tap the **Manage Banks** button.
The **Manage Banks** page appears ([Figure 52](#)).

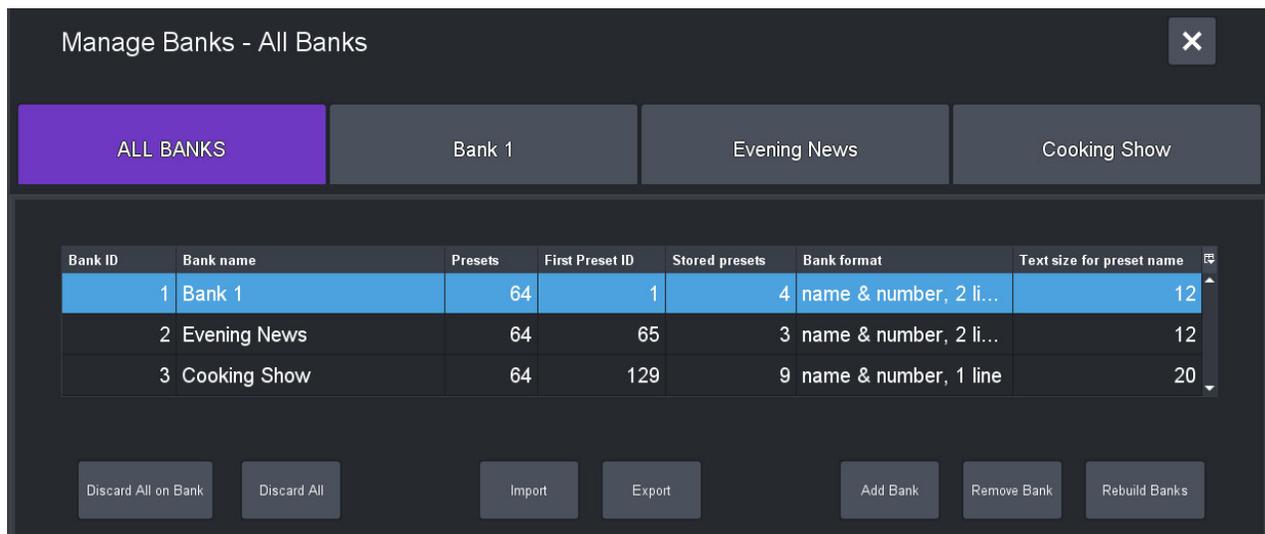


Figure 52 - Manage Banks page, showing the ALL BANKS tab

To close the **Manage Banks** page:



- Tap the **X** button.

View Edit Bank Properties and Edit Bank Settings (ALL BANKS)

To view bank properties and edit their settings:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears.
2. View and edit the following properties and settings as required:
 - **Bank ID** — Unique identifier for the bank identifier (not editable).
On the **Presets** page, banks appear in the order of their **Bank IDs**. If you create a new bank, it is assigned the lowest available **Bank ID**.
 - **Bank Name** — The name of the bank (editable). Bank name appear on bank tabs on the **Presets** page.
 - **Presets** — The number of presets the bank can store (not editable).
 - **First Preset ID** — The **Preset ID** number of the lowest-numbered preset on the bank (not editable). Each preset has a unique **Preset ID**, regardless of which bank it's on. A preset retains its **Preset ID**, even if lower numbered banks are removed.
 - **Stored Presets** — The number of stored (recallable) presets on the bank (not editable). This number does not include deleted or empty presets.
 - **Bank Format** — The display format for text that appears on preset buttons.
Available formats are as follows:
 - › **number only** — **Preset ID** number only
 - › **name only** — **Preset Name** only
 - › **name & number, 1 line** — **Preset ID** and **Preset Name**, all on one line
 - › **name & number, 2 lines** — **Preset ID** on one line and **Preset Name** on another
 - **Text size for preset name** — Font size for text that appears on preset buttons. (editable).
The size range is **4 to 20**.

Add a New Bank

Note: For Canon PTZ cameras, only 100 presets are supported. If you try to add a bank which will take you over that 100 preset limit, you will get a warning and the add bank will fail.

To add a new bank:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. Tap the **Add Bank** button.
The **Add Bank** dialog box appears.
3. Specify the following:
 - **Bank Name** — The name of the bank, as you want it to appear on its Bank tab on the **Presets** page.
 - **Bank Format** — The display format for text that appears on preset buttons.
Available formats are as follows:
 - › **number only** — **Preset ID** number only
 - › **name only** — **Preset Name** only
 - › **name & number, 1 line** — **Preset ID** and **Preset Name**, all on one line
 - › **name & number, 2 lines** — **Preset ID** on one line and **Preset Name** on another
 - **Text Size** — Font size for text that appears on preset buttons. The size range is **4 to 20**.
4. Tap **OK**.
The **Manage Banks** page closes, and on the **Presets** page, a new tab for the bank appears.

Remove a Bank

When you remove a bank, the bank tab and all presets on it are permanently discarded.

To remove a bank:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. In the table, tap the row representing the bank you want to remove.
3. A **WARNING** message appears.
The message indicates how many presets are stored on the bank. All presets will be permanently discarded if you remove the bank.
4. In the **WARNING** message box, tap **Discard** to permanently discard the bank and its presets.

Rebuild Banks

A bank is a grid of preset buttons, each of which represents a camera preset. The PTZ Camera Control plugin can store multiple banks of preset buttons.

When you rebuild banks, you specify how many banks there are and how many rows and columns of preset buttons are on each bank. When rebuilt, all banks are identical.

When you rebuild banks, all existing banks and presets are permanently discarded. If you want to retain the current banks and presets for future use, save them in a camera settings (.camera) file. For more information, see "**Save (Export) Banks, Presets, and Camera Settings (.camera file)**".

Before you can rebuild banks, all existing banks must be empty. You can discard all presets at once. For more information, see "**Discard All Presets on a Bank, or Discard All Presets**".

Note: For Canon PTZ cameras, only 100 presets are supported. If you try to configure the bank rows, columns or number of banks so that the total number of presets would exceed 100, your change will be rejected and a warning message shown.

To rebuild banks:

1. Tap the **Presets** button.
The **Presets** page opens.
2. Tap the **Manage Banks** button.
3. Tap the **Rebuild Banks** button.
4. If a **WARNING** message appears, one or more banks are not empty. Delete or discard all presets, and then start this procedure again.
For information about discarding all presets at once, see "**Discard All Presets on a Bank, or Discard All Presets**".
5. In the **Rebuild Banks** dialog box, specify the following properties for the new banks:
 - **Number of Banks:** The number of bank tabs (banks) to create.
Tip: You can add more banks later. For more information, see "**Add a New Bank**".
 - **Bank rows** and **Bank columns:** These two settings define the size of the preset banks (grids), expressed as the number of buttons tall (**Bank rows**) and the number of buttons wide (**Bank columns**) the rectangular grid is.
 - **Bank Format:** The display format for text that appears on preset buttons.
Available formats are as follows:
 - › **number only** — **Preset ID** number only
 - › **name only** — **Preset Name** only
 - › **name & number, 1 line** — **Preset ID** and **Preset Name**, all on one line
 - › **name & number, 2 lines** — **Preset ID** on one line and **Preset Name** on another
 - **Text Size** — Font size for text that appears on preset buttons. The size range is **4** to **20**.



- **Preset Number Display Offset** — Specify whether the lowest-numbered **Preset ID** should be **0** or **1**. This is an aesthetic choice; changing between **0** and **1** does not change how presets are stored in DashBoard or on the camera. For more information, see “**Preset Number Display Offset**”, which is within the section, “**Operation Settings Page**”.

6. Tap **OK**.

The existing preset banks are permanently removed, and a new set of preset banks is created.

Discard All Presets on a Bank, or Discard All Presets

You can discard all presets on a bank at once.

Alternatively, you can discard all presets on all banks at once.

After you discard presets, they cannot be restored.

Note: Presets are discarded locally only. If the presets are stored on the camera, they are not deleted from the camera.

To discard all presets on a bank:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. In the table, tap the row representing the bank that contains the presets you want to discard.
3. Tap the **Discard All** button.
A **WARNING** message appears. The message indicates how many presets are stored on the bank. If you proceed, all presets on the bank will be permanently discarded.
4. In the **WARNING** message box, if you want to retain the **Preset Options** settings on the preset buttons, select the **Preserve preset options** box.
5. Tap **Discard**.

To discard all presets on all banks:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. Tap the **Discard All on Camera** button.
A **WARNING** message appears. If you proceed, all presets on all banks will be permanently discarded.
3. In the **WARNING** message box, if you want to retain the **Preset Options** settings on the preset buttons, select the **Preserve preset options** box.
4. Tap **Discard**.

View and Edit Preset Options for All Presets on a Bank

You can view the **Preset Options** for all the presets on a bank at once. You can also edit them.

To view and edit Preset Options:

1. On the **Manage Banks** page, tap a bank button.
A table listing the bank's presets appears, listing the **Preset Options** for each ([Figure 53](#)).

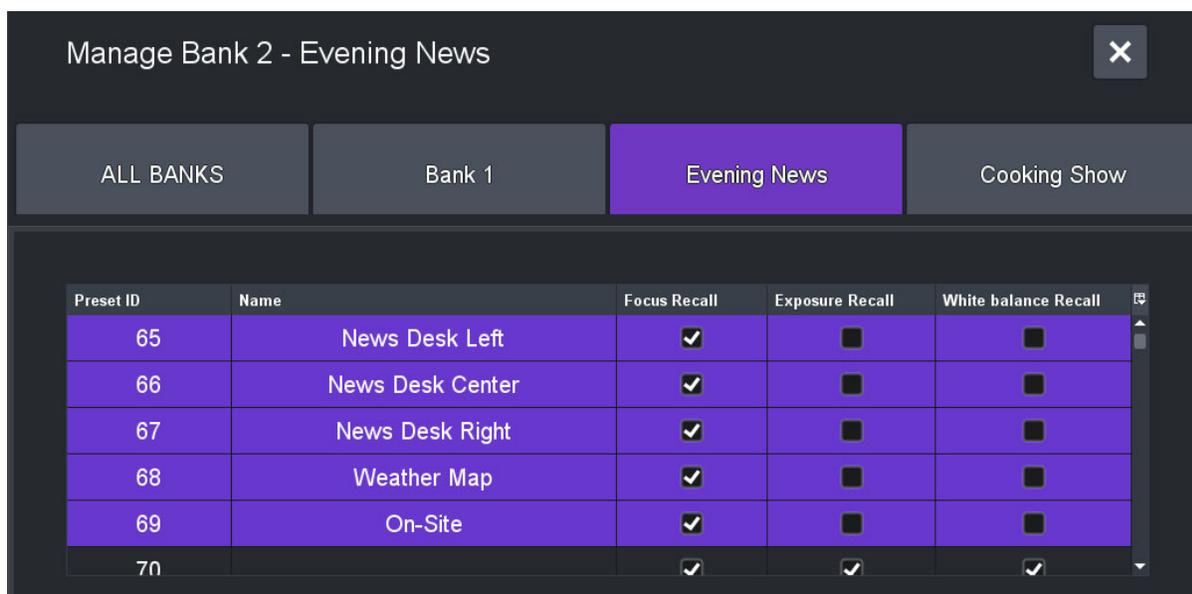


Figure 53 - Manage Banks page, showing recall settings for individual presets

2. In the table, tap the row representing the preset you want to edit.
3. Edit the **Preset Options** as required:
 - a. In the **Preset Name** box, type a name for the preset. The name appears on the preset button.
 - b. Specify whether the **Focus**, **Exposure**, and **White Balance** values stored with the preset can be applied when the preset is recalled.

Note: The final decision to **Allow** or **Ignore** these defaults is made when the preset is recalled.

Managing Files

The PTZ Camera Control plugin can save (export) and load (import) camera settings files (.camera files). These files contain data about preset banks, camera settings, and presets.

This section describes how to import and export data from and to camera settings files. It includes the following topics:

- “**Load (Import) Banks, Presets, and Camera Settings (.camera file)**”
- “**Save (Export) Banks, Presets, and Camera Settings (.camera file)**”

Load (Import) Banks, Presets, and Camera Settings (.camera file)

When you load a camera settings (.camera) file, current camera settings, banks, and presets are permanently discarded and replaced.

IMPORTANT: The .camera file you load must contain data for the same model of camera. If you load a .camera file that contains data for a different model of camera, the import fails.

To load (import) a camera settings (.camera) file:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. Tap the **Import** button.
The **Import Camera Settings** dialog box appears.
3. Tap the **Browse** button.
The **Open File** dialog box appears.

4. Navigate to the **.camera** file you want to load, select it, and then tap **Open**.
The name of the file appears in the yellow box on the **Import Camera Settings** dialog box.
5. Tap **Import**.
If the file is valid, it is imported.

Save (Export) Banks, Presets, and Camera Settings (.camera file)

When you save (export) a camera settings (**.camera**) file, current camera settings, banks, and presets are copied to the file. You can later load (import) the file when configuring any camera of the same model.

To save (export) a camera settings (.camera) file:

1. On the **Manage Banks** page, tap the **All BANKS** button.
A table of bank properties and settings appears, with a row of buttons beneath it.
2. Tap the **Export** button.
The **Export Camera Settings** dialog box appears.
3. Tap the **Save** button.
The **Save File** dialog box appears.
4. Navigate to the folder where you want to save the file, and then do one of the following:
 - If you are replacing an existing file, select it.
 - If you are saving the file with a new name, in the **File Name** box, type the file name.
5. Tap **Save**.
6. If a **Replace File** dialog box appears, asking you whether you want to replace an existing file, tap **Yes**.
The **Confirm File Replace** dialog box appears. Tap **Yes**.

Adding USB Joysticks or Other USB Controllers

This section describes how to set up a USB joystick or other USB controller to select and control supported PTZ cameras, in conjunction with the DashBoard PTZ Camera Control plugin.

Camera functions that can be controlled by a USB controller fall into three groups; camera selection, camera motion (pan, tilt, zoom, and focus), and paintbox controls (lens iris and shading/paint controls). Depending on the USB controller(s) available, you can control all functions with a single controller, or add a separate controller for each group of functions.

You can also configure otherwise unassigned buttons on the controller to open DashBoard device views or panels.

The main steps are as follows:

- “Add a USB Controller in DashBoard”
- “Add Device Classes, and Map Controls to Parameters”
- “Map Device Classes to Controllers”
- “Configure Relationship Between Camera Selection and UI Focus”
- “Map Buttons for Camera Selection”

Add a USB Controller in DashBoard

To add a USB controller to control PTZ cameras:

1. Close DashBoard.
2. Plug the USB controller into a USB port on the DashBoard computer.
3. Start DashBoard.

When DashBoard starts, it detects the controller.

Tip: DashBoard can detect the controller only if the controller is plugged in when DashBoard starts.

4. In DashBoard, on the **File** menu, select **New**, and then select **Other**.
The **New** dialog box appears ([Figure 54 -](#)).

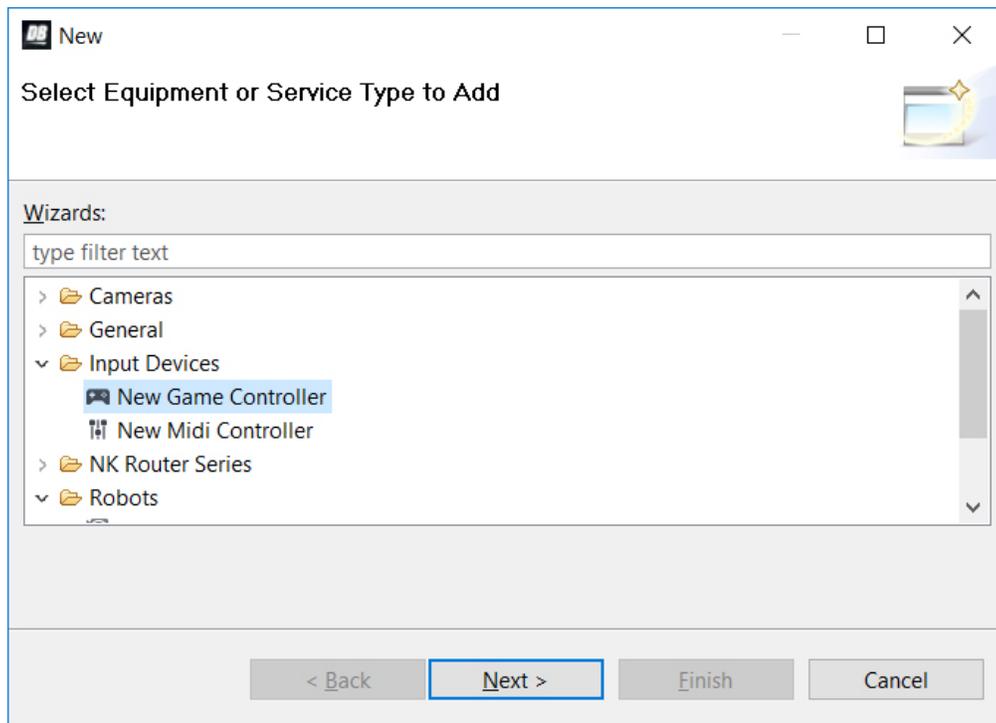


Figure 54 - Adding a USB controller

5. In the **Wizards** list, expand **Input Devices**, select **New Game Controller**, and then tap **Next**. The **New Game Controller Connection** dialog box appears ([Figure 55](#)).

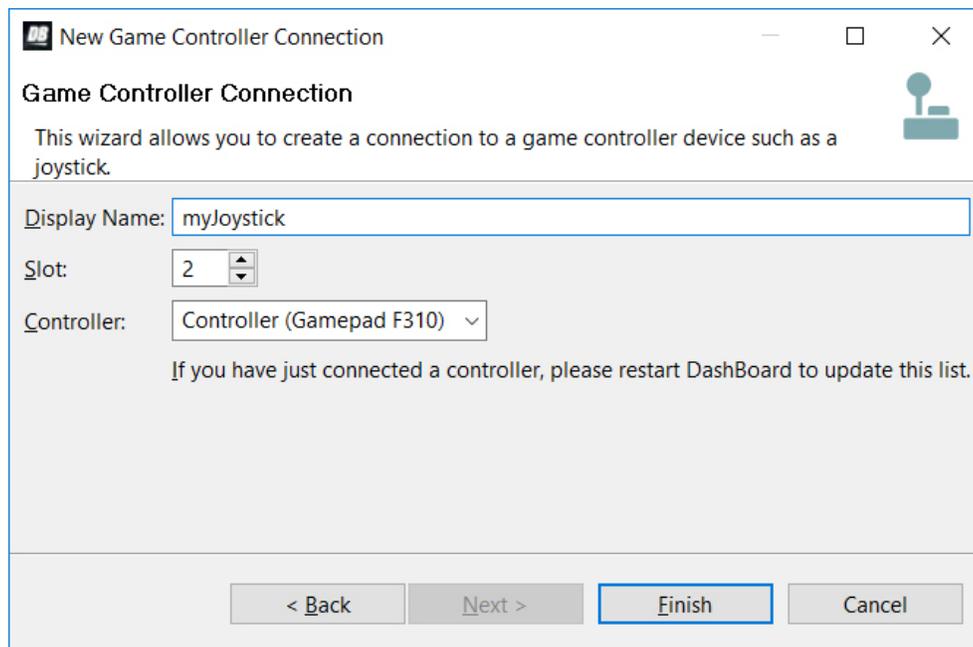


Figure 55 - Connecting to a USB controller

6. In the **Display Name** box, type a name for the controller.
7. In the **Controller** list, select the type of USB controller you plugged in.
Note: If the controller type is not on the list, either it was not detected or it is already registered in DashBoard.

8. Click **Finish**.

A node for the controller appears within the **Game Controllers** node in the DashBoard **Component Tree**. The node has the name you provided for the controller.

Add Device Classes, and Map Controls to Parameters

A USB controller typically has buttons and axis controls. A button is either on or off, and therefore returns one of two data values. An axis control, such as a joystick, can return any value within a range of data values, depending on how far the joystick is moved in one direction or the other.

You can configure each axis control on the USB controller to operate a robotic axis, or operate a control that accepts a continuous range of data values, such as a Master Black paint control.

Additionally, you can configure buttons to return single values. For example, if you often want to pan right or left at half speed, you can configure one button to return a value of -50 while pressed, and another to return a value of 50 (pan axis range is -100 to 100).

This section describes how to map a wide variety of commonly-used axis controls and button controls. You can decide which controls you want to map, based on your preferences and the available physical controls on your USB device(s).

To add device classes, and map controls to DashBoard parameters (OIDs):

1. In the DashBoard **Component Tree**, expand the **Game Controllers** node, and then double-tap the controller node you added.

The configuration interface for the controller appears ([Figure 56](#)). The **ptzjoystick** Device Class is present by default.



Figure 56 - Mapping USB controller inputs (shown with Device Classes added and OIDs mapped)

Tip: The number and types of axis controls and buttons vary between different models of USB controllers.

2. In the **Device Classes** list, add a new device class and name it **paintbox**.
3. In the **Device Classes** list, add a new device class named **selector**.
4. In the **Axis Controls** table, create mappings for the velocity parameters that you want the USB controller's axis controls (such as joysticks) to operate.

When you create mappings, you link data items reported by the controller to parameters (OIDs) in the PTZ Camera Control plugin.

Tip: To determine which **Axis Controls** and **Buttons** correspond to physical controls on the controller, move the controller's joystick and push its buttons while observing changes in the **Value** column.

Relevant columns in the **Axis Controls** mapping table are as follows:

- **ID** — The ID of the control, as reported by the controller. This is not configurable.
- **Name** — You can name each control for future reference (optional).
- **Min** and **Max** - Defines the range of data values sent to the DashBoard parameter. When the control is in a neutral position, the data value is halfway between **Min** and **Max**. For example, if **Min** is **-100** and **Max** is **200**, the neutral value is **50**.
Tip: DashBoard automatically scales the data value to suit the data range of the associated parameter. You do not need to match **Min** and **Max** to the lowest and highest parameter values.
- **Speed%** — Scales the data values, to make them change more or less gradually. For example, if you use a joystick to control a paint velocity parameter such as **paintbox.vel.whitebalance.gain.r**, you might set **Speed %** to **10**. When you push the joystick all the way, the value changes at one-tenth the default rate. This enables you to see the effect more easily as you change the value.
- **Sensitivity** — Defines the number of steps between each end of the data range and the controller's neutral position. For example, if **Min** is **-100**, **Max** is **100**, and **Sensitivity** is **20**, then the value changes by increments of **5**. The range of values starts at **-100** (**-100**, **-95**, **-90**, etc.) and continues to **100**.
- **Invert** — When selected, reverses the direction of joystick motion required to move the axis. For example, if the camera is ceiling mounted, select **Invert** for pan and tilt so when you move the joystick, the camera moves as desired.
- **Value** — Shows the current data value reported by the controller. This is useful for testing.
- **Mapped OID** — Specify the parameter OID from the PTZ Camera Control plugin to be mapped to the control.

Table 1 lists parameters that are commonly mapped to axis controls.

Table 1 - - Parameters that are commonly mapped to axis controls

Parameter (Mapped OID)	Description
ptzjoystick.vel.tilt	Tilt axis velocity
ptzjoystick.vel.pan	Pan axis velocity
ptzjoystick.vel.zoom	Zoom axis (lens zoom) velocity
ptzjoystick.vel.focus	Focus axis (lens focus) velocity
paintbox.vel.shutter.preset	Shutter control velocity
paintbox.vel.iris.control	Iris axis (lens iris) velocity
paintbox.vel.whitebalance.gain.b	Blue Gain paint control velocity
paintbox.vel.whitebalance.gain.r	Red Gain paint control velocity

5. In the **Buttons** table, create mappings for the parameters that you want the USB controller's buttons to operate.

When you create mappings, you link data items reported by the controller to parameters (OIDs) in the PTZ Camera Control plugin.

Tip: To determine which **Axis Controls** and **Buttons** correspond to physical controls on the controller, move the controller's joystick and push its buttons while observing changes in the **Value** column.

For an example showing the **Buttons** mapping table completed, see [Figure 56](#) on **page 74**,

Relevant columns in the **Buttons** mapping table are as follows:

- **ID** — The ID of the control, as reported by the controller. This is not configurable.
- **Name** — You can name each control for future reference. (optional).
- **Action** — The type of action to be performed when the button is pressed.
- **Value (Off)** — This is the value of the parameter when the button is not pressed.
- **Value (On)** — This is the value of the parameter when the button is pressed.
- **Value** — Shows the current data value reported by the controller. This is useful for testing.
- **Mapped OID** — Specify the parameter OID from the PTZ Camera Control plugin to be mapped to the control.

Tip: If you are configuring multiple controllers and dividing the control functions among them, the controls within each device class must be assigned to a single controller. The name of each parameter OID starts with the name of its device class (**selector**, **ptzjoystick**, or **paintbox**).

Table 2 lists parameters that are commonly mapped to button controls.

Note: The values required for some mappings may vary between camera models.

Table 2 - - Parameters that are commonly mapped to button controls

Parameter (Mapped OID)	Description
selector.selection	<p>Camera selection, for systems that include multiple cameras. Map this parameter to a set of buttons to be used for selecting the camera to be controlled. Each row in the Buttons table corresponds to a button on the controller.</p> <p>For each button you want to assign as the selector for a camera, do the following:</p> <ul style="list-style-type: none"> • In the Name column, assign a camera name for future reference (optional). • Set Action to Set Value. • Set Value (Off) to -1 • Set Value (On) to a unique camera ID number (For example, 0, 1, 2, 3, etc.). The actual ID number is arbitrary. Note the camera ID numbers. You will later map this ID number to the camera's remote control DashBoard interface.
ptzjoystick.focus.auto_on	<p>Auto focus mode.</p> <p>Configure a button to toggle auto focus on and off.</p> <p>To map ptzjoystick.focus.ouo_on:</p> <ul style="list-style-type: none"> • Set Action to Toggle. • Set Value (On) to 2. • Set Value (Off) to 3.
ptzjoystick.focus.onepush.trigger	<p>Enables a button on the controller to perform a one-time auto focus.</p> <p>To map ptzjoystick.focus.onepush.trigger:</p> <ul style="list-style-type: none"> • Set Action to Set Value. • Set Value (Off) to 0. • Set Value (On) to 1. <p>Note: Focus mode must be set to One Push Auto Focus. For more information, see "Focus Controls".</p>
paintbox.autoexposure.mode	<p>Auto exposure mode.</p> <p>Configure a button to toggle between values for two modes:</p> <p>0 — Full Auto mode</p> <p>3 — Manual mode</p> <p>10 — Shutter Priority mode</p> <p>11 — Iris Priority mode</p> <p>To map paintbox.autoexposure.mode:</p> <ul style="list-style-type: none"> • Set Action to Toggle. • Set Value (Off) to the value for one mode. • Set Value (On) to the value for another mode. <p>For more information about auto exposure modes, see "Exposure Controls".</p>

Table 2 - - Parameters that are commonly mapped to button controls

Parameter (Mapped OID)	Description
<p>paintbox.whitebalance.mode</p>	<p>White balance mode. Configure a button to toggle between values for two modes: 0 — Auto mode 3 — One Push mode 5 — Manual mode</p> <p>To map paintbox.whitebalance.mode:</p> <ul style="list-style-type: none"> • Set Action to Toggle. • Set Value (Off) to the value for one mode. • Set Value (On) to the value for another mode. <p>For more information about white balance modes, see “Color Controls”.</p>
<p>paintbox.whitebalance.onepush.trigger</p>	<p>White balance one-push trigger. To map paintbox.whitebalance.onepush.trigger:</p> <ul style="list-style-type: none"> • Set Action to Set Value. • Set Value (Off) to 0. • Set Value (On) to 1. <p>Note: White balance mode must be set to One Push. For more information, see “Color Controls”.</p>
<p>paintbox.shutter.preset</p>	<p>Shutter control. Configure one button to increase the value and another to decrease it:</p> <ul style="list-style-type: none"> • For both buttons, set Action to Increment. • For the button that increases the value, Set Value (On) to 1, and set Value (Off) to 0. • For the button that decreases the value, Set Value (On) to -1, and set Value (Off) to 0.
<p>paintbox.iris.control</p>	<p>Iris control. Configure one button to increase the value and another to decrease it:</p> <ul style="list-style-type: none"> • For both buttons, set Action to Increment. • For the button that increases the value, Set Value (On) to 1, and set Value (Off) to 0. • For the button that decreases the value, Set Value (On) to -1, and set Value (Off) to 0.
<p>paintbox.whitebalance.gain.b paintbox.whitebalance.gain.r</p>	<p>Green Gain paint control (paintbox.whitebalance.gain.g), Blue Gain paint control (paintbox.whitebalance.gain.b), and Red Gain paint control (paintbox.whitebalance.gain.r).</p> <p>For each of these three parameters, configure one button to increase the value and another to decrease it:</p> <ul style="list-style-type: none"> • For both buttons, set Action to Increment. • For the button that increases the value, Set Value (On) to 1, and set Value (Off) to 0. • For the button that decreases the value, Set Value (On) to -1, and set Value (Off) to 0.
<p>camera.wiper camera.washer</p>	<p>Wiper (camera.wiper) and Washer (camera.washer) controls. For each parameter, configure a button:</p> <ul style="list-style-type: none"> • Add device class “camera”. • Set Action to Set Value. • Set Value(On) to 1 and set Value (Off) to 0. <p>Note: The washer moves 4 times with every use.</p>

6. If you want to save the mappings in a file that can be loaded onto other DashBoard computers, click the **SAVE** button and specify a file name and path.

Note: The mappings are specific to the controller(s) you configured. You can use the mappings on other DashBoard computers only if their controllers are the same model, or report the exact same controls.

Map Device Classes to Controllers

Camera functions that can be controlled by a USB controller fall into three groups; camera selection, camera motion (pan, tilt, zoom, and focus), and paintbox controls (lens iris and shading/paint controls). Depending on the USB controller(s) available, you can control all functions with a single controller, or add a separate controller for each group of functions.

To map device classes to one or more controllers:

1. In the **Component Tree**, within the **DashBoard Services** node, double-tap **Device Class Mappings**. The **Device Class Mappings** interface appears ([Figure 57-](#)).

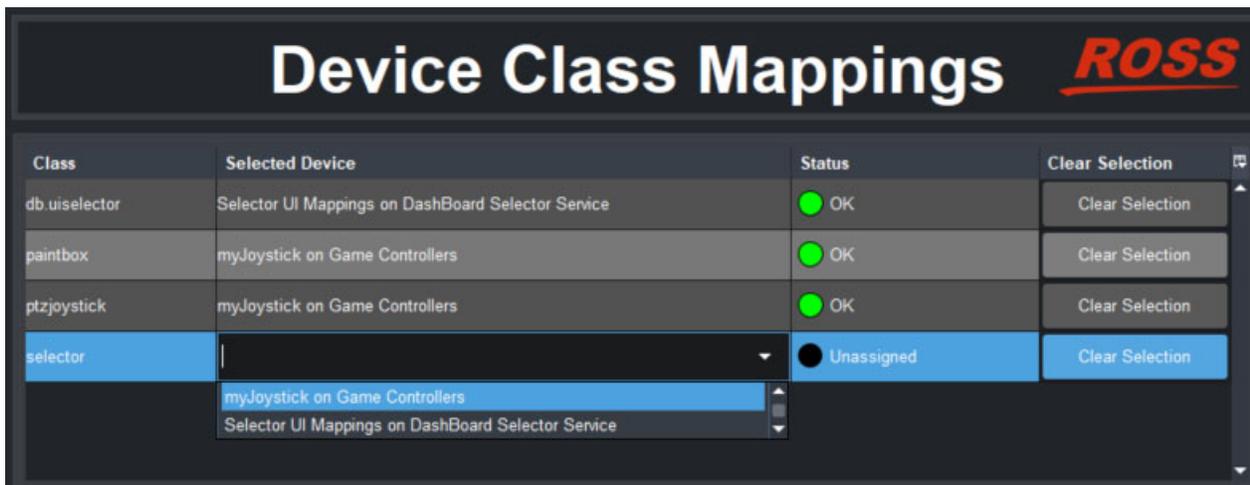


Figure 57 - Device Class Mappings for a USB controller

2. If you plan to use the controller to adjust lens iris, in the **paintbox** row set **Selected Device** to the controller you are configuring.
Tip: If a class you want to map is already mapped, click **Clear Selection** and then map it to the controller.
3. If you plan to use the controller to move cameras (pan, tilt, zoom, focus), in the **ptzjoystick** row set **Selected Device** to the controller you are configuring.
4. If you plan to use buttons on the controller to select cameras in the PTZ Camera Control plugin, in the **selector** row set **Selected Device** to the controller you are configuring.

Configure Relationship Between Camera Selection and UI Focus

You can configure how the user interface interacts with the controller, to achieve your choice of the following options:

- The controller can select and control cameras **ONLY IF** PTZ Camera Control is the active DashBoard application (in focus).
- The controller can controller to select and control cameras regardless of what DashBoard application is active (in focus).
- If a controller button configured to open a device view or panel is pushed, that device view or panel becomes active (in focus)

To configure the relationship between camera selection and UI focus:

1. In the **Component Tree**, expand the **DashBoard Services** node, and then double-tap **Selector UI Mappings**.

The **Selection Mapping** interface appears ([Figure 58](#)).

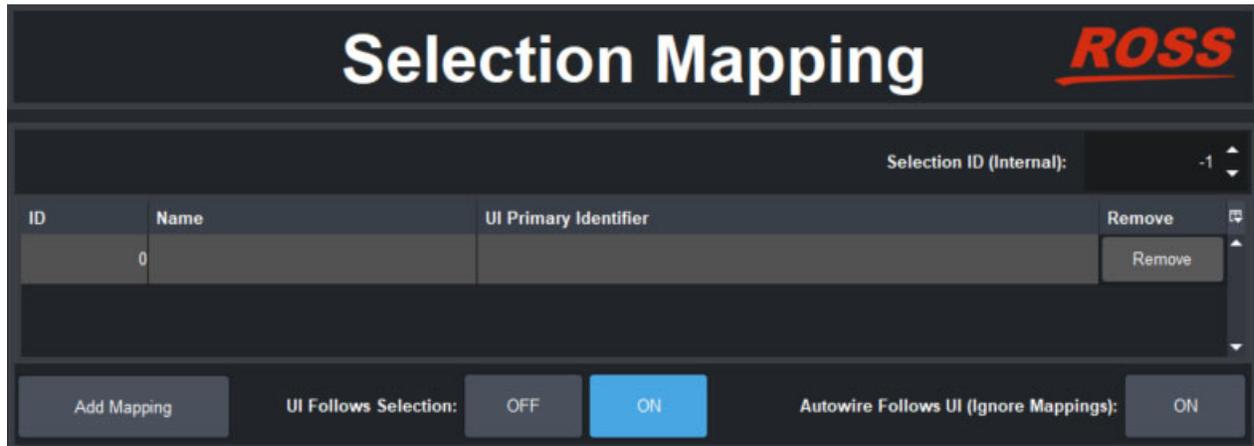


Figure 58 - UI Follow and Autowire settings

2. Choose one of the following options and tap the corresponding button:

- **Autowire Follows UI ON**

If you select this option, you cannot use the controller to select and control cameras unless the PTZ Camera Control plugin is the active DashBoard application (in focus).

This option helps prevent accidental movement of cameras while the operator is using other DashBoard panels or device views. It also ensures that the PTZ Camera Control plugin is always readily available while you are controlling cameras.

- **UI Follows Selection OFF**

If you select this option, you can use the controller to select and control cameras regardless of which panel or device view is active (in focus).

This option enables you to use the PTZ Camera Control plugin and other DashBoard panels or device views for other tasks while you use the controller to select and control cameras.

- **UI Follows Selection ON**

If you select this option, whenever a configured button opens a DashBoard panel or device view, that panel or device view becomes active (in focus). If the PTZ Camera Control plugin is active and you press a controller button to open a different panel or a device view, the PTZ Camera Control plugin loses focus.

Use this option if you want to configure otherwise unassigned controller buttons to open DashBoard panels and device views on demand, such as Carbonite control, or the PTZ Camera Control plugin.

Map Buttons for Camera Selection

This procedure applies if your system has multiple cameras and you want to configure controller buttons to select them.

To map camera selector buttons:

1. In the **Selection Mapping** interface ([Figure 59](#)), tap the **Add Mapping** button. A new mapping row appears in the **Selection Mapping** table.

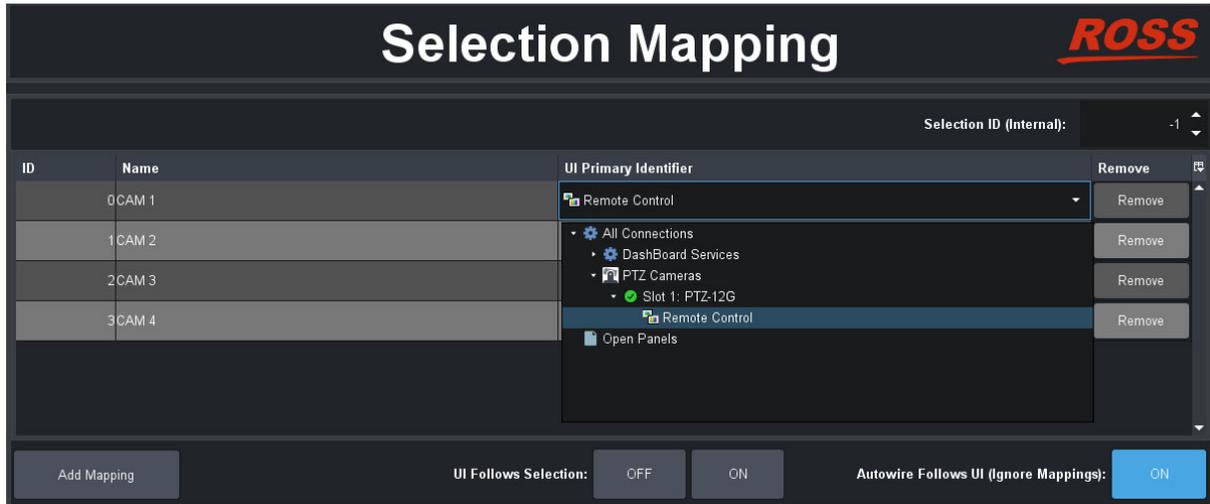


Figure 59 - Mapping cameras to camera selector buttons

2. In the new mapping, set **ID** to the camera ID number for a camera. Each mapping requires a unique ID.
Tip: You defined the camera ID numbers as **Value on** settings for buttons, in a previous procedure (“**Add Device Classes, and Map Controls to Parameters**”).
3. Specify a **Name** for the mapping (optional).
4. For **UI Primary Identifier**, navigate to **Remote Control** for the camera to be selected.
5. Repeat the preceding steps for each camera selector button you want to configure.
6. If you want to save the mappings in a file that can be loaded onto other DashBoard computers, click the **SAVE** button and provide a file name and path.