

## Adding a USB Joystick to Control PIVOTCam Cameras

This document describes how to set up a USB joystick to control PIVOTCam cameras, in conjunction with the PIVOTCam Control Panel. The PIVOTCam Control Panel is a DashBoard panel that enables you to configure and control PIVOTCam robotic cameras.

Before you can add a USB joystick, you must install and configure DashBoard and the PIVOTCam Control Panel.

For information about setting up DashBoard and the PIVOTCam Control Panel, see the PIVOTCam Control Panel User Guide (4506DR-001-x.x).

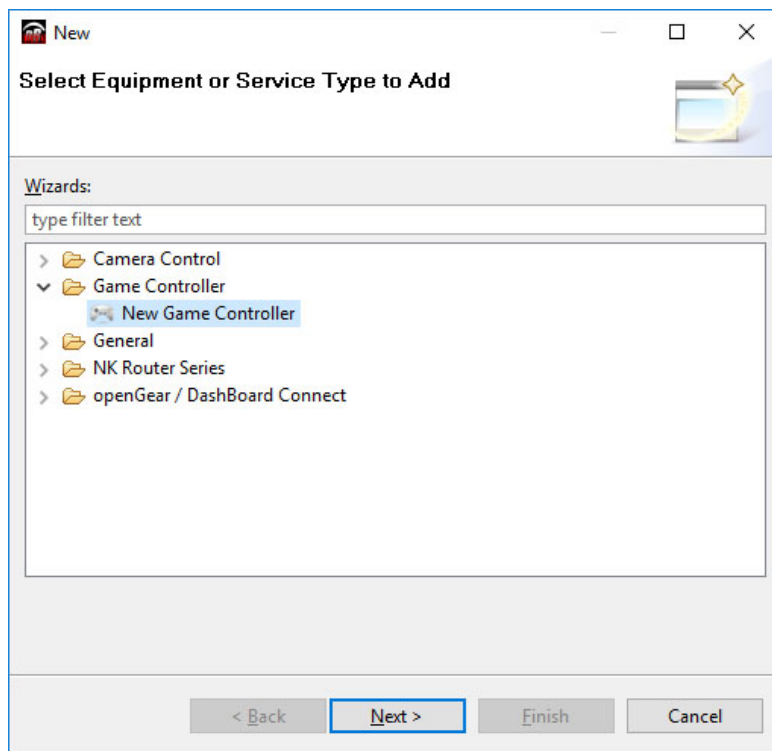
### To add a USB joystick to control PIVOTCam cameras:

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

When DashBoard starts, it detects the joystick.

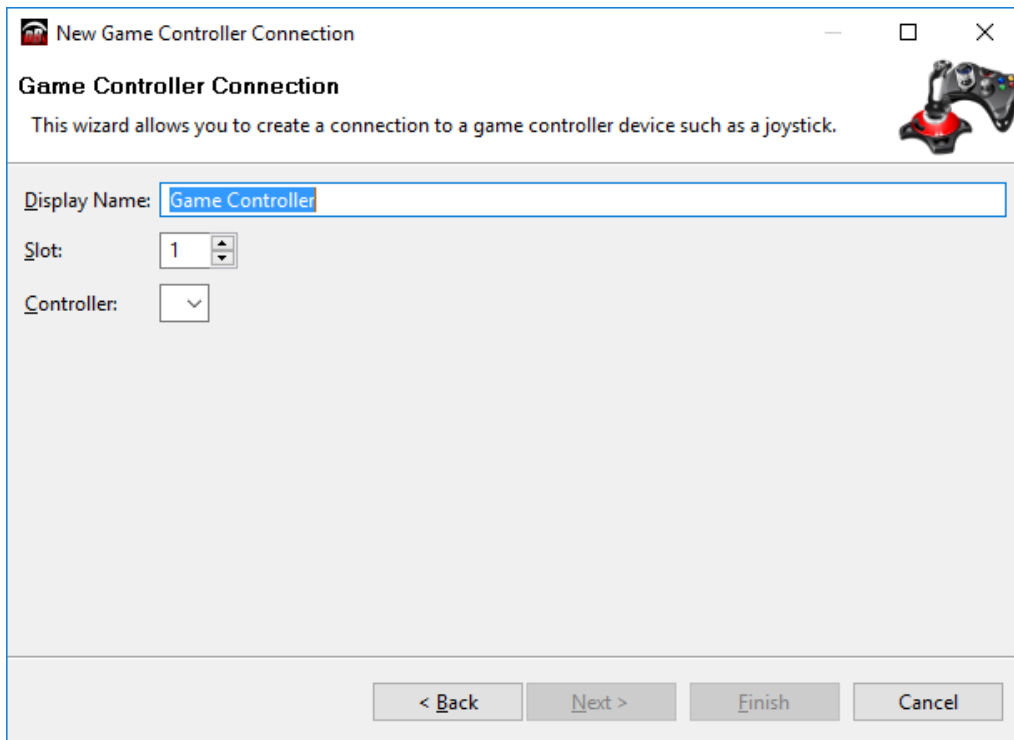
4. In DashBoard, on the **File** menu, select **New**, and then select **Other**.

The **New** dialog box appears.



5. In the **Wizards** list, expand **Game Controller**, and then double-click **New Game Controller**.

The **New Game Controller Connection** dialog box appears.



6. In the **Display Name** box, type a name for the joystick.
7. In the **Controller** list, select the type of USB joystick you plugged in.

**Note:** If the joystick type is not on the list, either it was not detected or it is already registered in DashBoard.

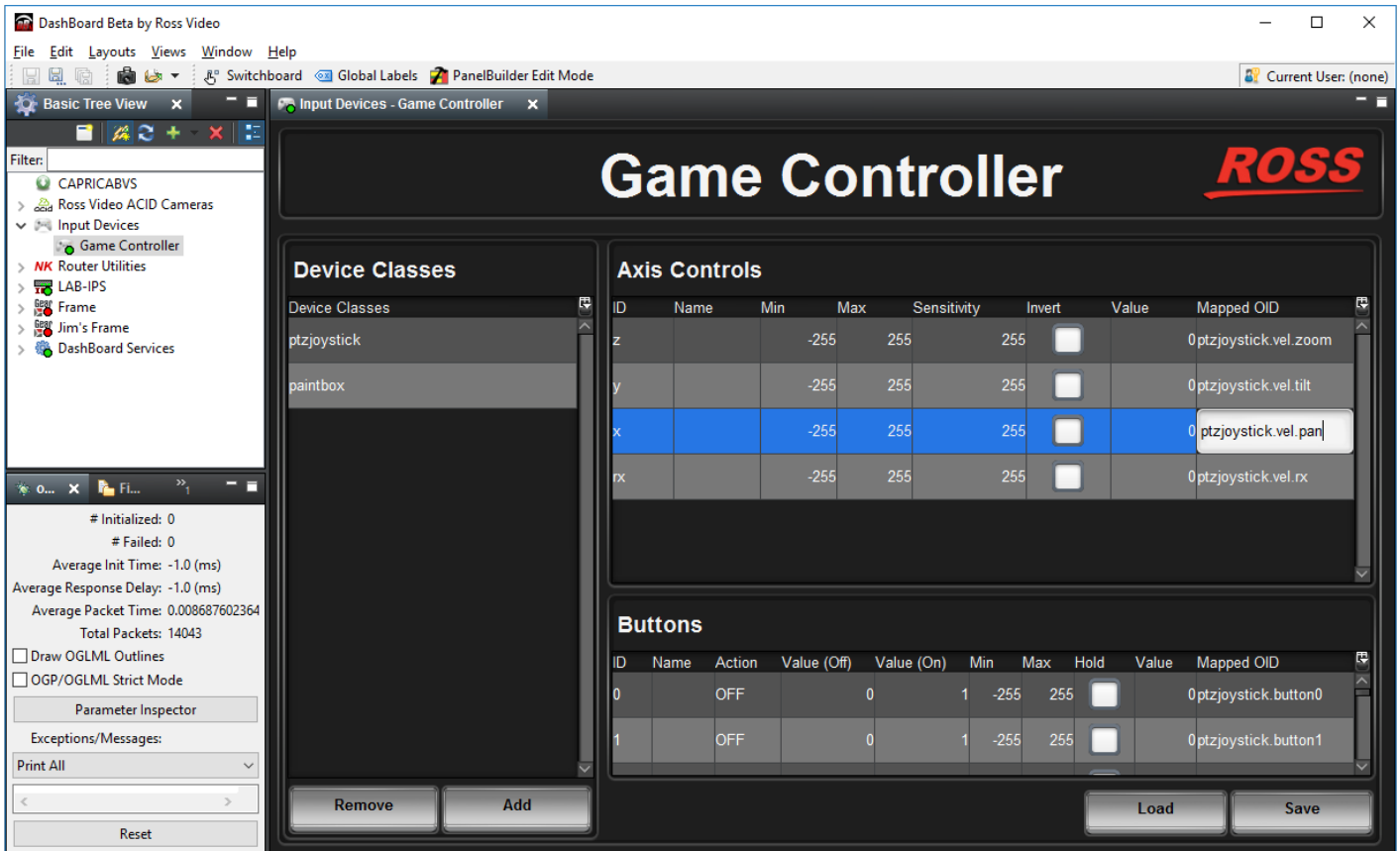
8. Click **Finish**.

A node for the joystick appears within the **Input Devices** node in the **DashBoard Component Tree**. The node has the name you provided for the joystick device.

9. In the **DashBoard Component Tree**, expand the **Input Devices** node, and then double-click the joystick node you added.

The configuration interface for the joystick appears.

10. In the **Device Classes** list, add a new device class named **paintbox**.



11. For the **paintbox** device class, create mappings for the parameters you want the joystick to control.

When you create mappings, you link data items reported by the joystick to parameters (OIDs) in the PIVOTCam Control Panel. Joysticks typically have **Axis Controls** and **Buttons** that can be mapped.

Relevant columns in the mapping tables are as follows:

- **ID** – The ID of the control, as reported by the joystick. This is not configurable.
- **Sensitivity** – Responsiveness of the input. This is configurable.
- **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 value. This is useful for testing.
- **Mapped OID** – Specify the parameter (OID) from the PIVOTCam Control Panel to be mapped to the control.

The parameters that can be mapped are as follows:

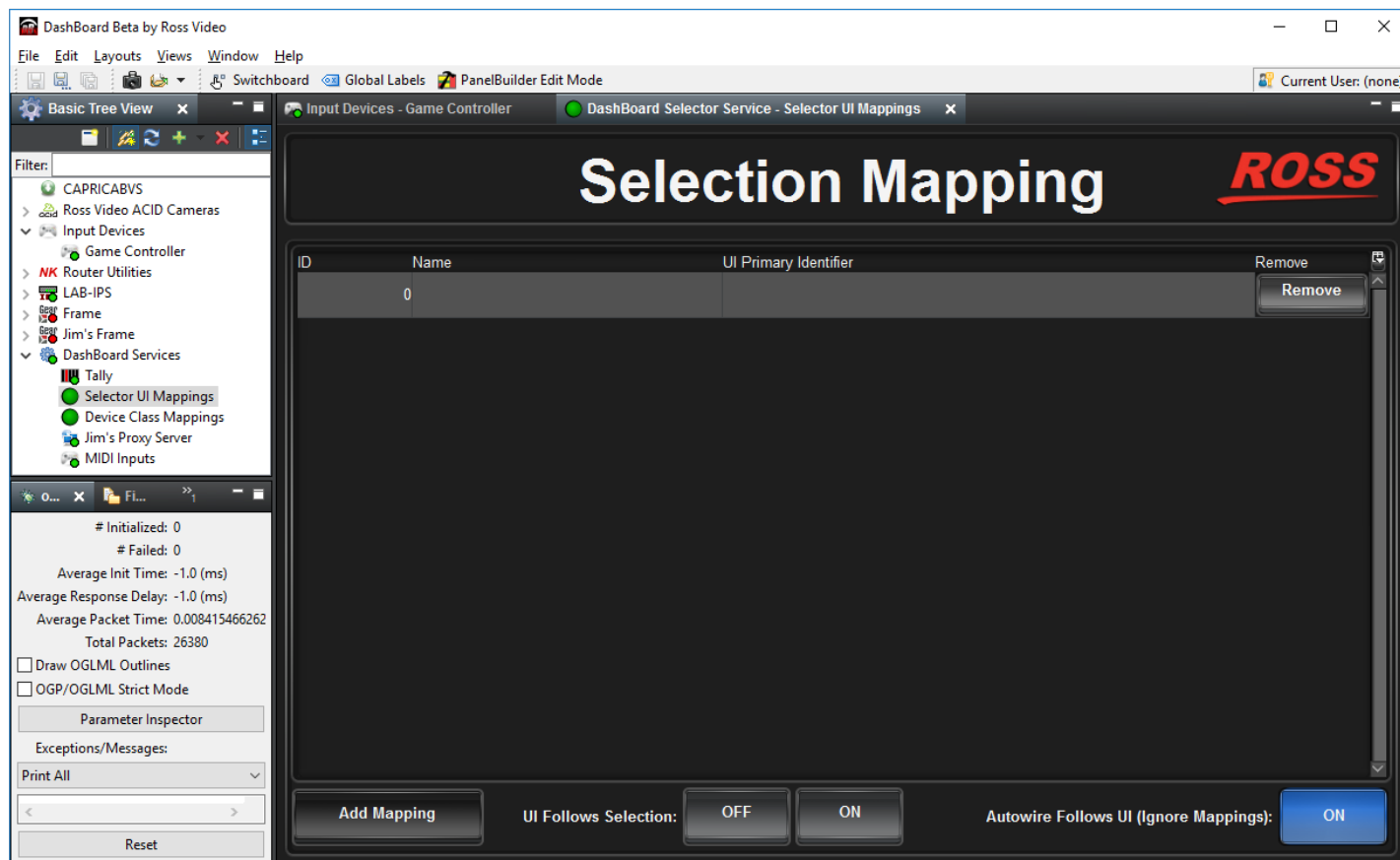
Parameter (OID)	Description
selector.selection	Camera selection. Map this parameter to a set of buttons to be used for selecting the camera to be controlled.
ptzjoystick.vel.tilt	Tilt axis
ptzjoystick.vel.pan	Pan axis

Parameter (OID)	Description
ptzjoystick.vel.zoom	Zoom axis (lens zoom)
ptzjoystick.vel.focus	Focus axis (lens focus)
paintbox.vel.iris.control	Iris axis (lens iris)
paintbox.vel.shutter.preset	Shutter speed (lens shutter speed)
selector.selection	Camera selection. Map this parameter to a set of buttons to be used for selecting the camera to be controlled.

12. 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.

**Note:** The mappings are specific to the joystick you plugged in. You can use the mappings on other DashBoard computers only if their joysticks are the same model, or report the same controls.

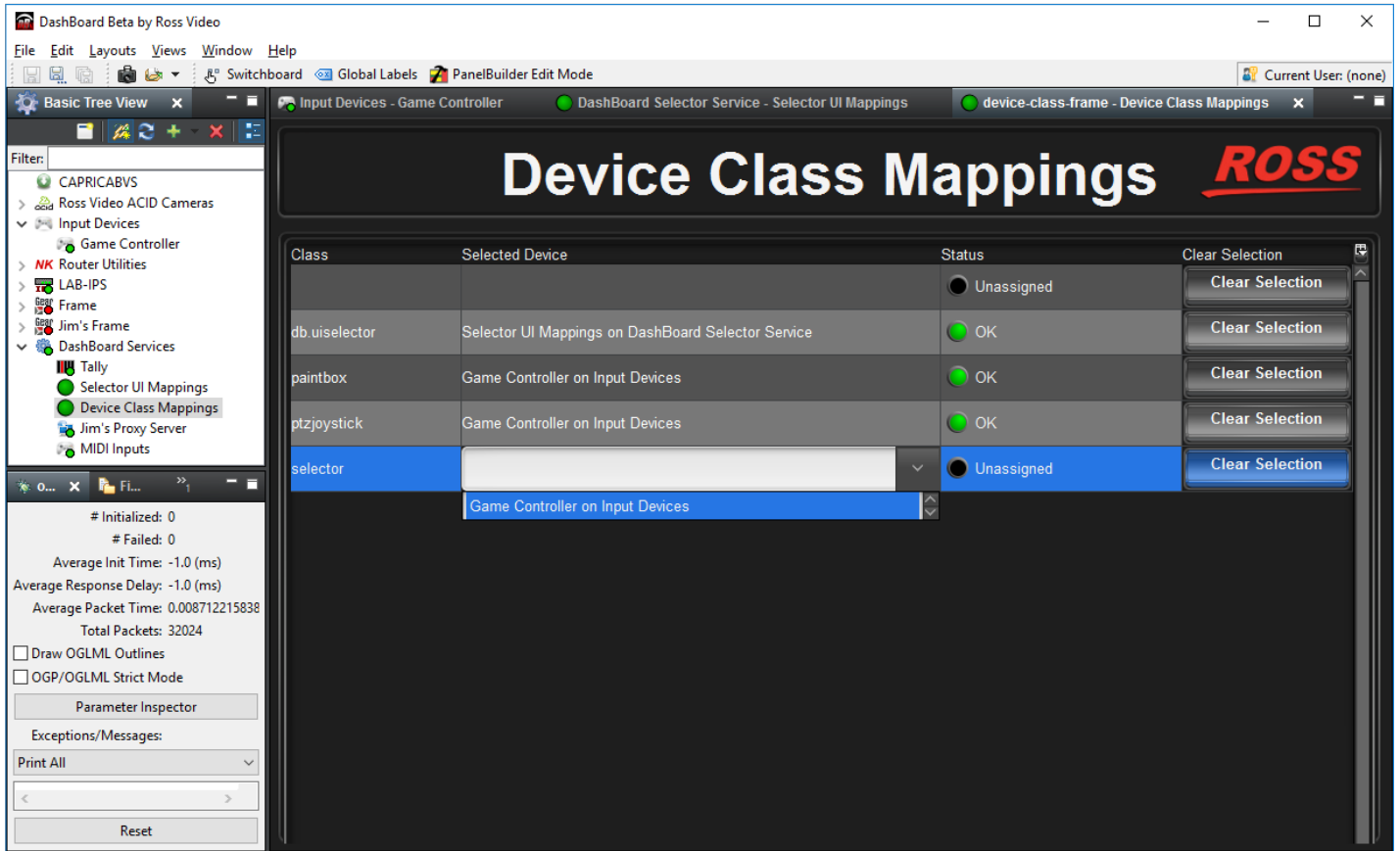
13. In the **DashBoard Component Tree**, expand the **DashBoard Services** node, and then double-click **Selector UI Mappings**.  
The **Selection Mapping** interface appears.



14. Turn **Autowire Follows UI** ON.

15. In the **DashBoard Component Tree**, within the **DashBoard Services** node, double-click **Device Class Mappings**.

The **Device Class Mappings** interface appears.



16. Add a mapping for the **selector** class.

To add the mapping, in the bottom row of the table, specify the **Class** (**selector**), and the **Selected Device** (the joystick you added).

17. For each of the following **Classes**, in the **Selected Device** column, select the joystick you added to map the Class to the joystick.

- **paintbox**
- **ptzjoystick**

**Tip:** If one of the **Classes** is already mapped to a device, click **Clear Selection** and then map it to the joystick.