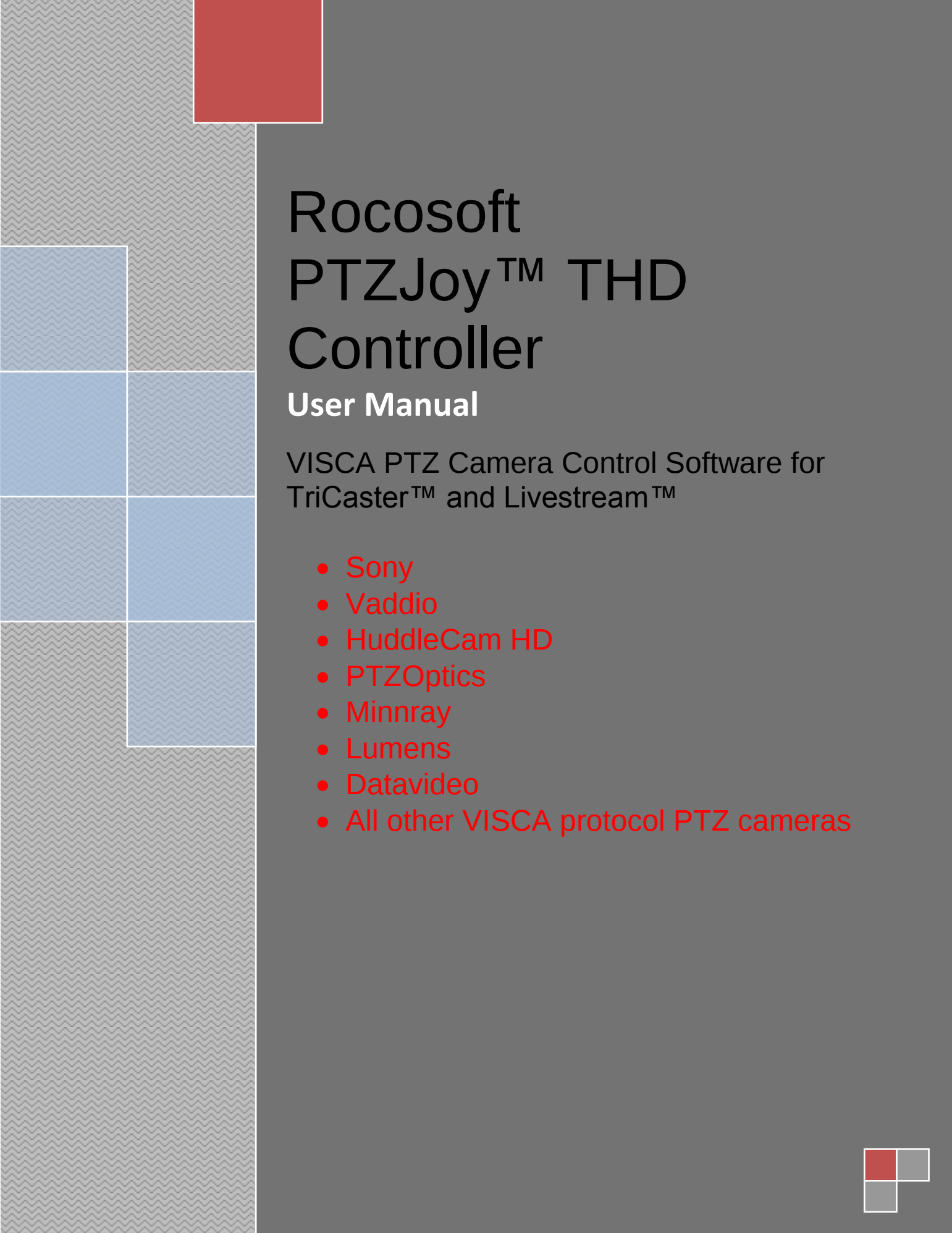




Rocosoft PTZJoy™ THD Controller

User Manual

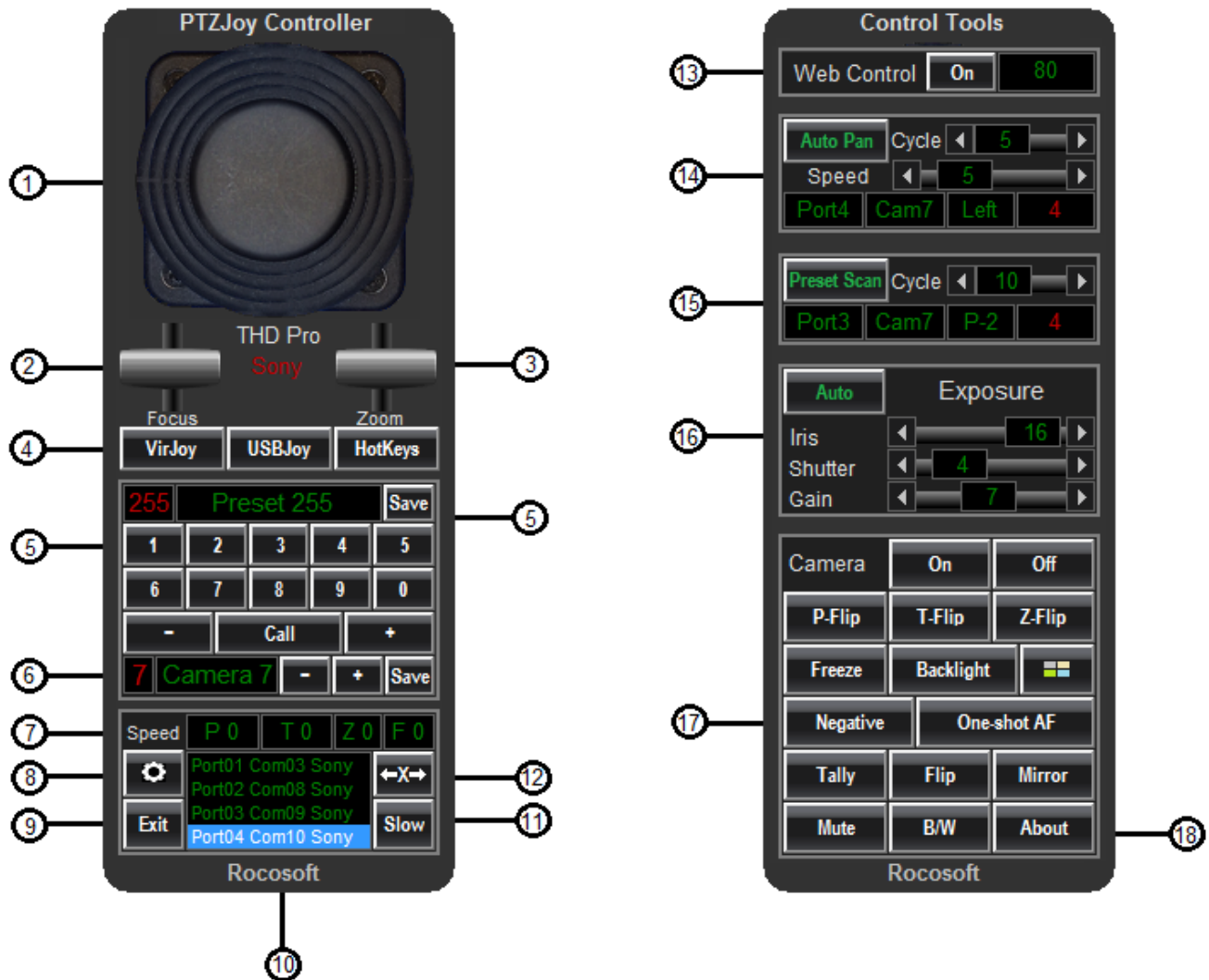
VISCA PTZ Camera Control Software for
TriCaster™ and Livestream™

- Sony
- Vaddio
- HuddleCam HD
- PTZOptics
- Minnray
- Lumens
- Datavideo
- All other VISCA protocol PTZ cameras



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1. Virtual Joystick Controller

Click and drag to move camera in corresponding direction

2. Focus Lever

Focus NEAR/FAR

3. Zoom Lever

Zoom IN/OUT

4. Control Type Selection

Choose between camera control with the Virtual Joystick, USB Joystick, or keyboard shortcuts

5. Preset Setup

Set presets, assign names to presets, and recall presets

6. Daisy-Chain Camera Manager

Name and switch between cameras in a daisy chain

7. Speed Display

Shows the current pan, tilt, zoom, focus speed

8. Control Settings and Tools

Opens control tools and video settings panel

9. Exit

Exits program

10. Port Display Window

Displays information about active COM Ports

11. Slow Mode

Adds precision while using a USB joystick

12. X Joystick

Limits camera movement to x-axis only when using the virtual or USB Joystick

13. Web Control

Turn on Web Control access via IP network for far end camera control

14. Auto Pan

Set camera to pan back and forth at a specified time interval

15. Preset Scan

Scan between presets at a specified time interval

16. Exposure Settings

Auto, Iris, Shutter, Gain

17. Utilities

Camera power, Backlight, Start with Windows, Tally Light, Image Flip, Mirror Image, Negative Image, Freeze Image, Mute Image, Black/White Image, One-shot Auto Focus

18. About

Provides IP information for IP WebRemote

**PTZJoy THD Controller has 2 control panels. By default, PTZJoy THD opens with only the first panel visible. The second control panel can be opened and closed by clicking on the "Settings" button.*

GETTING STARTED

Before starting PTZJoy, connect your PTZ camera to your live production system (“system”) using a VISCA Control cable. Please make sure your PTZ camera is turned ON.

- 1) Connect the VISCA control cable to the **Serial/USB COM port** of your system and to the **VISCA In** jack of your camera.
- 2) Check which COM port number is being used by your serial device in the Ports section of the **Device Manager*** on your system (example: COM2)**.

To access the **Device Manager, open the **System** folder from your **Control Panel**, and click on **Device Manager**. Expand the **Ports** section to view your active COM ports and double check that there are no yellow exclamation marks. If you see a yellow exclamation mark next to any of your COM ports, you will need to fix this issue. If there are no yellow exclamation marks, these ports are active and available to control cameras.*

*** If you are connecting only one camera, or multiple cameras in a daisy chain mode, you will need to know only one COM port number. If you have multiple cameras connected to multiple ports, you will need to know the COM port numbers being used in order to switch between cameras in the application.*

CONTROLLING YOUR PTZ CAMERA

Once the PTZ camera is connected to your system, open PTZJoy. If using a TriCaster system, PTZJoy will automatically launch the TriCaster application and you can begin controlling your PTZ cameras from your system. All COM ports available to control PTZ cameras will be listed in COM port window. Select the COM port your camera is connected to from the list of available COM ports and choose the desired method of camera control from the Control Type Selection buttons: **VirJoy**, **USBJoy**, or **KBoard**. The default Control Type is **VirJoy**.

VIRTUAL JOYSTICK CONTROL

- 1) Using your system mouse, click on any point on the virtual joystick and drag your system mouse in the direction you want to move your selected camera*.
- 2) To activate the Zoom In and Zoom Out feature, click and drag the **Zoom Lever** with your system mouse up to zoom in and down to zoom out*.
- 3) Adjust the focus of the camera by clicking and dragging the **Focus Lever** with your system mouse up to focus near, and down to focus far*. Click on the **Auto** button to auto focus the camera.

**Regulate the speed of the pan, tilt, and zoom movements by the movement of the system mouse relative to the center point of the virtual controls - called the zero point, at which the speed is zero. The speed of pan and tilt movements is determined by they location of the mouse relative to the center point of the virtual joystick; the speed of the zoom in and out movement is determined by the location of the mouse relative to the center point of the zoom lever. The further away from the zero point of the virtual joystick or zoom lever that you move the mouse, the quicker the camera will rotate. The closer the mouse is to the zero point of the virtual joystick or zoom lever, the slower the camera will rotate.*

USBJOY JOYSTICK CONTROL

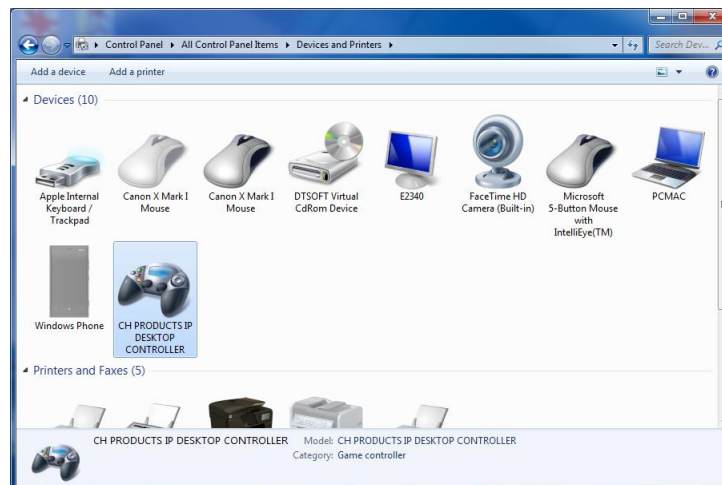
We recommend checking if your cameras work with our Virtual Joystick first before trying to connect a USB Joystick.

- 1) Connect your joystick controller to an available USB port on your system and wait until your system initializes it.
- 2) Follow instructions below to calibrate your joystick.

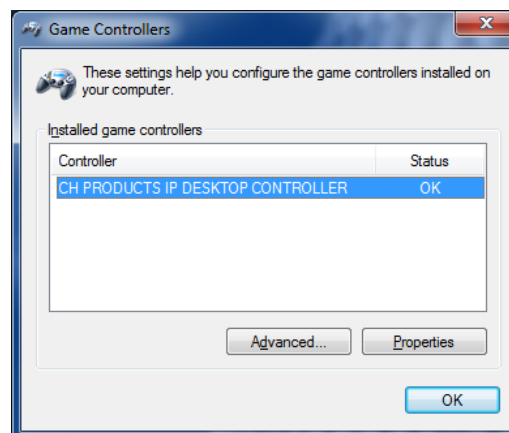
CALIBRATING YOUR JOYSTICK

Calibrating your joystick controller will help the joystick work more accurately with the PTZJoy application by finding the exact zero point and peripheral borders of the controller.

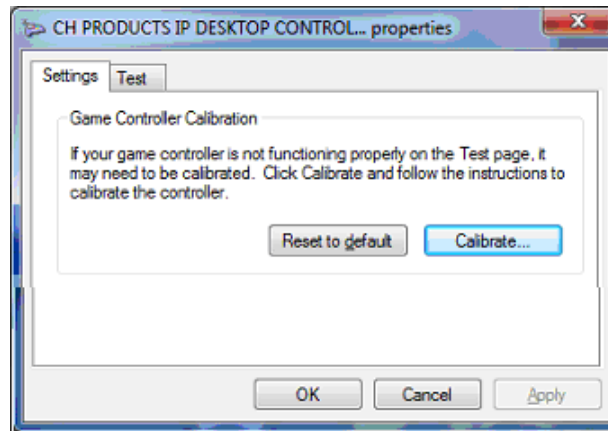
- 1) Open **Control Panel** → open **Devices and Printers**
- 2) You should see a screen showing available devices:



- 3) Find your Joystick Controller and right click on the icon. Select **Game Controller Settings**. Highlight the controller you wish to calibrate and select **Properties**.



- 4) To start the calibration process, select Calibrate under the Settings tab to initiate the Device Calibration Wizard:



USING YOUR JOYSTICK

Once your joystick is connected and calibrated, you can begin using it to control your connected PTZ cameras.

- 1) Click on the USBJoy Button.
- 2) Move your USB joystick in the desired direction to control your camera. Regulate the speed of the pan and tilt movements by the movement of the joystick relative to its center point, or zero point. The further you move the joystick away from it's zero point, the quicker the camera will rotate.

USING THE BUTTON SHORTCUTS ON YOUR JOYSTICK

All USB joysticks are different, but most of them have special shortcut buttons that can be assigned specific commands. This is a list of the PTZJoy pre-assigned functions for buttons on a USB joystick:

Button #	Function
1	Zoom In
2	Zoom Out
3	Previous Camera
4	Next Camera
5	Previous Preset
6	Next Preset
7	Call Preset

Here are some examples of different button locations for several common joysticks:

LOGITECH ATTACK3



PROFESSIONAL PTZ JOYSTICK



THRUSTMASTER T.1600M



THRUSTMASTER TOP GUN USB VERSION



CYBORG V-1

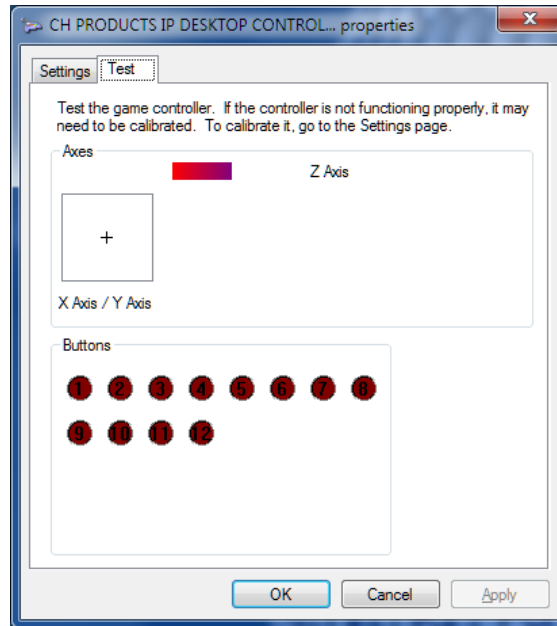


LOGITECH WIRELESS GAMEPAD



Your joystick may have a different button layout. To check your joystick's button layout:

- 1) Open **Control Panel** → open **Devices and Printers**
- 2) Find your Joystick Controller and right click on the icon. Select **Game Controller Settings**. Select your USB joystick from the list and click on **Properties**.
- 3) Select the **Test** tab. Press the buttons on your joystick and take note of which numbers light up under the **Buttons** section in this window. Once you know which buttons on your joystick correspond to a specific number, refer to our command table to see a list of functions and their corresponding buttons.



CONTROLLING ZOOM FUNCTION ON A GAMING PTZ JOYSTICK

If using a gaming joystick with a zoom lever, you can use this lever for controlling the zoom function with variable speeds. Since gaming joystick levers do not have a center, or zero, position like professional joystick levers do, they will not return to the zero position when you release the lever – it has to be done manually.

You must manually find a zero position on your gaming joystick and always start the program with the lever in that position. By doing this, you will have full zoom control with variable speed of your camera.

- 1) Start PTZJoy with the joystick's lever in roughly the middle position.
- 2) Move the zoom lever up and down to zoom in and out to find the point where you can completely stop the zoom. This is your zero point.
- 3) Restart PTZJoy with the lever in zero position. Your joystick is now configured to use the zoom lever with a zero point.
- 4) You can now regulate the speed of the zoom by the movement of the zoom lever relative to its zero point. The further you move the lever away from its zero point, the quicker the camera will zoom in and out. To stop the zoom, you must move the zoom lever back to the zero point.

SOFT JOYSTICK MODE

This mode allows for slower, more precise movements of the camera while using the Virtual or USB joystick. Click on the **Soft Mode** button to switch to Soft Joystick Mode.

X JOYSTICK MODE

This mode limits camera movements to only the X-axis while using the Virtual or USB joystick. Click on the **Soft Mode** button to switch to X Joystick Mode.

KEYBOARD HOTKEYS

Control pan/tilt/zoom/focus functions, change speed settings, call on presets, and switch cameras using pre-assigned shortcuts or “hotkeys” on any standard keyboard. This is a diagram of the PTZJoy pre-assigned keyboard hotkeys:



CONNECTING MULTIPLE CAMERAS

HOME RUN CONNECTION

In a home run connection, multiple cameras are connected to different USB/Serial ports on one computer and each camera is controlled through a separate COM port.

HOW TO CONNECT:

- 1) Connect your cameras to the USB/Serial ports of your computer using Serial/USB VISCA cables (described in detail in the **Getting Started** section).
- 2) The **Port Display Window** will display which COM ports are being used by your cameras.
- 3) Switch between ports/cameras by clicking on the desired camera from the list of connected cameras in the **Port Display Window**.

Note: You can connect up to 4 cameras in home run mode.

DAISY-CHAIN CONNECTION

In a daisy chain connection, the first camera is connected to a USB port/Serial port of your computer and additional cameras are “daisy-chained” to the first camera using daisy chain cables. In this configuration, multiple cameras can be controlled through one COM port.

HOW TO CONNECT:

- 1) Connect your first camera to the USB/Serial port of your computer using a USB/Serial VISCA cable.
- 2) The **Port Display Window** will display which COM port is being used by your camera.
- 3) Connect additional cameras to the first camera with daisy chain cables.
- 4) Use the Daisy-Chain Camera manager to switch between cameras by clicking on the plus or minus buttons.

Note: You can Daisy Chain up to 7 Sony per COM port. Additional Daisy Chain connections can be added to additional available USB/Serial ports.

NAMING CAMERAS IN DAISY CHAIN MODE

Easily distinguish between multiple cameras by naming your connected cameras.

- 1) In the Daisy-Chain Camera Manager section, select the number of the camera you wish to name using the plus and minus buttons.
- 2) Type in the desired name for the camera and click **Save**. Repeat for all cameras connected in the daisy chain.
- 3) Once all cameras are named, you can switch between cameras by selecting the camera using the plus and minus buttons and see which camera is currently chosen by name.

WORKING WITH PRESETS

SETTING AND RECALLING PRESETS

- 1) Use the preset selection buttons in the **Preset Setup** section to select the preset number you wish to set up for the selected camera.
- 2) Move your camera in the desired position, type the desired name for the preset in the preset name window, and click **Save**.
- 3) Repeat for up to 255 presets*
- 4) To recall a preset, use the preset selection buttons to select preset number and click **Call**. The current preset number and name will appear on the screen.
- 5) If using your USB Joystick to select presets, the current preset number and name will also appear on the screen.

*depends on your camera and how many internal presets it can store.

PRESET SCAN

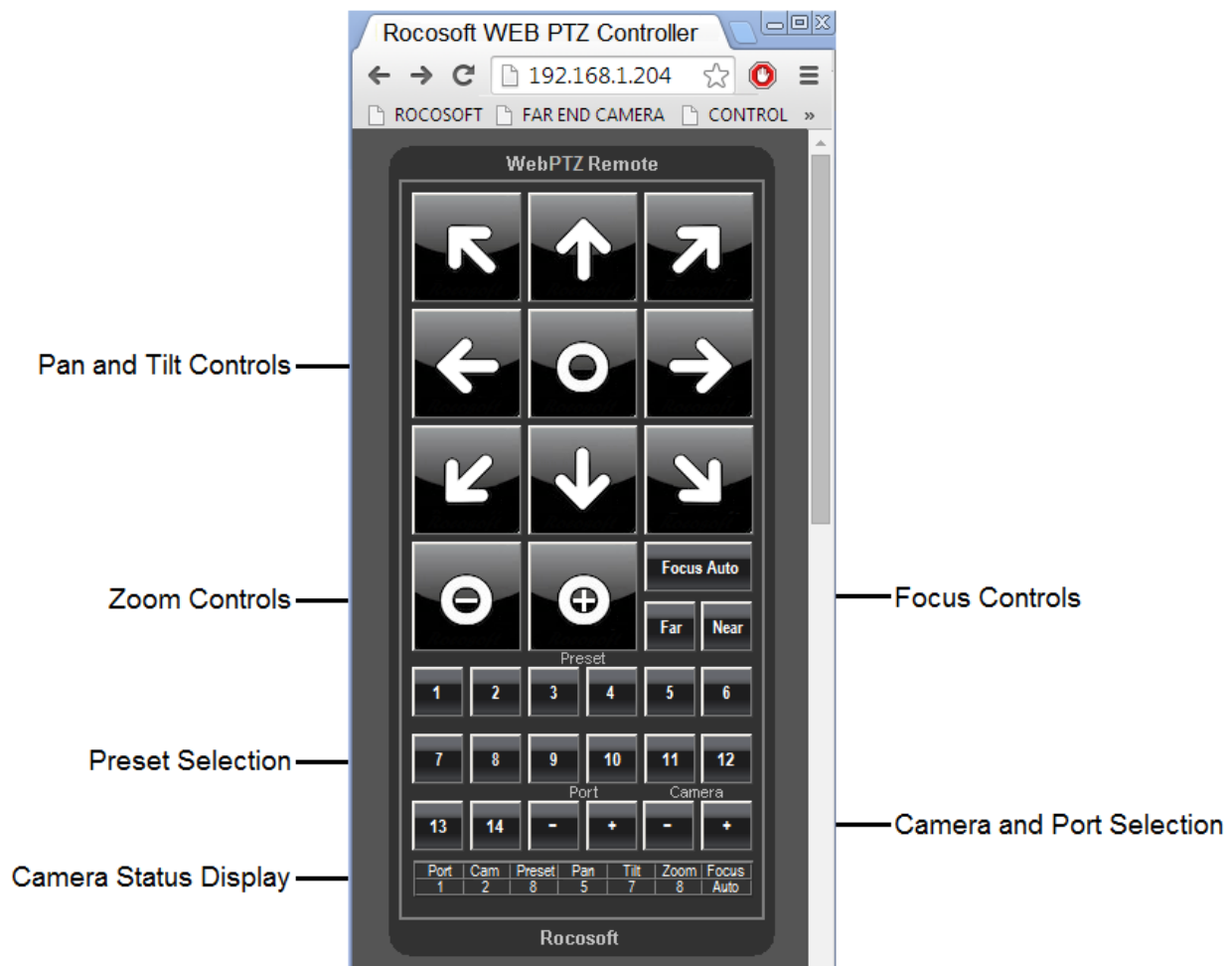
Ideal for security applications, the Preset Scan feature allows you to command a selected camera to scan between presets at a specified time interval. Presets must already be configured.



- 1) Click **Preset Scan** to start the scan cycle. Click it again to stop it.
- 2) Adjust the time interval between the presets with the cycle slider.

USING THE PTZ WEB REMOTE

Control PTZ cameras connected to the Main Controller from the web browser of any mobile device over any LAN, Wi-Fi, and WAN IP network. Use it as a far-end controller to switch between cameras, control pan, tilt, zoom, and focus, change the speed settings of camera movements, and call on presets.



- 1) Turn ON Web Control access on the Main Controller.
- 2) The default port for Web Control is 80 and the current IP Address and access information of the Main Controller can be found by clicking on the **About** button. You can add security to the connection by changing the Web Control port number on the Main Controller.
- 3) Open the web browser on your mobile device and type in the IP Address of the Main Controller (see **About**) into the URL Bar on your mobile device.
- 4) The WebRemote will appear in the web browser of your mobile device and you can now control the PTZ cameras connected to the Main Controller.* The WebRemote will appear full size in your web-browser – if you are using a computer, you can resize the WebRemote to a more convenient-to-use size by simply changing the zoom settings in the browser.
- 5) The Camera Status Display will show relevant information such as which camera is being controlled, which presets position is active, the pan, tilt, and zoom speed, and focus mode.

*Control cameras using the WebRemote from a device outside of your local area network by configuring your router and opening ports to accept outside signals. Once your router is configured, you can open a web browser on any device and type in the IP Address of the Main Controller and control your camera.

ADDITIONAL CONTROL SETTINGS

Minimize to Taskbar: Minimizes program to taskbar for quick access

Start with Windows: Configure program to automatically start with Windows Startup.

- 1) Click on the Windows Logo Button to activate this feature
- 2) Restart the system.
- 3) The program should start with Windows automatically.
- 4) If it does not start automatically, right click on the PTZJoy program loader file and click “Run as Administrator”. Click on the Windows Logo Button in the program again, close the program, and restart your system.

Pan, Tilt, Zoom Flip: The **P-Flip**, **T-Flip** and **Z-Flip** buttons inverse the Pan, Tilt, and Zoom directions of a selected camera.

Camera ON/OFF: Turns selected camera ON or OFF

Camera Initiation: Allows you to add or remove cameras in a Daisy Chain connection without restarting all cameras.

Auto-Pan



- 1) Click **Auto Pan** to start the pan cycle. Click it again to stop it.
- 2) Adjust the time and speed interval of the pan cycle with the cycle and speed sliders.

ADDITIONAL VIDEO SETTINGS

One Shot Auto Focus: ON/OFF

Tally Light: ON/OFF

Image Flip: ON/OFF

Video Mute: ON/OFF

Negative Image: ON/OFF

Black/White Image: ON/OFF

Mirror Image: ON/OFF

Image Freeze: ON/OFF

Backlight: Backlight Compensation

Exposure Control Settings: Auto, Bright, Iris, Shutter, and Gain. Manually adjust settings with slider bars.