

# 1 Beyond Camera Manager1 Beyond Configuration Software

Product Manual
Crestron Electronics, Inc.

The original language version of this document is U.S. English. All other languages are a translation of the original document.

Crestron product development software is licensed to Crestron dealers and Crestron Service Providers (CSPs) under a limited nonexclusive, nontransferable Software Development Tools License Agreement. Crestron product operating system software is licensed to Crestron dealers, CSPs, and end-users under a separate End-User License Agreement. Both of these Agreements can be found on the Crestron website at <a href="www.crestron.com/legal/software\_license\_agreement">www.crestron.com/legal/software\_license\_agreement</a>.

The product warranty can be found at <a href="https://www.crestron.com/warranty">www.crestron.com/warranty</a>.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

Crestron and the Crestron logo are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Windows is is either a trademark or a registered trademark of Microsoft Corporation in the United States and/or other countries. NDI is either a trademark or a registered trademark of NewTek, Inc. in the United States and/or other countries. Wi-Fi is either a trademark or registered trademark of Wi-Fi Alliance in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

©2022 Crestron Electronics, Inc.

# **Contents**

Overview	
Compatibility	2
System Requirements	3
Initial Setup	4
Install the Software	4
Connect Cameras	4
Open the Software	5
Configuration	6
Device Management	7
Add Cameras	8
View the Connection Status	8
Change Camera Network Settings	9
Configure Camera Settings	11
Upgrade Tab	12
Network Tab	13
Streaming Tab	14
RTMP Tab	15
UN/PW Tab	16
Protocol Tab	17
Operation	19
Monitor Cameras	20
Control Cameras	20
PTZ Movement	21
Camera Presets	21
Camera Menu	22
Camera Tracking	23
Troubleshooting	24
Resources	26
Crestron Support and Training	26
Product Certificates	
Related Documentation	26

# **Overview**

The 1 Beyond Camera Manager software (hereafter 1B Cam Manager) is a central hub for configuring, monitoring, and controlling 1 Beyond IP cameras. The software allows for monitoring of up to 4 video streams simultaneously and configuration of supported 1 Beyond cameras.

The 1B Cam Manager software provides the following features for supported 1 Beyond cameras:

- Discover 1 Beyond cameras on the network
- Upgrade camera firmware
- Modify camera network settings
- Modify camera RTMP (Real-Time Messaging Protocol) settings
- Set authentication credentials for the camera
- · Modify general settings, such as camera name
- Set a secondary connection to the camera from a control device (such as a touch screen)
- View up to 4 camera video streams (close-up or panorama) simultaneously
- Use PTZ controls to adjust pan, tilt, and zoom movements for a camera, as well as focus and brightness levels
- Create, recall, and delete camera presets
- Use the OSD (on-screen display) menu to adjust advanced settings
- Start and stop tracking for supported cameras
- · Define tracking and blocking zones and adjust tracking parameters for intelligent cameras

**CAUTION:** The 1B Cam Manager software allows you to change various advanced camera settings. If these settings are set incorrectly, the camera's performance can be affected significantly. Ensure that all procedures in this document are followed carefully.

# Compatibility

1B Cam Manager software is compatible with the following 1 Beyond cameras:

- <u>IV-CAMA3-20-N-W-1B</u>: 1 Beyond AutoTracker™ 3 Presenter Tracking Camera, 20x Optical Zoom, NDI®|HX Compatible, White
- <u>IV-CAMA3-20-N-SLVR-1B</u>: 1 Beyond AutoTracker<sup>™</sup> 3 Presenter Tracking Camera, 20x Optical Zoom, NDI®|HX Compatible, Silver
- <u>IV-CAMA3-20-W-1B</u>: 1 Beyond AutoTracker™ 3 Presenter Tracking Camera, 20x Optical Zoom, White
- IV-CAMA3-20-SLVR-1B: 1 Beyond AutoTracker™ 3 Presenter Tracking Camera, 20x Optical Zoom, Silver
- <u>IV-CAMFL-N-W-1B</u>: 1 Beyond Falcon<sup>™</sup> Presenter Tracking Camera, ePTZ, 2x Digital Zoom, NDI®IHX Compatible
- <u>IV-CAMFR-12-N-SLVR-1B</u>: 1 Beyond AutoFramer™ Group Framing Camera, 12x Optical Zoom, NDI®|HX Compatible
- IV-CAMFR-12-SLVR-1B: 1 Beyond AutoFramer™ Group Framing Camera, 12x Optical Zoom
- <u>IV-CAMHK-12-SLVR-1B</u>: 1 Beyond Hawk™ Intelligent Dual-Camera Tracking Solution, 12x Optical Zoom
- IV-CAMPTZ-20-N-W-1B: 1 Beyond PTZ Intelligent Camera, 20x Optical Zoom, NDI®|HX Compatible, White
- <u>IV-CAMPTZ-20-N-SLVR-1B</u>: 1 Beyond PTZ Intelligent Camera, 20x Optical Zoom, NDI®|HX Compatible, Silver
- IV-CAMPTZ-20-W-1B: 1 Beyond PTZ Intelligent Camera, 20x Optical Zoom, White
- IV-CAMPTZ-20-SLVR-1B: 1 Beyond PTZ Intelligent Camera, 20x Optical Zoom, Silver
- IV-CAMPTZ-12-N-W-1B: 1 Beyond PTZ Intelligent Camera, 12x Optical Zoom, NDI® | HX Compatible, White
- IV-CAMPTZ-12-N-SLVR-1B: 1 Beyond PTZ Intelligent Camera, 12x Optical Zoom, NDI®|HX Compatible, Silver
- IV-CAMPTZ-12-W-1B: 1 Beyond PTZ Intelligent Camera, 12x Optical Zoom, White
- IV-CAMPTZ-12-SLVR-1B: 1 Beyond PTZ Intelligent Camera, 12x Optical Zoom, Silver

**NOTE:** Some legacy 1 Beyond cameras may be discoverable, but they cannot be controlled by 1B Cam Manager software.

# **System Requirements**

Ensure the host computer running the 1B Cam Manager software meets the following system requirements.

- Windows® 10 OS or later
- Dual-core processor
- 4GB (or greater) memory
- 1GB (or greater) storage
- Ethernet or Wi-Fi™ Network connection to the local network

# **Initial Setup**

Use the following procedures to set up the 1B Cam Manager software on a computer.

# Install the Software

To install the 1B Cam Manager software:

**NOTE:** Ensure the software is installed onto a computer that meets or exceeds the specifications described in System Requirements on page 3.

- Download the 1B Cam Manager installation package from <u>www.crestron.com/Support/Resource-Library</u> or from the 1 Beyond camera product pages on Crestron.com
- 2. Open the installer executable file and follow all prompts to install the software.

# **Connect Cameras**

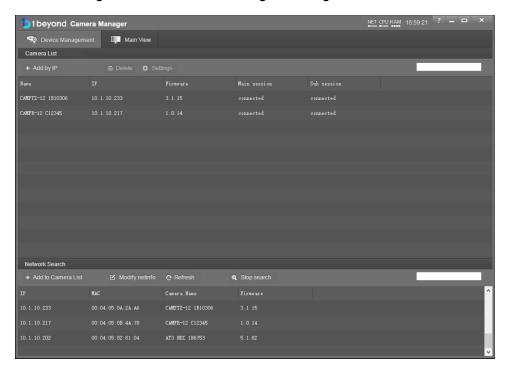
Once your cameras have been installed, connect them to your local network or directly to a computer. For more information, refer to the documentation for your 1 Beyond camera model.

**NOTE:** By default, most 1 Beyond cameras ship with a static IP address of 192.168.18.77. This default IP address must be changed prior to adding the device to the software. For more information, refer to Add Cameras on page 8.

# **Open the Software**

After at least one camera and the host computer are connected to the network, open the 1B Cam Manager executable file on the host computer. The software opens with the **Device Management** page shown by default.

1B Cam Manager Software - Device Management Page



# Configuration

Use the following procedures to configure the 1B Cam Manager software.

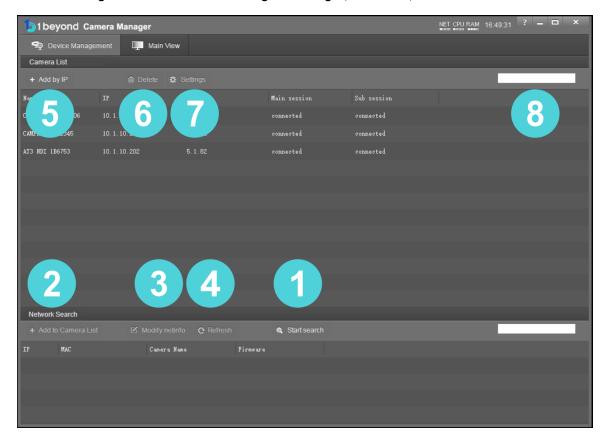
This section provides the following information:

- Device Management on page 7
- Configure Camera Settings on page 11

# **Device Management**

The 1B Cam Manager software launches with the **Device Management** page open by default. The **Device Management** page provides a device discovery selection, a camera list selection, and buttons that open various dialog boxes that allow camera settings to be adjusted.

1B Cam Manager Software - Device Management Page (Annotated)



The numbers in the preceding image correlate with the following functions.

- 1. **Start Search**: Select this button to initiate a search for 1 Beyond IP cameras on the network. Discovered cameras are displayed in the list below this button. The software continues searching for cameras until this button is selected again.
- 2. Add to Camera List: Select a camera from the discovered camera list, and then select this button to add the camera to the camera list above the button. This list is retained even after the software is closed.
- 3. **Modify netinfo**: Select a camera from the discovered camera list, and then select this button to modify the network settings for the camera. A camera's network settings can be changed across subnets.
- 4. **Refresh**: Select this button to refresh the discovered camera list manually. A refresh is required to view a camera's updated network settings after they are modified.

- 5. Add by IP: Select this button to manually add a camera to the camera list by entering its network information.
- 6. **Delete**: Select a camera from the camera list, and then select this button to delete the camera from the list.
- 7. **Setting**: Select a camera from the camera list, and then select this button to open general settings for the camera.
- 8. Search: Use the text box to search for cameras by name.

### **Add Cameras**

To add cameras to the 1B Cam Manager software:

- Select Start Search to initiate a search for 1 Beyond IP cameras on the network.
   Discovered cameras are displayed in the list below this button.
- 2. Select the camera in the discovered camera list.
- 3. Select **Modify netinfo** to display settings to change the camera's IP address to match your network scheme (if required).
- 4. If the camera's IP address is modified, select **Refresh** to update the camera's network settings in the discovered camera list.
- 5. After the camera's IP address is set, select **Add to Camera List**. The selected camera is added to the camera list above this button.
- 6. If the camera requires authentication to access, enter the username and password for the camera when prompted.

After all cameras have been added to the camera list, you can access their settings, monitor video feeds, and give custom names for easier management and organization.

### **View the Connection Status**

If the 1B Cam Manager software is able to connect to a camera, the camera shows as connected in the **Main session** and **Sub session** columns. These columns indicate whether the software can read the camera's main and substreams for IP (RTSP) video.

**NOTE:** If the chosen camera is set to match your IP scheme, its status should read connected for both columns.

The following connection status messages can be shown for a camera:

- Connected: The 1B Cam Manager software has received RTSP video streams from the camera and can connect to the camera.
- Connection Failed: The 1B Cam Manager software discovered the camera on the network, but video streams cannot be received. The camera is likely connected to a different subnet from the host computer.
- **Disconnected**: The camera is not currently accessible on the network.

**NOTE:** After a camera is first connected to the network, it can take up to 30 seconds after the camera is first powered on for it to be discovered by the 1B Cam Manager software. This is because the camera performs a diagnostic routine prior to activating the video encoder.

### **Change Camera Network Settings**

Network settings for cameras can be changed manually for any camera that has been discovered by the 1B Cam Manager software. Network settings for cameras can also be changed across subnets.

To change network settings for a camera:

1. Select a camera from the network search list.

### Network Search List



Select the Modify netinfo button to view the selected camera's network settings.
 Modify Network Parameter Dialog Box



3. Verify that the camera's IP address is on the same subnet as the host computer, and make any network settings changes as necessary. Refer to the following example:

Host: 192.168.18.74Camera: 192.168.18.75Subnet Mask: 192.168.18.1

4. Select **Modify** to save any changes.

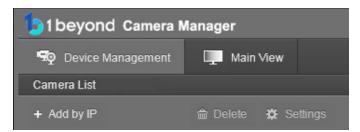
If the camera is set to **DHCP** for **CommType**, it will receive its IP address dynamically from a network router. This option does not work when the camera is connected directly to the host computer for configuration.

**NOTE:** If the camera is set to use DHCP, you must access your router settings and reserve an IP address for the camera. Without reserving an IP address, the camera's IP address will change every time it is restarted.

# **Configure Camera Settings**

Once a camera has been added to the 1B Cam Manager software as described in Device Management on page 7, select **Settings** to configure general settings for that camera.

### Camera Manager - Settings Button



Selecting **Settings** opens the **Camera Configuration** dialog box, which provides access to many of the camera's system settings.

### Camera Configuration Dialog Box



The numbers in the preceding image correlate with the following functions.

- 1. **Upgrade**: Select this tab to upgrade the firmware on the camera.
- 2. **Network**: Select this tab to change the camera's network settings (similar to the **Modify Netinfo** function in the **Device Management** page).
- 3. **Streaming**: Select this tab to customize the camera's IP video streams. The bit rate and encoding level of each stream can be adjusted manually.
- 4. **RTMP**: Select this tab to enter up to 4 URLs or IP addresses that can receive video streams from the camera.
- 5. **UN/PW**: Select this tab to change the camera name, to set authentication credentials for the camera, and to change the system time.
- 6. **Protocol**: Select this tab to configure the camera to be operated from a control device (such as a Crestron® touch screen).

# **Upgrade Tab**

Select the **Upgrade** tab to perform a firmware update for the camera.

### Upgrade Tab



To upgrade firmware, use the ellipses button (...) next to the **Upgrade File** field to navigate to and select the appropriate firmware file for the camera. After the file has been chosen, select **Upgrade** to initiate the firmware upgrade. The camera will restart automatically after the process is complete.

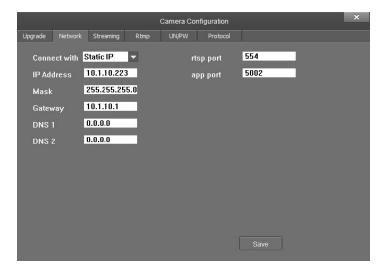
**CAUTION:** Note the following when performing a firmware upgrade:

- Before attempting to upgrade camera firmware, verify that you have received the appropriate firmware file for your camera model. Firmware files are specific to individual 1 Beyond camera models.
- Only use Crestron firmware files. Attempting to upgrade the device using third-party files may prevent the camera from functioning correctly.
- Do not disconnect the camera or attempt to control it while upgrading firmware. This may cause the firmware file to become corrupted and prevent the camera from functioning correctly.
- Only perform a firmware upgrade if recommended by <u>Crestron True Blue Support</u> during a support call.

### **Network Tab**

Select the **Network** tab to modify the camera's network settings and to configure the port for the camera's IP video streams.

#### **Network Tab**



The following settings can be modified:

- **Connect with**: Use the drop-down menu to select whether the camera connects to the network over a static IP or dynamically over DHCP.
- IP Address: If Connect with is set to Static IP, set a static IP address for the camera.
- Mask: If Connect with is set to Static IP, set a static subnet mask address for the camera.
- **Gateway**: If **Connect with** is set to **Static IP**, set a static address for the default gateway router.
- DNS 1: If Connect with is set to Static IP, set a static primary DNS (Domain Name Server) lookup address.
- DNS 2: If Connect with is set to Static IP, set a static secondary DNS (Domain Name Server) lookup address.
- rtsp port: Set a port that will be used for the camera's RTSP video-over-IP streams. The default port for most cameras is 554 or 5000.
- **app port**: Set a port that will be used for communication between the 1B Cam Manager software and the camera.

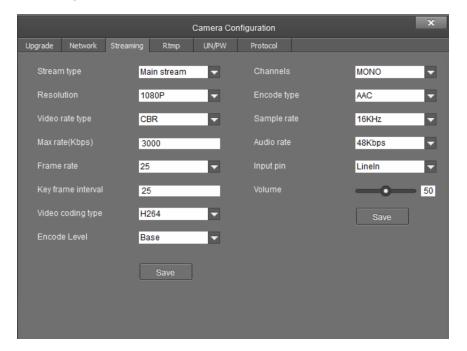
**NOTE:** The **app port** value should not be changed unless instructed to do so by Crestron True Blue Support.

Select **Save** to save any changes made to these settings.

### **Streaming Tab**

Select the **Streaming** tab to modify the camera's streaming settings.

### Streaming Tab



The **Streaming** tab is used to adjust the properties of the native IP video streams that are encoded and transmitted by the camera. 1 Beyond Intelligent cameras can broadcast up to 4 simultaneous RTSP streams, while all other supported 1 Beyond cameras output 2 simultaneous streams. Each video stream can be configured individually.

The following settings can be modified:

- Stream type: Use the drop-down menu to select the stream that will be configured.
- **Resolution**: Use the drop-down menu to select the desired stream resolution independently of the camera's operating resolution.
- Video rate type: Use the drop-down menu to select whether the video will be encoded with constant or variable bit rate. Selecting variable bit rate causes reduced stream bit rate during static shots with little movement. The bit rate increases as motion increases.
- Max rate[Kbps]: Set the maximum bit rate of the video stream. The maximum supported value varies by camera model.

**NOTE:** For NDI-enabled 1 Beyond cameras, the **Max rate[Kbps]** setting controls the maximum bitrate of the camera's NDI stream.

• **Frame rate**: Use the drop-down menu to select the stream's frame rate. This value should always equal the camera's native frame rate.

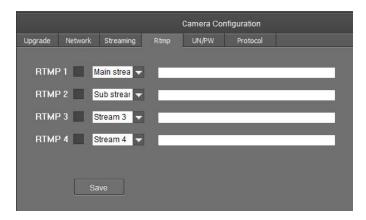
- **Key frame interval**: Set the desired frame rate for the video stream. This value does not have to equal the camera's native frame rate.
- Video coding type: Use the drop-down menu to select whether the video stream will use H.264 or H.265 encoding.
- **Encode Level**: Use the drop-down menu to select whether the video stream will use a low, base, or high-profile encoding type.
- Channels: Use the drop-down menu to select the audio channel type used for the camera's analog audio input.
- **Encode type**: Use the drop-down menu to select the encoding type for the camera's analog audio input.
- **Sample rate**: Use the drop-down menu to select the sampling rate for the camera's analog audio input.
- Audio rate: Use the drop-down menu to select the audio rate for the camera's analog audio input.
- **Input pin**: Use the drop-down menu to select the input type for the camera's analog audio input.
- Volume: Use the slider to set the default volume level for the camera's analog audio input.

Select **Save** under the video or audio settings to save any changes made to those settings, respectively.

### **RTMP Tab**

Select the RTMP tab to modify the camera's RTMP (Real-Time Messaging Protocol) settings.

### **RTMP Tab**



The **RTMP** tab is used to configure 1 Beyond cameras to broadcast video streams to RTMP destinations like servers or web services. Up to 4 RTMP streams can be configured.

**NOTE:** This feature will work only with RTMP destinations that do not require a stream key for authentication.

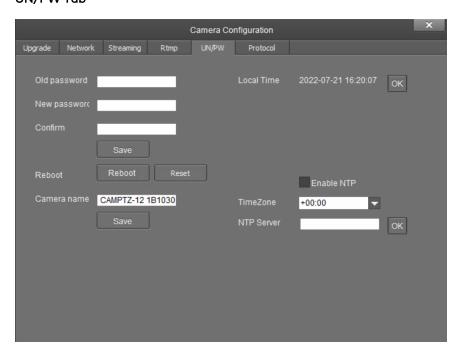
Select the check box next to a stream to activate it, set the stream type using the drop-down menu, then enter the host name or IP address of the RTMP destination in the text field.

Select **Save** to save any changes made to these settings.

### **UN/PW Tab**

Select the **UN/PW** tab to modify the camera name, authentication credentials, and other administrative settings.

### **UN/PW Tab**



The following settings can be modified:

- Password settings
  - · Old password: If applicable, enter the existing admin password set for the camera.
  - New password: Enter a new admin password for the camera.
  - ° Confirm: Enter the admin password specified in the New password field.
  - Select **Save** to change the password.

CAUTION: Do not lose the admin password, as it cannot be reset if it is forgotten.

- Reboot
  - Select **Reboot** to restart the camera.
  - Select **Reset** to restore the camera to its factory default settings.

**CAUTION:** Resetting a camera associated with an Automate™ VX camera switcher system will clear all camera presets.

- Camera Name: Enter a new camera name for identification and management purposes. By default, the camera name includes the device's serial number.
- Local Time: View the local time on the host computer. Select **OK** to refresh the time.
- NTP settings
  - Select the Enable NTP check box to synchronize the camera's internal clock to an external NTP (Network Time Protocol) server.

**NOTE:** Using an external NTP server requires a constant network connection for the camera.

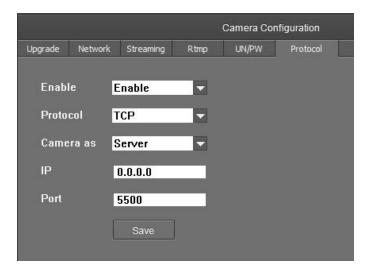
- $^{\circ}$   $\,$  TimeZone: Use the drop-down menu to set the time zone for the camera.
- NTP Server: Enter the URL or IP address of the external NTP server, then select OK.

Select **Save** to save any changes made to these settings.

### **Protocol Tab**

Select the **Protocol** tab to set a secondary connection to the camera from a control device (such as a Crestron touch screen).

### Protocol Tab



The following settings can be modified:

• Enable: Use the drop-down menu to turn on or off the secondary connection.

**NOTE:** For 1 Beyond Intelligent cameras, a secondary connection is turned off by default, as it is not required in most circumstances since port 5500 supports VISCA control over TCP.

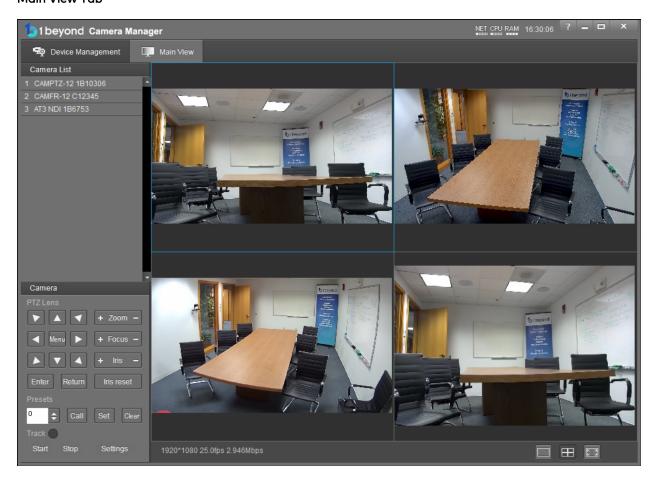
- **Protocol**: Use the drop-down menu to select the communication protocol for the secondary connection.
- Camera as: Use the drop-down menu to select the role for the camera (such as server) for the secondary connection.
- **IP**: Enter the IP address for the secondary connection device. The default value of "0.0.0.0" should be retained for most setups.
- **Port**: Enter the port number for the secondary connection. The default value of "5500" should be retained for most setups.

Select **Save** to save any changes made to these settings.

# **Operation**

Select the **Main View** tab at the top of the page to display controls for monitoring and controlling cameras.

### Main View Tab



The **Main View** page allows for up to four cameras to be monitored at once, and cameras can be changed easily changed using the camera list. The following functions are provided:

- Camera List: Displays all cameras that are connected to the 1B Cam Manager software. For more information on connecting cameras, refer to Device Management on page 7.
- Camera Multi View: Allows for up to four cameras to be monitored at once. Single streams can also be expanded by selecting a stream and then selecting the expand button in the bottom-right corner of the page.
- PTZ Controls: Use to control pan, tilt, and zoom movements for cameras. The camera's internal menu, also known as its OSD (on-screen display) menu, can be opened by selecting the **Menu** button.

• The controls on the bottom right of the page are used to configure display options for the camera feed.

### Main View Controls

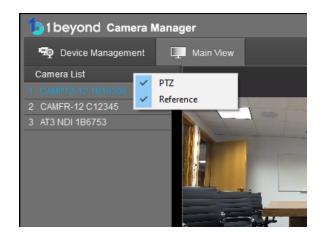


The following sections describe procedures for monitoring and configuring cameras using the **Main View** page.

# **Monitor Cameras**

To show a camera's video feed in the multiview section of the **Main View** page, right-click on a camera in the camera list. One of the camera's two primary video streams can be selected (**PTZ** or **Reference**).

#### Camera List - Stream Selections



**NOTE:** For 1 Beyond Intelligent cameras, the **Reference** selection will always show the video feed from the wide-angle camera located in the base of the unit.

By default, the streams populate the multiview section in the order in which they are selected. To designate a specific position for stream within the multiview section, select one of the four empty stream windows, and then open the desired camera stream.

# **Control Cameras**

Use the PTZ controls in the **Main View** page for full control over a selected camera's pan, tilt, and zoom movements. PTZ controls also allow camera focus and brightness to be configured, and they provide access to the camera's OSD. For 1 Beyond Intelligent cameras, tracking and blocking zones and tracking parameters can be configured alongside other advanced camera settings. For more information, refer to the documentation for your 1 Beyond camera model.

### PTZ Movement

Use the arrow buttons of the PTZ controls to control the camera position.

To select the camera for control, first add it to the multiview section as described in Monitor Cameras on the previous page, and then select the video stream of the desired camera in the multiview section.

### **PTZ Controls**



- Press the plus (+) or minus (-) button next to **Zoom** to zoom the camera in or out, respectively.
- Press the plus (+) or minus (-) button next to **Focus** to increase or decrease the camera focus, respectively.
- Press the plus (+) or minus (-) button next to **Iris** to increase or decrease the camera brightness, respectively.
- Using the **Iris** controls adjusts exposure compensation by adding or subtracting exposure stops to or from the camera's autoexposure value. Select **Iris Reset** to reset the camera's exposure compensation.

**NOTE:** Be default, 1 Beyond cameras are configured to retrigger autofocus every time the camera is moved.

### **Camera Presets**

Presets are important for PTZ camera operation, as they allow for the user to configure a variety of shots for instant recall at any time.

### **Create Presets**

To create a camera preset, first move the camera using its PTZ controls as described in PTZ Movement above until the desired shot is achieved. Then, select the preset number that should be assigned to the current shot from the **Presets** drop-down menu.

### Presets Drop-Down Menu



Once the preset number has been selected, save the current shot by selecting Set.

### Call Presets

To recall a previously-saved preset, select the desired preset from the **Presets** drop-down menu, and then select **Call**.

### **Delete Presets**

To delete a previously-saved preset, select the desired preset from the **Presets** drop-down menu, and then select **Clear**.

To delete all existing presets, select preset 96 from the **Presets** drop-down menu, and then select **Clear**. This action does not delete any reserved presets.

### Reserved Presets

All 1 Beyond cameras have specific functions that assigned to certain presets, and these presets must not be overwritten for the camera to function properly. For more information, refer to the documentation for your 1 Beyond camera model.

# Camera Menu

Select the **Menu** button in the center of the PTZ controls to open the OSD (on-screen display) menu for the selected camera. The OSD menu allows for adjustment of the camera's native resolution, frame rate, white balance properties, and other settings.

#### PTZ Controls - Menu Button



After selecting the Menu button, the OSD menu is overlaid on top of the camera's video feed.

**NOTE:** 1 Beyond Intelligent cameras will only display their OSD menu when the **PTZ** stream is selected.

#### Camera OSD Menu

```
<MENU>
→VIDEO...
EXPOSURE...
COLOR...
PAN TILT ZOOM...
SYSTEM...
STATUS...
RESTORE DEFAULTS...

[A▼]SELECT [OK]NEXT [□]EXIT
```

The OSD menu controls can be navigated using the following PTZ controls:

- The up and down arrow buttons select menu options.
- The left and right arrow buttons adjust parameters.
- The **Enter** button confirms a menu selection.
- The **Return** button returns to the previous menu page.
- The Menu button closes the OSD menu from any page.

# **Camera Tracking**

When controlling a 1 Beyond Intelligent camera, the 1B Cam Manager software allows tracking to be started and stopped using the **Start** and **Stop** buttons, respectively.

### **Tracking Controls**



When tracking is turned on, the **Track** indicator turns green. The **Track** indicator also indicates the tracking status if tracking is turned on or off from an external controller.

Select **Settings** to open advanced settings for the camera, which allows adjustment of tracking parameters and more. For more information on configuring tracking for optimal performance, refer to the documentation for your 1 Beyond camera model.

NOTE: Advanced settings can be configured only for 1 Beyond Intelligent cameras.

# **Troubleshooting**

The following table describe how to troubleshoot common issues for the 1B Cam Manager software.

### 1B Cam Manager Troubleshooting

Problem	Possible Cause	Solution
Cameras cannot be discovered by the software.	The camera network settings do not match the overall IP scheme.	Connect the camera to the host computer directly and verify that the IP settings are correct.
	Cameras are not powered on or receiving sufficient power.	Check the camera's power supply. If using PoE+ (Power over Ethernet Plus), ensure that the PoE switch has a sufficient remaining power budget to power the cameras.
	The Ethernet cable is connected incorrectly or damaged.	Verify that the Ethernet cable is inserted fully into the camera's Ethernet port. If possible, use a cable tester to ensure the cable is working.
gray randomly.	The video stream bit rate exceeds the available network bandwidth.	Adjust the bit rate of the video streams until the gray frames disappear.
	The video stream bit rate is set higher than permitted by the camera.	Reduce the bit rate for the video stream.
Cameras can be discovered by the software, but the software cannot connect to the cameras.	Cameras are connected to a different subnet.	Select the cameras in the network search list, and then select <b>Modify Netinfo</b> to adjust the camera's network settings to ensure the camera is on the same subnet as the host computer.
The camera connection camera shows "Device Refusal."	The camera may have incorrect or corrupted firmware installed.	Contact Crestron True Blue Support.

Problem	Possible Cause	Solution
The camera MAC address is reported as "00:00:00:00:00."	A legacy camera has been discovered.	The software can discover legacy 1 Beyond cameras; however, the software is unable to connect to them. Their network settings can still be modified using the <b>Modify Netinfo</b> function.

# Resources

The following resources are provided for the camera switcher.

**NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

# **Crestron Support and Training**

- Crestron True Blue Support
- Crestron Resource Library
- Crestron Online Help (OLH)
  - o support.crestron.com/app/answers/detail/a\_id/1001561
- Crestron Training Institute (CTI) Portal

# **Product Certificates**

To search for product certificates, refer to support.crestron.com/app/certificates.

# **Related Documentation**

- IV-CAMA3-20 and IV-CAM3-20-N Series Product Manual
- IV-CAMFL-N-W-1B Product Manual
- IV-CAMFR-12 and IV-CAMFR-12-N Product Manual
- IV-CAMHWK-12-SLVR-1B Product Manual
- IV-CAMPTZ-12 and IV-CAMPTZ-12-N Series Product Manual
- IV-CAMPTZ-20 and IV-CAMPTZ-20-N Series Product Manual

Fax: 201.767.7656 www.crestron.com