ClareVision Camera and NVR Control4 Driver Integration Release Notes

Online Documentation

Manufacturer Website: http://www.clarecontrols.com/

Support Site: http://www.clarecontrols.com/contact

Change Log

Revision	Date	Description
1.0.0	04/5/2021	Initial Version
2.0.0	05/4/2021	Adding support for Smart Events and Notification Snapshots.
3.0.0	06/02/2021	Added ability to choose the video stream used.
4.0.0	07/12/2021	Added support for cameras behind a CLR NVR using virtual host
5.0.0	08/25/2021	Bug Fixes and Add support for driver auto update.
6.0.0	02/10/2022	Add Support for Intrusion Events for Value Series Wi-Fi Camera. Fixes virtual host camera snapshot bug.
7.0.0	05/31/2022	Adds support for SDDP for CLR NVR's. Fixes snapshot issue for Android devices when remote.
8.0.0	09/27/2022	Add Support for Actions and Device Specific Commands.
9.0.0	12/8/2023	Add Support for ClareVision Doorbell and Button Press events.

Introduction

The ClareVision Camera and NVR Driver integrates CLR-V camera, video doorbells, and NVR models with Control4 to add streaming video and camera events into a Control4 system. Cameras on the same network as the Control4 controller or cameras plugged directly into an NVR port can be integrated in a Control4 project. To integrate cameras behind an NVR please refer to the Integrating **Cameras Behind an NVR** section.

Notes:

- This driver requires Control4 OS 3.0.0 or later to operate.
- This driver requires that the ClareVision camera be on the same network as the Control4 system.
- This driver supports all ClareVision cameras, video doorbells, and NVRs with model numbers starting with "CLR-V".
- This driver replaces the ClareVision NVR Driver Version 1. Please use this driver and virtual host to integrate all ClareVision CLR Cameras on your network or connected to a CLR NVR port.
- When verifying video doorbell connectivity, please confirm accessibility through the ClareVision mobile application version 2.1.x and higher.

Installation

Follow the installation instructions that came with your ClareVision device and verify you can connect to the camera's web interface or the ClareVision mobile application for cameras that do not have a web interface. Clare Controls does not assume responsibility for damages caused by improper installation, connection to the network, or use of the device.

SDDP Setup – NVRs and CLR-V200 Cameras only

Install, configure, and test the ClareVision device. Verify that all cameras, video doorbells, and the NVR devices are on the same network as the Control4 system, configured, and able to be accessed from a web browser before integrating with Control4. Before proceeding, please confirm your device's firmware is up to date, please refer to the **Updating Your Devices Firmware** section for further instructions. SDDP requires NVR firmware version 22.1.23.4 or greater.

Adding NVRs
To add the driver (SDDP):
1. Confirm SDDP is enabled, and the broadcast settings are correct. Navigate to the NVR's web UI, select Configuration > System > Network. Select the SDDP Configuration tab and confirm the **SDDP Enable** option is selected. Next confirm the follow parameters are correct and click Save.
    - Product Type: clarecontrols:camera_clarevision
    - Driver File Name: clarevision.c4z

Note: If the SDDP Configuration tab is not available please confirm your device is up to date.

2. Access Composer and browse to the **Discovered** tab.
   System Design > Discovered
3. Sort the list of discovered SDDP devices by **Manufacturer**.
   The ClareVision device is listed with:
   Type: Camera
   Manufacturer: Clare Controls
   Model: (The model of the device discovered)
   Address field: clarecontrols:camera_clarevision
4. Double-click on the discovered device to add to project.
5. Once added to the project click on the newly added device. Confirm that the username is "admin" and click Set.
6. Next, enter the devices password and click **Set**.
7. For NVR channels update the HTTP and RTSP ports to correspond with the NVR channel you are configuring. Please refer to the **Cameras Behind an NVR** section for help configuring the ports.
   Notes:
    1. The password for the device is the password of the camera. Cameras that were connected to the NVR new out of the box will have the NVR's admin password.
    2. The SDDP process will take care of adding the first camera device. Please refer to the **Cameras Behind an NVR** section for any additional cameras to be added.
    3. The Video Doorbells password is the last 8 characters of its serial number.

Adding V200 Cameras with SDDP
To add the driver (SDDP):
1. Confirm SDDP is enabled, and the broadcast settings are correct. Navigate to the camera's web UI, select Configuration > System > Network. Select the SDDP Configuration tab and confirm the **SDDP Enable** option is selected. Next confirm the follow parameters are correct and click Save.
    - Product Type: clarecontrols:camera_clarevision
    - Driver File Name: clarevision.c4z

Note: If the SDDP Configuration tab is not available please confirm your device is up to date.

2. Access Composer and browse to the **Discovered** tab.
   System Design > Discovered
3. Sort the list of discovered SDDP devices by **Manufacturer**.
   The ClareVision device is listed with:
   Type: Camera
   Manufacturer: Clare Controls
   Model: (The model of the device discovered)

> **Address field**: clarecontrols:camera_clarevision
4. Double-click on the discovered device to add to project.
5. Once added to the project click on the newly added device. Confirm that the username is "admin" and click Set.
6. Next, enter the devices password and click **Set**.

Adding Video Doorbell
1. Access Composer and browse to the **Discovered** tab.
   System Design > Discovered
2. Sort the list of discovered SDDP devices by **Manufacturer**.
   The ClareVision device is listed with:
   Type: Camera
   Manufacturer: Clare Controls
   Model: (The model of the device discovered)
   Address field: clarecontrols:camera_clarevision
3. Double-click on the discovered device to add to project.
4. Once added to the project click on the newly added device. Confirm that the username is "admin" and click Set.
5. Next, enter the devices password and click **Set**. The Video Doorbells password is the last 8 characters of its serial number.

Adding Cameras Without SDDP – V100 Cameras

This section is for the setup of standalone cameras. If the camera is connected directly to an NVR, please proceed to the **Cameras Behind an NVR section.** Install, configure, and test the ClareVision camera. Verify that the camera is on the same network as the Control4 system, configured, and fully functional in the camera's web interface before integrating with Control4.

Note: The driver .c4z file may need to be added to your **Control4/Drivers** folder or the driver can be added through Composer by navigating to the Driver menu, then **Add or Update Driver**. Please compare the driver

To add the Camera to your project
1. Confirm Driver has been added to Composer.
2. Navigate to Items > Search
3. Search for ClareVision and double click on the "ClareVision Camera and NVR Driver"
4. Once added to the project, click on the newly added device. Enter the camera's IP address and confirm that the username is "admin" (case sensitive) and enter the camera's password and click **Set** for each item.

   Note: Clare recommends using a static IP address or a DHCP reservation to prevent the camera's IP address from changing. If the camera's IP address changes the camera will not be accessible from Control4.

5. Confirm the camera is successfully connected by viewing the Properties tab under Advanced Properties in Composer Pro. The Camera's Model, Firmware, and Serial Number fields will be populated.

6. The ClareVision camera driver supports the ability for the integrator to choose which camera stream Control4 Navigators will use for streaming video. The driver is defaulted to use the Sub Stream, but can be changed to use the Main or Third stream by navigating to **Advanced Properties > Properties**. Select the camera stream and click **Set**.

Note: Value series cameras starting with model number CLR-V100 do not support a Third Stream. For Value series cameras please use the Sub or Main Streams.

Cameras Behind an NVR

ClareVision CLR model cameras plugged directly into an NVR port can be integrated by using Virtual Host. To setup your NVR on the Control4 project:

1. Confirm your NVR firmware is up to date. Please refer to the **Updating Your Device Firmware** section for further instructions. If you do not see virtual host as an option, your NVR is not up to date.

2. Navigate to Configuration > Channel > Camera and note the port numbers at the end of the camera URL in the Connected column. For Channel 1, the HTTP port would be 10001 and the RTSP port would be 10201.

Note: If the RTSP Virtual Host URL is not listed under the Connected column please confirm your devices firmware version is up to date. Refer to the **Updating Your Devices Firmware** for further instruction.

3. In Composer add a ClareVision Camera and NVR Driver by navigating to Items > Search. Next, Search for ClareVision Camera and NVR Driver and double click on the search result to add a camera device to your Control4 project.

4. Enter the IP address of the NVR, the virtual host port for the HTTP port, and RTSP Port and click Set for each channel. The below is an example for NVR channel 2.

5. Enter the cameras password and click SET.

NOTE: The password used is the password of the camera, not the NVR. If the camera was plugged into the NVR new out of the box it may have been activated with the NVR's password. If needed, you can confirm the cameras password by navigating to the NVR's IP address with : and the HTTP of the virtual host port. There you can attempt to sign into camera to confirm the password. Example for channel 1: 192.168.1.x:10001.

Supported Features

Once the camera is added to the project in Composer Pro, the Control4 user interface displays the camera under the security subsystem.

- **Snapshot**: The ability to get a snapshot image from the camera device.
- **RTSP Stream**: The ability to view the camera's live video stream.
- **Notification Snapshot**: The ability to attach a camera snapshot to a push notification.
- **Motion Events**: The ability to create programming actions based on motion events.
- **Smart Events**: The ability to create programming actions based on Line Crossing, Intrusion, Loitering, and People Gathering events.
- **Doorbell Press Events**: The ability to create programming actions based on Doorbell Press events. Note: When using the Control4 Doorbell Sensor, the Invert Sensor option needs to be selected.

Actions

The ClareVision Camera and NVR Driver supports Control4 Actions to allow the integrator access to special commands.

- **Reboot Camera:** Reboots the specific camera.
- **Update Camera Name:** Updates the OSD camera name.
- **Fill Light Mode:** Allows the user to change the Fill Light Mode of the camera between Automatic, Day and Night mode.

  Note: The Actions tab will be exposed for every camera but are only supported for WiFi, V200, and V300 series cameras. Actions require the camera to be online and have a valid login.
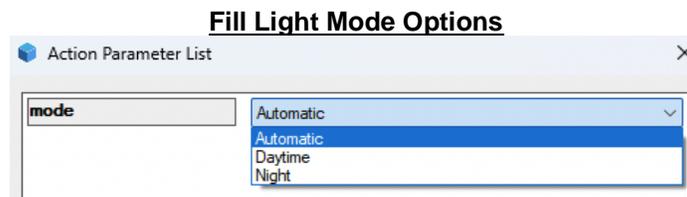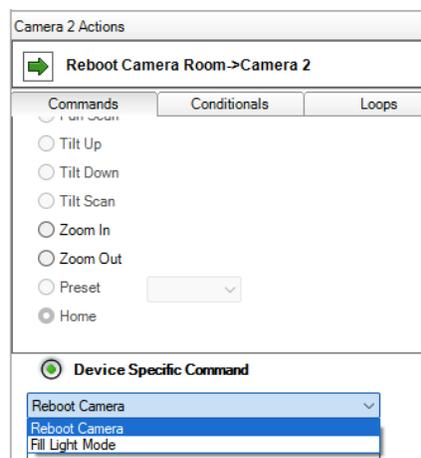
Fill Light Mode Options

Device Specific Commands

Device Specific Commands can be used in programming actions.

- **Reboot Camera:** Reboots the specific camera.
- **Fill Light Mode:** Allows the user to change the Fill Light Mode of the camera between Automatic, Day and Night mode.

Events

The ClareVision Camera and NVR Driver supports programming action on motion, smart, and doorbell press events in a Control4 project. Examples of programming actions include turning on a light, sending a push notification, or triggering a camera stream to play on a Control4 Navigator such as T3/T4 Touchscreens and onscreen Navigators when an event is detected.

To start receiving events:
1. Navigate to the Camera Device's Advanced Properties.

   System Design > Camera Device > Advanced Properties > Properties

   Select "Enabled" from the dropdown menu and click **Set**.

2. Navigate to the Sensors category.

   Items > My Drivers > Sensors

3. Motion and Smart Events:
   From the Sensors category, search for and double click a Motion Sensor for each sensor alarm type you are using to add a sensor device to the project. Rename the Motion Sensor to match the smart event.

4. Doorbell Press Events:
   From the Sensors category, search for and double click a Doorbell Sensor. Select Invert Sensor under the newly added device settings and rename the device.
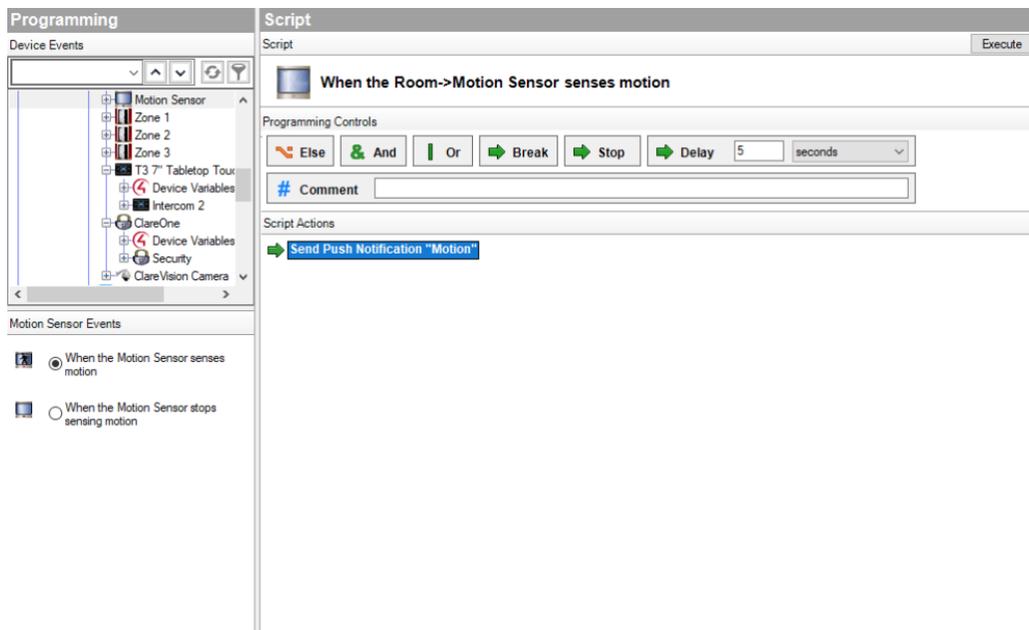
5. Under the ClareVision Camera connection, drag the Control Outputs for the Motion Sensor and any Smart Event alarms you will be using to its corresponding item in the CONTACT_SENSOR Input Devices section below.

Notes:
- When the sensor is first added, it will read as "**State:** opened, **Verified:** No". Once it receives its first event, it will go to "**State:** Closed, **Verified:** Yes". This must be repeated for each sensor.
- For Motion and Smart events, **Invert Sensor** and **Enable Debounce Timer** options should remain at their default values.
- For the Video Doorbell the **Doorbell Press Sensor needs to be Inverted**.

6. Now that the events are enabled, actions can be programmed for sensor events.

Notes:
- CLR-V100 (non WiFi) cameras supports only Motion events.
- CLR-V100 WiFi camera adds support for Intrusion events.
- CLR-V200 / V300 cameras support all event types.
- Video doorbell cameras support motion, intrusion, and doorbell press events.

Updating Your Devices Firmware
Cameras and NVR devices need to be up to date to take advantage of new features and bug fixes. You can view your devices firmware version my navigating to the device's settings in the ClareVision app, then Device Information.
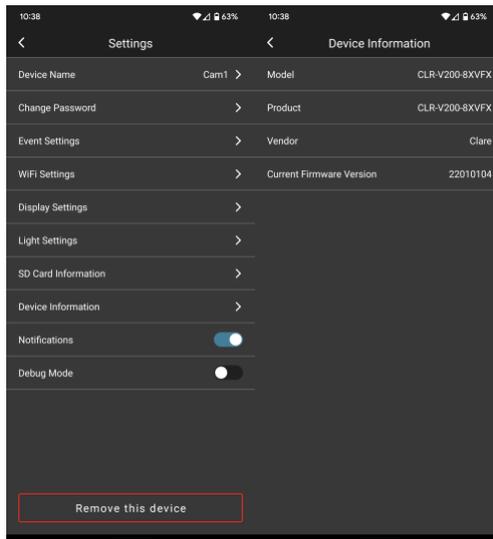
The currently available firmware versions can be confirmed and downloaded here:
https://www.clarecontrols.com/clarevision-firmware

If a devices firmware requires an update, please first use the ClareVision app to get your device up to date. The ClareVision app will prompt the user to update when a newer version is available.

To manually update a devices firmware, download the appropriate version from the link above and install the firmware on the device:

For an NVR:
Navigate to the NVR's web UI, then select Configuration > Maintenance > Manual Upgrade. Browse to the location of the downloaded firmware and click Upgrade.

For a Camera:
Navigate to the Camera's web UI, then select Configuration > System > System Configuration > Maintenance. Browse to the location of the downloaded firmware and click Upgrade.

For a Video doorbell
Firmware updates are only available through ClareVision mobile application.

Properties

The ClareVision Camera Driver properties available in Control4 include:

- **Version**: The version of the Control4 driver.
- **Camera Model**: The model of the camera.
- **Firmware**: The version of firmware on the camera.
- **Serial Number**: The serial number of the camera.
- **Stream**: The camera RTSP stream Control4 will use for video.
    - Main Stream
    - Sub Stream
    - Third Stream
- **Events**: The property selector to enable or disable camera events.
- **Last Event Received**: The last event type received and the time.
    Note: Only visible when Events are enabled.
- **Log Level**: A list of logging levels (for example: debug, trace, critical).
- **Log Mode**: Allows the user to select the desired logging mode.
    1 – Off
    2 – Print
    3 – Log
    4 – Print and Log

Troubleshooting

Mobile user interface not working:
Refresh the project Navigator. Once refreshed, the mobile user interface updates and displays the correct status.

Director not receiving video or events:
1. Verify that the camera is working in the camera's web interface.
2. Verify the Cameras username and password are correct.
3. If the camera is functional, restart the main controller.

Note: Refresh Navigators, Refresh Project or restart of Composer will not resolve this.

Limitations

- MJPEG stream format is not supported.
- H.265 stream format is not supported.

Contact information

Snap One, LLC dba Clare Controls
7525 Pennsylvania Ave, Suite 103
Sarasota, FL 34243
General: 866.424.4489
www.clarecontrols.com/helpcenter
claresupport@clarecontrols.com