

# Hikvision kv8x13 IP Door Station Driver Installation and Usage Guide



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## Overview

This driver allows you to integrate Hikvision's KV8xx3 and KV6113 series of door stations into Control4's Communication Agent / SIP Server.

Providing the ability to call Control4 touchscreens and mobile devices (4sight required) for both video and audio communications.

## Features

- The Hikvision DS-KV8xx3 range of door stations can be configured automatically by the driver to work with Control4 for convenient set up and configuration
- Through Hikvision's alert stream technology, our driver can provide the following real time notifications for integrators to program against:
  - Video motion detection alerts
  - Call button press
  - Line busy
  - Call Answered
  - Ability to set Control4's Intercom Custom Button actions
  - Ability to use the door station as a regular IP camera stream
  - Ability to trigger Doorstation Relays
  - Automatic push notifications with snapshot for motion and/or call button press (requires 4sight)
  - Set the Microphon gain and speaker volume of the door station from the Intercom Proxy

# Change Log

## Version #20220912 - 12-SEPT-2022

- Improved Documentation
- Fixed issue causing the Server IP in the door station code to be set to 0.0.0.0
- Small bug fixes
- Added Lock binding to Door Station drivers

## Version #20220803 - 10-AUG-2022

- Fix for execute command debug call failure

## Version #20220803 - 03-AUG-2022

- Improve Diagnostics and Troubleshooting

## Version #20220715 - 15-JUL-2022

- Initial release for DS-KD8003-IME1 door station driver
- Initial release for DS-KV8x13-IME1 door station driver which supports KV8213-IME1 and KV8413-IME1 devices
- added fix for Programming Action PUSH\_BUTTON\_PRESS on the KV8113
- Added Programming Action to trigger the 2 door relays on the KV8113
- Fixed issue with driver setting SIP Server Address to 0.0.0.0 in certain edge cases

## Version #20220324 - 24-MAR-2022

- Added 'Device Test' button to Actions tab for quicker troubleshooting
- Fixed authentication failing in certain edge cases on first install
- Added VoiceTalkInteractiveEvent handling to door station

## Version #20220307 - 07-MAR-2022

- Initial release for DS-KV8113-WME1(B) door station driver
- Improvements to the code that handles alerts from the nonPTZ cameras to better handle rebranded hardware
- Fixed driver renaming issue on reboot
- Fixed preferred stream being reset on reboot
- Fixed issue with linedetection not being triggered in certain edge cases
- Fixed issue where bindings were not built if alerts were already coming in to the driver

## **Version #20211021 - 21-OCT-2021**

- Fixed issue with PTZ snapshot failing

## **Version #20211004 - 04-OCT-2021**

- Added programming for strobe light and audio alarm triggering
- Improved handling of ANPR detection to more reliably set the ANPR\_LICENSEPLATE variable with the detected licence plate
- Added property to manually set snapshot URL in cases where the auto detection fails

## **Version #20210319 - 19-MAR-2021**

- Added Licence plate detection to nonPTZ driver. Including licence plate variable for integrators to program against
- Improved collection of available Basic and Smart Events for creating bindings
- Added NVR driver based on satellite proxy

## **Version #20210202 - 02-FEB-2021**

- Added additional checks to handle authentication issues

## **Version #20210121 - 21-JAN-2021**

- Increased **Properties Preferred Stream** to 10

## **Version #20210119 - 19-JAN-2021**

- Updated to new Driver Central licensing
- Improved handling of triggers from NVRs and DVRs

## **Version #20200621 - 27-JUL-2020**

- Improved handling of devices with non-standard HTTP Ports

## **Version #20200620 - 03-JUL-2020**

- Added Property Alternate URL to modify the snapshot and mjpeg urls for devices that don't handle the extra commands in the URLs

## **Version #20200616 - 16-JUN-2020**

- Added the ability to read newer camera triggers for creation of bindings for event triggers

## **Version #20200522 - 22-MAY-2020**

- Added Enable Alert Processing option in Properties tab to reduce controller load on systems with a large number of cameras
- Added better handling of complex passwords

## **Version #20200423 - 23-04-2020**

- Fixed issue with PTZ Properties

## **Version #20200422 - 22-04-2020**

- Added ability to access cameras connected to an NVR
- Improved handling of complex passwords
- Improved creation of bindings for event triggers

## **Version #20200320 - 20-03-2020**

- Added field to the Properties tab to reverse the pan and tilt commands
- Updated FAQ

## **Version #20191230 - 30-DEC-2019**

- Fixed bug introduced when creating bindings

## **Version #20191223 - 23-DEC-2019**

- Fixed bug with stream URL creation
- Minor changes to documentation
- Update to handling of binding creation

## **Version #20191216 - 16-DEC-2019**

- Initial Release



# Configure Door station

## Door Station Preparation

1. Make sure the door station has been *activated* using a tool like Hikvision's **SADP**
2. Confirm that the main Control4 controller has a reserved IP address
3. Make sure you have uploaded the special firmware from Hikvision, located here  
<https://www.hikvision.com/au-en/solutions/Solutions-by-Technology-Partners/control4/>
4. Use Internet Explorer to load the firmware and install and allow the plugin to run.  
*Hikvision have advised that the firmware update will fail without the plugin.*
5. After the firmware has successfully loaded, log in to the door station webui and do a factory reset  
*System > Maintenance > Restore All*
6. Perform a reboot after the factory reset
7. Make sure that you have configured the **Intercom Groups** in the Communication Agent in Control4 before proceeding
8. Add the driver to the project
9. Work down through the Properties tab's fields and update them one after the other:
  - **Door Station admin Password** This is the door station's *admin* password
  - **Door Station IP Address** This is the door station's IP Address
  - **Door Station HTTP Port** This should remain as 80
  - **Door Station RTSP Port** This should remain as 554
  - **Communications Server** Leave as **Internal** unless you have dedicated a controller to be a Control4 Communications Server for an MDU or similar.
  - **SIP Server IP Address** If Communications Server is set to *External* then you need to set this field to the IP address of the dedicated Communications Server
  - **SIP Username** This will configure the Communications Agent to use this name/number with this door station. You can make it anything you want as long as it doesn't contain spaces or special characters
  - **SIP Password** This is what the driver will configure the Communications Agent to use with this door station's SIP Username
  - **Call Button** This number represents the physical call button on the door station
  - **Control4 Call Group** This displays what the believes is the group to be called when a user presses the call button listed in **Call Button**
  - **Intercom Group to Call / Group to Call** This is the list of call groups configured in the Communications Agent. Use this list to assign the group that **Call Button** will call. This will also update **Control4 Call Group**
  - **Enable Motion Detection** This will enable Configuration > Event > Motion > Enable Motion Detection and set the sensitivity to 4
  - **Custom Button One** This will set which relay in the door station will be triggered when this customer button is pressed
  - **Custom Button Two** This will set which relay in the door station will be triggered when this customer button is pressed

- **Enable Alert Processing** Setting this to **On** will allow the driver to handle alerts for VMD and Call Button presses
- **Enable Send Notification on VMD** This will send a Notification using the Notification agent when VMD is triggered by the door station
- **Enable Send Notification on Button Press** This will send a Notification using the Notification agent when the Call button is pressed
- **Reboot Device on Connection Issue** If the door station loses connectivity to the event data coming from the door station, it will attempt to reboot the door station if this is set to Yes. *note that rebooting the door station will trigger the door station's audible alarm*
- **Last Communication from Device** This displays the time of the last communication from the device and what the result was.

10. Select the **Hikvision Intercom** proxy

11. Tick **Use Custom Button 1** and **Use Custom Button2** and change the **Button Label** for both as required

12. Select the **Hikvision Camera** proxy

13. Under **Authentication**:

- Tick the **Required** box
- Change the **Username** to **admin**
- Enter the **Password**
- Confirm that **Get H.264 URL** test passes

14. Open the **Agents** Navigation Pane

15. Select the **Communications** agent

16. Make sure you have an appropriate endpoint like a C4 touchscreen (T3/T4) in the Intercom Group

17. Select the **Advanced** tab

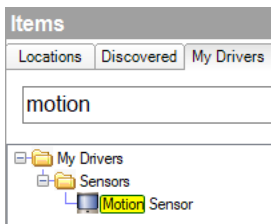
18. Click the **Refresh Gateway** button

19. Wait for the box to the right to display **Registered**

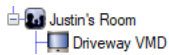
20. Select **File > Refresh Navigators**

# Connections

1. Search for *Motion* in **My Drivers** and add the driver to your project



2. Give the sensor a name like *Door VMD*



3. Select **Connections**



4. Select your camera from the Tree on the left.
5. The Control Outputs should now be populated with all the available contact sensors
6. Make the binding between the Door VMD contact sensor and the camera VMD

CONTACT_SENSOR Input Devices			
Device	Name	Location	Connections
Driveway VMD	Contact Sensor	Justin's Room	IP DOME->VMD

*You can repeat the above for the other available bindings*

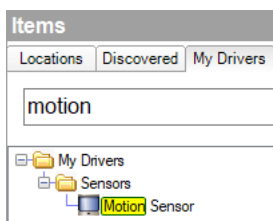
Now you can add the desired programming to the motion sensor when the device 'senses motion'

# Programming against Activated Alerts

Once you have the driver configured and receiving events from the door station, you are ready to program against these events.

Programming is done using a motion sensor driver (found under My Drivers)

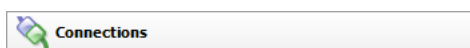
1. Add a motion sensor driver to the project



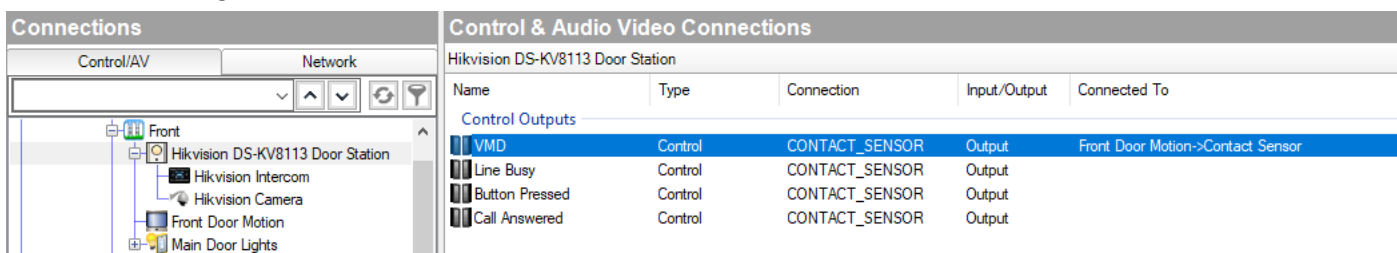
2. Rename the driver to something more appropriate



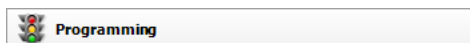
3. Select the **Connections** view



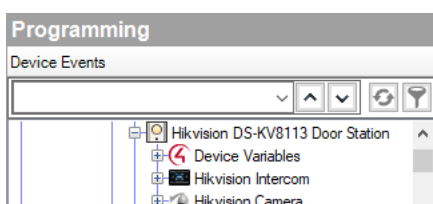
4. Make the binding between the door station's VMD, and the motion sensor



5. Select the **Programming** view



6. Select the **motion sensor** driver from the **Device Events** window



7. Select the **When the Front Door Motion Senses motion** radio button

The screenshot displays a software interface with two main panels: **Programming** and **Script**.

**Programming Panel:**

- Device Events:** A tree view showing a hierarchy of devices. Under 'Front', there are 'Room Variables', 'Hikvision DS-KV8113 Door Station', 'Device Variables', 'Hikvision Intercom', 'Hikvision Camera', and 'Front Door Motion'.
- Front Door Motion Events:** A list of two radio buttons:
  - When the Front Door Motion senses motion
  - When the Front Door Motion stops sensing motion

**Script Panel:**

- Script:** A title bar with a monitor icon and the text 'When the Front->Front Door Motion senses motion'.
- Programming Controls:** A row of buttons: 'Else', '& And', '| Or', '➔ Break', '➔ Stop', '➔ Delay' (with a text input '5' and a dropdown 'seconds').
- Comment:** A text input field with a '#' icon.
- Script Actions:** An empty area for defining actions.

8. Add your required programming

## FAQ

### What cool things can we do with this driver?

You can add custom programming based on the Call button being pressed like flashing lights, sending a push notification or using our Advanced Notifications driver

You can view the door station as a standard IP camera under the Security section of the OSD/Android app/iOS app

### If you make any changes to the driver or the Communication Agent make sure you do the following, in this order:

1. Refresh the SIP server:  
Communication Agent > **Advanced** tab > **Refresh Gateway** button
2. Refresh the Navigators  
**File** > **Refresh Navigators**

### What devices will this driver work with

Model

DS-KV6113-PE1(B)

DS-KV6113-WPE1(B)

KV8113-WME1(B)

KV8213-WME1(B)

KV8413-WME1(B)

### Where can I source the firmware for the DS-KV8x13-WME1 door stations?

1. Hikvision Australia: <https://www.hikvision.com/au-en/solutions/Solutions-by-Technology-Partners/control4/>
2. Hikvision USA: <https://us.hikvision.com/en/control4-smart-home-solution>

### I can't apply the firmware, what could be wrong

1. The firmware version on the device is newer than the modified version  
You should speak with Hikvision tech support. There a contact details for most regions in the world located here <https://www.hikvision.com/au-en/about-us/contact-us/technical-support/>
2. You're not running the Internet Explorer Addon that is required to apply the firmware  
Please switch to Internet Explorer and try again

## Troubleshooting

If you make any changes to the driver or the Communication Agent make sure you do the following, in this order:

1. Refresh the SIP server:  
Communication Agent > **Advanced** tab > **Refresh Gateway** button
2. Refresh the Navigators  
**File** > **Refresh Navigators**

Below is a list of the various messages you might see in the Properties tab's *Last Communication from Device* field:

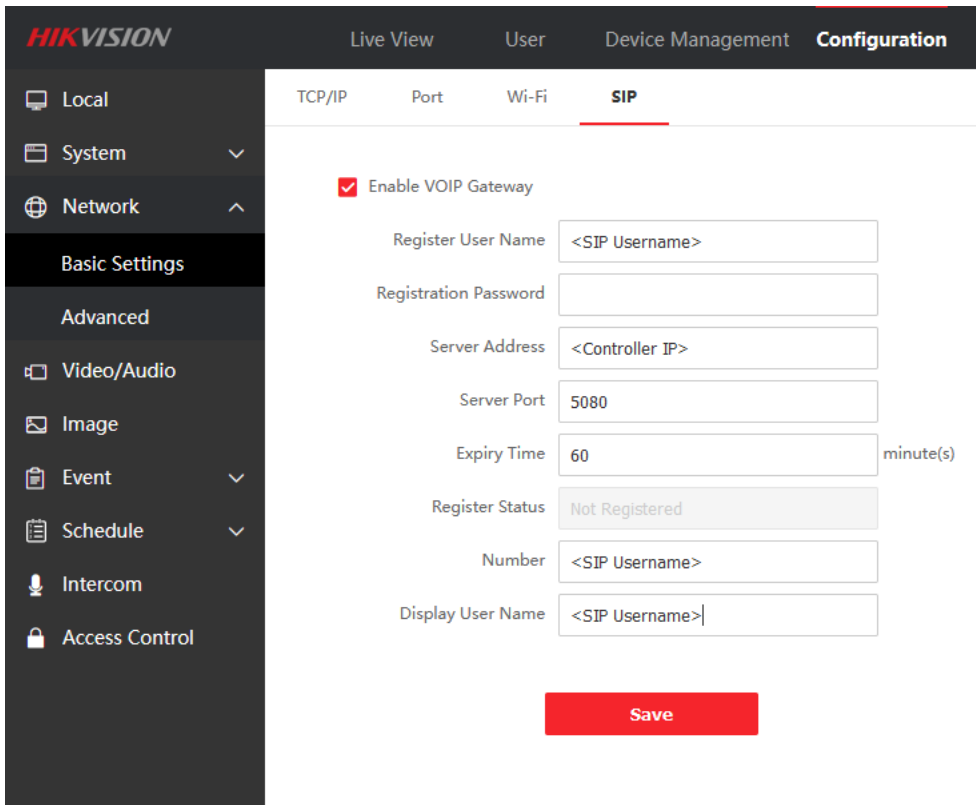
- **OK** The door station acknowledged a command the driver sent to it
- **alert stream VMD : opened** The driver received a VMD alert and the binding has been opened
- **alert stream VMD : closed** It has been 2 seconds since the last VMD alert was received so the driver is closing the binding
- **CHECK YOUR PORT NUMBER** A request sent to the door station timed out. Check your network, IP address, http and rtsp ports

**When pressing the Call button, the door station announces, "Sorry, the subscriber you dialled isn't available now"**

This is likely due to the call group selected in the driver, not containing a valid device, like a C4 touchscreen. If you do have a valid device listed, try **Refreshing the Gateway** and then **Refresh Navigators**

## Where to manually configure the SIP Settings in the door station's webui

*this is automatically configured by the driver*



The screenshot shows the Hikvision web interface for configuring SIP settings. The top navigation bar includes 'Live View', 'User', 'Device Management', and 'Configuration'. The left sidebar lists various settings categories: Local, System, Network, Basic Settings, Advanced, Video/Audio, Image, Event, Schedule, Intercom, and Access Control. The main content area is titled 'SIP' and contains the following configuration options:

- Enable VOIP Gateway
- Register User Name: <SIP Username>
- Registration Password: [Empty field]
- Server Address: <Controller IP>
- Server Port: 5080
- Expiry Time: 60 minute(s)
- Register Status: Not Registered
- Number: <SIP Username>
- Display User Name: <SIP Username>

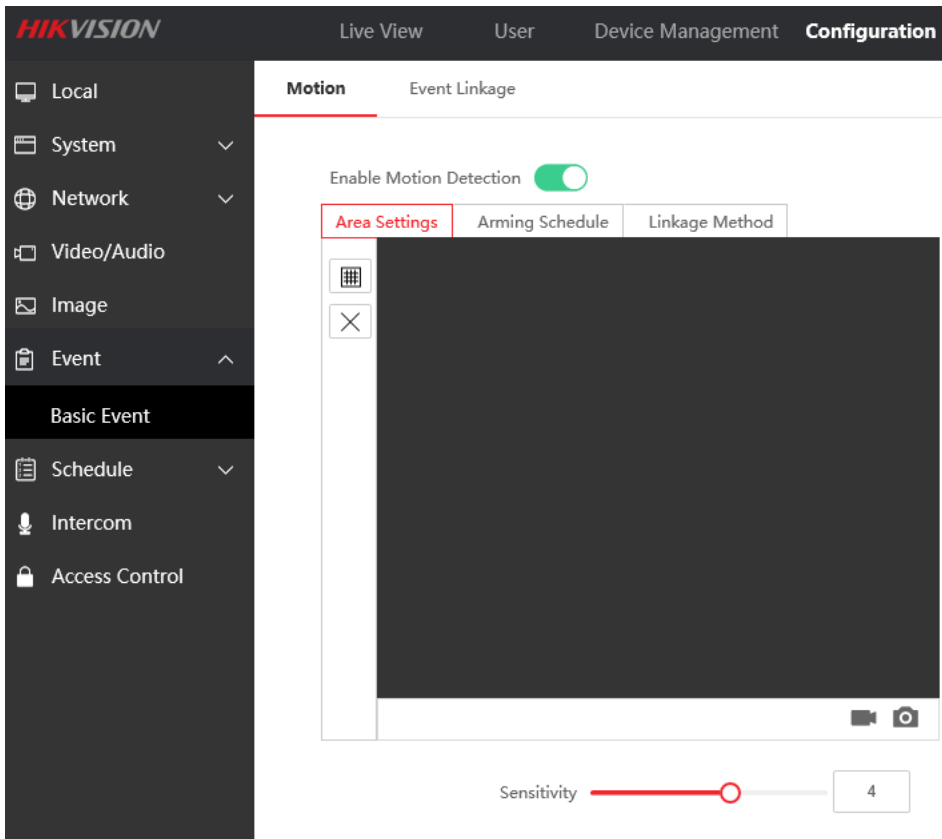
A red 'Save' button is located at the bottom of the configuration area.

## Where to enable and configure motion detection VMD

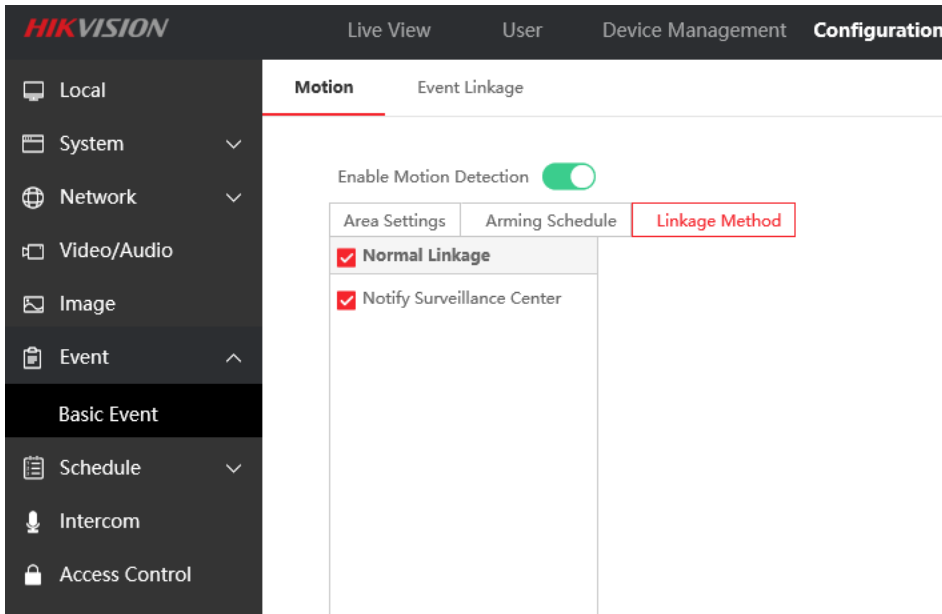
*this is automatically configured by the driver*

You may wish to adjust the the Sensitivity. The driver sets this to 4 by default



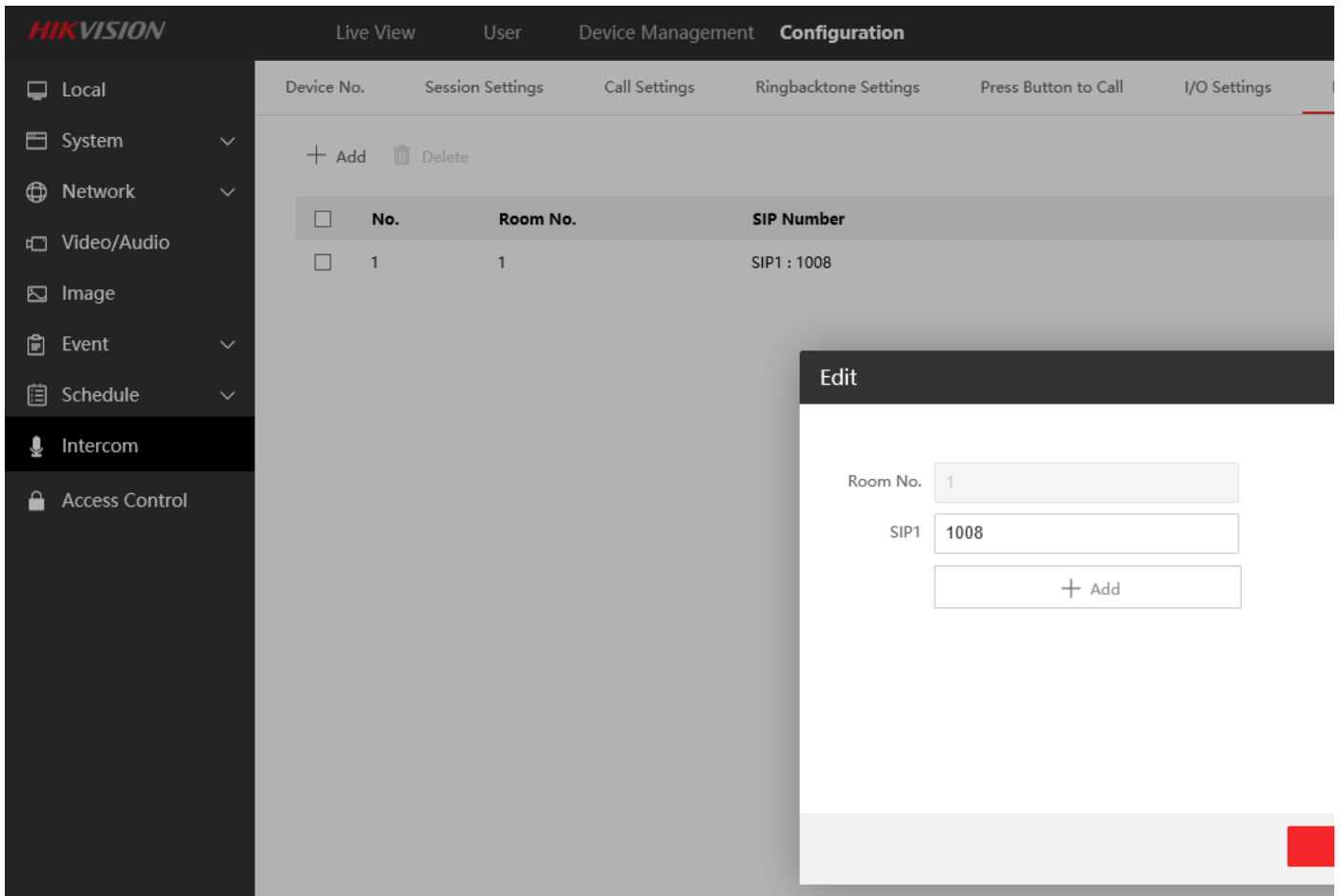


It's important to have **Notify Surveillance Center** ticked. Otherwise the motion events will never be sent to the driver



# Where to specify Control4's Call Group

*this is automatically configured by the driver*



## I get a 'line busy' tone when I press the dial button.

Check the Intercom proxy and confirm that the **SIP Information** section contains valid data. If not, re-entering the SIP Username in the Properties tab of the driver's main proxy should fix this.

## The door station doesn't work after a reboot

When the controller reboots, it can take upto 10 minutes before the door station will be able to call the Control4 SIP server. This is due to the SIP server taking longer to fully load up and register all the devices that use the SIP server.

# Licensing

- How does the trial period work?

All Chowmain drivers are free to use for a set trial period. When the trial expires the driver will cease to function until you purchase a licence and apply it to the driverCentral project.

- Where do I buy a Licence from?

This driver is developed by Chowmain software & Apps and is distributed by driverCentral, Inc <https://www.drivercentral.io/chowmain-ltd>

To purchase a driver:

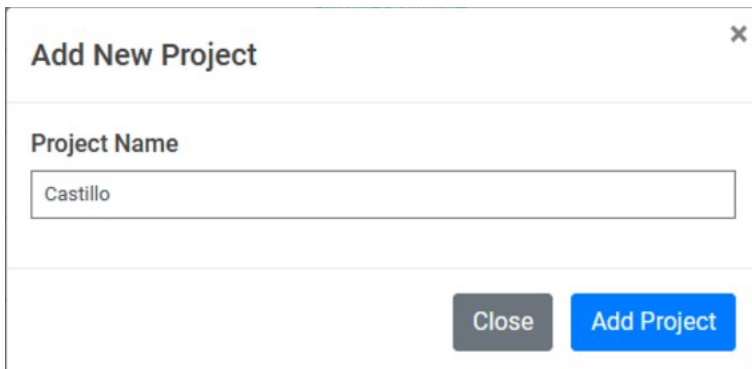
1) On driverCentral, purchase a license and register it to your project

1) If the driver is not already installed in your project, download it and install it

1) If necessary, use the cloud driver's Action: "Check Drivers" to force the licence to download into the project

# Creating a Project on Driver Central

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **New Project**
5. Enter the project name



The screenshot shows a modal dialog box titled "Add New Project". It has a close button (X) in the top right corner. Below the title bar, there is a label "Project Name" and a text input field containing the word "Castillo". At the bottom right, there are two buttons: a grey "Close" button and a blue "Add Project" button.

6. Click **Add Project**
7. Click on the project we just created

Project	Status	Created
Castillo	Unassigned Project	1999-12-31 23:59:56

8. Take note of the **Project Token** as this will be used later when we install the Cloud Driver

**Castillo** ✕

---

Project Token: <b>ABCDEFG012</b>	MAC: <b>000FFF123456</b>	IP: <b>1.2.3.456</b>
Connection Status: <b>Offline</b>	Last Seen:	Actions: <a href="#">+</a> <a href="#">🔗</a> <a href="#">🗑️</a>

There are no drivers attached to this project.

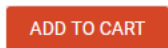
Close

9. Click **Close**

## Purchasing a Driver Licence

1. Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for

2. Click on **Add to Cart**



3. Now click the shopping cart icon (top right) and click **View cart**

🔍
👤
🛒

**BenQ universal projector**

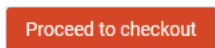
2 x \$70.00

**Hikvision**

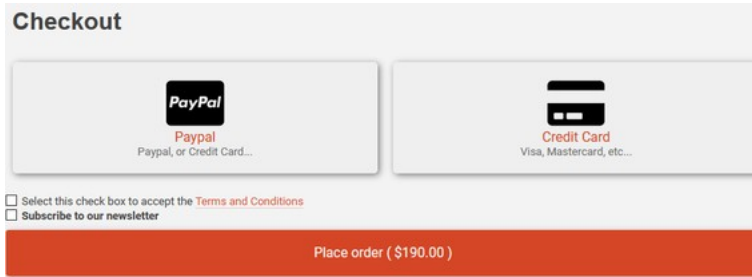
1 x \$50.00

View cart

4. Confirm that your order is correct and click on **Proceed to checkout**



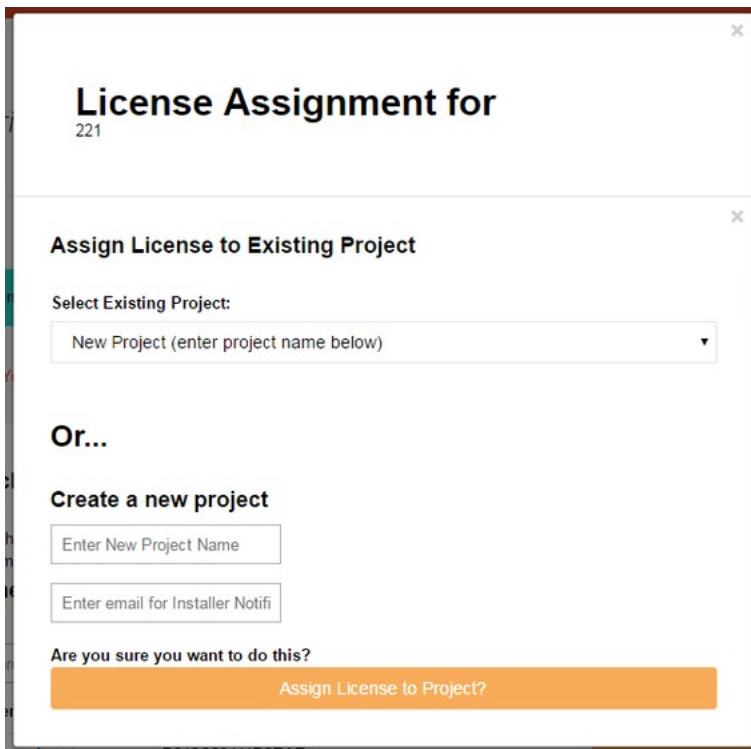
5. Choose your payment option, provide the relevant details and click **Place order**



6. You will now be at a page where you can see your purchased licence

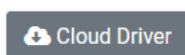


7. From here assign the licence to the project we created or if you did not follow that step create a new project



## Install the driverCentral cloud driver

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **Cloud Driver**



5. Copy the C4Z driver to My Documents\Control4\Drivers directory
6. Add the driver to your project
7. Click on the driver to view it's properties

Cloud Status	Please enter cloud project token below...
Project Information	(1) Total, (0) Licensed, (0) Trials, (1) Expired, (0) Updates.
Driver Version	1001
Project Token	<input type="text"/>
	Project token from driverCentral.io project portal
Driver Actions	<input type="button" value="v"/>
Debug Mode	Off <input type="button" value="v"/>

8. Type in the project token we took note of earlier
9. Click **Actions** tab
10. Click **Check Drivers**

## Install Chowmain driver

1. Install the Chowmain driver
2. You will notice that the Activation Status reflects a Licence Activated state
3. Any driver that does not have a purchased licence will have a trial licence activated via the marketplace  
*Note that there is no way to reactivate the trial so please use wisely*
4. If you do not then press the Check Drivers action in the driverCentral Cloud driver again

Activation Status	Update Available!!! License Activated
Driver Version	1002
Driver Information	Navigate to connections tab and make serial binding
Automatic Updates	Off <input type="button" value="v"/>