Hikvision kd8003 IP Door Station Driver Installation and Usage Guide



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If you make any changes to the driver or the Communication Agent make sure you do the follo	•
Below is a list of the various messages you might see in the Properties tab's Last Communicat field:	
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Overview

This driver allows you to integrate Hikvision's KD8003 door station 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.

The driver also receives realtime events from the following modules:

- DS-KD-IN Card reader
- DS-KD-KP Keypad reader

Features

- The Hikvison DS-KD8003 door station 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
 - 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 door station relays
 - Automatic push notifications with snapshot for motion and/or call button press (requires 4sight)
 - Set the Microphone gain and speaker volume of the door station from the Intercom Proxy
 - Support for Keypad and Card Reader modules
 - Program against valid and invalid keypad codes
 - · Program against valid and invalid security cards

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 - 04-0CT-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

Verson #20200423 - 23-04-2020

· Fixed issue with PTZ Properties

Verson #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

Verson #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 Preperation

- 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. To access the webui for this door station, you must use the latest version of Hikvision's iVMS located here https://www.hikvision.com/au-en/support/download/software/ivms4200-series/
 Earlier versions of iVMS will have some missing menus
- 4. Make sure you have uploaded the special firmware for the KD8003 from Hikvision, located here https://www.hikvision.com/au-en/solutions/Solutions-by-Technology-Partners/control4/
- 5. After the firmware has successfully loaded, log back in to the door station ui and do a factory reset System > Maintenance > Restore All
- 6. Perform a reboot after the factory reset

Driver Preperation

- 1. Configure the Intercom Groups in the Communication Agent in Control4 before proceeding
- 2. Add the driver Hikvision Doorstation DS-KD8003-IME1 to the project
- 3. 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. We recommend using a 4 digit number. *Cannot* **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
 - Intercom Group to Call This is the list of call groups configured in the Communications Agent. Select the group you would like the door station to call when the Call button is pressed
 - 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 may trigger the door station's audiable alarm
- Last Communication from Device This displays the time of the last communication from the device and what the result was.
- 4. Select the **Hikvision Intercom** proxy
 - Tick Use Custom Button 1 and Use Custom Button2 and change the Button Label for both as required
- 5. Select the Hikvision Camera proxy If the camera doesn't work, confirm the following:
 - Under Authentication:
 - Tick the **Required** box
 - Change the **Username** to admin
 - Enter the Password
 - Confirm that Get H.264 URL test passes
- 6. Open the **Agents** Navigation Pane
- 7. Select the **Communications** agent
- 8. Make sure you have an appropriate endpoint like a C4 touchscreen (T3/T4) in the Intercom Group
- 9. Select the **Advanced** tab
- 10. Click the Refresh Gateway button
- 11. Wait for the box to the right to display Registered
- 12. Select File > Refresh Navigators
- 13. Now you should be able to make a call from the door station to Control4

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



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) or via Device Events

Using a Motion Sensor with bindings

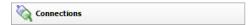
1. Add a motion sensor driver to the project



2. Rename the driver to something more appropriate



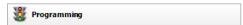
3. Select the Connections view



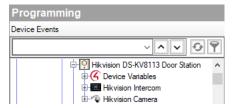
4. Make the binding between the door station's VMD, and the motion sensor



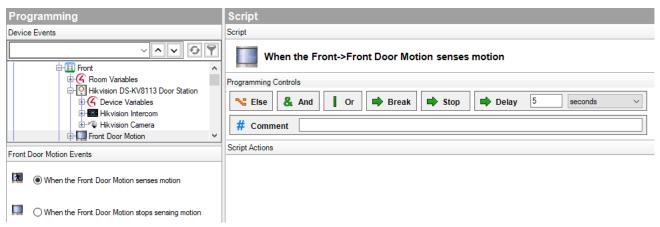
5. Select the **Programming** view



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



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



8. Add your required programming

Using Device Events

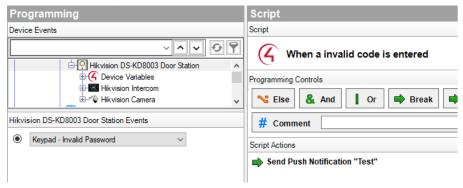
Keypad Invalid Password

You can program against successful or failed password entry attempts via the driver's Event's:

- Keypad Invalid Password
- · Keypad Valid Password

Please see the section Door Station Access Control Configuration for more information about this process

The below example sends a Push Notification if someone enters an incorrect PIN/Password



Door Station Module Configuration and Access Control

Below are some simple steps to manually configure the door station's addon modules to call multiple residences and add user access control.

This is meant as a general guide and is by no means a complete document.

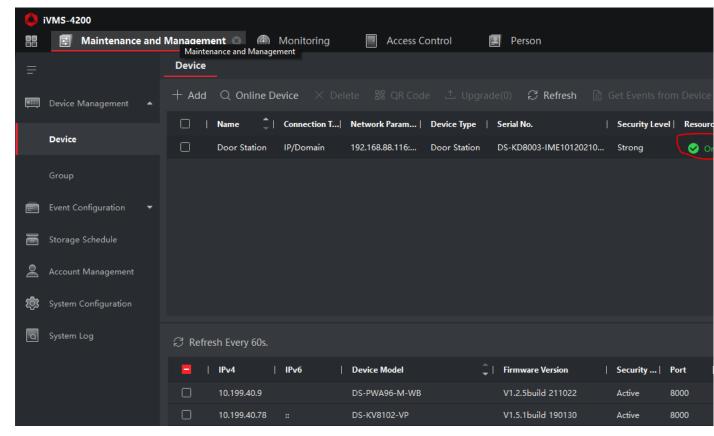
- This device is for basic access control only, it cannot be programmed to set complicated access rules, such as allowing access for a limited time period, or select the hours in a day to allow user access.
- For support regarding configuration of Hikvision's modules, please contact your Hikvision representative or tech support.

Software

Please download and install the latest software iVMS-4200 from Hikvision's official website: https://www.hikvision.com/au-en/support/download/software/ivms4200-series/

NOTE The latest version is required to access all the menu options in the UI

- Make sure your computer is connected to the same network and is in the same range as the door station
- 2. Open the iVMS client and login
- 3. Find the door station from "Device Management -> Online devices"
- 4. Activate the door station if haven't done that already
- 5. Add the device and make sure the device status is "Online"



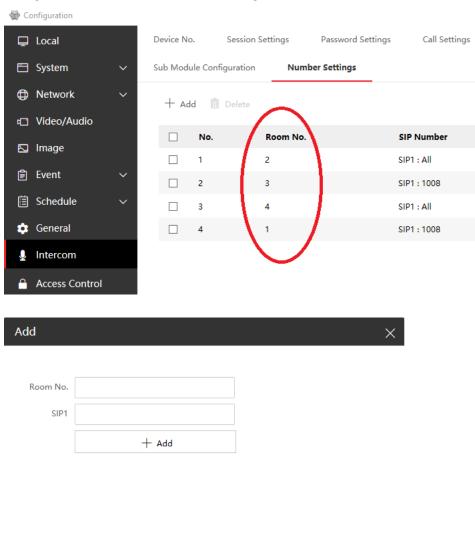
Add Dial Number to Keypad (DS-KD-KP)

This is for entering a code to call a Control4 Call Group.

Format 4# where 4 is the Room Number that calls the Control4 Call Group



- 1. Open the **Remote Configuration** page for the KD8003 from the iVMS' **Maintenance and Management** > **Device** window
- 2. Navigate to Intercom > Number Settings > Add



• Room No. The number to be entered into the keypad

Cancel

• SIP1 / SIP Number The Control4 Call Group to be called

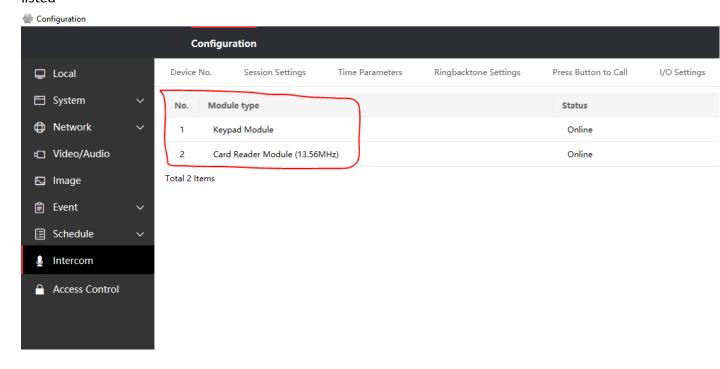
Add PIN Code (DS-KD-KP)

This is for entering a code to unlock the door station.

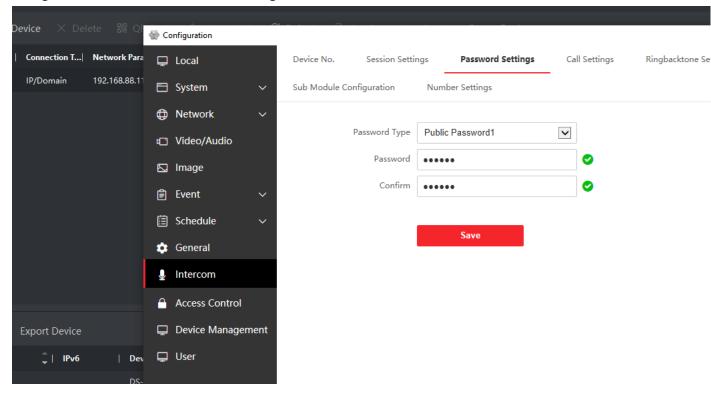
Format #1234# where 1234 is the PIN Code



- 1. Select the door station and then click the cog on the listing (to the right under the **Operation** heading) to open the door station UI
- 2. Navigate to **Intercom > Sub Module Configuration** and confirm that you can see the keypad module listed



3. Navigate to Intercom > Password Settings



- 4. Now select an available Public PasswordX listing and add the password
- 5. You can now test the code you added by entering #<Public PasswordX\>#

The driver will fire the Keypad - Valid Password or Keypad - Invalid Password Event when a code is entered.

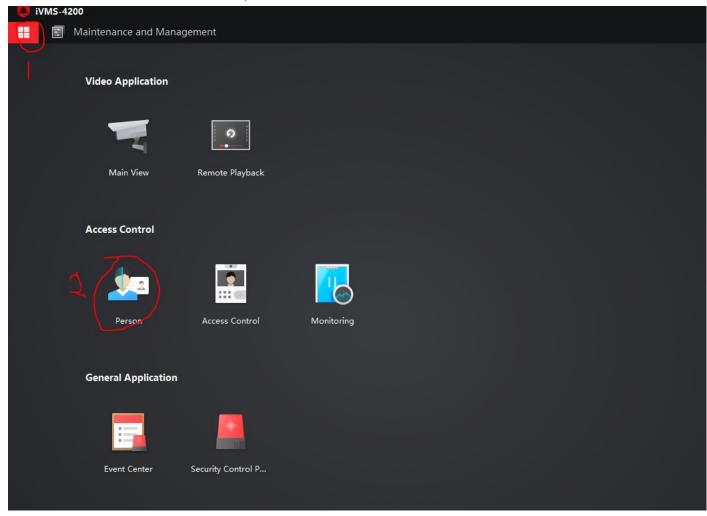


Add Access Card (DS-KD-IN)



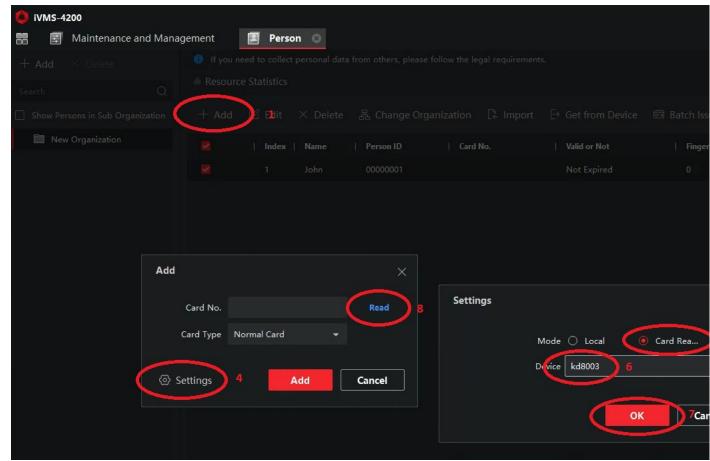
1. Open the iVMS client

2. Click on the dashboard icon in the top left corner

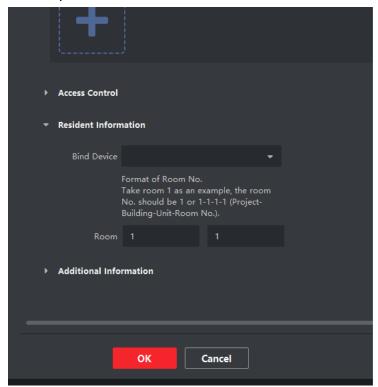


- 3. Select the Person icon under Access Control
- 4. Click the Add button under Resource Statistics (1)
- 5. Add the Person's name to the popout on the right (2)
- 6. Click the blue plus button under **Card** (3)
- 7. Select **Settings** (4)
- 8. Select the Card Reader (5) radio button on the newly opened window
- 9. Select the kd8003 device from the drop down list (6)
- 10.Click **OK** (7)
- 11. Now click **Read** (8) and swipe the card on the reader

12. Once the Card No. is populated, click the Add button

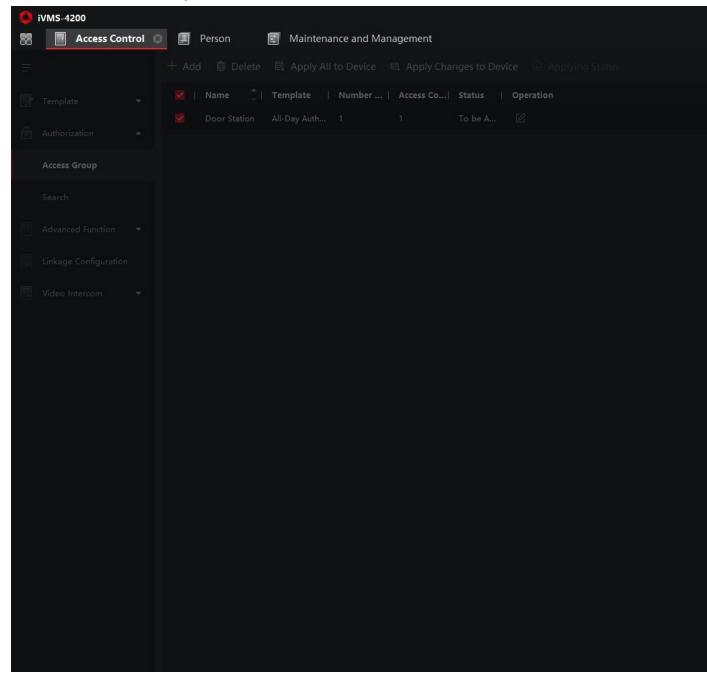


13. Now expand the Resident Information section

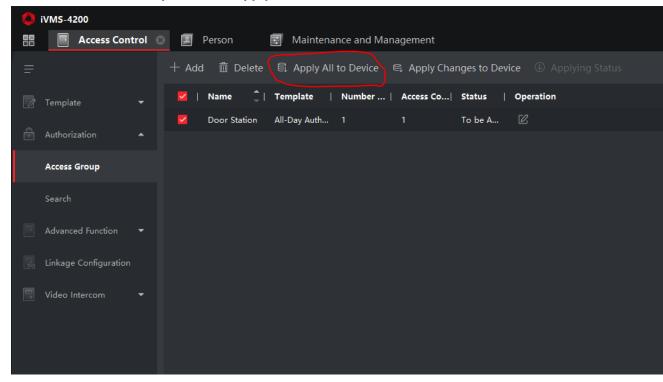


- 14.Set Room and Floor to 1
- 15. Now navigate back to the main page and select Access Control

16. Now Add and Access Group



17. Select the Access Group and click Apply All to Device



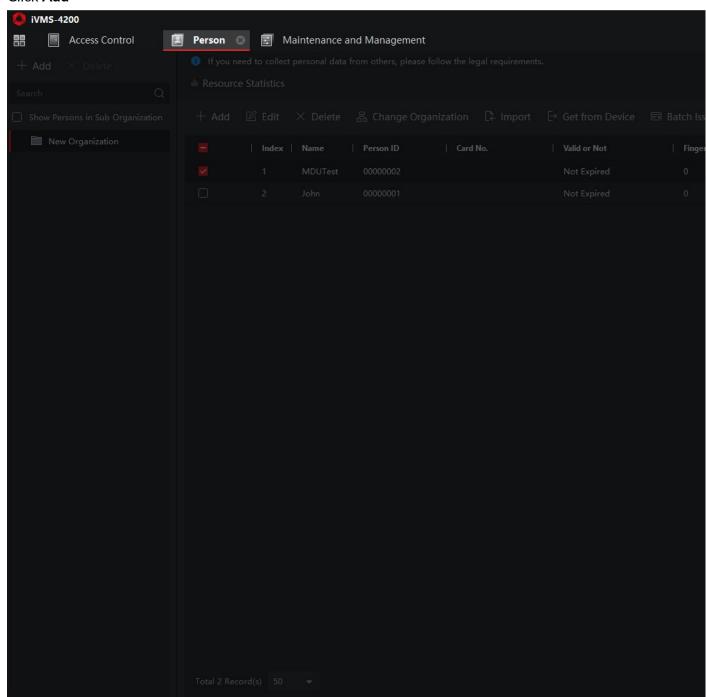
- Make sure the Residential Information is set, if not then you cannot apply the access group settings to the door station
- 1. Make sure the **Apply** status is **Success**
- 2. Now you should be able to swipe the card

Phonebook Display Setup

This is for entering a contact on the user display and having it call a Control4 Call Group.

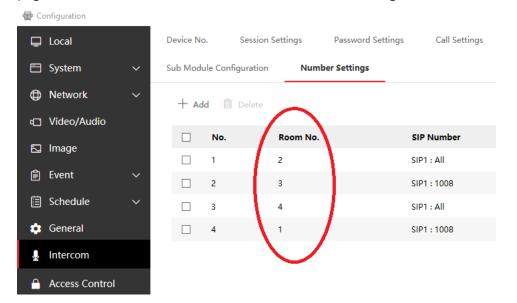


- 1. Open the iVMS client
- 2. Click the Dashboard icon in the top left corner of the client
- 3. Select the Person icon under Access Control
- 4. Click Add

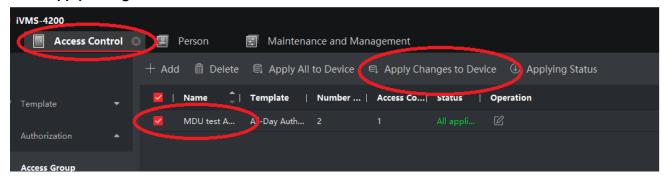


- 5. Select Resident Information
- 6. Set Bind Device
- 7. Room Floor No. Can be anything you want. This value isn't used

8. **Room No.** This must follow the format 1-1-1-x where x is the **Room No.** found in the Configuration page of the door station, under **Intercom** > **Number Settings**



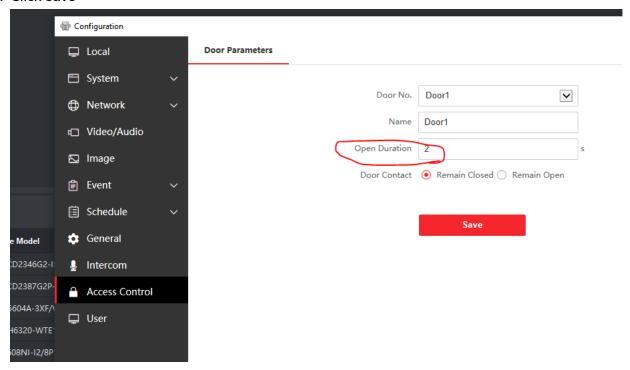
- 9. Click the Red Add button
- 10. Now click the Dashboard icon again, located in the top left corner of the client
- 11. Select Access Cotnrol under the Access Control heading
- 12. Select the Access Group on the left
- 13.Add a tick next to your Access Control Group
- 14. Click Apply Changes to Device



Change Door Open Timeout

- 1. Open the UI for the door station
- 2. Navigate to Access Control > Door Parameters
- 3. Change the value for **Open Duration**

4. Click Save



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:

- Refresh the SIP server:
 Communication Agent > Advanced tab > Refresh Gateway button
- Refresh the NavigatorsFile > Refresh Navigators

Where can I source the firmware for the DS-KV8003-WME1 door station?

- 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

Troubleshooting

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

- Refresh the SIP server:
 Communication Agent > Advanced tab > Refresh Gateway button
- Refresh the NavigatorsFile > Refresh Navigators

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

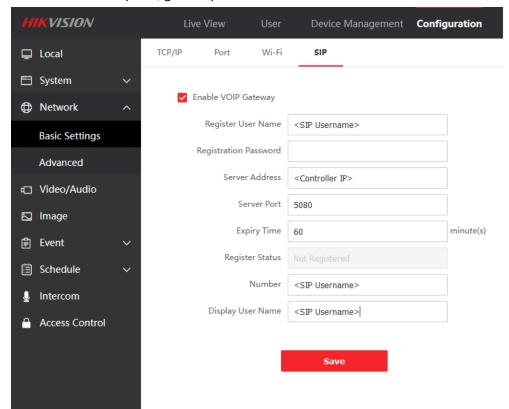
- OK The door station acknowledged a command the driver sent to it
- alert stream VMD: opened The driver received a VMD alert and the binding has been opened
- **alert stream VMD : closed** It has been 2 seconds since the last VMD alert was received so the driver is closing the binding
- CHECK YOUR PORT 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

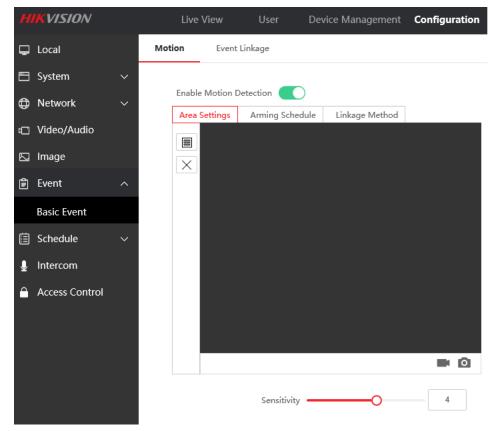
this is automatically configured by the driver



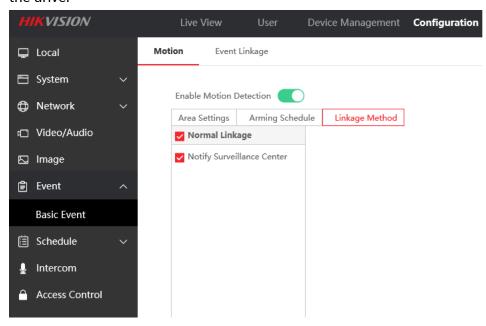
Where to enable and configure motion detection VMD

this is automatically configured by the driver

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

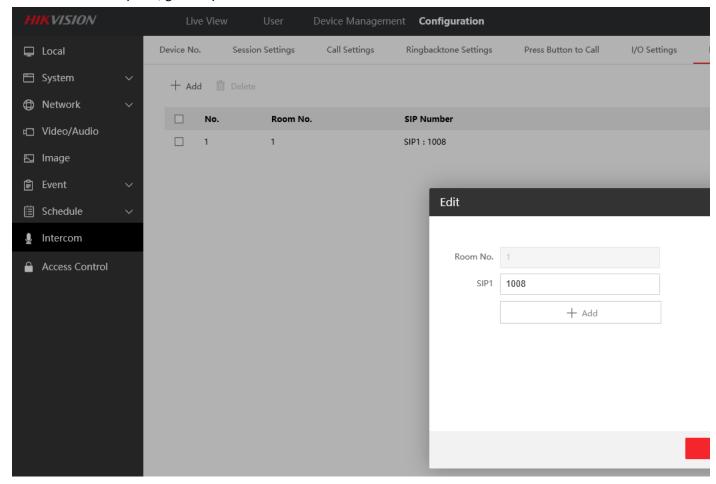


It's important to have **Notifiy Surveilannce Center** ticked. Otherwise the motion events will never be sent to the driver



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, reentering 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.

Entering a password/PIN on the keypad results in a double bip sound and no event is fired

To enter a password/PIN you have to start and end it with the hash # symbol.

Example: #1234# not 1234# will work

The firmware update has failed

There are many different reasons that the firmware might fail. We recommend contacting your local Hikvision technical support

https://www.hikvision.com/en/about-us/contact-us/technical-support/

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?

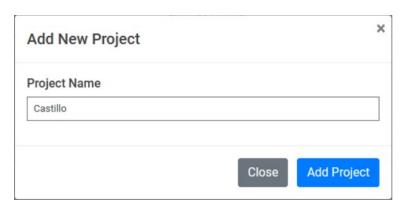
This driver is developed by Chowmain software & Apps and is distributed by driverCentral, Inc https://www.drivercentral.io/chowmain-ltd

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

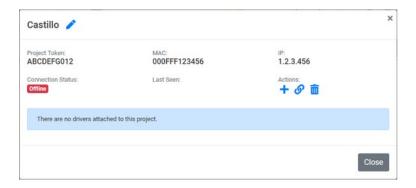
- 1. Visit http://www.drivercentral.io
- 2. Log into your driver Central dealer account
- 3. Click Portal
- 4. Click New Project
- 5. Enter the project name



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



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



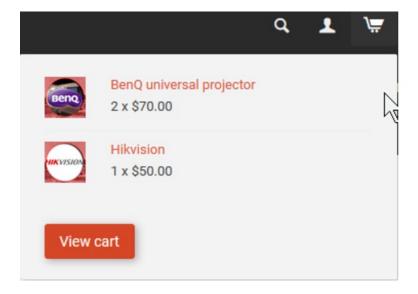
9. Click Close

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



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



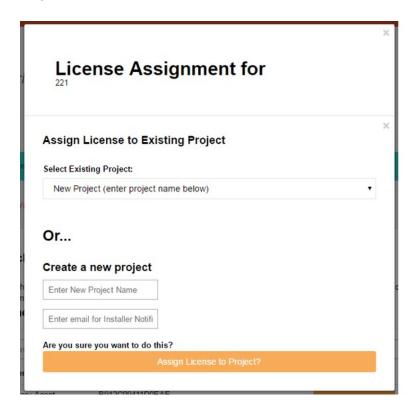
5. Choose your payment option, provide the relevent details and click **Place order**



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

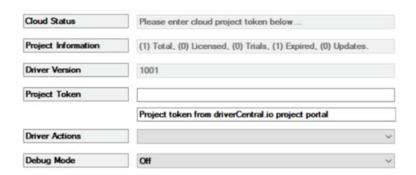


Install the driverCentral cloud driver

- 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



- 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

