IVSEC Installation and Usage Guide

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Overview

IVSEC is an Australian-owned brand specializing in high-quality, affordable video surveillance solutions.

Their IP camera range is known for ease of installation, intuitive configuration, and robust construction.

They offer options for both residential and commercial use with features suchas like AI motion detection, facial recognition, two-way audio, strobe lights, and sirens.

Offering a 3-year warranty and Australian-based support, their systems integrate seamlessly with NVRs and mobile apps for remote monitoring and smart home compatibility.

Features

Configuration & Setup

- Auto configuration of the camera to receive events
- Support for multiple video streams (main, sub, mobile)
- **PTZ (Pan/Tilt/Zoom) Controls**: Optional PTZ support with speed and movement duration settings.

Event Handling (Alarms & Analytics)

- **Motion Alarm**: Detects and processes standard motion events.
- **Intrusion Alarm**: Handles intrusion detection, including:
    - Line Crossing Detection
    - Face Detection
    - People and Vehicle Detection
    - Perimeter Intrusion Detection
    - License Plate Detection (including licence plate number if present)

Driver Programming Commands

- **REBOOT_CAMERA**: Reboot the camera device.
- **SIREN_ALARM**: Trigger the audible alarm (with state and volume control).
- **WARNING_LIGHT**: Control the Red/Blue warning light (on/off).
- **FLOOD_LIGHT**: Set flood light state and brightness.

Additional Features

- **Multiple Contact Sensor Bindings**: Supports various analytic events as contact sensors (motion, line crossing, face detection, license plate, etc.).
- **Stream Selection**: Choose between main, sub, or mobile video streams.
- **Access Cameras behind an NVR**: Option to indicate if the camera is connected to an NVR.
- **Auto Rename & Device Info**: Auto-renaming and display of device/model/firmware info.
- **Presets**: Support for camera presets using preset name defined in camera.

Limitations

- Although a device may list a mobile stream it has been our experience that Control4 might have issues accessing the mobile stream
- You cannot attach a snapshot to a Push Notification. Due to the way the Control4 system and IVSEC handle authentication, it is not possible to include image attachments.

Setup Hardware

Requirements

- Make sure that you have defined your PTZ presets in the camera.
- For an easier installation, have the name of device set in the camera. *Remote Settings** > *Channel* > **Live** > **Name*
- Any camera on an NVR must have the same credentials as the NVR. If you have not set a username and password for the camera, you will need to do this first
- This will only work with IVSEC cameras behind an NVR
- If the camera you want to connect to is behind an NVR, make sure that the NVR is configured to allow access to the camera and that you can log in to the camera's webui. You can confirm this by accessing the camera's webui directly from a web browser using the NVR's webui
  *Remote Settings** > *Channel* > **Channel** > **Click on the url under the Link heading for the channel*

Setup Events in the Camera

All events that you want to program against with the driver, need to be enabled in the camera's webui. This is required for the driver to receive events from the camera.

1. Log in to the camera's webui.
2. Go to ***Remote Settings** > **Event** *or* **AI** > **Setup**
3. Enable each event that you want to use with the driver.

All events that you want to program against with the driver, require you enable **Event Push Platform**.

1. Log in to the camera's webui.
2. Go to ***Remote Settings** > **Event** > **Alarm**
3. Enable **Event Push Platform** for each event listed in the window.

Setup Driver

Requirements

- Control4 OS 3.3.2 is the minimum required. Earlier Control4 OS Versions are not officially supported.

Driver Installation

Standalone camera on a network switch

1. Make sure you have worked through the **Setup Hardware** section
2. Open **Composer**
3. Search for the **IVSEC Camera** driver from **System Design's Items Search** tab and add it to your project. *You will need to do this for each camera.*
4. Add the device's IP address, username, and password in the **Properties** tab.
5. Set **Preferred Channel**. Leave this as **1** unless you are using a camera that has multiple video channels, like a thermal camera. In this case, set the preferred channel.
6. Set the **Preferred Stream** to either **1 - Stream Main**, **2 - Stream Sub**, or **3 - Stream Mobile**. This will determine which video stream the driver uses for live video.
7. Set the **Enable PTZ Controls** to **On** if the camera supports PTZ (Pan/Tilt/Zoom) controls. If set to **Yes**, the driver will expose the PTZ commands in the Navigator for the end user (*if you have the camera open on the navigator, you will need to exit the camera and open it again to see the changes*).
8. The driver should now auto connect to the camera, or you can use the **Actions** > **Get Camera Information** button.

Camera physically connected to an NVR

1. Make sure you have worked through the **Setup Hardware** section
2. Open **Composer**
3. Search for the **IVSEC Camera** driver from **System Design's Items Search** tab and add it to your project. *You will need to do this for each camera.*
4. Add the device's IP address, username, and password in the **Properties** tab.
5. Set **Camera Connected to NVR** to **Yes** if the camera is physically connected to an NVR. This will allow the driver to access the camera directly.
6. Set **Preferred Channel**. This is the channel on the NVR that the camera is connected to. *Note that the channel number doesn't always match the physical connection on the NVR.*
7. Set the **Preferred Stream** to either **1 - Stream Main**, **2 - Stream Sub**, or **3 - Stream Mobile**. This will determine which video stream the driver uses for live video.
8. Set the **Enable PTZ Controls** to **On** if the camera supports PTZ (Pan/Tilt/Zoom) controls. If set to **Yes**, the driver will expose the PTZ commands in the Navigator for the end user (*if you have the camera open on the navigator, you will need to exit the camera and open it again to see the changes*).
9. The driver should now auto connect to the camera, or you can use the **Actions** > **Get Camera Information** button.

10.If you plan on using events from this camera in Control4, please install the **IVSEC NVR Event Driver**

Property	Description
Status	This will give you the last response from the camera or what the driver is attempting to do
Camera Connected to NVR	Tells the driver how to connect to the camera
Preferred Channel	For NVRs or cameras with multiple sensors this tells the driver how to pull the correct stream
Preferred Stream	This tells the driver which stream on the channel to use. Usually, Main stream is for recording and the Sub or Mobile are used with this driver
Enable PTZ Controls	Tells the driver to expose PTZ and Preset menus on the Navigator
PTZ Speed	Set the speed for PTZ movements
PTZ Movement Duration	Set the duration for PTZ movements
Reverse PTZ Controls	If set to Pan or Tilt, the PTZ controls will be reversed
Auto Rename Driver	If set to Yes, the driver will automatically rename itself based on the camera's model. This is useful for keeping track of multiple cameras in a project. If you manually rename the driver, set this to No otherwise the driver will rename itself after a reboot of the controller
Device Name	Discovered from the device
Model Number	Discovered from the device
Serial Number	Discovered from the device
MAC Address	This device's reported MAC address. Used to confirm the driver is working with an approved IVSEC device
Approved IVSEC Camera	Result of the MAC address check using the above value
Image Sensor	Used to determine if the camera is a thermal camera
FW Version	Discovered from the device
Webserver URL	This is used to tell the camera where to send events. You don't need to touch this field. If you needed to manually set up Event Notifications, you can copy this data

Property	Description
Active Events	A quick way to see when an event is received by the driver

Action	Description
Get Camera Information	Retrieves the current camera information from the device
Configure Event Push Platform	Configures the device to send event notifications to this driver
Display Diagnostics	Displays the current diagnostic information for the driver
Validate Device	Checks the reported MAC address of the device and unlocks the driver if the check passes

Setup Driver

Requirements

- Control4 OS 3.3.2 is the minimum required. Earlier Control4 OS Versions are not officially supported.

Driver Installation

NVR Event Driver

1. Make sure you have worked through the **Setup Hardware** section
2. Open **Composer**
3. Search for **IVSEC NVR Event Driver** from **System Design's Items Search** tab and add it to your project.
4. Add the device's IP address, username, and password in the **Properties** tab.
5. The driver should now auto connect to the camera.

Property	Description
Username	This is the username used to connect to the NVR
Password	This is the password used to connect to the NVR
IP Address	The NVR's IP address
HTTP Port	This is the NVR's HTTP port, usually port 80
Status	Last feedback from the device
MAC Address	This device's reported MAC address. Used to confirm the driver is working with an approved IVSEC device
Approved IVSEC Camera	Result of the MAC address check using the above value
Webserver URL	This is used to tell the camera where to send events. You don't need to touch this field. If you needed to manually set up Event Notifications, you can copy this data

Action	Description
Configure Event Push Platform	Configures the device to send event notifications to this driver
Validate Device	Checks the reported MAC address of the device and unlocks the driver if the check passes

Bindings on the Connections tab

Configuring Events

Control4 Setup

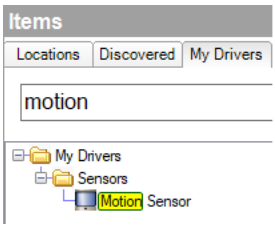
The camera driver will populate the bindings for each available Basic and Smart Event, once the camera receives a trigger from the Hikvision NVR driver

Camera

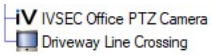
Name	Type	Connection	Input/Output
Control Inputs			
IVSEC NVR	Control	IVSEC	Input
Control Outputs			
MOTION	Control	CONTACT_SENSOR	Output
SOUND_DETECTION	Control	CONTACT_SENSOR	Output
FACE_DETECTION	Control	CONTACT_SENSOR	Output
PED_VEH_DETECTION	Control	CONTACT_SENSOR	Output
PERIMETER_INTRUSION	Control	CONTACT_SENSOR	Output
LINE_CROSSING	Control	CONTACT_SENSOR	Output
LICENCE_PLATE	Control	CONTACT_SENSOR	Output
CROSS_COUNTING	Control	CONTACT_SENSOR	Output
INTRUSION	Control	CONTACT_SENSOR	Output
GOODS_LOST	Control	CONTACT_SENSOR	Output
CROWD_DENSITY	Control	CONTACT_SENSOR	Output
QUEUE_LENGTH	Control	CONTACT_SENSOR	Output
RARE_SOUND	Control	CONTACT_SENSOR	Output

Add Motion Sensor driver

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



2. Give the sensor a name like *Driveway Line Crossing*



3. Select **Connections**

4. Select your camera from the Tree on the left.

5. Make the binding between the Driveway contact sensor and the camera's LINE_CROSSING

CONTACT_SENSOR Input Devices

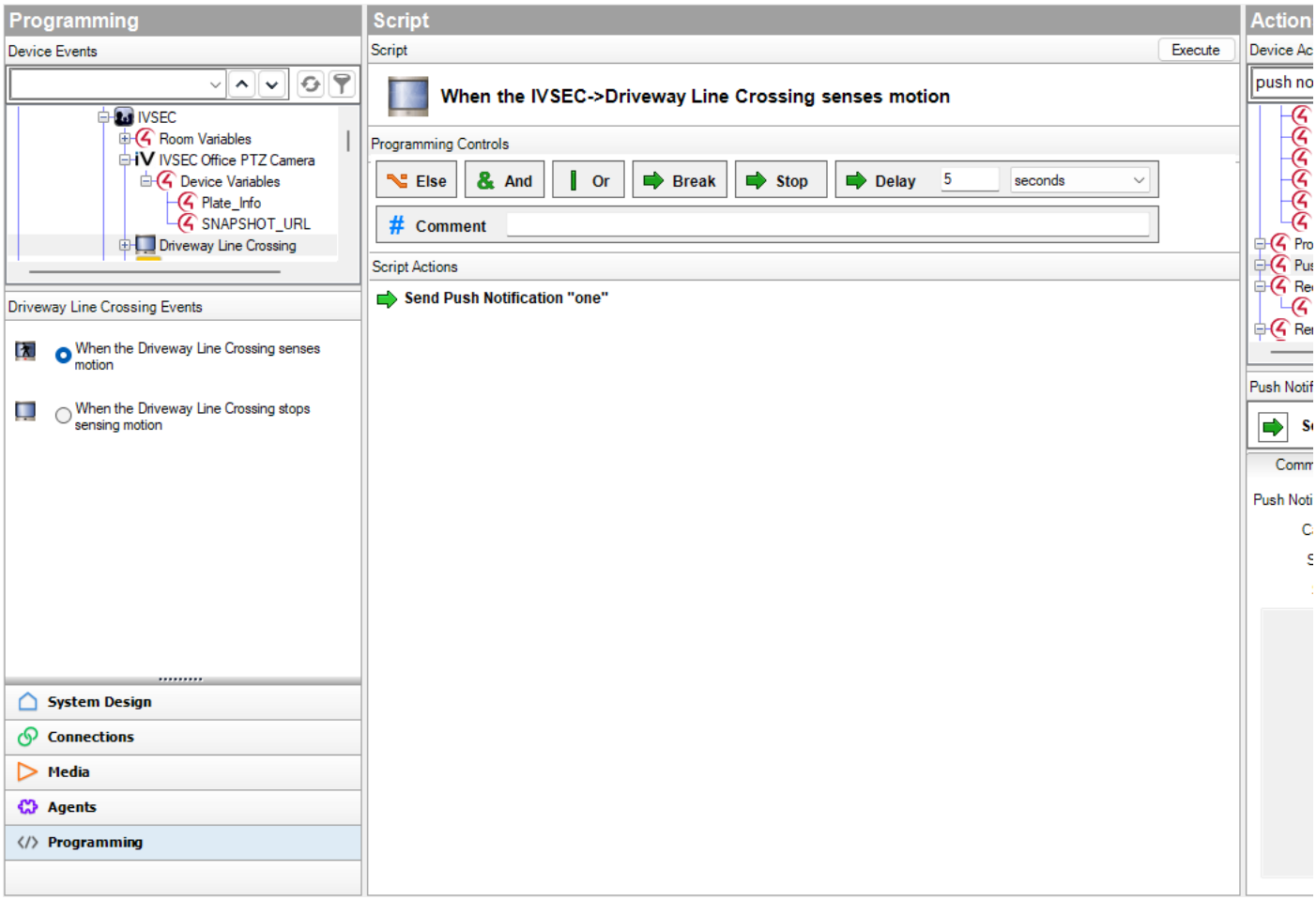
Filters: All Rooms | All Connections | driveway

Device	Name	Location	Connections
Driveway Line Crossing	Contact Sensor	IVSEC	Bullet Thermal Camera->LINE_CROSSING

Programming against Events

1. Naviagate to the **Programming** section of Composer Pro

2. Select the camera from the Device Events window



3. Select the event **When the Driveway Line Crossing senses motion** from the list of available events
4. Select the action you want to perform when the event is triggered. For example, you can send a notification.

Now, whenever the camera sends a LINE_CROSSING event, the action you selected will be executed.

Troubleshooting

FAQ

What are the Requirements for this driver?

- Control4 OS 3.3.2
- Control4 HC-XXX Series controllers are not supported

What cool things can we do with this driver?

- Choose which stream to utilise with the driver
- Access IP camera live streams when behind an NVR
- Access to currently active events that you can bind to sensors
- Trigger camera commands via the Programming tab

What site setups does this driver support?

- One or more standalone cameras connected to shared network switch without a NVR
- One or more cameras physically connected to the rear of a NVR
- One or more cameras physically connected to the rear of an NVR including one or more cameras connected to a shared network switch that are added to the NVR

Change Log

Version 20250909 - 09-SEP-2025

- Accidentally released beta copy of driver in previous version. Rectified

Version 20250818 - 18-AUG-2025

- Fixed issue with dynamic presets
- Cleaned up logging statements
- Removed incorrect **Features** bullet point about providing snapshots for notifications. This is not currently possible

Version 20250816 - 16-AUG-2025

- PRODUCTION release