



HikVision DS-2TD2637B-10/P Thermal Camera Integration App-note

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While Cathesis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit nor implied. Specifications are subject to change without notice. The integration hardware and firmware used are current at the time of the integration development and newer versions of such may not be compatible with the integration.

1. Introduction

This document details the integration of the HikVision Thermal Camera with CathesisVision software. Functionally, this integration will entail the triggering of standard CathesisVision Events, based on the triggers from the HikVision Thermal Camera. Cathesis receives temperature trigger messages from the camera, and those trigger messages can be used to set up custom and pre-defined events with the following actions:

Custom Events:

- Sound Camera Alarms
- Display Message for a certain time
- Display pop-up for a certain time

Pre-defined Events:

- Call Base-station
- Record a camera
- Play Audio
- Send Email
- Controlling a device input and other integration devices

1.1 Model and Firmware

The following camera models and firmware were used to test this integration:

Model	Firmware
DS-2TD2637B-10/P	V5.5.26

1.2 Requirements

- CathesisVision 2020.4 and later
- Win 10-64bit and later, Win Server 2008 R2 and later.
- Minimum 4 GB of RAM required.

Note: For information regarding the regular operation of a HikVision Thermal Camera, please consult the relevant HikVision documentation.

In this integration, individual devices will require a license for each device.

A NOTE ON CAMERA CHANNELS

The CathesisVision software packages have **limits on camera channels**. A multi-head camera is physically a single device (camera) but it **requires a camera channel for each one of the internal cameras**. The same applies to an encoder: a 16-channel encoder will account for 16 camera channels on the CathesisVision software, even though it is a single device.

1.3 Integration Components

All CathesisVision integrations have two component levels: Device and Object.

Device The device is CathesisVision software's interface, which handles all the interaction between CathesisVision and the integrated hardware. When an integration is added to the CathesisVision system, a device is added. The messages received from the device are called Device Events.

Objects Objects are the individual pieces of hardware that comprise the integration. There may be multiple "object types" under the objects group. For example, the main controller and door nodes, of an access control system, are both objects. They are different types of object.

USEFUL LINKS

To view **tutorial videos** on CathesisVision setup, visit <https://cathesisvideo.com/resources/videos>

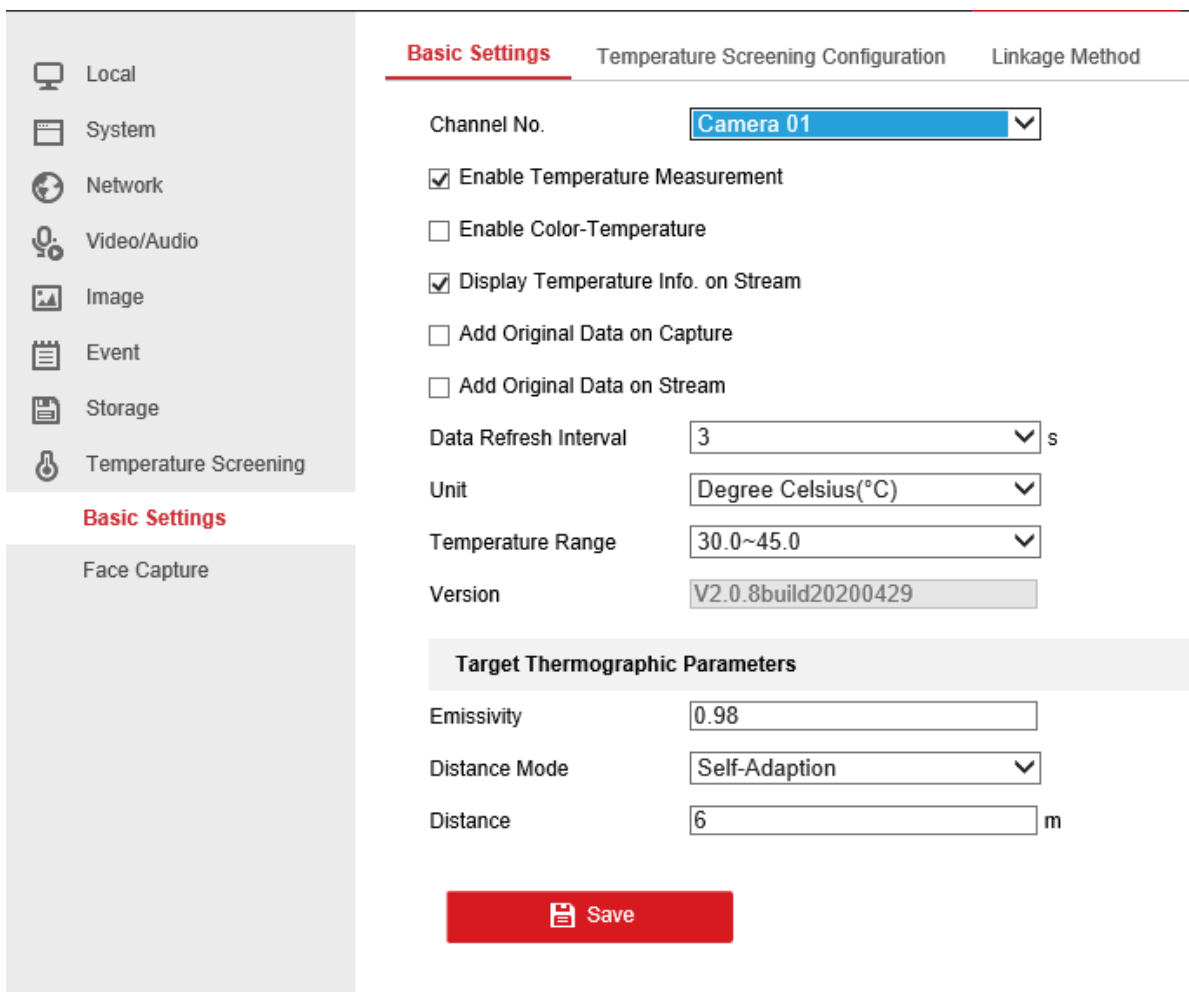
Find answers to Cathesis **Frequently Asked Questions**: <https://cathesis.crisp.help/en/?1557129162258>

2. Device Addition and Configuration

This section will detail the procedure for setting up the two systems to effectively communicate with each other.

2.1 HikVision Web Interface Setup

1. Log in to the HikVision camera web interface with the user’s credentials. Go to the Configuration Tab.
2. Go to the Temperature Screening menu found on the left-hand side, then Basic Settings. Ensure **Enable Temperature Measurement** is ticked.



Note: in order for Cathesis to receive the temperature triggers, they must be enabled in HikVision Camera Web interface.

3. Navigate to the next tab, **Temperature Screening Configuration**. To configure the minimum temperature to trigger on, set the temperature to trigger on /Alarm when the Temperature is Above/ .

Basic Settings **Temperature Screening Configuration** Linkage Method

Channel No.

Enable Face Detection

Display Temperature

Upload Captured Face Image

Display Face Temperature Position

10-01-2020 Thu 11:16:03

Camera 01

Configuration

Face Detection Parameters

Min. Pupil Distance ✓

Max. Pupil Distance ✓

Generation Speed 5

Sensitivity 5

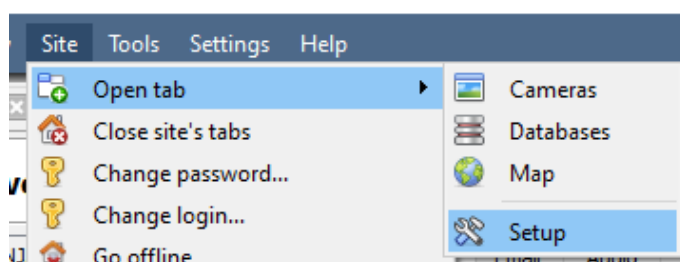
Alarm When Temperatur... °C ✓

Pre-Alarm Temperature °C ✓

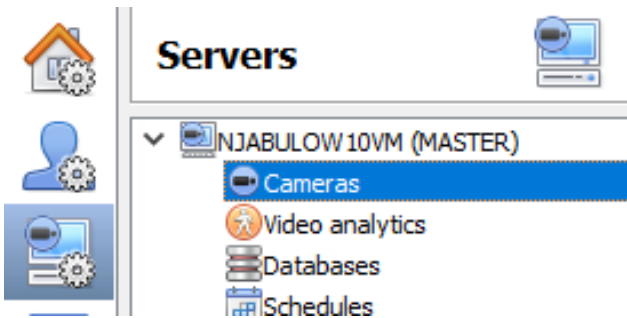
Figure A: Thermal Temperature Monitoring Rules

2.2 Add a Camera in CathesisVision

1. To add a camera in CathesisVision, go to **Site / Open tab / Setup**.

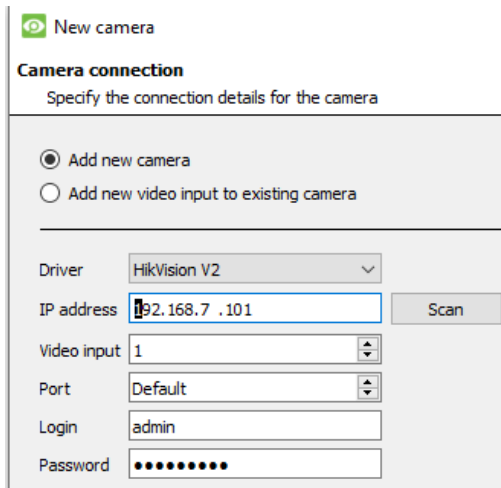


2. Go to **Server / Server name / Cameras**.

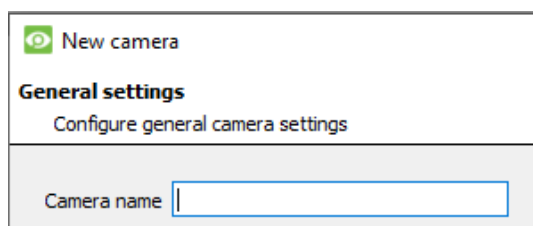


3. Click **New** to add a new camera.

4. Choose the driver as HikVision V2 and enter connection details.



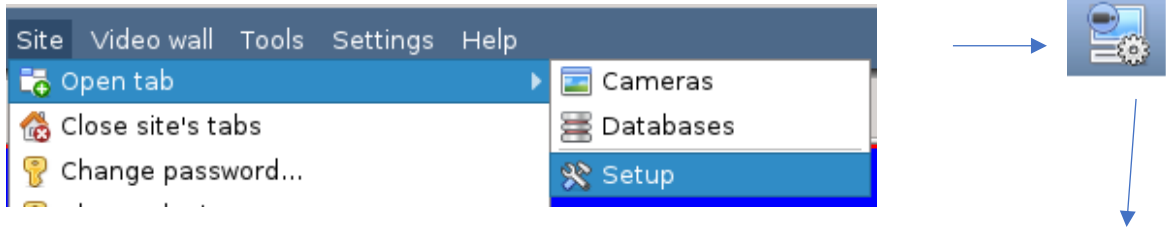
5. If successful, give the camera a descriptive name, then click Next.



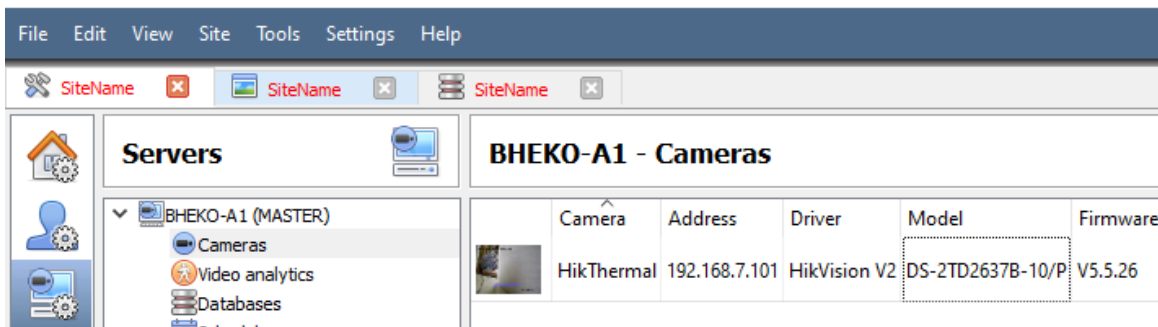
6. Configure the camera as per the site specification, then click OK to save when done.

2.3 Cathesis Camera Setup

1. Go to **Site** tab, **Open tab** then **Setup**.



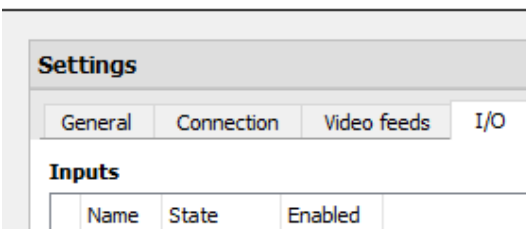
2. Click the **server icon**, choose the server that has the HikVision thermal camera, then choose **cameras** tab.



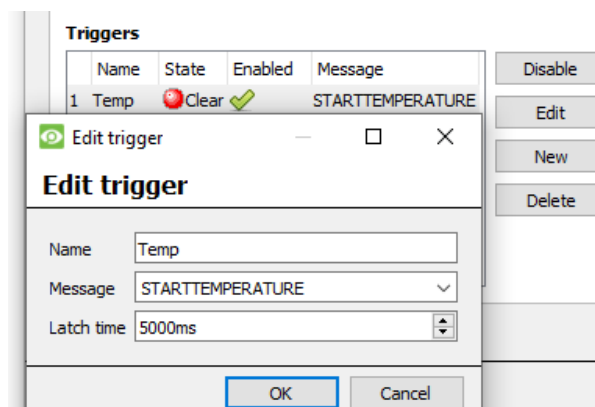
3. Double-click on the HikVision camera to go to camera edit menu, and go to the **I/O** tab.

Camera settings

Edit HikThermal



4. Go to Triggers, then click **New** to configure new trigger.



5. Give it a descriptive name, and choose message as STARTTEMPERATURE.
6. Click OK to save the new trigger and OK to save and exit the camera edit menu.

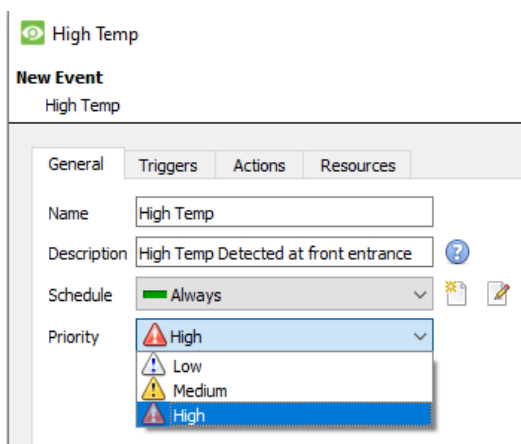
3. Events

A CathesisVision event has a trigger, which causes an action. Set integrated devices to act as triggers, or as actions. This document will detail the HikVision Thermal Camera integration specific aspects of Events. There is a comprehensive guide to CathesisVision Events in the main setup manual. Most of the data that CathesisVision receives from a device is presented in the Events interface. This is done in order to give the user a full range of options. As a result, some of the options presented in the interface may be *impractical* as an event trigger, or action.

3.1 Creating an Event

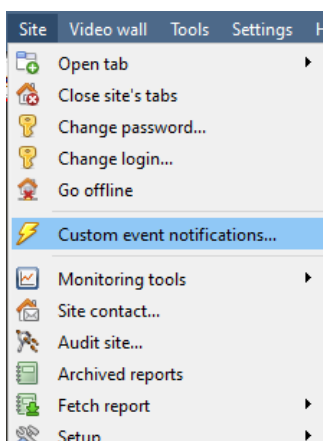
3.1.1 Setting up CathesisVision Pre-defined Events

1. To configure events, go to Server settings, then **Events tab**.
2. Click **New**.
3. Give the event a descriptive name and priority level.

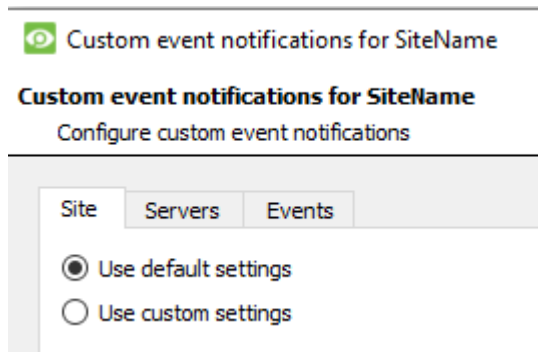


3.1.2 Setting up CathesisVision Custom Events

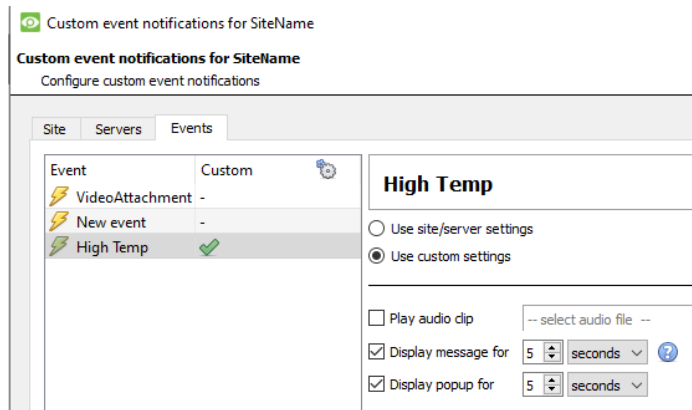
1. To set up Custom Events, go to Site, then choose Custom event notifications.



2. Leave Site tab as default.



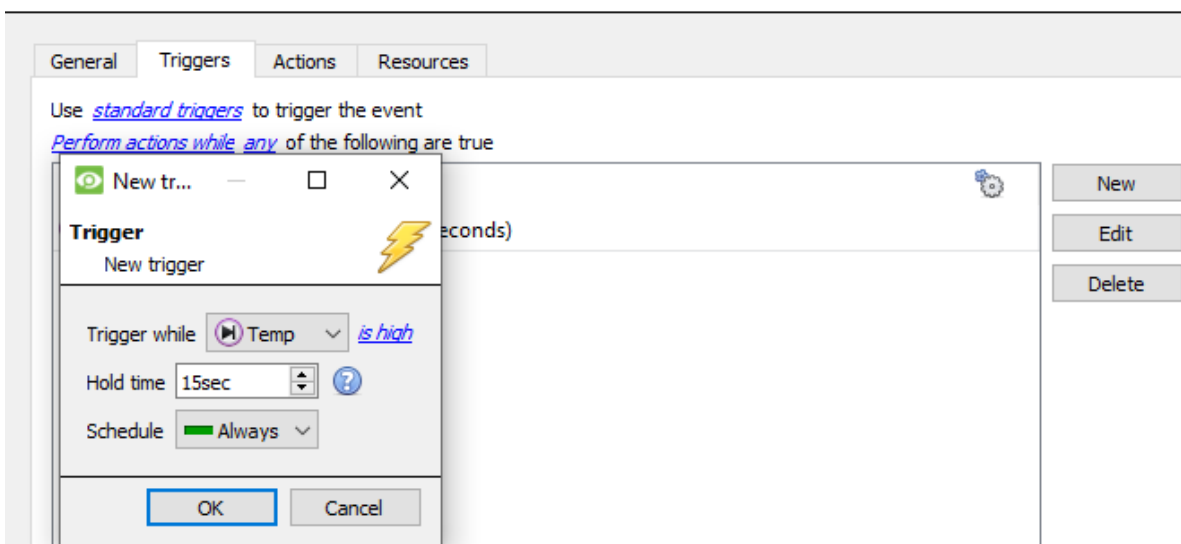
3. Move to Events tab, select the event name and then choose Use custom settings.



4. Choose the notification and adjust the duration as per the specifications. Then click OK to save.

3.2 Triggers

A trigger is the user-defined input that notifies the event to start. The trigger causes the subsequent action (which the user will also define).

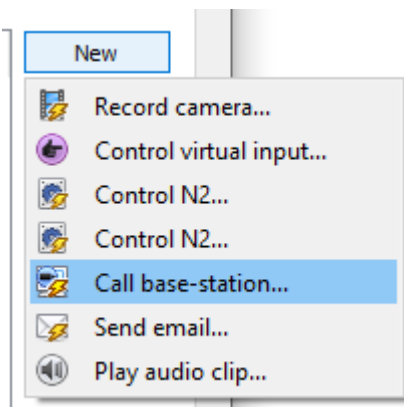


- Move to the **Trigger tab** and click **New** to set a new trigger.
- Choose a trigger to use.
- Make sure it is triggered while “triggername” is true, or else conditions will be inverted.
- Then click **OK**.

3.3 Actions

Once the triggers that are going to initiate the event are defined, define some Actions.

- Move to the Actions tab
- Click New to choose new action/s
- Define action/s rule and click OK to save.



3.3.1 Actions (pre-defined events)

- Note two actions: **Call base-station** and **record camera**.
- With base-station, review the recorded footage and clear the alarm.

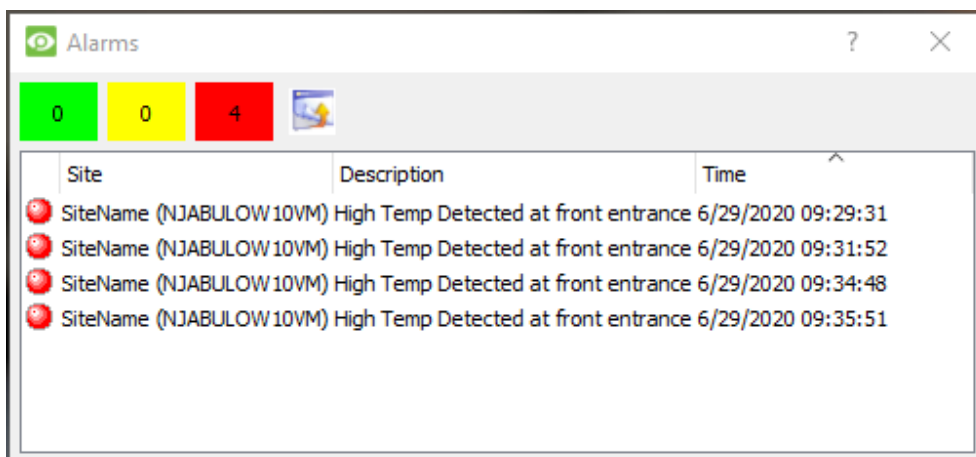


Figure B: Showing Alarm triggered by High Temperature.

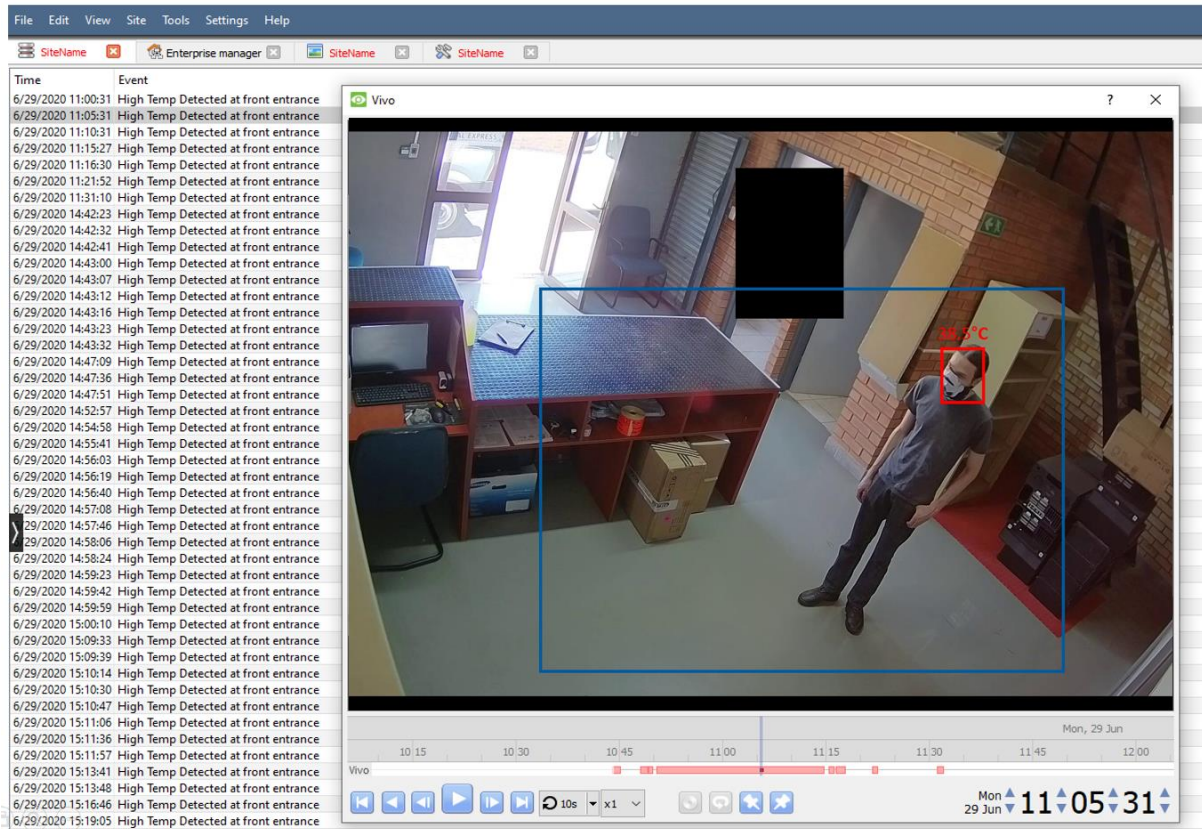


Figure C: Recorded footage on the database.

3.3.2 Actions (custom events)

There are two actions: **Display message** and **Display popup**:

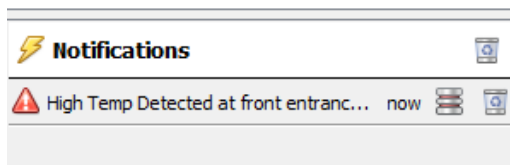


Figure D: Display message action for custom events.

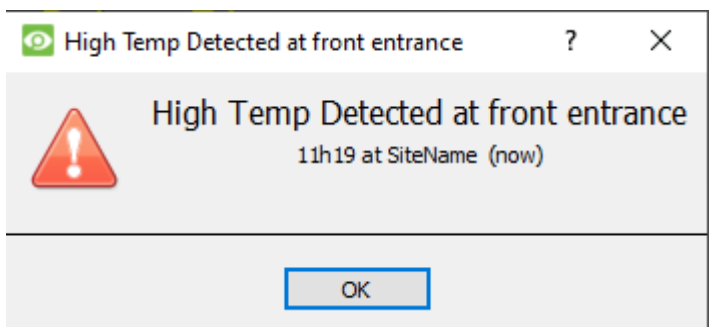


Figure E: Display popup action for custom events.

4. Conclusion

This app-note was designed to deal specifically with this integration. For further information about the CathesisVision software, consult the main manual (<http://cathesisvideo.com/>). For support, email support@cat.co.za.