Case study

USB thermometer data in video & triggering events to AXIS Camera Station using AXIS D3110 Connectivity Hub

Mission

This time we will show you how to easily **display live data from a USB thermometer** in an AXIS camera's video feed and how to send these **temperature data to AXIS Camera Station** as metadata. All you need is AXIS D3110 Connectivity Hub and CamStreamer ACAP applications.
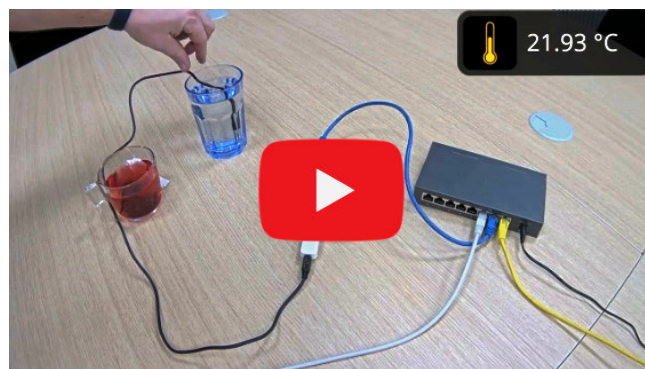
How does it work?

Firstly, **AXIS D3110 Connectivity Hub** loads the data from the thermometer via USB port and the data is processed inside using **a micro app within the CamScripter App**. The CamOverlay App – running onboard the AXIS P1375 Network Camera – then displays live temperature values graphically in the video feed.

You can send **temperature data as an event to VMS** (AXIS Camera Station) and use the data to filter Recordings.
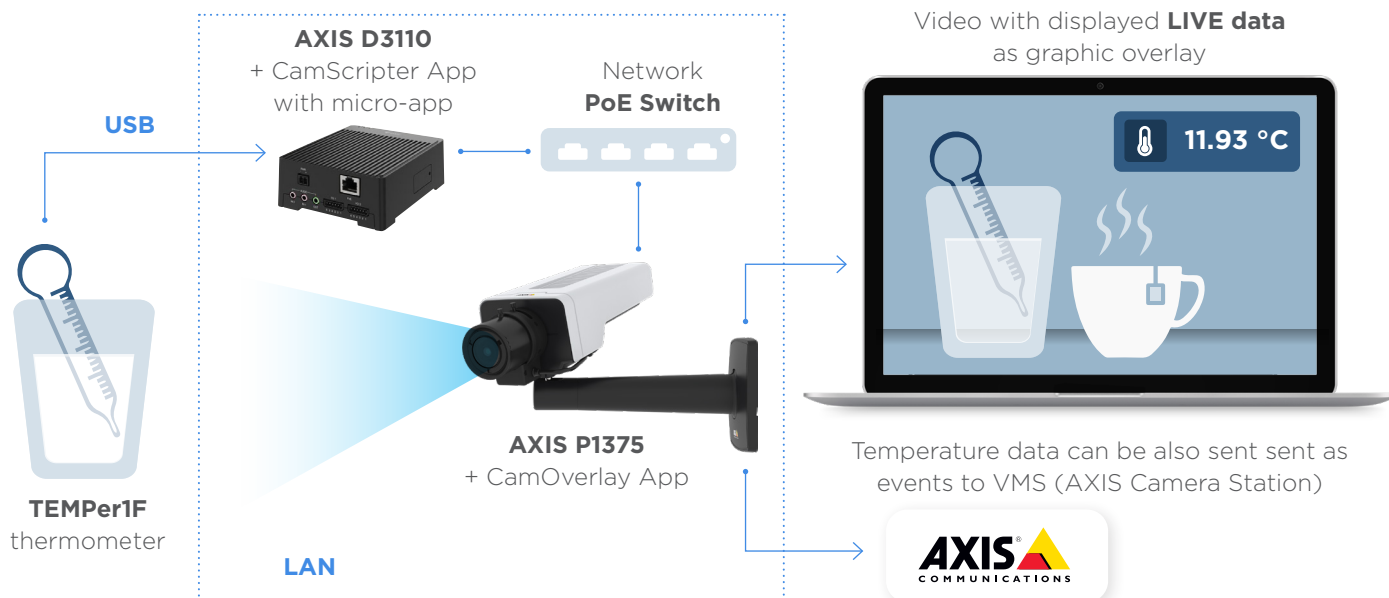
Result

This is an **extremely useful** and **cost-effective thermometer integration** that can be applied across many scenarios and supports various graphics styles. Additionally, it's **simple to set up and use**.

List of Supplies

Hardware:	AXIS P1375 Network Camera
	AXIS D3110 Connectivity Hub
	PCsensor USB thermometer with external temperature sensor
Software:	TEMPerf1 Sensor micro app
	CamOverlay App
	CamScripter App

Find more details on page 2.

USB

AXIS D3110
+ CamScripter App
with micro-app

Network
PoE Switch

Video with displayed **LIVE data**
as graphic overlay

11.93 °C

TEMPer1F
thermometer

AXIS P1375
+ CamOverlay App

LAN

Temperature data can be also sent sent as
events to VMS (AXIS Camera Station)

AXIS
COMMUNICATIONS

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AXIS D3110 Connectivity Hub

- Enables sensor and audio integration into network video systems
- USB and RS485/RS422 serial ports
- Eight configurable I/Os, audio in/outs
- Allows you to integrate a broad range of non-visual sensors
- **MSRP $379**

PCsensor USB thermometer with external temperature sensor

- Measurement device using a USB port to connect
- External waterproof sensor
- Range of measuring: from −40ºC to +125ºC | from −104ºF to +257ºF
- **MSRP ca. $15**

Axis network camera (e.g., AXIS P1375)

- Use any compatible camera from Axis Communications with ARTPEC-5/6/7/8 processor
- The Axis camera portfolio can be found att axis.com
- Don't forget to check the compatibility with CamStreamer apps
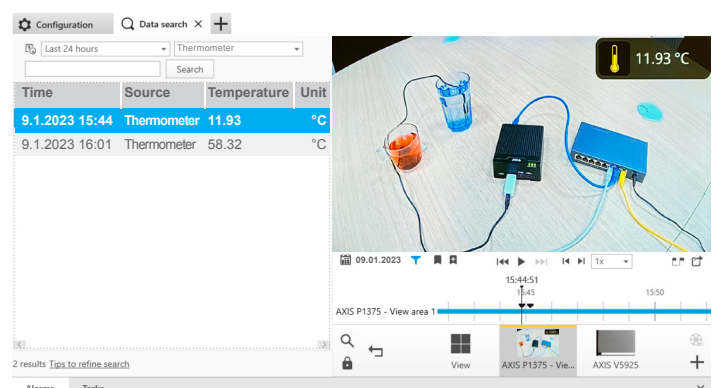- **MSRP $699** (AXIS P1375)

CamStreamer apps

- CamScripter App allows to running of micro apps (Node.js script) inside the AXIS D3110 Connectivity Hub and fetch data from an external device (such as thermometers)
- The ready-made micro app (Node.js script) tailored for this specific USB thermometer is available for free – just download the micro-app from GitHub
- CamOverlay App is an in-camera app that generates dynamic graphic overlays and displays them directly in Axis camera's video stream – in this case, with real-time data from the thermometer
- **MSRP $498**

AXIS Camera Station interface with list of events from the thermometer
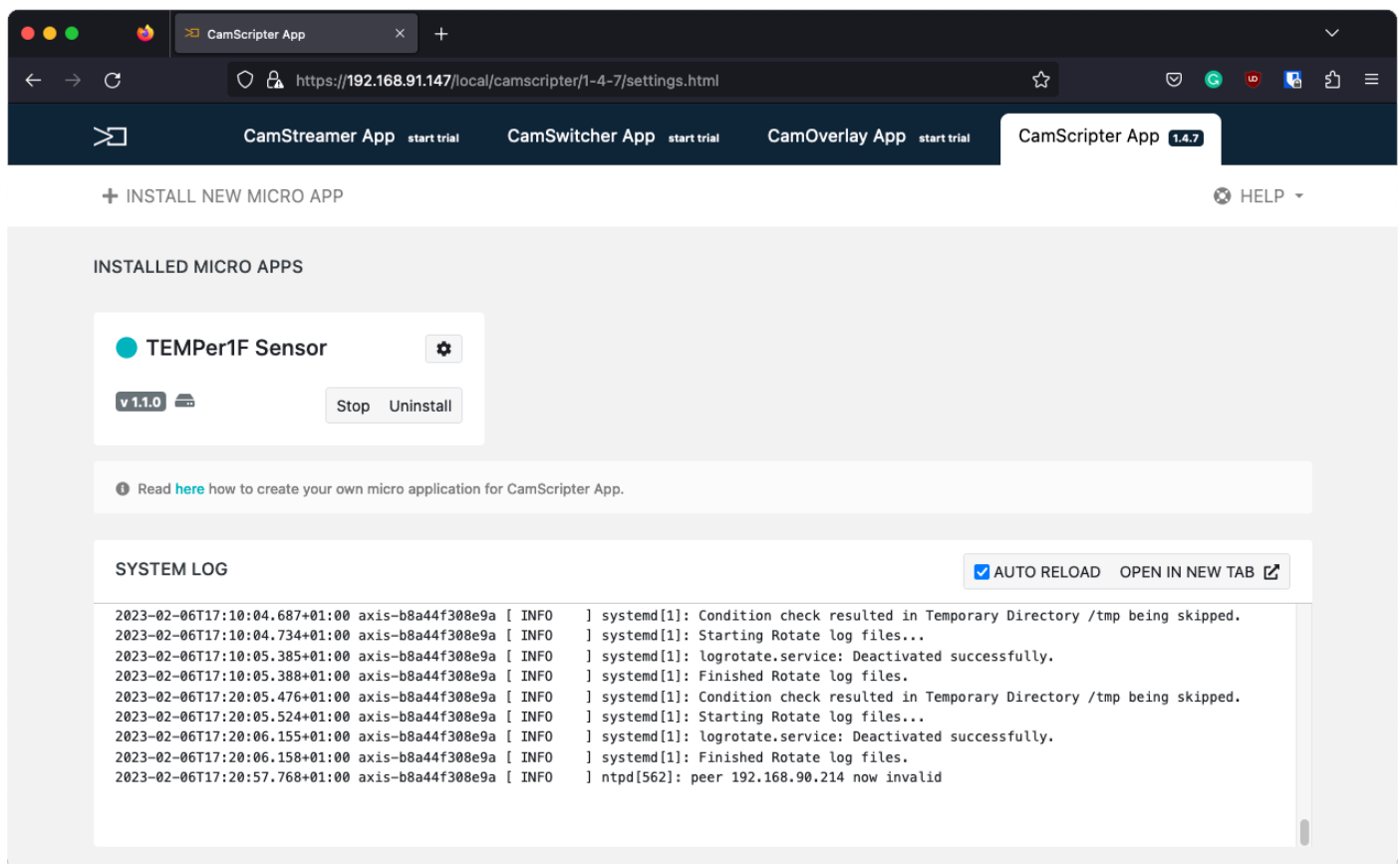

Continue to the next page for Setup Guide.

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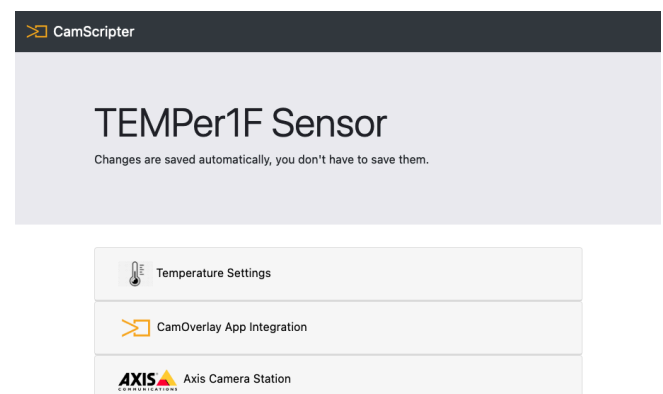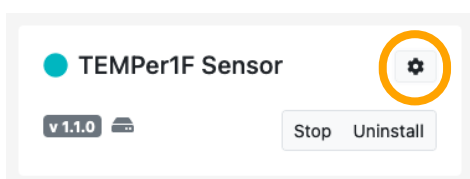
Setup Guide

Open your internet browser and type in **the IP address** of your **AXIS D3110 Connectivity Hub** to open **CamScripter App UI**.

Upload the TEMPer1f Sensor package (available for free on GitHub).

Click "**Start**" to launch the micro application.

To **set up the thermometer**, open **CamScripter App UI** in your browser and access the **TEMPer1f Sensor** via the **gear button** next to the installed **thermometer package**.

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Temperature Settings

- Basic settings of USB thermometer – choose Celsius or Fahrenheit as a unit

Temperature Settings

Units
- Celsius
- Fahrenheit

CamOverlay App Integration

- Set up a connection to an Axis network camera with CamOverlay App onboard – a graphic overlay with the real-time temperature will be displayed in the camera video

CamOverlay App Integration

Camera IP	Service ID
192.168.91.176	1

Camera Port	Field Name
80	field1

Camera User

root

Camera Pass

•••••

Axis Camera Station

- Set up a connection to an Axis network camera with CamOverlay App onboard – a graphic overlay with the real-time temperature will be displayed in the camera video
- Set up a connection to AXIS Camera Station VMS, where measurement events will be sent

Axis Camera Station

Protocol	Windows User Name
HTTPS (insecure)	data Inserter

Axis Camera Station IP	Windows User Password
192.168.90.214	••••••••••••

Source Key

1673448991626

When do you want to be notified?

Immediately   when temperature   >   25   °C

Repeat Notification After (s)

0

If you have a request for **a tailor-made micro-app**, we will be happy to create it for you. Just contact us: support@camstreamer.com

camstreamer.com/resources/integrations