

Case study

Simple and fully automated solution for streaming sports events with iScoreSports



Mission

This time we'll show you an interesting example of integration made by one of our customers, who integrated a scoreboard with the current results of a sports match directly into a live video stream and created a clever solution for controlling their YouTube live streams.

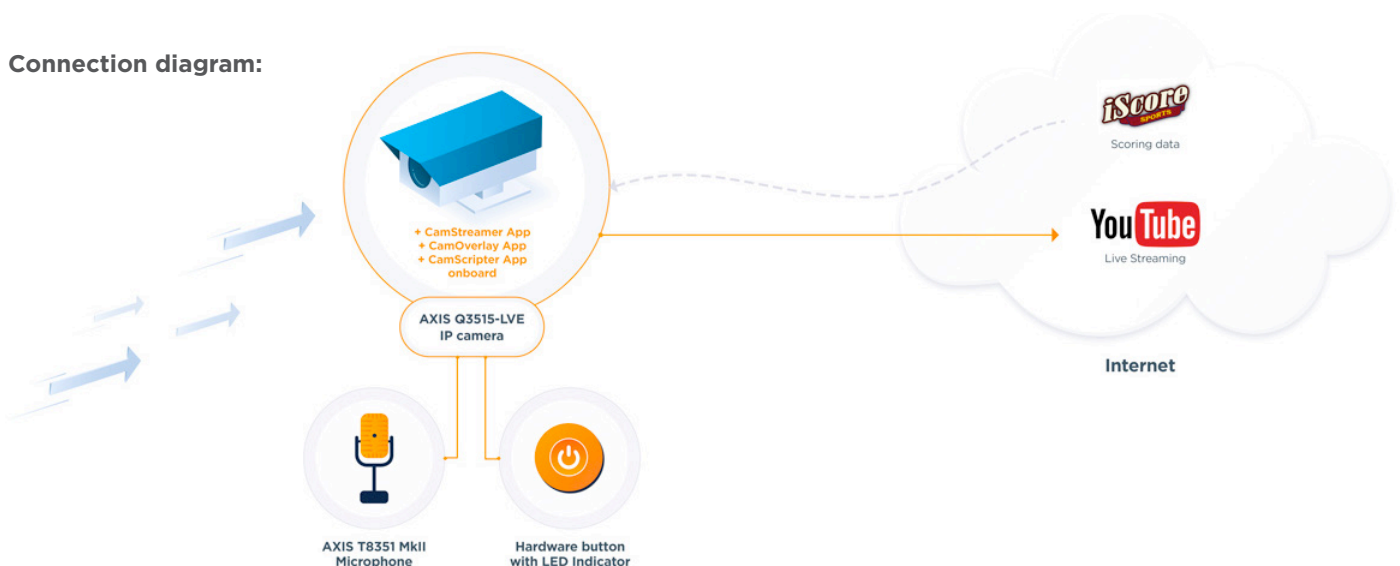
Our client – the Eagles Prague baseball & softball club – used our [CamScripter App](#) and [CamOverlay App](#) to create this smart solution. At a sports event, someone with a tablet or a mobile phone is connected to the popular scoring service **iScoreSports** and entering the current score there. This is the source of data. Simple JavaScript code takes score data from the iScoreSports servers and lets the [CamScripter App](#) generate the scoreboard graphics. Then, using the [CamOverlay App](#),

these scores are inserted into the live video stream. It sounds complicated, but it's actually very easy as everything runs automatically, directly inside the camera.

Solution

The next step in this solution was to connect a **button** to the camera that starts and stops camera streams to YouTube. Again, no other hardware is necessary – only a button, which is connected directly to the camera's I/O port. This is controlled by the “**triggering**” function in our [CamStreamer App](#), which provides the live stream to YouTube. By combining this with **a microphone**, which is also directly connected to the camera, the **fully automated solution for streaming sports events** was created..

Connection diagram:



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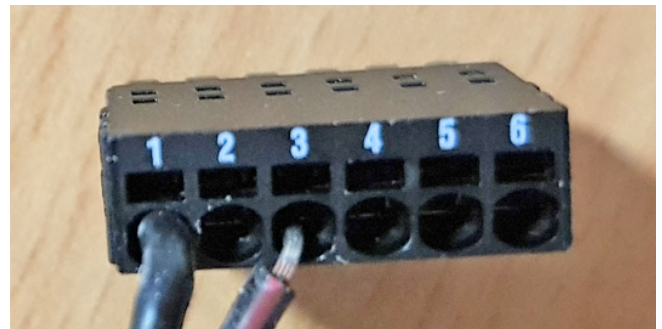
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Components used:


- **AXIS Q3515-LVE IP camera**
 - Outdoor durable high quality camera with 1080p @ 60 fps
 - Mic / line input
 - Configurable I/O ports
 - SD card for saving logos, which are inserted into the image
- **AXIS T8351 Mk II microphone**
 - Toggle switch with LED indicator for starting and stopping the stream

CamStreamer applications used:

- **CamScripter App** + short JavaScript code, which runs inside the camera
 - Pulls data from the external source and generates the overlay graphics
- **CamOverlay App**
 - Inserts graphics from CamScripter App directly into the image
 - In addition to the current score, partners' logos are inserted
- **CamStreamer App**
 - Determines button position and starts/stops the stream accordingly
 - Provides the live stream directly from the camera to YouTube streaming platform



Triggering

Trigger option 



Input is OFF

YouTube status **None**

Stream status **Inactive**

Outgoing stream **Not running**

INSTALLED PACKAGES

Scoreboard  

v 1.0.0

CamScripter

Scoreboard v 1.0.0

Camera User	Position X
<input type="text" value="root"/>	<input type="text" value="0"/> px
Camera Password	Position Y
<input type="text" value="*****"/>	<input type="text" value="0"/> px
Json game data url	Stream Width
<input type="text" value="loads/data/baseball_game_data_file.json"/>	<input type="text" value="1920"/>
	Stream Height
	<input type="text" value="1080"/>
	Scale
	<input type="text" value="1"/>

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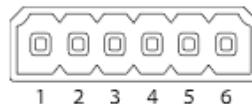
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Tip: Tip: if you want to turn ON the light when streaming is active and turn OFF if it is deactivated you can do it by following steps:

1. Buy button with LED diode or diode alone for 12V DC
2. Connect LED to DC Output of the camera and Digital output (marked in green on the picture below, note that the amount of ports differs by the model of the camera)

Button

LED diode



Function	Pin	Notes	Specifications
DC ground	1		0 V DC
DC output	2	Can be used to power auxiliary equipment. Note: This pin can only be used as power out.	12 V DC Max load = 50 mA
Input 1	3	Digital input or Supervised input – Connect to pin 1 to activate, or leave floating (unconnected) to deactivate. To use supervised input, install end-of-line resistors. See connection diagram for information about how to connect the resistors.	0 to max 30 V DC
Output 1	4	Digital output – Internally connected to pin 1 (DC ground) when active, and floating (unconnected) when inactive. If used with an inductive load, e.g., a relay, connect a diode in parallel with the load, to protect against voltage transients.	0 to max 30 V DC, open drain, 100 mA
Input 2	5	Digital input or Supervised input – Connect to pin 1 to activate, or leave floating (unconnected) to deactivate. To use supervised input, install end-of-line resistors. See connection diagram for information about how to connect the resistors.	0 to max 30 V DC
Output 2	6	Digital output – Internally connected to pin 1 (DC ground) when active, and floating (unconnected) when inactive. If used with an inductive load, e.g., a relay, connect a diode in parallel with the load, to protect against voltage transients.	0 to max 30 V DC, open drain, 100 mA

Once it is connected you have to set Event (System-> Events) withing the Axis user interface. This event will turn on the light once the circuit with the button is closed and again off once it is opened.

(View a screen of interface on the next page.)

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● LED diode
Digital input | Toggle I/O while the rule is active

☒ Use this rule

Name

Wait between actions (max 23:59:59)

Condition Digital input

+

Action

Port

State



camstreamer.com/resources/sport-events-integration

If you have **a request for a tailor-made micro-application** to be created for you, please don't hesitate to contact us: support@camstreamer.com

