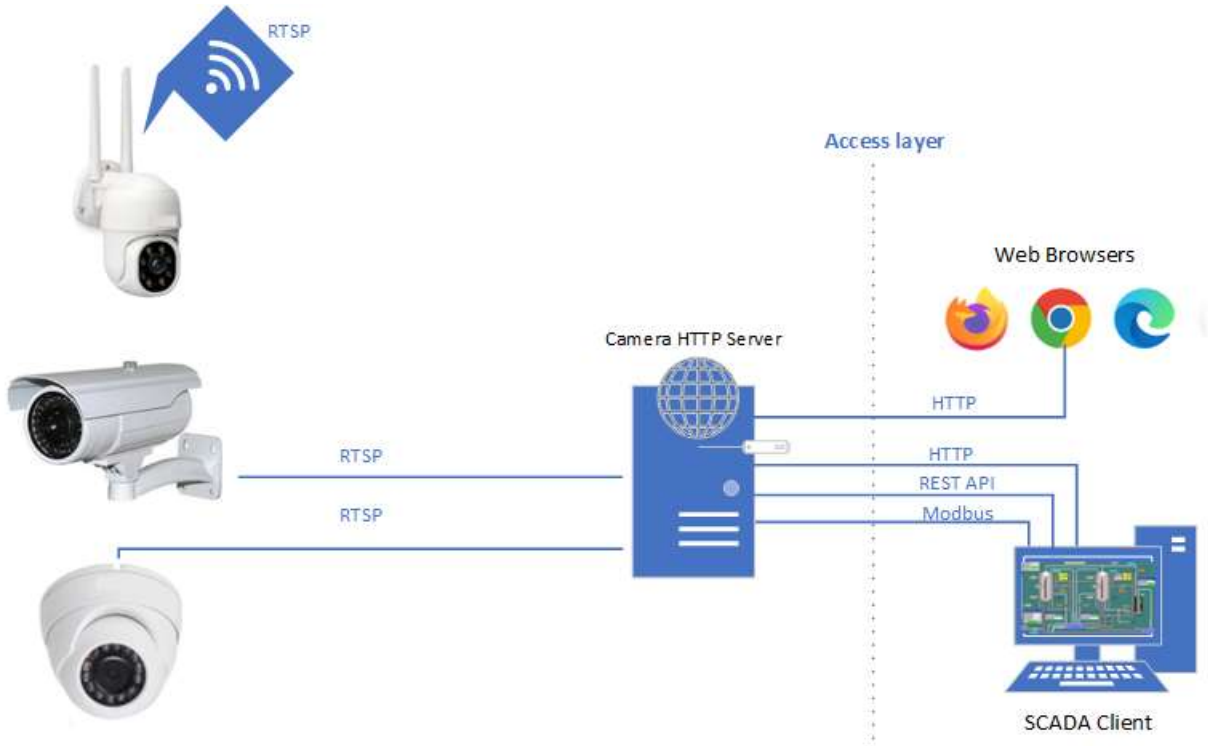
AI Camera HTTP server

AI Camera HTTP Server is a software which enable the interface the camera with RTSP protocol through HTTP protocol which can be accessed via web browser inside SCADA application.



System Requirements

Operating System Requirements:

- Windows Server 2019
- Windows Server 2022
- Windows 10
- Windows 11

Hardware Minimum Requirements:

- GPU 4 GB or more depending on number of cameras
- RAM 8GB
- CPU 2.4 GHZ 4 cores

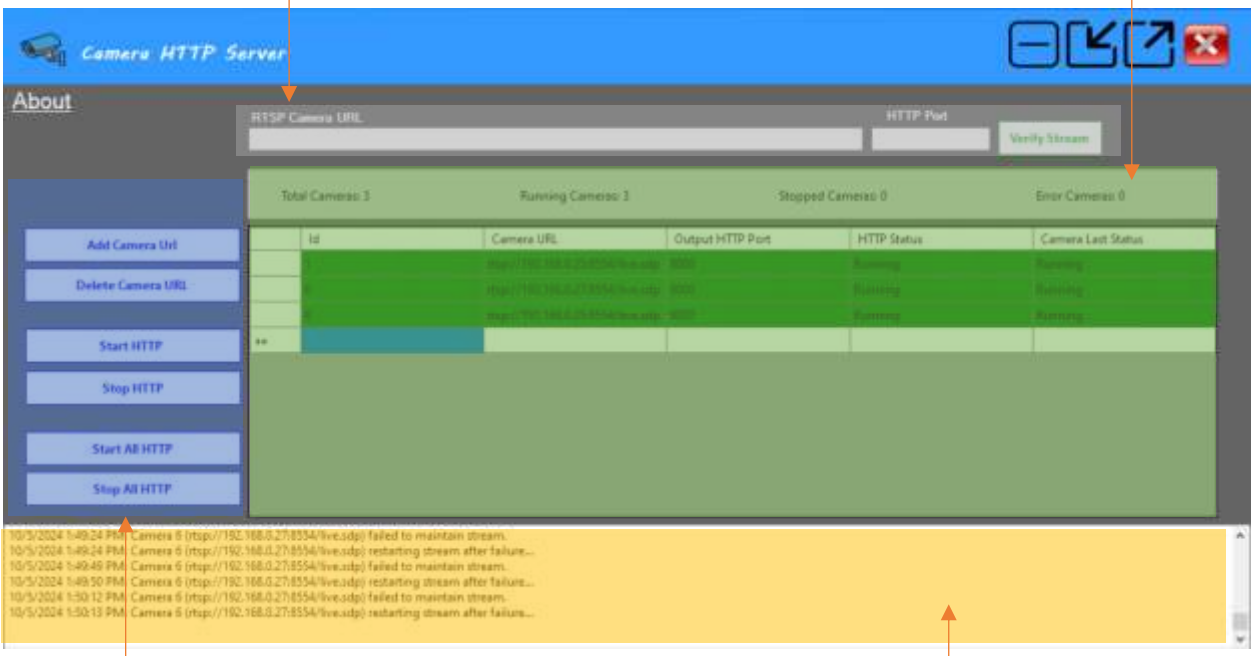
The software will need .NET 8.0 Desktop Runtime (v8.0.8) x64 to be installed and can be downloaded from the following link:

https://dotnet.microsoft.com/en-us/download/dotnet/thank-you/runtime-desktop-8.0.8-windows-x64-installer?cid=getdotnetcore

Application Overview

Inputs URL and HTTP port for the application

Cameras and HTTP status



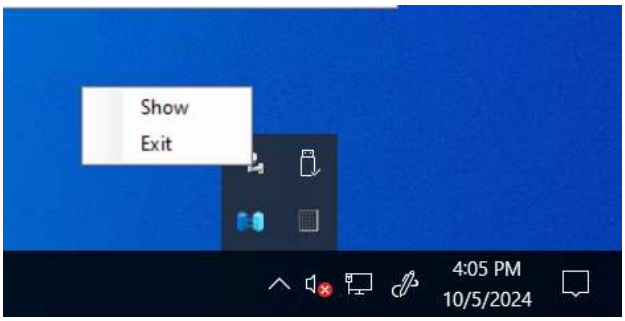
Control Area

Logs Area

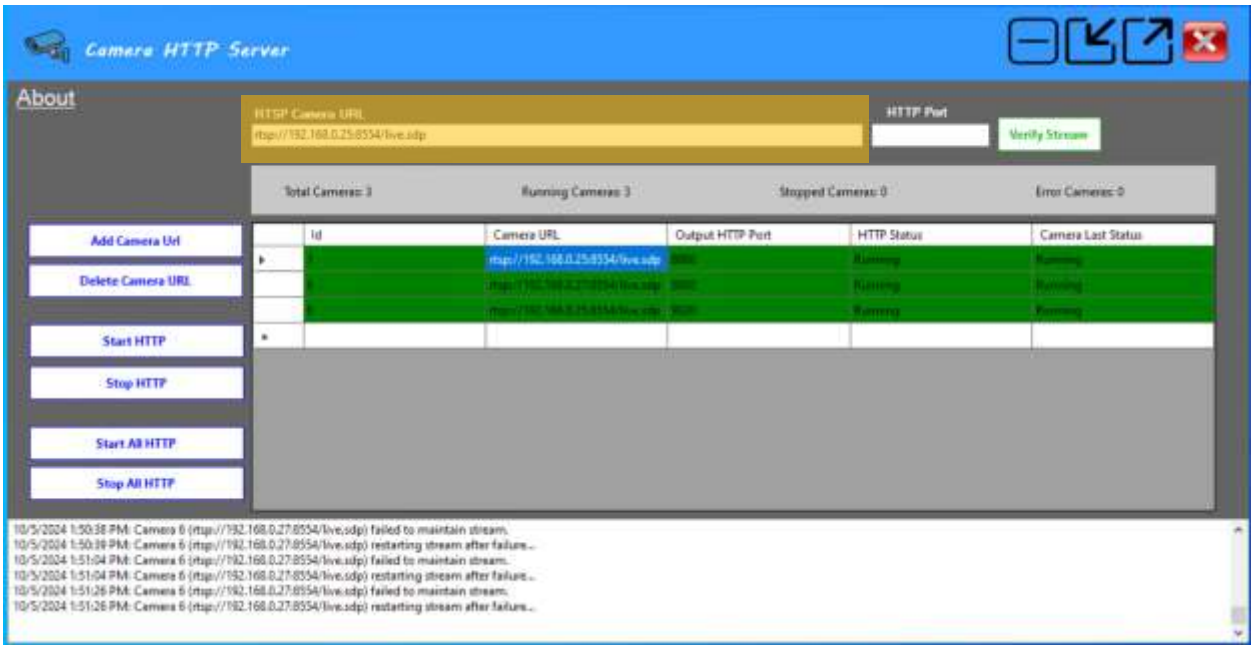
Minimize -Normal-Maximize -Close window.

When the window closed the application will be minimized in the notification menu

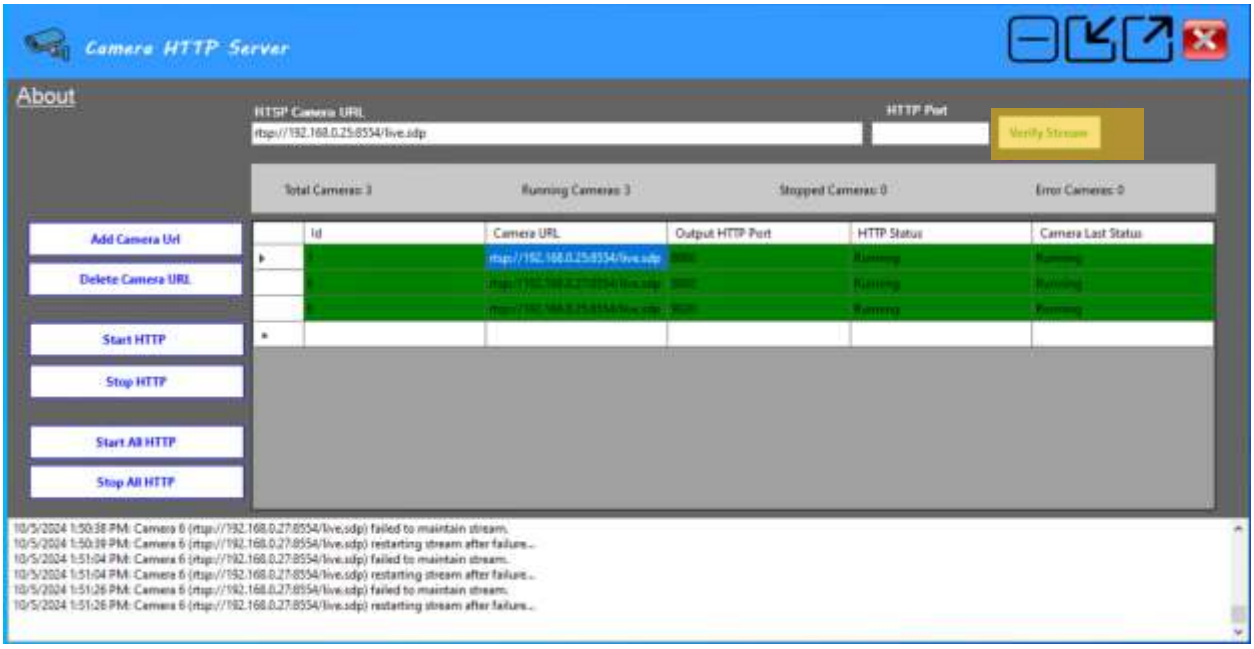
By write click on it , you can close the program or to open the window



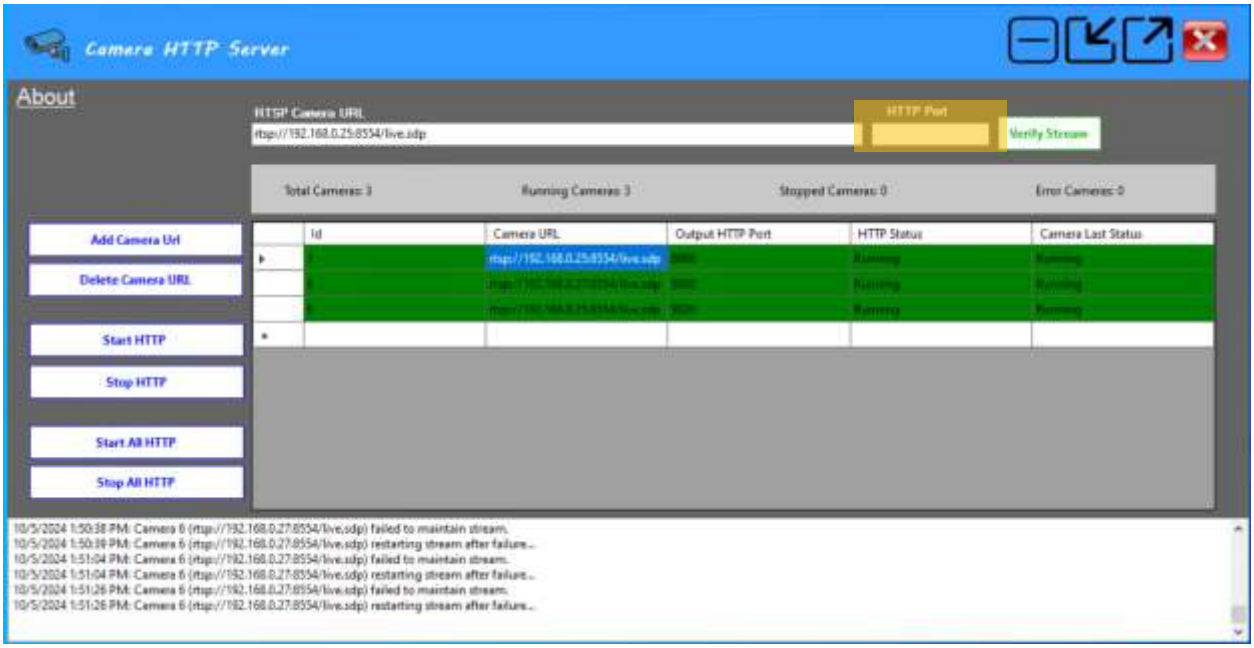
- **Step 1**:Add RTSP camera URL



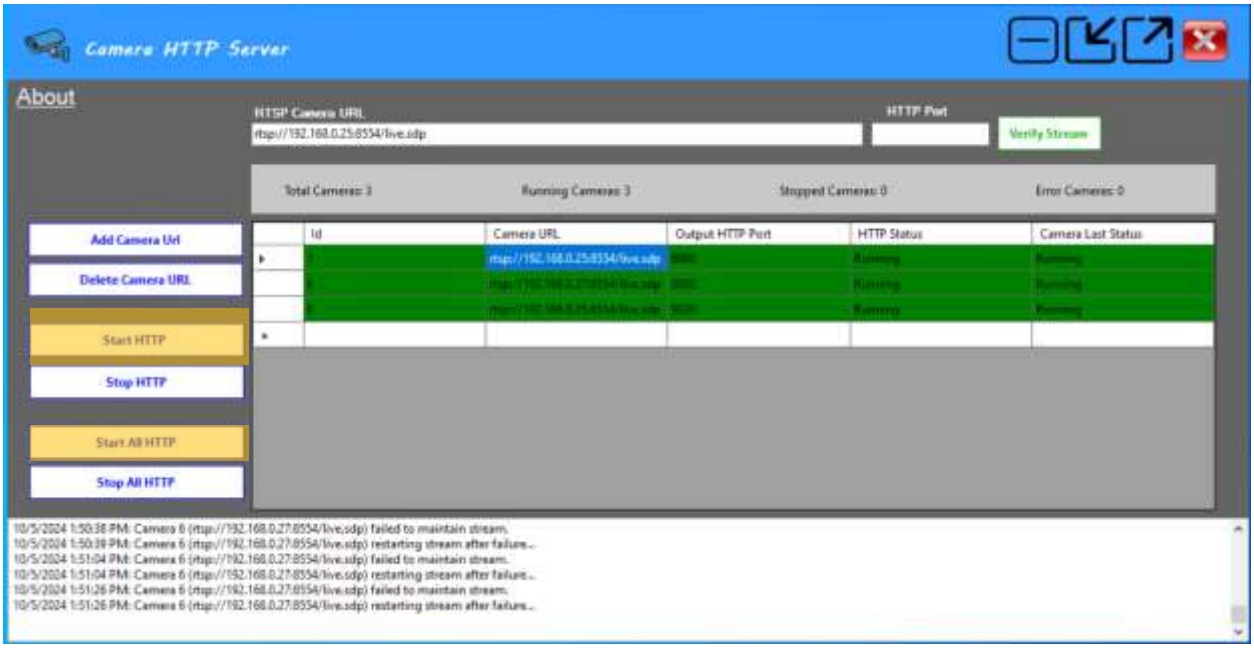
- **Step 2**:Verify the stream from “Verify Stream” Button if the camera is connected to the HTTP server



- **Step 3**:Add the port for HTTP which will be used to access the videos through web or SCADA client application.



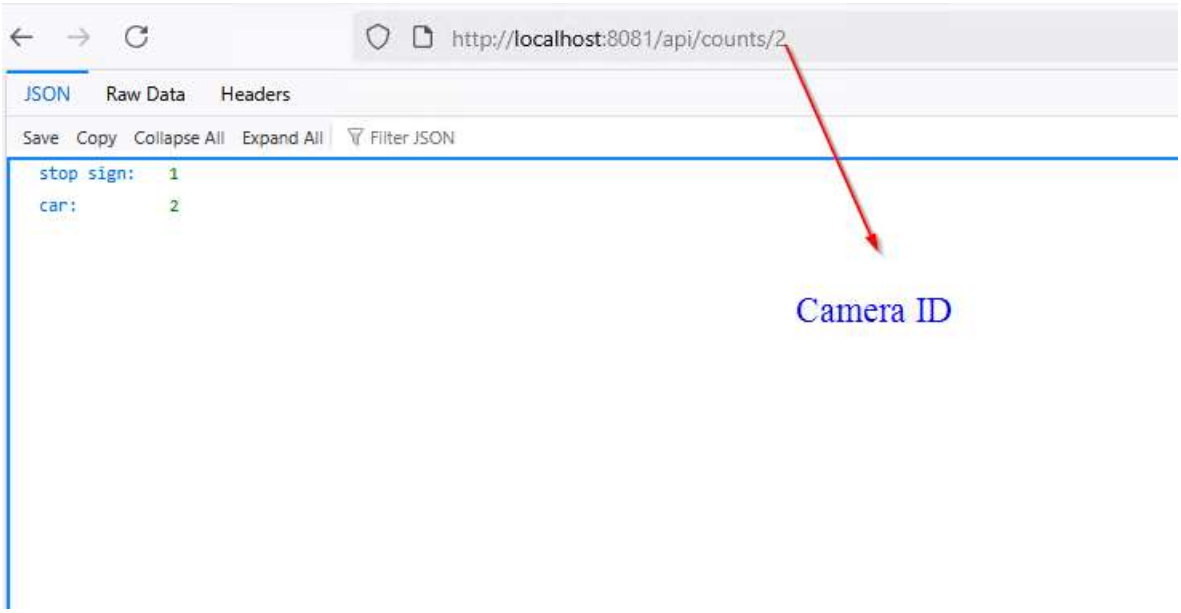
- **Step4** :select the camera URL row and start the streaming.

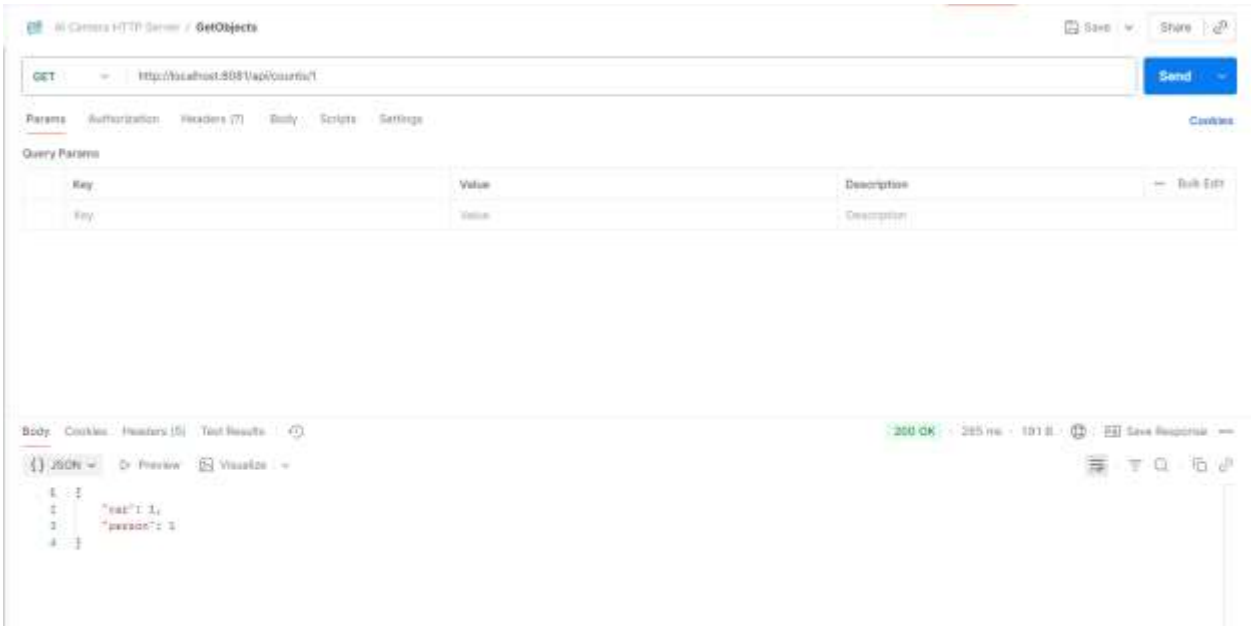


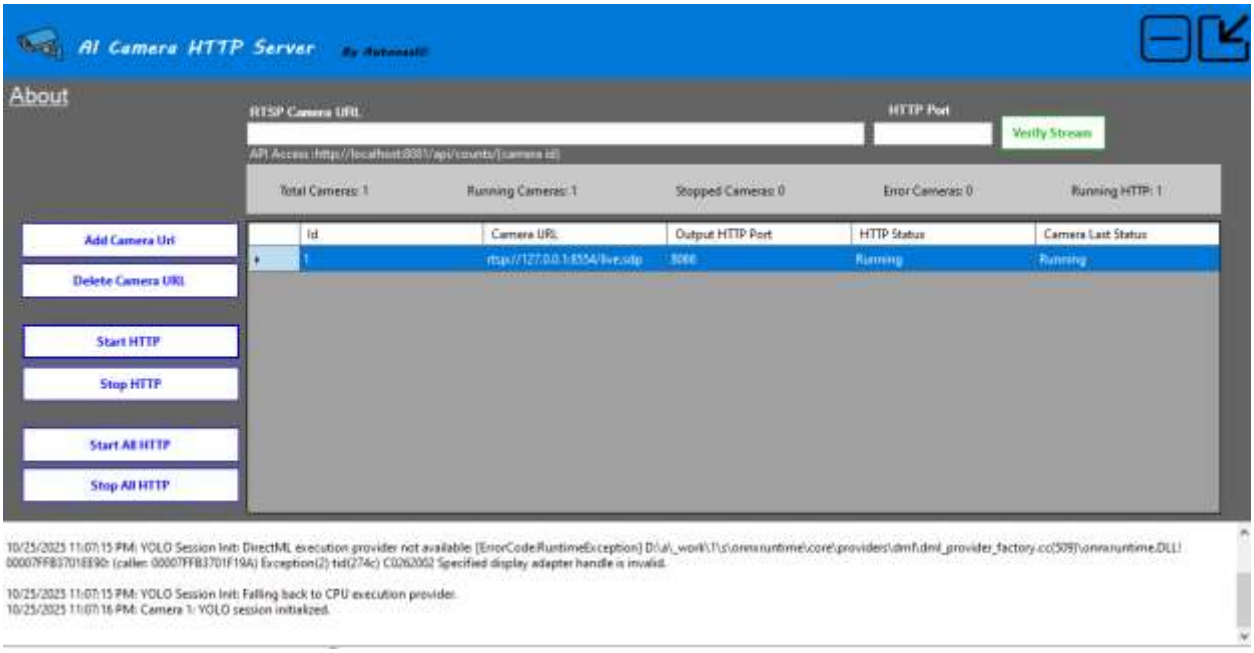
You can embed the http video stream in the SCADA application

- **Step5**: Access the objects count by using get request

http://localhost:8081/api/counts/2




GetObjects
Save
Share
GET
http://localhost:8081/api/counts/1
Send
Params
Authorization
Headers (7)
Body
Scripts
Settings
Cookies
Query Params
Key
Value
Description
Bulk Edit
Body
Cookies
Headers (5)
Test Results
200 OK
285 ms
191 B
Save Response
{} JSON
Preview
Visualize
{
"cat": 1,
"person": 1
}


AI Camera HTTP Server
By Autonasil
About
RTSP Camera URL
HTTP Port
Verify Stream
API Access: http://localhost:8081/api/counts/{camera id}
Total Cameras: 1
Running Cameras: 1
Stopped Cameras: 0
Error Cameras: 0
Running HTTP: 1
Add Camera Url
Delete Camera URL
Start HTTP
Stop HTTP
Start All HTTP
Stop All HTTP
Id
Camera URL
Output HTTP Port
HTTP Status
Camera Last Status
1
rtsp://127.0.0.1:8554/live.sdp
8080
Running
Running
10/25/2025 11:07:15 PM: YOLO Session Init: DirectML execution provider not available: [ErrorCode:RuntimeException] D:\a_work\1\s\onnxruntime\core\providers\dml\dml_provider_factory.cc(509)\onnxruntime.DLL!
00007FFB3701EE90: (caller: 00007FFB3701F19A) Exception(2) tid(274c) C0262002 Specified display adapter handle is invalid.
10/25/2025 11:07:15 PM: YOLO Session Init: Falling back to CPU execution provider.
10/25/2025 11:07:16 PM: Camera 1: YOLO session initialized.

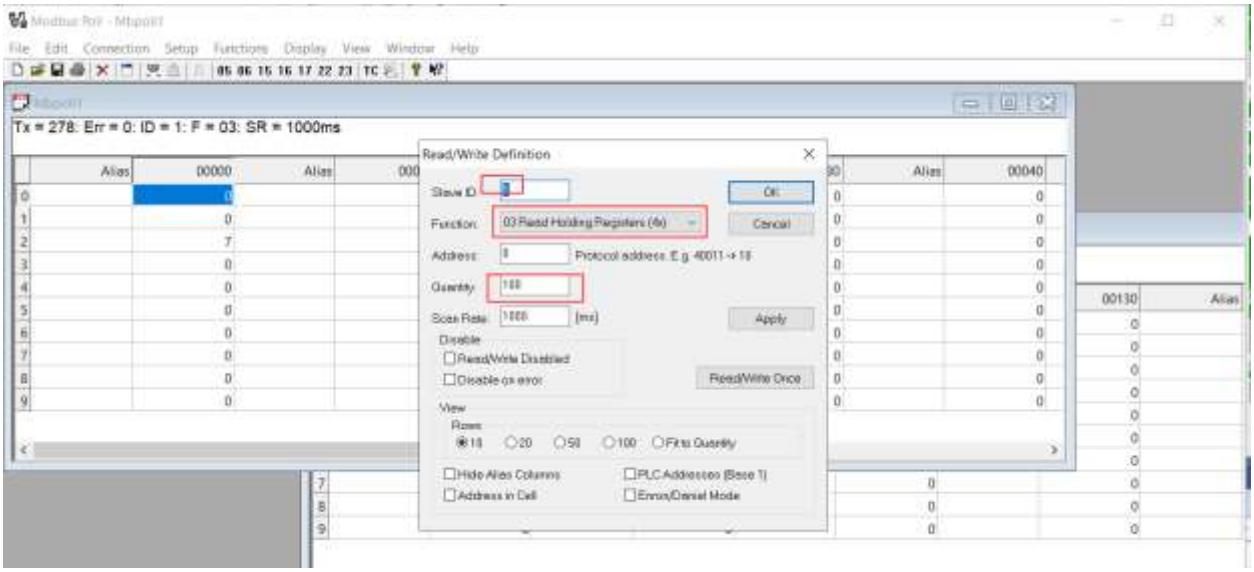
Using Modbus Server

The same data available through the REST API can also be accessed via the Modbus TCP server integrated within the application. Each camera is allocated 100 holding registers, where each register represents the count of a specific object type as defined in the table below.

Camera ID 1: Registers 40001 to 40099

Camera ID 2: Registers 40100 to 40199

This pattern continues for subsequent cameras, ensuring a structured and predictable register mapping for object count retrieval.



Index	Object Type
0	person
1	bicycle
2	car
3	motorbike
4	airplane
5	bus
6	train
7	truck
8	boat

Index	Object Type
9	traffic light
10	fire hydrant
11	stop sign
12	parking meter
13	bench
14	bird
15	cat
16	dog
17	horse
18	sheep
19	cow
20	elephant
21	bear
22	zebra
23	giraffe
24	backpack
25	umbrella
26	handbag
27	tie
28	suitcase
29	frisbee
30	skis
31	snowboard
32	sports ball
33	kite

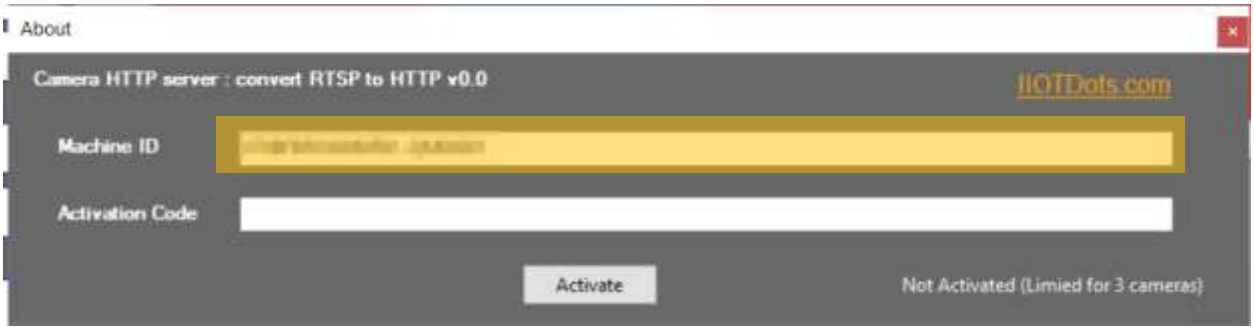
Index	Object Type
34	baseball bat
35	baseball glove
36	skateboard
37	surfboard
38	tennis racket
39	bottle
40	wine glass
41	cup
42	fork
43	knife
44	spoon
45	bowl
46	banana
47	apple
48	sandwich
49	orange
50	broccoli
51	carrot
52	hot dog
53	pizza
54	donut
55	cake
56	chair
57	sofa
58	potted plant

Index	Object Type
59	bed
60	dining table
61	toilet
62	tv
63	laptop
64	mouse
65	remote
66	keyboard
67	cell phone
68	microwave
69	oven
70	toaster
71	sink
72	refrigerator
73	book
74	clock
75	vase
76	scissors
77	teddy bear
78	hair drier
79	toothbrush

Program Activation

To able to have more than 3 cameras , you will need to activate the program, by sending the machine ID to:

sales@Autonexio.com



After getting the activation code , you can add it and activate the program