

LingoCamera Tool – Brief Introduction

LingoCamera Tool is an ONVIF IP camera manager built for Ubuntu 26.04 LTS. Its GUI utilizes Qt6Core (version 10) and GStreamer to demonstrate how to control and communicate with IP cameras through ONVIF and display live video. We also provide a C-based client library without a GUI, allowing developers to build an ONVIF client with their own GUI or RTSP libraries.

To develop your ONVIF Client products,

we provide a reference procedure, LingoClient Procedure, for calling Lingodigit's client library APIs in C based on public ONVIF specifications, covering tasks such as retrieving services, changing video encoder settings, and more.

If you are interested in our software for ONVIF Client and would like to request a demo version of the library running on a Linux console application, please contact us for further information at info@lingodigit.com.

```

== Profile T Test Functions ==
[0] GetDeviceInformation / Get Services /GetDate and Time
[1] select profile
[2] change video encoder settings
[3] rtsp stream url (UDP, get rtsp streamings and auto close)
[4] rtsp stream url (TCP, get rtsp streamings and auto close)
[5] rtsp stream url (HTTP, get http streamings and auto close)
[6] Create new profile
[7] delete profile
[8] enable event loop
[n] metadata test , event
[i] imaging service test
[n] Network configuration
[p] ptz service test
[q] disconnect and return to main menu
                    
```

LingoCamera Tool
GUI Based on Ubuntu 26.04 and Qt6Core6t64.

LingoClient Procedure
A GUI-less demo version for developers to build solutions with their own GUI or RTSP libraries.

LingoCamera Tool :

Based on Ubuntu 26.04 and Qt6Core6t64 version 6.10

Supported Features:

- Device Discovery
- Device Management Service
- Media Service
- RTSP streaming
- Imaging Settings

- Event Service
- PTZ Service
- Relay Output
- Snapshot

Lingodigit's Software for ONVIF Client Supported Features:

- Devices Discovery
- HTTP Digest Authentication for RTSP
- Media Service , Video Streaming
- Media2 Service, H.265 Video Streaming
- Video Encoder Configurations
- Event Notification
- Motion Alarm
- Imaging Service (brightness, contrast, ...)
- Network Configuration
- PTZ Control. Support absolute, relative and continuous move models, PTZ preset.
- MetaData with event, PTZ
- Audio and Video Configuration
- Video Source Configuration
- Video Analytics
- Digital (Relay) Output
- Snapshot

LingoCamera Tool Based on QT6 ubuntu 26.04

Install

```
sudo dpkg -i LingoCameraTool-26.07.deb
```

libqt6core6t64 v10.02

```
sudo apt install libb2-1
```

```
sudo apt install libqt6core6t64
```

```
sudo apt install libqt6quickwidgets6
```

```
sudo apt install gstreamer1.0-qt6
```

```
sudo apt install gstreamer1.0-libav
```

Remove

```
sudo dpkg -r LingoCameraTool
```

LingoCamera Tool Install and Active Usage :

- Login via an ONVIF Administrator account
Probe to get ONVIF IP cameras
- Usage Images: Page 4 ~
Imaging Settings, PTZ Service, Event Service, Relay Output

- Set an ONVIF account example as AXIS P3245-V
- Test Cameras:
AXIS P3245-V
ACTi Z41 (Zoom)
LTS PTZIP202WX4IR
AXIS Q1604
- LingoCamera Tool v26.07-29 brief log:
Modify for ExposureMode [Auto/Manual] display
Adjusting Image Settings Value Conversion

LingoCamera Tool active from console :

\$ sudo dpkg -i LingoCameraTool-26.07.deb

(Reading database ... 292599 files and directories currently installed.)

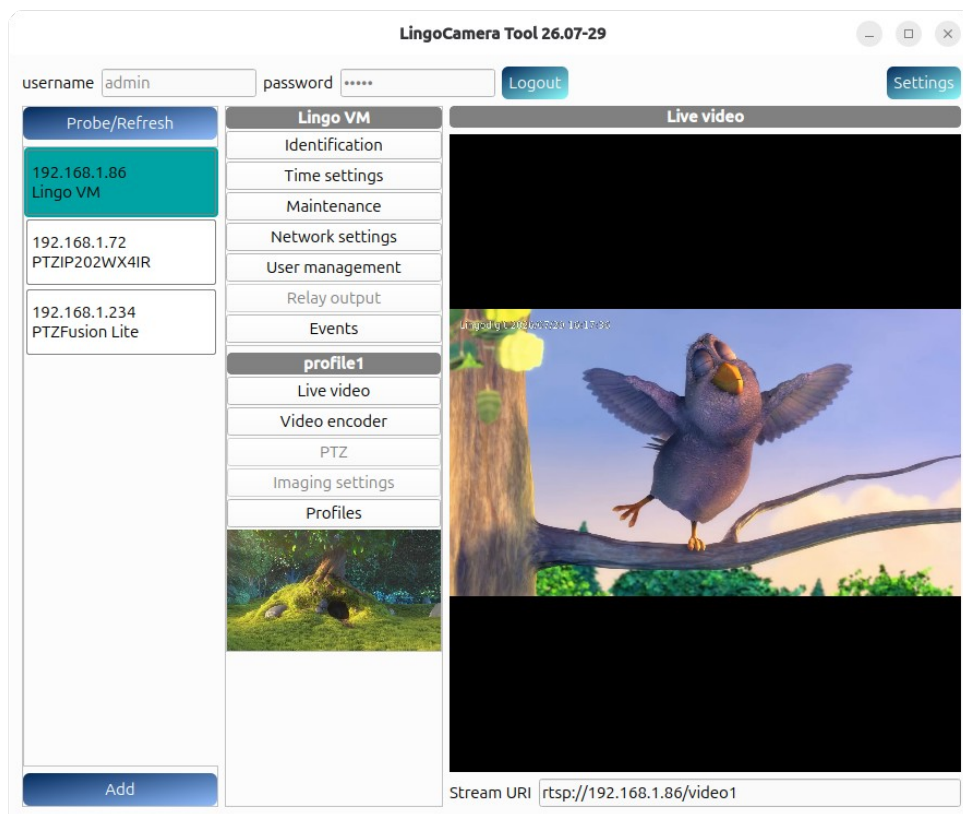
Preparing to unpack LingoCameraTool-26.07.deb ... Unpacking lingocameratool (26.07-01) over (26.07-01) ... Setting up lingocameratool (26.07-01) ... Processing triggers for gnome-menus (3.38.1-1ubuntu1) ... Processing triggers for desktop-file-utils (0.28-1build1) ... Processing triggers for hicolor-icon-theme (0.18-2build1) ...

\$ LingoCameraTool

QML debugging is enabled. Only use this in a safe environment.

LingoCamera Tool is an ONVIF IP camera manager built for Ubuntu 26.04 LTS.

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LingoCamera Tool 26.07-29

username

admin

password

Logout

Settings

Probe/Refresh

192.168.1.231
Z41

192.168.1.153
AXIS P3245-V

Add

AXIS P3245-V

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

profile_1 h264

Live video

Video encoder

PTZ

Imaging settings

Profiles



Welcome

LingoCamera Tool

Login failed. Please check ONVIF IP cameras settings:

1. Check IP Camera does "Synchronize with computer time".

2. Use ONVIF account. 3. Disable IPV6. 4. ONVIF Profile S.



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Login AXIS P3245-V via ONVIF account “admin”
 [Imaging settings] : change “Saturation value” from 20 to 70

LingoCamera Tool 26.07-29

usernameadminpassword*****LogoutSettings

Probe/Refresh

192.168.1.231Z41

192.168.1.153AXIS P3245-V

Add

AXIS P3245-V

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

profile_1 h264

Live video

Video encoder

PTZ

Imaging settings

Profiles



Imaging settings



Contrast50

Saturation20

Sharpness50

Wide Dynamic Range ModeOn

White Balance ModeAuto

Exposure PriorityFrame rate

Exposure ModeAuto

Exposure Max Time299949

Exposure Min Time1

Exposure Max Gain100

Exposure Min Gain0

Ir-Cut ModeAuto

Focus ModeManual

CancelOK

LingoCamera Tool 26.07-29

usernameadminpassword*****LogoutSettings

Probe/Refresh

192.168.1.231Z41

192.168.1.153AXIS P3245-V

Add

AXIS P3245-V

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

profile_1 h264

Live video

Video encoder

PTZ

Imaging settings

Profiles



Imaging settings



Contrast50

Saturation70

Sharpness50

Wide Dynamic Range ModeOn

White Balance ModeAuto

Exposure PriorityFrame rate

Exposure ModeAuto

Exposure Max Time299949

Exposure Min Time1

Exposure Max Gain100

Exposure Min Gain0

Ir-Cut ModeAuto

Focus ModeManual

CancelOK

6/p12

LingoCamera Tool 26.07-29

usernameadminpassword.....LogoutSettings

Probe/Refresh

192.168.1.72
PTZIP202WX4IR

192.168.1.234
PTZFusion Lite

Add

PTZIP202WX4IR

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

mainStream

Live video

Video encoder

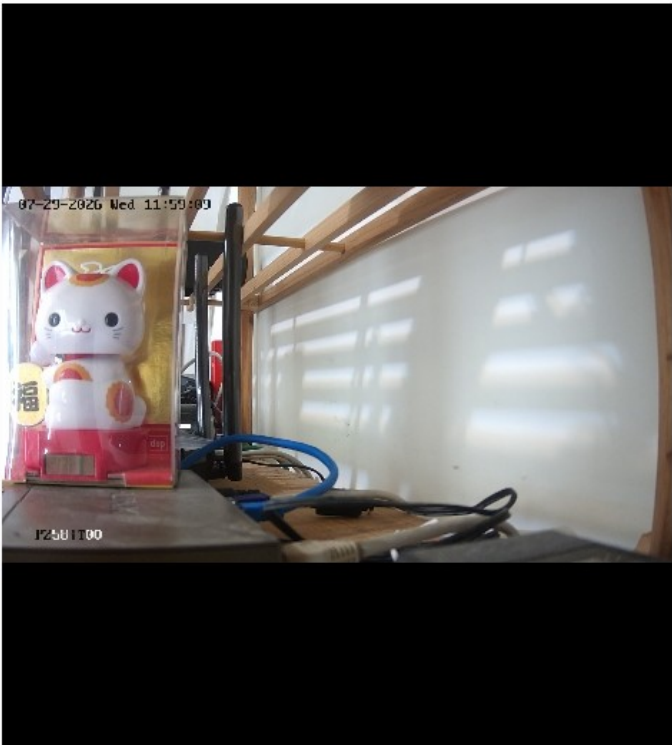
PTZ

Imaging settings

Profiles



PTZ



↑

←

⌂

→

⏏

↓

⏏

Pan

Tilt

Zoom

Speed

☐ Continuous

☒ Absolute

☐ Relative

PTZ PTZIP202WX4IR

7/p12

LingoCamera Tool 26.05.1

usernameadminpassword.....LogoutSettings

Probe/Refresh

192.168.1.1<manual>

192.168.1.231Z41

192.168.1.153
AXIS P3245-V

Add

AXIS P3245-V

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

profile_1 h264

Live video

Video encoder

PTZ

Imaging settings

Profiles



Events

	Time	Topic	Operation	Source	Data
120	2026-06-22 ...	tns1:PTZCo...	initialized	channel=3	ready=0
121	2026-06-22 ...	tns1:Device...	initialized	port=16	active=0
122	2026-06-22 ...	tns1:Device...	initialized	port=51	active=0
123	2026-06-22 ...	tns1:PTZCo...	initialized	channel=2	ready=0
124	2026-06-22 ...	tns1:Device...	initialized	port=28	active=0
125	2026-06-22 ...	tns1:Device...	initialized	port=5	active=0
126	2026-06-22 ...	tns1:Device...	initialized	Token=2	Failed=0
127	2026-06-22 ...	tns1:Device...	initialized	Token=5	Failed=0
128	2026-06-22 ...	tns1:Device...	initialized	port=63	active=0
129	2026-06-22 ...	tns1:Device...	initialized	port=40	active=0
130	2026-06-22 ...	tns1:Device...	initialized	port=17	active=0
131	2026-06-22 ...	tns1:Device...	initialized		sensor_leve...
132	2026-06-22 ...	tns1:Device...	initialized	Token=1	Failed=0
133	2026-06-22 ...	tns1:Device...	initialized	port=52	active=0
134	2026-06-22 ...	tns1:PTZCo...	initialized	channel=6	ready=0
135	2026-06-23 ...	tns1:VideoS...	changed		accessed=1
136	2026-06-23 ...	tns1:VideoS...	changed		accessed=0
137	2026-06-23 ...	tns1:VideoS...	changed		accessed=1
138	2026-06-23 ...	tns1:VideoS...	changed		accessed=0

Events

LingoCamera Tool 26.07-01

usernameadminpassword.....LogoutSettings

Probe/Refresh

192.168.1.86
Lingo VM

192.168.1.205
PTZIP202WX4IR

192.168.1.52
AXIS Q1604

Add

AXIS Q1604

Identification

Time settings

Maintenance

Network settings

User management

Relay output

Events

profile_1 h264

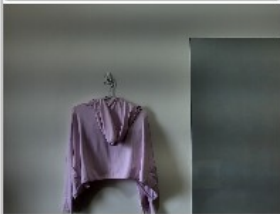
Live video

Video encoder

PTZ

Imaging settings

Profiles



Relay output

Digital outputs (relays)

1

Relay options

Token:1

Mode:bistable

Idle state:closed

Delay time:PT0S

Set

Relay state:

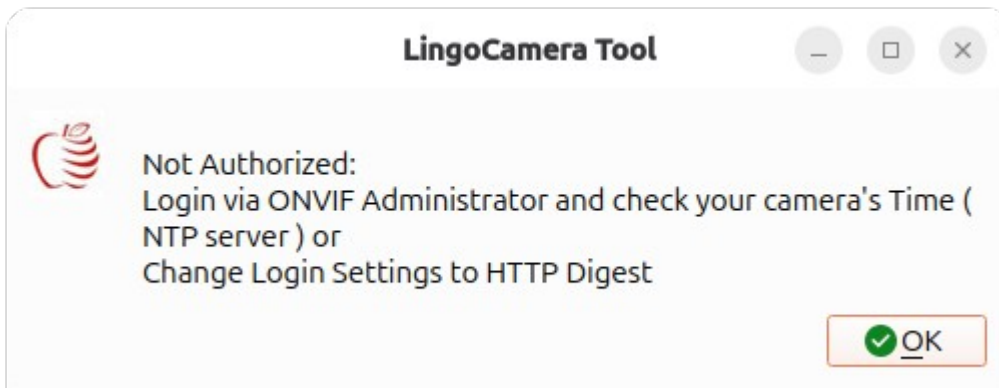
ActivateDeactivate

Relay output

9/p12

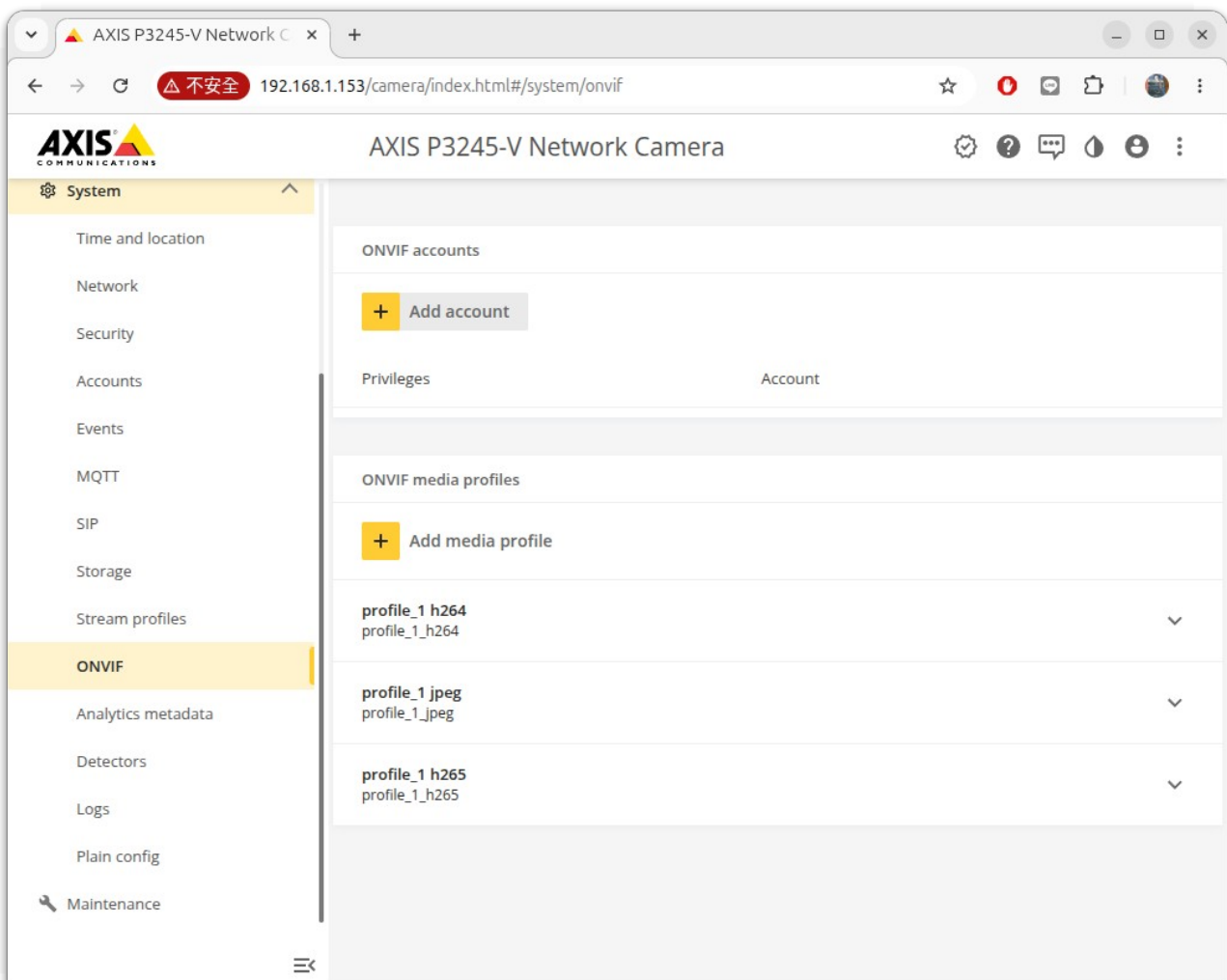
If Cannot Login, please check cameras:

1. **ONVIF account**,
2. **System time** (NTP server)



1.ONVIF account

Create an ONVIF Administrator account from web pages



Add account

Account

admin

New password

.....



Repeat password

.....



Privileges

Administrator



Cancel

Save

2. Check System time of IP Cameras

Date and time

11:08 AM

Monday, June 22, 2026

Asia/Taipei (GMT +8)

☐ 24-hour clock

Synchronization

- ☐ Automatic date and time (manual NTS KE servers)
- ☒ Automatic date and time (NTP servers using DHCP)
- ☐ Automatic date and time (manual NTP servers)
- ☐ Custom date and time

Fallback NTP servers

Max NTP poll time

1024 s

Min NTP poll time

64 s

Time zone

- ☐ DHCP: Not available
- ☒ Manual

Asia/Taipei (GMT +8)