

# QtCAM Streaming Application Installation Manual



**e-con Systems**

Your Product Development Partner

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# Introduction to QtCAM

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e-con Systems provides a sample V4L2 application, called QtCAM, along with the See3CAM device. QtCAM is a V4L2 video viewer and capture software for the Linux UVC driver, but customized to demonstrate some of the features of the See3CAM device.

This document describes how to install the QtCAM application on the host PC and how to launch the QtCAM application.

## Description

The QtCAM application is a simple interface for capturing and viewing video from the devices supported by the Linux UVC driver. This tool also supports extension unit control of e-con Systems See3CAM USB 3.1 Gen 1 webcam products.

Using QtCAM application, you can perform the following:

- Enumerate and list all USB video devices connected.
- Change resolution and color space/compression for video stream, if different resolutions are supported by the device.
- Display the currently configured values of preview.
- Capture the still images and set the path where still images will be saved.
- Configure extension settings control, if supported by device.
- Display the current frame rate per second.

All the above listed properties can be configured by attractive and easy to use Graphical User Interface (GUI). The application is tested in Ubuntu [>14.04 (LTS)] 32-bit and 64-bit Linux distributions.

e-con Systems provides prebuilt binaries of the QtCAM application for the following Linux distributions:

- Ubuntu 32-bit (14.04 32-bit and 18.04 32-bit not supported)
- Ubuntu 64-bit

# Installation of QtCAM

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This section describes how to install the QtCAM application on the host PC.

You can install the QtCAM application in OSs as follows:

- [Ubuntu 14.04](#)
- [Ubuntu 16.04](#)
- [Ubuntu 18.04](#)

If QtCAM application is already installed in the PC, you must run the following commands to remove the older version QtCAM application.

```
$ sudo rm -rf /usr/share/applications/Qtcam*.desktop
$ sudo rm -rf /usr/share/qml
$ sudo apt-get remove qtcam
```

**Note:** Building package support for Ubuntu 15.10 is not available.

## Installing the Application in Ubuntu 14.04

To install QtCAM application in Ubuntu 14.04, you must run the following commands.

```
$ sudo apt-add-repository ppa:qtcam/trusty
$ sudo apt-get update
$ sudo apt-get install qtcam
```

## Installing the Application in Ubuntu 16.04

To install QtCAM application in Ubuntu 16.04, you must run the following commands.

```
$ sudo apt-add-repository ppa:qtcam/xenial
$ sudo apt-get update
$ sudo apt-get install qtcam
```

## Installing the Application in Ubuntu 18.04

To install QtCAM application in Ubuntu 18.04, you must run the following commands.

```
$ sudo apt-add-repository ppa:qtcam/bionic
$ sudo apt-get update
$ sudo apt-get install qtcam
```

## Launching the Application

Once the installation is completed, you can click the **Qtcam** icon in Dash home to launch the application as shown below.

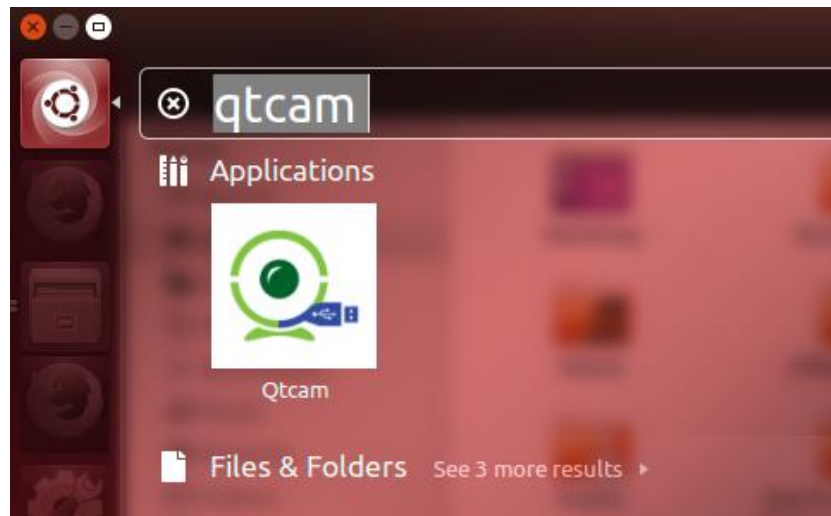


Figure 1: Launching the Application

You can also run the following command in terminal to launch the application.

```
$ sudo qtcam
```

When entering the command in terminal, the screen appears as shown below.

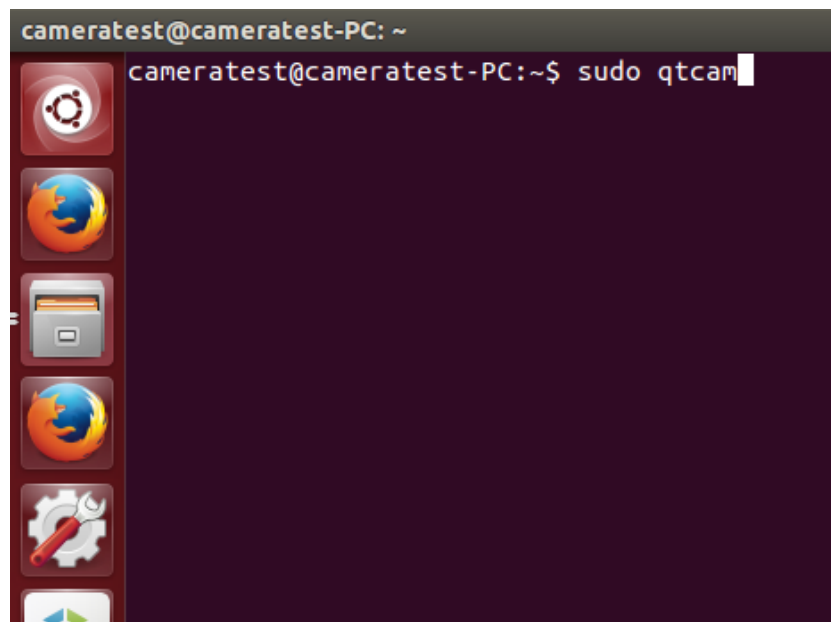


Figure 2: Command in Terminal

# Troubleshooting

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In this section, you can view the list of commonly occurring issues and their troubleshooting steps.

**A device connected, power indication LED is OFF or switching between Red and OFF state.**

It seems like there is no proper power input to the device. You need to check the cable or USB connector integrity. If a USB Hub is used, use external power.

**A device connected, power indication LED is Red.**

The device is powered up and ready to stream image data. You need to use QtCAM or any standard streaming application to start streaming.

**In QtCAM sample application, the device is selected but the preview window is White.**

You need to install the latest version of QtCAM application from the [Developer Resources](#) website.

**In QtCAM sample application, the device is selected but the preview window is Black and indication LED blinks between Red and Yellow continuously.**

It seems like no image is received from the camera. Contact e-con Systems online support [support@e-consystems.com](mailto:support@e-consystems.com).

**1. I can view frame corruption while streaming. Can this be avoided?**

Yes, this is due to bandwidth limitation in USB host. This may occur when multiple cameras are connected to single USB host or in USB hosts of less powerful embedded boards. Visit e-con Systems blog <https://www.e-consystems.com/blog/camera/?p=1720> for more information on USB practical bandwidths.

**2. What sort of support does e-con Systems provides along with the camera?**

e-con Systems will provide the basic support on the evaluation for all the customers who have purchased the camera. The hardware/software/firmware customization of the kit will be provided by e-con Systems based on your requirements. e-con Systems will also manufacture your custom cameras and will be supplied.

**3. Is there any software available with the kit?**

Yes, e-con Systems provide e-CAMView for Windows and QtCAM for Linux sample application demonstrating the capabilities of this camera.

**4. What are the supported OSs?**

The supported OSs are Linux Ubuntu 14.04 (64-bit), 16.04 (32bit and 64-bit) and 18.04 (64-bit).

**5. The camera is not suitable to my requirements. Can I return the kit?**

No, the kit is non-returnable and non-refundable. However, the kit is under warranty and e-con Systems will replace for any failed kit under warranty terms.

**6. The kit is getting very hot. Is it suitable for usage?**

Yes, but the camera module needs an external heat sink to dissipate the heat for prolonged usage.

**7. I would like to use a different lens. What is the NRE charge?**

If your application requires fixed focus custom lens, contact [sales@e-consystems.com](mailto:sales@e-consystems.com). Non-recurring engineering (NRE) refers to the one-time cost to research, design, develop and test a new product or product enhancement.



# What's Next?

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After launching the QtCAM application, you can refer to the QtCAM streaming application user manual to know more about the See3CAM device features.

# Glossary

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**API:** Application Programming Interface.

**CMOS:** Complementary Metal Oxide Semiconductor.

**GUI:** Graphical User Interface.

**NRE:** Non-recurring engineering.

**OS:** Operating Systems.

**USB:** Universal Serial Bus.

**USB 2.0:** Universal Serial Bus High Speed.

**USB 3.1 Gen 1:** Universal Serial Bus Super speed.

**UVC:** USB Video Class.

**V4L2:** Video for Linux version 2 is a collection of device drivers and API for supporting real-time video capture on Linux systems.

# Support

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## **Contact Us**

If you need any support on the product, please contact us using the Live Chat option available on our website - <https://www.e-consystems.com/>

## **Creating a Ticket**

If you need to create a ticket for any type of issue, please visit the ticketing page on our website - <https://www.e-consystems.com/create-ticket.asp>

## **RMA**

To know about our Return Material Authorization (RMA) policy, please visit the RMA Policy page on our website - <https://www.e-consystems.com/RMA-Policy.asp>

## **General Product Warranty Terms**

To know about our General Product Warranty Terms, please visit the General Warranty Terms page on our website - <https://www.e-consystems.com/warranty.asp>

## Revision History

Rev	Date	Description	Author
1.0	06-January-2020	Initial Draft	Camera Dev Team
1.1	24-January-2020	Content updated	Camera Dev Team
1.2	16-April-2021	Updated installation procedure	Camera Dev Team
1.3	20-May-2021	Updated changes	Camera Dev Team