

Operating a Mercury Gige USB2.0 and USB3.0 Camera with Matlab

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1. Introduction

The MERCURY series camera is DAHENG IMAGING's mature area scan industrial digital camera, featuring mega pixels resolution, high definition, extremely low noise, perfect color conversion and compact design. The MERCURY family cameras include Gige cameras USB2.0 cameras and USB3.0 cameras and so on.

Thanks to the extremely compact (29mm×29mm×29mm), robust metal housings and locking screw connectors, The MERCURY cameras can secure the reliability of cameras deployed in harsh environments.

The MATLAB highperformance language for technical computing integrates computation, visualization, and programming in an easy-to-use environment where problems and solutions are expressed in familiar mathematical notation

This document describes how to configure MATLAB so that MERCURY cameras are detected in Matlab. Once the cameras are displayed in Matlab, you can configure them as desired and acquire images.

2. Requirements

In this document the following software and hardware is needed:

Matlab 2016a

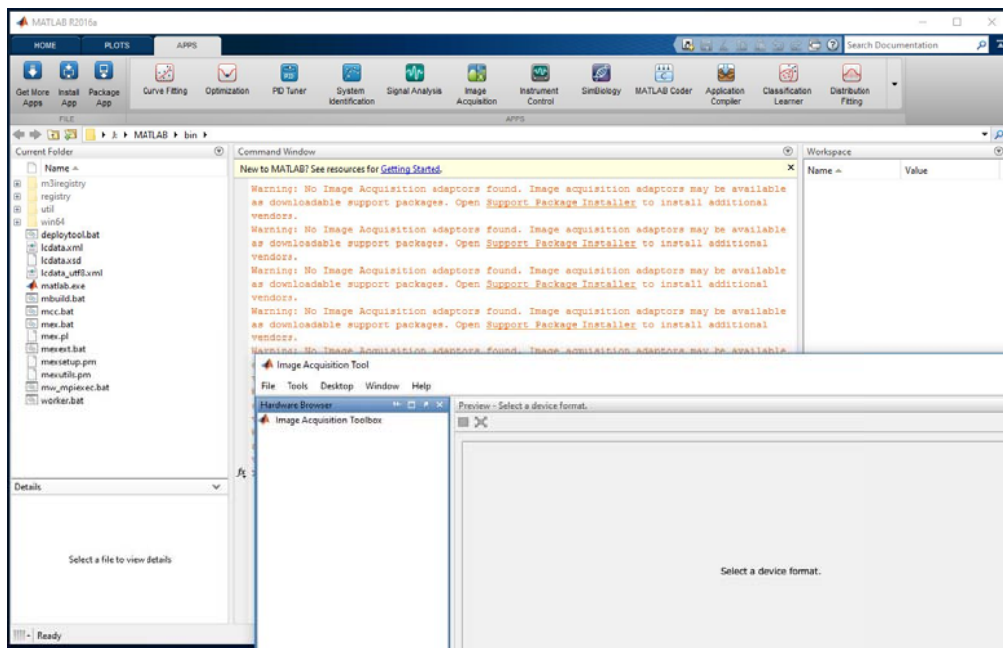
MER_Setup_en.exe for 1.0.1707.8261

Windows 10 Pro x64

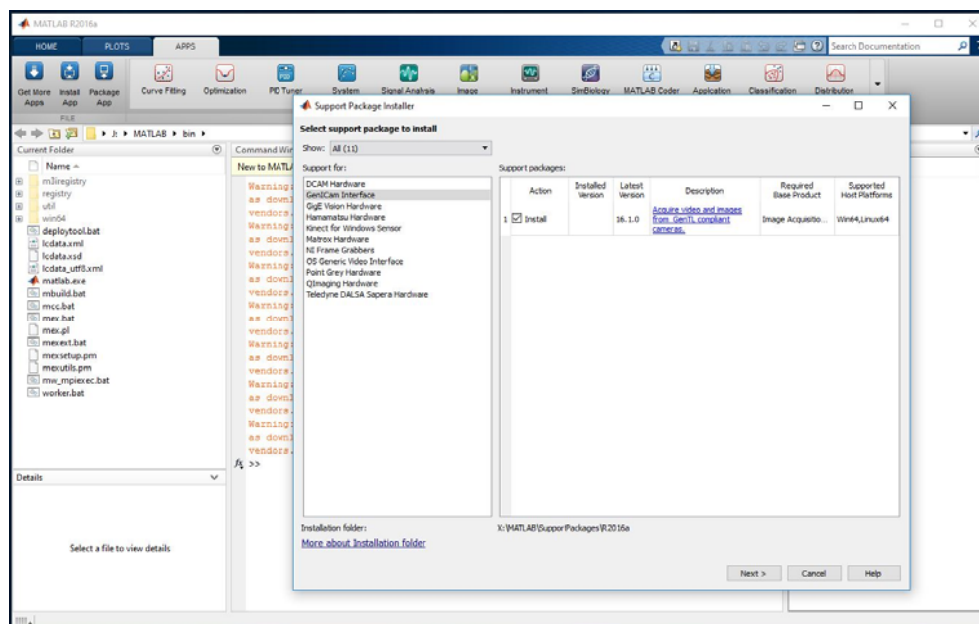
Test camera: MER-130-30UM MER-503-36U3C MER-125-30GC

3. Install GenICam Interface package

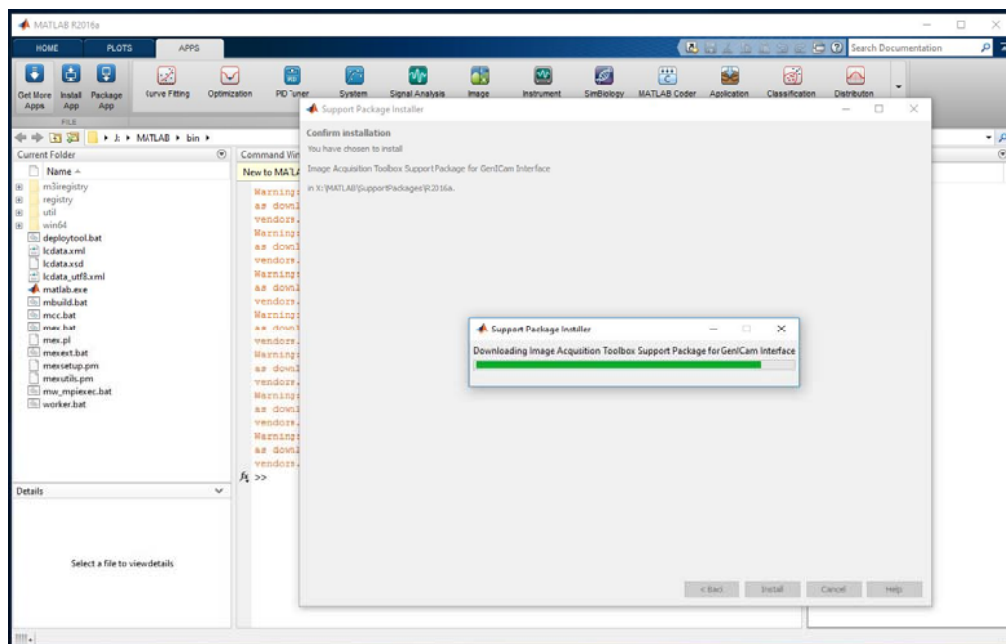
1) After opening Matlab, open **Image Acquisition** under the **APPS** tab. If the **GenICam Interface** package is already installed, then steps 3 and 4 are ignored. If the **GenICam Interface** package is not installed, the warning **No Image Acquisition adapters found** will pop up in the Command Window, as shown below:



2) Install the **GenICam Interface** package (requires a networked environment). Click **Support Package Installer** in the Command Window to display the package installation dialog. Select **GenICam Interface** and click Next.

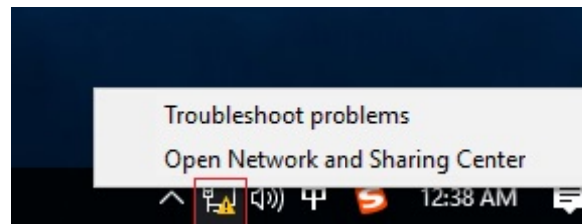


3) Click **Next** after landing Math Works;

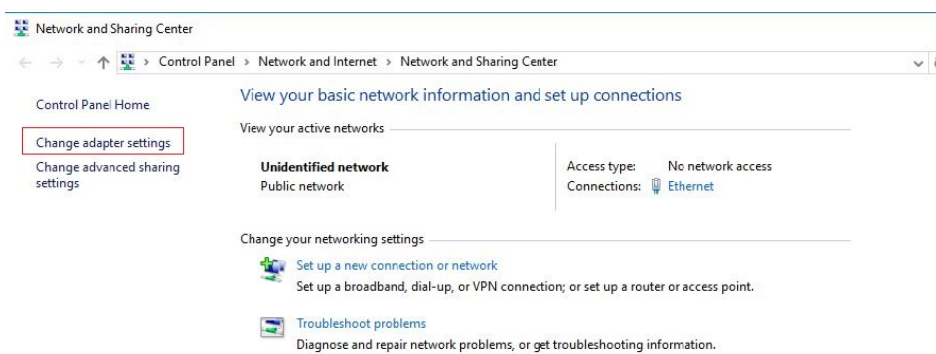


4. Operating a MERCURY Vision Camera with MATLAB

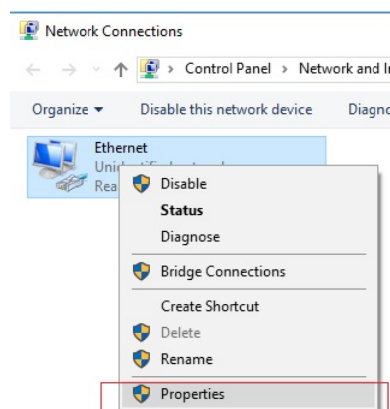
- 1) Perform the eighth step directly if it is a USB series camera. IP needs to be configured for Gige camera
- 2) First install the Mercury camera driver. After the driver installation is completed, Configure network adapter , Right click **Network** and select **Open Network and Sharing Center**



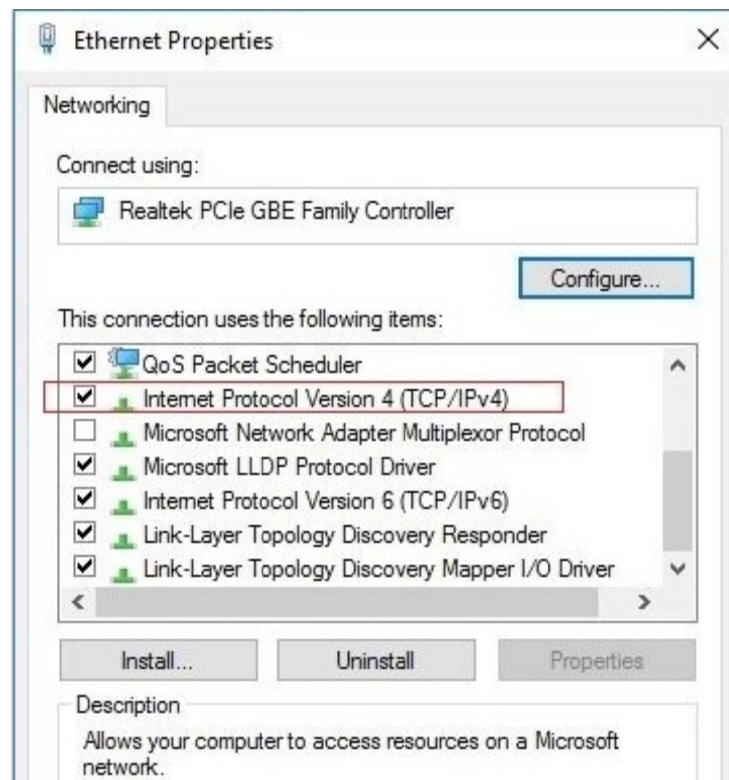
- 2) Click Change adapter settings



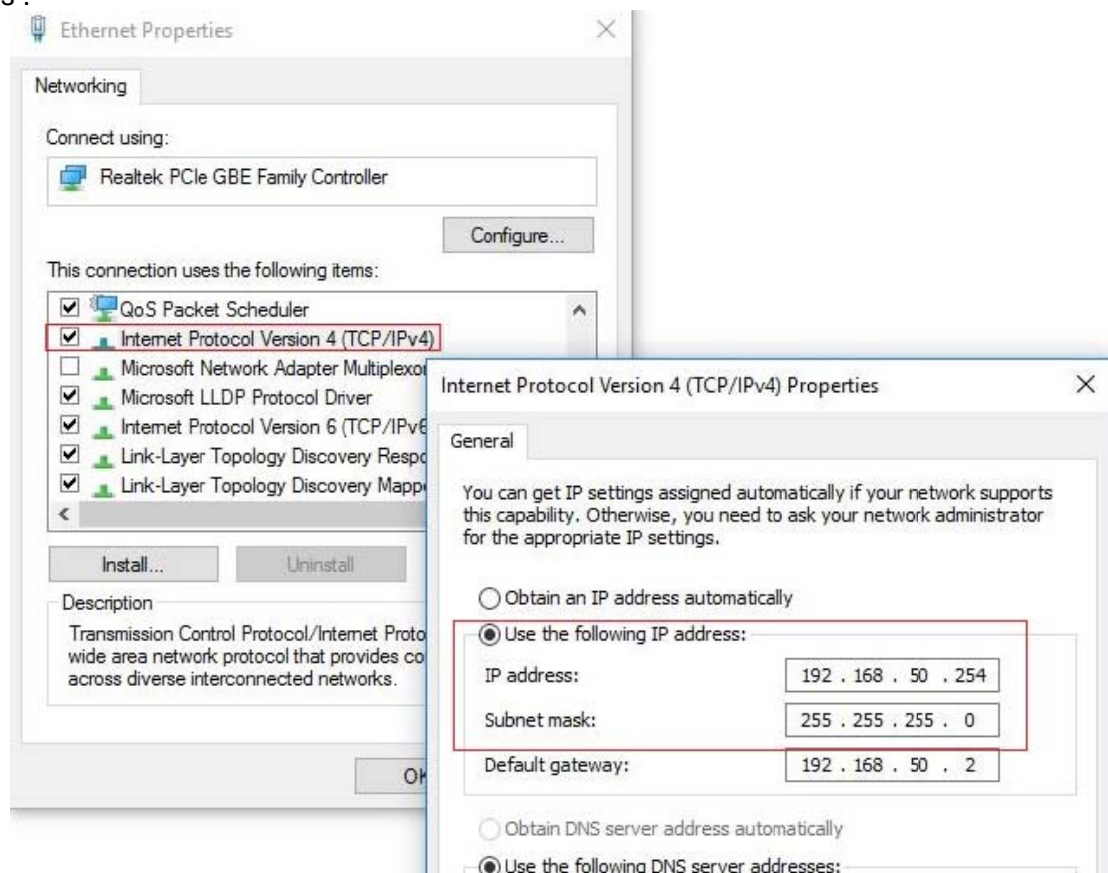
- 3) Find the corresponding network in the **Network Connections** dialog box, right-click and select Properties.



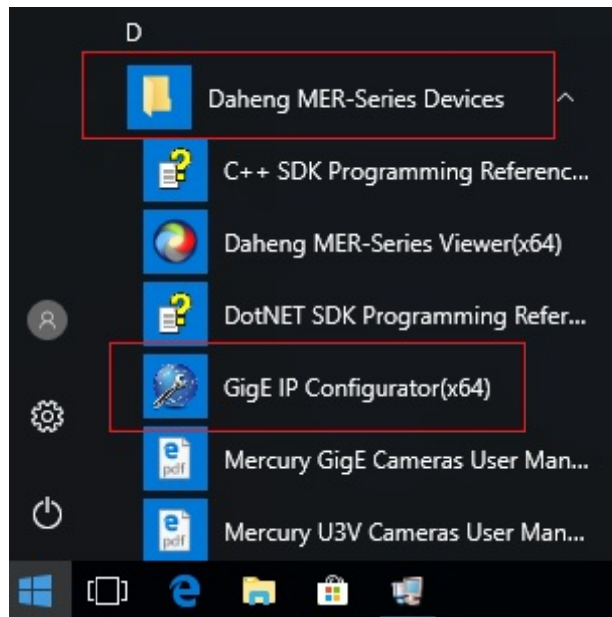
- 4) Select TCP/IPV4



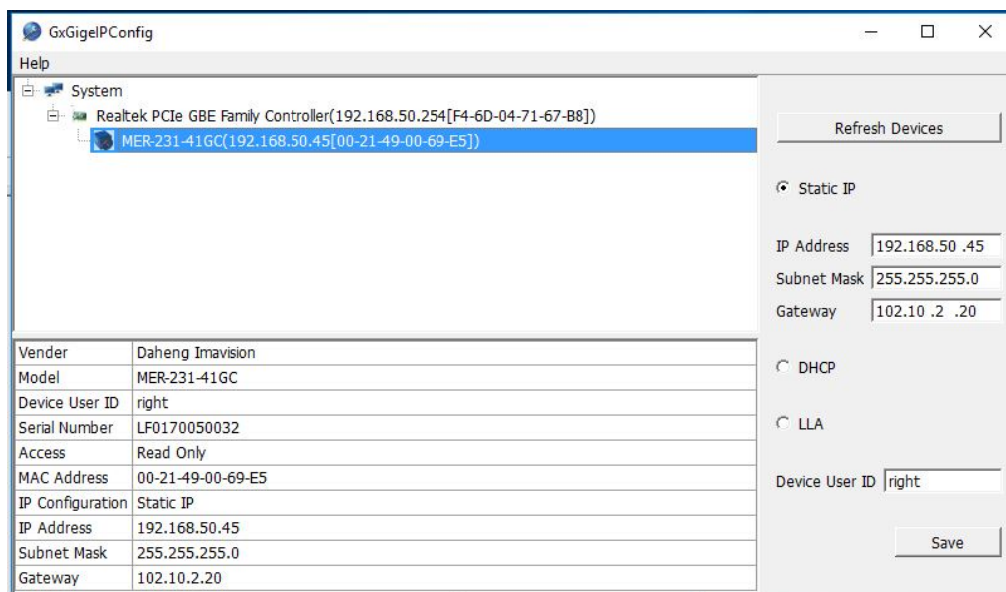
5) After enter Use the following IP address, configure the network adapter IP with Use the following IP address .



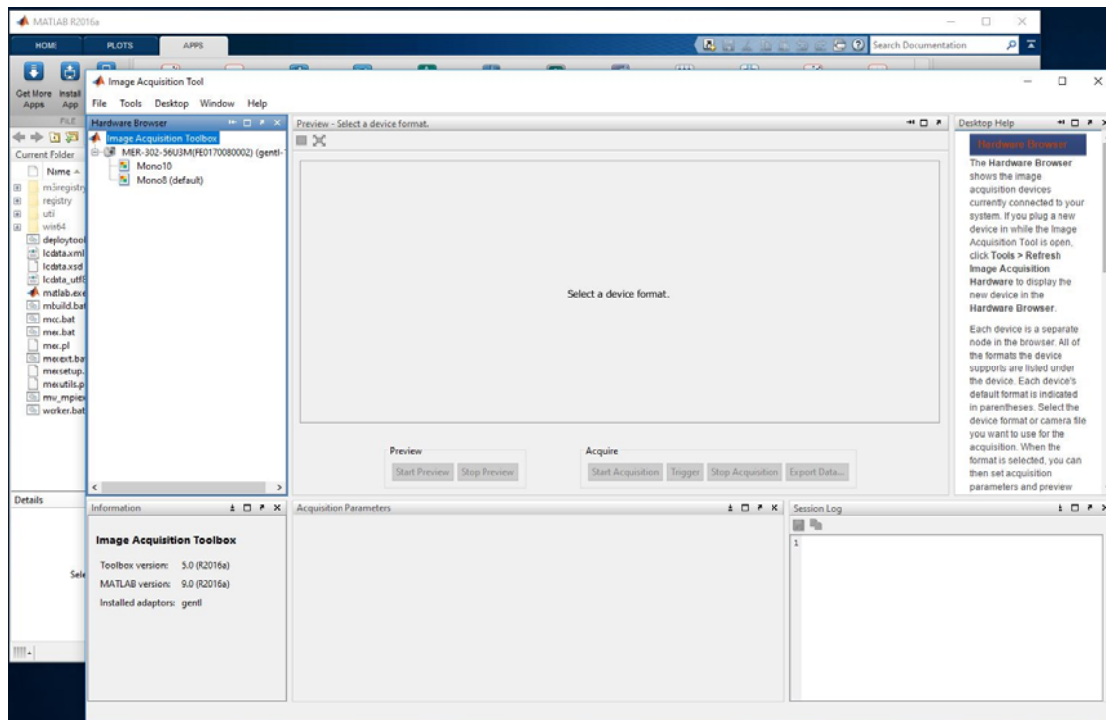
6) Configure the camera's IP after finishing the network card IP configuration . Find **Gige IP Configurator** in the **Daheng MER-Series Devices** folder in the start menu.



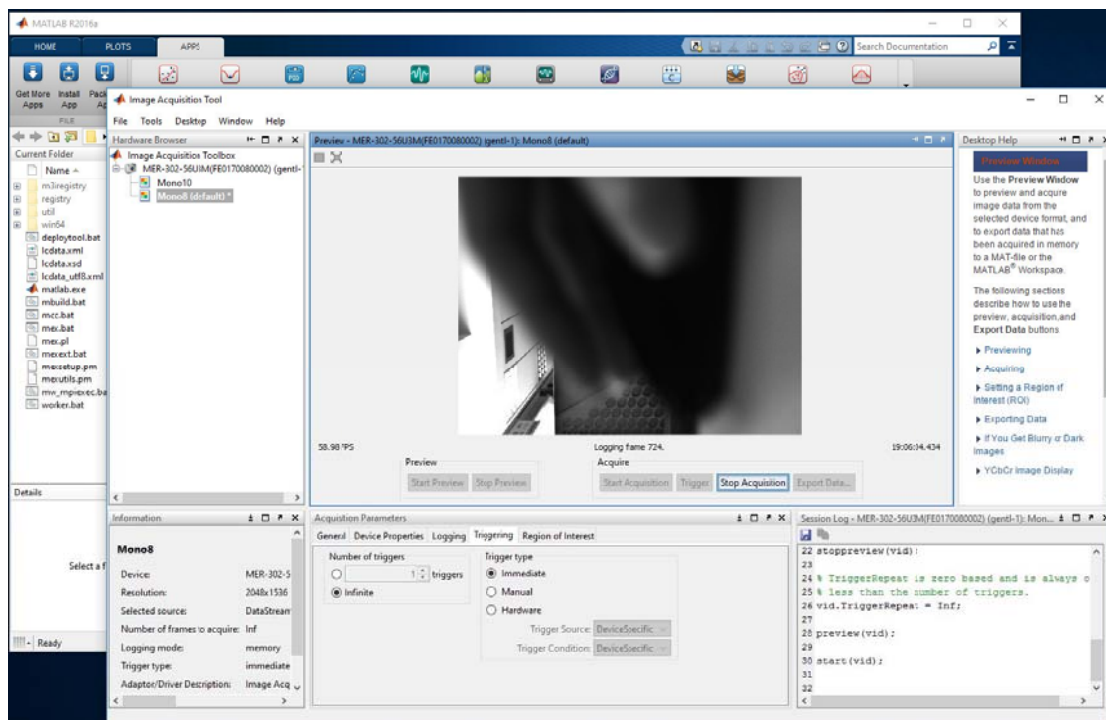
7) In the **GxGigEIPConfig** you can see the camera, select **Static IP** to configure the camera IP, and ensure that the camera IP and network card IP are in the same network segment , then save the configuration after completion



8) Open **Image Acquisition** under the **APPS** tab and the following dialog box appears:



9) Double-click the image format under the left camera model, change the **Number of triggers** to **Infinite** under **Acquisition Parameters**, and click **Start Preview** to display the image in real time.



Revision History

No.	Version	Changes	Data
1	V1.0.0	Initial release	2018-0413