

# MvTec HALCON for Photoneo 3D Sensors using GigE Vision

User guide on using the GigE Vision standard in MvTec HALCON

## What is GigE Vision?

GigE Vision is a high-speed communication protocol and interface standard that is designed for transmitting data over Ethernet networks.



## GigE Vision with Photoneo devices

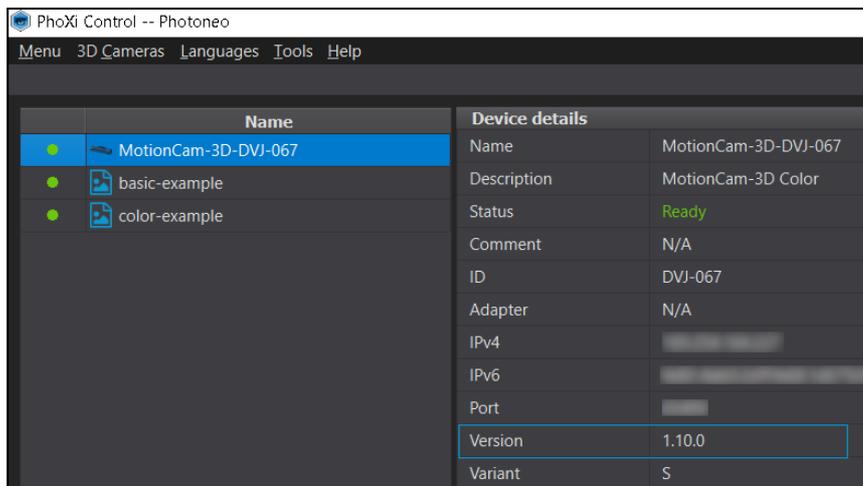
[GigE support](#) was introduced to Photoneo devices with Firmware 1.10.0. Third-party software with GigE support can be used to operate Photoneo 3D Sensors without a running instance of PhoXi Control.

## What is MvTec HALCON?

MvTec HALCON provides an Integrated Development Environment (IDE) for machine vision that enables users to build image-processing solutions. More information, guides, and a list of supported operating systems can be found at [mvtec.com](https://www.mvtec.com).

## Supported Photoneo 3D Sensors

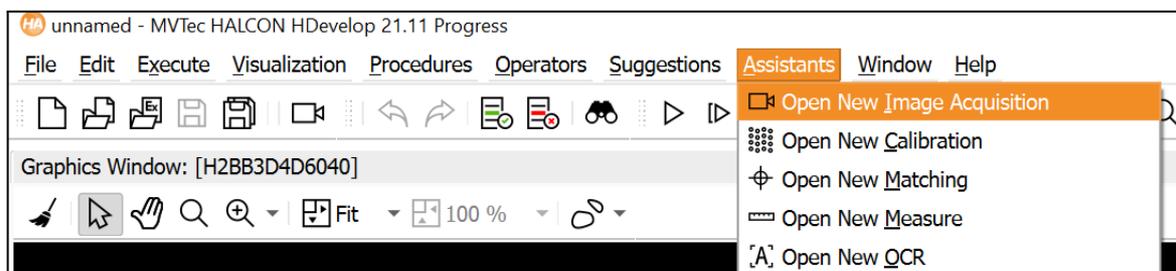
- A device with firmware version 1.10.0 or later (can be found in PhoXi Control)



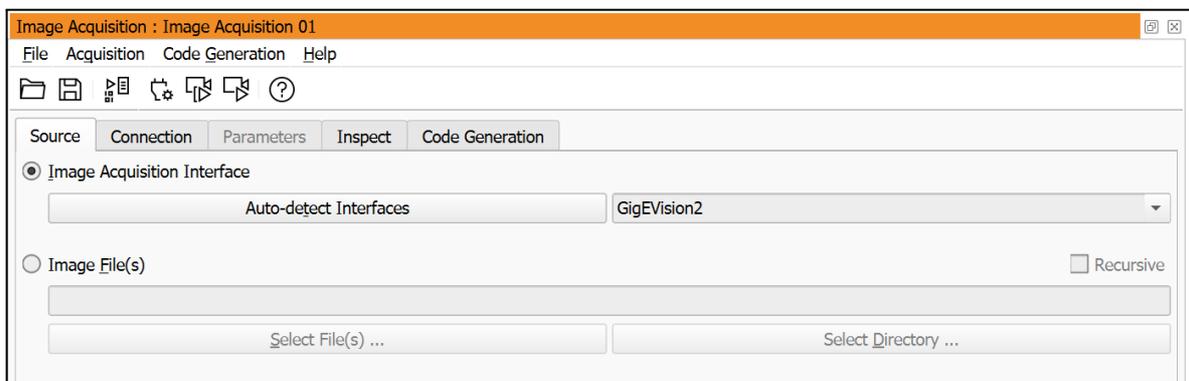
Note: If your device has a lower firmware version, consult the [Versioning Guide](#) to see if it can be updated and the [Firmware updater](#) to update the device.

## Connecting to a Photoneo 3D Sensor

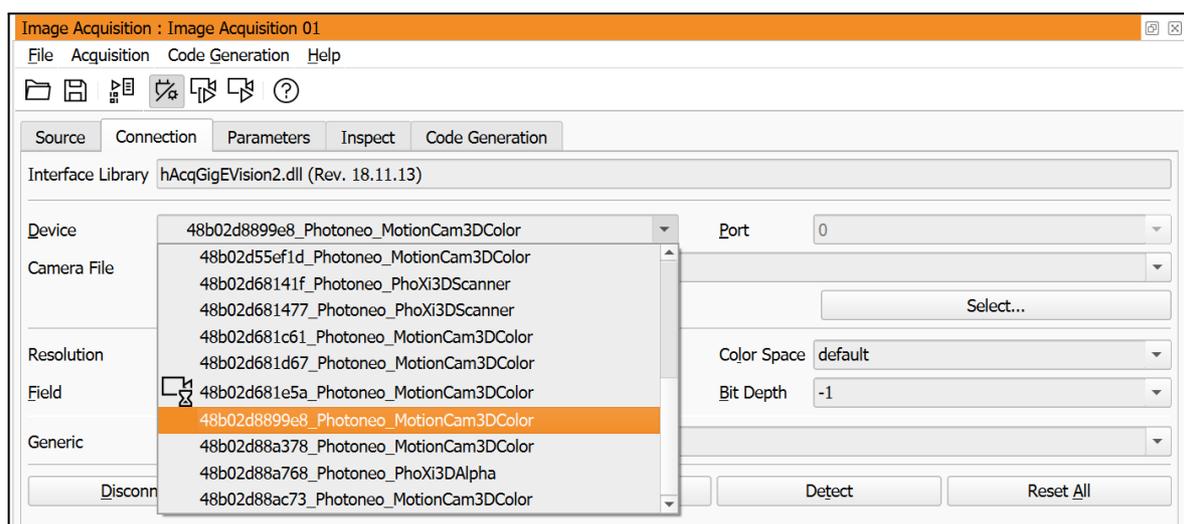
- Install [MVTec HALCON 21.11.0.0 or higher](#)
  - Refer to [HALCON documentation](#)
- Use the examples available in the [GitHub](#) repository
- or
- Open a new program in HALCON
- Click Assistants → Open New Image Acquisition



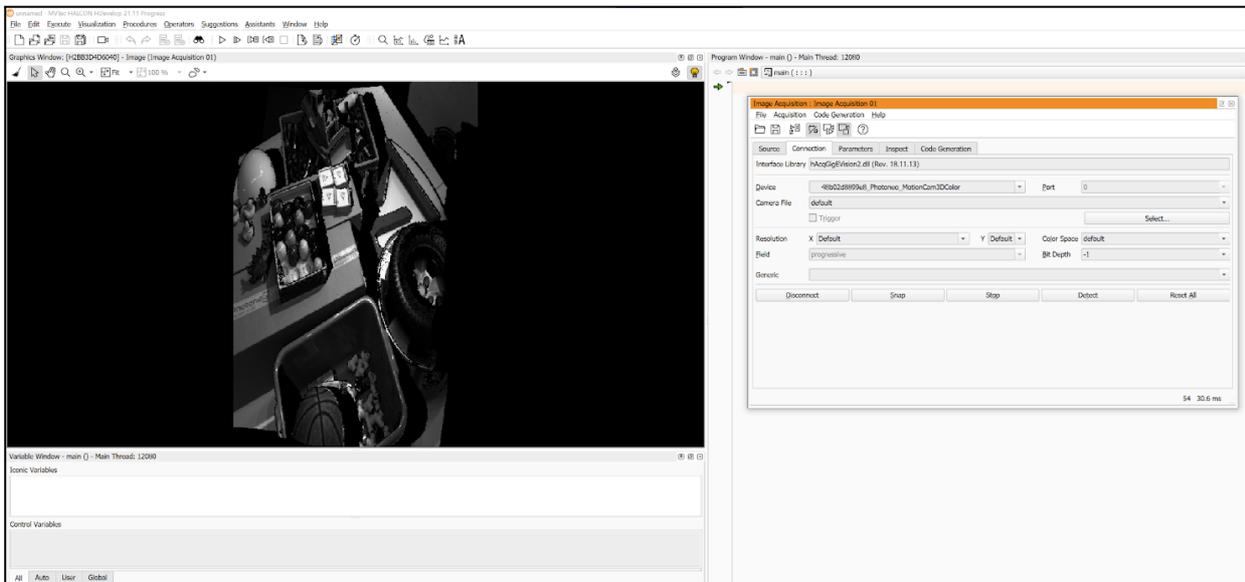
- In the *Source* tab, have the *Image Acquisition Interface* option checked and choose GigEVision2 interface as seen below



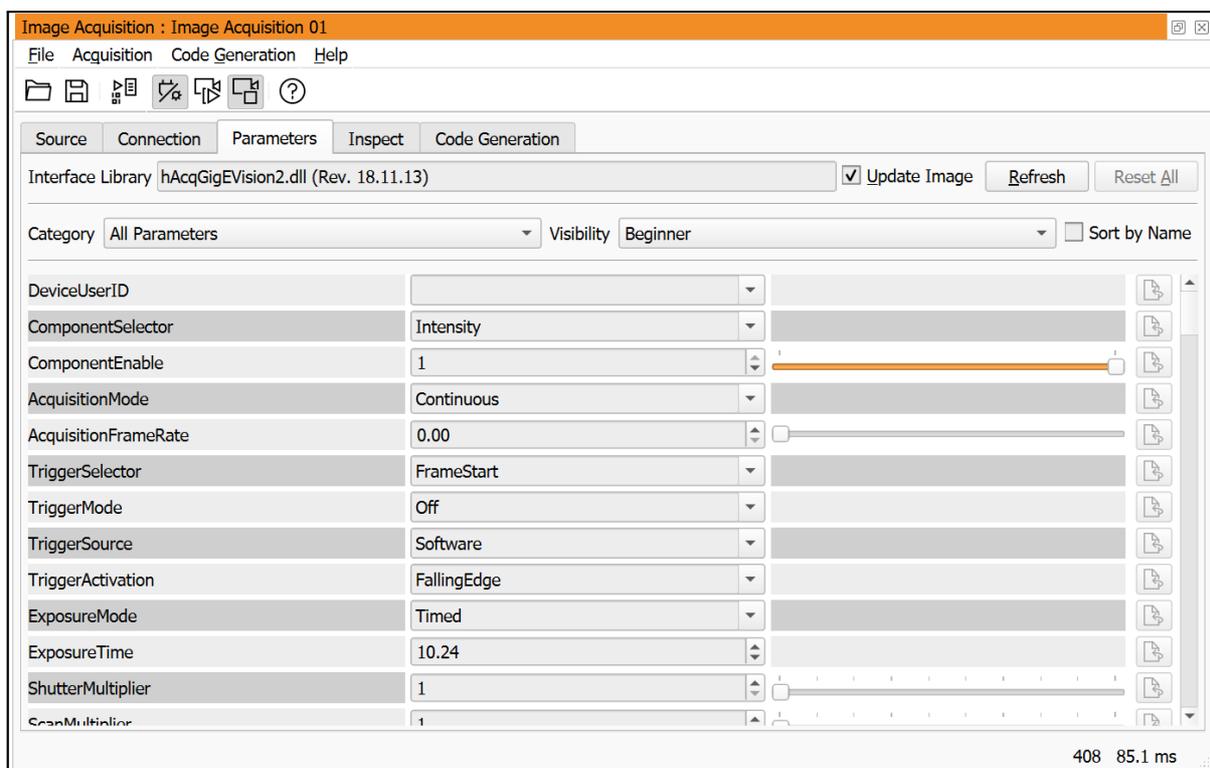
- Choose a device from the list and hit *Connect*



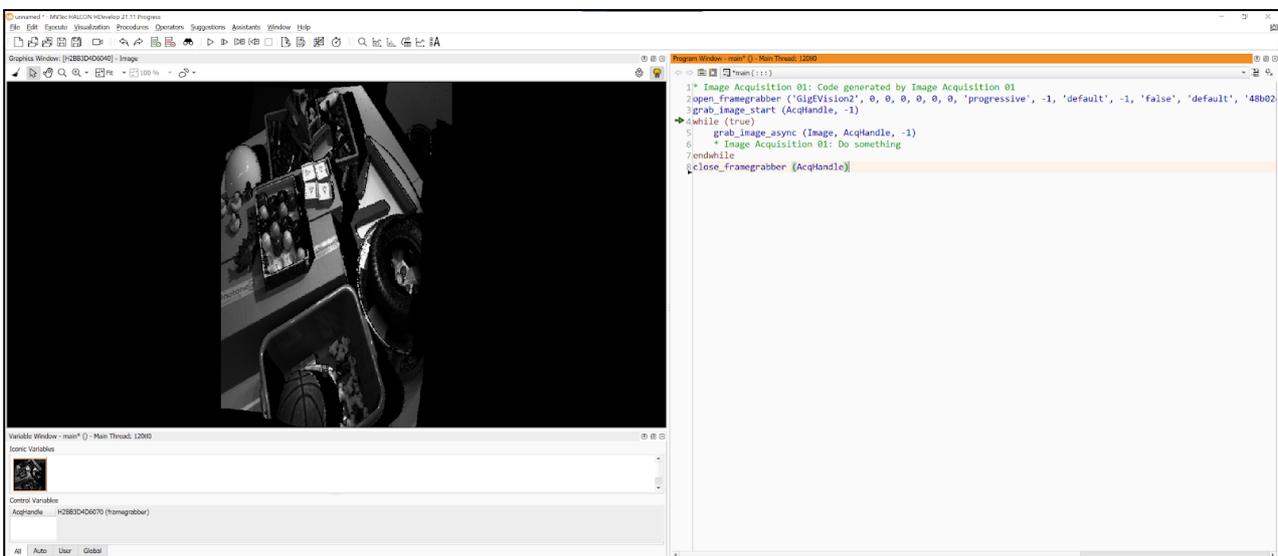
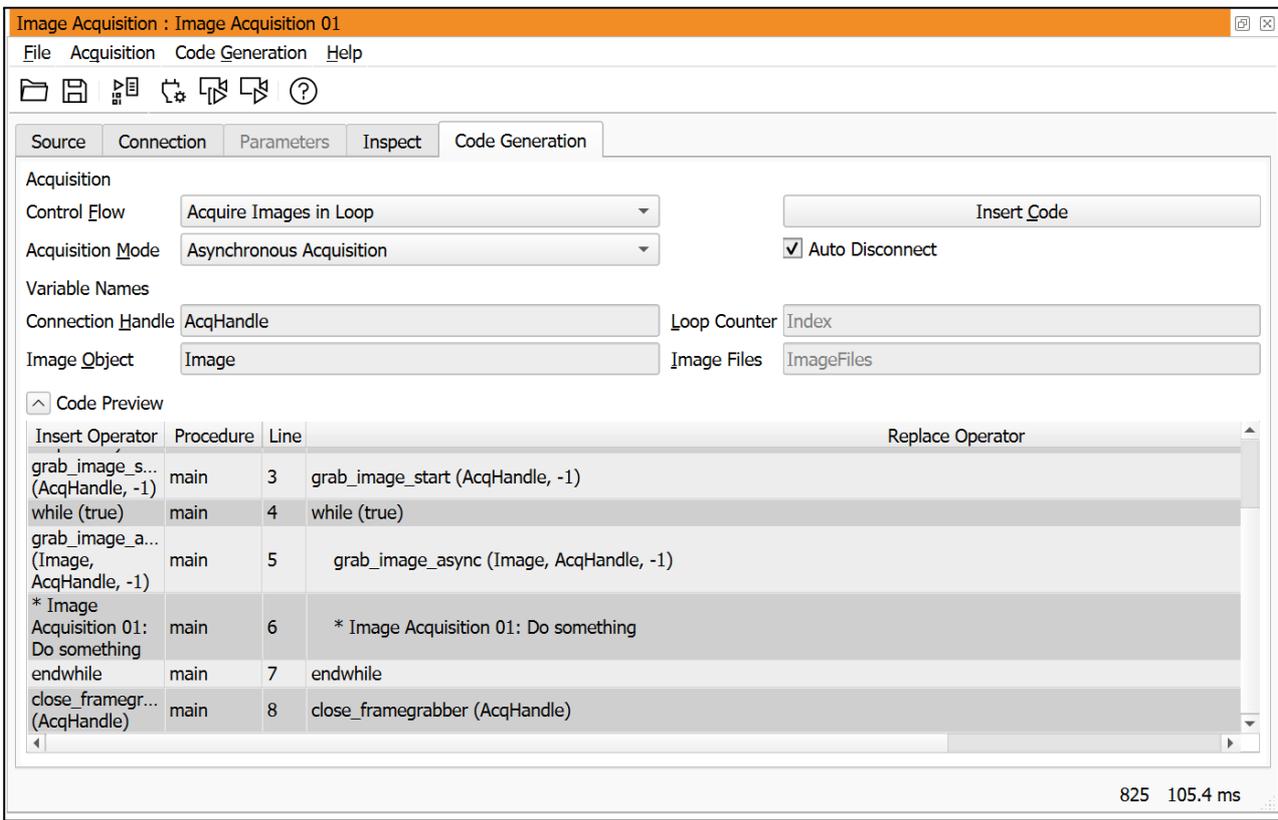
- After connecting to the desired Photoneo 3D Sensor, click *Snap* to perform a scan or *Live* to begin freerun acquisition. The output from the device is displayed in the *Graphics Window*.



- Adjust the parameters or change the output structure of the device in the *Parameters* tab



- Afterward, the user can export the code in the *Code Generation* tab. Click *Insert Code* and the code will be inserted into the *Program Window*



- Additional advanced examples can be found in Photoneo's [GitHub](#) repository.