

# Zebra Aurora™ Vision Studio Support for Photoneo 3D Sensors using GigE Vision

User guide on using the GigE Vision standard in Zebra Aurora™ Vision Studio (AVS)

## 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

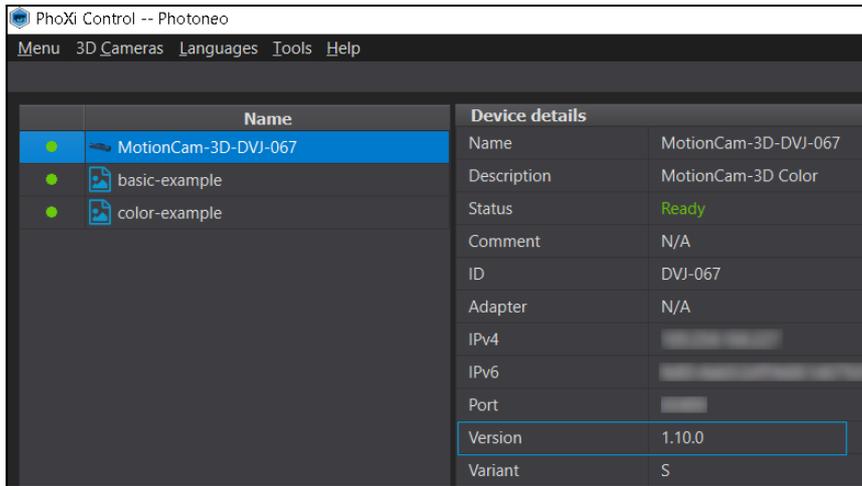
[GigE support](#) was introduced to Photoneo devices with Firmware 1.10.0. Third-party software with GigE support can be used to operate Photoneo 3D Sensors without a running instance of PhoXi Control.

## What is Zebra Aurora™ Vision Studio?

It is machine vision software that is based on visual data flow programming and comes with a comprehensive set of image analysis tools. Typical applications include industrial quality inspection and robot guidance, using both ruler-based and deep neural networks-based algorithms. Find out more at the [Zebra Aurora Vision Studio website](#).

## Supported Photoneo 3D Sensors

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



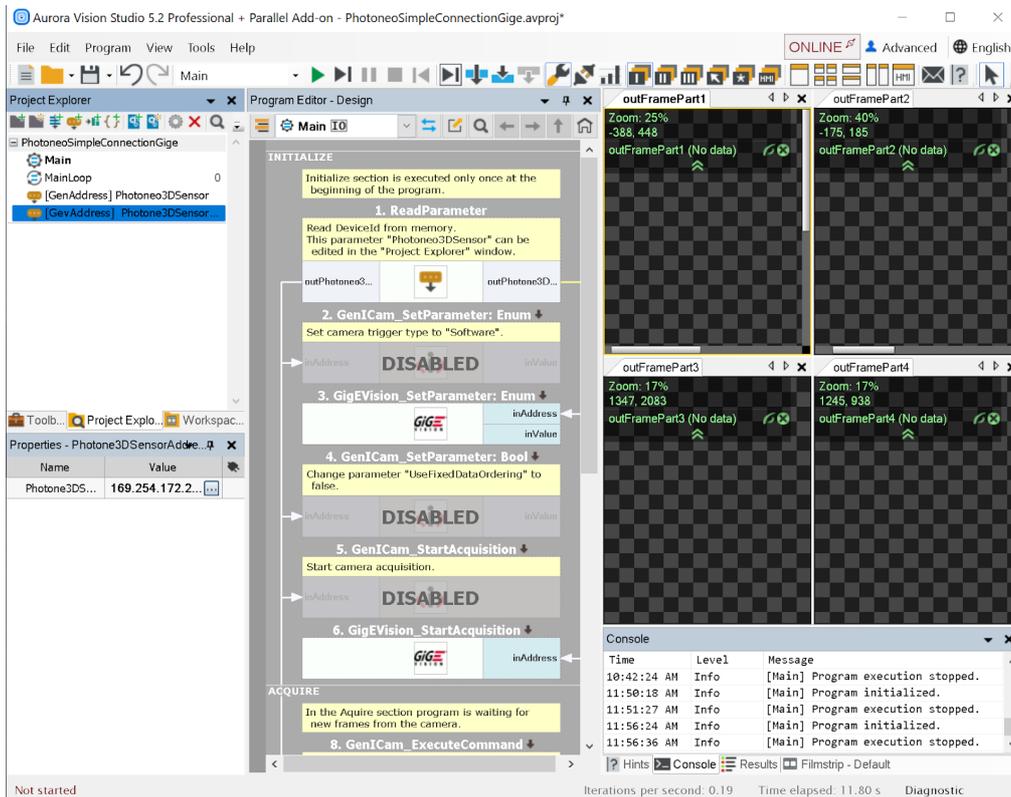
Note: If your device has a lower firmware version, consult the [Versioning Guide](#) to see if it can be updated and the [Firmware updater](#) to update the device.

## Running the examples

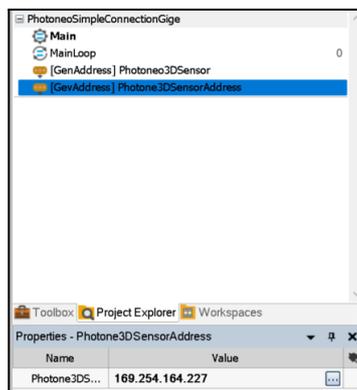
- Download an example from [GitHub](#)
- Install [Zebra Aurora™ Vision Studio](#) 5.2.10.92454 or later
  - If necessary, consult the [Zebra Aurora™ Vision Studio Online documentation](#)
- Open the downloaded example and extract it in a folder with read/write permissions
- Open the \*.avproj file

	PhotoneoSimpleConnectionGige.avcode	5/11/2023 10:38 A...	AVCODE File	7 KB
	PhotoneoSimpleConnectionGige.avproj	5/11/2023 10:38 A...	Aurora Visi...	1 KB
	PhotoneoSimpleConnectionGige.avview	5/11/2023 10:38 A...	AVVIEW File	2 KB

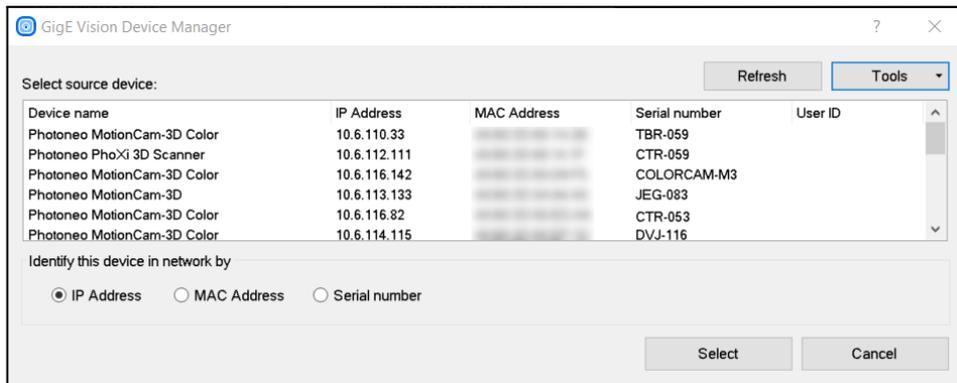
- After opening the \*.avproj file, *Project Explorer*, *Program Editor - Design* and *OutputFrame* tabs will be opened as seen below.
- The PhotoneoSimpleConnectionGige example connects to a defined device and starts a freerun acquisition.



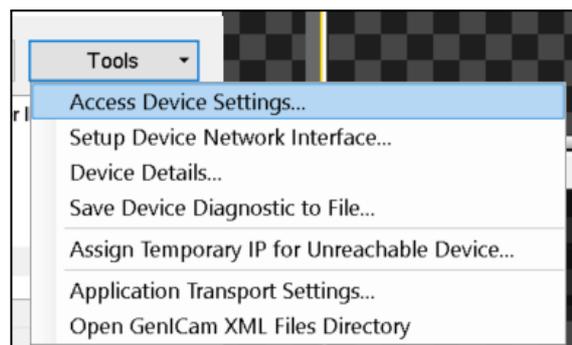
- The *[GevAddress] Photoneo 3DSensorAddress* in the Project Explorer tab, allows the user to choose the desired device.



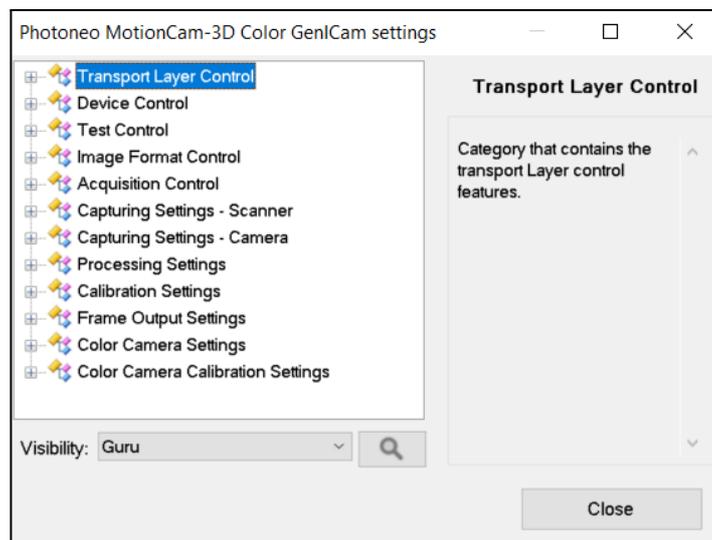
- In the properties tab, click on the  icon to open the GigE Vision Device Manager. Double-click to connect to a device (or use the *Select* button on the bottom).



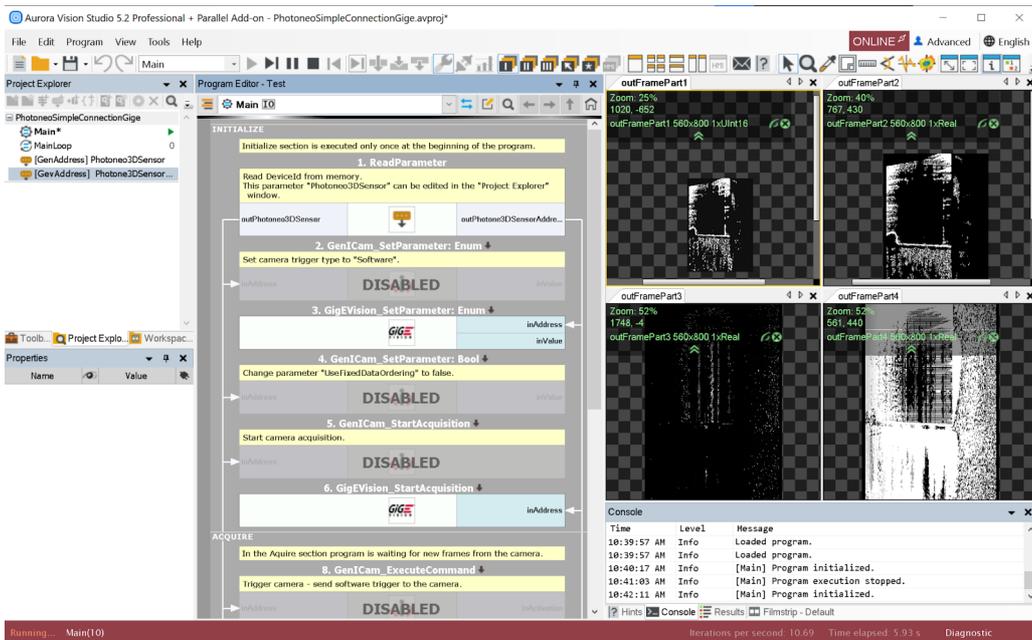
- To access the settings of the device, click Tools -> Access Device Settings



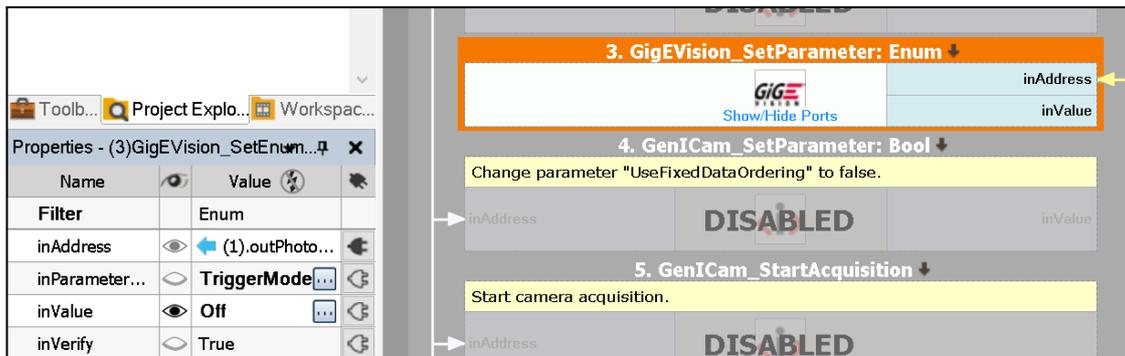
- The Photoneo <device type> GenICam settings window allows the user to adjust a variety of device settings. Consult the [Photoneo 3D Sensor User Manual](#) and [PhoXi Control User Manual](#) to understand the desired parameters..



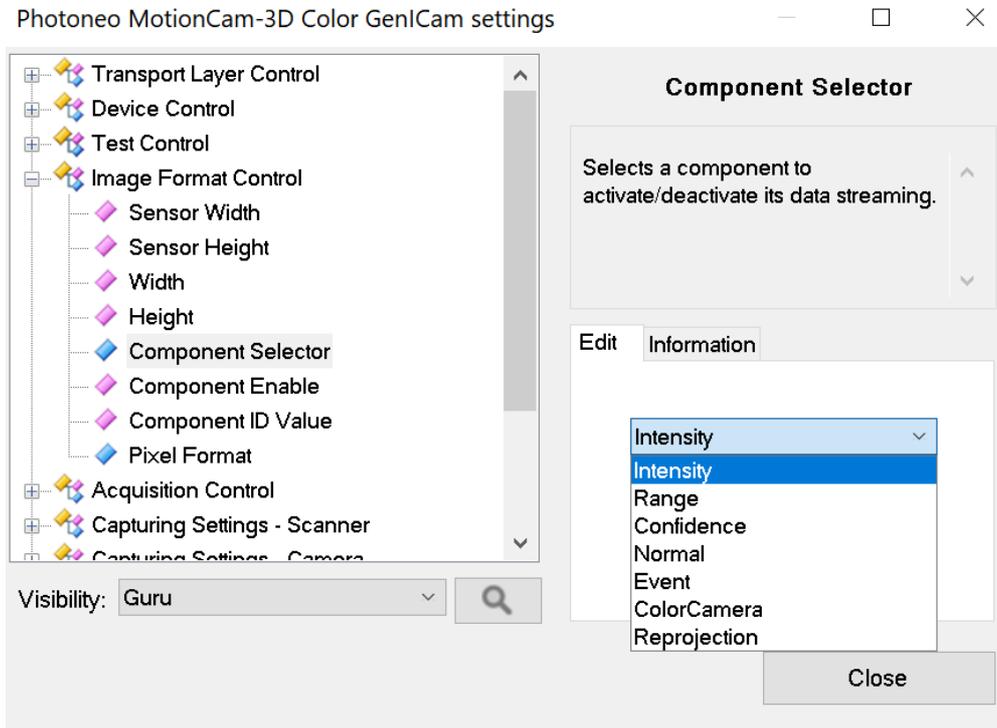
- Launch the example using the  icon - device connects and freerun acquisition starts



- Block 3. *GigEVision\_SetParameter:Enum* sets parameter Trigger mode:
  - *InValue = Off* to use Freerun.



- The component selector which can be found in the settings → Image Format Control → Component Selector allows the user to enable and disable output structures that are visible in block 11. *GigEVision\_GrabImage: Multipart*.



- To stop the example, use the  icon.

*Note:* Optionally, the example also contains blocks (disabled) to operate the devices using GenICam. GenICam standard requires a PhoXi Control (1.8.2 or above) to be running. See [Zebra Aurora™ Vision Studio Support for Photoneo 3D Sensors using GenICam](#) to find out more.