pylon 5 Camera Software Suite for OS X for use with Basler Gigabit Ethernet(GigE) and Basler USB 3.0 Cameras (U3V)

System Requirements

GigE

A GigE network adapter that supports jumbo frames is recommended. Concerning performance and reliability we made best experiences with the on-board network adapter. Although the pylon software will work with any GigE network adapter, we recommend to use on-board adapters.

USB

For U3V devices a USB3-capable USB controller is necessary. For best performance and stability we highly recommend to use the on-board USB adapter.

Installation

The installation of pylon for OS X is described in the INSTALL text document.

Performance Optimization

To increase performance and to minimize CPU load when grabbing images, the following settings should be considered:

GigE Devices

* Enable jumbo frames.
  Many GigE network adapters support so-called jumbo frames, i.e., network packets larger than the usual 1500 bytes. To enable jumbo frames, the maximum transfer unit (MTU) size of the PC's network adapter must be set to a high value (see the description in the INSTALL document). We recommend using a value of 8192.

* Increase the packet size.
  When jumbo frames are enabled, the camera's packet size must be increased to benefit from the larger packets. The 'Optimizing Packet Size' section of the INSTALL document describes how to set the packet size.

U3V Devices

* Increasing Packet Size
  For faster USB transfers you should increase the packet size. You can do this by changing the "Stream Parameters" -> "Maximum Transfer Size" value from inside the pylon Viewer or by setting the corresponding value via the API.

Documentation

The pylon Software Development Kit installation creates a "pylon SDK/C++"

sub-folder in your application folder containing the pylon Programmer's Guide and API reference documentation link.

Sample Programs

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The installation disk image contains a set of sample programs. These sample programs are simple command line programs showing the basic pylon use cases. They are located in the "Samples/C++" folder. Each folder contains a top-level Apple Xcode project file that can be used to build the different sample programs. You need to copy the Samples directory to a writable location, e.g. your home directory, before you can use it with Apple Xcode.

Camera Emulator

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In addition to the GigE Vision transport layer, this release contains a transport layer able to create simple camera emulator devices that allow you to develop applications without having a physical camera device attached. The emulator has very limited functionality, but is able to create test images for different bit depths.

The number of available emulator devices can be controlled by exporting the PYLON_CAMEMU environment variable. For example,

```
export PYLON_CAMEMU=2
```

will provide two emulator devices. These devices are accessible both by using the pylon API and the pylon Viewer.

When PYLON_CAMEMU is not set, no emulator devices are provided.

Version Infos

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The pylon libraries have been built using the following tools.

OS X x86 64bit:
    These binaries are built with Apple LLVM version 7.3.0 (clang-703.0.29)
    and Xcode 7.3.1 (7D175).