

Sphinx

GigE Vision® compliant software developer kit for Windows and Linux

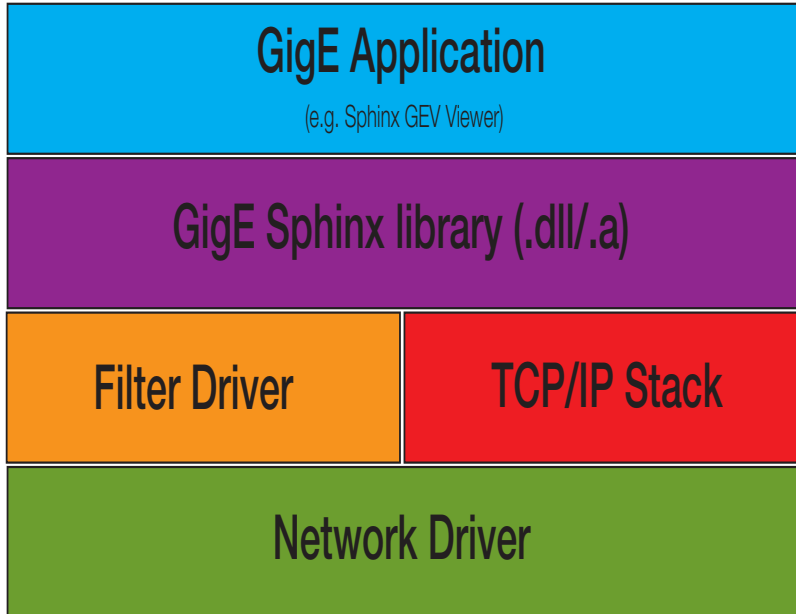
When Gigabit Ethernet allows simple and cheap data transfer over long distances, this technology became interesting for machine vision too. GigE Vision® is a protocol especially for machine vision devices, which specifies how to communicate between application and GigE device, e.g. a camera. Sensor to Image developed and offers a scalable GigE solution for various vision applications.

One part of this package is the Sphinx library to communicate with each GigE Vision® compliant device. This SDK has three components:

- Filter Driver
- GigE Library
- Sample Application

Filter Driver:

Gigabit Ethernet allows data rates around 110/550/1100 MBytes/s at 1/5/10 Gbit/s. This produces a reasonable load of the CPU, so that time for image processing itself is reduced resp. eliminated. Even on strong computers, one 10 Gigabit network interface cannot handle more than around 600MBytes/s sustained streaming. To overcome this limitation and reduce CPU load due to network traffic, a special filter driver is available. This driver analyzes every network packet and writes data of GigE Vision® streaming packets directly to memory, bypassing the operating system's network stack.



Blockdiagram Sphinx GigE software

GigE Library:

GigE Vision® defines a protocol to communicate with machine vision components. Key features are:

- Device Discovery
- Implementing a Control Channel
- Implementing a Message Channel
- Implementing a Streaming Channel
- Heart Beat mechanism
- Packet Resend mechanism
- xml-file as device description

The Sphinx library implements all mandatory and most of the optional features to enable software developers to write applications for GigE Vision® devices quite quickly.

Sample Application:

To demonstrate the usage of the Sphinx library, the Sphinx GEV Viewer is available as sample application in source code. Written in "C" language, this software runs on Windows and Linux platforms.

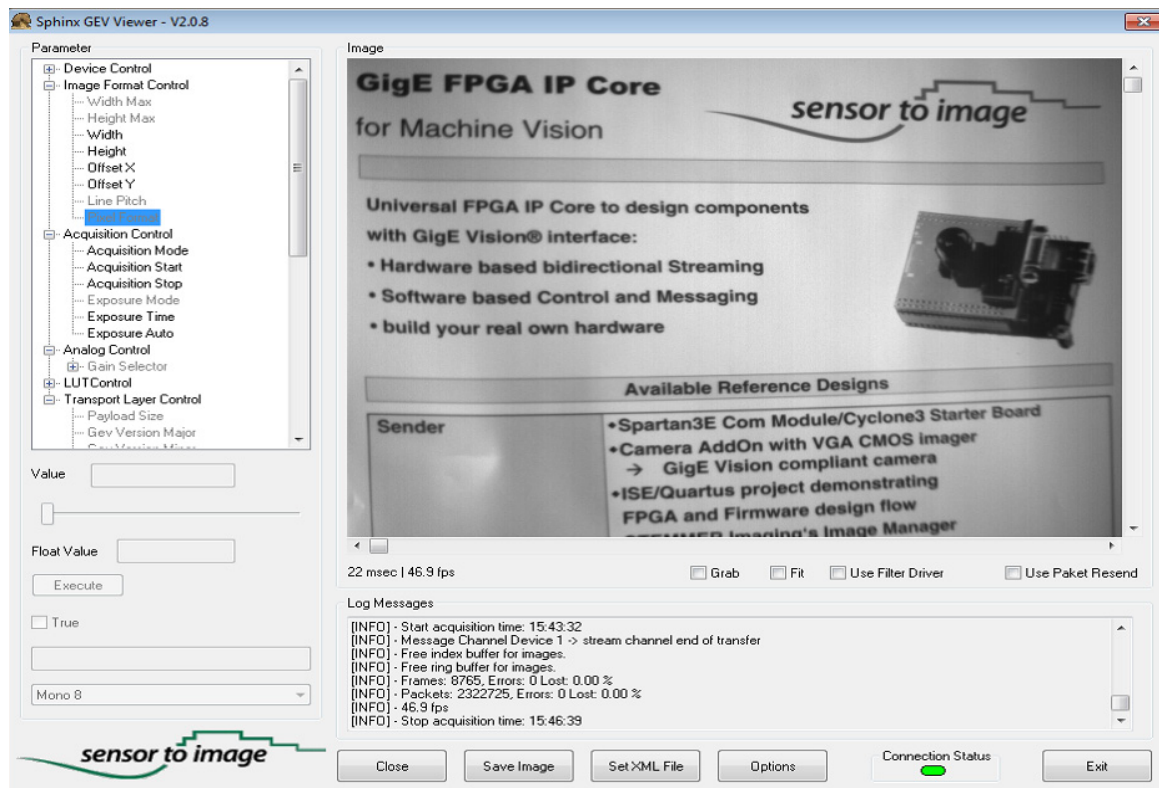
Source Code:

As Community Edition, the Sphinx library, including its filter driver, is available in source code for GigE Vision® committee members. At a mandatory support fee, this package is provided "as it is". Active participation in ongoing development process like bug reports or improvements of the software, is highly appreciated. There will be new versions released periodically, which will have integrated the communities feedback as new features defined by the standard.

OPERATING SYSTEMS			
MODULE	WIN 7/8	UBUNTU 12.04	CENTOS 6
Sphinx Library (.dll/.a)	•	•	•
Sphinx Filter Driver	•	•	•
Sphinx GEV Viewer	•	•	•

SOURCE CODE		
MODULE	STANDARD EDITION	COMMUNITY EDITION
Sphinx Library (.dll/.a)		•*
Sphinx Filter Driver		•*
Sphinx GEV Viewer	•	•

* Owner ship of GEV specification required



Screenshot Sphinx GEV Viewer