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Prosilica Acquired by Allied Vision Technologies

Allied Vision Technologies (AVT) has acquired 100% of the shares of Prosilica, as of 31st July 2008.

As a result, Prosilica and Allied Vision Technologies create an industry-leading product range of Gigabit Ethernet and FireWire cameras, extending their market leading position in the area of digital cameras for industrial image processing.

Both companies have a history of strong growth in their respective markets and will continue to develop new FireWire and GigE interface cameras that will be sold under the existing brand names already established for the two companies.

Further growth is also expected through the intimate collaboration of Prosilica and AVT in the areas of development, production, and sales.

The Prosilica team led by CEO Marty Furse will remain unchanged and will work with AVT to further expand the business with GigE cameras.

Frank Grube, President & CEO of Allied Vision Technologies, comments on the acquisition, "In Prosilica we have found the perfect complement to Allied Vision Technologies. The high-class cameras from Prosilica represent an excellent strategic extension to our existing product range in the area of machine vision, in which Allied Vision Technologies is already the world leader with its FireWire digital cameras. At the same time, this acquisition allows us to offer our customers a broad product portfolio that now also includes GigE cameras, enabling us to further expand our market position in North America, Europe, and Asia."

"We are happy to become part of Allied Vision Technologies," says Marty Furse, CEO of Prosilica. "Being part of this larger organization will accelerate Prosilica's growth and enhance its market presence. Joint product development and sales activities will result in immediate, strong market growth for both brands."

» Any questions regarding the acquisition should be directed to Marty Furse, CEO, Prosilica: mfurse@prosilica.com



Marty Furse, CEO, Prosilica (left) and Frank Grube, President & CEO of Allied Vision Technologies (right)

PROSILICA

/// ALLIED
Vision Technologies

GE1050 Runs 60 fps at Megapixel Resolution

The GE1050 is a fast, high-resolution, CCD camera with Gigabit Ethernet interface capable of running 60 fps at 1000x1000 resolution and even faster using Area of Interest Readout (AOI). The camera incorporates Kodak's new KAI-01050 megapixel, 1/2" optical format, progressive scan interline CCD sensor with low-noise architecture, excellent smear performance, and electronic shutter.

The economically priced GE1050 is fitted with a C-Mount with adjustable back focus and is available in color or monochrome models. Suitable applications include industrial inspection, machine vision, medical imaging, ophthalmology, traffic imaging and OEM applications.

Rich set of camera features

The GE1050 incorporates an advanced set of camera features including snapshot/global shutter, pixel binning, area of interest readout, external trigger and sync I/O, RS-232 peripheral port, exposure, and gain controls, non-volatile configuration memory, event recorder capability, pre-trigger recording, programmable strobe functions, multicasting, configurable IP addresses, auto-exposure and auto-white balance controls.

Ease of integration and third-party compatibility

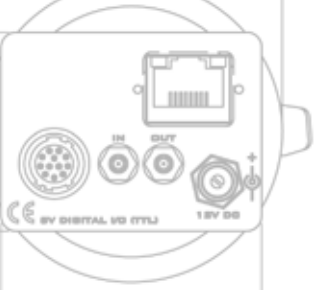
Thanks to its GigE Vision compliant gigabit Ethernet interface, the GE1050 is essentially plug-and-play and does not require a frame-grabber to operate. The interface also allows cable lengths of up to 100m (300ft) long using conventional Ethernet cabling (Cat5e / Cat6).

The Prosilica GigE sample viewer and the customer-acclaimed SDK are both available free of charge. The SDK supports Windows (2000, XP and Vista), Linux and QNX operating systems on both Intel and Power PC platforms, and MAC OS X. For users that prefer third party imaging libraries and applications, Prosilica's GigE Vision cameras are compatible with industry-leading software from Matrox, National Instruments, Stemmer Imaging, Norpix, MVTec, and others.

» **For further information, please visit www.prosilica.com**



GigE[™]
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GigE Vision Goes Underwater¹

With seafood exports totaling \$2 billion in 2006² and accounting for half of Alaska's total export value, the fishing industry is Alaska's largest employer and one of the State's main economical resources. One of the main roles of the Alaska Department of Fish and Game (ADF&G) is to ensure sustainability and harvestable surplus of fish and wildlife resources for the 49th State.

The search for a seafloor imaging system

The ADF&G began experimenting with underwater video technology for scallop stock assessment in 1999. The prototype system consisted of a sled, which held a camcorder in a pressurized housing and battery powered lights towed from a surface vessel. The system proved to be insufficient in three ways:

- a) *Image quality*: The camcorder resolution was insufficient to consistently detect scallops <50mm shell height.
- b) *Collection of useable image data*: Mainly caused by turbid water or technical problems.
- c) *Power supply*: Need for recharging batteries only allowed collection of data over limited periods.

In their search to develop a more effective high-speed megapixel benthic³ imaging system, The ADF&G turned to Wood's

Sea floor of the Bering Sea (image taken with GE1380C)



Hole oceanographic institution, creator of the first system using machine vision cameras for fisheries research purposes (HabCam Project⁴), who recommended the use of Gigabit Ethernet technology.

The ADF&G contacted Prosilica in January 2006 who recommended its GE1380C GigE Vision camera. The GE1380C is a compact 1.4 megapixel digital camera with color output that incorporates the high quality Sony ICX285 CCD sensor providing high-sensitivity, low noise, and excellent image quality even when operating under low-light conditions at depths of 40-140m. The camera runs up to 20 frames per seconds at full resolution and is capable

of streaming data at a sustained rate of 125 megabytes per second. Its gigabit Ethernet interface is virtually plug-and-play and allows for cabling with lengths of up to 100m using conventional Cat5e network cable, or up to several kilometers using fiber-optic cables.

System set-up and tests

The system developed by the ADF&G (see figure 1 - page 4) consists of a tow vessel and a camera sled. It is basically a Local Area Network (LAN) featuring 2 Gigabit Ethernet switches connected by a fiber optic link, one mounted in a pressure housing on the sled and the other one located with computers in a deck shelter on the tow vessel. Each

Case Study

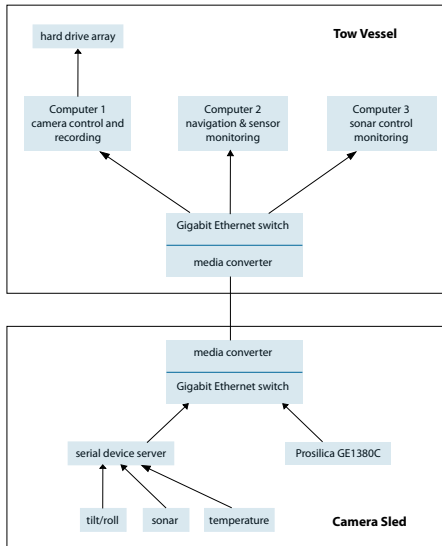


Figure 1: Camera sled network

network component (hard drive array, three computers, a serial device service, obstacle avoidance sonar, temperature sensor, pitch and roll sensor and the Prosilica GE1380C) connects to either switch via standard Cat-5e cabling. Each switch is connected to a pair of bi-directional single mode fiber optic media converters to allow data transmission over distances of 2 kilometers and more. Three off-the-shelf PCs are connected to the top-side switch located on the vessel, one for remote control of the GE1380C camera and recording, and the other two to run the navigation software developed by the ADF&G programmers and to record GPS data and communicate with serial devices on the sled. The GE1380C

camera, fitted with an 8 mm fixed focal length lens, was mounted in its own pressure housing on the sled and used to image through a domed glass port. Strobe lighting was used to ensure crisp images at towing speed of 5-8.5km/h under extreme low light conditions.

The system was first tested on board the Pandalus vessel in June 2006 and again in June 2007 using a larger and improved sled. Measuring 3.5m x 1.8m, the new sled makes contact with the bottom using two skis. In addition, four strobe lights mounted in individual pressure housing were placed around the camera to illuminate the area imaged ahead of the skis. During both cruises totaling a period of 12 days, 1.1 million images at depths of 40-140m were captured over a track of 550 km long. The GE1380C performed extremely well operating at 4 fps and tow speeds of 5-8.5km/h, providing resolution of over 1 pixel/mm, which enabled identification of objects smaller than 50mm in most water conditions.

Following several tests, the sled system, initially developed for scallop stock assessment surveys, has shown that it is also extremely useful for other fishing industry applications such as fine-scale habitat mapping, ground-truthing acoustic data, benthic ecology research and fishing gear effects studies.

» **Prosilica GE1380C**
www.prosilica.com

» **Alaska Department of Fish & Game**
www.adfg.state.ak.us



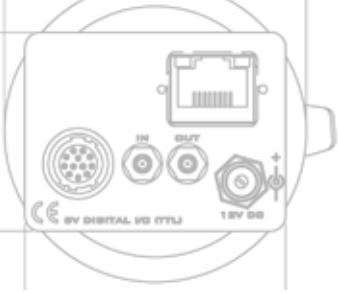
ADF&G Camera sled

¹ Rosenkranz, G.E., et al., Development of a high-speed, megapixel benthic imaging system for coastal fisheries research in Alaska, Fish. Res. (2008), doi:10.1016/j.fishres.2008.03.014

² Source: Alaska Economic Performance Report 2006, the State of Alaska

³ Located on the bottom of a body of water or in the bottom sediment, or pertaining to bottom dwelling organisms

⁴ Habitat Mapping Camera System



GE4900 - Prosilica's 16 Megapixel Camera

Launched in July 2007, the GE4900 is Prosilica's highest resolution digital camera, and also the smallest 16 Megapixel camera with a GigE Vision compliant interface on the market.

Kodak KAI-16000 sensor

The compact GE4900 (66x66x63mm) is fitted with an F-mount and runs 3 fps at 4872 x 3248 resolution. It incorporates the high quality Kodak KAI-16000 progressive scan CCD sensor which boasts features such as electronic shutter, low noise, high dynamic range and blooming suppression. Exposure times can be programmed from 1/100,000 to 60 seconds.

Wide range of camera features

The GE4900 offers advanced functionality such as asynchronous external trigger and sync, automatic exposure and white-balance, region of interest read-out, binning modes to 8x8, snapshot/global shutter, RS-232 peripheral port, non-volatile configuration memory,

event recorder capability, pre-trigger recording, programmable strobe functions, multicasting and configurable IP addresses. Available in either monochrome or color models, the GE4900 provides uncompressed digital output in Mono8, Mono16, Bayer8, or Bayer16 image formats.

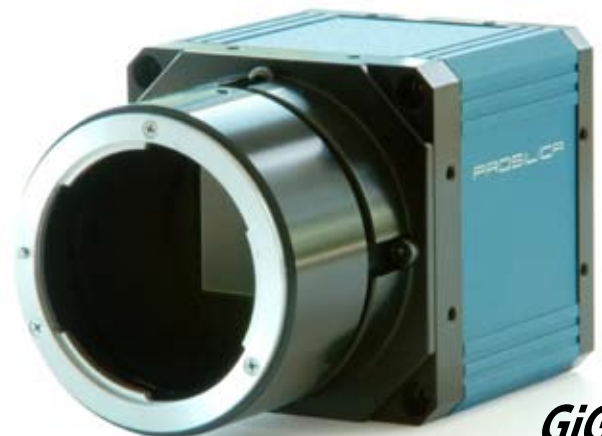
Applications

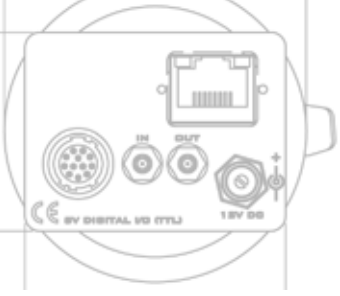
The 12-bit A-to-D provides very high-quality images to meet the most demanding applications including LCD panel inspection, semiconductor wafer inspection, solar panel inspection, high-resolution industrial inspection, aerial photography, 3-D metrology, general machine vision, public security, surveillance, traffic imaging (Intelligent Traffic Systems), embedded systems, and OEM applications.

» **For further information, please visit www.prosilica.com**

GE4900 Main Features

- High resolution 4872 x 3248 pixels
- 3 frames per second at full resolution
- Progressive Scan - Global shutter (snapshot)
- Gigabit Ethernet interface
- GigE Vision™ compliant
- Asynchronous external trigger and sync I/O
- Region of Interest readout (AOI partial scan)
- Long cables - up to 100 m
- 32 MB resend buffer
- Screw-captivated power connection
- Easy to use software development Kit
- Color and monochrome models
- F-mount lens mount





Prosilica Releases MAC OS X Version of SDK

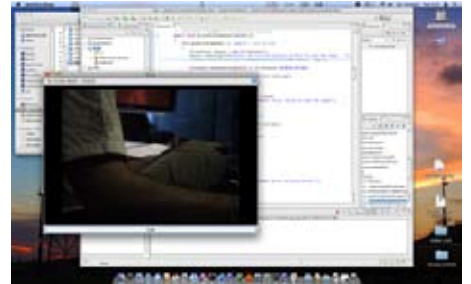
Prosilica has released the first version of its customer-acclaimed sample viewer program and software development kit for MAC OS X.

Both software will allow users to control and capture images from Prosilica's GigE Vision gigabit Ethernet cameras operating on an Apple Mac OS X computer. The SDK includes sample code to allow programmers to integrate Prosilica's cameras into their Mac-based applications.

The Mac OS X SDK supports both 10.4 and 10.5 as well as PPC (G3,G4,G5), x86 and x64. The included Sample Viewer works with OS X Leopard (10.5) on x86 and PPC (except G3).

Prosilica also offers SDKs which support Windows (2000, XP and Vista), as well as Linux and QNX operating systems on both Intel and Power PC platforms, enabling users to run our GigE Vision cameras on low-cost SBC computers for embedded and OEM applications.

» **Download the MAC OS X SDK
(Beta Version - 14th July 2008)**



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