

PIONEERS IN IMAGE ACQUISITION

PicSight.com

PicSight®-Smart

Family of programmable Smart Cameras

PicSight®-Smart works stand-alone for autonomous computing with the possibility to provide information on video monitor, serial interface, digital I/O or Ethernet network.

When controlled with a PC, the **PicSight®-Smart** camera pre-processes the information and can provide results in image form or data stream and messages, and also allows for output on video monitor, serial interface, digital I/O communication.

PicSight®-Smart versatility makes it the ideal solution for vision applications in many industries (semiconductor, industrial, pharmaceutical, defense, surveillance...). Low-cost, high performance, flexible architecture for embedded machine vision applications.



GiG™
VISION

 **Leutron
Vision**

EXCELLENT IN-CAMERA PROCESSING SOLUTION FOR OEMs



Low-cost, High Performance, Flexible Architecture for Embedded Machine Vision Applications.

Low cost: For about \$200 more than a regular GigE camera you have a complete compact intelligent vision system.

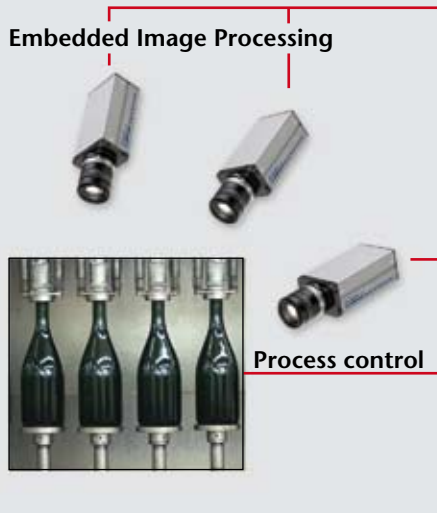
High performance: Designed around a 32-bit RISC processor, that provides fast instruction execution, with a true Real Time Operating System (RTOS) for precision and flexible operation, the **PicSight®-Smart** is the ideal platform for machine vision applications.

Flexible: **PicSight®-Smart** works stand-alone or with a PC. You can easily integrate your own ANSI C/C++ processing code with the cross-compiler (part of the development package). If you want to take advantage of a powerful machine vision processing library, you may purchase MVTec's Halcon Embedded licenses.

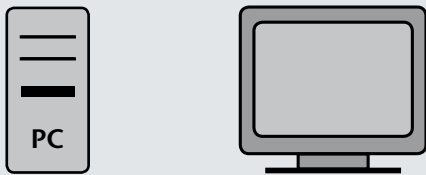
Hardware Architecture Offers Adaptability and Efficiency

Adaptability: **PicSight®-Smart** is one of the available interfaces to the **PicSight®** family of cameras. This means that **PicSight®-Smart** can interface to any of the 28 different CCD and CMOS camera sensor modules (VGA to 5M-pixels). **PicSight®-Smart** also features user Input/Output for external synchronization, a RS-232 serial port for basic communication, video-out for direct visualization without PC and a powerful Gigabit Ethernet connection for enhanced communication.

Efficiency: **PicSight®-Smart** delivers astonishing performance because of the combination of its RISC processor, Direct Memory Access data transfers and its Real-Time Operating System. It means that the processor has the maximum amount of time to do actual processing as data is transferred to and from memory automatically.



SWITCH Fast image and data transfer over Gigabit-Ethernet

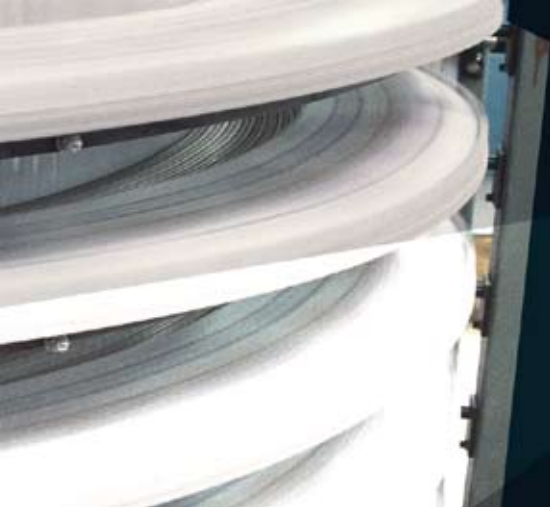


**PicSight®-Smart works
Stand-alone or with a PC**

- HTTP – Info & Configuration
- FTP – File Exchange
- TCP/UDP – Data Streaming & Messaging



- RS-232 – User Communication



THE IMAGE YOU WANT, THE WAY YOU WANT

Software Architecture Offers Ease of Use

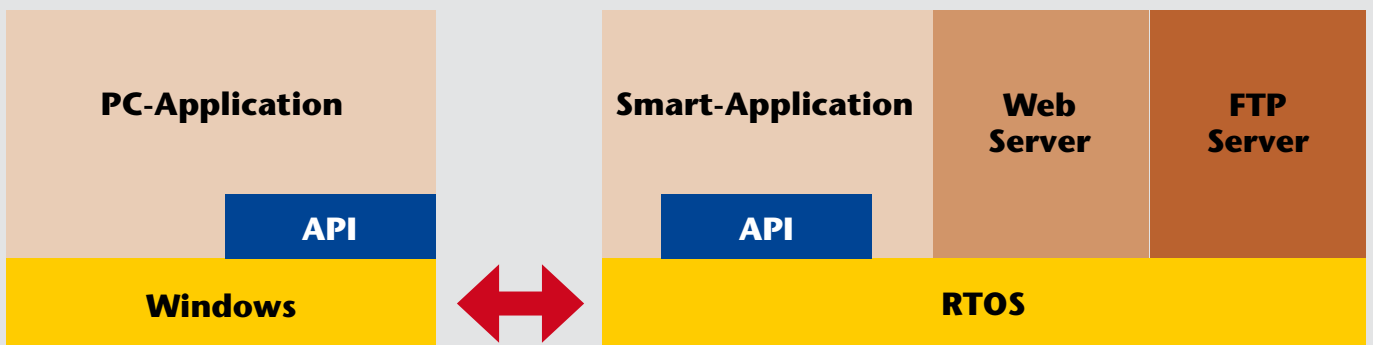
Ease of use: The high speed Ethernet connection offers the convenience of an HTTP server to dialog directly with the camera with only a web browser (such as Internet Explorer), an FTP communication to upload/download data from the camera internal disk, and TCP/UDP data transfer for fast/high bandwidth communication for live image transfers, commands and message exchange with the camera. When used with a PC, applications communicating with the camera use Leutron's unified library, LV-SDS. It is convenient for our existing camera and frame grabber customers and allows easy access to the full range of Leutron Vision products.

Fast developments: Users' custom developments are defined as independent modules. It means that users only have to be concerned with acquiring a good image, and processing. All system operations are handled automatically. This greatly speeds up the development time. For maximum access and integration, development is done in ANSI C/C++, so you can integrate existing code developed for other platforms. Usually using an embedded system means remote access and usually difficult testing/debugging, but not with **PicSight®-Smart** because there are extensive communication tools that provide for exchange of customized commands, fast messaging for logging (message dump) and data streaming. It is easy to get information from the camera and thus ensure proper maintenance/testing/debugging.

- 1/4"-CCD 659 x 494, 60 fps
 - 1/3"-CCD 658 x 496, 30 fps
 - 1/3"-CCD, 659 x 494, 60 fps
 - 1/2"-CCD 659 x 494, 60 fps
 - 1/2"-CMOS 659 x 494, 200 fps
 - 1/3"-CMOS 752 x 480, 60 fps
 - 1/2"-CCD 782 x 582, 50 fps
 - 1/3"-CCD 1024 x 768, 30 fps
 - 1/2"-CCD 1392 x 1040, 12 fps
 - 1/2"-CCD 1392 x 1040, 20 fps
 - 2/3"-CCD 1392 x 1040, 24 fps
 - 1/1.8"-CCD 1628 x 1236, 12 fps
-
- 1/4"-CCD 659 x 494, 60 fps
 - 1/3"-CCD 659 x 494, 60 fps
 - 1/2"-CCD 659 x 494, 60 fps
 - 1/2"-CMOS 659 x 494, 200 fps
 - 1/3"-CMOS 752 x 480, 60 fps
 - 1/2"-CCD 782 x 582, 50 fps
 - 1/3"-CCD 1024 x 768, 30 fps
 - 1/2.7"-CCD 1308 x 976, 10 fps
 - 1/2"-CCD 1392 x 1040, 12 fps
 - 1/2"-CCD 1392 x 1040, 20 fps
 - 2/3"-CCD 1392 x 1040, 24 fps
 - 1/1.8"-CCD 1628 x 1236, 12 fps
 - 1/2.7"-CCD 1628 x 1240, 9 fps
 - 1/2"-CMOS 2048 x 1536, 12 fps
 - 1/2"-CMOS 2592 x 1944, 4 fps



- Video out
- I/O
- Gigabit-Ethernet
- RS-232





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Features

- Embedded capabilities with a 32-bit RISC Processor
- Custom software with development in ANSI C, C++
- Long cable runs, multi-system and easy integration with network connection
- Easy communication and controlled by a serial interface (RS-232)
- Real-time image acquisition with direct trigger input and strobe output
- Direct interaction with peripherals through user I/O
- 10/100/1000 Ethernet Bridge Technology from Intel
- 64 MB on-board frame store to save multiple images and program code
- 2 opto I/Os for trigger input and strobe output
- 6 opto I/Os for communication with the application environment
- 32 MB on-board flash for firmware
- Programmable 2-D display interface to display images or graphics with a resolution of up to 1280 × 1024

**Want to know more or try a demo unit -
download the manual or contact us...**