



CORSIGHT - right where the action is with Smart Vision

CORSIGHT, the smart vision system developed by NET New Electronic Technology comprises a camera, computer and image processing in a compact housing. It turns industry 4.0 into reality with decentralized image processing. Image acquisition, image processing, image interpretation and process decision are all carried out within one single unit - precisely where inspection and control is called for.

The integration of each single component into a network, production process and existing image processing system is in general a big challenge requiring special expertise by the development department. But in comparison to conventional complete image processing systems comprising a standard computer, camera, frame grabber, lighting and cabling and other components, CORSIGHT brings tangible advantages: low space requirement, simple assembly and lower infrastructure costs for installation.

CORSIGHT's ability to integrate with other systems is further enhanced by the software interface [SynView](#). This means that the smart vision system is compliant with the current GenIcam, GenTL and GigE industry standards and has been developed by NET as a solution for cameras and tools that can operate these interfaces. Users can thus integrate CORSIGHT into their existing environment without further ado. With CORSIGHT existing machinery can be expanded quickly, easily and at low cost. All you have to do is add a test bench - you don't need to alter a central system for this. Each test bench operates independently, but they can all be easily interlinked by means of a standard network or a central system that monitors, controls and optimises all of the machinery.

Decentralised image processing wherever decisions are called for

CORSIGHT is the perfect choice in situations where effective monitoring or, better still, thorough inspection is required for almost any application or market. The smart vision system can be used for cost-effective and reliable quality inspection of parts and 100% web inspection. Large quantities, high-speed belts and color recognition pose no challenge for CORSIGHT. This may apply for monitoring fill levels, caps and labels in bottling plants or for checking the dimensional accuracy of bending loads, diameters, distances and widths in the production of crankshafts.

As there is often not enough room on the machine itself to carry out inspection, the CORSIGHT smart vision system is the perfect solution: the compact housing can be integrated directly into the machine. All smart vision systems incorporated into a machine/machinery can be easily interlinked to the machine control system's main computer by means of a network connection. An example is the ongoing measurement of web widths and position with a line scan camera in order to ensure the correct alignment for the subsequent production process. The production process can thus be controlled at low set-up cost, and both the product quality and the process itself can be optimised at machine speed.



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In the electronics industry CORSIGHT can check the completeness of printed circuit boards (PCBs) and soldered connections, verify the correctness of circuit patterns and the placement of drill holes and more. CORSIGHT performs the inspection of surfaces and shapes, and verifies assembled parts and bodywork. Of course, the guidance of robots that perform assembly and parts handling is enabled by CORSIGHT. CORSIGHT performs all tasks image processing tasks that have extremely high computing requirements in real-time and enables execution speeds to be achieved with deterministic processing times.

Integration capabilities and configuration options

The smart vision system CORSIGHT comprises 31 models and hundreds of configuration options. Hence, customers find always the best configuration set to meet their application demand fully. The high-speed 2K and 4K linear image sensors allow to perform real line scan applications like print control, sorting of particles and food inspection. Moreover, CORSIGHT is offered with several matrix sensors (CCD and CMOS / color, monochrome and NIR / up to 5 MP) which are suitable for a wide range of challenging applications in quality and factory automation.

Simple control, minimum effort: SynView at a glance

Intuitive operability, flexible adaptability to the software already in use within the company, and low maintenance: CORSIGHT is quick and easy to use thanks to the integrated SynView interface developed by NET.

NET's SynView software enables an interface environment for all types of cameras as well as the use of NET cameras. Image acquisition can be internally controlled via the popular standard GenICam as conventional image processing software is supported. This means that GenICam / GenTL-compliant software packages, such as Adaptive Vision Studio, HALCON or LabView, and open-source packages, such as OpenCV, can both be used without any additional time and effort spent on integration.

Users don't have to familiarise themselves with new programming environments: the SynView API is the preferred interface for programmers of customer applications. This means that programmers can carry out their development work in their preferred language without any restrictions. The Explorer makes developers' jobs easy: they can use the application to immediately try out new functions and transfer fragments of the program from the Explorer window to their own program with "cut&paste", with the result that they can implement these new functions without any coding effort.

Featured properties as a camera for image processing

- Combines all the components of an image processing system in one single housing
- **Wide range of image sensors** - CCD or CMOS - for every application, from VGA to 5 megapixels, 2K and 4K for line scan applications
- **Dust- and splash-proof** in accordance with IP67

Featured properties as a computer for image processing

- **Embedded computer:** Based on standard CPU architecture (X86) and SSD-based hard-disk
- **On-board FPGA:** CPU load-free image editing featuring low-cost real-time image processing
- **Standard interfaces:** USB2, Gigabit Ethernet, RS232, VGA and digital in- and outputs

Featured properties of algorithms and software

- **Windows or Linux**
- **Supports SynView, NET GmbH's cross-camera software interface:** An application for all GenICam / GenTL-compliant cameras
- **Directly supports commercially available software packages** such as Adaptive Vision Studio, HALCON, LabView and OpenCV

[SynView - for free](#)

[About NET](#)

[Product Page](#)