

CORSIGHT 

# Decentralized image processing.

SMART VISION SYSTEM - EMBEDDED COMPUTER | MATRIX AND LINE SCAN

**neto**   
NEW ELECTRONIC TECHNOLOGY

# CORSIGHT – DECENTRALIZED IMAGE PROCESSING

CORSIGHT - Create your vision solution.

## CORSIGHT – INTEGRATED VISION SOLUTION AT A GLANCE

NET's smart vision system, CORSIGHT, is a versatile all-in-one system for decentralized image processing. Customers can choose from a wide configuration range in order to get the image processing solution, which matches best their application demand. The smart vision system comes with all hardware and software in one compact industrial housing to improve the overall performance of industrial applications.

CORSIGHT includes a Intel Quad Core CPU and a FPGA to perform efficiently most challenging applications in real-time. NET offers CORSIGHT with a freely programmable FPGA, so customers can apply their own algorithms as part of their solution. They can choose any image library to run on CORSIGHT: third-party or proprietary. Both Windows™ and Linux as operating system are offered.

CORSIGHT can be equipped with matrix scan or line scan CMOS image sensors. Multiple industrial connectors and interfaces as well as the option of wireless connection facilitate optimal integration into custom systems and reflect its excellent networking capabilities. Matching standard or custom lenses and a software-controlled integrated strobe ring are on CORSIGHT's feature list.



# APPLICATION & SOFTWARE

## APPLICATION OVERVIEW

CORSIGHT's features deliver great benefit to all kind of applications being remote, in rough environments, or resource-intensive in regard of computing power, data transfer or system architecture. Special demand for CORSIGHT occurs amongst others in traffic control, security / surveillance, robotics / automation, and distribution systems.

## SOFTWARE INTEGRATION & 3<sup>RD</sup> PARTY SOFTWARE

CORSIGHT features full compliancy to GenICam and GenTL standards and is easily accessible by means of 3<sup>rd</sup> party software. Drivers are available for most

common image processing libraries, namely Adaptive Vision Studio, Halcon, Activision-Tools, Common Vision Blox, MATLAB, and OpenCV.

## SYNVIEW: SOFTWARE INTERFACE FOR ALL APPLICATIONS

The included SDK/API, SynView, stands for simple control and easy integration into existing customer systems. It runs under Windows Embedded Standard 7 and Linux. SynView supports the most common programming languages C, C++ and the framework .NET class library. The software covers a wide range

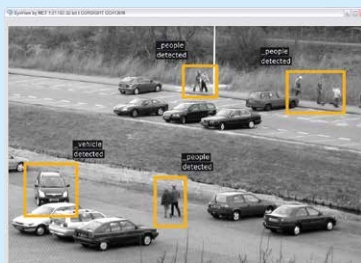
of functionalities for the control of image capture (I/O triggering) and memory management. The viewer facilitates the setting and evaluation of image data via various functionalities. The included quick code generator makes the creation of code examples an easy task, and speeds up the workflow of hands-on users.



SynView: quick image setting and application creation



### COMPACT INDUSTRIAL CASE



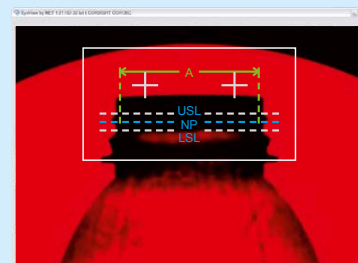
IP67  
M12 CONNECTOR

### INTEGRATION/COMPATIBILITY



WINDOWS EMBEDDED STANDARD 7, LINUX /  
STANDARD IMAGE PROCESSING SOFTWARE  
PACKAGES

### REAL-TIME IMAGE PROCESSING



ONBOARD CUSTOM ALGORITHMS

### WIRELESS/REMOTE NETWORKING



WLAN / BLUETOOTH / GSM  
GIGABIT ETHERNET (POE+)

# CORSIGHT – TECHNICAL DATA

CORSIGHT - Create your vision solution.

	MATRIX SCAN	COLOR	CO1041C2	CO4136C2	CO4206C2	CO1503C2
	MONOCHROME	CO1041M2	CO4136M2	CO4136IR2	CO4206M2	CO1503M2
CAMERA	Resolution (H x V) [px]	752 x 480	1280 x 1024		1600 x 1200	2592 x 1944
	Sensor	CMOS				
	Image sensor	MT9V034	EV76C560	EV76C661	EV76C570	MT9P031
	Sensor size	1/3"	1/1.8"		1/2.5"	
	Pixel size [µm]	6.0 x 6.0	5.3 x 5.3		4.5 x 4.5	
	Frame rate [fps]	62	60		50	
	Shutter	global	global; rolling; global reset			rolling
	Shutter speed	10 µs - 1.000 ms	16 µs - 1.000 ms		31 µs - 1.030 ms	39 µs - 55.000 ms
	Dynamic range [dB]	49	color: 62, mono: 63		62	70
	Binning	- / 2/4 x 2/4	2/4/8/16 x 2/4/8/16		2 x 2	2/4 x 2/4
	Aspect ratio	3:2	5:4		4:3	
	Scanning system	progressive				
	Lens	C-Mount				
	Strobe ring	integrated strobe ring with a dedicated control interface (optional)				
	Industrial case	IP67				
	Dimension (WxHxD) [mm]	65 x 109 x 73 (without connectors and optics)				
	Weight [g]	516				
Operating temperature	0 - 50 °C					
Operating relative humidity [%]	20 - 95, non-condensing					
Power consumption [W]	24 VDC ±10%, 15 W (typical) or PoE+					
Certification	IP67, CE, FCC					

	LINE SCAN	2K	4K
		COL6270M2	COL6435M2
CAMERA	Number of pixel	2048	4096
	Sensor type	CMOS	
	Pixel size [µm]	7.00 x 7.00	3.50 x 3.50
	Sensor length	14.33	
	Line scan rate [kHz]	37	18
	Flat field correction	yes	
	Exposure control	yes	
	Auto functions	automatic black level	
	Video format	12-bit, single tap	
	Trigger modes	free running, triggered mode	
	Gain & blacklevel	analog gain (0...12 dB), digital gain (-6...20 dB)	
	Lens	C-Mount	
	Strobe ring	integrated strobe ring with a dedicated control interface (optional)	
	Industrial case	IP67	
	Dimension (WxHxD) [mm]	65 x 109 x 73 (without connectors and optics)	
	Weight [g]	516	
	Operating temperature	0 - 50 °C	
Operating relative humidity [%]	20 - 95, non-condensing		
Power consumption [W]	12 - 24 VDC ±10%, 15 W (typical) or PoE+		
Certification	IP67, CE, FCC		

INTERFACES	Networking	Gigabit Ethernet (1x, optional 2x), WiFi, Bluetooth, GSM (optional), USB 2.0
	Digital input / output	4x optocoupler, 1x TTL
	Serial	RS232
	Video	DP**
	SD-Card	micro SD card slot

PC TECHNOLOGY	CPU	Intel Atom E3845 1.91 GHz
	RAM	4 GB DDR3
	Mass storage	16 GB solid state drive (optional: 32 GB)
	FPGA	ARTIX 7
	Supported operating system	Windows Embedded Standard 7, Linux (optional: Windows Embedded Standard 8, CENTOS 7, RTOS)
Supported image processing libraries system	Adaptive Vision Studio, Halcon, ActiVisionTools, Common Vision Blox, MATLAB, OpenCV	

### About NET New Electronic Technology GmbH

NET has more than 20 years of experience in supporting customers' applications with smart camera technology and custom camera solutions. NET adds value to the applications of OEMs, system integrators and machine builders through custom vision solutions and a portfolio of cameras and components with unique features. The company offers both know-how in vision technologies and an extensive portfolio.

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