

Press Release

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GigE and USB industrial cameras with new HDR sensor!

A Thousand Times More Dynamic

The German machine vision specialist IDS is pleased to announce the release of a newly developed HDR sensor for their USB and GigE industrial camera series. This technology allows capturing images with ultra-high contrast and a dynamic range of over 120 dB, which is about 1,000 times more than conventional CCD sensors can provide. The HDR cameras thus open up many new possibilities for applications that have very high brightness differences, such as traffic surveillance or industrial welding.

Conventional CCD or CMOS sensors are far inferior to the human eye in terms of contrast resolution: they can usually only represent about 1,000 brightness levels.

The monochrome HDR sensor featured in uEye cameras uses a different functionality and applies a real logarithmic curve. This allows reproducing extreme contrasts in a single image and significantly reducing visible noise compared to previous HDR technologies. As a result, GigE cameras of the uEye HE series can read out and process the full 12-bit color depth, for example. The FX4 HDR sensor is 1/1.8" in size and captures up to 50 frames per second at a resolution of 768 x 576 pixels. The frames can be output based on a logarithmic curve or on a linear curve as used by conventional sensors.

With the release of software package version 3.50, the new HDR sensor is supported by all uEye USB and GigE camera models. This latest version also provides support for the 10-megapixel CMOS models and for versions with high-resolution 1.2 megapixel Sony CCD sensor. The software will be introduced at the VISION trade show and can then be downloaded for free from IDS's website in 32-bit and 64-bit versions for Windows (incl. XP, Vista and Windows 7) and Linux.

A software development kit (SDK) and interfaces for ActiveX, GenICam and popular image processing libraries are also provided to allow easy integration into custom applications. Many sample programs with source code in C++, C# and VB demonstrate the camera functionality and implementation.

Fig.:

uEye® USB and GigE cameras with HDR sensor

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