#### Press release

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FlexView projector doubles the resolution of the 3D point cloud

**New Ensenso stereo 3D cameras**

**with protection code IP65/67**

**IDS presents the Ensenso N30 and N35, two new stereo 3D camera models that have been designed especially for use in rough environment conditions, providing high frame rates and further improvements in data quality. Connected with a Harting Push/Pull adapter and the optionally available cable, the cameras fulfill the requirements for protection code IP65/67. The screw-on GPIO connectors for trigger and flash make them suitable for industrial use. The Ensenso N35 additionally offers a so-called FlexView projector: it doubles the effective resolution of the 3D point cloud, ensuring more exact object contours, finer image details and more robust 3D data.**

The Ensenso stereo cameras work according to the "projected texture stereo vision" principle. Each model has two integrated CMOS sensors and a projector that casts a random point pattern onto the object to be captured, allowing structures that are not visible or only faintly visible on the surface to be enhanced or highlighted, even for multi-camera operation. The N35 features a FlexView projector operating a piezoelectric actuator. The projected pattern is translated in a preset direction by up to seven distance steps. In each step a pair of images with correspondingly staggered projection pattern is captured and processed; then the individual data are combined into a single 3D point cloud with higher resolution. Perfect for capturing static objects.

The new 3D camera models are “powered over Ethernet” (PoE), easy and comfortable to integrate thanks to their compact size (175 x 50 x 52 mm) and available with cable lengths up to 100 meters. This is certainly also due to the software: the EnsensoSDK is a uniform interface for the stereo cameras. The main components are the sample program NxView and the library NxLib. All Ensenso models will be supported, beginning with version 1.3. They are optimized for use with the fourth generation of Intel i5/i7 processors. This reduces the processing time up to 50 percent. The implemented log mode allows image capturing in scenes with high dynamic range: this reduces reflections on reflective surfaces. So the models are perfect for capturing 3D images of products

made of metal or stainless steel. They are also good for use in outdoor areas with large light/dark contrasts.

The cameras are pre-calibrated and come with an MVTec HALCON interface as well as an object-oriented API (C++, C# / .NET).

Images:

Stereo-3D-Kamera

**Ensenso N35** mit GigE-Anschluss „powered over Ethernet“ und FlexView-Projektor

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