

AUTOMATICA 2010

Press Release 8th June 2010

ImagingLab Simplifies Robotics and 3D Vision Integration in LabVIEW

ImagingLab S.r.l. (Lodi, Italy), a company specializing in the integration of machine vision and robotics, presents a state-of-the-art robotics cell, based on NI LabVIEW, that integrates four industrial robots of different brands with the "360° 3D Scanner". The ImagingLab Robotics Libraries allow end users and systems integrators to program robots of different brands with the National Instruments LabVIEW platform.

"The challenge was to have different robots, with different programming languages and protocols, communicating among themselves and integrated with a 3D Vision System" says Ignazio Piacentini, president of ImagingLab. "ImagingLab has specifically developed a series of LabVIEW based libraries to make the integration between Vision and Robotics easier and more accessible, even to end users who have a limited knowledge of robotics and robot programming."

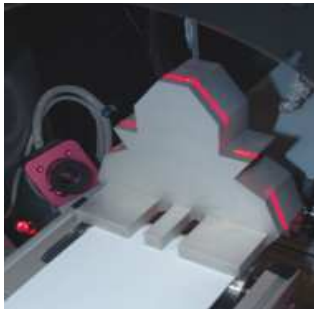
ImagingLab also announces the ImagingLab "360° 3D Scanner", which is able to provide 3D reconstructions of objects with arbitrary shapes in many industrial applications and fits very well the machine vision and robotics requirements in flexible manufacturing. ImagingLab has developed a LabVIEW toolkit for the SAL3D library from AQSENSE (Girona, Spain), a sophisticated set of 3D tools that includes laser peak detection, calibration, merge of multiple images, Z-mapping and geometric computations compatible with any 3D imaging devices outputting a COP (Cloud Of Points)

These powerful software tools help ImagingLab to design, develop and deliver efficient and highly integrated complete solutions for different automation needs, such as assembly, packaging, testing, quality inspection and measurements. On the robotics side ImagingLab has solved the problem of different and non compatible robot programming languages by developing, with the support of the major robots manufacturers, a set of LabVIEW based libraries. So far four libraries are available for Denso, Mitsubishi, Kuka and Epson robots.

The supervision and interfacing of the major components of the unit (robots, pneumatics, etc) is performed by a National Instruments CompactRIO programmable automation controller that combines all the advantages of the LabVIEW programming environment with a rugged, reliable hardware architecture.

Our multi-brand robotics cell will be on display during the AUTOMATICA 2010 in Munich (8-11 June) at the ImagingLab/AQSENSE Booth, Hall B2, 408A.

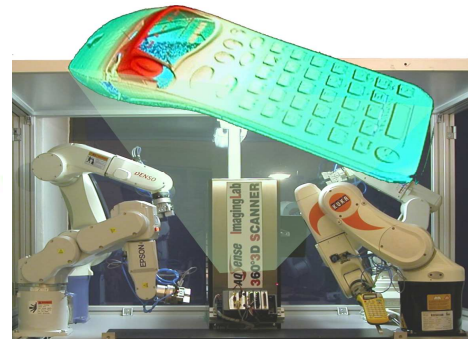
360° 3D Scanner



Robotics



3D Robot Vision



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