

X-GAGE3D

High Precision 3D Metrology In-line. At-line. Off-line.





X-GAGE3D - High Accuracy -

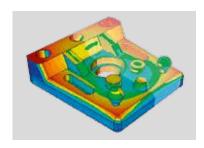
X-GAGE3D - Next Generation Multi Stereo 3D Scanner

The new compact X-GAGE3D is the all-in-one scanner for many applications where fast 3D measurements are required. Precision, robustness and speed combined in one sensor for industrial applications and the most demanding tasks.

Ultra-fast 3D-Scanning – Beyond 10 Hz

X-GAGE3D is equipped with high resolution cameras, precision optics and embedded technology to ensure a super-fast 3D capturing of any kind of object. To minimize the amount of required scans, the sensor has a large field-of-view with a diagonal of up to 600 mm. The cutting-edge embedded multi-core processing unit and its extended vision accelerator board enable fastest data transmission and data evaluation on-board of the sensor in next to no time.





High Precision Scanning Down to Micrometer

The pre-calibrated X-GAGE3D generates based on multi stereo evaluation an ultrafine and complete point cloud with smallest point spacing for maximum details and high-accuracy measuring results down to few micrometer. The X-GAGE3D is a self-controlling system and performs regular automatic calibration checks. This ensures constant repeatability and stable scan quality.

Reliable Results

The X-GAGE3D sensor inherent methods are explicitly suited for varying resp. mixed materials. All acquisition parameters are adjusted automatically by software to generate always the best data quality. An automatic scan alignment and a quality based use of redundancies ensure the capturing of complete scans even of the most challenging objects like shiny metal parts. The advanced high-power illumination provides robust scan results also in difficult production environments.



Embedded Point Cloud Engine

- Break through new multi stereo method for 3D point cloud generation
- High resolution board-level cameras and high-grade optics
- High power LED pattern illumination
- Embedded multi-core processor with extended vision accelerator
- Industry 4.0 enabled by OPC-UA and WLAN interfaces
- Designed for robotized and shop floor applications

With X-GAGE3D from Real Part to Watertight 3D Model and 0

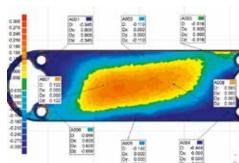


- High Speed – High Usability



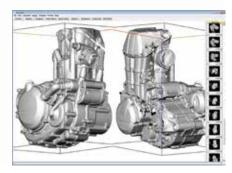
Built-in Flexibility

The new X-GAGE3D can be used for any inspection application from shop floor level integrated in the production line, installed close to the production (at-line) or off-line in a laboratory - Feasible for all use cases where precise 3D is needed from quality inspection to reverse engineering. The proven post processing software allows data reduction, interpolation and the generation of 3D meshes to be exported to CAD file, even watertight models, required for additive manufacturing. Also a direct comparison of the point cloud/mesh to CAD is available to detect form deviation and generate measurement reports



Industry 4.0 and 3D CAD Compatibility

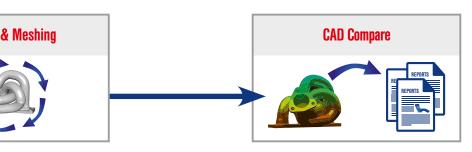
The new scanner X-GAGE3D comes already with the communication interface OPC-UA and WLAN modules and is ready for the future of Industrial Automation. And ISRA's "Touch & Automate" concept enables customers to commission the system quickly and easily without any expert knowledge. On top, the new X-GAGE3D scanner is compatible with the most common 3D CAD measuring software programs.



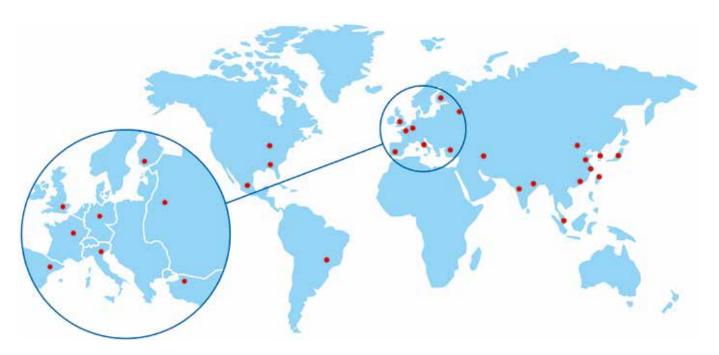
Total and Complete Object Digitalization with Absolute Accuracy

For the digitalization of large objects several scans can be merged together to a complete watertight 3D mesh. Ingenious software algorithms align different overlapping scans fully automated to one model. The robot based sensor will be powered by a comprehensive software package for the automated inspection and robot path planning for fast setups of new parts. Additionally the sensor can also be used together with an optional Photogrammetry reference system to determine the sensor position in space with an overall absolute accuracy.

CAD Compare within Few Steps – Reliable, Fast and Accurate



Innovation for Robot Automation



Automation at its best

ISRA VISION has been a leading supplier of highperformance quality inspection, robot guidance and production logistics systems for more than 30 years.

Our systems are used around the world in many different industries and applications. Our mission is to offer a comprehensive portfolio of standard solutions, covering all requirements along the process chain.

ISRA's experience and technological competence in the field of industrial image processing has been proven by thousands of successfully installed systems worldwide.

Benefits at a glance

Customers opt for ISRA's solutions for the following reasons:

- Our development activities are consistently aligned with our customers' requirements.
- We are continuously expanding our knowledge and expertise in all core areas of industrial image processing.
- Our customer relationships do not end with the delivery of new products. The Customer Support Center provides comprehensive support for the use of your systems and helps you to increase your productivity - be it via our telephone hotline, remote service, on-site service, or our maintenance services.
- More than 800 employees at our sites in Europe, North and South America, and Asia are committed to your success.

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