

## Unique SAL3D tools for an unmatched performance

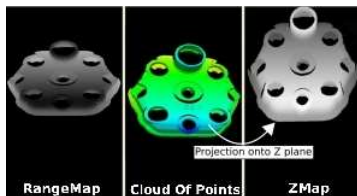
SAL3D provides easy-to-use, accurate and robust tools for true 3D point cloud acquisition and processing. For easy 2D integration, SAL3D provides ZMap, a “flat” representation of point clouds, which is a grey level image of floating point values created out of a SAL3D Cloud of Points. The ZMap features include pure proportional relationships between the image coordinates and the metric coordinates.

2D libraries can be easily used in combination with SAL3D to perform metric measurements on ZMaps using tools such as circle fitting, ellipse fitting, blob analysis, etc. Such measurements open up the possibility to perform 3D analysis in quality control or surface inspection for users familiar with 2D imaging, allowing them to continue using their well known algorithms tools.

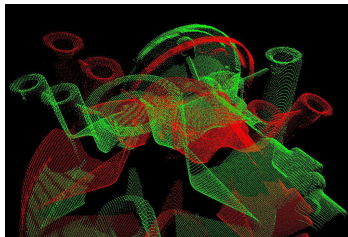
The hardware independent unique tools provide accurate and incredibly fast matching of distant point clouds with the Match3D Tool. The new coarse registration allows 3D inspection and 3D comparison of parts not pre-aligned to each other. This allows manufacturers and machine builders to considerably reduce their fixture and jig costs in inspection systems.

Data import and the generation of Clouds of Points from CAD files in IGES and STEP format is now available. The COPs generated with the SAL3D library can be exported as well in PLY 3D format files.

[www.aqsense.com](http://www.aqsense.com)



**Image 1:** ZMaps are the flat representation of a Cloud of Points



**Image 2:** Model and part Clouds of Points before matching

MORE DIGITAL RESOURCES INCLUDING THIS DOCUMENT: <http://www.aqsense.com/automatica/automatica10.html>

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**About AQSENSE**

AQSENSE develops 3D software libraries and FPGA IP blocks for 3D cameras. AQSENSE's customized applications and engineering solutions are supported with training and seminars. Feasibility studies for 3D integration include the evaluation of cameras, lasers and hardware configuration.

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