Fraunhofer IFF

OptoInspect3D Inline

Software Library for 3D Measurement Data Processing

Contact

Industrial Metrology and Digital Assistance Systems

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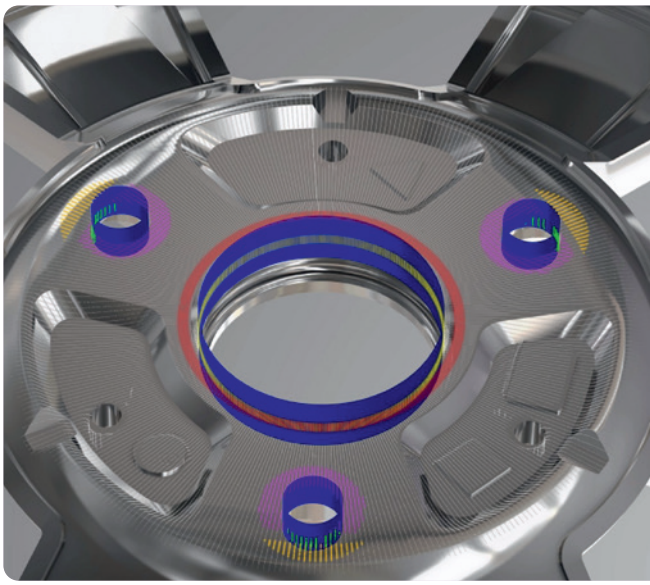
OPTOINSPECT Measuring Technology

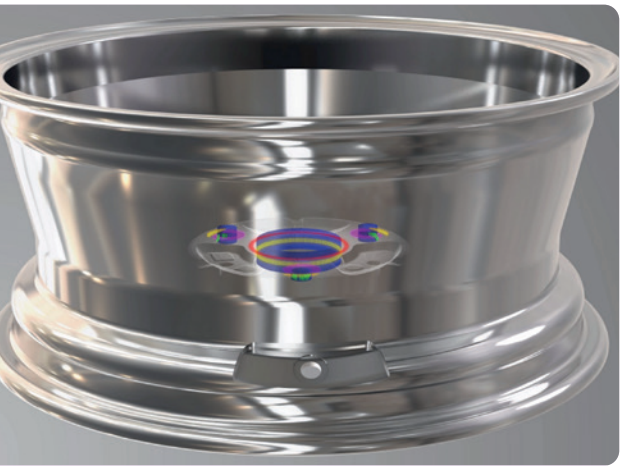
PRODUCT

OptoInspect3D Inline – SOFTWARE LIBRARY FOR 3D MEASUREMENT DATA PROCESSING

Product

Optical 3D scanners that inspect geometric quality are increasingly being adopted in industrial manufacturing processes. 3D sensors digitize the surface of the item under test and deliver measurement data in the form of 3D point clouds. Algorithms that interpret and analyze the point clouds can be used to detect deviations in dimension, shape and position from CAD or reference measurement data. Fraunhofer IFF provides the licensable OptoInspect3D Inline software library and a free graphical test environment for this purpose. Top performance, robust methods with certified accuracy and easy integration into your own applications, sensors or devices are the distinctive features of the software library.



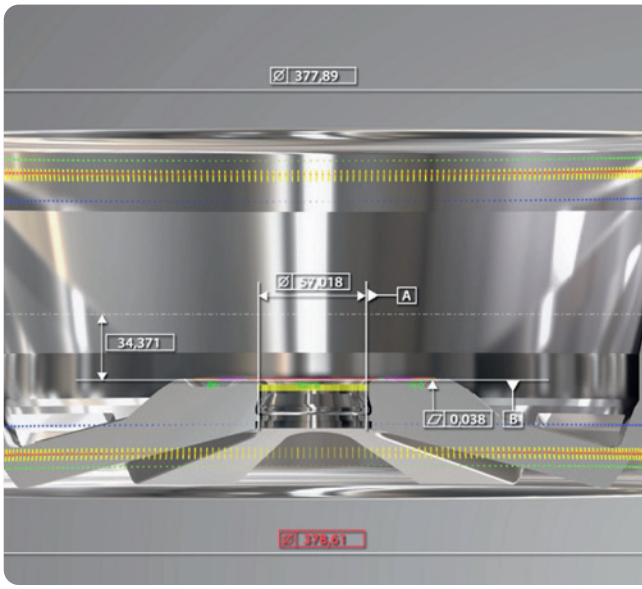


Range of functions

- Registration (alignment) of point clouds and CAD data
- Approximation of geometric primitives (standard 2D and 3D geometric elements)
- Segmentation (by geometry and color)
- Sections, projections, spacing
- Filtering, homogenization and smoothing
- Determination of measured variables from parameters of geometric primitives

Features

- Type-C compliant interface
- Top performance through efficient data structures and multicore support
- Processing of large quantities of points (out-of-core)
- Development and test environment with OpenGL-based visualization
- Flexible licensing models, custom or job-specific upgrades of functions as needed
- PTB-certified accuracy
- A free demo version and software documentation with a description of the range of functions is available on:
  www.iff.fraunhofer.de/en/optoinspect3d



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