

ZEISS T-SCAN CS+



Laura Vazquez
Optotechnik

- 1 Measuring Volume
- 2 Quality and Measurement Uncertainty
- 3 Flexibility
- 4 High-Performance Scanner
- 5 Easy-to-Use
- 6 Software
- 7 Intelligent Sensor Management
- 8 On-Site Calibration
- 9 Wide Range of Accessories
- 10 Worldwide Sales & Service Centers

Various measuring volumes for almost any kind of application

- Wide range of measuring volumes from 6.3m³ to 35m³

Shifting quality issues directly to the production line

- Leads to faster processes
- Shorter lead times
- Worker self-inspection
- Relief of the QS capacities especially during start of production

Full surface measurement of the component

- Dense surface information
- Very fast measurement
- Simple component analysis by false color comparison

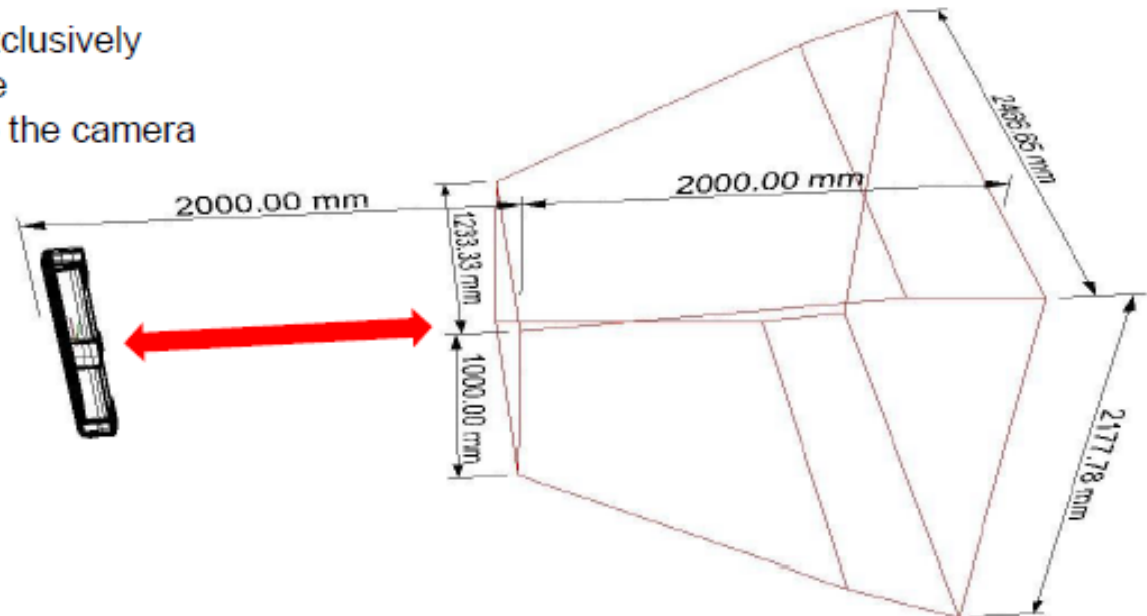
Quick and easy 3D scanning

- No surface preparation required due to high-performance laser scanner
- Very fast system set-up and commissioning

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Measuring Volume CS+

- Close end: 2.0 m distance to camera 1233 mm x 1000 mm
- Far end: 4.0 m distance to camera 2178 mm x 2467 mm
- Measuring volume: 6,3 m³
- No measuring zones are considered
- The measuring volume refers exclusively to the available measuring range without the minimum distance to the camera



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System specification for CS+

In accordance with DIN EN ISO 10360-2

$50\mu\text{m} + 50\mu\text{m} \times L / 1000$



- Extruded aluminum profile for extremely rigid camera housing
- Optical components at the highest level
- High-performance laser scanner
- Software components specially adapted to hardware for permanent device monitoring

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Different measuring volumes for optimal application support



Single parts



Assemblies

Both scanning and tactile measurement using one system

T-SCAN Laserscanner



T-POINT touchprobe



Measure directly at the line even in unstable environment

T-REF. Kit



Quelle: <http://www.volkswagen-os.de/de/geschaeftsfelder/metall-gruppe/werkzeugbau.html>

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T-SCAN - Technical Data

- 100 mm (+/- 50 mm) depth of field
- Up to 125 mm linewidth
- 150 mm average working distance
- Up to 330 lines per second
- 210.000 points per second
- 76,2 μm average point distance
- 1312 points per line
- Sensor dimensions:
300 x 170 x 100 mm
- Weight < 1100 g
- Lasertype: diode
- Wavelength 658 nm
- Laserclass: 2M (approx. 12 mW)



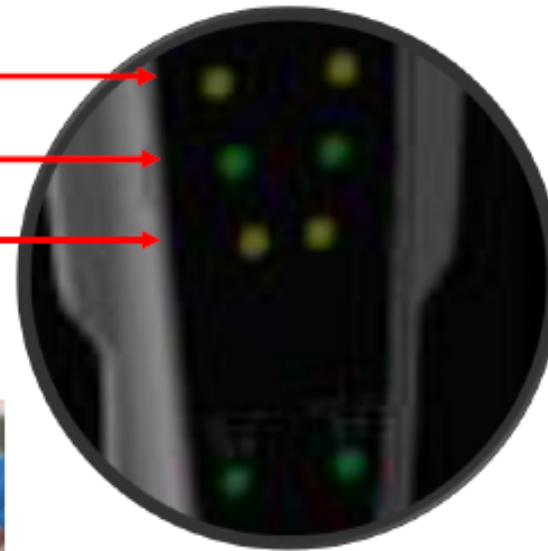
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Optical feedback on part spacing when scanning directly on the scanner

Indicator of far end

Indicator for optimal range

Indicator of close end

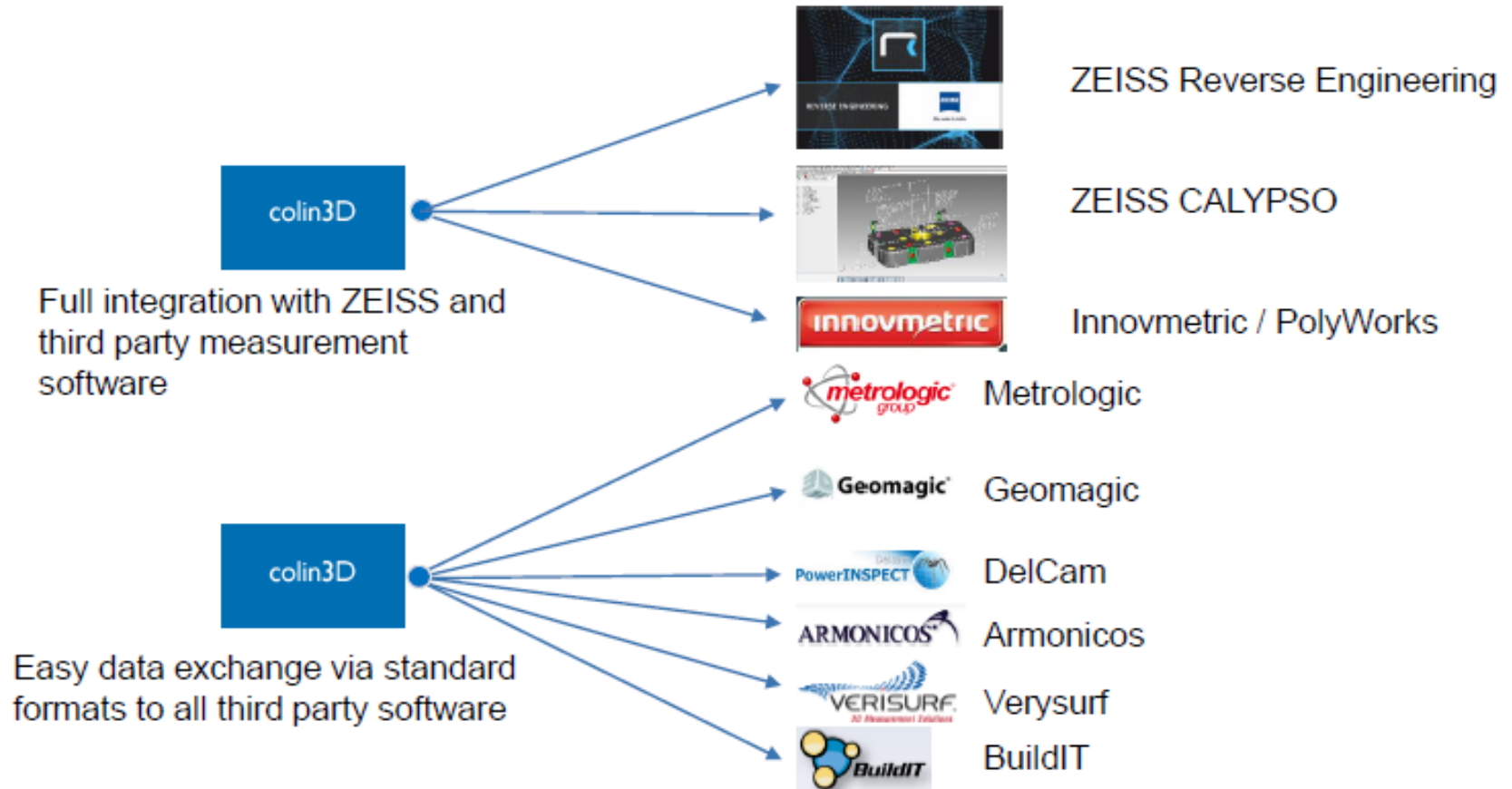


Additional pilot beam intersecting the laser line on the component at the optimum scanning area

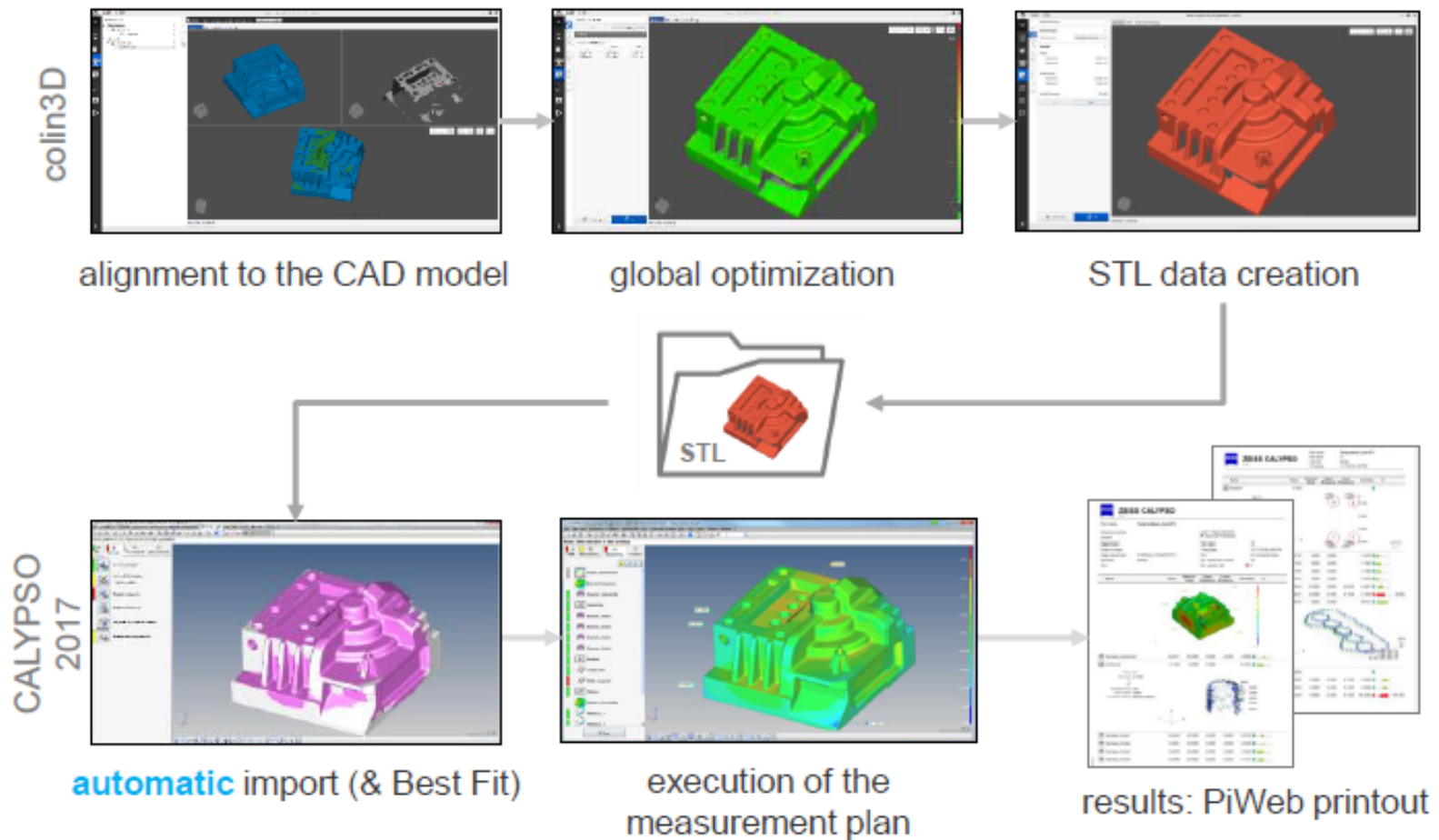


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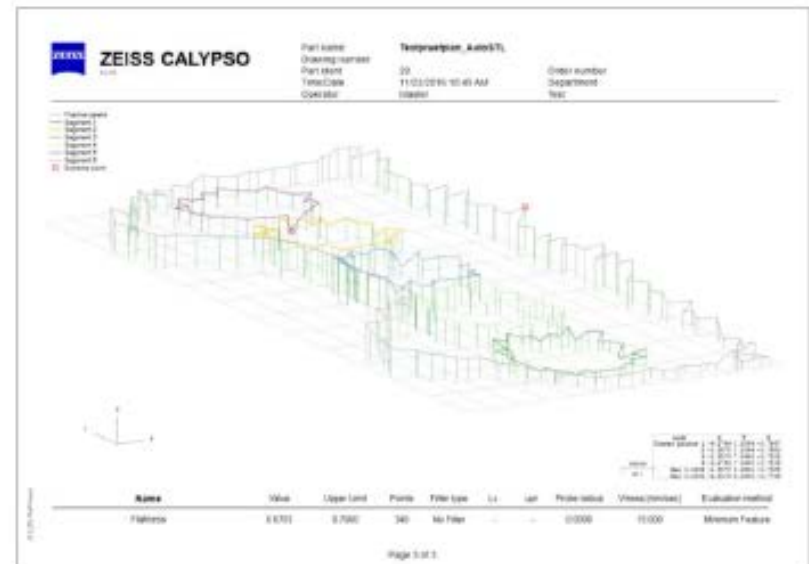
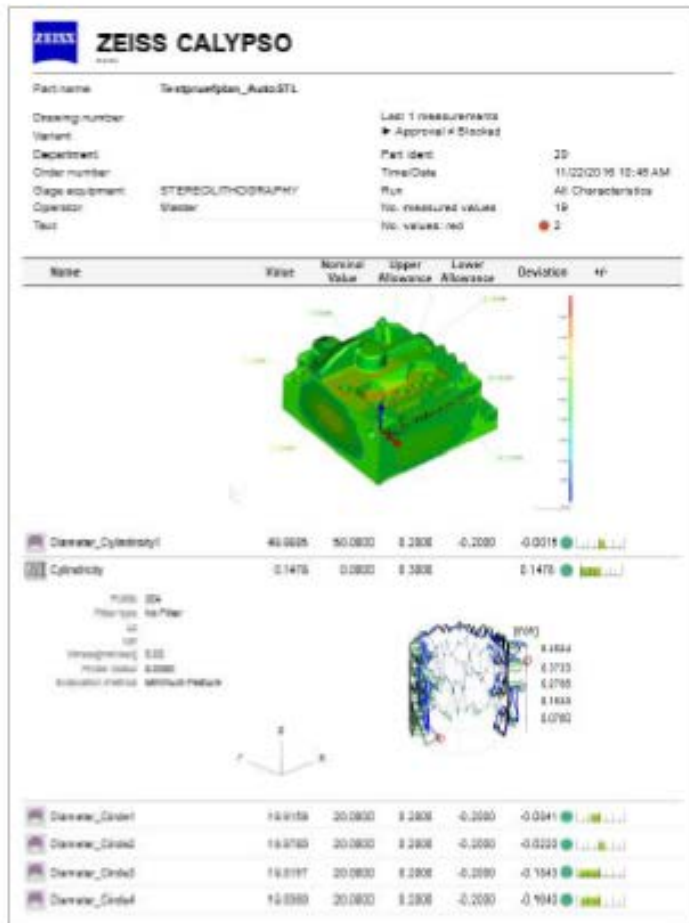
Open Interface structure



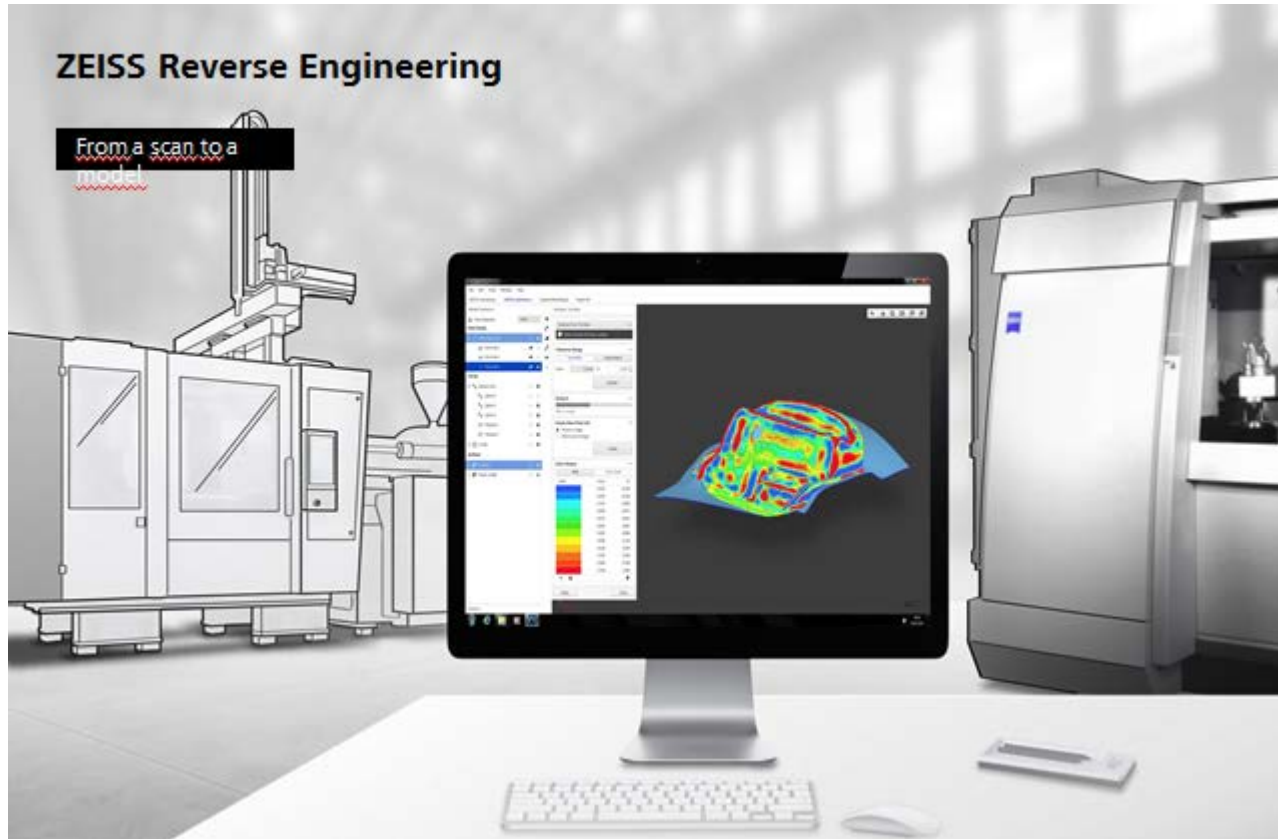
Full integrated Data export for ZEISS CALYPSO and ZEISS Reverse Engineering



Full integrated Reporting for ZEISS CALYPSO with PiWeb



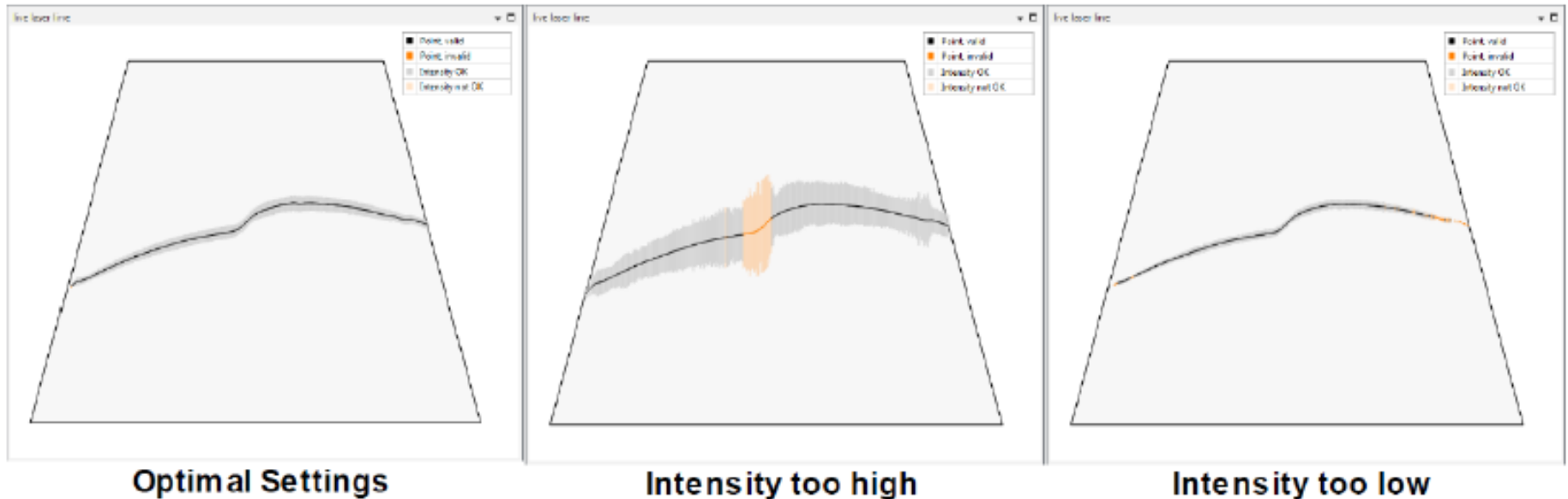
Zeiss Reverse Engineering Software- Tool Correction.



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Sensor settings

Operator guidance to the optimal scanner settings through graphical support

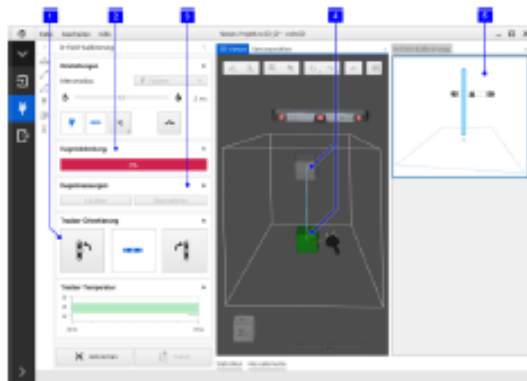


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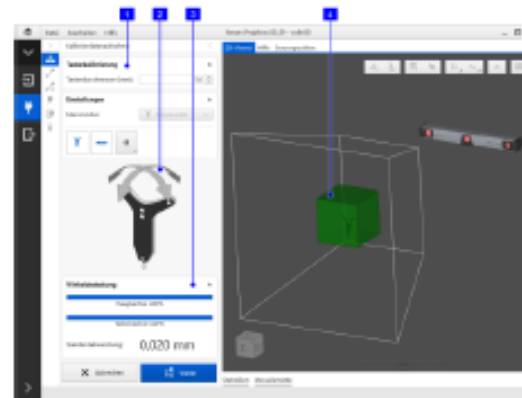
Infield calibration with touch probe and scanner possible

Through the user interface before and during calibration, the operator can achieve the optimal system performance for the specific environment.

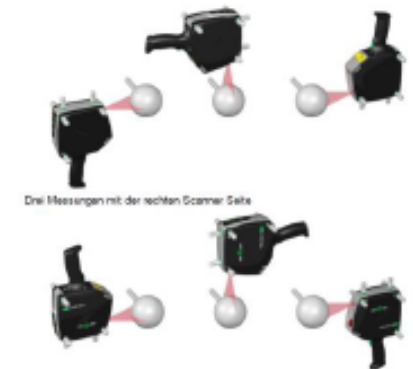
dialogue for device positioning



dialog for touch probe calibration



dialog for scanner calibration



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Wide range of accessories



- PC
Laptop
Desktop PC
- Handling system
- Packaging / transport cases
- Calibration accessories
- Dynamic-Referencing Kit and accessories



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The ZEISS Group operates more than 30 manufacturing sites, over 50 sales and service locations and about 25 research and development centers. With sites in over 40 countries, ZEISS offers its employees many possibilities for advancement and interesting places to live.

- Customer Service
- Hardware Service
- Software Service
- Training
- Project Service
- Measuring Service
- Service Centers

Worldwide Sales & Service Centers



- Customer Service
- Hardware Service
- Software Service
- Training
- Project Service
- Measuring Service
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10 Production Sites

32 Sales and Service Organizations

51 Competence Centers

100 Business Partners

