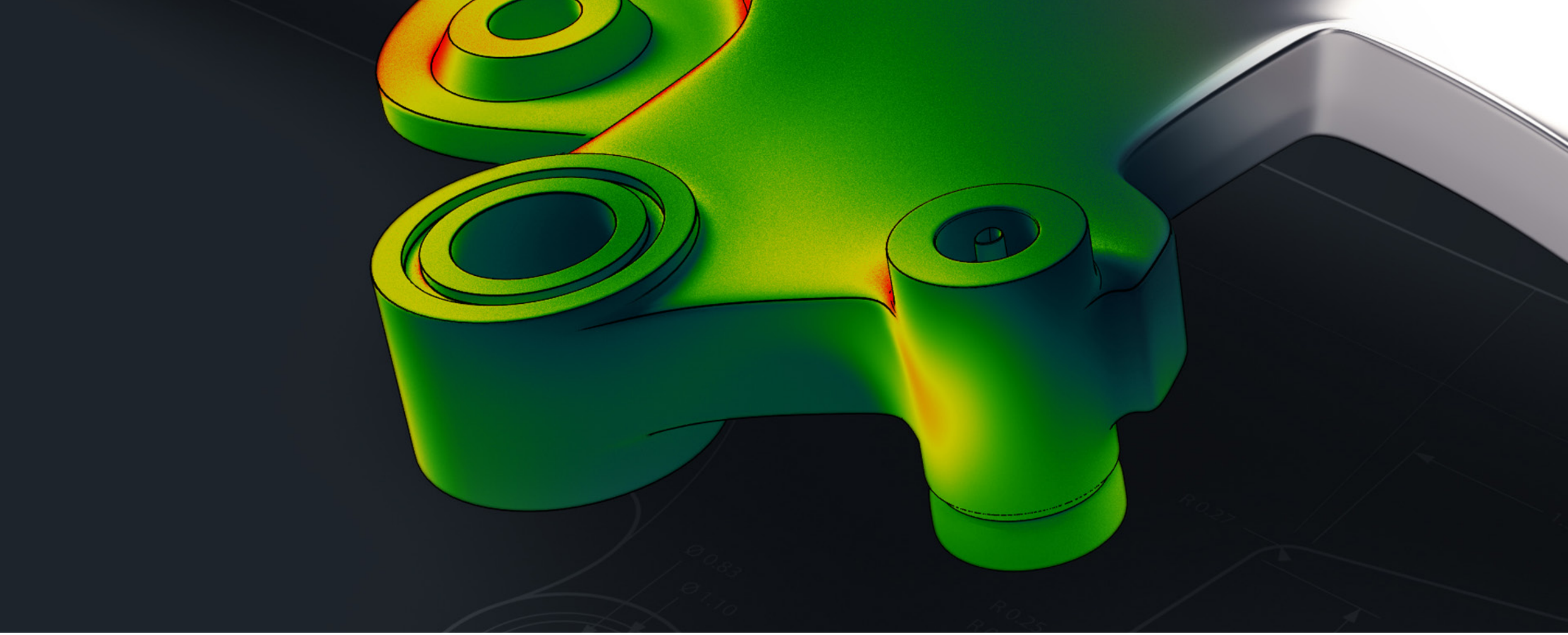


ZEISS INSPECT Optical 3D

The standard for your 3D surface inspection

ZEISS

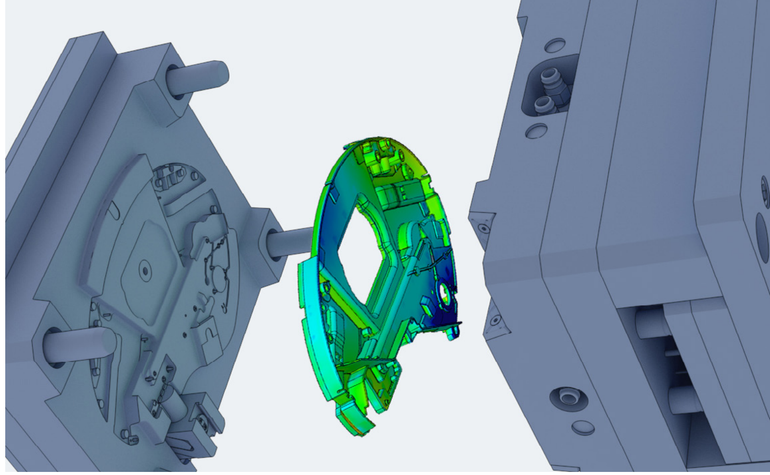
Seeing beyond

Making quality visible

Take your 3D inspection tasks to the next level. ZEISS INSPECT Optical 3D supports you with a continuous workflow and a user-centric operation. Easily create digital twins for a comprehensive and detailed analysis to ensure fast and precise results.

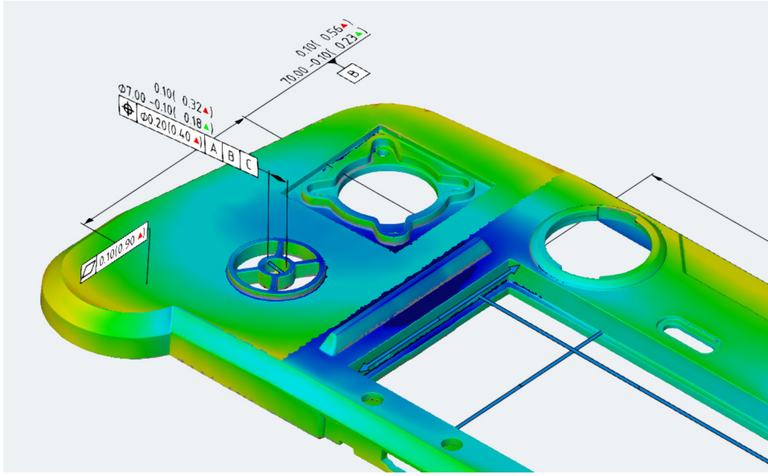
Digital assembly

Assemble your parts digitally – regardless of where they were manufactured. This helps you save time and efficiently reduce scrap.



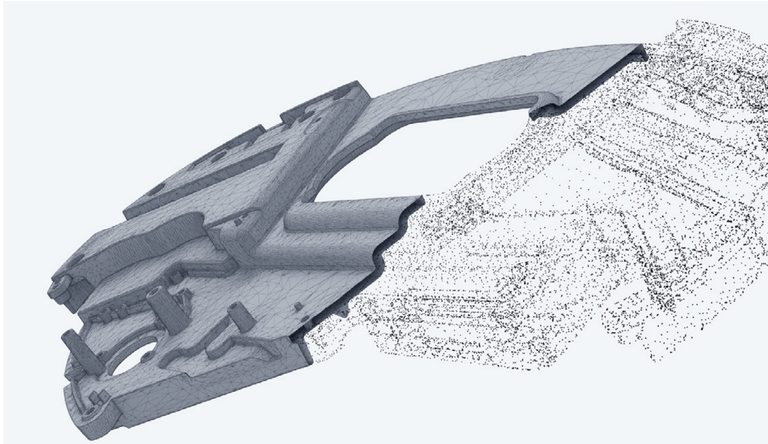
Dimensional metrology

Inspect geometric elements and visualize tolerance labels and color deviations. ZEISS INSPECT detects quality issues automatically and categorizes them, revealing even smallest defects quickly.



Mesh editing

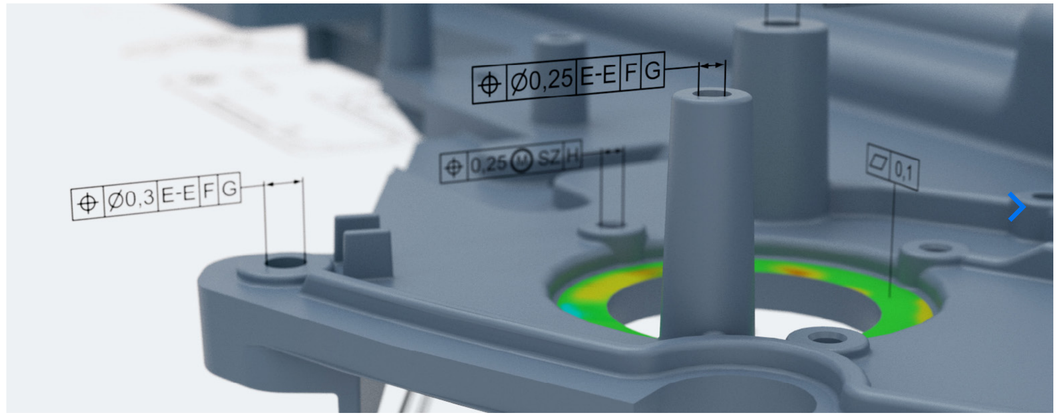
From a 3D point cloud to a polygon mesh. The software also helps with smoothing and filling holes.

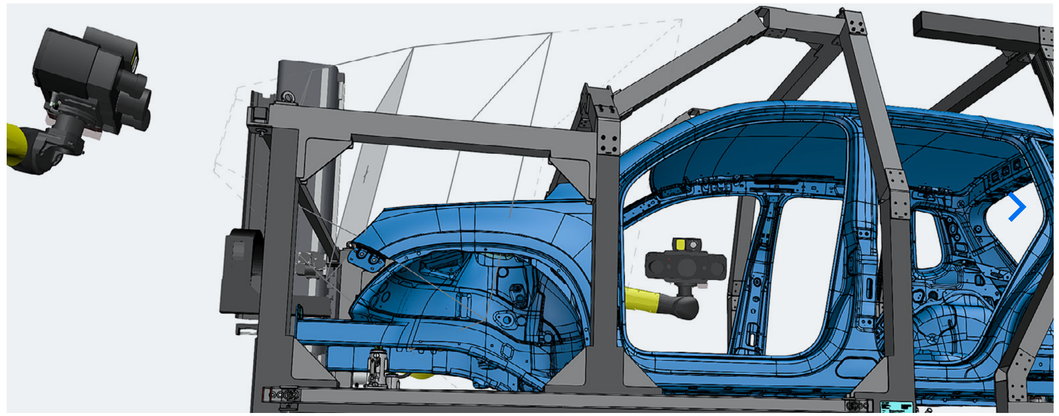


Highlights

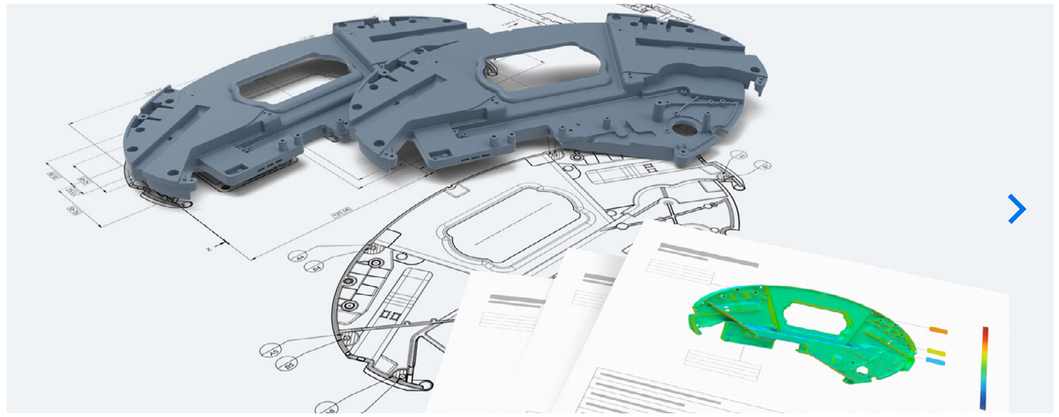
that inspire

ZEISS INSPECT
Optical 3D






```
# -*- coding: utf-8 -*-
import zeiss
for i in range (36):
    zeiss.script.view.rotate_3d_view (
        rotation_angle=10,
        rotation_axis='cube_z',
        rotation_center=zeiss.Vec3d (53.4, -0.612788131, 686.86726
        use_animation=False,
        widget='3d_view')
    zeiss.script.sys.delay_script (time=0.0001)
zeiss.script.view.restore_tag_scene (name='Ansicht')
for i in range (10):
    MCAD_ELEMENT=zeiss.script.primitive.create_touch_point_disc (
        clearance=100.0,
        name='Point_'+str(i+1),
        normal={'direction':zeiss.Vec3d (-0.4753821194, -0.874307
        only_touch_from_outside=True,
        point={'interpolated': True, 'normal':zeiss.Vec3d (-0.475
        project_element=zeiss.app.project.parts['IGT'].nominal,
        properties=zeiss.Binary ('eAHPmPtsHGcVx3+O0mRM0uASSohQWTl
        radius=1.0)
MCAD_ELEMENT=zeiss.script.inspection.measure_by_intersection_with
    check_plausibility=True,
    elements=[zeiss.app.project.inspection['Point_2'], zeiss.app.pr
    properties=zeiss.Binary ('eAHFmF1sHFcVx380aTChIbgtUCpEV44B03b
MCAD_ELEMENT=zeiss.script.inspection.inspect_dimension (
    csys=zeiss.app.project.nominal_elements['system_global_coordi
    elements=[zeiss.app.project.inspection['Point_1'], zeiss.app.pr
    nominal_value=0.0,
```



Extend your software with apps

The basic functions of ZEISS INSPECT are not enough?
Extend and adapt the software to your needs.

Airfoil Inspection

Visualize and evaluate turbines and blade wheels thanks to specific analysis functions and useful 2D and 3D evaluation features.

Autosurfacing

Easily convert your scan data into a highly precise CAD model and export the CAD as a STEP file.

Virtual clamping

Measure clamped states without any fixture, making your work more efficient and saving costs.

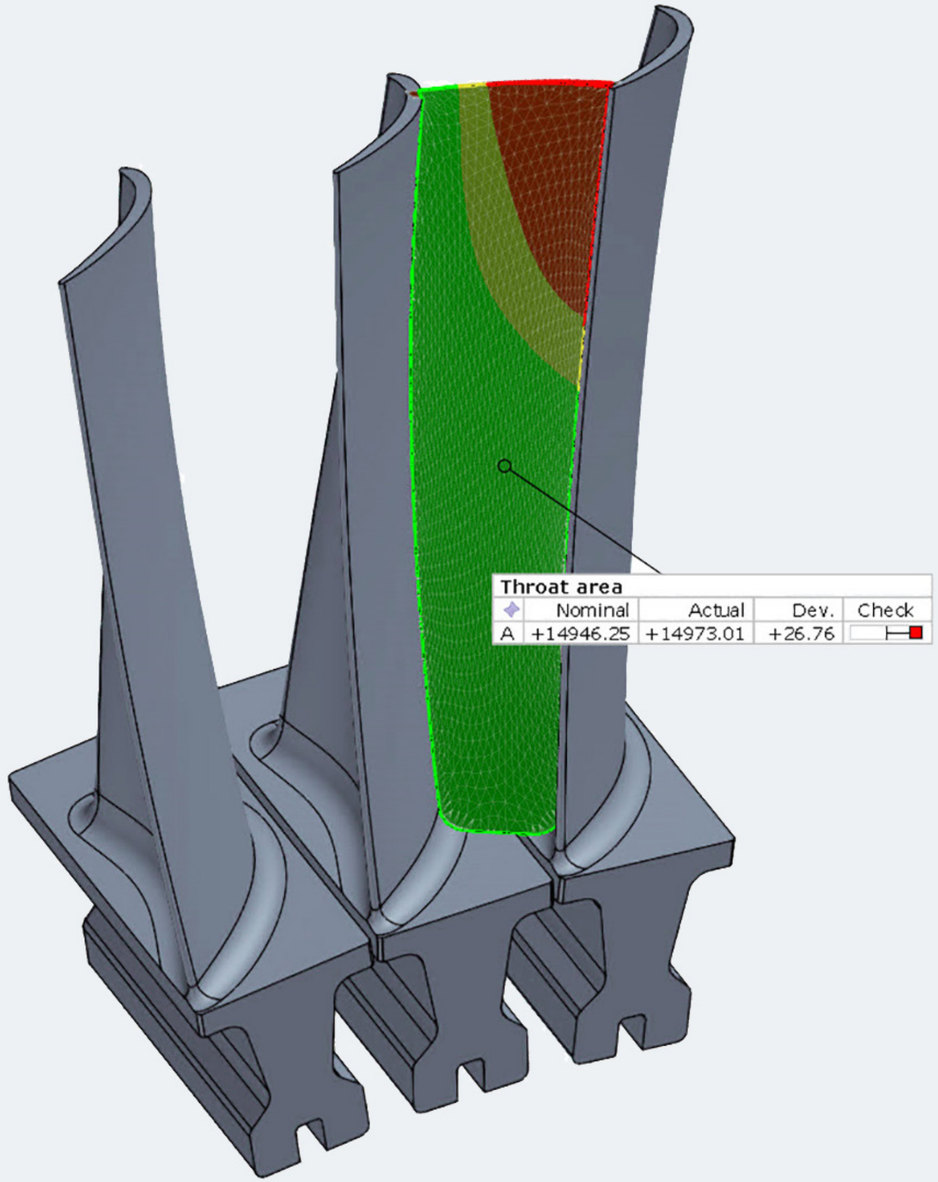
Tube Check

Determine the correction parameters of a complete tube fully automatically. Visualization of the deviation is interactive and adjustable.

Discover all apps in the ZEISS Quality Software Store.

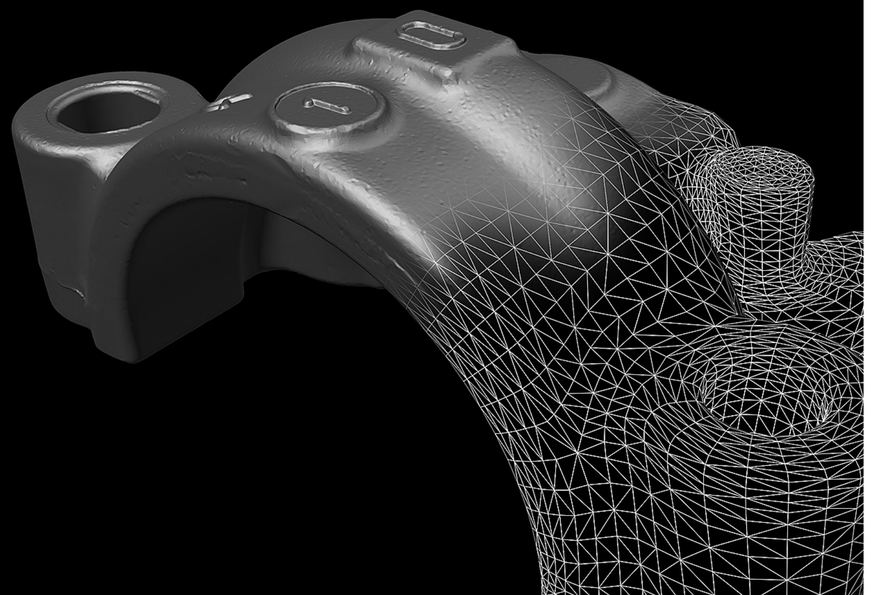
Learn more

★ fee-based app



License overview

Choose the license that suits your inspection need.



	Free license	Pro license
Data import and export		
Import/export of measuring data (ASCII, STL, PSL, PLY)	✓	✓
CAD import of basic formats (IGES, VDA, STEP, JT Open, STL, PLY, ...)	✓	✓
CAD import of native formats (CATIA, NX/UG, Pro/E, Parasolid, SAT...)		✓
CAD import with semantic PMI/FTA/MBD data		✓
Data acquisition and editing		
Polygonization of measuring data	✓	✓
Mesh editing (closing of holes, smoothing, thinning, ...)	✓	✓
Software-based motion compensation during measurement		✓
Virtual clamping (App, perpetual order)		✓
Inspection		
Element construction (geometric elements, sections, curves, local coordinate systems, ...)	✓	✓
Basic inspection (alignments, nominal-actual comparisons, GD&T, curves, surface defect map)	✓	✓
GD&T expert filters	✓	✓
Parametric evaluations		✓
Digital assembly		✓
Photorealistic rendering		✓
Autosurfacing (App, perpetual order)		✓
Automation		
Usage of inspection templates for automated inspections		✓
Trend analyses and part-to-part comparison		✓
Virtual measuring room (App, perpetual order)		✓
Customization		
User-defined checks		✓
Individual programming through macro recorder and Python script engine		✓
Customized reporting templates		✓
Reporting		
Reports with snapshots, images, tables, charts, texts and graphs	✓	✓
Reports with videos		✓
Design your own report pages		✓
Edit created reports		✓

Do you need more information?

Find the perfect introduction to ZEISS INSPECT for optical 3D metrology. Whether just the free license, the purchase or a trial of the pro version – it's up to you.

Learn more

Seeing beyond