ZEISS CALYPSO
Software Options

ZEISS CALYPSO
Individual Upgrade Possibilities

ZEISS offers additional software options for special applications and measurement tasks. You can purchase these in addition to the universal ZEISS CALYPSO measurement software to adapt the software to your individual requirements.
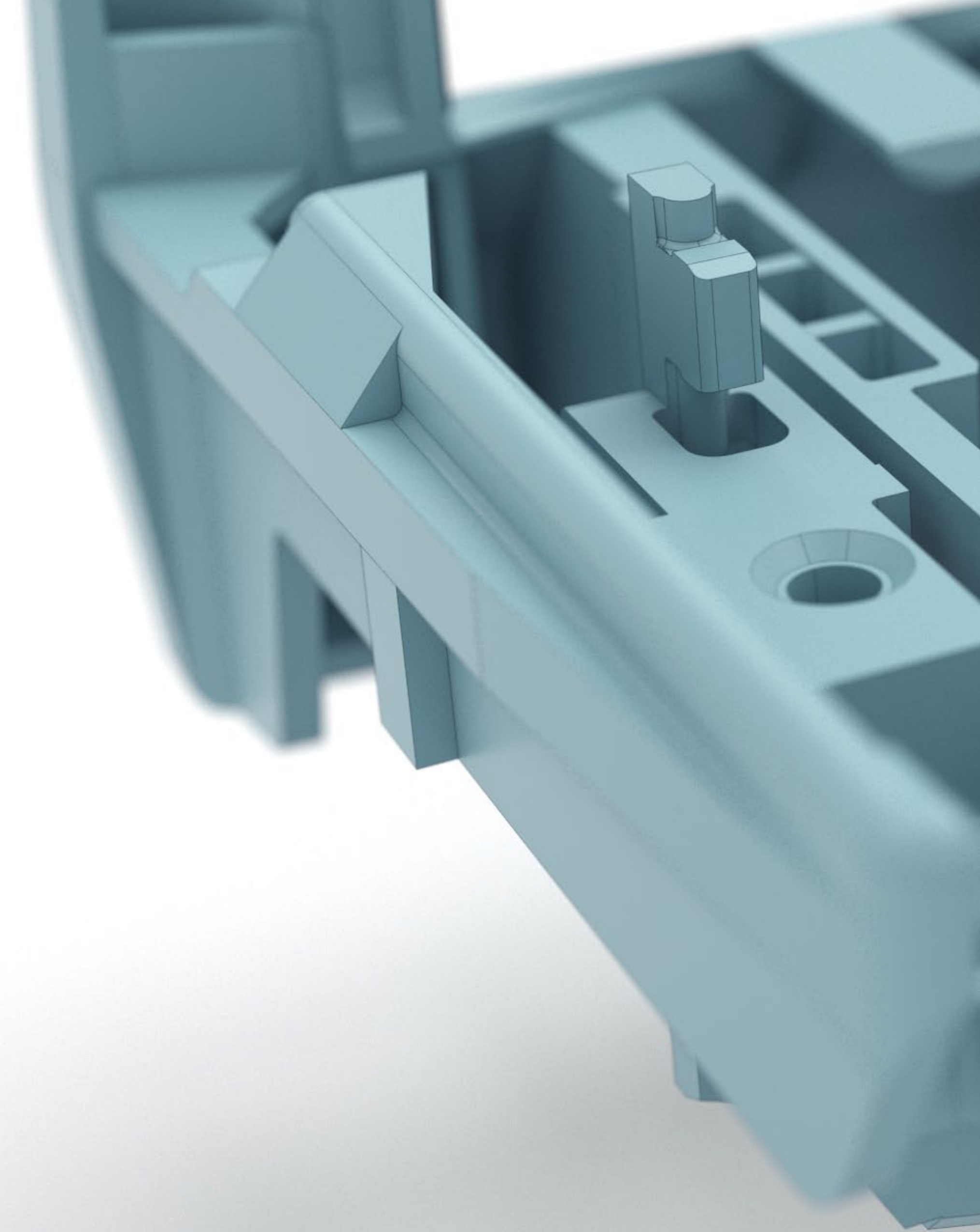
General Options

Performance Enhancement

Automation
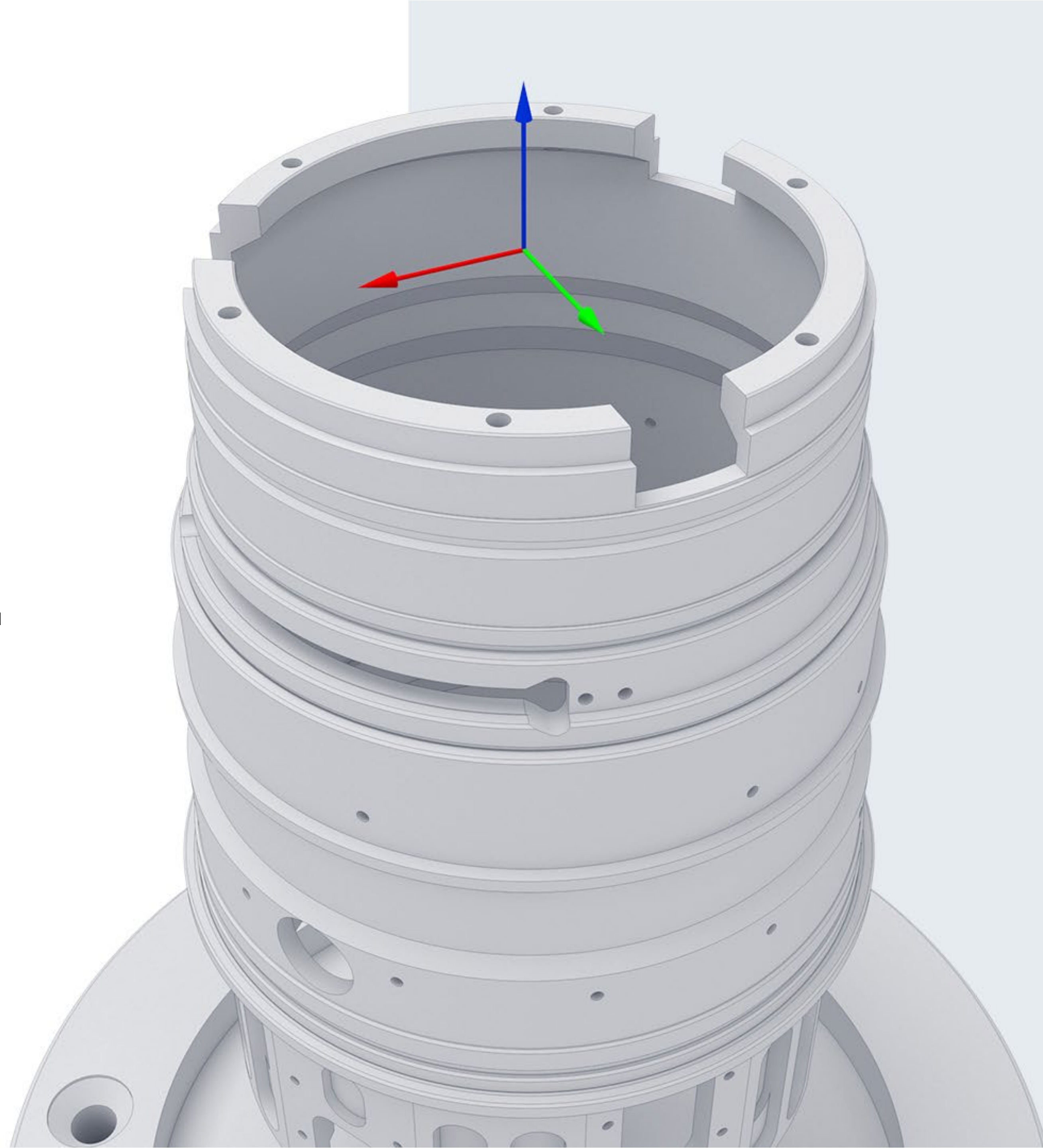
Reporting

CAD Interfaces
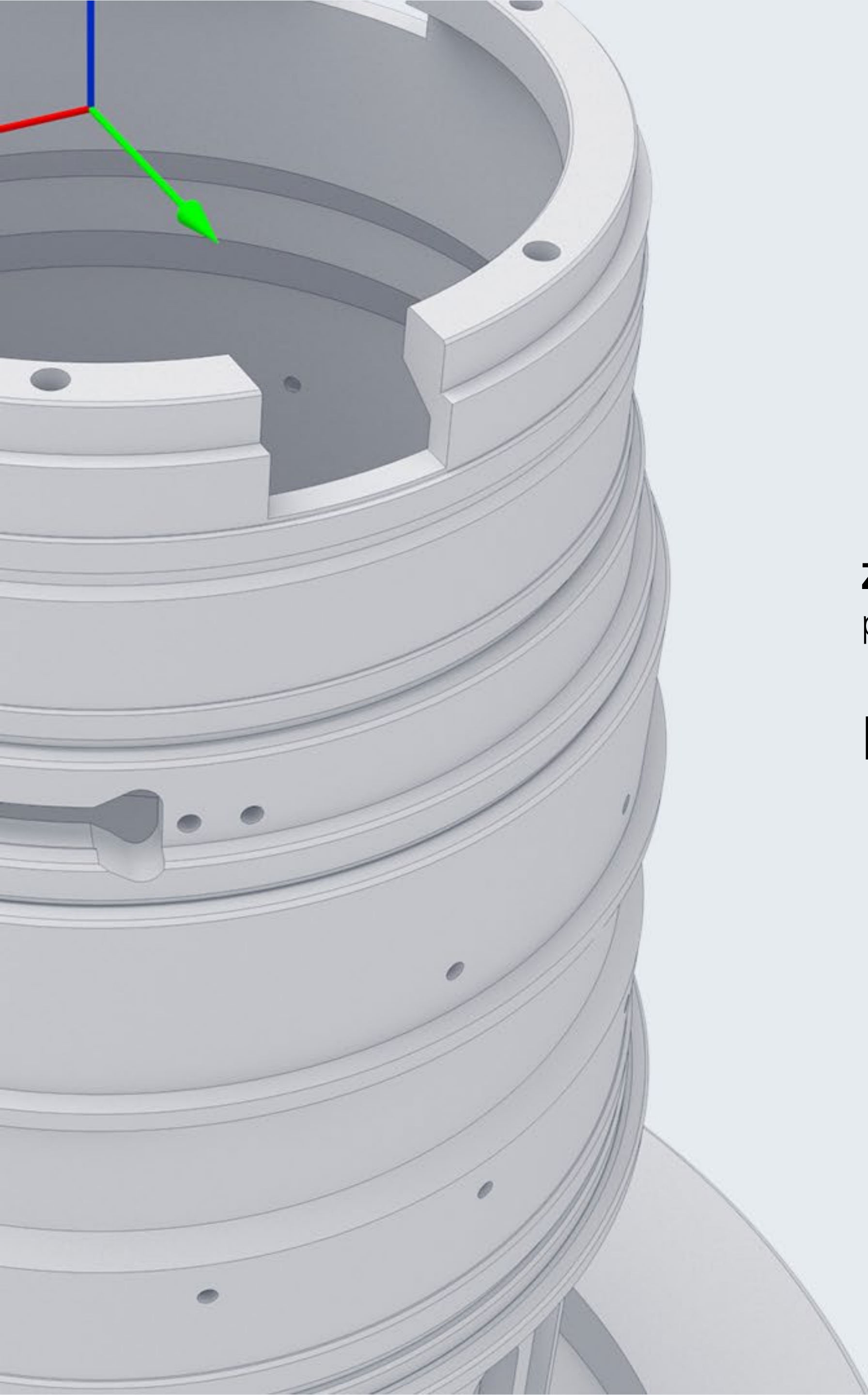
ZEISS CALYPSO
planner

With CALYPSO planner, measurement plans can be created offline. This way, your measuring machine is not tied up and ready for other tasks.

With CALYPSO planner, you have the ability to create complete CNC measurement plans on a workstation remote from the CMM. Your advantage: Measurement plans created with CALYPSO planner can be opened and executed at any time directly on the CMM.

The benefit: The CMM is not blocked for programming and can be used for measuring. The overall process throughput is thus retained and your productivity is increased.

In conjunction with the additional CALYPSO simulation option, measurement plans can be simulated and tested remotely.

ZEISS CALYPSO
planner

Benefits

Amortized after 12 months*

CALYPSO planner option enables the CMM to be used for what it is supposed to do – measuring. The overall process is thus retained and your productivity is increased.
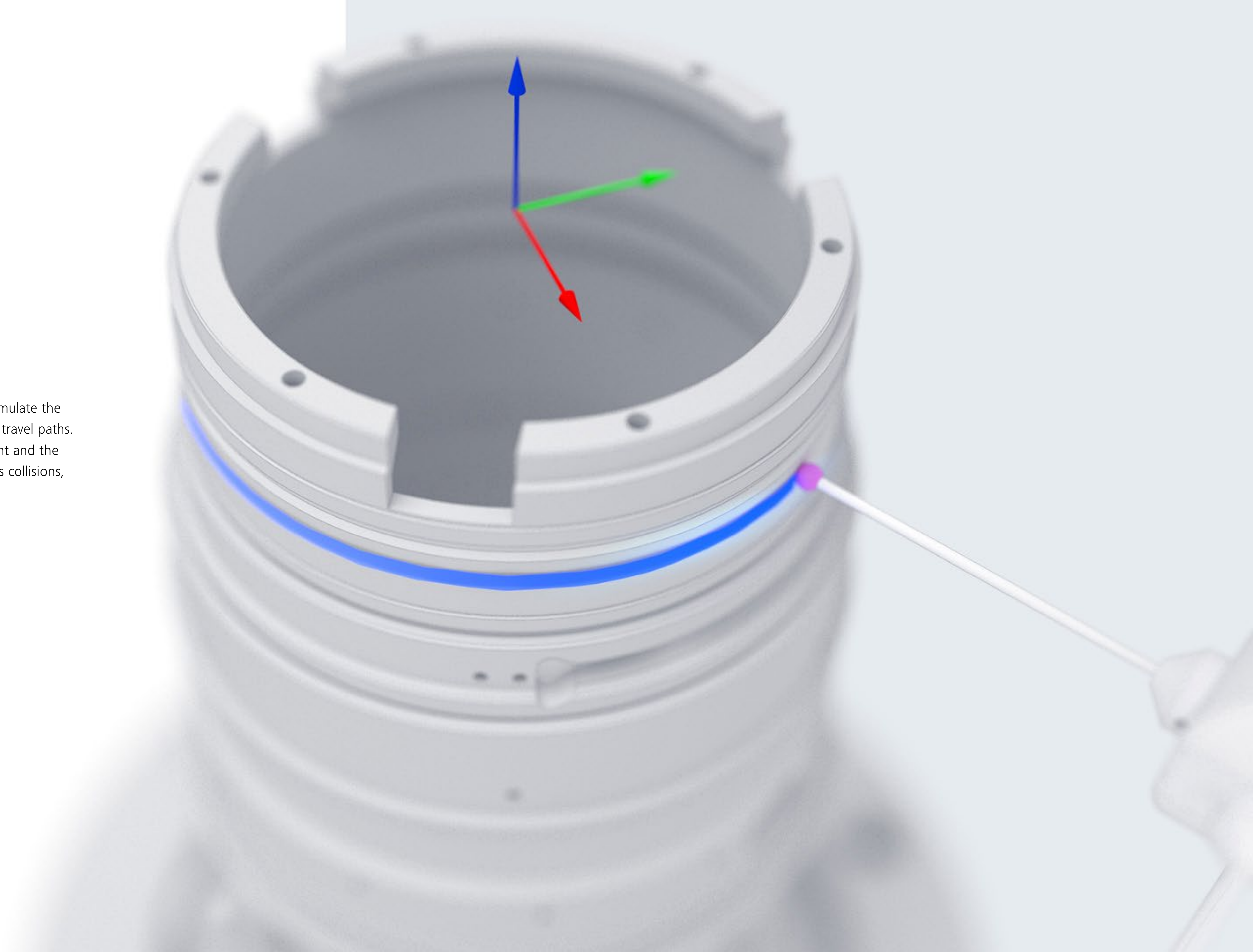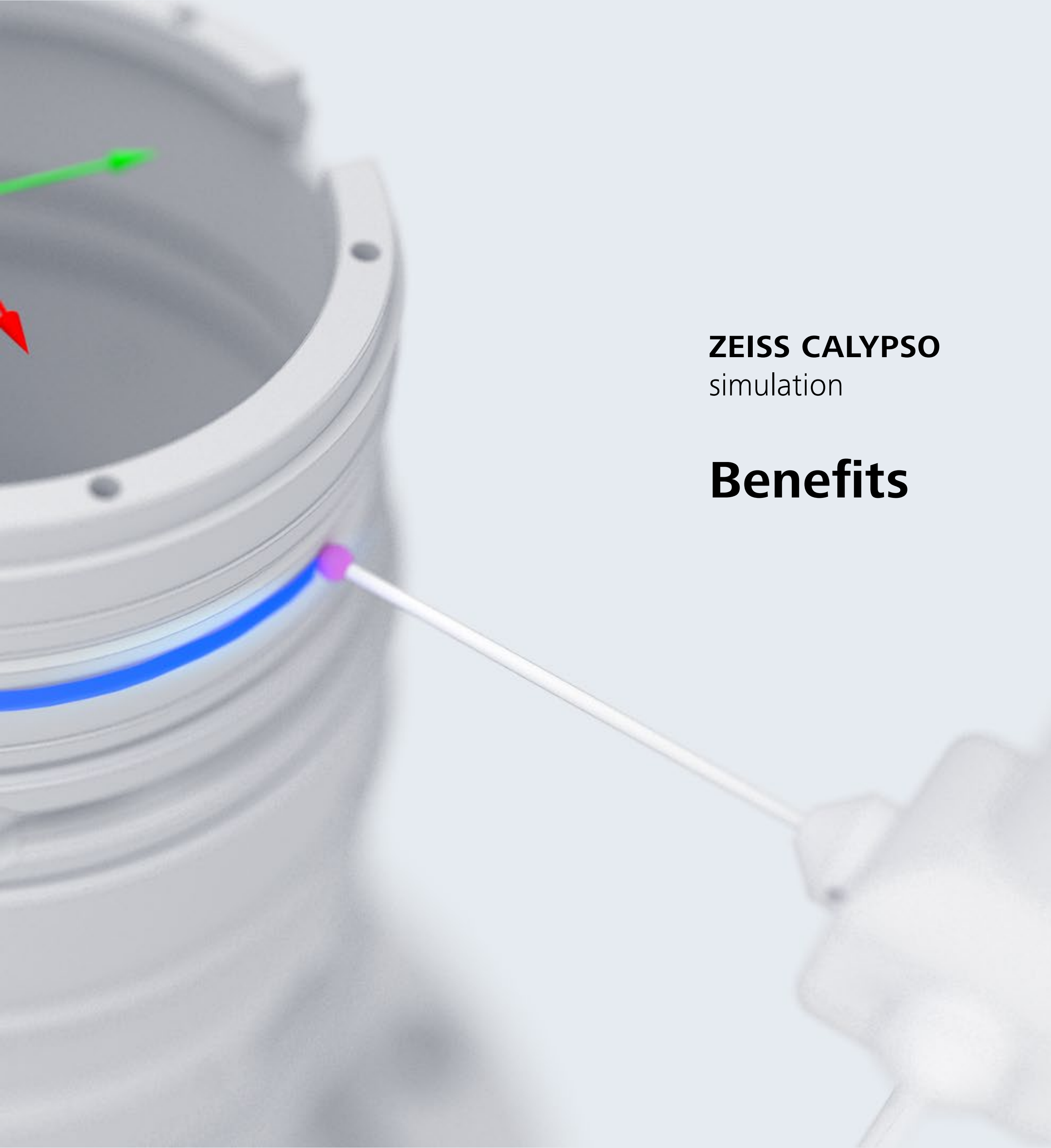
20–50% higher CMM productivity*

CALYPSO planner option improves the usage of the CMM. The CMM is only used for the measuring run. The programming is executed in a virtual environment. Hence, the machine is not blocked and can be used for additional measurements.

* actual values depend on individual conditions

ZEISS CALYPSO
simulation

CALYPSO simulation option makes it possible to simulate the complete measuring program, including the CMM travel paths. The CAD simulation includes the CMM environment and the workspace on the CMM. Critical situations, such as collisions, can be identified and eliminated up front.

ZEISS CALYPSO
simulation

Benefits

Comfortable optimization of measurement plans without CMM connection

CALYPSO simulation enables the supervision and optimization of travel paths before the measurement is carried out on a CMM. The visualization on the CAD window helps users to identify whether the measurement sequence or stylus systems should be altered in order to achieve a better result in less time.

No more collisions

CALYPSO simulation makes it possible to simulate the complete measuring program. The simulation includes the CMM environment and the workspace on the CMM. Critical situations can be eliminated up front. Collisions during the measuring run on the machine will not happen in the future.
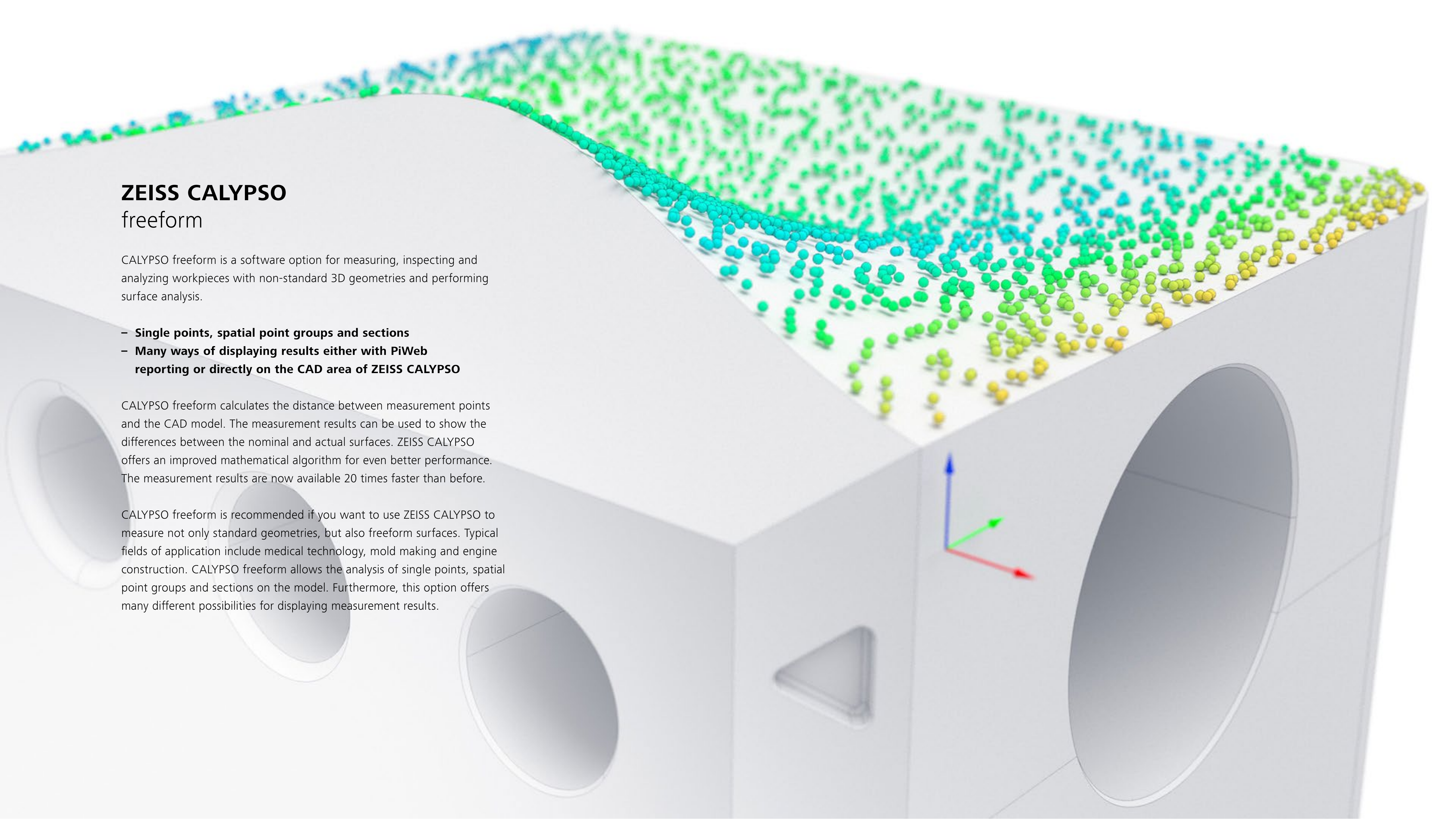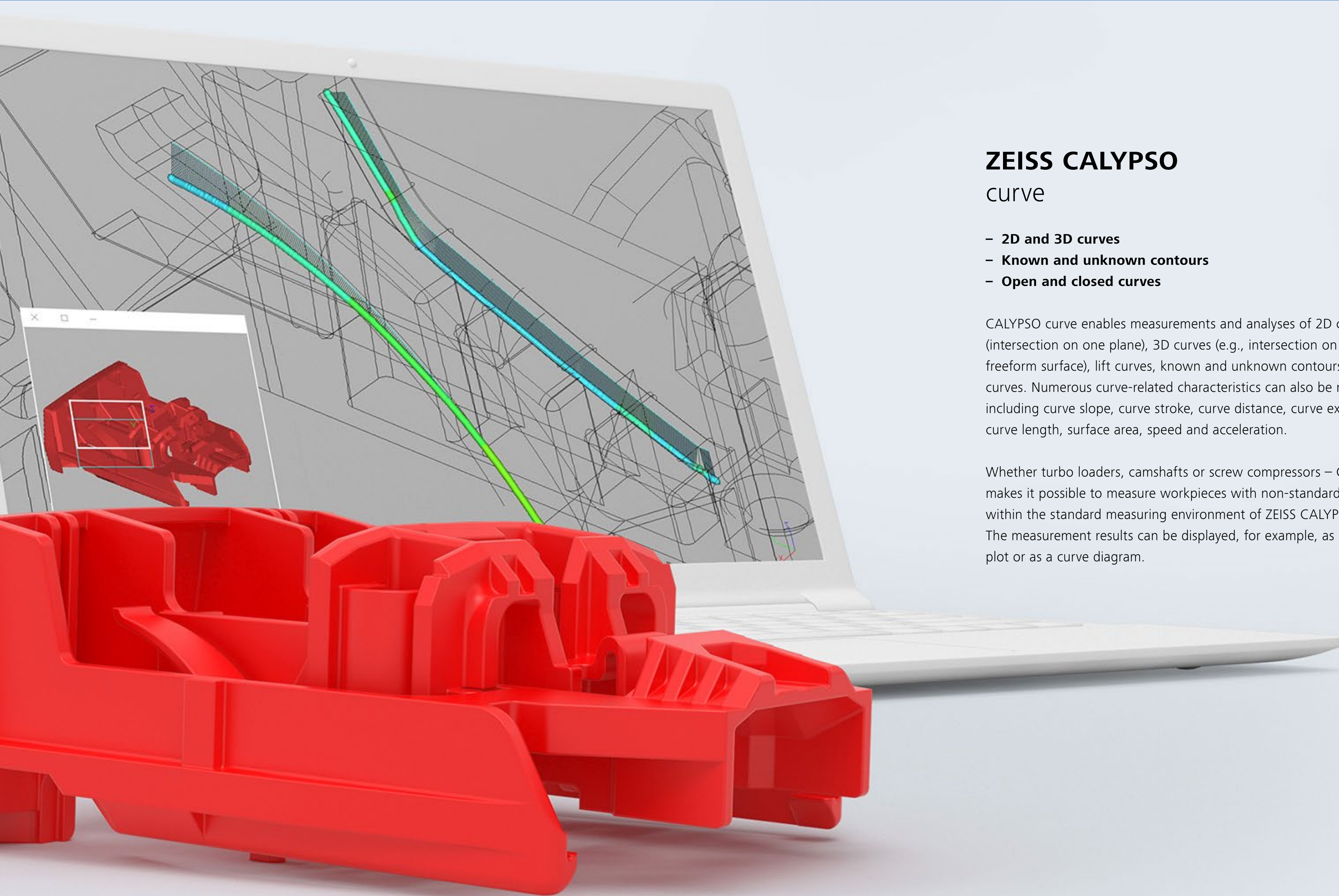
ZEISS CALYPSO
freeform

CALYPSO freeform is a software option for measuring, inspecting and analyzing workpieces with non-standard 3D geometries and performing surface analysis.

− **Single points, spatial point groups and sections**
− **Many ways of displaying results either with PiWeb reporting or directly on the CAD area of ZEISS CALYPSO**

CALYPSO freeform calculates the distance between measurement points and the CAD model. The measurement results can be used to show the differences between the nominal and actual surfaces. ZEISS CALYPSO offers an improved mathematical algorithm for even better performance. The measurement results are now available 20 times faster than before.

CALYPSO freeform is recommended if you want to use ZEISS CALYPSO to measure not only standard geometries, but also freeform surfaces. Typical fields of application include medical technology, mold making and engine construction. CALYPSO freeform allows the analysis of single points, spatial point groups and sections on the model. Furthermore, this option offers many different possibilities for displaying measurement results.

ZEISS CALYPSO
curve

- **2D and 3D curves**
- **Known and unknown contours**
- **Open and closed curves**

CALYPSO curve enables measurements and analyses of 2D curves (intersection on one plane), 3D curves (e.g., intersection on a cylinder or freeform surface), lift curves, known and unknown contours and symmetry curves. Numerous curve-related characteristics can also be reported, including curve slope, curve stroke, curve distance, curve expansion, curve length, surface area, speed and acceleration.

Whether turbo loaders, camshafts or screw compressors – CALYPSO curve makes it possible to measure workpieces with non-standard geometries within the standard measuring environment of ZEISS CALYPSO. The measurement results can be displayed, for example, as a form plot or as a curve diagram.
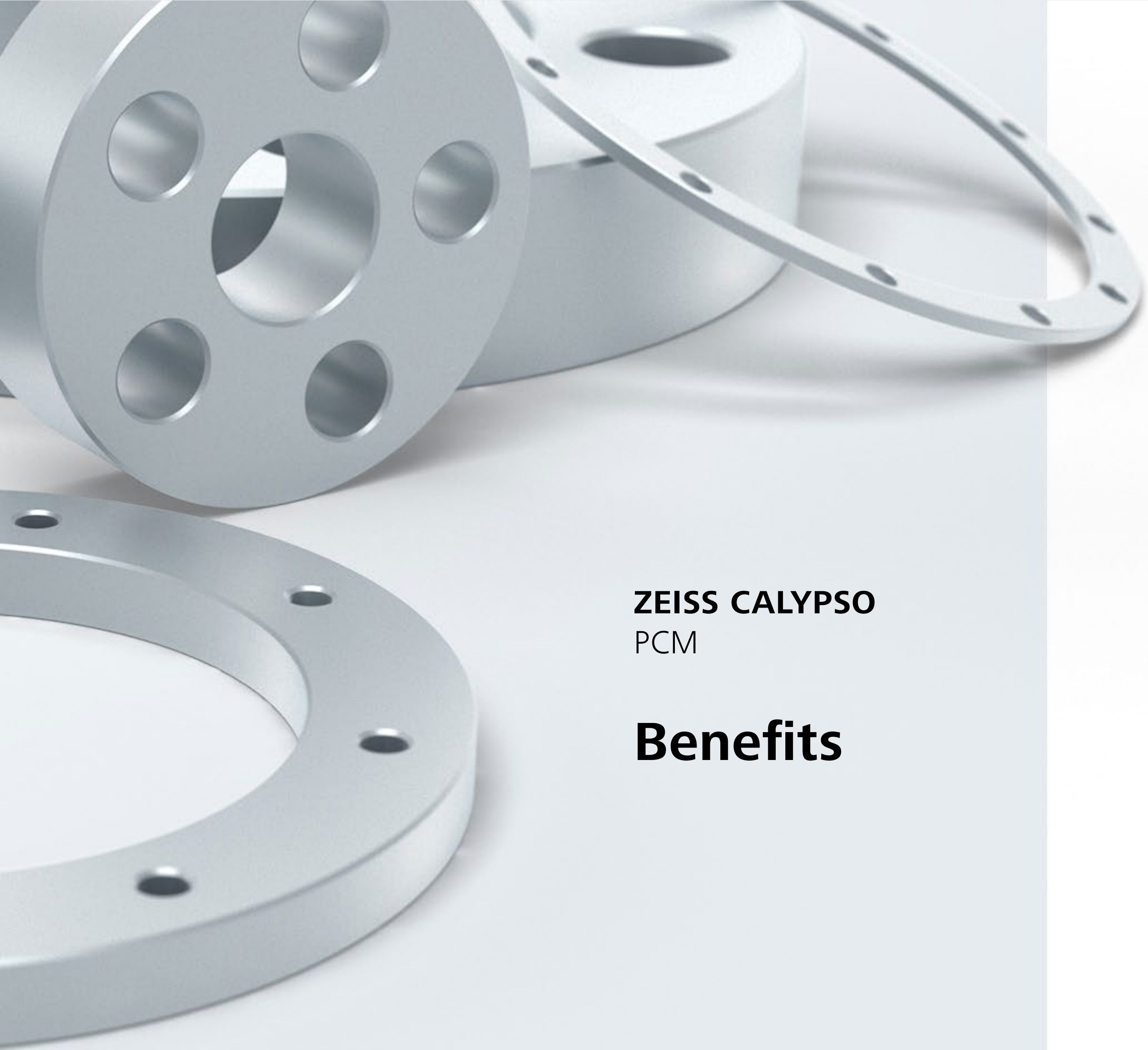
ZEISS CALYPSO
PCM

CALYPSO PCM (Parameter-Coded Measurement) significantly decreases the amount of time needed to measure workpieces of the same part family.

– Efficient programming of measurement plans for workpieces

CALYPSO PCM is ideal for manufacturers that produce workpieces similar in shape, function, and production process, but only differ by a few dimensions. With CALYPSO PCM there is no need for creating a measurement plan for each individual workpiece in a family anymore. With this, you can save time in the overall programming process for a family of workpieces.

Furthermore, if the measurement plan changes, possibly hundreds of measurement plans need to be manually edited. CALYPSO PCM solves this problem by creating a single parametrized measurement plan for all parts in the part family.

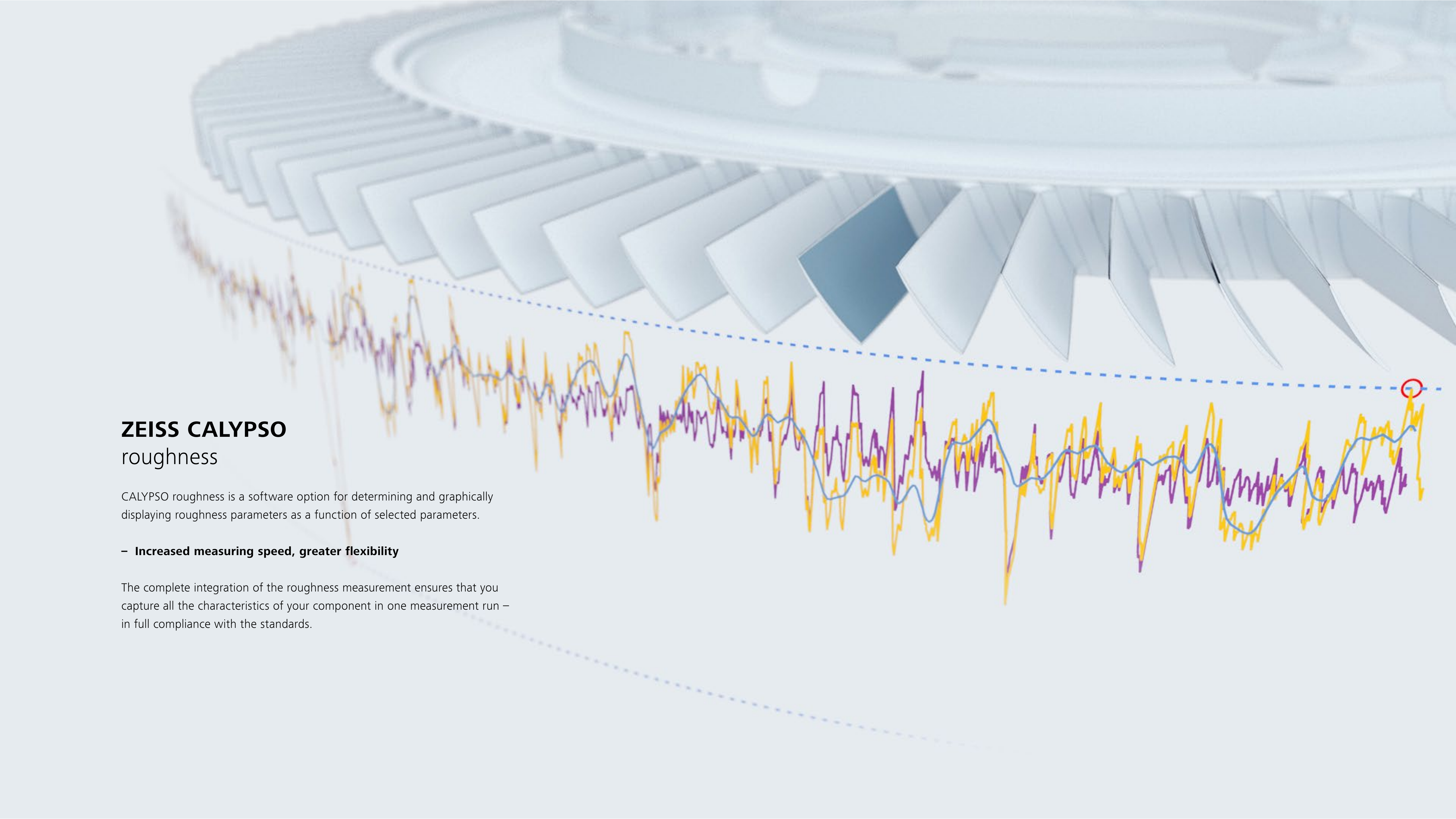ZEISS CALYPSO
PCM

Benefits

Reduced programming effort

Instead of individual measuring programs for each part,
CALYPSO PCM requires only one master program for all variants.

Fast extension & adaptation

In case your portolio of workpieces expands, you can add
further variants in no time.

Simple change management

If you need to make adaptions to the measuring procedure,
CALYPSO PCM enables you to make changes without
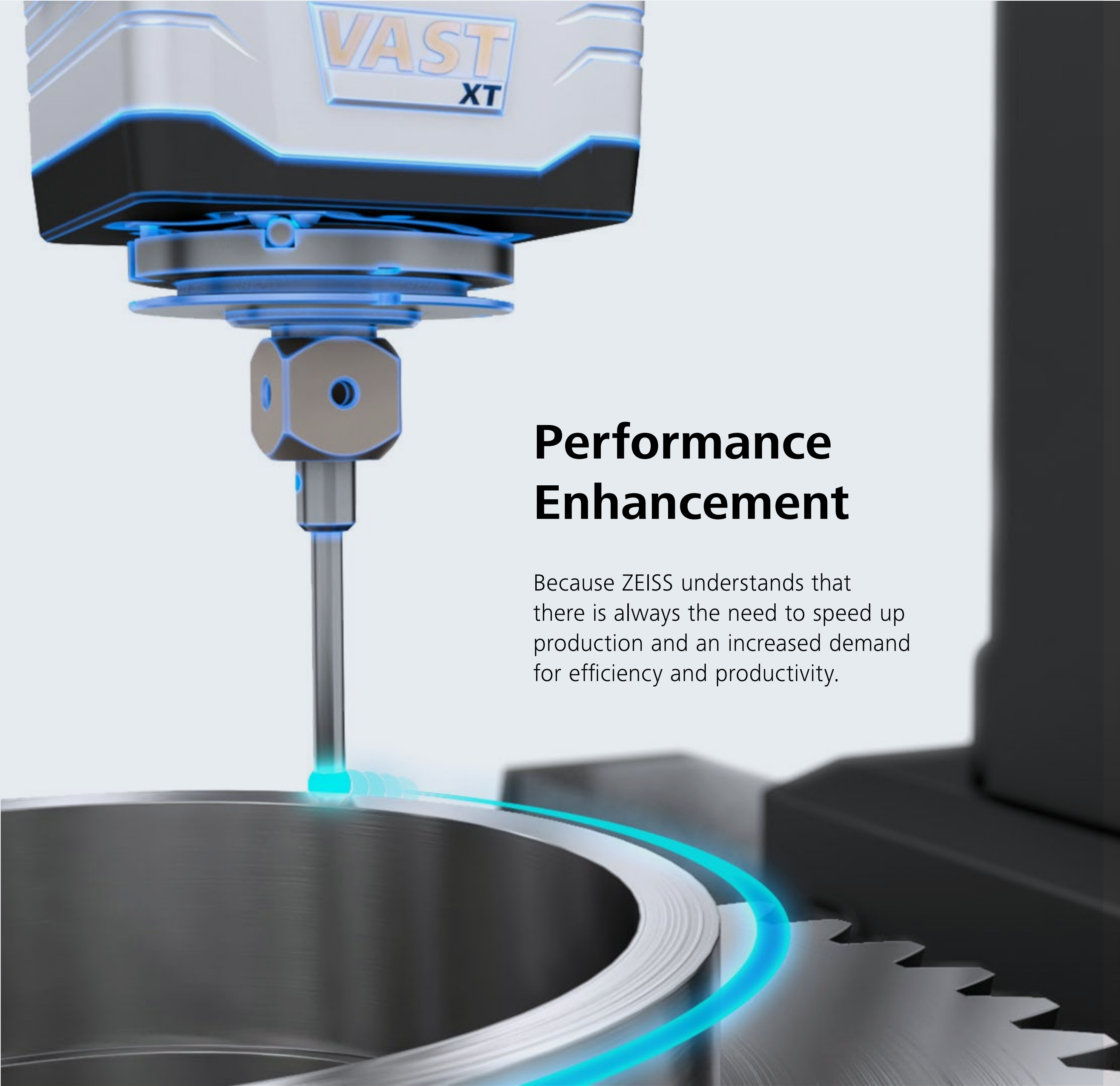ZEISS CALYPSO programming experience.

ZEISS CALYPSO
roughness

CALYPSO roughness is a software option for determining and graphically displaying roughness parameters as a function of selected parameters.

– **Increased measuring speed, greater flexibility**

The complete integration of the roughness measurement ensures that you capture all the characteristics of your component in one measurement run – in full compliance with the standards.

Performance Enhancement

Because ZEISS understands that there is always the need to speed up production and an increased demand for efficiency and productivity.

ZEISS CALYPSO
VAST probing

Significant reduction in time for single point measurements with accuracy and fast single point detection.

ZEISS CALYPSO
VAST navigator

Improved scanning operations of VAST series tactile measurement machines by improving accuracy and significantly reducing the measurement time of circular paths (circles, cylinders, cones, etc.). CALYPSO VAST navigator improves scanning with VAST series sensors.

ZEISS CALYPSO
VAST performance

Simplified programming and increased scanning speeds of noncontinuous paths without loss of accuracy. Furthermore, a faster stylus system exchange during the CNC run is available for official ZEISS adapter plates.

ZEISS CALYPSO
dynamic planning

CALYPSO dynamic planning is a software option that aligns the needs of production more closely with the quality control. This produces meaningful time savings and increases efficiency.
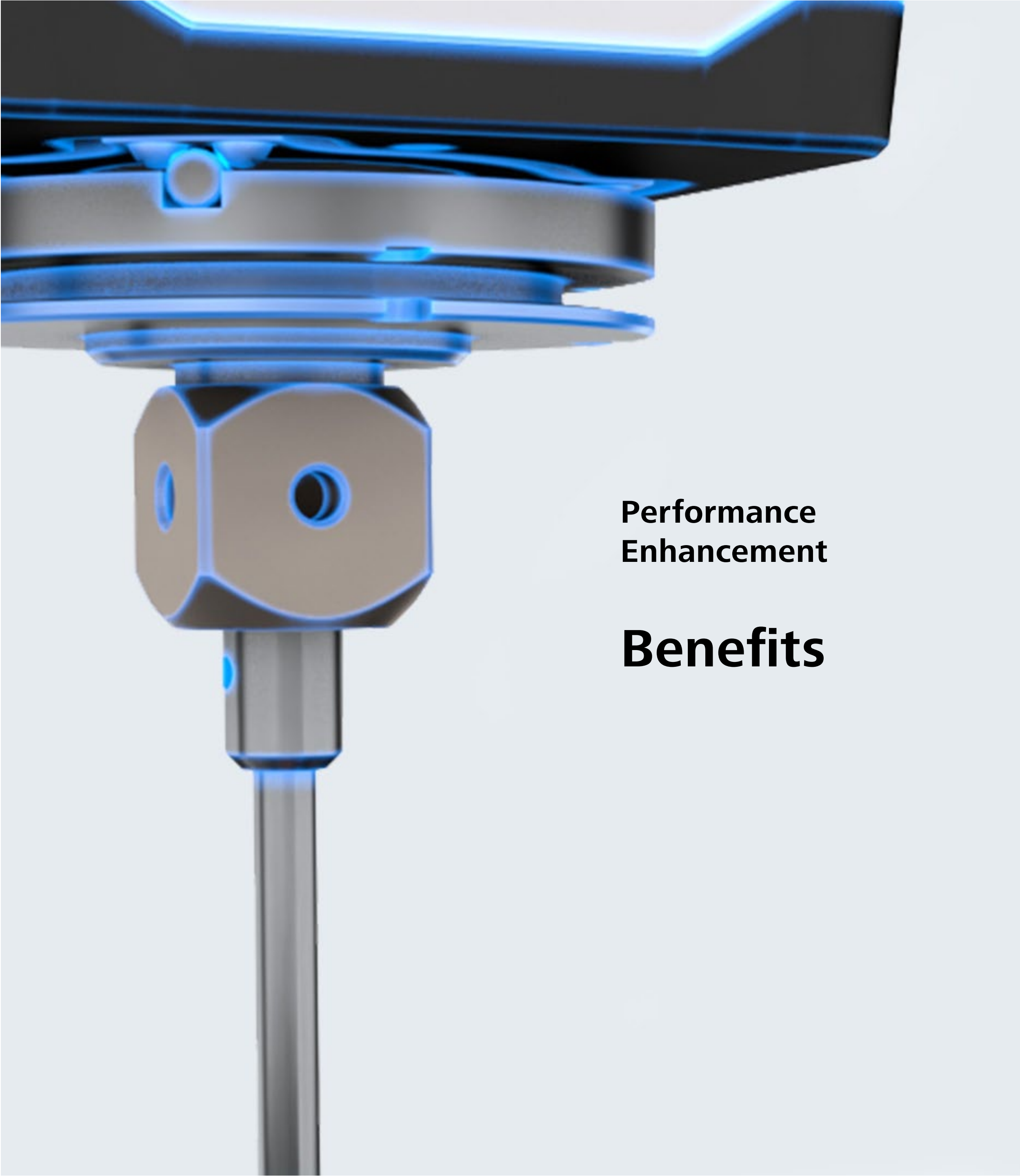Dynamic planning generates the order of the parts for inspection and adjusts the measurement scope based on rules from MES/CAQ solutions or ZEISS PiWeb software.

The dynamization rules, as defined by the measurement technician, determine how often certain characteristics should be inspected. When these rules are applied in ZEISS CALYPSO, the inspection scope is significantly reduced, leading to considerable time savings.

ZEISS CALYPSO
pallet optimizer

CALYPSO pallet optimizer is a software option that reduces the number of sensor and stylus system changes during a pallet measurement in AutoRun mode. If multiple parts are fixed to a pallet, this method can take a long time. The CALYPSO pallet optimizer option 'consolidates' all measurement jobs per sensor and/or stylus system and implements them at the same time on all parts on the pallet.

With CALYPSO pallet optimizer, the measurement sequence of all characteristics of a pallet is optimized for the sensors or stylus systems. By reducing the number of sensor/stylus system changes during the CNC run, companies can boost their productivity.

**Performance
Enhancement**

Benefits

Unlock to highest performance of your CMM

Measurement processes do not need to be the bottleneck of your production. The performance enhancements help you ensure a high throughput without sacrificing accuracy of the CMM.

Save time and money

Faster measurement speed results in less time needed for the task. Like this, the utilization of the CMM can be maximized either in your measurement labs or directly in line.

Automation Options
Improve Your Productivity

ZEISS CALYPSO
basic automation

With this software option, ZEISS measuring devices can be easily integrated into partially or fully automated production processes.

ZEISS CALYPSO
FACS

FACS is a job management/SCADA software that coordinates and automates the entire measurement and inspection process. It is ideal for complex manufacturing processes. Whereas ZEISS CALYPSO software measures the workpieces, in a ZEISS CMM, FACS goes much further.
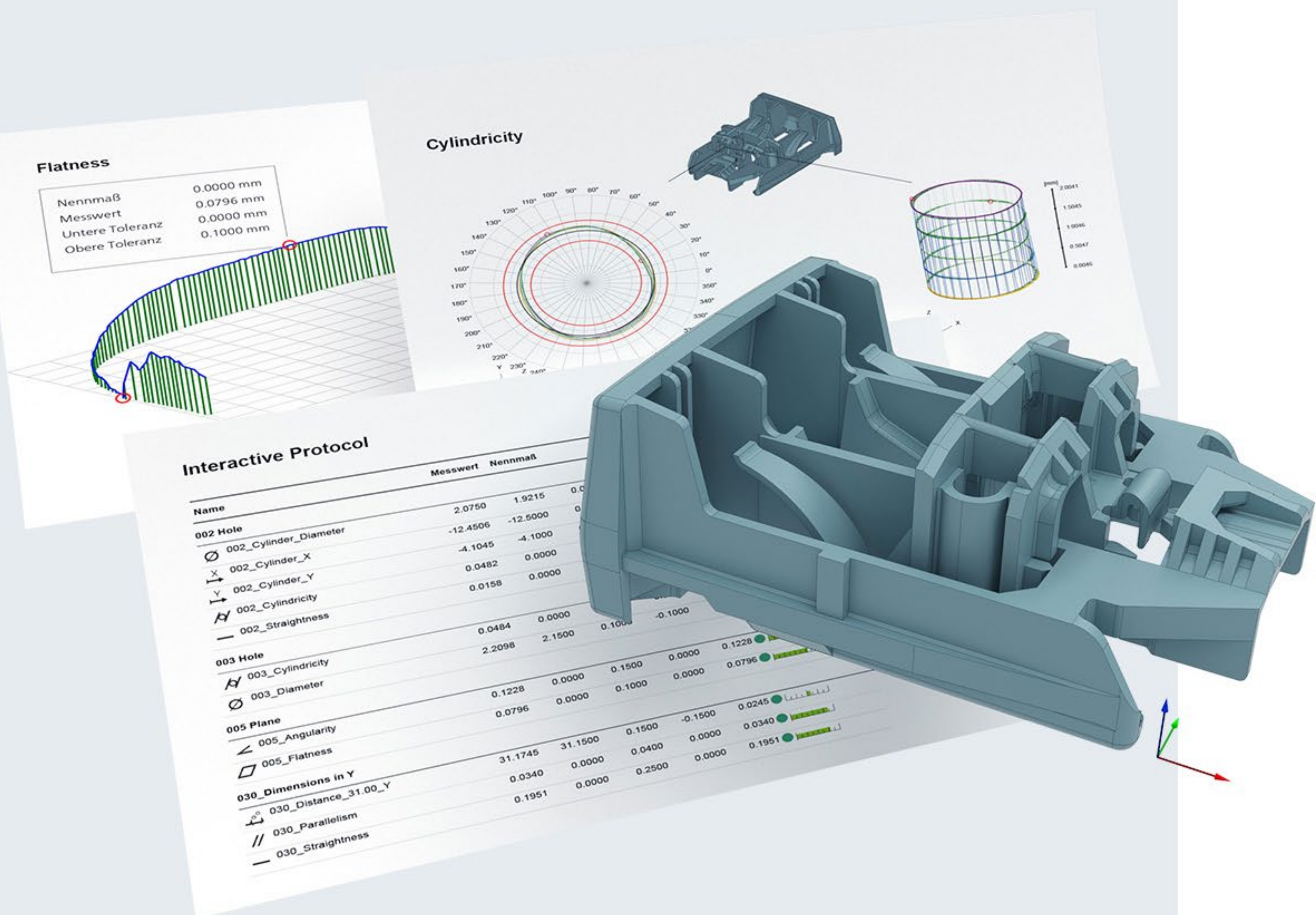
It coordinates all the responsibilities of the different systems, domains, software and hardware involved and automates the entire process, from deciding which pallet should move to which CMM to telling the robot or the PLC-based loading system what to do after a measurement cycle is completed.

ZEISS CALYPSO
barcode reader

CALYPSO barcode reader is a software function that removes the need to manually select the inspection plan and enter the protocol parameters of a part to be inspected. All key information about a part is contained on its bar code, QR code or data matrix code (DMC).

CALYPSO barcode reader option automatically identifies the appropriate inspection plan or mini-plans based on the barcode/QR code/DMC and loads the inspection plan into ZEISS CALYPSO. This option saves a lot of time. More importantly, it reduces the chance for errors due to the manual input of all the parameters, which could lead to inaccurate measurements.

Reporting
Software Options to Optimize Your Reporting

ZEISS CALYPSO
PiWeb reporting plus

This software option provides an external application of ZEISS PiWeb reporting with many additional functionalities, statistical analysis and enlarged database for optimized report generation.

ZEISS CALYPSO
Q-DAS or QIF export

Measurement results from ZEISS CALYPSO can also be exported in a format that is compatible with Q-DAS or QIF.
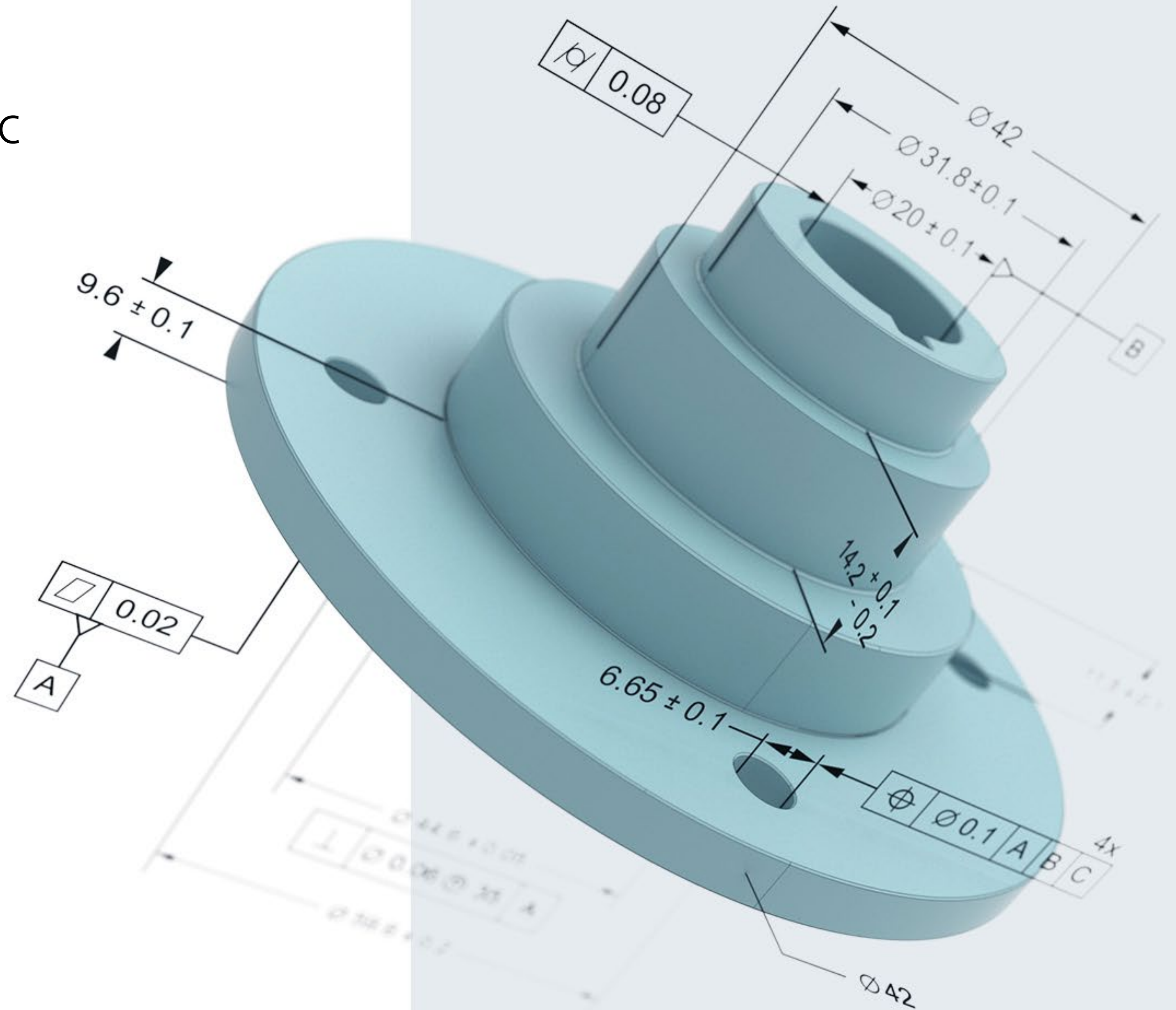
CAD Interfaces
Read Manufacturer-specific CAD Files

CAD converters are software options that enable ZEISS CALYPSO to read different types of CAD files, creating a superior user experience.
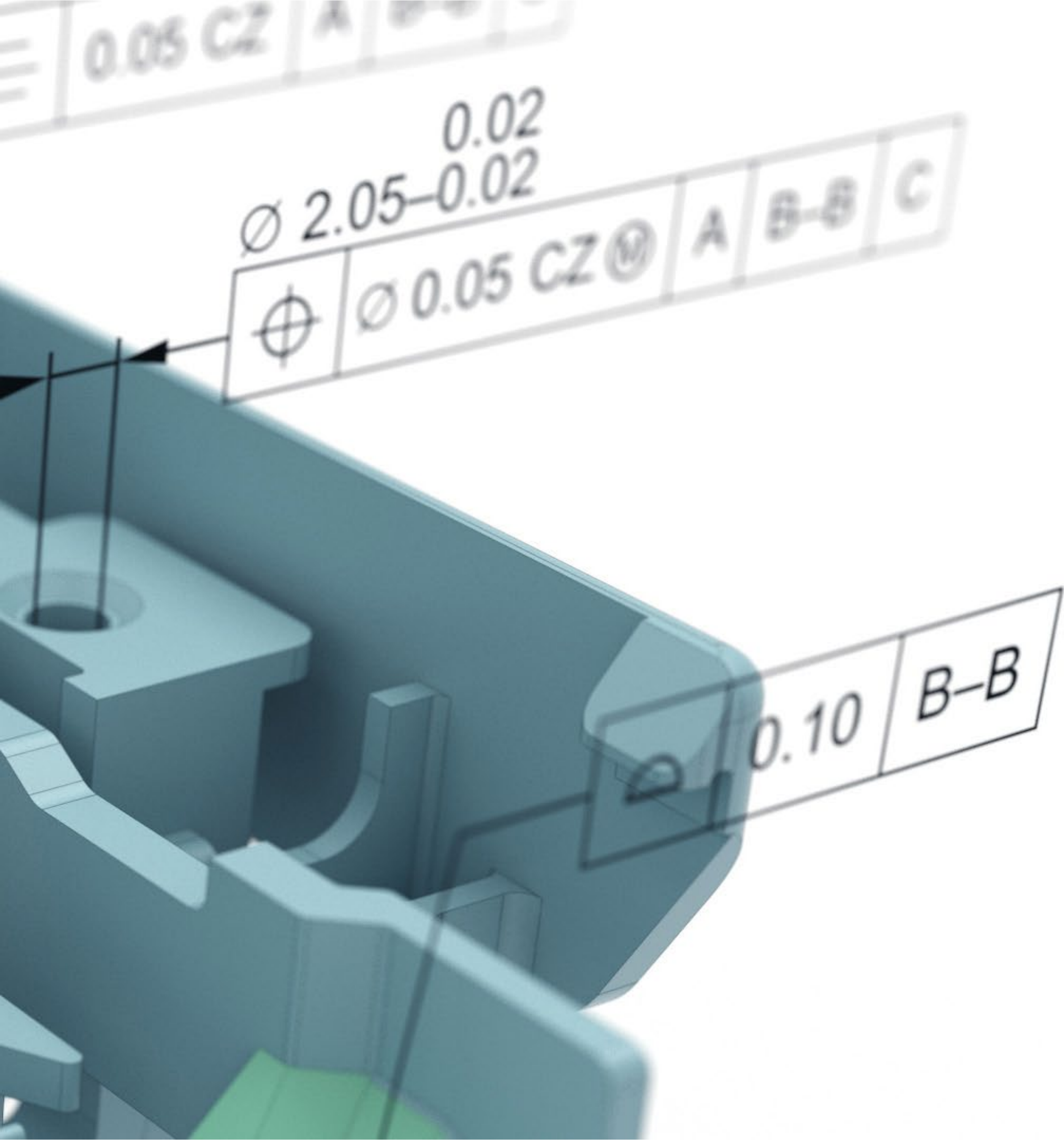
ZEISS CALYPSO
CAD converter

There are two categories of CAD converters offered with ZEISS CALYPSO. Standard interfaces allow ZEISS CALYPSO to import neutral types of CAD files, such as QIF MBD, STEP or IGES. Direct interfaces enable ZEISS CALYPSO to read manufacturer-specific CAD files.

The most important benefits of CAD converters are maximum and their availability to all the functionalities in ZEISS CALYPSO for working with a CAD file. Among others, the user experience is more visual and it is much easier to pinpoint a particular measurement result on the part using the CAD.

Additionally, depending on the chosen CAD converters, users can benefit from the PMI import. In this case, ZEISS CALYPSO automatically generates features and characteristics based on the manufacturing information available on the CAD file.

Are you interested in software options for ZEISS CALYPSO?

Contact us for a product demonstration.