

ZEISS CALYPSO

Continuous Development of the Software to Match the Changing Customer Needs and Requirements



The direct path to meaningful results

ZEISS CALYPSO



- More than **20 years of experience** in measurement technology have already flowed into ZEISS CALYPSO.
- ZEISS CALYPSO **facilitates the daily work of metrologists around the globe.**
- ZEISS is **up to date with technological advances** in terms of **design, production** and **quality assurance**. These factors are the motivation for **constantly improving** ZEISS CALYPSO to match the changing needs and requirements of users.
- ZEISS customers can **influence the future functionalities** from ZEISS CALYPSO. They have the opportunity to **share wishes, ideas and suggestions directly** in the **“My Voice”** tool on the ZEISS Metrology Portal.
- The latest changes of the software versions are all about **productivity** and thus ensure a **better workflow** for **reducing time and cost efforts.**

An overview of the feature highlights of the latest ZEISS CALYPSO software versions, you will get on the next slides.

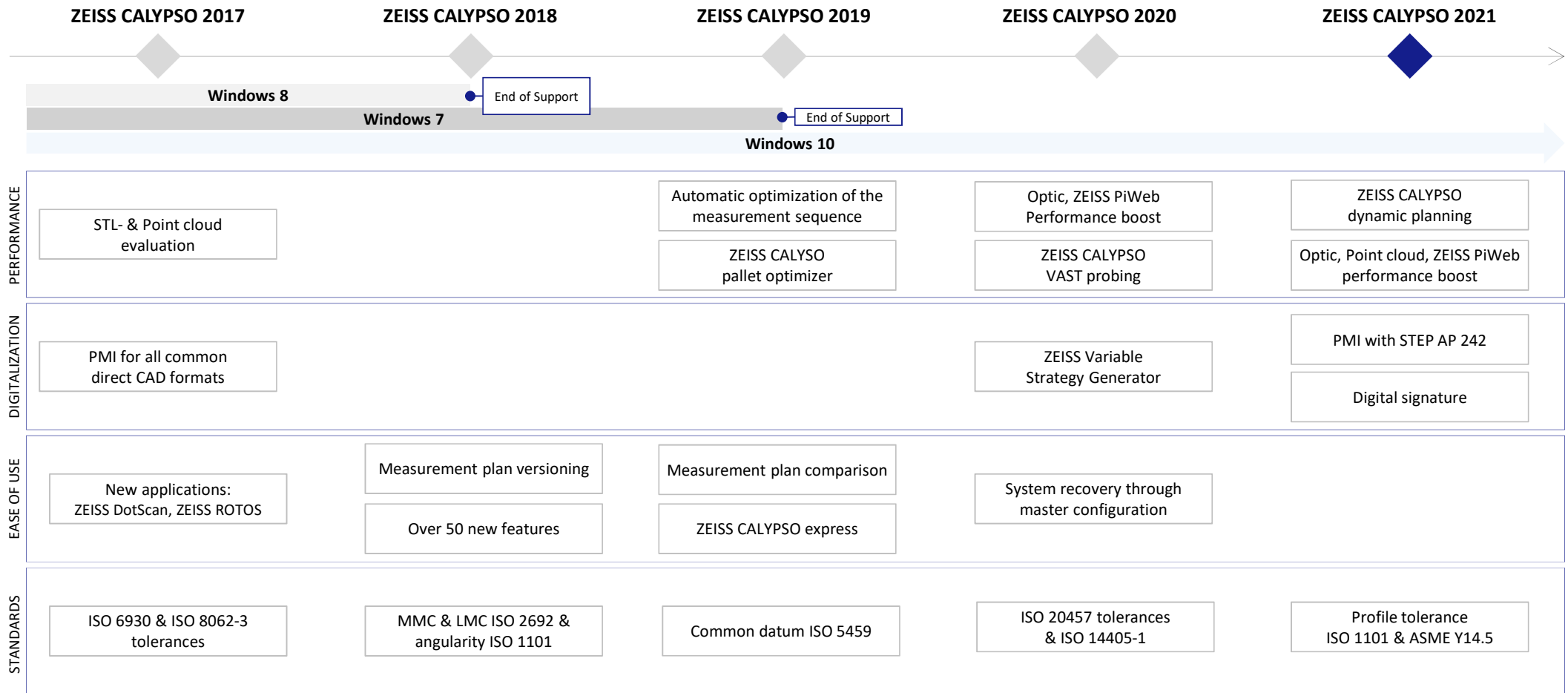
Software Update



Customers with a ZEISS Software Maintenance Agreement (SMA) can easily update to the latest ZEISS CALYPSO software version via the ZEISS Metrology Portal and thus benefit from all new innovations and function optimizations to increase their productivity.

ZEISS CALYPSO

Ease of Use Ensured and Conformity with the New Standards Is Guaranteed

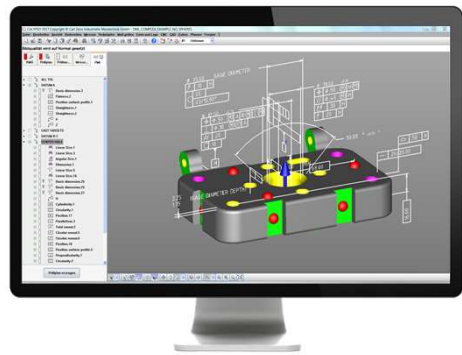


ZEISS CALYPSO 2017

Expansion of PMI Functionality, Integration of New Measurement Applications and Simplification of Processes



Automatic measurement plan generation from PMI: new compatibilities



- ZEISS CALYPSO automatically generates the measurement plans from „Product and Manufacturing Information“ and creates all relevant features and characteristics
- With ZEISS CALYPSO 2017 PMI can be read in from the following direct CAD formats:
 - Creo Parametric
 - Siemens NX
 - SOLIDWORKS
 - CATIA

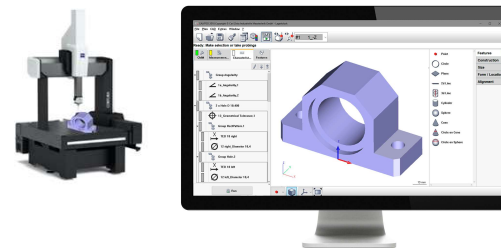
Support of new ZEISS sensors & applications



Integration of new sensors:
Function expansions for an optimal use of the measurement technologies

- ZEISS ROTOS incl. new collision control
- ZEISS DotScan incl. new thickness measurement
- High-precision form measurement with the RT: new evaluation methods and form plots
- ZEISS LineScan & manually operated optical measuring devices: optimized STL- & point set evaluation

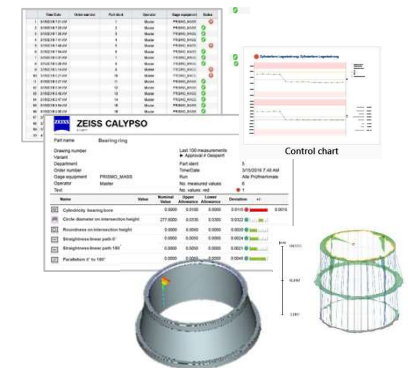
Simplification of processes during the CNC-Start



- Less manual input
- Quick start of CNC runs

- Tracking of measurement with the ZEISS CALYPSO monitor
- Start of measurement plans from the control panel & simple switching of the traffic light before the CNC start
- User switching before starting the CNC run
- Maintaining the selection of features after the CNC run
- Additional fields for information in the user profile for automatic output in the report

ZEISS PiWeb reporting as the new standard for ZEISS software



- ZEISS PiWeb reporting is the new standard for reporting
- Output of the standard printout after each CNC run from ZEISS CALYPSO 2017
- The ZEISS PiWeb standard printout replaces the discontinued “presentation protocol”
- Many new templates for reports, plots and functional enhancements

ZEISS CALYPSO 2018

More Efficient Programming – Increase Traceability



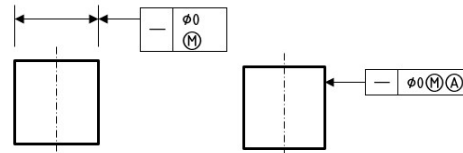
Reduced programming effort: Optical features



- Increased traceability
- Improved user guidance
- Fewer dialogues & clicks

- Simultaneous updating of the measuring points during programming when adjusting parameters such as lighting, edge reinforcement, filters ...
- Automatic creation of edge or autofocus point: ZEISS CALYPSO automatically detects the required point
- Improved user guidance: Optimization of various dialogues

Programming in accordance with standards



- Extension of the characteristic „straightness“
- Conformity with ISO 2692 & ISO 1101

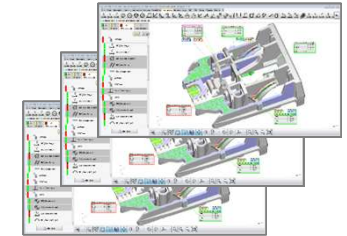
- Straightness: Extension of the measuring elements and evaluation methods
- ISO 2692: Concentricity and coaxiality with MMC and LMC for reference
- ISO 1101: Inclination with additional reference - selection of different measuring elements as secondary reference
- Coaxiality with a second reference: extended list of measuring elements

Efficient programming: Many new feature

More than
20
implemented
customer requirements

- Central and unattended installation of new ZEISS CALYPSO versions via .msi formats
- Traceable: Expansion of the ZEISS CALYPSO monitor
- Improved access to simulation feature
- Automatic calculation of the required RDS angular positions
- Saving the position of the feature flags
- ...

Measurement plan versioning: central & documented



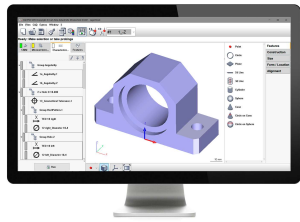
- Ensuring traceability: no need to work with copies
- Automatic versioning of different measurement plan variants
- Administration is carried out directly in the ZEISS CALYPSO measurement plan
- Simple selection and targeted use of the local versions

ZEISS CALYPSO 2019

Increase Productivity – Simplify Processes



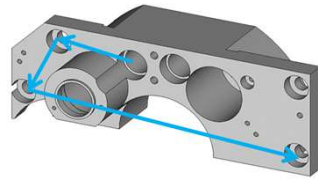
ZEISS CALYPSO express: simple user interface for fast measurements



Reduced range of functionality for quick access to basic tactile and optical functions

- Toolbar with the most important features and icons
- Quick access to features and characteristics
- Focus on the basic CAD functionalities

New algorithm for the optimal sequence



Noticeable time reduction depending on the measurement plan

- New calculation method defines the best measurement order
- Support during programming: automatic calculation of the optimal order
- Reduction of the CNC duration: minimized travel paths

ZEISS CALYPSO pallet optimizer for pallet measurements

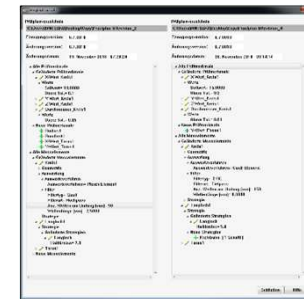
Reduction of the total time on the CMM by average

-20%

when measuring with more than one sensor.

- Change of the sensor only after cross-part measurement of all features
- Especially effective with large types of measuring devices
- Efficient when switching between optical and tactile sensors

Measurement plan comparison for a quick analysis



- List of the differences between two measurement plans
- Typical applications:
 - SW-Update
 - Versioning of measurement plans
 - Exchange between internal and external areas

ZEISS PiWeb reporting: improved interface

Output of the report by up to

40%

more quickly.

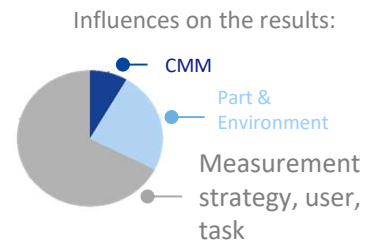
- Faster loading of the printout and high-performance data transmission
- Extension of the report templates
- Mapping functionality for using existing parameter configurations

ZEISS CALYPSO 2020

Performance Boost – Over 60 New Features for Higher Productivity



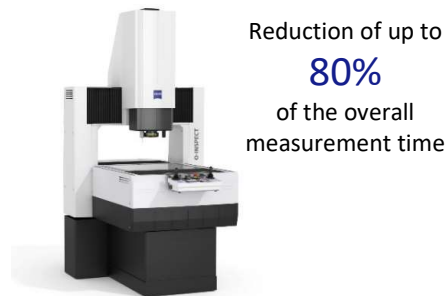
ZEISS Variable Strategy Generator



Time savings of up to 80% during offline programming

- Benutzerfreundlichkeit und Konformität mit den neuen Normen sind gewährleistet

ZEISS O-INSPECT performance boost



Up to 4x faster while creating a CNC run

- Specifically for camera measurements carried out with the ZEISS O-INSPECT
- Camera positioning ("SnapPos") with a better programming workflow
- Many CAD enhancements
- Significant time reduction during CNC runs in combination with the optimizations in the ZEISS PiWeb report generation

ZEISS PiWeb reporting performance boost

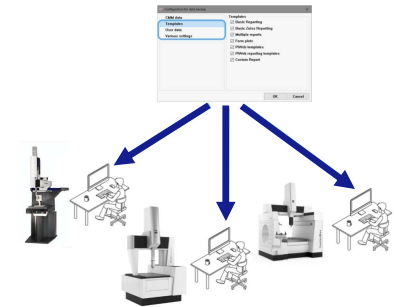
Report output by up to

50%

more quickly

- Optimized rendering and PDF functionalities for at least 50% faster report output after the CNC run
- Avoidance of waiting times: parallel file upload & start of the next CNC sequence

Master configuration for a fast computer installation



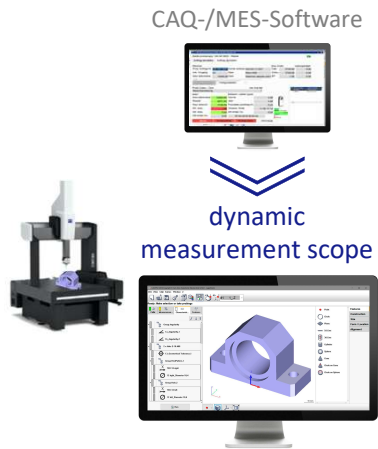
- Easy installation of the backup on new or additional computers
- Backup of all user data
- Principle of a "master configuration": separate backup of user and CMM-specific data

ZEISS CALYPSO 2021

Performance Increase Across the Entire Process Chain in Quality Assurance

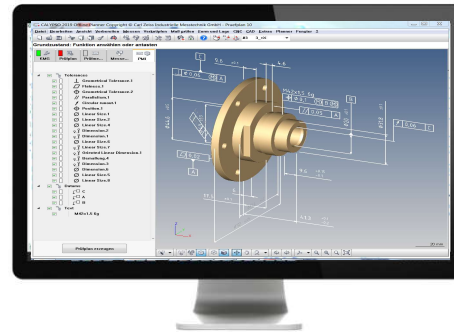


ZEISS CALYPSO dynamic planning: adjustment of the measurement scope



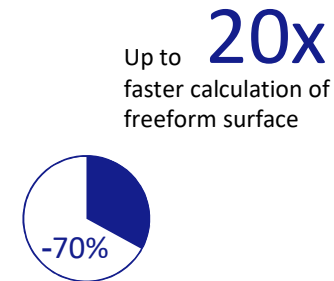
- ZEISS CALYPSO enables the import of ASCII files from MES & CAQ software with information about the relevant features
- **Significant time savings:** reduction of the measuring time of the CNC run depending on the dynamization rules
- Adjustment with one click: the measurement plan is adjusted without manual effort, the original state can be restored at any time

Measurement plan creation from PMI with STEP AP 242



- The creation of measurement plans from PMI is now also available for CAD files in STEP AP 242 format
- The new functionality will be available **free of charge with the STEP interface** from ZEISS CALYPSO 2021

Measurement time optimization in the field of optics, freeform & point set



Reduction of the measurement time up to a third in „turbo mode“

- General improvement of calculation algorithms
- Reduction of machine movements
- Optimization of divisions and measurement of several features in one image
- Faster autofocus during optical measurement

Speeded-up report generation & output of the text elements

More than

50

new features and improvements

- Output of the text element and the group comments in the report with a dynamic number of lines
- Faster visualization of the plots
- Speeded-up display of reports and PDF-generation

