EASILY MANAGE 3D SCANNING AND PROBING
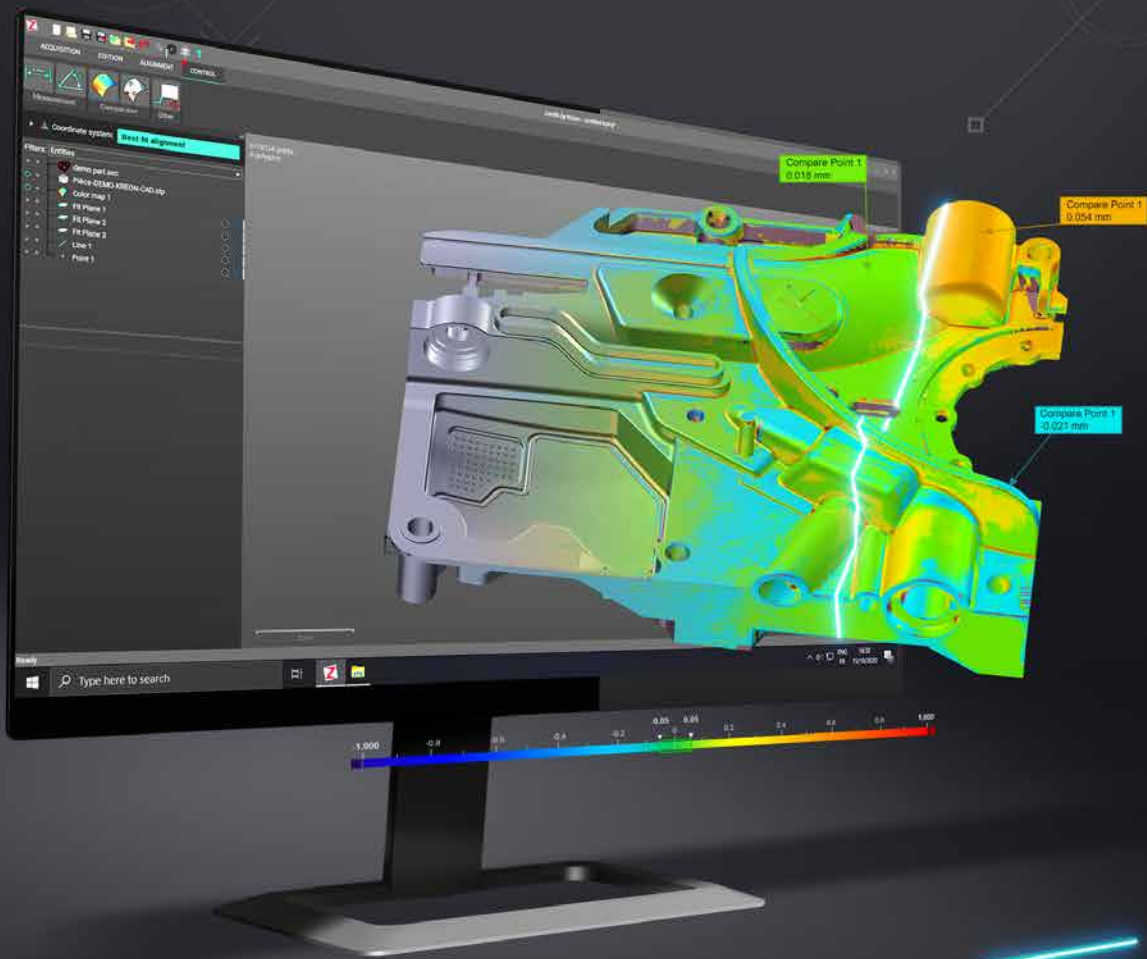
METROLOGY SOFTWARE FOR KREON MEASURING ARMS

▶ 3D scanning supporting dense point clouds

▶ CAD comparison from color mapping

▶ GD&T and measure of geometric entities

ZENITH

Kreon

RapidScan3D

Rapid Scan 3D
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ZENITH
A SIMPLE SOFTWARE FOR DIMENSIONAL ANALYSIS AND 3D INSPECTION

Zenith focuses on the essential functions used in most applications for acquisition and 3D measurement of industrial parts. Simple to learn but able to manage dense point clouds and create color mapping, this is Zenith.

PROBING

Geometric acquisition

▶ Fast creation and calibration of probes
▶ Acquisition of all sort of geometrical entities
▶ Single point probe or continuous time mode for probing
▶ Direct measurement of CAD entities by probing
▶ Assisted reprobe (multiple) of already measured entities
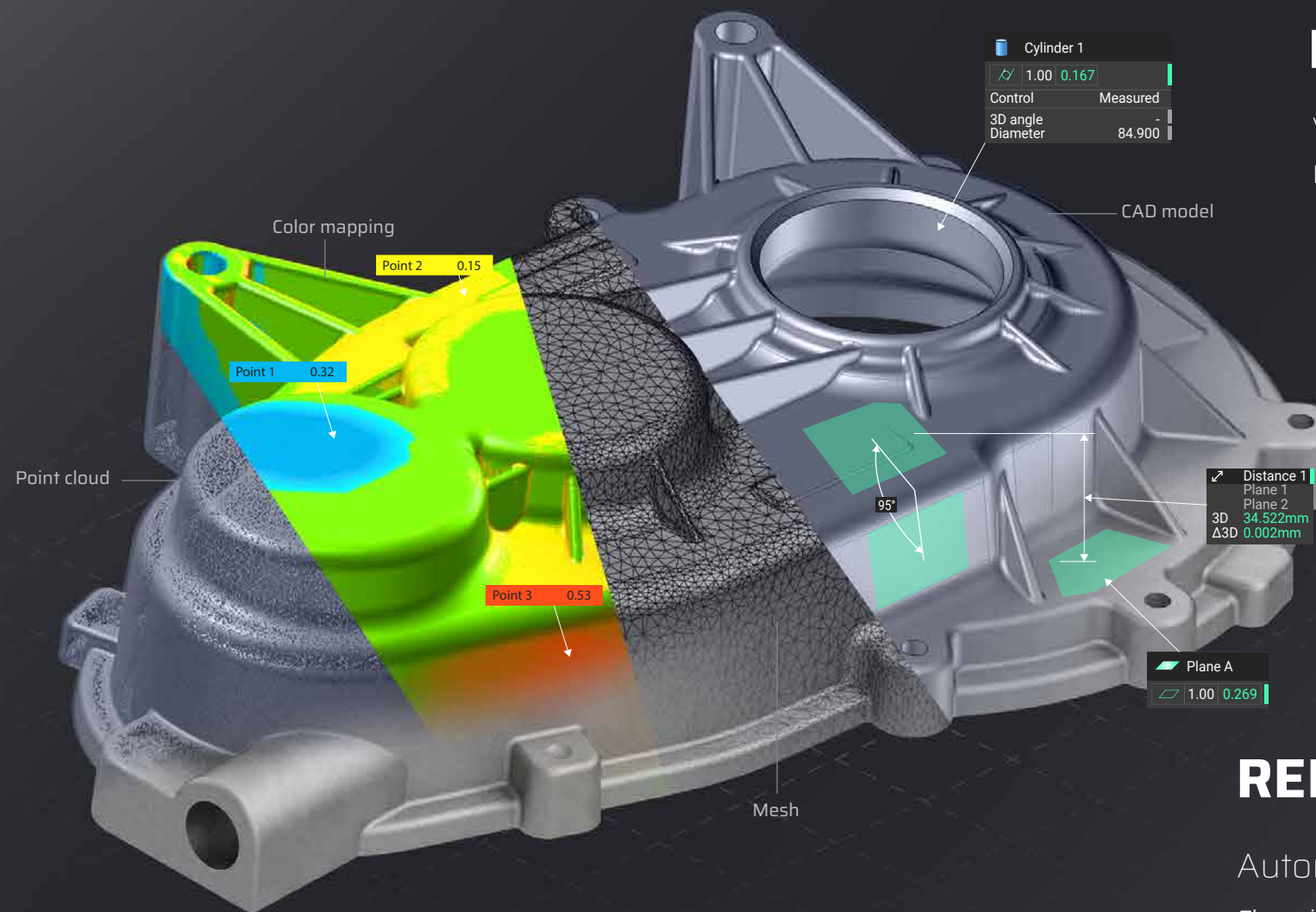
SCANNING

Fast point cloud acquisition

Scan all types of parts easily and quickly, manage dense point clouds without slowing down.

▶ Reduce files weight without losing details thanks to chordal filter.
▶ Remove support points under the part with the clipping plane filter.
▶ Remove all isolated points that are too far from the geometry with CAD based filter.
▶ Conversion of the point cloud into a mesh.

ALIGNMENTS

Quickly align CAD and measurements through different alignments methods :
Best fit, geometric alignment, 3-2-1, R-P-S, 6 surface points.

Measure large parts by moving the arm thanks to the Leapfrog function.

Color mapping
Point 2   0.15
Point 1   0.32
Point cloud
Point 3   0.53
Mesh

Cylinder 1
1.00   0.167
Control   Measured
3D angle   -
Diameter   84.900

CAD model

95°

Distance 1
Plane 1
Plane 2
3D   34.522mm
Δ3D 0.002mm

Plane A
1.00   0.269

MEASURES AND GD&T

Various controls for optimal manufacturing quality

Measure and deviation

▶ Measurement of distances and angles between entities.
▶ Deviation comparison between measured entities and CAD ones.
▶ Colorimetry of the deviations between the probed points and the CAD.
▶ Extract geometrical entities from CAD or point cloud.
▶ Comparison between measured and nominal geometry.

GD&T
Measurements of form, orientation and position tolerances.

REPORTS

Automatic report generation

Three simple steps to generate a measurement report:

1 Specify entities and properties visibility
2 Organize the tree view to define the report tables order
3 Generate the report and export it as PDF or CSV

Calculator
Ability to make simple calculations between entities and include results in the report.

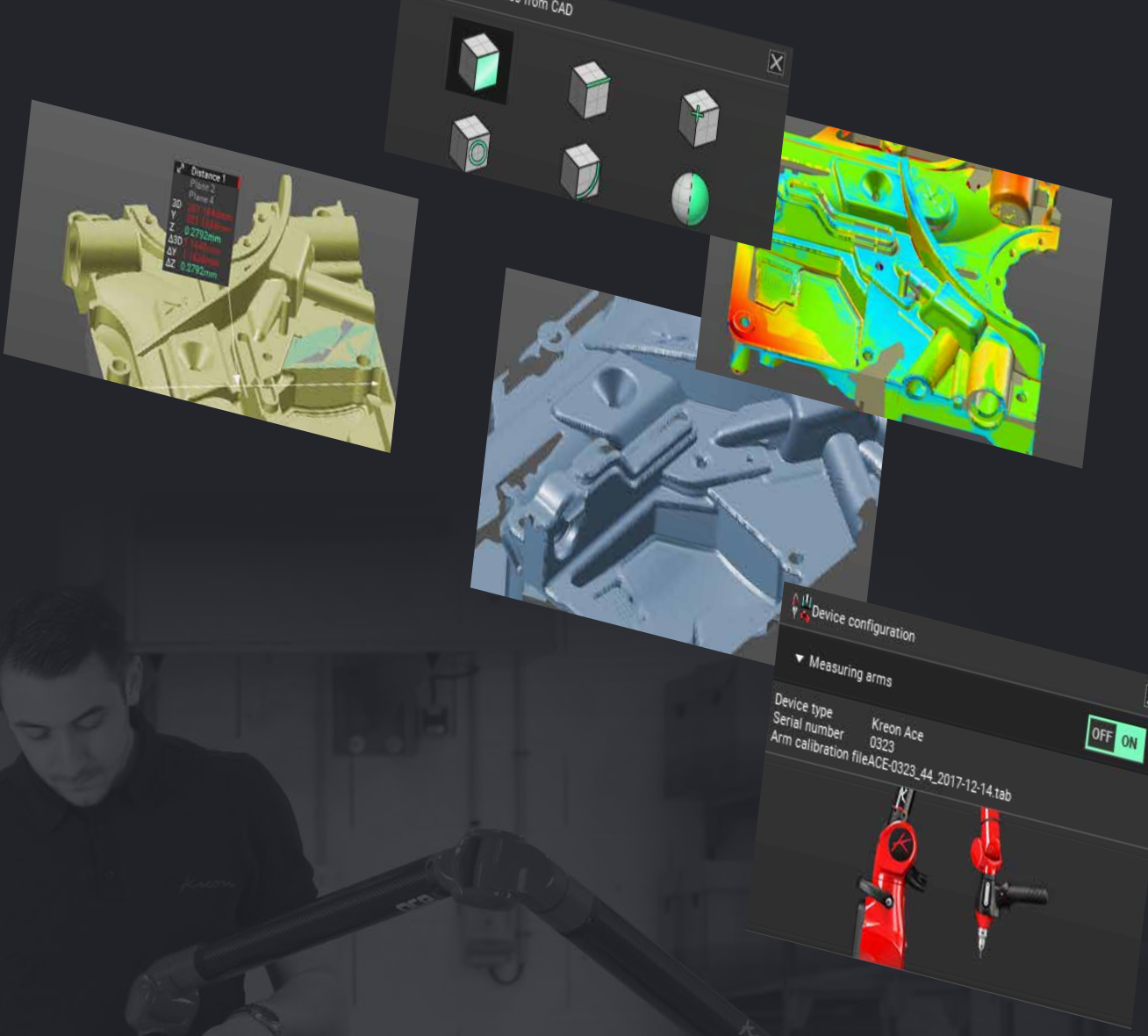One-click connection with Kreon systems !

Fully compatible with all Kreon measuring arms and scanning arms.
Fast and reliable positioning of scanner through step-by-step guided process.

Import / Export

Import formats : Iges, Ply, Stl, Stp
Export formats : Ply, Stl, Iges (only for entities created in Zenith)

* Zenith is provided for free with the purchase of a Kreon arm.

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