

ANALYSIS

ANALYZE POINTS TO ANY CAD MODEL

Whether the source is CATIA, SolidWorks, UG, Pro-E or any other CAD system, Verisurf *Analysis* quickly and efficiently analyzes part tolerance by comparing measured points to nominal features in a CAD model.

COMPARE INSPECTION DATA TO THE NOMINAL CAD MODEL

VERISURF

FEATURES AND BENEFITS

- Analyze using all major CAD formats
- Flexible, multi-surface comparison supports multiple MBD tolerances
- Instant text reports, topographical color reports, whisker and error mapping
- Color plots and graphical reports
- Quick alignment Best-fitting of CMM Data to the 3D CAD model
- Inspect thousands of curves, surfaces, solids, and meshes quickly
- Automatic probe radius compensation
- Troubleshoot assembly problems
- Custom balloons for point deviations
- Easy to understand custom reports
- Best-fit to surfaces and curves, to investigate hole positions or vectors, and trim or scribe lines
- Determine if there is sufficient material to cleanup surfaces before machining
- Multiple analyses in a single job
- Machine tool Best-fit surface alignments



Use **Analysis** in combination with Verisurf **Measure** to obtain immediate feedback on manufactured parts, or to import measured points from any source for offline analysis. Either way, points and clouds can be analyzed to all types of CAD geometry, including points, curves, surfaces, solids and meshes, to create quick, clear and concise deviation reports.

In addition to analyzing tolerance, Verisurf *Analysis* validates CAD models

by analyzing points sampled from the source model. Simple, color-coded results clearly show compliance between models.

Best-fit for Better Conformance

Verisurf *Analysis* features a powerful, flexible and fully-controllable 6-DOF best-fit to find the optimal tolerance condition for a set of measurements. Best-fitting uses a rapid, iterative least-squares solution to align measurements to the model, producing minimum analysis deviations without regard to a datum alignment (reference).

Use this versatile alignment tool to orient data sets – and the measurement device – to the CAD model even in the absence of datum features. Best-fitting can also reduce scrap by revealing the intolerance condition of parts that would otherwise be rejected based on an incorrect part alignment.



ANALYSIS

BASIC

9

BUILD

MEASURE

REVERSE



COMPARE INSPECTION DATA TO THE NOMINAL CAD MODEL

Advanced Analysis Tools

Verisurf **Analysis** provides an intuitive and efficient way to analyze inspection data and examine, compare and report deviation results. This advanced tool employs comprehensive, model-based rules to simplify even complex tasks like composite tolerance analysis.

Flexible selection tools make it easy to analyze different combinations of pointclouds and CAD features, creating unique analysis results for each scenario. Multiple records can be quickly compared using "what if" options to obtain the desired results.



Deviation map of a wind turbine blade.

The Leader in Model-Based Metrology Software

Verisurf Software has set the standard for model-based inspection, reverse engineering and tool building in aerospace, automotive and a broad spectrum of other industries. As the common software platform for all type of measuring devices - including stationary CMMs, portable CMM arms, laser trackers and scanners, and many other types of existing and emerging technologies - Verisurf has streamlined the manufacturing process. Our field-proven solutions deliver significant improvements in productivity and cost effectiveness.





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Flexible Report Formats

Verisurf **Analysis** includes a complete set of pre-defined templates to create detailed graphical reports, which are indispensable for the inspection of complex 3D surfaces.

Select Excel or HTML reports, fully customized with whisker and color deviation plots and numerous other graphical options for unmatched display, analysis and reporting flexibility.

Instant results are at your fingertips with Verisurf *Analysis*. It is the simplest and most accurate way to compare data against a CAD model!

