



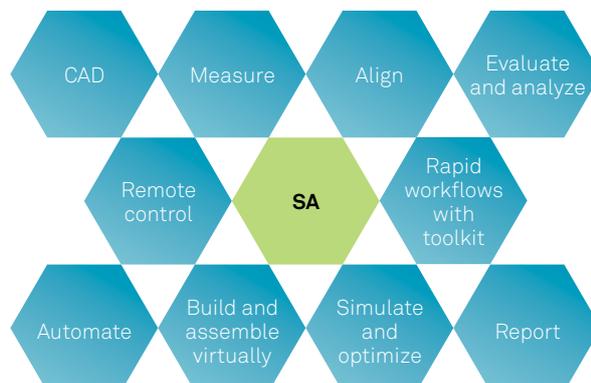
SPATIAL ANALYZER®

SpatialAnalyzer® (SA) is a powerful, traceable and easy to use metrology and analysis software package, tailored for the Hexagon Metrology portable CMM family.

SA offers a vast number of benefits, including:

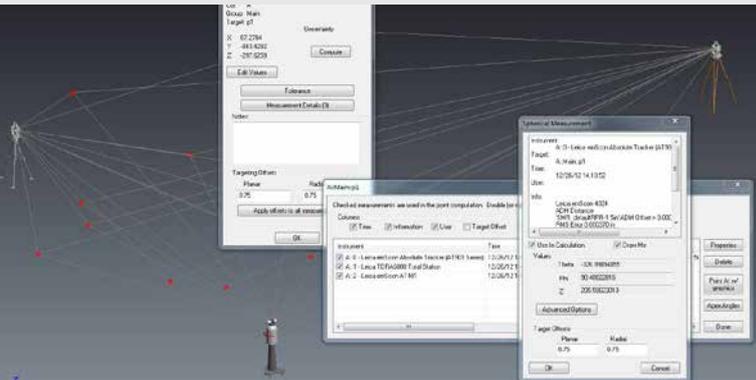
- Intuitive, state of the art graphical environment
- Interfaces to all Hexagon Metrology portable CMMs
- All common CAD exchange and native formats
- Advanced analysis and processing and unique alignment techniques
- Easy multiple instrument station bundling
- True GD&T and feature checks
- Numerous reporting options
- Measurement uncertainty calculation
- USMN to achieve the ideal instrument network
- Integrated Modern Scripting Language to automate complete workflows
- Multiple language support
- Free SA Viewer to share SA job files easily

SpatialAnalyzer® makes metrology easy.



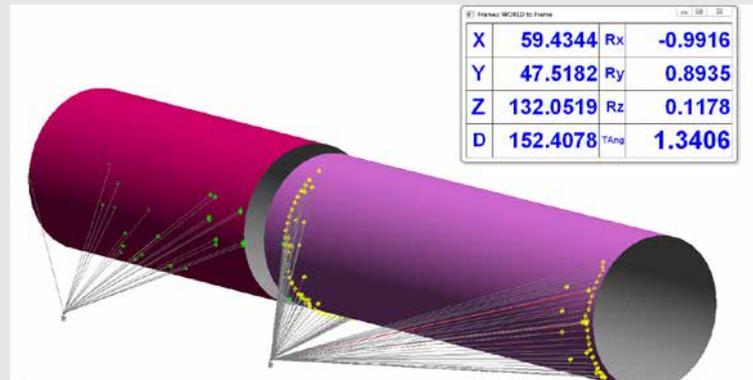
FEATURES POINTED OUT

SpatialAnalyzer® is the premier portable metrology software solution for large-scale manufacturers who need precision measurement to be more productive.



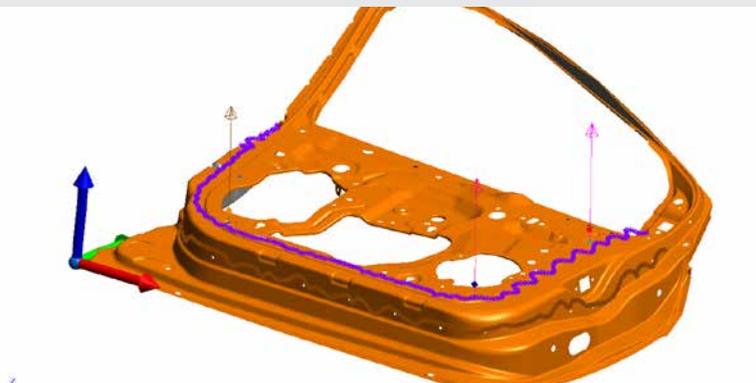
Measure

SA interfaces to all Hexagon Metrology portable instruments like Laser Trackers, Laser Stations, Theodolites and its accessories, even simultaneous if needed. A clear history of all data from start to finish is logged, providing 100% traceability.



Build and assemble virtually

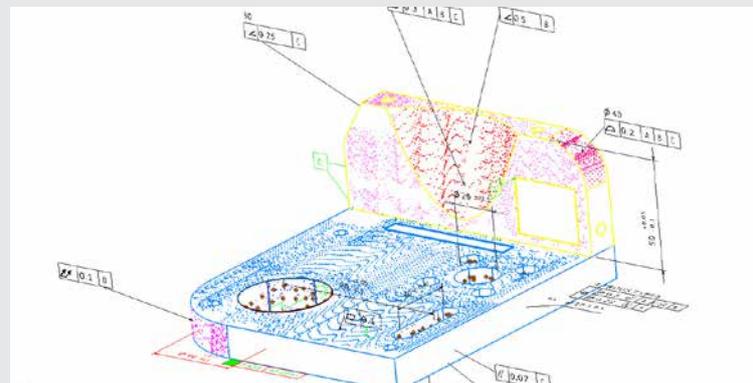
The digital assembly options in SA lets users see how parts will virtually fit in final real assembly. An entire suite of tools for real-time building is provided. Helping to build most complex parts based on nominal data coming from numerical lists, drawings or CAD.



Align

Align instruments to known coordinate systems using a variety of techniques, from 3-2-1 and best fits to interactive fitting such as Quick-Align and classic surface fits.

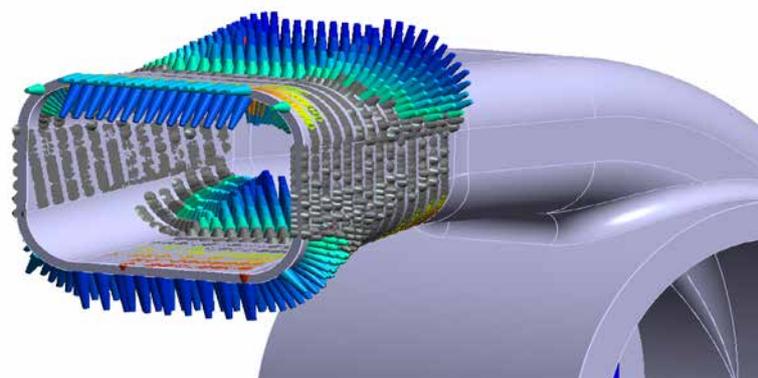
Unique Relationship Fitting allows for simultaneous feature-based fitting to organic surfaces in addition to traditional iterative fitting.



Evaluate and Analyze

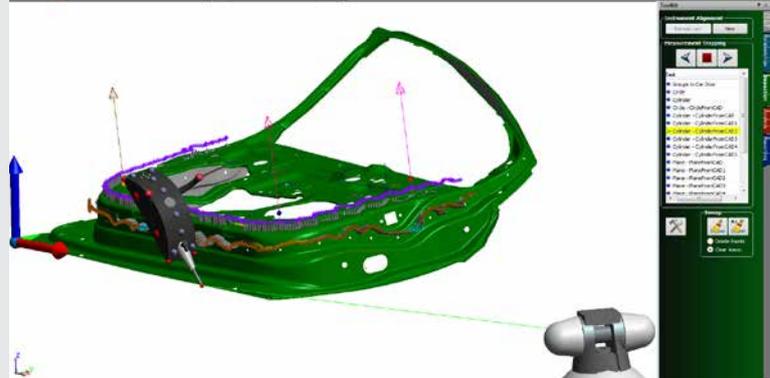
SA user-friendly interface permits both graphical and numerical depiction of measurement uncertainty, enhancing the user's perspective of measurement quality. GD&T allows you to import CAD with GD&T annotations, create annotations manually, and inspect to GD&T standards with real-time reporting. Geometry inspection enables you to define design-based inspection routines from a CAD model or primitive geometry.

Relationship fitting is an advanced, unique type of Spatial Transformation capability. Relationships are dynamic links between entities and keep track of 3- or 6-DOF deviations and recalculate them in real-time. They can be optimized to per-feature-fits with unique weights and/or constraints.



CAD

A huge variety of different exchange and native CAD formats is provided. Supported formats include CATIA, Solid Works, Pro/ENGINEER, Inventor, VDA-FS, IGES, STEP, STL and many more. The complete suite of translators is always on board, no matter which version of SA is being used.



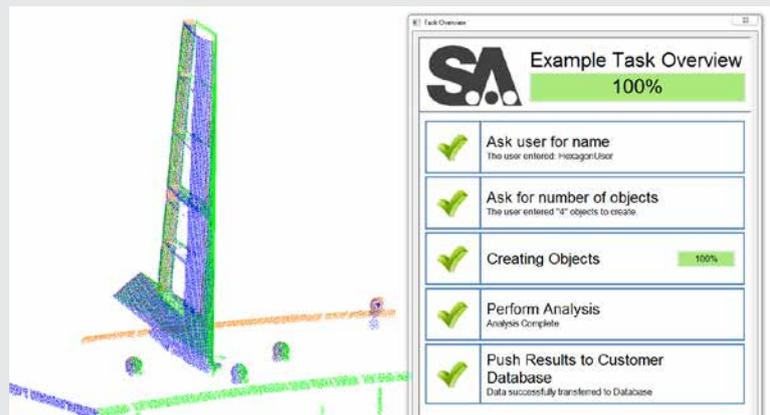
Rapid Workflows with SA Toolkit

The interactive SA Toolkit Bar provides quick access to GD&T, Relationships, Inspection, Analysis and reporting functionality. It enables users to easily access the features they need the most during typical metrology workflows.



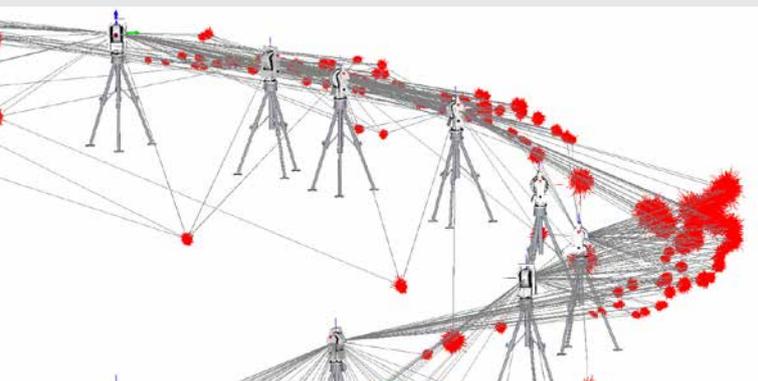
Report

SA offers state of the art and easy to use drag-and-drop reporting including GD&T reporting, Composite Quick Reports (Graphics, Tables, Results), Callouts, direct export to Microsoft Excel and Word, SPC Charting, HTML, AVI movies, Quick PDF reports and even totally customized reports.



Automate

The integrated Measurement Plan and SA SDK functions can add a significant layer of automation to your processes for repetitive tasks. Generating simple to complex scripts can greatly improve workflow and productivity, reducing analysis time from days to minutes while eliminating errors and saving significant resources. Programming can be carried out instrument independent. Functionality is also available in the user's own development environment such as C++, Visual Basic etc.



Simulate and Optimize

SA supports simulation of measurements including its errors as they can apply under real world conditions, based upon the selected instrument(s) a priori uncertainty model(s).

The USMN (Unified Spatial Metrology Network) brings all used instruments into one common network and creates a point group that represents the network as a whole. Compared to traditional methods, this approach removes the error stack-up of instruments positions. USMN uses instrument uncertainty and advanced optimization algorithms to simultaneously solve for all instrument positions and can also be used to determine the instrument a posteriori uncertainty.



Remote Control

View real-time measurement data where it is needed and remotely control laser trackers from an iPhone®, iPod® Touch, iPad® or iPad mini®. The SA Remote App is available from the Apple App Store, free of charge.

SPATIAL ANALYZER® – AVAILABLE PACKAGES



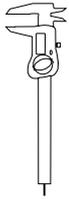
FEATURE	PROFESSIONAL	ULTIMATE
Measurement		
Traceability	✓	✓
Simultaneous Instrument Interfacing	✓	✓
More than 120 interfaces including all Hexagon Metrology portable instruments	✓	✓
Inspection		
Geometric Dimensioning & Tolerancing (GD&T)	✓	✓
Geometry Inspection	✓	✓
Build		
Relationships	✓	✓
Watch Windows	✓	✓
Transformation Tracking & Guiding	–	✓
Evaluation & Analysis		
Queries	✓	✓
Spatial Transformations	✓	✓
Robust Fit Algorithms (NIST & PTB certified)	✓	✓
Measurement Uncertainty Analysis	✓	✓
Relationship Optimization (multiple moving objects)	–	✓
Reverse Engineering	–	✓
CAD Interface		
Standard CAD Exchange (IGES, STEP, etc.)	✓	✓
Native CAD Access (CATIA, ProE, NX, etc.)	✓	✓

	PROFESSIONAL	ULTIMATE
Automation		
Automatic Measurement	✓	✓
Measurement Plan Scripting	–	✓
Software Development Kit (SDK)	–	✓
SA Reporting		
Standard Outputs (Excel, Word, PDF, Text)	✓	✓
Graphical Callout Annotations	✓	✓
Quick Reports	✓	✓
Drag & Drop Reporting	✓	✓
Database Output (ODBC)	–	✓
Pipe Fitting		
Pipe Cut Optimization	–	✓
Alignment		
Best Fit	✓	✓
Feature Based	✓	✓
Points to Surfaces	✓	✓
Standard Instrument Network Bundle	✓	✓
Relationship Fitting	–	✓
Advanced Network Optimization (USMN)	–	✓

Minimum requirements

- Microsoft Windows 7 or later
- 4 GB system RAM
- 500 MB of free disk space
- 1024x768 screen resolution

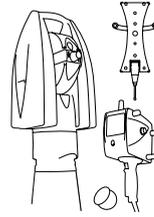




PRECISION MEASURING INSTRUMENTS



PORTABLE MEASURING ARMS



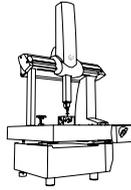
LASER TRACKERS & STATIONS



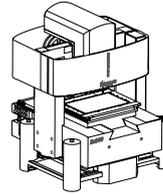
WHITE LIGHT SCANNERS



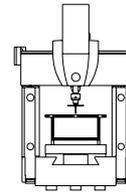
SENSORS



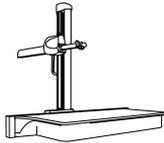
BRIDGE CMMS



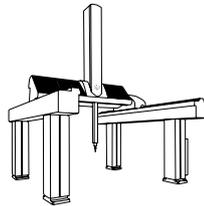
MULTISENSOR & OPTICAL SYSTEMS



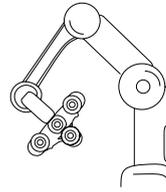
ULTRA HIGH ACCURACY CMMS



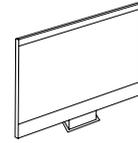
HORIZONTAL ARM CMMS



GANTRY CMMS



AUTOMATED APPLICATIONS



SOFTWARE SOLUTIONS



HEXAGON METROLOGY

Hexagon Metrology offers a comprehensive range of products and services for all industrial metrology applications in sectors such as automotive, aerospace, energy and medical. We support our customers with actionable measurement information along the complete life cycle of a product – from development and design to production, assembly and final inspection.

With more than 20 production facilities and 70 Precision Centres for service and demonstrations, and a network of over 100 distribution partners on five continents, we empower our customers to fully control their manufacturing processes, enhancing the quality of products and increasing efficiency in manufacturing plants around the world.

For more information, visit www.hexagonmetrology.com

Hexagon is a leading global provider of information technologies that drive productivity and quality across industrial and geospatial applications. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information. They are used in a broad range of vital industries.

Hexagon (Nasdaq Stockholm: HEXA B) has more than 15,000 employees in 46 countries and net sales of approximately 2.6bn EUR.

Learn more at www.hexagon.com