InSPEC

Advancing the Standard

Integrated SEM Metrology and Inspection

Software suite and upgrade kit with integrated SEM control and scanning enabling automated multi-chip monitoring for nanofabrication

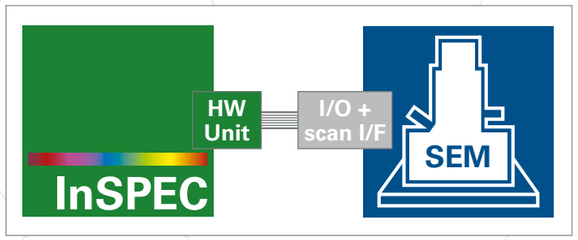
GenISys

www.genisys-gmbh.com

In SEM metrology for nanofabrication, there is an increasing demand for sophisticated and automated approaches while maintaining versatility.

Both nano lithography and processing are highly optimized, but neither analytical SEMs nor CD-SEMs provide the ideal capabilities for prototyping, R&D or special manufacturing of novel patterns and devices.

InSPEC offers an advanced solution for upgrading a SEM into an integrated tool for metrology and inspection.



InSPEC is integrated with the SEM tool using a combination of digital and analog interfaces.

InSPEC consists of
- Dedicated software suite
- PC and monitor
- Hardware unit for scanning and I/O
- SEM interface specific cables
- Offline software licenses

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Enable
- your SEM for dedicated metrology
- integration while keeping versatility

Increase
- SEM utilization and productivity
- metrology data and results output

Improve
- data quality and consistency
- control over processes and devices

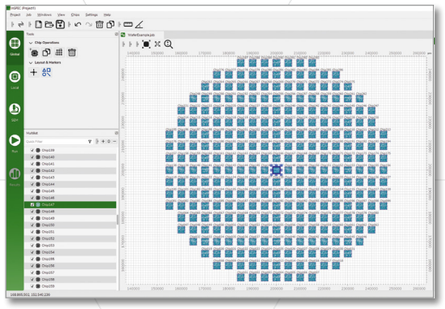
Advance
- multi-chip large area monitoring
- modular metrology and evaluation jobs

Workflow & Usability
- Five main modes for a complete workflow (see pictures below)
- Intuitive layout-based definition of tasks
- Clean job sequence used throughout all modes
- Organized projects, job templates, and result files
- Control of SEM beam & stage

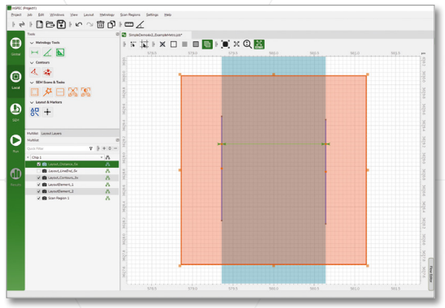
Scanning & Metrology
- Scans with flexible size, shape, and averaging
- Arbitrary shaped scans and direct line scans
- Advanced contour detection
- Flexible and consistent metrology
- Offline editing and adding of measurements or analysis

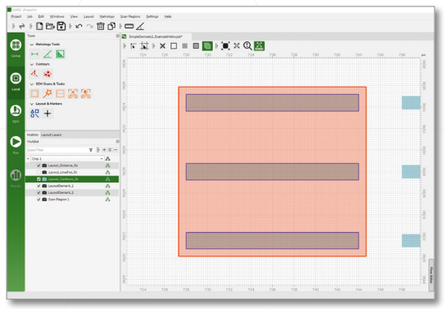
Advanced Features
- Focus control by flexible maps and auto-focus
- Automatic position alignments for local scanning or drift compensation
- Comparison to geometrical primitives or layout elements
- Modular expert flows including data processing

Global

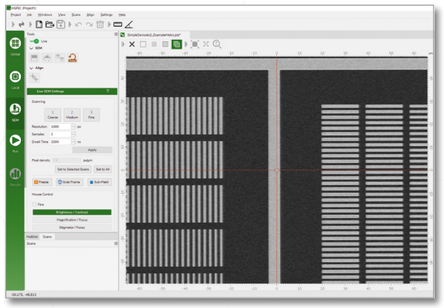


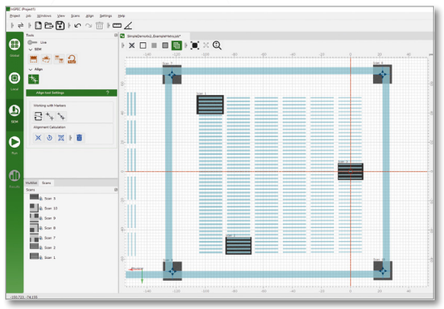
Local



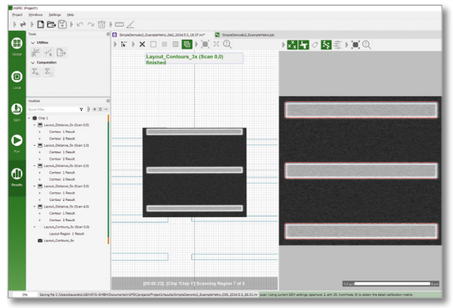


SEM

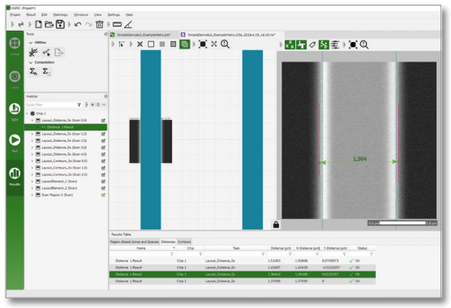


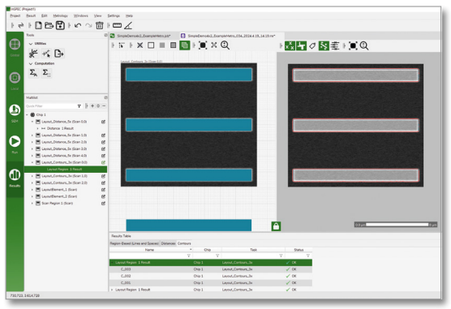


Run



Results





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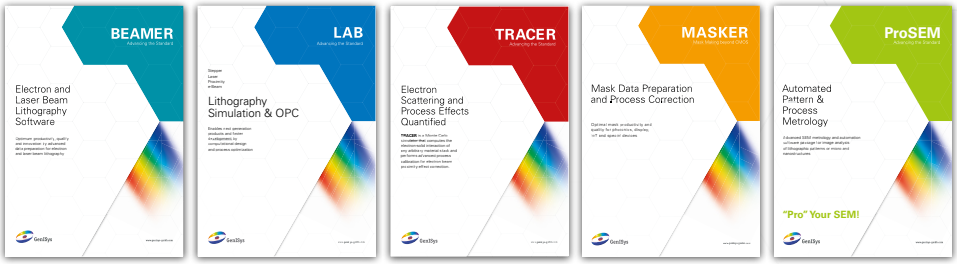

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Based in Munich (Germany) with offices in Japan and USA, **GenISys** serves markets in lithography and inspection with flexible, high-performance software solutions for the optimization of micro and nano fabrication as well as metrology and inspection. **GenISys** combines deep technical expertise in layout data processing, lithography process modeling, correction and optimization, physics-based simulation, image analysis, and measurement algorithms with world class software engineering.

With a strong focus on ease of use and application requirements, **GenISys** products give engineers, manufacturers, and tool suppliers unparalleled efficiency and optimal value in research, development, and production of future nano technologies. As a customer driven company, **GenISys** delivers fast, highly dedicated support for development and application of advanced functionality to meet demanding customer needs.

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