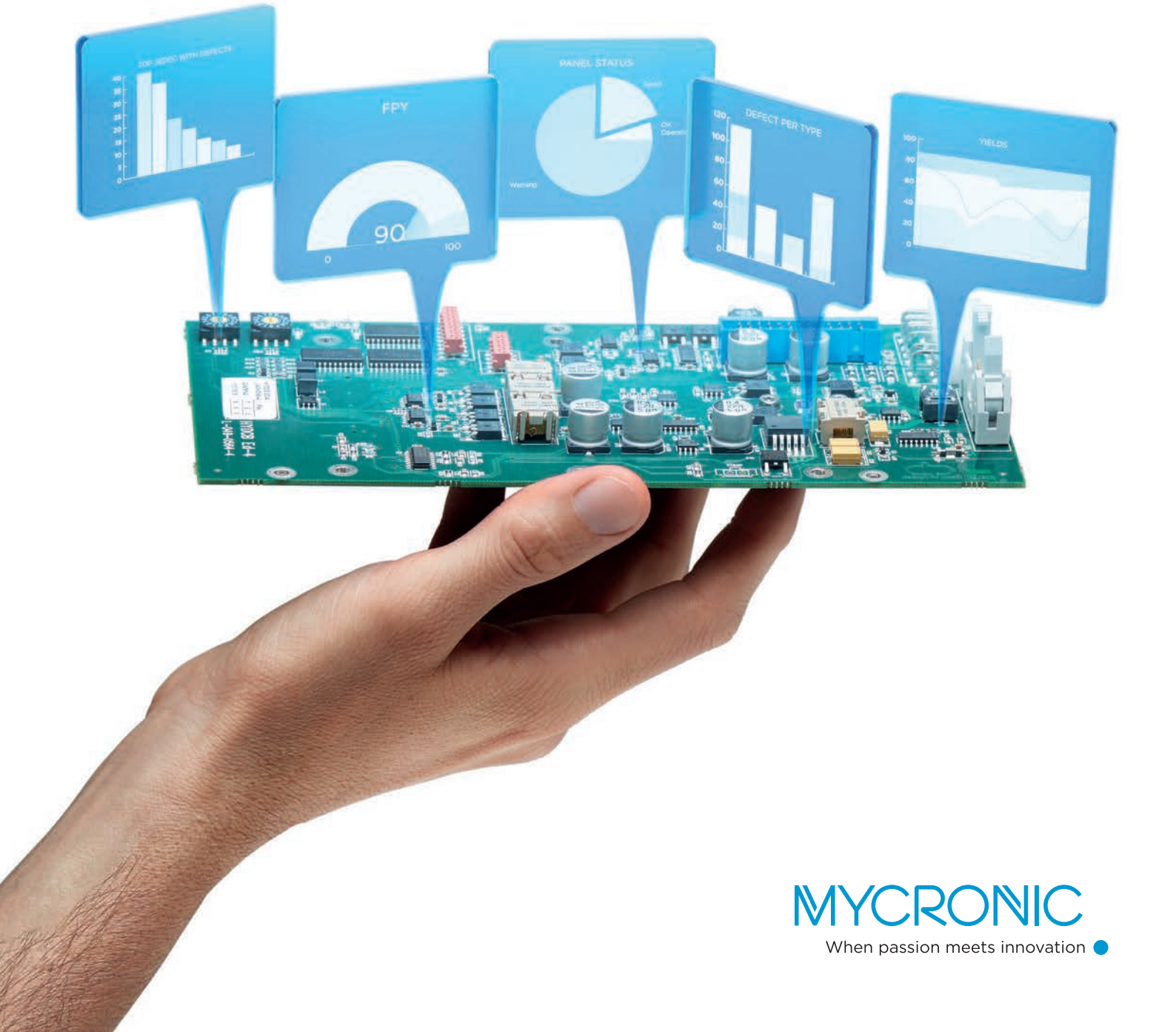
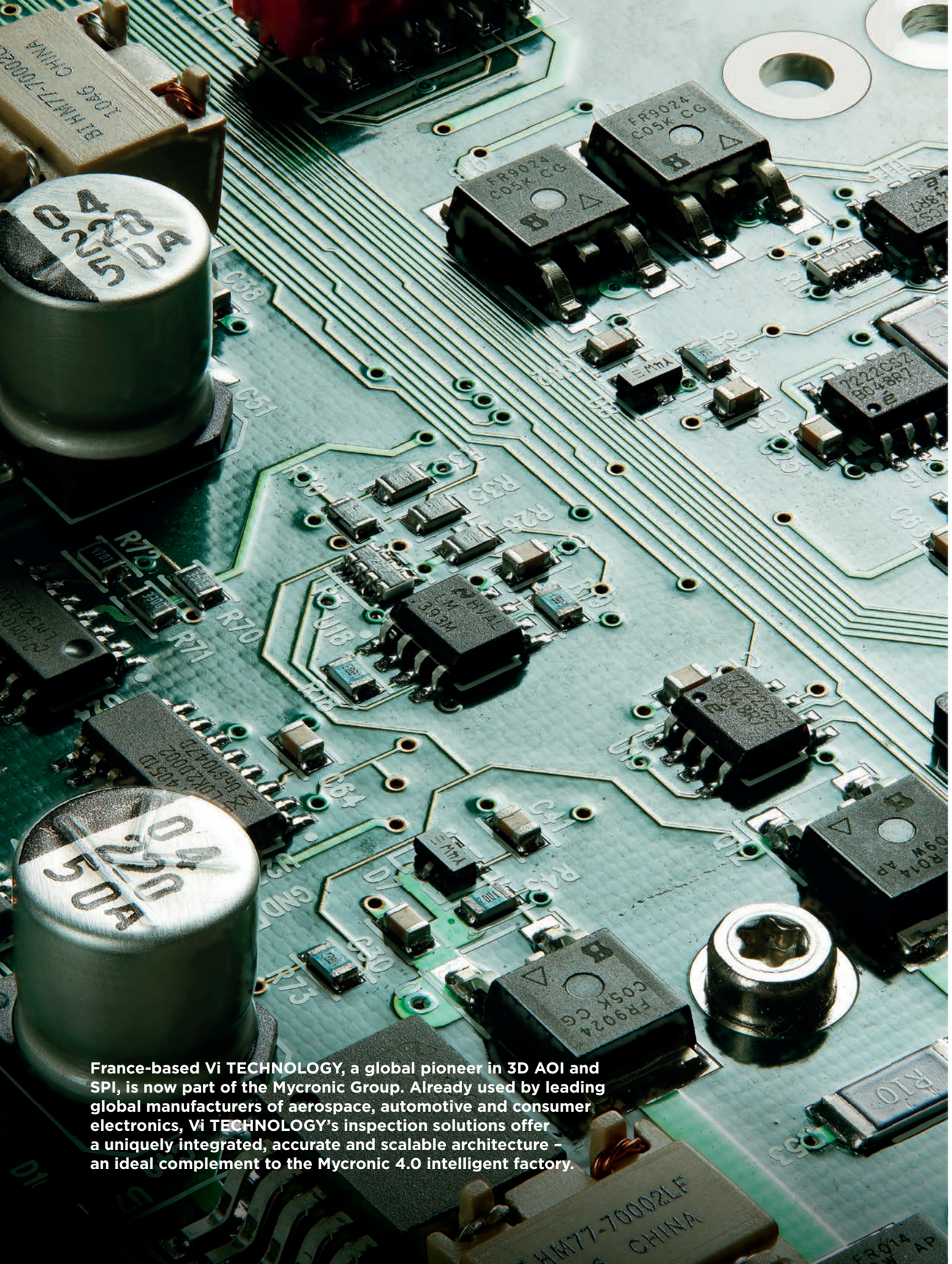
Mycronic inspection solutions

SIGMA Link software suite
Enhanced process control through better inspection data



MYCRONIC
When passion meets innovation



France-based Vi TECHNOLOGY, a global pioneer in 3D AOI and SPI, is now part of the Mycronic Group. Already used by leading global manufacturers of aerospace, automotive and consumer electronics, Vi TECHNOLOGY's inspection solutions offer a uniquely integrated, accurate and scalable architecture – an ideal complement to the Mycronic 4.0 intelligent factory.

One step closer **to perfect**

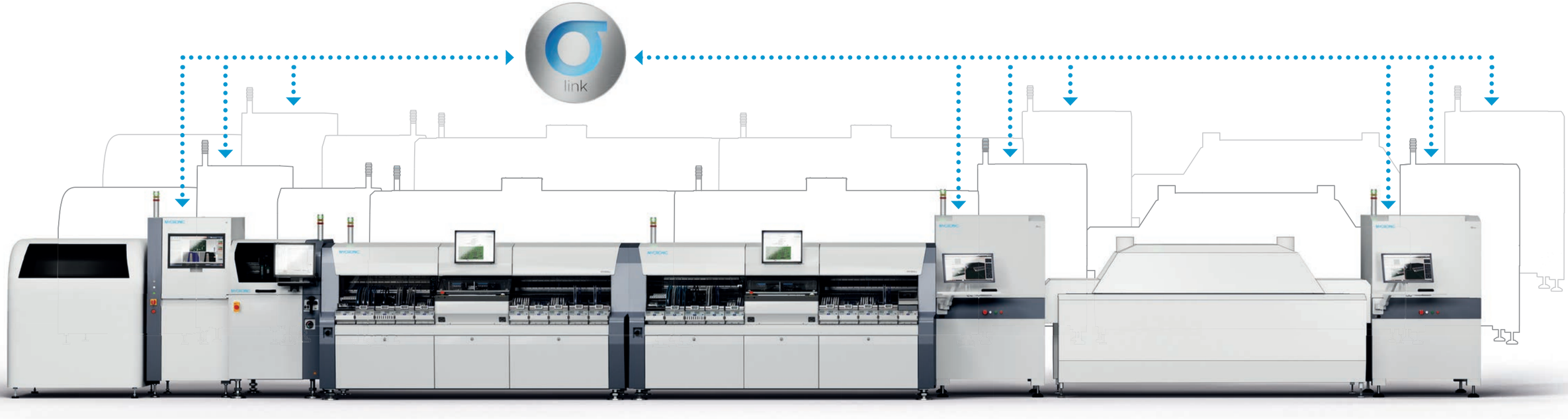
In a perfect world, there would be no defects. Every PCB would come off the line looking and working just as its designers intended. At Mycronic we believe in that perfect future. And with powerful tools to prevent defects at their source, we bring you one step closer to it.

As a global pioneer in 3D AOI and SPI, Vi TECHNOLOGY has long been at the forefront of this evolution, consistently leading the field with new innovations in high-precision metrology, inspection coverage and data analysis. Now part of the Mycronic Group, these state-of-the-art inspection solutions make the path from inspection data to actionable insights shorter than ever before.

It's one more part of Mycronic 4.0. And one more step towards perfection.

Welcome to a new era
in process control

The SIGMA Link process control software suite helps to achieve new levels of product quality and process automation. A real-time web-based interface for unified SPI and AOI data, its rapid data correlation and analysis delivers powerful possibilities for measuring, controlling and anticipating process variations.



Import

SIGMA IMPORT
- Ensures unified referential for SPI/AOI
- Enables quick programming, correlated review & analysis

Review

SIGMA REVIEW
- Review your process in 3D
- Focus on the most relevant details with high-quality defect images

Live

SIGMA LIVE
- View your entire SMT process in real time
- Improve quality and drive immediate corrective action

Analysis

SIGMA ANALYSIS
- Analyze your process at a glance
- Identify recurrent process detractors

Line

SIGMA LINE
- Optimize your line inspection strategy
- Correlate SPI/AOI defects, minimize review and expand coverage

Easy programming
with SIGMA Import

SIGMA Import provides the foundation for easy traceability, audit management and component-to-pad analysis. By generating iCAD and VIS files from Gerber and CAD data, it simplifies programming while ensuring database uniformity between AOI and SPI information.

Import

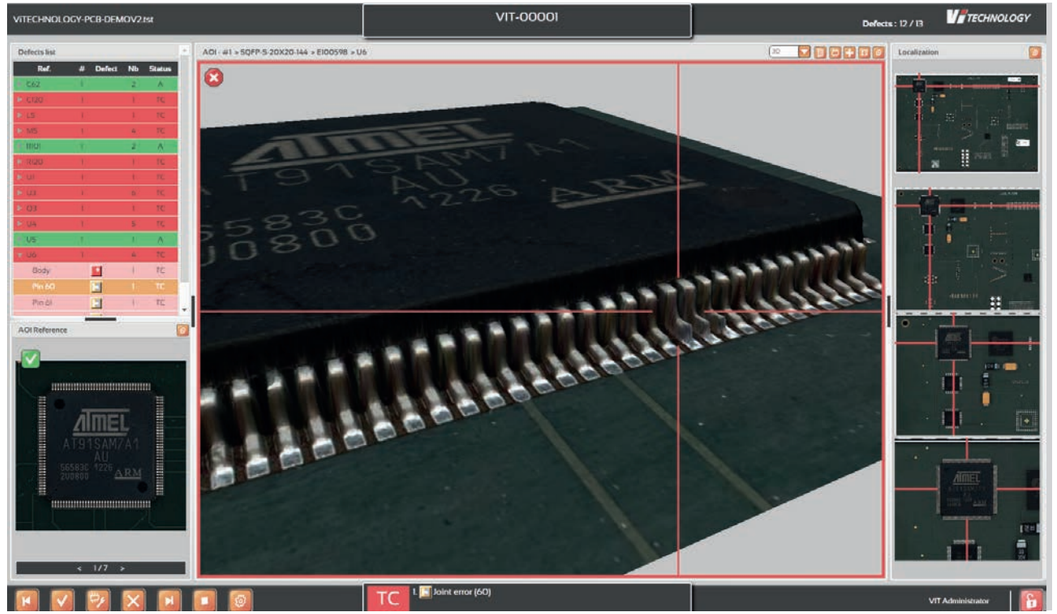
- **Integrated one-stop data import software** for both SPI/AOI for data correlation & traceability
- **Variants management to ease program management** in high-mix environments
- **Intuitive, easy to use** and to maintain

Results at a glance
with SIGMA Review

SIGMA Review gives operators an easy way to make pass/fail diagnoses at a glance. By automatically correlating SPI and AOI results into a single on-screen overview, it provides a highly accurate and simplified defect classification system.

Review

- **Review high-quality 3D defect images** to localize defects at a glance
- **Easy classification** using reference images
- **Use IPC or user-defined defect categories**
- **Speed up reaction times** with pre-defined corrective action messages
- **Optimize review environment** with customized screen layouts



"Lifted lead is easily identified"

Real-time yield management **with SIGMA Live**

The SIGMA Live module instantly highlights production deviations and trends, allowing you to take immediate action to improve your yield. Thanks to intuitive web-based and mobile interfaces, it enhances agile yield management with a range of real-time insights.

Live

- **Monitor key process indicators** at SPI or AOI from anywhere, including on mobile devices
- **Track the root cause** of process deviations
- **Remotely monitor** your entire shop floor
- **Display actionable information** to your operators
- **Eliminate waste**

"First-pass yield is improving but two issues are revealed by trend charts: bad component reference loaded in placement machine (OCV) and unstable polarity check on LQFP176 component."

Powerful yield improvement **with SIGMA Analysis**

SIGMA Analysis enables continuous yield improvement using powerful data mining algorithms and root cause investigation.

Analysis

- **View FPY, FTY and DPMO** calculations
- **Monitor process capabilities** including uptime and downtime trends
- **Generate daily, weekly or monthly quality reports** to support 8D problem-solving and lean initiatives.

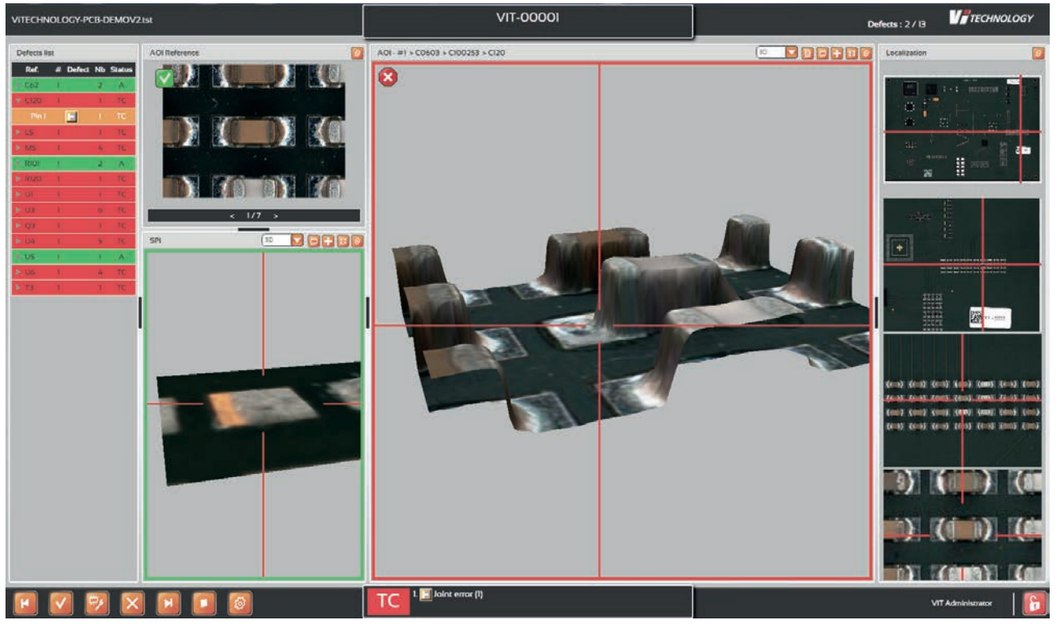
"Print process quality has improved over the period but excessive warnings show we are operating close to process limits."

Optimized process control **with SIGMA Line**

The SIGMA Line module ensures that process control tolerances are optimized at all steps by correlating SPI and AOI defect information. This makes it possible to substantially improve line efficiency while expanding defect coverage and minimizing operator review.

Line

- **Adjust SPI and AOI program tolerances** based on accurate data and images
- **Eliminate false sanctions** by operators
- **Build process knowledge** by tracing defect evolution along the line



"Lack of solder detected at AOI, not at SPI; we need to tighten tolerances at SPI to detect it as an error."

SPECIFICATIONS

Server Configuration	Core i5 minimum, 16Gb RAM, ethernet 100Mbits/s Graphic card (1 Gb min, 2 Gb for optimal performance)
Operating system	Windows 7 or later
Data base	SQL server compliant
Screen configuration	22" wide screen with 1680 x 1050 resolution

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Specifications are subject to change without notice.
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