The industry's most powerful macro wafer defect management software

Defect intelligence taken to the next level

ProcessGuard from Microtronic is a high-performance software system that provides comprehensive and intelligent storage and management of your fab's wafer defect information. This unique program provides unprecedented power, speed and flexibility to organize and manage your defect information, to present the overall picture while also allowing the user to drill down and see critical details.

ProcessGuard is able to present defect information clearly and concisely, with an interface that is friendly and very customizable. The software provides user-definable defect libraries and query screens. It creates a complete, trackable "waferbase" with defect lists and maps along with each wafer's OCR number and slot number. It can also provide Pareto charting for easier root-cause analyses.
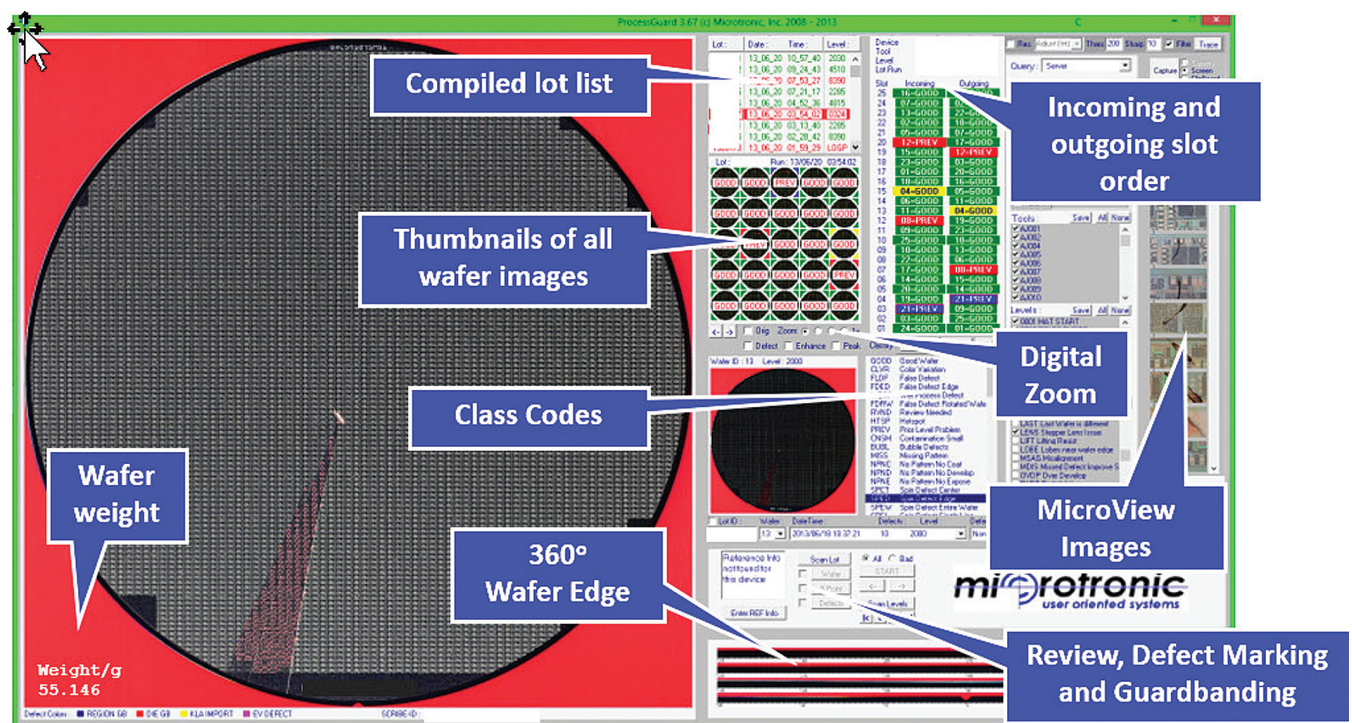
And importantly, ProcessGuard is readily accessible to everyone across the fab and the enterprise, to keep everyone informed.

A proven industry standard, ProcessGuard has already processed defect information from hundreds of millions of wafers worldwide.

Two ways to get ProcessGuard

ProcessGuard has long been used as the core data procesing and management system for Microtronic's well-known EagleView macro defect wafer inspection system. The screen below shows a typical example of the quality of data delivered by EagleView and the power of ProcessGuard to process, analyze and present the information.

Now there is a second way to get ProcessGuard: Microtronic's new *Trans-Imager* software module is able to extract high-resolution images directly from processing tools in the fab and automatically detect and display process wafer defects in real-time – and transfer all of the information into ProcessGuard for defect management. This new capability is called *ProcessGuard Xtensis.*

The ProcessGuard user interface delivers a great amount of wafer defect information in clear, concise form – with powerful flexibility.

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Superior defect management
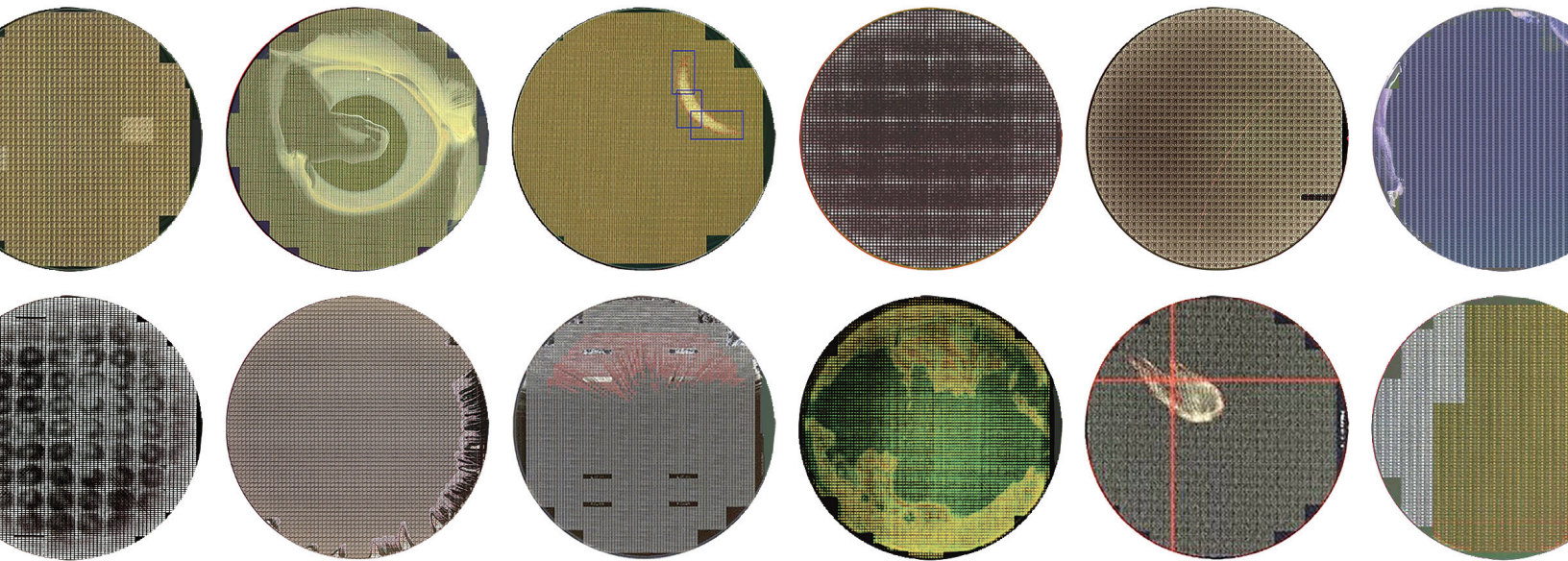## to improve a fab's performance

ProcessGuard is the high-speed, high-volume solution that delivers an easy-to-use and extendable way to integrate and manage all of the fab's inspection processes. This software provides multi-year defect data storage in a comprehensive database that is immediately accessible by the entire fab, allowing tool defect data to be searchable by date, time, lot, wafer, and more. So, even months later, specific process issues can be quickly and easily reviewed.

 ProcessGuard enables you to identify excursions and take corrective actions much more quickly, to minimize scrap and maximize yield. And getting defect information earlier in the processing steps can also allow you to enhance device *reliability* by applying guardbanding around selected defect areas, to ensure that potentially marginal die do not reach the customer.

 For being able to see more and know more about process performance and wafer defectivity in the fab, ProcessGuard has become the solution the industry relies on.

ProcessGuard Advanced Capabilities

- Integrated user-definable defect library
- Advanced wafer image processing and visualization
- Integrated multi-year historical data for lot and equipment
- Easy drill-down Pareto for root-cause analysis
- Customizable user interface, customizable query screens
- Sort by class code, tool, operation, time, or device
- Import additional data/images into the macro database
- MicroView – integrated microscope images
- Guardbanding capability for each wafer
- Automated wafer randomization analysis
- Edge bead removal review (EBR)
- Export KLARF files
- Integrated trainer and knowledge base
- Enterprise-wide full defect information access
- And much more...

ProcessGuard manages a wealth of macro defect information as well as high-resolution images of every wafer.

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