

EAGLEview provides a path for skipping manual microscope inspection in the semi industry

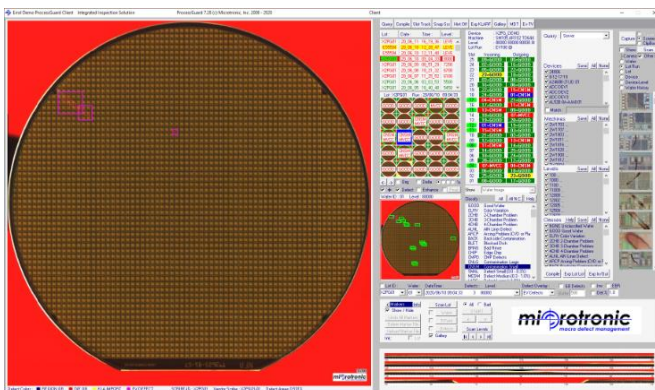
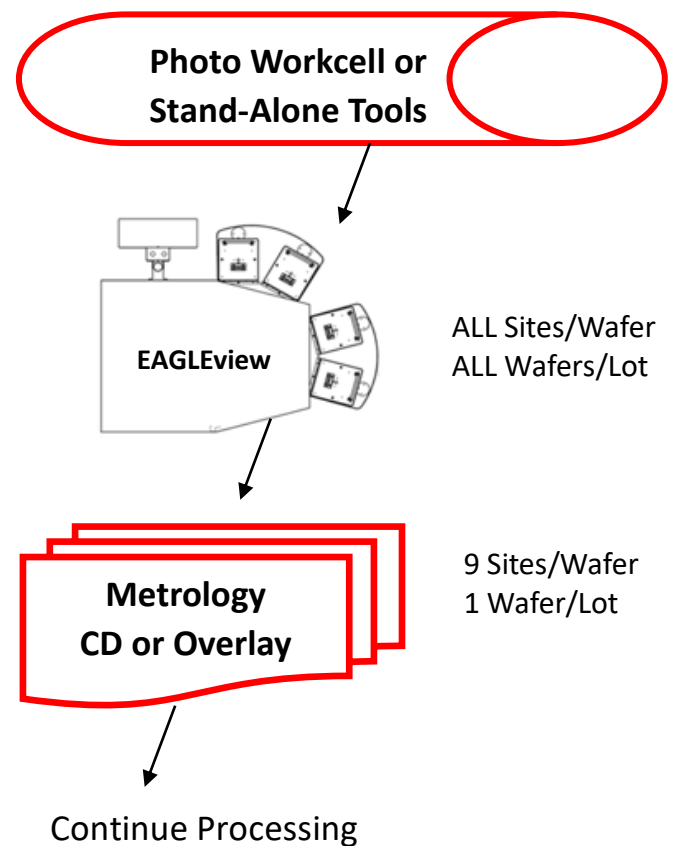
EAGLEview Highlights:

- No recipes needed (minimize resources)
- Easy to operate - no buttons to press
- High speed throughput – over 3,000 WPD
- Automatically detect macro defects and edge chips
- Easily detect typical Photo defects such as missing patterns, hotspots, flash fields, etc.
- Easily detect typical CMP defects such as unpolished, over/under polished, etc.
- Detect edge CMP defects even on partial die
- Retains years of stored images and data
- No license required - unlimited ProcessGuard clients
- Sorter capabilities (automatically sort without operator intervention)
- Integrated updateable defect image library
- Guardband capabilities, digitally ink-off at probe
- Fast RCA – on board commonality analysis
- Massive sampling for excursion control

Make the change to Machine-Vision!

Many fabs still have operators using manual microscopes for Photo, CMP, and outgoing inspection.

The EAGLEview automated macro inspection has been successfully used by many fabs to reduce or eliminate manual microscope ADI (After Develop Inspection).



Reducing or Eliminating Manual Microscope Inspection with EAGLEview

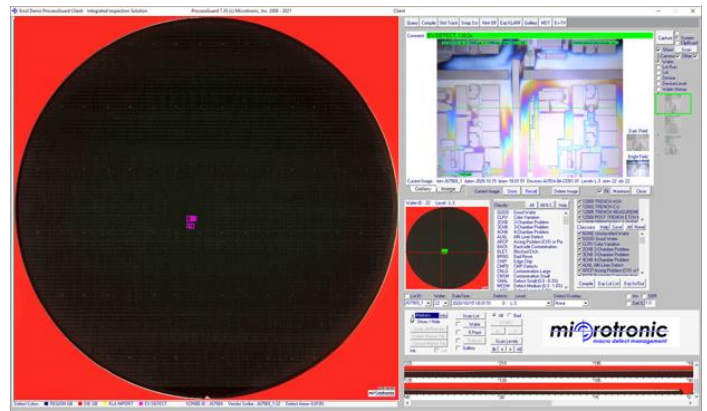
Study your data and establish rules

EAGLEview plays a pivotal role in a fab's ability to skip manual inspection, resulting in improved productivity, reduced staffing, and cycle time.

Rules:

Only lots that get both a micro and a macro inspection are eligible to skip manual inspection.

Lots require a micro inspection (scope, overlay or CD measure) combined with a macro (EAGLEview) inspection. This methodology ensures that at least one of the wafers in the lot was patterned correctly (size/alignment) and that all wafers are similar (no macro defects).



World Class Metrics

Improved productivity with better inspection and containment drove the fab to unprecedented world class metrics within a few years (Process Yield, Productivity, Cycle Time, Quality, Major Events or Excursions).

Case Study Results

Inspect staff reduced from 8/shift to 2/shift

Additional EAGLEview staff required: 1-2/shift

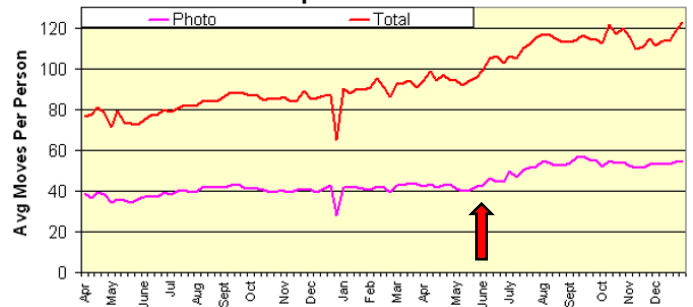
Reallocated: 16-20 inspectors (to the steppers)

Inspection sampling improved from 6 wafers per lot to 100% (EAGLEview inspecting ~20K wafers/day).

Rework rate decreased (faster containment and corrective action)

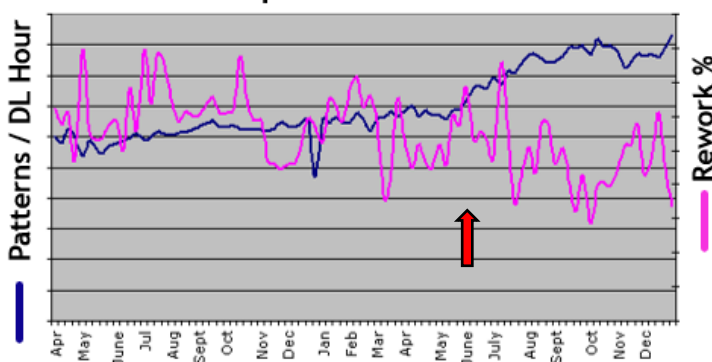
Yield improved as excursions were minimized

Fab1 Moves per Direct Labor Hour



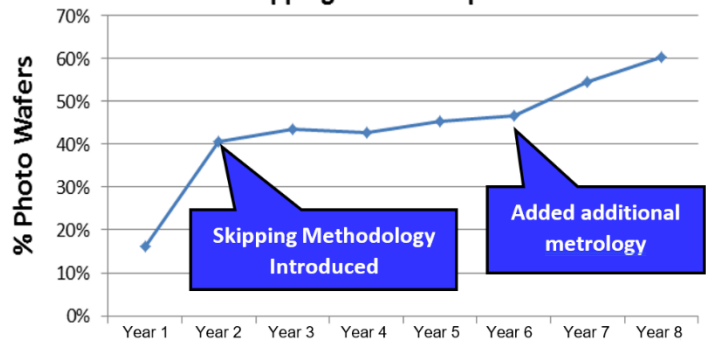
As employees moved from the inspect chairs to the steppers, fab metrics revealed the productivity improvements in Photo which was the driver for the entire fab.

Fab1 Patterns per DL Hour & Photo Rework



Patterns per direct labor hour increased while the rework rate decreased.

Fab1 Skipping Manual Inspection



The impact of skipping manual inspection was immediately obvious. Improving the "skip rate" was accomplished by simply adding additional metrology. Increasing EAGLEview or metrology (CD or Overlay) capacity resulted in more wafers skipping manual microscope inspection.