Apps Ecosystem

c-Alice

AI-powered image-based for process control

Why was c-Alice made?

With 30+ years of expertise in process control and yield enhancement, we have seen firsthand how manufacturing challenges impact efficiency and quality. Built on the principle of empowering manufacturers to enhance production control, yield optimization, and quality improvement, c-Alice directly addresses the key challenges in modern production environments:

- **Unmanageable Image Volume:** Far exceeds human processing capacity.
- **Throughput Impact of Manual Review:** Slows down production and increases operational costs.
- **Sample-Based Quality Risk:** Critical decisions rely on potentially unrepresentative samples.
- **AI Use in Production Environments:** Necessary to remain competitive and scale efficiently.

How reliable is c-Alice?

C-Alice has been implemented in several production sites, proving its effectiveness. It is a scalable and field-tested solution that is accurate and reliable through continuous use and refinement. With dedicated support and ongoing innovation, it provides an approach to automated quality control.

Capabilities

- **Classification Tasks (Known Defects):** Identification and categorization of defect types in images (scratches, holes, particles, stains, missing structures, and more) and reduction of false positives.
- **Anomaly Detection (Unknown Defects):** Detection of unexpected deviations beyond predefined defect categories.
- **Pattern Analysis:** Recognition of signatures in defect and bin sort wafer maps.
- **Object Detection:** Counting, position verification, and completeness checks.

One app to unlock the power of every image

- **One System for All Image Types:** Centralized analysis for all production images in a single workflow and software platform.
- **Fast & Accurate:** AI-powered classification in seconds for immediate decision-making.
- **Highly Efficient:** Low maintenance, increased throughput and reduced personel requirements compared to manual alternatives.
- **Easy to Use:** AI models can be adjusted, monitored, and expanded by technicians or engineers without requiring in-depth AI knowledge.

Benefits

- **Business Impact:** Increases efficiency through automation and use of Artificial Intelligence, minimizes defects, and maximizes yield, delivering a fast ROI with reduced costs, fewer resources, and higher production quality.
- **Integration:** It seamlessly integrates with all image types from industrial cameras, inspection systems, SEMs, defect maps, and electrical test data, ensuring the use of results in productioncontrol and analysis software.
- **Support:** We provide training and tailored support, ensuring smooth adoption and optimal use. Our flexible approach allows us to adapt to your specific applications and scale with your needs.

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