ISRA VISION

Embedded color camera technology for paper production
A new dimension in web quality grading

Simultaneous color & b/w channel

ISRA VISION ONLY

The fastest cameras in the market are now EMBEDDED and activated with COLOR

High quality standards and strict regulations, especially in food and medical industries, are big challenges for paper manufacturers. Paper suspected of being contaminated with organic substances or oil becomes – for safety and liability reasons – unusable.

Defective or sub-standard material has to be eliminated – even though it might be allocated to an alternative customer by a different quality classification.

The EMBEDDED COLOR CAMERA now simultaneously detects the color in addition to the b/w channel and thus enables a clear classification of defect types that are non-classifiable by b/w cameras. Oil stains, bacteria and other liquid-based defects can be clearly identified and reliably assigned to their defect class.

Benefit from boosted self-learning defect classification performance, optimized cleaning cycles and lower processing costs.

Applications
- In-line quality control for paper surfaces
- Quality critical defects are reliably classified based on color detection

Advantages
- All-in-one, compact inside one camera body:
  - Sensor, processor and interfaces integrated
  - Single line and dual line mode with multiple configurations
- Color and monochrome image available simultaneously
- Multi-view color reflection & b/w transmission or other configuration, without limitation of channels
- High-precision detection for reliable defect classification
- Cost saving: Space saving embedded camera installation
- Predictive maintenance for periodical cleaning cycles
- Extension to an integrated Paper Quality Management System possible

Add COLOR to detection.
Boost classification performance.
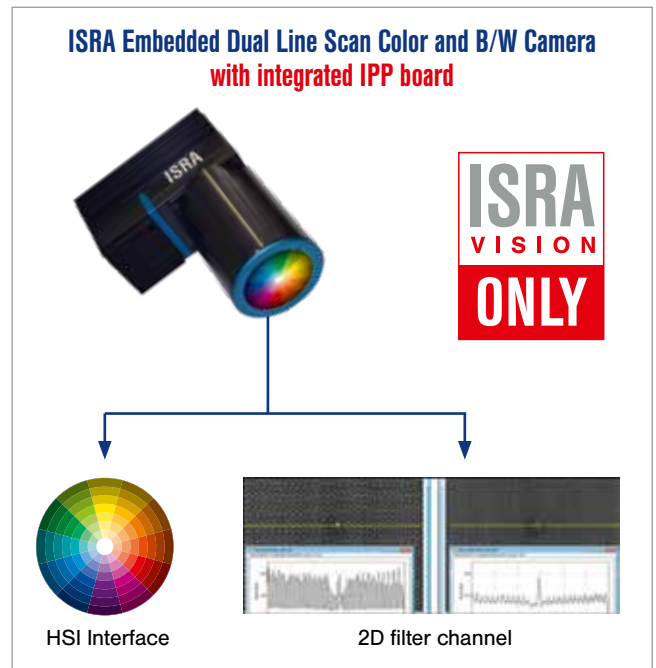## Optimize cleaning cycles.
Lower processing costs.

Waste can be significantly reduced because defective material can either be removed or the inspection results can be used as a decision support for alternative use cases.
In addition, paper makers benefit from significant optimization of up- and downstream decisions like cleaning circle schedules due to bacteria influences.

PAPER MASTER
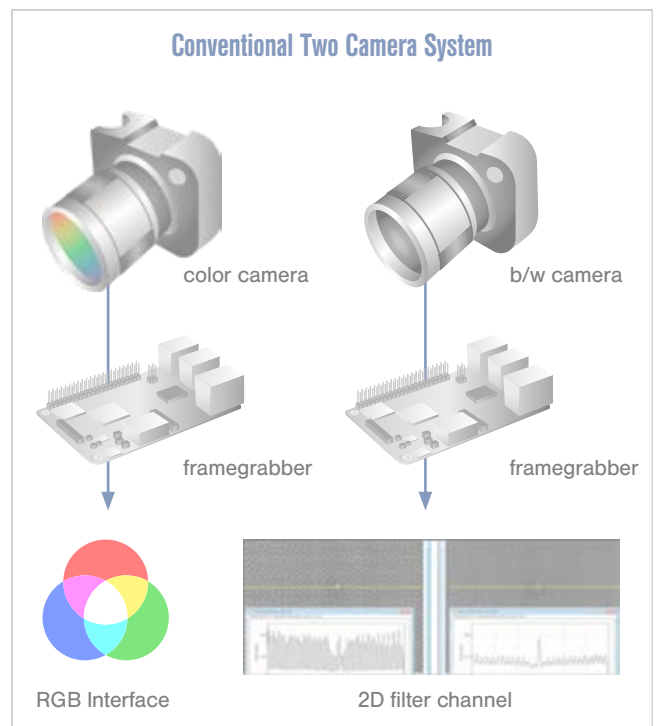## Web Inspection WIS, Web Break Monitoring WBM and Unwind Control System UCS

- Latest embedded (COLOR) vision technology with high-end detection and classification
- WBM: Smart, compact, all-in-one IntelliCam-based monitoring solution
- WIS & WBM: Fastest, most reliable defect root cause analysis
- Completed by UCS: clear defect assignment by location on the sheet

PaperQMS
Paper Quality Management System

- Efficient decision-support: Correlate any production data with web quality data to uncover previously unused potential
- App-inspired, device-independent user interface

ISRA Embedded Dual Line Scan Color and B/W Camera with integrated IPP board

HSI Interface   2D filter channel

ISRA VISION

Conventional Two Camera System

color camera   b/w camera

framegrabber   framegrabber

RGB Interface   2D filter channel

Conventional System

ISRA VISION

Optimize your ROI with the technology leader ISRA
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