

epos

Multidisciplinary
Innovation

Yarn Cone Inspection and Color Matching System



COLIMAGE BI

WHAT IS **COLIMAGE BI**?

It is an integrated analysis and decision-making system that analyzes every cone package in production with high precision, interprets findings by correlating them with process data, and manages quality in a sustainable manner.

The cone packages are analyzed in detail using a high-resolution imaging system and advanced image processing algorithms. The developed analysis system is designed to detect **surface defects, winding faults**, and specifically **color barre** with high sensitivity.

The system evaluates each yarn both individually and in comparison with others. This ensures a quality control process that is independent of the human eye, repeatable, and objective.



Color and Visual Consistency

Color Barre

Shade Variation: (Intra-batch / Inter-batch)

Foreign Fibers

Contamination (Oil, dust, or stains)

Winding and Geometric Structure

Defective / Cross Winding

Conicity Errors

Ply Errors

Rippling

HOW DOES **COLIMAGE BI** DETECT DEFECTS?



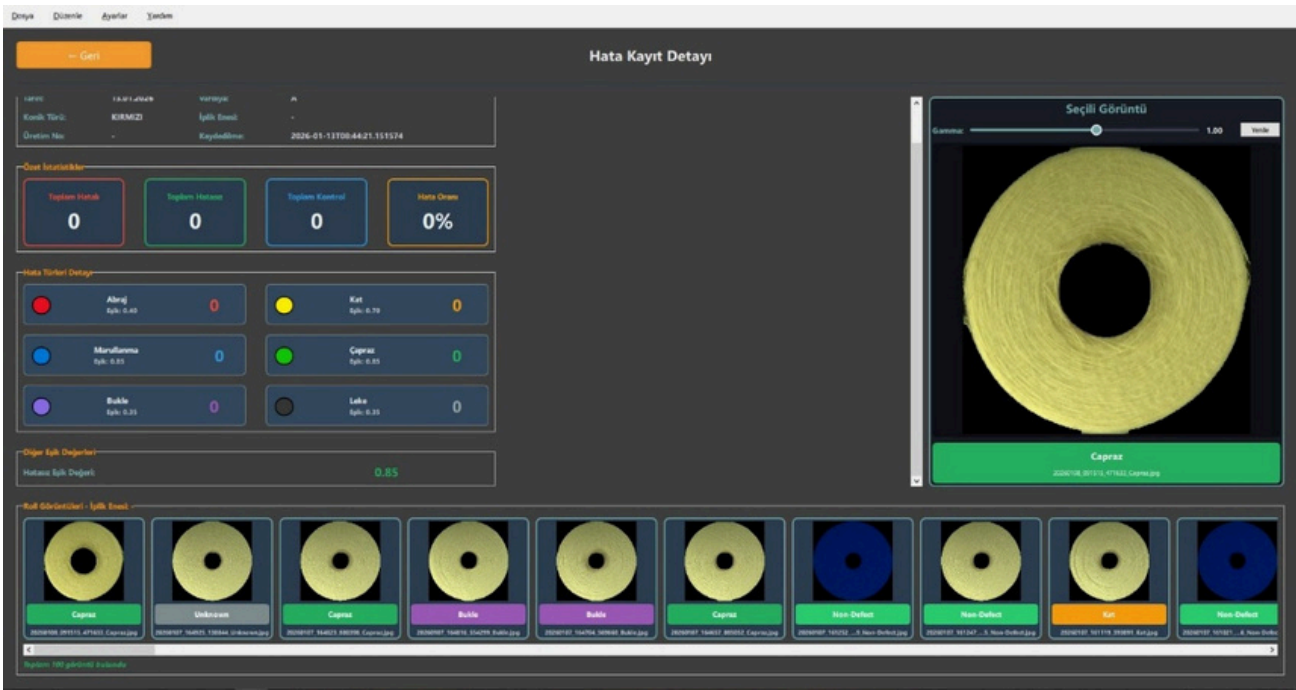
The analysis model operates based on reference structures and statistical distributions defined within the system. Color deviations and anomalous behaviors are automatically detected, then classified and segregated by the system.

HOW DOES COLIMAGE BI ENSURE SPEED AND TRACEABILITY?

The analysis infrastructure is flexible enough to be integrated into various transport and automation scenarios (conveyors, robotic arms, etc.). The core value of the system lies in its high-accuracy evaluation algorithms that operate independently of the hardware.

With the AI-powered Colimage BI system, all analyzed yarn packages are evaluated within seconds, ensuring quality continuity. Simultaneously, the entire production process is made traceable through the created digital archive.

This resulting data structure elevates the system beyond a mere error-detection mechanism; it transforms it into a framework capable of reading and interpreting the production process from end to end.



Structural and Fiber-Related Defects

Knot Defects

Broken Fibers / Fiber Discontinuity

Thin / Thick Places (Count Irregularity)

Cone Deformation

Dimensional and Process Control

Automated Weight Measurement

Diameter and Form Control

Batch / Lot-Based Comparison

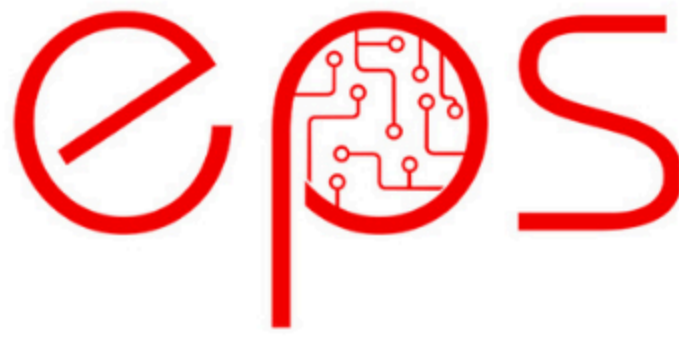
Process Parameter Tracking (Machine, Settings, Operator)

HOW DOES COLIMAGE BI SUPPORT CONTINUOUS IMPROVEMENT?

The system analyzes and interprets the root causes of quality deviations, identifying whether they originate from specific process steps, machine settings, or production conditions. It creates a framework that doesn't just present data to operators and technical teams but guides them by interpreting that data.

Through this approach, the production line evolves from a merely monitored system into a structure that learns from its own data, compares current performance with historical experiences, and continuously drives production quality forward. Consequently, while ensuring sustainable quality, it provides a robust and constantly evolving infrastructure for process optimization and maintenance planning.





Multidisciplinary Innovation



Benefits gained with **COLIMAGE BI** which creates a common language with your customers:

- Fast and Reliable Finalization
- Digitalization in Reporting
- Sustainability in Quality
- Quantitative Objective Evaluation
- Quality Standardization
- 24/7 Technical Support
- Personnel Cost and Productivity
- User-Friendly Interface intuitive ease of use



Contact Us for Questions, Information, or Orders!

**EPS Technology Electronic Machinery
Textile Industry and Trade Limited
Company**

Ergene Mahallesi 457. Sokak No: 7/A
Bornova/İzmir/Türkiye

info@epsteknoloji.com
www.epsteknoloji.com



WhatsApp Hotline
+90 533 620 03 77

COLIMAGE BI: The Yarn Cone Inspection and Color Matching System is manufactured in Türkiye by EPS Teknoloji.

© EPS Teknoloji. İzmir. Türkiye. All rights reserved. Reproduction of the whole or any part of the product without the written permission of the right holder is prohibited. Some images in the content are representative and were not generated by COLIMAGE BI.



Multidisciplinary
Innovation

Yarn Cone Inspection and Color Matching System



COLIMAGE BI

WHAT IS **COLIMAGE BI**?

It is an integrated analysis and decision-making system that analyzes every cone package in production with high precision, interprets findings by correlating them with process data, and manages quality in a sustainable manner.

The cone packages are analyzed in detail using a high-resolution imaging system and advanced image processing algorithms. The developed analysis system is designed to detect surface defects, winding faults, and specifically color barre with high sensitivity.

The system evaluates each yarn both individually and in comparison with others. This ensures a quality control process that is independent of the human eye, repeatable, and objective.



Color and Visual Consistency

Color Barre

*Shade Variation
(Intra-batch / Inter-batch)*

Foreign Fibers

Contamination (Oil, dust, or stains)

Winding and Geometric Structure

Defective / Cross Winding

Conicity Errors

Ply Errors

Rippling

HOW DOES **COLIMAGE BI** DETECT DEFECTS?



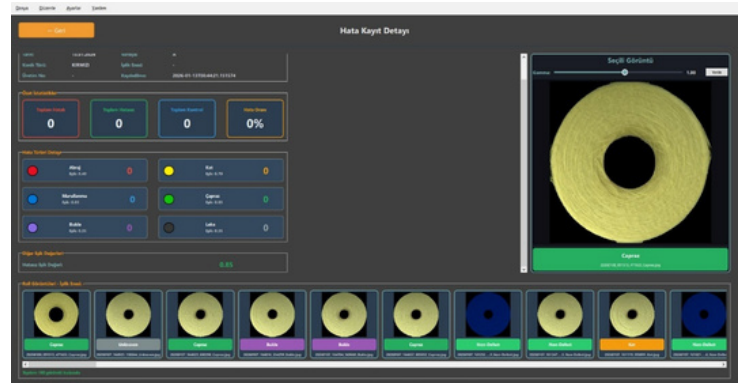
The analysis model operates based on reference structures and statistical distributions defined within the system. Color deviations and anomalous behaviors are automatically detected, then classified and segregated by the system.

HOW DOES **COLIMAGE BI** ENSURE SPEED AND TRACEABILITY?

The analysis infrastructure is flexible enough to be integrated into various transport and automation scenarios (conveyors, robotic arms, etc.). The core value of the system lies in its high-accuracy evaluation algorithms that operate independently of the hardware.

With the AI-powered Colimage BI system, all analyzed yarn packages are evaluated within seconds, ensuring quality continuity. Simultaneously, the entire production process is made traceable through the created digital archive.

This resulting data structure elevates the system beyond a mere error-detection mechanism; it transforms it into a framework capable of reading and interpreting the production process from end to end.



Structural and Fiber-Origin Defects

Detection of Yarn with Different Count Within the Bobbin

Surface-Level Knot Defects

Detection of Missing / Faulty Ply in Plied Yarns

Bobbin Deformation

Dimensional and Process Control

Automated Weight Measurement

Diameter and Form Control

Batch / Lot-Based Comparison

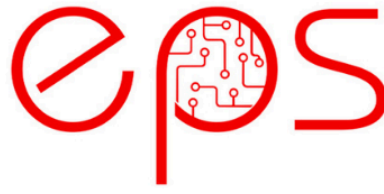
Process Parameter Tracking (Machine, Settings, Operator)

HOW DOES **COLIMAGE BI** SUPPORT CONTINUOUS IMPROVEMENT?

The system analyzes and interprets the root causes of quality deviations, identifying whether they originate from specific process steps, machine settings, or production conditions. It creates a framework that doesn't just present data to operators and technical teams but guides them by interpreting that data.



The system analyzes and interprets the root causes of quality deviations, identifying whether they originate from specific process steps, machine settings, or production conditions. It creates a framework that doesn't just present data to operators and technical teams but guides them by interpreting that data.



Multidisciplinary Innovation



Key benefits of **COLIMAGE BI**, designed to create a common language with your customers:

- Fast and Reliable Finalization
- Digitalization in Reporting
- Sustainability in Quality
- Quantitative Objective Evaluation
- Quality Standardization
- 24/7 Technical Support
- Personnel Cost and Productivity
- User-Friendly Interface and intuitive ease of use



Contact Us for Questions, Information, or Orders!

**EPS Technology Electronic Machinery
Textile Industry and Trade Limited
Company**

Ergene Mahallesi 457. Sokak No: 7/A
Bornova/İzmir/Türkiye

info@epsteknoloji.com
www.epsteknoloji.com



WhatsApp Hotline
+90 533 620 03 77

COLIMAGE BI: The Yarn Cone Inspection and Color Matching System is manufactured in Türkiye by EPS Teknoloji.

© EPS Teknoloji. İzmir. Türkiye. All rights reserved. Reproduction of the whole or any part of the product without the written permission of the right holder is prohibited. Some images in the content are representative and were not generated by COLIMAGE BI.