SOLENIS

RECORDED BENEFITS

- Decreased basis weight by 2%

- Fiber savings potential in excess of $450K annually

- Increased process visibility

Solenis™ Unlocks $450K in Annualized Fiber Savings Using Artificial Intelligence

OPTIX™ Applied Intelligence

Improvement Opportunity

A North American tissue manufacturer needed to optimize basis weight while improving MD strength. The company's basis weight scanner was outdated and unreliable, preventing the manufacturing team from making informed decisions. Additionally, limited process visibility in a reel-to-reel quality measurement environment significantly effects decision-making response time. Without seeing the immediate impact of small process changes on the primary quality parameter, operators lacked the confidence to effectively adjust basis weight.
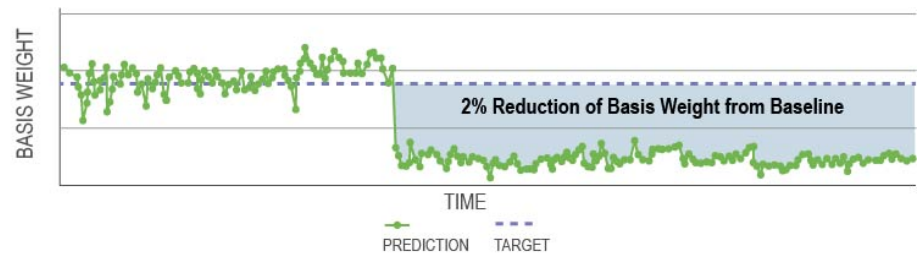
Recommended Solution

Solenis recommended the implementation of OPTIX Applied Intelligence —a machine-learning, predictive analytics platform. OPTIX delivers high-frequency data every 15 to 30 seconds, providing a machine-direction quality profile. Using the machine learning capabilities, OPTIX measurements remain robust and accurate in the face of changing machine conditions. The adaptive predictive model allow for informed, on-the-fly process changes, rapid change detection, and process control optimization without requiring periodic model tuning.

Results Achieved

By utilizing the process visibility afforded by OPTIX, this customer was able to effectively decrease basis weight 2% from baseline while optimizing MD strength. The resulting change in basis weight unlocked $450K in potential annualized fiber savings.

REAL-TIME PREDICTION OF BASIS WEIGHT

2% Reduction of Basis Weight from Baseline

BASIS WEIGHT / TIME

PREDICTION — TARGET

REAL-TIME PREDICTION OF STRENGTH

STRENGTH / TIME

PREDICTION — TARGET