

Success Story

Control Performance Monitor Saves Pulp and Paper Mill \$170,000 Per Year



Challenge

As part of their continuous improvement program, a major pulp and paper company was looking for a way to improve process performance throughout a mill. Historically, maintenance personnel based control loop maintenance on operator complaints. The loops giving the operators the greatest amount of trouble received priority.

Solution

After a vendor review and evaluation, company personnel chose Control Performance Monitor to help reduce process variability by following the 6 Sigma methodology.

Advantage

- Reduced product variability
- Improved targeting of most serious control loop problems
- Reduced maintenance costs
- Increased profitability

Control Performance Monitor is Powered by Matrikon, which represents vendor neutrality. This product works with third-party control systems and applications.

Seeking Opportunities to Improve with 6 Sigma

A major pulp and paper company's mill in Ontario, Canada produces both high quality uncoated paper and market pulp on three machines. The facility produces 279,000 MT of value-added paper and 99,000 MT of market NBSK. The site employs 698 people. A global leader in newsprint and uncoated groundwood papers, the organization chose to implement Control Performance Monitor as part of their continuous improvement program. Control Performance Monitor's 6 Sigma performance analysis tools allowed them to refine controller maintenance and pinpoint opportunities for improvement.

The company was looking for a way to improve process performance throughout the mill. Historically, maintenance personnel based control loop maintenance on operator complaints. The loops giving the operators the greatest amount of trouble were given priority.

Engineering staff recognized there was an opportunity to improve many of the plant processes by applying the 6 Sigma approach. The company saw that they would need to change the methodology and the current work practices relating to poor control-loop performance and maintenance delivered onsite.

The Right Control Health Solution

After a vendor review and evaluation, company personnel chose Control Performance Monitor to help the company reduce process variability by following the 6 Sigma methodology.

Define:

Find the inadequacies in the existing control maintenance programs and identify new methodology and work practices. Target areas with the largest Return on Assets (ROA) potential.

Measure:

Measure or benchmark the current control performance and variability across each process unit. Identify the lost opportunity in each unit from inadequate exploitation of the control infrastructure.

Analyze:

Analyze the data, process and current control configurations, operating philosophies and maintenance practices. Determine the root cause where problems exist.

Improve:

Make necessary performance improvements as identified. Tune or redesign controllers. Maintain valves and sensors. Modify standard operating procedures and maintenance practices.

Control:

Adjust maintenance work practices. Train staff with the tools and methodology. Revisit the program to ensure methodology and work practices are sustained and improved.

Reducing variability in the process allowed operators to:

- push the process closer to constraints that limit the profitability of the plant
- implement tools and work practices to monitor and maintain the process control loop assets across the mill site

This resulted in:

- improved pulp quality
- reduced chemical consumption
- efficient use of maintenance resources

Dramatic Performance Improvement

Initially installed in the mill's bleach plant, Control Performance Monitor is now being rolled out across the site. Management has identified that Control Performance Monitor has helped them save \$170,000 (US) per year in costs associated with variability and maintenance in the bleach plant alone.

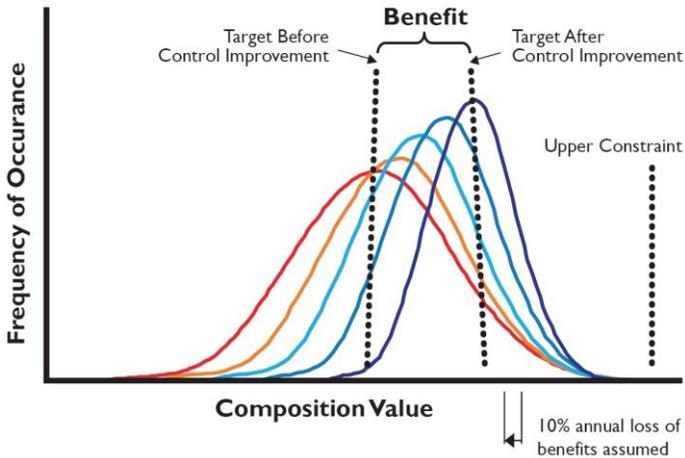


Figure 1: Before and After Control Improvements Comparison

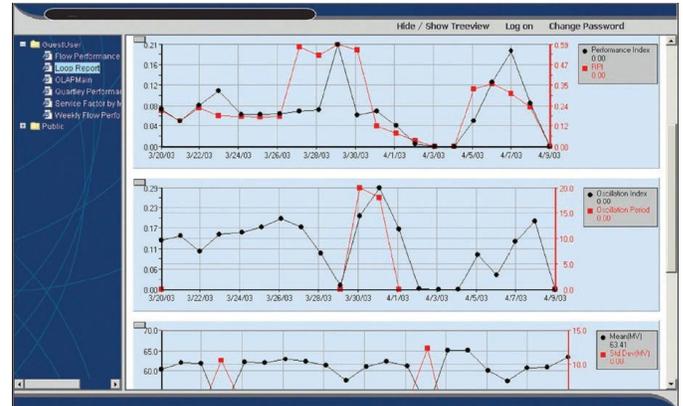


Figure 2: Loop Report

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MATRIKON

'Powered by Matrikon' symbolizes that this product/solution is system and application independent.

For more information:

For more information about Control Performance Monitor, visit our website www.honeywell.com/ps or contact your Honeywell account manager.
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