

Sappi Fine Paper

Real-time resource management improves system reliability and efficiency while delivering brand benefits



sappi

The pulp and paper industry is incredibly competitive —retention and expansion of market share are key to success. Not only is this industry capital-intensive, it also requires the balanced management of multiple resources. Add to that the recent interest customers have in knowing more about where their paper comes from and the business need for rich data is clear. Headquartered in Boston, Massachusetts, Sappi Fine Paper North America is the preeminent producer of coated fine paper in North America — with a production capacity of 1.3 million tons of paper annually and marquee customers ranging from some of the world’s leading fashion magazines to premium catalogs.

The company has long made sustainability a key component of its business strategy, increasing profits by improving operational efficiencies and reducing waste and winning new customers by producing some of the industry’s most environmentally preferable papers.

“I use the PI System every day to make sure that the demands of the mill are met — whether it be electricity, steam, air or water.”

– Todd Anderson, Utilities Operations Manager, Sappi Fine Paper North America, Somerset Mill

Situation

Fluctuating commodity prices, fierce competition for market share and increased scrutiny on forestry management practices have put pressure on pulp and paper companies

to improve environmental performance while increasing profit margins and finding new ways to attract customers. Moreover, because the pulp and paper business is, by its nature, capital-intensive, companies must always be looking for ways to get the most out of their high-investment capital assets.

In addition to facing these operational challenges, Sappi has established itself as a sustainability leader in the pulp and paper industry, a role that has helped the company to win more business, but which also requires it to continually improve its operations and to report on those improvements regularly.

Ensuring that its facilities are not only up and running all of the time, but running efficiently, requires access to data, which is also crucial to Sappi’s ability to continue to share its progress with customers. “Our sustainability program is grounded in facts and science,” said Laura M. Thompson, PhD, director of sustainable development for Sappi North America. “Access to data is really the baseline of all of that information.”

To get that data, Sappi’s Somerset Mill turned to OSIsoft’s PI System™, which enables real-time data collection and analysis across the company’s North American facilities.

Solution

Sappi Fine Paper North America’s Somerset Mill has been using the PI System since 1984. The company currently has 150,000 to 160,000 active PI System tags, the majority of which come from shop floor devices in its mill facilities.

“Operational staff look at this data and make minute-by-minute decisions based on what they’re seeing,” said Thomas E. Bolen, Sappi Global COE Manager for the PI System.

Part of Sappi’s commitment to sustainability includes achieving optimum up-time in its facilities, while reducing the company’s power consumption and overall carbon footprint. By running in the “four 9s”— 99.99% up-time — environment, the PI System has been instrumental in supporting that goal.



Benefits

In addition to supporting Sappi’s day-to-day Somerset Mill operations, access to real-time data through the PI System has delivered measurable cost reductions and improvements to environmental performance.

“When you have these sorts of capital assets in place, you have to get the most out of them in terms of efficiency,” said Thompson. “Access to data helps us understand how we’re using resources.”

Sappi staff in various departments at the Somerset Mill use the PI System daily to be more conscious of environmental impacts and operational costs, and to make real-time decisions that often reduce both. In the case of power consumption, for example, the PI System enables operational staff to determine whether to buy more energy from the grid or to ramp up steam production in its own boiler. Using data from the PI System, Sappi continuously balances the power it generates with the power it purchases which often keeps both costs and emissions low. This not only delivers bottom-line savings, it has also helped the company deliver on its goals to use more renewable energy. Over 80% of Sappi’s total energy usage in North America now comes from renewable sources. Because Sappi North America leads in the use of renewable, their greenhouse gas emissions are the lowest amongst their domestic competitors.

Delivering on its sustainability commitments has also helped Sappi to win new business. “We’ve been told by many customers that we’re winning business because of our sustainability performance,” Thompson said.

Customer Business Challenge

- Shareholders require continuous improvement to profit margins and increased return on capital assets.
- Complex assets make access to operational data difficult to obtain.
- Regulators seek increased environmental monitoring and reporting.

Solution

- Data from the PI System enables real-time decision-making that reduces costs and environmental impacts.
- The PI System gathers real-time and historical data about all equipment.
- Data can be used not only in day-to-day operations, but also in sustainability reports.

Customer Results

- Sappi Somerset optimizes power that it buys from the grid, which has resulted in reduced costs and reduced emissions.
- Sappi IT infrastructure consumes less energy than ever, while remaining online 99.9% of the time.
- Recognition as a sustainability leader has helped Sappi win new business.