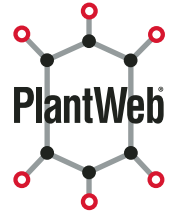


# Fraser Papers Saves Over \$2-million Annually with Emerson Upgrade of Bleach Plant Controls and Instrumentation



## RESULTS

- Operations savings of \$2.2 million Canadian annually
- Increased product production by 15 tons/startup
- Increased mill efficiency by 1.9%
- Bleaching costs reduced by 13%
- Increased efficiency of Solvay chlorine dioxide generator by 2.4%



## APPLICATION

Production of bleached softwood pulp.

## CUSTOMER

Fraser Papers – Edmundston, N.B., Canada.

## CHALLENGE

Fraser Papers wanted advanced controls for existing bleaching, washing, and screening areas of their magnesium bisulphate pulp mill that produces 700+ tpd of fully bleached softwood pulp for use at its fine paper mill in Madawaska, Maine. With advanced control, they wanted to lower startup costs, reduce bleach chemicals consumption, and increase their production capacity.

## SOLUTION

Emerson combined tailored technology and PlantWeb digital plant architecture to deliver advanced control and Asset Optimization. After a full audit of the mill was conducted, pre-engineered turnkey automation systems called CyberBLEACH™ and CyberWASH™ were installed. These solutions are based on the PlantWeb digital plant architecture, including the DeltaV™ digital automation system, for all process areas. The PlantWeb architecture replaced an existing DCS that controlled the bleaching process and chlorine dioxide generator.

The main control strategies involved startup and shutdown sequences, production rate controls, pH and chemical residual controls, delignification degree and brightness development controls, virtual sensor calibration, and pulp tracking.

*Tailored technology and PlantWeb® are combined to meet performance guarantee by achieving 100% of mill's goal.*

For more information:  
[www.EmersonProcess.com/QBR](http://www.EmersonProcess.com/QBR)

The Asset Optimization initiative resulted in replacement of selected control valves, bleach plant sensors, and field instrumentation. Newly installed intelligent Fisher® valves with FIELDVUE® digital valve controllers, Rosemount® transmitters, Micro Motion® Coriolos flowmeters, and Rosemount Analytical devices all perform online diagnostics.

### RESOURCES

#### PlantWeb Digital Plant Architecture

<http://www.EmersonProcess.com/PlantWeb>

***“The \$2.2 million savings and accompanying 1.9 percent mill efficiency increase have exceeded expectations of the project. Pulp production has been running at levels never before thought possible, ClO<sub>2</sub> generator efficiency and stability is much improved, chemical bleaching costs are stabilized, and quality has improved slightly.”***

**Robert Duncan**

Fraser Papers Process Engineering Supervisor

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