



DeltaV Product Information CD

SUCCESS STORIES

Bowater

Bowater turns DeltaV with fieldbus into big savings.

Bowater's Gatineau (Quebec) paper mill recently launched a highly successful kraft pulper automation solution that combines FOUNDATION™ fieldbus architecture with the Fisher-Rosemount PlantWeb™ field-based architecture.



The project marks the first commercial use of FOUNDATION fieldbus in a pulp-and-paper application, and the first time that it has been used in device-based control installation. Parts of the pulping process are controlled by PID control algorithms running in transmitters and digital valve controllers as part of the [web→PlantWeb](#) architecture, the world's first application featuring control running in a field device.

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The [PlantWeb](#) architecture at Gatineau includes Rosemount transmitters, Fisher Controls FIELDVUE® digital valve controllers, and a Fisher-Rosemount DeltaV scalable process automation system, which contains integrated asset management capabilities and conventional input/output for existing transmitters.

Mill Manager Patrice Cayotte says the mill setting brings out the technology's true benefits: "We see the potential to essentially eliminate unscheduled downtime by using Fisher-Rosemount's advanced valve diagnostics in conjunction with fieldbus."

According to David St-Onge, Bowater corporate manager of technology development for process automation, **the installation and startup benefits are impressive.** For example, fieldbus devices log onto the system automatically when they are brought online, while other devices must be logged on manually. This means that one man can accomplish in three hours what three men normally do in an eight-hour shift.

"The integration of DeltaV with fieldbus was so transparent, it was easy," said St-Onge.

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-- Mill Manager Patrice Cayotte

DeltaV cabinet

Bowater also touts the benefits of wiring savings and rapid instrument checkout during installation. "The checkout was lightning-fast, the technology was flawless... we never looked back on it," noted St-Onge. Bowater reported **wiring costs significantly lower** than with traditional architectures, and **control room space savings approaching 85 percent** relative to a standard PLC and I/O system. The mill's preliminary estimates indicate a **90-percent reduction in commissioning time.**

Easy "on the fly" switchover.



"Not only did we accelerate the startup schedule for some tasks," said St-Onge, "but we were able to switch over to the new system 'on the fly' with no interruptions. The DeltaV system is transparent, easy to use, and offers easy loop configuration. It also provides valve actuator and final element diagnostics. This allows us to put a vibration sensor on a valve, for instance, and automatically detect leakage or emissions problems."

Bowater process automation engineer Trung Phung was **impressed by how quickly and easily** the technicians were able to get the fieldbus components installed, commissioned, and on control. "Level, temperature, and pressure transmitters were commissioned and communicating on two different fieldbus segments--including device-based control--in a matter of minutes."

The new Fieldbus **web** → PlantWeb Builder is an integrated suite of products that adds FOUNDATION fieldbus capability to PlantWeb's field-based architecture. The products include measurement and analytical instruments, valves with digital controllers and actuators, and the DeltaV scalable control system. Designed to "take control anywhere," PlantWeb Builder uses a common set of function blocks, enabling control strategies to operate the same way whether they execute in a transmitter, valve controller, or host system. This system, combined with the DeltaV system's drag-and-drop configuration, allows users to design a control strategy and put control functions where they will perform the best. For example, loops requiring rapid response can have control in a field device to help minimize downtime.

Montreal-based Bowater is one of North America's largest suppliers of recycled newsprint, a significant exporter of market pulp, and a major supplier of uncoated freesheet to the Canadian market.

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