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Pratt Industries’ new Collaborative Production Management (CPM) solution delivers clear, easy-to-access production and quality data

BOOSTING PERFORMANCE
WITH CPM

In 2008 Pratt Industries (U.S.A.), Inc., America's sixth largest paper and packaging company, launched a project to upgrade its three mills in the US and implement a comprehensive Collaborative Production Management (CPM) system. ABB was selected to supply the CPM system, as it had previously installed similar systems in six paper mills in Australia belonging to the same group.

CPM solutions make production data and other plant information easily available and present it in an understandable format. Managers gain a much better view of the factors that influence productivity and profitability, and they get easy access to the right information for their day-to-day decision-making and strategic planning. CPM systems include efficient tools to measure, track and optimize processes, and can deliver in-depth insights into the various process flows. They therefore provide the tools needed to maximize the performance of entire production units.

COMPLETE PACKAGE

The solution chosen by Pratt Industries, ABB's cpmPlus for pulp and paper, consists of integrated software modules providing a full range of CPM functionality. The modules can all be used on a stand-alone basis, but the biggest benefits are realized when they are implemented together to form a comprehensive CPM system encompassing order data, production information, process variables, quality data, run-time parameters, etc. This provides a reliable basis for the calculation of true performance metrics and a solid platform for efficient use of sophisticated algorithms developed by ABB to optimize production scheduling, trim and load planning.

The cpmPlus system supplied to Pratt Industries consists of production tracking and quality management functions that are implemented at all three of Pratt Industries' US paper mills, which are located in Shreveport, LA, Conyers, GA, and Staten Island, NY. The system also includes box plant functionality covering 10 box plants in the US. Integration with the company's global business system, centralized sales order entry, invoicing and distribution as well as multi-mill planning functions, which are used in Pratt's head office in Conyers.

EFFICIENT ROLL-OUT
AND COMMISSIONING

Both ABB and Pratt Industries realized that the ambitious scale of the project presented special challenges, and an initial implementation schedule of 18 months was agreed. Implementation of the new CPM system was started at the greenfield mill in Shreve-
port, to ensure that the new mill would benefit from Pratt Industries’ best practices right from the start.

The installation of the CPM system at Shreveport proved immediately successful, giving the project team the confidence to perform an 'on-the-fly' roll-out of the system at the other two mills within an accelerated timeframe. The team was able to roll out the system efficiently with very fast commissioning. In the end the entire project was completed within 12 months, six months ahead of the original schedule.

Matti Viirinen, ABB’s project manager, says that ABB has a strong working relationship with Pratt Industries: “This made it easy to get the buy-in from the end users. The new system is intuitive and easy to use and the roll-out went very smoothly.”

TRUE PARTNERSHIP

The new CPM system provides Pratt Industries with better production and quality data visibility, centrally managed multi-mill planning and optimization, real-time integration of the paper mills and box plants, enhanced shop floor interfaces and modern information technology system architecture.

“Working together in a true partnership has enabled this project to be so successful. The combination of the full scope of supply and the flexibility to match the way Pratt wants to run their business, has greatly accelerated the sustainable return that Pratt Industries has achieved,” states Dennis Fleming, Senior IT Director from Pratt Industries.

STRATEGIC BACKBONE

The overall aim for the new CPM system is to provide Pratt Industries with a strategic backbone, which will globally enable common best practices in operations as well as uniform metrics to measure and report results across the continents. Mills worldwide can cost-efficiently share ideas and initiatives as well as know-how, resources and commonly available training and support over different time zones.

The mills also realize savings by sharing ideas for further enhancing their operations, as well as the related costs. Whatever is designed and developed at one location is immediately available to all the others through the ABB CPM template and efficient roll-out tools. The same modular template structure also enables the mills to benefit from version upgrades provided by ABB to ensure that the systems can be kept up-to-date on a cost-effective basis.

Robust product architecture and extensive functionality ensure that ABB’s CPM solutions can be used in even the most complex production processes. These CPM solutions are currently in use at more than 100 pulp and paper mills worldwide.

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CPTM benefits

An advanced CPM system like CPMPlus can deliver:

- Improved capacity utilization
- Optimized material and energy use
- Minimized production losses
- Reduced inventories
- Optimized product delivery
- Optimized quality
- Optimized energy supply
- Increased transparency
- Reduced customer claims
- Increased OEE (Overall Equipment Effectiveness)
- Improved & flexible reporting.