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Paper-Less: Delivering a Holistic MES Solution

Mike LeRoy, President

In My Opinion: DENNIS HODGES, CIO, INTEVA PRODUCTS



CXO Insights: WILLIAM STEWART, EVP, BOOZ ALLEN HAMILTON





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CMS Montera Inc. Bridging the Gap between Business and Operations

By Supriya Kumaraswamy



he brainchild of Jack Warchalowski and Duncan Patrick, CMS Montera, has a legacy that hails back to late 1990s. Shortly after crossing paths during their days at Ernst & Young, the duo joined hands to conceive a constraints management based consulting firm-CMS Montera. "Monter in French

means 'to climb' or to 'go up," says Warchalowski, President, CMS Montera. "We created this company with the intent of helping organizations grow through productivity and go to the next level of performance by utilizing the principles of system management." Fast forward to the present day, the Cambridge, Canada-based CMS Montera is a towering figure in the manufacturing industry that offers the most befitting solutions in the realms of manufacturing, engineering, and project management. "From top level management to a factory

worker, we believe in direct involvement with our client's teams across all levels," adds Warchalowski.

Productivity is the Key to Success

In an era where the manufacturers are vying to find a distinct place in a highly challenging business environment, being more productive is the only way to be successful. Having extensive experience working with over 250 manufacturers, Warchalowski paints a picture of current manufacturing landscape where there is a need for manufacturers to remain in sync with the current technology trends to increase productivity and gain an edge over competitors. According to him, the organizations too often produce the wrong product at the wrong time and expend their energy in improving the wrong areas. Methodologies such as Material Requirement Planning (MRP), Min-Max Inventory system, and Forecasting often provide wrong signals to manufacturers and make it difficult to synchronize the arrival of raw materials.

Citing the major intricacies that hinder productivity in manufacturing firms, CMS Montera introduced Flow Management System (FMS), which is backed by CMS RoadRunner (R2) software. R2 is based on industry best practices-Theory of Constraints and Lean Thinking principles. It facilitates organizations to gain exceptional return on investment in comparison to any Enterprise Resource Planning (ERP) systems. R2 connects with existing IT infrastructure, providing a new decision making framework that aids in production planning and replenishment of inventory across the supply chain. Additionally, R2 software engenders continuous improvement and assists in maintaining a performance scorecard to evaluate progress. "This can be implemented within six months in many manufacturing plants," affirms Warchalowski.

Changing Face of Manufacturing

Gone are the days when the activities of the plant floor were limited to the plant floor. This is an era of centralized systems where the manufacturers have the ability to get a ring side view of the shop floor and purchasing activities. At this juncture, Manufacturing Execution System (MES) software underpins the organizations to seamlessly manage their manufacturing informationresource allocation, manufacturing planning, supply chain information, and quality inspection numbers-as a single and self-contained system. Extending the innovation arm to assist manufacturers get accustomed to the latest industry trends, CMS Montera leverages MES to construct a sturdy bridge between the business and manufacturing operations-ultimately resulting in higher productivity. CMS Montera's R2 supports Demand Driven Replenishment (DDR) and Flow Issue Reporting (FIR) processes. "DDR and FIR are the proven methodologies that manufacturers can embrace to significantly improve their competitive position," asserts Warchalowski.

To eradicate the major issues that prevent manufacturers from achieving the next level of productivity, CMS Montera's R2 software, supports FIR Methodology (FIR). "Flow Issue Reporting is a



simple yet powerful approach for continuous improvement," says Warchalowski. With this approach, shop floor supervisors and operators record the reasons behind the delay of a work order as it flows across the entire manufacturing process, which are then portrayed in a Pareto Diagram. "The management reviews the Pareto Diagrams weekly and prioritizes continuous improvement efforts," explains Warchalowski.

R2 also supports DDR which links the replenishment of material, purchased parts, manufactured components and finished goods, directly to their actual consumption. "It establishes strategically located inventory buffers that dynamically adjust their targets according to actual consumption," describes Warchalowski. The traditional MRP system used by manufacturers should be replaced with DDR for the purchase of raw materials and production of finished goods. Strategically established inventory buffers enable purchasing and production to consumption and make a shift toward a combined maketo-order and make-to-consumption methodologies.

"Among 90 percent of manufacturers that we have worked with, the DDR approach has resulted in approximately 25 to 50 percent less total inventory while simultaneously increased product availability. In addition, it dramatically reduces manufacturing lead time while significantly improves on-time delivery," says Warchalowski, shedding light on the effectiveness of DDR.

A Collaborative Approach

The manufacturing industry has witnessed a myriad of corporate success stories all of which have one aspect in common—teamwork. Similarly, according to Warchalowski, CMS Montera follows a "Toyota



Style" of management. "We have a team approach to everything," he says. The company maintains close coordination and cooperation between solution implementation and software development teams. For many years, CMS Montera has been assisting its customers to enhance productivity. The company's success saga is not just limited to its own victory; but on the contrary, it paves the way for its customers to unleash their capabilities and achieve the next level of performance. To illustrate one of CMS Montera's customer success stories, a mid-sized industrial manufacturer of copper tubing, Great Lakes Copper, approached CMS Montera to increase their plant efficiency. Initially, the customer found it difficult to manufacture commodity products with extremely volatile raw material price. CMS Montera suggested that they implement the CMS RoadRunner backed DDR and FIR. After the implementation of R2, Great Lakes Copper increased plant capacity by 50 percent, while creating an efficient continuous improvement process based on FIR.

Prepping Up for the Future

Having built a robust foundation in manufacturing industry, CMS Montera intends to focus on FMS methodology and R2 capability on highly variable and complex environments. "We are also going to enhance Critical Chain Project Management implementation methodology and its R2 module to facilitate more research and development, engineering, and project management applications," concludes Warchalowski. Dedicated to developing robust strategies that efficiently address future challenges, CMS Montera continues to innovate and cater to the manufacturing industry with its profound expertise and unparallel technology.



Top 10 Manufacturing Execution System Providers

anufacturing Execution Systems (MES) are gaining increased interest among a majority of manufacturing companies for the benefits of data interpretation and process updating. With timely, detailed information to run day-to-day operations, MES enables customers to reduce costs and increase return on investment in a short span of time. Today, companies consider MES as an integral part of their quality manufacturing strategy.

However, to have a greater business value in this highly competitive manufacturing landscape, solution providers in the MES space have to focus on delivering comprehensive control and situational awareness to not just to work on ground zero, but also at the top management level. While several companies are looking forward to disrupt this landscape with innovative solutions, the variety of solutions in the market and its use case has made choosing the right solution, a difficult task to accomplish.

In order to simplify and assist CIOs identify the right MES solutions, Manufacturing Tech Insights presents "Top 10 Manufacturing Execution System Providers." A distinguished panel comprising of CEO, CIOs, VCs, analysts and Manufacturing Tech Insights editorial board have selected the top MES solution providers. In our selection process, we looked at the vendor's capability to fulfill the needs for cost effective and flexible solutions that add value to the MES landscape.



Company:	Description:
CMS Monetra Inc.	Provider of management solutions and software to accelerate projects and optimize operations for clients in manufacturing, engineering and project management. Delivers growth through improved productivity, visibility, and synchronization
Key Person: Jack Warchalowski, President Duncan Patrick,	Website: www.cmsmontera.com

EVP