

We created the Inside Industry feature to give industry leaders, suppliers, and industry experts an opportunity to talk about what they are doing to meet the challenges of manufacturers. This insider's view will appear regularly in upcoming issues of *Advanced Manufacturing*.

# Real-time efficiency is a vital tool

## Business process management helps tighten the ship

By Thomas R. Cutler

**M**any difficulties in business process management relate to “off-system” manual tasks, such as notification, investigation, authorization, and follow up. The ability to automate business process through the use of workflow templates make it easier to control and administer stated processes through the necessary steps.

A flow or process may have been documented outside of an Enterprise Resource Planning (ERP) system, where there is no formal way to ensure compliance. In the past, paper documents and unmanaged email have provided the best solutions, but with no controls to ensure visibility and compliance, the value was limited. According to Stephen Carson, executive vice-president of Visibility Corporation, “The .NET workflow system enforces the process. This allows companies to improve and standardize daily functions across the company without burdensome manual administration. This provides employees visibility into the status of ‘in-process’ tasks, making it easier for them to execute their tasks effectively.”

In a “make-to-stock” environment, business processes can remain stable and unchanged for many years, or until a new product line is developed. In a “to-order” environment business processes are significantly influenced by the nature of the order or contract being executed. Not only can each order or contract involve different type of process, but the value of contracts can have a significant influence.

Automating business processes streamlines business operations thus minimizing overhead costs and forcing disciplines based on best practices. Together this helps preserve the integrity of the business data and ensures the users of the ERP system adhere to the process that are set by the business. Process compliance assures the best value for the business efforts, helps to contain costs and maintain the value of corporate data. Carson notes, “Process flow mapping and tracking of business events guarantees that employees are automatically notified when important events occur, or when a transaction requires input. This ensures that cycle times of critical and complex business process are optimized.”

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### REAL-TIME SHOP FLOOR DATA

Benlan is a medical device manufacturer specializing in disposable plastic products for the healthcare markets in Canada and the United States. The company operates a 100,000 square foot manufacturing facility in Oakville, Ont. and manufactures molded and extruded medical components. To accommodate growth, the company examined unknown machine capacity which hindered planning. The technology Benlan implemented in 2005 to assist them in gathering information on the efficiency of one of their form-fill-seal packaging machines was Plantnode by Shoplogix, a Canadian-based plant floor technology provider. Ac-

ording to Tom Enns, President of Benlan, “We needed a way to understand the capacity of our packaging equipment, particularly since new equipment has a lead time of six to eight months. We were getting good intelligence about how many of each type of product we can put through this machine in a given timeframe.”

### MINING SHOP FLOOR DATA

To ensure the integrity and accuracy of machine shop floor information, an intelligent embedded application integrates with existing production equipment on the plant floor. These technologies provide manufacturers the ability to perform multiple activities such as data capture and measurement, performance analysis, machine alerts and reporting on a machine-by-machine, job-by-job, plant-by-plant or multi-plant basis. Systems such as Plantnode have proven effective in improving Overall Equipment Effectiveness (OEE), predictive and preventive maintenance, and quality initiatives across all industries.

Benlan experienced reduced machine downtime which led to increased production throughput. Packaging equipment uses materials such as film, which must be regularly replenished, resulting in recurring machine downtime. Prior to implementing the new technology, the equipment could idle for 10 or 15 minutes each replenishment period waiting for a mechanic to be located to perform the replenishment. Now, with the automated alerting function, mechanics are notified by email or on their PDA when the machine is reaching near depletion of packaging materials. This reduced replenishment downtime — helping to increase production through this machine by between 20 per cent and 25 per cent.

### REDUCING COST OF GOODS SOLD

Discrete part manufacturing companies are experiencing a demanding and difficult combination of price pressure from customers, rising costs both internally and from vendors, international competition, and income growth pressure from investors. Cost of goods sold (COGS) has become an increasingly important metric as the largest expense item on the income statement; typically 70 to 90 per cent of revenue.

Frank Azzolino, President and CEO of aPriori says this forces companies to focus on tightening product cost and profit margins. “Manufacturers are forced to operate under net margins of only a few per cent. A one per cent decrease in COGS can equate to a 16-30 per cent increase in net income in many discrete manufacturing companies.”

This unique cost management platform empowers manufacturers to lower cost-of-goods sold provides real-time visibility to “cost-critical” decision information, and builds critical cost knowledge to go on the business “offensive.” ■■

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