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New Systems Enable Synchronization Between Procurement and Material Planning

In most large companies, the purchasing and material planning functions are done by completely separate organizations, reporting to different executives and using different metrics to measure performance. The process that links the two functions is sequential, moving in a one-way line from silo to silo. The process is like preparing a package, tossing it over the wall and never hearing anything more about it. What's needed to meet the demands of a global supply chain is a more collaborative approach.

i2 Collaborative Material Management is a solution that manages both procurement and material planning, merging the two organizations and their roles. In this collaborative scenario, individuals involved in the process are aware of all the other steps along the way, and can adjust their expectations based on real-time information about the changing geography ahead.

What makes collaboration necessary? Variability of supply. Today, when outsourcing global sourcing and global fulfillment are common in any large business, the supply chain is subject to many more vagaries and challenges than in previous years. When a change occurs in the supply chain, managers need to know about it immediately. They have to know how these changes will impact the whole supply chain and what alternative sources of supply they have available. How quickly they can respond to changes makes the difference between being competitive and being left behind.

Tying in supply and demand

Material managers need to have a clear window into every aspect of how both supply and demand may change, so they can make a determination on the fly when a problem develops. Expedite? Be late? Find another source? Or are there other alternatives? A fixed plan based on historical forecasts isn't flexible enough to respond quickly to change. Managers need constant and immediate feedback, showing them where changes are occurring and what parts of the supply chain will be affected. What product is this a component of? Which customer does it affect? Without visibility into every aspect of the supply chain, the answers to these questions come late, if they come at all. The result is significant cost and a perceived lack of responsiveness.

Collaborative Material Management applies "what-if" analyses to the practical consequences of any supply change: projected stock-outs, material shortages

or late orders, for example. Knowing what the alternative scenarios might be, and knowing how the customers would be affected by each, make possible a more agile response to inevitable change.

How the technology works

The technology behind Collaborative Material Management combines current planning applications with the i2 Agile Business Process Platform, so that different generations of technology can function together in a synchronous workflow. The solution is designed to work with multiple procurement systems, such as enterprise resource planning or e-procurement systems, and with different kinds of systems from different vendors.

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Collaborative Material Management takes the data from these potentially diverse sources and automatically processes and converts them to requisitions and purchase orders. Changes in forecasting can be reflected quickly in the actual workflow. This is a continuous process. Although some companies update their forecasts on a weekly basis, others may do it every couple of hours. With visibility and constant feedback, changes percolate upstream, where they alter supply and demand planning. All of the information needed to make these changes is provided. The level of automation is configurable, depending on a company's business-process maturity.

Suppliers communicate through a supplier collaboration interface. A lightweight planning engine allows for scenario planning and fast incremental planning in order to respond to changes. In this way, the platform solution constructs a continually updated global view of the whole supply chain, and also the specific routes through the system that individual products take. Collaborative Material Management correlates demand with the supply of each component and sub-component, and shows managers which customer orders will be affected by a particular change, and what the effect will be. This is most useful to companies that have a broad supply base and see variability in that base as a significant risk.

Collaborative Material Management is part of the i2 Collaborative Supply Execution suite.