

Switching to Pull-Based Inventory Optimization in Complex Manufacturing Environments

You've completed the process of finding the right flavor of **Pull** for your plant. The pilot program was a success but you know that you'll need to scale to additional products and/or to additional sites, perhaps even to include raw materials suppliers or finished goods at your customers. You realize that the process will soon outgrow spreadsheets and now have to undertake the process of finding a more scalable and sustainable alternative.



It's a vitamin for your ERP system.

Having the right tools and technology in place can make a Lean program so much easier to implement and sustain. Most enterprise resource planning (ERP) systems use push inventory control, but with add-on software, these systems can be adapted to support a Pull-based system. Think of these types of software as vitamins for your ERP and manufacturing execution systems (MES).

Tips for Evaluating Pull-Based Replenishment Software

- 1 Ability to optimize inventory levels for pull**
ERP systems lack the ability to optimize inventory levels for pull, particularly in manufacturing environments with significant

forecast error or process variability.

Sustaining pull requires easy-to-use tools to setting optimal inventory levels, lot sizes, and re-order quantities that can then be fed back to the ERP system.

2 Ability to perform “what-if analysis” to support continuous improvement

Pull supports a culture of continuous improvement. With pull, your organization will have clear visibility of inventory levels and customer needs, and will look for ways to improve processes to drive quicker inventory turns and better customer service. Pull-based Replenishment Software must allow “what-if analysis” so people can evaluate which potential improvement projects will yield the biggest bang for the buck, be it lean initiatives like change-over reductions, or supply chain management practices like improved forecast accuracy. This capability will also allow you to generate scenarios for ongoing improvement. It's like practicing trial and error, without the error.

3 Integration with ERP and MES systems

If your company already has an ERP or MES system in place, look for Pull-Based

Replenishment Software that leverages these investments. Add-on software should be able to take data you already have an ERP/MES to perform inventory optimization and what-if analyses. Ideally, an application provider would have already implemented integration between their application and the ERP and MES systems running today in your company.

4 Reporting abilities that will help monitor progress, identify exceptions, and manage results.

Continuous improvement requires turning data into actionable information. The ability to continually monitor current production and orders enables managers to address problems as they occur. In a complex manufacturing environment, this is often difficult to implement. Be sure the tools you select are supported and easy to use by all team members, from managers to shop floor personnel.

About the MachSix On-Demand Software Suite

The MachSix software suite from Invistics adds **pull-based replenishment** capabilities to more than 250 ERP/MES systems. It provides planners with all the tools they need to analyze and optimize inventory levels, and provides the entire organization with a real-time view into what's happening on the plant floor and across the supply chain. With just five minutes of training, employees can gain insights into inventory levels – segmenting by business unit, product line, region, or plant. Imagine being able to address potential problems in real-time instead of at the weekly department meeting.



Based on Lean manufacturing principles and key Six Sigma components, MachSix has been successfully integrated with all leading ERP systems such as SAP, Oracle, JD Edwards, Mapics, Prism, Epicor, Infor ERP BPCS, and Baan. The MachSix suite can be deployed on-premise -- or accessed as a hosted solution to delivering results within weeks. Companies using MachSix have achieved dramatic, sustained results including over 99% on-time deliveries, an average reduction of 50% in inventory, and cutting cycle times by more than half.

About Invistics

Invistics provides consulting services and supporting software solutions that enable high mix manufacturers to achieve the right inventory levels for their supply chain through advanced analytics and actionable insights. Based on Six Sigma and lean principles, Invistics solutions help manufacturing executives improve profitability by reducing cycle times and costs, while increasing throughput and customer satisfaction.

For more information, please visit www.invistics.com or call 800-601-3456.

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