



Five Strategies for Lowering Inventory Costs

Proven Solutions for Discrete Manufacturers

The manufacturing world is changing as the lines between supplier, manufacturer and customer are blurring. Companies are outsourcing all or part of the manufacturing process at an unprecedented rate. Suppliers are taking more responsibility for their customers' bottom line by ensuring that raw materials arrive at the factory just as they're needed. And customers can now place orders electronically — speeding up order-taking and delivery expectations.

As a manufacturer, you need the right technology tools to help your company stay ahead of the competition. Your business demands a manufacturing system tightly integrated to financials — from job costing to materials handling to customer service. Equally important, your company-wide system must be easy-to-use and cost-effective to maintain.

Yet, if you're like many small or mid-sized companies today, you may be running two, three or more separate systems that can't share information. The end result is you have a difficult time assessing and controlling costs for labor, overhead and inventory.

That's why we developed this guide. Based on our work with many successful manufacturing companies like yours, we show you which factors directly and indirectly affect inventory costs and how you can control them. We've also included an example from one manufacturer who managed to turn some daunting challenges into exciting opportunities for improvement and growth.

Regardless of whether you're a small business with fewer than 100 employees or an established mid-sized firm with hundreds or thousands of employees, we're confident you'll find an idea or two that will help you better manage and control inventory costs.

1 Use Integrated Manufacturing and Financial Software

In a well-managed company, an integrated purchasing, inventory control and accounting system ensures the booked values for inventories on the balance sheet are in agreement with the actual physical inventories. An integrated system also allows you to project short and long-term cash requirements to support ongoing procurement activities and improve cash flow management. Integrated manufacturing and financial systems also enable you to assess statistical control factors such as internal carrying costs on inventories, internal rate of return on outbound cash flows to vendors, and the potential cost/revenue impacts from a stock outage.

Integrated software helps you stay competitive in terms of pricing and delivery schedules, while it gives your employees fast and easy access to timely, accurate information. Whether it's your front line customer service reps taking orders or your inventory control manager on the shop floor, each person needs up-to-the-minute information from across the business in order to do their jobs effectively and efficiently.

Yet many companies still maintain two separate systems that can't "talk" to each other — and in the process create data "silos" or disparate islands of information. The problem with these disparate systems is they cause costly inefficiencies and make it impossible to get a complete view of your business.

For example, one of the biggest problems businesses face today involves time lost while searching for information that should be readily accessible. Customer service representatives need easy access to a customer's history at the time of the order, including credit and sales history and other pertinent information. If your systems aren't integrated, this critical information often isn't immediately available, so your employees don't know when a customer is behind on payments or can't identify your "best" customers who may have specialized needs.

Another consequence of non-integrated software is the constant need to re-key data from one stand-alone system to another. This manual re-entry process costs valuable employee time, is error-prone and delays important reporting. And if you're building reports from scratch each month or are using multiple spreadsheets to track departmental costs or other information, your data isn't up-to-date, accurate or easily accessible.

If these are the problems you face, consider upgrading to an integrated system. Today's business software features integrated financial and manufacturing modules that easily share information with each other — giving you improved productivity, detailed reports and easy access to critical data. With integrated software you'll be able to:

- ▶ Significantly reduce time on report generation — from days and hours to minutes and seconds.
- ▶ Eliminate duplicate data entry and reduce reporting errors.
- ▶ Easily share information across your organization and empower your employees to make critical decisions.
- ▶ Improve customer service levels and productivity.
- ▶ Control spiraling costs.
- ▶ See the "big picture" via detailed reports.

Manufacturer gains cost control, saves production time.

The Cloverdale Company manufactures the popular Band-It line of wood veneer and edging. Made from domestic and imported wood, the furniture-grade veneer is available unfinished or pre-finished in a wide range of sizes. This requires a 10-step production process which was tracked manually. The company also couldn't get a handle on costs because its older manufacturing system wasn't flexible enough to track inventory with the level of detail Cloverdale needed.

To speed production and improve cost control, Cloverdale decided to upgrade to an integrated manufacturing and accounting solution. Seeking a manufacturing program flexible enough to allow them to track each process step-by-step, Cloverdale turned to Microsoft Business Solutions.

The new system gives the company a much better understanding of its costs. The previous manufacturing system only recorded material usage at the end of the production process. Cloverdale needed information at every step because costs can vary considerably at each stage. For example, a malfunctioning machine might be wasting material or a lot of dry wood might cause above-average breakage, leading to more wood use. Because information could be entered only at the end of the process, managers had no idea what their true costs were. And since the manufacturing software wasn't integrated with accounting, these costs had to be entered manually into the financial system.

Do you know how much it costs to purchase material and then to physically store it? Are you able to accurately track stock outage costs such as expedited shipping, down time and lost opportunities? Does your current software track incoming materials for quality assurance (QA)? Do you know exactly how these costs affect your bottom line?

Many specialized manufacturing systems tend to focus more on the operational issues involved in *making a product*, than on the financial and cost issues involved in *making a profit*. Such systems often make it difficult to track, analyze or control inventory-related costs. The end result is you don't know your true cost of inventory and how it affects production, cash flow and other related factors.

A robust manufacturing software solution tied to your financials can help you track and lower these five cost centers:

Purchasing-related costs – These represent costs associated with acquiring goods from suppliers, such as materials costs and transportation or freight expenses.

Ordering-related costs – These include the costs of preparing, issuing and paying purchase orders, plus receiving and inspection. Purchase approval and special processing costs are also related to the number of purchase orders processed.

Carrying-related costs – These are the costs associated with holding inventories of goods for sale, including storage, insurance, obsolescence, spoilage, and the opportunity cost of the investment tied up in inventory.

Stock outage-related costs – These costs occur when an organization runs out of an item for which there is a customer demand. When a stock outage for a demand item occurs, a business typically undergoes considerable increased labor and machine costs, expedited re-ordering and shipping costs — which can be easily tracked. But many companies do not — or cannot — track the lost opportunity costs associated with stock outages such as lost revenue on sales and the potential loss of future sales from that customer.

Quality-related costs – Costs involving quality issues relate to the failure of a product or service to conform to a set standard. This QA overhead item usually covers four cost areas: establishing QA standards; failure prevention (typically within QA process); internal failures (during assembly); and external failures (after shipment to customer). Inventory shrinkage, scrap factors and yield all play important roles in this process as do return merchandise authorizations (RMAs) and engineering change orders (ECOs).

If you are considering upgrading your systems, look for a solution that supports robust tracking and sophisticated reporting for all five cost centers, that streamlines data entry, and allows sales and planning forecasting for improved inventory management and reduced costs.

3 Use Software That Allows Automatic "Backflushing"

If you produce low cost items, have vendor-managed inventory or a kanban process, investing in software that allows "backflushing" is key. Rather than entering a work or manufacturing order at the start of the manufacturing process, an application that allows backflushing lets you enter what you produced upon completion of the manufacturing process. The software will then automatically backflush all the resources that went into producing the order, including labor and machine time, effectively reducing tedious data collection and data entry.

4 Uncover Hidden Materials Costs

Another major component of high inventory costs are those hidden within the manufacturing process itself. These include production inefficiencies such as excess material use, and quality control issues such as breakage, non-conformity and spoilage.

One proven method for eliminating these hidden costs is to create manufacturing orders for each production step whereby resources and costs for labor, machines and materials are calculated immediately when the order is entered into the system. This information can then be compared to the actual resources used at each step — alerting you to increased material usage due to breakage or employee error, inefficiencies in the production process itself, or malfunctioning machines.

When choosing a manufacturing application, look for the following capabilities:

- ▶ Flexibility to customize the software to fit your production processes – whether it's make-to-stock, make-to-order, configure-to-order, or a hybrid environment.
- ▶ Automatic variance analysis per job – receive instant notification of increased material usage or other cost contributors.
- ▶ Customized breakdown of machine and labor costs – track usage hours for similar machines or the difference between setting up a machine and running it.
- ▶ Streamlined data entry – reduce manual entry and inaccuracies.

Faster Production

An unexpected benefit of upgrading their software is that Cloverdale cut production time from five to two days. Today, when a sales order comes in and is entered into the system, software automatically generates the manufacturing orders and those orders move through the production process faster.

"We can now get the manufacturing orders out on the same day we get a sales order," explains Lisa Carter, Cloverdale's inventory control manager.

"PCs loaded with the software have been set up on the shop floor. When a task is complete, someone there clicks the 'Done' button and the job is able to move to the next stage without delay."

Before, workers had to walk the paperwork back to a manager, who then sent the order back to the shop so the job could proceed to the next step.

Cloverdale managers now easily track costs at each production step and know immediately if material usage deviates from normal. The system not only flags problems at individual steps, it automatically shows the cost of each completed order.

"In the past we had just the average cost for multiple orders," says Carter.

"Now if the cost goes way up on a particular run, we know it."

Also, now that data no longer must be manually re-entered for accounting, Cloverdale has reduced month-end closing time from three or four days to just one day.

Choose a financial software solution that grows with you.

To gain a competitive edge and make strategic decisions, you need comprehensive financial management and reporting that only integrated software can give you. Yet, if you're a growing company on a tight budget, purchasing an enterprise management system that includes core financials, manufacturing, inventory, distribution, customer relationship management (CRM) and other tools can be expensive and overwhelming.

One way to manage this task is to choose a modular solution, one that allows a growing company to phase in the purchasing and implementation process, based on their changing needs and budget. As business grows or departments ramp up, new modules are easily added. And because screens and functions are similar throughout the modules, you save considerable time and money on training expenses.

When purchasing a solution for your manufacturing business, look for software that is multi-functional, offering modules that integrate with applications you're already using, including CRM and office productivity tools.

Using the Internet, your own secure server and a Web browser, Web-based purchase order requisitioning allows you to specify materials required, quantities, purchase price and other transaction elements. This request is then routed through assigned review channels to generate electronic approvals for the proposed procurement. Once fully approved, the requisition can automatically be converted to a purchase order.

For firms with regulatory and/or other process controls in place, this functionality is especially important as it eliminates errors common to manual or paper-based entry systems, provides accurate reporting information, and gives employees throughout the company instant access to information, such as Approved Vendor Lists. With Web-based requisitioning and reporting, your employees, customers and suppliers become "interconnected" and can easily do the following:

- ▶ "Click and view" reports on-screen anytime, anywhere.
- ▶ Share and access information for up-to-the-minute status reports.
- ▶ View comprehensive customer and/or supplier information in a secure, easy-to-use environment.

How do you know if it's time to upgrade or replace your current financial and manufacturing systems?

Ask yourself these questions:

Are you spending more time on daily tasks because your software isn't integrated?

- Are you manually entering information from one system to another?
- Do you experience frequent errors because you have to re-key information — again and again?
- Do you find it difficult to recognize errors and then spend too much time fixing them?
- Do you have instant or easy access to information you need to make business decisions?

Do you know the real cost of inventory?

- Can you accurately assess the costs for material purchasing and ordering?
- Do you know how much it really costs to run your business?
- Can your current system give reporting details for costs associated with quality assurance, storage and lost opportunities?
- Are you able to find and eliminate “hidden” costs within your manufacturing processes?

Is your current system flexible?

- Are you able to “backflush” inventory items?
- Does your system analyze costs only at the end of projects?
- Are you able to compare estimated versus actual costs for labor, materials and machine time?
- Are you able to customize your system to fit your unique production process?
- Can you determine how much material is used at each step on the production line?
- Can you measure the efficiency of your machines?

What is the true cost of the inability to easily share information across your entire enterprise?

- Do your managers wait hours or even days for information they need for critical business decisions?
- Can your suppliers and customers easily access status reports and other vital information?
- Can your employees call up a customer or supplier's complete history in just a few keystrokes, or is customer and supplier data spread over a number of applications that can't “talk” to each other?

Do you really know how much it costs to do business with your current system?

- Do you have high training costs because your applications are difficult to learn and use?
- How much does it cost to share information with remote suppliers and employees?
- How does the inability to make timely decisions affect profitability?

Discover a Winning Solution for Your Business

Business management systems from Microsoft Business Solutions can help you integrate all your information — from inventory and production to sales forecasting and reporting.

All our software products come packed with tools to help improve decision-making, eliminate time-consuming reporting processes and allow access anytime to information across your entire organization.

Consider the Safe Choice

You can rely on Microsoft Business Solutions to provide the foundation and resources to support your company's important goals. With more than 250,000 customers worldwide, Microsoft Business Solutions is a proven performer in many manufacturing companies.

No matter the size of your organization, Microsoft Business Solutions has a solution that is right for you. Depending on your needs, we offer a range of systems from single-user to multi-user and large client/server solutions. You can select from dozens of integrated modules to meet the diverse needs of your business such as manufacturing operations, distribution, human resources, payroll, project management, sales forecasting, Web-based reporting, CRM and more.

Backed by the finest support services in the industry, our products are based on industry-standard Microsoft technology and are fully compatible with familiar Microsoft productivity tools such as Microsoft Office. Easy-to-use and fully customizable, Microsoft Business Solutions products deliver superior integration capabilities with other systems to help you achieve a truly interconnected experience.

**Call toll-free
for more information:
888-477-7989
[www.microsoft.com/
BusinessSolutions](http://www.microsoft.com/BusinessSolutions)**

© 2002 Microsoft Corporation.
All rights reserved.

Microsoft and Great Plains are either registered trademarks or trademarks of Microsoft Corporation or Great Plains in the United States and/or other countries. Great Plains software, Inc. is a wholly owned subsidiary of Microsoft Corporation.

All features/functions mentioned within are subject to change. The document is for informational purposes only. Microsoft Great Plains Business Solutions, Inc. makes no warranties, expressed or implied, in this document.