



**Business  
Automation  
Specialists**  
of Minnesota, Inc.



A Guide to Investing in an  
Inventory Control Solution

# A Guide to Investing in an Inventory Control Solution

Any business, regardless of their industry, has the need to manage their inventory on some level. Manual entry of inventory transactions can limit your ability to achieve the rewards of tighter Inventory Control. Adding barcode data capture can dramatically increase efficiency, yet many businesses mistakenly believe that this is outside their resources and ability. One reason owners and managers believe this is that Inventory Control Solutions are frequently confused with Warehouse Management Systems.

An Inventory Control Solution automates the manual processes associated with picking Sales Orders, receiving Purchase Orders and processing inventory counts and adjustments. Warehouse Management Systems go beyond automating accounting to manage picks, put-away, inventory slotting and many other aspects of warehousing. These elements can quickly add significant implementation costs and changes in the business. While these changes can be good, an Inventory Control Solution's objective is to simplify and automate your accounting processes.

This white paper will help you identify the areas in which you can save time and reduce costs regardless of industry size or type, as well as provide specific information on what to consider when selecting an Inventory Control Solution.

## Inventory Control is not Limited to Large Distribution Enterprises

Maintaining accurate inventory levels affects several areas of an organization. In addition to improving operations in the warehouse, stock levels can affect purchasing, restocking, sales, and more.

Perhaps you are struggling with the trade-off between tighter Inventory Control and the effort required to stay up-to-date with the entry of these transactions. Perhaps you don't consider the industry in which you conduct business as "traditional", or as having "real" Inventory Control requirements.

If you haven't previously considered yourself a candidate for Inventory Control using barcode technology, then continue reading. It is more important than ever to gain accurate Inventory Control in order to stay competitive

and support business growth. You don't need to spend a fortune to get there. Take a few minutes to consider the option that will deliver a cost-efficient and scalable solution that will keep you competitive as your business grows.

## Managing Inventory the Hard Way

Businesses evolve over time... Your company may have started out with a single desktop computer and a couple of spreadsheets to keep track of day-to-day operations. As the company grew, so did the need for office space, multiple phone lines, and a server to support business software. During this growth you may not have realized the point in which you outgrew your current systems and procedures, and became accustomed to inaccuracies.

Do any of these scenarios sound familiar?

- You record transactions on paper and enter them into the computer later... *(Learning to cope with the delay and the occasional re-keying errors.)*
- You rely on staff that "just knows" where the inventory is because they have been with the company for a long time... *(And you live in fear of that key person leaving.)*
- You "manage" inventory on white boards, clipboards, notebook paper or Post-it notes... *(And you never really know if your numbers are accurate.)*
- You retype your inventory activity records into Excel spreadsheets or Access databases... *(And you have a hard time reconciling them with your accounting balance sheet.)*
- You ship the wrong goods to customers... *(Incurring additional costs fixing the mistake, resending the correct item and decreasing customer service levels... not to mention the labor costs involved in each of these.)*

If your inventory is processed manually it is highly likely that you are paying for large amounts of wasted time, as well as incurring unnecessary errors within your system. Furthermore, a manual process can also be detrimental in other ways. For example:

- You can't rely on the numbers within your system due to delays in entering inventory receipts, movements or shipments.

- Your frustration is growing as you encounter the unavoidable data entry errors.
- You have stacks of reconciliation issues to resolve.
- You struggle to gain staff accountability for the inventory accuracy.
- You've delayed projects, jobs, or shipments because of unexpected inventory unavailability.
- You are forced to tolerate higher shipping costs to get new inventory in a hurry.
- Although you occasionally get lucky and find inventory that you wrote-off the year before, now you can't use it without creating *another* inventory problem.
- You spend hours troubleshooting payables because receipts are recorded incorrectly or, perhaps not at all.
- You ship the wrong item to a customer because you have no workable validation process.
- You have delays in invoicing your customers because you can't keep up with the paperwork.
- You are losing customers because of their frustration with missed and wrong shipments.

If those sound all too familiar – it might be time to consider an Inventory Control Solution to help you improve your operation and get back on track.

### Using the Right Measurement

Many people think that they don't have a significant problem with inventory adjustments because they use the wrong measure. Financial measures on the Balance Sheet do not tell you if you have a problem. For example, your controller may say, "Our Inventory Control is very accurate; we have less than 1/2% inventory adjustments at year end."

Consider this example: You send a Sales Order for WIDGETA to the warehouse for picking. WIDGETA and WIDGETB are next to each other. Both have the same cost. The "new guy" picks WIDGETB by mistake. Only one error, right? Of course not, two errors have occurred. Both WIDGETA and WIDGETB have the wrong count in your accounting system. Using the traditional

Balance Sheet measurement doesn't show a problem. An inventory count will not affect the Balance Sheet. Subtracting one WIDGETB and adding one WIDGETA nets to zero. Yet, you have two items that were wrong in your accounting.

We suggest using measurements that track inventory adjustments, inventory count variances, inventory issues or inventory receipts. These quantity based transactions can provide real information regarding the state of your warehouse.

### The Benefits of Inventory Control

The first step to improved Inventory Control is the implementation and use of bar codes. This allows you to ensure that the correct information is recorded, preventing mistakes in shipping and data entry.

According to one study (Auburn University, 1998, long before the advances of the last few years): "barcode users report \$16,000 more (or 11 percent better) in sales per employee over non-users, fewer rejection and rework, and about 10% better return on investment. Additional comparisons reveal that barcode users report significant decreases in manufacturing costs and cycle time. Thus, on five vastly different measures, barcode users are reporting superior performance over nonusers. This should be taken as rather strong evidence that barcode users are indeed reaping benefits from the use of this technology." <sup>1</sup>

### Real-Time Data Availability

Operating in real-time provides for the most accurate and up-to-the-minute information. When scanning bar codes for each transaction, your Inventory Control Solution should verify that the information is correct and posts the transaction immediately.

Beware of Inventory Control Solutions that offer a "batch" style solution. In many of these systems, the transaction data is uploaded to the wireless scanners. The warehouse staff processes the transactions, and then later syncs the information on the handheld device. Unfortunately, if an error is made while scanning, the system cannot verify it until after the handheld is synced. This can lead to inaccurate data or less timely information.

With a real-time solution you are able to scan, verify, and update in real-time, improving accuracy throughout your entire organization.

### **Serial Numbers and Lot Tracking**

Inventory accuracy is particularly important for those organizations that track serial and lot numbers. If your warehouse staff is currently managing this process by writing down the serial number for each item, then taking the paperwork to the order desk where it is entered into the accounting system – you are at a high risk for errors. If any mistakes are made while recording the numbers, it will be too late to fix them as it is likely the items have already been shipped. All too often, the office staff will then grab another serial number to “take its place”. When mistakes like this are occurring frequently, they can compound into large-scale inventory problems.

By scanning the barcodes for serial and lot information, you ensure that the most accurate information is recorded and verified - and you can rest assured that the correct items are being used for each transaction.

If you are in the food, medical, transportation or aerospace industry, lot and serial number traceability is absolutely critical to your long term success. News reports frequently mention issues with recall of products from these industries. The Bio-Terrorism Act imposes significant penalties for companies who cannot trace food products from receipt to issue.

### **Simplified Work Processes**

Implementing an Inventory Control Solution can simplify the processes within your organization, leading to improved efficiency and productivity.

Without an Inventory Control Solution, your staff may not be operating efficiently. The way information passes from one employee to another wastes valuable time, and leaves room for mistakes to occur. Staff may forget to record a serial number, ship the wrong goods to a customer, or move items around the warehouse, making it difficult for other employees to find the goods they need. By incorporating an Inventory Control Solution, you create a standard set of practices to handle every inventory transaction – streamlining your processes and improving efficiency across the board.

For example: A company created a policy in which all inventory transactions are handled through their Inventory Control Solution. Each employee in the warehouse is equipped with a radio-frequency scanner, and every single item is scanned and recorded for each transaction. This structure simplifies work processes throughout the warehouse, making each employee more efficient.

One customer previously shutdown the business for two days, assigned all employees to the year-end inventory counting process and spent the weekend counting and verifying inventory. After implementing an Inventory Control Solution two warehouse personnel came in 2 hours early for two weeks and completed the year-end inventory.

When the power to post transactions to the accounting system originates in the warehouse as transactions are being completed, operations in both the warehouse and office are streamlined and simplified.

### **Can I Afford It?**

A solid return on investment is always important. By efficiently managing inventory and streamlining your operation, the time savings alone can easily equal the hours of a part or full time employee. Free your staff to focus on the important tasks instead of wasting time on data entry and researching errors. Without barcodes, the warehouse staff manually records the item details for each transaction, which are then separately entered into the accounting system. But what happens when the warehouse employee accidentally grabs the wrong item? (Remember two errors for every miss-pick).

These types of errors can add up to inventory information that is completely out of sync with the actual stock in the warehouse.

By using barcodes to scan the items for each transaction, you are ensuring that the correct information is recorded – preventing mistakes in both shipping and data entry.

By streamlining your operation now, you will be able to stay competitive, position yourself for future growth, and be able to better endure fluctuations of the economy. Consider these questions to gauge your opportunities to achieve a fast return-on-investment.

Take the assessment below to help determine if your

company could benefit from an Inventory Control Solution. (check all that apply)

### Is your workforce efficient?

- Can you eliminate part-time or temporary staffing requirements, now or in the future?
- Can you reduce overtime pay during peak times?
- If your business grows, can you avoid adding additional staff to support that growth by streamlining operations now?
- Can you shift current staff to tasks that will result in being more profitable?
- Can you empower the people that handle the inventory to *take ownership of the accuracy* of your inventory numbers?
- Do you have additional carrying costs of inventory that can be eliminated?
- Can you avoid additional shipping expenses due to inventory shortages?
- Can you lower the carrying costs of safety-stock inventory?
- Would stronger Inventory Control allow you to make better use of warehouse space?
- Could you consolidate space and save money?
- Are you paying your employees to walk rather than to pick inventory?
- Do your people have a hard time finding inventory?

### Am I losing business?

- Can you meet special customer requirements? (i.e.: *requests for serial or lot details; warranties; or compliance labels.*)
- Are you shipping orders late due to inventory inaccuracy?
- Is incorrect inventory being shipped?
- Have you accidentally shipped expired or outdated inventory?

### Can I save costs?

- Could you change your pricing if you had a better understanding of the actual cost associated with a job, service activity, or project?
- If you could implement better staff accountability for the inventory, would you be able to reduce the items that “walk off” your site?
- Could you train new or temporary employees to become productive quickly because you have the most efficient workflow and tools in place?
- Can you cut the overhead costs associated with shipping, returns, processing of adjustments, etc.?

If you have more than 3 check marks then you may want to consider investing in a system to manage your inventory.

By incorporating a system that updates in real-time, activities are processed at the source in the warehouse, virtually eliminating the need to manually enter data. This saves time both in the warehouse and in the back-office, not to mention, it provides accurate information for each transaction as they occur in the warehouse, leading to faster processing times, improved sales & purchasing decisions, more efficient employees, higher customer service levels, and a more organized operation overall.

Many companies discover that their Inventory Control Solution has saved several hours of manual work each day. The overall clerical work, as well as the time it took to ship orders, is typically cut by 50% or more, allowing staff members to do more productive work for the company.

### Choosing an Inventory Control Solution

Finding the right Inventory Control Solution for your business is crucial to ensure that it will provide the functionality you need. Some points you may want to consider while evaluating different Inventory Control Solutions include:

#### Functionality

It is important to find a solution that offers the functionality you need to operate your business effectively. Many Inventory Control Solutions offer “packages” which include a set group of functions. Some of these solutions increase complexity and implementation time.

Other Inventory Control Solutions offer modular systems – you purchase each function by module. This way you

only pay for the functionality you need, which can lead to significant savings. Make sure that you purchase only the modules you need at the beginning. Then, as your business grows, you can add the other modules. While you may only need a certain level of functionality now, your Inventory Control Solution should allow you to upgrade as your business grows.

### **Does it fit your unique requirements?**

Each business is unique, with its own set of specific requirements. In many cases, simply implementing a product right “out of the box” will not solve all your business problems. If your business has certain criteria that must be met, you will want to select an Inventory Control Solution that can be customized to fit the way you do business, allowing you to achieve maximum levels of efficiency.

### **Direct Integration or Integrated Database**

Some Inventory Control Solutions rely on a separate database that communicates with the accounting system to process transactions. However, using this type of ‘middleware’ can make it somewhat difficult to reconcile errors. Solutions that incorporate a separate database can also affect the way the office staff process transactions. A completely separate system requires additional training for both the warehouse and office staff, and often means that inventory transactions can ONLY be processed by the Inventory Control Solution.

On the other hand, incorporating a solution that integrates with your accounting system allows inventory information to be updated directly and there is no separate database to install or maintain. Systems without a separate database post directly to your accounting system. The office staff can continue to use the accounting system and are often able to process inventory transactions as they did prior to implementing an Inventory Control Solution.

### **Hardware**

There are two basic types of radio-frequency scanners available for Inventory Control: 802.11 or 900 MHz. The 802.11 system works with a Wi-Fi network and can have a much faster data transfer rate. The site inspection for this method can be more costly. However, if you already have a Wi-Fi system in place – there may be an easier solution. The 900 MHz hardware operates similarly to a

cordless phone. Each base station has a radius of up to 3 miles.<sup>2</sup> Implementation of this hardware can be as simple as plugging the base station into a computer and setting user preferences on the RF terminals. Your choice of software dictates your hardware choice.

RFID (Radio Frequency Identification) is gaining popularity in the public eye. We will not go into details of the technology or benefits here, but will say that at this time, RFID is still a very expensive option for many small to medium businesses. Where RFID tags can cost at least \$0.07 each<sup>3</sup>, standard barcode labels for RF readers can be printed on any regular printer, so the cost is negligible.

### **Implementation**

This is where you can really improve your business processes. You can streamline your business, increase your productivity and reduce your warehouse expenses. The team that implements your system can provide you with the expertise of multiple implementations.

With an Inventory Control Solution in place, you will improve profitability by streamlining and connecting every step of your operations from inventory to sales, order management and financial reporting. This will result in reduced costs and eliminate time-consuming processes, in addition to allowing having a 360° view of information across your entire organization.

With an Inventory Control Solution in place, you can build a total solution that is simple, affordable and will empower you to:

- Make smarter, faster business decisions
- Improve employee and business productivity
- Gain a competitive advantage

The sooner you improve efficiency with an Inventory Control Solution, the more profitable your company will be.

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## **About Business Automation Specialists of Minnesota, Inc.**

Business Automation Specialists leverages 25 years of practical business experience with software technology to help mid-sized manufacturers and distributors capitalize on their unique business strengths. We've built our business by helping clients build theirs; enabling them to become better, faster and stronger through improved management controls, cash flow and profitability.



**Business Automation Specialists**  
of Minnesota, Inc.

300 Coon Rapids Boulevard NW, Suite 100  
Minneapolis, MN 55433

(763) 571-8580  
FAX (763) 571-5504

**“Realistic Solutions - The right mix of technology and practical  
business experience”**

**[www.bautomation.com](http://www.bautomation.com)**

<sup>1</sup> Paul M. Swamidass PhD, “Bar Code Users and Their Performance,” *Unova* (Auburn University, July 1998) 5. [http://www.idii.com/wp/intermec\\_bc\\_rpt.pdf](http://www.idii.com/wp/intermec_bc_rpt.pdf)

<sup>2</sup> “7001 RF Terminals,” *Worth Data Hardware*. <http://www.barcodehq.com/7001rfterminals.html>

<sup>3</sup> “FAQ”, *RFID Journal*. <http://www.rfidjournal.com/faq/20/85>