

Making the Most of Inventory Management

LEVERAGING MICROSOFT DYNAMICS® GP AND BARCODE TECHNOLOGY



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Confused about how to manage your inventory?

Panatrack has written this informational white paper to provide you a practical guide to inventory management and the cost benefits of adding bar code technology to Microsoft Dynamics® GP

Abstract

Many businesses, regardless of their industry, have the need to manage their inventory. Fortunately, Microsoft Dynamics® GP offers strong inventory management capabilities. However, the manual entry of inventory transactions may be limiting your ability to achieve the rewards of tighter inventory control. Adding barcode data capture will dramatically increase your efficiency, yet many businesses mistakenly believe that this is outside of their reach. Learn how to combine Dynamics® GP with the automated data capture of PanatrackerGP to create a simple and powerful platform for inventory control.

Inventory Control is Not Limited to Large Enterprises

If you are reading this, it is likely that you have inventory or assets that you think should be better controlled. 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 yourself in a "traditional" industry associated with "real" inventory management.

If you haven't previously considered yourself a candidate for inventory tracking using barcode technology then continue reading. This white paper will identify how you can save time and reduce costs regardless of your industry or size. 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 leverage your existing investment in Dynamics® GP and deliver a cost-efficient and scalable solution that will keep you competitive as your business grows.

But We Aren't Distributors!

If you associate inventory management only with large warehouse operations and manufacturers, take a moment and consider the following organizations:

- A retail hair salon: To manage retail inventory to stocking levels during busy seasons.
- A casino: To accurately track supplies issued to each department.
- A satellite communications provider: Tracking inventory sold and leased to their customers.
- A biopharmaceutical lab: Efficiently tracking inventory used in the labs.
- A blood center: Tracking items assigned and used during blood drives.
- A plumbing and heating contractor: To efficiently record items used on jobs.
- A hospital: For better management of floor supply closet inventory.
- An industrial pump supplier: To capture items used on repair work orders.

These businesses may not be what you consider traditional industries with a need to manage inventory. Or are they? These are real examples of organizations that are taking advantage of efficient inventory management using Dynamics® GP and barcode data capture. These organizations do not have conventional warehouses, but they all manage inventory for projects, jobs, service activities, or customer sales. Regardless if your inventory is used internally or sold, effective inventory management is critical for any industry.

Managing Inventory the Hard Way

Businesses evolve ... your company may have started out with a single desktop computer and 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. Organizations consumed in day-to-day operations may not even realize when they have outgrown their current systems and procedures. It should be no surprise that inventory accuracy suffers.

Is this how you currently track your inventory?

- You record transactions on paper and enter them into the computer later. *(And you have learned to cope with the delay and the occasional keying errors?)*
- You rely on staff that “just knows” where the inventory is because they have been with the company for years. *(And you live in fear of that key person disappearing?)*
- You “manage” inventory on white boards, clipboards, or Post-it notes. *(And you never really know if your inventory numbers are accurate?)*
- You retype your inventory activity records into Excel spreadsheets or Access databases. *(And you fall out of sync with accounting’s balance sheet?)*

“I have to write it down, then I have to turn it in to somebody that has to enter it and by the time they get around to it, another transaction happened so the inventory isn’t up-to-date anyway. So... why bother?”

Your challenges will become even greater as your business grows.

Can you relate to these issues?

- You can’t rely on your inventory numbers 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. *“I can’t read it. I’m not sure if this is a check mark or a smudge. I can’t find the paperwork.”*
- You struggle to gain staff accountability for the inventory accuracy. *“I turned in the paperwork and I don’t know what happened after that...I never received any paperwork.”*
- You’ve delayed projects, or 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 yet *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, and the yelling just isn’t working anymore.
- You have delays invoicing your customers because you can’t keep up with the paperwork.

Although you are already using Dynamics® GP, you may not be using your system to its full potential. It’s time to take control of what you have, manage where it is, and understand how and where it’s used.

About Bar Codes

Adding barcode technology can seem complicated on the surface. However, if you have your inventory items set up in GP, you can start barcode labeling your inventory. You don't need a special "barcode number" for each of your inventory items. Your GP item number can be represented in a barcode on a label. When the user scans the bar code, it will simply return and populate the GP item number in that field. That item number is connected to all of the other data in that record including associated serial numbers, lot numbers, quantities, locations, etc.

If you do have alternate or manufacturer item numbers that are already barcoded from a vendor or manufacturer, they can be associated with your GP item number. When this association is created in GP, scanning the barcode will return your GP item number when using the PanatrackerGP application.

You may barcode any information. Typically an inventory label will include a barcode to represent the item number. The item description is typically included as text. If the item is serial or lot tracked, the corresponding serial number and lot number would also be represented in a barcode. It is recommended that information that changes, such as quantities and locations, are not included on the item label. This is stored and managed in the Dynamics GP database. Consider barcoding the physical spot for locations such as sites and bins. If your stocking area is specific to one item, the stocking location can be barcoded with both the location ID and the associated item number instead of labeling each inventory item.

Inventory Tracking Doesn't Need to be Complicated

One common misconception of inventory management is that you need an independent Warehouse Management System (WMS) to manage your inventory. A WMS is a separate system outside of Dynamics® GP. Here comes one more disparate system, one more reconciliation task, and typically one large expense to implement and support.

"I don't get it. I already have my entire inventory inside of GP and it works great. Why do I need another system to hold the same information?"

Here's the good news. Since you already have Dynamics® GP, you already have most of the same inventory management capabilities that are found within an independent WMS. Both will allow you to manage inventory, process purchase orders, and perform sales order processing. Best yet, Dynamics® GP offers some powerful inventory features including serial and lot tracking, bin-level location tracking, and item and site resource planning.

Using these features may, on the surface, appear to be cumbersome. A WMS system is typically looked at specifically to add the bar code data capture to your inventory control. By adding the technology, you gain the tools needed to accurately and efficiently manage inventory.

There is a reason why WMS vendors don't want you to realize that there is this overlap in functionality. Many organizations, even the large distributor and manufacturer, may not need to invest in a separate WMS system. In fact, sometimes a separate WMS may actually be counterproductive. Implementing a WMS system often requires a significant investment in analysis, planning, implementation and

maintenance. You are typically forced into using a WMS in an “all-or-nothing” manner, and starting slowly is often unpractical. While some organizations may actually need the extra horsepower of a separate WMS, many will not.

A simpler option is to add the **barcode data collection** tools to your existing Dynamics GP database: a solution such as PanatrackerGP. This adds the benefits of handheld computers and barcode technology without requiring a separate WMS database to manage your inventory. This data capture solution can be put in place quickly and make an immediate impact at a fraction of the time and cost investment of a WMS. It uses the same tools and techniques available in large WMS systems, but records your inventory activity directly into Dynamics® GP. Plus, since it is part of your existing system, it is simple and easy to get up to speed. You can start with basic functionality to start adding efficiency immediately and get barcode tracking in place. Set up a test environment to then explore more robust workflows and inventory management set up for Dynamics GP and within the PanatrackerGP solution.

The Next Level of Inventory Management

You may have not previously considered using many of the inventory management features within Dynamics® GP because your current paper-based efforts make the process cumbersome to manage. PanatrackerGP can make this easy.

Here are a few examples:

Benefits of Good Inventory Management:

- Know what you really have on-hand and reduce safety stock.
- Make better and more cost-effective purchasing decisions.
- Understand the true cost of doing business.
- Increase staff accountability and reduce “missing” inventory.
- Simplify picking inventory for orders, projects, and jobs.
- Improve customer service.

- Is tracking serialized inventory out of the question because it is too much work? With the ability to quickly and accurately scan serial numbers using barcode technology, this additional level of tracking and validation is simple.
- Are you avoiding bin-level location tracking? While tough to accomplish in a paper-based environment, it adds great control of inventory when used with handheld computing.
- Are you trying to reduce overtime in your clerical team or increase staff accountability for inventory accuracy? By pushing the entry of transactions directly into the hands of those that handle the inventory, you remove the need for separate data entry.

Dynamics GP vs. WMS Comparison		
	Dynamics™ GP	WMS System
Inventory Items	✓	✓
Serial-tracked Inventory	✓	✓
Lot-tracked Inventory	✓	✓
Kits	✓	✓
Alternate Item Number Tracking	✓	✓
Site Location	✓	✓
Bin Location	✓	✓
3 rd Level Location (Zone – Aisle)		✓
Space Utilization (Slotting)	Min/Max	✓
Cycle Counts	✓	✓
Item Resource Planning	✓	✓
Site Resource Planning	✓	✓
Inventory Usage Recording	✓	✓
Inventory Adds	✓	✓
Inventory Transfer & Moves	✓	✓
Purchasing	✓	✓
Receiving	✓	✓
ASN (Advanced Ship Notice)	Add-On	✓
EDI	Add-On	✓
Directed Put-Away	Limited	✓
Cross Docking		✓
Sales Order Management	✓	✓
Order Consolidation	Limited	✓
Dock Appointment Scheduling		✓
Load Building		✓
Wave Management		✓
Batch/Zone Picking	✓	✓
Mobile Data Capture	Add-On	✓

Even without these additional tracking methods, you will obtain efficiency by simply adding barcode data capture technology to your basic inventory management.

Real-World Efficiency Makeovers

Let's take a few moments and look at real examples where barcode technology will provide cost savings and benefits:

Case 1: A Physical Inventory Scenario

Whether completed once a year, once a quarter, or within a cycle count rotation, a *manual* physical count might go like this:

1. Print out manual count sheets.
2. Send out your count teams to record the count and details (serial numbers, lot numbers).
3. Return the count sheets to have them manually entered into the computer.
4. Send a count team back out because you question the actual quantity or serial number that was documented. Is this an 8 or 3? Is that 50 + 2 more or 502? Is that a B or a 13?



The Savings Opportunity for Physical Inventory Counts:

Replace physical count confusion with a handheld barcode computer that scans the actual item being counted and then updates the count immediately to Dynamics® GP. As items and locations are counted, they are marked as completed on the stock count.

- Lower your staff overtime if your stock counts need to be completed outside of standard business hours. By adding an efficient way to complete physical counts, consider putting *cycle counting* in place and count small sections of your inventory on a rotating schedule.
- Cut your counting time in half by eliminating the manual data entry from count sheets. Using a handheld barcode scanner will bypass the need for paper-based counts and later data entry.
- Lessen your inventory reconciliation issues because inventory is being tracked more efficiently overall.

Case 2: A Purchase Order Receiving Scenario

You might be able to relate to this paper-based receiving process:

1. Manually check off items from a packing list OR print a copy of the purchase order to mark off items received.
2. Scribble your internal item number on the box using a magic marker.
3. Visually confirm the serial numbers or lot numbers (or even worse, record them by writing them all down).
4. Deliver the paperwork to a data entry point where it will eventually be entered into Dynamics® GP. *The speed of entry may be challenging since the person responsible for data entry isn't just*

sitting around waiting patiently, but is busy doing one of the other 50 things on his/her to-do list for the day.

5. Finally, put the inventory away (if not done earlier). Put it anywhere and hope you can find it when you need it.



The Savings Opportunity for Purchase Order Receiving:

Receiving is the starting point for accurate inventory tracking. Evaluate how much time can be saved to accurately record items received and immediately create those receipts in Dynamics® GP.

- Use the handheld scanner to look up all open purchase orders. Select the purchase order and view only the items that are expected for that purchase order. Now simply enter the quantity received, or scan serial and lot numbers if required.
- Better yet: If the inbound item has a vendor barcode, scan that and save even more time.
- Automatically print a legible item label with a barcode and affix it to your inbound inventory. Scan this same label every time you move or use the inventory.

Case 3: An Order Picking Scenario

A typical order picking routine might look like this:

1. Print out the picking ticket.
2. Walk around the warehouse looking for the items. *Find the guy you refer to as "Inventory Rain Man" that knows where everything is, or walks back to the office to look up the item and hope it's in stock.*
3. Record the serial or lot numbers picked using pen and paper. *Write clearly!*
4. At the end of the shift or day, send all of the manual pick tickets to accounting so they can invoice the customers.
5. Live in fear of getting a call from the customer...they were supposed to get item A2829346 not A2829345. Ship them the right item with expedited shipping costs, and now work towards tracking the returned item.



The Savings Opportunity for Order Picking:

What if you could access a pick-list that is sorted based on inventory location right in the palm of your hand? Better yet: Items that are already picked are automatically dropped to the bottom of the list making it easy to identify remaining items.

- Consider a shipment of 10 items. It will take approximately 2 minutes to write down the item and serial numbers, and a similar investment in time to enter these into the computer. However, it will take only a few seconds to scan all the barcodes. No manual entry, plus you will gain immediate validation the right item is being picked.
- Give your team the ability to view inventory status from the screen of a handheld computer. Save them the effort of going back to a computer located in the corner of the warehouse to look up the location of an item. Eliminating just a few of these trips back to a stationary computer can save at least thirty minutes a day for a busy worker.

- Sensitive to maintaining FIFO (First-In First-Out) stock or inventory with expiration dates? Gain visibility to the oldest inventory and be directed to use that product first.

Regardless of the transaction (receiving, order picking, physical counts, etc.), a paper-based process leads to duplicated efforts to record the transaction. Plus, this manual entry is much less accurate than simple barcode scanning.

A conservative estimate: The typical error rate of human data entry is 1 error per 300 characters. However, barcode scanning has less than 1 error in 30 trillion characters.

The bottom line is that effective inventory management combined with wireless barcode data capture will improve workforce productivity and inventory accuracy.

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 time or full time person. You can easily realize a return on investment in less than one year. Free your staff to focus on the important tasks instead of data entry and problem hunting. 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 probe your opportunities to achieve a fast return-on-investment.

Is my workforce efficient?

- Can I eliminate part-time or temporary staffing requirements now or in the future? Can I reduce overtime pay during peak times?
- If my business grows, can I avoid adding additional staff to support that growth by streamlining my operations now?
- Can I shift my current staff to tasks that will result in being more profitable?
- Can I empower the people that handle the inventory to *take ownership of the accuracy* of our inventory numbers? Can I stop the finger-pointing of errors?

Do I have additional carrying costs of inventory that can be eliminated?

- Can I avoid additional shipping expenses due to inventory shortages?
- Can I lower the carrying costs of safety stock inventory?
- Would stronger inventory control allow me to make better use of my warehouse space? Could I consolidate space and save money?

Am I losing business?

- Can I meet my customers' special requirements? (*"My customers request serial or lot details...I need to track inventory for warranties...I'm asked to make compliance labels."*)
- Am I shipping orders late due to inventory inaccuracy?
- Is incorrect inventory being shipped?
- Have I shipped expired or outdated inventory?

Can I save costs?

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

Take Steps to Gain Control

Effective inventory management saves money. You have already implemented a great system by choosing Dynamics® GP. Now take advantage of that investment and simplify the way you handle your inventory. Barcode technology will provide an enormous benefit to your business by adding fast and reliable data capture. Take a few minutes to evaluate PanatrackerGP, a mobile data capture solution *built specifically* for Dynamics® GP. It is not a separate WMS, but instead a reasonably-priced solution that leverages the inventory database *you already have*. More importantly, PanatrackerGP is a solution that will effectively scale. You can start out with the basics and introduce more advanced inventory management features as you grow. Implementations are simple and cost-effective because you are simply adding the tools to efficiently manage your inventory activity.

“I was amazed at how much time we were suddenly saving when we started using the barcode scanners. With the increase in our order volume, I bet we avoided hiring two people this year.”

Instead of investing \$100,000 (US\$) or more and weeks if not months to set up a separate WMS, the typical PanatrackerGP solution is implemented at a fraction of that cost and time. In fact, a Basic solution can be fully implemented starting as low as \$12k¹ (US\$), less than the annual salary of a part-time employee. A fully installed solution for the most popular modules, order fulfillment and label printing averages \$22k - \$29k² (for 3 handhelds). An investment in a scalable barcode solution will provide you the ability for your business to grow now and in the future.



¹ Cost estimate based on Core Inventory (Receiving, Transfers, Adjustments, and Stock Count) with 1 handheld scanner in US\$.

² Adds support for Order Picking, Packing, Verification, and Assign Tracking

PanatrackerGP Inventory Management for Dynamics GP

Adding Bar Code Technology to Microsoft Dynamics® GP

Panatrack is a software development firm specializing in systems for tracking inventory, assets and activities using mobile computer and barcode technology. With expertise in both Microsoft Dynamics® GP and mobile barcode technology, we deliver affordable and easy-to learn solutions to effectively capture inventory and asset transactions at the point and time they occur.

Our PanatrackerGP product extends Microsoft Dynamics® GP to barcode scanning handheld computers. PanatrackerGP offers a fully-integrated add-on solution to create and update transactions directly in GP without the need to add a separate inventory management database. Within a wireless network environment, obtain real-time validation and access to inventory details. *Achieve the efficiency of bar code data capture technology leveraging your investment in your Dynamics® GP ERP system.*

The PanatrackerGP Inventory Solution is available in a number of modules to allow each company to tailor-fit a solution to their needs. The core module features recording receiving, transfers, moves, and usage of inventory, as well as stock counts. Order Fulfillment adds order picking and packing, verification, and an optional shipping integration. Assembly, project costs accounting, sales and other ISV integrations are available as additional modules. Advanced modules including Directed Transfer, ASN Receiving, and Manufacturing integrations are also available.

PanatrackerGP complements and integrates with other third party add-ins for Dynamics GP. With the specific expertise to implement these core features from each provider, you will get a robust system with streamlined operation within your core Dynamics infrastructure.

Requisitioning

- RockySoft Replenishment Planning
- ReQLogic

Shipping

- V-Technologies StarShip

EDI Solutions

- Vantage Point EDI by Data Masons
- RedTail

Project and Job Tracking

- Dynamics GP Project Accounting
- WennSoft
- Olympic Project Cost

Manufacturing

- Vicinity Manufacturing
- Horizons International

Other

- Binary Stream Multi-Entity Management

Automated Posting

- eOne Smart Post
- mc2 Software GP Agent
- Envisage Post Master

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