# Straight Talk About Bar Code Data Capture and Wireless Networks

A Practical Guide for Manufacturers

# Is this happening in your facility today?

#### 8:35 A.M.

Far from the well-appointed offices of senior management, a worker on a forklift puts away a truckload of parts that have just arrived.

- He scribbles some notes about the recent delivery on his yellow pad and plans to enter the numbers "into the system" two hours later, after his break.
- When he is finally ready to enter the data, he is hot and tired.
   He is in a hurry to put away another delivery that has just arrived at the unloading dock.
- So he does what others on the manufacturing floor do many times a day.
- He makes a mistake.
- He keys in "55 units" instead of "550" units and goes happily, unknowingly, about his business.



The incorrect data entered by the forklift operator, along with all the other incorrect data supplied by his co-workers, now circulates instantly throughout the enterprise.

- Managers, tasked with making vital decisions, are doing so with badly flawed data.
- They think their manufacturing operation is right on course, but actually they are flying blind.
  - How can you avoid the Bad Data Syndrome that affects so many manufacturing companies?
  - How can you make sure that only accurate data becomes the basis of your crucial assumptions and decisions?
  - Compsee a leader in wireless network solutions and bar code data capture technology, has proven, practical, affordable answers.
  - This is the story of how we can provide them to you...



# We Put Vital Information Where You Need It Most. At Your Fingertips.

Your manufacturing company depends on data. Lots of it.

The trouble is, if you're making decisions based on *incomplete* data, or *inaccurate* data, trouble can spread far and wide extremely quickly, and potentially devastating mistakes can be made.

That's why you should find out more about what Compsee has to offer. You see, we can give users the

ability to enter and access real-time, accurate data right from the manufacturing or warehouse floor.

In total control of information.

# What a wireless plant floor can do for you.

With a wireless plant floor that uses the latest RF technology, you can forget about running wires and "tethering" people to bulky equipment. And you won't have to wait around for employees to laboriously (and often inaccurately) enter data by hand. This means that transactions move quickly and error-free from your plant floor or warehouse right into your information management system.

The bottom line? Compsee has the know-how to make sure your key business processes execute quickly, consistently, and reliably.

The wireless plant floor is the wave of the future, and it's available *now* at an affordable price. Isn't it time you found out more about how we can go to work for *you*?



With a Compsee solution in place, your manufacturing floor becomes the source of accurate, real-time data you can count on.

We can Help With Vital Plant Floor and Warehouse Applications Like These.....

- Raw material receiving
- Time and attendance/job Tracking
- Preventive maintenance
- Shipping
- Put-away
- And more!

- Inventory control
- Work-in-process
- Quality control
- Receiving
- Picking

# **Compsee Helps Manufactures Every Step of the Way**

#### **RECEIVING**

When you're analyzing your manufacturing process, and are taking a look at how bar code data capture systems can make your operation more efficient, the logical place to start is Receiving.

From receiving to shipping, we can give you a competitive edge.

It's the place you verify items, quantities, and ship dates, and make certain that they conform to the terms established with your vendors. Receiving must also notify Production, Purchasing, Incoming Inspection, and Accounts Payable of the receipt.

Bar code data capture streamlines all the steps above. That's because manually matching shipping documents against purchase order records is *extremely labor-intensive*. Bar coding shipments at the source makes the task much more efficient and far less time-consuming.

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International Sales Office 2500 Port Malabar Blvd. Palm Bay, FL 32905 By simply scanning the label on the outside of a box, receiving clerks can quickly and accurately identify the item being received. What's more, the item's purchase order, line item, part number, quantity, and the date of receipt are automatically and accurately entered in your system database. This "license plate" will allow you to track the item's movement throughout the company by scanning a single bar code!

#### INCOMING INSPECTION

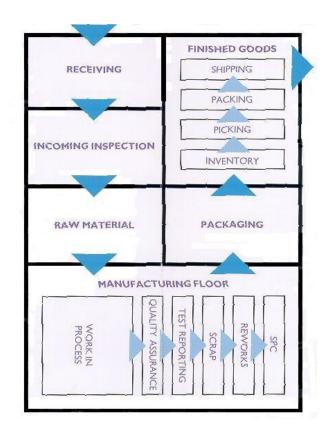
Once it's received, production material must be inspected before it can be inducted into raw material stores or issued to the production floor. A formal inspection procedure should exist for each item, and should include the parameters for accepting and rejecting production material.

All too often, inspection results are recorded on a clipboard or manifest which is keyed into a database at a later date. However, by using a bar coded menu of inspection criteria and results, it's easy to associate the results of an inspection with the item being inspected.

By quickly scanning the item's "license plate" and the results of the inspection, all information is captured quickly and accurately. The identity of the inspector can also be captured by scanning a bar coded identification badge as part of the inspection process. This accountability can increase inspection accuracy, fast!

#### RAW MATERIAL

Before material can be put away, it may need to be lot-sized and inducted. The induction process may determine the specific location where the material is to be stored.



The scan of the "license plate," assigned to the shipment in Receiving, can be used in the induction process to associate individual-sized lots with specific inventory locations. The put-away-process is verified by bar coding inventory locations.

#### • MANUFACTURING FLOOR:

#### • WORK IN PROCESS (WIP), TIME AND ATTENDANCE

Once material is issued to the production process, it may be difficult to track how much material is actually in WIP. However, when materials are pulled from a bar coded pick list, and are issued against a bar coded work order, total control is maintained. When you bar code all the operations, work centers, and control points of the manufacturing process, you can be sure of accurate WIP tracking.

Collect and manage rime-based data in real-rime. Real rime employee scheduling and attendance tracking is performed seamlessly.

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#### FINISHED GOODS:

#### INVENTORY, PICKING, PACKING, SHIPPING

Finished goods inventory management demands that inventory be made available by part number, location, quantity, serial number, and date of manufacture. The database(s) created through the use of bar code data capture can be used to automate the management of your entire finished goods inventory.

Finished goods put-away and order picking can also be automated to allow interactive management of these functions. Interactive inventory management allows your inventory clerks and forklift drivers to work with your warehousing system every step of the way. Part numbers, quantities, and locations are verified, which ensures that the correct item, in the exact quantity, is stored or picked from the correct location.

During the order packing process, verification of each customer's order can be done in a similar manner. A customer's manifest, built by a serial number, can also be used by Accounts Receivable and Field Service to facilitate customer billing and the warranty process.

The same manifest can be used to estimate the total weight of a customer's order. By capturing the shipment's actual weight from an electronic scale, another level of verification is built into the shipping process.

#### PACKAGING

The packaging function involves boxing individual products with collateral materials. A mispacked product becomes a D.O.A. However, by scanning bar coded products and collateral materials, you can be sure you achieve accurate packaging inspection during the entire packaging process.

- MANUFACTURING FLOOR:
- QUALITY ASSURANCE, TEST REPORTING, SCRAP, REWORKS, SPC, PREVENTIVE MAINTENANCE

As material and subassemblies move through the manufacturing process, quality assurance tests must be performed and the results recorded. By applying bar coded labels to each subassembly, and later to the final product, progress can be tracked throughout the quality assurance process.

Should an assembly fail, the reason for the failure can be instantly tracked to the assembly itself. This information can be used to track yields and efficiently direct the rework



# Compsee Is Proud To Offer Proven, Time-tested Products.

Here's a quick introduction to just a few of the most important underlying bar code data capture technologies that can help you gather vital information for your manufacturing system. We'd be delighted to help you decide which product, or mix of products, can best meet your company's unique needs.

#### Laser Scanning—a key component.

Laser scanners are the "work horses" of bar code data capture and come in a wide variety of models—hand-held, hands-free, fixed mount, wearable, ruggedized, all-range, and even cordless. Laser scanners are perfect for warehouse stock picking and a wide range of other uses. High performance laser scanning technology is now extremely compact, lightweight, durable, and easy to integrate.

#### Portable Computing—it lets you go where the data is.

Today's rugged, lightweight, portable, ergonomically designed hand-held computers let users "go where the data is." This means they can gather important warehouse and factory floor information quickly and accurately, and connect it with your client/server network for timely, reliable decision support. Portable hand-held computers offer powerful data management capabilities and are available in every configuration—from pen-based computers, to wearable systems, to hand-held terminals.

#### RE Computing—the new frontier.

The latest wireless RF technology lets you process information in real time for that extra competitive edge. For example, Compsee offers a powerful wireless LAN designed to comply with the forthcoming IEEE 802.11 international standard for wireless communications. A system that offers high performance, compatibility with current technologies, and easy integration of future application tools.

## Fixed-Mount Computing—perfect for industrial applications.

Fixed-Mount Computers are specially designed for the industrial workplace, including manufacturing floors, warehouses, distribution centers, and transportation hubs.

#### Vehicle Radio Computers—bar code data capture on the move.

Vehicle Radio Computers are rugged, touch screen, PC-compatible computers that provide advanced processing capability, while withstanding physical shock and vibration.

## A Wireless Network Can Solve Some Of The Toughest Challenges You Face.

The most valuable asset in your manufacturing operation isn't machinery.

It's up-to-date, accurate information that you can put to use. No wonder wireless computing technology is being enthusiastically adopted by so many bottom line oriented companies and organizations.

If you want to raise profits, cut costs, and stay ahead of the competition, now is the time to find out more about wireless technology and how it can gather vital information in your warehouses.

What makes wireless computing so exciting? The fact that it lets users in your warehouses "go where the data is," freely and unencumbered. And, that they can gather important information quickly and accurately, and instantly put it to use for timely, reliable decision support.

RF (Radio Frequency) networks have proven themselves as great ways for organizations of all kinds to boost productivity, cut costs, and increase profitability Isn't it time you join the wireless computing revolution?

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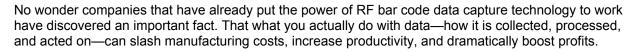
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# Why does a RF data collection system offer so much to your company?

Because it helps avoid the inevitable human errors inherent in a manual system, and provides real-time information that you can put to use immediately. For example, a RF network can help a forklift truck operator decrease the time spent searching for a specific item, optimize pick path travel distances, and reduce rewarehousing.

With a Compsee solution, you'll also benefit from:

- ✓ A reduction in key-entry labor and safety stock levels
- ✓ Not having to complete physical inventories
- ✓ Fewer lost sales and backorders caused by an inaccurate inventory
- ✓ Lower inventory write-offs
- ✓ Fewer manufacturing overruns caused by inaccurate inventory levels
- ✓ Lower manufacturing disruption costs caused by material outages
- ✓ And that's just for starters!



If you're looking for a way to improve your bottom line and meet the tough competitive challenges you face, take a close look at what a wireless network can do for your organization.





# When You Work With Compsee, You're In Good Company

Compsee is a leader in mobile computing and communications systems. Our innovative solutions, used in a wide variety of industries, are based on wireless local area networking for voice and data, application-specific mobile computing, and bar code data capture.

# We're ready to help whenever you need us.

Have a question about how wireless network solutions and bar code data capture technology can help you get the most from your manufacturing system? Give our information center a call. Our team is always at your service to:

- Discuss your specific application requirements.
- Introduce you to new technologies that can increase productivity.
- Determine how much money wireless network solutions and data capture technology can save you.
- Answer any questions you may have about specific products.
- And that's just for starters!

# For further information contact:

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