

Why do you need to Barcode your Fixed Assets

TABLE OF CONTENTS

- 3. Introduction
- 3. Benefits of Barcoding
- 3. Efficiency and Benefits
- 4. Consistency
- 4. Improved Inventory and Asset Management
- 4. Cost / Benefit Analysis
- 5. Bar Code Printing Technologies
- 6. Thermal Technology
- 6. The primary questions to ask before barcoding are:
- 6. Integrated Bar Code Systems

Introduction

Bar coding, a form of keyless data entry facilitating automatic identification and data collection (commonly referred to as Barcoded Auto ID), is not just for grocery stores anymore. The familiar stripes are popping up in new and unusual places such as doctors' offices, law firms, post offices, retail stores, security applications, and rental cars. Bar coding and related technologies have been used for asset management and inventory management in manufacturing companies for shipping and receiving operations for more than 30 years. Even in these more traditional settings, bar code applications have now spread throughout the enterprise to include fixed assets tracking.

In the 1970s and 1980s, the increased use of computers in the commercial and industrial companies fueled the need for improved data capture. Companies hired armies of data entry professionals tasked with entering repetitive information into network terminals. In the 1990s, this need for immediate and accurate reporting was compounded with the introduction of statutory requirements. Today, many manual data entry tasks have been replaced by bar coding.

In all of these applications, the motivation to begin bar coding is the same: improve data management, accessibility and reduce costs.

The widespread acceptance of bar coding within industry over the past three decades has led to the development of numerous industry standards by formidable industry groups.

Benefits of Barcoding

Improved Data Accuracy

Improved data accuracy is the single most common motivation for implementing a bar code system.

Often the backbone of operations, data entry enables a company to produce accurate reports and predictions about future needs and actions.

Companies with integrated bar coding systems that enable users to scan bar codes rather than type numbers are commonly achieving 99% data accuracy.

For companies in which data errors are a mere nuisance, the difference between 85% and 99% may not seem that extreme. But for organizations in which data entry errors are catastrophic, such as **hospitals, crime labs, and manufacturing companies**, the goal is 100% accuracy. Barcoding is the best tool that these organizations have to ensure data credibility and thereby greatly reduce the impact of human error.

Efficiency and Benefits

Besides providing near-perfect accuracy, bar coding also enables users to work faster, without sacrificing accuracy. When factoring in the time it takes to correct simple data entry errors, it is easy to see the improved efficiency that comes with bar coding. In addition, by providing computer systems the capability to "see" exactly what is happening within an organization, **bar codes enable instant conversion from physical actions into digital transactions**. This conversion of former manual tasks to electronic processes occurs in real-time, increasing efficiency and allowing management to make decisions based on current data and personnel to be employed in other, more productive areas.

While the time saved in data entry operations is easily recognized, the true efficiency improvements emerge when bar coding capabilities are extended to other areas of the organization, resulting in functional automation.

This automation greatly simplifies information collection, processing, and tracking.

Consistency

Bar coding, particularly in fast-paced industrial environments, enables consistent and predictable operations for enhanced product quality by combining data management functions and preventing bottlenecks at data entry stations. In places that were previously slowed by congestion at the point of data entry can now progress smoothly through a system of automated barcode labeling and barcode readers / scanners. In addition, employing standardized bar code symbologies and compliance labeling, ensures that bar code information is captured and relayed in a manner that is universally understood and accepted.

Improved Inventory and Asset Management

Bar coding can help any company get a handle on resources. Companies are routinely bar coding assets such as manufacturing equipment, computer hardware, office furniture, and tools in order to record the number of each item, as well as the condition, color, features, and designated user. Libraries around the world are starting to place bar codes on books to track borrowing history. Likewise, automotive fleet owners, public transportation agencies, and rental car companies have begun utilizing bar codes to track detailed maintenance records for each vehicle. Manufacturing companies have similar applications in place to track both resource and finished product inventories.

The barcode label often contains very specific information about the asset in both bar-coded data and human readable text.

The human-readable portion of the label is likely to describe the asset characteristics, and any other details needed along with the names of both the manufacturer and the custodian, if known. The bar code contains internal information such as assets number, date of purchase, materials used, serial numbers, and miscellaneous quality control information. By scanning the label the company can identify the exact asset inventory, in real time.

Cost / Benefit Analysis

Besides the cost of the equipment, including the printer, scanner, and media, the cost justification of a Barcode enabled ID system can be a tricky computation. It is widely thought that most Barcode enabled ID systems pay for themselves in less than two years, but this figure is dependent on a company's commitment to widespread implementation and acceptance of the bar coding technology. The "two year" argument alone is often not enough to gain approval of a proposed bar coding system and, similarly, is not even a sound consideration when planning an executive mandated automation project.

Bar coding only generates a profit when supported by improved processes.

When considering bar code implementation, every possible process improvement should be evaluated. There are some obvious improvements that can be achieved by implementing Barcode ID systems, such as placing bar codes on assets to spare employees from manually entering each asset's price or serial number. There are also several new capabilities and controls that appear from the improved data management achieved by implementing a bar coding system, such as Enterprise Resource Planning (ERP), wireless networking options, and RFID smart labels (human-readable label embedded with a computer chip that acts like a portable data file for the product at hand). The initial cost savings companies discover after implementing an Barcode enabled ID system include:

- ▶ labor cost reduction,
- ▶ improved customer service and supplier response times,
- ▶ capital and inventory management,
- ▶ space management, and
- ▶ equipment costs.

In addition to the apparent savings, each of these areas also produces several hidden savings that must be considered during the cost analysis, though the answers may not surface until the implementation is complete.

- ▶ Once the data entry on the assets management is automated,
- ▶ Can the excess personnel be diverted for other productive work?
- ▶ If we create unique bar codes for each asset, can the company fulfill customized solutions?
- ▶ Once assets inventory is monitored in real time, can we trim warehousing space & costs?

These are just a few examples of the hidden gains resulting from bar coding. Several other opportunities will emerge as the use of Barcode enabled ID gains synthesis with operations.

Bar Code Printing Technologies

The variety of technologies available for bar code printing can be overwhelming.

Whether a user elects to use pre-printed or plain labels, media selection is critical to the success of any bar code integration. The variety of ribbons, paper, and synthetic labels and tags is too great for discussion, but the bar code application,

- ▶ The intended life span of the label,
- ▶ The environment to which the label will be exposed all have a direct impact on media selection.

Individuals new to bar coding often gravitate toward familiar technologies (such as laser printers, dot matrix printers, or ink jet printers) that are already connected to a network and, therefore, deemed suitable for bar code labeling. While these printers can be used for some very simple applications, they have serious limitations that make them inadequate for professional labeling.

Thermal Technology

The most widely used technologies for dedicated bar coding systems are direct thermal and thermal transfer printing.

Advantages

Thermal transfer delivers crisp, high-definition text, graphic, and bar code print quality for maximum readability and scannability.

- ▶ Thermal transfer printing produces long-life image stability.
- ▶ Thermal transfer enables batch or single label printing with virtually no waste.
- ▶ Long-term maintenance costs are low compared to dot matrix, ink jet, and laser printing.
- ▶ Thermal transfer technology can print on a nearly unlimited variety of media stock (except multi-form).
- ▶ Thermal transfer printers are typically built more durably than dot matrix or laser printers, allowing reliable operation in industrial as well as office applications.
- ▶ Thermal transfer is the only alternative if crisp, long-lasting images are required to last for a number of years.

The primary questions to ask before barcoding are:

- ▶ What are the intended uses of the bar code labels?
- ▶ Where will the labels be located?
- ▶ What kind of environments will the labels be exposed to (temperature fluctuation, abrasion, high humidity, exposure to chemicals, etc.)?
- ▶ What are the anticipated change cycles for the labels?
- ▶ Are there any minimum replacement requirements?
- ▶ What are the dimensions of the labels to be used?
- ▶ How frequently do label specifications change?

Integrated Bar Code Systems

Though the advance of bar coding has created new data management opportunities, much of the potential of bar codes remains untapped.

The explosion of enterprise resource planning (ERP) software has given bar coding an enhanced role in corporate information systems.

ERP systems, when used alone or partnered with Fixed Assets software application, are capable of producing detailed reports based on the information they gather from the system operations. This reporting capability. When used along with bar code integrated software to print labels, contain all the assets information. Specialized printing of Barcodes on synthetic thermal paper needs the special printer for which the barcode details can be exported from the system and then printed from the thermal printer.

For more information

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