

Is Bar Coding Worth It?

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You ask yourself, “Should I invest in using bar coding on my plant floor? What is the payback?” Lets look at all the places barcodes can be used.

Do you have a raw material inventory? How do you identify the locations where the material is stored? How do you identify the material itself? Are mistakes made in recording where material is stored or what material has been stored? In cases such as these, both a barcode on the storing location and on the material would reduce the occurrence of such errors as well as saving time in recording the information.

How about when material is removed from stock? Scanning the barcode on the material along with an entry of the amount of material removed can be used to keep raw material inventory records up to date and again saving time and reducing recording errors.

What about knowing the status of a job is on the production floor? Do you have someone go around at the start of each shift and sometimes more often to gather the status of the jobs on the floor? A traveler with a barcode for the job and each operation can be scanned along with your operators badge barcode when the job starts and finishes an operation. Information as to the number of good pieces, scrap and rework could also be entered. With a properly designed MES system, now you can see the status of all the jobs from your desk. What’s more you also would have a history of each job to aid in understanding your production costs, troubleshooting yield problems or responding to warrantee claims.

Again when the finished goods are put to stock the location can be scanned and the quantity entered. When the material is shipped, the goods can be scanned out of stock and the shipping information recorded.

So just where does the payback come from?

There are several parts to an ROI for the use of barcodes:

- 1) The ongoing savings are in the following areas:
 - a) Faster recording of the information, which means your people have more time to handle the other aspects of their job.
 - b) Elimination of the time required subsequently to key the information into a computer, or compile the information for management decision making
 - c) Fewer errors in recording the information, keying the information into a computer or compiling reports from the information.

- 2) The costs are mostly one time costs for some or all of the following depending upon the needs:
 - a) The design time to define where barcodes are to be used and what equipment and systems will be needed.
 - b) Equipment to print barcode labels.
 - c) The scanners to read the labels.
 - d) Updates to travelers to include labels for the operations
 - e) Operator badges with labels.
 - f) The network and system modifications to accept and use the gathered data.
 - g) Changes to procedures and training of the production and office people on how to use the equipment and systems.
 - h) The time to install the fixed labels and the ongoing costs to installing labels on materials, work-in-process or finished goods.

Experience with companies in a number of industries has shown that a system can cost between \$50,000 and \$300,000 which includes the equipment, software and implementation. The payback for such a system is usually between 9 and 12 months.

Here's real-life example:

Upon looking at the cost of "Shipped-In-Error" product, a company found that costs were approaching \$350,000 annually. These costs included return shipping of the incorrectly shipped product, shipping the correct product, evaluation of returned product for restocking or scrap and the associated paper-work. A system was implemented that required the shipping department personnel to scan a barcode on the product bin and on the Pick List. The "Shipped-In-Error" returns dropped to zero. The system cost about \$280,000, but saved the company \$350,000 annually!

Maybe this is something that you should consider for your company.

Applied Technology and Science, Inc. is a provider of Manufacturing Engineering assistance for companies with assembly operations when there is a need to improve or troubleshoot their manufacturing operations. Working with our Strategic Partners we can assess the benefits of computerized data collection on the plant floor for your operations. Please visit our website at www.appliedtechnsci.com for more information or call us at 610-850-2769 to discuss your needs.