

Barcodes

Advantages/Disadvantages

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Advantages of barcodes

- Barcodes are printed on virtually every product that is sold today, allowing them to be quickly identified by a checkout scanner or at any point along the supply chain.
- Products are marked with a barcode, either stamped on a pallet or printed on the box they are shipped in, facilitating their ability to be tracked as they pass through intermediate warehouses and shipping vehicles.
- Some of these vehicles, including train cars and trailers, are marked with their own barcodes so that they themselves can be readily identified and tracked.
- Clearly the ability to identify products by quickly scanning a label is an advantage.

Disadvantages of barcodes

- Barcodes are limited in terms of the amount of information they can carry.
- Barcodes are easily smudged, damaged or lost.
- They require physical scanning and must therefore be visible and accessible to the scanning device, which implies that the package on which they are printed must be positioned or oriented in a particular way as it passes through the scanner, a process that often involves human intervention and, therefore, added cost.

Conclusion

- Disadvantages:
 - Limited information-carrying capacity
 - Physical vulnerability
 - Need for a human in the loop
- Conclusion: a better technology is required in modern supply chains:
 - RFID – Radio Frequency IDentification