

Case Study: Automating Inventory Management through Barcode Scanning

Automation of inventory management is a very popular requirement from our clients. We helped automate inventory management for many of our clients, and in this study, we discuss the main aspects of implementing the automation solution using barcode scanning and labels.



Barcode Scanner



Label Printer

Here are the three main benefits to businesses from automation using barcode in inventory management:

1. Scan and update inventory effortlessly: It enables the user to manage a large number of products just by scanning incoming or outgoing products, and reduces the user's time and effort.
2. Search existing products by barcode: It allows searching of the existing products by barcode and internal reference of the product. Again, this can reduce the time and effort considerably.
3. Avoid human data entry errors: Allows users to add products to ERP module by scanning the barcode - avoiding human errors/typos in data entry.

Barcode App is needed to automate inventory management using Odoo ERP, and the app works with the enterprise edition of Odoo. Odoo ERP can also integrate with label printers such as Zebra label printers (any G series models). Barcode labels of any size can be customized for use on shelves, bins, or products. The scan guns can be used for scanning labels of any size.

There are three major types of barcode scan guns: Wired, Bluetooth, and Wi-Fi enabled. Odoo ERP integrates well with all three types of scan gun devices. Below is a brief description for configuring each of the three types of scanners.

Wired scan gun: It is a standard type of scan gun, and needs to be directly connected to an USB port of a desktop/laptop with an Odoo application running on it. Scan gun and printer related drives need to be installed into that particular system. This kind of scan gun is most suitable for table top operations, and based on the length and range of the wire connection, it may be used further beyond table top.

Bluetooth scan gun: These types of guns use Bluetooth technology to connect to the system running the Odoo ERP Inventory module. If Bluetooth is not built into the system, then scan gun related adapter has to be connected to the system. Typically, Honeywell scan guns are widely used. Scan gun and printer related drivers need to be installed into that particular system. The scan gun can be taken out from the adapter for inventory/scanning operations up to a certain distance, say 100 meters.

Wi-Fi/Mobile computer scan gun: This type of scan gun uses Wi-Fi or SIM card-based internet connectivity to connect to the Odoo ERP application. The Odoo App needs to be installed on the gun through Google play store. From the installed Odoo app, we need to connect to the Odoo application through URL by giving the application's URL and the required credentials. This kind of scanner should always have Wi-Fi or internet through an SIM card. The scanner will work irrespective of distance from the Odoo ERP system as it is operated via the internet. When using this kind of scan guns, only printer related drivers need to be installed into the system with the Odoo ERP module from which inventory operations are performed.