Managing Inventory with ERP

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Why is Inventory so Important?

Inventory management must be a top-level priority. This critical business function is far too important to be left solely to the warehouse manager.
Management across various industries is becoming more aware of inventory:
As companies grow, their inventory needs to be managed. The link between inventory management and cash flow has become more prevalent.
Although inventory is listed as an asset on the balance sheet, it creates liabilities by incurring storage costs and tying up cash and working capital.

An inventory system is used to manage the various activities necessary to maintain production. It includes the various items that an enterprise needs to perform these activities.

Inventory exists due to the uncertainty surrounding demand or supply;
inventory acts as the safety buffer.

Inventory is an expensive asset that needs to be carefully managed and controlled. Complex decisions need to be made about how much to hold and where to store it.

Is a System Needed to Manage Inventory?

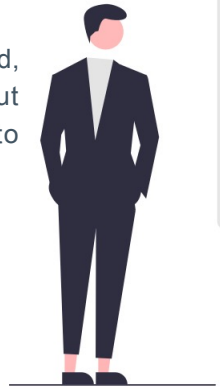
A spreadsheet can be used to manage inventory when there is only one warehouse holding a limited amount of inventory. It can also be used to manage complex environments.

The management of inventory is a top priority for every manufacturing or distribution business. This data should be collected in real-time at all times and should include all of the locations where goods are produced and consumed.

Inventory Management

The inventory management function is a part of a company's operations that coordinates the actions and requirements of its customers in order to meet their needs

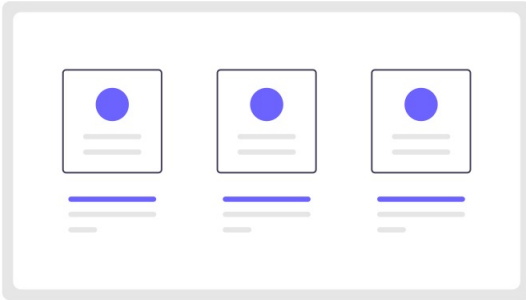
For inventory management to be properly achieved, the organization not only needs an ERP system, but also a level of functional and process maturity to ensure the system can be used effectively.

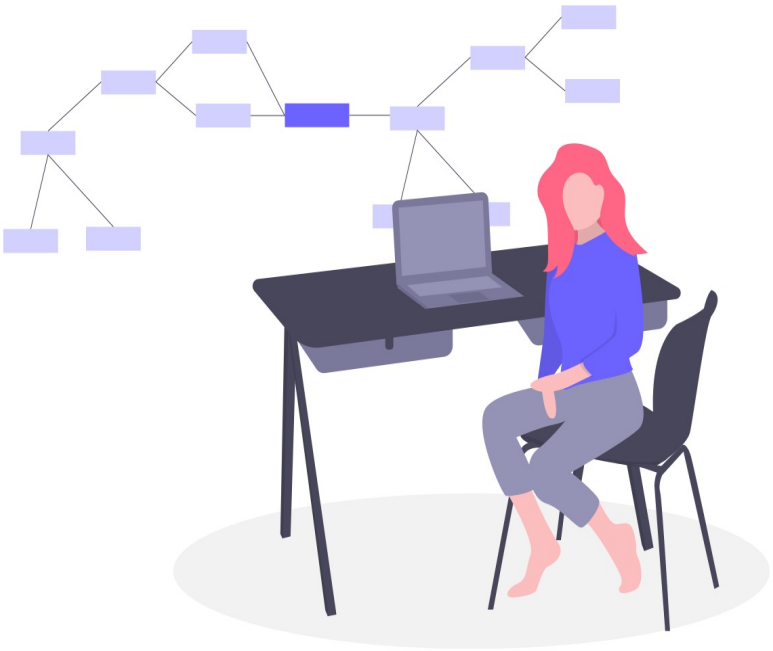


Benefits of an ERP System for Inventory Management

Using an ERP system to manage inventory will assist with a number of goals:

- Achieve optimum levels of inventory at the correct locations
- Address issues of inventory losses and obsolescence
- Reduce the problem of excessive inventory
- Prevent interruptions to production through stock shortages
- Increase visibility of information about inventory
- Improve procurement and replenishment processes
- Enable inventory to be managed at a more granular level
- Assist with regular, efficient stock takes
- Provide additional attributes to handle stock better – lead time, supply/demand variability, velocity





Inventory Classification

Inventory is normally classified according to how it is used in the business value chain:

- Raw materials
- Components
- Work-in-Progress (WIP)
- Finished goods
- Maintenance, repair, operations (MRO)
- Pipeline – inventory in the transportation network

Functions of Inventory Management

InfiniteLoop's Manufacturing Operations Management Solution incorporates an advanced, finite capacity based, planning and scheduling (APS) system allowing you to quickly and accurately schedule while minimizing downtime.

- Carry enough inventory to respond quickly to customer demand and minimize transportation costs
- Minimize investment in inventory to reduce warehousing and storage costs

With an inventory management system, improvements can be achieved

in the following functions: 1 – Control stock:

- Quantity
- Accuracy
- Quality
- Identification

2– Support regulatory compliance for:

- Product traceability using lots or serial numbers
- Product handling with associated handling notes

3 – Optimize the order and replenishment process
4 – Optimize customer service levels by having the right stock at the right location 5 – Regulate movement and distribution requirements
6 – Manage inventory valuations and costs 7 – Provide for inspection rules and points
8 – Monitor sales and production trends to plan and forecast inventory requirements

InfiniteLoop's Inventory Management Functionality

Inventory Control

Inventory Information

Stock keeping units are usually recorded at the location of their origin. They can also be classified into various product classes and groups for easy integration into various business processes..

A good inventory management system is very important to ensure that all items are dispatched to the right location, and that they arrive in good condition.

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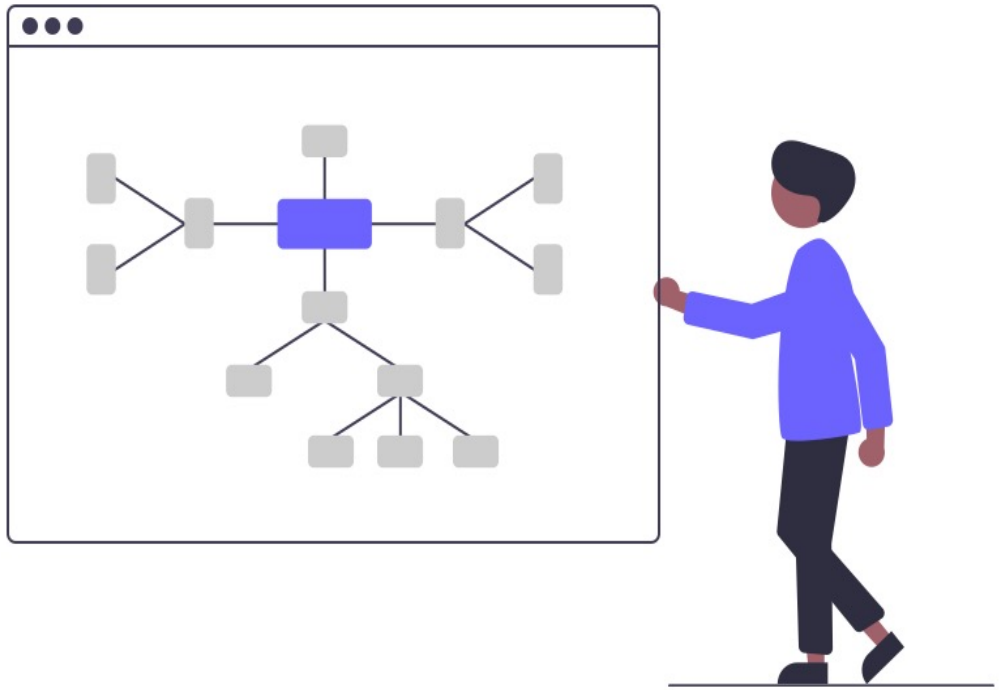
Warehouse Allocation

Stock can be allocated to multiple warehouses, but quantities can be tracked between them. different costs and methods to be used for each warehouse

Bin Allocation

Stock can be assigned to a bin for easier pick or packing. also allows multiple bin locations to be receipted.



Order and Replenishment

Support for Product Traceability

Lot traceability and serial tracking enable a manufacturer to keep track of an item through the entire manufacturing process. It allows the tracking of finished products from receiving raw materials to final dispatch. Once the goods are inspected and accepted into stock, they have a lot or serial number attached to them. These numbers are then recorded when the goods are utilized. These items are still sold to the customer, with the serial numbers attached. If the item is not stocked, they will still have the lot/serial numbers attached. The lot can be traced back to the supplier or the customer who bought the product. The manufacturer can also be traced through the manufacturing process.

Releasing or Depleting Stock from a Warehouse

Depending on the type of business, different inventory depletion methods are available. Inventory managers must determine the rules by which inventory will be

These include:

- Sales order entry, point-of-sale and back order release
- Issuing of stock to Work-in-Progress
- Backflushing - by receipting a finished good into stock, the components are automatically de
- Kanban to achie In Time (JIT)

Movement and Distribution

Managing Warehouse Transfers

Having the right amount of stock in the right place at the right time can help minimize inventory errors.

Support for Different Lead Times

Depending on the type of item that it is, its lead times can very. For instance, if it is bought, its lead times can vary depending on the country where it's made and warehouse conditions.

Approved and Alternate Suppliers

To ensure the quality of their products, businesses may choose approved suppliers. They can also get preferential pricing or provide a guarantee of delivery.

Available-to-promise

The available-to-promise functionality enables a salesperson to deliver a promise to a customer in terms of quantities and dates.

Valuation and Costing

Costing Methods

Understanding the various methods used to value inventory is very important for financial reporting. There are many different methods that can be used to calculate the cost of various goods sold and of ending inventories.

- **Average**
  The average cost of receiving and transporting stock is computed based on the current quantity as well as the new cost..
- **Standard**
  Companies also create a standard cost to prevent deviations in the total cost of their operations.

  Actual

  This material is commonly used for serialized and lot-traceable products. It is used to determine the exact cost of the goods that are sent.

  Activity-based costing

  The total cost of an item will not only include the physical cost but also the cost of all purchasing and/or selling of manufacturing activities.
- **Last cost**
  Often used for replacement cost such as insurance provision.
- **FIFO (First In First Out)**
  This calculation is used to calculate the oldest to latest receipt cost and the quantity in stock.

  LIFO (Last In First Out)

  This is the latest receipt cost that is issued or sold in the market. It is calculated from the oldest and most recent receipt cost.

  Landed Cost Tracking (LCT)

  This module automatically calculates expected costs for imported goods based on the calculation of all landed costs. It provides detailed reporting on actual costs.

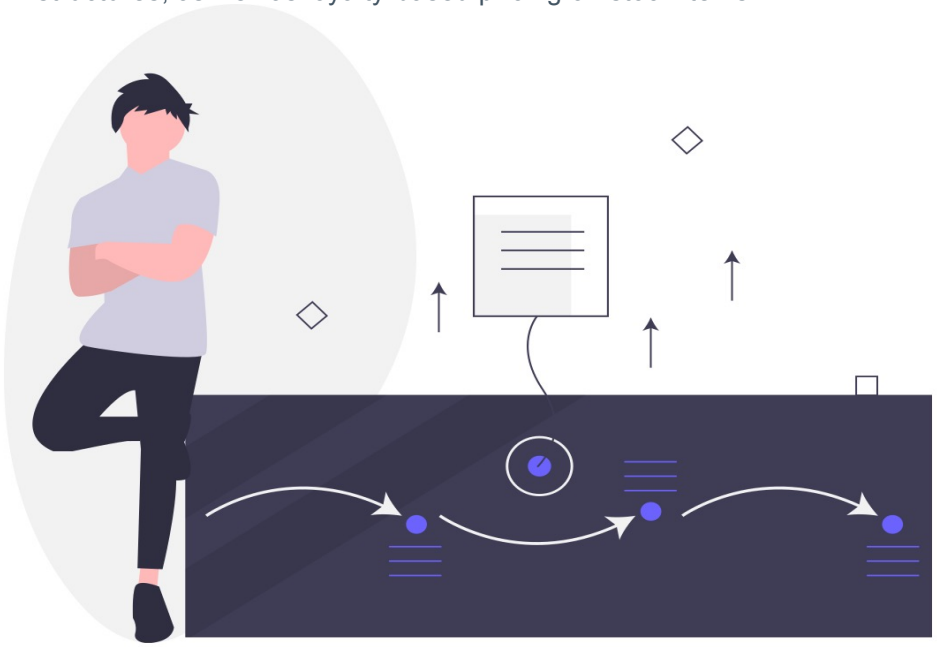
Pricing of Inventory

Pricing methods

Pricing is one of the important strategic decisions that a business must make, as selling goods at the correct price is important for profitability and sustainability. However, there will also be a need to occasionally move stock by providing a discounted price through a promotion. In addition, customers will occasionally want to negotiate a special price for a period of time or specified quantity. Salespeople should also be given an opportunity to negotiate and add a discount as needed, within certain rules.

InfiniteLoop provides extensive manual and automated pricing functionality for sales transactions as well as the capability to include contract and discount pricing terms. The pricing methods available in SYSPRO are:

- **Manual pricing**
  Price and price unit of measure are requested and manually captured for each line on a sales order or quotation.
- **Simple pricing**
  Automated pricing where multiple price codes can be defined against a stock item, but only a single price or discount code is allocated per customer. It enables different customers to be charged a different price for the same item.
- **Extended pricing**
  Automated pricing where up to 26 price or discount codes can be allocated to a customer. It enables customers to be allocated a price category per groups of stock items.
- **Contract pricing**
  This enables a contract to be set up with a customer or buying groups to provide items at a certain price for a specified time period.
- **Discounting**
  A variety of discounts can be defined and automatically applied when entering the sales order, or a salesperson can manually enter a discount.
- **Trade promotions**
  For businesses that use special pricing, quantity discounts and other promotional activities to increase demand, InfiniteLoop offers the Trade Promotion Management (TPM) module. This module provides the functionality to include deductions and allowances, complex discount structures, as well as loyalty-based pricing on stock items.



Planning and Forecasting

Inventory forecasting

The ability to forecast future demand using the Inventory Forecasting module can be used to create an inventory plan that will allow the company to manage the supply of goods and services in the right location.

inventory Forecasting provides the capability to create and maintain forecasts at the Stock Keeping Unit in a Location Level.

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Inventory Optimization

This comprehensive inventory management system is designed to help organizations achieve the right balance of inventory within their supply chain to minimize total supply chain cost.

Optimization seeks to find a balance of the different types of inventory:

- Basic stock – the exact quantity of an item required to satisfy a demand forecast
- Seasonal stock – a quantity build-up in anticipation of predictable increases in demand that occur at certain times in the year

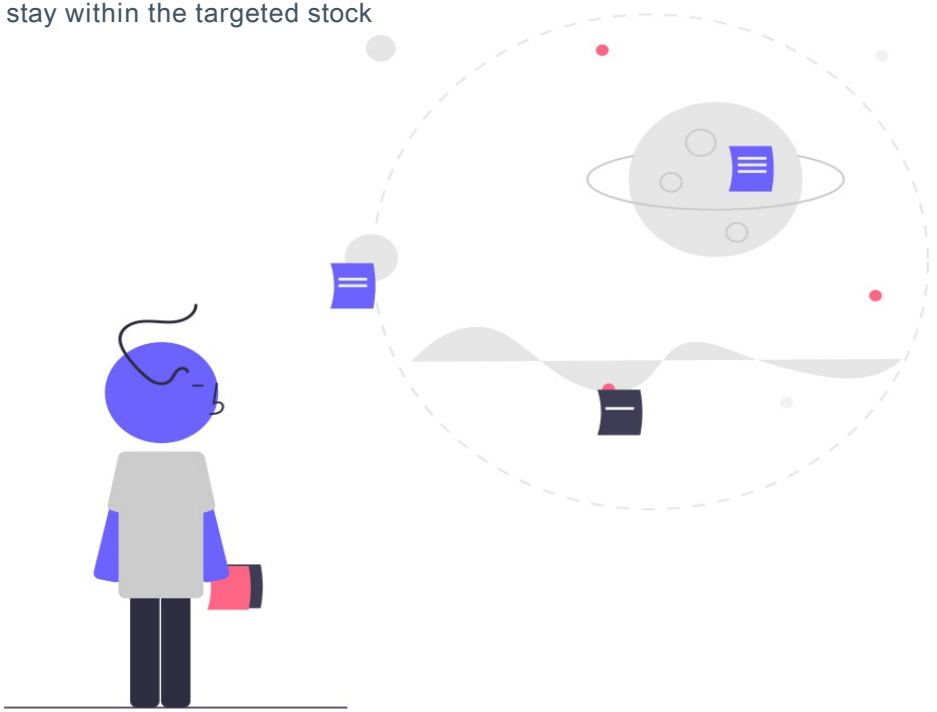
The process steps for optimizing inventory are:

1 - Understand the importance and behavior of each stock in each location

2 - Get the best possible estimate of demand (a sales forecast)

3 - Decide on the appropriate stock levels and target service levels to meet the demand

4 - Replenish timeously to stay within the targeted stock and service levels



Our Team

1- Ahmad Alharbi
2- Omar Alhazmi
3- Ahmad Alharthi
4- Muhannad Alfaidy
5- Ali Alanazi