4.12 An inventory control system with intelligent demand forecasting facility

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ABSTRACT

An inventory control system is an integrated package of software and hardware used in warehouse operations, and elsewhere, to monitor the quantity, location and status of inventory as well as the related shipping, receiving, picking and put away processes. In common usage, the term may also refer to just the software components. An inventory control system may be used to automate sales, forecasting the demand of items and monitor the inventory related data. Demand Forecasting is the activity of estimating the quantity of a product or service that consumers will purchase. Demand forecasting involves techniques including both informal methods, such as educated guesses, and quantitative methods, such as the use of historical sales data or current data from test markets. Demand forecasting may be used in making pricing decisions, in assessing future capacity requirements, or in making decisions on whether to enter a new market.

SuperInventory is a stand alone software suit consists of lot of functional capabilities developed by StarTech Enterprises Pvt. Ltd. SuperInventory consist of two sub systems they are import document management system and inventory control system. Under inventory control system it provides more convenient and up to date information to support the management process. Intelligent Demand forecasting facility is another option included in this system in order to facilitate the management to predict the future demand of the companies imported goods so that they can easily decide what should be imported, quantity that they need to import, etc. Two past year historical sales data was analyzed using Winter's forecasting model and forecast the demand of sales next two years in the company. Import document management system was decided that the storage of files can be achieved through a file cabinet and the copy of the arrangement can be maintained in the system to facilitate the users with advance searching facilities to locate the files easily. Another facility included in this system is the vendor selection expert. This will facilitate the users with the relevant information and assist the user in selecting the vendors who are capable of supplying the needed items. Here the vendors were recorded as and when they are introduce to the system through registration and record both the specialty and general production items. When user want to find the suitable vendor for the imports he/she just have to select the item and the system will automatically prompt the user with the available vendor options.

SuperInventory was developed on the Microsoft Dot Net framework 1.1 with Visual C# for standalone windows application development. Database was developed using SQL server 2000.