Inventory and orders

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1 Summary

The inventory and orders application is a windows based application for making orders for companies which main business is production or sale or both production and sale. The main version of the application is designed for Microsoft's Windows operation systems.

There is also web based solution which is based on the ASP.NET 2.0 technology, e-commerce web site. With the web interface the user who wants to buy products makes own order which need to be confirmed by the company representative. After that the buyer is informed about the status of his order, if is ok then needs to organize transport or needs to take some time in order the wanted products to be produced by the company.

The main purpose of the application is making orders for the products that are produced by the company that uses the application. The cycle of making order starts from the sales person who makes order of products, then this order needs to be verified by the manager of the sales department and at the end the verified order is the one that goes to the inventory person who is responsible for getting the product on the truck who delivers it to its destination.

2 Introduction

The main purpose of the application is making orders of products. Every order represents a piece of paper which defines products, their quantity and their price. This electronic document has its own life starting from its creation by the sales person. Then continues to the manager of the sales department who decides where its life will continue, to its beginning if something is wrong or to its next life level, shipping.

The system has several types of users who are responsible for the life of the electronic document described previously. Those are:
1. Sales person
2. Manager of sales department
3. Inventory person

3 Description

3.1 Main screen

When user starts the application, the first screen that is shown is like figure 3-1. On this welcome screen the user is informed that he chooses one of these actions:

- Manage orders;
- Preview reservations of products;
- Manage tariffs;
- Preview of history of orders.
- Products info
- Reports
- Information for partners
- Inventory

In the list on the main screen the user can see all its defined orders that are about three days to delivery. Also can see the invoices which paying period is broken and the partners are late with paying. Also there is information about the state of the lifecycle of the invoice, is it created, waiting to be approved, is in shipping state or is delivered.
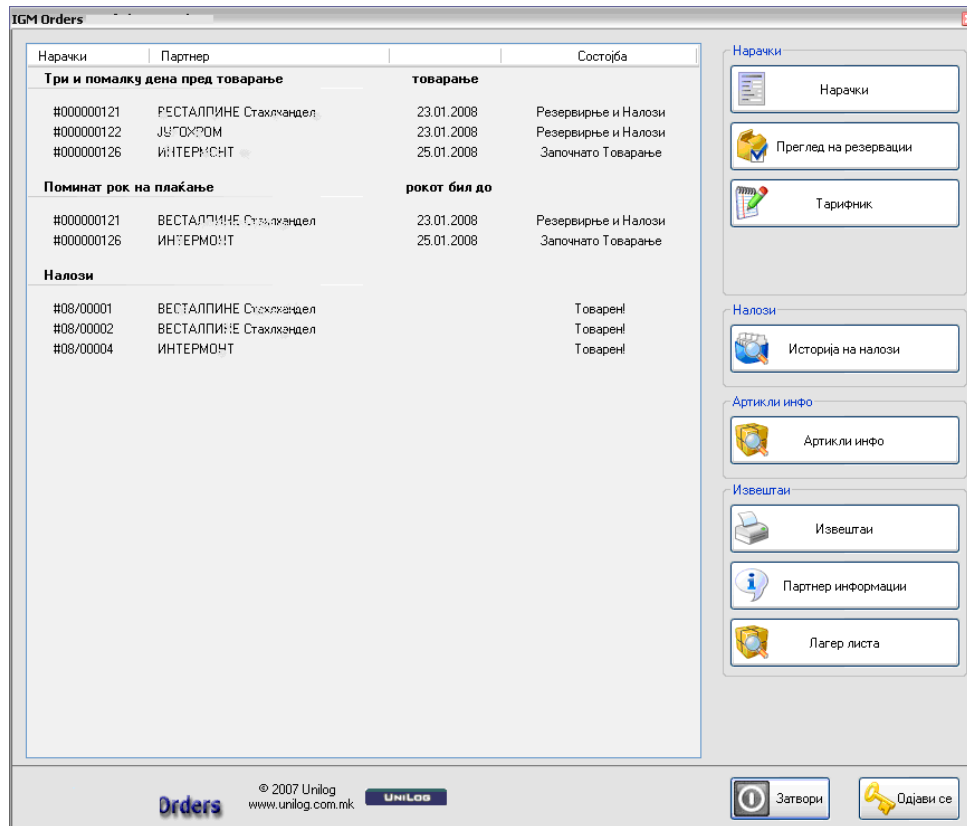
Figure 3-1-1 Welcome screen

3.2 Receiving products

When products are about to receive they need to be registered in the system when they arrive. All received products are registered by receiving invoice and after that the system generates information about where to be stored the product. It gives location where to be stored in the warehouse and this location is unique. After that this product can be out-stored, can be reordered in the warehouse until it is taken from the warehouse system and soled.

3.3 LIFO – FIFO storage

All organizations keep inventory. "Inventory" includes a company's raw materials; work in process, supplies used in operations, and finished goods. Inventory can be something as simple as a bottle of glass cleaner used as part of a building's custodial program or something complex such as a mix of raw materials and subassemblies used as part of a manufacturing process.

Why should every organization need to take care about the financial aspects of inventory? Because inventory is money. It is important to understand and appreciate that inventory information in financial statements can be useful in the operation of every business.

A basic understanding of how inventory appears on the balance sheet and its impact on the income statement and cash flow statement will improve organizations ability to have the right item in the right quantity in the right place at the right time.

The application can generate these kinds of reports in order to count the inventory. Weather the warehouse is LIFO or FIFO organized or it is Average Cost organized the software can generate any kind of report.

	Basic Events			FIFO Method of Accounting				
	Units Purchased			Units Sold			Ending Inventory	
Date	# Units	Cost/Unit	Total Cost	# Units	Cost/Unit	Total Cost	# Units	Total Cost
11/5	800	$ 10.00	$ 8,000				800	$ 8,000
11/7	300	11.00	3,300				1,100	11,300
11/8	320	12.25	3,920				1,420	15,220
11/10				750	$ 10.00	$ 7,500	670	7,720
11/14				50	10.00	500	620	7,220
				300	11.00	3,300	320	3,920
				110	12.25	1,348	210	2,573
11/15	200	14.70	2,940				410	5,513
11/18				210	12.25	2,573	200	2,940
				10	14.70	147	190	2,793

LIFO Method of Inventory Valuation:

	Basic Events			LIFO Method of Accounting				
	Units Purchased			Units Sold			Ending Inventory	
Date	# Units	Cost/Unit	Total Cost	# Units	Cost/Unit	Total Cost	# Units	Total Cost
11/5	800	$ 10.00	$ 8,000				800	$ 8,000
11/7	300	10.25	3,075				1,100	11,075
11/8	320	9.85	3,152				1,420	14,227
11/10				320	$ 9.85	$ 3,152	1,100	11,075
				300	10.25	3,075	800	8,000
				130	10.00	1,300	670	6,700
11/14				460	10.00	4,600	210	2,100
11/15	200	10.22	2,044				410	4,144
11/18				200	10.22	2,044	210	2,100
				20	10.00	200	190	1,900

Figure 3-3-1 LIFO and FIFO accounting inventory reports

3.4 Device application

As was said previously there are several user groups. This section is for the users that work in the warehouse and are responsible for loading the trucks with products. In whole software solution there is a part developed for handheld devices such as PocketPC with Windows Mobile 2003 or Windows CE 5.0. These kinds of devices may have barcode hardware implanted within so the application is used for commissioning the products that are loading into the truck.
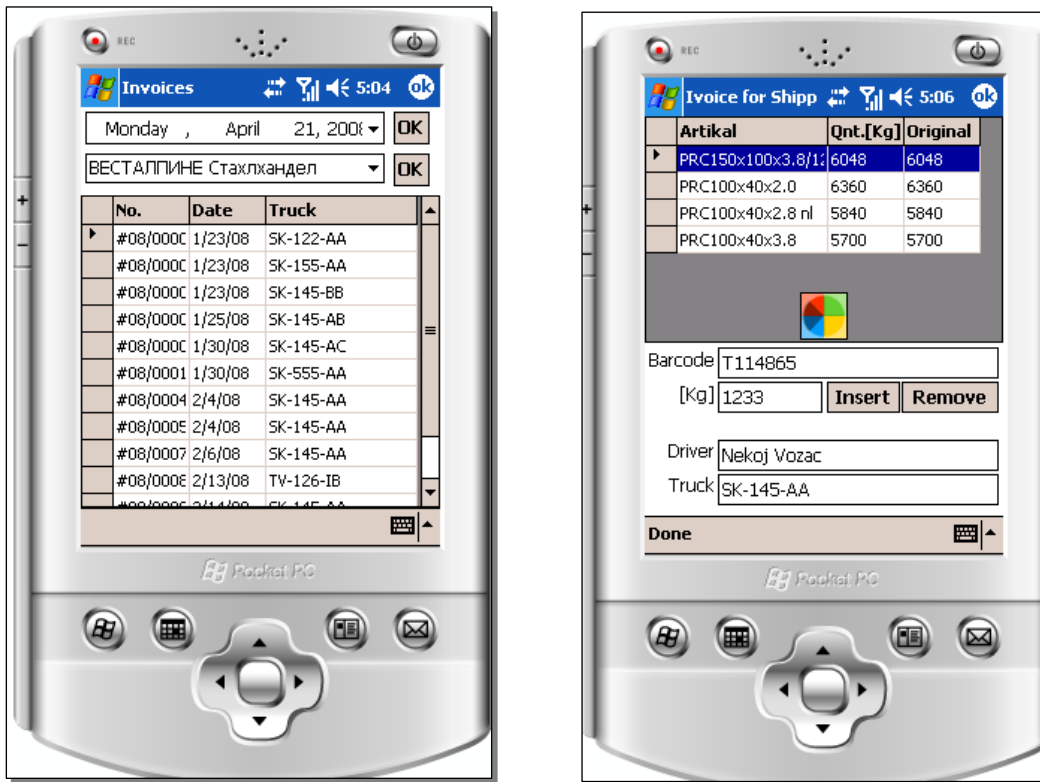

Figure 3-4-2 application for handheld devices

The warehouse person receives the invoice to be fulfilled with items. He checks the list of items to be packed and then with manner of the device inputs the barcode of the item/product and loads the truck item by item. When loading is finished then he inputs the driver name and the truck registration number and in this moment the lifecycle of the electronic document that was mentioned previously is on its last point. The system is informed that the loading of the truck is done and the quantity of the ordered items is shipped to its destination.

4 Benefits

The main benefit of this application is the automated process of making orders and invoices and all appropriate printed documentation that is needed for transportation. Also there are a lot of reports that are going to help the managers to define the selling policy of the company according to the information from the reports.

There is opportunity to make orders on computers locally on the company site or on-line across internet from the web based solution. There is opportunity to work both solutions together and they share one database.

There is opportunity loading of the trucks to be registered with handheld devices because the part of the application is developed for that kind of hardware.

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