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Aspirin for Growing Pains

WHITE PAPER

Is your inventory control a springboard or a roadblock for growth?

All businesses that deal with products, including light manufacturers, distributors, and retailers, have to have some sort of inventory control. A shortage in a final product or production item can mean a lost sale. Losses by theft have a direct impact on the bottom line. Calculation of the cost of goods sold is necessary for proper accounting and tax reporting.

The inventory roadblock

When many businesses start, they use what is called the Eyeball System -- walking through the storage area and noting what the stock levels are. Orders are placed for items that are low or missing. But as a company grows and diversifies its offerings, it becomes increasingly harder to catch each and every potential shortage. Missed sales and the number of dissatisfied customers increase.

Often the next step is to the Reserved Stock or Brown Bag System. A portion of each item is set aside (sometimes literally in a brown bag). When all the other units of the item have been exhausted the bag is opened and the contents made available. The opening of the bag is the trigger to reorder. Hopefully the number in the bag is sufficient to last until the new supply arrives and a stock-out does not occur.

Since the pain of every missed sale because of a stock-out is immediately evident, the tendency is to be a bit conservative -- overstocking to make sure that there is always enough immediately available.

And as a result, the biggest resource of the small business, their capital, is tied up in inventory. There are just too few dollars available for expansion, new sales campaigns, or the introduction of needed improvements to operations. Inventory becomes a roadblock for growth.

Capital starvation is not the only consequence. More inventory means higher holding costs -- rent for storage space, insurance, inventory taxes, heating, lighting, security, the increased possibility of theft, and so on. The bottom line each year is less than it could be.

The greater diversity of inventory items taken on by a growing company also contributes to the roadblock. The personnel assigned to purchasing and receiving can get overwhelmed by the amount of paperwork that has to be performed. The time to find items used in production or to fill orders takes longer and longer. A slight increase in volume or diversity could require the hiring of additional help. A one person operation in procurement, receiving, or production

expands to two - a doubling of the labor expense.

The inventory springboard - computer based control

Computer based systems provide several advantages over the Eyeball and Brown Bag Systems. First of all, by recording the rate that items are taken out of inventory, one can set reorder levels intelligently rather than by gut feel. Shortages are reduced to just the right amount that prevent excessive short-outs without over-stocking.

The impact of having short-outs controlled is not inconsequential. For example, if annual revenues, are, say, $250,000, a short-out rate of just 2% of sales opportunities means a lost of $5000 per year in sales.

On the other hand, without good data to base decisions on, overstocking by 100% can easily happen. For the same example of $250,000 per year in revenue, if the cost of parts is roughly 50% of each sale, there are four turnovers in a year and the reorder level is at 20% rather than 10%, over $3000 is tied up that could better be used elsewhere. Annual carrying costs are also higher.

Secondly, computer based control reduces the number of physical inventories that have to be performed, from perhaps quarterly to only once a year. Assuming three people doing the counting over a three day period, each earning approximately $15 per hour with a 50% overhead rate for related payroll benefits, then roughly another $5000 per year is saved.

Thirdly, the information captured by the computer opens the door to more sophisticated sales analyses. You are able to identify those products which are the biggest sellers and which perhaps should be dropped because the demand does not justify the expenses accrued in keeping them in stock.

Most importantly, a computer based system increases the efficiency of purchasing and receiving tremendously. Staff augmentation does not have to take place until the company is much bigger. And in the meantime personnel are freed to work on other higher priority tasks. Because of more efficient item or product picking, the efficiency of order fulfillment also increases. More sales can be generated with the staff presently on hand. The company is on a springboard for growth.

So which computer based system is right for me?

There are a lot of them out there, ranging from the simple capabilities provided by QuickBooks to ones costing six to seven figures.

Inexpensive packages are targeted at retail operations and distributors rather than manufacturers and, as far as inventory is concerned, primarily serve the purpose of calculating the cost of goods sold for tax purposes. Automatic alerts for purchase order generation, work in progress (WIP) accounting, and computational aids for computing reorder level, safety stock, and reorder quantity.

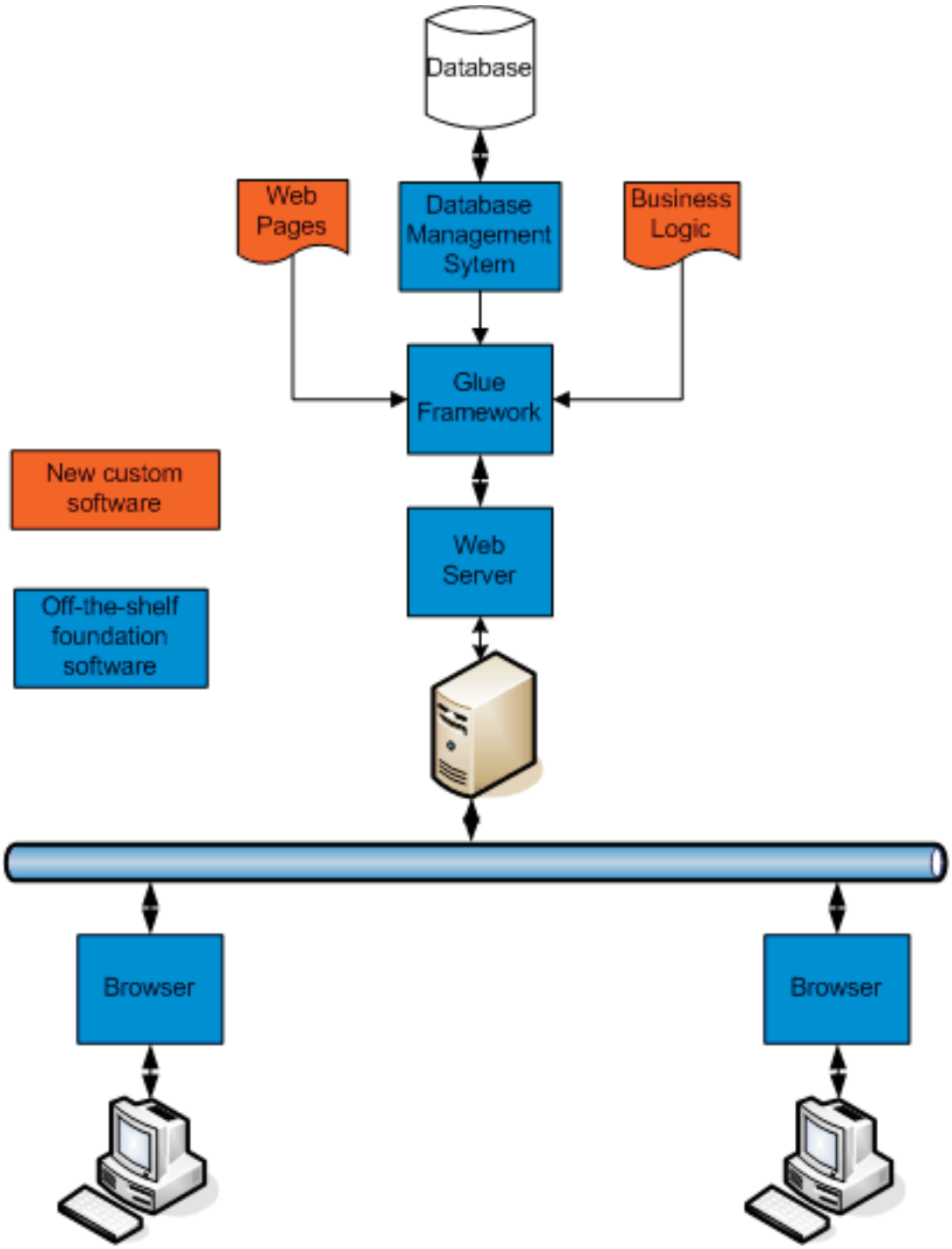

Figure 1 Custom Inventory Control Architecture

are not provided.

Expensive packages are stuffed with every function the vendor can think of to be sure that the requirements of whatever business shows interest in their product can be handled. To recover the development costs, however, these packages in general are quite expensive. Even if the initial price is not a jaw dropper, the annual maintenance fees year after year can add up to be one.

The small business owner has a dilemma. The inexpensive packages do not have sufficient muscle. The large packages can be too dear. With these as the only choices, and with an eye towards growth, many small businesses bite the bullet and buy the big system, knowing full well that they are paying for functions that clutter up the screen and probably never will be needed for the foreseeable future.

Even with the purchase decision made, there can still be dissatisfaction. Every business is different, large or small. It is unusual for any shrink wrapped product to fill exactly a particular business's needs. Usually there are those little annoying glitches or missing functions that have to have work arounds so that the business can still function the way it did before the package was installed. Deciding what to buy, getting it installed, and making it work the way you want it to can become quite a headache.

Some aspirin that can help

There is hope, however. The explosion of computer technologies in recent years means that surprisingly inexpensively custom inventory solutions can be designed and built to do exactly what the business owner wants for his business.

- Clean and simple to understand screens that appear the way that is desired
- No extraneous functions to get in the way
- No expensive annual maintenance contracts

These things are possible because of foundation software that makes the construction of a custom inventory control system easy and fast to build. This foundation software, tested and proven in thousands of installations around the world, provides for the storage of all the relevant data, a web server to present it to user browsers, and glue software that forms the framework for coupling data in a web page with that in the data base. Figure 1 illustrates what part of a system is off-the-shelf and what part is custom tailored to a particular business's need. The number varies depending on the details of what the custom package does, but typically from 98 to 99.5% of all the code necessary for a solution is available from day one of the design and development process.

Of course getting a custom prescription for your business growing pains does take some shopping effort. Rather than just buying some generic aspirin from your drug store, you have to work first work with a pharmacist to get the right formulation.

Alodar Systems can be that pharmacist for you. Drawing on our experience of thirty years in working with the government to design and build custom one-of-a-kind software systems, we do the following:

- Using a combination of automated software and interviews with your key personnel we capture and document your business processes. Figure 2 show an example of one of the process flows we generate.

- Based on the process flows and we design a web site that will run on a server at your site and the web page screens that will be presented to your users. These mock-ups and an accompanying narrative show to you exactly what the final solution will look like and how it will behave. Figures shows what some example screens for new inventory items and receiving.

- We then take your review and comments and iterate the design making the changes that you desire, continuing until you are satisfied with what you will be getting.

- Finally we build your solution, help you migrate your existing data to it. Your growing pains fade away.

If your company is suffering from growing pains and you want to take care of them before they start to inhibit your growth, then please get in touch with us. Our initial consultation is absolutely free. We can provide the customized aspirin that make the pains go away.

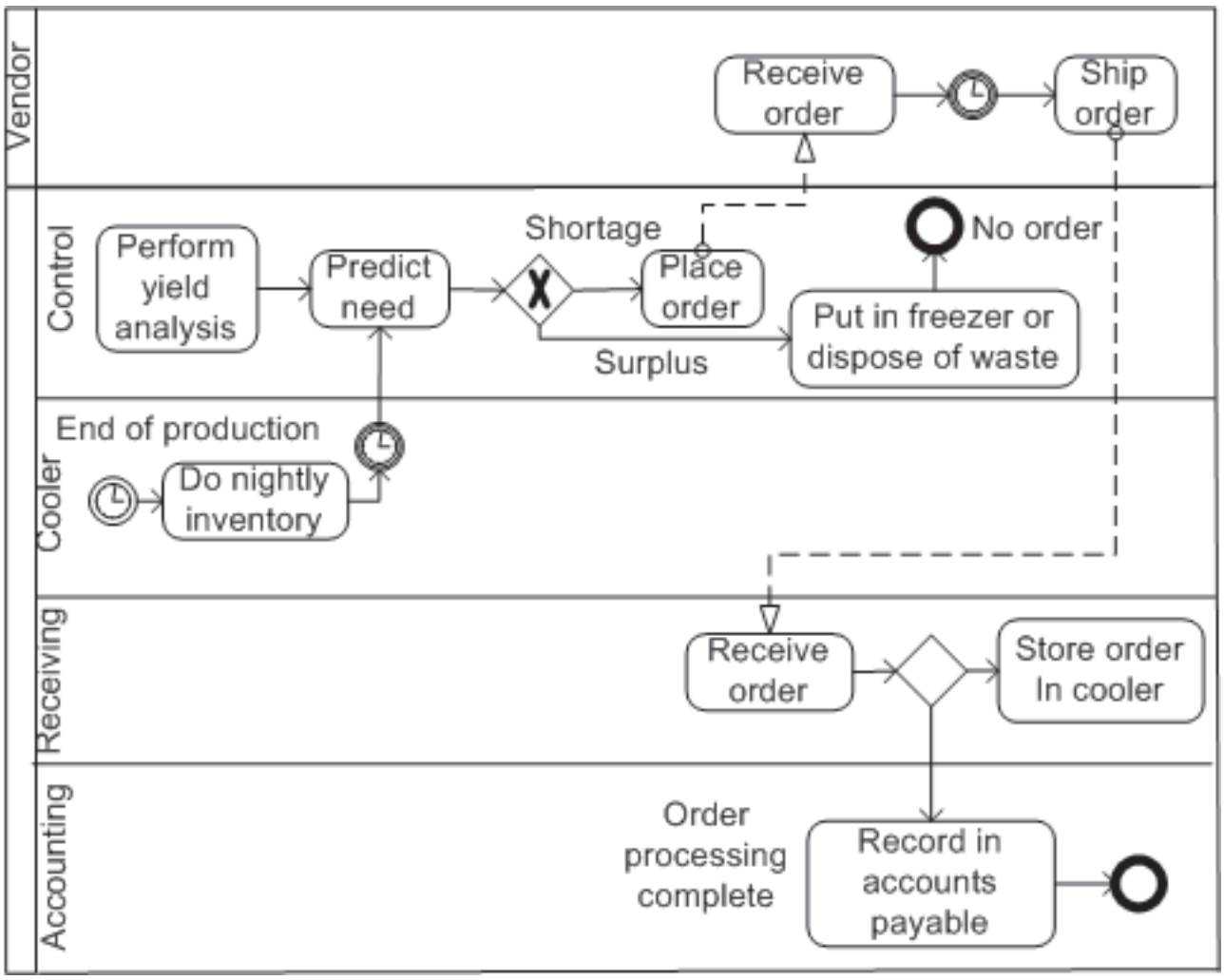

Figure 2 Example process flow

Create Item

Item Id:

Description:

Reorder level:

Minimum Order:

Lead Time (days):

Type: finished goods

Unit of Measure:

Supplier:

Supplier Lot Number:

Last Cost: 1234567 Future Cost:

Total Quantity Committed Available In Process On Order

Suppliers

update delete Acme Products
update delete Burlington Industries
update delete Cartwright and Sons
add

Create New Item | Update Existing Item | Clear Item

Update Receipt

Supplier: Allied Products ☐ **Pre-build**

Our PO No. inv004 **Date:** 7/21/2007

No	Qty Ord	Qty Rcvd	Item Id	Item Description	UOM	Supplier Id
1 update delete	150	100	123	Wheel axle	each	44ax
2 update delete	25	25	125	Wheel grease	tube	gr1
3 update delete	101	101	126	Wheel weight	package	lead-15
4 update delete	75	100	127	Wheel patches	case	vinpat-zz

add

Figure 3 Example New Inventory Item and Receiving Screens