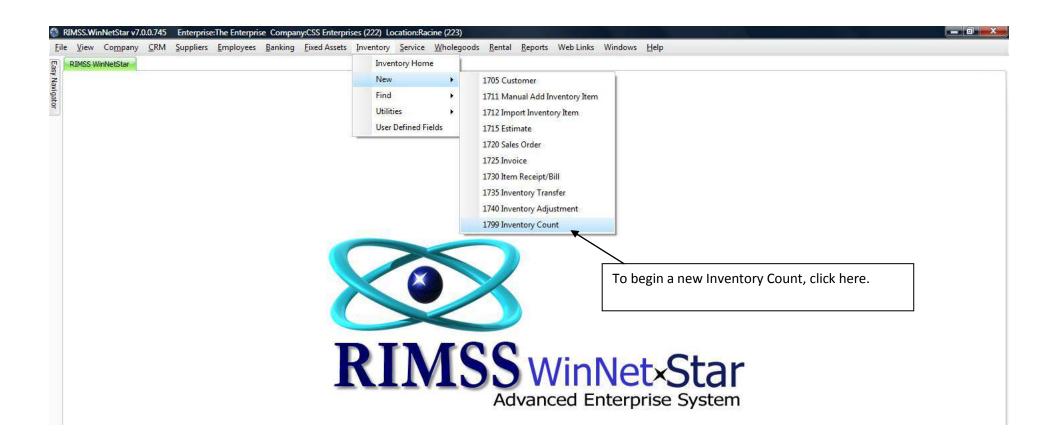
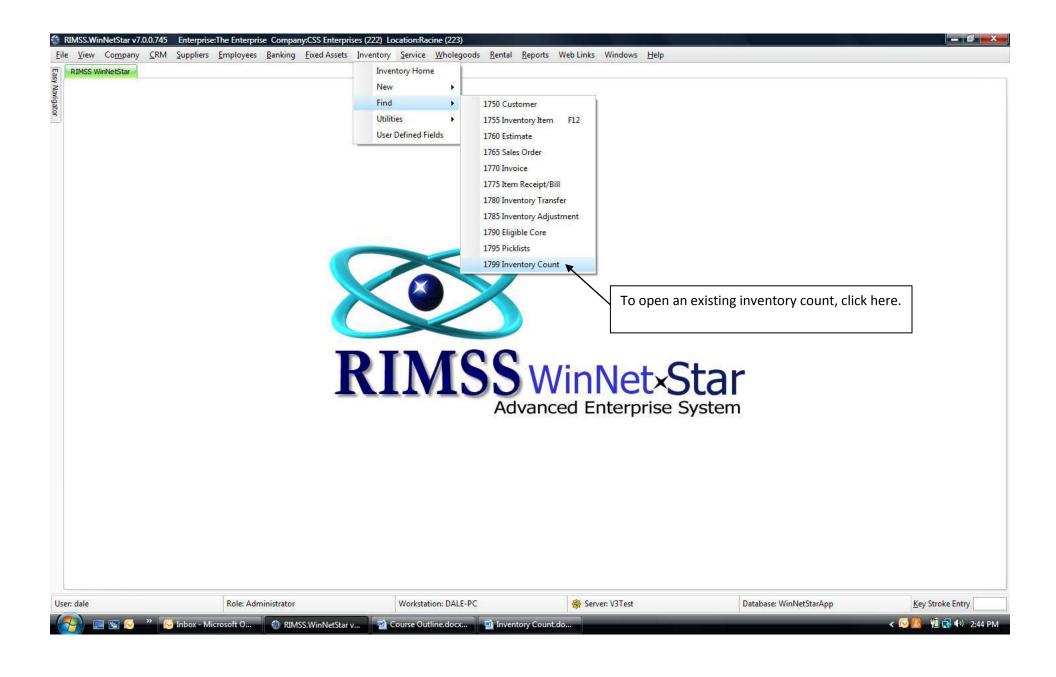
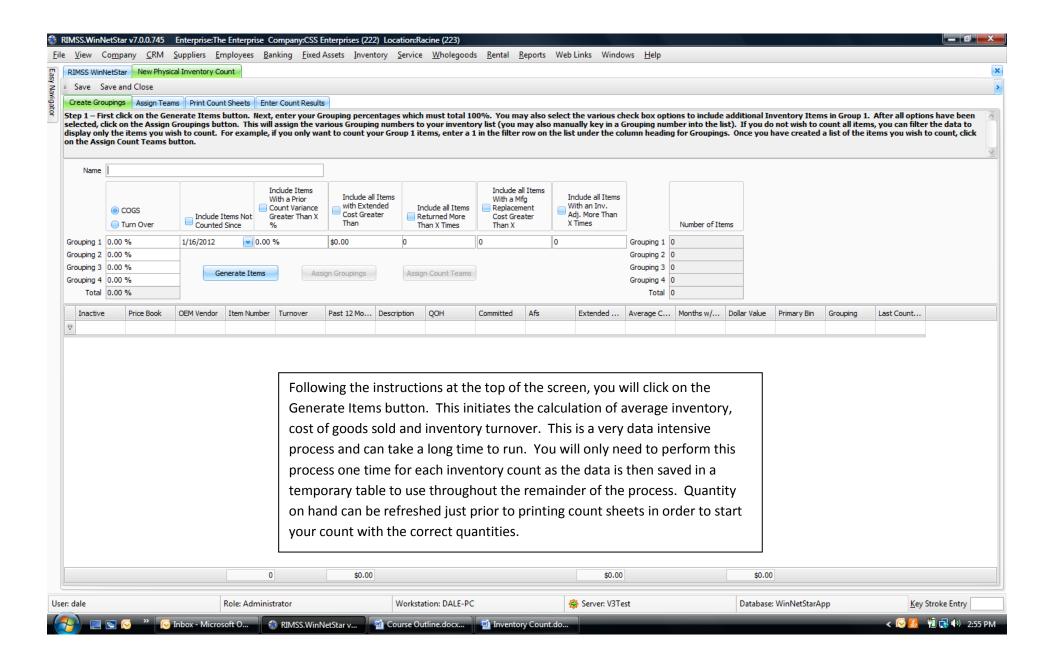


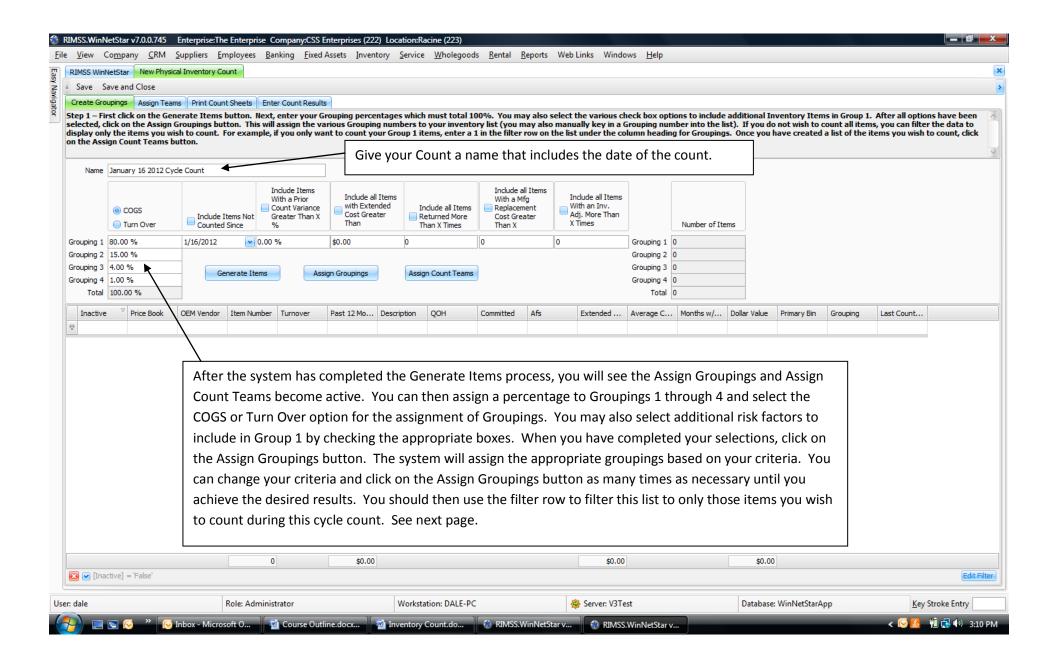
Inventory Count

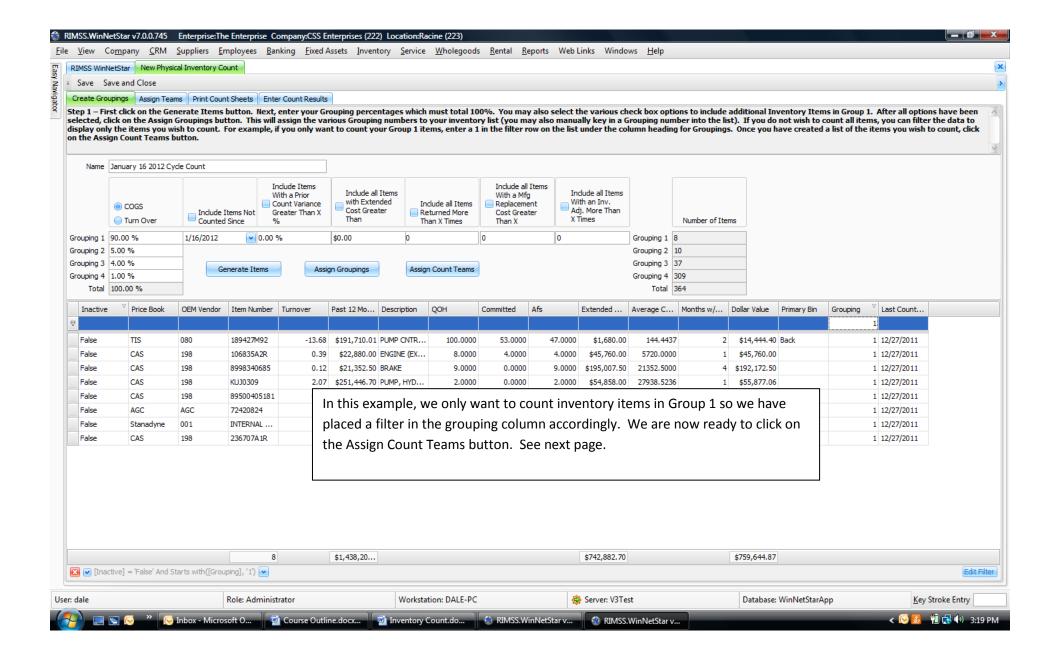
WinNetStar includes features to facilitate the counting of inventory items. The features were designed to allow for risk based cycle counts throughout the year but can also be used to count 100% of your year-end inventory. Risk categories can be determined based on how often a particular inventory item has been touched (the more it is touched the more likely the chance of an error in quantity). This can be determined based on inventory turn-over or based on the dollar amount of cost of goods sold. Using this risk rating process to determine which inventory items to count during a cycle count will allow you to count fewer items but cover more of the risk. You can also assign risk factors based on other metrics such as dollar value of the inventory item, extended dollar value of inventory items, prior count variances and number of returns of a given inventory item. After determining the population of inventory items to count, the system allows for the easy production of count sheets for the various count teams you will use. After entering the results of the inventory counts you can produce variance reports to determine which items warrant a second or third count. After all counts have been completed and entered, the system will produce a suggested inventory adjustment. The following screen shots illustrate the use of the Inventory Count features of WinNetStar. For a more in-depth discussion of the benefits and procedures for cycle counts please refer to the attached article.

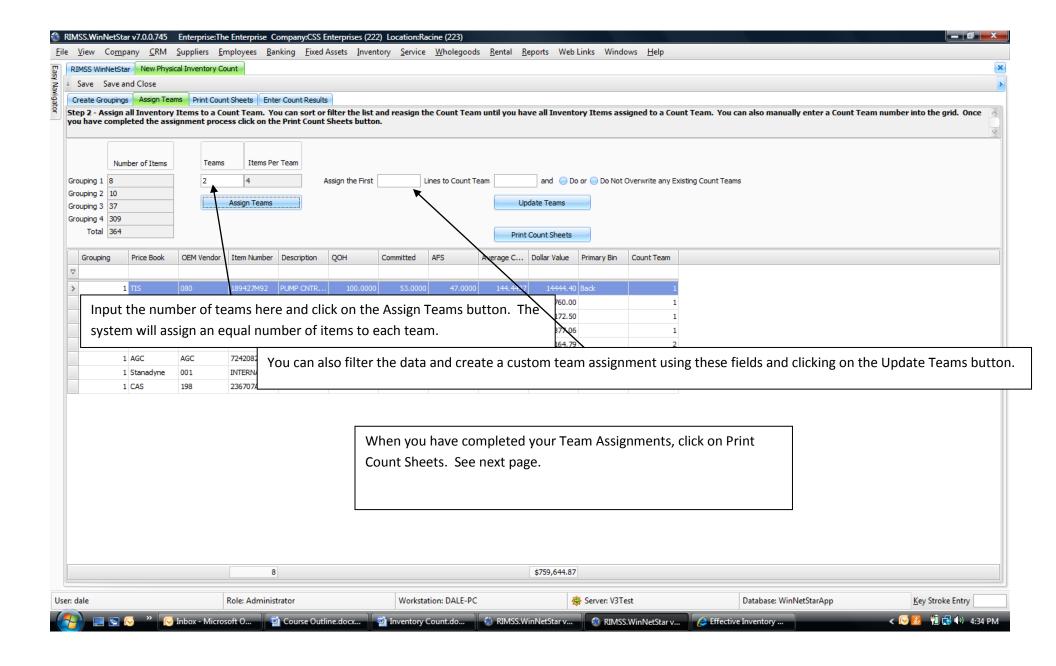


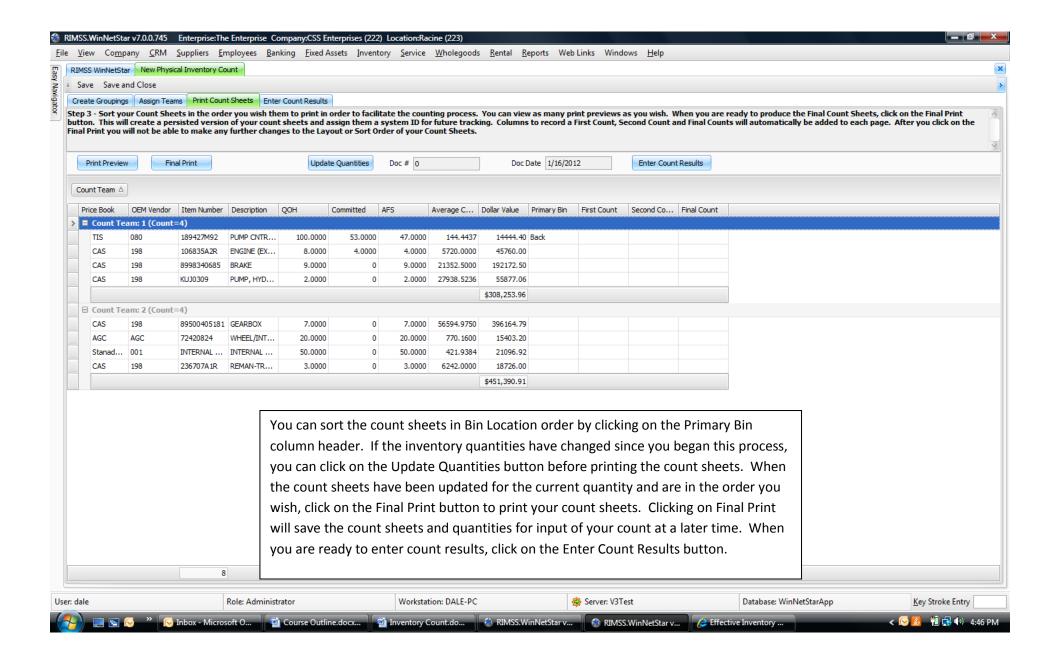


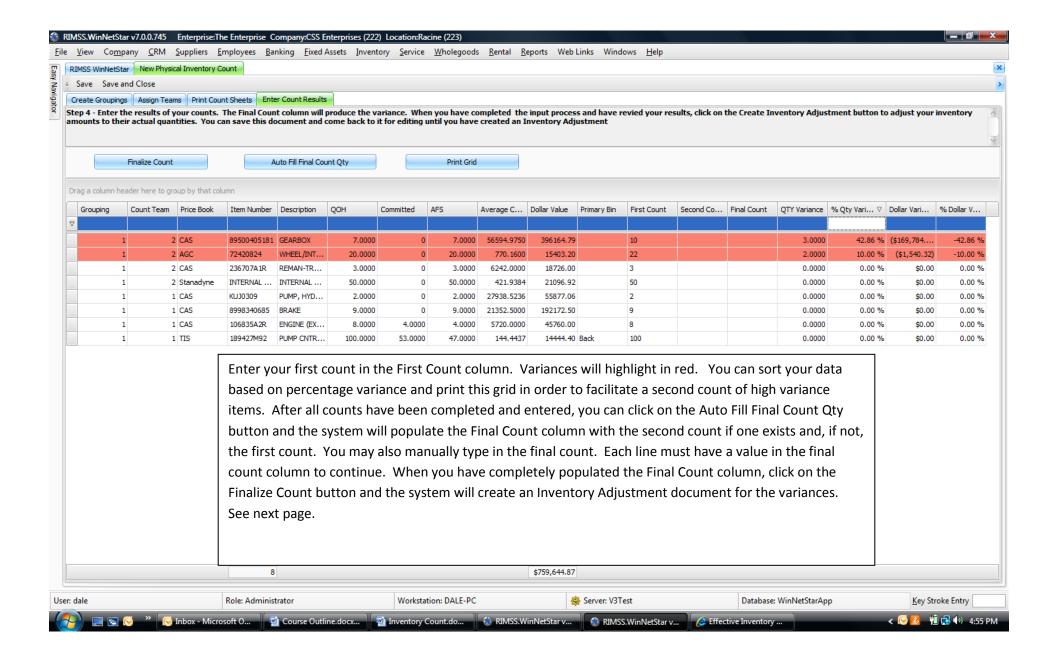


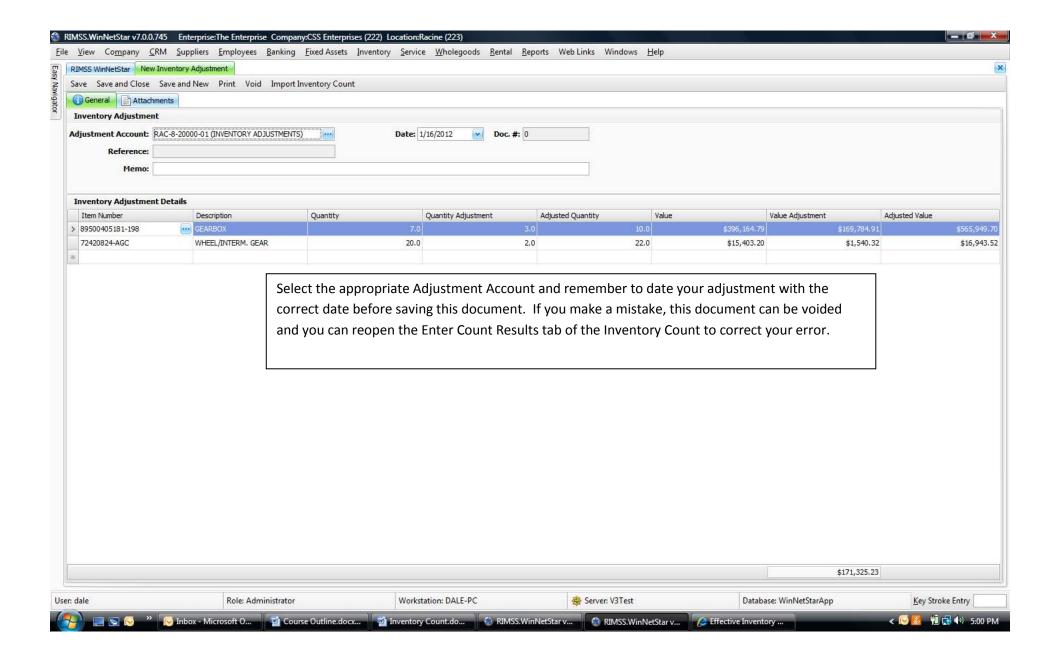














Cycle Counting Can Eliminate Your Annual Physical Inventory!

(Part One)

by Jon Schreibfeder

In the previous two articles, we outlined some steps you can take to help ensure that your annual physical inventory results in an accurate count of what is in your warehouse. In this article we examine an alternative to the annual physical, continual cycle counting.

Without accurate stock level information in your computer, effective inventory management is impossible. No matter what sophisticated tools you have in your inventory management system, if the computer thinks you have 100 pieces of an item, and there are really only three on the shelf, the system won't replenish your inventory when it should or order the right quantity.

Unfortunately, most distributors only verify the stock balances in their computer once a year, when they perform a physical inventory. During the physical count, every item is counted and, if necessary, the balance in the computer is adjusted to reflect the actual quantity on the shelf. Even if you assume that the physical inventory results in an accurate count of each stocked product (a big assumption for many distributors), how long do the counts remain accurate? One month? Two months? Six months? Eleven months after the physical count, what percentage of stocked products still have an accurate available quantity in the computer?

In order to receive all of the benefits from a good inventory management system, stock balances must be at least 97% accurate, *every day of the year*. This means that the actual available quantity of every item in the warehouse is no more than 3% greater or less than the available quantity displayed on your computer inquiry screens. If the computer says there are 100 pieces of an item on the shelf, there should be no less than 97, nor more than 103. Note that 97% is the *minimum* acceptable standard. One hundred per cent accuracy is the optimal goal that you should strive to attain.

The best way to ensure that a minimum of 97% accuracy is maintained is to continually count your products. That is, count part of your inventory every day, and count each item several times per year. This process is called "cycle counting."

If the answer is so simple, why doesn't every distributor abandon their annual physical inventory and cycle count? Do distributors enjoy the annual wall-to-wall count so much that they refuse to give it up? I don't think so. In fact, many distributors have implemented cycle counting programs only to abandon them when they see that their inventory accuracy hasn't improved, it may even have gotten worse!

For all of its benefits, there is one logistical problem which makes cycle counting more difficult than a complete inventory. That problem is material movement. Think of the environment that exists (if you follow the guidelines in the previous two articles) when you conduct an annual physical inventory:

- All stock receipts have been placed in their proper bin location.
- All printed sales orders and transfers for stock material have been filled.
- Computer records for these receipts, sales orders, and transfers have been updated.
- All customer returns have been processed and the material returned to stock.
- No customer orders are filled nor material moved until the counting of all products in the warehouse is completed

All material movement has stopped. You are counting a fixed target.

It would be nearly impossible to recreate these conditions every day when you cycle count. After all, you have to continually receive material and fill customers orders to remain in business. As a result, cycle counting is like trying to count a moving target. How difficult is this? Well, go down to your local pet store and try to count the goldfish in a tank. How do you know that some quantity of the products you are counting today isn't sitting on your receiving dock having just been entered in the computer? Or, is it possible that an order for an item being counted has just been filled but the computer records won't be updated until tomorrow? It's no wonder that many well-intentioned distributors throw up their arms in frustration and abandon cycle counting programs after only a few days and weeks.

Like the procedures necessary for a successful annual physical count, there are several necessary guidelines for a cycle counting program to produce the desired results:

Decide which cycle counting method to use. A good plan for determining the frequency with which products are counted ensures that no items will be skipped, or counted more often than necessary. There are two methods for determining when to cycle count items that can form the basis for a good plan:

- The Geographic Method
- The Ranking Method

Using the Geographic Method, you start at one end of your warehouse and count a certain number of products each day until you reach the other end of your the building. This results in counting all of your items an equal number of times per year. Because you are systematically examining the contents of each shelf and bin, the Geographic Method facilitates the "discovery" of misplaced or lost material, especially the stuff that has been "stashed" between bins. If you implement a geographic count system, try to count each stocked item at least four times per year.

The other method is the Ranking Method. Research shows that the more often a product is received or shipped, the less accurate its computer stock balance. This makes sense. Every time someone goes to the bin is an opportunity for a mistake (or to coin the new term, an "unquality event") to occur. For example, material can be put away in the wrong bin, or the wrong product can be taken to fill an order. The Ranking Method directs you to count the items with a large number of dollars flowing through inventory (i.e. with the highest annual cost of goods sold) more often than slower-moving products. The ranking is based on "Pareto's Law" (named for the late Italian economist Vilfredo Pareto) which basically states that, in general, 80% of the results of any process is produced by 20% of the contributing factors. Applied to inventory, this means that approximately 20% of your inventory items are responsible for 80% of your stock sales. Though Pareto came up with this theory nearly 100 years ago, it still is generally true. And, for the reasons we talked about, we want to count these items (i.e. the top 20%) more often:

"A" rank items (responsible for the top 80% of sales) count six times per year

"B" rank items (responsible for the next 15% of sales) count three times per year

"C" rank items (responsible for the next 4% of sales) count twice per year

"D" rank items (responsible for the last 1% of sales) and products with no sales count once per year

Though not as effective in finding lost material, the Ranking Method usually works best for maintaining accurate inventory counts. Because the primary purpose of cycle counting is to verify the quantity on-hand of each item, most distributors prefer the Ranking Method.

When should cycle counting be performed? Most distributors experience some time during the day when material is not moving. Usually this is just before, or after, normal working hours. The chance of counting errors is reduced if cycle counting is performed during these "off" hours. Consider counting for one hour each morning before your warehouse opens for business. Or, if you prefer, counting can be done for an hour each afternoon, after the last order has been filled.

Most distributors are open for business about 250 days per year. This means that if you use the geographic cycle count method, and have 10,000 items in inventory, you will have to count about 160 products per day:

```
10,000 items counted four times per year = 40,000 counts 40,000 counts / 250 days = 160 products counted per year
```

Though how fast items can be counted is dependent on many factors, one conscientious, experienced person can usually count between 100 and 150 products in an hour.

The number of products counted each day using the Ranking Method will vary depending on the number of products that are assigned to each rank. To give you some idea of how this method works, we'll look at another distributor with 10,000 stocked items:

• Rank "A" contains 2,000 products

- Rank "B" contains 3,000 products
- Rank "C" contains 4,000 products
- Rank "D" and the dead stock category contain 1,000 products

Notice that, in our example, the Ranking Method requires fewer products be counted each day:

2,000 "A" items counted six times per year = 12,000 counts
3,000 "B" items counted three times per year = 9,000 counts
4,000 "C" items counted twice per year = 8,000 counts
1,000 "D" items counted once per year = 1,000 counts
Total 30,000 counts
30,000 counts / 250 counting days = 120 products counted per day

Greater inventory accuracy resulting from 25% fewer counts! No wonder rank based cycle counting is a popular alternative to geographic counts or an annual physical inventory.

Determine who should count. When you conduct a physical inventory, you have to count every piece of every item in your warehouse in a short period of time. To accomplish this task, most distributors draft, and put to work, anyone in their organization who can breath and count at the same time.

Cycle counting is different. Only a limited number of items are counted each day. To ensure the counts are accurate, only knowledgeable, experienced warehouse people should do the counting. Sure, you'll have to put them on a slightly different schedule. That is, they'll have to come in early or stay late. But the one or two hours of their time spent counting each day will be well worth the investment. Think about how good you'll feel when you, and all of your employees, have confidence in the stock balances in your computer!

As I hope you can see, there are some definite advantages to implementing a cycle counting program. In our next article, we'll look at cycle counting procedures, as well as the differences between counting with and without bar-coding equipment.

Jon Schreibfeder is president of Effective Inventory Management, Inc. (EIM) of Coppell, Texas. Author of the Effective Inventory Management Guide series, Jon offers seminars on inventory management and works with individual distributors throughout North America.

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Cycle Counting Can Eliminate Your Annual Physical Inventory!

(Part Two)

by Jon Schreibfeder

Counting inventory in your warehouse is neither a pleasant nor an easy task. Over the last four months we've discussed various methods of counting your products in order to maintain accurate information about what's in your warehouse and available for sale. Last month, we looked at implementing a cycle counting program as an alternative to an annual physical inventory. While we discussed the advantages of cycle counting, we didn't have enough time to completely describe how to set up a cycle counting program. In this article we'll look at determining when to count items as well as how to resolve discrepancies caused by "floating" paperwork. We'll also explore the advantages of using bar-code equipment to facilitate the counting process.

Develop Your Count Schedule

On what specific days should each product be counted? In the last article, we described two methods for cycle counting: the geographic method and the ranking method. The geographic method is a wall-to-wall count in which each product is counted four times per year. The ranking method counts those items with the most dollars moving through inventory more often than slower moving items.

To develop a count schedule for a geographic program, first calculate the number of products you will have to count each day. We will use an example of a company with 10,000 products in its warehouse:

10,000 items counted four times per year = 40,000 counts 40,000 counts / 250 counting days = 160 products counted per day

Start at one end of your warehouse, assign the first 160 products to "Day 1," the next 160 products to "Day 2," and so on until the last 80 products on the list, along with the first 80 products, are counted on "Day 63." On the next day products 81-240 are counted and the process continues. Cycle counting is one job in your company that should never be completed. There will always be products to count tomorrow!

Please note that unless you have a computer system that can maintain multiple on-hand quantities for an item (i.e. the quantity in each of several bin locations), you should count all locations for an item on the day that item is scheduled to be counted. So, when you count the primary location for a product, be sure to count all surplus and bulk storage locations as well. If your system supports multiple on-hand quantities, treat each location as though it were a separate part, and make sure you accurately record how much of the item is in each bin.

What happens if there is a situation one day which prevents you from counting all of the scheduled items? Well, you need to count more items on the next day in order to "catch up" to where you should be in the schedule. Catching up may require you to have one or two people work some additional overtime. But, this is a small price to pay to ensure that the inventory availability information in your computer is accurate.

It is a bit more complicated to establish a count schedule for a rank-based cycle counting program than the geographic method, but it's certainly possible. Keep in mind that in order for a rank-based cycle count program to be successful and more accurate than a geographic count, it is imperative that all items are assigned to the proper rank. So be sure that your stocked products are re-ranked (based on annual cost of goods sold) on a regular basis. Many distributors assign ranks according to the following criteria after the items have been sorted in descending cost of goods sold order:

```
Items responsible for the first 80% of sales
Items responsible for the next 15% of sales
Items responsible for the next 4% of sales
Items responsible for the last 1% of sales
Ranked "C"
Ranked "D"
```

The old Pareto principle, that approximately 20% of inventory items account for 80% of sales, applies to most distributors' inventories. Let's look at a sample rank-based count schedule. Once more there are 10,000 items in his warehouse:

```
2,000 "A" items counted six times per year = 12,000 counts
3,000 "B" items counted three times per year = 9,000 counts
4,000 "C" items counted twice per year = 8,000 counts
1,000 "D" items counted once per year = 1,000 counts
Total of 30,000 counts / 250 counting days = 120 products counted per day
```

Here is a rank-based cycle counting schedule for the distributor that will attain the desired number of counts for each product. Note that on some "transition days" items from two groups will be counted:

```
Day 18-42 Count "B" items
Day 42-59 Count "A" items
Day 59-74 Count 1st half of "C" items
Day 75-91 Count "A" items
Day 92-116 Count "B" items
Day 117-133 Count "A" items
Day 134-149 Count 2nd half of "C" items
Day 150-166 Count "A" items
Day 167-174 Count "D" items
Day 175-199 Count "B" items
Day 200-216 Count "A" items
Day 217-250 Count "C" items
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As with the geographic method, when you get to "Day 250," go back to the beginning. It's like painting the Golden Gate Bridge, the work is never completed!

Reconciling Cycle Counts

As we discussed last month, cycle counting should be performed by knowledgeable, experienced warehouse people, during "off-hours" when material is not moving. But unless you have installed a radio frequency ("RF") bar-coding system (discussed in the next section), your counting process may be hampered by paper work or material in process.

While it is important to process all sales orders, stock receipts, and customer returns in a timely manner, it is not always possible to complete all paperwork before starting the cycle count for the day. For this reason, the shelf count must sometimes be adjusted before it is compared to the onhand quantity in the computer. While the specific adjustments will vary depending on when quantities are updated in your computer, there are some general rules to follow, and some situations to look for:

Sales orders that have been filled, but have not been confirmed in the computer. The confirmation process reduces the on-hand quantity in the computer by the quantity shipped on the sales order. If a customer order or outgoing transfer has been filled but not confirmed, the quantity shipped of the item must added to the quantity physically counted before that amount is compared to the on-hand figure in the computer.

Stock receipts entered in the system, but not yet placed in the proper bin location. Again the quantities on these stock receipts must be added to the counted quantity before being compared to the on-hand amount in the computer.

Stock receipts placed in the proper bin location, but not yet entered in the system. These amounts must be subtracted from the counted quantity before that amount is compared to the on-hand quantity in the computer.

"Floating" paperwork is the most common reason for cycle count discrepancies. To facilitate the count process, it is a good idea for counters to receive a list of open transactions for the items being counted each day.

The Advantages of Bar-Coding Equipment

Bar-coding equipment speeds up the both physical inventories and cycle counting. There are two basic types of bar-coding equipment: *standard* equipment where count information is temporarily stored in the bar code reader/collection device, and *radio-frequency* (or "RF") devices which immediately transmit data to your computer as it is entered.

When using bar-coding equipment, the counter simply scans the bar-code label on the shelf, and keys in the on-hand quantity. Note that in the hard-goods distribution industry, shelves or bins are usually bar-coded, not the individual pieces or boxes of each product.

At first glance, bar-coding may seem like nifty new technology, but hardly worth the cost of the necessary equipment and computer software. However, the implementation of bar-coding can lead to major savings of time and money! In addition to faster counting, benefits result from the fact that count quantities do not have to be manually re-entered into the computer. Instead the count information is electronically downloaded from the bar-coding device into your computer system and your inventory records are automatically updated. Not only does bar-coding speed up the counting process, but it eliminates the possibility of human data entry errors as the information is loaded into the computer.

In fact, when radio-frequency bar-coding equipment is implemented throughout a distributor's order filling and stock receipts processes, cycle counts can usually be conducted anytime ... even in the middle of your business day! How is this possible?

When every warehouse person has a RF bar-code reader, all material movement is instantaneously transmitted to the computer. It is possible to maintain an accurate shelf-count quantity in the computer, in addition to the traditional on-hand amount. Whenever a new shipment is placed on the shelf, the computer is immediately notified. And, as material is removed to fill an order, the shelf quantity in the computer is reduced. As a result, when cycle counting takes place, the computer knows exactly what to expect to find on the shelf. No paperwork reconciliation is necessary.

Although RF equipment still represents a sizable investment, it is becoming an option for more and more distributors. If you are in the process of looking for a new computer system, be sure it has the capability to work with RF bar-code equipment.

Well, with these four articles, you now have the knowledge necessary to conduct physical inventory and cycle counting programs to maintain accurate stock balance information in your computer. If you think cycle counting is not worth the trouble, you need to reflect on the value you place on your stock inventory. After all, some people feel that it's actually worth some money ...

Jon Schreibfeder is president of Effective Inventory Management, Inc. (EIM) of Coppell, Texas. Author of the Effective Inventory Management Guide series, Jon offers seminars on inventory management and works with individual distributors throughout North America.

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