



Why Cycle Count?

This article discusses the difference between cycle counting and physical inventory, the benefits of establishing a cycle count program, and how to get started.

A physical inventory is usually performed to satisfy an accountant or bank regarding the value of inventory as of a point in time. All inventories in the warehouse are counted and valued as part of the physical inventory. All activity in the warehouse must be ceased, the receiving and shipping docks cleared, invoicing must be complete for shipped orders, and everything received must be booked before the physical inventory can be performed so you have a clean cutoff. Performing a physical inventory is very disruptive to the business. It is a process performed strictly for accounting reasons. Accurate inventory one day a year is of little operational value.

Cycle counting is like performing a physical inventory on a small portion of your inventory every day. The purpose of cycle counting is to maintain accurate inventory to support the day-to-day operation of the business. The goal of a good cycle counting program is to maintain 99% or better inventory accuracy at the item and bin level. This is a significant contrast to the physical inventory where the goal is to determine the current value of the inventories in total. The payback for establishing a cycle counting program is the benefits of accurate inventory. A side benefit of a good cycle counting program is that taking an annual physical inventory is not required.

Maintaining accurate inventory quantities is being pro-active. You save money by preventing problems. Some of the benefits that can be achieved by having accurate inventory are:

- Eliminate operator time looking for lost or misplaced inventory during picking
- Improved order completion
- Reduced returns due to picking errors which saves warehouse, sales, and accounting time
- Quicker picking, thus reduced order lead time
- Improved confidence within the sales organization that an order will be shipped as promised
- A corollary to the last one; sales people will not have to personally check stock or set stock aside to make sure it is available as promised
- Improved confidence within the purchasing group resulting in reduced “hedging” on purchases and eventually leading to inventory reductions

The bottom line is improved customer service and happier customers while saving sales, purchasing, and warehouse resources. It is surprising how large the total value of these savings can be.



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Most of the benefits mentioned above happen as a byproduct of more accurate inventory. The reduction in inventory through improved purchasing requires the purchasing group to consciously modify processes that have been in place, often for many years, to compensate for inventory problems.

How do you set up a good cycle count program to gain these benefits? The first and most important requirement is to dedicate the resources to count a portion of your inventory every day. There are two general types of counts that need to be performed. The first is to make sure that any discrepancies discovered by people picking or putting away inventory are corrected; this is a discrepancy count. The second is counting a prescribed portion of your inventory every day. The remainder of this article deals with the second type of counting.

The number of cycle counts to be performed each day determines the resources required to count. This is not based on counting whatever Joe can get done in four hours every Thursday. Some distributors like to count a section of the warehouse or a group of items. Although these methods are easy to understand and manage, they are not the most effective. The most effective method I have seen is called ABC cycle counting. It requires more effort to track the counts performed, but that effort is more than offset by the count savings and accuracy improvements. In the ABC method you divide up the items in inventory based on annual cost of sales into four groups labeled A, B, C, and D. The A items are the items with the highest cost of sales while the D items have the lowest cost of sales. You count the A items more frequently than the B, C, or D items because there is greater value and activity. The table below shows how to assign the ABC code to each item and how often to count.

Cycle Count Class	Percent of Items	Percent of COS	Count Frequency
A	5	50	6 times per year
B	15	30	3 times per year
C	30	15	2 times per year
D	50 & dead stock	5	Once per year

Read the first line as A items, which make up 5% of items sold from stock in the last year and 50% of cost of sales (on average), should be counted six times per year. The last line says D items, which include the bottom 50% of items based on cost of sales (about 5% of COS) and items with inventory, but no sales in the last year should be counted once per year. The net result is each item is counted an average of twice per year, but your resources have concentrated on where the most value is to be gained. You spend as much time counting dead stock as A items when you count by area of the warehouse or group of items, a waste of effort and the resulting inventory accuracy will not be as good.



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To determine the number of counts to be performed each day, you divide the number of cycle counts for each item class required for a year by the number of working days in the year. For example, assume there are 250 working days in a year and 1000 A items. That means you need to count 24 A items per day ($1000 \text{ A items} * 6 \text{ times per year} / 250 \text{ days per year}$). Do the same calculation for the B, C, and D items and add the results together. This is the total number of cycle counts you need to perform each day. Updating the ABC code assignments once a year is usually adequate. Assign new items an ABC code based on expected activity.

If your software supports the ABC cycle counting method, the software will make these calculations for you each year and the software will generate the list of items to count each day. If your software does not support ABC cycle counting, you can still make the calculations and daily item assignments by exporting the information you need into Excel and performing the calculations there. This is more work, but the results will be worth the effort.

If you are using a real-time wireless warehouse technology cycle counts can probably be performed throughout the day along with other warehouse activities. If you are using paper or batch terminals in the warehouse you will need to perform the cycle counts outside of normal work hours to avoid conflicts with other warehouse operations.

ABC cycle counting is my favorite method, but using one of the simpler methods of counting by area or group of items is much better than not cycle counting at all. The benefits will not be as great as with ABC cycle counting, but they will be plenty good to justify the program, and you can always move to ABC cycle counting in the future.

This has been a pretty high level discussion of cycle counting. There still remains how to organize your inventory to help improve accuracy, how to perform the counts, how to handle discrepancies discovered, and how to track inventory accuracy. The main thing to take away from this discussion is that the goal of cycle counting is to improve inventory accuracy. Along with inventory accuracy come the benefits mentioned earlier, especially improved customer service and happier customers.