Methods to keep your data clean

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Probably the most important opportunity to improve the distribution center productivity and performance quality is through improving and maintaining the quality of the data you use to operate it. Part of the benefit of implementing a Warehouse Management System (WMS) comes from the cleaning up the data that the system requires. However, you can also benefit from improved data quality even if you do not have a WMS. This is the second column in a series in which I will describe some ways you can clean up your data, keep it clean, and improve your daily operations.

As I mentioned in a prior column, the best place to start to improve data quality is with the SKU data, specifically the pieces per carton, and where possible to add weight, dimensions and other SKU handling and storage requirements, and inventory by location. All of this data can have an impact in your operation, from stocking, to replenishment, picking, packing and shipping and of course each of these tasks will be performed better when the SKU data is available and correct.

The first step is to clean the data. One way that is consuming yet comprehensive, when you know the data is substantially wrong for many SKUs, is to gather the SKU dimensions, SKU weight, and SKU units per case, and recording them as a part of a regular or special inventory process will ensure that at one point in time the data will be correct. However, I worked with one company that had included this data collection as a part of their annual inventory in June and by late November, the time the last push for Christmas selling, without any other supporting processes, the data had deteriorated so that pick errors and inventory inaccuracy made order processing almost impossible.

So once the data is clean, or if the data problem is not very large in your operation, you need a maintenance procedure to keep the data quality from deteriorating. To keep the data accurate we have introduced three maintenance processes. The first, a proactive approach, is to add a data quality check to the receiving process. To do this we add the appropriate data fields to the receiving check-in document used for each receipt. When the receiving clerk notices that a field on the form is blank, indicating the data is not in the system, or if the data printed on the document seemed inconsistent

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with the materials as received, the receiving clerk is asked to fill in the blanks or correct the data on the document.

Another way to increase the accuracy of the data collected and entered, that is often used is a measurement device that can automatically capture the SKU bar code, weight and dimensions when you place the item on a platform. Then after entering SKU number (or bar code) and the pieces per carton, place the item on a platform and the system will record the data on a disk for easy transfer to your inventory system. Some organizations have seasonal or constantly changing inventory purchase the measuring equipment and keep it on a cart in the receiving dock area for easy access. Others organizations, when initially setting up the data or doing a major audit of the data, rent the equipment and manage the ongoing data collection manually. One other approach is to hire a service to do this work. If that option would fit for you please contact me, I know people that do this work. The primary source for this Cubiscan equipment is the Quantronix Company, located in Utah.

A third process developed out of our recognition that with all the proactive effort, data problems still slip through. So we recommend a reactive process to correct the problems as quickly as possible, after they are discovered by the picker, replenisher, packer, shipper, customer, or at any point in the process of material or data. Typically we find that the number of SKUs found each day with data problems is small and the tendency is to wait until the number gets large or significant and then to create a project to correct them all. This approach will not serve you well. You will be much better off to change your process, and do a little of this work as soon as it is discovered. Your productivity and customer relations will show a noticeable improvement.

We have found two staffing approaches work well to resolve these SKU data problems. In the first, add the data correction task to the work of the person responsible for inventory accuracy. Typically this additional workload will not require a significant amount of time. If it takes a lot of time in your operation, you probably have another source of inaccurate data you need to correct at the source: perhaps your Receiving crew is not taking care of their responsibility. The best process is proactive: to look for problems and correct them as early as possible, and minimize the reactive work to fix the data and the problems bad data create later.

The second staffing approach is to rotate the responsibility for data correction among the order entry staff. This has worked in several companies where

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there are regular telephone order entry (OE) cycles through the day. The OE staff often enjoy getting away from their desks for a while and actually seeing the warehouse and merchandise can also help them become more effective. This approach may not work for you, but I hope the idea prompts you to consider an alternate creative approach that will work for you.

A fourth process – analyzing the data - can also point you to problems before you hear from a picker or a customer. In this approach, we regularly (perhaps once every 2 weeks) run a report from the SKU master file data listing all the SKUs where the weight, dimensions, or units per case fields are empty or filled with 1's or 0's. We then also sort the file by these characteristics and look for exceptions at each end of the list. Data like this needs to be verified or corrected.

I encourage you to take initiative to keep your data correct. You may not be responsible for it, but if it is wrong you are the one to suffer. So you might as well begin to do the work.

Let me know the results of your work or about the methods that work for you. I will include them in another column. Thanks. You can reach me at coach@warehousecoach.com.