

**PROVIDING INNOVATIVE SOLUTIONS WHICH OPTIMIZE SPACE &
ORDER FULFILLMENT WITHIN THE SUPPLY CHAIN**

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Big Data... Not Just For IT Anymore

So what really is “Big Data” anyway? If you do any online searching you will find a number of slightly different definitions for this seemingly new phenomenon. Much of this is because it is a relatively new term for a concept that has been around for a while. In general “Big Data” is the term used for the collection of data sets so large and complex that they become difficult to process using traditional data processing applications. Although this may sound very IT orientated in nature, Big Data is being used across many industries and job functions for a multitude of reasons, from helping to better predict changes in customer demand to determining the optimal location to build a distribution center and even to better determine the cause of health ailments such as cancer.

Very simply, in today’s world we have access to more data than ever before but unless we are able to mine, analyze and interpret it effectively it is essentially useless. So how do we even begin this overwhelming task of knowing what data to look at and be able to turn it into actionable strategies?

First and foremost is the ability to collect data. There are many software tools on the market today that have historically been used as part of advanced analytics disciplines, such as predictive analytics and data mining. However, the collection of Big Data may include unstructured data sources, which are typically text heavy but may contain data such as dates, numbers, and facts as well. Due to the lack of traditional data architecture unstructured data sources used for Big Data analytics may not fit in

traditional data warehouses. Furthermore, traditional data warehouses may not be able to handle the processing demands posed by Big Data. As a result, a new class of Big Data technology has emerged and is being used in many Big Data analytics environments.

The second step is to perform a value analysis on the data you are collecting. If you analyze the data more closely, which data sets have the potential to provide business advantages? What data could potentially give you a competitive advantage or help you better serve your customers? Once the data is organized and prioritized, you’ll be able to better decide which data sets you’d like to begin to analyze.

Finally, even though Big Data can seem very robotic, it still requires a human element to be able to effectively analyze the data and turn it into actionable business strategies. Building the right team of people is the biggest step your company can take towards conquering Big Data. However, in many cases this is much easier said than done.

Due to the amount of technological wherewithal needed to analyze Big Data many companies have put this function under the responsibilities of their IT Department. Although this may be a good fit for some organizations there are three sets of people or skillsets needed to manage Big Data.

The first is the data scientist. This person has a statistical analysis, computer science and programming background. He or she makes sure the data is clean, the model is effective, and the results are accurate. Next, the business expert knows the company inside out. While this person may have some statistical knowledge, his or her crucial ability is to provide answers on what the data means to that particular segment of the business. This person can say if the required data is complete and what factors or predictors are potentially most relevant to their business

Big Data... Not Just For IT Anymore (continued)

Third is a strategic consultant who frames the problem which you are using Big Data to address. While the company expert might be really good at knowing what the data is saying and the data scientist might be really good at mining the data, you still need someone with the expertise to set priorities and define the pain points to be addressed. The strategic consultant knows how to ask the right questions, identify the root problems, set priorities and build a pipeline of what set of issues to go after in a very coordinated manner. The strategic consultant keeps your organization from spending lots of money chasing poorly-defined problems or opportunities. This person could be a third-party consultant or a senior person in your business.

With the combination of these skills and a clear vision of what you will use this information for, your organization can effectively use Big Data to develop strategies that will ultimately enhance the customer experience and thereby increase Revenue!



A “wave” is an automated grouping of orders by some criteria that is released to the floor for processing as a group. Grouping attributes might be a set of carriers or orders requiring a specific type of service.

Utilizing Wave Picking methodologies in environments that have multi-item orders, such as e-Commerce, combined with standard storage mediums and Put-To-Light order consolidation stations can result in huge productivity gains!

Let's take a step back and think of our personal experience of going to a grocery store. This is something we all do frequently and is very similar to the challenges that companies that pick multi-item orders face.

Using this analogy, let's assume your grocery list (order) consists of 5 different items and 3 pieces of each item. With standard picking methods, you would essentially be required to go through your entire grocery store process separately for each item you require. This means you would need 15 grocery carts (bins), walk through the store 15 times (pick paths) and checkout 15 times.

Wave Picking Multi-Item Orders

Improve Order Picking Efficiency and Lower Overall Costs

If this same process utilized Wave Picking methodologies, there would be 1 grocery cart (bin), 1 trip through the grocery store (pick path) that would tell you exactly where your items are for reduced travel time between stops, and 1 checkout. You can see in this example that by using Wave Picking your grocery shopping time would be substantially reduced compared to the previous example.

With 1 Pick Path utilized in Wave Picking, the operator will have increased opportunities to pick something more frequently, instead of walking by slow moving items and will reduce travel by as much as 80%.

With the 1 checkout, these unsorted orders would then be sorted using traditional Put-To-Light technology. A Put-To-Light operator would scan the bin which would identify which orders have been picked; the software would automatically select which locations are to temporarily store each of the orders. To begin order consolidation, the operator would select a piece from the bin, scan the piece barcode to prompt a Put-Light, and the

operator would place the piece in the consolidation location indicated by the respective light. This process is repeated until all pieces have been retrieved from the bin.

Benefits of Wave Picking and Put-To-Light:

- ✓ Reduce travel by as much 80%
- ✓ Maximize order accuracy as all items are scanned to a Source Tub during picking, then re-scanned to a consolidation location

✓ Eliminate the need for double checking of the order at packing

“Reduce Travel By As Much As 80%”

- ✓ Create more standardized job functions at PUT and at PACK for higher efficiencies
- ✓ Overall productivity gains to as much as

50% per order

Although Wave Picking has many advantages, it is not an appropriate fit in all picking environments. To appropriately determine what picking method will be the most efficient for your company you will need to be able to analyze your order profile (how many lines per order you typically sell) and your SKU commonality (how many types of SKUs you offer).

Upcoming Events

WIRE 2014 - Warehouse Industry Resource Event. Monday, April 28, 2014 through Wednesday, April 30, 2014 at the Hyatt Regency in Chicago, IL. Visit www.werc.org for more information.



OSHA's New Hazard Communication Standard

In 1994 OSHA established the Hazardous Communication Standard within the Code of Federal Regulations under CFR 1910.1200. This standard carried regulation of chemicals from "cradle to grave" to ensure the safety of employees and the environment during transportation or disposal. The standard mandated the education of hazards to all employees who may be exposed to chemicals within the workplace. It also extended the arm of education and chemical information to first responders to any incident involving chemical exposure, also known as the "Right to Know" act.

OSHA regulatory control and enforcement includes all manufacturers and distributors of chemicals with compli-

ance dates of 12/1/13 for the education and training of all employees. Distributors will have until 12/1/15 to comply with the revised label for product shipping. On 6/1/16 OSHA will ensure complete compliance to all who fall under the standard. During the transition period, employers can comply with the old and new standard for labels and Safety Data Sheets.

In addition to the HCS 2012 standard, in August 2013 President Obama issued an Executive Order to improve chemical facility safety. This order convenes regulatory agencies to further improve chemical safety and security within the US by ensuring that all chemical manufacturers and distributors have security and safety measures in place to protect

these premises from potential terrorist and chemical catastrophic release or exposure to the general public and first responders. This executive order aligns itself with the Chemical Facility Anti-Terrorism Standard (CFAT).

Best practices to meet the new standard include training employees, streamlining your information network, writing a detailed hazard communication program, creating an industry-specific security and emergency response plan and utilizing a user-friendly electronic record keeping system.

For more information about this new standard please view our recent Associated University webinar at: www.associated-solutions.com/au

In the Press Associated Acquires Peach State

Associated and Peach State Integrated Technologies, both leaders in providing integrated supply chain solutions, announced that they have completed the transaction for Associated to acquire Peach State. The acquisition creates a highly diversified supply chain market leader. The combined company will be strongly positioned to capitalize on the growing opportunities created by the rapid changes in customer demand.

Under the agreement, Peach State will operate as a subsidiary of Associated and will continue to operate under their current brand identity. This combined organization is now one of the largest supply chain solution providers in North America in both size and breadth of solution offerings.

To view the entire press release please visit our website at: www.associated-solutions.com/our-difference/

Lift Truck Chain Inspection and Replacement

Excessive chain wear can cause unexpected downtime, lost production and reduced profitability

Your lift trucks carry hundreds of thousands of pounds of precious inventory each day, which causes tremendous wear on the lift chain. If this chain goes unchecked and becomes worn it can cause a load to come crashing to the ground, resulting in damage to property or even death. This is one reason why OSHA requires that you do a daily inspection of all lift trucks currently in operation.

Lift truck chains endure tremendous stress during daily operation and are subject to additional damage and wear by envi-

ronmental conditions such as dust, rain and industrial chemicals. A trained technician should inspect your chains for rust and corrosion, plate cracking, protruding or turned pins, misalignment, chain anchors and sheaves and chain elongation.

A quick and easy way to measure chain elongation is with the use of a Chain Wear Guide. It allows you to clearly see if your chain has reached or even exceeded the recommended limit of 2 percent wear extension when it is time for the chain to be replaced.

To receive your free Chain Wear Guide and a more detailed overview of what to look for please visit our website at www.associated-solutions.com and go to the "Contact Us/Request Information" tab.



Check Our Website For Upcoming Associated University Events

Associated University was designed to provide supply chain management professionals with access to information on practical solutions concerning the industry's current hot topics.

www.associated-solutions.com

About Associated

Celebrating over 50 years of providing customers with innovative solutions that optimize space and order fulfillment operations within their supply chain, Associated understands that handling materials in the supply chain should be more than material handling. By utilizing their unparalleled experience and industry best practices they are able to evaluate current methods and processes for storage, order fulfillment, labor and equipment utilization and recommend practical strategies to enhance its effectiveness and reduce overall cost.

Featuring leading edge engineering, fleet optimization and labor management solutions to complement industry leading sales, service, rentals and parts, Associated has been the recipient of multiple awards in recognition of being a premier organization in the supply chain industry.

Our Locations:

Illinois: Addison, Bloomington

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