WAREHOUSE MANAGEMENT TRENDS UPDATE FOR SOFTWARE DEVELOPERS

DevPro Journal speaks with Pete Zimmerman, North American Software Sales Manager at VAI, about the latest warehouse management trends.

March 18, 2020 • DevPro Journal • Mike Monocello

One of the oldest tried and true markets available on which solution providers can focus their business is warehousing and distribution. While much has changed when it comes to the supply chain, the one constant is that warehouses need technology to operate efficiently. To learn more about the latest warehouse management trends, DevPro Journal recently spoke with Pete Zimmerman, North American Software Sales Manager at VAI.

What's driving change in warehouse management?
Zimmerman: The global supply chain is more complex now than it has ever been. Today, organizations have more geographic distribution within their warehouse network, adding a layer of complexity when it comes to warehouse organization. Managing a supply chain across borders also introduces regulatory and localization warehouse management complexity that must be dealt with as corporate users in different countries use the same underlying systems to get the job done.

In turn, Internet of Things (IoT) and Artificial Intelligence (AI) are driving change in warehouse management, and are enabling warehouse and distribution center activities to keep pace with rapidly shifting supply chain dynamics. Having the ability to control numerous moving parts, both automated and manual, IoT helps optimize processes so recorded data lives in one, easy-to-access network and is collected in real-time. This helps to optimize a warehouse's inventory control procedures, labor planning, and, of course, its overall customer experience through more rapid fulfillment rates.

Are warehouses and distribution centers adopting new technologies?
Zimmerman: Along with the adoption of IoT and AI, robotics and automation will continue to transform the warehouse industry, creating a faster and more streamlined process.

Warehouse operations have detailed procedures such as global supply chain shipments and compliance to heavy regulations, which are expected to get more complicated in 2020. By adding robotics to help monitor and accomplish tasks such as packaging, sorting, and tracking, companies can enable employees to gain the proper amount of time to finish other projects that require human surveillance.

How are these operations finding new ways to automate processes?

Zimmerman: Since automation had been introduced to the warehousing industry, warehouse managers are constantly looking to identify tasks that can be streamlined by automation. Warehouse employees have many strengths, but after performing repetitive tasks for too long, monotony sets in and mistakes can be made – potentially hurting business.

When automation can do these same tasks faster, more consistently or less costly, it's logical that operators would find ways to automate more of the warehouse. Automation takes many forms and yields benefits in as many ways. One job that is being changed drastically is the role of the assembly worker and enabling advancement. As automation continues to become more popular, many of the tasks previously completed by assembly workers are now being completed by robotics.

To stay ahead of the curve, assembly workers need to start focusing more on operations management and controlling the robotics instead of assembling parts on the line. Programming, maintenance, and troubleshooting will be critical for operators to master in order to keep up with automation.

How are warehouses helping employees to be more productive and to increase employee satisfaction?
Zimmerman: Warehouse management is helping employees to be more productive through efficiencies and automation, and can potentially increase morale.

The proper automation tool is one of the most important aspects of employee engagement—and a vital element to have in the warehousing industry. Since warehouse operations depend on individuals working across the organization as well as in teams, team building activities should be implemented to keep the workforce engaged and motivated.

In addition, wherever possible employers should utilize the latest automation methods – just for small, day-to-day employee tasks. Time spent walking round the warehouse locating bins and the correct computer terminals is wasteful and inefficient, and can be tedious. Mobile workstations, hand-held tablets, voice technology, and automated conveyor systems with smart bins will reduce the time taken to complete tasks – resulting in higher staff efficiency and productivity. Employers should also invest in an integrated ERP and WMS system designed specifically for use in warehouses. The solution should be able to automate tasks such as optimizing warehouse inventory, picking routes for multi-item and single item orders – further enhancing warehouse management systems.

How can software developers address current warehouse management trends?
Zimmerman: Today, more than ever, on-premise or cloud-based warehouse management systems are critical to effectively manage your supply chain and achieve peak performance. To meet this demand, software developers should be focused on creating warehouse management systems that unify organizations, create warehouse efficiency, track day-to-day financial transactions, and properly maintain inventory throughout distribution centers.

By creating more streamlined-central databases to access/analyze data history trends, warehouses will be able to address any tracking issues, quickly locate products, monitor warehouse activities in real-time, minimize entry errors, and help accurately measure the efficiency of warehouse employees.