Using a Warehouse Management System to Tame a Multiple MRP Environment

Archon Interactive
Supply Chain and Warehouse Management Systems

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Companies rarely use more than one MRP system by choice. Legacy situations sometimes require that multiple MRPs run side-by-side, particularly in companies that have grown through acquisition. While maintaining multiple MRPs may be necessary in order to meet larger business objectives, dealing with more than one system in the warehouse can lead to significant operational and efficiency problems. This document discusses what some of these problems tend to be and explain how they can be addressed by the deployment of a Warehouse Management System ("WMS").

Problems Created by Using Multiple ERPs in a Warehouse

Companies that run multiple MRPs face significant operational problems in their warehouses including the following:

Increased Complexity. MRP systems are naturally confusing and complex. Learning how to use one system is already difficult, let alone trying to learn two or more. Cross training is costly and time-consuming, and workers must always know which system to use when. Workers trained in different systems are unable to communicate and help one another. This complexity increases opportunities for confusion and mistakes can occur frequently.

Diminished Productivity. MRP systems have their own specific operational workflow for each warehouse task: receiving, put-aways, batching, picking, consolidating, and packing. Therefore, workers are completing these tasks using different processes. Workers must know which operational workflow to use when, or workers are only trained in one and cannot perform the other. This leads to large workflow constraints and significant productivity penalties.

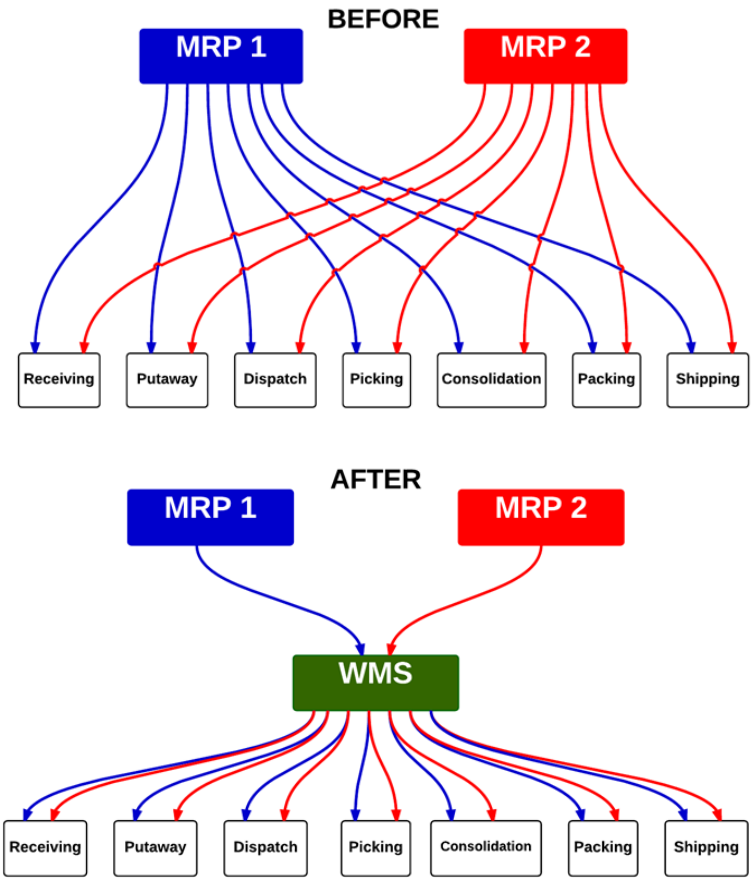
Lack of Flexibility. One of the traditional complaints about using an MRP system to manage a warehouse is that warehouse activities need to be modified in order to reflect the limitations of the MRP. This becomes even more the case when additional MRPs are introduced into the mix. Warehouse processes have to take into account the limitations of multiple systems rather than just one. Even when it is possible to modify one or more of the MRPs, the company runs the risk of impacting other areas within the organization.

Compartmentalized Information. It is difficult to get a comprehensive view of how a warehouse is operating when using multiple MRPs because processes are completed differently and reports are run separately. As a result, even when operations can be improved within the constraints of a multiple MRP environment, it often isn't easy to see the opportunity to do so.

Inefficient Technology and Equipment Operation. Many MRP systems are unable to efficiently drive warehouse equipment like carousels, conveyors, wireless devices and RFID readers, and in some cases are unable to communicate to the equipment at all. As a result, it may be physically impossible for warehouses to deploy certain types of equipment.

How a Warehouse Management System Can Solve These Problems

The solution to the issues created by using multiple MRPs in the warehouse is to introduce a single WMS that can manage the operations of the warehouse and interact with each of the MRPs in the background.



This architecture has the following benefits:

Operational Simplicity. The WMS insulates warehouse personnel from the complexity associated with having multiple MRPs. All workers will only need to learn one system and will no longer need to know which system to use when. All of the intelligence that is required in order to communicate with the MRPs resides in the WMS.

Enhanced Productivity. All managers and workers learn and interact with the same system. By using one system, all warehouse tasks and communications are standardized, resulting in higher productivity.

Increased Flexibility. By inserting a WMS between the warehouse and the MRP systems, it becomes possible to make changes in the warehouse without touching the MRPs and potentially impacting other parts of the company. Making modifications to a WMS is typically easier to accomplish than to a single MRP, let alone two or more.

Comprehensive Information. Since the WMS manages the entire warehouse, the WMS creates one data repository. The reports for each MRP are created from this repository and can be formatted to be directly comparable. Because the reports are produced from the same system, they are readily available, easy to understand, and truly reflect the activities of the warehouse.

Enhanced Equipment Operations. A robust WMS will interface with all types of warehouse equipment, so companies that use one will be able to introduce new technology to improve their operations. Further, having a single point of control prevents conflicts and increases operational efficiency.

Conclusion

Companies that need to use multiple MRPs have higher costs and face significant operational challenges in the warehouse. Many of these costs can be reduced and operational challenges mitigated by introducing a WMS to manage the warehouse and interact with the MRPs on the back end. Customers who have implemented a WMS in a multiple-MRP environment report lower training requirements, greater productivity, and a better ability to manage their warehouse operations due to increased flexibility and enhanced information.

Archon Interactive is a software development company focused on Warehouse Management Systems and Warehouse Control Systems. Our solutions range from simple equipment control applications to our full-blown, enterprise grade warehouse management system, WaveTrak WMS®. Our customers usually see significant productivity improvements in a short period of time while having much greater visibility into their operations. Because we can develop customized solutions, we are able to target particular parts of a warehouse operation in order to provide the greatest improvements for the least amount of cost. We are not constrained by the MRP or ERP systems in place and have integrated with everything from huge systems from the major global ERP vendors to archaic systems that were developed in-house many years ago. We formally started in the warehouse systems space in 2005, and since then we have built solutions for companies ranging from small distributors to 3PL providers to global 1000 manufacturers. To learn more about how we can help you solve your most pressing operational issues, please visit us at www.archon-interactive.com.