

Understanding Task Interleaving in the Distribution Center

Potential Productivity Gains of 20%, but there are Many Challenges

SCDigest Editorial Staff

Task Interleaving" is one of the most powerful concepts in Warehouse Management System (WMS) theory and practice. Though more talked about than actually used, task interleaving is a key element of the cost justification for many new WMS implementations. Many companies also use task interleaving as an opportunity to drive additional savings after an initial WMS implementation, or to enhance results from in-house developed warehouse systems.

What is Task Interleaving?

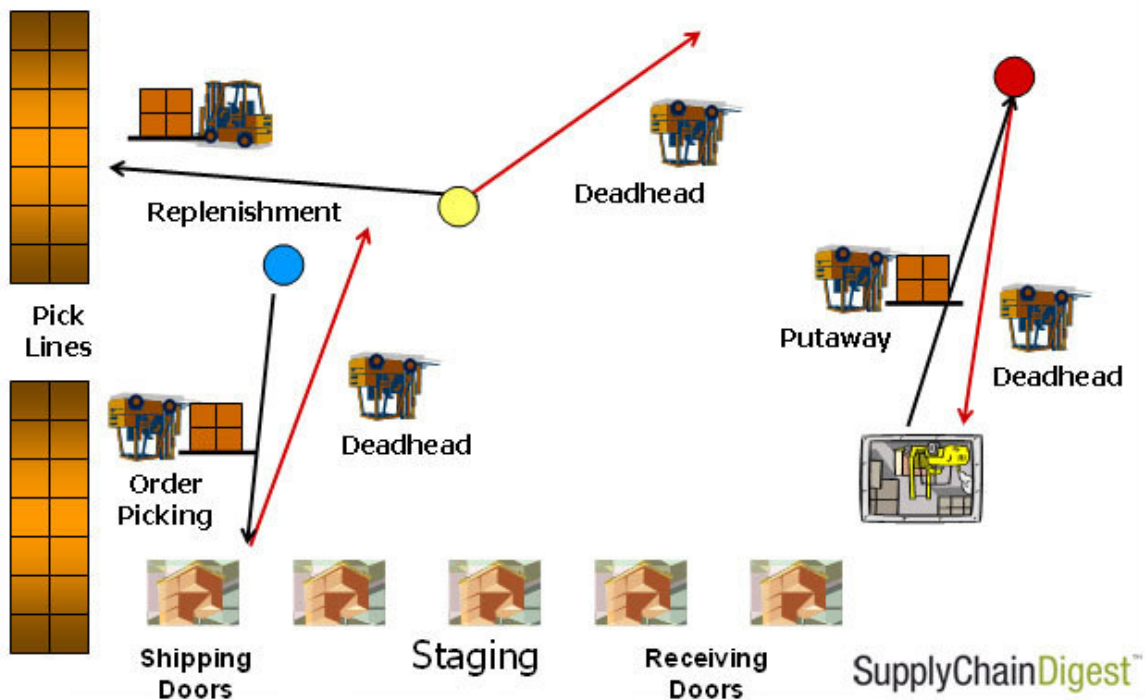
Task interleaving is an approach to assigning work to

vehicle-based operators that seeks to drive efficiencies by linking different work task types (e.g., putaway and replenishment), rather than dedicating workers to a specific task type.

As show in the illustration below, in a traditional warehouse system, workers on mobile equipment perform specific DC tasks, and return to repeat those tasks upon completion. The result can be substantial levels of "deadheading," or driving the fork truck or other equipment empty.

With task interleaving, the WMS looks to combine different types of tasks to reduce this deadhead-

Task Management Using WMS without Interleaving



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ing, and drive productivity gains that can be as high as 20%.

mentary task that can be linked to the original task assigned to the operator.

As show in the graphic below, an intelligent WMS can understand the total work pool that is available on the floor, and look for a comple-

Sounds great – but in practice there are both operational and technology challenges. We'll explore both of those next week.

Task Management Using WMS with Interleaving

