

Analysis of Standards for Simulation-Based Integrated Production Planning

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Abstract: Production planning is carried out at the enterprise, operation, and process levels. Although production plans at higher levels constrain those at the lower levels, the processes for generating those plans are typically not well integrated in practice. Because of that, the schedules at lower levels may not accurately reflect what was planned at the higher levels while the plans at the high level may not be based on prevailing conditions at the lower levels. Simulation models that evaluate the performance of a production plan also need to be integrated with production management systems. This paper provides a background to integration problems associated with simulation-based multi-level production planning by exploring current practices, standards, and tools. We lay a foundation for a standards-based simulation for integrated production planning.

Keywords: Integrated Production Planning, Simulation, Standards