

A Decomposition Method to Support Evaluation and Continuous Improvement of Reconfigurable Manufacturing System Performance

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Abstract

Systems for automatic manufacturing data collection are commonly used in real production lines. In spite of the high cost of implementation and management of such systems, the large amount of data collected from the shop floor is rarely appropriately used for evaluating and improving the performance of the manufacturing system along its life-cycle. In the paper we show how analytical methods based on the decomposition technique can be efficiently used to analyze and improve the performance of a real manufacturing system, using data collected from the workshop. In particular, the experience coming from the application of the methodology on the D12 engine block machining line in Scania is reported.