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# A Real-World Application of Process Mining for Data-Driven Analysis of Multi-Level Interlinked Manufacturing Processes

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## Abstract

Process Mining (PM) has huge potential for manufacturing process analysis. However, there is little research on practical applications. We investigate a real-world manufacturing process of pneumatic valves. The manufacturing process comprises interlinked events at the superordinate business process level and at the subordinate machine level, making its analysis based on PM challenging. We show how to integrate heterogeneous data sources and give examples how PM enables a deeper understanding of the manufacturing process, thereby helping to uncover optimization potentials. Furthermore, we discuss challenges in data integration and point out limitations of current PM techniques in manufacturing.

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