A. Rahimifard and R. Weston: The enhanced use of enterprise and simulation modelling techniques to support factory changeability.

Starting from the common understanding of describing manufacturing enterprise activities as a network of dependent processes the paper identifies complementary properties of state-of-the-art enterprise modelling and simulation techniques, which have the potential to create semantically rich and computer executable models of such networks. A case study in the furniture industry based on the integrated use of a particular choice of such techniques is described. Results are: i) alternative multi-product flow organisations and ii) potential performance enhancements.

The authors identify common modelling capabilities as well as modelling constraints of both enterprise modelling and simulation modelling approaches and discuss design and change problems in manufacturing enterprises in general and in particular for the case study, where the describe in detail CIMOSA-based enterprise model generation and their transformation into simulation models.

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