Model-based development of a multi-agent system for controlling material flow systems

Abstract:
The rising number of product variants requires flexible manufacturing systems, including their internal material flow systems (MFSs). An approach to design MFSs reconfigurable is the use of a decentralized control based on software agents. For implementing an agent-based control approach for MFSs this paper presents a meta model describing the knowledge base of individual agents and the overall control task to be fulfilled by the MFS.