

CYBER-CONTROL OF TECHNOLOGICAL AGGREGATES GROUPS

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Abstract. Technological aggregates group creates a production cyber-segment being controlled autonomously. Electrical automatics aggregate elements are described as some control theory terms with kinematics and dynamics tasks laws being completed. Cyber-control system machines groups in production is built as a multi closed-loop scheme with typical two or three loops tracking channels. There is a multi-loop production cyber-control scheme given. The cyber-control specifics include the additional virtual and traditional physical tracking system. The aggregate virtual tracking system control signals are registered in parametric settings of physical tracking system regulators. The aggregate situation cyber-control is done with a digital production avatar.

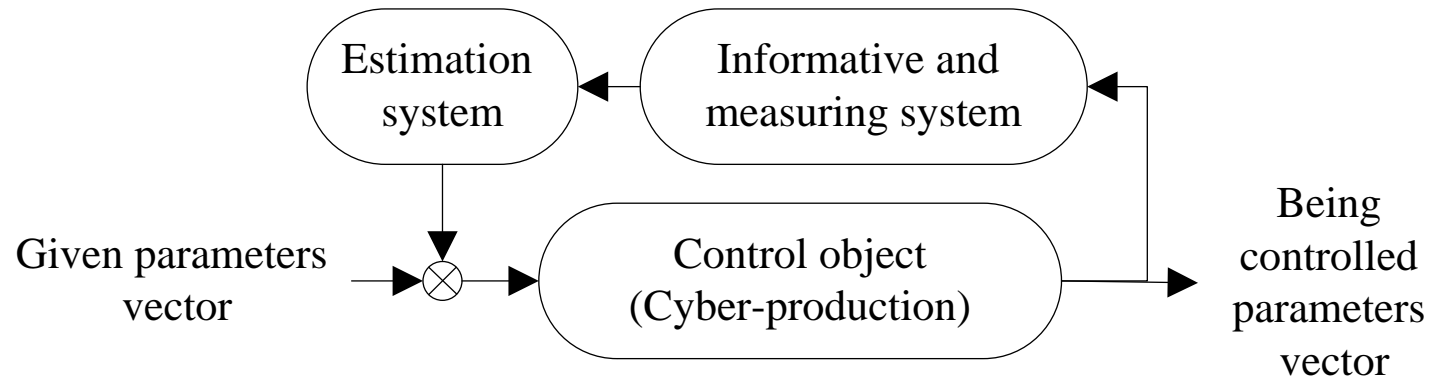


Figure 1. Technological cyber-production object control general scheme.

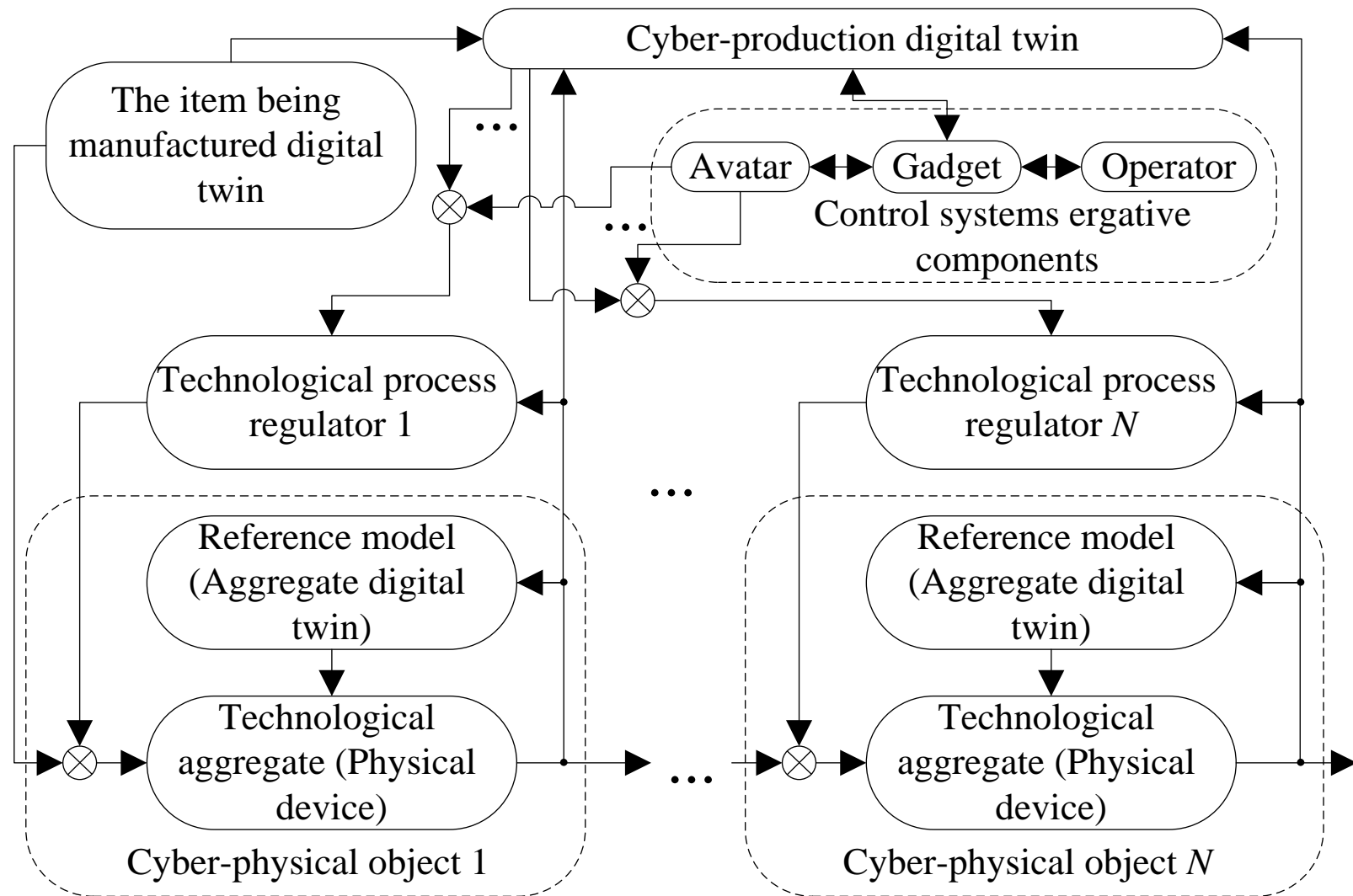


Figure 2. The Industry 4.0 production cyber-control multi-loop system.