



Software defined control for smart manufacturing systems

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Objective

Flexible control reconfiguration of a manufacturing system using a centralized view

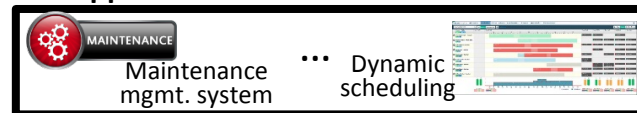
Approach

- Develop and update a global view of mfg. system
- Propose reconfiguration algorithms
- Separation of decision making and device configuration

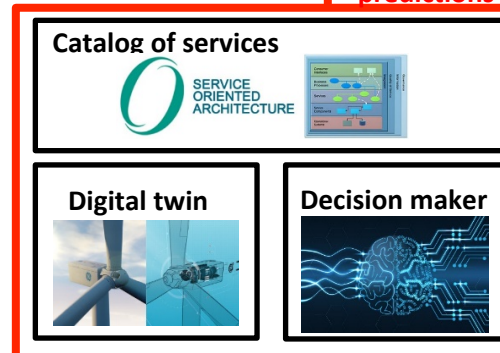
Scientific Contributions

- Improve robustness and resiliency of manufacturing control systems
- Framework for anomaly detection, isolation, classification and mitigation

SDC applications



SDC central controller



Factory floor



Data for decision maker

Data & model predictions

Information and recommendations

Manufacturing Execution System



Databases

MES data

Consolidated data

Data consolidation

Work instructions

Factory floor data