«Analysis and improvement of production planning within small-batch make-to-order production»

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Production planning levels and strategies
Framework of planning & scheduling system

Planning System

Execution control subsystem
- Track load planning
- Error control
- Production data reports
- Equipment load rating
- Track process of jobs

Capacity estimation subsystem
- Select order for production
- Create day-to-day plan
- Evaluate capacity
- Define rules of planning
- Assessment of order priority

Scheduling subsystem
- Confirm day-to-day plan
- Reassign jobs in a pool
- Sequence of jobs
- Assignment of jobs
Conclusions

The paper discusses the current definitions of planning and scheduling systems based on literature sources. We contribute by providing an assessment of the applicability of planning tools to the MTO sector. There is a significant gap between the requirements of MTO companies and the functionality of common planning tools. It is proposed a concept of framework to coordinate decisions and operations across production stages. Direction for the extension of this research could be to optimize production plans and schedules as well as to ensure that they are executed and real-time controlled according to the dynamic changes and operational constraints. It can also explore method for generating alternative versions of plans and schedules.
Contacts

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