PSIasm/Qualicision

# Advanced Scheduling & Monitoring in Production Planning

PSIasm/Qualicision combines Planning and Real-time Control with KPI-based Production Optimization

- Integrated basis planning of working processes in sequence

- Key Performance Indicators (KPI)-oriented evaluation of planning scenarios

- Multiple different qualitative optimization goals

- Optimization and decision support for planning scenarios selection

- Fast identification of bottlenecks by means of multi-criteria planning

- Increasing of transparency and responsiveness in production

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Work with PSIasm/Qualicision Scheduling

PSIasm/Qualicision Scheduling is a powerful tool for planning and visualizing multiple resources in complex production workflows. A scheduling function is also integrated for planning simple workflows. For the planning of more complex work steps, multi-criteria key performance indicators (KPIs) are included in PSIasm/Qualicision Scheduling. The integration of Qualicision AI technology adds value by combining software technology innovation with optimization intelligence. A Qualicision AI technology-based integrated solver can, in the simplest case, initially schedule single-stage operations in order, taking into account different qualitative optimization goals such as urgency, importance, compactness, and number of alternatives. The functionalities allow a number of support options for generating and selecting suitable sequence plans. Thereby, the usual Gantt visualization of the job results is extended by a number of further information. The optimization KPIs provided in the standard can be defined and adjusted via Qualitative Labeling.

The qualitative interactions matrix visualizes which optimization KPIs in the respective current situation are compatible with the remaining KPIs (green) or can be optimized with either/or potential (red). The impacts of the optimization potentials can be seen in the goal achievement diagram. Depending on the balancing of the KPI preferences, suitable sequence plans can be calculated or identified and selected. Depending on the user's preferences, a balanced selection of planning scenarios can be optimized. The selection uses the proven KPI goal conflict analysis of Qualicision AI technology. The scenarios available for selection are generated in different ways. They can be the result of manual planning as well as different algorithmic calculations that either use the basic algorithms or are generated by Qualicision engine. In order to have suitable alternative scenarios available for the multi-criteria selection of a planning scenario, it is obvious to operate with a Qualicision AI planning algorithm which even integrates multi-criteria aspects into the result generation via Qualicision AI engine.
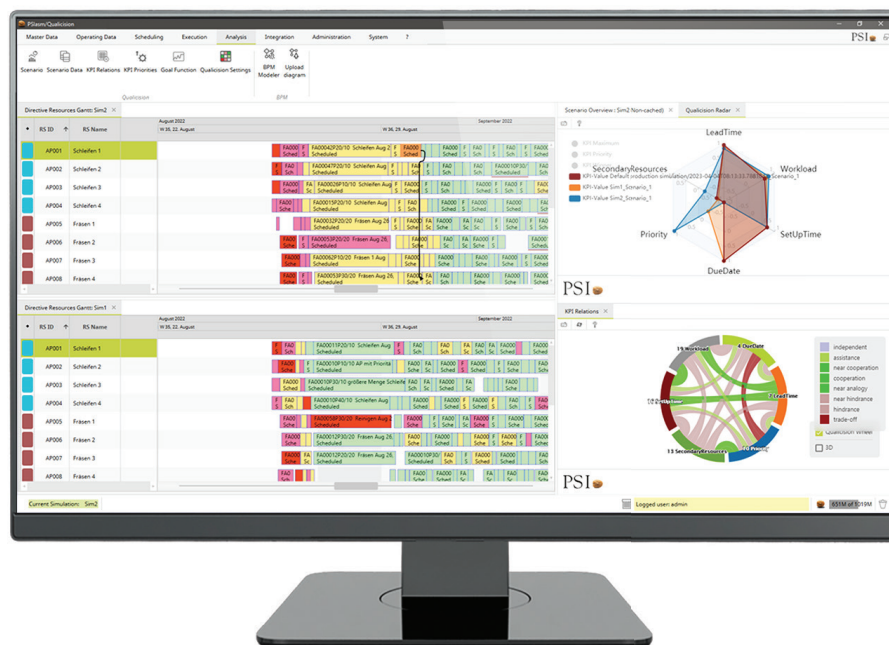
Gantt with two simulation scenarios, Interactions wheel, Goal achievement diagram

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