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

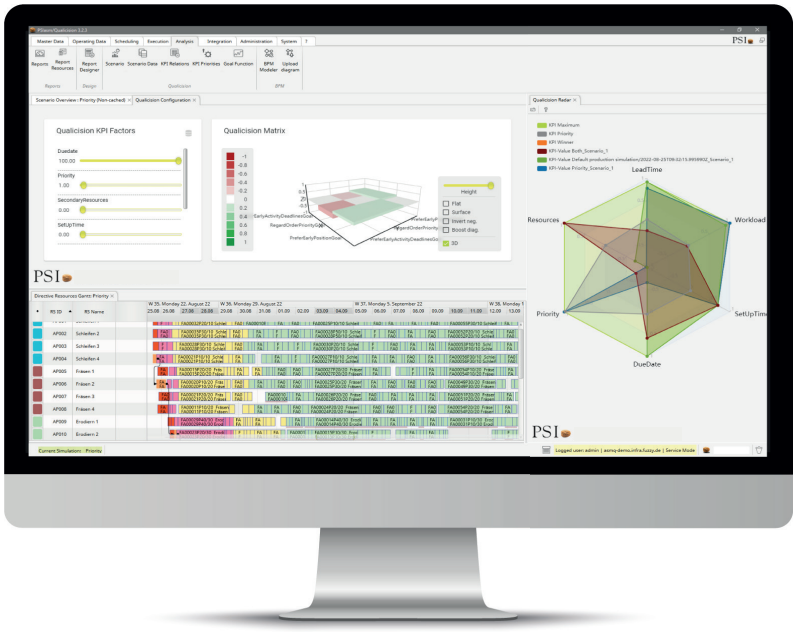
PSI

+ PSIasm/Qualicision

Work with PSIasm/Qualicision

PSIasm/Qualicision 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. The integration of Qualicision AI technology adds value by combining software technology innovation with Qualicision AI's optimization intelligence.A Qualicision AI-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 Qualicision 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 Qualicision-based information. The optimization KPIs provided in the Qualicision AI standard can be defined and adjusted via labeling functions.

The qualitative interactions matrix of Qualicision AI visualizes which optimization KPIs in the respective current situation are compatible with the remaining KPIs (green) orcan 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. The scenarios available for selection aregenerated 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 AI. 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.



PSIasm/Qualicision-Gantt, Qualitative Interactions Matrix, Goal Achievement Diagram, KPI Preferences Slider

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