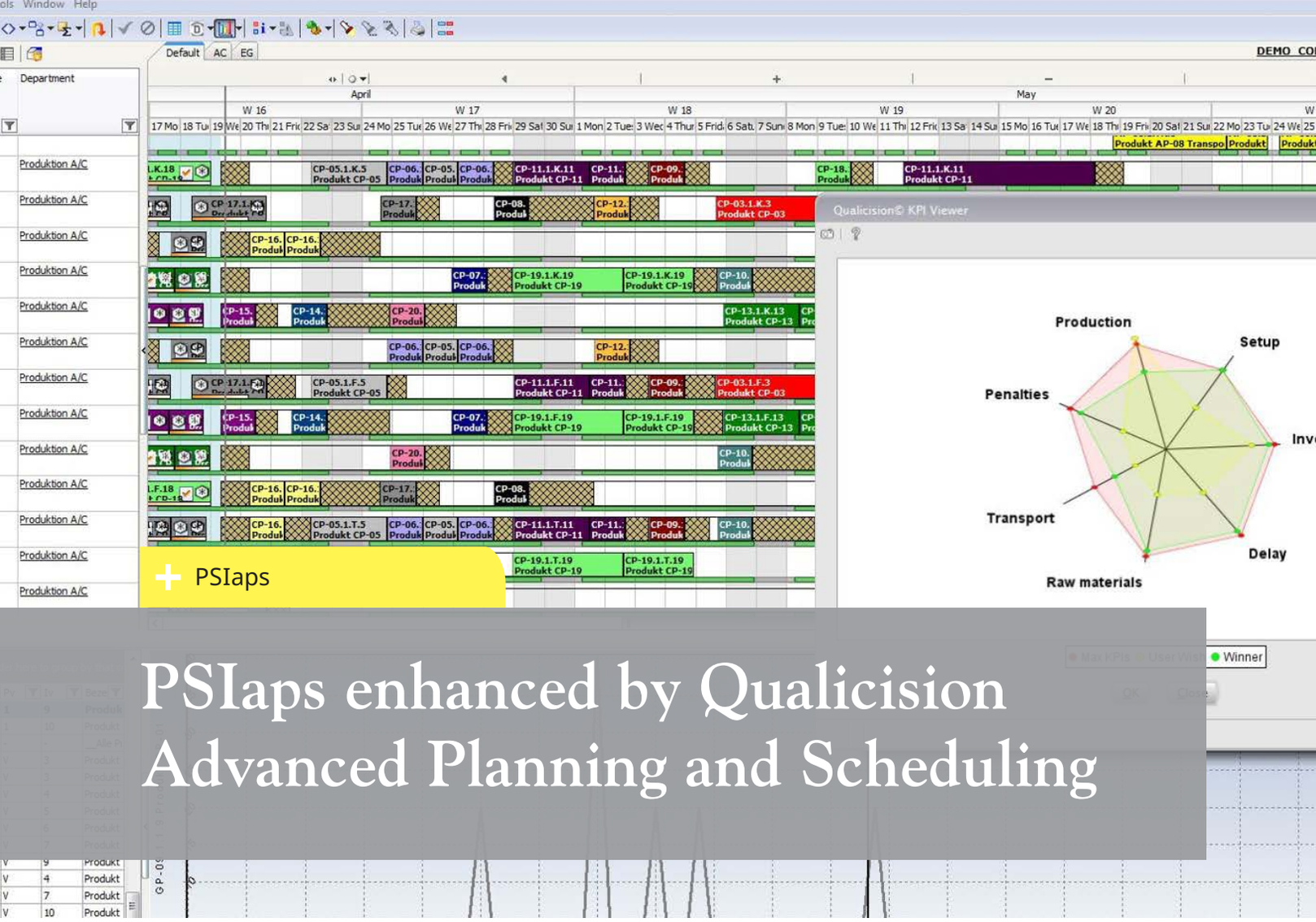

PSIaps enhanced by Qualicision Advanced Planning and Scheduling

Software for Integrated Planning, Simulation and Optimisation of Production Processes

PSIaps is a comprehensive solution for production planning. The software was designed to meet the complex requirements of the process industry. PSIaps supports the user during the full planning cycle – from S&OP and capacity planning to production scheduling and material planning. The software allows the modelling of business processes for rough and detailed planning. Different business scenarios may be analysed in the system.

The integrated Qualicision engine provides a KPI-oriented ranking for them. PSIaps offers state-of-the-art optimisation based on a detailed cost model. Here, both technical restrictions and business rules may be considered. The software offers full stock calculations as well as lot size optimisation. A user-friendly visual planning assistant gives options for interactive planning. A reporting package completes the solution.

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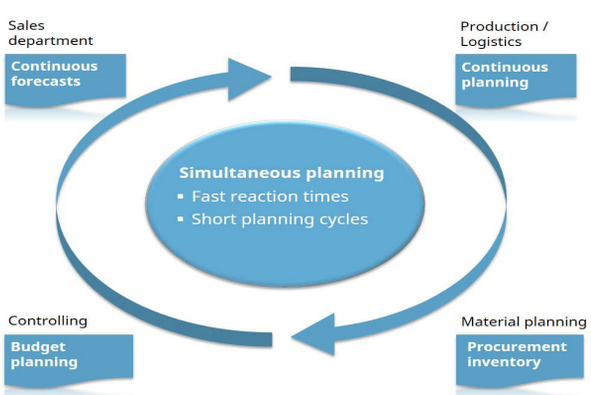
+ PSIaps

Holistic and flexible production planning

PSIaps allows forward-looking planning and optimisation of production and logistics processes along the entire intercompany value chain. The abbreviation aps stands for Advanced Planning and Scheduling, a name befitting the design of the module as it is intended to determine practicable production plans, especially for the complex process constellations that often occur in practice. Industry-specific optimisation techniques allow planning times to be minimised, resource consumption to be reduced and the utilisation of equipment to be optimised. The approach is always holistic, taking into account all technical restrictions and business rules. To this end, the relevant value chain information is mapped from BOMs through production alternatives, setup times and shift models to a detailed cost model. All relevant cost factors, such as production costs, material costs, changeover and storage costs, transport costs or penalties for delays are taken into consideration. Modelling with PSIaps supports all multi-stage production processes. It also enables products whose production comprises many process steps to be realistically mapped and successfully optimised. Based on an integrated data model, PSIaps has interfaces to the ERP world. Modelling is a one-off process, whilst data synchronisation in day-to-day business takes place on a continuous basis. All-in-all, the solution accompanies the full planning cycle from sales and capacity planning to detailed planning and scheduling.



Production planning from strategic and operational perspective: from rough planning to detailed scheduling

Long-term and medium-term planning are an integral part of the planning tasks in the production environment of the process industry. They determine the long-term structural conditions for cleverly exploiting consolidation effects, as well as reaching decisions on inventory management and achievable service levels. The time period to which these considerations apply often covers several months or even years. PSIaps is ideal for calculating the best possible assignments of product lines to plants or local facilities, whereby site-specific sales forecasts and logistical restrictions are taken into account in the long-term. Long-term capacity requirements can also be determined, for instance by comparing seasonal shift frequencies with the anticipated inventory flow. It also enables the verification of corresponding strategies for the range of coverage. Very often it is necessary to compare these and other related issues ad-hoc in example simulations in order to make the right long-term decisions on the basis of a KPI-oriented evaluation. PSIaps also offers a range of functions for the optimisation of short-term, daily or weekly production planning and production control. The evaluation of planning alternatives and the selection of a suitable strategy is done by an integrated Qualicision kernel. This concept is based on extended fuzzy logic (EFL). It enables the planner to arrive at a KPI-oriented decision whilst taking into consideration all business process related factors. It is based on a mathematical conflict analysis. The plan obtained is visualised in the form of a Gantt chart; the PSIaps Visual Planning Assistant allows interactive intervention in the planning process.

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