

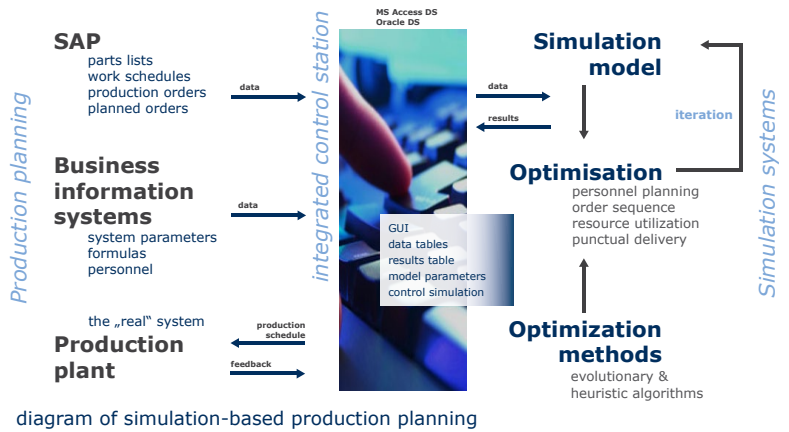
Application area Detailed production planning



The initial situation

Increasing competitive pressure, shortening delivery times and a growing variety of products demand quick and flexible responses from a modern production.

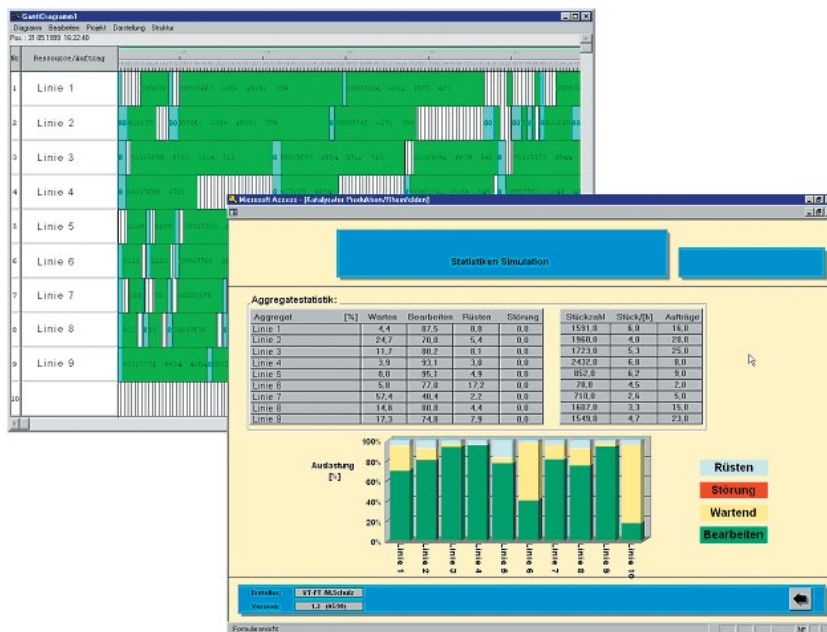
Especially minimum stock levels, an optimal capacity utilization and short cycle times ensure a company's competitiveness in a fast-paced market.



PPS systems that are used for capacity and throughput scheduling are only partially able to solve these problems, because they often only employ static calculation methods.

The objective

The objective of simulation-based detailed planning is to optimize preliminary planning while taking dynamic factors into consideration, like current availabilities or disruptions, as well as resources, stock levels, filling level of the system, etc.



Example of machine scheduling results charts

This way, it is possible to make realistic predictions whether a production order can be fulfilled and how much time it would take.

In order to achieve this, simulation is a useful addition to existing production planning and control systems.

Optimization techniques, like for example heuristics, are used to determine the best solution.

Then the simulation model verifies the scheduled production sequence. This way, even before production itself starts, machine load and bottlenecks regarding workstations, resources or personnel become visible.

The dispatcher can now plan alternative capacities or make additional production capacities available.

Aims and benefits

It is possible to optimize for example:

- Order sequences
- Personnel dispatching
- Machine utilization
- Uncovering capacity bottlenecks

Fields of application

- Prognosis tool for production and manufacturing processes
- Links with business information systems (e.g. SAP, shop floor data systems, production control stations)

SimPlan Group

SimPlan AG was established in 1992 as a service provider for the simulation of company processes. We consider ourselves to be a cross-sector full-range supplier with regard to simulation, accompanying you with extensive know-how, experience and modern methods in the optimisation of business processes.

Our services range from process analysis and consulting to material flow and logistics simulation. Furthermore we are a neutral distributor of simulation software, helping you select the most suitable software tools for your projects, providing trainings and implementing the software in your company. Of course we also provide all associated maintenance and support services.

Why SimPlan?

- Objective and independent analysis
- Detailed knowledge of logistics and production processes with over 25 years of project work
 - Development and use of standards
 - Continuous advancement of simulation topics through research and development
- Excellent resources for prompt responses to your questions
- Close cooperation and project integration with high on-site quota
- Development of innovative solutions, efficiently solving challenges during project work

Where to find us

SimPlan Group

Head office

Sophie-Scholl-Platz 6
63452 Hanau
GERMANY

Phone: +49 6181 40296-0
Fax: +49 6181 40296-19
Email: info@SimPlan.de
Web: www.SimPlan.de

German Branches

Braunschweig • Bremen • Dresden •
Holzgerlingen • Munich • Regensburg

Subsidiary companies

SimPlan Integrations GmbH, Witten (GER)
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induSim GmbH, Langenau (GER)