

## Detailed planning of bottling plants **SimScheduler**



### The initial situation

In the beverage industry the quantities to be produced for each product are specified in weekly meetings of planning, distribution and production based on the current product stocks. Afterwards shift-related manual detailed planning is carried out by a planner, who often falls back on MS Excel for the purpose of planning support. The thus generated production schedules are then passed on as paper copies to the production.

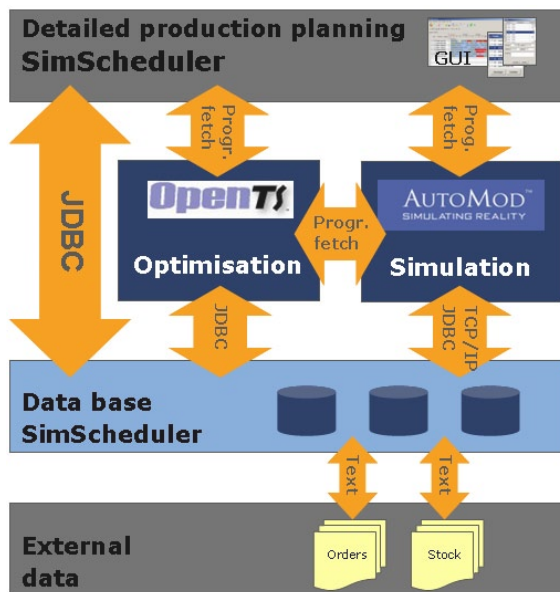
A disadvantage of this planning process has to be the high overall time expenditure, which arises due to working with different, non-integrated systems (stocks, orders, prognoses, production restrictions, etc.) and the manual generation of the filling schedule. Furthermore it is debatable whether the generated filling schedules are actually ideal due to high planning complexity and the frequently opposed planning targets (high plant utilisation, low stocks, short order throughput times and great adherence to schedules).

### Detailed planning with SimScheduler

Through application of the APS system SimScheduler for the detailed planning of bottling plants the stated disadvantages can be avoided. In the SimScheduler database all data are allocated for the planning:

- Article master data,
- Manufacturing orders or forecasts,
- Change over times,
- Production restrictions,
- Production resources,
- Personnel resources,
- Stock and
- current status of resources.

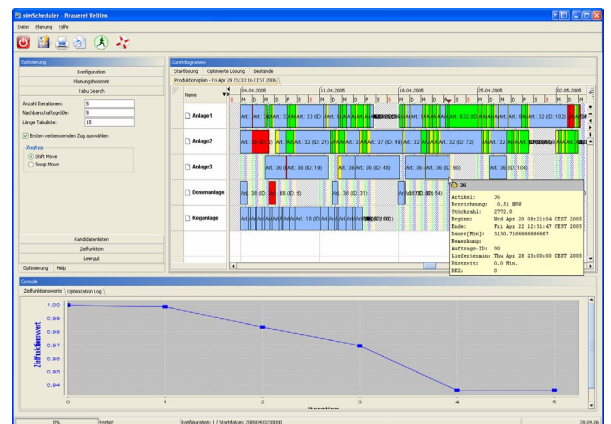
The integration of external data sources is effected with the help of modern data integration tools. Hence the existing data structures does not need to be changed for using SimScheduler.



Structure and functionality of SimScheduler

SimScheduler automatically generates production orders on the basis of current stocks, orders/prognoses, minimum lot sizes and minimum stocks, which are included taking into account all manufacturing restrictions with regard to the bottling plants.

With the aid of the optimisation component the system then automatically improves the filling schedule. Thereby performance indicators such as delays, changeover time, cycle time and stock movements are pulled up for the evaluation of the filling schedules. Of course, you can manually revise the filling schedule suggested by SimScheduler if required.



Example of filling schedule in SimScheduler

## Aims and benefits

- Time saving during planning and specification of filling quantity
- Integration of external data as planning basis
- Increase of plant utilisation through simple and transparent machine scheduling
- Automatic generation of a filling schedule on the basis of a modern optimisation process
- Shortened response times in case of rescheduling
- Continuous reduction of the minimum stocks (capital tied up costs)
- The proposed filling schedule can be a discussion basis in weekly meetings of planning (loss of definition of filling quantity and thus time saving)
- Graphical interactive operation

## Fields of application

- Filling schedule in beverage industry

### The SimPlan group

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 through material flow and logistics simulation, simulation-based detailed production planning to support with the commissioning of control software.

Furthermore we are a neutral distributor of simulation software and we will lend you our support with the selection, training and implementation in your company.

### Why SimPlan?

- Objective and independent analysis
- Detailed knowledge of logistics and production processes with over 25 years project experience
  - Development and use of standards
  - More than 350 person-years experience in the field of simulation
- Sufficient capacities for prompt respond to your questions
- Close cooperation and project integration with high on-site part
- Development of innovative solutions for the efficient handling of questions

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