SIEMENS

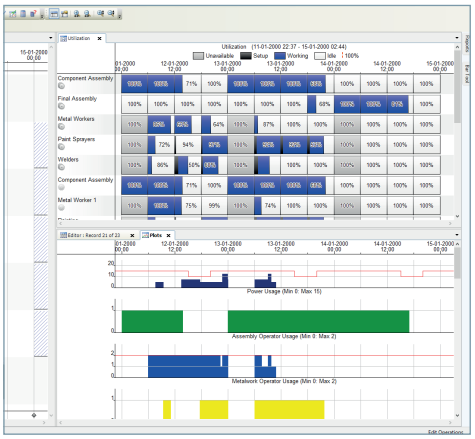
Ingenuity for life

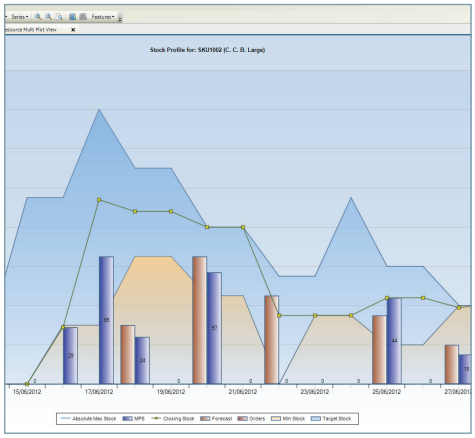
Siemens PLM Software

SIMATIC IT Preactor APS

Applications in the food sector

siemens.com/mom





The food and beverage sector faces a set of unique demands that result in an environment that is particularly challenging for planning and scheduling.

There are many challenges faced by the Food and beverage sector including:

- Variation in raw materials and demand – Seasonality and reliance on crop yields means that the quantity and quality of raw materials and demand can fluctuate a lot. The planner needs to be in a position to plan for many eventualities and respond easily to the current situation
- Short shelf life – Perishable materials and produce mean that it is essential to optimize the timing of production to avoid waste
- Strong price pressure from customers – In order to remain profitable in the face of pressure to reduce prices, it is necessary to ensure that the production process is running as efficiently as possible
- Complex quality and packaging requirements – Often there are complex relationships between the grade of the goods and their suitability for particular customers or product lines
- Complexity of production process – A mixture of discrete and process production modes can result in complex planning and scheduling requirements, often with contradicting goals for different parts of the process

The SIMATIC IT Preactor product range of Advanced Planning and Scheduling software is ideally suited to meet these demands.

SIMATIC IT Preactor Advanced Scheduling

SIMATIC IT Preactor Advanced Scheduling is a finite capacity scheduling tool based on a detailed model of the plant. It takes into account the actual availability of resources and other constraints, such as tooling and materials, to produce a feasible schedule. From this starting point the software can be used to increase throughput, decrease WIP and inventory, and increase resource utilization.

Challenges addressed by SIMATIC IT Preactor Advanced Scheduling

Short shelf life – Even with careful long-term planning, it is still possible to run into issues with production of short shelf-life products if your short-term scheduling is not also set up to to deal with shelf life considerations. SIMATIC IT Preactor Advanced Scheduling can produce schedules that prioritize short shelf-life products and also flag potential shelf life-issues to the planner.

Variation in raw materials and Complex quality requirements – SIMATIC IT Preactor Advanced Scheduling products are designed to take into consideration the availability of materials when creating the production schedule. In addition to this, it is possible to define rules within the software that control the way that materials are consumed. This means that regardless of whether there are sudden changes in material availability or complex rules about the usage of different grade materials, those changes and rules can be modeled in SIMATIC IT Preactor Advanced Scheduling to ensure that the scheduled production is a reflection of your needs. The process of reassigning materials and creating a new schedule to reflect the changes can be carried out in minutes.

Strong Price pressure – In the current competitive environment it is essential to streamline the production process to minimize overheads. SIMATIC IT Preactor Advanced Scheduling can help achieve these goals by using complex scheduling algorithms and giving the planner the visibility to identify and react to issues. Whatever the scheduling pain points are, be they costly changeover times, high inventory or poor due date compliance, SIMATIC IT Preactor Advanced Scheduling can be set up to minimize them.

Complexity of the production process – SIMATIC IT Preactor Advanced Scheduling software can be used to model complex manufacturing processes and, due to its flexibility, be set up to produce a schedule based on the reality of your production environment. It doesn't matter if the complexity is in the process routes of products or the constraints on the manufacturing process, SIMATIC IT Preactor Advanced Scheduling has the functionality to deal with it.

SIMATIC IT Preactor Advanced Planning

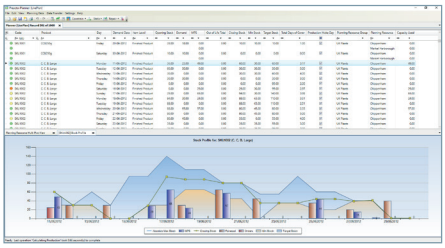
SIMATIC IT Preactor Advanced Planning is a strategic decision support tool, which combines forecast and long-term orders with target stock levels and bucketed resource capacities, to ensure that future demand is met. It does this by creating a master production schedule, and detailing when and how much of each SKU should be produced in order to satisfy the demand. The software can take into account constraints such as shelf life and material requirements, and balance the load of production requirements across multiple planning resources.

Challenges addressed by SIMATIC IT Preactor Advanced Planning

Short shelf life – SIMATIC IT Preactor Advanced Planning can take shelf life into account when being used to plan production. The planner can be sure that the results that are being generated when creating a master production schedule will be tailored to minimize waste from goods exceeding their shelf life and spoiling.

Variation in demand – The raw data that the SIMATIC IT Preactor Advanced Planning system uses to create the master production schedule is for long-term orders and forecasting. This means that in environments with variable demand, this information is there from the start of the process. Once the system has calculated the production required, the planner can easily visualize and interact with the result to see how the varying demand should be reflected in plans for production capacity.

Complexity of the production process – SIMATIC IT Preactor Advanced Planning software can support generating production information at multiple levels of the Bill of Materials and can work in both Make-to-Stock and Make-to-Order environments. This means it is possible to plan production for complex mixed mode processes.



Siemens PLM Software
www.siemens.com/plm

Headquarters:	+1 972 987 3000
Americas:	+1 314 264 8287
Europe:	+49 (0) 2624 9180-0
Asia-Pacific:	+86 (21) 3889 2765

62138-A4 2/17 W