

## **Production optimization through** advanced and detailed scheduling

### **Benefits**

- Eliminate non-value-added activities, such as setup or waiting time
- Highlight potential production problems to efficiently balance demand and capacity
- Visualize the current production capacity load
- Analyze the impact of unexpected events and decisions taken
- · Run what-if analysis
- Compare production alternatives and optimize the manufacturing schedule

### Summary

Camstar™ Scheduling provides an out-of-the-box, closed-loop scheduling solution that integrates Camstar Enterprise Platform (CEP) with the industry-leading Preactor APS application to create an enhanced scheduling solution for semiconductor, electronics and medical devices manufacturers.

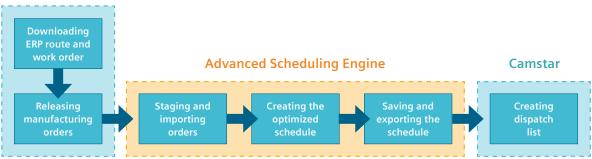
CEP is efficiently integrated with the advanced scheduling engine through the Camstar Interoperability (CIO) module without requiring any additional modification or software update.

The new scheduling capabilities enable you to:

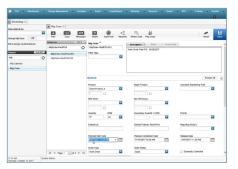
- Send manufacturing execution system (MES) data from Camstar to the scheduling engine
- · Manipulate data to create an optimized schedule and return it to Camstar
- Use the optimized schedule to generate the queue for order dispatching and operation view

Lower inventory levels, reduced costs, faster response to shorter lead times and improved product quality are just some of the benefits that you can achieve by integrating scheduling features with your MES.

## Camstar



# Camstar Scheduling



## Creating and releasing manufacturing orders

Releasing a manufacturing order triggers the interface to send process and order data from CEP to the scheduling application, using the CIO database adapter.

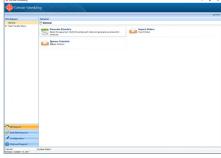
- Download work order and route from enterprise resource planning (ERP) systems to create a manufacturing order and ERP route in CEP
- Assign the downloaded ERP route to a workflow
- Map route steps to specific steps of the workflow
- Release manufacturing order for scheduling



# Creating and optimizing production schedules

Manufacturing order data and resource information are loaded in the scheduling engine to create an optimized production schedule.

• Generate optimized schedule of all imported orders



- Optimize orders by considering material shortages and resource availability
- Define additional constraints by considering manufacturing set-up alternatives and update the optimized schedule
- Evaluate and compare scheduling alternatives and run what-if analysis
- Save the schedule and release it for production



# Releasing schedules and creating dispatch lists

Back in the MES environment, the scheduled orders are ready to be dispatched for production.

- Released schedule is received by Camstar
- The existing (old) schedule is replaced with the most recent (new) schedule
- Orders and/or containers are ready to be executed for optimized production

## Sending real-time order completion data

As orders move through processing completion, data is returned to the scheduling engine to enable schedule update. Manufacturing order completed quantities are sent back to the scheduling engine whenever containers for an order complete processing at specified operations.

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