



Real-time production planning and scheduling

SCHEDULER





“Quintiq is an enabler for excellent results. It allows you to measure many KPIs and drive improvements in the critical ones. The iterative development process was key to Novelis owning the system. Quintiq has exceeded our expectations every step of the way.” – Buddy Stemple, VP & GM, Novelis

Planning and scheduling: A daily challenge

Production companies face exceptionally complex planning challenges daily. Complicated production sequences, rush orders, and unplanned events such as raw material delays and equipment breakdowns must all be juggled while still meeting tight delivery schedules. In addition, every production company must balance sales, production, and management – making daily planning and scheduling highly challenging.



Delivering real business value

“With Quintiq, we can safeguard our high delivery reliability. Other benefits include better planning: we can do more with fewer people and yet have improved production efficiency.”

– René Boersma,
Logistics Manager, Tresp

The Quintiq Scheduler is a software solution that addresses these challenges by enabling automated real-time scheduling and planning of production activities anywhere from days to hours ahead. Quintiq expertly meets the planning needs of any production company. Our clients hail from industries such as food and beverage, chemicals, pharmaceuticals, textiles, pulp and paper, packaging, metals, and many other sectors.

Taking into account all your operational constraints, the Quintiq Scheduler lets you:

- Optimize order sequencing
- Plan material flow
- Create batches
- Combine orders.

The solution enables you to achieve more efficient production and better delivery performance. After every scheduling action, you can immediately view the effect on selected Key Performance Indicators (KPIs) and make adjustments to optimize performance according to your priorities.

Short-term production sequencing

The powerful sequencing capabilities of the Quintiq Scheduler let you visualize different production scenarios to create an optimized, demand-driven schedule. It takes into account any set of inputs and rules – such as specific setup times, transition rules, labor constraints, and quality considerations.

Quintiq’s Scheduler combines orders and creates batches to generate an optimal production sequence.

When unexpected disturbances occur, such as a machine malfunction, the Quintiq Scheduler quickly calculates the consequences of the current conditions and displays an alternative optimized production schedule based on the new constraints. This allows you to instantly take action to ensure efficient production. You can reach better decisions by visualizing the consequences of each of your actions in terms of KPIs such as delivery times, throughput, inventory levels, and capacity utilization.



Optimized material reservation

With the Quintiq Scheduler, you can efficiently match customer orders to raw materials and optimize material reservation, allocation and replenishment. While scheduling your production line, you can easily view the availability of materials and decide whether to use existing stock or order new supplies. Quintiq provides you with full control over inventory levels, allowing you to minimize inventory or maintain a desired stock level, depending on your goals.

Yield optimization

Customer orders rarely match production units – making order combination a key requirement for optimizing material usage and minimizing waste. The Quintiq Scheduler helps you combine orders in the way that incurs the least possible waste and cost, and generates the highest possible efficiency. It performs all calculations automatically – helping you to optimize yield, while also keeping you in full control to make manual changes as needed.

Decision support

The unique “what if” scenario capability of the Quintiq Scheduler provides you with powerful decision support. It allows you to evaluate alternative production schedules, examine the result of each scenario on various KPIs, such as delivery time, or resource utilization, and select the most appropriate course of action to achieve your objectives.

Full visibility and KPI control

With the Quintiq Scheduler, you can define a set of KPIs to be tracked in real time, such as delivery performance, production lead time, inventory levels or throughput. At any given moment during the daily planning and scheduling process, planners and managers can analyze how changes to plans and schedules will impact those KPIs.

Quintiq’s Scheduler provides you with full visibility and control over the real-time status, constraints and problems of your plant operation. For instance, if customer orders are demanding full production capacity, the Scheduler assists in balancing bottlenecks and suggests an optimal production schedule.

Business benefits

- Improved production efficiency, lead times and throughput
 - Superior delivery performance
 - Reduced inventory levels
 - Quick and effective response to unplanned events
 - Maximum production flexibility and visibility, with maximized control over processes
 - Real-time analysis of business KPIs
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“We were able to reduce WIP levels by about 15% and the lead times were shortened by several days.”

– Dr. Hamed Morid,
Head of IT,
Aurubis Stolberg

Additional benefits

An exact fit for your planning needs

Quintiq’s Scheduler runs on top of the Quintiq optimization platform that powers all planning and scheduling solutions. It can be tailored to your unique process, constraints and priorities without lengthy or complicated integration efforts, and at minimal cost.

Easy integration

The Quintiq Scheduler easily integrates with legacy IT systems and information sources, including ERP, MES and shop floor control systems. This means you can continue leveraging existing technology investments while gaining advanced, real-time scheduling capabilities.

An integrated solution for all planning levels

As part of the Quintiq integrated solution suite for production and supply chain planning, the Quintiq Scheduler meets short-term planning and scheduling needs. Other solutions include Macro Planner and Company Planner that support long- and medium-term planning issues. Together, the three solutions provide a comprehensive, seamlessly integrated software solution, but each can be implemented separately.



About Quintiq

Every business has its supply chain planning puzzles. Some of those puzzles are large. Some are complex. Some seem impossible to solve. Since 1997, Quintiq has been solving each of those puzzles using a single supply chain planning & optimization software platform. Today, approximately 12,000 users in over 80 countries rely on Quintiq software to plan and optimize workforces, logistics and production. Quintiq has headquarters in the Netherlands and the USA, and offices around the world.



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