

# Detailed Scheduling

Provide real-time transparency to the sales force, customers and other stakeholders regarding order promises

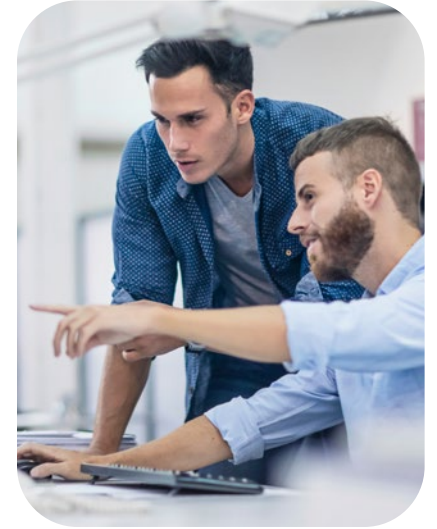
## Business context

A key function of the production planning process is to respond quickly and accurately to sales department inquiries about new customer orders. But, across today's increasingly complex manufacturing environments, it can be challenging to assess how the availability of materials, labor and assembly line capacity will actually impact the completion of customer orders and delivery dates. Rapidly changing demand, a growing move toward personalization, and scarcity of components can quickly impact modern production processes, extending delivery timelines.

Unfortunately, the detailed scheduling process is often managed using whiteboards, consumer-grade spreadsheets and planners' intuition. In today's fast-moving, volatile manufacturing landscape, this approach is insufficient not only to optimize order management and delivery — but also to communicate clearly and accurately with customers about delivery times. Production planners need an intelligent, digital solution that easily ingests real-time data — and makes accurate customer promises that consider profit margins, resource utilization and other key metrics. The result? Improved financial performance and customer satisfaction.

## The Blue Yonder solution

Today's everyday production challenges have become too complex to be mastered with spreadsheets and manual analysis. That's why Blue Yonder delivers its intelligent solution, Detailed Scheduling. With Detail Scheduling accurate, profitable production decisions — that also delight customers — can be made in mere seconds. When a new customer order is proposed, this powerful solution gathers real-time data about resources and production capacities — and maps those against existing orders and current plans. Then it applies advanced intelligence to weigh trade-offs, generate what-if scenarios and make recommendations to optimize production setup and leverage capacity — so idle time is minimized, and orders roll off the line faster.



## Key Benefits



**Reduces manual planning and communications**



**Drives fact-based, profitable production plans and schedules**



**Provides real-time visibility and transparency**



**Maximizes customer satisfaction**



**Enables agile, automated rescheduling**



**Automates the analysis of trade-offs and conflicts**

In seconds, the manufacturer can accept, reject or postpone an order. If an order is accepted, the manufacturer can commit to a delivery date, as well as reconfigure other orders and their assembly resources to meet very specific demand needs. Planners can also identify backup resources as needed to fulfill specific demand as conditions change.



In all its analysis and recommendations, Detailed Scheduling takes a holistic view across the supply chain and arrives at outcomes that balance corporate profitability with production efficiency and customer service. Customers, planners, salespeople and shareholders are happier.

## Capability Details

### Stable production — that also captures new opportunities

Predictable, stable production is the goal of every manufacturer. But often, changes must be made to capture new opportunities or prioritize top-tier customers. The associated trade-offs and conflicts can be complex: What's the real cost of destabilizing production and implementing a new schedule? Will efficiency go down? Will there be available supply to meet the demand, at a profit? Blue Yonder Detailed Scheduling leverages intelligence and data science to answer these questions quickly and confidently. It prioritizes production stability and precision, but also positions manufacturers to pivot, nimbly and profitably, to meet customer demand faster.

### Real-time disruption management

In addition to new opportunities, production plans can also be affected by material bottlenecks, equipment downtime or labor shortages. Blue Yonder Detailed Scheduling analyzes and optimizes the production schedule based on any number of disruptions. It intelligently weighs trade-offs, generates what-if-scenarios, and delivers recommendations with unmatched speed and precision to reduce idle time and inefficient use of resources. Blue Yonder puts advanced intelligence in the hands of every scheduling team.



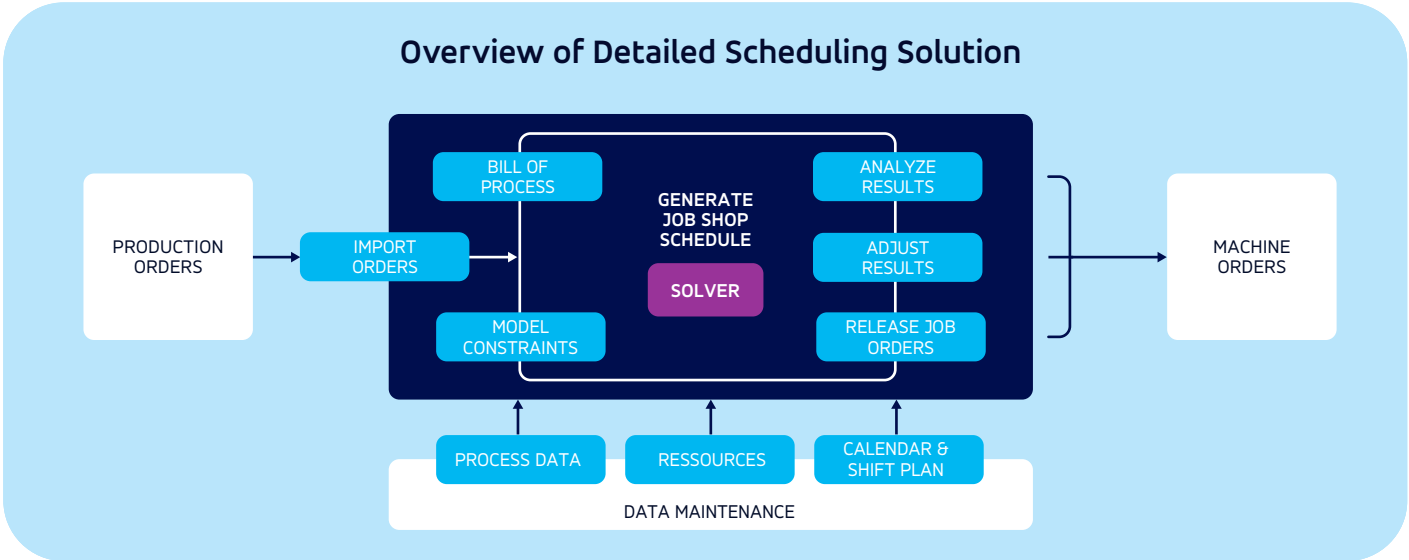
### Decision transparency, to fuel collaboration

Blue Yonder Detailed Scheduling considers an enormous amount of data and applies advanced algorithms in making its recommendations. Digital twin capabilities provide detailed insights into how different scenarios affect delivery dates and resource utilization. As planners optimize production, as well as order management and delivery processes, salespeople and even customers can easily see the capacities and constraints that can change timelines. Every step in producing the product is visible and transparent. When interventions are needed, the underlying reasons are clear.

### A customized planning ecosystem

With a range of modules, Blue Yonder Detailed Scheduling allows planning teams to customize their digital capabilities — from monitoring resources and capacities to answering customer inquiries and scheduling orders. Blue Yonder's composable approach positions customers to easily add capabilities and solutions as they're needed. Detailed Scheduling also integrates with each customer's manufacturing execution system (MES), enterprise resource planning (ERP) solution, order management system (OMS), and other technologies. A standard interface gives users the power to see not only individual orders, but also the complex production plans and resources of the entire company.





**The Blue Yonder Detailed Scheduling workflow delivers these user benefits:**

**Scenario generation and collaboration**

Blue Yonder Detailed Scheduling makes it easy and intuitive to maintain data, manage orders and monitor resource availability in real time. As conditions change, the scheduling team can generate forward-looking schedules and scenarios, which can be shared with the sales department and affected customers. Decisions about capacity expansions or outsourcing can be made collaboratively, with the outcomes evident to all stakeholders upfront.

**Increased synergy through efficient planning**

By making the scheduling process structured and visible, Blue Yonder has created a graphic control center that can be used in a synergistic manner by all stakeholders. The scheduling team can eliminate manual planning and post-processing, as Blue Yonder Detailed Scheduling holistically maps all capacities and requirements. While planning is automated, manual intervention is also possible, using drag-and-drop capabilities to make and record short-term changes.

**Transparency and visualization through key figures**

Clear, logical dashboards allow all stakeholders to evaluate detailed scheduling plans efficiently and quickly. Blue Yonder provides an extensive catalogue of key figures for this purpose. Scheduling evaluations can be made on a customer-by-customer basis, and any delivery-date problems can be immediately investigated.

**Real-time, automatic data integration**

The planning team can react at any time to changes in resource availability or order priority. Blue Yonder Detailed Scheduling automatically records and integrates data including order start, status and completion, as well as fault messages. Production information can be ingested automatically via MES or database interfaces. Data can also be entered or updated manually by team members.

