

# Factory Planning



## Improve profitability with factory planning

For highly configurable products such as automobiles and industrial equipment, each order can reflect a different combination of product features. These order variations effect assembly line efficiency, especially if process and cost control are not monitored. For example, in the automotive industry, each changeover of the paint tool results in fixed costs to the company, as well as environmental costs. And manual order sequencing schedules fall short because they take too long to produce and update, fail to consider the many constraints on production and lack the flexibility to test scenarios before they are implemented.

Manufacturers of configurable products not only have to meet customer commitments, but also balance schedules that respect different option capacities, material constraints, workload distribution across assembly lines and sequence coordination among multiple stages. As demand for products with personalized features and options continues to grow, achieving this balance has become even more challenging in today's world. Upstream and downstream changes frequently wreak havoc on planned schedules, requiring quick turnaround from plant schedulers. Tasked to coordinate schedules among various facilities, reduce inventory and work-in-process and minimize equipment changeovers, configurable products manufacturers need a powerful set of capabilities that address their many constraints as well as material coordination challenges.

## Real results

Reduction in changeover time  
up to

40%

Reduction in production  
scheduling up to

1/3

Manufacturers are quickly realizing that with a more user-driven business environment, teams will require faster, broader and more responsive ordering and scheduling capabilities. Blue Yonder's factory planning is a powerful set of capabilities that improve order-to-delivery processes for discrete manufacturing of configurable products. Built-in optimizers and operating constraints ensure that orders are scheduled in the most strategic manner to maximize the productivity of both upstream and downstream processes. Factory planning provides a highly scalable engine that enables your business to strategize, plan and execute assembly processes across multiple facilities for profitable production and high levels of customer satisfaction.

### **Why go at it alone? Rely on Blue Yonder, the industry leader**

Blue Yonder has been providing manufacturers with leading-edge planning capabilities for decades. We've produced results for more than 500 manufacturers across different industries in more than 38 countries around the globe. Manufacturers can now leverage the entire digital fulfillment planning platform to power their digital supply chains, and achieve even greater benefits, ease of implementation and lower total cost of ownership.

Blue Yonder combines the world's leading forecasting technology with market-leading network design, sales and operations execution, inventory optimization, master planning, replenishment planning, order promising, factory planning and collaboration capabilities, converged with a common data model and interfaces to enable integrated manufacturing planning in the cloud. All components work together with enhanced analytics and provide critical inputs to streamline workflow and enable optimum performance unlike any other in the market.

Further, Blue Yonder's unrivaled professional service and consulting expertise can guide you through your business transformation. Blue Yonder can help you define where the greatest benefits can be achieved, create a realistic roadmap based on industry best practices and your unique company constraints, and help you develop a fact-based list of benefits and potential ROI. Only we can provide this unparalleled

combination of business process breadth, functional richness, robust capabilities and industry expertise that makes the total value to you as a customer much greater than the sum of the parts.

### **Factory planning capabilities within easy reach**

Lean manufacturing on the supply side, and customer responsiveness on the demand side, are often conflicting objectives that your business must address simultaneously. Blue Yonder's factory planning considers each individual order and generates overall schedules based on conflicting requirements such as customer priority, delivery commitments, order features like paint color and production constraints such as tool changeovers, daily capacity, spacing requirements, minimum and maximum runs and materials availability.

This set of capabilities enforces both hard constraints, which are physical limits on production, as well as soft constraints which can be preferentially violated, but that carry penalties. Powerful simulation capabilities enable your order schedulers to test the results of various what-if scenarios before actually implementing a plan. Your schedulers can modify rules, assess different scenarios and respond in real-time to any changes on the shop floor.

Blue Yonder's factory planning was designed to make order-driven manufacturing environments for configurable products more predictable and profitable. If your business is focused on lean manufacturing, this set of capabilities can create level assembly schedules that maximize stability. When unexpected changes do occur, your production line can respond rapidly, protecting both profitability and customer satisfaction. Re-sequence customer orders within minutes, enabling your business to continuously adapt to changes in the supply chain.



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