

# ORACLE PRODUCTION SCHEDULING

## KEY FEATURES

- Simultaneously considers capacity and calendar constraints on machines, crews and tools
- Material constrained
- Automatic floating bottleneck detection
- Representation of all routing precedence relationships
- Graphical multi-stage production pegging
- Sequence dependent changeover minimization
- Campaign Run Optimization
- Advanced analytical views (Gantt charts, line graphs and bar charts)
- Intelligent resource offloading between alternates
- Event-based bucket-less scheduling
- Generative & repair based solve capabilities
- Multi-scenario with KPIs for scenario comparisons
- Intuitive graphical model
- Resource dependent operation duration and lot sizes
- Co-products and by-products
- Demand priorities
- Alerts with root cause
- Resource batching
- Resource replacement groups
- Completely integrated with Oracle Advanced Supply Chain Planning
- Deploy standalone or integrated with Oracle E-Business Suite

*Are you able to sequence orders to best use your production resources? Do you know when to offload production to alternate resources? Do you need to minimize the effect of unplanned down time? Are you able to evaluate the impact of a supply shortage on fill rates? Oracle® Production Scheduling enables you to create detailed, up-to-the-minute schedules that enable you to produce the right amount of product when it is needed, thereby maximizing service, minimizing inventory, sequence dependent setups, expediting, and other undesirable costs?*

## Overview

Oracle Production Scheduling enables you to take control of your production scheduling problem, and helps you to maximize shop floor throughput while optimizing resource investment. You can optimize the usage of your critical resources, calculate realistic and feasible schedules that the shop floor can execute, and easily determine the schedule that best meets your objectives. In addition, you can leverage the out-of-the-box integration with the Oracle E-Business Suite to implement quickly and get immediate value.

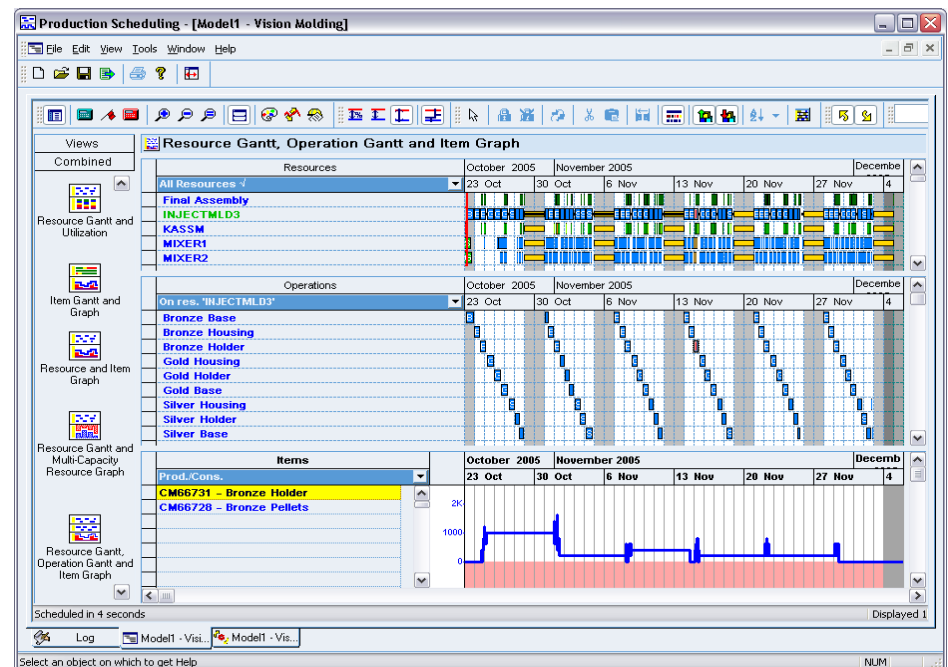


Figure 1: Production Scheduling Workbench

### Maximize throughput and increase resource utilization

One key to profitable manufacturing is maximizing the utilization of your critical resources. Oracle Production Scheduling calculates feasible and realistic schedules that consider your key manufacturing constraints. It automatically detects bottlenecks and ensures the flow of production through the bottleneck to maximize the productive throughput while synchronizing all the stages of production. You can also easily identify specific issues and take corrective action by drilling directly to the root cause of the problem.

Often, the key to maximizing utilization and throughput is minimizing unnecessary setup time. Production Scheduling can automatically sequence production to minimize setup time while still meeting all requirements on time. It recognizes when dependencies between products exist that determine the amount of changeover time. Production Scheduling can also automatically determine what quantity of product should be run together to minimize setup while not jeopardizing demand or carrying excessive inventory. This is often called campaign planning, batch planning, or run length optimization (and is facilitated through the Oracle® Repetitive Manufacturing Optimization option for Oracle® Production Scheduling).

### Improve shop floor performance

If your production floor has been given an un-executable schedule, much time is spent expediting around shortages and resource constraints. This typically leads to inconsistent lead times and excess work in process inventory. Oracle® Production Scheduling enables you to improve your shop floor performance. It provides the shop with a feasible schedule that is executable, and considers all the production constraints. When issues exist, it provides you with alerts that identify precisely where problems exist, and what the root cause is. Interactive drag and drop rescheduling and fast interactive simulation enable you to quickly try out and assess ways to rectify problems. After refining the schedule, you can approve it for release and immediately communicate all the changes to dates and sequences to the production floor for execution. You can also publish a dispatch list that enables each operator or work center to view a prioritized list of work. This leads to higher overall throughput with consistent and predictable cycle times, which translates to better schedule adherence, lower work in process inventories, and a reduction in non-value added expediting cost.

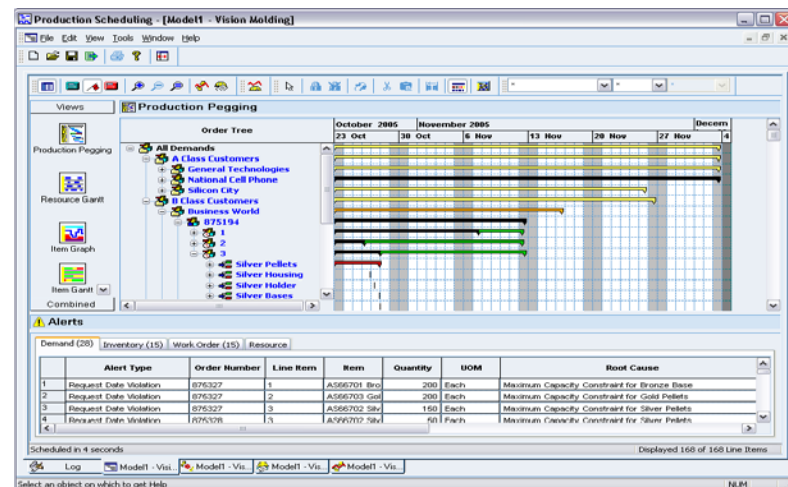


Figure 2: Gantt Chart based drag-and-drop scheduling

## KEY BENEFITS

### KEY BENEFITS:

- Maximize throughput and increase resource utilization
- Improve shop floor performance
- Increase profits through asset rationalization
- Decrease WIP inventory value
- Determine the best schedule through interactive simulation
- Comprehensively plan and schedule production integrated with Oracle E-Business Suite
- Incremental deployment – get benefits quickly without the loss of integration

### RELATED PRODUCTS:

- Oracle Discrete Manufacturing and Oracle Process Manufacturing: collect actual production; release approved production schedule back
- Integrated with Oracle Advanced Supply Chain Planning: schedule both actual production and planned orders; publish planned orders back to Oracle Advanced Supply Chain Planning as firm planned orders

## Determine the best schedule through interactive simulation

Oracle Production Scheduling enables you to easily evaluate one or more schedules based on multiple metrics. It provides many pre-seeded key performance indicators by which the schedule quality can be assessed. You can also quickly compare schedules and what-if scenarios to identify the schedule that best meets your business objectives. For example, when you have demand that is not scheduled to be late, you can compare a baseline schedule against one where you simulate working overtime and see how the two schedules differ both in delivery performance and cost. As part of the analysis, you can weigh the incremental cost of working overtime against the improvement in delivery to make an informed and intelligent decision on whether or not to work overtime.

## Comprehensive and integrated manufacturing planning and scheduling

Oracle provides a comprehensive and integrated manufacturing planning and scheduling process through tight integration between Oracle E-Business Suite, Oracle Advanced Supply Chain Planning, and Oracle Production Scheduling. You can use Production Scheduling to schedule production orders or process batches only, or you can decide to simultaneously plan both production and planned orders from Advanced Supply Chain Planning. Once the schedule is refined and finalized the scheduler can either release it to execution or publish the planned production orders back to Advanced Supply Chain Planning (as firm planned orders). The execution production orders become the starting point for the next supply chain plan and schedule run. Oracle Production Scheduling supports key manufacturing modes: discrete work orders (through Oracle Discrete Manufacturing), process batches (through Oracle Process Manufacturing), and lot-based jobs (through Oracle Manufacturing Shop Floor Management).

## Oracle Value Chain Planning — A Complete Solution

Oracle's Value Chain Planning solution enables companies to efficiently design, plan, and service their value chains from 'factory to shelf'. Its componentized architecture enables you to start with any product and expand to other areas at any point in time. For example, you can decide to start with improvements to your production scheduling process because you have a production throughput problem, and then implement constrained supply planning or a sales and operations planning process. The Oracle Value Chain Planning architecture leverages the scalability and security of Oracle's RDBMS and Fusion Middleware technology and can be deployed as a single instance with Oracle E-Business Suite, or integrated with other systems. Whether you implement one module or the entire product solution, Oracle's Value Chain Planning solution enables you to share unified supply chain planning information across the enterprise so you can make smarter decisions faster, with better information.

## Contact Us

For more information about the Oracle Production Scheduling, please visit [www.oracle.com](http://www.oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.

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