

Advanced Planning and Scheduling

An extension of scheduling, APS incorporates the strength of the Scheduling engine and enhances it with advanced functionality such as multiple constraint scheduling, a wide range of scheduling methods, visual drag-and-drop scheduling, capability and dependent capability-based scheduling, real-time capable-to-promise functionality, and advanced material planning functionality.

MULTIPLE RESOURCE VISUAL PRODUCTION SCHEDULING BOARD

Easily manipulate the schedule with drag-and-drop manipulation and drill-down techniques for multi-level assemblies and operation details. A main control center for scheduling resources graphically displays schedules for a group of resources in one screen. Dynamically change the timeline of the view to see minute operations and analyze the impact of long running operations instantly.

MULTIPLE CONSTRAINTS

Set up every operation with multiple constraints or resources (e.g., machines, tools, skilled labor, raw materials, or available subassemblies).

AUTOMATED SCHEDULING BY CAPABILITY

Define a capability or skill level that can be tied to multiple resources rather than a resource group or individual resource in the planning process. The APS engine then determines, based on the available resources, which individual resource to schedule for the operation.

DEPENDENT CAPABILITIES

Link dependent capabilities that the scheduling engine schedules along with the primary capability when operations require dependent skills to perform the operation.

FINITE OR INFINITE CAPACITY

Define each resource with either finite or infinite capacity. When a piece of the schedule is moved, the resource is rescheduled according to its type.

MINIMUM WIP SCHEDULING

Use a unique scheduling algorithm designed to minimize work in process by scheduling a job to ship as early as possible. APS then back schedules to start working on the job as late as possible.

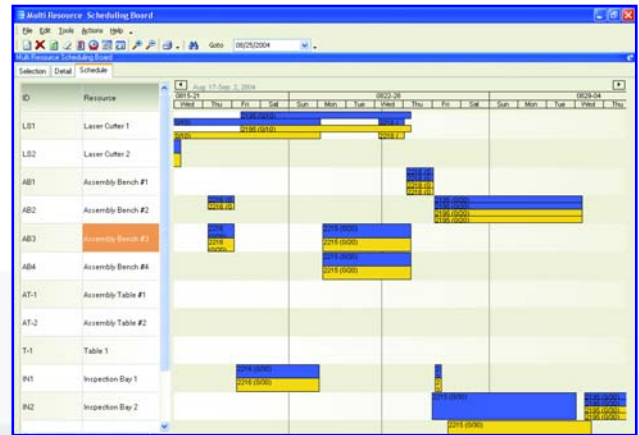
MATERIAL CONSTRAINTS

Consider material availability as a scheduling constraint. Integrated directly with Inventory and Purchasing, the APS system knows when material is due and schedules accordingly.

ADVANCED MATERIAL PLANNING

Increase throughput by considering material and component availability as a constraint. Advanced material planning, an integral feature of APS, facilitates intelligent stocking and procurement of material requirements.

The schedule function recognizes materials earmarked as constraints, gives the master scheduler material availability and considers supplier calendars for a more realistic schedule.



Consider manufacturing resources and create a visual finite schedule for improved schedule accuracy.

CHANGE IMPACT ANALYSIS

See the immediate impact of proposed changes on other orders to make informed decisions about desired changes.

RESOURCE ELIGIBILITY

Define resources within a specific resource group with individual characteristics to improve scheduling accuracy.

TIME ADJUSTMENT

Automatically take into account resource utilization and resource group efficiency for more accurate load calculation.

OPTIMIZATION RULES

Generate a schedule based on rules assigned to individual resources.

BALANCED OPTIMIZATION

Concurrently consider priority, slack time and setup time when determining load balance.

SINGLE CELL SCHEDULING

Schedule an entire job or assembly within a single work cell.

CAPABLE-TO-PROMISE

Easily manage customer expectation with real-time capable-to-promise functionality in Order Management. Enabled with either APS or MRP, Vantage capable-to-promise uses the scheduling engine to determine accurate promise dates and offers order processing single click confirmation or order cancellation based on the projected due date.

UNLIMITED WHAT-IF

Create unlimited what-if scenarios to view the effect of changes on your shop floor.

MULTI-PLANT COMMUNICATION

Ensure that interdependent plant schedules are coordinated