Advanced Planning and Scheduling

Manage Production and Resources Using Advanced Scheduling Rules and the Simple Drag-and-Drop Schedule Board

Do you have problems scheduling production and managing resources? Are orders late because someone forgot to schedule an operation? Did you ever lose a good customer because production fell behind its required deadline?

Sage 500 ERP (formerly Sage ERP MAS 500) includes one of the most powerful and easy-to-use Advanced Planning and Scheduling (APS) modules available today. This module uses industry-standard scheduling rules to automatically schedule production based on advanced algorithms and mathematical calculations.

System-generated schedules provide a great foundation but do not take into consideration real-world concerns. That's why the APS module includes a drag-and-drop schedule board.

The schedule board displays all system-generated operation schedules, and it allows supervisors or production scheduling personnel to tweak the schedule to fit in high priority orders or to move scheduled operations to a different machine when another breaks down.

APS provides companywide visibility for production schedules. Your customer service, management, sales, and other employees have online access to view the status of each customer order. It provides customer service with tools to quickly find scheduled completion dates across manufacturing facilities.

**BUSINESS INSIGHTS**

Sage 500 ERP takes inquiry, drill-down, monitoring, and data analysis to a whole new level with out-of-the-box business intelligence tools, including Business Insights Analyzer, Business Insights Explorer, Alerts, SAP® Crystal Reports for Sage 500 ERP, Web Reports, and integration with desktop productivity tools.

**REPORTING FEATURES**

- Maintain custom form layouts for printed forms.
- Tailor Multicurrency Management report forms to your organization’s design requirements.
- Export all report data to an external file.
- Data types supported include ASCII text, delimited, Microsoft® Excel®, XML, PDF, HTML, RTF, or Microsoft Word.
- Output any report to the screen, a printer, or a variety of file formats.
- Create customized, presentation quality reports through SAP® Crystal Reports for Sage 500 ERP software.

**REPORTS**

- Work Order Priority
- Work Order Schedule
- Work Center Schedule
- Tool Schedule
- Work Center Utilization
- Machine Utilization
- Late Scheduled Work Orders
- Schedule Exception Message
- Facility List
- Tool Machine List
- Tool List
- Work Center Schedule List
- Machine Schedule List
- Holiday Schedule List

**SAGE 500 ERP SOLUTIONS**

- Financials and Project Accounting
- Manufacturing and Distribution
- CRM and E-Business
- Human Resources and Payroll
- Customization and Integration
- Business Intelligence
Multiple Schedule Versions
Maintain schedules by version for multiple facilities and what-if simulations.

- Multiple schedule versions may be maintained online.
- Use schedule versions to generate specific schedules for each manufacturing facility and another for the centralized or master schedule.
- Multiple versions provide a means for what-if simulations of the schedule. For example, what if you add another shift on Saturday?
- Modify work.

Industry-Standard Rules
Utilize advanced scheduling rules to generate realistic production schedules.

- The APS module includes nine different industry-standard scheduling rules, including: started operations, locked operations, actual before planned, critical ratio, minimum slack, priority code, required date, due date, and entry date.
- Schedule rules may be used in any combination, providing literally hundreds of scheduling options.

Schedule Flexibility
Various scheduling options are available to customize production schedules.

- Each production schedule includes user-defined start and stop dates.
- You can schedule operations backward from required dates or forward from start dates.
- Work centers may be coded as infinite, finite, or excluded for scheduling purposes.
- Work center and machine availability may vary by day. For example, you may decide to add another shift on Saturday to accommodate increased capacity in the assembly work center.
- The schedule board can be customized using schedule board options. This provides greater flexibility for the visual elements of the schedule board, including operation patterns, colors, major and minor tick definitions, and more.
- The APS module can be used to schedule operations against special tooling constraints such as jigs, molds, dies, or CNC attachments.
- Quickly add new work orders to the schedule board without regenerating the entire schedule.
- Use the Find Work Order utility to quickly locate a work order on the schedule board.
- Reschedule a specific work order or work order step without totally regenerating the production schedule.

- Numerous drill-downs and drill-arounds provide operation and work center-specific information, including operation start dates, estimated completion dates, work center/machine utilization reports and graphs, work order and work center-specific messages, standard vs. actual quantities produced, and much more.
- Utilize built-in shortcut keys to quickly navigate the visual schedule board.
- Schedules may be created globally for all facilities, work centers, and machines. Additionally, scheduling can be used to view work order schedules or to phantom schedule orders from Estimate Entry, Sales Order Entry, and Work Order Inquiry.

Drag-and-Drop Scheduling
Move scheduled operations easily on the schedule board.

- Use your mouse to move scheduled operations backward or forward in time on the schedule board.
- Drag and drop operations from one machine to another within the same work center.
- Lock scheduled operations to prevent them from being moved by another user or the schedule regenerations.
- Rearrange work centers and machines by dragging and dropping them in the desired order.

Material Requirements Planning (MRP) Integration
The APS module can be used with MRP to provide a true closed-loop system.

- Include planned orders in the production schedule.
- Use the actual before planned scheduling logic to prioritize actual orders.
- Update changes made to planned and actual work orders after you’ve made changes on the schedule board. These changes could affect requirement dates for purchased raw materials and other manufactured component items.
- Initialization allows you to bring in new or changed work centers, work orders, or planned work orders.

Business Insights
Analyze and monitor Advanced Planning and Scheduling data.

- Organize, analyze, and graph scheduling information such as machine and work center utilization, labor and tool resource requirements, work order schedules, and more.
- Use the Alerts module to monitor Sage 500 ERP when work orders are scheduled too late to meet customer demands.