Advanced Planning & Scheduling (APS) Selection Guide

7 critical success factors in selecting an APS system

Purpose

The purpose of this Guide is to provide you with a brief and user-friendly tool to help you evaluate APS systems and select the right one for your organization. To maintain objectivity, no company name or brand will be mentioned.

What exactly is APS?

Per Wikipedia, advanced planning and scheduling (also referred to as "APS") refers to a manufacturing management process by which raw materials and production capacity are optimally allocated to meet demand. APS is especially well-suited to environments where simpler planning methods cannot adequately address complex trade-offs between competing priorities.

Why may you need APS software?

If implemented correctly, APS software will be a strategic driver of key performance indicators (KPIs) and continuous improvement. Common symptoms of a need for APS are: low return on capital, high operating expenses, less than 100% on-time delivery, excessive operational stress surrounding schedule management and order quoting, and lost sales due to capacity shortages. Return on investment is typically dramatic – less than one year.

Why may you not need it?

In production environments where capacity constraints and scheduling variability are limited or non-existent and the above symptoms are not apparent, simple programs such as spreadsheets or a planning and scheduling module that is included in your ERP system may suffice.

7 Critical Success Factors in selecting the right APS System:

1. Be clear about your requirements and objectives. What planning and scheduling challenges do you need to resolve, and what business impact would you like to affect? It is likely that the right APS software will help you attain and sustain certain strategic initiatives, so consider these in the buying process along with the functional capabilities of the software. Up-front, careful thought and documentation of detailed requirements and measurable objectives are your best guarantee of a successful APS system selection and the achievement of desired results.

2. Analyze the versatility, adaptability and scalability of the software. The system's capabilities should address a wide range of current and future planning, scheduling and business challenges, and facilitate unlimited "what-if" scenarios. For the system to be used it will have to be accurate, and to be accurate it will have to be capable of modeling the important nuances of your business processes. Also ask yourself: "Will the software still be effective when you add more users or locations who need to collaborate in real time as your company grows?"

3. Make *absolutely* sure that the APS system provides clear, <u>enterprise-wide visibility</u> to your company's operation. Will it help you achieve a clear view of your capacity levels, workloads, schedule, inventory, jobs, etc.? Is the <u>graphical scheduling board (Gantt chart)</u> easy-to-understand, flexible and interactive so it will be a powerful and efficient tool in your production environment?

4. Perhaps most importantly, you need to know how well the software will help you <u>pro-actively manage variability</u> in your production, the market, and in the supply chain. Even with perfect data and real-time updates, real-life will not follow the plan exactly. Since variability will happen, having a strategy and tools to monitor and manage it are fundamental to successful planning and execution; i.e., plan the work, then work the plan. How will the APS system help buffer and cushion against the inevitable schedule disruptions?

5. Get a clear picture of the extent the software will <u>improve your company's KPIs</u> and what your <u>return on investment (ROI)</u> will be, based on objective measures. Will the APS system facilitate continuous improvement for many years to come? How *exactly* will the system drive improvement in your strategic measures? If this can't be answered, then why take a leap of faith?

6. If your company if a multi-plant operation, it is critical that the software fully supports <u>multi-plant dynamics, functionality and collaboration</u>. The APS system should help your many plants around the globe function as one cohesive and nimble operation.

7. Determine during product demonstrations the <u>ease of use</u> of the software. Will your team be able to learn the system relatively quickly? What is the APS software vendor's <u>implementation approach</u>? What kind of education, training and support will be provided by the vendor? Answers to these questions will help you mitigate some of the main risks of buying a comprehensive software program, ensure adoption of the new system and make change management easier.

Summary

To receive the greatest benefit from an effective advanced planning and scheduling system, you should first recognize the competitive advantages it provides. When implemented as support for the achievement of strategic objectives, APS will create economic value for all of your stakeholders; customers, employees, shareholders and the communities your serve. To approach this investment with less ambition will undoubtedly result in a missed opportunity.

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