

Bill Kirchmier, a finite capacity scheduling consultant and author, agrees.

"Client demand for short cycle times, predictability of delivery dates and increased productivity are some of the many factors motivating companies to move from traditional MRP infinite scheduling techniques to Finite Capacity Scheduling (FCS).

Companies who have implemented FCS systems and made the necessary cultural progressions have reaped significant productivity improvement and realized competitive advantages. Their success will put pressure on competitors who stick with traditional scheduling methods.

The single major benefit in moving to FCS is the ability to create feasible and detailed schedules, which can be executed on the shop floor. This is a major improvement over the traditional MRP "dispatch list" which has for years been thought of as a schedule, when in reality is a suggested plan based on the erroneous assumption that infinite capacity exist at all work centers.

What needs to be acknowledged is that moving from traditional scheduling techniques to a FCS system will improve productivity if appropriate cultural progressions are implemented".

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Q - How does this technology help a company?

A - "If you've read our '**7 Finite Capacity Secrets of Highly Successful Manufacturers**' then you've already met J.I.M. J.I.M. is an acronym for Job Immediately Manufacturing. Every company has at least one JIM. He or she is the person that has been there for a long time and has a gut feel for how work moves through the system. When an emergency order arrives, J.I.M. is able to walk it through and get it delivered on time. But the question is "at what cost"? As good as J.I.M. is, there is no way he can keep track in his mind the 10's of thousands of operations scheduled days and weeks ahead and know whether an order has been affected, or a bottleneck has just been starved, or overtime is now required. Vision Suite takes J.I.M.'s knowledge and models the manufacturing activities, effectively breaking down the barriers so that people can make the right decisions and do the jobs they know how to do. Our customers have been able to get a clearer view of their operational activity and predict future events such as WIP inventory levels, resource load, completion dates, and therefore drive more overall efficiency into the complete process as a whole with factors like 25% productivity improvements."

Q - What does it take to implement this technology?

A - "What we have learned over the past 15 years in this industry is that the **technology is half the answer**. The **other half** has to do with **implementation strategy and management approach**. We have observed in industry an astounding variation in the results achieved by organizations and asked ourselves the questions "why is it that a select group of companies reap astounding benefits while others flounder and sometimes even fail"? We performed an extensive study and what our most successful customers taught us was that there are 7 core competencies that were common among the most successful. One example is identifying and dealing with perfection paralysis which is knowing what data you need to have to begin and what you can develop as part of the process".

Q - Can any company use this technology?

A - "The short answer is no! Not every company can. However, in determining if a company is a candidate there are several questions that we ask. For example: Is the level of business activity you are currently experiencing mandating that you either better utilize your resources or acquire more? Are your customers demanding products faster than fast, better than good, and less than inexpensive? Are your shareholders insisting on a better return on investment"?

Q - Why do we need an advanced planning, scheduling and execution system when our ERP system handles finite loading?

A - There is a huge difference between finite loading in a planning system and optimized finite loading in an advanced planning, scheduling and execution system like Vision Suite. ERP systems are a valuable component to your overall business needs. However, they are not designed to handle detailed shop capacity control. ERP focuses on the enterprise to provide a rough-cut capacity plan. **Vision Suite**, on the other hand, focuses on detailed capacity loads and shop floor control, taking into account problems or changes on the shop floor that affect production. You will find ERP cannot handle detailed inquires about capacity loading and work center dispatching based on the current reality of the shop and multiple resource constraints. They also lack the functionality to accurately model the production environment. The rule of thumb is, if you can't model an environment you can't accurately schedule, track and control that environment.

Implementation

Q - How do we begin the process of evaluating advanced planning/scheduling/execution systems?

A - We have found that the companies that are the most successful and efficient in selecting the best technology for their needs have 4 things in place. These are:

1. Decision Team: After preparing some preliminary background information, the first thing you should do is select a decision making team. Make sure you select a well-balanced team with representatives from all the departments that may be impacted. Ask yourself these questions: Who are the stakeholders in the project? Who will benefit from the project? Who is likely to resist such technology? If you feel there are people in your organization that may be a stone thrower or naysayer perhaps it is best to include them on the team and make them except ownership and responsibility of the solution. Remember that full consensus is not needed or always expected. However, buy-in and support is a must.

2. Project Plan: A project plan should be written and updated throughout the selection process. Include the people responsible for the tasks assigned and make sure you have target dates and a well-defined time line. It is easy to put a project on the back burner to tend to your daily responsibilities but your problems don't go away by themselves! Always keep in mind the cost of delaying a project. Remember that you may be on the right track, but if your not moving, eventually you are going to get run over by the next train. Which is of course, your competitor. Encompass in your plan the approach you use to select vendors and a strategy for picking the vendor of choice. For example, you may start be sending out a **Request for Information** and

select vendors for demonstration based on their response to your needs. You may also want to plan for a vendor sight visit to assess philosophical alignment.

3.Decision Criteria: What are you looking to get out of the technology? Does the technology address your short and long term goals? What other criteria are you looking for? These are all questions you must ask in your decision criteria document. Include assessment of the vendor as well as the assessment of the technology they provide. If the project is going to be a success you must source a company that is going to provide you with top- notch service and have significant philosophical alignment with your company. Talk to the customers who use the system and ask them the difficult questions.

4.High Level Sponsor: It is very important that you include a high level sponsor throughout the entire process. Senior management will have an overall agenda in mind and it is important that you include this perspective in the project. A high-level sponsor can also help you push the decision through faster than you would be able to without a senior representative. The high level sponsor may also see other advantages from a corporate perspective that your team may not have thought of.

Q - How long does it take to implement the Vision System?

A - We have seen implementations as long as 8 months and as short as a few days. Time of implementation will depend on four major questions. They are:

1.Does your company have **established routings already developed in a database** that can be exported to other systems? This **will save time** in developing the repetitive routings within the Vision Suite databases.

2.Does an **interface have to be written** to a current business system? The time for the interface will depend on the complexity of the systems in place and any extra details you may want from an interpreter program.

3.Is your company **philosophically aligned to this type of technology**? There are 5 major questions you need to address here (these are part of our Vision Method and we'll be glad to send you a copy, just e-mail us a request!) Unless there is a strong commitment from senior management and key personnel the implementation time and overall success will be in serious jeopardy.

4.Does your company have the **necessary hardware** in place? You must have the necessary hardware in place. The time to put this together will depend on your update requirements (i.e. bar coding, updating from terminals, or other data collection needs).