

**A GUIDE**

# **Why Master Planning Does Not Work For All Manufacturers**

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## Introduction

Microsoft Dynamics 365 Finance has some valuable improvements coming for the performance of the existing master planning engine. However, it is somewhat disappointing that it will not be addressing the true needs of many manufacturers. The foundation of the new master planning engine is still the basic concepts that were delivered over 50 years ago. So, why is Master Planning no longer fulfilling manufacturing needs?

**Let's dive in!**

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### **ABOUT THE AUTHOR**

Doug Bulla is a Senior VP of Manufacturing at MCA Connect. With more than 25 years of manufacturing ERP and consulting experience, he finds innovative ways for companies to use ERP systems to drive operational excellence. He is an APICS member and holds CPIM and CIRM designations.

## **Which Workarounds Are You Experiencing?**

As manufacturing has leaned out waste and coupled production tightly with actual customer order demand, the flaws within the system have become glaring issues that have required incomplete work-arounds. Such as:

- Capable to promise and shortage inquiries running over the top of previous master planning runs.
- Available material is “reserved” during the master planning run on a first come first serve process.
- The Master Plan sequence is still low-level code and an item number. This means that items are processed sequentially grouped by their lowest level of existence in any BOM.
- Substitutions are virtually non-existent, let alone handling one-way substitutions (for example, you can replace a 10ft board with an 11ft board, but not the opposite) or interchangeable substitutions. If you do utilize substitutions, it is based on a hierarchical list evaluated based on availability. As opposed to evaluating all substitutions and selecting the sub that is company owned inventory AND fills the sales order total requirements, thus avoiding partial substitutions and requesting vendor owned inventory before consuming existing company owned inventory.
- With Master Planning, scheduling production to a day and time still treats material requirements as a daily bucket, it does not support vendor managed inventory programs where material requests could be occurring every hour based on the next two hours of the production plan.
- Multiple production units that can build the same product line loading and balancing.
- Coordination of the warehouse management work to deliver the components to the line in a timely fashion. And 100 guarantee that the work created can be executed without any errors, these errors could violate the entire wave and cause a re-plan.

## Why Master Planning Does Not Work For All Manufacturers

# Master Planning Has Been Re-Imagined

At MCA Connect, we work with the largest and the most complex "Mass Customization" global manufacturers leveraging Dynamics 365. Together, we have built an alternative solution called Fixed Interval Scheduling for master planning to resolve the challenges manufacturers face with Master Planning.

### Our solution helps manufacturers:

- Evaluate customer sales order backlog sequenced by company defined priority to determine if you can build the sales order line complete. If you cannot, free up the inventory and evaluate the next priority sales order line. As you evaluate the sales order line, drop down as many levels in the bill of material as required, no more item and low-level code sequencing!
  - If the sales order must ship complete, and has a shortage, free up all of the material for the sales order and make it available to the next priority sales order.
  - If the sales order is important enough that you want to hold inventory for it even though it is short components, simply flag the order to hard allocate.
- We have created smart substitution logic that will select the component that meets the needs of the organization, not simply use primary and then secondary.
- Evaluate and prioritize the entire sales order backlog multiple times a day in order to create a production schedule for a fixed interval of time as short as 1 hour. This means if a very high priority order is entered during the day, it would be evaluated and built in the next schedule release.
- You can generate requests for materials from off-site supplier owned inventories multiple times a day, thereby reducing your inventory carrying costs.
- You can also generate a substitution aware component shortage analysis for buyer/planners as often as you need by sales order.



## Why Master Planning Does Not Work For All Manufacturers

# Summary

Manufacturing has evolved globally over the last 30 years and now is the time to evaluate the planning and scheduling engine from MCA Connect that is built for today. The solution, Fixed Interval Scheduling, enables manufacturing companies who have a global supply chain, to have greater visibility into their production line so they can make better business decisions.

### Features of Fixed Interval Scheduling include:

- Integrates with Dynamics 365 Finance or any ERP systems
- Analyze company owned vs. vendor managed inventory
- Very accurate product demand requirements

# About MCA Connect

Founded in 2002, MCA Connect has always been 100% dedicated to the Microsoft solution stack and has grown to cover a wide array of capabilities, including ERP, CRM, Business Analytics, Azure & IoT, Field Service and industry-specific solutions like Fixed Interval Scheduling. Combining Microsoft technology with our own IP and industry accelerators, we develop the best strategy for your business transformation to achieve a competitive advantage and operational excellence.

**Contact MCA Connect to take advantage of this solution or learn how we can bring value to your organization.**

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