

CONLOAD™

Setting the right pace for your production environment

Two key elements of Demand-Driven Manufacturing are synchronization and flow. That is, the ability to synchronize production activities in order to drive flow. And while Synchrono® synchronizes (as the name implies) all layers of manufacturing operations and the extended supply chain, this article addresses the company's patented methodology for driving flow: CONLOAD™.

Start with a synchronized, closed loop between planning, scheduling and execution

First, let's take a reality check – are you using spreadsheets for scheduling? If you're like many, you have abandoned the production scheduling capabilities in your ERP

Consistent
CYCLE
TIMES



Greater
PREDICTABILITY

system in favor of spreadsheets. Likely because either your ERP system doesn't work the way you do, or it's simply easier to just update an Excel® file. But again, if you're like many, the spreadsheet doesn't exactly make your life easier – it quickly becomes outdated and it doesn't keep everyone equally informed of changing priorities.

What you need is a synchronized closed loop between planning, scheduling and execution – a system that aligns materials, methods, machines and resources - and makes dynamic adjustments in real-time. The system is SyncManufacturing software. But it does much more than synchronize – it drives flow.

Set your pace based on your constraints

SyncManufacturing includes CONLOAD™, a patented scheduling algorithm that sets the optimal rate of pace to achieve a constant level of work flowing through production. It does this by using constraints (or pacemakers) to set the pace – or capacity - of the organization. Here's how it works:

1. CONLOAD™ calculates the amount of WIP and inventory that is needed to keep the constraint running, but no more than that. It also ensures you have all the materials on hand to complete the order.
2. The standard unit measure for calculating WIP is how many hours

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it takes to move work through the system. If this is 20 hours, your CONLOAD™ is 20 and it will ensure that only 20 hours of work is in process at a given time.

3. By gating the release of work into the system in this way, you are managing the constraint(s) to ensure a constant level of flow throughout the production environment.

4. SyncManufacturing software is monitoring all activity in real-time and makes dynamic adjustments based on the pace of the constraint. If it is running faster than expected, the software will adjust up the level of work released into the system. Conversely, if the constraint is running slower, SyncManufacturing will scale down the CONLOAD™ rate.

As a result, manufacturers only have in the system what they need to maximize throughput. You also reduce undesirable behavior associated with too much work in the system, including unclear work priorities, choosing to work on easier setups or handling materials more than necessary.

**Greater
FLOW**



**Improved
CYCLE
TIMES**

Use your constraints to gain focus

Demand-Driven Manufacturing and CONLOAD™ have roots in Lean Manufacturing and Theory of Constraints (TOC) practices. Lean offers the concept of “level loading” to achieve constant flow while TOC teaches us to focus on constraints management. The merging of the two evolved into what Synchrono terms as Demand-Driven Manufacturing and the CONLOAD™ method for achieving optimal flow by leveraging constraints. In applying the CONLOAD™ method, you begin to view your constraints as leverage points; as the areas you need to focus on to drive flow. Once you conquer these leverage points, you can move on to other areas of continuous improvement. But, what CONLOAD™ gives you is an achievable plan that will result in greater predictability and improved cycle times.

Confidently meet customer demand

The value of CONLOAD™ extends beyond manufacturing operations to sales and customer service. SyncManufacturing and CONLOAD™ control the work in the system to meet your customer’s delivery needs. Your sales and customer service reps have visibility into the system to see the expected delivery dates and the progression of orders. They gain confidence not only in the system, but in their ability to communicate accurate timelines and grow customer satisfaction.

SyncManufacturing and CONLOAD™ have achieved dramatic results for several Synchrono clients. These results are featured in the customer [case studies](#) at [synchrono.com](#).



Click here to see a video showing how CONLOAD™ works.