



Do your suppliers
know more about what's
happening on your factory
floor than you do?

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I know many CEOs who don't have a clue about what's going on in their factories. The worst part is, some of them don't even care.

This brochure is for the rest.

How a Factory Works – Unfortunately

For over 50 years, I've seen the same sad story in one factory after another. Management creates a schedule for production, but they don't actually know if the things on that schedule can be done or not. Floor workers don't find out whether they can do what they're supposed to do until they're supposed to do it. Many times, they can't, which is very disruptive and isn't very efficient. For example, they discover that they don't have the right tools or fixtures available because they're on another machine being used to do something else. The higher-ups who sent the job down to the floor didn't know that. (They hardly ever hear about the problems, either, since messengers with bad news very often suffer the consequences.)

So the people on the factory floor scramble to do the best they can with what they've got. But in the improvisation process, things don't always get done the way they should, which creates bottlenecks, delays, defects.

The result will often be chaotic – especially in a world heading toward mass customization. Things get accomplished in spite of the “system”, not because of it.

So why should you care? Money, of course.

Chaos Costs

Competitive advantage comes from honestly serving customers, telling them what you can do, and delivering on it. So if you can deliver in terms of both time and quality, you go right to the top of the list.

Given the preceding scenario, you probably shouldn't be confident that you can consistently deliver. That can mean penalties for missed deadlines or defects, or even losing customers. (Keep in mind that it costs about ten times more to replace a customer than to keep one.)

Adding buffers and inventory is not a solution.

They're cures that are as bad as the disease, wasting time, resources and, of course, money. Manufacturers with the largest inventories are also the worst at shipping on time, since the inventory they have is often not the inventory they need.

The key to truly efficient, consistent, profitable production is preparation. When you're not prepared very well, there are usually shortcuts taken, quality deteriorates in some form or other, and deliveries are missed. So it pays to be prepared – even overprepared.

But wait a minute. Weren't those expensive technology systems you bought supposed to take care of all this? Why are we still talking about it?

Roll Call of Saviors Past

ERP and MRP systems are meant to service accounting people, not people on the factory floor. They exist in a make-believe world, where you have an infinite amount of resources to do whatever you want to do. They can't show you where resources like tooling are, because those resources have been written off. From an accounting perspective, they have no value, so they don't exist.

Lean manufacturers have learned that the middle part of ERP and MRP systems doesn't work and is full of padding. Lean gets rid of that. But after about two years into Lean, you realize that you have no forward visibility in chaotic manufacturing. If you have any type of make-to-order, just-in-time environment, that's a huge problem. The inability to time jobs and tasks going forward can cripple your operation.

Six Sigma? It's a great tool for improving replication. But if it's overused, you'll never introduce a new product or innovate again, simply because new products can rarely be produced to Six Sigma quality.

Supply Chain Management software can do a fine job, just not on the factory floor. Scheduling software? Well, it tends to work very well for people up in the plant office, maybe.

The list goes on.

The Smart Job™ Is Born

Some years ago, I met Dr. Ken Henderson. Dr. Henderson had a very strong background in the simplex method, a nonlinear optimization algorithm. When we met, I had already begun grappling with ways to improve the manufacturing process at my first company, Sun Hydraulics Corporation. It seemed natural for us to start working together.

The two of us developed the basis for what has become the nMetric solution. A new kind of manufacturing software that directly addresses persistent flaws in the traditional manufacturing process, but in a decidedly untraditional way.

Instead of taking the centralized, rigid approach favored by ERP and MRP solutions, Dr. Henderson and I went in the opposite direction. We knew that success on the factory floor comes from flexibility and intelligent real-time reactions to changing situations. So instead of trying to control how jobs went through the factory, we decided to let them control themselves.

Our solution utilized intelligent software objects – small computer programs that would let the job ensure its own on-time completion. The resulting Smart Jobs™ find and book the resources necessary to complete themselves, including materials, equipment, tools and labor. They understand the relationship between resources and order routing. They know when each operation has to be completed to stay on schedule. And they're aware of their priority relative to other jobs.

In other words, Smart Jobs supervise and route themselves. And by doing so, they bring true business process automation to the factory floor.

Get to Know Your Floor

Smart Jobs turned out to have yet another advantage. Since their functions are based on constantly sharing and collecting real-time information, they can provide data that greatly increases visibility to the plant floor.

Today's nMetric® system uses this constant stream of data to give you an accurate, multi-dimensional representation of factory operations in real time. You can graphically

see all workplaces and timeframes and jobs, and what labor, material and tool resources you actually have available to do them. You see precisely what you can and can't do. You're also able to foresee the effects of things that are happening or could happen. So you can avoid problems and be prepared for nearly any situation that arises.

A little knowledge can be a dangerous thing. But a lot of knowledge can be a game changer.

A Smarter Way to Manufacture

There is no other technology I know that can do what nMetric can do. Instead of forcing you to conform to a rigid, preconceived series of steps like centralized solutions, nMetric actually knows the way your manufacturing operation works and optimizes its performance. The nMetric system transforms discrete complex manufacturing into a highly efficient, flexible, reliable, demand-driven operation. Where you can respond to customers in record time, keep your promises to deliver, and avoid late penalties. And because the entire solution is Web-based, you'll be able to put your full supply chain on the same, real-time page and greatly reduce costly supply errors.

Best of all, nMetric will help you improve your cash flow. And I'm not talking about assets that are considered cash according to accounting rules. I mean cold, hard cash.

It's taken over ten years to develop a solution that can live up to every one of those claims. As a manufacturer, I don't like to promise what I can't deliver. Now, I know nMetric will deliver.

If you want to know more – about our product and your factory – call us at 714.424.4400. I think I can help you on both counts.



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