



Manufacturing executives  
don't need to be smarter.  
The jobs going through  
their factories do.

BY **BOB KOSKI**, CHAIRMAN AND FOUNDER OF  
nMETRIC AND CHAIRMAN EMERITUS  
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As an American manufacturing executive myself, I naturally have a fairly high opinion of our intelligence. But most manufacturers are saddled with a very imperfect manufacturing process, a lack of information about what's really happening on the factory floor, and rigid, centralized technology solutions that serve the accounting function better than they serve the actual manufacturing of products.

These handicaps can be largely dispelled by adding intelligence to the jobs that wend their way through your plant.

### **Introducing the Smart Job™**

About twenty years ago, I was looking for ways to improve the manufacturing process at my company, Sun Hydraulics Corporation. I worked solo for a while until I met a mathematician named Dr. Ken Henderson. Dr. Henderson had a very strong background in probabilism – namely, the Nelder-Mead or simplex method, a nonlinear optimization algorithm. Among other things, he had developed the formulas used by Florida orange juice producers to determine price and retail-level shipping destinations that would result in maximum income.

Working together, we developed the idea for a new kind of manufacturing software that directly addressed common discrete manufacturing problems. The key breakthrough was deciding to abandon the typical, centralized approach used by many

ERP, MRP and other major systems. Instead of trying to control every job that went through the factory, we thought it made a lot more sense to let the jobs control themselves. That way, they'd have much greater flexibility to react to real-time situations and take appropriate action.

Our solution used intelligent software objects – small computer programs for specific tasks. 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 real business process automation to the factory floor.

And that's just for starters.

### **See What's Happening – And What Will**

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

We developed a way to turn that constant stream of real-time data into an accurate,

multi-dimensional representation of factory operations in real time. So 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. And that's important. If you've ever spent time on a factory floor, you know how often personnel are asked to do things that simply aren't possible because the resources are not available. It's very disruptive and highly inefficient. And now, completely avoidable.

You can also foresee the effects of practically anything that is happening or could happen. So you can be prepared for nearly any situation that arises.

### **Smarter Is Better**

Many years later, the software Dr. Henderson and I invented has evolved into today's nMetric® solution. And there is no other technology I know of that can do what it can do.

nMetric optimizes your unique manufacturing process, transforming the discrete complex factory into a highly efficient, reliable, flexible, demand-driven operation. It lets you respond to customers in record time, keep your promises to deliver, and avoid late penalties. You can intelligently procrastinate where capital expenditures are concerned, because you'll know real

needs both now and in the future. You can also put your entire supply chain on the same, accurate page and greatly reduce costly supply errors.

Best of all, nMetric will help put more cash on your balance sheet. And I mean real cash, not inventory and other assets that GAAP makes you count as cash.

All of this may seem a bit incredible, coming as it does from a company you've probably never heard of before. But as a manufacturer, I don't like to promise what I can't deliver. And after ten years of development, I know nMetric can deliver everything I've said it can.

We'd appreciate the chance to talk about it with you in person. Call us at 714.424.4400 and we'll arrange a meeting. It could be the smartest thing you do this year.



[www.nMetric.com](http://www.nMetric.com)



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