# SPEED TO MARKET

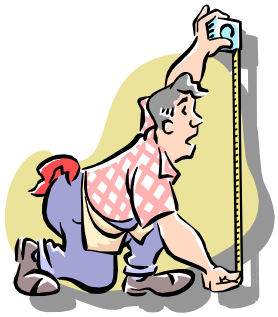
**The Newsletter for Job Shops and Custom Manufacturers**

**Published by Delta Dynamics Incorporated**

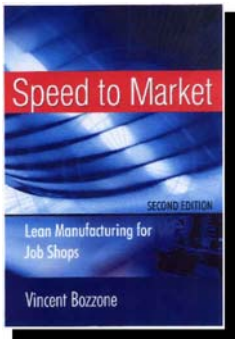
**November 2002**

***Feature Article***

## How Do You Measure Lead Time?



Cutting lead time is the express lane for profitable growth in job shop environments. Our book, *Speed to Market: Lean Manufacturing for Job Shops*, shows how a successful effort to continually cut lead time will increase sales, reduce costs, accelerate cash flow, reduce WIP, increase effective capacity, and bring about profitable growth—all at the same time! (Note: You can order *Speed to Market* at www.deltadynamicsinc.com/Order/toorder.htm)




Given the critical importance of cutting lead time as a business strategy, it makes sense, therefore, to pay attention to how you are measuring it. Typically, lead time is calculated by dividing the order backlog by average weekly shipments. For example, a shop with $4,000,000 in annual revenues ships an average of $75,000 per week. At a backlog level of $350,000 (booked business), the average lead time for new orders coming into the system would be 4.7 weeks, and your sales department would likely be quoting six, seven, or even eight weeks just to be on the safe side. This is far too vague a measure to provide your customers with accurate lead time information…and too-long lead times cost you sales!

***In this issue…***

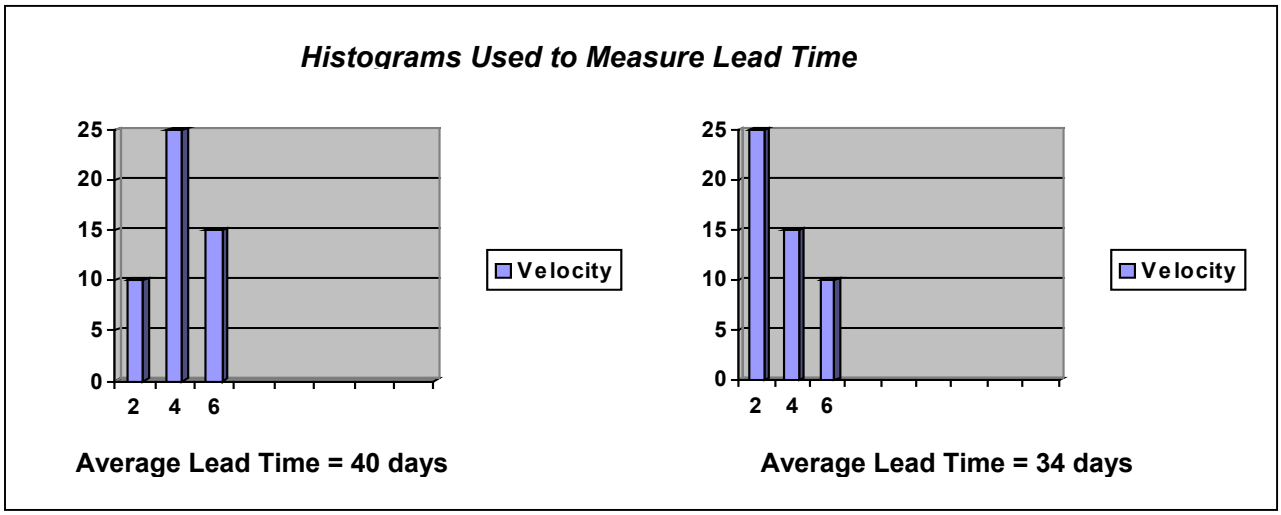


A more accurate and informative method for measuring lead time is *velocity*. Velocity is defined as the speed at which an order moves through your business from order entry to ship (this is also the definition of lead time). Velocity is calculated by determining the number of days between the order entry date and the ship date). The fewer the days, the faster the velocity. The easiest way to do this is with pure calendar time, not the number of workdays. For example, an order entered on September 3rd and shipped on November 11th would have a velocity of 38 days.

To calculate the average lead time, determine the velocity for each order shipped during the previous week. That is, the number of days from order entry to ship (in-out time). Add the days for all orders, and divide by the number of orders shipped to get an average measure of velocity. This is your lead time. This calculation is not difficult or time-consuming. For example, if your average order size is $2,500, you would have to calculate the in-out time for about 30 orders in a $4,000,000 per year business. This should take less than an hour of clerical time if your computer system cannot provide this information automatically.

Calculating order velocity as in-out time for each order provides the data you need to construct a *histogram*, a tool that will give you a different perspective on your lead time performance. The following histograms show the number of orders (Y axis) shipped by week (X axis). The graph

on the left shows that twenty percent of all orders were shipped in two weeks or less with an average lead time of 40 days. The graph on the right shows improvement—fifty percent were shipped in 2 weeks or less with an average lead time of 34 days. Looking at performance with a histogram shows improvement more clearly (vs. comparing 40 to 34 day averages which doesn't provide much information).




It's essential to have an accurate measure of lead time (and to be actively engaged in reducing it) because job shops are service businesses that just happen to manufacture things. The sooner and more clearly this reality is understood, the sooner a job shop can get on the fast track to profitable growth. Why? ***Because faster service is more valuable in today's just in time, lean manufacturing world than slow service.*** Companies that can respond to customers' needs more quickly than their competitors will survive and prosper. Those that cannot will fall by the wayside. It's that simple.

## *Is Now the Time to Sell Your Business?*

We were curious to know what is going on in the business transfer market, and so asked three leading merger and acquisition specialists to share their observations and insights. The picture they painted is not a pretty one for the typical auto supplier facing a bleak future. The value of small, privately-held manufacturing businesses is following the precipitous loss of value we are seeing in the stock prices of publicly traded corporations.

The rule-of-thumb for the selling price of a manufacturing business has traditionally been 5 times "EBITDA" (earnings before interest, taxes, depreciation and amortization). For example, a business with $10,000,000 a year in annual revenues with an EBITDA of 8% would sell in the neighborhood of $4,000,000. Now, however, two trends are converging that are driving the price into "free fall" as one broker put it.

One development is that sales are down. This has a powerful impact on EBITDA because it is difficult to cut costs fast enough to match falling sales, so EBITDA is proportionately less. Let's say in the previous example, our $10,000,000 business has been hit by a 25% sales decline, so that revenues are now $7,500,000. Costs cannot be cut fast enough to match this decline, and EBITDA falls from 8% to 3%.

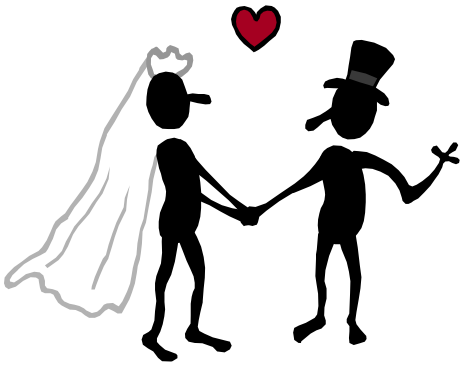
The second development is that buyers are generally not willing to pay the five times EBITDA that has been traditional in the past. Now they may pay four, or even three times this amount. In our example, when sales drop by 25%, and EBITDA drops to 3%, and buyers are only willing to pay 4 times EBITDA, the value of our $4,000,000 business has now sunk to $900,000. However, for those businesses in secure niches with good growth potential and little risk (e.g., food distribution, medical products or services), price to earnings ratios have actually gone up.

Many business owners are in a quandary…sell now at a much reduced price compared to a couple of years ago, or hunker down, hoping that business will get better in the future? It's a difficult decision that is tempered by personal factors such as the owner's age, health, debt, family situation, and financial wherewithal. If you are in the market to sell or buy a business, it's a dicey time. But we would be remiss if we failed to mention this is an ideal time to implement the Speed to Market, Delta Dynamics' performance and profit improvement technology.

Thanks to our M&A specialists for sharing!
*Mike Fortuna, Business International Group, LLC, (734) 483-4323 fortunare@comcast.net*
*Jim Hines, Investment Exchange Corporation, (616) 956-0808 inexco@ameritech.net*
*Michael Verploegh, Verploegh & Associates, LLC, (616) 698-2266 verploegh@peoplepc.com*

# *Smartnership Formed*

Stephen McLaughlin, President of Troy Tooling Inc. and Gary Gathen, founder of ideal Tool Company have entered into a "smartnership," or smart partnership, to provide automotive customers with a faster, more versatile facility in an industry where speed to market is a critical competitive advantage…and literally worth billions of dollars! (ideal spells its name with a lowercase "i" to de-emphasize the "I" or the ego factor in favor of a team-based approach.) Smartnership, a phrase coined by Gary Gathen, conveys the idea that companies can work together in ways that will make each more competitive and profitable.



In this case, the smartnership enables Troy Tooling, a designer and maker of molds, fixtures, and gauges to expand its product line into tools and dies with a minimal investment. At the same time, ideal which brings tool and die making expertise to Troy, has all the advantages of operating in a well-equipped, modern shop with experienced people and capable leadership. An added plus…Troy is already applying many of the lean principles ideal has pioneered in the one-off die industry. This smartnership is a good example of the type of innovative thinking that is necessary for smaller companies to compete effectively in today's challenging economic environment. We are pleased to bring this smartnership to your attention, and of course are extremely pleased to see that speed to market is playing a central role in it.

**Special Bonus:** Having difficulty implementing change and improvements in your company? Send us an e-mail at ddilink@aol.com and ask for our free Management Briefing:
***Implementation: Where the Rubber Meets the Road.***

# News and Coming Events

***Announcements…***

Delta Dynamics Inc. is pleased to announce a working partnership with the Wisconsin Manufacturing Education Partnership. WMEP's mission is to improve manufacturing in Wisconsin. They provide manufacturing, technical, and management assistance to Wisconsin's small and mid-size manufacturers. Delta Dynamics Inc. will provide WMEP with our speed to market technology and performance improvement programming for job shops, will train their manufacturing specialists to implement speed to market, and will provide coaching and on-site implementation support as required.

The kickoff event will be a one-day *Speed to Market Workshop* on Tuesday, January 14, 2003 in Waukesha, WI. Register by December 15th and we will design this workshop to incorporate your specific needs. View details at www.wmep.org or call 877-247-1740 toll free to register.

Delta Dynamics Inc. is also partnering with Lawrence Technological University in Southfield Michigan to design and deliver a "Job Shop Management 101" course. This is designed as a four-session course that meets one night a week for a month. Attendees implement what they have learned "back home" in their companies, and receive implementation coaching during the week to address problems and ensure progress is being made.

***New Articles Scheduled for Publication…***

We are pleased to announce the publication of two new articles**…"Quote Faster to Increase Sales"** scheduled for publication in the January issue of *The Fabricator* (Fabricators and Manufacturers Association), and **"Do You Know How to Play the Accordion? Managing Capacity in a Job Shop Environment"** scheduled for February in *Forming and Fabricating Magazine* (Society of Manufacturing Engineers). Keep an eye out for these articles which are specifically intended to help owners and managers of job shops and custom manufacturing companies make more money.

***Featuring the Weekly Management Report…***

If you could only do one thing to improve the competitiveness and profitability of your business it would be to install our Weekly Management Report. Delta Dynamics Inc. is offering this powerful performance reporting tool in combination with our User's Guide and implementation support coaching by Vincent Bozzone for the one-time price of $695. Another company offers a lesser version of this tool for $2,000.00, so act now and order it at www.deltadynamicsinc.com/Order/toorder.htm before our accountants tell us we're nuts.

This is the performance reporting tool Dick Hardy, Chairman and CEO of Hyde Manufacturing Company in Southbridge, Massachusetts has been using since 1985. He says, "I don't know how you can run a business without one." Need we say more.

**Delta Dynamics Inc. PO Box 912 Bloomfield Hills, Michigan 48303**
Phone 248-333-0482 Fax 248-333-1916 e-mail ddilink@aol.com www.deltadynamicsinc.com