



Communications Process Engineering

By: Greg Hart, President - Hart Innovative Solutions, Inc.

Communication is the glue that binds organizations together and can be the engine of change. What if you were given the task of engineering the process of business communications? The task would seem daunting - huge! Your mind might move to technology: the Internet, software, cellular, email or television. The double-edged sword with technology is that there are so many choices. You would need to narrow your focus. The focus of this article is engineering workforce communication specific to manufacturing.

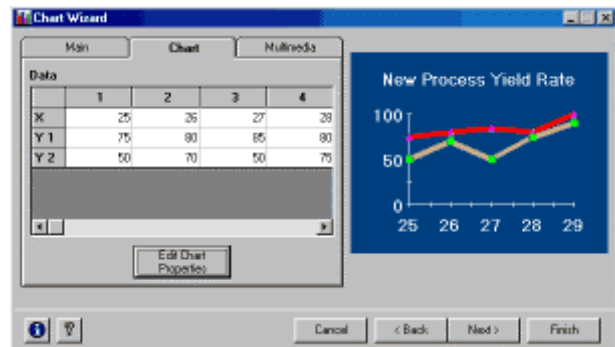
I am currently involved in a very exciting project with a company called TargetVision based in Pittsford, NY. The business has grown out of the fundamental premise of communicating strategic and tactical information to the total workforce using the well-accepted medium of television. Their flagship suite of software applications called *Enterprise* enables the easy creation, editing, scheduling and distribution of messages for display on conventional televisions, large plasma displays, desktops or kiosks combining TV with intranet for workers without computer access. Displays are typically located where people congregate such as break-rooms, hallways or lobbies.

Enterprise with Dynamic Data Interface – Electronic Visual Systems

I am especially intrigued with the capability of Enterprise, using its new Dynamic Data Interface (DDI), to obtain current process information from a staging database to automatically display the information in text, graph, or chart form via televisions. I immediately started making connections to my experience in manufacturing. How many times have you heard “If we had only known you were having problems we could have avoided all this scrap and rework...” coming from engineers, supervisors or even people on the end of a production line talking about those at the start of the line? The challenge is to get the right information to the right people at the right time.

“For years our customers have been asking us to develop a way to enable them to bring their process data to the people who need the information, and of course it needed to be automatic and as real-time as possible,” says TargetVision Quality Assurance and Applications Manager Mike Hasenauer. “With lean manufacturing becoming today’s standard, our manufacturing customers are looking for cost-effective ways to improve quality, increase productivity and reduce waste. We need to discover innovative ways to help them meet their challenges.”

DDI provides an effective solution by displaying current values for quality, production, inventory or work group performance. The diagram at right shows an example of the user interface in Enterprise to format charts. Actual data is automatically pulled from a user-defined staging database in common formats such as Oracle, SQL Server, or Access and then updates the chart for display.



On televisions in the work area or team space, process data can appear alongside timely workforce messages on topics such as safety, ergonomics, quality and production status. *(The enclosed brochure describes the software, representative television output and system architecture.)*

With DDI, time-critical information is pushed to those people who need it rather than having to be pulled from other people or business systems. As a result, employees become empowered to make timely decisions, become more productive and are better connected with the operation. This is a natural extension of the visual factory concept and 5S, fundamental building blocks in lean manufacturing. Employees receive updates without altering their work routine and they come to depend on this one reliable source for important company information and news. With DDI delivering timely process information, other messages such as training reinforcement receive more attention.

By combining the capabilities to deliver dynamic production data, training reinforcement and recognition messages, TargetVision for Manufacturing: Enterprise Dynamic Data Interface positions itself as a unique and powerful tool to enhance material and information flow, increase capabilities, boost rewards and recognition, and strengthen process control for world class manufacturing. People either on the manufacturing floor or in the office can be informed immediately through the broadcast when there is a problem and the need to take corrective action.

Reprinted with Permission: Copyright – IIE Integrator – Rochester, NY Chapter 44 – January / February 2000

Engineering Manufacturing Communications

We all know that effective manufacturing is much more than what happens on the shop floor. A lot goes on behind the scenes. For example, what do product development teams need to communicate within the team and to others within the organization? What critical information would manufacturing support staff such as quality, engineering and production control need to communicate to the workforce? What information should be updated automatically from the process and what are the control thresholds? In short, the goal is to enhance performance.

One of the key tenets of Performance Management is feedback. Feedback needs to be SSIP – Specific, Sincere, Immediate, and Personalized. Much of today's performance feedback is delayed by an hour, a day, a week, or even longer. Conversely, with timely targeted information, workers can take immediate steps for improved performance. Visual systems provide an effective tool to support performance management with a self-reporting and self-reinforcing workplace. DDI is a great technology to enable the visual factory and performance management.

Through the following project deliverables we intend to further develop the link of this technology to the manufacturing environment:

1. Explore expanded application of Enterprise, DDI and related hardware to manufacturing using process analysis
2. Implement pilot and follow-on projects to demonstrate capabilities through killer *applications*
3. Expand application understanding through industry contacts and a focus group.

I am currently working on a matrix to build a better understanding of the manufacturing communications process flow. This process matrix will help existing TargetVision customers define opportunities to extend their application to the manufacturing floor and help build a solid foundation for future customer applications.

We are exploring a pilot program to develop a *killer application* with an existing or new TargetVision customer. Ideally, the customer will be well recognized as exemplar in lean manufacturing. The pilot will involve learning on the part of TargetVision and the customer. We are looking for ways to engineer the communications process for breakthroughs in performance. The project should demonstrate application of electronic visual systems, a self-reporting workplace with timely process feedback and the link to bottom line company performance.

The third deliverable, the focus group, will expand on our understanding of this application in the manufacturing environment. We plan to involve people from a number of disciplines and companies. We are looking for some creative input on where this type of broadcast / push information enhances the value of lean and quality initiatives.

We are looking for people with application suggestions, willingness to participate in a focus group or those requiring follow-up on specific communications solutions. We would appreciate your support.

About TargetVision, Inc.

TargetVision has been in the business of developing workforce communication tools since the mid-1980s. Today, 20% of Fortune 500 companies use TargetVision. A partial customer list includes Alcoa, Boeing, DaimlerChrysler, Eli Lilly, Ford Motor, Hewlett-Packard, IBM, Harley-Davidson, Johnson & Johnson, Lockheed Martin, Motorola, Procter & Gamble, Toyota, UPS, Disney, Warner-Lambert and Whirlpool. Communication helps these companies succeed in business and improvement initiatives. For more information, check out: www.targetvision.com

About the Author

Greg Hart is an innovator helping companies improve their manufacturing, business and communications processes for bottom line results. He is president of Hart Innovative Solutions, Inc. He earned an MBA from the University of Rochester Simon School in and a Bachelor of Science degree in Industrial Engineering from Rochester Institute of Technology - both with honors. Greg has over 30 years of experience in engineering and operations management.

Hart Innovative Solutions, Inc. – Greg Hart, President - (585) 671-5090

Page 2 of 2

www.HartInnovations.com

GregHart@HartInnovations.com