

# Lean Enterprise Division

## September 2012 Highlights

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## Chair's Message

Dear Lean Enterprise Division (LED) members,

I trust you are having a restful and relaxing summer. We hope you attended the ASQ World Conference on Quality and Improvement (WCQI) in Anaheim, CA, and either stopped by our booth (for your LED T-shirt), hospitality suite, attended the Alcon plant tour, or all of the above. We had a fantastic time again this year! With our awesome view of the fireworks over Disneyland, to the In-N-Out burgers, and networking, our hospitality suite was packed every night.

We had a joint ASQ division booth activity, playing a bingo-type game where 16 divisions participated. This enabled more people to visit our booth than would have otherwise. Congratulations to our WCQI 2012 winners: Jim Bossert won the \$50 ASQ bookstore gift certificate, Fred Kapp received a set of five GOAL/QPC *Lean Enterprise Memory Joggers*, and George Vrooman won a \$50 certificate to the ASQ gear store.

The Sunday prior to the conference we had a successful business-planning meeting, including an update on our programs in collaboration with ASQ headquarters staff. We did have some new faces attend our meeting who inspired us to pursue delivering webinars in Spanish. We thank you for your suggestions for enhancing member value.

Mark your calendars! We plan to be at the 2013 Lean and Six Sigma Conference in Phoenix, AZ, from March 4 – 5, and again host a Café Dialogue, with Lean Certification as the discussion topic. Again, we are hoping this can be a double session, since there were many questions about the new Lean Certification at the last Café Dialogue. We are also planning to host our hospitality suite again next year, so please stop by. In addition, the Wednesday after the conference we are planning on a company tour as well as offering a full- or half-day workshop on implementation of lean methods in the healthcare industry.

We continue to encourage our LED community to contribute to our educational programs and newsletters. If you are interested in presenting a webinar, please submit your abstract and brief biography to Chris Hayes at [chayes@mep.org](mailto:chayes@mep.org). You can be a winner in our next raffle for a \$50 Amazon gift card or a conference registration to either WCQI or the Lean and Six Sigma Conference—your choice—by being a new contributor to our newsletter! Just email your article, case studies, and book reviews directly to Lance Coleman at [lance.b.coleman@gmail.com](mailto:lance.b.coleman@gmail.com).

*Keep on “leaning” with us,*

**Kiami Rogers**

Chair

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## UPCOMING EVENTS

**Rocky Mountain Quality Conference** – September 12 – 15 in Denver, CO

**IIE Lean and Six Sigma Conference** – October 1 – 3 in Louisville, KY

**AME Conference** – October 15 – 19 in Chicago, IL



Lean Enterprise  
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The Global Voice of Quality™

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# T<sup>3</sup> Tools, Techniques, and Templates: Visual Controls

by *Frank Murdock, chair-elect*

Visual Controls is one of the basic building blocks of lean and the subject of this issue's T<sup>3</sup> column. T<sup>3</sup> Time is a regular feature of the Lean Enterprise Division newsletter dedicated to introducing some of the common tools, techniques, and templates used to help organizations on their lean journey.

## What Are Visual Controls?

According to the ASQ Quality Glossary, visual controls are “Any devices that help operators quickly and accurately gauge production status at a glance. Progress indicators and problem indicators help assemblers see when production is ahead, behind, or on schedule. They allow everyone to instantly see the group’s performance and increase the sense of ownership in the area” (asq.org/glossary/v.html). Onboards, kanban cards or devices, and shadow boards are examples that are commonly used in manufacturing. However, visual controls are used in many other areas including healthcare, information technology, engineering, and sales. In the above definition, substitute “everyone” for “operators” and “assemblers.”

## Why Are Visual Controls Important?

Think about what it is like for someone who comes into your work area to understand how your group is performing, what problems exist and what is being done about them without having to ask—even someone who may be knowledgeable about the work being performed. Do you even know? How would you know? Think about any team-based athletic activity and what it would be like without keeping score. What would it be like to go on a vacation without a map or, today, a GPS device, or a speedometer in the car you are driving, or windows to see where you are going? The team needs to know how it is doing if it is ever going to achieve its goals. As a result, all organizations that depend on people working together as teams need some form of visual controls.

## How to Develop Visual Controls

There are all kinds of visual controls, but they all can be categorized two ways: 1) those that gauge performance against goals, and 2) those that identify problems and what is being done about them.

The second category—identification of problems—is the easiest to handle. At Plymouth Tube Company, we use what is called a countermeasure tracking form (see Figure 1).

Figure 1. Countermeasure tracking form

COUNTERMEASURE TRACKING					
STATUS LEGEND: RESPONSIBILITY ASSIGNED ⊕ C/M IMPLEMENTED ⊖ TRACKING COMPLETE ● STD WORK POSTED ●					
DATE	PROBLEM	COUNTERMEASURE	RESPONSIBLE	DUE	STATUS
					⊕
					⊖
					●
					●

One of these forms is posted in every area. Anyone working in that area is authorized to add an entry. The date and description of the problem is written by the person who is experiencing the problem. The group has a stand-up meeting at the beginning of the day and the leader reviews any new problems added to the countermeasure tracking form. After some brief discussion, the group will identify a way to solve the problem—ideally in a way that prevents it from recurring, i.e., a countermeasure—and the countermeasure is written down. The leader then assigns the person responsible and, if they are not present, talks to them about the problem and proposed countermeasure. If they agree with the countermeasure, they will provide a date by which they expect to have the countermeasure implemented, which includes having the standard work completed and posted (another one of the “Building Blocks of Lean” that were covered in the *Lean Enterprise Division*

April 2012 Newsletter, T<sup>3</sup> column). It is critical that the person responsible for developing and implementing the countermeasure provides the date, since they know best what it will take to do the work. That does not mean that the group has no say as to when it needs to be done. For instance, at Plymouth Tube Company, any safety-related countermeasures take priority over everything else. Once the countermeasure has been assigned, the leader then fills in the pie chart on the right side following the key at the top to show that it has been assigned. Then the leader follows up on each countermeasure, filling in the status of the corresponding pie chart. In principle, only the person initiating the problem should fill in the last slice of the pie showing that the countermeasure is complete and the standard work posted. Many times the leader follows up to make sure this happens as well.

Using the countermeasure tracking form is an easy way to inform anyone coming into the area what the problems are and how they are being solved. A refinement of the use of this form is when the same problem occurs three times (not necessarily in just one area), then a more structured problem-solving approach like Six Sigma or the Eight Disciplines (8D) would be used. At Plymouth Tube Company, the management team together walks through every area in the organization and reviews the visual controls, including the countermeasure tracking forms. The management team keeps its own, daily countermeasure tracking form, posted just outside the office, where they stop after reviewing each area and ask if there are any systemic problems that they need to address—and there always are.

### How to Gauge Performance Against Goals

Most organizations have goals and most measure performance against those goals. Many have too many goals and have difficulty keeping track. It is beyond the scope of this article to go into details as to how to set goals and the measurements associated with them. However, the use of the 80/20 or the Pareto Principle, Key Performance Indicators, Hoshin Kanri or Policy Deployment, and the Balanced Scorecard are all approaches that start with customer needs and expectations, defines the organization's response to those needs (including profit and loss financials, employee satisfaction, etc.), and sets both strategic and tactical goals. This article assumes that the tactical goals are customer focused and support the achievement of the strategic vision.

Menlo Innovations is an IT company that uses visual controls as part of its project management process. Everyone in the company sits in a large, open room. Each project team sits around a pod of tables near one of the walls. On the wall is a large pinable surface with an array of cards on it (see Figure 2). Each card, called a story card, is handwritten and contains the description of some feature or aspect of the computer program being developed, written in terms that the user understands. A pair of developers is assigned to each column of cards. Along the left-hand side of the "project board" are the days of the workweek. There are colored dots on many of the cards—particularly the ones near the top. There is a color dot key: there are yellow dots on the cards on which work is currently being performed, green dots on cards where the work has been completed, red dots on those cards where something is preventing further work from proceeding, and orange dots for cards where the developers think the work is done but it has not been reviewed and approved by quality assurance. A horizontal colored yarn indicates the current day of the week. Anything that is not green above the yarn line is late. Anything that is green below the yarn line is ahead of schedule. Since no pair of developers is supposed to work on more than one card at a time, if there are two cards with yellow dots on them in one column, it is obvious when that policy has been violated. And all of this can be seen at a glance by anyone in the room. The goals are set for each pair, each week when the board is built. The content of the board is established as part of their "planning game" process with the customer each week. The customer determines what is "in play" and therefore what is in scope for that week's iteration. Cards, colored dots, yarn, and pins are the technology used to establish visual controls—not very high tech for a high-tech company—but it works! I have used this same approach to manage capital equipment projects at Plymouth Tube Company.

In conclusion, visual controls:

- Help teams identify and solve problems, and
- Make it easy and quick to see how the team is progressing against the goals it has set for itself.

## Note From the Editor



Hello everyone, it is an honor to serve as your newsletter editor. In this issue of the newsletter you will find information through articles, a case study, and conference information that I hope will be of value to you. Thank you to all of the contributors to this issue; your input is greatly appreciated. I continue to refresh and learn from each of you.

Members, this is your newsletter so please do not hesitate to let me know what topics you would like to see covered. For instance, the committee recently received a request for content related to the application of lean tools to achieve improved environmental metrics. I am interested in hearing your experiences in this regard. Please refer to the article guidelines for submittal of content.

Continue to have a great and safe summer into fall.

Your newsletter editor,  
**Cindy Miller**

Figure 2. Project planning board



## Newsletter Publishing Guidelines

1. Technical Merit
  - Factually correct
  - Relevant to our mission
  - Meets all guidelines
2. No selling of services
3. Nothing offensive

Additional factors to be considered are:

4. Not too similar to something recently done
5. Desired subject matter—how timely is material?
6. Well-written and interesting
7. Needed length

### Review and Selection

Our review and selection process will also be simple. Upon approval of a submitted work, the subcommittee forwards the piece to newsletter editor Cindy Miller for final review and approval. Our goal is to allow Cindy to have a reserve of four to five articles for the newsletter. As works are submitted, I will forward them on to all of you for review. I want us to strive for a turnaround time of two weeks for those works that need little or no editing. I would propose that every submitted work be reviewed by at least three of us, with majority vote determining whether or not to pass the work on to Cindy, reject the work, or send back for editing/modification. In the event of a tie, I will cast the deciding vote. I will also be responsible for maintaining a tracking log of all submittals.

### Length

The desired length for tips, book reviews, articles, and case studies is 400 to 800 words. Tips and book reviews would be in the 400 to 600 range, articles anywhere from 400 to 800 words, and case studies 500-plus. If a submission goes beyond 800 words, then we should look at breaking it into more than one part. I see these proposed values not as rigid restrictions but rather as a sorting mechanism with occasional overlap between categories.

# Integration of Lean Tools With Predictive Scorecards

by *Forrest W. Breyfogle III*  
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Lean has a very good tool set; however, it is not a business management system. To better address the challenges of the day, organizations need an effective business management system that integrates lean tools with predictive scorecards and analytical/innovative strategies so that undertaken process improvement efforts have whole-enterprise benefits. The Integrated Enterprise Excellence<sup>1</sup> (IEE) business management system, which is illustrated in Figure 1, accomplishes this organizational objective.

In Lean Six Sigma, improvement projects are to follow a define-measure-analyze-improve-control (DMAIC) roadmap. Within the IEE system, there are two DMAIC roadmaps: Project DMAIC (P-DMAIC) and Enterprise process DMAIC (E-DMAIC). Figure 1 shows how the P-DMAIC roadmap connects with the E-DMAIC roadmap in the business system's improve phase.

This roadmap interconnection is made since process improvement projects are one of the primary two ways to improve the overall enterprise. The other improvement methodology is through a design project, which has its define-measure-analyze-design-verify (DMADV) execution roadmap, as shown in the top of the figure.

The E-DMAIC roadmap portion of this IEE system provides the framework for an enhanced business management system that structurally integrates the desired components of an overall business management system.

One aspect of the overall E-DMAIC system that addresses organizational control is the value chain, which integrates operational procedures with predictive performance metrics, i.e., a component of the define and measure phases of the E-DMAIC system. An example IEE value chain is illustrated in Figure 2. In this value chain, organization and control procedures are presented by clicking the drill-downs of the rectangular boxes, while predictive 30,000-foot-level predictive performance metrics<sup>3</sup> are displayed as a business scorecard by simply clicking on the oblong boxes.

In addition to process-flow-charting procedural steps, value chain rectangular boxes can be drilled down to a commonplace lean tool, i.e., value stream map, as illustrated in Figure 3.

*cont. on p. 6*

Figure 1. The Integrated Enterprise Excellence business management system  
 From Figure 4.2: *Integrated Enterprise Excellence, Volume II, Business Deployment*<sup>1</sup>

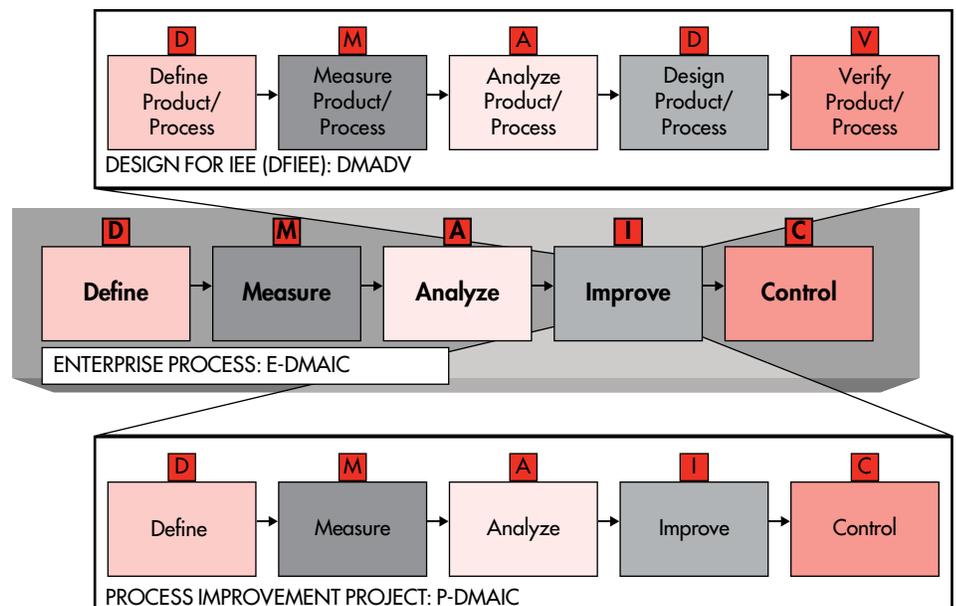


Figure 2. IEE value chain example

From Figure 7.1: *Integrated Enterprise Excellence, Volume II, Business Deployment*<sup>1</sup>

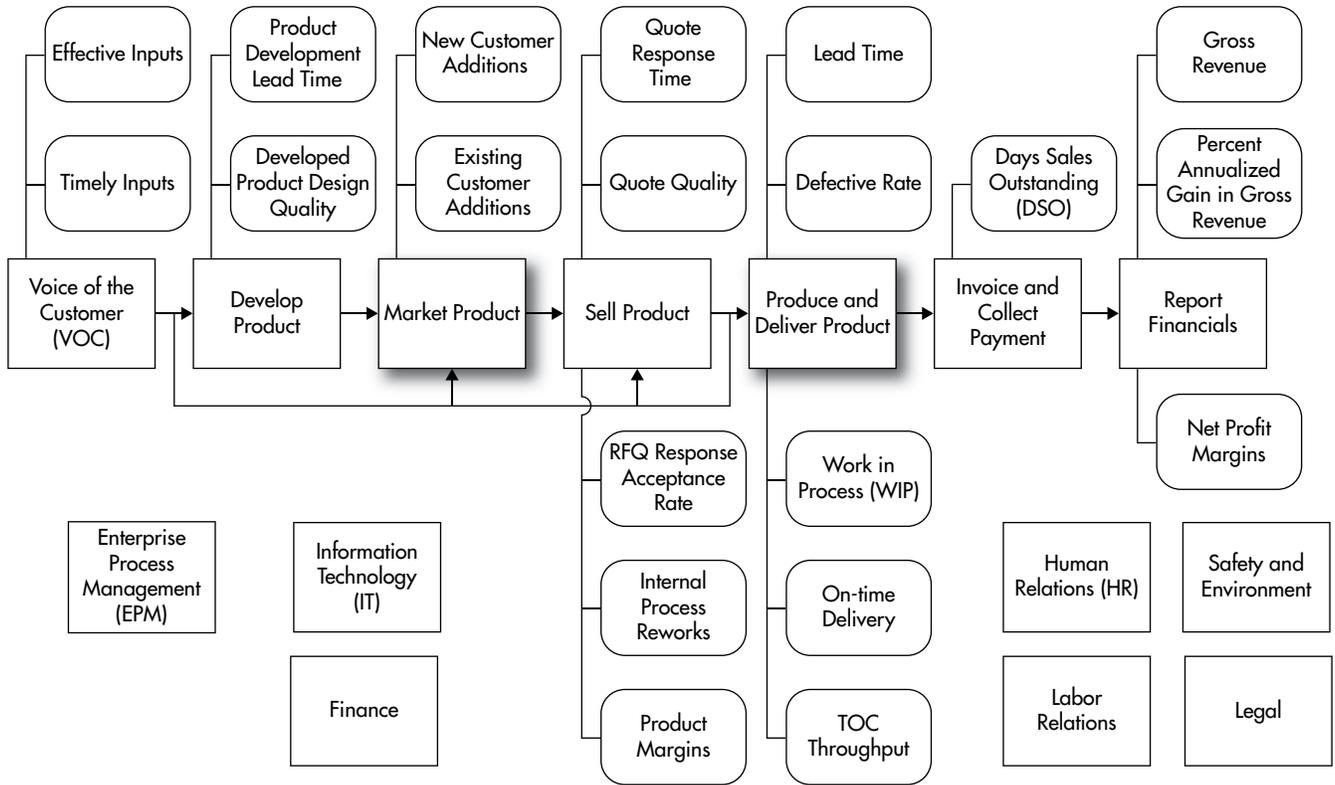
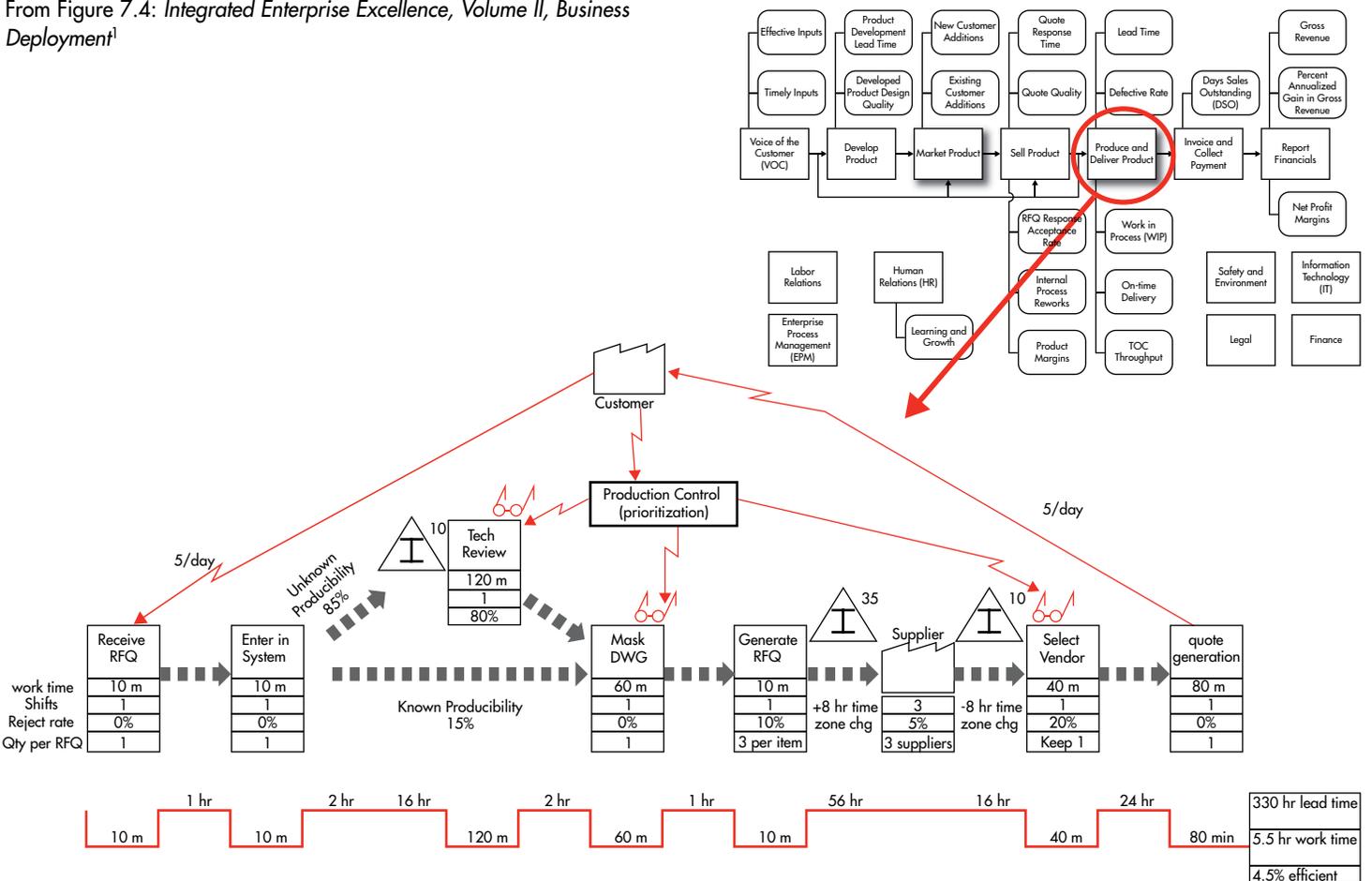


Figure 3. Example of subprocess value stream map drill-down

From Figure 7.4: *Integrated Enterprise Excellence, Volume II, Business Deployment*<sup>1</sup>



**Predictive Scorecards** cont. from p. 4

In IEE's value chain, lean metrics such as lead time or on-time delivery can be assessed for process stability, noting that if a process has a recent region of stability, it can be considered predictable. For a continuous response that has a specification, an IEE stability assessment would be made through a 30,000-foot-level control chart, while the predictability statement would be made using a probability plot of the data from the recent region of stability.

Figure 4 illustrates this form of IEE metric report out where the probability plot provides an expected percent nonconformance rate if the process were to continue its current-state performance. For this process, about 13.7% of the transactions are expected to be beyond the specification limits of -5.0 and 1.0, i.e.,  $(100 - 92.4) + 6.2 = 13.8$ . An effective process improvement effort would result in the shift of the 30,000-foot-level control chart to a new, improved level of performance that is quantified through another probability plot of the after-improvement data.

Aspects of the E-DMAIC roadmap include:<sup>1,2</sup>

- Deploy enterprise standardization so that important process elements are performed consistently in the best possible way.
- Ensure effective business process audits and business process management with their documented procedures in the value chain.
- Institutionalize process error-proofing wherever possible.
- Ensure that 30,000-foot-level scorecard/dashboard metrics with improvement objectives are tracked/reported correctly/effectively and incorporated into performance plans.
- Work with the conducting of regular monthly management meetings, giving inputs—when appropriate—to how data are presented and analyzed.

**Lean's Integration Within the IEE System**

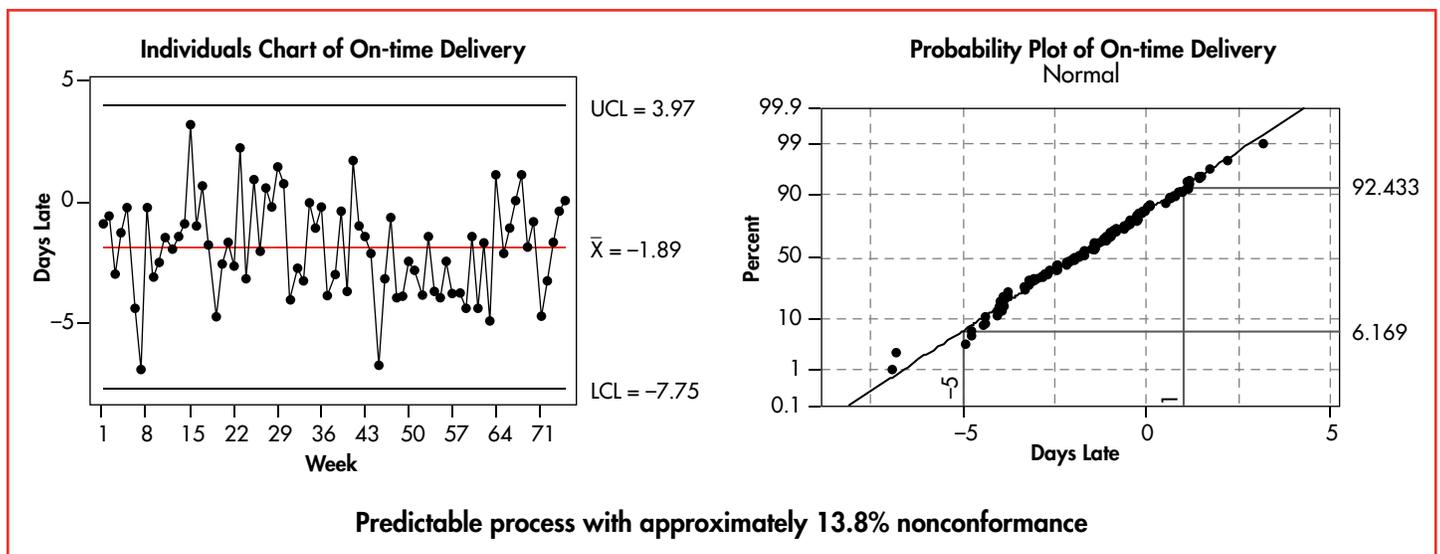
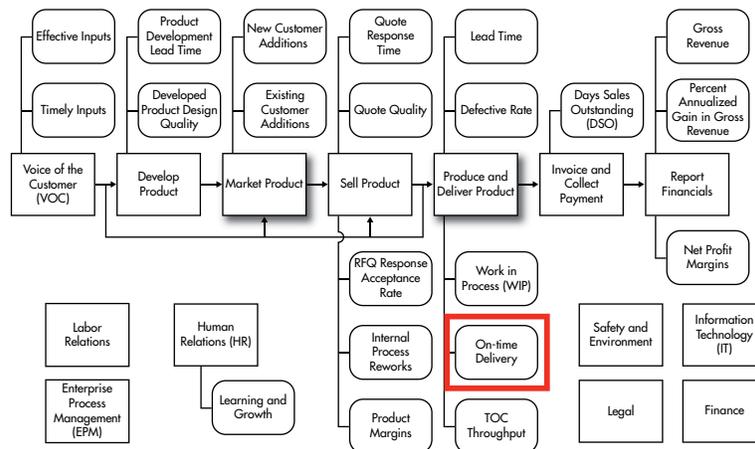
In IEE, lean can be used to describe at an enterprise level an organization's as-is state:

- An organizational value chain can include standardized procedures, documentation, and value stream maps in one location that is readily accessible by those who need this information.

cont. on p. 7

Figure 4. 30,000-foot-level on-time delivery performance scorecard/dashboard report

From Figure 7.8: *Integrated Enterprise Excellence, Volume II, Business Deployment*<sup>1</sup>



## Predictive Scorecards cont. from p. 6

- Lean metrics such as takt time, lead time, and defective rates can be assessed for stability and reported as predictive statements, when appropriate.

Relative to process improvement, lean tools are integrated within the IEE system in several places:<sup>1,2</sup>

- In the analyze phase of E-DMAIC, value stream mapping of key processes can provide insight to where improvement efforts should focus.
- In the measure phase of P-DMAIC, the following lean tools provide insight to where improvement efforts should focus: waste identification, takt time, Little's law, observation worksheet, standardized work chart, combination work table, logic flow diagram, spaghetti diagram, five whys, time-value diagram.
- In the improve phase of P-DMAIC, the following lean tools provide direction or facilitation of improvement activities: learning by doing, plan-do-check-act (PDCA), standard work and standard operating procedures, one-piece flow, poka-yoke, visual management, 5S method, kaizen event, kanban, demand management, heijunka, continuous flow and cell design, changeover reduction, and total productive maintenance (TPM).

## Summary

A value chain breaks down commonplace organizational silos where this business's fundamental performance map provides scorecards and procedures that have ownership. Linkage of performance measurements with controls in the value chain provides a framework for preventing unhealthy behaviors, which can lead to very detrimental consequences as exemplified above. The described system provides the structure for organizational movement toward achievement of the 3Rs of business: Everyone doing the Right things, and doing them Right, at the Right time.

## References

1. Breyfogle, F. W., *Integrated Enterprise Excellence, Volume II – Business Deployment: A Leaders' Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard*, Austin, TX, Bridgeway Books and Citius Publishing, 2008.
2. Breyfogle, F. W., *Integrated Enterprise Excellence, Volume III – Improvement Project Execution: A Management and Black Belt Guide for Going Beyond Lean Six Sigma and the Balanced Scorecard*, Austin, TX, Bridgeway Books and Citius Publishing, 2008.

## Meet Us Now on Twitter @asqled

The ASQ Lean Enterprise Division exists as a strong advocate of eliminating nonvalue-added activities that add waste in the form of unnecessary time, effort, or cost, and creating products and services that will add direct value to a customer. Value from the perspective of the customer is the voice of the customer (VOC).

In my role as the chair of the Lean Enterprise Division VOC committee, I am continually trying to understand clearly and exactly what product or service our members desire, when it needs to be delivered, and at what price. I am always looking at technologies and creative ways that will help us understand our members better, and this is why we started using Twitter.

As we all know, Twitter is an online social networking and microblogging service that enables its users to send and read text-based posts of up to 140 characters, informally known as "tweets." Twitter is really just another form of online communication in a new shape, but is also a platform for listening to the communication of others in new ways. As a Twitter user, one can post updates, follow, and view updates from other users and send a public reply or private direct message to connect with another Twitterer. Tweets have evolved to more than everyday experiences, and take the shape of shared links to interesting content on the Web, conversations around hot topics (using hashtags), photos, videos, as well as real-time accounts from people who are in the midst of a newsworthy event, conference, crisis, or natural disaster. Users who enjoy reading what you share on Twitter become your followers and, likewise, you follow those who share content that is of interest to you.

I have outlined some of the goals that the ASQ Lean Enterprise Division is aiming to achieve using Twitter:

1. Connect with our members all over the world and those who are interested in what we do.
2. Share lean content from ASQ and the Lean Enterprise Division, which may include, but is not limited to, articles, newsletters, best practices, case studies, podcasts, videos, tools and techniques, education, conferences, certifications, and calls for papers.
3. Retweet and share content from quality professionals and lean practitioners around the world.
4. Share ASQ and the Lean Enterprise Division's special offers, exclusive promotions related to lean education, membership, and lean conferences.
5. Announce and recognize winners of lean contests at conferences, best lean writers, speakers at lean conferences, and certified lean professionals.
6. Announcements and reminders for conferences, training, and call for white paper submissions.
7. Announcements for case studies and articles.
8. Announcements for lean jobs and career advancement opportunities.
9. Get direct feedback from our members and those who are interested in what we do.
10. Tweet-ups and Twitter discussions.

Twitter is a small attempt by the Lean Enterprise Division to make ourselves available for our members, help whenever possible, and to show that the Lean Enterprise Division is built and run by real people who believe in quality and lean, and who care about our members. So come follow us on Twitter and get immediate access to rich content from quality professionals and lean practitioners around the world. We can be followed on Twitter at @asqled. We look forward to meeting you.

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**Madhavi Chodankar**

Voice of the Customer Committee Chair

# A Case for Lean – Accounting Close Case Study

by Scott Smith

## Problem Statement

The accounting closing process is the amount of time it takes to close the books and publish financials on a monthly basis. During the accounting close, the accountants have to suspend most of their other activities and work exclusively on closing the books for the month (additionally perhaps quarter-end or year-end depending on the month). This is a very disruptive process because of the amount of time that the accountants, as well as accounts payable and accounts receivable, spend on this one process. At the beginning of the project, the average closing cycle time was over two weeks. It was taking too long to close the books and management demanded improvements. Not only were financials severely dated by the time they became available to upper management, but also the accountants were taken away from doing the value-added analysis that helps management run the business. Also, the long hours put in during the close increased the anxiety of everyone involved. A Lean Six Sigma team was assembled to reduce the accounting close cycle time.

## The Improvement Process

The team was selected by the project manager, a Master Black Belt, and the project champion—the vice president of finance. The team met to finalize the charter and begin the planning process. The team decided that due to the large scope of the project, the project would be split into separate kaizen events between

the different departments involved. During the team's initial meeting, they defined the cycle time for the accounting close as the time from the beginning of the month (first calendar day of the month) until the final financial statements are published. The goal was to decrease the cycle time to less than 10 calendar days by year-end.

The team performed a force field analysis to ascertain the driving and restraining forces that the project would encounter. The following driving forces were identified:

1. VP of finance pushing the initiative.
2. All of accountants' time is spent on the closing process and accountants want change.
3. Management in United States and France want information faster and more accurate/timely.
4. Company is in the process of switching to new accounting software (Microsoft AX).

The restraining forces were determined to be the following:

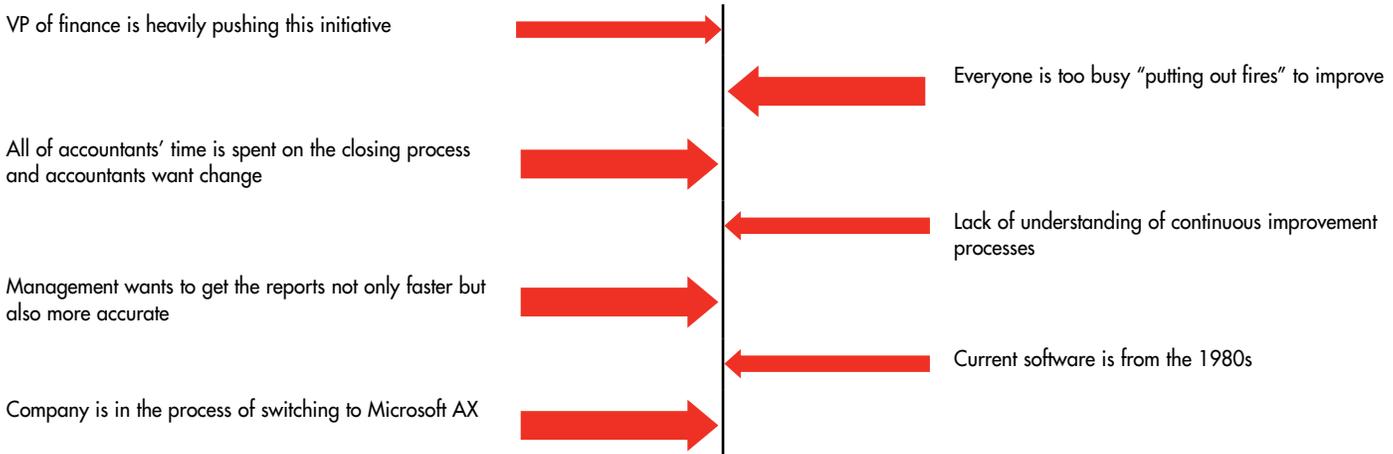
1. Everyone is too busy "putting out fires" to improve.
2. General lack of understanding of the continuous improvement process.
3. Current software not ideal for accounting.

Prior to the first kaizen event, data needed to be gathered to map the "current state" of the process. Because of the large scope in terms of days and personnel involved, it was determined that personnel would need to track their own data on a spreadsheet. This spreadsheet was introduced to the team during the kickoff meeting, and tracking would take place the month prior to the kaizen event. The results from the first month's data collection were intermittent except for the general ledger accountants. Since it had already been predetermined that the project would be split into multiple kaizens due to the scope, and since the general ledger accountants were the pivotal department in the process (90% of information flowed to or from them), the initial push was made with this group. Prior to the beginning of the next monthly close, additional data was obtained for this group through the self-assigned tracking via the spreadsheets, which were collected on a more frequent (daily) basis. This information was used to produce a swim lane map of the process. The swim lane map was chosen because it highlights the hand-off points between departments, which were thought to be an area where much of the waste occurred. The swim lane map highlighted the high number of hand-offs between departments and the large amount of wait time that was introduced into the process as a result.

It was also determined as a result of the mapping process that a separate kaizen would need to be conducted for the AP department because it was taking them five business days to close AP. Because closing AP occurs early in the close process, it is crucial that it be conducted in an efficient manner so that the GL accountants do not have to wait so long to get the information. Most of the problem occurred because it was taking us a long time

*cont. on p. 9*

Figure 1. Force field analysis



## Accounting Close Case Study cont. from p. 8

to get invoices from vendors, and we were not efficiently using accruals to finalize the AP information quicker.

Because this was the first major Lean Six Sigma process in the office area, training needed to be conducted on several subjects as follows:

- Kaizen
- Brown Paper Process Mapping/Swim Lane Charts
- Value Classification (Value Added/Nonvalue Added/Business Value Added)
- Brainstorming
- Affinity Diagrams
- Force Field Analysis
- Waste Reduction
- Data Collection
- SMED (Modified)

The Master Black Belt either used materials adopted from the lean tools used in the manufacturing areas or produced his own training materials. The team received training on individual tools just prior to needing to use each of these tools so that the information would be fresh on their minds.

The team decided to use a modified SMED process to improve the process. I say modified because we changed the meaning of internal and external from their usual context of setup to mean the time during the closing process and outside of this time range, respectively. The goal, of course, was to shorten the actual time it took the accountants to close (internal time) by following the SMED process and identifying “internal” and “external” activities and separating the two categories; eliminating nonvalue-added activities; converting as many internal activities as possible to external activities (outside of the closing window); moving activities from sequential to parallel where possible; and creating new standard work.

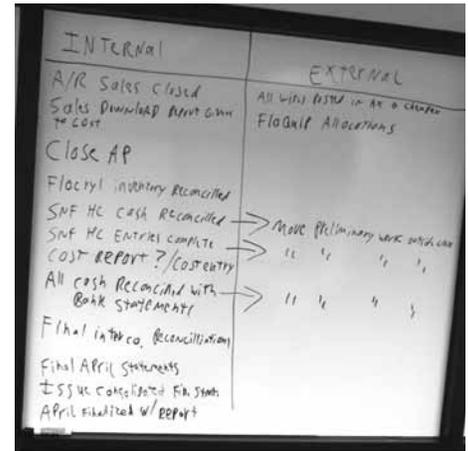
### Improvements Made as a Result of the Project

One area that stood out during the initial kaizen was that the constraint occurred at the treasury accountant. The treasury accountant is the person who spends most of his/her time paying bills and managing cash flow, including during closing time. This is a full-time-plus position. At the end of the month, on top of the normal responsibilities, the treasury accountant is responsible for closing the holding company’s books. A lot of intercompany entries are created at this point and every month the GL accountants were forced to wait in limbo for about two days waiting for the treasury accountant to finish the holding company entries so that they could finish their individual company entries. Management did not want to take the treasury accountant out of the close process, so the team changed the day-to-day operations for this position. New processes streamlined paying bills; moved responsibilities to other accountants, namely posting cash entries and making the postings throughout the month instead of internal to the close process; and changed signatory responsibilities and limits.

Additionally, the team implemented the following improvements during the main kaizen event:

- A detailed closing schedule was developed and implemented.
- Standard work was developed and implemented.
- The schedule can be interactive, updated midday, and be used as an Andon board to make course corrections if timely execution of the scheduled activities is in jeopardy.
- Many wasteful activities were eliminated altogether.
- Several internal operations were either converted to external activities or have been converted from sequential activities to parallel activities.
- Several days were eliminated from the cycle time.

As was mentioned in the force field analysis, the company was in the early stages of implementing a new accounting software package at the beginning of the process, which is



SMED – Classifying steps and determining candidates to move from internal to external

still under way. An additional reduction of at least 25% is expected once the new MIS system is in place and the manual entries and reclassifications can be eliminated. A follow-up kaizen(s) will be scheduled once the software transition is complete.

### Lessons Learned

Early on, there was some resistance to change (“We don’t have time to improve.”). Force field analysis helped emphasize why the project needed to take place. The accountants were freed of some of their duties during the close to lighten their load so they could focus on getting the close completed. The project manager was a former member of the GL accounting team, and he met with management separately to ensure some of these load-leveling activities were implemented.

Another issue was the software installation. It is difficult to change your process when your software situation is fluid. It soon became apparent that we needed to use a continuous improvement approach to improve the process: Improve what we could under the current framework, document the new standard, and revisit the process as updates were made to the computer systems.

Because of the scope of the project and the fact that it was split into multiple kaizens, with multiple groups, it more closely approximated a traditional Six Sigma project as opposed to a kaizen. One thing that aided the team was that the project was run as a Lean Six Sigma project using a DMAIC format. This allowed each kaizen to be properly closed out.

## The Lean Handbook

### A Guide to the Bronze Certification Body of Knowledge

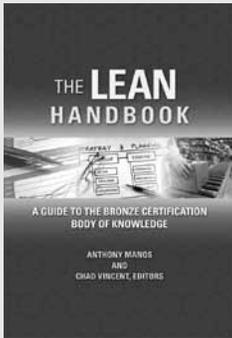
Anthony Manos and Chad Vincent, editors

This handbook's intention is to gather into a single reference the information related to the joint lean certification program of SME, AME, The Shingo Prize,

and ASQ. This book will enhance your understanding of the certification's Body of Knowledge (BoK) as a whole and give you a more holistic look at lean.

This comprehensive handbook covers all the topics included in the BoK: cultural enablers, continuous process improvement, consistent lean enterprise culture, and business results. Written by a team of lean experts with years of experience in the field, it will be indispensable to anyone interested in implementing and sustaining a lean initiative. The book is written, by design, at the Bronze Level for certification knowledge. This means that the weightings used in the lean BoK for the Bronze Certification were considered for the depth and breadth of material considered for each rubric. By addressing the lean BoK at the Bronze Level, this book provides a basic understanding of the lean principles, systems, and tools at a tactical level to drive improvements with measureable results.

Material from several lean practitioners with differing backgrounds and experience has been gathered to create this handbook, which serves as an ideal starting point for practitioners who want both a holistic view of lean in general and also specifically the BoK of this groundbreaking joint certification program.



# So You Want to Get Your Lean Bronze Certification?

by Beth Reid, CSSBB, CSSGB Trainer

Let me begin by stating outright, everyone who practices lean should work toward obtaining their Lean Certifications (Bronze, Silver, and/or Gold). “Having one industry standard for lean provides individuals, companies and supply chains with a roadmap for professional development.”<sup>1</sup> The program is educationally well put together. I am writing this article to share my experience thus far in striving to obtain my Lean Bronze Certification in hopes of helping you avoid some of the frustrations I incurred.

My journey toward sitting for the Bronze exam began at the ASQ Lean Six Sigma Conference in 2011. I was not familiar with this certification program until I saw a brochure at this conference. I thought this would be an excellent credential for me since my job seemed to be moving away from Six Sigma and more toward lean implementation. I work for a major defense contracting company as the continuous improvement manager of a small production facility. Having obtained both my Six Sigma Green and Black Belts, this seemed like a natural progression for my continuing education and training. I read the requirements and began researching how to go about getting this certification. In the fall of 2011, I made the decision to take the exam and thus began to search for where it was being offered. I found that I could take it just prior to the 2012 ASQ Lean and Six Sigma (LSS) Conference in Phoenix, AZ, and that they were offering a two-day Lean Bronze Certification exam review course. The review course offered by ASQ and taught by Adil Dalal was extremely helpful and I highly recommend it to anyone considering this journey.

This is where my challenges began. It appears to me that ASQ, SME, AME, and Shingo are misconnecting. When I began the registration process, I was able to register for the two-day course through ASQ; however, I was redirected to the SME website to register for the exam, which was being held at the ASQ LSS Conference. Maybe it's just me, but I had to search around awhile to locate the registration page and register for the exam at the ASQ conference. I completed the registration, but never received a written confirmation from SME that I was indeed registered and paid.

Shortly before the conference, someone from SME called me to ask if I was taking the exam at the conference. She was able to provide the confirmations that the website did not. I also purchased the online practice exam for \$99.00. It crashed three different times and I had to start over each time. Also, there are “hints” that refer you to incorrect page numbers. The Body of Knowledge books used for this certification process periodically publish revised (updated) copies of their books. This will, in turn, change the page numbers that are referenced in all the prep material and the practice exam tool.

The two-day review class was fantastic and I highly recommend that you attend one of those. However, there were several contradictory references in some of the material we were provided. Not a big deal, but it can be confusing. I felt prepared to take the exam on test day. It's important to note here that I do not test well on standardized tests, so this exam made me nervous from the beginning—way before I arrived to actually start taking it. That's just me. The allotted time to take the exam is three hours. I felt that was an appropriate amount of time given the number of questions. If you have not read the material prior to taking the exam, you will not do well. This exam is about more than just understanding terms and principles. It's about *applying* those principles. There are several correct answers to select from. The challenge is selecting the *best* answer. Well, the good news is ... I passed! Whew! But I'm far from done. To complete the certification process, I need to complete my portfolio. That, to me, is the easy part. Perhaps I'll write a follow-up article about that experience. I'm very lucky to have mentors who will review my portfolio project by project, prior to submission. Now, I just have to make the time to get them completed. Now, what are you waiting for? Make the decision now and pursue your certification!

1. Society of Manufacturing Engineers – Lean Certification Brochure (Society of Manufacturing Engineers, 2011).

# Recap of WCQI, Anaheim, CA

by *Kiami Rogers, chair*

**May 19 – 23, 2012**

I hope you had a great time at WCQI. I know I did! Our booth was a hit again with the free T-shirts.

Our hospitality suite was a hit again too, with the great view of the Disneyland fireworks, In-N-Out burgers, and of course, refreshments. It was packed every night. The hospitality suite was great for potential members, current members, and some VIP relationship-building activities. Many said that the LED suite was the best. Now if we can only get fireworks at other locations.

Once the other divisions heard about our “leftover” hospitality suite, they donated their leftovers.

We learned some new information about member retention and new member recruitment:

- Membership has been eroding since 1997; therefore, declining membership is not due to the economy
- Membership erosion is due primarily to the impact of the Internet and Internet communities
- It is cheaper to retain than recruit members
  - Retention has improved 5.5% since its lowest point
- Four drivers for membership:
  - Networking
  - Professional development
  - Access to the latest information
  - Solutions for members’ problems—members want to make a difference

How are member units engaged?

- Special interest groups (SIGs)—ask one-to-one, explain what is involved
- Get on the phone and talk to members to get volunteers
- Make it easy, simple
- Include community projects
- Align dinner programs with divisions—use the chair of the division as a presenter, include a booth

The DAC continues to talk about a joint division conference in 2013 in Mexico.

We had a number of Spanish-speaking members show up, or join, in Anaheim, in addition to a member coming to the LED meeting asking for Spanish webinars. We plan to:

1. Provide Webinars in Spanish.
2. Provide Webinars in English with simultaneous translation in Spanish.
3. Use translation software to publish our newsletter in Spanish.

A significant number of individuals joined the LED in Anaheim. I believe we owe the bulk of those new members to the T-shirts and to Alan Mendelsohn’s attitude and salesmanship! (Some of those who didn’t care for the T-shirts joined anyway.) We met some ASQ members who didn’t realize there was a Lean Enterprise Division. Now they do. We also met some who didn’t even know what lean was, and now they do.

It was great to have all of the other partners (SME, AME, and Shingo) there to show the unity behind the Lean Certification.

The Alcon tour was a success and many stated their appreciation for the LED arranging the transportation, lunch, and the tour.

The LED team worked well together and the roomies played well together.

We are looking forward to seeing you next year in Indianapolis, IN!

## LED Webinar

### Improving Patient Care in Africa

December 18, 2012 from 1:00 p.m. to 2:00 p.m. CST

Take a trip to Africa during this webinar and see how quality standards and lean tools can be used to improve patient care in an unusual setting. Pat Griffith, director of quality improvement at the University of Texas Southwestern Medical Center in Dallas, TX, presents this case study and walks us through her implementation of a quality system as well as the promotion of lean in a rural hospital laboratory in Tanzania.

#### About the Presenter

**Pat Griffith** is director of quality improvement (hospitals and clinics) at the University of Texas Southwestern Medical Center, Dallas, TX. She oversees and teaches (with other faculty) a quality improvement course that requires a concurrent improvement project. She is in her ninth year as a Baldrige examiner, serving in various roles including team leader, training facilitator, and case study author. She has volunteered with the state of Texas quality program for 16 years in roles as examiner, team lead, scorebook editor/writer, judge, process coach, and board of overseers; and is currently a member of the training faculty. For the second year she is leading an assessment team based in India using the Baldrige criteria. Griffith is a Senior ASQ member with CQA and CMQ/OE certifications.

To register for this webinar go to:

<https://www1.gotomeeting.com/register/706472784>.

If you have ideas for webinar topics, or are interested in presenting a webinar, please contact Chris Hayes at: [chayes@getimpacts.com](mailto:chayes@getimpacts.com).



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“Electronic Only” in the subject line.