Lean Introduction

SD ARMA
San Diego, CA
3/29/2017

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Agenda – March 29th, 2017

12:00 - 12:15   What is Lean? Kaizen? Waste?
12:15 - 12:20   Lean or Six Sigma?
12:20 – 12:40   Examples of Kaizen Blitzes
12:40 – 12:50   Lean Results and Lessons Learned
12:55 – 1:00    Wrap
“Lean” In Business Means:

• Waste or “fat” has been “trimmed” or removed from the process

• The process that provides value to the customer is as short or quick as possible

• Least or fewest resources are used to meet or exceed customer needs

• An umbrella of continuous improvement techniques and practices, which engage employees, and drive results
Typical Lean Tools

- Visual Factory
- Kanban Pull
- TPM
- Poke Yoke
- Blitz
- SMED
- Cells
- 7S
- Process Mapping
- Standard Work
- Lean
- VSM
- 1-Piece Flow
- Visual Factory
- Factory
- Process Mapping
- Lean
For Our Discussion Today

Lean

- Standard Work
- Blitz
- Process Mapping
Goals of the Lean Enterprise

1. Improve Quality
2. Eliminate Waste
3. Reduce Lead time
4. Reduce *Total* Costs
Defining Waste

In Business, **EVERYTHING**:

- Takes *Time*
- Costs *$Money*$
All work is either...

Value Adding (VA)

Important to the external customer – willing to pay for or is a condition of doing business with them

OR

Non-Value Adding (NVA)

Consumes time, resources or space, but does not transform, or add to the customer’s desired, perceived value of a product (necessary and unnecessary NVA)
8 TYPES OF WASTE

- Defects – errors, not right the first time; incomplete, unclear or wrong information
- Overproduction – ahead of, or in excess of demand
- Waiting – people, service or product is idle
- Non-utilized talent – not using employee knowledge or creativity
- Transportation - unnecessary movement of product
- Inventory - excess, requires space
- Motion – movement of people, ergonomically exposures
- Extra processing – doing more than the customer requires

WIP - WASTE In Process!
Value Adding or Not?

- Looking for information
- Building product or providing service
- Filling out forms
- Ordering supplies
- Shipping Product
- Inputting data
- Getting approvals
- Packaging product
- Copying forms
- Re-quoting
- Writing procedures
- Training
- Warranty claims
Problem Solving

TRADITIONAL METHOD
Slow and Unsure

- Analyze
- Recommend
- Decide
- Implement
- Change

KAIZEN BLITZ
Just DO IT!

- Analyze
- Run Trials
- Make Changes
- Implement

WEEKS

< 3 DAYS

Analysis Team
Management
Implementation Team
Employees

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Fundamental Principle of Lean / Kaizen:

Anything that does not add value to the product is waste and must be reduced or eliminated.

KAI
• To break apart
• To change

ZEN
• Study
• Make better

Blitz = Lighting Fast
**Lean**

- Customer Defines what is “Value”
- Customer is not willing to pay for non-valuable things
- Reduce or Eliminate Waste or Non-Value-Added (NVA)
- Focus on Value Streams
- Drive waste, lead-time, set-up, other reductions
- Kaizen and TPS

**Six Sigma**

- Reduce variation
- Total system approach (SIPOC)
- Follow DMAIC methodology
- Reduce process variation
- More statistically-focused tools around reducing process standard deviation (sigma level)
- CpK, DOE

**Lean Six Sigma**

- Combined approach
- Define Value, Remove Waste then Reduce Variation
- Follow Kaizen and DMAIC methodology
- Tiered approach:
  1. Kaizen (basic)
  2. Lean (intermediate)
  3. Six Sigma (advanced)
- Use simplest tools first, progress to more advanced as needed to improve
OK, So How Do We Decide What to Use?

Use the simplest tool that gets the desired results

Aim at “Perfection”

Lean Six Sigma Projects

Lean (including Capital) Projects

Kaizen Blitzes / DMAIC

Quick Kaizens (QKs)

Team Problem Solving

Complexity

Project

Event

Daily
EXAMPLE KAIZEN BLITZ

Regulatory/Compliance Kaizen Blitz Team
Current process is 31 steps
Now just 6 steps for non-reportable and just 8 Steps for reportable complaints!
## Before & After State Measures

<table>
<thead>
<tr>
<th>RA Medical Complaint Reporting Blitz</th>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of People Involved</td>
<td>6</td>
<td>2</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>Number of Steps/Touches</td>
<td>31</td>
<td>8</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td></td>
<td></td>
<td>70%</td>
</tr>
</tbody>
</table>

Cost Avoidance: $45,000+ per year plus net zero personnel increase
Kaizen Blitz
Records Retention (GP-308)

March 22\textsuperscript{nd}-23\textsuperscript{rd}, 2007
The Kaizen Blitz Team
# The Blitz Mandate

<table>
<thead>
<tr>
<th>Process Name</th>
<th>Blitz Start Date</th>
<th>Blitz End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Records Retention Process (GP-308)</td>
<td>22-Mar</td>
<td>23-Mar</td>
</tr>
</tbody>
</table>

## Process Boundaries (Start to End)
All records retention for all processes per GP 308

## Why Do We Need This Blitz?
We store too many records in paper form and electronically. When the records can be disposed, Corovan process is not clear. Need process owners/experts to be in place.

## Blitz Targets
- Reduce Lead Time by 50%
- Reduce process steps by 50%
- Reduce Distance Traveled by 50%
- Reduce number of touches by 50%
- Update Standard Work Procedure (GP-308)

<table>
<thead>
<tr>
<th>Process Owner(s)</th>
<th>Process Expert(s)</th>
<th>Process Outsider(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nora York</td>
<td>Neil Delaney, Vida Rodriguez, John Iraci, Crystal Sewall</td>
<td>Jaime Alvarez, Susana Young, Adam Glascock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facilitator(s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerry Wright, Nora York</td>
<td></td>
</tr>
</tbody>
</table>
Process Map – Before State

- Does the term, “PERM” mean anything to you?

<table>
<thead>
<tr>
<th>Method</th>
<th>Active</th>
<th>Archive</th>
<th>DESTROY AFTER YEAR</th>
<th>Count</th>
<th>Record Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Years</td>
<td>1905</td>
<td>594</td>
<td>2449</td>
<td>226</td>
<td></td>
</tr>
<tr>
<td>Average retention</td>
<td>9</td>
<td>11</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- We have been keeping our records for an average of TWENTY years (both here and Cor-o-van)!
Process Mapping
# Record Retention GP-308 Process

<table>
<thead>
<tr>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Time to Store</td>
<td>30 min.</td>
<td>20 min.</td>
<td>33%</td>
</tr>
<tr>
<td># of Steps to Store</td>
<td>8</td>
<td>6</td>
<td>25%</td>
</tr>
<tr>
<td># Years On-Site</td>
<td>9</td>
<td>7</td>
<td>22%</td>
</tr>
<tr>
<td># Years Off-Site</td>
<td>11</td>
<td>4</td>
<td>64%</td>
</tr>
<tr>
<td># Years Total</td>
<td>20</td>
<td>11</td>
<td>45%</td>
</tr>
<tr>
<td># of Records</td>
<td>226</td>
<td>211</td>
<td>8%</td>
</tr>
</tbody>
</table>

**33% Average Improvement!**
• We’re based on Federal, local laws and best practices in current record retention
• Procedure is more clear and concise
• Simplified the document storage labeling process for Cor-o-van
• Identified a follow-up blitz for Records Review and Destruction at Cor-o-van
Thank you!

Until the next blitz…
Kaizen Blitz Report-Out
Accounts Payable - Shoreview
May 28-29, 2008
The Kaizen Blitz Team
# The Blitz Mandate

## Process Name
- Accounts Payable Process

## Process Boundaries (Start to End)
- Invoices to Payment

## Why Do We Need This Blitz?
- Too Many Touches
- Too Much Time (and OT) - Process & Approval
- Have invoices scanned and attached in Oracle
- Invoices routed via email for approval
- Store invoices electronically / reduce manual files

## Blitz Targets
- Reduce Lead Time by 50%
- Reduce process steps by 50%
- Reduce Distance Traveled by 50%
- Reduce number of touches by 50%
- Reduce total space/files required by 50%
- Establish Standard Work Procedure
- Establish 5-S+1 or improve 5-S+1 score

## Blitz Start Date
- 28-May

## Blitz End Date
- 29-May

## Start Time:
- 9:00 AM

## End Time:
- 4:30 PM

## Team Meeting Location:
- Boardroom

## Process Owner(s)
- Tina Eskro

## Process Expert(s)
- Pat Martinson
- Lana Leykind
- Emily Shemanski
- Renee Knutson

## Process Outsider(s)
- Susan Sosna
- Brian Mower
- Leann Burich
- Anna Skar
- Dawn Mordorski
- Jane LaPorte

## Facilitator(s)
- Jerry Wright
- Tom Bachinski
Top Reasons for Change

- Lots of O.T.
- Approval times long
- Process is long
- Lots of Paper!
- Many Exceptions
Before State Process

Was 31 Steps
After State Process

Now 18 Steps!
## Before & After State Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td># of people involved in A/P process</td>
<td>4</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td># of steps/actions</td>
<td>31</td>
<td>18</td>
<td>42%</td>
</tr>
<tr>
<td># of touches</td>
<td>15</td>
<td>8</td>
<td>47%</td>
</tr>
<tr>
<td>Total square feet of space used</td>
<td>1,300</td>
<td>992</td>
<td>24%</td>
</tr>
<tr>
<td># of filing cabinets</td>
<td>28</td>
<td>8</td>
<td>71%</td>
</tr>
<tr>
<td>Lead time (days)</td>
<td>5</td>
<td>2.5</td>
<td>50%</td>
</tr>
<tr>
<td># of feet traveled per invoice</td>
<td>609</td>
<td>381</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td><strong>46%</strong></td>
</tr>
</tbody>
</table>
Other Benefits / Misc.

• Consolidate bank accounts from 2 to 1
• Reduce postage costs / handling with FAXing of expense reports to OnBase
• Reduce O.T. for A/P
• Reduce routing for approval time, filing time, sorting time, etc!
• Floor space freed-up for other use
• We’re going to save a fortune on highlighters, file folders and labels!!!!!!
# 30 Day Action List

<table>
<thead>
<tr>
<th></th>
<th>Action Description</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Review RME repair &amp; maintenance lack of P.O.'s</td>
<td>Tina, Yvonne</td>
</tr>
<tr>
<td>2.</td>
<td>Work with Chatt on P.O. and invoice process</td>
<td>Tina, Theresa</td>
</tr>
<tr>
<td>3.</td>
<td>Consolidate bank accounts (Corp/Inc)</td>
<td>Tina, Dawn</td>
</tr>
<tr>
<td>4.</td>
<td>Purchase licenses for OnBase</td>
<td>Susan</td>
</tr>
<tr>
<td>5.</td>
<td>OnBase overall design and implementation</td>
<td>Jane, Pat</td>
</tr>
<tr>
<td>6.</td>
<td>Keyword updater design and implementation</td>
<td>Jane, Dawn</td>
</tr>
<tr>
<td>7.</td>
<td>Determine new process for expense reports</td>
<td>Jane, Tina, Susan</td>
</tr>
<tr>
<td>8.</td>
<td>Determine dual monitor needs (long-term)</td>
<td>Tina, Susan</td>
</tr>
<tr>
<td>10.</td>
<td>Remove file cabinets from A/P</td>
<td>Pat, A/P Team</td>
</tr>
<tr>
<td>11.</td>
<td>App enabler with hot spots evaluation / use</td>
<td>Jane, Pat, Dawn</td>
</tr>
<tr>
<td>12.</td>
<td>RME freight reconciliation process review</td>
<td>Pat, RME person</td>
</tr>
<tr>
<td>13.</td>
<td>Complete SOX scripts for internal controls</td>
<td>Pat, A/P Team</td>
</tr>
<tr>
<td>14.</td>
<td>Discuss scanner usage with Kris Chmielewski</td>
<td>Tina, Susan, Pat</td>
</tr>
</tbody>
</table>
Thank you!

Until the next blitz…
Lessons Learned

- It’s all about leadership commitment and the culture you create as you go – you don’t “manage change;” you just create it as you go; people readily accept change for the better.

- The biggest barrier to change and adopting Lean are managers learning to let go of power and control and embrace learning and trying by everyone in the organization.

- Kaizen Blitzes are the best means of engagement & culture shift.
  - They drive employee satisfaction with their work, their manager and the company while creating a culture of Lean.
  - Kaizen Blitzes and Value Stream Mapping provide training for organizational leaders to “see” waste.
Lessons Learned

- Leaders that you want in your company must possess a strong desire to lead, possess leadership / the ability to get things done through others and have a **demonstrated desire and ability to coach others**

- Leaders must have a **drive to pursue perfection** knowing that they will never see it and they will never be done

- Work should be fun; yes it is work but **your team needs to be winning** against the competition

- Everyone needs to embrace and be involved in transforming and leading the business – all areas must be involved – **there cannot be “silos”**
Lessons Learned

- Be willing to **accept some level of failure** for taking risks to make things better

- Drive ownership and decision making to that level that is closest to the customer or closest to the process; **trust people to do the right thing**; the “right” people don’t need supervision

- Lead (**inspire/motivate**) rather than manage (instruct/control); let teams determine how to best accomplish their objectives

- Become a “**learning organization**” that looks for good ideas everywhere, everyday – seek out others who pursue the same goals

- Losing sucks but **winning is fun** – **a culture of Lean helps you win!**
Lean Introduction for SD ARMA

Thank you!

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