


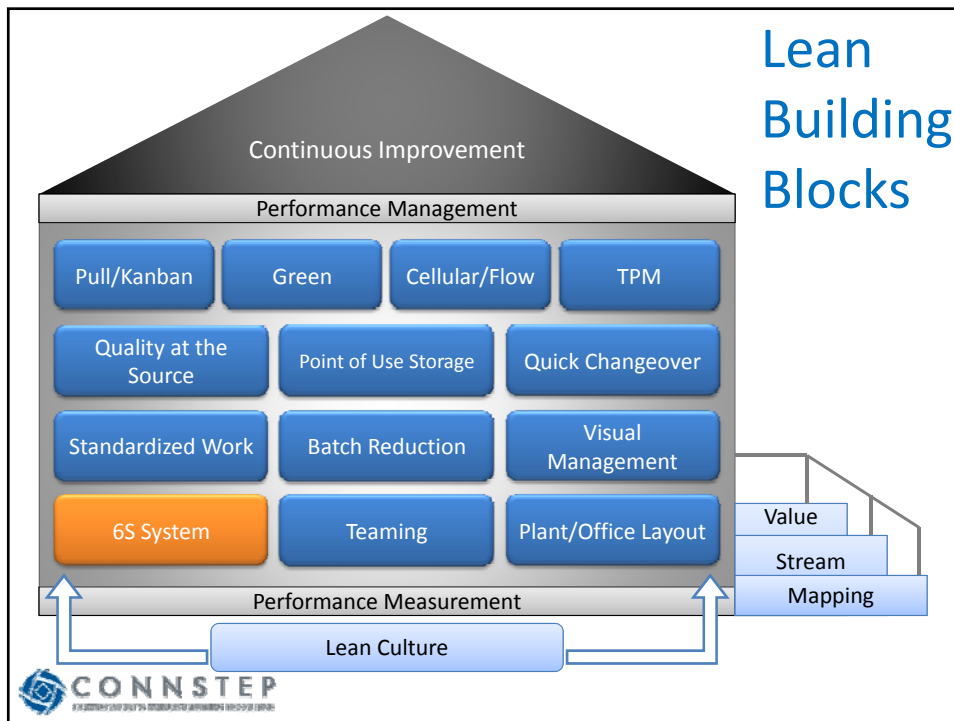

6s & Visual Management

Tom Southworth
March 23, 2011



1090 Elm Street, Suite 202
Rocky Hill, CT 06067

800.266.6672
www.connstep.org



What is 6s?

6s is a method of creating a clean and orderly workplace that exposes waste and makes abnormalities immediately visible

6s is not a housekeeping exercise



6s and CAN DO

Lean	TPS	Henry Ford
S afety		
S ort	S eiri	C lean Up
S et in Order	S eiton	A rranging
S weep	S eisou	N eatness
S tandardize	S eiketsu	D iscipline
S ustain	S hitsuke	O ngoing Improvement



Benefits of 6S

- Improved safety & ergonomics
- Identify & eliminate waste
- Low cost but high impact
- Energizes the workforce
- 6s is essential to Lean



Ouch! My back!!



Benefits of 6S

- Improved safety
 - Eliminate trip hazards
 - Eliminate slip hazards
 - Eliminate fire hazards
 - Eliminate misuse of chemicals

Trips / Slips / Falls cost \$11.2 billion annually

(Source – Liberty Mutual Workplace Safety Index 2008)



Is this a hazardous chemical?



Before

After



Are these hazardous chemicals?



How many hazards can you spot?



Benefits of 6S

- Identify and eliminate waste

- Downtime

- Overproduction

- Waiting

- Non-utilized talent

- Transportation

- Inventory

- Motion

- Extra Processing



Benefits of 6S

- Identify and eliminate waste

- Lubrication & Contamination

- Causes 80% of equipment failures

- Results in poor quality

- More costly to fix than to maintain

- Effective 6s is critical to TPM

- 25% increases in productivity

- 65% decreases in defects



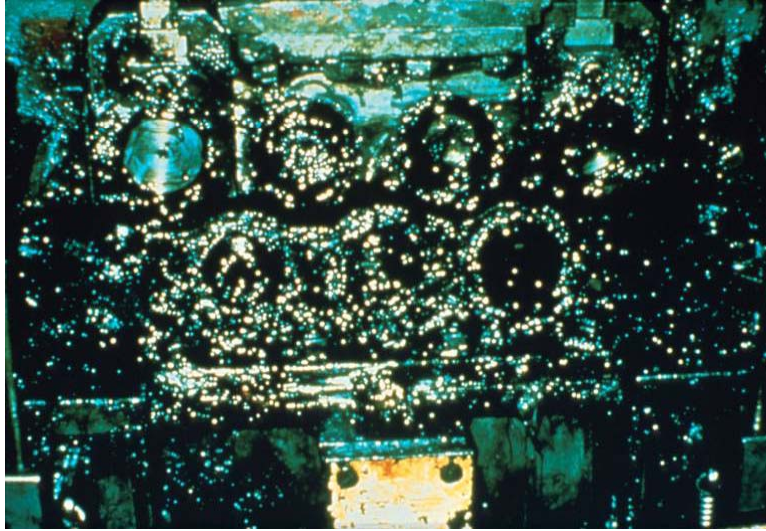
Contamination



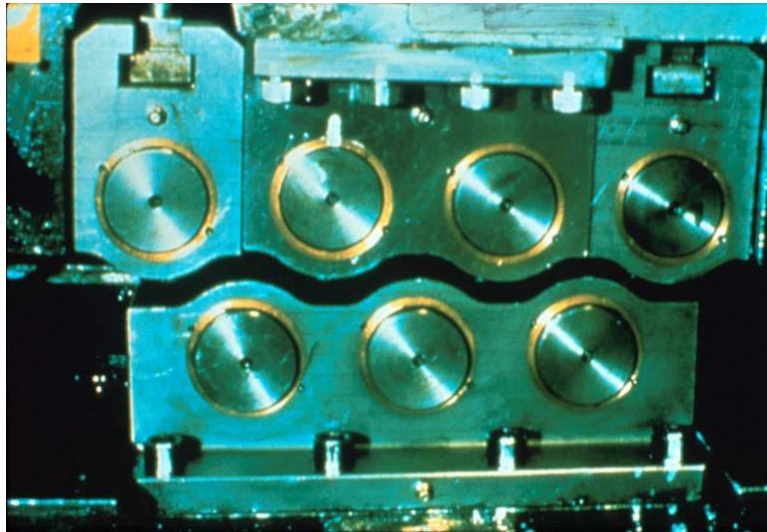
Lubrication




Before



After





Before


Form Rollers \$100/Unit

Printing Cassette Cart More than 2,000 lbs when loaded

What if the lights went out?

After

What else should be done?



CONNSTEP
CONNECTIONS TO PEOPLE, PRODUCTS AND PROGRESS

Implementation

- Training & management commitment is critical
- Use before & after photos
- Change in attitude is necessary
 - Old way is no longer acceptable
 - No campaigns or slogans; no gimmicks
- MBWA
- Everyone can literally see the changes
 - Seeing is believing



Misconceptions about 6s

- 6s is not a housekeeping exercise
- Clean does not mean Functional
- Its not *looking* good, its *being* good
 - No “aisle Lean” or “aisle clean”
- Its not just for the shop floor
 - >50% of total costs are administrative
 - Little attention is given to these processes



6s in the Office

- Emails
 - Use folders to sort & prioritize
 - Use out of office feature
- Desktops / Laptops left running
 - \$1.7 to \$3.0 Billion annually in wasted energy
 - Sleep features use < 1/10th of the energy
- Paper
 - \$85 wasted per employee
 - 25 employees > \$2000/year

(Source – Citigroup Environmental Defense Partnership, 11/2004)



Without Discipline...



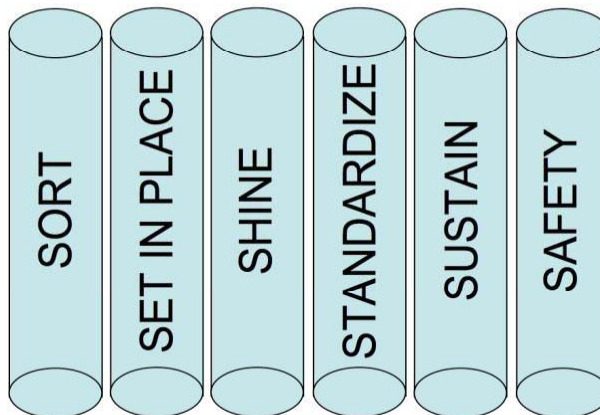
“98% of (6s) implementations are dormant after 18 months”

(Source – *Training Within Industry*, Dinero, 2005)



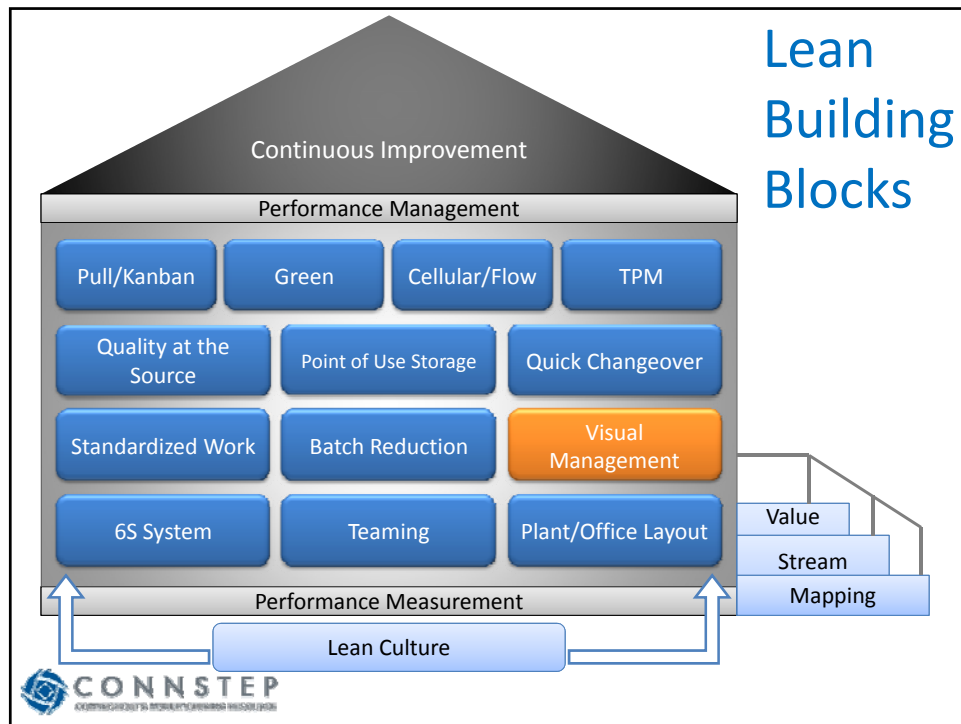
With Discipline...

Pillars of a solid foundation for Lean



“Without 6s, forget the rest”





Q: Where Should we use Visual Management Tools?

A: Wherever there is a need for communication

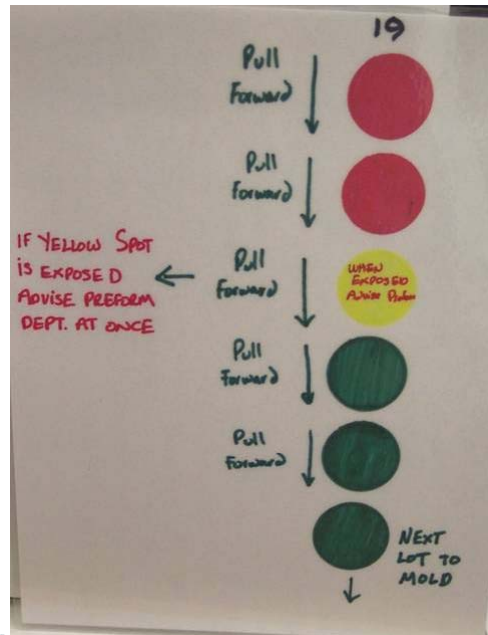
Visual Management

KL 1808	AMSTERDAM-SCHIPHOL	11.20	1145	D27-28	D
LH 097	HAMBURG	11.20	1145	B03-20	B
DI 7175	MUENCHEN	11.40		D33-35	D
LH 099	HAMBURG	12.30		B03-20	B
KK 156	ISTANBUL	12.35		D09-12	D
DS 621	ROSTOCK-LARGE	12.40		B03-20	B
DI 7068	BERLIN-TEMPELHOF	12.45		D33-35	D
LH 275	BERLIN-TEGEL	12.50		B03-20	B
4U 720	WARSAW-WARSCHAU	13.05		C01-22	C
LH 1271	MUENCHEN	13.20		B03-20	B
HLX3940	MARSEILLE	14.00		D13-19	D
LH 4782	LONDON-HEATHROW	14.10		B03-20	B



CONNSTEP
CONNECTIONS TO KNOWLEDGE AND INNOVATION

Visual Instructions



CONNSTEP
CONNECTIONS TO KNOWLEDGE AND INNOVATION

Make Visual Tools Relevant & Obvious



...Not Confusing



...Or Overwhelming



Visual Purchasing



FLIP the bin to the orange reserve to indicate inventory levels are low.



Visual Purchasing



Application/Design Engineering



Visual Customer Order Processing (The Heijunka)*



* Production leveling or smoothing



Visual Purchasing



Visual Management: The Home Version?

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
[Photo]	Sweets made + out	Make dinner + do dishes	Play with dog	Vacuum the kitchen + bedrooms	Fold Laundry	Get up
[Photo]	Sets + cabinets	Play with dog	Fold Laundry	Make dinner + do dishes	Baseboards	Get up
[Photo]	Makes glass jar	goggles	Defeat the whole house	Play with dog	Deep clean kitchen	make dinner + do dishes
[Photo]	Baseboards	make lunch	Defeat	Clean glass out of the car	Clean up dog	Deep clean room
[Photo]	Can help + lunches	Defeat lunch	Clean up dog	Baseboards	Fold laundry	Deep clean room

<http://www.evolveexcellence.com/blog/2008/01/respecting-kids.html>



35

Visual Management: Summary

- Visual Management provides
 - Instructions
 - Information
 - Immediate feedback
- Visual Management quickly
 - Exposes abnormalities in a process
 - Conveys progress or lack thereof



36

Benefits of 6S and Visual Management Metrics - Improvement

- Machine efficiency ↑ % inc.
- Less scrap ↓ % decrease
- Productivity increase ↑ % greater production
- Visual control • Organization work flow
- Quality • Fewer rejects/Higher yields
- Cleaner environment • Improved work environment
- Safety
- Inventory (FG/WIP) • Above all contributing
 ↓ % decrease

All benefits from CI activities are continuously evaluated for quantitative and qualitative results



Inadequate Implementation

- Failure to understand the purpose of 6S & Visual Management
- Teams not trained, don't understand objectives
- Low-level problem consciousness
- Little or no management support
- Little or no employee involvement
- Poorly focused 6S or Visual solutions



What Managers Can Do

- Make 6S and Visual Management part of the culture
- Make 6S and Visual Management part of standardized work
- Reward and recognize good work
- Provide resources
- Be visibly interested
- Make frequent visits to the work area
- Allow or make time for 6S activities



Keys to Success

- Gather baseline information at the site, not in the meeting room
- Get everyone involved
- Get authorization at a facility-wide level
- Enable managers to set direction
- Ensure managers involvement
- Establish a daily routine
- Keep it simple!



For more information:

Tom Southworth

tsouthworth@connstep.org

860-449-4763

www.connstep.org

