Kaizen Workshop

Introduction

Agenda – 4 day event

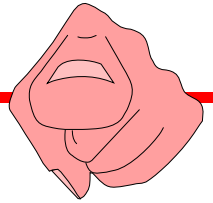
1. Day 1
   - a.m. measure the current situation
   - p.m. ideas & plan for a new situation
2. Day 2
   - a.m. design new situation
   - p.m. make some changes
3. Day 3
   - a.m. make some changes
   - p.m. record the new situation
4. Day 4
   - a.m. complete action plan
   - presentation

Agenda – 3 day event

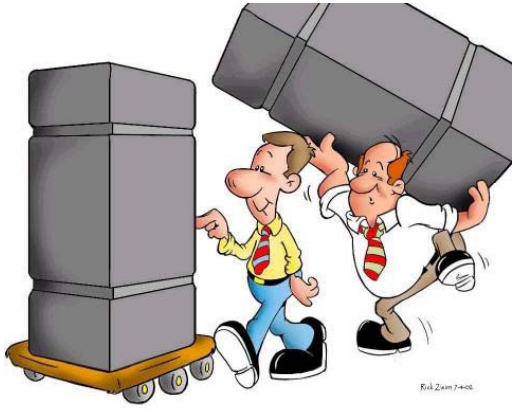
1. Day 1
   - a.m. measure the current situation
   - p.m. ideas & plan for a new situation
2. Day 2
   - a.m. design new situation
   - p.m. make some changes
3. Day 3
   - a.m. Measure and record the new situation
   - presentation

What is KAIZEN?

10 Ground Rules for Kaizen

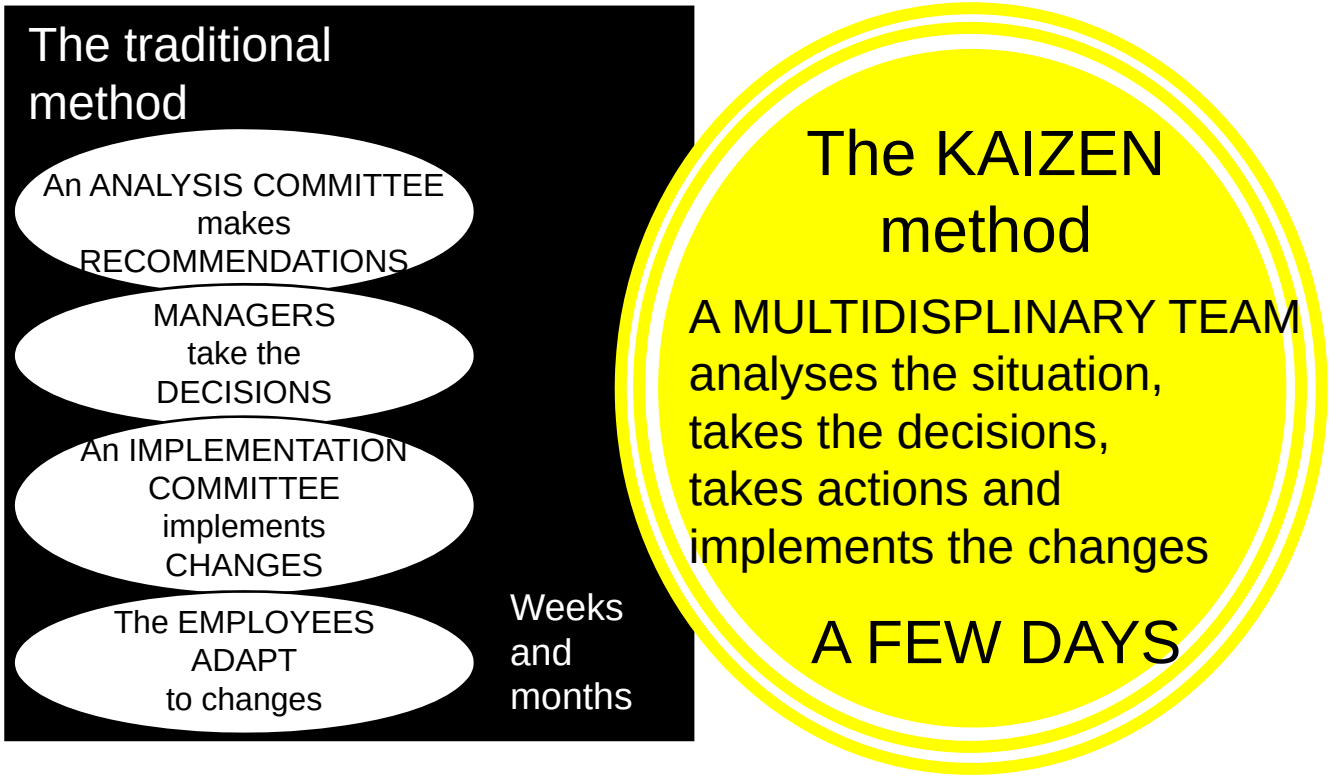


1. Don‘t try to justify the past – challenge fixed ideas
2. Be positive – think how things CAN be done not why they CAN‘T be done
3. Use data, not pet theories
4. Use wisdom not money
5. Work smarter not harder
6. Set high standards
7. Correct failures immediately - 70% now is better than 100% never
8. Lead by example
9. A team is better than 1 expert – involve people
10. Identify the root cause



Can do, do it, do it now!

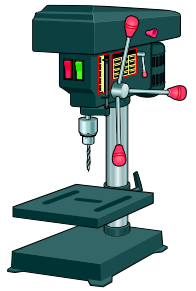
Traditional Method vs Kaizen



Contents of an Operation

Value Added Work

The part of the job the customer wants to pay for



Hidden Waste

Work that does not add value but is necessary under the current operating conditions

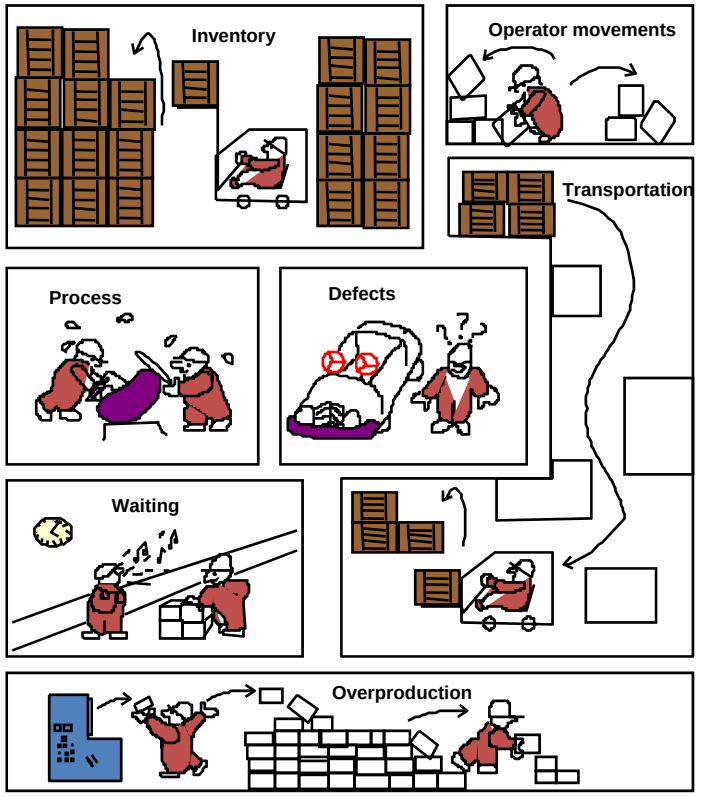
Obvious Waste

Work that does not add value and is not necessary

What is Obvious Waste?

Work that does not add value and is not necessary.

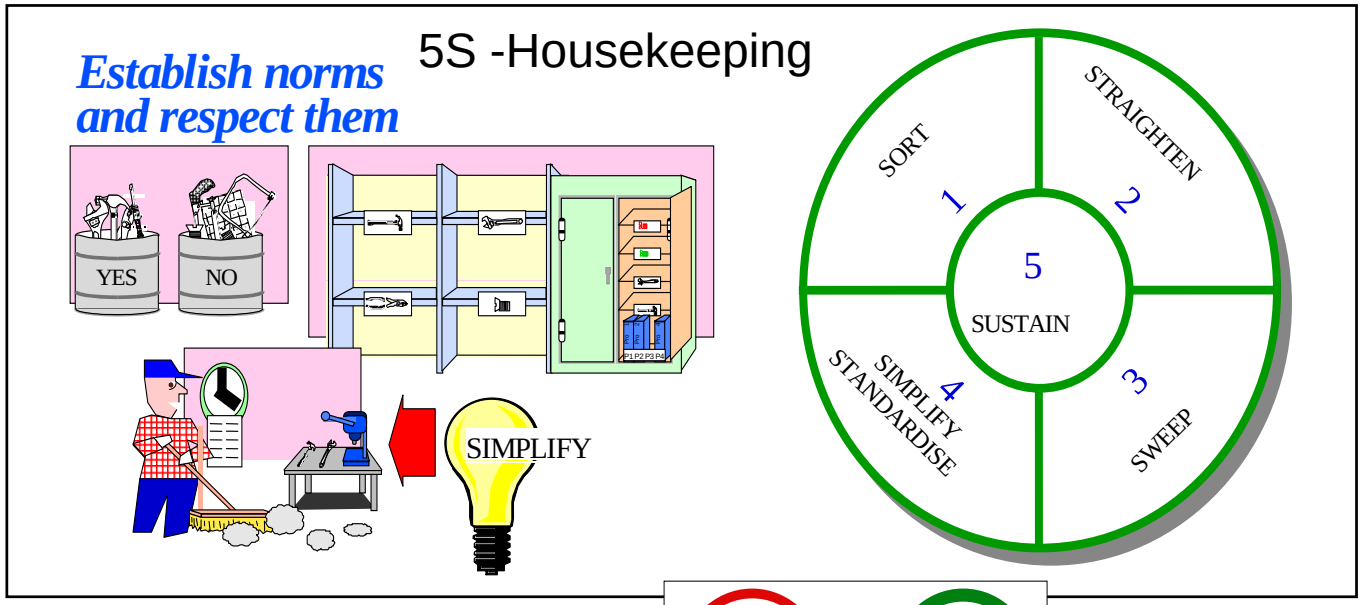
1. Overproduction
2. Waiting
3. Transportation
4. Process
5. Inventory
6. Operator Movements
7. Defects

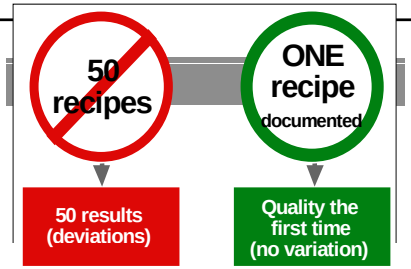


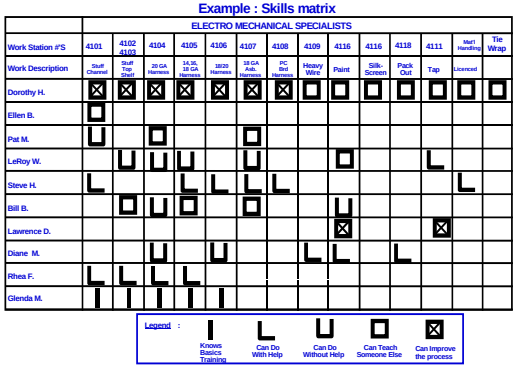
The 7 sins of Muda

Eliminate these activities

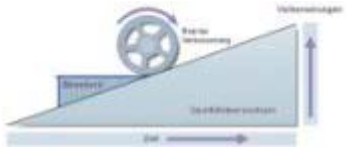
Workplace Organisation



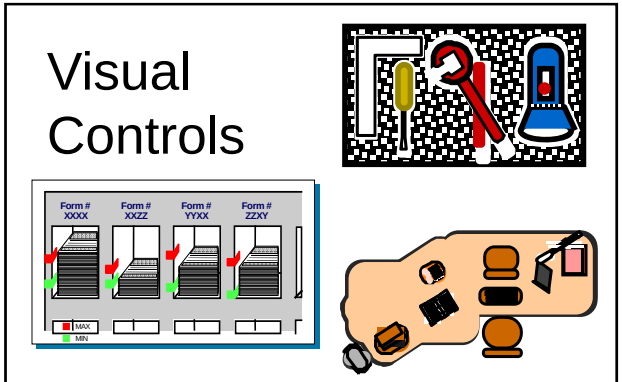




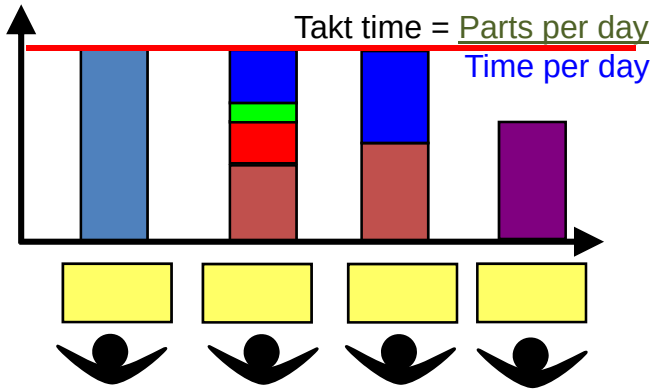
Standard Ops.

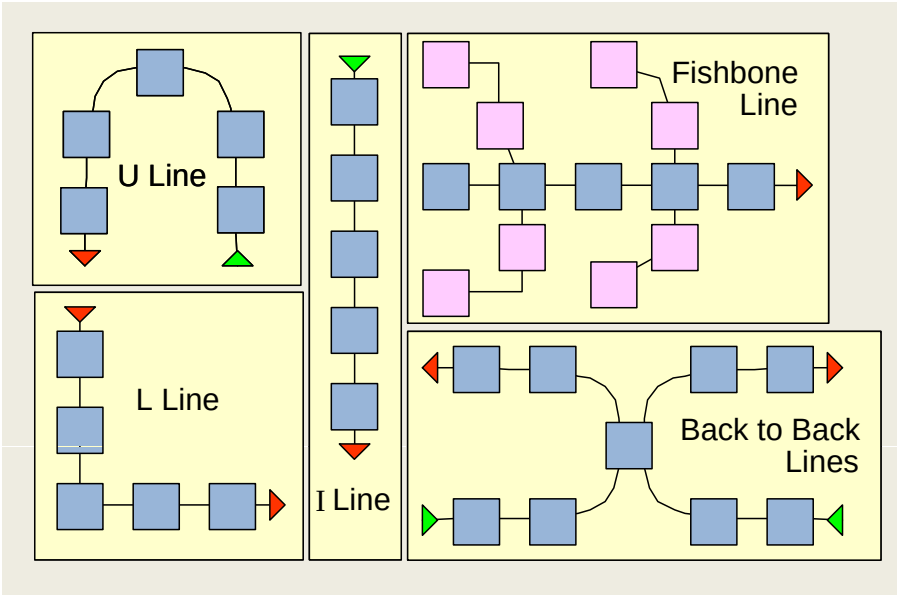


Visual Controls



WorkFlow – line balancing





$$\frac{\textit{Time per day}}{\textit{Parts per day}}$$

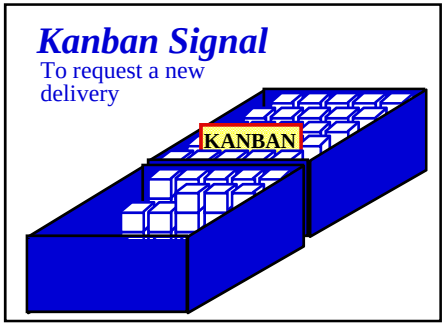
Data

420 production minutes per day
(8 hours = 480 min - 60 Minute Break)

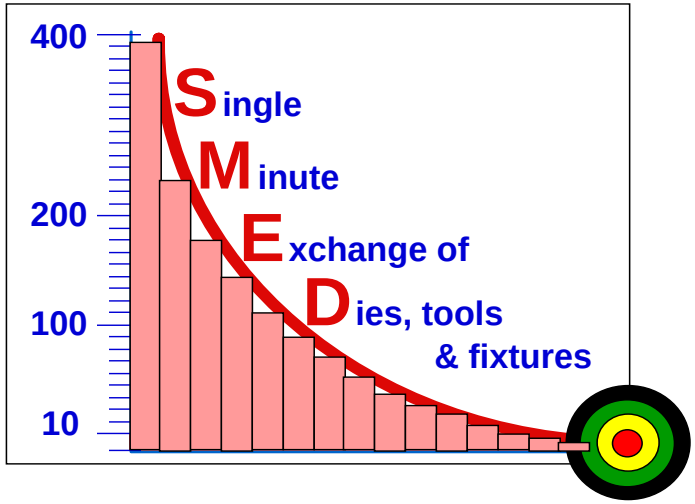
6 parts per day
(120 parts per month - 20 Production Days

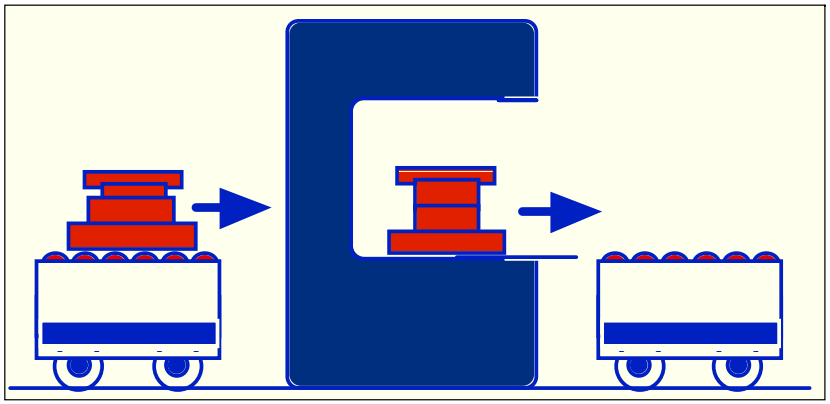
Solution

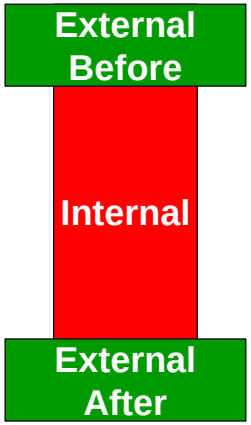
$$\text{TAKT} = \frac{420 \text{ mins /day}}{6 \text{ parts /day}} = 70 \text{ min/part}$$

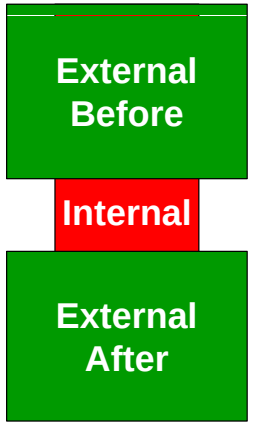


SMED - Quick Tool Changeovers

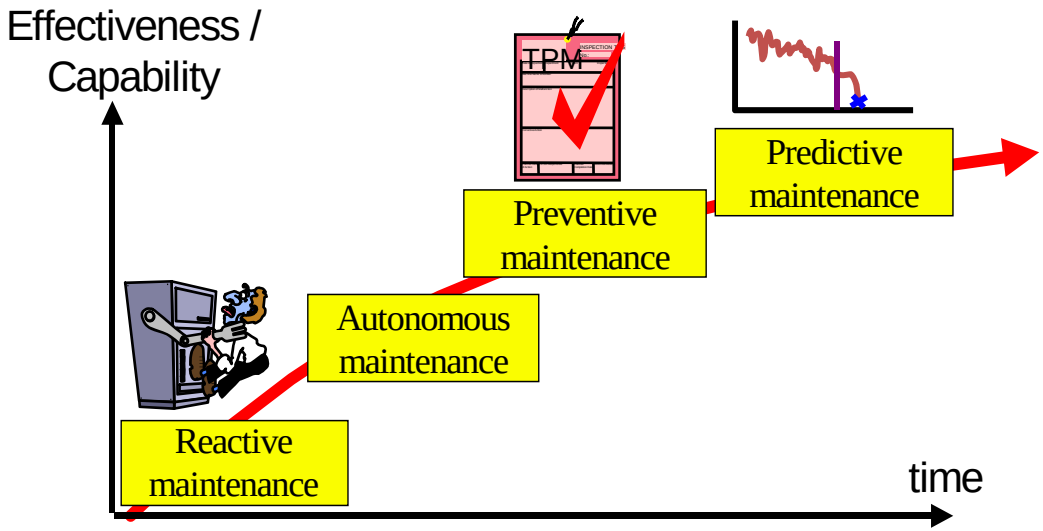




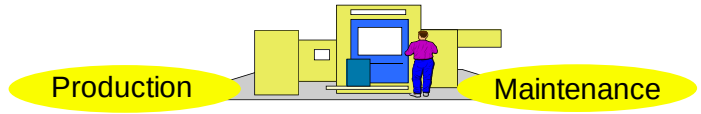




Total Preventative Maintenance

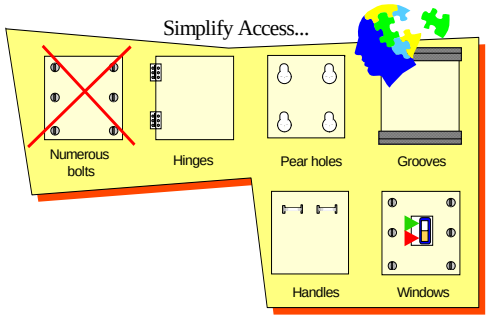


Sharing Maintenance Responsibility

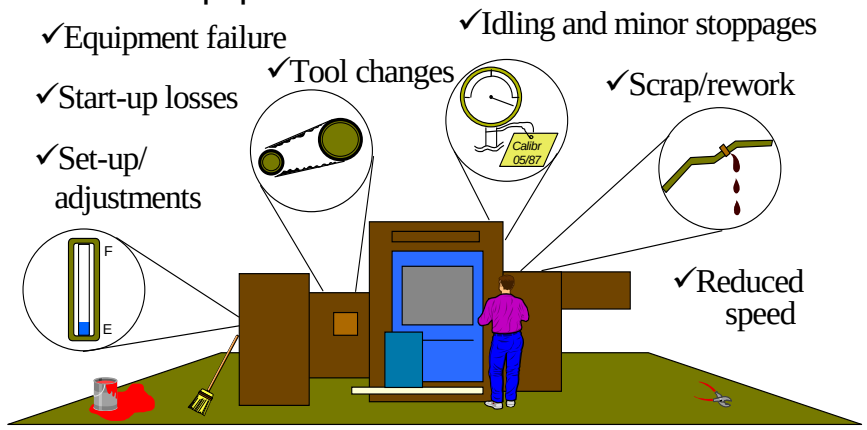


- Top up fluids
- Perform general maintenance
- Clean interior / outside
- Monitor machine condition
- Call maintenance: detected or suspected problems
- Perform specialised maintenance
- Troubleshoot /fix actual and potential problems
- Eliminate their root causes

Manufacturing Engineering
Improve maintainability and safety



Overall Equipment Effectiveness



TPM = elimination of waste + continuous improvement

PARAMETERS	UNITS	BEFORE	AFTER	IMPV'T	REMARKS
House Keeping Score	%				
Ergonomics	%				
Quality	ppm				
Number of Parts in Process					
Floor Space	M^2				
Travel Distance (Mat'l)	M				
Travel Distance (Man)	M				
Number of people (all shifts)					
Productivity					
Production Lead Time					
Value Added/Total	%				
TPE	%				
Bottleneck Process Time					
Set-up time (last to first)					
Number of Error Proofs					