



Performance Management: Capturing Discretionary Effort

July 26, 2007



envista

- **Labor by far** represents the largest cost in most companies distribution and manufacturing operations
- Labor **ranges from 50%-60** of a companies total operating expenses
- **Less than 10%** of distribution centers utilize performance management systems
- Many companies have implemented WMS systems to improve efficiencies, but **have fallen short** on expected ROI
- WMS solutions **do not capture or quantify** work performed to provide feedback to employees/mgrs

We have to find ways to tap into the illusive discretionary effort that each of our employees have to offer

The Fantastic Four:

Type Company – Manufacturing, Packaging

Goal – Increase through-put in packaging area

Approach:

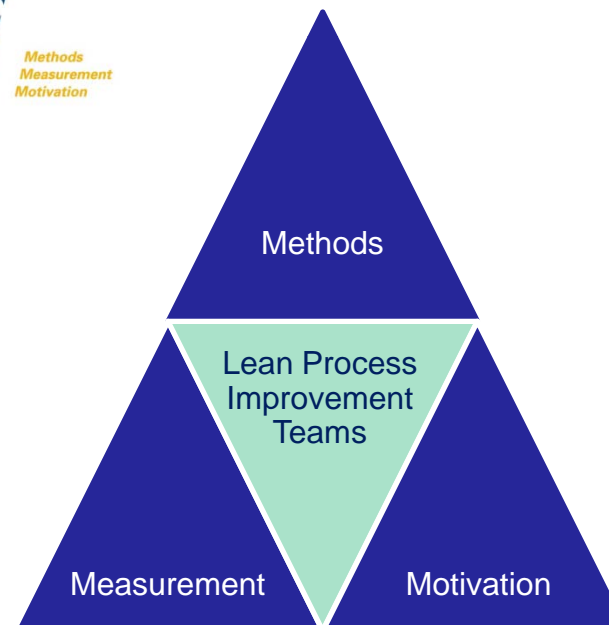
- Set group rate incentive based on engineered standards
- Group consisted on four employees
- Output was monitored for quality

Results:

Through-put was increased by 30%, the employees were paid a direct pay incentive, the employees took great pride in their skill and effort

Labor Performance Management Consist of Three Areas:

- Methods
- Measurement
- Motivation





Lean Process Improvement

enabling logistics excellence

Lean Process Improvement Teams:

- To increase participation and buy-in
- To encourage trust, open communications and a spirit of respect and cooperation
- To reduce costs and improve productivity
- To capture discretionary effort

Improvement Team Focus:

- Aggressive questioning of all business practices
- The elimination of all non-value added activities (waste, variability, constraints)
- Destroy all barriers that prohibit the pursuit of total customer satisfaction (internal and external customers)

Improvement Team Characteristics:

- A team consisting of six to ten members (cross-functional team)
- The team exist to develop better and more effective methods of servicing the customers, improving operations and improving teamwork

Self Managed VS Self Directed

- The Management Team must provide the direction for the teams
- Project Charters must be developed to provide the structure to the process
- The team should manage within the structure of the charter process

This Is The Key to Teaming For Excellence

Methods & Measurement

Improvements in Productivity Are Based Upon:

- **Best Practices** - The optimal material flow strategy and equipment to meet customer demand.
- **Preferred Methods** – The optimal way to perform an individual task.
- **Standards** - Develop the engineering standards for each of the work methods.

Poor methods or processes should not be optimized

Why Develop Engineered Standards?

- Goals or metrics based on historical benchmarks fail to accurately report the ***operations effectiveness in relation to it's capabilities.***
- Discrete engineering standards take into account the unique characteristics of each individual task.
- Discrete based standards are more accurate and are required for incentive pay calculations.

Standards Must Be Maintained

How Should the Standards be Developed and Measured?

- **Manual:** Define the elements of the operations (receiving, picking, putaway and shipping) and perform time-studies or MOST analysis (MOST – Maynard Operational Sequence Technique).
- **Automated:** Utilize a tool with preloaded values for operational elements to expedite the process.

The ongoing measure would involve the use of a database interfaced with the LMS

What Automated Tools Are Available for Standard Development?

- **Red Prairie** – Workforce Modeling, Allows data to be selectively transferred from model to production. The ModelRight system is a front end to the labor management system.
- **Maynard** – StandardsPro, Has a data base of the 200+ most common DC activities. The base standards may be modified. Uses a flat file transfer to the labor management system.
- **Data Base Tools** – Combines the use of pre-determined time systems, time and motion studies, and work sampling to evaluate and measure labor activities

What Should be Viewed and Measured?

- Record all activities while an employee is on the clock
- Monitor performance levels in real time
- Provide visibility to performance standards
- View workload across functional areas and zones
- Measure actual productivity against expected performance
- Calculate pay-for-performance data
- Provide reports on productivity based on supervisor, employee, warehouse or team performance

Advanced features

- User configurable
- Intuitive searches
- Dynamic sorting & grouping
- Context sensitive
- Integrated graphics
- Concurrent user sessions
- Visual production indicator



DigitalLogistix - LM

File View Tools Applications Actions Help

★ Favorites + Locate

Daily Operations >

Assignment Operations

Assignment #	Plan Date	Reference ID	KVI 08	Goal Time	AI
ISTART20790	10/1/2004		0	000:00:00	SC
001655562	10/1/2004	191267GG5	50	001:14:58	SC
ISTART21039	10/1/2004		0	000:00:00	SC
0016550122	10/1/2004	4112	500	001:38:06	SC
0016569438	10/4/2004	697109	741	001:38:56	SC
ISTOP21099	10/1/2004		0	000:00:00	IN

Record 1 of 61

Insert Unm... End Shift... Assign User... Unassign User Cha

Assignment #: ISTART20790 Indicator: P

General Adjustments Summary Discrete Details

Job Code ID: ISTART

Work Category: INDIRECT

Reference ID:

Client ID:

Customer No:

Route #:

Machine ID:

Aisle Area ID: SO15

Team Type:

User Defined 1:

Open Applications (11)

- Receive Truck Operations
- Shipment Allocation Operations
- Wave Operations
- Location Map Display
- Inventory Location Display
- Work Queue System Operations
- Work Order Allocation Operations
- Cycle Count Operations
- Location Usage Display
- Carrier Matrix
- Assignment Operations

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Performance by individual, team and shift.

EMPLOYEE_N Day	USER_ID				PERF_%	UTIL_%	
George, Micheal	Mgeorge				99	96	
Gold, Kim	Kgold				95	94	
Griffin, Brian	Bgriffin				90	94	
Hardy, Greg	Ghardy					94	
Huff, Bill	Bhuff				73	79	
Ingram, Lois	Lingram					87	
Miller, Sherry	Smuller	1,720	1,810	112	90.00	89	
Nitter, Marcus	Mnitter	1,688	1,720	77	45.00	94	
Stump, Kevin	Kstump	1,802	1,701	155	35.00	97	
		16,478.00	16,510.00	1,229.00	405.00	92.33	90.78
Night							
Allen, Scott	Sallen	1,645	1,666	250	60.00	86	
Britten, Kelly	Kbritten	1,740	1,688	125	70.00	96	
Cough, Sam	Scough	1,555	1,666	35	15.00	91	
Dover, Rachel	Rdover	1,535	1,500	97	30.00	96	
Fowler, Pat	Pfowler	1,444	1,688	67	35.00	82	
Good, Ben	Bgood	1,799	1,810	46	15.00	97	
Hurt, Peta	Phurt	1,886	1,802	30	10.00	103	
Jump, Harold	Hjump	1,745	1,695	75	35.00	99	
Mason, Duke	Dmason	1,677	1,733	88	40.00	92	
Tompson, Luke	Ltompson	1,201	1,250	10	90.00	95	
		16,227.00	16,498.00	823.00	400.00	93.70	93.20
Grand Total:		32,705.00	33,008.00	2,052.00	805.00	93.05	92.05



Methods & Measurement



ALL Department/TOTALS Shift Performance from 9/1/2005 to 9/27/2005 (Supply Chain Advantage|Labo - Microsoft Internet Explorer)

File Edit View Favorites Tools Help

Address http://prsvm/AdvantageDemo/53Labor%20Advantage/GenReport.aspx?ID=538ShiftID

Links Advantage Dashboard Event Advantage WA Web Terminal Warehouse Configuration Console YA Gate YA Tractor Transportation Advantage

Labor Advantage - MATT Home Logoff Help

ALL Department/TOTALS Shift Performance from 9/1/2005 to 9/27/2005

Refresh Page: 1 of 1 Show: 20

#	Employee Name	Actual Hrs	Pct Total	Standard Hrs	Pct Perf	Total Units	Units Per Hr
1	MATT MANAGER	0.1	28.4%	0.4	314.1%	6	48.3
2	RON RECEIVER	0.3	71.6%	0.6	188.4%	27	86.4

ALL Department Performance by Activity from 9/1/2005 to 9/27/2005 (Supply Chain Advantage|Labor - Microsoft Internet Explorer)

File Edit View Favorites Tools Help

Address http://prsvm/AdvantageDemo/53Labor%20Advantage/GenReport.aspx?ID=478ToDate

Links Advantage Dashboard Event Advantage WA Web Terminal Warehouse Configuration Console YA Gate YA Tractor Transportation Advantage

Labor Advantage - MATT Home Logoff Help

ALL Department Performance by Activity from 9/1/2005 to 9/27/2005

Refresh Page: 1 of 2 Show: 20

#	Activity Code	Activity	Shift	Actual Hrs	Pct Total	Standard Hrs	Pct Perf	Total Units	Units Per Hr	Measur
1	111	Production Receipt (rcpt)	SHIFT1	47.9	10978.9%	3.9	8.1%	298	6.2	CS
2	111	Production Receipt (rcpt)	SHIFT1	0.7	166.0%	1.2	170.4%	87	120.0	PL
3	112	Production Receipt (put)	SHIFT1	0.0	0.3%	0.0	200.0%	12	8496.0	CS
4	151	Vendor Receipt (rcpt)	SHIFT1	9.4	2152.4%	1.1	11.3%	70	7.4	CS
5	151	Vendor Receipt (rcpt)	SHIFT1	0.0	6.4%	0.3	1068.0%	24	864.0	EA
6	151	Vendor Receipt (rcpt)	SHIFT1	0.7	166.7%	1.3	172.1%	13	17.9	PL
7	152	Vendor Receipt (put)	SHIFT1	0.0	2.4%	0.0	65.8%	27	2595.8	CS
8	152	Vendor Receipt (put)	SHIFT1	0.0	3.8%	0.0	84.7%	10	610.2	PL
9	162	ASN Receipt (put)	SHIFT1	0.6	129.5%	0.5	81.8%	1647	2912.7	CS
10	162	ASN Receipt (put)	SHIFT1	0.7	167.9%	0.0	0.4%	2	2.7	PL
11	171	Returns (rcpt)	SHIFT1	53.8	12309.7%	57.7	107.4%	449	8.4	PL
12	172	Returns (put)	SHIFT1	0.4	87.8%	0.1	29.0%	80	208.7	PL
13	111	Production Receipt (rcpt)	SHIFT2	0.0	0.0%	0.6	N/A	100	N/A	PL
14	151	Vendor Receipt (rcpt)	SHIFT2	0.0	1.6%	0.1	1456.0%	2	268.0	EA
15	151	Vendor Receipt (rcpt)	SHIFT2	0.0	6.4%	0.2	694.0%	2	72.0	PL
16	152	Vendor Receipt (put)	SHIFT2	0.0	0.6%	0.0	55.6%	2	800.0	EA
17	152	Vendor Receipt (put)	SHIFT2	0.1	31.4%	0.0	1.0%	1	7.3	PL
18	162	ASN Receipt (put)	SHIFT2	76.2	17445.5%	0.9	1.1%	3145	41.3	CS
19	162	ASN Receipt (put)	SHIFT2	0.0	8.7%	0.0	14.6%	4	105.1	PL
20	171	Returns (rcpt)	SHIFT2	25.8	5904.1%	34.2	132.7%	266	10.3	PL

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What Level of System is Required?

- Low End Stand-alone System
- High End Integrated System

What is an Integrated Solution?

- Does the software provider offer an integrated supply chain package:
 - WMS
 - TMS
 - LMS

What Companies Offer Integrated Solutions?

- Red Prairie The logo for RedPrairie, consisting of a red square followed by the text "RedPrairie" in a bold, red, sans-serif font.
- HighJump The logo for HighJump, featuring the word "HighJump" in a stylized, black, sans-serif font. Above the "H" is a small red "3M" logo. Below the word is the text "SOFTWARE" and "a 3M Company" in a smaller, blue, sans-serif font.
- Manhattan Associates The logo for Manhattan Associates, featuring a blue graphic of three slanted parallel lines followed by the text "Manhattan Associates." in a blue, sans-serif font.

A horizontal bar with a blue-to-white gradient, containing the word "Motivation" in bold blue text.

Motivation

Types of Incentives

- **Group:** A functional team is rewarded based on agreed upon metrics. The individual metrics may be viewed; however, the team is rewarded based on team performance.
- **Individual:** An individual is rewarded based solely on his/her performance within the team.
- **Combination:** An individual is rewarded based on his/her performance within the team; however, a team metric must be triggered in order for any individual team member to benefit.

How Should the incentives be paid?

- **Continuous Positive Reinforcement:** CPR is anything that makes a team or team member feel good about a behavior they have done (recognition, rewards, freedoms, etc.).
- **Direct Increase in Pay:** If the employee performs at a level greater than the calculated standard for the work, the employee is paid a direct percentage increase (10% increase in productivity = 5% increase in pay).
- **Combination:** An individual is rewarded with CPR as well as a direct increase in pay. An automated system could be utilized that integrates the performance management system with the payroll system (10% increase in productivity = CPR + 2% increase in pay).

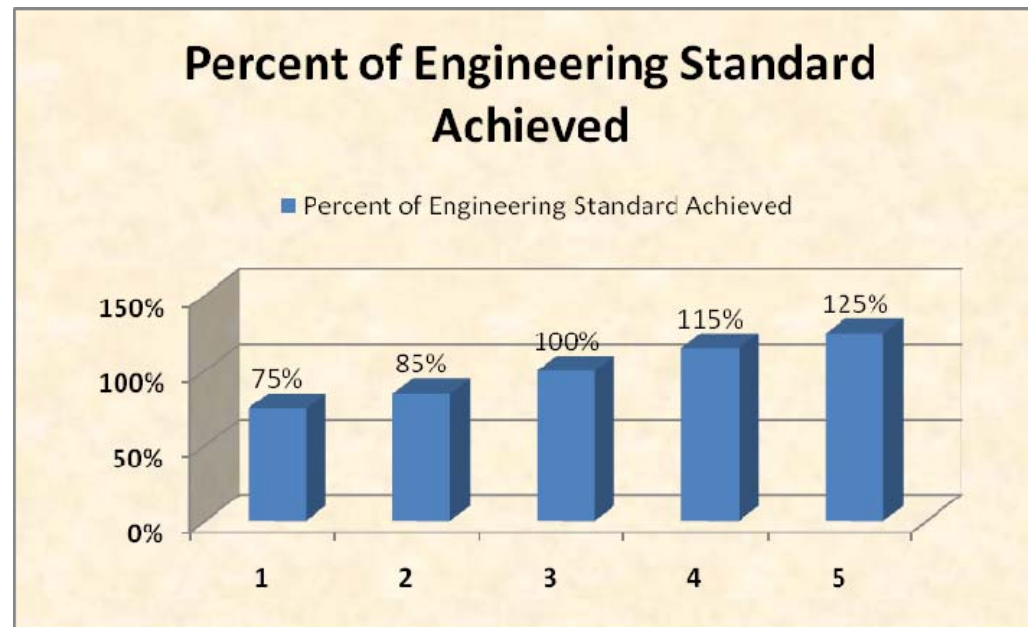
Conclusions

Approach



- Employees have discretionary effort to offer
- Self managed teams can uncover hidden efficiencies
- Employees respond best to continuous positive reinforcement
- Continuous improvement will not be achieved without a measurement system in place
- Employees respond well to team and/or individual incentives

What Should we Expect?

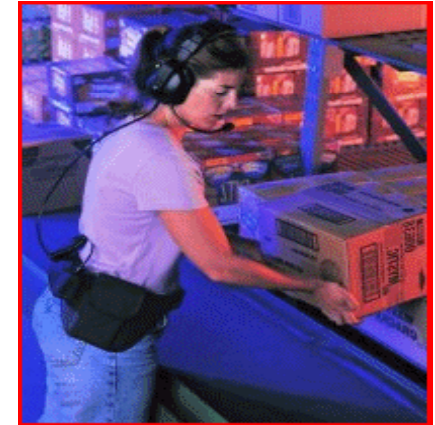
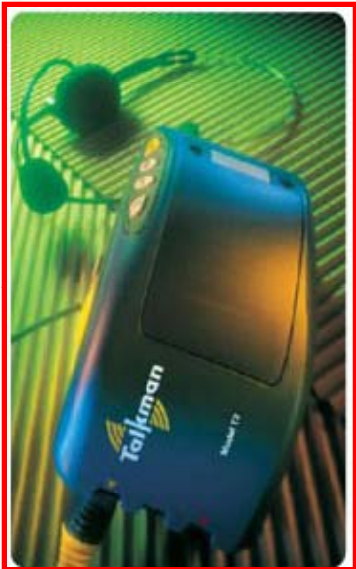


- 1 – No reporting and no measurement
- 2 – Area productivity reporting and historical standards (goals)
- 3 – Individual productivity reporting with historical standards (goals)
- 4 – Individual productivity reporting with engineered standards, systems productivity reporting
- 5 – Incentive compensation (the last 10-15%)

Range of Savings
10% - 50%



Make Something Happen!



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