



Measuring IT

Developing Meaningful Performance Measures



Agenda

- A Time for Change
- Performance Based Budgeting
- Visibility, Control and Optimization
- Establishing a Measurement Program
 - Standard Process
 - Managing with Metrics
 - Automation
- Closing Thoughts
- Wrap-up

About Computer Aid, Inc. (CAI)

- CAI is a global IT outsourcing firm currently managing active engagements with over 100 Fortune 1,000 companies and government agencies around the world.
 - Best Practices leader for application support and development.
 - Focuses on practical implementations that track and measure software activities.
 - Consistently delivers double digit productivity in its outsourcing engagements.
- CAI makes all of this possible through the use of:
 - Standard processes
 - Management by metrics
 - SLA compliance management
 - Detailed cost, resource, and time tracking
 - Standard estimation
 - A unique, metrics based methodology
 - Proprietary, real time data repository and management system (TRACER®).

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Measuring IT

A Time for Change



A Time for Change

Growing Budget Pressure

Aging Work Force

Need to Complete Major Projects

New CIO

IT Skills Imbalances

Performance Based Budgeting

New Administration

“Permanent” Contractor Staff

Dissatisfied Clients

Transparency of Government

Application Backlogs

Close the Digital Divide

Excessive Contracting

Civil Service Structure

Measuring IT

Performance Based Budgeting

- Definition
- Cascade Performance Budgeting
- Need for Measurement

Performance Based Budgeting (PBB)

- Ties Budgets to Strategic Goals through the Activities that Implement the Objectives within the Strategy
- John Mercer (Cascade™) “Father of Government Performance and Results Act (GPRA)”

Performance Based Budgeting (PBB) ...is coming to New York State

Governor Spitzer's 2007 Executive Budget:

New York State Education Department

Supported a move to a **budgetary formula based on performance** of students and schools.

Transportation Department

Recommended implementing **industry-wide performance measures** for allocating budgets and distributing state operating assistance based on performance measures

The Office of Children and Family Services

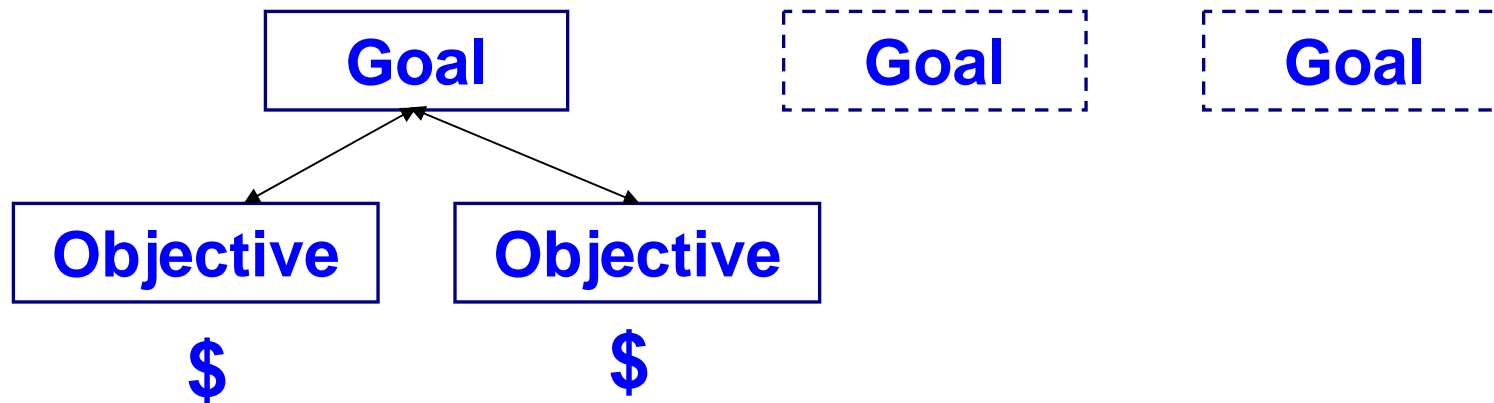
Required local social services organizations to develop **contracts that are performance-based** to reduce the number of foster care placements and length of stays.

Economic Development:

Restructured the Aid For Distressed Municipalities (AIM) program to target \$50M in annual **performance based increases** to distressed municipalities.

Performance Based Budgeting

- “PBB sets a goal, or a set of goals, to which monies are “connected”. From these goals, specific objectives are delineated and funds are then subdivided among them.”



K. Carter, The Performance Budget Revisited: A Report on State Budget Reform - Legislative Finance, Paper #91,

Performance Based Budgeting

- “PBB sets a goal, or a set of goals, to which monies are “connected”. From these goals, specific objectives are delineated and funds are then subdivided among them.”
- Newer Way of Budgeting....
 - “... A way to allocate resources to **achieve specific objectives** based on program goals and measured results.”
 - The entire planning and budgeting framework is **result oriented**.
 - **Objectives and activities to achieve these objectives** form the foundation of the overall process.

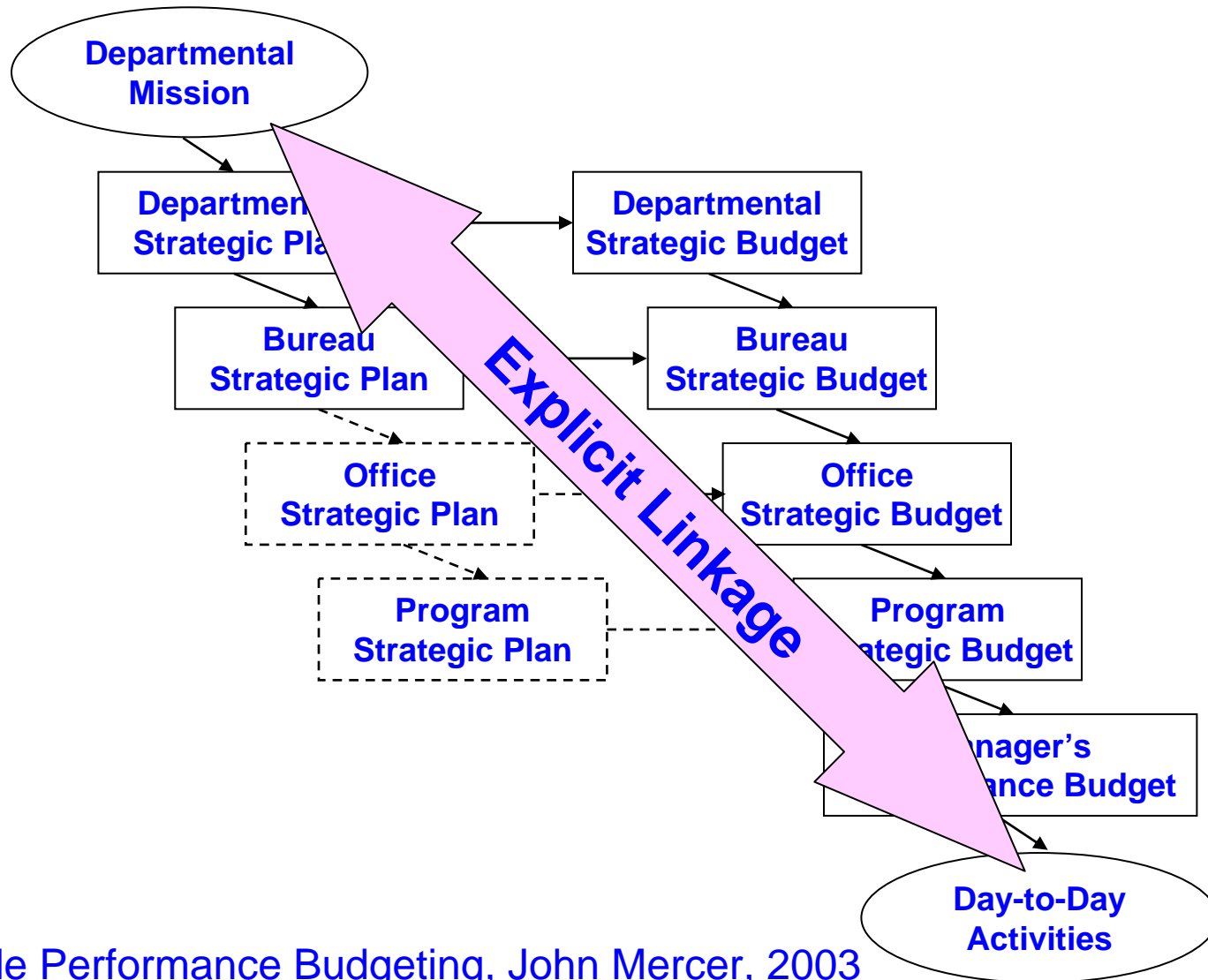
K. Carter, The Performance Budget Revisited: A Report on State Budget Reform - Legislative Finance, Paper #91,

Cascade™ Performance Budgeting

- “A systematic approach for developing effective performance budgets at government agencies.”
- “It ... instills real performance-related *transparency* into the budget by:
 - 1) clearly linking **day-to-day activities** with the **long-term goals** of the agency, and
 - 2) Identifying the **full cost** and the **unit cost** of the activities, as well as the costs associated with achieving the various goals, objectives and the other performance measures that follow the activities.”
- Integrates Budget and Performance Information
- Transforms Funding to **Task Related** (outputs) from **Resource Related** (inputs)

Cascade Performance Budgeting, John Mercer, 2003

Performance Based Budgeting Definition



Cascade Performance Budgeting, John Mercer, 2003

The Basic PBB Hierarchy

Mission

Strategies Plan Goals

Strategic Objectives

Strategic Performance Goals

Annual Performance Goals

Performance Indicators

Performance Measures

Activities

\$\$\$

Cascade™ Performance Budgeting

- **Strategic Goal 4.-** Provide software application systems required to meet the Department's missions efficiently and effectively.
 - **Strategic Objective 4.1** – Assure the compliance of production application software in a timely and efficient manner.
 - **Strategic Performance Goal 4.1.3** – Reduce Software System support costs by 30 % by FY 2012
 - **FY 2008 Annual Performance Goal 4.1.3.1** – Reduce Software support costs by 8 % from FY 2007 baseline.
 - » **Performance Indicator 4.1.3.1-PI.a** – First Call closure rate
 - » **Performance Indicator 4.1.3.1-PI.b** – Percent of Incident Repair Implementation Failures
 - » **Performance Indicator 4.1.3.1-PI.c** – Work Request Rework Percentage

Cascade™ Performance Budgeting

- **Performance Indicator 4.1.3.1-PI.a** – First Call closure rate improvement of 10%
- **Performance Indicator 4.1.3.1-PI.b** – Reduce Percent of Incident Repair Implementation Failures by 25%
- **Performance Indicator 4.1.3.1-PI.c** – Reduce Work Request Rework Rate by 30%
 - ◆ **Program Measure 4.1.3.1-PM.a** – Support Calls Count
 - ◆ **Program Measure 4.1.3.1-PM.b** – First Call Closures
 - ◆ **Program Measure 4.1.3.1-PM.d** – Incident Count By Application By Month
 - ◆ **Program Measure 4.1.3.1-PM.d** – Reduce Implementation Failures by 25%
 - ◆ **Program Measure 4.1.3.1-PM.c** – Reduce Work Request Rework Rate by 30%

Activities:

- Resolve 48 Incidents
- Handle 150 Support Calls
- Complete 108 Work Requests

Cascade Performance Budgeting, John Mercer, 2003

Performance Based Budgeting

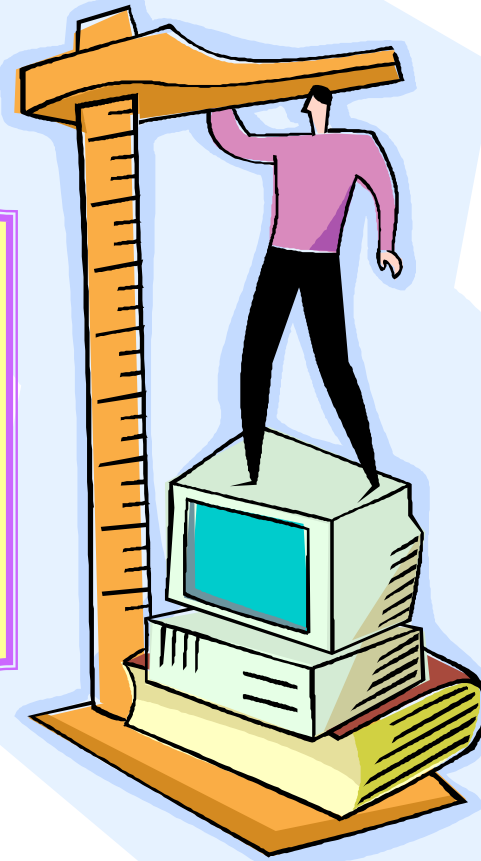
- Performance budgeting comprises three elements:
How well do you understand? ...

- **the result** (final outcome)
- **the strategy** (different ways to achieve the final outcome)
- **activity/outputs** (what is actually done to achieving the final outcome)

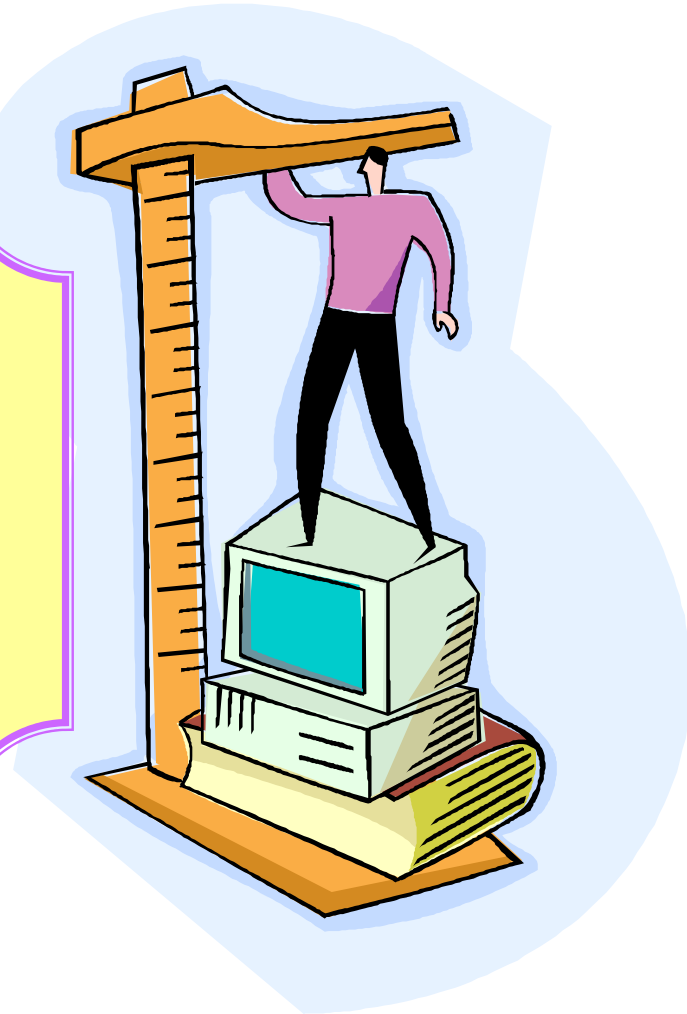
- A connection exists between the rationales for specific activities and the end results.
- Makes evident **which activities are cost-effective** in terms of achieving the desired result.
- A way to allocate resources for achieving certain objectives.

K. Carter, The Performance Budget Revisited: A Report on State Budget Reform - Legislative Finance, Paper #91,

**If You Can't
Measure It,
You Can't
Manage It**



**If You Can't
Measure IT,
You Can't
Manage IT**



A few Questions to Ponder

- What is Your Average New Development Cost per Web Page?
- Which are the Most Error Prone Modules in your Application Portfolio?
- What is your Applications Support Cost Trend By Application/User/Technology?
- What is Your Average Cost per Support Call by Team?
- What percent of Developer Time goes to Black Market and Low Priority Activities?



**IN GOD
WE TRUST ...
All Others Bring
DATA**

Dr. W. Edwards Deming 1900-1993, American Statistician

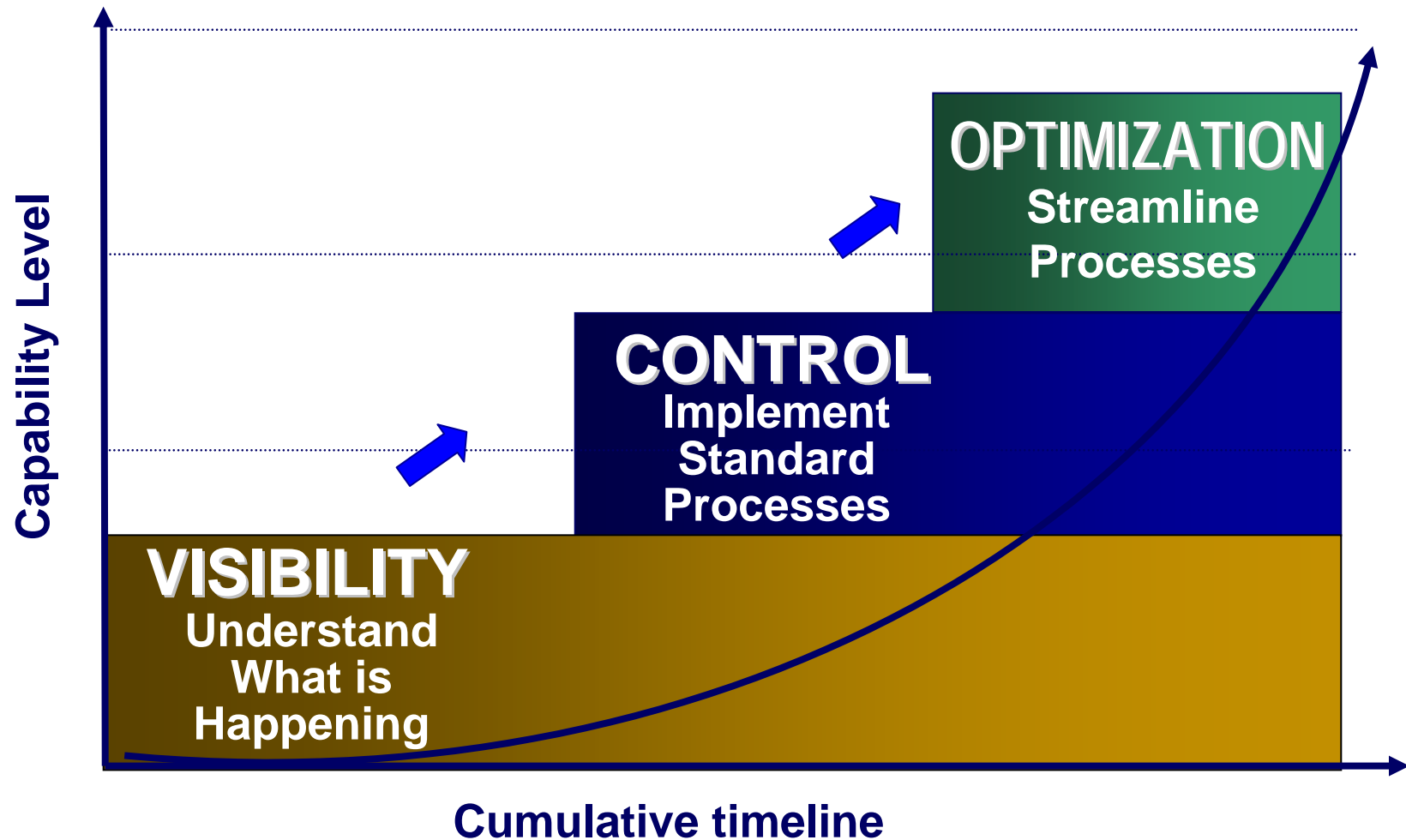


Measuring IT

Visibility, Control and Optimization



Three-Phase Implementation Model

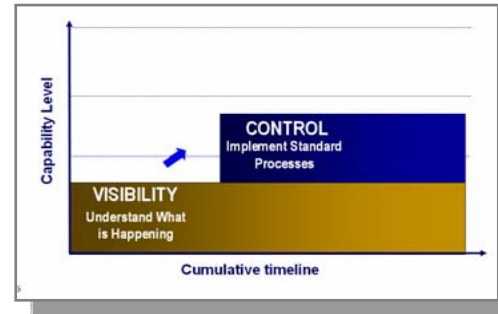


Visibility



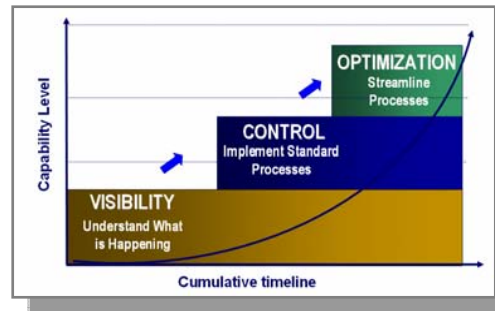
- Gain Insight into People, Processes and Productivity
- Capture Performance Metrics; Baseline, Operational and Systemic
 - Unit Costs
 - Activity Costs
 - Productivity Levels
 - Customer Satisfaction Levels
- “Shine a Light” on What is Being Done By Whom and How

Control



- Ensure That Performance Meets Customer Expectations (and React Quickly and Effectively To Variation)
- Implement Standard Processes
- Produce Meaningful Process and Product Management Metrics
- Ensure the Effectiveness of Management Controls
 - Planning and Estimating
 - Track Actuals versus Estimates
- Provide a Stable Platform for Process Improvement Experiments and Improvement Deployment

Optimization



- Enable Experimentation and Continuous Improvement
- Identify Efficiency Improvement Opportunities
 - Do Things Better
- Identify Effectiveness Improvement Opportunities
 - Do More of the Right Things/Less of the Wrong



Transforming IT Management

Standard Processes



Agenda

- **What Is Software Process?**
- **Why Is Standard Process Important?**

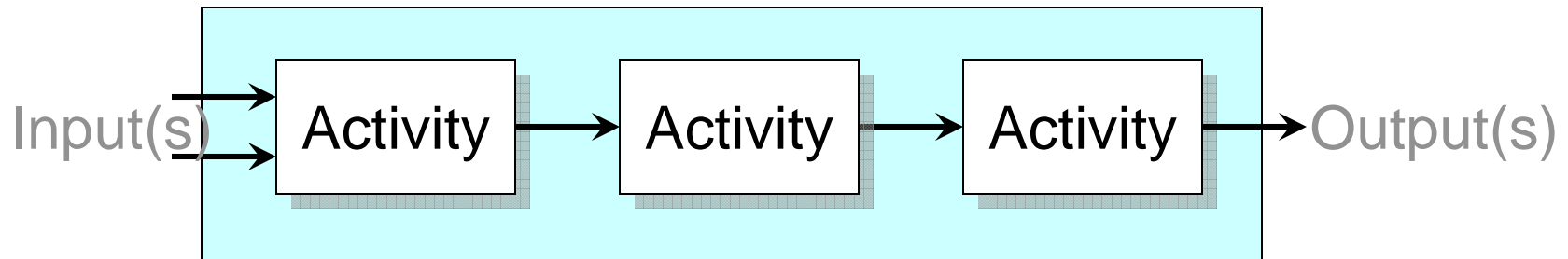
What Is Software Process?

Software Process –

- a set of
 - activities,
 - methods,
 - practices and
 - transformations
- that people employ to Develop and Maintain Software and associated products.

- Mark Paulk, et al., The Capability Maturity Model, SEI

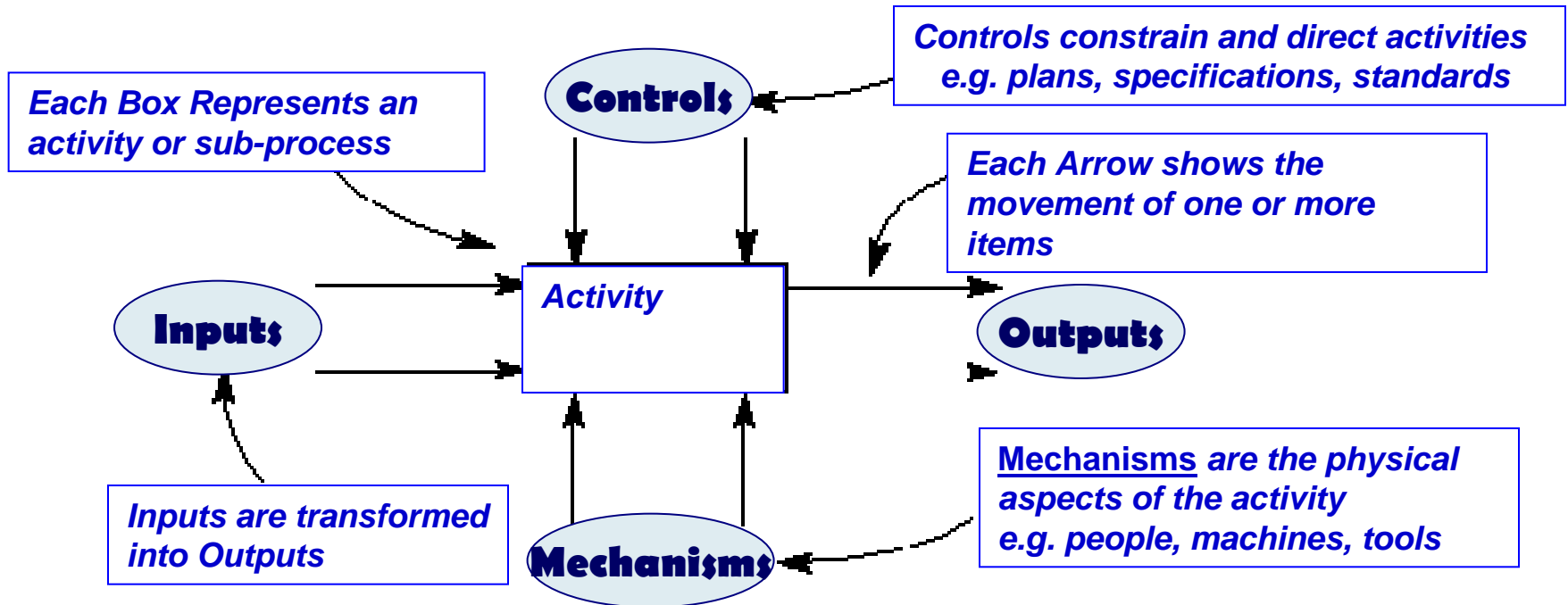
What Is “Process”?



- Series of Related Activities
- Usually Produces one or more Deliverable (output)
- Well Defined Entrance and Exit Criteria

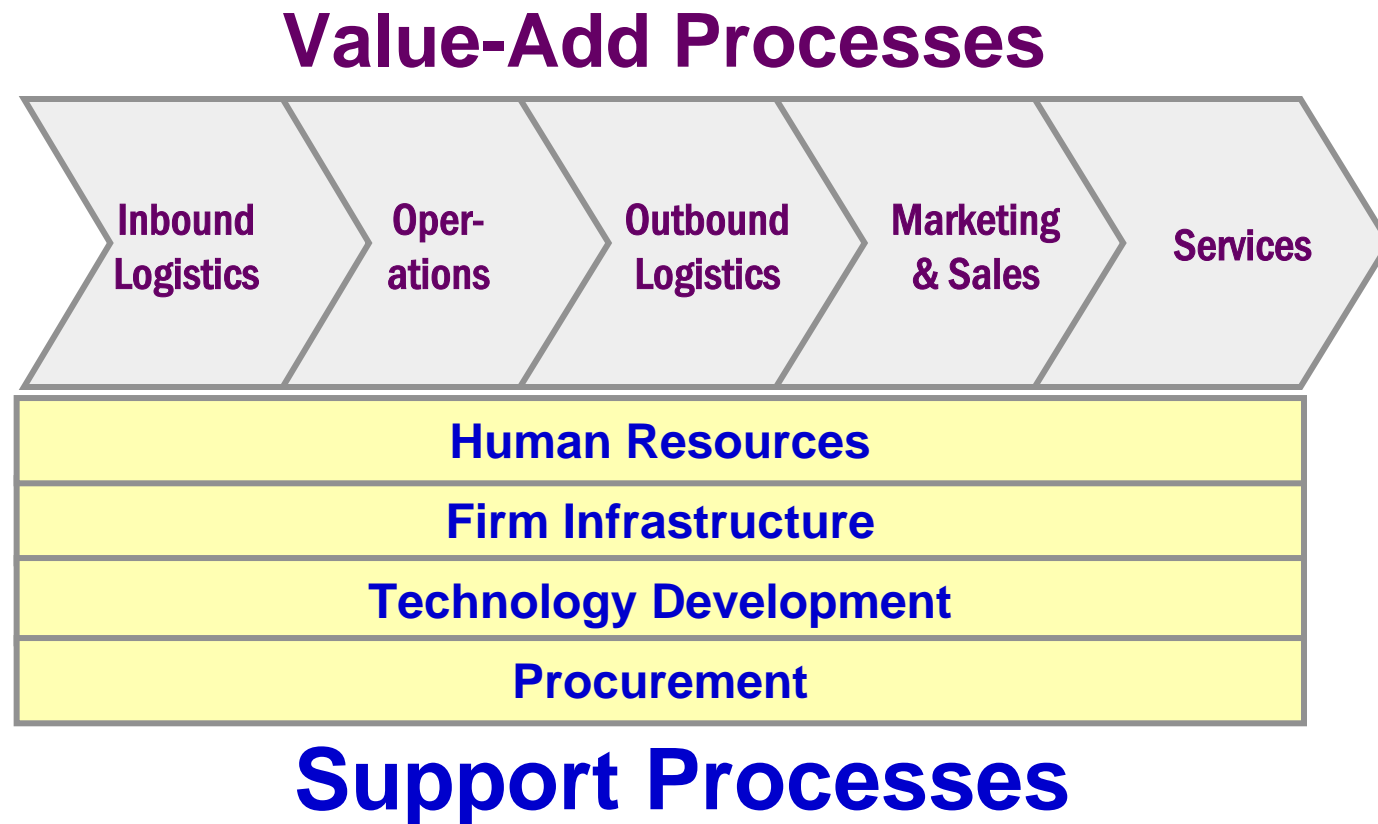
What Is “Process”?

Input-Control-Output-Mechanism (ICOM) Diagram



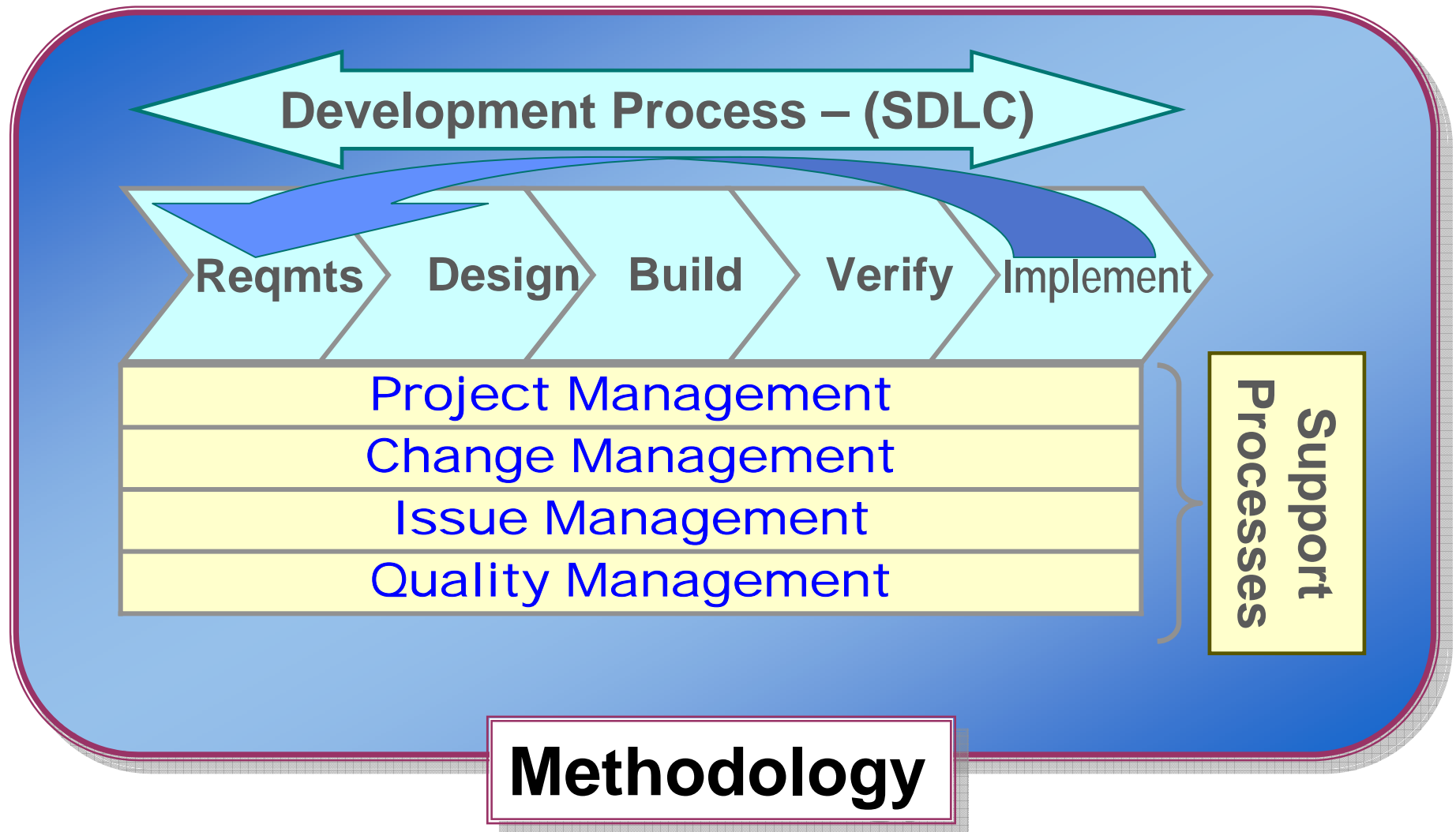
National Institute of Standards and Technology (NIST)
 released IDEFØ FIPS Publication 183, December 1993

The Value Chain

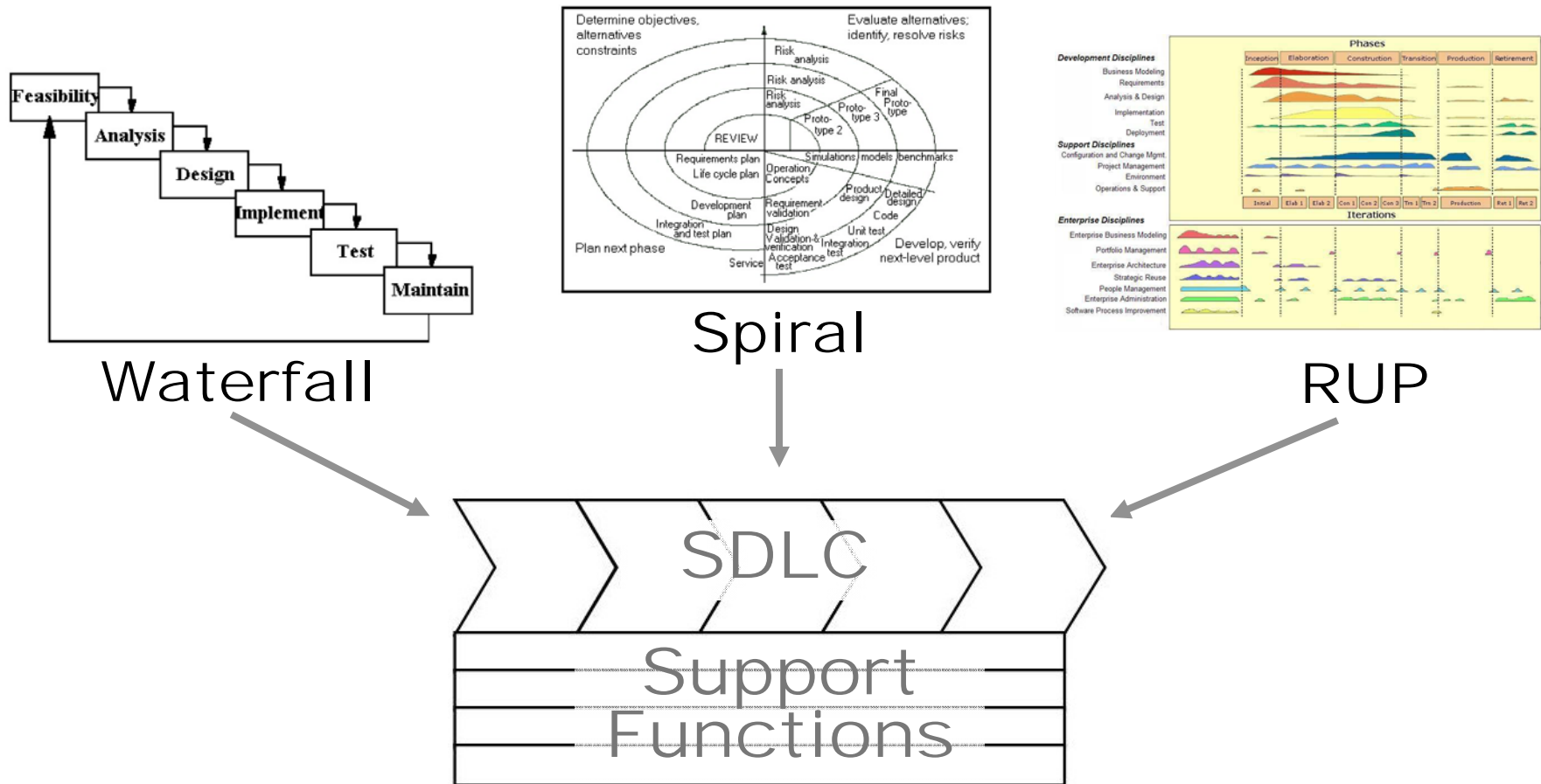


Source: Michael Porter, Harvard Business School, 1980

Software Process Value Chain



Specific Value Chain Processes Depend on Situation



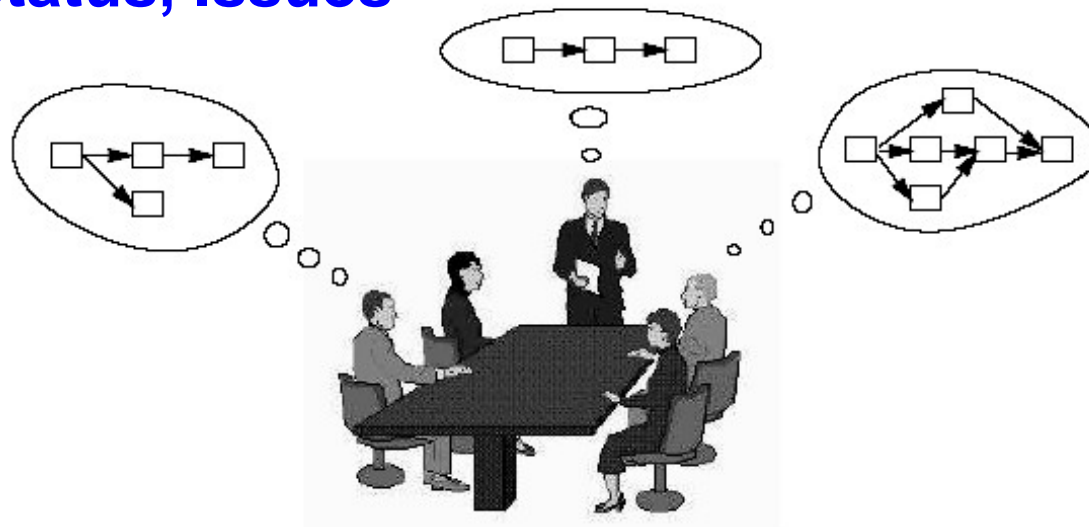
Agenda

- What Is Software Process?
- **Why Is Standard Process Important?**

Why Is Standard Process Important?

Enables ...

- **Realization of Methodology Benefits**
 - **Repeatable (Consistent, Reliable, Predictable) Execution**
 - **Common Language to Communicate Activity, Status, Issues**



Why Is Standard Process Important?

Enables ...

- Realization of Methodology Benefits
- **Quality Plans and Improvement Strategies**
 - Discrete Units of Work for Performance Specification and Impact Assessment
 - Defined Quality Control Activities that Implement Quality Assurance Strategy
 - Meaningful Process Metrics

Why Is Standard Process Important?

Enables ...

- Realization of Methodology Benefits
- Quality Plans and Improvement Strategies
- **Tool Usage Benefit Maximization**
 - Deployment of Tool Across Organization
 - Feedback/Tuning Experience

Why Is Standard Process Important?

Enables ...

- Realization of Methodology Benefits
- Quality Plans and Improvement Strategies
- Tool Usage Benefit Maximization
- **Successful Partnering**
 - Common Language
 - Clear Interaction Process
 - Across intra- or inter-agency boundaries



Transforming IT Management Managing With Metrics



Why Metrics Are Important

- Define and Track Progress Business Goals
- View Support Costs by Application and by Attributes
- Enable Budgeting and Capacity Planning
- Conduct Periodic Customer Reviews
 - Based on Facts

Stamp out Anecdotal Management

What to Capture

Rework

- Experimentation & Prototyping are Not Rework
- Inspect Every Deliverable Before Declaring it Complete
- Get Right the First Time!

**Nothing Will Provide
A More Significant
Improvement in Productivity
Than Improved Quality**



Transforming IT Management Automation

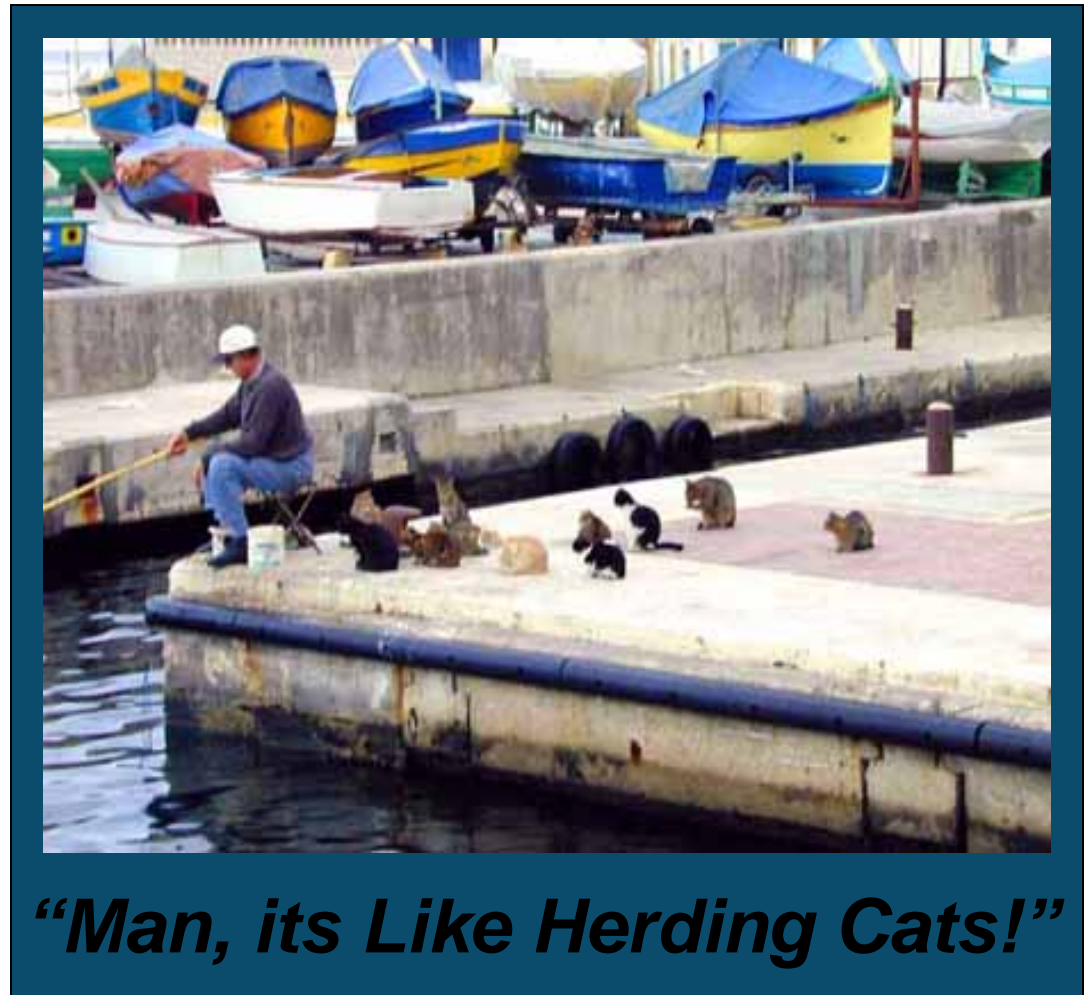


Very Little New News Here

- There is general agreement among practitioners that Standard Process and Managing with Metrics need to occur, but they haven't.
- Why?
 - Hard to Get Started
 - Hard to Achieve Consistency
 - Hard to Avoid Entropy
 - Hard to Institutionalize
- We need help to ease the effort –
- The Answer - Automation

How to Get People to Follow Standard Processes

- Threaten Them
- Incent Them
 - Make Job Easier Through Automation





Transforming IT Management Where to Start



Where to Start?

Value Adding Services

- Application Development
- Application Support & Maintenance
- Infrastructure Services & Help Desk

Enabling Processes

- Knowledge Acquisition
- Resource Acquisition

Why Focus on Maintenance and Support?

- Largest Part of Software Budget -
 - 50-80% of Software Management Budgets
- Most Critical Software Work -
 - 100% of the Software Supporting Business Operations
- Compared to New Development
 - Easier
 - Faster Return on Investment
 - Benefits are Recurring





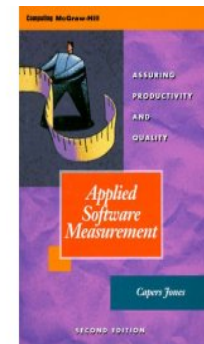
Transforming IT Management Starting with Application Support



What's Possible?

Software maintenance productivity can improve at rates of 10% to 40% PER YEAR

- Capers Jones, Calculating the Value of PI

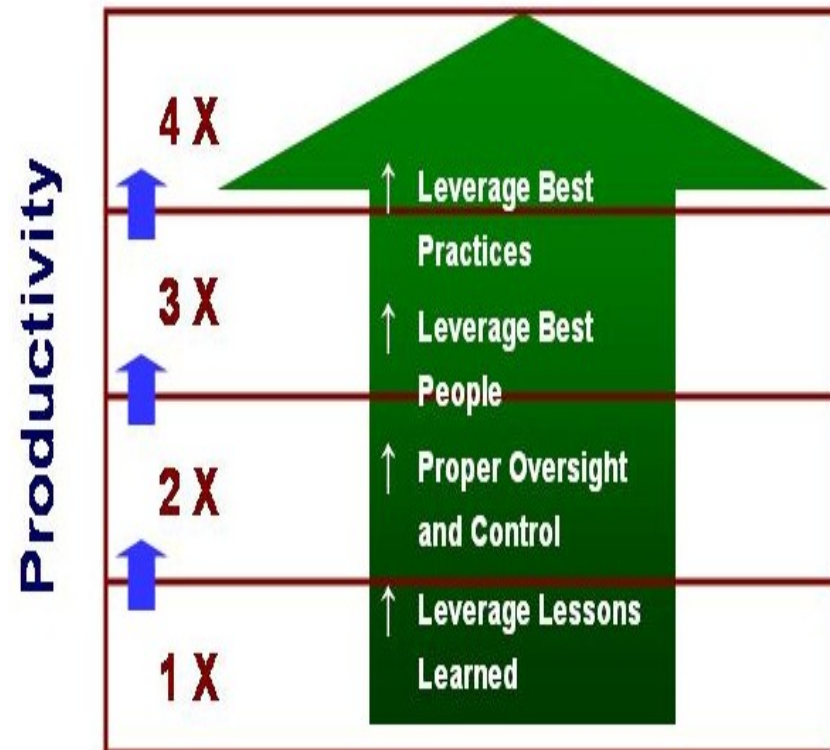


Team Performance Variation

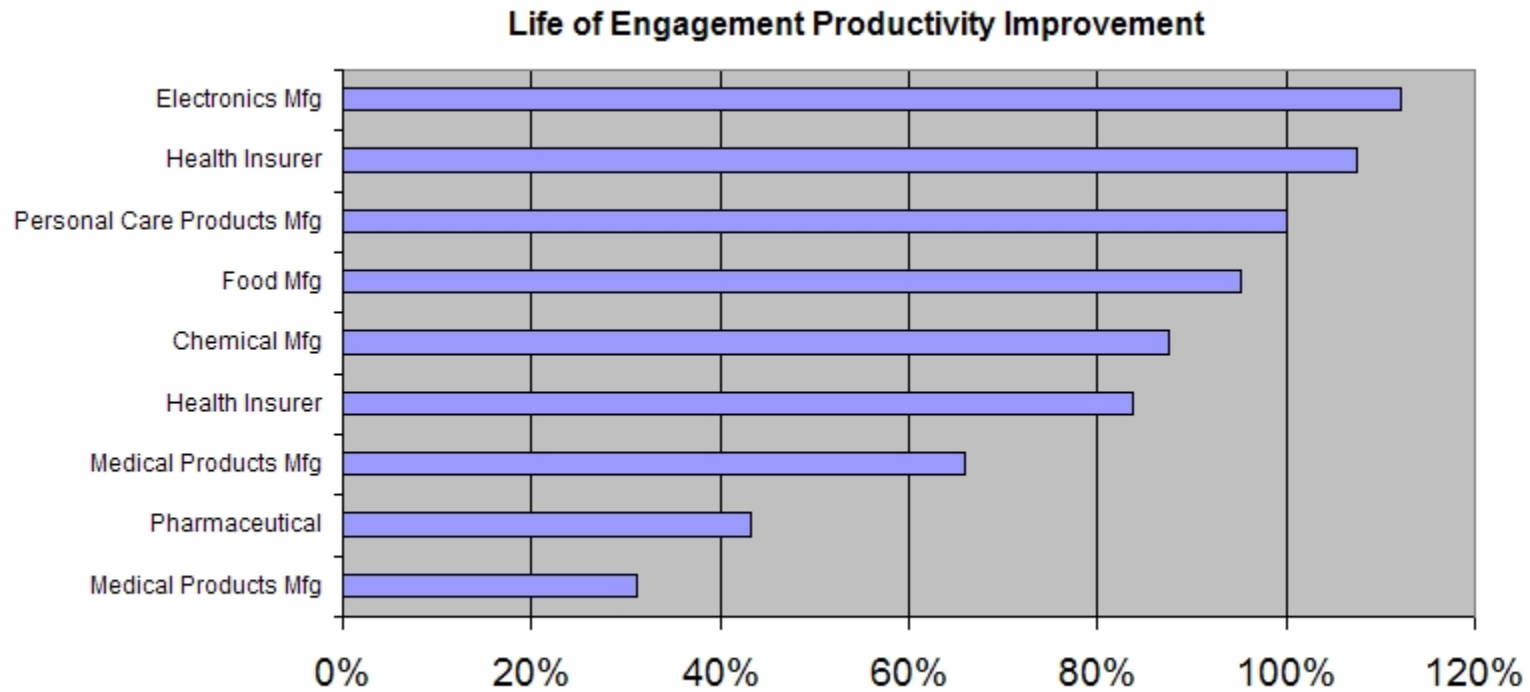
“Productivity of the 90th percentile teams is **four times higher** than that of the 15th percentile teams”

Source: Barry Boehm. *Software Engineering Economics*. Englewood Cliffs, NJ: Prentice Hall

Performance Quartiles



CAI Experience with Productivity Improvement





Transforming IT Management Starting with Application Support Automation



Best Practices in High Performance Organizations

- Standard Process
- Management with Metrics
- Process Automation

Best Practices in High Performance Organizations

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The Maintenance Process

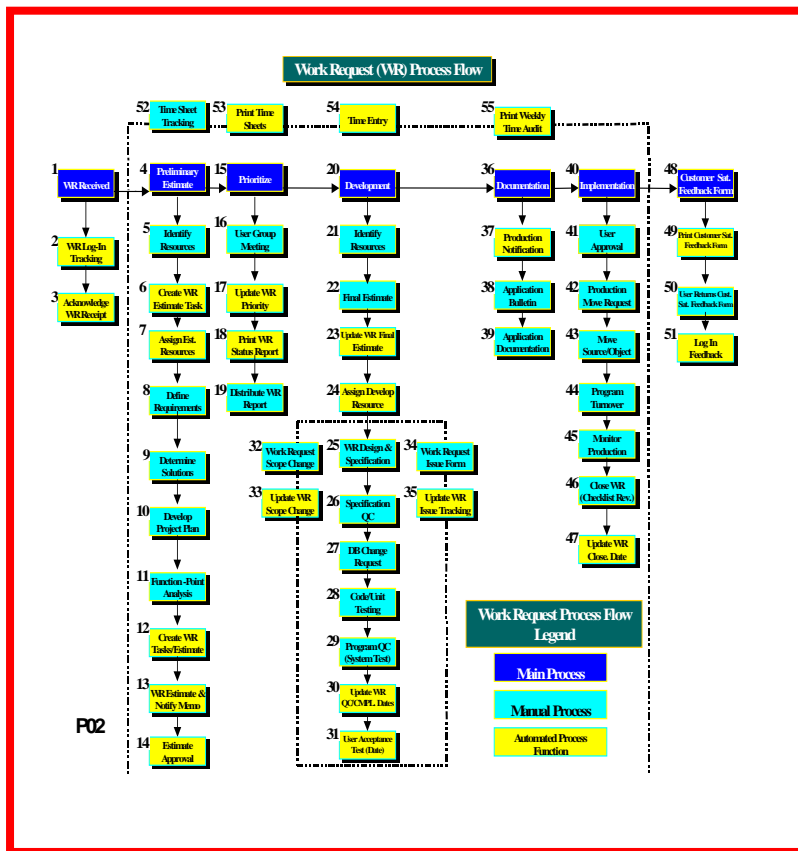
Incident Handling		
Reactive	Corrective	N/A

Call Support		
Reactive	Corrective	Consultative

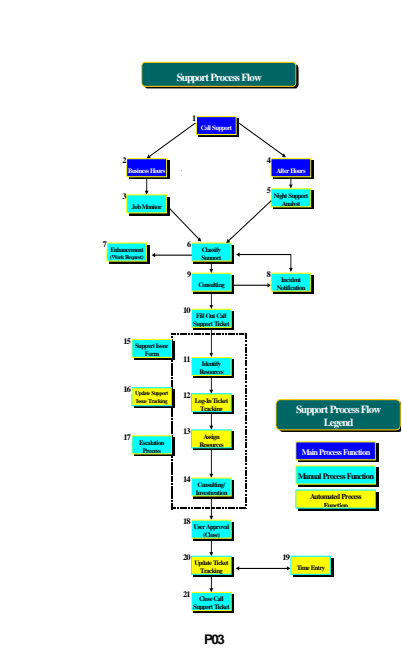
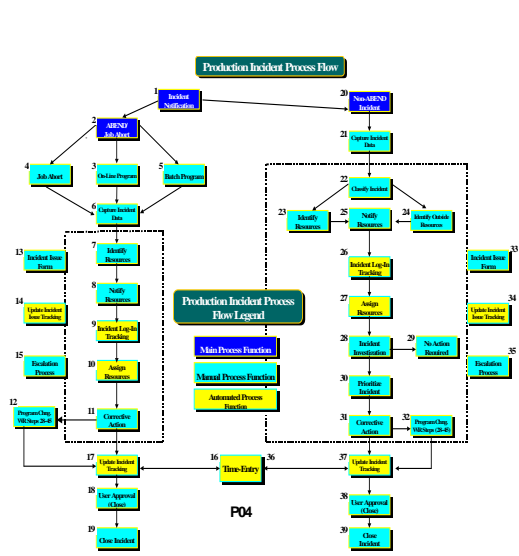
Work Requests		
Reactive	Corrective	Adaptive
Proactive	Preventative	Perfective

ISO 1764, IEEE 1219, ISO/IEC 14764

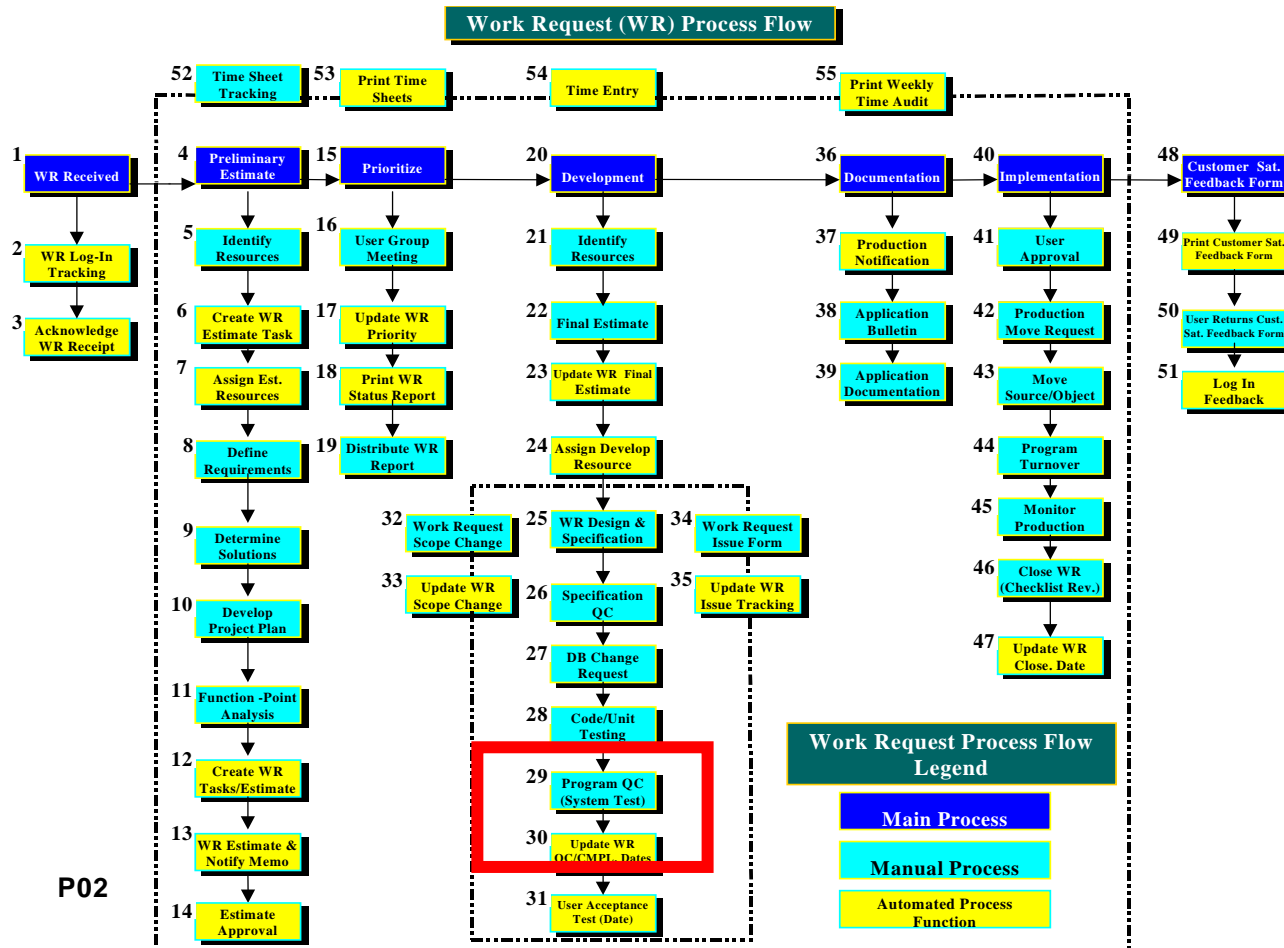
Key Process Areas Mapped



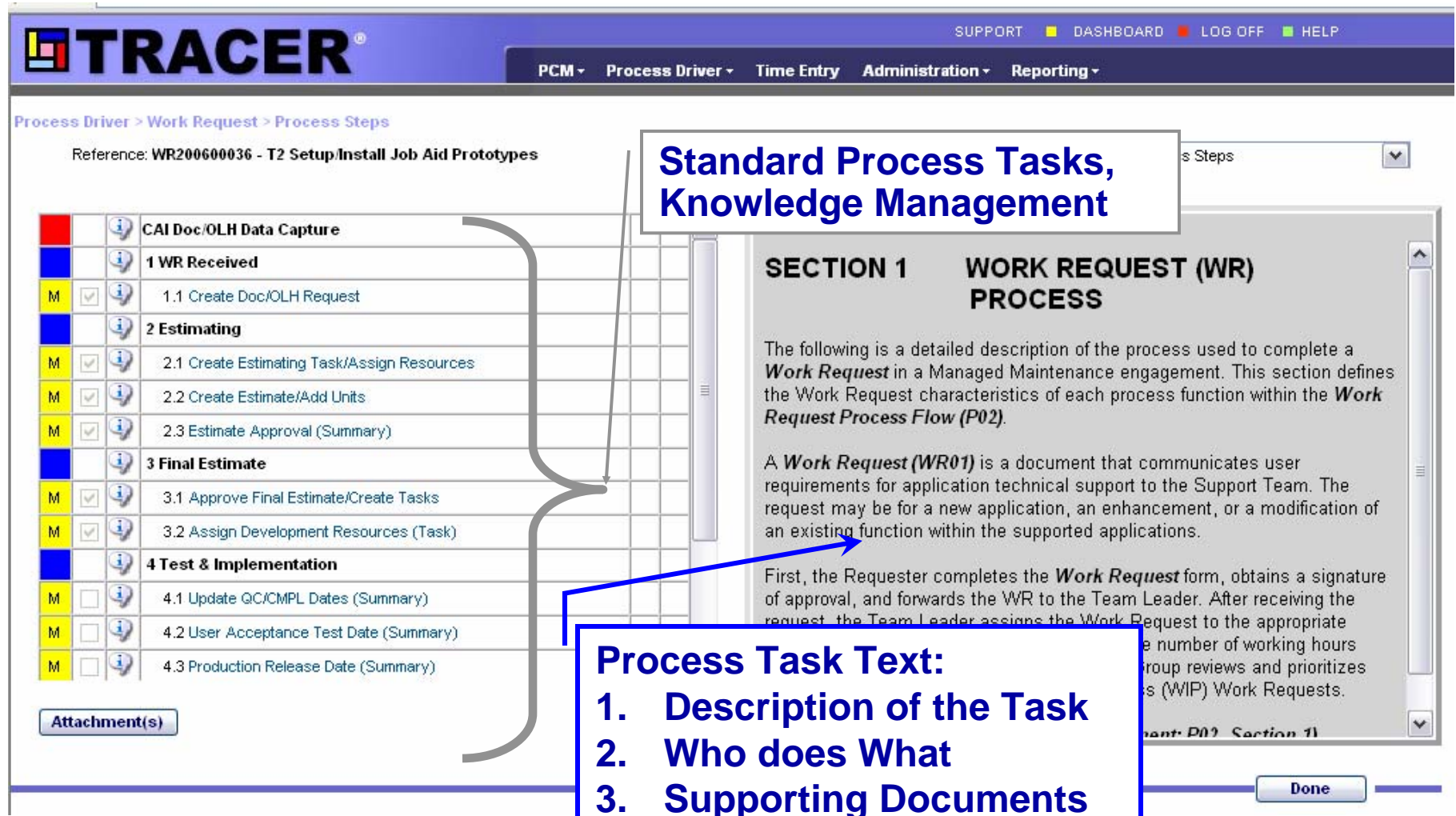
page XX



Work Request Process Mapped



Process Management



TRACER SUPPORT DASHBOARD LOG OFF HELP
 PCM Process Driver Time Entry Administration Reporting

Process Driver > Work Request > Process Steps
 Reference: WR200600036 - T2 Setup/Install Job Aid Prototypes

<input type="checkbox"/>	<input type="checkbox"/>	CAI Doc/OLH Data Capture
<input type="checkbox"/>	<input type="checkbox"/>	1 WR Received
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1 Create Doc/OLH Request
<input type="checkbox"/>	<input type="checkbox"/>	2 Estimating
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2.1 Create Estimating Task/Assign Resources
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2.2 Create Estimate/Add Units
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2.3 Estimate Approval (Summary)
<input type="checkbox"/>	<input type="checkbox"/>	3 Final Estimate
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.1 Approve Final Estimate/Create Tasks
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.2 Assign Development Resources (Task)
<input type="checkbox"/>	<input type="checkbox"/>	4 Test & Implementation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.1 Update QC/CMPL Dates (Summary)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.2 User Acceptance Test Date (Summary)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.3 Production Release Date (Summary)

Attachment(s)

Standard Process Tasks, Knowledge Management

SECTION 1 WORK REQUEST (WR) PROCESS

The following is a detailed description of the process used to complete a *Work Request* in a Managed Maintenance engagement. This section defines the Work Request characteristics of each process function within the *Work Request Process Flow (P02)*.

A *Work Request (WR01)* is a document that communicates user requirements for application technical support to the Support Team. The request may be for a new application, an enhancement, or a modification of an existing function within the supported applications.

First, the Requester completes the *Work Request* form, obtains a signature of approval, and forwards the WR to the Team Leader. After receiving the request, the Team Leader assigns the *Work Request* to the appropriate number of working hours group reviews and prioritizes (WIP) Work Requests.

Process Task Text:

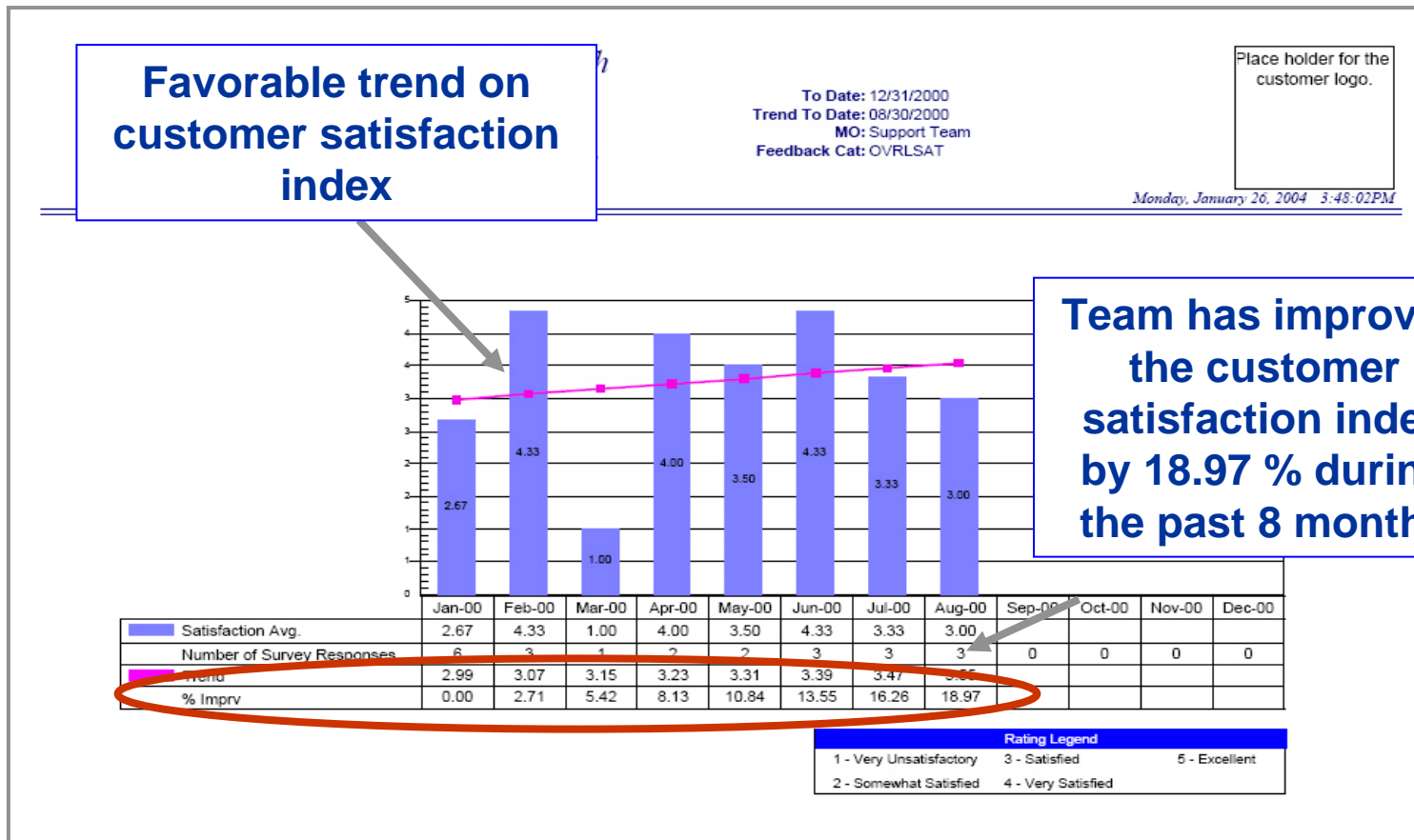
1. Description of the Task
2. Who does What
3. Supporting Documents

Done

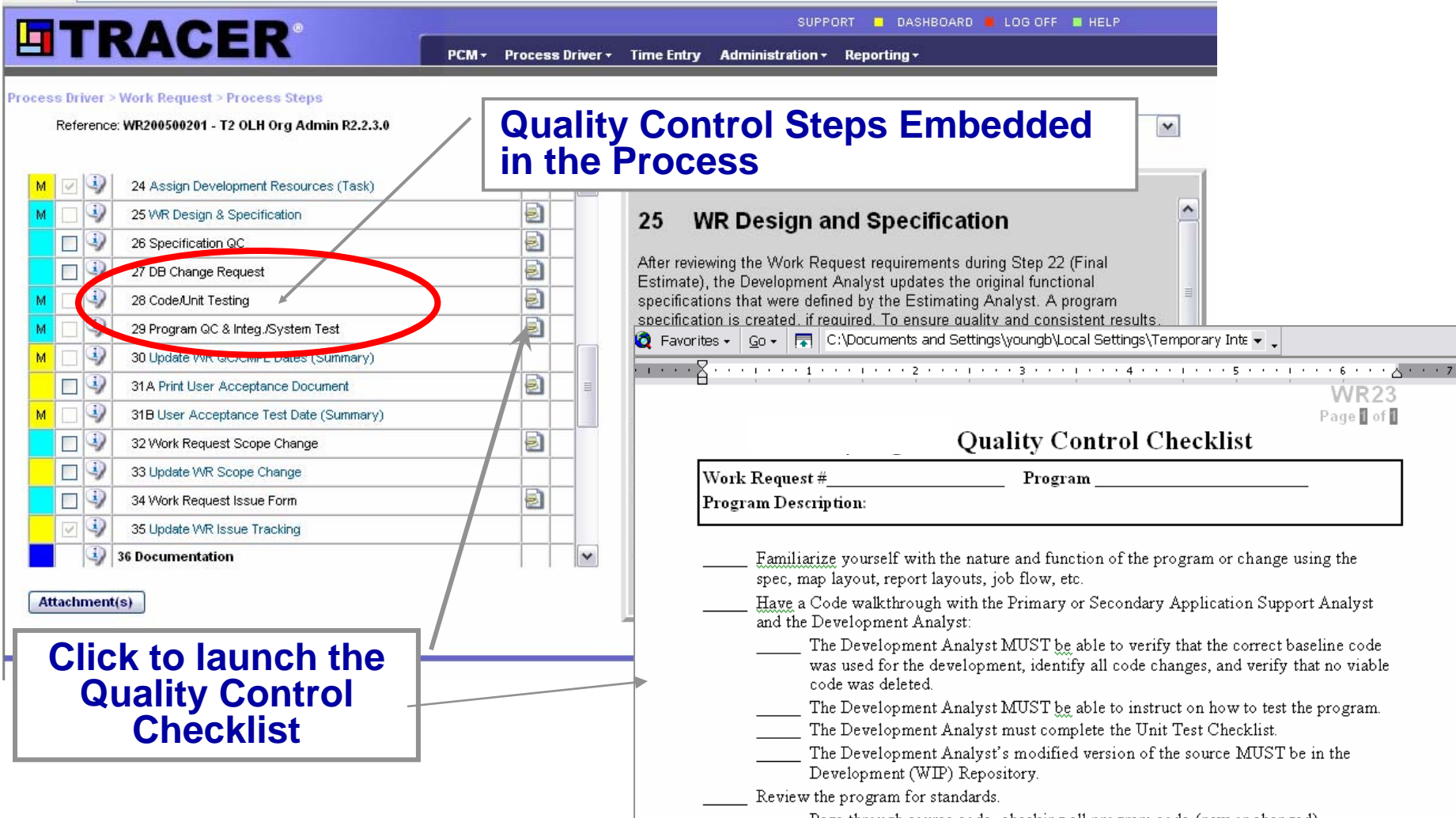
Best Practices in High Performance Organizations

- Standard Process
- Management with Metrics
- Process Automation

Customer Satisfaction Management



Quality Management – Work Unit



TRACER SUPPORT DASHBOARD LOG OFF HELP

PCM Process Driver Time Entry Administration Reporting

Process Driver > Work Request > Process Steps

Reference: WR200500201 - T2 OLH Org Admin R2.2.3.0

Quality Control Steps Embedded in the Process

M	<input checked="" type="checkbox"/>	24 Assign Development Resources (Task)
M	<input type="checkbox"/>	25 WR Design & Specification
M	<input type="checkbox"/>	26 Specification QC
M	<input type="checkbox"/>	27 DB Change Request
M	<input checked="" type="checkbox"/>	28 Code/Unit Testing
M	<input type="checkbox"/>	29 Program QC & Integ./System Test
M	<input type="checkbox"/>	30 Update WR QC/CI/LE Dates (Summary)
M	<input type="checkbox"/>	31A Print User Acceptance Document
M	<input type="checkbox"/>	31B User Acceptance Test Date (Summary)
M	<input type="checkbox"/>	32 Work Request Scope Change
M	<input type="checkbox"/>	33 Update WR Scope Change
M	<input type="checkbox"/>	34 Work Request Issue Form
M	<input checked="" type="checkbox"/>	35 Update WR Issue Tracking
M	<input type="checkbox"/>	36 Documentation

Attachment(s)

Click to launch the Quality Control Checklist

25 WR Design and Specification

After reviewing the Work Request requirements during Step 22 (Final Estimate), the Development Analyst updates the original functional specifications that were defined by the Estimating Analyst. A program specification is created, if required. To ensure quality and consistent results.

WR23 Page 1 of 1

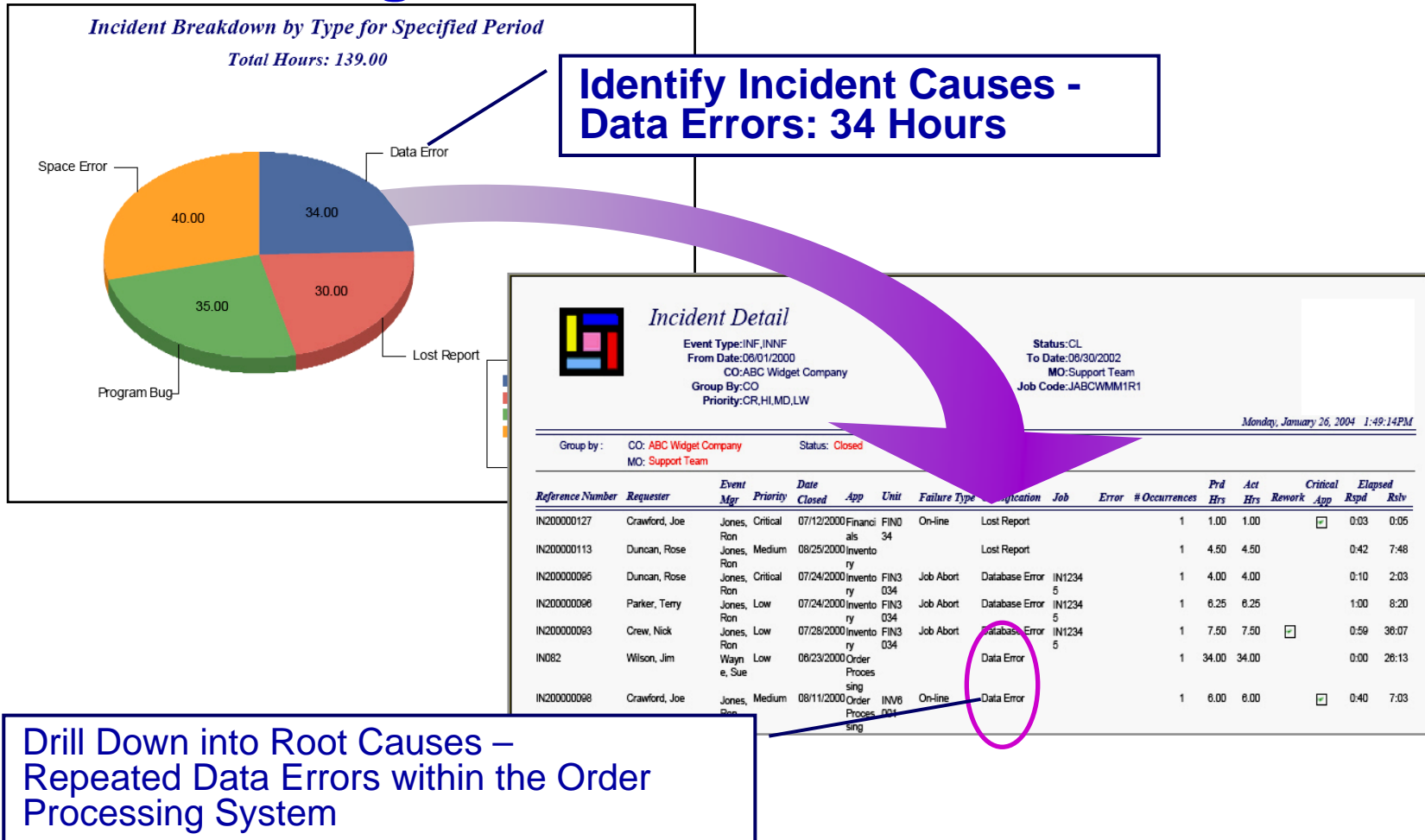
Quality Control Checklist

Work Request # _____ Program _____

Program Description:

- _____ Familiarize yourself with the nature and function of the program or change using the spec, map layout, report layouts, job flow, etc.
- _____ Have a Code walkthrough with the Primary or Secondary Application Support Analyst and the Development Analyst:
 - _____ The Development Analyst MUST be able to verify that the correct baseline code was used for the development, identify all code changes, and verify that no viable code was deleted.
 - _____ The Development Analyst MUST be able to instruct on how to test the program.
 - _____ The Development Analyst must complete the Unit Test Checklist.
 - _____ The Development Analyst's modified version of the source MUST be in the Development (WIP) Repository.
- _____ Review the program for standards.

Quality Management - Defect Management



Utilization Management – Work Attributes

- Work Attributes Enables -
–*Customer Value Analysis*

Completed Activities	Count	Value Provided	Cost
Call Support	11	3 K	6 K
Incidents	4	0 K	5 K
Work Requests	3	90 K	46 K
Total		93 K	57 K

Utilization Management – Work Attributes

- Work Attributes Enables -

Customer Value Analysis

– *Application Cost/Trend Analysis*

– *Capacity Planning & Budgeting*

– *Resource Planning*

– *Skills Planning/Training*

– *Application Replacement ROI*

– *Cost Reduction Program Review*

– *Discretionary/Mandatory Analysis*

– *Backlog Categorization & Value*



Productivity Management - Effectiveness Management



Work Trend Analysis Graph

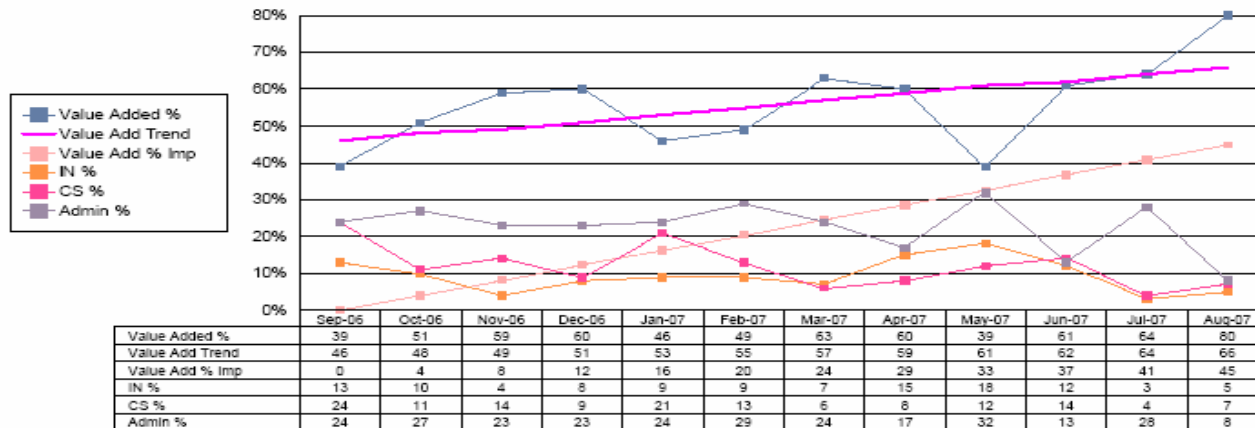
Event Type: CS, INF, INNF, PR, RP, J, WR
From Date: 09/01/2006
Trend From Date: 09/01/2006
CO: All Selected
Job Code: All Selected



Tuesday, September 04, 2007 2:15:40PM

Value Add Event: WR

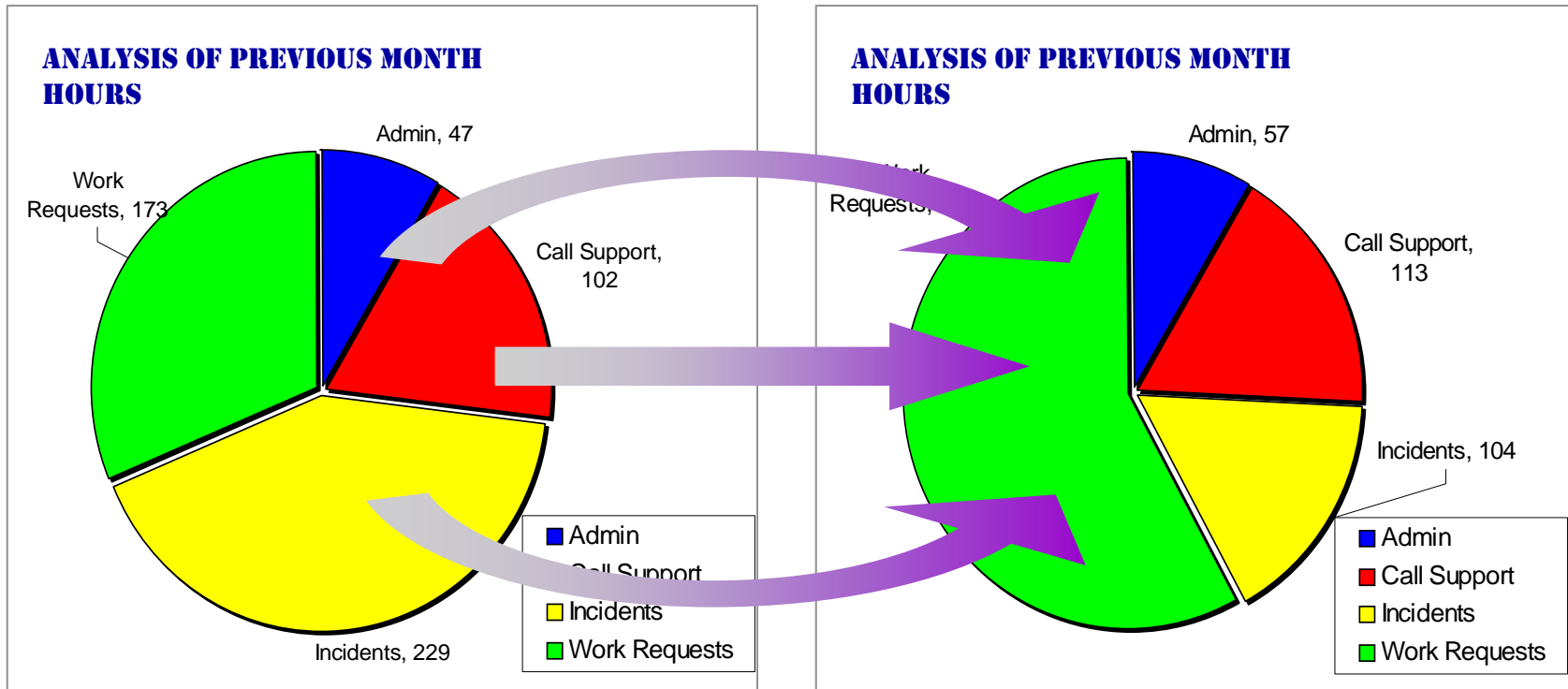
Event Trends as a Percentage of Total Hours
Total Hours = 8,324.00 Hrs.



Drive out waste -

- Increase proportion of value added tasks
- Prevent Incidents, support calls and corrective work requests

Productivity Objective: More Time Focused on Value Adding Activities





Time Audit Summary Report

From Date: 06/01/2000
CO: ABC Widget Company
Job Code: JABCWMM1R1

To Date: 06/30/2000
MO: Support Team
Application: Order
Processing, Manufacturing, Financials, Payroll, Inventory

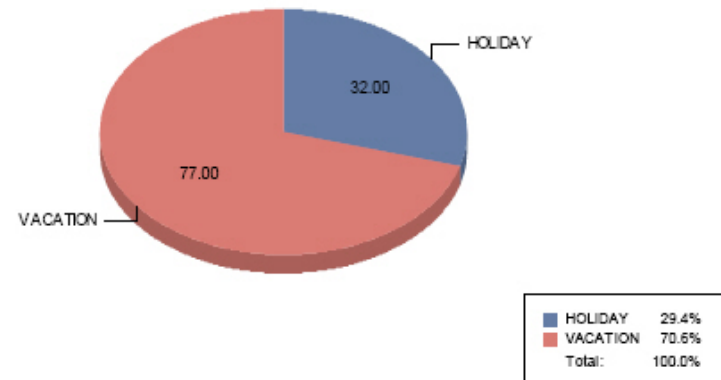
Resource: Jones, Ron; Carter, Steve; Wayne, Sue; Small, Kathy; Parker, Terry; Wilson, Jim; Crawford, Joe; Operations, Computer; Duncan, Rose; Crew, Nick

Period Selection: CAL

Place holder for the customer logo.

Monday, January 26, 2004 1:10:23PM

Non Task Breakdown for Specified Period Total Hours: 109.00

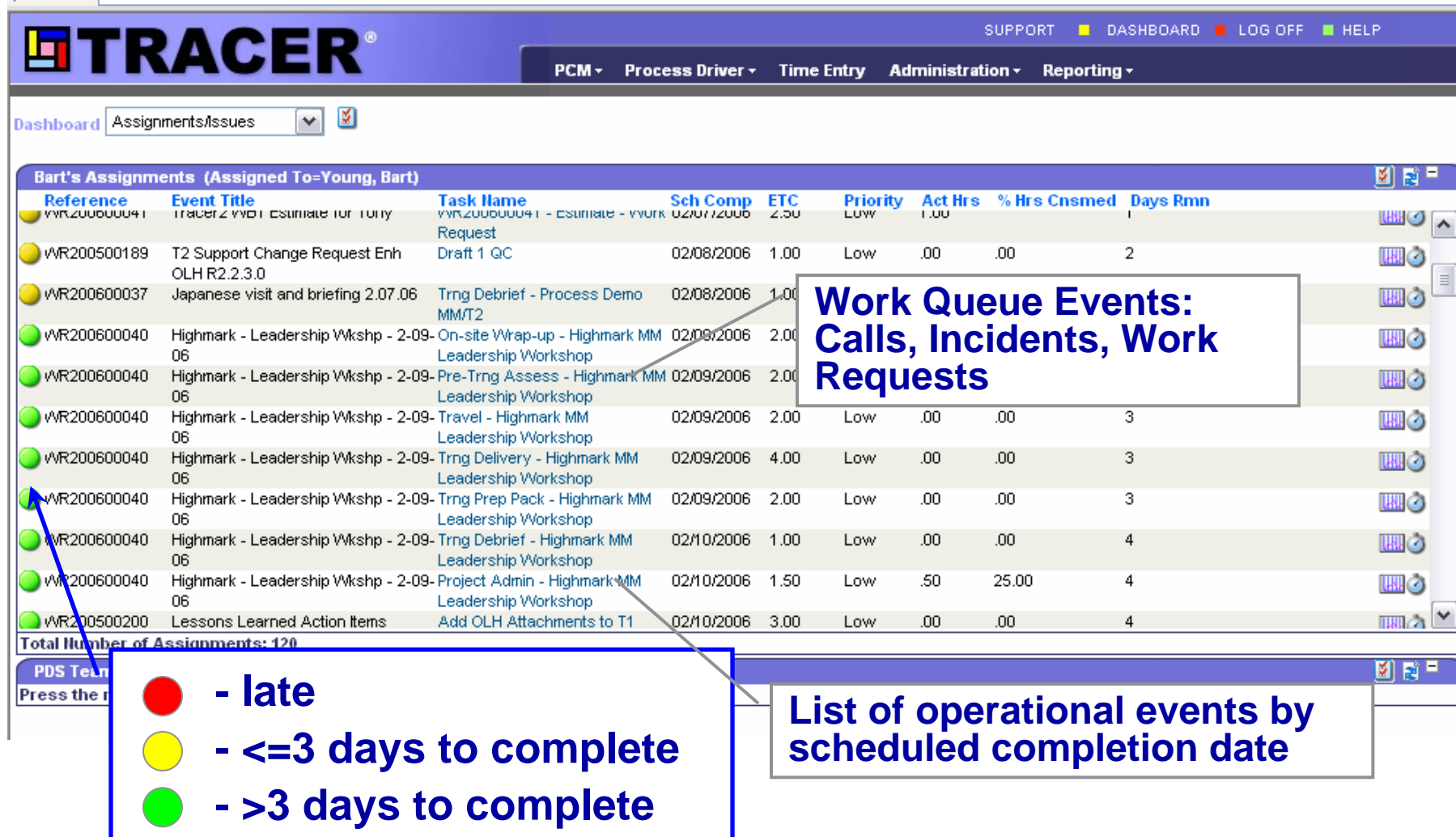


Time Usage

Best Practices in High Performance Organizations

- Standard Process
- Management with Metrics
- **Process Automation**

Work Management (Dashboard)



TRACER SUPPORT DASHBOARD LOG OFF HELP

PCM Process Driver Time Entry Administration Reporting

Dashboard Assignments/Issues

Bart's Assignments (Assigned To=Young, Bart)

Reference	Event Title	Task Name	Sch Comp	ETC	Priority	Act Hrs	% Hrs Cnsmed	Days Rmn
WR200600041	Tracer2 VYD1 Estimate for July	Request	02/07/2006	2.00	Low	1.00		1
WR200500189	T2 Support Change Request Enh OLN R2.2.3.0	Draft 1 QC	02/08/2006	1.00	Low	.00	.00	2
WR200600037	Japanese visit and briefing 2.07.06	Trng Debrief - Process Demo MM/T2	02/08/2006	1.00				
WR200600040	Highmark - Leadership Wkshp - 2-09-06	On-site Wwrap-up - Highmark MM Leadership Workshop	02/09/2006	2.00				
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Pre-Trng Assess - Highmark MM Leadership Workshop	02/09/2006	2.00				
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Travel - Highmark MM Leadership Workshop	02/09/2006	2.00	Low	.00	.00	3
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Trng Delivery - Highmark MM Leadership Workshop	02/09/2006	4.00	Low	.00	.00	3
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Trng Prep Pack - Highmark MM Leadership Workshop	02/09/2006	2.00	Low	.00	.00	3
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Trng Debrief - Highmark MM Leadership Workshop	02/10/2006	1.00	Low	.00	.00	4
WR200600040	Highmark - Leadership Wkshp - 2-09-06	Project Admin - Highmark MM Leadership Workshop	02/10/2006	1.50	Low	.50	25.00	4
WR200500200	Lessons Learned Action Items	Add OLN Attachments to T1	02/10/2006	3.00	Low	.00	.00	4

Total Number of Assignments: 120

PDS Test Press the r

Work Queue Events: Calls, Incidents, Work Requests

- - late
- - <=3 days to complete
- - >3 days to complete

List of operational events by scheduled completion date

Time Management

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Time Entry > Task Time

Resource: **Young, Bart** Week Of: **01/29/2006** Status: **In Process**

	Sun 01/29	Mon 01/30	Tue 01/31	Wed 02/01	Thu 02/02	Fri 02/03	Sat 02/04	Total
Timesheet Totals	4.75	2.00	4.75	5.50	5.25	7.75	0.00	30.00

Task

Task	Labor Code	Sun 01/29	Mon 01/30	Tue 01/31	Wed 02/01	Thu 02/02	Fri 02/03	Sat 02/04	ETC	Completed	Total
[-] PDS Corporate Team											
[-] Event Chain ID on Event List Detail is defaulting incorrectly - IN200600020											
IN200600020 - Resolve - Non-Failure Incident	PROG	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input checked="" type="checkbox"/>	0.00
[-] Japanese visit and briefing 2.07.06 - WR200600037											
WR200600037 - Estimate - VWork Request	ANA	<input type="text" value="0.00"/>	<input type="text" value="0.25"/>	<input type="text" value="0.50"/>	<input type="text" value="0.50"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input checked="" type="checkbox"/>	1.25
Project Admin - Process Demo MM/T2	PADM	<input type="text" value="0.00"/>	<input type="text" value="0.25"/>	<input type="text" value="0.25"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.25"/>	<input type="text" value="0.00"/>	<input type="text" value="3.25"/>	<input type="checkbox"/>	0.75
Pre-Trng Assess - Process Demo MM/T2	ANA	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.25"/>	<input type="text" value="0.00"/>	<input type="text" value="0.25"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="5.50"/>	<input type="checkbox"/>	0.50
Trng Prep Pack - Process Demo MM/T2											
Trng Delivery - Process Demo MM/T2											
Trng Support - Process Demo MM/T2											
On-site Wwrap-up - Process Demo MM/T2	ANA	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="2.00"/>	<input type="checkbox"/>	0.00
Trng Debrief - Process Demo MM/T2	ANA	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="1.00"/>	<input type="checkbox"/>	0.00
Total Task Hours		3.25	1.00	2.50	5.00	4.50	7.00	0.00			23.25

Task time, Vacations, Holidays, Meetings etc.
Daily Summary, Weekly Summary

Estimation Management

Estimating Matrix Detail -- Web Page Dialog

View: Baseline Working

Matrix Name: **Training Team- Trng Matrix**

Training Class Type*: MM Trng w/ CE

Full Day / Half Day*: Full Day

Tasks and Estimates for each Unit of Work

Action	% Baseline	% Action	User Entered	Training Delivery Type	
				Face to Face	Web Cast
Project Admin	100			4.00	4.00
Pre-Trng Assess	100			2.00	2.00
Trng Prep Pack	100			3.00	4.00
Trng Delivery	100			12.00	12.00
Trng Support	100			12.00	12.00
On-site Wrap-up	100			2.00	2.00
Trng Debrief	100			4.00	4.00
Data Anlys Cert	100			3.00	3.00
Travel	100			0.00	0.00
Trng Customiz	100			0.00	0.00
Total				42.00	43.00

Issue Management

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Process Driver > Issue > Basic

Event Reference: **WR200600024 - Update The Write Stuff**
Jan 06

Issue Reference: **IS00001 - Chapter 3 dependent on WBT work**

Basic


Journal


Issue Reference: **IS00001**

Title:

Customer Reference:

Status*:

Opened By*: 


Assigned To: 


Type*:


Classification*:


Severity*:

Dates

Opened*: 

Scheduled Complete: 

Resolved: 

Closed: 

Tasks/Units Affected

Task	Unit	Description
Manual - Check Chapter 3 current	Check Chapter 3 current	Check Chapter 3 current

Description, Scheduled Completion Date, Assigned To, Classification, Severity, Resolution and Status.

Managing O

Change (Scope) Management






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Process Driver > Work Request > Scope Change List

Reference: **WR200500189 - T2 Support Change Request Enh OLH R2.2.3.0** View:

Change Number	Title	Date Received	Requester	Reason For Change	Hours	
SC00001	Adding tasks based on the submitted estimate.	10/24/2005	Bricker, Jackie	Actions Change	483.00	
SC00002	Modifying estimates for tasks. This WR was split into two separate ones to	11/10/2005	Bricker, Jackie	Complexity Chan	-295.00	
SC00003	Additional topic revisions identified that increase the scope of this proje	12/05/2005	Bricker, Jackie	Complexity Chan	64.00	
SC00004	Add travel task for Helene	01/23/2006	Skopek, Helene	Add New Unit	7.00	
SC00005	Two reports added to release	02/03/2006	Bricker, Jackie	Date Change		

Change Request Lists that lead to detail. (Complexity or Date Changes)

Automation Value

- **Real-time Process Manager**
 - Common processes and terminology
 - Standard defined processes → consistency
 - Visibility to backlog, work-in-progress, and history
 - Standard estimating
- **Metrics-based Management System**
 - Complete and comparative data
 - Management reports
 - Tracking/Data repository
- **Again we ask ourselves, “Why has it been so Hard to Institutionalize Best Practices?”**

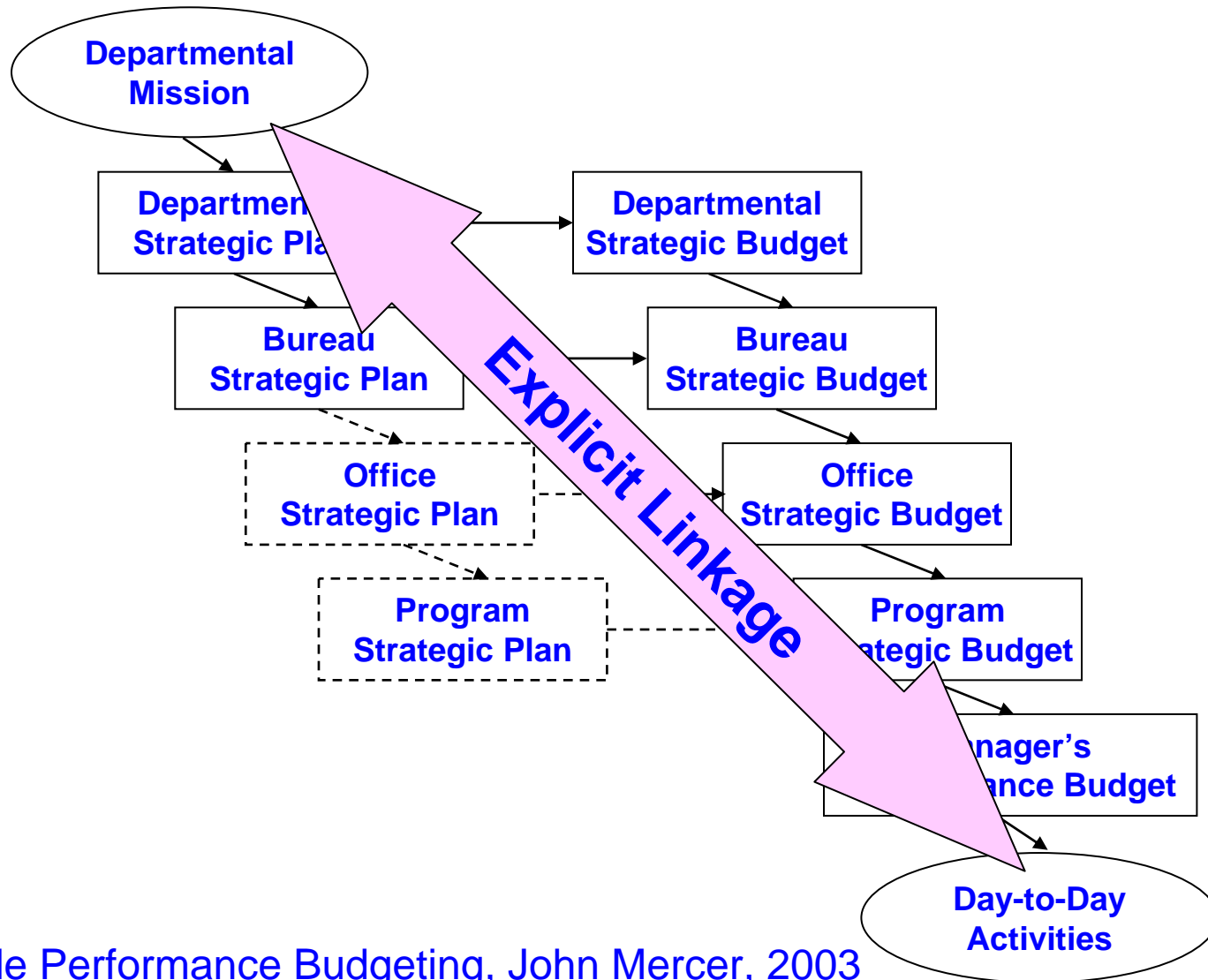
-- Until now we had no Process Automation!



Transforming IT Management Closing Thoughts



Performance Based Budgeting Definition



Cascade Performance Budgeting, John Mercer, 2003

Time to Put the Theory to Work

- Significant Benefits & ROI are available by *Implementing Best Practices & Managing with Metrics*
- *Application Support* provides the best opportunity for initial and sustained business impact.
- Annual Cost Savings of 25 % or more

Next Steps

- Visibility
 - Conduct a Visibility Assessment
 - Gain Insight into People, Processes and Productivity
- Control
 - Implement Standard Process
 - Institute Management Metrics
 - Use Automation to Institutionalize Best Practices
 - Adopt Performance Based Budgeting



Measuring IT

Wrap-Up



- CAI Sponsors the IT Metrics Productivity Institute:
 - Clearinghouse repository of best practices: WWW.ITMPI.ORG
 - Weekly educational newsletter: WWW.ITMPI.ORG / [SUBSCRIBE](#)
 - Bi-monthly webinars hosted by industry leaders: WWW.ITMPI.ORG / [WEBINARS](#)

Aug. 23 rd	Measure Twice, Implement Once	Oct. 24th	The Psychology of Customer Satisfaction
Aug. 30th	Using Project History Data to Better Manage IT	Oct. 25th Methodology	Test Driven Design: An Agile Development
Sept. 5th	An Overview of Software Benchmarking	Oct. 30th	A Primer on Function Points
Sept. 6th	CIO Webinar: IT Transformation Case Study	Oct. 31st Testing	Identifying and Mitigating Risks through Software
Sept. 13th	Cosmic Truths about Software Requirements	Nov. 6th	IT Outsourcing in China
Sept. 19th	Integrating Six Sigma and PMBoK	Nov. 15th	Root Causes of Project Slippage
Sept. 20th Testing	5 Hard-Won Lessons in Performance, Load and Reliability	Nov. 20th	ITIL Early Adoptors
Oct. 2nd	Agile Legacy Reengineering	Nov. 27th	Ed Yourdon on Surviving Death March Projects
Oct. 3rd	Using Metrics to Manage Software Risk	Nov. 28th	Implementing Agile Practices in New Teams
Oct. 9th	Objective Driven Software Process Improvement	Dec. 4th	Howard Rubin on The Future of IT in 2008
Oct. 11th	Benchmarking Performance	Dec. 5th	Basics of Earned Value Management
Oct. 17th	Making a Compelling Business Case	Dec. 6th	Effective Vendor Management
Oct. 18th	Basic Principles of Cost Estimation	Dec. 11th	Project Disasters
Oct. 23rd	Principles of Project Initiation	Dec. 12th Team	Building a High Performance Risk Management
		Dec. 13th Strategies	Requirements Errors: Sources and Avoidance

- ## Software Best Practices Conferences Around the World

2007 Dates and Locations

Aug. 28	San Antonio, TX
Sept. 11	Toronto, ON
Sept. 13	Atlanta, GA
Sept. 18	New York, NY
Sept. 27	London, UK
Oct. 4	Washington, DC
Oct. 11	Detroit, MI
Oct. 16	Jacksonville, FL
Oct. 18	Chicago, IL
Oct. 23	Minneapolis, MN
Nov. 1	New York, NY
Nov. 8	Albany, NY
Nov. 13	Ft. Lauderdale, FL
Nov. 15	Austin, TX
Nov. 15	Melbourne, Australia
Nov. 29	Philadelphia, PA

2008 Dates and Locations

Apr. 3	Toronto, ON
Apr. 8	Princeton, NJ
Apr. 10	Washington, DC
Apr. 24	Albany, NY
Apr. 15	Detroit, MI
Mar. 4	Tampa, FL
Mar. 27	Orlando, FL
Mar. 11	Pittsburgh, PA
May 6	Olympia, WA
May 15	Rochester, NY
May 20	New York, NY
May 22	Philadelphia, PA
June 3	San Antonio, TX

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Measuring IT Questions