The Change Agent:

“Leveraging the Testing Role”

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Agenda

- SAFECO Past & Present
- Background for a Change Agent
- People Perspective: Talk the Talk
- Process Perspective: Set Forth a Model
- Project Perspective: Test Requirements
- Summary, Q&A
SAFECO… Where we were

- “Thrown over the wall” Testing was norm
- Firefighters
- Everyone was their own island
- Tribal knowledge
- Expert in systems vs. independent testers
- Testing was an entry level position
- Attrition of QC skills to Developer role
- Hunger for early involvement in projects
- Called QA, but doing QC

SAFECO… Where we are today

- An established QC Model
- Baselined understanding of QA & QC
- Development of QC training based on model
- Identifying Test Requirements is providing leverage early on in the project life cycle
- QC community better networked
- Prior workbenches understanding the QC role
Background for a QA/QC Change Agent…

- Passion for QA/QC
- Ability to simplify the use of tools/models/industry practices
- Familiar with the CMM
- Familiar with a tool for modeling a process

Background… Tool: The 3 P’s Model
The Balancing Act of the 3 P’s

Too much emphasis on Process:

– Over documentation
– Too rigid an environment for people
– No actual work getting done

The Balancing Act of the 3 P’s

Too much emphasis on People:

– No institutionalized practices or foundational processes
– Highly individual approaches & styles (cowboys & heroes)
– Project success dependent upon the experience of the people (ivory towers)
The Balancing Act of the 3 P’s

Too much emphasis on Project:

- Get-it-out-the-door mentality
- Processes re-invented for each project
- High pressure on people to meet deadlines & cut corners

People…

- Understand Organizational Change…

Adapted from CMM Implementation Guide by Kim Caputo
People…

- Find the Common Denominator:
  - Know where our culture is at with QA & QC
  - Work with assumptions others make of our role
  - Stick with Back to Basics mentality
  - Here’s the technique we used…

People… The SDLC & The Requirements Analogy

<table>
<thead>
<tr>
<th>Concept</th>
<th>Requirements</th>
<th>Design</th>
<th>Code</th>
<th>Test</th>
<th>Operation &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA</td>
<td>Generating Requirements: - Functional Specs - Documents - Diagrams (generated formally &amp; informally)</td>
<td>Refining Requirements: - limitations of technology Introducing Changed Requirements</td>
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<tr>
<td>PA</td>
<td>Reviewing Requirements: - in the context of technology</td>
<td>Detailing functional/business requirements into lower level technical requirements</td>
<td>Detailing technical requirements into code</td>
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<tr>
<td>QA</td>
<td>Returning Activities: Testing the Requirements - Inspections, Walkthroughs, Reviews, Deskchecks (while officially true, many times it is not reality)</td>
<td>FOCUS: Defect Prevention</td>
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</table>
People… Watch your Tongue!

• Baseline your vocabulary:
  – Establish a glossary of terms, online or intranet
  – Don’t allow jargon assumptions!
  – Breakdown and differentiate between QA & QC
  – Also, Verification (Defect Prevention) & Validation (Defect Detection)
  – And… Requirements: Functional, Non-Functional, Technical, and Test.
  – Define each of the deliverables from the test process.

Process… The Key “Approach” Points

A. Create a high level Process Map of your work.
B. Identify Customers & Suppliers.
C. Make your Entrance & Exit Criteria known.
D. Decompose the granular processes that comprise your process map.
E. Implement in a way that fits your culture (change agent).
Process… The QC Framework Model

Quality Control

Plan, Gather, Assess
- Do
- Rework
- Tools
- Standards
- Check
- Test Execution
- Workbench

Prepare
- Do
- Rework
- Tools
- Standards
- Check
- Test Results
- Workbench

Execute
- Do
- Rework
- Tools
- Standards
- Check
- Defect Management
- Workbench

Review & Report
- Do
- Rework
- Tools
- Standards
- Check
- Test Status
- Defect Tracking Standards

Track
- Do
- Rework
- Tools
- Standards
- Check
- Defect Audit Trail
- Defect Summary Reporting

Risk Assessment (on Test Requirements)
- Test Plan
- Test Requirements Hierarchy

Traceability Matrix
- Test Environment-Data Issues
- Test Environment-Architecture Issues
- Test Environment-Training Issues
- Test Case Design

Handout

Process… Implement in a way that fits your culture

- Example: The “In-Service” Approach
  - Learned from a non-profit, volunteer org.
  - Short talk (<3 hours) on a specific topic
  - Includes short exercises
  - Taken directly to the team or unit meeting
Process… Implement in a way that fits your culture

- Example: The “Pilot” Approach
  - Pilot personally with your own work
  - Market success to your manager
  - Show time savings, reusability, efficiency, portability to others, etc.
  - Share with co-workers
  - Put together a reference or tutorial
  - Invite interested people to a “demo” meeting

Project… Standardizing Test Requirements

- Business Function
  - Tasks within the Function
  - Transactions to perform a task
  - Data Entry Types for transactions
  - Field Validation

- High level Functional Areas: usually from “Functional Spec” type docs, or BA work
- Lower level Functional Areas: usually from “Technical Spec” type docs regarding internal logic, or PA work
Summary

✓ SAFECO Past & Present
✓ Background for a Change Agent
✓ People Perspective: Talk the Talk
✓ Process Perspective: Set Forth a Model
✓ Project Perspective: Test Requirements
✓ Q&A

One Final Note!
Be ready to make the Business Case!

Our talk today

IT Resource Allocation

Benefits

Structure, perspective: “Process Model” Level

Low Level, granular “how’s”…processes