Tools of the Change Warrior

Change is hard, especially when you are leading.

ALAN WILLETT
SEPTEMBER 2006

This materials is approved for public release. Distribution is limited by the Software Engineering Institute to attendees.

Sponsored by the U.S. Department of Defense
© 2006 by Carnegie Mellon University

September 2006
Overview

Why Change? It is all about improvement and thus it is always about change.

The role of TSP Coaches is to coach team members, team leaders, teams, management, and organizations through continuous improvement.

This presentation is an overview of some of the “soft” skills needed.
“I made that!”
Change Warrior Version 1.0

[Image of a caveman with a CMM label on his head]
An Example CMM Rating Chart

Software Project Planning
Responses
The Grieving Cycle

http://changingminds.org/disciplines/change_management/kubler_ross/kubler_ross.htm
Culture Change

A culture is a self reinforcing system.

A culture is a group of people sharing a “system of belief”.

The longer the history, the deeper the roots of those beliefs.

Culture change is about changing how people behave.

It is changing their “minds”.

PLANNING ISSUES

LACK OF INTEGRATED END TO END DEVELOPMENT PROCESS/PLANNING PROCESS
- Participating orgs are often viewed as “not connected”
- Entry/exit of phases is not understood
- There is no end to end plan (or replan)
- Existing plans don’t encompass all work

LACK OF PROCESS COMPLIANCE
- Process not right
- Schedule pressure

TERTIARY EFFECTS
Management doesn’t have enough time to work improvements, oversee the process. People are in a highly fragmented work mode (interrupt driven, not very productive) Priorities seem to constantly shift. (“Nothing is stable, even for a day.”)
Planning process deteriorates; inadequate consideration of
- Contingencies/Risks
- Impact Analysis
- Commitments being made or missed
Marketing and engineering relationship is put under great stress.

ASSUMPTIONS CHANGE WITHOUT RENEGOTIATION OR REPLAN
- Don’t fill TBDs, SPARs come in, ...

• High Rework
• Less Feature “Richness” than desired

Examples of Known POTHOLEs
- Design bandwidth
- Overloaded CM
- Goals, reqs, design “too slow”
- Known new reqs, requests coming

Many people don’t consider “NO” or “LATER” an option. It’s just “THAT’S HOW IT IS”

Design Starts Before Req., Code Before Design
Defects happen & found late

Events occur in large stressful bunches (Bow Waves)
Late starts

known “potholes” are hard to steer around
Can’t get right people together at same time

More work with same resources

Creates intense schedule pressure

?? lack of confidence that the process will produce the overall schedule required ??

Examples of known potholes
- Design bandwidth
- Overloaded CM
- Goals, reqs, design “too slow”
- Known new reqs, requests coming

“PROVE YOU CAN’T” CULTURE
- Cannot say “No”
**TERTIARY EFFECTS**

Marketing and engineering relationship is put under great stress.
Communication breakdowns.
Business case assumptions are consistently invalid.
Marketing is starting to go outside Xerox for software.
Exacerbates the other problems.

---

Responses
Tool Summary 1

CMMI

Audits

Grieving Cycle

System Thinking

Culture
Change Warrior Version 2

Some other cool stuff…
Launch Meeting 4 Example

Team Member: I estimate that task to take 100 hours.

Team Leader (coming out of chair, loudly, with passion):

You’re killing us!
Giving Feedback

Some elements of giving feedback that can help you be heard.

- Within yourself, if possible, remove judgment
- Concisely tell what you perceived
- Concisely tell what possible meaning you draw from your perception
- Concisely tell how you feel about that perception
- Listen

The Response

TSP Coach: Before we review and change estimates, I want to ensure we get through the whole list.

The TSP Coach waited a few minutes, until the team was going through stuff at a reasonable pace, privately took team leader out of room.

TSP Coach: The way you rose out of your chair and raised your voice made me wonder what was up for you?

TSP Coach: I would like to give you some alternative suggestions for achieving your goals. Are you open to them?
Typical EV Chart for this Organization
“Management works *in* the system. Leadership works *on* the system.”

Stephen Covey
Special Event with Management Team

- “Is it okay to finish early?”
- “Do not be as soon as possible – be as sure as possible!”
- A plan for setting expectation
Expectations of Excellence

• Build a product the customer will truly appreciate.
• Quality is key.
• Create a plan that makes an “as sure as possible” commitment.
• Variance Happens – understand variance and use data and process to minimize.
• Minimize late surprises.
• Use data to guide continuous improvement (Customer Satisfaction, Quality, Predictability, Productivity)
Tools Summary - 2

Survival Rules

Receiving and Giving Feedback

Pilots as a tool for cultural understanding

Cognitive Dissonance

Story Telling

Setting Expectations
Satir Change Model

Reference: Gerald Weinberg, Quality Software Management Volume 4
Positive Change Cycle

Uninformed Optimism (Honeymoon period)

Informed Optimism

Informed Pessimism

Completion

http://changingminds.org/disciplines/change_management/psychology_change/positive_change.htm
Proactive Tools

Framing / Re-framing

Model the Change You Want to See

Backward chaining
A Sampling of Change Tools

**Sense making**
- Sense making
- Audit
- Pilots as cultural probes
- Types of Teams
- Mars and Venus
- System Thinking

**Understanding Change**
- Change models
- Grieving Cycle
- Positive Change Cycle

**Language of Change**
- Framing
- Setting Expectations
- Meme
- Metaphor / Story Telling
- Giving/Receiving
- Feedback
- Truth telling
- Socratic questioning
- Appreciative Inquiry

**Personal Management**
- Be the Change
  - “Circle of control, of influence, of concern”
- Courage
- Compassion
- Patience
- Listening
- Congruence

**Strategies for Change**
- Pearl
- Embrace and Extend
- Model Based
- 12 o’clock High
- Linking Initiatives
- Building Coalitions
- Back chaining
I get up every morning determined to both change the world and have one hell of a good time. Sometimes this makes planning my day difficult.

E. B. White (1899 - 1985)
Contact Information

Alan W. Willett
Software Engineering Institute
Carnegie Mellon University
4500 Fifth Avenue
Pittsburgh, PA 15213-3890

Email: awillett@sei.cmu.edu
Phone: 607-592-7279

Visit the Software Engineering Institute Web site at
www.sei.cmu.edu

Visit the TSP web site at
www.sei.cmu.edu/tsp/

Contact SEI Customer Relations at 412-268-5800