



Welcome and Overview: USC-CSE Annual Research Review and Affiliates' Executive Workshop on Agile Methods Revisited.

**Barry Boehm, USC-CSE
March 18-21, 2003**



Outline

- **USC-CSE Highlights, 2002-03**
- **USC-CSE Affiliates and Calendar**
- **Review and Workshop Objectives, Agenda**
- **Candidate Working Groups and Procedures**



USC-CSE Highlights, 2002-03

- **New Affiliates: BAE Systems, Freshwater Partners, Hewlett Packard, Softstar Systems**
- **New Ph.D.: Chris Abts (Texas A&M)**
- **New Tenure-Track Prof: Dan Port (U Hawaii)**
- **New Research Associates: Ed Colbert, Ray Madachy**
- **Major new research contacts**
 - **DARPA/ Army/ OSD: Future Combat Systems SW Engr.**
 - **FAA: COCOMO Security Extensions, Process Engr.**
 - **NASA/ CMU: High Dependability Computing**
- **March 2003 Value-Based Software Engineering articles**
 - **Cover article in IEEE Computer**
 - **Electronic Articles in ACM SW Engr. Notes**



USC-CSE Affiliates (36)

- **Commercial Industry (16)**
 - Daimler Chrysler, Freshwater Partners, Galorath, Group Systems.Com, Hewlett Packard, Hughes, IBM, Cost Xpert Group, Microsoft, Motorola, Price Systems, Rational, Reuters Consulting, Softstar Systems, Sun
- **Aerospace Industry (7)**
 - BAE Systems, Boeing, Lockheed Martin, Northrop Grumman, Raytheon, SAIC, TRW
- **Government (8)**
 - DARPA, DISA, FAA, NASA-Ames, NSF, OSD/ARA/SIS, US Army Research Labs, US Army TACOM
- **FFRDC's and Consortia (4)**
 - Aerospace, JPL, SEI, SPC
- **International (1)**
 - Chung-Ang U. (Korea)



USC-CSE Affiliates' Calendar

February 2, 2003	COSYSMO Workshop (with INCOSE), Tampa
February 10-12, 2003	COTS-Based Systems Conference (with SEI, ESI, NRC-Canada), Ottawa
March 4-6, 2003	Ground Systems Architectures Workshop (co-sponsored), Aerospace
March 17-21, 2003	Annual Research Review, Executive Workshop: Agile Methods Revisited
May 2003	Annual Affiliates' Renewal
July 16-17, 2003	COSYSMO Workshop (with PSM), Keystone, CO
July 18, 2003	COCOMO/SCM Forum Abstracts due
October 21-24, 2003	COCOMO/SCM Forum: Theme: Software Sizing
February 1-4, 2004	COTS-Based Systems Conference, Redondo Beach, CA
March 16-19, 2004	Annual Research Review, Executive Workshop



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Workshop Objectives

- **Assess agile and disciplined methods' strengths and challenges**
- **Assess feasibility of hybrid agile/disciplined methods**
- **Provide guidelines for USC-CSE research, Affiliate activities**
 - Needs, priorities, risks, opportunities
- **Stimulate further USC-CSE/Affiliate collaboration**

Top Level Agenda

- **Tues: Annual Research Review**
- **Wed: Affiliate and USC-CSE Agile/Disciplined Methods presentations at Forum**
- **Wed. 5-8 pm: Affiliate dinner, Steering Group Meeting**
- **Thurs.: 4 Working groups**
 - 12:00-1:30 pm: Lunch and plenary session
- **Fri. am: Working group reports; USC-CSE response; wrap-up**
 - End by 11:30 am

Proposed Breakout Groups

- 1. Scaling Up Agile Methods (Don Reifer; Gunjan Sharman)**
- 2. Creating Lean Disciplined Methods (Winsor Brown; Sachin & Meghna Shah)**
- 3. Synthesizing Hybrid Agile/Disciplined Methods (Rich Turner; Apurva Jain)**
- 4. Agile/Disciplined Research Issues (Laurie Williams; LiGuo Huang)**

Breakout Group Guidelines

- **Product: briefing, preferably with notes and priorities**
- **Topics should include:**
 - **Strengths and challenges assessments**
 - **Most critical issues in area**
 - **Most promising opportunities**
 - **Research suggestions: general, CSE, CSE Affiliates**
- **Wed. afternoon plenary session to finalize breakout groups**

USC Research Issues

1. Describe/justify what is unique in RAD drivers over and above COCOMO II drivers (given a domain and business model). I-H, D-L
2. Explain/confirm research strategy not tool extension fait accompli. [“Calibration can not replace thinking in defining a proper model for an area.”] Strategic D-L, I-L; tactical D-L, I-H
 - 2b. How can we get feedback on “value” of model/tool even if they have accuracy/reliability drawbacks. D-M, I-L
3. Run/gather COSSEMO/CORADMO against existing data. I-H, D-L
4. Build practical/theoretical models for how [parametric] models/tools evolve. I-L, D-H
5. COCOMO Balance-sheet: Effort investment for effort or schedule or quality or ... improvement. I-H (if successful), D-M
6. Organization balance sheet: hard and soft capital investments (added to effort investments) for effort or schedule or quality or ... improvement. Note: like SE environment or tooling; different time scale (not project’s); for Sr. Mgt. and corporate strategy. D-H, I-M.

