


University of Southern California
Center for Software Engineering

Welcome and Overview: 17th International Forum Affiliates Workshop on COCOMO and Software Cost Modeling

**Barry Boehm, USC-CSE
October 22, 2002**

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Outline

- USC-CSE Highlights, 2002**
- USC-CSE Affiliates and Calendar**
- Objectives of This Workshop**
- Candidate Working Groups and Procedures**

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USC-CSE Highlights, 2002

- **New Affiliates: Daimler Chrysler, DISA, Freshwater Partners, Hewlett Packard, Softstar Systems**
- **New Ph.D.: Chris Abts (Texas A&M)**
- **New Tenure-Track Prof: Dan Port (U Hawaii)**
- **Major new research contacts**
 - **DARPA/ Army/ OSD: Future Combat Systems SW Engr.**
 - **FAA: COCOMO Security Extensions, Process Eng.**
 - **NASA/ CMU: High Dependability Computing**

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USC-CSE Affiliates (37)

- **Commercial Industry (18)**
 - **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, Telcordia, Xerox**
- **Aerospace Industry (6)**
 - **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)**


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USC-CSE Affiliates' Calendar

July 24-26, 2002	COSYSMO Workshop (with PSM)
October 2002	COCOMO/Software Cost Modeling Forum and Workshop
February 10-12, 2003	COTS-Based Systems Conference (co-sponsored), Ottawa
March 4-6, 2003	Ground Systems Architectures Workshop (co- sponsored), Aerospace
March 11-14, 2003	Annual Research Review, Executive Workshop, Focused Workshop: Agile Methods Revisited
May 2003	Annual Affiliates' Renewal


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Workshop Objectives

- **Address key cost modeling and COCOMO–related trends and research needs**
- **Provide guidelines for USC-CSE research, Affiliate activities**
 - Needs, priorities, risks, opportunities
- **Stimulate further USC-CSE/Affiliate collaboration**

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Top Level Agenda

- **Tues. pm: Dinner and kickoff meeting**
- **Wed., Thurs. am: Affiliate and USC-CSE presentations at Forum**
- **Thurs. am: 2 Working Groups (COSYSMO, Security)**
- **Thurs. pm: 4 Working groups**
 - 12:00-1:10 pm: Lunch and plenary session
 - 1:10-5:00 pm: Working groups
- **Fri. am: Working group reports; USC-CSE response; wrap-up**
 - End by 11:30 am

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Proposed Breakout Groups (Organizers)

1. **COSYSMO (Ricardo Valerdi, Gary Thomas)**
2. **COQUALMO (John Powell, Nancy Eickelmann)**
3. **Early COCOTS (Brad Clark, Ye Yang)**
4. **COCOMO Security Extensions (Ed Colbert, Murali Gangadharan)**

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Breakout Group Guidelines

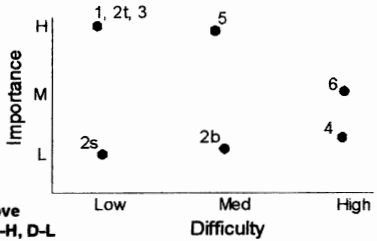
- **Product: briefing, preferably with notes and priorities**
- **Topics should include:**
 - **Most critical issues in area**
 - **Most promising opportunities**
 - **Progress in model definitions**
 - **Research suggestions: general, CSE, CSE Affiliates**
- **Thurs. afternoon plenary session to finalize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

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USC Research Issues



Issue	Difficulty	Importance
1, 2t, 3	Low	High
5	Med	High
2s	Low	Low
2b	Med	Low
4	High	Low
6	High	Med

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
 - 2a. How can we get feedback on "value" of model/tool even if they have accuracy/reliability drawbacks. D-M, I-L
 - 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.

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