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

Barry Boehm, USC-CSE
October 22, 2002

Outline

- USC-CSE Highlights, 2002
- USC-CSE Affiliates and Calendar
- Objectives of This Workshop
- Candidate Working Groups and Procedures
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.
  - NASA/CMU: High Dependability Computing

10/24/00

USC-CSE Affiliates (37)

- Commercial Industry (18)
- Aerospace Industry (5)
  - Boeing, Lockheed Martin, Northrop Grumman, Raytheon, SAIC, TRW
- Government (8)
- FFRDC’s and Consortia (4)
  - Aerospace, JPL, SEI, SPC
- International (1)
  - Chung-Ang U. (Korea)
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
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

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
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)

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
### USC Research Issues

1. Describe/justify what is unique in RAD drivers and space between COCOMO II drivers (draw a domain and business model, Lab, D-I).
2. Explain/confirm research strategy not tool extension fall through. "Calibration can not replace thinking in defining a proper model for an area." Strategic D-I, I-C; tactical D-L, I-H.

3. How can we get feedback on "value" of models even if they have accuracy/reliability drawbacks? D-M. 14.

4. Run/gather COCOMO/CORAMO against existing data. I-H, D-L.

5. Refine practical/theoretical models for how/parametric model leads evolve. I-I, D-H.

6. COCOMO balance sheet: Effort investment for effort or schedule or quality "K" improvement. I-H (if successful), D-M.

7. Organization balance sheet: hard and soft capital investments added to effort investments for effort or schedule or quality improvement. CF (if successful) by Sr. Mgt. and corporate strategy. D-H, I-M.

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**USC Research Issues Table**

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<thead>
<tr>
<th>Importance</th>
<th>High (H)</th>
<th>Medium (M)</th>
<th>Low (L)</th>
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<tbody>
<tr>
<td>Difficulty</td>
<td>3</td>
<td>2</td>
<td>1</td>
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10/24/00  OUSC-CSE