CONSTRUCTIVE SYSTEMS ENGINEERING COST MODEL

19th International Forum on COCOMO and Software Cost Modeling
Los Angeles, CA
October 28, 2004

Outbrief

Ricardo Valerdi - USC Center for Software Engineering

COSYSMO Workshop Agenda

- COSYSMO overview & update
- Delphi Rounds 3
- Life cycle extensions
- Data collection scope and effort match
University of Southern California
Center for Software Engineering

Recent Activities (July-October)

- Affiliate visits
  - LMCO (Boulder, CO): Garry Roedler
  - Raytheon (Los Angeles, CA): Quentin Redman, George Stratton
  - BAE Systems (San Diego, CA): Jim Cain
  - LMCO (Cherry Hill, NJ): Garry Roedler
  - Rockwell Collins (Cedar Rapids, IA): Tony Thompson
  - LMCO (Denver, CO): Measurement Workshop, Garry Roedler, Gary Hafen, Diane Reiss
  - SAIC (McLean, VA): Ali Nikorai
  - BAE Systems (Reston, VA): Gan Wang
  - Federal Aviation Administration (Washington, DC): Alice H.
  - Boeing (Huntington Beach, CA): Affordability Process Action Team, Willie Williams

Wideband Delphi meetings

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<tr>
<th>Date</th>
<th>Location</th>
<th>Participants</th>
<th>Delphi 1</th>
<th>Delphi 2</th>
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Participants (32)

- Chris Miller (SPC)
- Gary Hafen (LMCO)
- Garry Roedler (LMCO)
- John Gaffney (LMCO)
- Diane Reiss (LMCO)
- Gan Wang (BAE Systems)
- Jim Cain (BAE Systems)
- Merrill Palmer (BAE Systems)
- Linda Brooks (Northrop Grumman)
- Steven Wong (Northrop Grumman)
- Ricardo Valerdi (USC)
- Ali Nikolai (SAIC)
- Marian Parrington (FAA)
- Bob Manners (FAA)
- Francis Marzotto (General Dynamics)
- Sheree Havlik (Raytheon)
- Vicki Love (Raytheon)
- Quentin Redman (Raytheon)
- George Stratton (Raytheon)
- John Rieff (Raytheon)
- Gary Thomas (Raytheon)
- Ed Casey (Raytheon)
- Desaine Davis (Raytheon)
- Brad Clark (Software Metrics)
- Arnie Goodman (UDC)
- Paul Stelling (Aerospace)
- Marilee Brhaton (Aerospace)
- Paul Mohiman (Aerospace)
- Dan Ligett (Softstar Systems)
- Madeline Ellis (Boeing)
- Cheryl Jones (US Army)

Progress (Part 1)

- Addressed driver issues and recommended updates to:
  - Multisite coordination
  - Stakeholder cohesion
  - Tool support
- Completed Delphi Round 3 (16 responses)
- Decided to defer maintenance & disposal phases in the model
- Updated items on data collection form
  - How SE hours are determined
  - Meta data
  - Project success attributes
Progress (part 2)

• Extended discussion on scope & effort match
  – # of Recursive levels in the design
  – Draw me a picture of the entire system
  – Draw me a picture of your system of interest
  – Was any effort subcontracted?
  – Was there any uncompensated overtime?

• Affiliates want a plan for the future direction of COSYSMO (2006-2007)

COSYSMO Data Collection Sources

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<tr>
<th>Organization</th>
<th>Attended Working Group Meetings</th>
<th>Signed NDA</th>
<th>Filled Out Delphi</th>
<th>Contributed Data</th>
<th>Developed Local Calibration</th>
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In the pipeline: Lockheed Martin, Northrop Grumman, Aerospace Corp., SAIC
Completion Schedule

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http://www.valerdi.com/cosysmo