Practical Software and Systems Measurement

A foundation for objective project management

SE & SW Cost Estimation Workshop

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SE & SW Cost Estimation

- ***Describe and contrast top-down and bottom-up SE and SW cost models.***
- ***Describe problems/challenges to SE and SW cost estimation.***
- ***Solicit audience views.***
- ***Develop consensus for way forward.***

Workshop Participants (21)

- *Mauricio Aguiar*
- *Shiva Anand*
- *Barry Boehm*
- *Carole Doan*
- *John E. Gaffney*
- *Dan Houston*
- *Julie Jamieson*
- *Joyce Lain-Tracy*
- *Michael Lamson*
- *Jo Ann Lane*
- *Dan Ligett*
- *Bill Marksteiner*
- *Paul Morris*
- *Neslie Morrison*
- *Beth O'Donnell*
- *Steve Pestell*
- *Joe Seppy*
- *Mimi Trinh*
- *Elliot Troy*
- *Gan Wang*
- *Paul. Wojtaszek*

Summary

- ***Good workshop participation***
- ***Good discussion and consensus***

Conclusions, Recommendations, and Results 1

- *Getting good data is a problem.*
  - *Alignment of data collection with estimation*
  - *Financial management system can impose a penalty on creating a WBS that has the desired level of granularity*
  - *Conflict in how the work is reported vs. how it is being done*
  - *People not knowing what to charge*
  - *Rules for collecting data (e.g., counting overtime)*
  - *Data validation*
- *Better education and communication can help get better data*
  - *Importance of historical data to good estimates*
  - *Importance of data collection*
  - *Worker by in: What's in it for me?*

Conclusions, Recommendations, and Results 2

- *Tools and methods don't adequately address various lifecycles (e.g. Incremental, evolutionary/spiral)*
  - *Accounting for integration costs (e.g., integrating prior builds)*
- *Good requirements are critical to good estimates*
  - *Volatility is important is determining size and cost*
  - *Need tools to help :*
    - *Count things such as interfaces and requirements. This means there has to be counting rules.*
    - *Define good requirements (e.g., consistent level of detail for each level of requirement (A, B, C) and minimize requirements ambiguity)*
- *Cost models need to be harmonized*

Next Steps/Action Items

- ***Develop detail workshop report***
- ***Participate in COCOMO forum/workshop on integrating SW and SE cost models***
- ***Draft PSM papers addressing***
  - ***Data collection***
  - ***Education and communication***