Practical Software and Systems Measurement

A foundation for objective project management

Definitions for Cost Metrics

June 25, 2009

Brad Clark & Wilson Rosa

PSM Users Group Conference
22-26 June 2009
Orlando, Florida

Definitions for Cost Metrics

- ***The Air Force Cost Analysis Agency and University of Southern California are working on a Software Cost Metrics Manual.***
- ***The purpose of this manual is to help cost analysts and decision makers develop easy and quick software cost estimates for air, space, ground, and shipboard commodities, by providing access to cost estimating metrics and rules of thumb derived from empirical data and research.***
- ***This 1/2 day workshop will focus on the definitions portion of the manual. Definitions of product size, effort, productivity domains, and different development life cycles will be presented.***
- ***Workshop attendees will be asked for their feedback.***

Objectives of the Workshop

- ***The objectives of this workshop are to:***

  1. *Convey to the workshop participant the current definition for application domains, size, effort, and milestones.*

  2. *Collect feedback on the definitions and other issues that should be addressed in the Manual.*

Workshop Format

- ***Overview of AFCAA sponsored work on the Software Cost Metrics Manual***

- ***Present current definitions for application domains & environment, size, effort, and milestones***

- ***Workshop on the following cost measurement issues:***
  - *Application domain and operating environment examples*
  - *Sizing pre-existing code using reuse parameters*

Workshop Background

- ***PSM provides guidance on how to unambiguously specify software size, effort, and duration data***
- ***This data can be challenging to use for software cost estimates because***
  - *Widely varying software application domains*
  - *The incorporation of pre-existing assets into the new system*
  - *Important missing data*
- ***Issues***
  - *Does data differ by software application domain?*
  - *How do you account for reusing pre-existing assets?*
  - *Are there rules-of-thumb that can be used for missing data?*

Intended Output

- ***Application domains with examples***
- ***Rules of thumb for reuse parameters (the missing data)***
- ***Assessment of the impact of application domains on reuse parameters***