MBASE 577a
Electronic Process Guide

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MBASE Characteristics

- Approach is invariant, processes are variants
- Approach
  - Product, domain, property, process and success models
  - Inception, elaboration, construction and transition phases
  - Life cycle document guidelines - OCD, SSRD, SSAD, LCP, PRD
- Process
  - MBASE 577a process developed for graduate course at USC
  - Integration with tools, techniques and notations
  - Frequent changes based on experience and feedback
MBASE Process definition

- Difficult to model spiral life-cycles
- Process consists of artifacts, activities, agents and behavior
  - Artifacts – what is produced
  - Activities – how is it produced
  - Agents - who does it?
  - Behavior – when is it produced
- Artifacts are interfaces for activities
  - Different underlying methods possible as long as artifact interfaces satisfied

Documenting the MBASE process

- Sources of process information
  - MBASE Integration Framework
    - Describes the types of models and sources of model clashes
  - MBASE Conceptual Framework
    - Describes the activities involved in the Engineering phase that continuously resolve model clashes
  - MBASE Deliverables guidelines for LCO/LCA
    - Paper guide created in the last year was the prime source of information
    - Paper guides act as a reference document
EPG technology

Electronic Process Guides

- Hyperlinked document structure with rich media content
- SEI EPG technology
  - Marc Kellner and Bill Riddle
  - Tools for authoring, generating and viewing the process guides
  - Java based tools created at SEI and USC
  - Standard process schema based database
  - Requires JDBC based database such as MS Access
- Uniform appearance
  - Templates for layout
  - Cascaded style sheets for formatting
- Generic process schema supports multiple processes
MBASE 577a EPG

- Conversion to EPG
  - Guides are different from models
  - Based on experience using the MBASE 577a process
- Guidance for Inception and Elaboration phases
- EPG available from http://sunset.usc.edu/classes/cs577a_99/epg
- Browser based tools for navigation through details
  - Works best with Netscape Navigator 4.x and Internet Explorer 4.x
  - Requires 1024x768 screen resolution
Experiences with the EPG

- Use reduces the number of general queries
- Increased novelty of the questions asked
- More frequent updates to the EPG possible
- Easier to add tailoring information to the EPG
- Better structured information
  - ease of use and
  - reduced time to locate exact information

Future Directions

- Construction and Transition phase EPGs
- More agents and intelligence for decisions
- UML-based modeling of MBASE process
- More powerful authoring tools
- Recording rich media content