

ECONET Project

Behaviour Abstraction from Code

Filling the Gap between Component Specification and Implementation

Working sessions

third plan

Prague - september, 7-7 2007



Working Session Roadmap

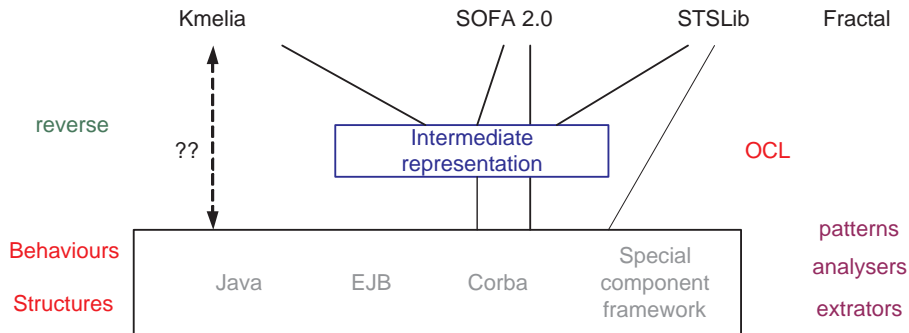
- 1 Convergence on the objectives
- 2 Convergence on the means
- 3 Definition of the tasks
- 4 Production

Convergence on the objectives

- Clear agreement on the "abstract" context

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- Abstract component models
- Java Code
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 - Java code nature
 - Bytecode
 - Plain source
 - Annotated Source

Convergence on the objectives

- Clear agreement on the "abstract" context
 - Abstract component models
 - Java Code
 - Reverse = from code to abstract models
- Fuzzy vision of the "concrete" context
 - Java code nature
 - Java code structure
 - plain Java
 - "componentised" Java (EJB, Corba, .NET, issued from a code generator - SOFA, Fractal...)
 - "behavioural" Java (threads, communication primitives, issued from a code generator...)

Convergence on the objectives

- Clear agreement on the "abstract" context
 - Abstract component models
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 - Reverse = from code to abstract models
- Fuzzy vision of the "concrete" context
 - Java code nature
 - Java code structure
 - reengineering issues
 - legacy code recovery/discovery
 - compare code and specifications (conformance)
 - roundtrip
 - ...

Convergence on the objectives

- Clear agreement on the "abstract" context
 - Abstract component models
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 - Java code nature
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Goal of day 3 = Clear agreement on the "concrete" context

Convergence on the objectives (summary)

- Clear agreement on the "abstract" context
 - Abstract component models
 - + Java Code
 - + Reverse = from code to abstract models
- Some vision of the "concrete" context
 - Java code nature
 - Bytecode or Plain source or Annotated Source
 - Java code structure
 - plain Java + informations
 - reengineering issues
 - abstraction rather than full reverse engineering
 - compare code and specifications (conformance)
- Benchmark = CoCoME
- Two other tracks: cross LTS extensions, WFR definitions

Workshop Organization

Thanks to the organisers for the social event !
Děkuji.

Back to the working session...

Try to advance on

- the input format
- the available techniques

Convergence on the means

- Discussions on **informations** (new)
 - CoCoME
 - Java + Structure \rightsquigarrow behaviours
- Collaborative State of the Art Study
- Re-engineering techniques
 - Java Compilers and Analysers
 - Patterns, rule based systems
 - Used notations and Intermediate layers (models)
 - ...
- Separate modules (e.g. structural / behavioural / metamodels)
- Benchmark example

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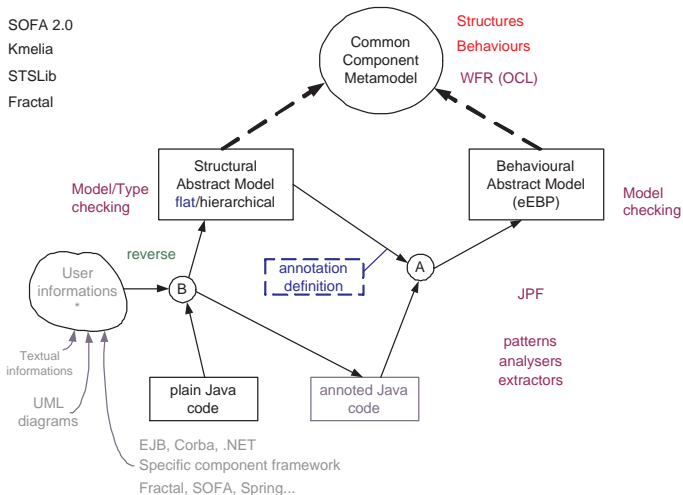
(optimistic) Goal of day 4 = organize the means tracks and find the benchmark

Convergence on the means (summary)

- DSRG experience CoCoME, Behavior Extraction, Tools (JPF, Bandera)

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 - 1 Component Metamodel cross LTS extensions, WFR
 - 2 Structure Abstraction user interacted tool
 - 3 Behavior Abstraction A-interface definition, annotations generation

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 - 1 Component Metamodel cross LTS extensions, WFR
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- Problem Domain Restriction
 - metamodel \implies components and behaviours
 - A \implies no connections, no composition, no statement abstraction
 - B \implies no composition, no statement abstraction, user-interactions

Convergence on the means (summary)

- DSRG experience **CoCoME, Behavior Extraction, Tools (JPF, Bandera)**
- Project Architecture **Three parts**
 - 1 Component Metamodel **cross LTS extensions, WFR**
 - 2 Structure Abstraction **user interacted tool**
 - 3 Behavior Abstraction **A-interface definition, annotations generation**
- Problem Domain Restriction
 - metamodel \implies components and behaviours
 - A \implies no connections, no composition, no statement abstraction
 - B \implies no composition, no statement abstraction, user-interactions
- Benchmark = **CoCoME**

Workshop Organization

Please send me the slides or put them on the Wiki !
Děkuji.

Back to the working session...

Try to advance on

- the tasks
- the responsibilities
- the planning

Definition of the tasks

- What to do ? **on the draft architecture**
 - Metamodel
 - Process A
 - Process B
- Contributions ? **a subset of**
 - Common Metamodel definition ?
 - Annotation language definition (input of process A)
 - Tools Prototypes for Metamodel verification, Process A, Process B
- Synchronisation points = A-interface, Metamodel def, B-Information def
- Planning **deadlines**
 - Evaluation (october 2007)
 - Workshop Nantes (begin of March 2008)
 - Workshop Cluj (end of august 2008)
- ...

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(optimistic) Goal of day 5 = each participant has a somewhat clear idea of what he will do

Production

- Workshop Report
 - Collect paper and slides **Please send them to me**
 - Summary of the discussions

+ Bibliographical Notes

⇒ **project plan for year 2 and *Evaluation***

- Fix the participants objectives
- Documentation, research reports
- Intermediate results ⇒ Second Workshop
- Publications (?)

see also the initial 'Second year objectives'

Working Session Organisation

- Plenary sessions ?
- Discussion groups ?