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Conference Reports (ECOOP07, ETAPS08)

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Contents



ECOOP 2007



ETAPS 2008



Keynote Talk at the GT-VMT

ECOOP 2007 - Main Conference

- ❖ Technical papers (almost everything except the Runtime Implementation session)
 - Types
 - Empirical Studies
 - Programs and Predicates
 - Language Design
 - Inheritance and Derivation
 - Aspects
 - Language about Language

ECOOP 2007 - Main Conference

❖ Invited talk

- Joe Armstrong

❖ Talk of laureate

- Luca Cardelli - An Accidental Simula User
- Jonathan Aldrich - Assuring Object-Oriented Architecture

❖ Panel

- OOP in the next five years - the hot topics

ECOOP 2007 - Satellite Events

❖ Workshops

- IWACO - 2nd International Workshop on Aliasing, Confinement and Ownership in object-oriented programming
- QAOOSE 2007 - 11th ECOOP Workshop on Quantitative Approaches in Object-Oriented Software Engineering

❖ Demos

- SAFARI: A Meta-Tooling Framework for Generating Language-Specific IDE's
- Research Proto-type Tool Demo: AbleJ 1.4: Attribute Grammar-based Language Ext.

Joe Armstrong's Talk

- Current OO approaches are completely wrong
- With mutable, shared memory model we will never create fault tolerant, highly concurrent systems
- We should think about how we can down scale models from 100,000 threads to 100 threads
- Write small code fragments and assume that they will crash + add error handlers
- Object creation must be cheap!
- Versioning of the components: assume that more version of a component runs in same time!
- ERLANG

Jonathan Aldrich's Talk

- ❖ How can we formally express architecture intent of a system?
- ❖ Runtime object structure is more important than the static structure
- ❖ Visualization with hierarchical graphs (simple graphs do not scales up!)
- ❖ Finding violation of the architecture
- ❖ <http://archjava.fluid.cs.cmu.edu/index.html>

Facts from the Empirical Studies

- 80% of reference usage in Java programs can be used as `@nonnull`; so, why isn't it the default behaviour?
- Typically 5% of the Java and C# code are exception handler and they are quite simple (logging or other simple solutions);
- More empty exception handler in C# programs -> misuse in Java is seldom; in C# is used to "silence" error;
- In C# most of the exceptions are caught later than in Java (even after 15 call levels)

ETAPS 2008

- ❖ The largest conference on theoretical computer science in Europe
- ❖ 5 main conferences
- ❖ 6 invited speakers
- ❖ 24 workshops and tutorials

Main Conferences

- CC 2008, International Conference on Compiler Construction
- ESOP 2008, European Symposium on Programming
- FASE 2008, Fundamental Approaches to Software Engineering
- FOSSACS 2008, Foundations of Software Science and Computation Structures
- TACAS 2008, Tools and Algorithms for the Construction and Analysis of Systems

Relevant workshops

- GT-VMT, 7th International Workshop on Graph Transformation and Visual Modeling Techniques
- WGT, Workshop on Generative Technologies
- SafeCert, Certification of Safety-Critical Software Controlled Systems
- LDTA, Eighth Workshop on Language Descriptions, Tools and Applications
- QAPL, 6th Workshop on Quantitative Aspects of Programming Languages

Keynote Talk at the GT-VMT

- ❖ Title of the talk: Domain-Specific Modeling in Practice
- ❖ Speaker: Juha-Pekka Tolvanen (MetaCase, Finland)
- ❖ Important messages of the talk:
 - Domain model based development can be almost a magnitude more efficient
 - **There are** successful industrial projects
 - Open research topics relevant to practice

Keynote Talk on DSM in Practice

❖ His comments

- Allow to edit the generated code is a bad idea
- Model to model transformation is also unnecessary in most of the cases

❖ Open Problems

- Empirical studies are missing
- Now-how on Domain Specific Language construction
- Model/Meta-model evolution/version management
- Tool support