ICSA 2017 Tutorial

Runtime Modeling and Visualization

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Welcome and Introduction

About the tutorial

Topic
- Model and visualize software architectures in form of architectural runtime models
- Address gaps between architectural modeling in development and operations
- Allow for phase-spanning usage of architectural models
- Support quality-aware DevOps in cloud applications

Goals
- Share our knowledge and experience on architecture modeling and analysis in dynamic cloud applications
- Gather feedback from the tutorial audience and identify future work and potentials for collaborations.
- Conduct a comprehensibility study to evaluate the applicability and usefulness of the proposed approaches and tools.

The Organizers

Robert Heinrich
Head of Quality-driven
System Evolution Research Group
Karlsruhe Institute of Technology
http://sdq.ipd.kit.edu/people/robert_heinrich

Research Interests
- Software architecture
- Business process management
- Quality modeling and analysis
- Software evolution, adaptation and reengineering

Google Scholar

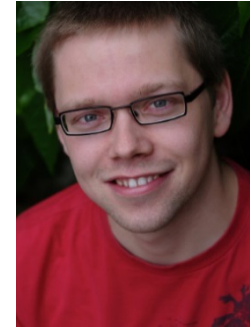dblp computer science bibliography

Functions
- Host of the CoCoME case study in DFG Priority Programme 1593
- SPEC Research Group: KIT Primary Representative, DevOps Performance WG
- Head of GI working groups: Long Living Software Systems, RE&BPM

Design For **FUTURE**

iObserve

The Organizers

Christian Zirkelbach
Researcher & Ph.D. Student
Software Engineering Group
Kiel University

http://se.informatik.uni-kiel.de/en/team/christian-zirkelbach

Research Interests
- Live Database (Trace) Visualization
- Software and Database Architecture
- Human-Computer-Interaction (HCI)
- Performance Analysis
- Empirical Methods

Google
Scholar

About
- Project Manager and Development Lead of the open source project ExplorViz
- Teaching undergraduate and graduate students in Software Engineering
- More than 8 years professional experience as system administrator
  and 1.5 years as Oracle DBA

The Organizers

Reiner Jung
Post-Doc Researcher/Coordinator
Software Engineering Group
Kiel University

http://se.informatik.uni-kiel.de/en/team/christian-zirkelbach

Research Interests
- Model-driven Software Engineering
- Domain-specific Languages
- Model-Transformation
- Performance Analysis
- Empirical Methods

Google Scholar

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Functions
- Future Ocean III Coordinator
- iObserve Coordinator Kiel
- Writing Grant Proposals
- Teaching graduate students in runtime software analysis

Please introduce yourself:

- Name
- Role
- Affiliation
- Interests in the field

Schedule of Events

09:00 – 09:10	Welcome and General Introduction
09:10 – 09:40	Study Foundations
09:40 – 10:00	Model-based Software Application Monitoring
10:00 – 10:30	Runtime Architecture Modeling and Visualization
10:30 – 11:00	Coffee Break
11:00 – 12:15	Introduction to the ExplorViz, Palladio, and iObserve Approaches with following Tool / Visualization Demos
12:15 – 12:30	Study Setup
12:30 – 14:00	Lunch
14:00 – 15:30	Comprehensibility Study
15:30 – 16:00	Coffee Break
16:00 – 16:30	Live Database Trace Visualization in Large Software Landscapes
16:30 – 17:00	Feedback and Open Discussion