Workshop on Context-oriented Programming (COP) 2016

Co-located with ECOOP 2016 in Rome, Italy   Tuesday, July 19, 2016

Introduction

Context information plays an increasingly important role in our information-centric world. Software systems must adapt to changing contexts over time, and must change even while they are running. Unfortunately, mainstream programming languages and development environments do not support this kind of dynamic change very well, leading developers to implementing complex designs to anticipate various dimensions of variability.

Context-oriented Programming (COP) directly supports variability depending on a wide range of dynamic attributes. In effect, it should be possible to dispatch run-time behavior on any property of the execution context. By now, several researchers have been working on notions approaching that idea, and implementations ranging from first prototypes to mature platform extensions used in commercial deployments have illustrated how multidimensional dispatch can indeed be supported effectively to achieve expressive run-time variation in behavior.

Topics

The previous editions of this workshop (ECOOP 2009–2015) have shown to be well-received. The goal of the 8th Workshop on Context-oriented Programming (COP-16) is to further establish context orientation as a common thread to language design, application development, and system support. Topics of interest include but are not limited to:

– Interesting application domains and scenarios
– Programming language abstractions for Context-oriented Programming (e.g. dynamic scoping, roles, traits, prototype-based extensions)
– Theoretical foundations for Context-oriented Programming (e.g. semantics, type systems)
– Configuration languages (e.g. feature description interpreters, transformational approaches)
– Interaction between non-functional programming concerns and Context-oriented Programming (e.g. security, persistence, concurrency, distribution).
– Interaction with other paradigms: event-based and reactive programming, object-oriented programming.
– Modularization approaches for Context-oriented Programming (e.g. aspects, modules, layers, plugins).
– Guidelines to include Context-oriented Programming in programs (e.g. best practices, patterns)
– Runtime support for Context-oriented Programming (e.g. reflection, dynamic binding)
– Implementation issues such as optimization, VM support, JIT compilation etc. for Context-oriented Programming
– Tool support (e.g. design tools, IDEs, debuggers).

Submissions

COP invites submissions of high-quality papers reporting original research, or describing innovative contributions to, or experience with Context-oriented Programming, its implementation, and application.

Papers that depart significantly from established ideas and practices are particularly welcome.

Submissions must not have been published previously and must not be under review for any another refereed event or publication.

The program committee will evaluate each contributed paper based on its relevance, significance, clarity, and originality. Accepted papers will be published in the ACM Digital Library.

Papers are to be submitted via EasyChair. Papers must be written in English, be provided as PDF documents, and follow the ACM SIGPLAN Conference Format (10 pt Times New Roman, numeric citation style). They should not exceed 6 pages.

Important dates

Submissions: **April 15, 2016 (anywhere in the world)**
Notifications: **May 13, 2016**
COP-16: July 19, 2016

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http://2016.ecoop.org/track/COP-2016