

ACM SIGPLAN International Workshop on Programming Language and Systems Technologies for Internet Clients (PLASTIC 2011)

Adam Welc
Adobe Systems
adam.welc@adobe.com

Michael Franz
University of California, Irvine
franz@uci.edu

Krzysztof Palacz
Adobe Systems
krzysztof.palacz@adobe.com

Abstract

Today's Internet users expect to access Internet resources using increasingly capable and ubiquitous client platforms. This trend has resulted in a wide-ranging diversification of hardware devices supporting various form factors and interaction modes, a choice of web browsers offering varying levels of performance, security and standards compliance, as well as the emergence of domain-specific uses of general-purpose Internet-related technologies, exemplified by Rich Internet Applications (RIAs) and site-specific browsers.

Despite the heterogeneity, all these platforms implement a common set of standards and technologies. While the resulting high level of interoperability can be seen as a major reason for the Internet's success, its constraints can also be viewed as limiting progress in client technologies. This workshop focuses on both innovative solutions in the area of Internet client software that improves on the current state-of-the-art while respecting the confines dictated by interoperability, as well as bold, new ideas that break with the status quo.

Categories and Subject Descriptors A.0 [GENERAL]: Conference Proceedings

General Terms Languages, Performance, Reliability, Security

Keywords Internet, Programming Languages, Systems, Compilation, Runtimes,

1. Overview

We firmly believe that, while the interest in the Internet-client related topics is on the rise, there is no single venue where people interested in these topics could meet, present their work, and exchange ideas. The main goal of this workshop is to fill out this niche. The workshop seeks contributions in the following (and also related) areas:

- compilation and runtime techniques for Internet client programming languages
- integration with server-side technologies, multi-tier programming languages and environments

- concurrency and parallelism support for Internet clients
- hardware acceleration of Internet client computational capabilities
- support for heterogeneity of Internet client environments (such as desktops, tablets and phones)
- Internet client security
- Internet client application deployment software engineering support (e.g. IDEs, refactoring, frameworks) for client-side Internet applications
- alternative Internet client programming languages and models
- novel approaches to Internet client software stack architecture

We solicit both regular papers (up to 10 pages) and position papers (up to 4 pages). The workshop will consist of a series of sessions where authors of the accepted papers will present ideas described in the papers. For the regular papers, we plan for 20-minute presentations and for the position papers we plan for 10-minute presentations. The intended time interval between the presentations would be at least 10 minutes. The the workshop will also include a panel session.

2. Organizers

The workshop is organized by two general co-chairs, Adam Welc (Adobe System) and Michael Franz (University of California, Irvine), and by the program committee chair, Krzysztof Palacz (Adobe Systems).

Adam Welc is a Senior Researcher at Adobe's Advanced Technology Lab. Adam's work is in the area of programming language design and implementation, with specific interests in web technologies, parallel programming and concurrency control, as well as compiler and runtime system optimizations. Some of his recent publications appeared in POPL'11, ECOOP'09 and EUROSYS'09.

Michael Franz is a Professor and the Director of the Secure Systems and Software Laboratory at the University of California, Irvine. He is well known for his research on dynamic compilation and continuous optimization. His work on trace-based compilation was subsequently adopted by Mozilla and became the TraceMonkey JavaScript engine in Firefox. He has been on the PCs of a large number of conferences and was one of the two founders of VEE, the ACM SIGPLAN/SIGOPS International Conference on Virtual Execution Environments.

Krzysztof Palacz is a Senior Computer Scientist in the ActionScript Engineering group at Adobe, where he is currently the tech lead of the Flash runtime concurrency effort. His previous research work has been focused on efficient implementation of program-

ming languages and virtual machines, as well as reflection and communication frameworks. He is one of the authors of Lively Kernel, an Open Web malleable self-supporting application framework inspired by Smalltalk.

3. Program Committee

We have assembled a diversified program committee, consisting of leading experts in the field, coming from different institutions and backgrounds, and working on two different continents. The full list of program committee members is presented below:

- Ras Bodik (UC Berkeley)
- Andreas Gal (Mozilla)
- Brian Goetz (Oracle)

- Dan Ingalls (SAP)
- Chandra Krintz (UC Santa Barbara)
- Ben Livshits (MSR)
- Bernd Mathiske (Adobe)
- Mark Miller (Google)
- Florian Matthes (TU Munich)
- Tatiana Shpeisman (Intel)
- Laurence Tratt (Middlesex University)
- Jan Vitek (Purdue University)