Overview

Historically, operating system development and programming language development went hand-in-hand. Challenges in one area were often approached using ideas or techniques developed in the other, and advances in one area enabled new capabilities in the other. Today, although the systems community at large retains an iron grip on C, modern programming language ideas continue to spark innovations in OS design and construction. Conversely, the systems field continues to provide a wealth of challenging problems and practical results that should lead to advances in programming languages, software designs, and idioms.

This workshop will bring together researchers and developers from the programming language and operating system domains to discuss recent work at the intersection of these fields. It will be a platform for discussing new visions, challenges, experiences, problems, and solutions arising from the application of advanced programming and software engineering concepts to operating systems construction, and vice versa.

Suggested paper topics include, but are not restricted to:

- critical evaluations of new programming language ideas in support of OS construction,
- domain-specific languages for operating systems,
- type-safe languages for operating systems,
- object-oriented and component-based operating systems,
- language-based approaches to crosscutting system concerns, such as security and run-time performance,
- language support for system verification,
- language support for OS testing and debugging,
- static/dynamic configuration of operating systems,
- static/dynamic specialization within operating systems,
- the use of OS abstractions and techniques in language runtimes,
- experience reports on applying new language techniques in commercial OS settings.

Agenda

The workshop will be a highly interactive event with an agenda designed to promote focused and lively discussions. Part of the workshop will be based on presentations of papers—we welcome research, experience, and position papers; papers describing industrial experience are particularly encouraged. The set of accepted papers will be made available to registered attendees in advance of the workshop. Participants should come to the workshop prepared with questions and comments.

The workshop organizers will use the accepted papers and input from participants to compile a list of topics for working groups, to be held during the workshop. The set of topics may be extended or changed during the workshop, based on the presentation and discussion of the workshop papers.

Submission Guidelines

All papers must be written in English and should be formatted according to the ACM proceedings format. Submissions must not be more than five (5) pages in length—this limit will be strictly enforced, and shorter papers are encouraged. Papers must be submitted in PDF format via the workshop Web site. They will be reviewed by the workshop program committee and designated external reviewers. Papers will be evaluated based on technical quality, originality, relevance, and presentation.

Accepted papers will be published electronically in the ACM Digital Library. The authors of accepted papers will be required to sign ACM copyright release forms. The publication of a paper in the PLOS workshop proceedings is not intended to replace future conference publication.

Program Committee

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