

# 3rd Virtual Machine Research and Technology Symposium (VM '04)

Sponsored by USENIX in cooperation with ACM SIGPLAN  
<http://www.usenix.org/events/vm04>

May 6–7, 2004

San Jose Hyatt, San Jose, California, USA

## Important Dates

Paper submissions due: *October 20, 2003*

**Extended submissions deadline: *October 20, 2003***

Notification of acceptance: *December 7, 2003*

Camera-ready final papers due: *February 16, 2004*

Symposium begins: *May 6, 2004*

## Conference Organizers

### Program Chair

Tarek S. Abdelrahman, *University of Toronto*

### Program Committee

Henri Bal, *Vrije Universiteit, The Netherlands*

Robert Berry, *IBM, UK*

Hans Boehm, *HP Labs, USA*

Michal Cierniak, *Intel, USA*

Stephen Fink, *IBM, USA*

Etienne Gagnon, *University of Quebec at Montreal,  
Canada*

John Gough, *Queensland University of Technology,  
Australia*

Sam Midkiff, *Purdue University, USA*

David Tarditi, *Microsoft, USA*

David Ungar, *Sun Microsystems, USA*

Matt Welsh, *University of California, Berkeley, USA*

Saul Wold, *Sun Microsystems, USA*

## Overview

Since the introduction of Java™ and the Java™ Virtual Machine in the early 90's, virtual machine technology has become an increasingly important part of the software infrastructure. The third USENIX symposium on Virtual Machine Research and Technology (VM '04) will build on the success of the two preceding Java™ Virtual Machine symposia. JVM '01 and JVM '02 provided venues for presenting top-quality research on Java™ Virtual Machines, facilitated the

interaction between compiler writers and virtual machine developers, and were well attended from both academia and industry. In 2004, the scope of the symposium will expand beyond that of the first and second symposia to encompass other types of virtual machines, such as Microsoft's .NET initiative, and low-level virtual machines/environments such as VMware, Connectix Virtual PC, and SWSOFT Virtuozzo.

This symposium will have 2 days of technical sessions. Sessions will include presentations by invited speakers and authors of refereed papers, as well as the popular Work-in-Progress section.

VM '04 will continue to emphasize research and advanced engineering techniques applicable to the development of virtual machines, with an emphasis on experimental results. A Symposium Proceedings will be printed and distributed to attendees. Following the symposium, the proceedings will be available online for USENIX members, and available for purchase.

Awards for the best paper and the best paper that is primarily the work of a student are presented at the Symposium.

We invite the submission of quality papers describing research or experiences with virtual machines, including, but not limited to, the Java™ Virtual Machine, .NET, and VMware. Research papers should describe original work that offers significant contributions to the state of VMs. Experience papers should describe general insights gained from porting, integrating, or tuning VMs -- insights that can be applied by other practitioners in the field. Submitted papers should make substantial contributions to the field and be useful to members of both the research and industrial communities.

## Topics

Relevant topics for VM '04 include, but are not limited to the following:

- ◆ VM implementation
- ◆ Hardware implementation of standard VMs
- ◆ Compilation techniques
- ◆ Security
- ◆ Garbage Collection
- ◆ Embedded VM systems
- ◆ Large VM and Server Issues (scalability and availability)
- ◆ Interactions and trade-offs with static compilation
- ◆ VMs and Grid Computing
- ◆ Porting Experiences
- ◆ Performance Issues and Tuning Techniques
- ◆ Multiple VM environments and interactions
- ◆ Proposed standards, particularly empirical studies

Questions about the relevance of a topic may be addressed to the Program Chair at [vm04chair@usenix.org](mailto:vm04chair@usenix.org)

## What to Submit

Submissions should be full papers, 10 to 14 pages (around 5,000-6,000 words) in length. Late and too long papers will be rejected. All submissions will be judged on originality, significance, relevance, correctness, and clarity. Each submission must include the paper title, the contact author, email and regular addresses, and a phone number. For more information, please read the detailed author guidelines located on the symposium Web site.

The VM symposium, like most conferences and journals, requires that papers (or significantly similar papers) not be submitted simultaneously to any other conference or publication, that submissions not be previously published, and that accepted papers not be subsequently published elsewhere for a year from date of acceptance by USENIX. Papers accompanied by non-disclosure agreement forms are not acceptable and will be returned to the author(s) unread. All submissions are held in the highest confidentiality prior to publication in the Proceedings, both as a matter of policy and in accord with the U.S. Copyright Act of 1976.

## How to Submit

Web-based electronic submission will be expected. Submissions should be in Postscript that is interpretable by Ghostscript or in PDF that is interpretable by Acroread, and should be printable on US Letter sized paper. The Web form for submissions is located on the symposium Web site. All submissions will be acknowledged.

Submitters for whom web submission is a hardship should contact the Program Chair for alternative means of submission at [vm04chair@usenix.org](mailto:vm04chair@usenix.org).

## Work-in-Progress Reports

The VM Symposium will include a session on “work in progress” (WiP) to introduce new ideas to the community and solicit early feedback. We are particularly interested in the presentation of student work and bleeding edge VM implementation and integration in both software and hardware. WiP abstracts will be lightly screened to facilitate focused discussions during the session. The submission process for WiP abstracts will begin in February 2004. Full submission information will be available at the symposium Web site.

## Birds-of-a-Feather Sessions

Birds-of-a-Feather sessions (BoFs) are very informal gatherings organized by attendees interested in a particular topic. BoFs will be held in the evening. BoFs may be scheduled in advance by emailing the Conference Office at [conference@usenix.org](mailto:conference@usenix.org). BoFs may also be scheduled at the symposium.

## Registration Materials

Complete program and registration information will be available in February 2004 here on the symposium Web site. The information will be in both html and a printable PDF file. If you would like to receive the program booklet in print, please email your request, including your postal address, to: [conference@usenix.org](mailto:conference@usenix.org).