

# 29th European Conference on Object-Oriented Programming

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Edited by

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## ■ Preface

This volume contains 31 accepted papers (of 136 submitted) of the 29th ECOOP, ECOOP'15 which will take place in Prague in July of 2015. Each submitted paper was assigned at least three program committee (PC) reviewers. If a PC member was an author, then the paper was assigned a minimum of five PC reviewers. Over twenty additional external reviewers wrote reviews of papers where we needed more expertise. External reviewers had to be approved by the program chair. Altogether 450 reviews were produced.

Papers authored by PC members were given extra scrutiny. Along with the extra reviews, the papers were decided upon before the PC meeting. Each paper had to be clearly acceptable with at least one champion and no objections to inclusion. Of the fifteen PC papers, only three were accepted. Several of the rejected papers would probably have been accepted in normal circumstances.

The program committee met in at ETH in Zürich to decide on the non-PC papers that had at least one positive review. We discussed these 80 papers in eight groups of ten papers each. After the discussion, each paper had a PC member tasked with writing up a summary of the discussion for the authors.

This proceedings is the first one to be published by the Leibniz International Proceedings in Informatics (LIPIcs). We appreciate the long partnership with Springer Verlag, who not only published the proceedings for most of the previous instances of ECOOP, but also provided in-kind funds to the authors of the best paper. Moving to LIPIcs allows ECOOP to provide “Gold Open Access” to accepted papers, which not only raises visibility, but also meets the requirements of increasingly many funding providers for open access. We look forward to a positive partnership with the Schloss Dagstuhl Leibniz-Zentrum für Informatik.

I would like to take this opportunity to thank Malte Schwerhoff and Marlies Weissert of ETH who were invaluable in handling the logistics of the meeting and to Peter Müller whose office provided funding and hosting of the event. I thank my own institution (University of Wisconsin-Milwaukee) for a reduced teaching schedule in the Spring semester of 2015, as well as providing a lunch for PC members. I also want to thank all the PC members for their hard work and thoughtful reviews. Last I would like to thank the ECOOP 2015 “Comfy Chair” Jan Vitek for his constant availability for questions and assistance.

John Tang Boyland

*May, 2015*





## ■ Artifacts

The ECOOP Artifact Evaluation (AE) process considers artifacts – software, data, proofs, videos, etc. – that are associated with published papers and that are independently submitted, reviewed, and accepted or rejected by an Artifact Evaluation Committee (AEC). The long-term goal of this process is to foster a culture of reproducibility of experimental results by considering software artifacts as first-class citizens, as well as enhancing the information provided to the community about research results. Artifacts are reviewed and accepted even if they cannot be made available to the public (e.g., because of confidentiality requirements or intellectual property difficulties), but the intent is that artifacts should be made available if possible. This year’s ECOOP is the third edition to include AE, and similar processes continue to be adopted at other top conferences.

The AE process is similar to a paper-review process; artifacts are submitted by paper authors and evaluated by a committee based on individual assessments followed by a discussion among the reviewers. As is traditional, the ECOOP 2015 AEC members are all outstanding junior researchers. Each of the 17 AEC members reviewed 2-3 artifacts, and each artifact was evaluated by 3 members.

In the first phase, reviewers were asked to “kick the tires” of each artifact to check that it could be reviewed effectively. An author-response period followed immediately afterward. This phase ruled out corrupt artifact archive files and similar low-level problems that could easily be resolved with help from the authors.

In the second phase, the reviewers read the accepted papers, evaluated the associated artifacts with respect to the content and claims of the paper, and wrote evaluation summaries. In their artifact evaluations, reviewers focused on four key questions: (1) *Is the artifact consistent with the paper?* (2) *Is the artifact complete?* (3) *Is the artifact well documented?* and (4) *Is the artifact easy to reuse?* Each reviewer assigned an overall rating of “does not live up to expectations [raised by the paper],” “lives up to the expectations,” or “exceeds expectations” for each artifact. In a virtual AEC meeting, the committee discussed those ratings and reviews and decided on acceptance or rejection for each artifact. During the discussion, all AEC members could see all reviews and discussions (except as proscribed by a conflict of interests), which allowed a calibration of the reviews across artifacts and reviewers.

Among the 31 papers accepted for ECOOP 2015, we received 15 artifacts for evaluation.<sup>2</sup> Of the submitted artifacts, the committee accepted 12 and rejected 3. A high acceptance rate seems natural for the AE process, since it covers only artifacts for papers that have already been accepted for publication. Currently, the AE process is not intended to influence paper submission, and independence is ensured by opening artifact submission only after paper notifications. As the AE process evolves, it is possible that the intent and application of AE influence will change.

Papers with accepted artifacts in this proceedings are marked with a rosette representing the seal of approval by the AEC. We are glad to note that all accepted artifacts are collected on the Dagstuhl Research Online Publication Server (DROPS) alongside the papers, and for the first time each artifact has its own DOI separate from its paper’s DOI.

This year’s AE process benefited greatly from the experience and advice of previous AEC organizers. We relied on the guidelines by Shriram Krishnamurthi, Matthias Hauswirth, Steve Blackburn, and Jan Vitek published in the foundational on-line article *Artifact Evaluation for*

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<sup>2</sup> One accepted paper’s artifact was ineligible for review, due to having an AEC co-chair as an author.



*Software Conferences* available at <http://www.artifact-eval.org>. The *Artifact Evaluation Artifact* effort by Steve Blackburn and Matthias Hauswirth, available at the address <http://evaluate.inf.usi.ch/artifacts/aea>, was also of inspiration. We thank the Program Chair John Boyland for his help and cooperation, and we particularly thank Jan Vitek for his continued involvement and advice. Thanks also to Eddie Kohler for his help with the HotCRP conference management software. Most significantly, we enthusiastically commend the AEC members for their diligent efforts. Finally, we thank all authors for packaging and documenting their artifacts for ECOOP 2015 and for making them publicly available; we believe that this extra step of publication is an invaluable service for the community.

Camil Demetrescu

Matthew Flatt

*May, 2015*

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