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## ■ Preface

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 fourth 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 2016 AEC members are all outstanding junior researchers. Each of the 17 AEC members reviewed 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 26 papers that were provisionally accepted for ECOOP 2016, we received 17 artifacts for evaluation. Of the submitted artifacts, the committee accepted 14 and rejected 3. A high acceptance rate is natural for the AE process, since it covers only artifacts for papers that have been provisionally accepted for publication. Currently, the AE process is not intended to influence paper submission, and independence is ensured partly 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, and the table of contents contains a similar but smaller mark on these papers. We are glad to note that all accepted artifacts are collected on the Dagstuhl Research Online Publication Server (DROPS) alongside the papers. Each artifact has its own DOI that is 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 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 Shriram Krishnamurthi and the General Chair Camil Demestrescu for their help and cooperation, and we thank Jan Vitek for his continued involvement and advice. Thanks also to Eddie Kohler for his help with the HotCRP conference management software and to Michael Wagner for his help formatting artifact descriptions and making artifacts available. 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 2016 and for making them publicly available; we believe that this extra step of publication is an invaluable service for the community.

April 2016

Matthew Flatt  
Tijs van der Storm



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