# Artifact Evaluation (Summary)

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## ABSTRACT

The artifact evaluation committee (AEC) is in charge of evaluating data and software that accompany papers accepted at the ESEC/FSE'13 research track. Authors of more than 40% of the accepted papers have submitted an artifact (22 out of the 51 accepted papers). The AEC has positively evaluated more than 50% of the submitted artifacts. 12 out of the 22 artifacts have been graded as "met expectations" or "exceeded expectations".

## Categories and Subject Descriptors

D.0 [**Software**]: General; G.3 [**Probability and statistics**]: Software Engineering

## General Terms

Experimentation

## Keywords

Artifact evaluation process, artifact evaluation committee, data, software

## 1. ARTIFACT EVALUATION COMMITTEE

Results presented in technical papers are often validated or supported by software artifacts. To reward the effort of creating artifacts, authors of accepted research paper may, if they wish, have their tools, data or models evaluated by the Artifact Evaluation Committee (AEC). This effort was initiated at ESEC/FSE 2011 by Shriram Krishnamurthi, Carlo Ghezzi and Andreas Zeller.

This year, 51 papers have been accepted at ESEC/FSE, for which the authors of 22 papers have submitted an artifact for review. The AEC has carefully evaluated each artifact: 12 of the 22 artifacts have been assessed as "met expectations" or "exceeded expectations". 10 artifacts have been ruled out for various reasons (*e.g.,* lack of documentation, artifact cannot be processed or run, artifact does not run on examples written by the AEC members)

The AEC is composed of 12 members plus 2 co-chairs, meaning that each artifact has been evaluated by two reviewers. The AEC has carried out its effort under tight time constraints. 44 artifacts reviews have been written in three weeks.

Due to the very specificity of some artifacts, 4 external reviewers have been involved. We are grateful to Lisong Guo, Julia Lawall, Leonardo Mariani and Camille Teruel.

From a personal perspective, we are delighted to have chaired this committee. The Artifact Evaluation Committee members worked very hard to produce quality reviews. Evaluating an artifact often results in facing technical details unfortunately. Committee members often had to deal with installation or running procedures which were not expected by the artifact authors. Some artifacts were not available in a binary form, thus the committee members had to deal with compilation problems and library dependencies that sometimes were not fully documented by the artifact authors. The whole process went smoothly and we are sincerely grateful to all the members.

## 2. RESULTS

We have categorized the 12 successfully evaluated artifacts in data artifacts and software artifacts. Artifacts are listed in no particular order. Of course, such distinction is not always obvious, in particular when the tool to produce the data set is come along with the data set. We made the distinction based on what the artifacts is emphasizing on.

Data artifacts:

- Paul Marinescu and Cristian Cadar – *KATCH: High-Coverage Testing of Software Patches*
- Dirk Beyer, Stefan Löwe, Evgeny Novikov, Andreas Stahlbauer and Philipp Wendler – *Linux Driver Revisions for Regression Verification.* The artifact is related to the paper titled *Precision Reuse for Efficient Regression Verification.*
- Nishant Sinha and Rezwana Karim – *Compiling Mock-ups to Flexible UIs*
- Meiyappan Nagappan, Thomas Zimmermann and Christian Bird – *Diversity in Software Engineering Research*
- Marin Silic, Goran Delac and Sinisa Srbljic – *Prediction of Atomic Web Services Reliability Based on K-means Clustering*

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Software artifacts:

- Aravind Machiry, Rohan Tahiliani and Mayur Naik – *Dynodroid: An Input Generation System for Android Apps*
- Alex Gyori, Danny Dig, Lyle Franklin and Jan Lahoda – *Crossing the gap from imperative to functional programming through refactoring*
- Shahar Maoz, Jan Oliver Ringert and Bernhard Rumpe – *Synthesis of Component and Connector Models from Crosscutting Structural Views*
- Chengnian Sun and Siau-Cheng Khoo – *Mining Succinct Predicated Bug Signatures*
- Yunhui Zheng, Xiangyu Zhang and Vijay Ganesh – *Z3-str: A String Theory Plugin on Z3 for Web Application Analysis*
- Pietro Braione, Giovanni Denaro and Mauro Pezzé – *Enhancing Symbolic Execution with Built-in Term Rewriting and Constrained Lazy Initialization*
- Peng Liu – *Finding Incorrect Compositions of Atomicity*

## 3. MEMBERS

The Artifact Evaluation Committee of ESEC/FSE 2013 is formed by:

- Damien Cassou, University of Lille 1, France
- Nicolas D'Ippolito, Imperial College London, UK
- Giovanni Denaro, University of Milano-Bicocca, Italy
- Carl Friedrich Bolz, King's College London, UK
- Georgios Gousios, TU Delft, Netherlands
- Wei Jin, Georgia Institute of Technology, USA
- Giovanni Lagorio, University of Genova, Italy
- Sébastien Mosser, University of Nice - Sophia Antipolis, France
- Fernando Olivero, University of Lugano, Switzerland
- Márcio Ribeiro, Federal University of Alagoas, Brazil
- Alessandro Ricci, University of Bologna, Italy
- Juan Pablo Sandoval Alcocer, DCC - University of Chile, Chile
- Alexandre Bergel (co-chair), DCC - University of Chile, Chile
- Lorenzo Bettini (co-chair), Università di Torino, Italy