Message from the Chairs

RELENG 2015

We are pleased to present the proceedings of the 3rd International Workshop on Release Engineering (RELENG 2015), which was held in Florence, Italy on Tuesday the 19th of May 2015, co-located with ICSE 2015. With an actual release engineer as one of the co-organizers, 42% of the PC consisting of actual release engineers, and a separate abstract track for practitioner reports (in addition to a regular academic track), RELENG has been built from the ground up to bring together researchers and practitioners in the area of release engineering to meet each other and share experiences, tools and techniques to help organizations release high quality software products on time.

The term “release engineering” basically covers all activities in between regular development and actual usage of a software product by the end user, i.e., integration, build, test execution, packaging and delivery of software. This comprises a variety of activities like managing test infrastructure, code flow through branches, building and configuring a product from source code, reporting quality gate results, signing off source code, manufacturing CDs, deploying applications, managing hot-fixes, and anything else that is necessary to bring high quality products to the end user on time. More details can be found on our website: http://releng.polymtl.ca.

The first edition of the workshop, RELENG 2013, was the largest co-located 1-day workshop in terms of attendance at ICSE 2013 in San Francisco (CA, USA), attracting 84 participants, 76% of which came from industry (e.g., Mozilla, Google, Netflix and LinkedIn). We had keynotes by the director of Release Engineering at Mozilla Corporation (John O’Duinn) and the director of Engineering Services at LinkedIn (Roman Scheiter). The second edition of the workshop, RELENG 2014, was hosted on the Google campus in Mountain View (CA, USA) and attracted 101 participants, 87% of which came from industry (e.g., Facebook, Google, Adobe and Sony). This edition had keynotes by the Release Engineering manager at Facebook (Chuck Rossi) and a Release Engineer at Google (Dinah McNutt). To document the current state-of-the-art in release engineering research and practice, we also organized the first IEEE Software Special Issue on Release Engineering (March/April 2015), which features 7 papers and 1 round-table article on the state of release engineering.

Similar to the successful first two editions of the workshop, RELENG 2015 consisted of a keynote, 5 practitioner talks, 6 paper presentations, 1 poster, interactive working groups and a fishbowl panel for semi-structured group discussions. The keynote speaker was Pete Rotella from Cisco Systems, who talked about approaches for and challenges of ensuring the quality of a software release.

We received 15 talk and paper submissions, which were reviewed by three to four PC members (2 researchers and at least 1 practitioner), after which online discussions were used to reach a consensus. Eventually, the following 12 submissions were accepted:

Practitioner talks:
- “Collecting Release Metadata at Google” by Dominic Mitchell (Google UK)
- “Continuous Delivery in a Financial Organization” by Chris Bartels and Daniele Romano (ING Netherlands)
- “RelEng as a force multiplier” by John O’Duinn (Hortonworks)
- “Research Opportunities in Continuous Delivery - Reflections from Two Years’ Experiences in A Large Bookmaking Company” by Lianping Chen (Paddy Power)
- “Towards a Uniform Definition for Release Engineering and DevOps” by Ralf Penners, Andrej Dyck and Horst Lichter (RWTH Aachen University)

Research papers:
- “Securing a Deployment Pipeline” by Len Bass, Ralph Holz, Paul Rimba, An Binh Tran and Liming Zhu (NICTA, Australia)
• “Performance of defect prediction in rapidly evolving software” by Davide Giacomo Cavezza, Roberto Pietrantuono and Stefano Russo (Università degli Studi di Napoli Federico II)
• “Predicting Software Field Reliability” by Pete Rotella, Sunita Chulani and Devesh Goyal (Cisco Systems, Inc.)
• “Continuous Deployment and Schema Evolution in SQL Databases” by Michael de Jong and Arie van Deursen (Delft University of Technology)
• “Extracting Configuration Knowledge from Build Files with Symbolic Analysis” by Shurui Zhou, Jafar Al-Kofahi, Tien N. Nguyen, Christian Kästner and Sarah Nadi (Carnegie Mellon University, Iowa State University, and TU Darmstadt)
• “Continuous Delivery with Jenkins” by Valentina Armenise (Cloudbees)

Research poster:
• “Accelerating Maven by Delaying Dependencies” by Jonathan Bell, Eric Melski, Gail Kaiser and Mohan Dattatreya (Columbia University and Electric Cloud, Inc.)

A common thread through these submissions, the IEEE Software submissions and the RELENG 2014 discussions was the desire for smaller companies and startups to learn how to achieve the same release engineering performance as the big players, but at a fraction of the cost. Through presentations, discussions and networking, we hope that RELENG 2015 will have helped its participants at answering this question for their organization, as well as that it will have inspired researchers and students to pursue new research in this domain.

Finally, a big thank you to everybody who submitted to RELENG 2015 (and earlier editions), every participant, every PC member, and everyone else interested in the fascinating world of release engineering!

The RELENG 2015 Organizers
Bram Adams, Stephany Bellomo, Christian Bird, Foutse Khomh and Kim Moir