

DevOps Performance Working Group

SPEC Research Group



September 1, 2015 @ QUDOS, Bergamo, Italy

Contact

André van Hoorn <van.hoorn@informatik.uni-stuttgart.de>

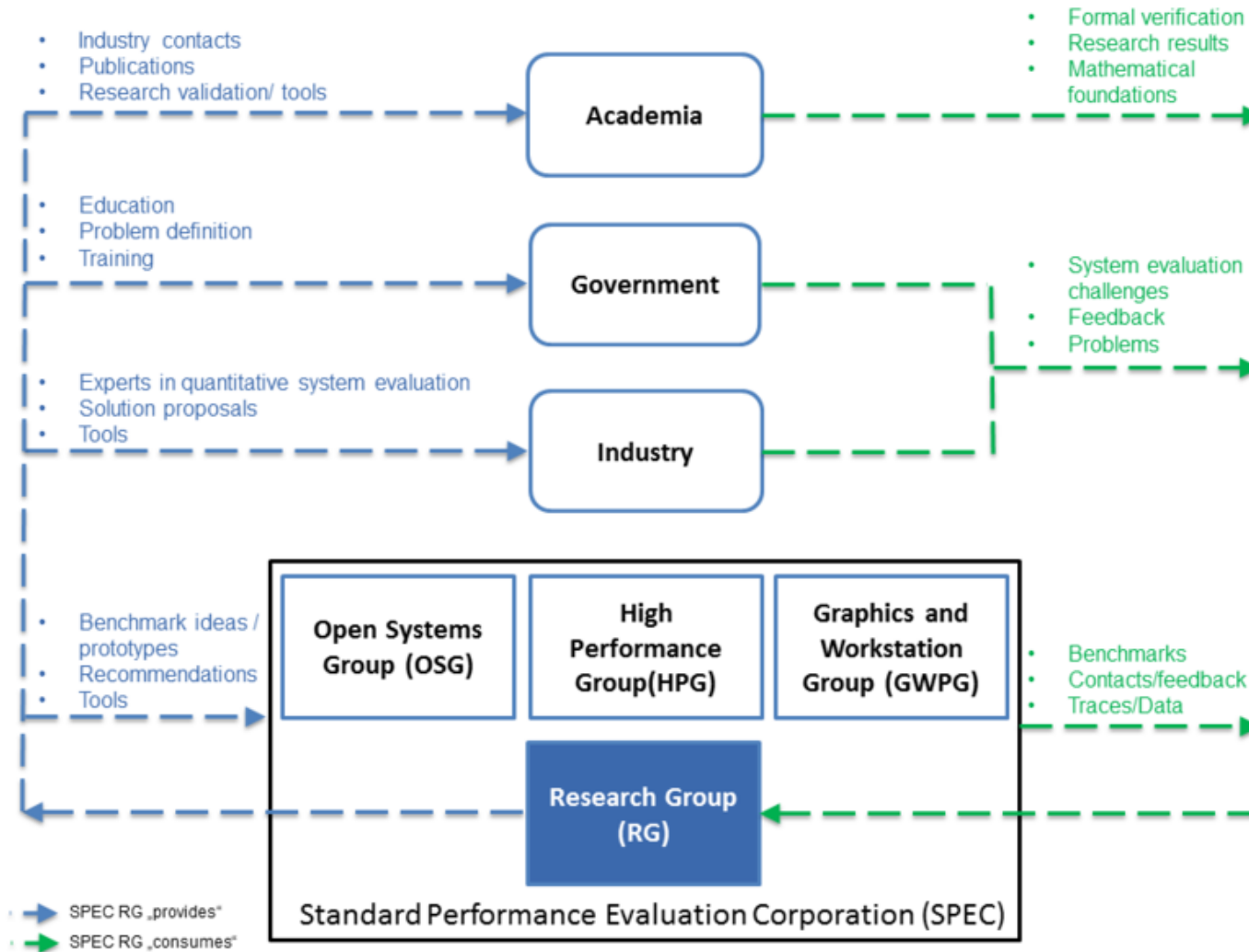
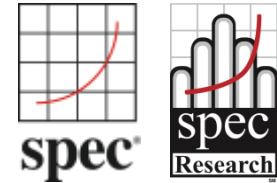
Andreas Brunnert <brunnert@fortiss.org>

<http://research.spec.org/devopswg>

Disclaimer:

SPEC, the SPEC logo, the SPEC Research Group logo and the tool and names SERT, SPECjms, SPECpower_ssj, SPECweb, SPECjEnterprise, and SPECvirt_sc are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). Reprint with permission.

SPEC Research Group (RG) Activities



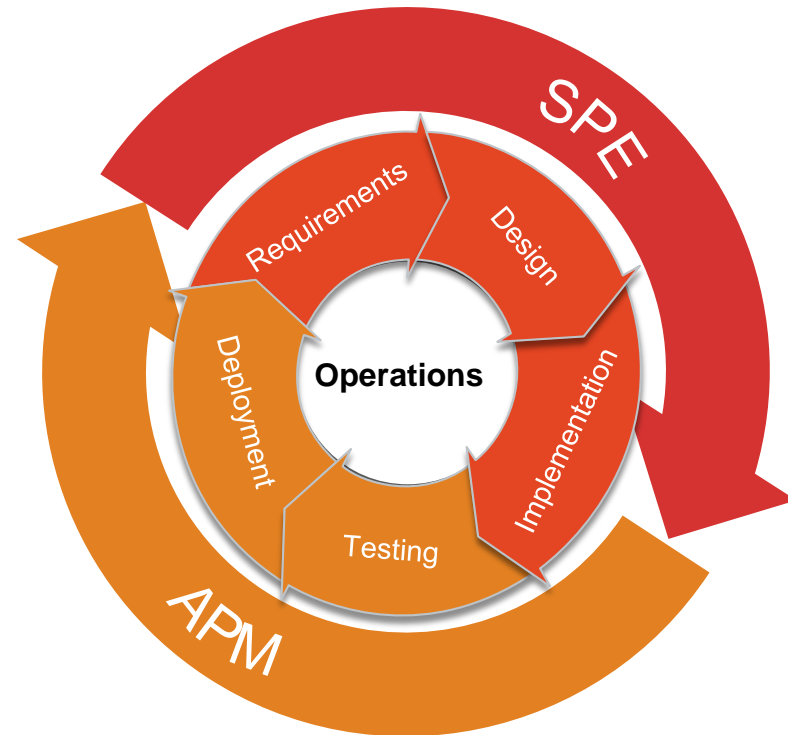
SPEC RG Member Organizations

<http://research.spec.org>



SPEC RG DevOps Performance Working Group

<http://research.spec.org/devopswg/>



Mission: The mission of the DevOps Performance WG is to foster and facilitate research in combining **measurement-based** application performance management (APM) and **model-based** software performance engineering (SPE) activities for **business-critical application systems**.

SPEC RG DevOps Performance Working Group

Recently Completed Activities



- **Technical report on DevOps performance (10+ authors)**
- Current State and Open Challenges
- Structure:



1. Performance Management Activities: State of the Art

- Model- and measurement-based performance evaluation techniques, model extraction, ...

2. Software Performance Engineering (SPE) During Development (Dev)

- Performance awareness, performance anti-pattern detection, performance change detection, ...

3. Application Performance Management (APM) During Operations (Ops)

- Monitoring and reasoning, extracting load intensity and navigational profiles, ...

4. Evolution: Going Back-And-Forth between Dev and Ops

- Capacity planning and management, architectural improvements using models, ...

- <https://research.spec.org/publications.html>

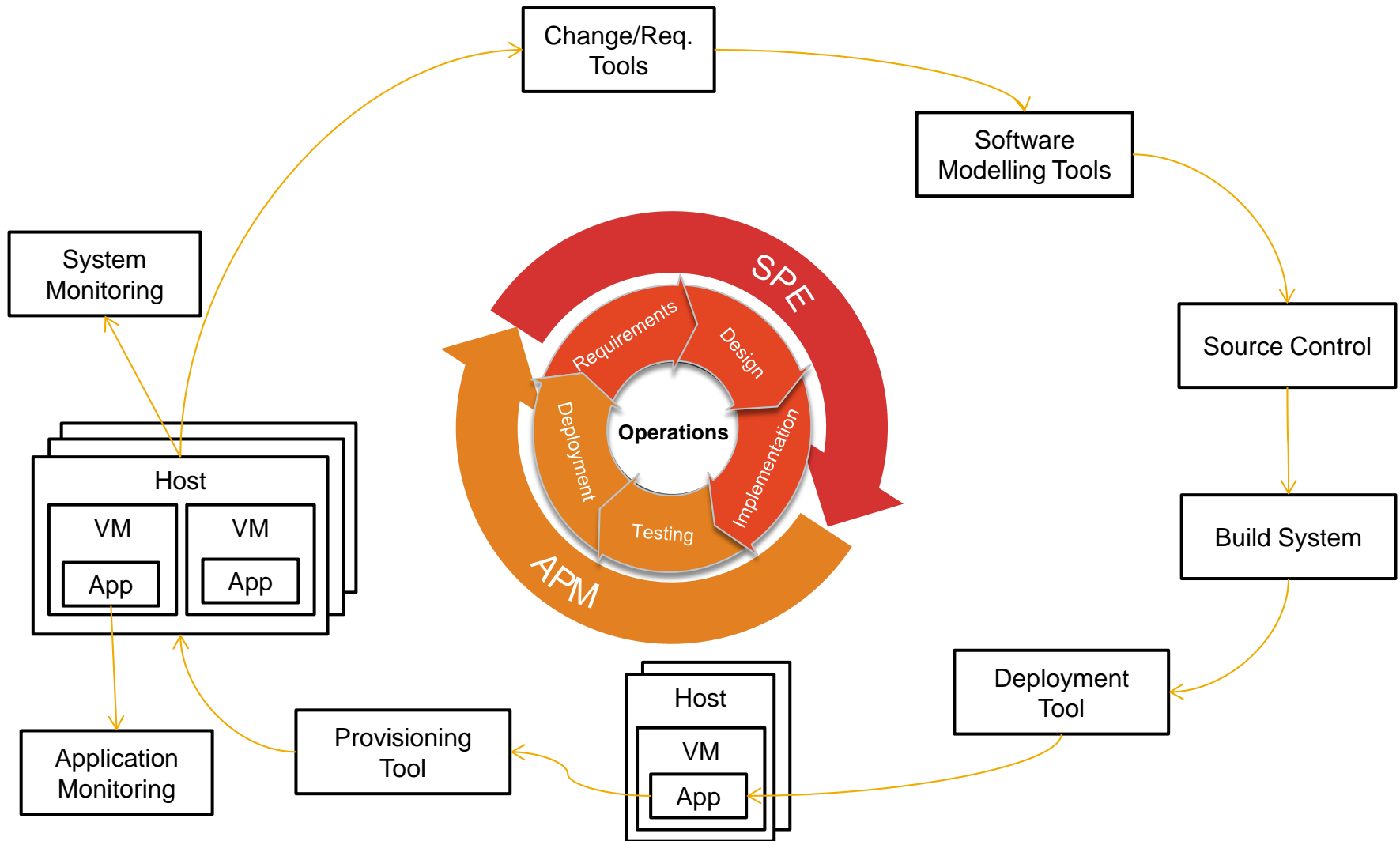
SPEC RG DevOps Performance Working Group

Recently Completed Activities

- **Comparison resource-demand estimation vs. measurements**
 - EPEW '15
- **Model extraction from industrial APM (Dynatrace)**
 - ICPE '15 (tool/poster)
- **Workload extraction and specification for session-based application systems**
 - ValueTools '14, LT@ICPE '15
- **Expert-guided automatic diagnosis of performance problems in enterprise applications**
 - Collaborative project (BMBF)

SPEC RG DevOps Performance Working Group

Current Activity: DevOps Performance Evaluation/Showcase Environment

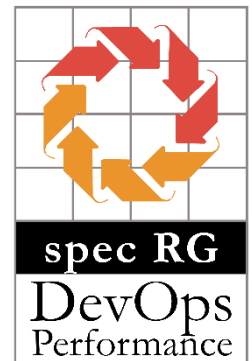



SPEC RG DevOps Performance Working Group

<http://research.spec.org/devopswg/>



- Interested to join?
 - Learn more: <http://research.spec.org/devopswg/>
 - **Contact:**
 - André van Hoorn (Chair): van.hoorn@informatik.uni-stuttgart.de
 - Andreas Brunnert (Vice chair): brunnert@fortiss.org
- **We are always interested in:**
 - Joint publications (e.g., scientific or white papers)
 - Joint projects (e.g., tools or benchmarks)
 - Jointly supervised student theses / internships
 - Production workloads and measurement/architectural data
 - Current challenges that cannot be addressed by existing tools





7th ACM/SPEC International Conference
on Performance Engineering

ICPE 2016

Delft, the Netherlands - March 12-18, 2016

- **Research Papers Track** – September 15/30, 2015
- **Industry Track** –September 15/30, 2015
- **Posters & Demonstrations Track** – October 15, 2015
- **Workshops** –September 23, 2015
- **Tutorials Track** – October 15, 2015
- **Work In Progress & Vision Track** – November 23, 2015
- **Doctoral Symposium** – November 23, 2015