

SPEC Research Group (RG)

The Research Group of the Standard Performance Evaluation Corporation
<http://research.spec.org/>



Mission Statement

- ▶ Provide a platform for collaborative research efforts in the area of quantitative system evaluation and analysis
- ▶ Foster interactions and collaborations between industry and academia
- ▶ Scope: computer benchmarking, performance evaluation, and experimental system analysis in general

Scope of Research Efforts

- ▶ Develop metrics, benchmarks, methodologies, techniques and tools for quantitative system evaluation and analysis
 - ▶ e.g., measurement, load/stress testing, profiling, workload characterization
- ▶ Broad understanding of term performance
 - ▶ Classical performance properties
 - ▶ e.g., response times, throughput, scalability, elasticity, resource- and energy-efficiency
 - ▶ Other dependability-related quality properties
 - ▶ e.g., availability, reliability, security
- ▶ Target both industrial technologies as well as purely academic domains
- ▶ Evaluate early prototypes and research results as well as full-blown implementations

Current Members (December 2014)



Repository of Peer-Reviewed Tools

- ▶ Tools addressing recurring issues in quantitative system evaluation and analysis
- ▶ Selected hosted tools:



Current Working Groups

- ▶ Big Data Benchmarking
- ▶ Cloud Computing
- ▶ DevOps Performance
- ▶ Intrusion Detection Systems

Research Benchmarks

- ▶ Selected examples:
 - ▶ Representative application scenarios and workloads
 - ▶ Metrics
 - ▶ Workload scaling and customization guidelines
- ▶ Target existing & newly emerging technologies

Other Selected Activities

- ▶ Portal for benchmarking-related resources
- ▶ SPEC Distinguished Dissertation Award
- ▶ Conference and workshop organization, e.g., <http://icpe-conference.org>

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