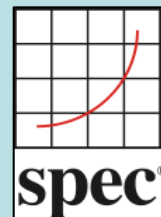


SPEC Research Group (RG)

The Research Group of the
Standard Performance Evaluation Corporation



Mission Statement

- ▶ Provide a platform for collaborative research efforts in the areas of computer benchmarking and quantitative system analysis
- ▶ Provide metrics and benchmarks for evaluating early prototypes and research results as well as full-blown implementations
- ▶ Foster interactions and collaborations btw. industry and academia

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

Scope of Research Efforts

- ▶ Develop methodologies, techniques and tools for benchmarking and quantitative system analysis (e.g., measurement, load/stress testing, profiling, workload characterization)
- ▶ with respect to performance, scalability, elasticity, dependability (availability, reliability, resilience, robustness), resource- and energy-efficiency
- ▶ Cover all stages of the system lifecycle
- ▶ Target both industrial technologies as well as purely academic domains

Peer-Reviewed Benchmarking Tools

- ▶ Tools addressing recurring issues in benchmark development
- ▶ Reusable software components for building new benchmarks and quantitative analysis frameworks
- ▶ *Examples:* workload generators, monitoring and measurement frameworks, workload characterization and profiling tools, load/stress testing tools
- ▶ Benchmark development frameworks targeted at specific application domains

Current Members (June 2011)



Working Groups / Research Benchmarks

- ▶ Establish working groups, focusing on different areas, e.g., Cloud Computing, peer-to-peer systems, hybrid computing
- ▶ Development of *research* benchmarks
 - ▶ Application scenarios and workloads
 - ▶ Metrics
 - ▶ Strategy for scaling the workloads
 - ▶ Workload customization strategies
 - ▶ Implementation guidelines
 - ▶ Benchmarking methodologies
 - ▶ (Prototype implementations)