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Storage Performance Council's SPC-2/E and SPC-2C/E Benchmark Extensions Address Energy Use in Sequential Applications

REDWOOD CITY, Calif., – October 20, 2011 – The [Storage Performance Council \(SPC\)](http://www.storageperformance.org) today announced the public availability of SPC Benchmark 2/Energy (SPC-2/E) and SPC Benchmark 2C/Energy (SPC-2C/E). SPC-2/E and SPC-2C/E are extensions to SPC Benchmark 2 (SPC-2) and SPC Benchmark 2C (SPC-2C) to now include measurement and reporting of energy use in addition to storage performance for sequential applications.

SPC-2 and the SPC-2/E extension provide measurement and reporting for complete storage solutions, with SPC-2C and the SPC-2C/E extension providing the same measurement and reporting for storage components. Both benchmarks and their extensions utilize the same three distinct sequential workloads. Those workloads demonstrate the performance of a storage configuration during the execution of business critical applications that require large-scale, sequential movement of data. Those applications are characterized predominately by large I/O requests, which are organized into one or more concurrent sequential patterns.

A description of each of the three workloads that comprise SPC-2 and SPC-2C, as well as additional information describing SPC Results, is available at <http://www.storageperformance.org/results>.

In addition to the “core” SPC-2 and SPC-2C performance measurement and reporting requirements, the SPC-2/E and SPC-2C/E extensions define two states of benchmark execution, idle and active (performance) with multiple idle phases to demonstrate power management/savings features.

With the addition of SPC-2/E and SPC-2C/E to the previously released SPC-1/E and SPC-1C/E energy extensions, the SPC now provides the only portfolio of industry-standard storage benchmarks for producing comparative storage performance, price-performance, and energy use data. This comprehensive benchmark portfolio addresses both OLTP (online transaction processing) and sequential applications for both complex storage configurations and storage components, utilizing I/O workloads that represent “real-world” application behavior.

“Reducing data center energy use for economic reasons and/or to reduce environmental impact is a key objective for many organizations,” said Gary Burgess, senior vice president, research, Ideas International. “The SPC’s benchmarks and energy extensions provide the necessary insights into storage product performance, price-performance and energy consumption required by end-users to make informed purchase decisions and by vendors to assist in competitive product development.”

In conjunction with today’s release of the SPC-2/E and SPC-2C/E benchmark extensions, the first SPC-2/E Result has been submitted by IBM Corporation and the first SPC-2C/E Result has been submitted by Seagate. The IBM SPC-2/E Result for the IBM XIV® Storage System Gen 3[1] is the first SPC Result for that product. The product’s SPC-2/E Result demonstrates excellent performance for handling Big Data requirements as well as reporting associated energy use for that performance.

The Seagate SPC-2C/E Result with the Seagate Constellation.2™ disk drive product[2] utilized that product’s [PowerChoice](#)™ feature, an automatic power savings feature that is activated during very brief periods of command inactivity without impacting performance. The positive impact of that power saving feature is clearly illustrated in the idle state measurements and reporting contained in the required SPC-2C/E Full Disclosure Report.

“The SPC now offers a broad-based portfolio of industry-standard storage benchmarks that provide objective, relevant and verifiable performance, price-performance, and energy use data in an easy-to-use manner,” said Walter E. Baker, administrator for the Storage Performance Council. “Developers, as well as product managers, now have a reliable method to measure the effectiveness of their energy savings features and end-users can now evaluate energy use in addition to performance and price-performance when making purchase decisions.”

About the SPC

The SPC is a non-profit corporation founded to define, standardize and promote storage benchmarks and to disseminate objective, verifiable storage performance data to the computer industry and its customers. The organization's strategic objectives are to empower storage vendors to build better products as well as to stimulate the IT community to more rapidly trust and deploy multi-vendor storage technology.

For more information about the SPC and SPC-1/E visit <http://www.storageperformance.org>.

The SPC membership consists of a broad cross-section of the storage industry. A complete SPC membership roster is available at <http://www.storageperformance.org/about/roster/>.

A complete list of SPC Results is available at <http://www.storageperformance.org/results>.

SPC Benchmark 2, SPC-2, SPC Benchmark 2/Energy, SPC-2/E, SPC-1/E and SPC-1C/E are trademarks of the Storage Performance Council. All other brand or product names may be trademarks or registered trademarks of the respective companies in this release.

[1] IBM XIV® Storage System SPC-2/E Executive Summary and Full Disclosure Report are available at http://www.storageperformance.org/results/benchmark_results_spc2#be00001

[2] Seagate Constellation .2™ (ST91000640SS) SPC-2C/E Executive Summary and Full Disclosure Report are available at http://www.storageperformance.org/results/benchmark_results_spc2c#de00001