



## News Release

### FOR IMMEDIATE RELEASE

### NEW DUAL-CORE SGI ALTIX SYSTEMS PUSH LEADING APPLICATIONS TO UNPRECEDENTED HEIGHTS

#### World-Record Performance on MD Nastran, SPECjbb2005 and More Reveals How Altix Continues to Shorten Time to Results for HPC Users

MOUNTAIN VIEW, Calif. (July 18, 2006)—Silicon Graphics, Inc. (OTC: SGID) today announced that its new dual-core SGI® Altix® systems are pushing key applications to levels of performance never seen before. The servers are based on the new Dual-Core Intel® Itanium® 2 processor 9000 series (formerly codenamed Montecito).

SGI's dual-core Altix® 4700 and Altix® 450 servers deliver double the performance of today's award-winning Altix systems at the same or lower hardware cost, while drawing less power and offering more density and flexibility for demanding, data-intensive applications.

In all of SGI's major markets – including engineering, earth and life sciences, government and defense, and data management – the new servers derive blistering performance from real-world applications to shorten time to results.

#### Engineering: MD Nastran

In tests of the popular MD Nastran computational structural mechanics application, a dual-core SGI Altix system was 2.6 times faster than a dual-core HP server. The tested Altix 4700 system was based on two 1.6GHz dual-core Intel Itanium 2 processor 9000 series CPUs, and the HP server was powered by two dual-core 2.6GHz Opteron processors<sup>1</sup>.

“These results show that dual-core Altix systems can cut our customers' time to solution by as much as 60 percent,” said Dr. Reza Sadeghi, vice president, product development, MSC.Software Corp. “In other words, Altix can take a two-day job and complete it overnight. For manufacturers relying on complex finite-element simulations to drive down costs, using dual-core Altix systems means more time to invest in additional simulations, sensitivity studies and what-if analyses, leading to greater innovation and even better products. The combination of Altix, next-generation Intel Itanium 2 processors, and MSC.Software's suite of enterprise simulation tools clearly deliver a true competitive advantage to our customers.”

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## **New Dual-Core SGI Altix Systems Push Leading Applications to Unprecedented Heights/2**

### **Sciences and Government/Defense: Gaussian, VASP, MM5**

Applications widely used in life sciences, earth sciences, and government and defense also see significant performance increases on dual-core Altix systems – with peak performance boosts reaching 300 percent in some cases.

VASP molecular dynamics code runs, on average, a stunning 108 percent faster on dual-core Altix than on a dual-core Opteron-based system. And Gaussian, one of the most popular computational chemistry applications in use throughout the world, runs 62 percent faster on dual-core Altix<sup>2</sup>.

“Gaussian, Inc. and SGI have worked closely together for many years to deliver top performance from SGI hardware and Gaussian software for the benefit of Gaussian users,” said Dr. Michael Frisch, president, Gaussian, Inc. “Gaussian is pleased to continue this collaboration with SGI, building on the outstanding performance and scalability available today on the SGI Altix server platform and now including the Altix 450 and Altix 4700 servers with next-generation Dual-Core Intel® Itanium® 2 processors.”

In weather forecasting and environmental modeling, dual-core Altix systems combine proven operational capability with industry-leading performance on applications like the PSU/NCAR Mesoscale Modeling System (MM5), which runs up to 71 percent faster<sup>2</sup> on Altix than on dual-core Opteron systems.

### **Data Management: BEA JRockit and SPECjbb2005**

New dual-core SGI Altix systems also achieved world-record results on the SPECjbb2005 benchmark, an industry-standard measurement of Java\*-based application performance critical to enterprise users in data-intensive environments. The benchmark results, posted today on [www.spec.org](http://www.spec.org), show how SGI can process Java\*-based business logic on a record 256 processor cores. SGI also set the 128-core record in March, putting SGI Altix in the top two spots on the SPECjbb2005 list of published benchmark results.

Dual-core SGI Altix 4700 easily outperformed competing systems from Fujitsu Ltd., Sun Microsystems and others. The tested Altix 4700 server, powered by 128 Dual-Core Intel® Itanium® 2 processor 9050 CPUs and running the high-performance BEA JRockit® 5.0 Java Virtual Machine (JVM), which is optimized for Intel-based servers, generated 3,772,246 SPECjbb2005 bops<sup>3</sup> (business operations per second). All SPECjbb2005 results are posted on <http://www.spec.org/jbb2005/results/jbb2005.html>

“These latest results demonstrate that BEA JRockit®, SGI Altix 4700 servers, and new dual-core Intel Itanium 2 processors are designed to provide a platform that is fast, stable and efficient,” said Guy Churchward, General Manager of the Java Runtime Products Group at BEA Systems. “Right on the heels of delivering world-record SPECjbb2005 results on a single-core SGI Altix system, we have thrust the performance bar upward yet again with an even more powerful solution designed to help enterprises achieve new levels of reliability, scalability, manageability and simplicity.”

SGI announced its dual-core Altix 4700 and Altix 450 blade systems in June. (See “*SGI Launches New Mid-Range Altix 450 Servers and Doubles Performance of Altix 4700 Blades*”). Ideal for HPC environments with demanding data-intensive workloads, the dual-core Altix 4700 system scales from 8 to 512 CPU sockets (up to 1,024 processor cores) and can accommodate up to 6TB of globally shared memory in a single system while delivering a teraflop of performance in a small-footprint rack.

## New Dual-Core SGI Altix Systems Push Leading Applications to Unprecedented Heights/3

At the mid-range, SGI Altix 450 clusters and servers deliver up to 2.5 times the system performance of the current Altix® 350® server at a lower cost. Like Altix 4700 systems, Altix 450 servers can be configured to maximize density, I/O or memory, or mixed to accommodate any workflow. Each Altix 450 system can scale to 38 Intel Itanium 2 sockets (up to 76 processor cores) and up to 456GB of globally addressable memory.

### Pricing and Availability

Dual-core SGI Altix 4700 and 450 systems are expected to be available in late August of 2006. Altix 4700 system configurations start at less than \$75,000, and Altix 450 solutions are priced from under \$15,000. For more information, visit: <http://www.sgi.com/products/servers/altix>.

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This news release contains forward-looking statements regarding SGI technologies and third-party technologies that are subject to risks and uncertainties. These risks and uncertainties could cause actual results to differ materially from those described in such statements. The reader is cautioned not to rely unduly on these forward-looking statements, which are not a guarantee of future or current performance. Such risks and uncertainties include long-term program commitments, the performance of third parties, the sustained performance of current and future products, financing risks, the ability to integrate and support a complex technology solution involving multiple providers and users, and other risks detailed from time to time in the company's most recent SEC reports, including its reports on Form 10-K and Form 10-Q.

### Editor's Note

<sup>1</sup> Details on competing system results available at:

[http://www.mscsoftware.com/support/prod%5Fsupport/nastran/performance/v05\\_sngl.cfm](http://www.mscsoftware.com/support/prod%5Fsupport/nastran/performance/v05_sngl.cfm)

<sup>2</sup> Gaussian, VASP and MM5 benchmarks run on SGI Altix 4700 with Dual-Core Intel Itanium 2 processors 9000 series CPUs at 1.6GHz/24MB vs. server based on two dual-core AMD Opteron processors at 2.4GHz/16MB. All benchmarks run by SGI.

<sup>3</sup> SPECjbb2005 competitive results for 128+ core systems accessed from [www.spec.org](http://www.spec.org) on July 17, 2006.

**SGI Altix 4700 configuration:** 128, Dual-Core Intel Itanium 2 processor 9050 1.6GHz CPUs, 512GB of main memory, 64 instances of BEA JRockit 5.0 JVM.

Scores achieved in SGI tests on June 17, 2006: 3772246 SPECjbb2005 bops and 58941 SPECjbb2005 bops/JVM.

**SGI Altix 3700 Bx2 configuration:** 128, 1.6GHz single-core Intel Itanium 2 CPUs, 512GB of main memory, 64 instances of BEA JRockit 5.0 JVM.

Scores achieved in SGI tests on March 24, 2006: 1828349 SPECjbb2005 bops and 28568 SPECjbb2005 bops/JVM.

**SunFire E25K configuration:** 72 dual-core 1.5GHz ULTRASPARC IV+ CPUs, 288GB of main memory, 72 instances of Java HotSpot 32-Bit Server VM on Solaris, version 1.5.0\_08.

Scores achieved in Sun tests on May 17, 2006: 1387437 SPECjbb2005 bops and 19270 SPECjbb2005 bops/JVM.

**Fujitsu Ltd. PrimePower2500 configuration:** 128, 2.1GHz single-core SPARC64V CPUs, 512GB of main memory, 32 instances of Java HotSpot 32-Bit Server VM on Solaris, version 1.5.0\_06.

Scores achieved in Fujitsu tests on March 14, 2006: 1251024 SPECjbb2005 bops and 39095 SPECjbb2005 bops/JVM.