Dell Inc.  

PowerEdge M620 (Intel Xeon E5-2630, 2.30 GHz)  

As shown above, the SPECint_rate2006 resulted in a score of 434, with SPECint_rate_base2006 scoring 415. The test was conducted by Dell Inc. with a CPU2006 license of 55, and the test was sponsored by Dell Inc. as well. The test was run on a Dell Inc. machine on Mar-2012. The Hardware Availability was Mar-2012, and the Software Availability was Feb-2012.

### Hardware

- **CPU Name:** Intel Xeon E5-2630
- **CPU Characteristics:** Intel Turbo Boost Technology up to 2.80 GHz
- **CPU MHz:** 2300
- **FPU:** Integrated
- **CPU(s) enabled:** 12 cores, 2 chips, 6 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1.2 chip
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 15 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC, running at 1333 MHz)
- **Disk Subsystem:** 1 x 500 GB 7200 RPM SATA
- **Other Hardware:** None

### Software

- **Operating System:** SUSE Linux Enterprise Server 11 SP2 (x86_64) 3.0.13-0.9-default
- **Compiler:** C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux
- **Auto Parallel:** No
- **File System:** ext3
- **System State:** Run level 3 (add definition here)
- **Base Pointers:** 32-bit
- **Peak Pointers:** 32/64-bit
- **Other Software:** Microquill SmartHeap V9.01
### SPEC CINT2006 Result

**Dell Inc.**

PowerEdge M620 (Intel Xeon E5-2630, 2.30 GHz)

**SPECint_rate2006 = 434**

**SPECint_rate_base2006 = 415**

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### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<tr>
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<td>770</td>
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<td>768</td>
<td>305</td>
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<td>401.bzip2</td>
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<td>225</td>
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<tr>
<td>403.gcc</td>
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<td>343</td>
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<td>670</td>
<td>325</td>
<td>674</td>
<td>328</td>
<td>668</td>
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<td>445.gobmk</td>
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<td>307</td>
<td>822</td>
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<td>306</td>
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<tr>
<td>456.hmmer</td>
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<td>519</td>
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<td>514</td>
<td>1007</td>
<td>527</td>
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<tr>
<td>471.omnetpp</td>
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<td>609</td>
<td>246</td>
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<td>609</td>
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<td>473.astar</td>
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<td>244</td>
<td>683</td>
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<td>483.xalancbmk</td>
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<td>451</td>
<td>364</td>
<td>454</td>
<td>367</td>
<td>451</td>
</tr>
</tbody>
</table>

**Results appear in the order in which they were run. Bold underlined text indicates a median measurement.**

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### Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

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### Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

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### Platform Notes

System Profile set to Custom
CPU Power Management set to Maximum Performance
Memory Frequency set to Maximum Performance
Turbo Boost set to Enabled
C States/C1E set to Enabled
Sysinfo program /root/CP2006-1.2/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdfff5032aaa42e583f96b0f99d3
running on linux-8itg Fri Mar 9 17:37:59 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo
- model name : Intel(R) Xeon(R) CPU E5-2630 0 @ 2.30GHz
- 2 "physical id"s (chips)
- 24 "processors"

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Continued on next page
SPEC CINT2006 Result

Dell Inc.

PowerEdge M620 (Intel Xeon E5-2630, 2.30 GHz)

SPECint_rate2006 = 434
SPECint_rate_base2006 = 415

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Mar-2012
Hardware Availability: Mar-2012
Software Availability: Feb-2012

Platform Notes (Continued)

cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 6
siblings : 12
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB

From /proc/meminfo
MemTotal: 132122692 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 11 (x86_64)

From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 11 (x86_64)
VERSION = 11
PATCHLEVEL = 2

uname -a:
Linux linux-8itg 3.0.13-0.9-default #1 SMP Mon Jan 16 17:33:03 UTC 2012
(54ddfaf) x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Mar 9 17:21 last=S

SPEC is set to: /root/CPU2006-1.2
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda1 ext3 455G 73G 359G 17% /

Additional information from dmidecode:

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/root/CPU2006-1.2/libs/32:/root/CPU2006-1.2/libs/64"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled

Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches

runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>
# SPEC CINT2006 Result

## Dell Inc.

**PowerEdge M620 (Intel Xeon E5-2630, 2.30 GHz)**

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<thead>
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**CPU2006 license:** 55  
**Test date:** Mar-2012  
**Test sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Hardware Availability:** Mar-2012  
**Software Availability:** Feb-2012

### Base Compiler Invocation

- **C benchmarks:**
  - `icc -m32`
- **C++ benchmarks:**
  - `icpc -m32`

### Base Portability Flags

- 400.perlbench: `-DSPEC_CPU_LINUX_IA32`
- 462.libquantum: `-DSPEC_CPU_LINUX`
- 483.xalancbmk: `-DSPEC_CPU_LINUX`

### Base Optimization Flags

- **C benchmarks:**
  - `-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3`
- **C++ benchmarks:**
  - `-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3`
  - `-Wl,-z,muldefs -L/smartheap -lsmartheap`

### Base Other Flags

- **C benchmarks:**
  - 403.gcc: `-Dalloca=_alloca`

### Peak Compiler Invocation

- **C benchmarks (except as noted below):**
  - `icc -m32`
  - 400.perlbench: `icc -m64`
  - 401.bzip2: `icc -m64`
  - 456.hmmer: `icc -m64`
  - 458.sjeng: `icc -m64`
- **C++ benchmarks:**
  - `icpc -m32`
Dell Inc.  
PowerEdge M620 (Intel Xeon E5-2630, 2.30 GHz)  

Spec_cint_rate2006 =  434  
Spec_cint_rate_base2006 =  415  

CPU2006 license: 55  
Test sponsor:  Dell Inc.  
Tested by:  Dell Inc.  

Test date:  Mar-2012  
Hardware Availability:  Mar-2012  
Software Availability:  Feb-2012  

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -auto-ilp32
401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -opt-prefetch -auto-ilp32 -ansi-alias
403.gcc: -xSSE4.2 -ipo -o3 -no-prec-div
429.mcf: basepeak = yes
445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -ansi-alias -opt-mem-layout-trans=3
456.hmmer: -xSSE4.2 -ipo -o3 -no-prec-div -unroll2 -auto-ilp32
458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto-ilp32
462.libquantum: basepeak = yes
464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/smartheap -lsmartheap
473.astar: basepeak = yes

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Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml
http://www.spec.org/cpu2006/flags/Dell-Platform-Settings-V1.2-revA.20120328.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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