# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

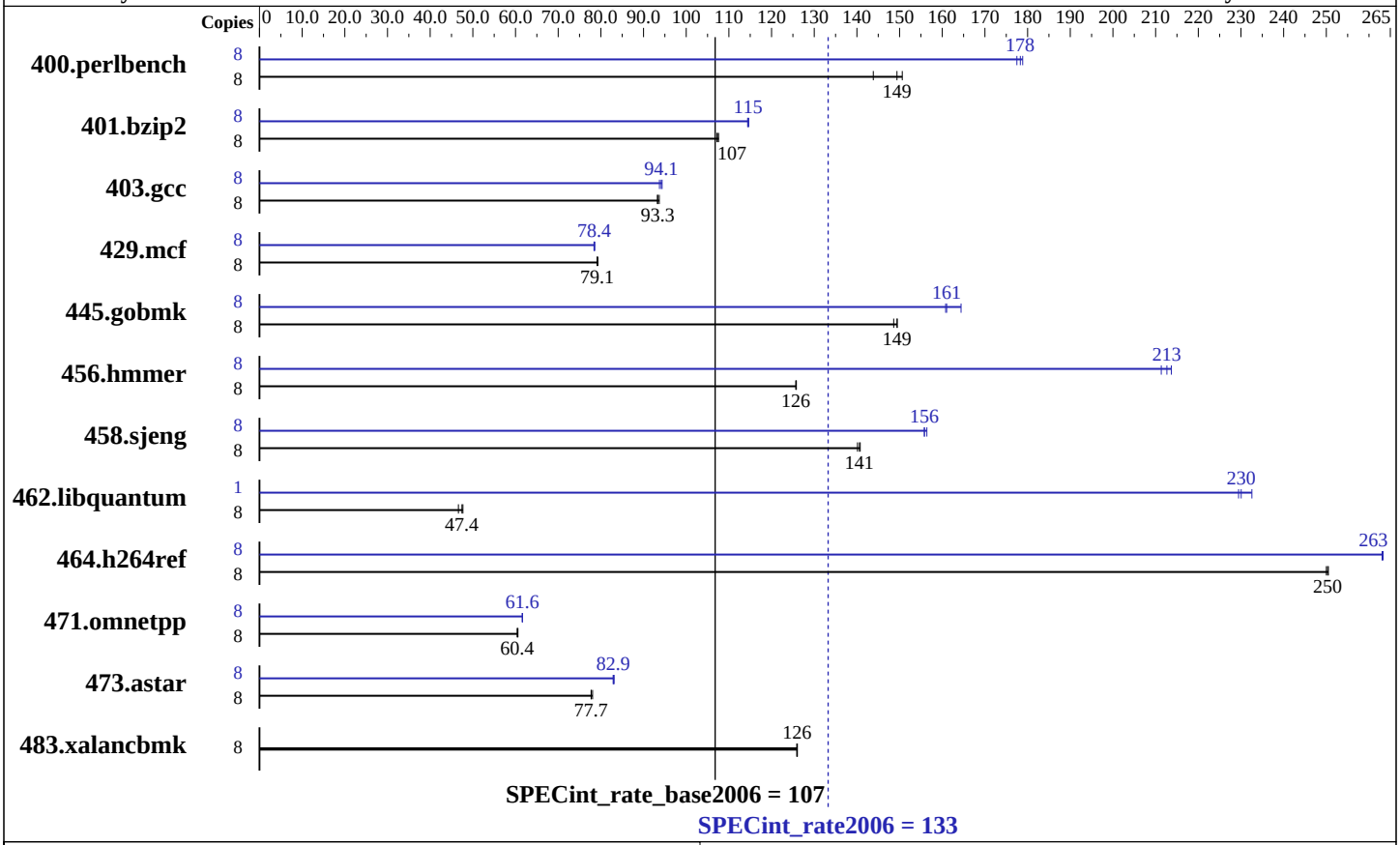
PowerEdge M600 (Intel Xeon E5450, 3.00 GHz)

SPECint®_rate2006 = 133

SPECint_rate_base2006 = 107

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

**Test date:** Jul-2008
**Hardware Availability:** Jan-2008
**Software Availability:** Nov-2007




## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon E5450 |
| CPU Characteristics: | |
| CPU MHz: | 3000 |
| FPU: | Integrated |
| CPU(s) enabled: | 8 cores, 2 chips, 4 cores/chip |
| CPU(s) orderable: | 1,2 chips |
| Primary Cache: | 32 KB I + 32 KB D on chip per core |
| Secondary Cache: | 12 MB I+D on chip per chip, 6 MB shared / 2 cores |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 16 GB (4x4 GB, DDR2-667 MHz, CL5, Reg, Dual Rank) |
| Disk Subsystem: | 1x80 GB SATA 5400 RPM |
| Other Hardware: | None |

## Software

| | |
|---|---|
| Operating System: | SUSE Linux Enterprise Server 10 (x86_64) SP2<br>Kernel 2.6.16-60.0.21-smp |
| Compiler: | Intel C++ Compiler 10.1 for Linux<br>Build 20080312 Package ID: l_cc_p_10.1.015 |
| Auto Parallel: | Yes |
| File System: | ReiserFS |
| System State: | Run level 3 (multi-user) |
| Base Pointers: | 32-bit |
| Peak Pointers: | 32/64-bit |
| Other Software: | Microquill SmartHeap V8.1<br>Binutils 2.18.50.0.7.20080502 |

# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge M600 (Intel Xeon E5450, 3.00 GHz)

SPECint_rate2006 = 133

SPECint_rate_base2006 = 107

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

**Test date:** Jul-2008
**Hardware Availability:** Jan-2008
**Software Availability:** Nov-2007

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 8 | 543 | 144 | 519 | 151 | **523** | **149** | 8 | 440 | 177 | **438** | **178** | 437 | 179 |
| 401.bzip2 | 8 | 718 | 108 | **719** | **107** | 720 | 107 | 8 | 675 | 114 | **674** | **115** | 673 | 115 |
| 403.gcc | 8 | **690** | **93.3** | 687 | 93.7 | 691 | 93.2 | 8 | 683 | 94.3 | 687 | 93.7 | **684** | **94.1** |
| 429.mcf | 8 | 922 | 79.1 | 920 | 79.3 | **922** | **79.1** | 8 | 928 | 78.6 | **930** | **78.4** | 931 | 78.4 |
| 445.gobmk | 8 | 565 | 149 | 562 | 149 | **562** | **149** | 8 | 510 | 164 | **521** | **161** | 522 | 161 |
| 456.hmmer | 8 | 593 | 126 | 594 | 126 | **594** | **126** | 8 | **351** | **213** | 353 | 211 | 349 | 214 |
| 458.sjeng | 8 | 691 | 140 | 688 | 141 | **688** | **141** | 8 | **621** | **156** | 619 | 156 | 621 | 156 |
| 462.libquantum | 8 | 3556 | 46.6 | 3477 | 47.7 | **3494** | **47.4** | 1 | **90.1** | **230** | 89.1 | 233 | 90.3 | 229 |
| 464.h264ref | 8 | 708 | 250 | **707** | **250** | 707 | 250 | 8 | **673** | **263** | 672 | 263 | 673 | 263 |
| 471.omnetpp | 8 | 827 | 60.4 | 826 | 60.6 | **827** | **60.4** | 8 | 812 | 61.6 | 811 | 61.6 | **811** | **61.6** |
| 473.astar | 8 | 723 | 77.7 | 719 | 78.1 | **723** | **77.7** | 8 | 676 | 83.1 | **677** | **82.9** | 678 | 82.9 |
| 483.xalancbmk | 8 | 438 | 126 | 438 | 126 | **438** | **126** | 8 | 438 | 126 | 438 | 126 | **438** | **126** |

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

## Submit Notes

```
The config file option 'submit' was used.
```

## Platform Notes

```
BIOS Settings:
Adjacent Cache Line Prefetch = Disabled (default Enabled)
```

## General Notes

```
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode
taskset was used to bind processes to cores except
for 462.libquantum peak
OMP_NUM_THREADS set to number of processors
KMP_AFFINITY set to "physical,0"
KMP_STACKSIZE set to 64M
```

## Base Compiler Invocation

C benchmarks:

```
icc
```

C++ benchmarks:

```
icpc
```

## Base Portability Flags

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

## Base Optimization Flags

C benchmarks:
-fast -inline-calloc -opt-malloc-options=3

C++ benchmarks:
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/spec/cpu2006.1.1/lib -lsmartheap

## Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):
icc

401.bzip2: /opt/intel/cce/10.1.015/bin/icc
-L/opt/intel/cce/10.1.015/lib
-I/opt/intel/cce/10.1.015/include

456.hmmer: /opt/intel/cce/10.1.015/bin/icc
-L/opt/intel/cce/10.1.015/lib
-I/opt/intel/cce/10.1.015/include

C++ benchmarks:
icpc

## Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX

Continued on next page

## Peak Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

## Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias -prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch

403.gcc: -fast -inline-calloc -opt-malloc-options=3

429.mcf: -fast -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo -no-prec-div -ansi-alias

456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

462.libquantum: -fast -unroll4 -Ob0 -prefetch -opt-streaming-stores always -vec-guard-write -opt-malloc-options=3 -parallel -par-runtime-control

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

483.xalancbmk: basepeak = yes

## Peak Other Flags

C benchmarks:

Continued on next page

## Peak Other Flags (Continued)

403.gcc: `-Dalloca=_alloca`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-int-linux64-revD.20090713.00.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-int-linux64-revD.20090713.00.xml`


SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.


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

Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 18:52:34 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 August 2008.