# SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge M610 (Intel Xeon E5504, 2.00 GHz)

$SPECint®2006 =$    21.0

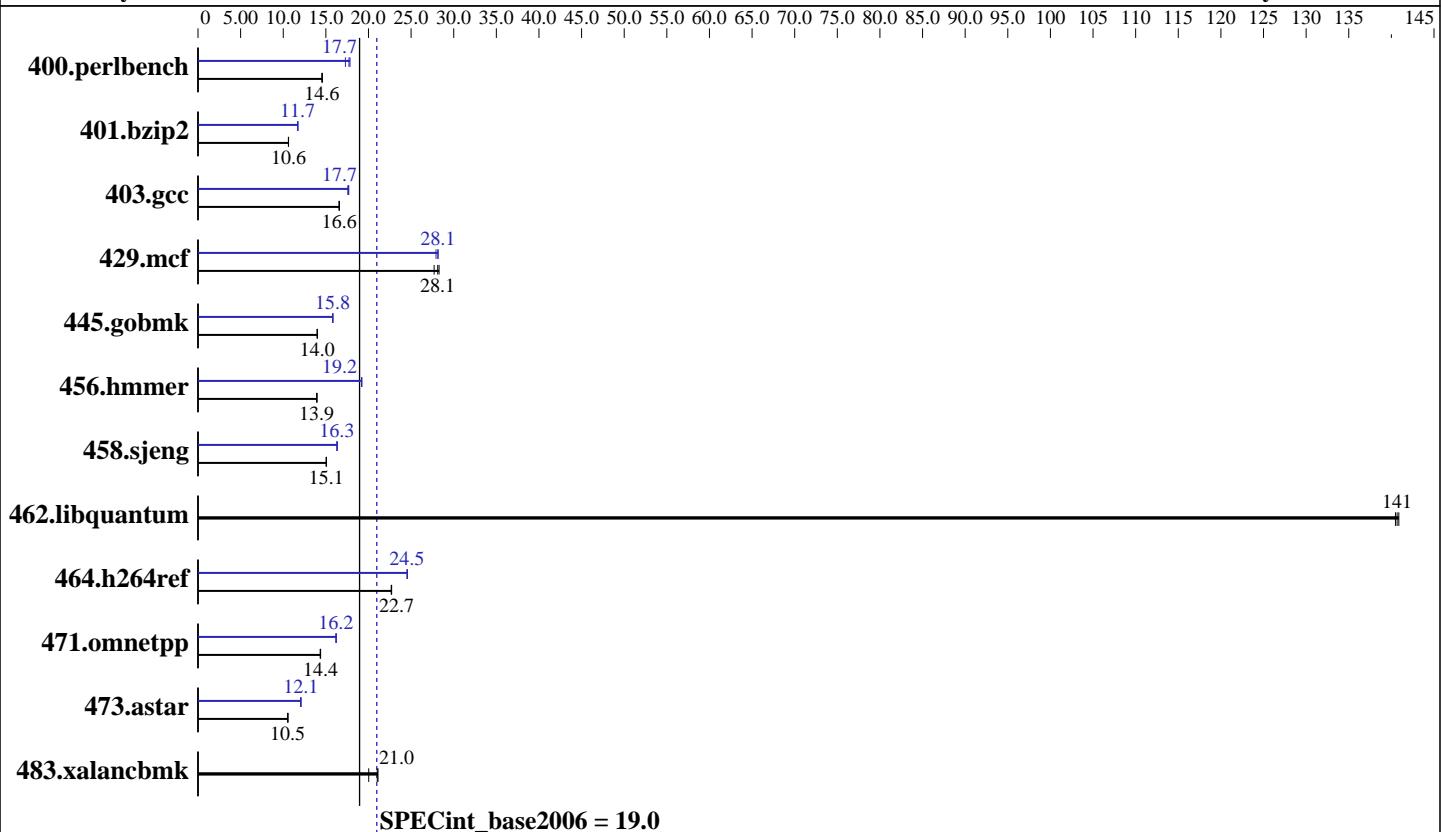$SPECint\_base2006 =$    19.0

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

**Test date:** Apr-2009
**Hardware Availability:** Mar-2009
**Software Availability:** Mar-2009



SPECint_base2006 = 19.0

SPECint2006 = 21.0

| Benchmark | Peak | Base |
|---|---|---|
| 400.perlbench | 17.7 | 14.6 |
| 401.bzip2 | 11.7 | 10.6 |
| 403.gcc | 17.7 | 16.6 |
| 429.mcf | 28.1 | 28.1 |
| 445.gobmk | 15.8 | 14.0 |
| 456.hmmer | 19.2 | 13.9 |
| 458.sjeng | 16.3 | 15.1 |
| 462.libquantum | 141 | |
| 464.h264ref | 24.5 | 22.7 |
| 471.omnetpp | 16.2 | 14.4 |
| 473.astar | 12.1 | 10.5 |
| 483.xalancbmk | 21.0 | |

## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon E5504 |
| CPU Characteristics: | |
| CPU MHz: | 2000 |
| 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: | 256 KB I+D on chip per core |
| L3 Cache: | 4 MB I+D on chip per chip |
| Other Cache: | None |
| Memory: | 24 GB (6 x 4 GB DDR3-1066 DR RDIMM downclocked to 800 MHz) |
| Disk Subsystem: | 1 x 146 GB 10000 RPM SAS |
| Other Hardware: | None |

## Software

| | |
|---|---|
| Operating System: | SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp |
| Compiler: | Intel C++ Compiler Professional 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.080 |
| 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 Binutils 2.18.50.0.7.20080502 |

# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge M610 (Intel Xeon E5504, 2.00 GHz)

SPECint2006 = 21.0

SPECint_base2006 = 19.0

## Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 670 | 14.6 | 672 | 14.5 | **671** | **14.6** | **552** | **17.7** | 548 | 17.8 | 565 | 17.3 |
| 401.bzip2 | **909** | **10.6** | 910 | 10.6 | 908 | 10.6 | 825 | 11.7 | **824** | **11.7** | 824 | 11.7 |
| 403.gcc | 486 | 16.6 | **486** | **16.6** | 486 | 16.6 | 455 | 17.7 | 458 | 17.6 | **456** | **17.7** |
| 429.mcf | **324** | **28.1** | 322 | 28.3 | 329 | 27.7 | 324 | 28.2 | **324** | **28.1** | 327 | 27.9 |
| 445.gobmk | 750 | 14.0 | **750** | **14.0** | 750 | 14.0 | 663 | 15.8 | 663 | 15.8 | **663** | **15.8** |
| 456.hmmer | 669 | 13.9 | **669** | **13.9** | 669 | 13.9 | 486 | 19.2 | 486 | 19.2 | **486** | **19.2** |
| 458.sjeng | 804 | 15.0 | 803 | 15.1 | **804** | **15.1** | 742 | 16.3 | 741 | 16.3 | **742** | **16.3** |
| 462.libquantum | 147 | 141 | 147 | 140 | **147** | **141** | 147 | 141 | 147 | 140 | **147** | **141** |
| 464.h264ref | **976** | **22.7** | 974 | 22.7 | 976 | 22.7 | 902 | 24.5 | 901 | 24.6 | **902** | **24.5** |
| 471.omnetpp | 436 | 14.3 | **435** | **14.4** | 435 | 14.4 | 385 | 16.2 | **386** | **16.2** | 386 | 16.2 |
| 473.astar | **666** | **10.5** | 665 | 10.6 | 667 | 10.5 | 583 | 12.0 | **582** | **12.1** | 581 | 12.1 |
| 483.xalancbmk | 345 | 20.0 | **328** | **21.0** | 327 | 21.1 | 345 | 20.0 | **328** | **21.0** | 327 | 21.1 |

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

## General Notes

```
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter
```

## 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:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel
-par-runtime-control -opt-prefetch
```

Continued on next page

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge M610 (Intel Xeon E5504, 2.00 GHz)

SPECint2006 =           21.0

SPECint_base2006 =      19.0

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

**Test date:** Apr-2009
**Hardware Availability:** Mar-2009
**Software Availability:** Mar-2009

## Base Optimization Flags (Continued)

C++ benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -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/Compiler/11.0/080/bin/intel64/icc
```

```
456.hmmer: /opt/intel/Compiler/11.0/080/bin/intel64/icc
```

```
458.sjeng: /opt/intel/Compiler/11.0/080/bin/intel64/icc
```

C++ benchmarks (except as noted below):
```
icpc
```

```
473.astar: /opt/intel/Compiler/11.0/080/bin/intel64/icpc
```

## Peak Portability Flags

```
400.perlbench: -DSPEC_CPU_LINUX_IA32
   401.bzip2: -DSPEC_CPU_LP64
   456.hmmer: -DSPEC_CPU_LP64
   458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
   473.astar: -DSPEC_CPU_LP64
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) -static(pass 2)
               -prof-use(pass 2) -ansi-alias -opt-prefetch
```

Continued on next page

## Dell Inc.

PowerEdge M610 (Intel Xeon E5504, 2.00 GHz)

$SPECint2006 =$    21.0

$SPECint\_base2006 =$    19.0

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

**Test date:** Apr-2009
**Hardware Availability:** Mar-2009
**Software Availability:** Mar-2009

# Peak Optimization Flags (Continued)

```
     401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
               -prof-use(pass 2) -auto-ilp32 -opt-prefetch -ansi-alias

       403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc
               -opt-malloc-options=3

       429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

     445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2
               -ipo -no-prec-div -ansi-alias

     456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
               -ansi-alias -auto-ilp32

     458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -static(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) -static(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/spec/cpu2006.1.1/lib -lsmartheap

     473.astar: -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=routine -auto-ilp32
               -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap64

  483.xalancbmk: basepeak = yes
```

# Peak Other Flags

C benchmarks:

```
       403.gcc: -Dalloca=_alloca
```

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge M610 (Intel Xeon E5504, 2.00 GHz)

SPECint2006 = 21.0

SPECint_base2006 = 19.0

| | | | |
|---|---|---|---|
| **CPU2006 license:** 55 | | **Test date:** | Apr-2009 |
| **Test sponsor:** | Dell Inc. | **Hardware Availability:** | Mar-2009 |
| **Tested by:** | Dell Inc. | **Software Availability:** | Mar-2009 |

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.02.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.02.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 Wed Jul 23 02:03:34 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 28 April 2009.