



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

SPECint®\_rate2006 = 199

SPECint\_rate\_base2006 = 191

CPU2006 license: 55

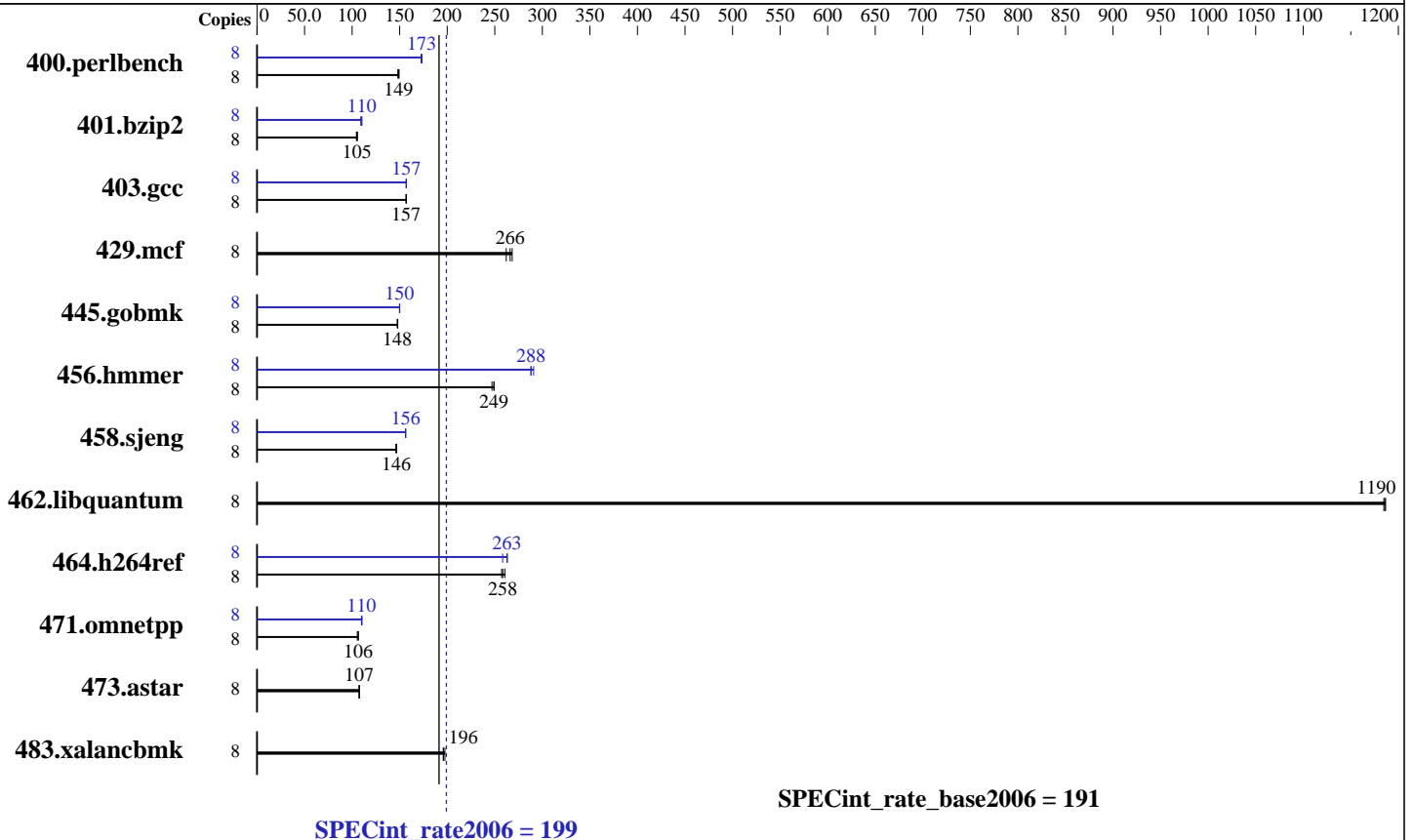
Test sponsor: Dell Inc.

Tested by: Dell Inc.

Test date: Mar-2012

Hardware Availability: May-2012

Software Availability: Feb-2012



### Hardware

CPU Name: Intel Xeon E3-1270 v2  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.90 GHz  
 CPU MHz: 3500  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core  
 CPU(s) orderable: 1 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: 8 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 16 GB (2 x 8 GB 2Rx8 PC3-12800R-11, ECC)  
 Disk Subsystem: 2 TB 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/C++; Version 12.1.0.225 of Intel C++ Studio XE for Linux  
 Auto Parallel: No  
 File System: ext3  
 System State: Run level 5  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V9.01



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint\_rate2006 = 199

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

SPECint\_rate\_base2006 = 191

CPU2006 license: 55

Test date: Mar-2012

Test sponsor: Dell Inc.

Hardware Availability: May-2012

Tested by: Dell Inc.

Software Availability: Feb-2012

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	523	149	528	148	<u>525</u>	<u>149</u>	8	<u>451</u>	<u>173</u>	453	172	451	173
401.bzip2	8	<u>735</u>	<u>105</u>	739	104	731	106	8	701	110	708	109	<u>701</u>	<u>110</u>
403.gcc	8	411	157	<u>411</u>	<u>157</u>	410	157	8	411	157	<u>410</u>	<u>157</u>	410	157
429.mcf	8	<u>274</u>	<u>266</u>	272	268	278	262	8	<u>274</u>	<u>266</u>	272	268	278	262
445.gobmk	8	569	148	<u>568</u>	<u>148</u>	567	148	8	560	150	559	150	<u>560</u>	<u>150</u>
456.hammer	8	<u>300</u>	<u>249</u>	302	247	300	249	8	<u>259</u>	<u>288</u>	257	291	259	288
458.sjeng	8	<u>661</u>	<u>146</u>	663	146	659	147	8	619	156	<u>619</u>	<u>156</u>	620	156
462.libquantum	8	140	1190	140	1180	<u>140</u>	<u>1190</u>	8	140	1190	140	1180	<u>140</u>	<u>1190</u>
464.h264ref	8	679	261	<u>685</u>	<u>258</u>	688	257	8	<u>674</u>	<u>263</u>	672	263	686	258
471.omnetpp	8	469	107	<u>470</u>	<u>106</u>	474	105	8	<u>454</u>	<u>110</u>	453	110	455	110
473.astar	8	521	108	523	107	<u>523</u>	<u>107</u>	8	521	108	523	107	<u>523</u>	<u>107</u>
483.xalancbmk	8	279	198	<u>282</u>	<u>196</u>	282	196	8	279	198	<u>282</u>	<u>196</u>	282	196

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

## 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.

## Operating System Notes

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

## Platform Notes

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/CPU2006-1.2/config/sysinfo.rev6800  
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3  
running on linux-kyx0 Thu Mar 8 18:07:07 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 E3-1270 V2 @ 3.50GHz  
1 "physical id"s (chips)  
8 "processors"  
cores, siblings (Caution: counting these is hw and system dependent. The  
Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

**SPECint\_rate2006 = 199**

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

**SPECint\_rate\_base2006 = 191**

**CPU2006 license:** 55

**Test date:** Mar-2012

**Test sponsor:** Dell Inc.

**Hardware Availability:** May-2012

**Tested by:** Dell Inc.

**Software Availability:** Feb-2012

## Platform Notes (Continued)

following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

```
cpu cores : 4
siblings  : 8
physical 0: cores 0 1 2 3
cache size : 8192 KB
```

From /proc/meminfo

```
MemTotal: 16326560 kB
HugePages_Total: 0
Hugepagesize: 2048 kB
```

/usr/bin/lbs\_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-kyx0 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 5 Mar 7 22:55 last=3

SPEC is set to: /root/CPU2006-1.2

```
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2        ext3  1.8T  41G  1.7T   3% /
```

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

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint\_rate2006 = 199

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

SPECint\_rate\_base2006 = 191

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

Test date: Mar-2012  
Hardware Availability: May-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



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

**SPECint\_rate2006 = 199**

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

**SPECint\_rate\_base2006 = 191**

**CPU2006 license:** 55

**Test date:** Mar-2012

**Test sponsor:** Dell Inc.

**Hardware Availability:** May-2012

**Tested by:** Dell Inc.

**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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge T110 II (Intel Xeon E3-1270 v2, 3.50 GHz)

**SPECint\_rate2006 = 199**

**SPECint\_rate\_base2006 = 191**

**CPU2006 license:** 55

**Test sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test date:** Mar-2012

**Hardware Availability:** May-2012

**Software Availability:** Feb-2012

## Peak Optimization Flags (Continued)

483.xalanbmk: 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>

<http://www.spec.org/cpu2006/flags/Dell-Platform-Settings-V1.2-revA.20120410.00.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.20120410.00.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.  
Report generated on Thu Jul 24 15:03:09 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 12 February 2013.