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

Dell Inc.

PowerEdge R900 (Intel Xeon E7450, 2.40 GHz)

$SPECint®2006 =$ 22.3

$SPECint\_base2006 =$ 19.4

CPU2006 license: 55	**Test date:** Sep-2008
Test sponsor: Dell Inc.	**Hardware Availability:** Sep-2008
Tested by: Dell Inc.	**Software Availability:** Nov-2008

400.perlbench 20.2 / 16.2
401.bzip2 13.9 / 13.0
403.gcc 15.2 / 12.3
429.mcf 22.4 / 22.4
445.gobmk 17.5 / 16.2
456.hmmer 20.8 / 13.4
458.sjeng 16.3 / 15.6
462.libquantum 286
464.h264ref 28.1 / 20.0
471.omnetpp 12.0 / 11.0
473.astar 13.9 / 11.9
483.xalancbmk 19.8

SPECint_base2006 = 19.4

SPECint2006 = 22.3

Hardware

CPU Name:	Intel Xeon E7450
CPU Characteristics:	
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	24 cores, 4 chips, 6 cores/chip
CPU(s) orderable:	2,4 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	9 MB I+D on chip per chip, 3 MB shared / 2 cores
L3 Cache:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	64 GB (16 x 4GB DDR2-667 FBDIMM)
Disk Subsystem:	2 x 36 GB SAS 15000 RPM (RAID-0) for OS, 1 x 73 GB SAS 10000 RPM for benchmark
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 11.0 for Linux Build 20080730 Package ID: l_cproc_b_11.0.042
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 R900 (Intel Xeon E7450, 2.40 GHz)

SPECint2006 =   22.3

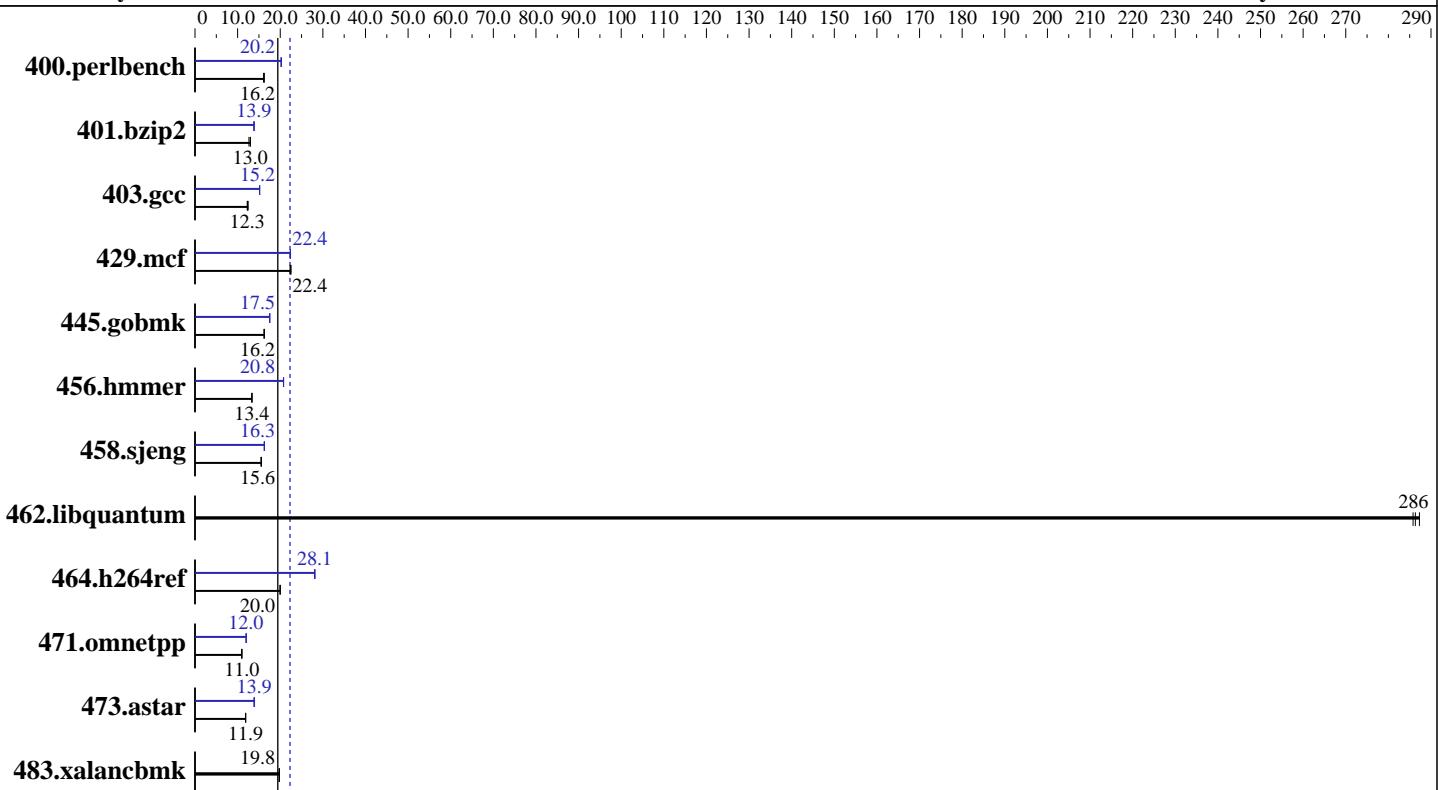SPECint_base2006 =   19.4

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

Test date: Sep-2008
Hardware Availability: Sep-2008
Software Availability: Nov-2008

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	607	16.1	602	16.2	**602**	**16.2**	483	20.2	**483**	**20.2**	483	20.2
401.bzip2	763	12.7	743	13.0	**743**	**13.0**	**696**	**13.9**	696	13.9	697	13.8
403.gcc	656	12.3	**655**	**12.3**	645	12.5	531	15.2	531	15.2	**531**	**15.2**
429.mcf	409	22.3	**407**	**22.4**	405	22.5	407	22.4	408	22.4	**407**	**22.4**
445.gobmk	646	16.2	646	16.2	**646**	**16.2**	599	17.5	598	17.5	**598**	**17.5**
456.hmmer	**699**	**13.4**	699	13.4	699	13.4	449	20.8	450	20.8	**449**	**20.8**
458.sjeng	776	15.6	**777**	**15.6**	782	15.5	**744**	**16.3**	743	16.3	744	16.3
462.libquantum	**72.4**	**286**	72.1	287	72.5	286	**72.4**	**286**	72.1	287	72.5	286
464.h264ref	**1107**	**20.0**	1107	20.0	1108	20.0	787	28.1	**787**	**28.1**	788	28.1
471.omnetpp	570	11.0	569	11.0	**569**	**11.0**	520	12.0	**521**	**12.0**	521	12.0
473.astar	591	11.9	**591**	**11.9**	591	11.9	508	13.8	503	14.0	**504**	**13.9**
483.xalancbmk	348	19.8	**349**	**19.8**	349	19.8	348	19.8	**349**	**19.8**	349	19.8

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

Operating System Notes

'ulimit -s unlimited' was used to set the stack size to unlimited prior to run

General Notes

    All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
    for peak, are compiled in 64-bit mode
    OMP_NUM_THREADS set to number of processors
    KMP_AFFINITY set to "physical,0"

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

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge R900 (Intel Xeon E7450, 2.40 GHz)

SPECint2006 =   22.3

SPECint_base2006 =   19.4

CPU2006 license: 55		**Test date:**	Sep-2008
Test sponsor: Dell Inc.		**Hardware Availability:**	Sep-2008
Tested by: Dell Inc.		**Software Availability:**	Nov-2008

Base Optimization Flags

C benchmarks:

```
-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel
-par-runtime-control -opt-prefetch
```

C++ benchmarks:

```
-xSSE4.1 -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/11.0/042/bin/intel64/icc
           -L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
           -I/opt/intel/Compiler/11.0/042/ipp/em64t/include
```

```
456.hmmer: /opt/intel/Compiler/11.0/042/bin/intel64/icc
           -L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
           -I/opt/intel/Compiler/11.0/042/ipp/em64t/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
483.xalancbmk: -DSPEC_CPU_LINUX
```

Peak Optimization Flags

C benchmarks:

Continued on next page

Dell Inc.

PowerEdge R900 (Intel Xeon E7450, 2.40 GHz)

SPECint2006 = 22.3

SPECint_base2006 = 19.4

CPU2006 license: 55		**Test date:**	Sep-2008
Test sponsor:	Dell Inc.	**Hardware Availability:**	Sep-2008
Tested by:	Dell Inc.	**Software Availability:**	Nov-2008

Peak Optimization Flags (Continued)

400.perlbench: `-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3`
`-no-prec-div -static -ansi-alias -opt-prefetch`

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

403.gcc: `-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc`
`-opt-malloc-options=3`

429.mcf: `-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch`

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

456.hmmer: `-xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2`
`-ansi-alias -auto-ilp32`

458.sjeng: `-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3`
`-no-prec-div -static -unroll4`

462.libquantum: `basepeak = yes`

464.h264ref: `-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3`
`-no-prec-div -static -unroll2 -ansi-alias`

C++ benchmarks:

471.omnetpp: `-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3`
`-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) -xSSE4.1 -ipo -O3`
`-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:

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-ic11.0-int-linux64-revA.20090713.02.html
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.06.html

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge R900 (Intel Xeon E7450, 2.40 GHz)

SPECint2006 = 22.3

SPECint_base2006 = 19.4

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

Test date: Sep-2008
Hardware Availability: Sep-2008
Software Availability: Nov-2008

You can also download the XML flags sources by saving the following links:

http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090713.02.xml
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.06.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 20:56:53 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 1 October 2008.