



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint®_rate2006 = Not Run

PowerEdge R320 (Intel Xeon E5-2430, 2.20 GHz)

SPECint_rate_base2006 = 205

CPU2006 license: 55

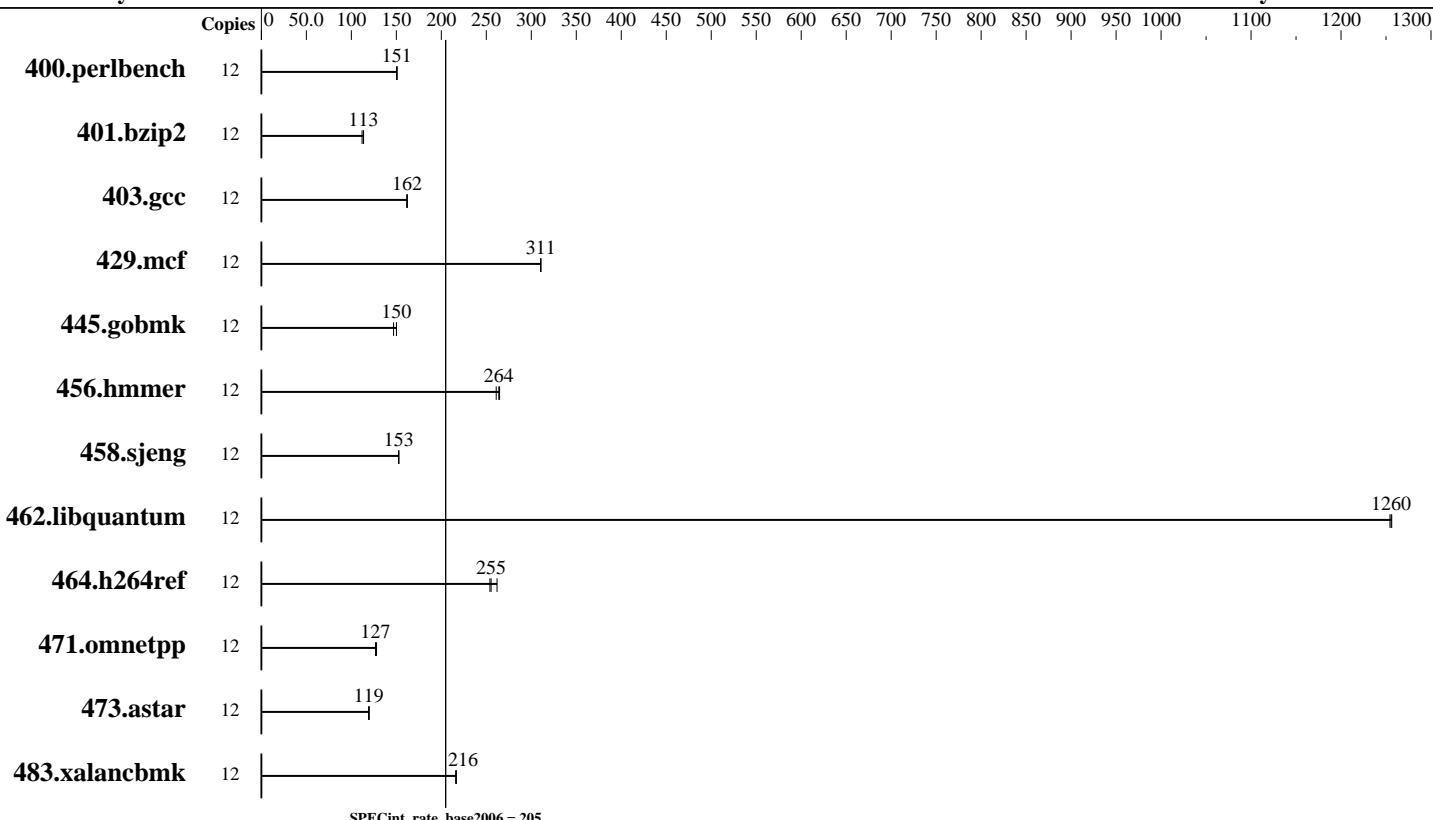
Test date: Apr-2013

Test sponsor: Dell Inc.

Hardware Availability: Mar-2013

Tested by: Dell Inc.

Software Availability: Dec-2012



Hardware

CPU Name: Intel Xeon E5-2430
 CPU Characteristics: Intel Turbo Boost Technology up to 2.70 GHz
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 6 cores, 1 chip, 6 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: 15 MB I+D on chip per chip
 Other Cache: None
 Memory: 48 GB (6 x 8 GB 2Rx4 PC3-12800R-11, ECC, running at 1333 MHz)
 Disk Subsystem: 2 x 300 GB 10000 RPM SAS, RAID 0
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.3 (Santiago)
 Compiler: 2.6.32-279.el6.x86_64
 Auto Parallel: C/C++: Version 13.0.0.133 of Intel C++ Studio XE for Linux
 File System: ext4
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V10.0



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	12	778	151	778	151	778	151							
401.bzip2	12	1020	114	1035	112	1021	113							
403.gcc	12	597	162	597	162	595	162							
429.mcf	12	352	311	352	311	353	310							
445.gobmk	12	857	147	838	150	838	150							
456.hmmer	12	424	264	429	261	423	265							
458.sjeng	12	951	153	952	153	950	153							
462.libquantum	12	198	1260	198	1260	198	1250							
464.h264ref	12	1045	254	1014	262	1040	255							
471.omnetpp	12	591	127	586	128	591	127							
473.astar	12	705	119	703	120	707	119							
483.xalancbmk	12	383	216	382	217	383	216							

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

```
Sysinfo program /root/cpu2006-1.2/config/sysinfo.rev6818
$Rev: 6818 $ $Date::: 2012-07-17 #$
running on R320 Fri Apr  5 13:39:35 2013
```

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 E5-2430 0 @ 2.20GHz
  1 "physical id"s (chips)
  12 "processors"
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
```

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Platform Notes (Continued)

```
physical 0: cores 0 1 2 3 4 5
cache size : 15360 KB

From /proc/meminfo
MemTotal:        49380516 kB
HugePages_Total:      0
Hugepagesize:     2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.3 (Santiago)

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
Linux R320 2.6.32-279.el6.x86_64 #1 SMP Wed Jun 13 18:24:36 EDT 2012 x86_64
x86_64 x86_64 GNU/Linux

run-level 3 Apr 5 13:37

SPEC is set to: /root/cpu2006-1.2
Filesystem      Type   Size  Used Avail Use% Mounted on
/dev/sda2        ext4   546G   11G  507G   3%  /

Additional information from dmidecode:
BIOS Dell Inc. 1.5.2 03/11/2013
Memory:
2x 00AD00B300AD HMT31GR7BFR4C-PB 8 GB 1333 MHz 2 rank
4x 00AD04B300AD HMT31GR7BFR4C-PB 8 GB 1333 MHz 2 rank

(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:/root/cpu2006-1.2/sh"

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/redhat_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>



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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/sh -lsmartheap

Base 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-ic13-official-linux64.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-ic13-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Dell-Platform-Settings-V1.2-revA.20120410.00.xml>



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For other inquiries, please contact webmaster@spec.org.

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