



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM BladeCenter JS12 Express (3.8 GHz, 2 core, RedHat)

SPECint®_rate2006 = 45.9

SPECint_rate_base2006 = 41.2

CPU2006 license: 11

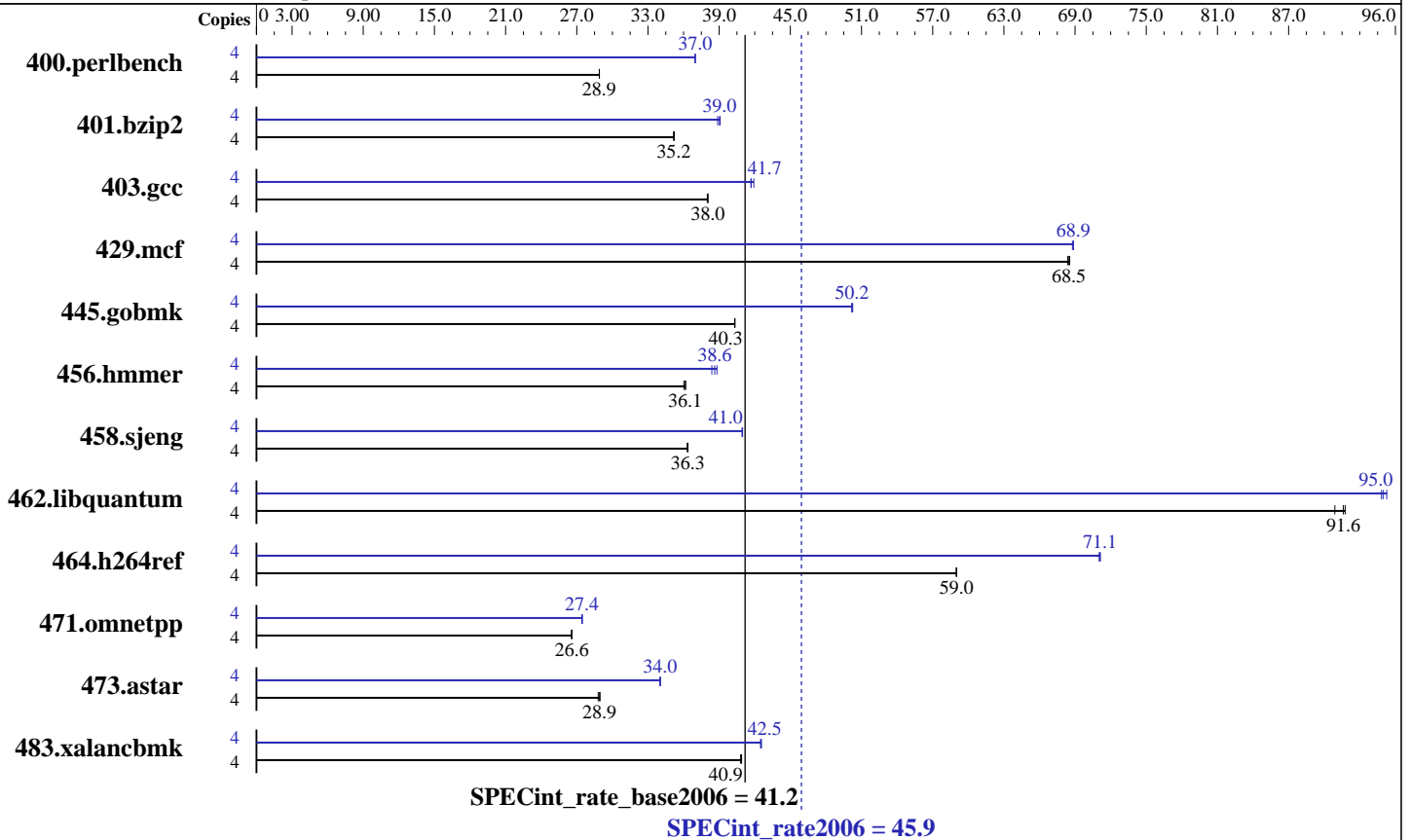
Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Feb-2008

Hardware Availability: May-2008

Software Availability: Nov-2007



Hardware

CPU Name: POWER6
 CPU Characteristics: 3800
 CPU MHz: Integrated
 FPU: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
 CPU(s) enabled: 2 cores
 CPU(s) orderable: 64 KB I + 64 KB D on chip per core
 Primary Cache: 4 MB I+D on chip per core
 Secondary Cache: None
 L3 Cache: None
 Other Cache: None
 Memory: 32 GB (8x4 GB) DDR2 667 MHz
 Disk Subsystem: 1x73 GB SAS 15K RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Advanced Platform 5.1 for IBM POWER
 Compiler: IBM XL C/C++ Advanced Edition for Linux, V9.0
 Auto Parallel: No
 File System: ext3
 System State: Multi-User
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: -IBM Post-Link Optimization for Linux on POWER, Version 5.4.0-17
 -MicroQuill SmartHeap 8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM BladeCenter JS12 Express (3.8 GHz, 2 core, RedHat)

SPECint_rate2006 = 45.9

SPECint_rate_base2006 = 41.2

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Feb-2008
Hardware Availability: May-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	4	1352	28.9	<u>1352</u>	<u>28.9</u>	1352	28.9	4	1057	37.0	<u>1057</u>	<u>37.0</u>	1057	37.0
401.bzip2	4	1098	35.2	<u>1097</u>	<u>35.2</u>	1096	35.2	4	<u>989</u>	<u>39.0</u>	993	38.9	988	39.1
403.gcc	4	846	38.1	847	38.0	<u>846</u>	<u>38.0</u>	4	768	41.9	773	41.7	<u>772</u>	<u>41.7</u>
429.mcf	4	<u>533</u>	<u>68.5</u>	532	68.5	533	68.4	4	530	68.8	<u>530</u>	<u>68.9</u>	530	68.9
445.gobmk	4	1041	40.3	<u>1041</u>	<u>40.3</u>	1040	40.3	4	835	50.3	<u>836</u>	<u>50.2</u>	836	50.2
456.hmmmer	4	1032	36.2	1036	36.0	<u>1032</u>	<u>36.1</u>	4	972	38.4	961	38.8	<u>966</u>	<u>38.6</u>
458.sjeng	4	<u>1332</u>	<u>36.3</u>	1333	36.3	1331	36.4	4	<u>1182</u>	<u>41.0</u>	1181	41.0	1182	40.9
462.libquantum	4	<u>905</u>	<u>91.6</u>	912	90.9	903	91.8	4	<u>873</u>	<u>95.0</u>	870	95.3	874	94.8
464.h264ref	4	1500	59.0	<u>1500</u>	<u>59.0</u>	1501	59.0	4	<u>1245</u>	<u>71.1</u>	1246	71.0	1245	71.1
471.omnetpp	4	940	26.6	<u>940</u>	<u>26.6</u>	942	26.6	4	911	27.4	911	27.5	<u>911</u>	<u>27.4</u>
473.astar	4	975	28.8	<u>971</u>	<u>28.9</u>	970	29.0	4	<u>825</u>	<u>34.0</u>	825	34.1	826	34.0
483.xalanbmk	4	676	40.8	<u>675</u>	<u>40.9</u>	675	40.9	4	649	42.5	648	42.6	<u>649</u>	<u>42.5</u>

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

General Notes

kernel release 2.6.18-53.el5.

See flags file for details on following settings.

ulimit -s (stack) set to 262144.

Large pages reserved as follows by root user:

```
echo 265 > /proc/sys/vm/nr_hugepages
```

System configured with libhugetlbfs library for application access to large pages

Environment variables set before executing benchmarks.

```
export HUGETLB_VERBOSE=0
export HUGETLB_MORECORE=yes
export XLFRTLOPTS=intrinths=1
```

IBM Post-Link Optimization tool used for

```
400.perlbench 401.bzip2 403.gcc 429.mcf 445.gobmk 456.hmmmer 458.sjeng
462.libquantum 464.h264ref 473.astar 483.xalanbmk
```

Benchmarks bound to a processor using numactl on the submit command.

Base Compiler Invocation

C benchmarks:

```
xlc -qlanglvl=extc99
```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM BladeCenter JS12 Express (3.8 GHz, 2 core,
RedHat)

SPECint_rate2006 = 45.9

SPECint_rate_base2006 = 41.2

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Feb-2008

Hardware Availability: May-2008

Software Availability: Nov-2007

Base Compiler Invocation (Continued)

C++ benchmarks:
x1C

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_PPC
462.libquantum: -DSPEC_CPU_LINUX
464.h264ref: -qchars=signed
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-O5 -qalias=noansi -qalloca -lhugetlbfs

C++ benchmarks:
-O5 -qrtti -lsmartheap

Base Other Flags

C benchmarks:
-qipa=noobject -qipa=threads

C++ benchmarks:
-qipa=noobject -qipa=threads

Peak Compiler Invocation

C benchmarks:
x1c -qlanglvl=extc99

C++ benchmarks:
x1C

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_PPC
403.gcc: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM BladeCenter JS12 Express (3.8 GHz, 2 core, RedHat)

SPECint_rate2006 = 45.9

SPECint_rate_base2006 = 41.2

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Feb-2008

Hardware Availability: May-2008

Software Availability: Nov-2007

Peak Portability Flags (Continued)

464.h264ref: -qchars=signed
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O4 -qalias=noansi
-lsmartheap

401.bzip2: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O4 -lhugetlbfs

403.gcc: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O4 -qalloca -q64
-lhugetlbfs

429.mcf: -Wl,-q -O5 -qnoenablevmx -lhugetlbfs

445.gobmk: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O4 -qnoenablevmx
-lhugetlbfs

456.hmmer: Same as 401.bzip2

458.sjeng: Same as 401.bzip2

462.libquantum: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O5 -qnoenablevmx
-q64 -lhugetlbfs

464.h264ref: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O5 -q64
-lhugetlbfs

C++ benchmarks:

471.omnetpp: -qpdf1(pass 1) -qpdf2(pass 2) -O5 -qrtti -lsmartheap

473.astar: -Wl,-q -qpdf1(pass 1) -qpdf2(pass 2) -O5 -qnoenablevmx
-lsmartheap

483.xalancbmk: -Wl,-q -O4 -lsmartheap

Peak Other Flags

C benchmarks:

-qipa=noobject -qipa=threads

C++ benchmarks:

-qipa=noobject -qipa=threads



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM BladeCenter JS12 Express (3.8 GHz, 2 core, RedHat)

SPECint_rate2006 = 45.9

SPECint_rate_base2006 = 41.2

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Feb-2008
Hardware Availability: May-2008
Software Availability: Nov-2007

The flags file that was used to format this result can be browsed at
<http://www.spec.org/cpu2006/flags/IBM-Linux-XL.20090714.html>

You can also download the XML flags source by saving the following link:
<http://www.spec.org/cpu2006/flags/IBM-Linux-XL.20090714.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 v1.0.
Report generated on Tue Jul 22 16:51:35 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 29 April 2008.