SPEC® CINT2006 Result

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Itautec

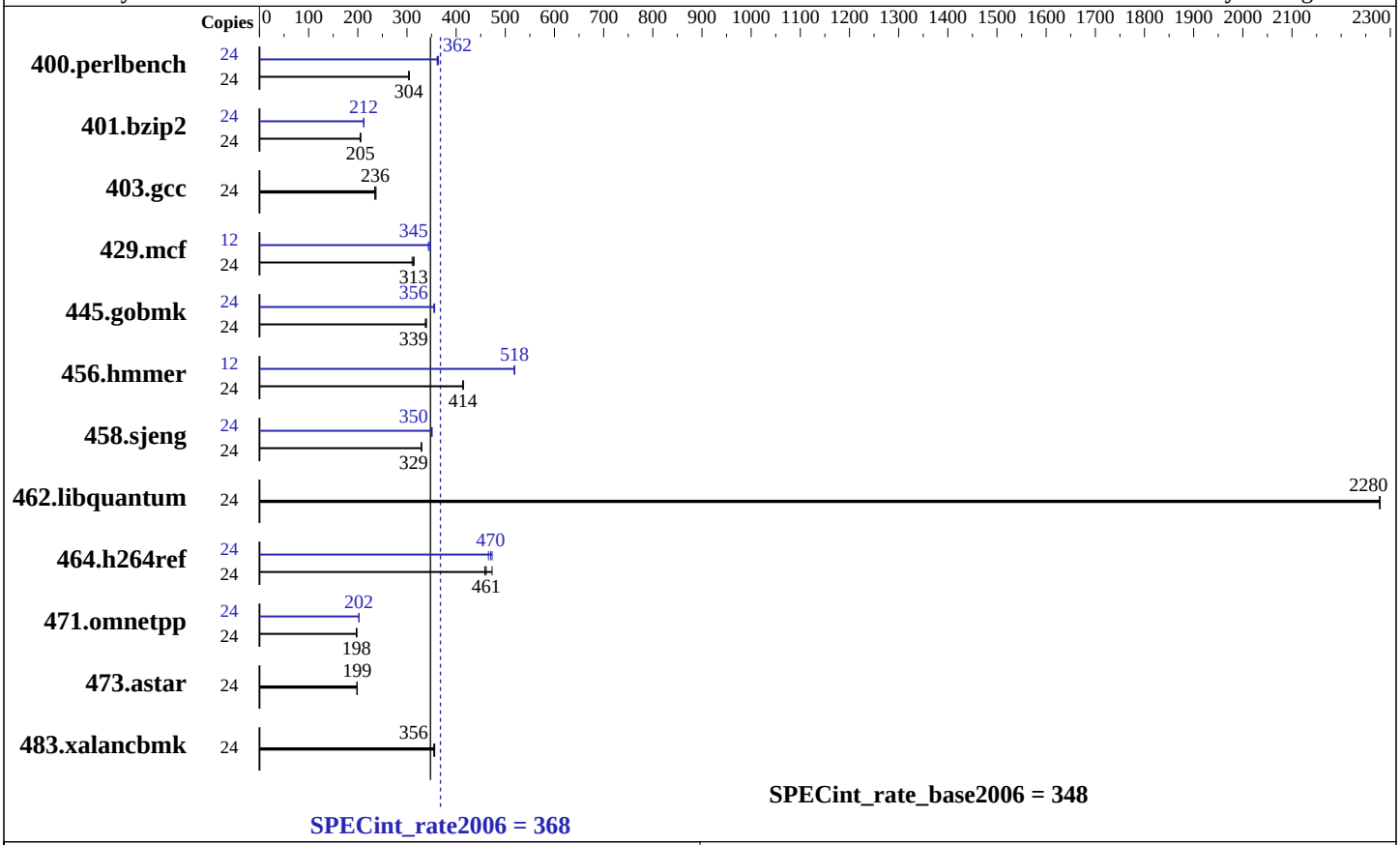
Servidor Itautec MX223 (Intel Xeon X5660)

SPECint®_rate2006 = 368

SPECint_rate_base2006 = 348

CPU2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec

Test date: Dec-2011
Hardware Availability: Jul-2011
Software Availability: Aug-2011



Hardware

CPU Name:	Intel Xeon X5660
CPU Characteristics:	Intel Turbo Boost Technology up to 3.20 GHz
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip, 2 threads/core
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:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	48 GB (12 x 4 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem:	1 x 500 GB SAS, 15000 RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 11 SP1 (x86_64), Kernel 2.6.32.12-0.7-default
Compiler:	C/C++: Version 12.1.0 of Intel Compiler XE Build 20110811
Auto Parallel:	No
File System:	ext3
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V8.1

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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	24	**772**	**304**	770	305	772	304	24	644	364	**648**	**362**	649	361
401.bzip2	24	**1127**	**205**	1125	206	1129	205	24	**1092**	**212**	1092	212	1091	212
403.gcc	24	**820**	**236**	815	237	824	235	24	**820**	**236**	815	237	824	235
429.mcf	24	705	310	696	314	**699**	**313**	12	319	343	314	348	**317**	**345**
445.gobmk	24	746	337	**742**	**339**	742	339	24	**708**	**356**	706	356	710	355
456.hmmer	24	542	413	**541**	**414**	540	415	12	216	519	**216**	**518**	216	518
458.sjeng	24	881	330	882	329	**882**	**329**	24	827	351	**829**	**350**	829	350
462.libquantum	24	**218**	**2280**	218	2280	218	2280	24	**218**	**2280**	218	2280	218	2280
464.h264ref	24	1123	473	**1152**	**461**	1159	458	24	1122	473	1141	466	**1130**	**470**
471.omnetpp	24	760	197	759	198	**759**	**198**	24	**741**	**202**	741	202	741	203
473.astar	24	850	198	**849**	**199**	848	199	24	850	198	**849**	**199**	848	199
483.xalancbmk	24	**466**	**356**	467	355	465	356	24	**466**	**356**	467	355	465	356

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

Submit Notes

```
The config file option 'submit' was used.
 numactl was used to bind copies to the cores
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.
Large pages were not enabled for this run
```

Platform Notes

```
Data Reuse disabled in BIOS.
```

General Notes

```
This result was measured on the Servidor Itautec MX223.
The Servidor Itautec MX203 and the Servidor Itautec MX223
are electronically equivalent.
```

Base Compiler Invocation

C benchmarks:

```
icc  -m32
```

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Base Compiler Invocation (Continued)

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
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/home/rcaneca/sh/SmartHeap_8.1/lib -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

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

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)
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

403.gcc: basepeak = yes

429.mcf: -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 -auto-ilp32

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias -auto-ilp32

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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/home/rcaneca/sh/SmartHeap_8.1/lib -lsmartheap

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Peak Optimization Flags (Continued)

473.astar: `basepeak = yes`

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/Itautec-Intel-Linux64-Platform.html`
`http://www.spec.org/cpu2006/flags/Intel-ic12.1-linux64.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.xml`
`http://www.spec.org/cpu2006/flags/Intel-ic12.1-linux64.xml`

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Tested with SPEC CPU2006 v1.1.
Report generated on Thu Jul 24 03:22:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 3 January 2012.