SPEC® CINT2006 Result

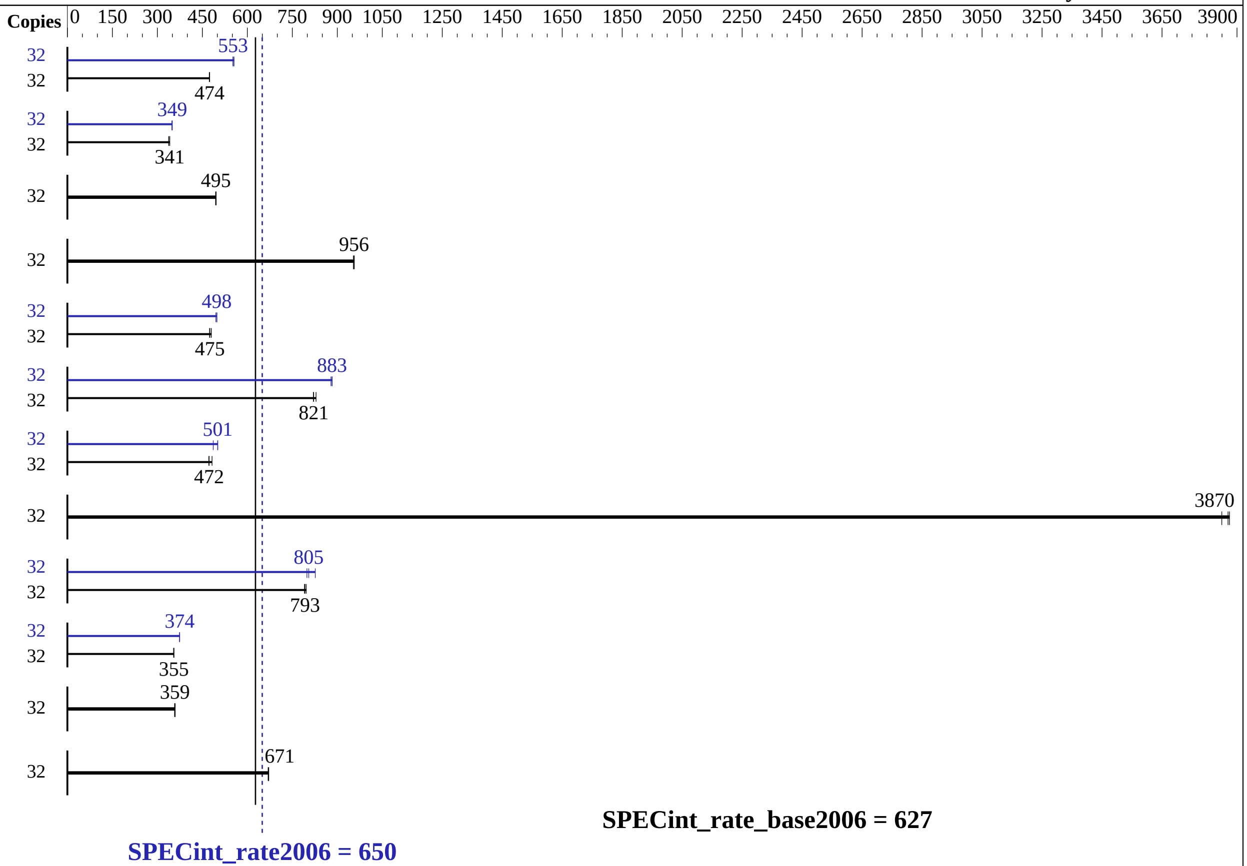
Itautec

Servidor Itautec MX215 (Intel Xeon E5-2670)

SPECint®_rate2006 = 650

SPECint_rate_base2006 = 627

CPU2006 license:	9001	**Test date:**	Apr-2013
Test sponsor:	Itautec	**Hardware Availability:**	Jun-2012
Tested by:	Itautec	**Software Availability:**	Jan-2013



Hardware

CPU Name:	Intel Xeon E5-2670
CPU Characteristics:	Intel Turbo Boost Technology up to 3.30 GHz
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 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:	20 MB I+D on chip per chip
Other Cache:	None
Memory:	128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)
Disk Subsystem:	500 GB, SATA-3, 7200 RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server Release 6.3, 2.6.32-279.el6.x86_64
Compiler:	C/C++: Version 13.1.0.146 of Intel Compiler XE Build 20130121
Auto Parallel:	No
File System:	ext4
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

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	32	659	474	661	473	**659**	**474**	32	**566**	**553**	566	552	563	556
401.bzip2	32	905	341	915	338	**905**	**341**	32	883	350	**884**	**349**	886	349
403.gcc	32	519	496	521	494	**520**	**495**	32	519	496	521	494	**520**	**495**
429.mcf	32	305	957	**305**	**956**	306	954	32	305	957	**305**	**956**	306	954
445.gobmk	32	708	474	699	480	**706**	**475**	32	**674**	**498**	678	495	674	498
456.hmmer	32	360	829	**364**	**821**	364	821	32	**338**	**883**	340	879	338	883
458.sjeng	32	821	472	**820**	**472**	803	482	32	796	486	772	502	**773**	**501**
462.libquantum	32	172	3850	**171**	**3870**	171	3870	32	172	3850	**171**	**3870**	171	3870
464.h264ref	32	**894**	**793**	889	796	896	790	32	857	827	**880**	**805**	887	799
471.omnetpp	32	**563**	**355**	565	354	563	355	32	**534**	**374**	534	375	535	374
473.astar	32	**626**	**359**	628	358	625	359	32	**626**	**359**	628	358	625	359
483.xalancbmk	32	329	671	330	669	**329**	**671**	32	329	671	330	669	**329**	**671**

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

```
 Sysinfo program /home/rcaneca/cpu2006/Docs/sysinfo
 $Rev: 6775 $ $Date:: 2011-08-16 #$ 8787f7622badcf24e01c368b1db4377c
 running on mx225 Sat Apr 20 05:03:00 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 : Genuine Intel(R) CPU @ 2.60GHz
       2 "physical id"s (chips)
       32 "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 : 8
       siblings  : 16
```

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Platform Notes (Continued)

```
        physical 0: cores 0 1 2 3 4 5 6 7
        physical 1: cores 0 1 2 3 4 5 6 7
     cache size : 20480 KB

 From /proc/meminfo
    MemTotal:       132104788 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 mx225 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 19 17:01

 SPEC is set to: /home/rcaneca/cpu2006
    Filesystem     Type     Size  Used Avail Use% Mounted on
    /dev/mapper/vg_mx225-lv_home
                   ext4     404G  3.8G  380G   1% /home

 (End of data from sysinfo program)
```

General Notes

```
 This result was measured on the Servidor Itautec MX225.
 The Servidor Itautec MX215 and the Servidor Itautec MX225
 are electronically equivalent.

 runspec command invoked through numactl i.e.:
 numactl --interleave=all runspec <etc>

 Filesystem page cache cleared with:
 echo 1 > /proc/sys/vm/drop_caches
 Environment variables set by runspec before the start of the run:
 KMP_AFFINITY = "granularity=fine,scatter"
 Filesystem page cache cleared with:
 echo 1>       /proc/sys/vm/drop_caches
```

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

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Test date: Apr-2013
Hardware Availability: Jun-2012
Software Availability: Jan-2013

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: basepeak = yes

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

473.astar: basepeak = yes

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Peak Optimization Flags (Continued)

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-Servidor_Itautec-Intel-Linux-Platform.20130507.html
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Itautec-Servidor_Itautec-Intel-Linux-Platform.20130507.xml
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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