



# SPEC® CINT2006 Result

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**Itautec**

**SPECint®\_rate2006 = 699**

Servidor Itautec MX215 (Intel Xeon E5-2690)

**SPECint\_rate\_base2006 = 677**

CPU2006 license: 9001

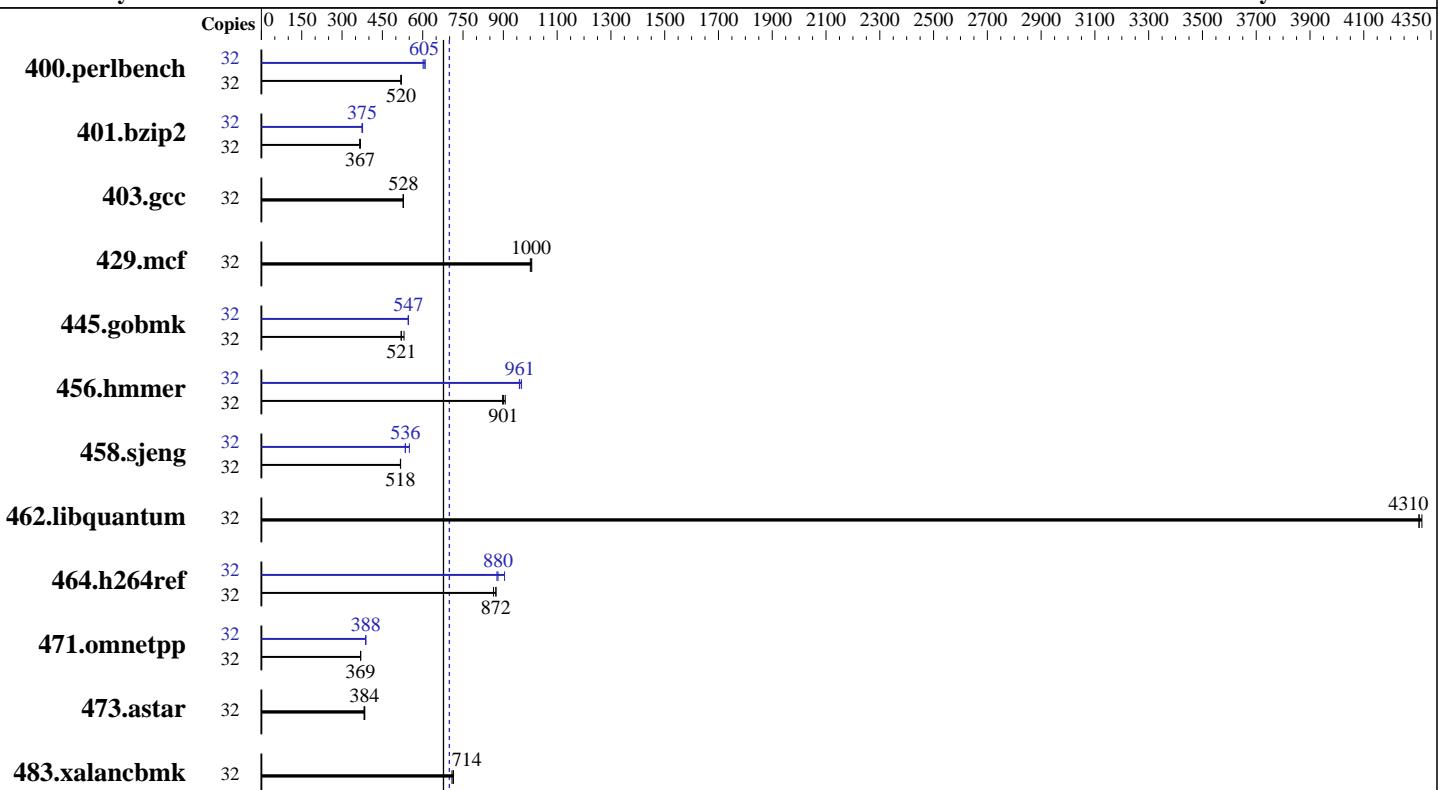
**Test date:** May-2013

**Test sponsor:** Itautec

**Hardware Availability:** Jun-2012

**Tested by:** Itautec

**Software Availability:** Jan-2013



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## Hardware

CPU Name:	Intel Xeon E5-2690
CPU Characteristics:	Intel Turbo Boost Technology up to 3.80 GHz
CPU MHz:	2900
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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Itautech

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Test date: May-2013

Test sponsor: Itautech

Hardware Availability: Jun-2012

Tested by: Itautech

Software Availability: Jan-2013

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	<b>601</b>	<b>520</b>	603	519	601	520	32	<b>517</b>	<b>605</b>	513	609	520	601
401.bzip2	32	838	368	845	366	<b>841</b>	<b>367</b>	32	824	375	820	376	<b>824</b>	<b>375</b>
403.gcc	32	<b>488</b>	<b>528</b>	489	527	487	528	32	<b>488</b>	<b>528</b>	489	527	487	528
429.mcf	32	<b>291</b>	<b>1000</b>	292	1000	290	1010	32	<b>291</b>	<b>1000</b>	292	1000	290	1010
445.gobmk	32	646	520	<b>645</b>	<b>521</b>	633	531	32	614	547	<b>614</b>	<b>547</b>	614	547
456.hammer	32	<b>331</b>	<b>901</b>	329	907	333	897	32	309	968	<b>311</b>	<b>961</b>	311	960
458.sjeng	32	748	518	<b>748</b>	<b>518</b>	749	517	32	723	535	703	550	<b>723</b>	<b>536</b>
462.libquantum	32	154	4310	154	4320	<b>154</b>	<b>4310</b>	32	154	4310	154	4320	<b>154</b>	<b>4310</b>
464.h264ref	32	812	872	820	863	<b>812</b>	<b>872</b>	32	808	876	783	904	<b>805</b>	<b>880</b>
471.omnetpp	32	<b>542</b>	<b>369</b>	543	369	541	370	32	<b>516</b>	<b>388</b>	515	388	516	388
473.astar	32	<b>586</b>	<b>384</b>	588	382	584	385	32	<b>586</b>	<b>384</b>	588	382	584	385
483.xalancbmk	32	309	714	311	709	<b>309</b>	<b>714</b>	32	309	714	311	709	<b>309</b>	<b>714</b>

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

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.  
Large pages were not enabled for this run  
Large pages were disabled through the command  
'echo never > /sys/kernel/mm/redhat\_transparent\_hugepage/enabled/'

## Platform Notes

```
Sysinfo program /home/rchaneca/cpu2006/Docs/sysinfo
$Rev: 6775 $ $Date::: 2011-08-16 #$
running on mx225 Tue May 14 17:18:55 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 E5-2690 0 @ 2.90GHz
 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

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## Platform Notes (Continued)

```
caution.)  
    cpu cores : 8  
    siblings   : 16  
    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:      132068928 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 May 14 17:13  
  
SPEC is set to: /home/rccaneca/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 Itaute MX215.  
The Servidor Itaute MX215 and the Servidor Itaute MX225  
are electronically equivalent.

## Base Compiler Invocation

C benchmarks:

icc -m32

C++ benchmarks:

icpc -m32



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## 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/rcaaneca/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

## 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

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## Peak Portability Flags (Continued)

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.hmmr: -xSSE4.2 -ipo -O3 -no-prec-div -unroll12 -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)  
-unroll14 -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)  
-unroll12 -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/rcaenca/sh/SmartHeap\_8.1/lib -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes



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## 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/Itaute-Servidor\\_Itaute-Intel-Linux-Platform.20130507.html](http://www.spec.org/cpu2006/flags/Itaute-Servidor_Itaute-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/Itaute-Servidor\\_Itaute-Intel-Linux-Platform.20130507.xml](http://www.spec.org/cpu2006/flags/Itaute-Servidor_Itaute-Intel-Linux-Platform.20130507.xml)  
<http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.xml>

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For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.

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