



# SPEC® CINT2006 Result

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## Fujitsu

SPECint®\_rate2006 = 70.4

PRIMERGY TX300 S5, Intel Xeon E5502, 1.86 GHz

SPECint\_rate\_base2006 = 65.3

CPU2006 license: 19

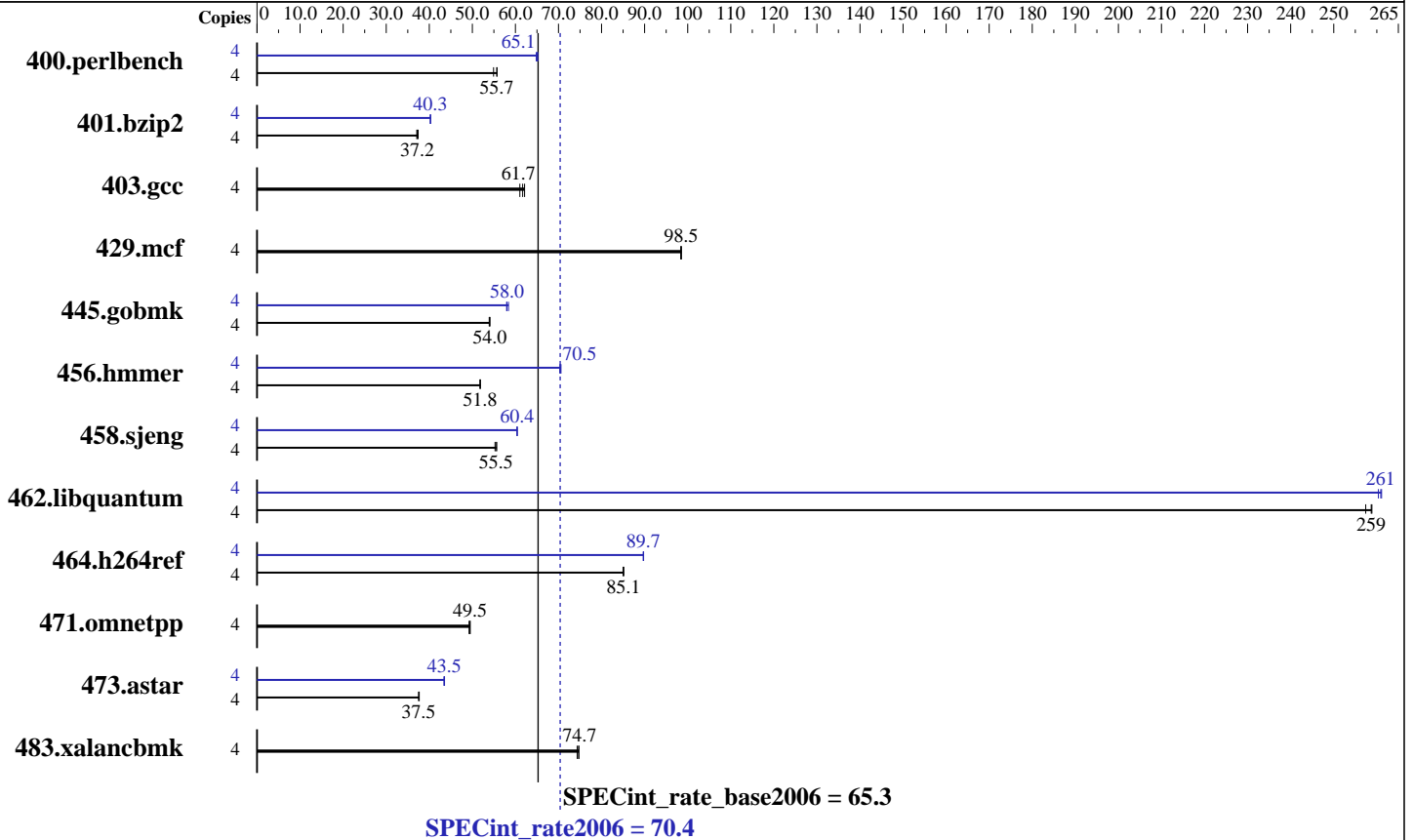
Test sponsor: Fujitsu

Tested by: Fujitsu Siemens Computers

Test date: Feb-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009



### Hardware

CPU Name: Intel Xeon E5502  
 CPU Characteristics:  
 CPU MHz: 1867  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip  
 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: 4 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 72 GB (18x4 GB PC3-10600R, 2 rank, CL9-9-9, ECC)  
 Disk Subsystem: 1 x SATA, 250 GB, 7200 RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 10 (x86\_64) SP2, Kernel 2.6.16.60-0.21-smp  
 Compiler: Intel C++ Compiler 11.0 for Linux Build 20090131 Package ID: l\_cproc\_p\_11.0.080  
 Auto Parallel: No  
 File System: ext3  
 System State: Multi-User Run Level 3  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V8.1 Binutils 2.18.50.0.7.20080502



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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	4	712	54.9	<b>702</b>	<b>55.7</b>	701	55.7	4	<b>600</b>	<b>65.1</b>	599	65.2	603	64.8
401.bzip2	4	1041	37.1	1032	37.4	<b>1037</b>	<b>37.2</b>	4	959	40.2	<b>959</b>	<b>40.3</b>	957	40.3
403.gcc	4	<b>522</b>	<b>61.7</b>	528	61.0	518	62.1	4	<b>522</b>	<b>61.7</b>	528	61.0	518	62.1
429.mcf	4	370	98.5	<b>371</b>	<b>98.5</b>	371	98.4	4	370	98.5	<b>371</b>	<b>98.5</b>	371	98.4
445.gobmk	4	778	53.9	776	54.1	<b>776</b>	<b>54.0</b>	4	724	58.0	<b>723</b>	<b>58.0</b>	719	58.4
456.hammer	4	721	51.8	720	51.9	<b>720</b>	<b>51.8</b>	4	<b>529</b>	<b>70.5</b>	531	70.3	529	70.6
458.sjeng	4	870	55.7	<b>873</b>	<b>55.5</b>	876	55.3	4	801	60.4	<b>801</b>	<b>60.4</b>	802	60.4
462.libquantum	4	<b>320</b>	<b>259</b>	322	257	320	259	4	318	260	<b>318</b>	<b>261</b>	317	261
464.h264ref	4	<b>1040</b>	<b>85.1</b>	1040	85.1	1042	85.0	4	<b>986</b>	<b>89.7</b>	986	89.8	987	89.7
471.omnetpp	4	505	49.5	508	49.2	<b>505</b>	<b>49.5</b>	4	505	49.5	508	49.2	<b>505</b>	<b>49.5</b>
473.astar	4	<b>748</b>	<b>37.5</b>	748	37.5	746	37.7	4	<b>645</b>	<b>43.5</b>	647	43.4	645	43.5
483.xalanbmk	4	369	74.7	371	74.3	<b>370</b>	<b>74.7</b>	4	369	74.7	371	74.3	<b>370</b>	<b>74.7</b>

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

## Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

## General Notes

This result was measured on the PRIMERGY TX300 S5. The PRIMERGY TX300 S5 and the PRIMERGY RX300 S5 are electronically equivalent.

For information about Fujitsu please visit: <http://www.fujitsu.com>

## Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalanbmk: -DSPEC\_CPU\_LINUX



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## Base Optimization Flags

C benchmarks:

`-xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc  
-opt-malloc-options=3 -opt-prefetch`

C++ benchmarks:

`-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/spec/cpu2006.1.1/lib -lsmartheap`

## Base Other Flags

C benchmarks:

`403.gcc: -Dalloca=_alloca`

## Peak Compiler Invocation

C benchmarks (except as noted below):

`icc`

`401.bzip2: /opt/intel/Compiler/11.0/080/bin/intel64/icc`

`456.hmmer: /opt/intel/Compiler/11.0/080/bin/intel64/icc`

`458.sjeng: /opt/intel/Compiler/11.0/080/bin/intel64/icc`

C++ benchmarks (except as noted below):

`icpc`

`473.astar: /opt/intel/Compiler/11.0/080/bin/intel64/icpc`

## Peak Portability Flags

`400.perlbench: -DSPEC_CPU_LINUX_IA32`

`401.bzip2: -DSPEC_CPU_LP64`

`456.hmmer: -DSPEC_CPU_LP64`

`458.sjeng: -DSPEC_CPU_LP64`

`462.libquantum: -DSPEC_CPU_LINUX`

`473.astar: -DSPEC_CPU_LP64`

`483.xalancbmk: -DSPEC_CPU_LINUX`



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## 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) -static(pass 2)  
 -prof-use(pass 2) -ansi-alias -opt-prefetch

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
 -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
 -prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: basepeak = yes

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2  
 -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2  
 -ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
 -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
 -prof-use(pass 2) -unroll4 -auto-ilp32

462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static  
 -opt-malloc-options=3 -opt-prefetch

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
 -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
 -prof-use(pass 2) -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: basepeak = yes

473.astar: -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=routine -auto-ilp32  
 -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap64

483.xalancbmk: basepeak = yes

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca



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The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.02.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.02.xml>

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

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