# SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu Siemens Computers

PRIMERGY RX300 S4, Intel Xeon E5420, 2.50 GHz

$SPECint®\_rate2006 =$ 65.3

$SPECint\_rate\_base2006 =$ 54.9

**CPU2006 license:** 22
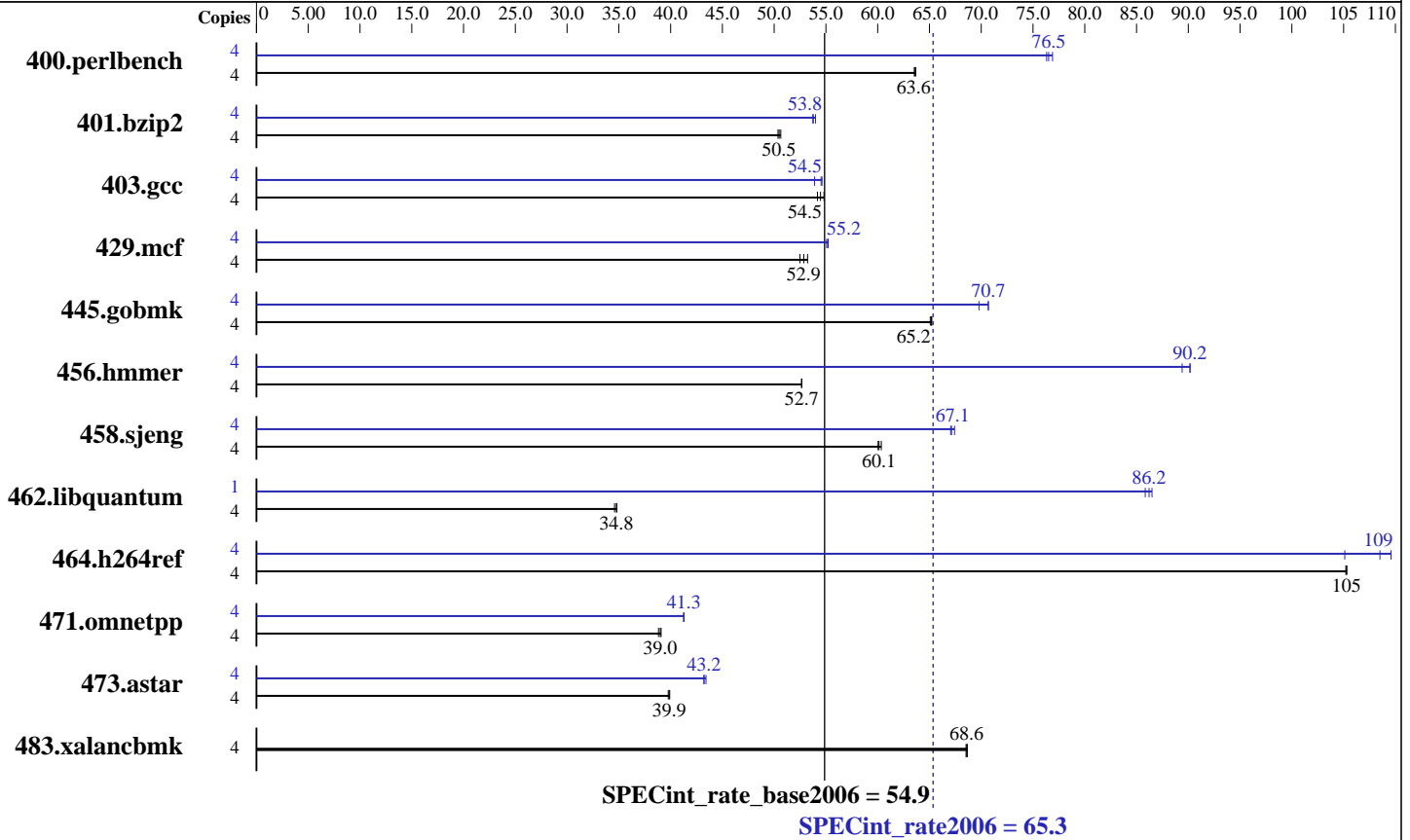**Test sponsor:** Fujitsu Siemens Computers
**Tested by:** Fujitsu Siemens Computers

**Test date:** Apr-2008
**Hardware Availability:** Dec-2007
**Software Availability:** Nov-2007

| Benchmark | Copies | Result |
|---|---|---|
| 400.perlbench | 4 / 4 | 76.5 / 63.6 |
| 401.bzip2 | 4 / 4 | 53.8 / 50.5 |
| 403.gcc | 4 / 4 | 54.5 / 54.5 |
| 429.mcf | 4 / 4 | 55.2 / 52.9 |
| 445.gobmk | 4 / 4 | 70.7 / 65.2 |
| 456.hmmer | 4 / 4 | 90.2 / 52.7 |
| 458.sjeng | 4 / 4 | 67.1 / 60.1 |
| 462.libquantum | 1 / 4 | 86.2 / 34.8 |
| 464.h264ref | 4 / 4 | 109 / 105 |
| 471.omnetpp | 4 / 4 | 41.3 / 39.0 |
| 473.astar | 4 / 4 | 43.2 / 39.9 |
| 483.xalancbmk | 4 | 68.6 |

**SPECint_rate_base2006 = 54.9**

**SPECint_rate2006 = 65.3**

## Hardware

CPU Name: Intel Xeon E5420
CPU Characteristics: 1333 MHz system bus
CPU MHz: 2500
FPU: Integrated
CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
CPU(s) orderable: 1,2 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache: None
Other Cache: None
Memory: 16 GB (8x2 GB PC2-5300F, 2 rank, CL 5-5-5, ECC)
Disk Subsystem: 1x SAS, 73 GB, 15000 rpm
Other Hardware: None

## Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler: Intel C++ Compiler for Linux32 and Linux64, Version 10.1, Build 20070913
Auto Parallel: Yes
File System: ext2
System State: Multi-User Run Level 3
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: MicroQuill SmartHeap Library, Version 8.1
binutils-2.17.50.0.5-0.1.x86_64

# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu Siemens Computers

PRIMERGY RX300 S4, Intel Xeon E5420, 2.50 GHz

SPECint_rate2006 = 65.3

SPECint_rate_base2006 = 54.9

## Results Table

| Benchmark | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Base** | | | | | | | | **Peak** | | | |
| 400.perlbench | 4 | 614 | 63.7 | 615 | 63.5 | **614** | **63.6** | 4 | **511** | **76.5** | 508 | 76.9 | 512 | 76.3 |
| 401.bzip2 | 4 | 766 | 50.4 | 762 | 50.6 | **765** | **50.5** | 4 | 718 | 53.7 | **718** | **53.8** | 715 | 54.0 |
| 403.gcc | 4 | **591** | **54.5** | 587 | 54.8 | 594 | 54.2 | 4 | 589 | 54.6 | **590** | **54.5** | 597 | 53.9 |
| 429.mcf | 4 | 695 | 52.5 | **690** | **52.9** | 685 | 53.2 | 4 | **661** | **55.2** | 662 | 55.1 | 661 | 55.2 |
| 445.gobmk | 4 | 643 | 65.2 | 645 | 65.1 | **644** | **65.2** | 4 | **594** | **70.7** | 594 | 70.7 | 601 | 69.8 |
| 456.hmmer | 4 | 709 | 52.7 | 709 | 52.6 | **709** | **52.7** | 4 | 417 | 89.4 | **414** | **90.2** | 414 | 90.2 |
| 458.sjeng | 4 | 802 | 60.3 | **805** | **60.1** | 806 | 60.0 | 4 | 722 | 67.0 | 718 | 67.4 | **721** | **67.1** |
| 462.libquantum | 4 | 2396 | 34.6 | **2384** | **34.8** | 2382 | 34.8 | 1 | 240 | 86.5 | 241 | 85.8 | **240** | **86.2** |
| 464.h264ref | 4 | 841 | 105 | 841 | 105 | **841** | **105** | 4 | **816** | **109** | 842 | 105 | 808 | 110 |
| 471.omnetpp | 4 | 644 | 38.8 | 640 | 39.1 | **641** | **39.0** | 4 | 606 | 41.2 | **605** | **41.3** | 605 | 41.3 |
| 473.astar | 4 | 706 | 39.8 | **704** | **39.9** | 704 | 39.9 | 4 | 650 | 43.2 | **650** | **43.2** | 647 | 43.4 |
| 483.xalancbmk | 4 | 403 | 68.5 | **402** | **68.6** | 402 | 68.7 | 4 | 403 | 68.5 | **402** | **68.6** | 402 | 68.7 |

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
OMP_NUM_THREADS set to number of cores (default)
```

## Platform Notes

```
BIOS configuration:
Hardware Prefetch = Enable,Adjacent Sector Prefetch = Disable
```

## General Notes

```
All binaries were built with 32-bit Intel compiler except:
401.bzip2 and 456.hmmer in peak were built with 64-bit Intel
compiler by changing the path for include and library files.

For information about Fujitsu Siemens Computers please see:
http://www.fujitsu-siemens.com
```

## Base Compiler Invocation

C benchmarks:
```
icc
```

C++ benchmarks:
```
icpc
```

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu Siemens Computers

SPECint_rate2006 = 65.3

PRIMERGY RX300 S4, Intel Xeon E5420, 2.50 GHz

SPECint_rate_base2006 = 54.9

## Base Portability Flags

```
    400.perlbench: -DSPEC_CPU_LINUX_IA32
    462.libquantum: -DSPEC_CPU_LINUX
    483.xalancbmk: -DSPEC_CPU_LINUX
```

## Base Optimization Flags

C benchmarks:
```
    -fast -inline-calloc -opt-malloc-options=3
```

C++ benchmarks:
```
    -xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
    -L/opt/SmartHeap_8.1/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/cce/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include

    456.hmmer: /opt/intel/cce/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include
```

C++ benchmarks:
```
    icpc
```

## Peak Portability Flags

```
    400.perlbench: -DSPEC_CPU_LINUX_IA32
    401.bzip2: -DSPEC_CPU_LP64
    456.hmmer: -DSPEC_CPU_LP64
    462.libquantum: -DSPEC_CPU_LINUX
```

## Fujitsu Siemens Computers

PRIMERGY RX300 S4, Intel Xeon E5420, 2.50 GHz

SPECint_rate2006 =      65.3

SPECint_rate_base2006 =  54.9

**CPU2006 license:** 22
**Test sponsor:** Fujitsu Siemens Computers
**Tested by:** Fujitsu Siemens Computers

**Test date:** Apr-2008
**Hardware Availability:** Dec-2007
**Software Availability:** Nov-2007

# Peak Portability Flags (Continued)

483.xalancbmk: `-DSPEC_CPU_LINUX`

# Peak Optimization Flags

C benchmarks:

400.perlbench: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -ansi-alias`
`-prefetch`

401.bzip2: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -prefetch`

403.gcc: `-fast -inline-calloc -opt-malloc-options=3`

429.mcf: `-fast -prefetch`

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

456.hmmer: `-fast -unroll2 -ansi-alias -opt-multi-version-aggressive`

458.sjeng: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -unroll4`

462.libquantum: `-fast -unroll4 -Ob0 -prefetch`
`-opt-streaming-stores always -vec-guard-write`
`-opt-malloc-options=3 -parallel -par-runtime-control`

464.h264ref: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -unroll2`
`-ansi-alias`

C++ benchmarks:

471.omnetpp: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xT -O3 -ipo`
`-no-prec-div -ansi-alias -opt-ra-region-strategy=block`
`-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap`

473.astar: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xT -O3 -ipo`
`-no-prec-div -ansi-alias -opt-ra-region-strategy=routine`
`-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap`

483.xalancbmk: `basepeak = yes`

# Peak Other Flags

C benchmarks:

# SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu Siemens Computers

PRIMERGY RX300 S4, Intel Xeon E5420, 2.50 GHz

SPECint_rate2006 = 65.3

SPECint_rate_base2006 = 54.9

| | |
|---|---|
| **CPU2006 license:** 22 | **Test date:** Apr-2008 |
| **Test sponsor:** Fujitsu Siemens Computers | **Hardware Availability:** Dec-2007 |
| **Tested by:** Fujitsu Siemens Computers | **Software Availability:** Nov-2007 |

## Peak Other Flags (Continued)

403.gcc: `-Dalloca=_alloca`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090713.01.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090713.01.xml`

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 19:18:48 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on  2 September 2008.