SPEC® CINT2006 Result

Fujitsu

PRIMERGY RX600 S6, Intel Xeon E7-4850, 2.00 GHz

$SPECint^{®}_rate2006 = $ 913

$SPECint_rate_base2006 = $ 851

CPU2006 license:	19	**Test date:**	Jul-2011
Test sponsor:	Fujitsu	**Hardware Availability:**	Jul-2011
Tested by:	Fujitsu	**Software Availability:**	Jan-2011

Copies 0 150 300 450 600 750 900 1050 1250 1450 1650 1850 2050 2250 2450 2650 2850 3050 3250 3450 3650 3850 4150

- 400.perlbench — 80: 877 / 80: 704
- 401.bzip2 — 80: 535 / 80: 488
- 403.gcc — 80: 711
- 429.mcf — 80: 965 / 80: 892
- 445.gobmk — 80: 854 / 80: 809
- 456.hmmer — 80: 1420 / 80: 1110
- 458.sjeng — 80: 830 / 80: 760
- 462.libquantum — 80: 4120
- 464.h264ref — 80: 1080 / 80: 1080
- 471.omnetpp — 80: 556 / 80: 519
- 473.astar — 80: 512
- 483.xalancbmk — 80: 821

SPECint_rate_base2006 = 851

SPECint_rate2006 = 913

Hardware

CPU Name:	Intel Xeon E7-4850
CPU Characteristics:	Intel Turbo Boost Technology up to 2.40 GHz
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	40 cores, 4 chips, 10 cores/chip, 2 threads/core
CPU(s) orderable:	2,3,4 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:	24 MB I+D on chip per chip
Other Cache:	None
Memory:	512 GB (64 x 8 GB 4Rx8 PC3L-8500R-7, ECC)
Disk Subsystem:	1 x SAS, 600 GB, 10000 RPM
Other Hardware:	--

Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) SP1, Kernel 2.6.32.12-0.7-default
Compiler:	Intel C++ Compiler XE for applications running on IA-32 Version 12.0.1.116 Build 20101116
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 V9.01

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY RX600 S6, Intel Xeon E7-4850, 2.00 GHz

SPECint_rate2006 = 913
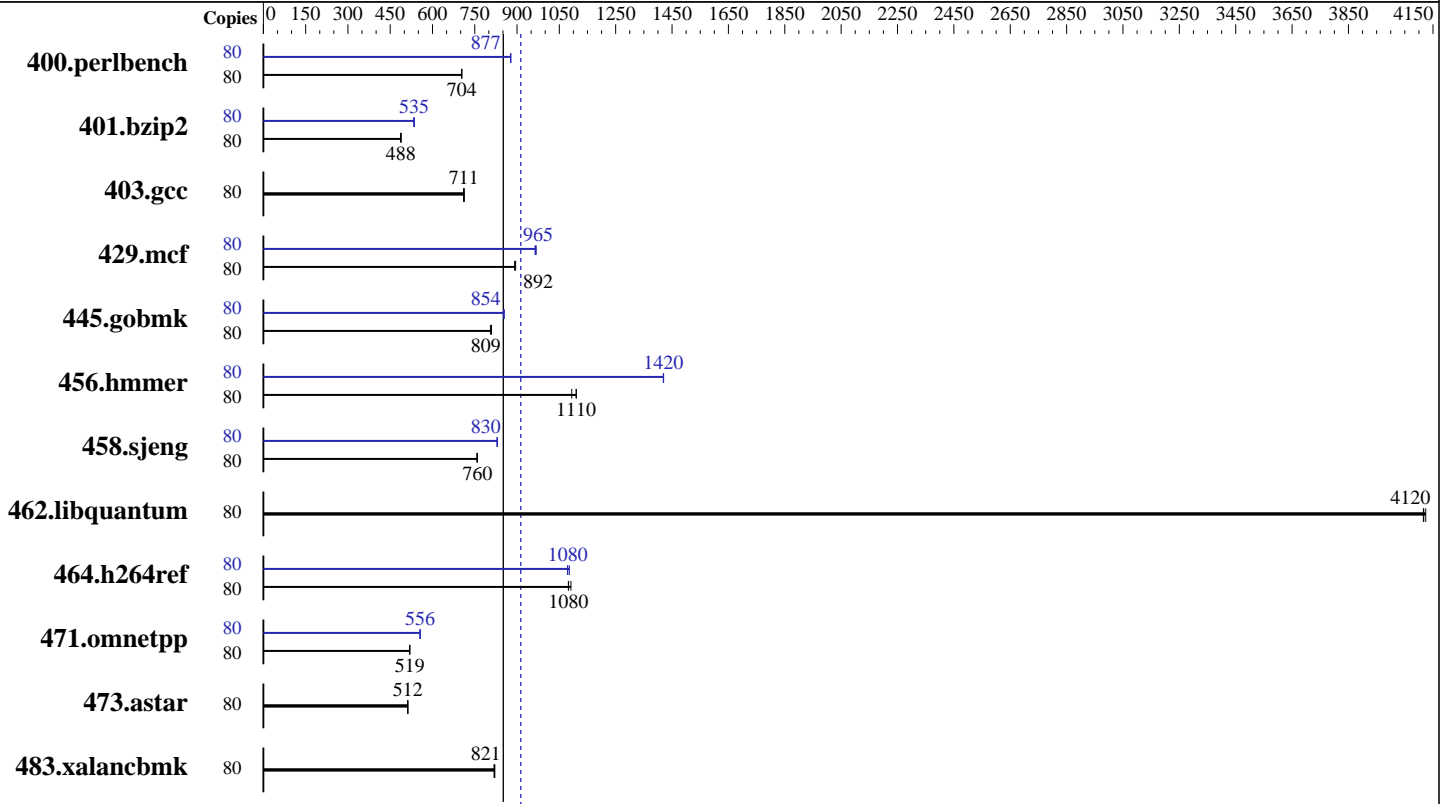
SPECint_rate_base2006 = 851

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Jul-2011
Hardware Availability: Jul-2011
Software Availability: Jan-2011

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	80	1111	703	1110	704	**1111**	**704**	80	**891**	**877**	891	877	890	878
401.bzip2	80	1580	489	1586	487	**1581**	**488**	80	1447	534	**1444**	**535**	1441	536
403.gcc	80	903	713	**905**	**711**	907	710	80	903	713	**905**	**711**	907	710
429.mcf	80	815	895	818	892	**818**	**892**	80	757	964	754	968	**756**	**965**
445.gobmk	80	1042	806	1037	809	**1037**	**809**	80	985	852	**982**	**854**	982	854
456.hmmer	80	672	1110	**673**	**1110**	682	1090	80	526	1420	526	1420	**526**	**1420**
458.sjeng	80	1274	760	**1274**	**760**	1278	757	80	**1167**	**830**	1167	829	1166	830
462.libquantum	80	**403**	**4120**	402	4120	403	4120	80	**403**	**4120**	402	4120	403	4120
464.h264ref	80	**1635**	**1080**	1636	1080	1622	1090	80	**1639**	**1080**	1630	1090	1641	1080
471.omnetpp	80	962	520	964	519	**963**	**519**	80	899	556	900	556	**900**	**556**
473.astar	80	1097	512	**1096**	**512**	1096	513	80	1097	512	**1096**	**512**	1096	513
483.xalancbmk	80	674	818	**673**	**821**	672	821	80	674	818	**673**	**821**	672	821

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
    'nodev /mnt/hugepages hugetlbfs defaults 0 0' added to /etc/fstab
    echo 72000 > /proc/sys/vm/nr_hugepages
    export HUGETLB_MORECORE=yes
    export LD_PRELOAD=/usr/lib64/libhugetlbfs.so
```

Platform Notes

```
    BIOS configuration:
    Data Reuse Optimization = Disable
    Performance/Power Setting = Traditional
```

General Notes

```
    Binaries were compiled on RHEL5.5
    For information about Fujitsu please visit: http://www.fujitsu.com
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY RX600 S6, Intel Xeon E7-4850, 2.00 GHz

$SPECint\_rate2006 = \qquad 913$

$SPECint\_rate\_base2006 = \quad 851$

CPU2006 license: 19	**Test date:** Jul-2011
Test sponsor: Fujitsu	**Hardware Availability:** Jul-2011
Tested by: Fujitsu	**Software Availability:** Jan-2011

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

C++ benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/smartheap -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`

Continued on next page

Fujitsu

PRIMERGY RX600 S6, Intel Xeon E7-4850, 2.00 GHz

SPECint_rate2006 =   913

SPECint_rate_base2006 =   851

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Jul-2011

Hardware Availability: Jul-2011

Software Availability: Jan-2011

Peak Compiler Invocation (Continued)

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

Fujitsu

PRIMERGY RX600 S6, Intel Xeon E7-4850, 2.00 GHz

SPECint_rate2006 = 913

SPECint_rate_base2006 = 851

CPU2006 license: 19		**Test date:**	Jul-2011
Test sponsor: Fujitsu		**Hardware Availability:**	Jul-2011
Tested by: Fujitsu		**Software Availability:**	Jan-2011

Peak Optimization Flags (Continued)

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/smartheap -lsmartheap`

> 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/Intel-ic12.0-linux64-revB.20110316.html
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110316.xml
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.xml

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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 22:32:45 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 September 2011.