



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Limited PRIMEQUEST 580A

SPECint®_rate2006 = 632

SPECint_rate_base2006 = 589

CPU2006 license: 19

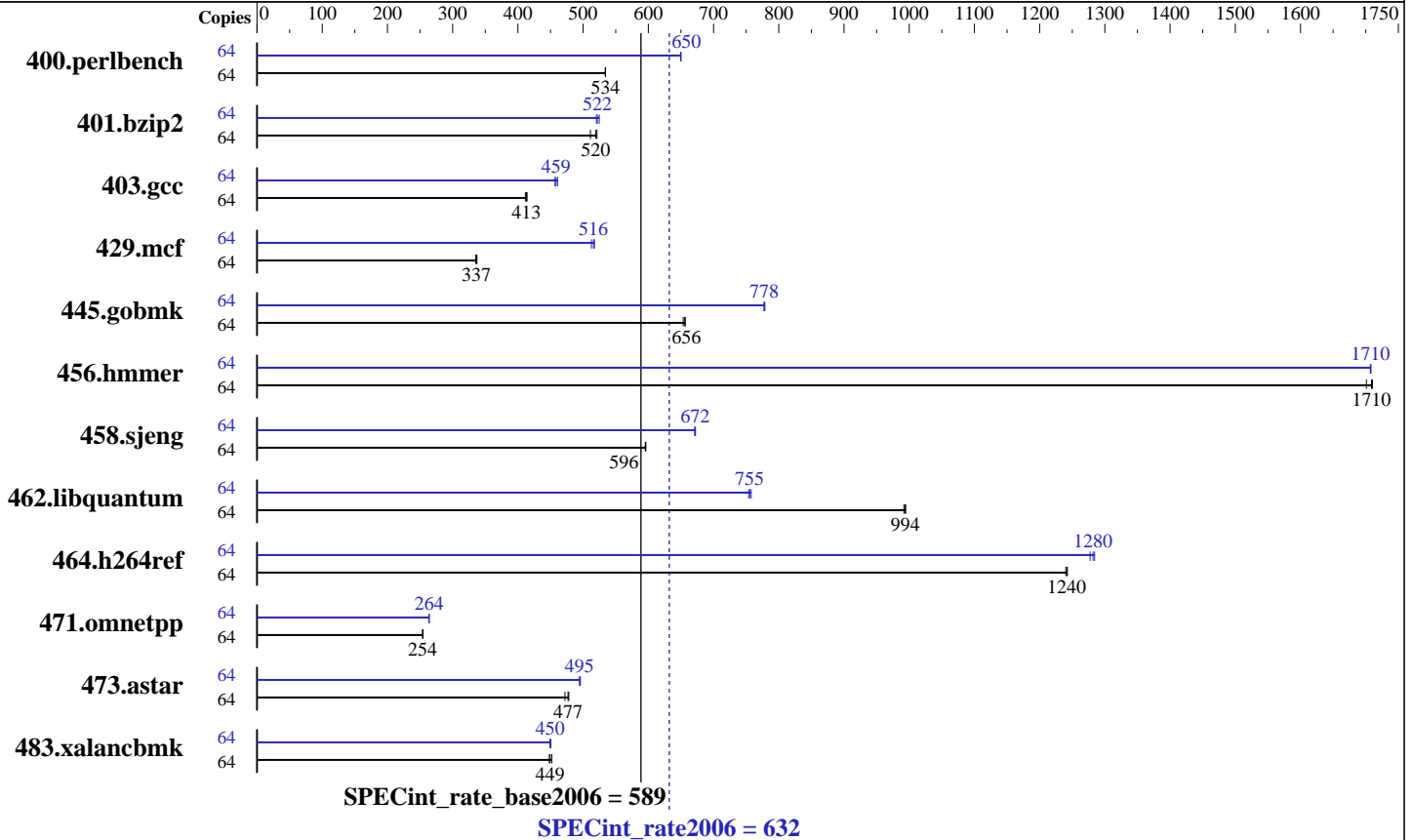
Test sponsor: Fujitsu Limited

Tested by: Fujitsu Limited

Test date: Mar-2008

Hardware Availability: May-2008

Software Availability: Feb-2008



Hardware

CPU Name: Dual-Core Intel Itanium 9130M
 CPU Characteristics: 1.66GHz/8MB, 667MHz FSB
 CPU MHz: 1667
 FPU: Integrated
 CPU(s) enabled: 64 cores, 32 chips, 2 cores/chip
 CPU(s) orderable: 2-32 chips
 Primary Cache: 16 KB I + 16 KB D on chip per core
 Secondary Cache: 1 MB I + 256 KB D on chip per core
 L3 Cache: 4 MB I+D on chip per core
 Other Cache: None
 Memory: 512 GB (256 x 2GB DDR2-667 DIMMs)
 Disk Subsystem: 2 x 147GB (SCSI Ultra 320, 10000rpm)
 No RAID configuration
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux 5.1,
 Kernel 2.6.18-53.el5 on an ia64
 Compiler: Intel C++ Compiler for Linux 10.1
 (Build 20080112)
 Auto Parallel: No
 File System: ext2
 System State: Runlevel 1 (single user mode)
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: MicroQuill Smartheap 8.0



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEQUEST 580A

SPECint_rate2006 = 632

SPECint_rate_base2006 = 589

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

Test date: Mar-2008
Hardware Availability: May-2008
Software Availability: Feb-2008

Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	64	1170	534	<u>1171</u>	<u>534</u>	1171	534	64	962	650	962	650	<u>962</u>	<u>650</u>
401.bzip2	64	1185	521	<u>1189</u>	<u>520</u>	1208	511	64	1177	525	<u>1183</u>	<u>522</u>	1187	520
403.gcc	64	<u>1247</u>	<u>413</u>	1252	411	1244	414	64	1128	457	1118	461	<u>1124</u>	<u>459</u>
429.mcf	64	1731	337	<u>1734</u>	<u>337</u>	1740	335	64	<u>1131</u>	<u>516</u>	1128	517	1138	513
445.gobmk	64	<u>1024</u>	<u>656</u>	1022	657	1027	653	64	<u>863</u>	<u>778</u>	862	779	863	777
456.hammer	64	349	1710	351	1700	<u>349</u>	<u>1710</u>	64	350	1710	<u>350</u>	<u>1710</u>	350	1710
458.sjeng	64	<u>1299</u>	<u>596</u>	1299	596	1301	595	64	1154	671	<u>1152</u>	<u>672</u>	1152	672
462.libquantum	64	1333	995	<u>1334</u>	<u>994</u>	1337	992	64	1750	758	1759	754	<u>1756</u>	<u>755</u>
464.h264ref	64	1140	1240	<u>1141</u>	<u>1240</u>	1142	1240	64	1103	1280	1109	1280	<u>1105</u>	<u>1280</u>
471.omnetpp	64	1575	254	<u>1574</u>	<u>254</u>	1572	254	64	<u>1516</u>	<u>264</u>	1518	264	1515	264
473.astar	64	952	472	940	478	<u>942</u>	<u>477</u>	64	<u>908</u>	<u>495</u>	906	496	908	495
483.xalancbmk	64	977	452	985	448	<u>983</u>	<u>449</u>	64	983	449	<u>982</u>	<u>450</u>	980	451

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

General Notes

Processes are bound to CPUs using taskset.

limit stacksize unlimited

Memory system is in "Non Mirror Mode".

The following 2 environment variables were set

MALLOC_MMAP_MAX_=0

MALLOC_TRIM_THRESHOLD_=-1

This will cause use of sbrk() calls instead of mmap() calls to get memory from the system.

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEQUEST 580A

SPECint_rate2006 = 632

SPECint_rate_base2006 = 589

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

Test date: Mar-2008
Hardware Availability: May-2008
Software Availability: Feb-2008

Base Portability Flags

```
400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_IA64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmr: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
```

Base Optimization Flags

C benchmarks:
-fast -IPF-fp-relaxed -ansi-alias -no-opt-prefetch-initial-values
-opt-prefetch-next-iteration -opt-prefetch-issue-excl-hint
-unroll-aggressive

C++ benchmarks:
-fast -IPF-fp-relaxed -ansi-alias -no-opt-prefetch-initial-values
-opt-prefetch-next-iteration -opt-prefetch-issue-excl-hint
-unroll-aggressive -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

Peak Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Peak Portability Flags

Same as Base Portability Flags



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEQUEST 580A

SPECint_rate2006 = 632

SPECint_rate_base2006 = 589

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

Test date: Mar-2008
Hardware Availability: May-2008
Software Availability: Feb-2008

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi_alias
-IPF_fp_relaxed -opt-mod-versioning -unroll-aggressive
-inline-factor=150

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF-fp-relaxed
-ansi-alias -fno-alias -auto-ilp32
-opt-prefetch-next-iteration

403.gcc: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi_alias
-auto-ilp32 -IPF_fp_relaxed -no-opt-prefetch-initial-values
-opt-prefetch-next-iteration -unroll-aggressive

429.mcf: -fast -IPF-fp-relaxed -auto-ilp32 -ansi-alias
-opt-prefetch-next-iteration

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed
-auto-ilp32 -no-opt-prefetch-initial-values
-opt-prefetch-next-iteration -ansi-alias

456.hmmcr: -fast -IPF_fp_relaxed -auto-ilp32
-no-opt-prefetch-initial-values

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed
-unroll-aggressive -no-prefetch
-opt-prefetch-next-iteration

462.libquantum: -fast -IPF-fp-relaxed -auto-ilp32 -ansi-alias
-opt-mod-versioning -no-opt-prefetch-initial-values
-opt-prefetch-issue-excl-hint

464.h264ref: -fast -IPF-fp-relaxed -ansi-alias -fno-alias -auto-ilp32
-no-prefetch -inline-factor=150 -opt-mod-versioning
-unroll-aggressive -opt-prefetch-next-iteration

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF-fp-relaxed
-ansi-alias -fno-alias -inline-max-per-routine=50
-inline-factor=150 -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

473.astar: -fast -IPF-fp-relaxed -no-prefetch -ansi-alias -fno-alias
-inline-max-size=5000 -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEQUEST 580A

SPECint_rate2006 = 632

SPECint_rate_base2006 = 589

CPU2006 license: 19

Test sponsor: Fujitsu Limited

Tested by: Fujitsu Limited

Test date: Mar-2008

Hardware Availability: May-2008

Software Availability: Feb-2008

Peak Optimization Flags (Continued)

```
483.xalancbmk: -fast -IPF-fp-relaxed -unroll-aggressive -ansi-alias  
-no-opt-prefetch-initial-values -Wl,-z,muldefs  
/opt/SmartHeap_8/lib/libsmartheapC64.a  
/opt/SmartHeap_8/lib/libsmartheap64.a
```

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

<http://www.spec.org/cpu2006/flags/Fujitsu.PQ580A.ipf.linux.flags.html>

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

<http://www.spec.org/cpu2006/flags/Fujitsu.PQ580A.ipf.linux.flags.xml>

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.0.1.
Report generated on Tue Jul 22 18:37:34 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 April 2008.