SPEC® CINT2006 Result

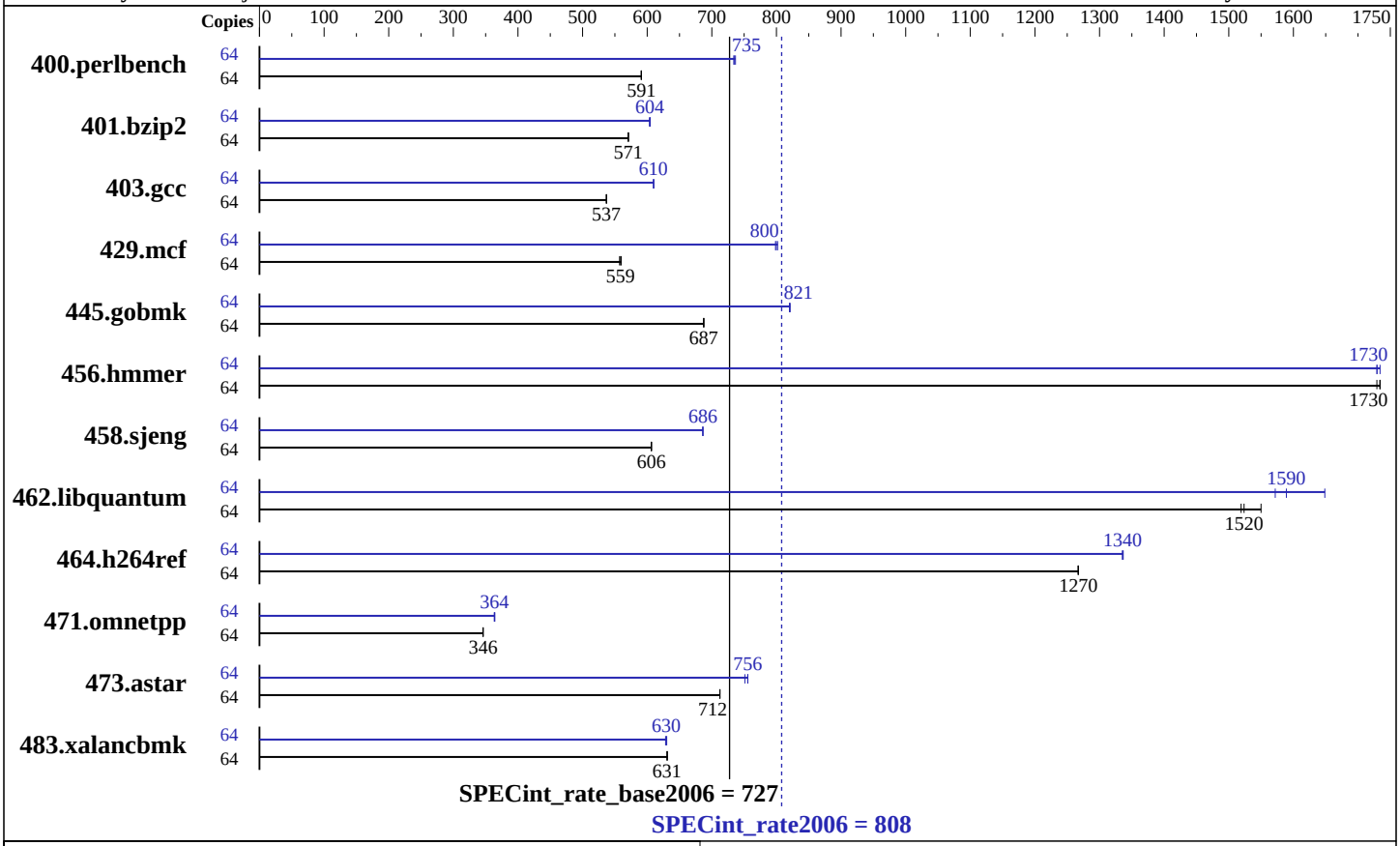
Fujitsu Limited
PRIMEQUEST 580A

SPECint®_rate2006 = 808

SPECint_rate_base2006 = 727

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 9150M
CPU Characteristics:	1.66GHz/24MB, 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:	12 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

Fujitsu Limited
PRIMEQUEST 580A

SPECint_rate2006 = 808

SPECint_rate_base2006 = 727

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	1058	591	**1058**	**591**	1059	591	64	**851**	**735**	852	734	849	737
401.bzip2	64	1082	571	**1082**	**571**	1082	571	64	1021	605	**1022**	**604**	1023	603
403.gcc	64	959	537	960	537	**960**	**537**	64	845	610	844	610	**845**	**610**
429.mcf	64	1042	560	**1045**	**559**	1047	557	64	731	799	728	802	**730**	**800**
445.gobmk	64	976	688	977	687	**977**	**687**	64	818	821	819	820	**818**	**821**
456.hmmer	64	**344**	**1730**	345	1730	344	1730	64	**345**	**1730**	344	1730	345	1730
458.sjeng	64	1277	606	1276	607	**1277**	**606**	64	1128	686	**1129**	**686**	1129	686
462.libquantum	64	873	1520	**870**	**1520**	856	1550	64	844	1570	**834**	**1590**	804	1650
464.h264ref	64	1118	1270	**1118**	**1270**	1118	1270	64	**1060**	**1340**	1060	1340	1060	1340
471.omnetpp	64	1157	346	**1156**	**346**	1155	346	64	**1099**	**364**	1098	364	1101	363
473.astar	64	631	712	**631**	**712**	630	713	64	595	756	**595**	**756**	598	751
483.xalancbmk	64	700	631	700	631	**700**	**631**	64	**702**	**630**	703	628	701	630

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

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.hmmer: -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

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.hmmer: -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

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`

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 18:27:53 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 April 2008.