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

HITACHI

HA8000 RS440 (Intel Xeon X7350)

$SPECint®\_rate2006 =$ 212

$SPECint\_rate\_base2006 =$ 176

CPU2006 license: 872	**Test date:** Aug-2008
Test sponsor: HITACHI	**Hardware Availability:** Nov-2007
Tested by: HITACHI	**Software Availability:** Nov-2007

Copies scale: 0 20.0 40.0 60.0 80.0 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 490

- 400.perlbench: 16 copies = 327; 16 copies = 280
- 401.bzip2: 16 copies = 158; 16 copies = 153
- 403.gcc: 16 copies = 162; 16 copies = 162
- 429.mcf: 16 copies = 112; 16 copies = 118
- 445.gobmk: 16 copies = 290; 16 copies = 269
- 456.hmmer: 16 copies = 331; 16 copies = 227
- 458.sjeng: 16 copies = 286; 16 copies = 257
- 462.libquantum: 1 copy = 222; 16 copies = 55.3
- 464.h264ref: 16 copies = 483; 16 copies = 463
- 471.omnetpp: 16 copies = 107; 16 copies = 104
- 473.astar: 16 copies = 130; 16 copies = 122
- 483.xalancbmk: 16 copies = 210

SPECint_rate_base2006 = 176

SPECint_rate2006 = 212

Hardware

CPU Name:	Intel Xeon X7350
CPU Characteristics:	1066MHz system bus
CPU MHz:	2933
FPU:	Integrated
CPU(s) enabled:	16 cores, 4 chips, 4 cores/chip
CPU(s) orderable:	1, 2, 3, 4 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	8 MB I+D on chip per chip, 4 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	64 GB(16 x 4 GB PC2-5300F CAS 5-5-5)
Disk Subsystem:	2 x 73 GB 10000 rpm SAS
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 5.1 (Tikanga) Kernel 2.6.18-53.el5 on an x86_64
Compiler:	Intel C++ Compiler 10.1 for Linux Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ext3
System State:	Multi-user run level 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	SmartHeap library V8.1

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

HA8000 RS440 (Intel Xeon X7350)

SPECint_rate2006 = 212
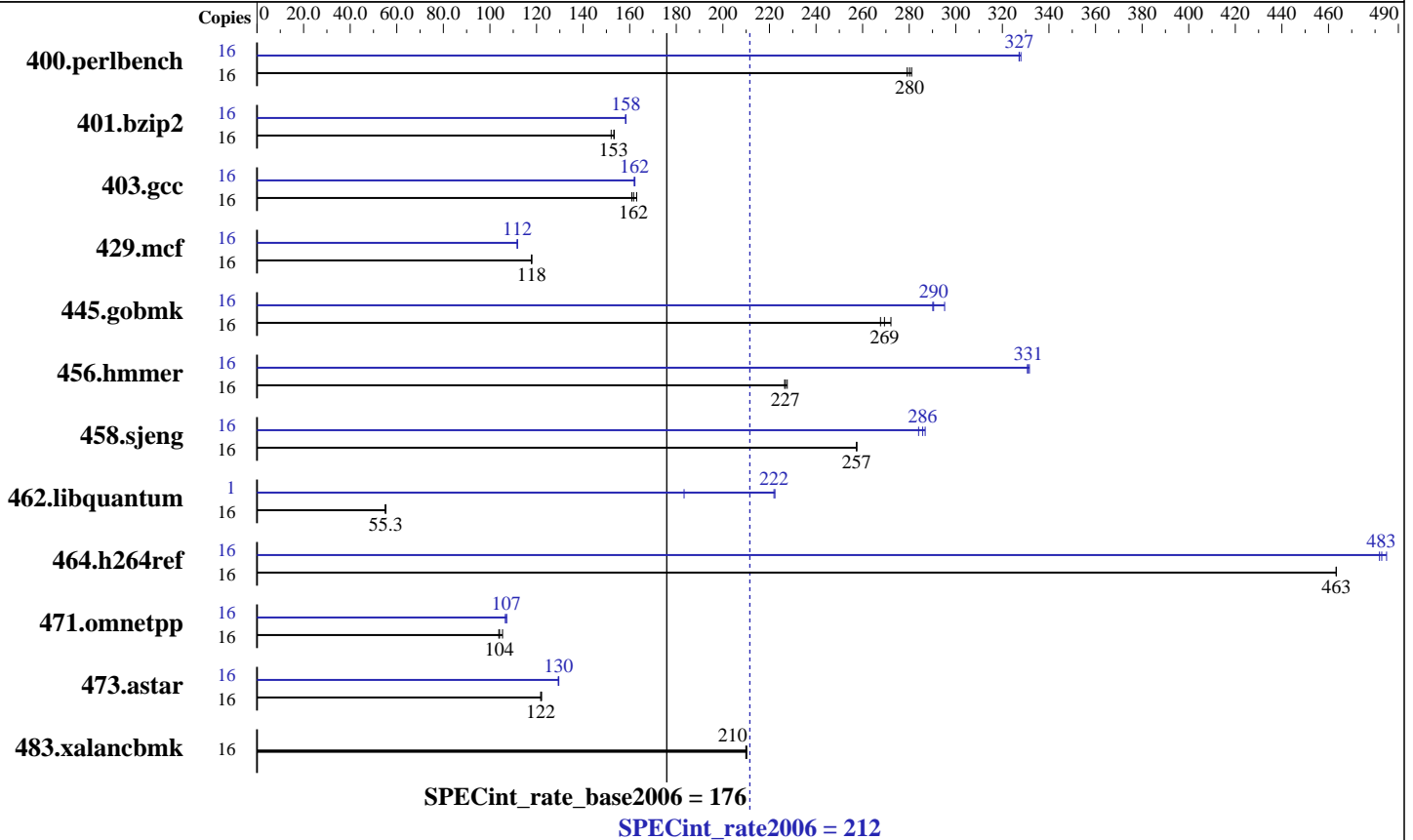
SPECint_rate_base2006 = 176

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Aug-2008
Hardware Availability: Nov-2007
Software Availability: Nov-2007

Results Table

Benchmark	Base						Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	16	560	279	556	281	**558**	**280**	16	478	327	**478**	**327**	477	328
401.bzip2	16	1007	153	1015	152	**1008**	**153**	16	**975**	**158**	976	158	975	158
403.gcc	16	800	161	**797**	**162**	790	163	16	794	162	**795**	**162**	795	162
429.mcf	16	1239	118	1237	118	**1238**	**118**	16	1306	112	1305	112	**1305**	**112**
445.gobmk	16	**623**	**269**	627	268	617	272	16	**578**	**290**	569	295	579	290
456.hmmer	16	**658**	**227**	656	228	659	227	16	**451**	**331**	450	332	451	331
458.sjeng	16	752	257	752	257	**752**	**257**	16	675	287	**677**	**286**	682	284
462.libquantum	16	6028	55.0	**5998**	**55.3**	5992	55.3	1	113	183	**93.4**	**222**	93.2	222
464.h264ref	16	**764**	**463**	764	463	764	463	16	730	485	**733**	**483**	735	482
471.omnetpp	16	963	104	949	105	**960**	**104**	16	933	107	938	107	**934**	**107**
473.astar	16	919	122	922	122	**922**	**122**	16	869	129	867	130	**867**	**130**
483.xalancbmk	16	525	210	526	210	**526**	**210**	16	525	210	526	210	**526**	**210**

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.

Operating System Notes

    '/bin/taskset' used to bind processes to CPUs
    OMP_NUM_THREADS set to number of cores
    KMP_AFFINITY set to physical,0

Platform Notes

    BIOS Settings:
    Hardware Prefetcher = Disabled
    Adjacent Cache Line Prefetch = Disabled

Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

HA8000 RS440 (Intel Xeon X7350)

SPECint_rate2006 = 212

SPECint_rate_base2006 = 176

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Aug-2008
Hardware Availability: Nov-2007
Software Availability: Nov-2007

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/home/bsc/smartheap/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

Continued on next page

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

HA8000 RS440 (Intel Xeon X7350)

SPECint_rate2006 =   212

SPECint_rate_base2006 =   176

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Aug-2008
Hardware Availability: Nov-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/home/bsc/smartheap/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/home/bsc/smartheap/lib -lsmartheap`

    483.xalancbmk: `basepeak = yes`

Peak Other Flags

C benchmarks:

HITACHI

HA8000 RS440 (Intel Xeon X7350)

SPECint_rate2006 = 212

SPECint_rate_base2006 = 176

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Aug-2008
Hardware Availability: Nov-2007
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-ic10.1-INT-ia32-linux-flags.20090714.02.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-INT-ia32-linux-flags.20090714.02.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 Tue Jul 22 19:38:29 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 16 September 2008.