Supermicro
Motherboard X7DWT-INF

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

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

Hardware
CPU Name: Intel Xeon X5482
CPU Characteristics: Quad Core, 3.20GHz
CPU MHz: 3200
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 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 core, 6 MB shared / 2 cores
L3 Cache: None
Other Cache: None
Memory: 32 GB (8 X 4GB ECC PC2-6400, CL5, FBDIMM)
Disk Subsystem: Western Digital WD1600YS-01SHB1 160GB SATA II, 7200RPM
Other Hardware: None

Software
Operating System: 64-Bit Suse Linux Enterprise Server 10 w/ SP1
Compiler: Intel C++ Compiler for Linux32 and Linux64 version 10.1
Auto Parallel: Yes
File System: ReiserFS
System State: Multi-user, run level 3
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap library V8.1
Binutils 2.17.50.0.15

SPECint®_rate2006 = 146
SPECint_rate_base2006 = 121
SPEC CINT2006 Result

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Results Table

<table>
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<th>Ratio</th>
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<td>478</td>
<td>164</td>
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<td>113</td>
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<td>115</td>
<td>668</td>
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<td>632</td>
<td>122</td>
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<td>8</td>
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<td>163</td>
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</tbody>
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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

Tested systems can be used with SC-808T-980 case, To ensure system stability, a 550W (minimum) ATX power supply
[4-pin (+12V), 8-pin (+12V) and 24-pin are required]
Product description located as of
http://www.supermicro.com/products/motherboard/Xeon1333/5400/X7DWT-INF.cfm
The system bus runs at 1600 MHz
BIOS Setting: Default

Base Compiler Invocation

C benchmarks:
- icc

C++ benchmarks:
- icpc

Base Portability Flags

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

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
Supermicro
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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/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
  icc

  401.bzip2: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc
  -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib
  -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/include

456.hmmer: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc
  -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib
  -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/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
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

Continued on next page
**SPEC CINT2006 Result**

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### Peak Optimization Flags (Continued)

- **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/cmplr/usr3/alrahate/cpu2006.1.0/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/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap

- **483.xalancbmk**:  
  basepeak = yes

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### Peak Other Flags

**C benchmarks:**

- **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.20090714.02.html
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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.20090714.02.xml

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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.1.  