Fujitsu Siemens Computers
PRIMERGY BX620 S3, Intel Xeon processor E5320, 1.86 GHz

SPECint_rate2006 = 36.6
SPECint_rate_base2006 = 35.0

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Tested by: Fujitsu Siemens Computers

Hardware
- CPU Name: Intel Xeon E5320
- CPU Characteristics: 1067 MHz system bus
- CPU MHz: 1867
- FPU: Integrated
- CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
- CPU(s) orderable: 1.2 chips
- Primary Cache: 32 KB I + 32 KB D on chip per core
- Secondary Cache: 8 MB I+D on chip per core, 4 MB shared / 2 cores
- L3 Cache: None
- Other Cache: None
- Memory: 16 GB (8x2 GB DDR2 PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
- Disk Subsystem: SAS (36GB 10000 rpm)
- Other Hardware: None

Software
- Operating System: 64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64
- Auto Parallel: No
- File System: ext2
- System State: Multiuser, Runlevel 3
- Base Pointers: 32-bit
- Peak Pointers: 32/64-bit
- Other Software: Smart Heap Library, Version 8.1
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Test date: May-2007
Hardware Availability: Nov-2006
Software Availability: Mar-2007

Results Table

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</table>

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

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run '/usr/bin/taskset' used to bind processes to CPUs

General Notes

The system bus runs at 1067 MHz

All binaries were built with 32-bit Intel compiler except: 401.bzip2, 456.hmmer and 462.libquantum in peak were built with 64-bit Intel compiler by changing the path for include and library files.

BIOS configuration:
Adjacent Sector Prefetch = Disable

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Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc
SPEC CINT2006 Result

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Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_X64
462.libquantum: -DSPEC\_CPU\_LINUX
483.xalancbmk: -DSPEC\_CPU\_LINUX

Base Optimization Flags

C benchmarks:
-\texttt{fast}

C++ benchmarks:
-\texttt{xP} -\texttt{O3} -\texttt{-ipo} -\texttt{-no-prec-div} -\texttt{-L/opt/SmartHeap\_8\_1/lib} -\texttt{-lsmartheap}

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

\begin{verbatim}
401.bzip2: /opt/intel/cce/9.1.047/bin/icc
-\textit{I}/opt/intel/cce/9.1.047/include
-\textit{L}/opt/intel/cce/9.1.047/lib
\end{verbatim}

\begin{verbatim}
456.hmmer: /opt/intel/cce/9.1.047/bin/icc
-\textit{I}/opt/intel/cce/9.1.047/include
-\textit{L}/opt/intel/cce/9.1.047/lib
\end{verbatim}

\begin{verbatim}
462.libquantum: /opt/intel/cce/9.1.047/bin/icc
-\textit{I}/opt/intel/cce/9.1.047/include
-\textit{L}/opt/intel/cce/9.1.047/lib
\end{verbatim}

C++ benchmarks:
icpc

\begin{verbatim}
401.bzip2: -DSPEC\_CPU\_LP64
\end{verbatim}

\begin{verbatim}
456.hmmer: -DSPEC\_CPU\_LP64
\end{verbatim}

\begin{verbatim}
462.libquantum: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX
\end{verbatim}

\begin{verbatim}
483.xalancbmk: -DSPEC\_CPU\_LINUX
\end{verbatim}

Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_X64
401.bzip2: -DSPEC\_CPU\_LP64
456.hmmer: -DSPEC\_CPU\_LP64
462.libquantum: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX
483.xalancbmk: -DSPEC\_CPU\_LINUX
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Peak Optimization Flags

C benchmarks:

400.perlbench: –prof_gen(pass 1) –prof_use(pass 2) –fast
401.bzip2: –fast
403.gcc: basepeak = yes
429.mcf: –prof_gen(pass 1) –prof_use(pass 2) –fast
-L/opt/SmartHeap_8_1/lib -lsmartheap
445.gobmk: Same as 429.mcf
456.hmmer: Same as 400.perlbench
458.sjeng: Same as 429.mcf
462.libquantum: Same as 400.perlbench
464.h264ref: Same as 429.mcf

C++ benchmarks:

471.omnetpp: –prof_gen(pass 1) –prof_use(pass 2) –xP –O3 –ipo
-no-prec-div -L/opt/SmartHeap_8_1/lib -lsmartheap
473.astar: –prof_gen(pass 1) –prof_use(pass 2) –fast
-L/opt/SmartHeap_8_1/lib -lsmartheap
483.xalancbmk: basepeak = yes

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

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.xml

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

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