IBM
IBM System x iDP dx360 M2

SPECompMpeak2001 = --
SPECompMbase2001 = 39551

**Benchmark**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Reference Time</th>
<th>Base Runtime</th>
<th>Peak Runtime</th>
<th>Base Ratio</th>
<th>Peak Ratio</th>
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**Hardware**

- **CPU:** Intel Xeon E5570
- **CPU MHz:** 2934
- **FPU:** Integrated
- **CPU(s) enabled:** 8 cores, 2 chips, 4 cores/chip (HT off)
- **CPU(s) orderable:** 1-2 chips
- **Primary Cache:** 32 KB I+ 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 8 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 24 GB (6*4GB DDR3-1333 RDIMMs)
- **Disk Subsystem:** Single 500GB SATA
- **Other Hardware:** None

**Software**

- **OpenMP Threads:** 8
- **Parallel:** --
- **Operating System:** RHEL5.5 (x86_64) Kernel 2.6.18-194.26.1.el5
- **Compiler:** Intel C/C++ Compiler 11.1.072
- **File System:** ext3
- **System State:** Multi-user, run level 3

**Notes/Tuning Information**

Intel Turbo Boost Technology (Turbo) : Disabled
ulimit -s unlimited

Removes limits on the maximum size of the automatically-extended stack region of the current process and each process it creates.

Compiler flags for base level optimization
COPTIMIZE : -03 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp
FOPTIMIZE : -03 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp
F77OPTIMIZE : -03 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp

Environment:
KMP_AFFINITY=enabled
controls the binding of OpenMP threads to the physical processing units
KMP_SCHEDULE=static,balanced
used to fine tune the load balancing of parallel loops that are statically scheduled under OpenMP with no chunk size specification
KMP_BLOCKTIME=infinite
Sets the time, in milliseconds, that a thread should wait, after completing the execution of a parallel region, before sleeping.
KMP_LIBRARY=throughput
Selects the OpenMP run-time library
KMP_STACKSIZE=31m
Sets the number of bytes to allocate for each parallel thread to use as to use as its private stack
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Notes/Tuning Information (Continued)

OMP_NESTED=TRUE
Enables (TRUE) or disables (FALSE) nested parallelism.

OMP_DYNAMIC=FALSE
Enables (true) or disables (false) the dynamic adjustment of the number of threads.

OMP_NUM_THREADS=8
Sets the maximum number of threads to use for OpenMP* parallel
regions if no other value is specified in the program itself.